

UNIVERSIDADE DE LISBOA
INSTITUTO DE CIÊNCIAS SOCIAIS



DOUTORAMENTO EM ESTUDOS DE DESENVOLVIMENTO DA
UNIVERSIDADE DE LISBOA

SDGs, Why? and For Whom?

How to Implement Partnerships to Achieve the Sustainable Development Goals

Pedro Miguel Rocha e Silva Mateus das Neves

Orientador: Professor Doutor José Luís Cardoso

Tese especialmente elaborada para obtenção do grau de Doutor em Estudos de Desenvolvimento

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Contents

LIST OF FIGURES AND TABLES	7
ABBREVIATIONS AND ACRONYMS	8
ACKNOWLEDGMENTS.....	11
RESUMO.....	13
RESUMO ALARGADO	15
Investigar Modelos de Desenvolvimento que Utilizam Parcerias Assentes no DS.....	16
ABSTRACT	21
I INTRODUCTION: SDGS AS A RESEARCH CHALLENGE.....	23
1.1 CONTEXT OF THE STUDY.....	23
1.1.1 Personal Background and Motivation Supporting the Study.....	23
1.1.2 SDGs a New Development Paradigm.....	26
1.2 HOW TO IMPLEMENT AND PLAY SD TO ACHIEVE THE SDGS.....	35
1.2.1 The Problem Statement.....	35
1.2.2 Brief History of Sustainable Development and Partnerships	36
1.2.3 Dissatisfaction with Current Knowledge	39
1.2.4 Concept of Development Models and Qualitative Equations in this Study.....	43
1.3 AIM, SCOPE, THE LIMITS & SIGNIFICANCE OF THE STUDY	44
1.3.1 Investigate Development Models using Partnerships based on SD.....	44
1.3.2 Research Scope, The Question, The Design, and The Strategy.....	46
1.3.3 Limits to Research	51
1.3.4 Significance of the Study, Solution to a Practical Problem.....	53
1.4 SYNOPSIS OF THE THESIS STORYLINE.....	54
II THE GAME, THE RULES, AND THE PLAYERS	57
2.1 SUSTAINABLE DEVELOPMENT AS THE GAME.....	58
2.1.1 A New Development Paradigm, Why?.....	58
2.1.2 Creating a Global Agenda for Sustainable Development	66
2.1.3 Challenges to Implement SD and Achieve the SDGs.....	75
2.1.4 Critics to Sustainable Development and Sustainable Development Goals.....	77
2.2 INSTITUTIONS AS THE RULES OF THE GAME	81
2.2.1 Development Requires Institutions.....	82
2.2.2 Common Good.....	99
2.2.3 Institutions and The Human Dimension	102
2.2.4 Alternative Development Models	107
2.2.5 Common Pool Resources an Alternative Development Model	117

2.3 PARTNERSHIPS AS THE PLAYERS OF THE GAME	122
2.3.1 The Theory of Partnerships	123
2.3.2 Co-Investment for Development	128
2.3.5 Capacity Building for PPPs	142
2.3.6 Critics to PPPs	148
2.4 SUMMING-UP.....	151
III CASE STUDY AS RESEARCH STRATEGY TO ACHIEVE THE SDGS.....	153
3.1 USING THE CASE STUDY AS A BOTTOM-UP STRATEGY TO TEST PARTNERSHIPS	153
3.2 CASE STUDY AS A RESEARCH STRATEGY _ DATA COLLECTION.....	163
3.3 CASE STUDY AS A RESEARCH STRATEGY _ DATA ANALYSIS	169
3.3.1 Very Robust Cases.....	171
3.3.2 Robust Cases.....	177
3.3.3 Fragile Cases.....	183
3.4 TOOLBOX FOR PEOPLE-FIRST PPPs TO ACHIEVE THE SDGS	186
IV SYNTHESIS	203
4.1 DISCUSSION.....	206
4.1.1 Case Studies.....	206
4.1.2 Partnerships.....	208
4.1.3 Institutions	210
4.1.4 Political Economy.....	214
4.1.5 Sustainable Development	216
4.2 CONCLUSION.....	218
4.2.1 Overview of Contributions	218
4.2.2 Recommendations.....	226
4.2.3 Future Work.....	226
4.2.4 SDGs Why? and For Whom?	227
REFERENCES	229
ANNEX 1 SUSTAINABLE DEVELOPMENT GOALS (SDGs).....	241
ANNEX 2 CASE STUDY _ INVITATION LETTER	243
ANNEX 3 CASE STUDY _ PROTOCOL	245
ANNEX 4 CASE STUDY _ QUESTIONNAIRE	247
ANNEX 5 TOOLBOX TO DEVELOP PEOPLE-FIRST PPPs TO ACHIEVE THE SDGS	251
ANNEX 6 TOOLS USAGE EXAMPLE ON URBAN DEVELOPMENT	257

List of Figures and Tables

Figures

Fig.1	SDGs Virtuous Cycle with Infra Assets, Investment, Common Good, SD & Partnerships	28
Fig.2	Development virtuous cycle linking infrastructure, investment and partnerships	29
Fig.3	Thesis Qualitative Equation	43
Fig.4	The Game, the Rules and the Players to achieve the SDGs	44
Fig.5	Research Design	45
Fig.6	SD Triangle	60
Fig.7	Institutional PPP with: Governments, Court of Auditors, PPP Unit, & Private Partners	174
Fig.8	Knowledge Butterfly	181
Fig.9	Back to the Present	182
Fig.10	SDGs Virtuous Cycle	183
Fig.11	Bridging the Gap	184
Fig.12	4G Master Plan	185
Fig.13	Four Season Pizza	186
Fig.14	Gate System	187
Fig.15	J-Curve	188
Fig.16	Saw Curve	189
Fig.17	SD Institutional Innovation	190
Fig.18	People-First PPP Design	191
Fig.19	Multi-Level Approach	192
Fig.20	Round-Table Approach	193

Tables

Table 1	Distribution of Case Studies per Country and per Sector	152
Table 2	Institutional Performance Analysis Based on the 5Ps	178
Table 3	Toolbox for PPPs and SDGs	180
Table 4	Using the Toolbox to enhance the Institutional Performance of the Case Studies	197

Abbreviations and Acronyms

AAAA	Addis Ababa Action Agenda
ADB	Asian Development Bank
AECID	Agencia Española de Cooperación Internacional para el Desarrollo
AfDB	African Development Bank
BAB	Business Advisory Board
CAPEX	Capital Expenditure
CO ₂	Carbon Dioxide
CxO	C Level, Chief (Executive, Investment, Finance, ...) Officer
COP21	21 st Conference of Parties
CPR	Common Pool Resources
CSOs	Civil Society Organizations
DBFOM	Design, Build, Finance, Operate, Maintain
DFI	Development Finance Institution
DNA	Deoxyribonucleic Acid _ carrier of genetic information
EBRD	European Bank for Reconstruction and Development
ECOSOC	United Nations Economic and Social Council
EIB	European Investment Bank
EPA	Environmental Protection Agency
EPEC	European PPP Expertise Centre
FDI	Foreign Direct Investment
GDP	Gross Domestic Product Country
HCI	Heavy Chemical Industrialization
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IDB	Interamerican Development Bank
IESE	Instituto de Estudios Superiores de la Empresa
IFC	International Finance Corporation
IMF	International Monetary Fund
IP	Institutional Performance
IPFA	International Project Finance Association
IsDB	Islamic Development Bank
JICA	Japan International Cooperation Agency
KPIs	Key Performance Indicators
LDC	Least Developed
LID	Low Impact Development
LSE	London School of Economics
MDBs	Multilateral Development Banks
MDGs	Millennium Development Goals
MEP	Ministério da Economia e Planeamento
MIGA	Multilateral Investment Guarantee Agency
MIM	Mutual Investment Model
MITI	Ministry of International Trade and Industry
MLA	Multi-level Approach

MOF	Ministry of Finance
NGO	Non-Governmental Organization
NRC	Norwegian Council for Refugees
NYC	New York City
ODA	Official Development Aid
OPEX	Operational Expenditure
P3	Public Private Partnerships
pfPPP	People-First PPP
PNPs	Public NGO Partnership
PPP	Public Private Partnerships
PRODESI	Prog. de Desenvolvimento de Exportações e Substituição das Importações
RTA	Roundtable Approach
SCC	Sponge City Concept
SD	Sustainable Development
SDGs	Sustainable development Goals
SECO	Swiss Economic Cooperation Office
SFT	Scottish Futures Trust
SIDA	Swedish International Development Agency
SME	Small and Medium-sized Enterprises
SOE	State Owned Enterprise
SPV	Special Purpose Vehicle
SSA	Sub Saharan African
TUPPP	Tsinghua University PPP Centre
UNECE	United Nations Economic Committee for Europe
UNCED	United Nations Conference on Environment and Development
UNCHE	United Nations Conference on Human Environment
UNCSD	United Nations Conference on Sustainable Development
UNCTAD	United Nations Conference for Trade and Development
UNDESA	United Nations Department of Economic and Social Affairs
UNEP	United Nations Environment Program
UNHCR	United Nations High Commission for Refugees
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VfM	Value for Money
VfP	Value for People
VfPI	Value for Planet
WBG	World Bank Group
WCED	World Commission on Environment and Development
WEF	World Economic Forum
WESP	World Economic Situation and Prospects
WFP	World Food Program
WIIP	Welsh Infrastructure Investment Plan
WSSD	World Summit Sustainable Development
WTO	World Trade Organization
WWII	World War Two

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Douglass North

Resumo

Fazer negócios da forma usual não permite transformar o mundo como desejamos. A procura de novos modelos de desenvolvimento tem sido feita ao longo de séculos. Ir além do crescimento económico, proteger o planeta e promover a dignidade humana não deixando ninguém para trás, são ideias fáceis de compreender, mas difíceis de implementar. Considera-se neste estudo que *Desenvolvimento Sustentável* é o nome do novo *Jogo*, e que os *Objetivos do Desenvolvimento Sustentável (ODS)* adicionam as Instituições e as Parcerias, respetivamente as *Regras do Jogo*, e os *Jogadores*, para que este desafio se materialize e o *Jogo* seja ganho.

Este estudo faz primeiro uma abordagem do topo para a base, cobrindo a evolução do conceito de desenvolvimento, seguida de uma análise sobre um novo institucionalismo para o desenvolvimento onde a economia é humanizada, complementada pela vontade de compreender o desafio da cooperação, para que existam parcerias *saudáveis* de longo prazo. Da base para o topo, é feita a exploração de 120 casos de estudo de *People-first PPPs*, parcerias assentes em *Value for People*, cobrindo 57 países em todos os continentes e os 17 objetivos dos *ODS*. Desta forma são apresentadas e partilhadas experiências que, não sendo perfeitas, são reais, e demonstram que *ilhas de competência* são possíveis, quando existem equipas alinhadas com políticas de desenvolvimento, programas de investimento e projetos de mudança, que têm como objetivo melhorar a qualidade de vida das comunidades.

Com o objetivo de facilitar a comunicação para a implementação foi criada uma *caixa de ferramentas* com conceitos que podem ser utilizados por cientistas e praticantes de políticas de desenvolvimento que, estando motivados para utilizar os *ODS* como uma nova linguagem de desenvolvimento, para transformar cidades, regiões, e as suas organizações, de forma a que a prosperidade económica contribua para preservar o planeta, para que a espécie humana o continue a habitar, e ao mesmo tempo a pobreza seja erradicada.

Palavras Chave: Desenvolvimento, Desenvolvimento Sustentável, ODS, Instituições, Parcerias

Resumo Alargado

Motivação

A presente reflexão resulta do desejo de complementar a experiência profissional em processos de transformações positivas, com um trabalho académico que deverá contribuir para melhorar o ciclo-virtuoso associado a modelos de desenvolvimento. Esta tese é o meu testemunho da perceção de como é possível fazer “pontes” entre os “vales” que existem entre políticas de desenvolvimento, programas de investimento e a execução de projetos, alinhando-os no mundo real, envolvendo múltiplos parceiros. É também minha vontade contribuir através do conhecimento empírico para uma investigação académica que gera resultados tangíveis para a área de conhecimento dos Estudos de Desenvolvimento.

Problema

Considerando as atuais patologias sociais e ambientais partimos da premissa que os modelos correntes de desenvolvimento assentes na forma tradicional de fazer negócios não são uma opção. O conceito de *Desenvolvimento Sustentável (DS)* complementa a perspetiva de crescimento económico, aqui considerada como *Prosperidade*, com a coesão social aqui relacionada com *Pessoas*, e a defesa do meio ambiente associada ao termo *Planeta*, definindo estas três dimensões o conceito que alimenta o *triple bottom line* (Elkington, 1998), traduzindo-o para *triplo resultado líquido*. Este resulta da extrapolação da visão financeira onde ao *resultado líquido* ou *bottom line financeiro*, se adiciona um segundo *resultado líquido social* e um terceiro ambiental. Tendo por base 1987 como o início formal da discussão envolvendo *DS* como conceito, ano em que foi publicado o relatório Brundtland (United Nations WCED, 1987), e o ano de 2015 como a data em que *DS* é aceite como a base da agenda das Nações Unidas para 2030 com o apoio de todos os estados membros, pode dizer-se que o desafio hoje não é a sua aceitação, mas antes a sua aplicação. O problema discutido neste estudo é o atual desafio de como implementar o *DS*, nomeadamente quando múltiplos jogadores devem cooperar para atingir os *ODS*. A investigação procura soluções para que parceiros encontrem motivação para se relacionarem adotando este conceito para projetos de mudança, programas de investimento e políticas de desenvolvimento, através de contribuições que tornem os modelos de

desenvolvimento tangíveis, e aplicáveis no terreno. O estudo deste problema deve refletir os desafios e, simultaneamente, os elementos para soluções que permita, aos arquitetos de políticas de desenvolvimento, aos gestores de programas de investimento e aos executores de projetos de mudança dos setores público e privado, da sociedade civil e da academia, melhorar o conhecimento de modelos que utilizam parcerias assentes no *DS* com o objetivo de atingirem os *ODS*.

Investigar *Modelos de Desenvolvimento* que Utilizam *Parcerias Assentes no DS*

Espera-se com este estudo contribuir para que soluções exequíveis possam ser adotadas, tendo por base as ciências sociais e naturais, puras e aplicadas, associadas a uma investigação alargada de estudos de desenvolvimento. Esta perspetiva holística deve ser utilizada por aqueles que desenham, gerem e realizam políticas de desenvolvimento, de forma a assegurar que a viabilidade de programas de investimento conduza à transformação do mundo através da concretização de projetos para e com as suas comunidades, reduzindo a nossa pegada ecológica. É expectável que estes resultados contribuam para um ciclo-virtuoso de conhecimento em modelos de desenvolvimento e equações qualitativas, onde a teoria melhora programas e projetos a serem executados no terreno, e, os dados recolhidos no campo sejam utilizados para melhorar o desenho de políticas de desenvolvimento.

As Pessoas Primeiro (*People-first*)

Considerar as *Pessoas* como prioridade do desenvolvimento significa que o *Homem* representa mais do que força de trabalho. As *Pessoas* são o principal propósito do desenvolvimento, são os seus atores principais e os seus jogadores. O *Ambiente* é o cenário natural onde tudo acontece e que tem de ser preservado e *curado* para que as próximas gerações tenham um território habitável.

Os *ODS* vão mais longe do que a adoção de uma aproximação assente no *triplo resultado líquido*, uma vez que definem objetivos para cada uma destas dimensões de forma integrada. O conceito associa *Pessoas* com toda a população. O significado de “não deixar ninguém para trás” (UNGA, 2015, p. 1) é mais do que um conceito abstrato a considerar como mais um parâmetro social relacionado com o desenvolvimento. *Combater a pobreza*, pensar sistematicamente em “erradicar pobreza em todas as suas formas dimensões, inclui assegurar que todos os seres humanos podem utilizar o seu potencial com dignidade, igualdade e num ambiente saudável” (UNGA, 2015, p. 1). O conceito de *Pessoas* envolve

em particular *as necessidades dos mais pobres e mais vulneráveis* e representa, numa equação qualitativa de *DS*, a garantia de que existe uma variável para os mais pobres. Deste modo é possível medir e assegurar que a erradicação da pobreza está a acontecer estatisticamente, bem como no terreno. Este facto coloca o *DS* como um trampolim para desafios maiores que vão além da preocupação social, o que significa que a questão não é apenas: Qual é a agenda para as *Pessoas*? Mas interroga de que forma, o modelo político, o programa, o projeto, estão a combater a pobreza? Como integra o interesse e as necessidades dos mais pobres? Na mesma linha, quando os *ODS* mencionam “curar e assegurar o nosso planeta” (UNGA, 2015, p. 1), não está apenas a questionar a Agenda Ambiental, mas antes a verificar como se prevê fazer a cura? Como vai ser melhorada a pegada humana no ambiente no passado, presente e futuro? Da mesma forma, o conceito de *Prosperidade* está associado com “assegurar que o progresso económico, social e tecnológico ocorre em harmonia com a natureza” (UNGA, 2015, p. 2), significa que o crescimento económico se compromete a estar alinhado com a natureza tendo todos os seres humanos como seus utilizadores. A ambição alargada dos *ODS* é que “a vida de todos seja profundamente melhorada e que o nosso mundo seja transformado para melhor” (UNGA, 2015, p. 2).

A ambição deste estudo é contribuir para que no mundo real se alinhem cientistas e praticantes de desenvolvimento interessados em aplicar modelos assentes no *DS*, e levar a que abracem a perspetiva humana no seu sentido mais amplo, envolvendo processos de decisão racionais e emocionais, mesmo que distantes de modelos de puro racionalismo matemático.

As Perguntas de Investigação

ODS Porquê? e para Quem? e a subsequente pergunta *Como Implementar Parcerias assentes no DS para atingir os ODS?* representam dois níveis de investigação.

Um primeiro nível, mais abrangente questiona: *Porque faz sentido criar estes objetivos? Quem beneficia com eles?* Esta perspetiva alargada está presente durante todo o estudo, porque se considera crítico compreender a adoção dos *ODS*, e a razão de serem um novo paradigma de desenvolvimento. Mas esta questão inicial é uma introdução para uma questão mais detalhada.

Como Implementar Parcerias Assentes no DS para Atingir os ODS?

Este segundo nível dirige-se aos desafios relacionados com a implementação dos *ODS*, considerando que existe a necessidade rever modelos de desenvolvimento. *DS* é uma base sólida de enquadramento, mas apesar disto permanece a questão: Como aplicá-los? Onde estão os Jogadores? Podem as Parcerias ser os agentes de execução?

Esta investigação tem 5 palavras chave: Desenvolvimento; Desenvolvimento Sustentável; Objetivos de Desenvolvimento Sustentável; Parcerias e Instituições. A quinta palavra chave, Instituições, apesar de não aparecer na pergunta de investigação, está implicitamente presente. Utilizando a analogia de Douglass North entre instituições e regras do jogo, leva a considerar que o jogo neste caso é um processo de transformação positiva assente nas três dimensões económica, social e ambiental. Seguindo a mesma lógica, e considerando o *Desenvolvimento Sustentável* como o (*novo*) *Jogo*, as *Instituições* serão as *Regras do Jogo* e as *Parcerias* os *Jogadores*. Este estudo seguirá estes três vetores. O primeiro será *Desenvolvimento* e fará a relação entre as três palavras chave iniciais: *Desenvolvimento*, *DS* e *ODS*, e irá refletir a forma como o conceito de *Desenvolvimento* evoluiu até se transformar na agenda das Nações Unidas para 2030 e assim se transformar nos *ODS*. O segundo vetor refere-se às *Instituições* nas suas três vertentes: regras formais, constrangimentos informais e mecanismos de aplicação (Douglass C. North, 1990). Isto compreende as crenças, a lógica, os princípios, a motivação, as experiências que suportam a criação das regras e que faz os jogadores entrar no jogo. O terceiro vetor é sobre os *jogadores*, *parcerias* em geral e sobre *PPPs* em particular, como atores do jogo que ambicionam contribuir para atingir os *ODS*.

Sinopse da Narrativa da Tese

Esta dissertação tem mais três capítulos. O segundo capítulo relativo ao enquadramento teórico e metodológico, *background chapter*, aqui chamado *The Game, The Rules, and The Players*, cobre a história e as práticas correntes relacionadas com estes três vetores Desenvolvimento, Instituições e Parcerias. O objetivo é fazer a ponte entre o novo jogo e os jogadores, sabendo que novas regras são forjadas para assegurar que o processo é exequível, e que os resultados e impactos resultantes originam uma melhor qualidade de vida para as comunidades, diminuem a pegada ambiental, permanecendo sustentáveis dos pontos de vista económico e financeiro, com os jogadores sendo estes os atores públicos e privados, responsáveis pelo processo de transformação.

O terceiro diz respeito ao núcleo central da pesquisa, *core chapter*, com o título *Case Study as a Research Strategy to Achieve the SDGs*. Combina o uso de casos de estudo e a estratégia de investigação, com um conjunto de ferramentas que foram desenhadas para apoiarem organizações a definir e a gerir modelos de desenvolvimento. Os casos de estudo descrevem como foram estabelecidas parcerias que utilizam o *DS* e como estão a prover serviços públicos, envolvendo parceiros públicos, privados, sociedade civil e a academia que alinham as suas competências e que estão na origem de projetos de mudança que melhoram a qualidade de vida dos cidadãos e das comunidades. As ferramentas, desenvolvidas durante a investigação, resultam da necessidade de responder a questões colocadas em conferências, em missões no terreno e nas ações de ensino, e estão alinhadas com os 5Ps: Pessoas, Planeta, Prosperidade, Paz (e instituições fortes) e Parcerias, observando diferentes fases e processos do *DS*.

O quarto e último capítulo é a síntese que inclui a discussão e a conclusão. A primeira secção foca os resultados alcançados durante a investigação. Estes partem dos mais específicos para os mais gerais estando divididos em casos de estudo, parcerias, instituições, economia política, e desenvolvimento sustentável. A conclusão abarca uma visão alargada sobre os contributos e as recomendações, compreendendo implicações práticas que resultam das descobertas atingidas. Segue-se uma abordagem a trabalho futuro que pode ser desenvolvido por investigadores e profissionais de políticas de desenvolvimento envolvidos na implementação dos *ODS*, e termina com um último bloco onde é dada uma resposta pessoal à pergunta inicial: *ODS Porquê? e Para Quem?*

Abstract

The transformation of the world following business, as usual, doesn't work. The search for a new development models has been investigated for centuries. To go beyond economic growth, to protect the planet and to promote human dignity leaving no one behind, are ideas that are easy to understand but difficult to implement simultaneously. It is considered that *Sustainable Development* is the name of this new *Game*, and the *Sustainable Development Goals* have added *institutions* and *partnerships*, respectively the *Rules* and the *Players of the Game* to make this challenge work.

The study consists on having first, a top-down approach based on covering the evolution of the *development* concept, new institutionalism where economics is humanized, and the challenge of understanding cooperation to become long-term partnerships; then a bottom-up work based on 120 case studies of *People-First PPPs*, partnerships that have a *Value for People* approach, from 57 countries covering all continents showing and sharing experiences that not being perfect, are real and, demonstrate that *islands of competence* are possible if the teams are aligned with development policies, investment programs, and transformational projects to improve the life of communities.

With the purpose of facilitating the communication for implementation, a toolbox was created with concepts that can be used by development scientists and practitioners, that willing to use the *SDGs* as a new development language, can transform cities and regions, and their organizations, in a way that economic prosperity will contribute to preserving our planet for humans to live in while eradicating poverty.

Keywords: Development, Sustainable Development, SDGs, Institutions, Partnerships

I

Introduction: SDGs as a Research Challenge

1.1 Context of the Study

1.1.1 Personal Background and Motivation Supporting the Study

My interest results from the desire to complement the professional experience professional of positive transformation processes with academic work that will contribute to a virtuous cycle on development models. This thesis is my testimony on how is possible to bridge the gaps between development policies, investment programs, and project implementation, aligning them in the real world, involving multiple stakeholders. It is also my desire to support this empirical knowledge with academic research that may contribute to generating more tangible outcomes in the field of Development Studies.

Living experience on transformational projects started in 1988 when after finishing my 5-year mining engineering diploma I was in charge of developing and operating a petroleum logistics base in Angola through a joint venture formed by the national oil and gas State-Owned Enterprise (SOE) and an engineering and construction company with asset development and asset management capabilities. The logistics base can be compared with a state-owned, privately operated city responsible for guaranteeing working and living conditions for the oil industry workers and operations, in an ongoing, at that time, armed conflict zone. Since then, designing, implementing and managing partnerships to provide public services with private sector participation became my core activity.

The 30 years of professional experience with the public and private sector, mean designing and implementing infrastructure projects, in multiple sectors, from mobility, utilities, social infrastructure, urban and regional development, including logistics, mining and oil, and gas, in over 85 countries across four continents. This represents managing and delivering over €10bn investment programs, but questioning the overall logic and purpose of many of

them, and for this reason the way forward was to search and improve development policies and implementation models, knowing today, that the outcome of past projects and programs would have been better if a SD approach had been taken systematically.

In 2011 I was invited by the Government of Kazakhstan Public-Private Partnerships (PPP) Unit, to make a presentation at United Nations (UN) Palais des Nations in Geneva. The outcome had enough impact to be invited at this time by the United Nations Economic Commission for Europe (UNECE), to become a member of their Business Advisory Board (BAB). It was clear, already at that time, that a gap existed between the willingness of the nations, and the respective public organizations representing them, to design development models that could be implemented on the field, involving the private sector with development know-how and capital resources. Since then I was invited as member of UNECE BAB to assist member states to reduce their infrastructure gap using partnerships.

In March 2015, six months before the SDGs, the UN Agenda for 2030, was approved by all 193 UN member states, the PPP Team of Specialists in Geneva from UNECE, requested me to evaluate the following challenge:

Considering the SDGs approval in September how to use Public-Private Partnerships?

Three months later I presented a concept in a UNECE PPP conference in London (Neves, 2015a) defending that Partnerships and PPPs represented an important vehicle to achieve the SDGs. At that time a second challenge was launched:

How to show Private Sector understands Public Interest namely People & Planet Agendas?

And, that Public Sector understands that Profit is crucial for Private Sector Participation?

To demonstrate this an event was organized answering both questions at the UN Head Quarters in New York City (Neves, 2015b), leading to a third interrogation:

Is it possible to implement PPPs using SDGs across the world namely in the Least Developed Countries (LDCs), in multiple sectors involving multiple goals?

For someone with field experience, this cascade of questions represented the need to develop an investigation that could show evidence of what was happening in the real world.

There was a need to adopt a bottom-up approach to the field reflecting what development practitioners were doing. In 2016 the first compendium with 30 case studies of PPPs using a Sustainable Development approach was presented at the UN Palais des Nations in Geneva (Hamilton & Neves, 2016), in 2017 a second compendium, with another 30 case studies, was presented in Hong Kong City University (Bonnici & Neves, 2017) and, a third with more 60 cases in 2018 (Neves, 2018a), again at the Palais des Nations.

Although all 120 case studies are part of UNECE database and had been evaluated by independent discussants invited by this organization, being responsible for the design, execution, and production of this material on the three compendiums, I take responsibility for the information gathered and shared, knowing that these cases represent real examples, and although having improved the lives of communities and not being perfect, showed that it is possible, and by existing and being published, can be analysed and used for research.

After presenting the second compendium it was clear the need to go beyond the research of case studies and to organize systematically an investigation that could contribute to improve development models combining partnerships integrating the concept of SD to achieve the SDGs. For these reasons those months before the approval of the SDGs, my willingness to enhance Development processes, increased and changed me, as made me realize the real challenge was not to understand the SD concept but to implement it. In parallel, it was also clear that the SDGs represented a new global language, that required interpretation for development practitioners and researchers. This was a great opportunity to improve communication, investigation, design, and implementation of development models. It was as if empirical experience, knowledge curiosity, and the ever-present ambition to design solutions to improve the life of communities and protect the planet, associated with testing a new development paradigm, were happening simultaneously. During the study became evident that this research, is an exploratory work to answer a greater question: SDGs Why? and For Whom?

1.1.2 SDGs a New Development Paradigm

This block covers four topics that represent key aspects to provide the context and to situate the study in the thesis. The first is an umbrella to the others: Why SDGs can be considered a New Development Paradigm? This new approach meant that it was necessary to rewrite development equations, and therefore the following topic is: Equating the Development Challenge, considering it as a broad positive transformation involving multiple disciplines not limited to social sciences. Then, and considering the financial public gap, it is analysed the relationship between Public Interest and Public Investment and how they are reflected in the SDGs. This investment perspective leads to consider alternatives to *top-down financial flows*, to look for *side by side models* leading to *Development Beyond Aid* where local economic and financial sustainability is adopted as an objective in the LDCs environment.

When in 2015 the UN created the agenda for 2030 based on SD and its three dimensions the social, environmental and economic, associating them with *People, Planet and Prosperity* (3Ps) and considering them to be indivisible, a clear message was shared. *Development* was no longer about a balance between economic growth and protecting the environment, or simply fighting poverty through *aid*. Making them *indivisible* represents that simultaneous actions addressing these three dimensions have to co-exist while designing policies or implementing projects on the field. This represents breaking down knowledge silos, that a new breed of sustainable developers have to combine social with natural sciences, and that solutions require interdisciplinarity.

On top of this association, the depth of knowledge is different and demands further understanding of the human dimension. The expression “leaving no one behind” (UNDESA, 2015, p. 1) represents a new challenge to economic growth as it shows that development models need to go beyond GDP, meaning the national average is no longer enough, need to address everyone, and not the country average. But the challenge also applies to the natural sciences. The expression “heal and secure our planet” (UNDESA, 2015, p. 1) is used, it is not about considering an ecological approach to development but rather the recognition that an environmental problem exists and requires urgent actions regarding the future, as well as actions impacting the present and fixing the past.

Another change comes from the dynamic approach, the fact that considers “This Agenda is a plan of action for people, planet and prosperity” (UNDESA, 2015, p. 1), is not about discussing theoretical concepts over development models, but a straightforward demand for action. There is an implicit recognition for speed, actions need to be accelerated. The purpose is therefore to use the energy, the knowledge, the consensus gathered around this concept to contribute with ways to implement this Plan of Action for the 3Ps.

For this action plan to be effective, on top of the SD concept using a *people, planet, and prosperity* (3Ps), the SDGs added the role of institutions and partnerships. Considering that this new approach to development involving simultaneously the 3Ps to be *The New Game*, then there is a need to add institutions as *The Rules of the Game*, and partnerships as *The Players of the Game*. It is indeed no longer about discussing a concept, but about bringing the actors to the stage, knowing that the interaction between the two involves institutional innovation.

SDGs go further for three more reasons. They transform *Development into a Global challenge* involving all countries independently from their development status. The call for action is for all nations alike, independently of being a contributor or a receiver of *aid*. The traditional North-South approach to development disappears, as it is recognized that current challenges require a global approach. Besides going global, the SDGs also go local by inviting the subnational levels of government and the cities, to the Nations table. On top of going “GloCal”, this holistic approach besides taking all nations and all cities, also include the private sector and the civil society. This perspective of sitting multi-stakeholders at the same table, central and local governments, public, private and civil society, is another reason to consider them as a game changer.

Analysing the impact this *Agenda* is having throughout the world, across all sectors, all generations, and all sorts of stakeholders, it shall be recognized that the message and spirit have been spread out, and once people, Nations, cities, civil society, and the private sector, understand it, adhere to it. Recognizing this new development paradigm, implies new governance models, new institutions and new players, and a new approach in *Development Studies*, creating a research area with plenty to explore namely on implementable development models that combine SD, Institutions, and Partnerships.

Equating the Development Challenge

Development is seen as a way for nations, regions, and cities to go through a positive transformation to improve the quality of life to its citizens and to preserve and improve the relationship between man and nature. In this sense, it goes beyond economics as improving the management of scarce resources and adds the society and environment to its core. This perspective raises a question involving the relation between economics and development. Indeed, if economics is associated with the management of scarce resources using a value analysis, and development, is a positive transformation leading to a better quality of life while protecting and healing the planet for humans to live in, is it fair to consider that economics is based on value? and development based on people? Rather than to answer this question, the purpose of mentioning it at this early stage is to keep it in mind throughout the research and to reinforce a people-centric approach to *development*.

The intention is to look at *development* without limitations, attaching to the concept a broad perspective of positive transformation that has the purpose to improve the quality of life to *All* humans, and therefore to look for dynamic and integrated solutions based on impact, rather than ones based on outcomes and outputs. This means that rather than to base the research exclusively on development economics, or political sciences, considering them essential to analyse *development*, the goal is to look for the openness created by the SDGs and to have a more holistic perspective, on what can contribute, as well as to refrain the transformations, that have the desired impact on communities.

An example of the difference between output, outcome and impact, can be associated with an output linked with an education program involving the construction of schools. If these schools do not have the staff, or the energy, or the students do not have the means to arrive at school, the transfer of knowledge to the students, and, considering the desired outcome to have an educated community, will not be achieved. Likewise, if the knowledge transferred to these students will not be used in economic growth, because the education received is not aligned with the employment opportunities and coherent development policy, then the impact will not be achieved. In this case, the output can be associated with the delivery of the asset, the outcome with the delivery of an education system, and the impact with the result of trained people having decent jobs promoting economic growth. In parallel with this physical and social transformation, it is also vital that throughout the process, the ecological footprint is managed during the asset development phase, as well as, during the asset management one. This type of integrated approach obliges development

to be aligned with infrastructure development, with education, with decent jobs and economic growth, and with planet protection.

This holistic perspective of development is not complete if the dynamic dimension of change is not brought in. This means that the transformational process will never occur according to plan, and therefore not just the concept, or the design of the development model is important, but the process itself needs to be carefully considered. These processes can have a forward time approach associated with project management. This means that the transformation process grows from beginning to the end, towards an objective that has been determined, considering the complexity of interfaces required in project management, namely: scope definition, time, cost, human resources, risk, quality, contract, procurement, and communication management (Newell, 2002). But alternative approaches can be considered, one that takes time backward, and uses an *out of the box approach* using design thinking combining simultaneously user desirability, business viability and technical feasibility (Maxwell, 2020). Indeed, it may be ideal to combine both, mixing the two as used in the *Gate System* (Jager & Jager, 2005), an evolving and iterative project management process that also involves a design thinking approach. In any case, forward, backward, or mixed approach the process will change throughout time. Either, when the objectives that have been pre-determined, and the transformation process requires the organization to achieve the end goal, or when the objective is vague, needs to be understood and a concept is created without a clear definition of the process, the *development process* is dynamic, the shape and the *personality* of the outcome and impact will evolve during the process.

Following the example above the syllabus taught in school will vary in time, as the types of *decent jobs* will change with the needs of the community. Indeed, and considering a wide time frame, a successful education may generate the creation of cluster that will contribute to change the DNA of the city or region. The new DNA will evolve in a way that revenues originated by the new economic activities, will be invested in new assets that will contribute to enhancing the performance of the new cluster. An example of this mixed approach is currently being developed and implemented today by United Nations Conference for Trade and Development (UNCTAD) on diversifying oil-based economies into ones based on industry and agriculture (Neves, 2020).

In terms of research this mix of social, natural, applied sciences, arts and design are part of the “bold and transformative steps which are urgently needed to take the world on to a sustainable and resilient path” (UNDESA, 2015, p. 1). This perspective was opened by the SDGs and represents an important element of this research, meaning the study will explore holistic and less conventional approaches to transformational processes, and that the empirical research using case studies is not constrained by a silo knowledge perspective and will look for impacts rather than outputs.

Development, Public Interest and Public Investment for the SDGs

The SDGs are eventually not explicit enough about defending a common public interest. However, this is crucial to understand and to use them. Public Interest demands more than concepts, requires ways to bring the concept alive and to have improvements in people’s lives. *People* require outcomes, meaning that the theoretical geometry includes practical solutions involving implementation with impact, implying there is an understandable plan of action, including rules and players. This approach leads to the role of institutions, as a provider of formal and informal rules and their enforcement mechanisms, to become the base framework for relationships supporting partnerships, considering the involvement of multiple stakeholders to be agreed upon. Partnerships will, therefore, be ways on how parties agree to join efforts to transform and improve the lives of communities, which represents answering to the public interest to provide quality public services. These services depend on a great extent on infrastructure assets, that require investment for their development.

Development models that lead to improving the quality of life of communities while protecting the planet are therefore the end goal. The use of the SDGs is a way to support this process considering that its time horizon is limited to 2030, but, knowing that the end goal will be expanded after this period. Likewise, the challenge of combining public interest with private dynamics will remain and therefore how partnerships will be designed, implemented and managed will be kept as a major institutional challenge.

Looking at the SDGs and considering an overall national, regional or urban investment plan leads to consider the need for public investment. Some will consist of the development of new assets, greenfield investments, others consist of improving, adapting or simply updating the existing assets to improve the public service they were designed to provide, these will be considered as brownfield investments.

The SDGs Flow and Relation with Infrastructure

When looking at the SDGs as a flow of goals, it can be perceived that they are people-centric and focused on the most vulnerable (see Annex 1). This is reflected on the first goal that starts a key message *No Poverty*. This is followed by goals associated with the basic people's needs, such as food (*Goal 2*), health (*Goal 3*) and education (*Goal 4*), then moving to those associated with utilities such as water and energy, followed by infrastructure and cities, required to ensure economic growth, complemented then by those directly involving environment. These initial fifteen goals directly linked with the three dimensions *People, Planet and Prosperity* are then wrapped up with Peace and Partnerships as the means to implement the goals.

The relation between Infrastructure Development and the SDGs can be seen following the same flow: new agriculture infrastructure (*Goal 2 – zero hunger*), hospitals and health facilities (*Goal 3 – good health*), schools and education facilities (*Goal 4 - quality education*), water networks and treatment plans (*Goal 6 – clean water and sanitation*), energy grids and renewable energy power stations (*Goal 7 – clean energy*), roads, ports and airports (*Goal 9 – innovation and infrastructure*), affordable housing (*Goal 11 – sustainable cities*). On another end projects directly involving the protection of the planet also require investment in improving the relationship between man and nature. Examples could be respectively: recycling factories (*Goal 12 - responsible production and consumption*), CO2 emissions filters (*Goal 13 - climate change*), protections to rainfall drainage systems (*Goal 14 - life below water*), forest management (*Goal 15 - life on land*).

The SDGs Virtuous Development Cycle

Following the SDGs flow, tangible goals and targets that imply the development of infrastructure assets were defined to achieve them. This permits to establish a direct link between achieving these goals and the infrastructure asset class. The creation of these assets requires investments that go beyond what public investment can provide, and fill this gap private investment is needed. Combining public and private investments implies articulating different motivations. If behind public investment there is public interest and the common good, behind the private investment is profit, and an SD approach may improve this alignment when partnerships are formed.

This process can be associated with a virtuous cycle (fig.1) that using the SDGs as an objective, identifies the services needed, and consequently the type of assets required to

satisfy these needs. These infrastructure assets require a public and private investment that have to compensate their capital providers, representing the requirement to align common good and profit. To balance these interests an SD approach can be used, generating the space for partnerships to be created to achieve the SDGs.

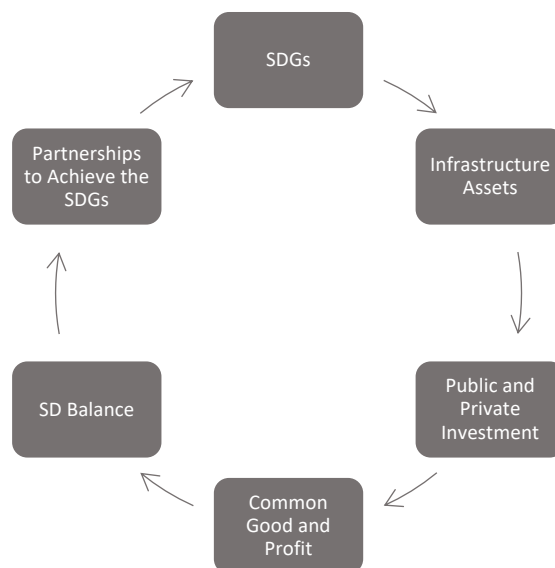


Fig.1 SDGs Virtuous Cycle relating Infra Assets, Investment, Common Good, SD and Partnerships

Bringing the SDGs to a more open *development* concept and considering infrastructure assets represent the means to achieve an end that happens through transformational projects; when these projects follow an “investable” criterion, partnerships can be created to develop the projects.

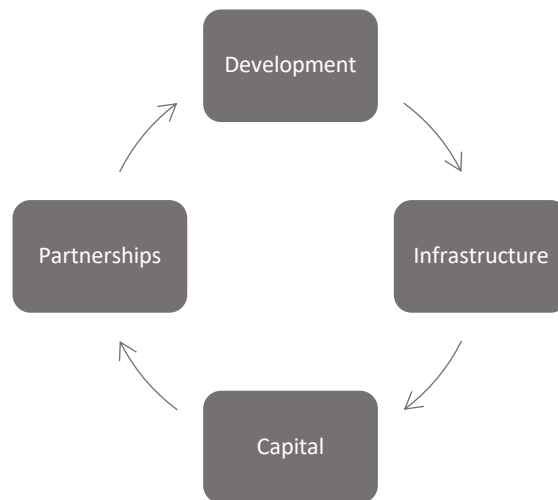


Fig.2 Development virtuous cycle linking infrastructure, investment and partnerships

Structuring Investable Projects

Investment to achieve the SDGs, infrastructure development and asset management are therefore intrinsically linked. The development of infrastructure is naturally associated with engineering and its ability to design, build and operate these assets. The real challenge of implementation is not only the capacity of creating or maintaining this type of assets, but also the ability to finance and to fund them. However, and considering the available liquidity today in the world, financing is not the main issue, as long as the projects are investable. Considering therefore that technology and capital are not the main constraints, the ways to organize and combine technology, capital, institutions, and players are the main challenge today. Analyse, question, test how to generate partnerships that have good institutional performance and are directly related to development models, is the goal of this study.

Development Beyond Aid

The virtuous development cycles presented above consider that investments are used in a way where value is created, and in parallel sustainable jobs grow, generating a flow of revenues for the state that are reinvested leading to more economic activity, value and jobs. The concept is associated with an investment multiplier that is greater than one, where capital is used and activities will be developed because the capital has to be returned to

their providers. However, if this perspective is replaced by one where capital does not have to be repaid, generates a different approach. Indeed, today, as it will be further discussed in chapter 2, and considering in particular Africa, although capital has been put in, value and positive impact is not being created. Moyo citing Paul Kagame President of Rwanda, reflects this perspective: “While more than US\$300 billion in *aid* has been disbursed to our continent since 1970, there is little to show for it in terms of economic growth and human development. Aid is not working” (Moyo, 2009, p. 39). Several reasons can be used to justify the vicious cycle of *aid*, from lack of coordination, *aid* fatigue, *aid* dependency, *aid* trap, unpredictable aid flows, corruption, poor policy, but above all because when applied for a long period it induces lack of dignity and consequently lack of self-esteem. As mentioned by Fukuyama “someone that is paid for doing nothing does not have motives to be proud” (Fukuyama, 2018, p. 108). Does it mean that has to stop at once, eventually not, but certainly development based on *aid* has to be reviewed, and a post-*aid* agenda created. As it will be seen also on the next chapter, extrapolation of North-Atlantic development models do not always work, and the Marshall Plan considered a successful *aid* program, responsible for the reconstruction of Europe after WWII, has not proven in Africa, and indeed the East Asian successful development models have grown from different models.

This means that the development concept in this study applies to all countries, namely the Least Developed Countries (LDCs), Developing countries, as well as Developed countries following the United Nations definition when adopted the SDGs, knowing that all countries have different contexts and therefore different challenges. Indeed, a major difference between SDGs and the Millennium Development Goals (MDGs) is this global approach, the fact that development challenges apply to all UN member states and not only those considered to be poor. This represents an important turning point, also to the usual concept associated with Development Studies. It goes beyond the perception of how rich countries “give” development *aid* to the poor countries, based on a top-down relationship under the titles of being a donor or a recipient, on the contrary aims to establish cooperation among equal parties.

This new development perspective also demands to “take the bold and transformative steps which are urgently needed to shift the world on to a sustainable and resilient path” (UNDESA, 2015, p. 1). The request to be courageous and innovative at a global level takes development beyond the traditional approach, it implies convergence and catching up at a global level, but creating solutions from within. Development models are therefore based

on developing virtuous cycles and avoiding vicious ones based on *aid* or subsidy dependency.

All countries have development challenges, namely those involving the environment such as climate change, indeed, these have to be taken globally as pollution recognizes no borders, and its impact is associated with all nations and in particular, with the most industrialized countries. But not only the planet agenda is global, poverty and misery exist directly and indirectly in all countries, and also the people agenda needs to be taken at globally. Regarding Development and Development Studies with this perspective makes the geography perimeter grow, implying that Development goes far beyond *Aid* or official development assistance (ODA) provided by the Developed nations. Development and Development Models will, therefore, be a concern for all those involved in transforming their country, region, city or community independent on the development status considered. This perspective will also be reflected along with the case studies presented in chapter 3, sharing development challenges from Wales in the UK and Japan in parallel with others from China, Haiti, or Madagascar.

1.2 How to Implement and Play SD to Achieve the SDGs

This section covers four blocks. The first is the Problem Statement, followed by a brief history associated with Sustainable Development and Partnerships. A third block refers to the dissatisfaction with current knowledge and a final one, with the identification of factors that clarify concepts of development models and qualitative equations on this study.

1.2.1 The Problem Statement

Considering current social and environmental pathologies, development models based on business, as usual, are not an option. The SD concept combining the economic growth perspective, here related with the term *Prosperity*, social cohesion associated with *People*, and environment considered as *Planet* protection, also linked with the triple bottom line, an extrapolation of an accounting framework with one traditional financial bottom line,

incorporating a second social bottom line and a third for the environment (Elkington, 1998), has been studied and debated for decades and therefore can be considered as fairly well understood. Considering that the discussion connected with the concept of SD started formally in 1987, it can be said that the challenge today, is to go from a theoretical concept of SD and to execute it on the field while designing policies. The problem addressed in this study is the current challenge of implementing the SD concept, namely when multiple players are required to cooperate to achieve the SDGs. The research looks for solutions on how to make partnerships cooperate, adopting this approach on transformational projects, investment programs, and development policies, and to look for contributions that make these development models tangible, workable, and implementable on the field. The study of this problem should reflect an approach that will provide means for, government development policymakers, investment program and transformational project managers in the public sector, the private sector, the civil society, and the academy, to enhance knowledge on development models using partnerships that are based on an SD approach and aim to achieve the SDGs.

1.2.2 Brief History of Sustainable Development and Partnerships

The objective is to demonstrate that SD and Partnerships concepts have been evolving and used throughout time, to trace them to past centuries and to support the current demand for new development models involving the integration of multiple concepts and stakeholders.

Sustainable Development Timeline

The SD concept brings these three dimensions together to an interdependent form since the mid of the 20th century. If the analyses is done independently, economic growth, social cohesion and environmental protection as the conditions for humans to live on the planet, these roots individually can be traced to the industrial revolution. The simultaneous approach and the resulting impact from these dimensions on one another is the novelty.

Although a more detailed approach will be developed in the next chapter, a short perspective is presented here using the UN timeline. The inclusion of the environment to an economic and social development concept can be traced to 1972 in Stockholm where the UN Conference on Human Environment took place. Then in 1987 in Oslo, the World

Commission on Environment and Development produced the report *Our Common Future* where for the first time the most common definition of SD appeared: “Sustainable development can be classified as development that meets the needs of the present without compromising the ability of future generations” (United Nations WCED, 1987, p. 41). The following steps took place in Rio 1992 producing the Agenda 21, then in Johannesburg in 2002 also called Rio +10, and again in Rio 2012 or Rio +20.

This process with 48 years today can be seen as a shift from traditional development based on economic growth to one where people and planet agendas are incorporated and become inseparable. This has been having an impact on the way the UN is organized, as it represents a shift from a focus based on promoting and preserving peace with a different arm looking at the development, to one where development is an intrinsic part of the overall peace process.

Adding Partnerships to Sustainable Development

The SDGs are also known as the *2030 UN Agenda for Sustainable Development* and therefore is based on People, Planet and Prosperity the 3Ps. The SDGs add a 4th P for Peace, which is natural as Peace was the starting point of United Nations organization, and indeed the correlation between Peace for Development and Development for Peace are self-explanatory. The inclusion of a 5th P, for Partnerships, represents a new perspective, implying that Cooperation more than important is needed to achieve the Goals. This implies that Development is no longer a question to be addressed only by nations and the central administration, involving exclusively the public sector, but should also involve the private sector and the civil society. This fact more than *opening the door* to the private sector *is* a formal invitation, or even a request for cooperation with multiple stakeholders, particularly when considering that finance for development is essential and a financial gap exists to achieve the SDGs.

If development models have evolved considerably in the last two centuries, considering a political economy perspective, the articulation between public and private development players can be attached to a much longer period. Cooperation between public and private sectors can be traced for over two millennia, as described by Xavier Besançon in his book *2000 Ans d'Histoire de Partenariat Public-Privé* (Besançon, 2004). As Kamel describes citing Besançon describes the expansion of the Roman Empire developed with private sector participation, with municipalities awarding private entities the construction,

operation, and maintenance of postal services. “The Roman Empire thousand years ago has witnessed the first record of private participation in public services. The Empire municipalities awarded private entities the construction, operation, and maintenance of postal stations network for five years period” (Kamel, Montaser, & Abd El-Rashid, 2017, p. 3). The *Discoveries* made by the Portuguese navigators is another example where national public interest used the private initiative for centuries to expand and develop the kingdom. In more recent centuries the Ottoman viceroy of Egypt awarded the concession of Suez Canal excavation and operation to private international developers (Kamel et al., 2017). Since this time, either through concessions, or other types of cooperation agreements, the public and private sector have been developing multiple ways of working together with the purpose to develop nations, with private sector participation and therefore aligning public and private interests.

PPP arrangements have been used by multiple types of nations, namely those that ideologically could be hostile to the private sector. “PPP arrangements succeeded to penetrate the most rigid totalitarian regimes which had an ideological hostility against the private sector, Russia and China”(Kamel et al., 2017, p. 3). China claims today to be the country with more PPP arrangements and these are part of the Belt and Road Initiative program, the largest ever infrastructure program developed on the planet (Tianyi, 2016). But PPPs are being used as a development model throughout the world today, although the degree of experience varies from country to country. “The PPP Project delivery model forms an important arrangement for development all over the world nowadays. UK and Australia are classified as the most mature markets to host PPP practices. While the USA, Canada, France, Spain, Netherlands, and Portugal classified in the second level” (Kamel et al., 2017, p. 1).

The fact that partnerships under the form of PPPs exist for thousands of years and that is used by all sorts of countries following different types of ideologies does not mean that PPPs are good and should be replicated, indeed, PPPs reflect one type of public investment based on a complex arrangement with private sector participation. This reason alone would be enough to question and look continuously for improvement on the ways PPPs are designed and implemented.

The purpose of this research is to go one step further, and to align the PPP's challenge with SD and to see how to improve them to have them contribute to achieving the SDGs.

Considering that PPPs align public and private interests, considering that an SD approach to development is based on the three dimensions, here called *People, Planet and Prosperity* (3Ps), when the two converge, the resulting type of PPPs will be considered to be *People-First PPPs*. Partnerships in this study will be studied in the following chapter and will analyse them as development actors, the players in charge of transformational processes. This study will investigate this double challenge PPPs and SD, and how the public and private sector have been, are, and considering, may be aligned in the future.

1.2.3 Dissatisfaction with Current Knowledge

There is considerable enthusiasm with this new paradigm of development, as it represents an exploratory period for research on this field. Dissatisfaction is therefore not linked with the theoretical concept or the way it has been shared, but the lack of significant examples and speed on its application in the field. Implementation can be considered today as the keyword behind the SDGs challenge. The impression is that a *new puzzle* is being created with pieces coming from different boxes that need several adjustments at multiple levels. This block will describe different angles that require knowledge improvements, namely interdisciplinarity, vertical and horizontal integration, and enhanced management of asset lifecycle.

The implementation challenges can be attached to some different factors such as lack of coordination between development policies, investment programs, and transformational projects; lack of coordination among the various types of public services and the territory, represented by different ministries in one government; the gap between the vision of identified needs of the future and research laboratories; social policies involving job creation that fight poverty and the growing social gap; an environmental regional and global agenda, covering geographies that go beyond political borders. Indeed, the SDGs can be compared with a new language that has been adopted, but with its usage being limited to some sentences that may look good on paper but that do not have a clear impact on peoples' lives. To take SD from paper to the field there are many challenges directly linked with the development that is associated with cooperation.

The challenges addressed here are not only about understanding the SD concept behind each of the three dimensions independently but how they interact when approached

simultaneously. The same way a triathlon athlete needs to run, swim and bike, a *sustainable developer* has to be a practitioner simultaneously in ethics, environmental sciences, and economics. This means that as the result of triathlon requires that the three sports are performed in the same race, knowing that the performance of one will always affect the others, the impact of SD requires that the 3Ps are performed in the same game. Following the triathlon perspective, the target is to improve the performance of the athletes, and in the development game, the target is to improve the institutional performance of development projects, programs, and policies.

Interdisciplinarity and Multi-level Interactivity on Development Processes

Looking broadly to development as a transformational process, and the creation or improvement of infrastructure assets as a means to achieve it, the process behind asset development is not simply an engineering question, where a piece of infrastructure is created to fix a certain living environment generating economic growth, the impact of this new asset and the way it affects people's lives and the environment has to be taken into consideration. A broader infrastructure analysis demands an integrated, iterative and interactive engineering perspective to the economy, that goes further than the simple *economic engineering* (Morgan, 2001) analysis, and brings in society and environment to its equation. It implies managing the process at multiple decision levels; it involves analysing the relation between the asset lifecycle in short, medium and long-term considering the expected public services, meaning that it requires a timely, vertical and horizontal SD approach. To date, there has not been enough research that examines an integrated connection between development, SD, SDGs, infrastructure, institutions, and partnerships, or as described below between vertical, horizontal and time integration on sustainable development models.

Vertical and Horizontal Integration involving Policies, Programs, and Projects

Lived experience shows that most assets that have been delivered have improved quality of life to communities, had an eco-footprint perspective, and contribute to the prosperity of the private as well as the public sectors. But in many cases, development projects lack industrial policy integration, weren't developed by local manpower to the extent that it would be possible, and their contribution to reducing eco-footprint could have been much greater. In most cases, the projects reflect a silo development approach associated with a certain type of public service such as education, health, housing, roads, energy, water often not combined among them or even not considering its full lifecycle. This means that the timing of its design is distant in time, from the moment its construction takes place and, this time gap occurs again, until the moment the public service to be provided. It is as if the community and the environment were not considered as *end-users*.

Development has a degree of inefficiency that can be linked to many angles, and models can be significantly enhanced if a more holistic approach is used. Considering the asset lifecycle, if a value for people and value for the planet are taken as the foundations on their design, implementation and asset management, the output but particularly the outcome and the impact would be greater. From a top-down perspective, the gap between designing policies, strategies, and consequent project implementation can be greatly improved. Looking upwards, from project to program and then to policies some incoherencies deserve attention. The gap between what is done and what is imagined, or even, between what is needed and what is designed, represents today a challenge to all development scientists and practitioners. Also, when confronted with the possibility of aligning in the same challenge economic growth, social issues and protecting the planet, it is clear that this concept could improve the quality of transformation process, and make it more resilient. A more solid base for development models can and shall be found, even knowing that it involves adjustments at design and implementation levels.

The *triple bottom line approach* (Elkington, 1998) also adds value, when promoting vertical integration, even if it increases complexity as it requires interdisciplinarity and a closer involvement at multi-level decision making. Studying and researching Sustainable Development requires more integration than the traditional knowledge silos associated with academic frontiers between what is taught in business and economy, engineering, natural sciences, social and political sciences, and, law schools. Just as economists need to understand the impact of climate change and to be able to integrate into a GDP forecast,

engineers need to integrate the importance of job creation on communities and the impact on reduction of poverty, lawyers to understand the need to combine common good with right of law and the development of local context associated with local content, and all need to understand that community personality and dignity is not exclusive to those that study sociology. Indeed, underneath this first layer, the disciplines of economics, finance, sociology, marketing, communication, engineering, design, law, would all be required. Particularly, when the purpose is associated with implementable development models, it becomes clear that rather than to create a new discipline, there is a need to work with different knowledge production centres involving different types of experts that can communicate, to design, to work, test, correct and implement models that are never finished and can always be improved. On the other end, from field experience, it is impossible to have all specialists involved simultaneously and a general and holistic approach has to be taken.

The Asset Life Cycle under Public Interest and Private Dynamics

A public asset responsible to provide public services has five main activities normally associated with five sequential phases: to Design the asset, to Finance it, to Build it, to Operate and to Maintain it, being this process is described as DFBOM (WorldBankGroup, 2020). The public sector had traditionally the capacity to design, finance, operate and maintain, procuring the private sector for the construction. This means that out of the DBFOM, only Building would be directly developed by the private sector. In the past decades, the private sector has been progressively directly involved in the Design, and the public sector would procure joint Design and Build solutions. This approach allowed to transfer the interface risk between what is done on paper to what is the output on the field to the private sector. Later public sector started to adopt solutions where the maintenance of the asset was also transferred to a private service provider. At this stage, the Public would secure the Financing with Public Funds coming from State Budget, and the Operation, being this the interface with the users. The last stage has been to ask the Private Sector to Operate the assets and also to Finance their development. The migration of the scope associated with the development and maintaining public assets from Public to Private sector has been occurring for decades, initially for efficiency reasons and more recently also for financial ones. When this process is well prepared and planned and associated with capacity building allows the public sector to focus on improving and guarantying the quality of

public service. The differences between the different options are described by Prieto on his analysis of project delivery types, as *White Space* risks (Prieto, 2012).

This process associated with project and asset management although independent from an SD approach is of great importance, as often the challenge of transformational projects is at this level of project management fairly poor. When the SD perspective is brought in, meaning the current challenge goes beyond the management of a new asset responsible for improving public service and asks for a social and environmental perspectives to be added to the DBFOM, requesting a 3Ps approach, represents the need for new rules to be brought in. The challenge could be written as if a new development equation would now involve SD & DBFOM. When on top of this new equation, a new balance between players, namely Public and Private, but also involving the Civil Society, then on top of SD & DBFOM, one would find PPP & SD & DBFOM. This study will not develop the DBFOM aspects as this has been largely developed on Project Management literature but will focus on how the first two terms PPP & SD converge on the transformational process.

Integrated Solutions

The above-described challenges, the interdisciplinarity, the vertical integration, the horizontal triple bottom line, the balance between public and private investment, the complementarity between financing and funding, the lifecycle approach associated with private dynamics and public interest, all occur in parallel. This challenge rather than a problem is an incentive to consider when development models are at stake. This represents that the multitude of development variables lead this study, to associate theoretical research with empirical knowledge, resulting from case studies and innovative tools to analyse development challenges and design solutions that are as integrated as possible.

1.2.4 Concept of Development Models and Qualitative Equations in this Study

In this study, the concept of SD with a 3Ps approach is part of the SDGs that add Peace and strong institutions, a 4thP, and Partnerships, a 5thP; resulting in a *People, Planet, Prosperity, Peace, and Partnerships* (5Ps) approach. Considering the exploratory phase of research over these concepts, where all these blocks are being put together, the reference

to equations and models will have a very broad qualitative, and graphic perspectives. Indeed, considering its exploratory perspective several qualitative equations and cloud development models will be used. Avoiding a quantitative approach to equations, as well as not entering in mathematical modeling is an option, as indeed the purpose is to test development ecosystems where the human dimension asks to consider emotional decision-making processes happening in parallel with rational ones. The focus is to understand outcomes and impacts and to consider assumptions rather than building upon eventual outputs from assumptions that often have rational support, but do not correspond to reality as they have taken the human factor away from the process. In simple terms, and as an example, adding a corruption factor to a development equation can have an impact of minus one (-1) as it can induce a positive impact for a public official with a personal interest, but a strong negative impact to the community.

It is considered that this research will result in further investigation and then quantitative equations and mathematical models will be exploited. For this reason, throughout this research, the word *qualitative equation*, or simply *equation* will mean aligning different factors that are required for the study of development models. Likewise, the word *development model*, do not represent mathematical models, but rather configurations, or design forms that represent a cloud approach to something that will be detailed on future research.

1.3 Aim, Scope, the Limits & Significance of the Study

1.3.1 Investigate Development Models using Partnerships based on SD

From this study is expected that contributions to tangible solutions can be formed. These should use social and natural sciences associated with a broad development studies research, to be used by those that have to *design*, implement and manage development policies, to ensure the feasibility of investment programs and transform the world by implementing projects for and with their communities. It is expected that these outcomes will contribute to a virtuous cycle of knowledge on development models and qualitative equations, where theory will enhance programs, and, projects being implemented on the

field, as well as data collected from the field will be used to improve the design phase of development policies.

Considering *People* at the forefront of *development* means that *Man* represents more than labour and labour power; *People* are the main purpose of development, their main actors and players. *Environment* is the natural scenario where all takes place and that needs to be preserved and healed for the next generations to have a liveable territory. This is done by exploring how partnerships may contribute to development models using the concept of *sustainable development*.

The SDGs go further than adopting a triple bottom line approach, as they define goals and associate them with each of these vectors in an integrated form. The concept associating People with everyone, the meaning of *leaving no one behind* is more than an abstract concept to consider a social parameter linked with development, to fight poverty, to think systematically of “eradicating poverty in all its forms and dimensions, includes to ensure that all human beings can fulfil their potential in dignity and equality and a healthy environment” (UNDESA, 2015, p. 1), means that the concept behind *People* involves, in particular, the *needs of the poorest and most vulnerable*, and, it represents in an SD qualitative equation to have a variable for the poor. This means measuring and ensuring eradicating poverty is happening statistically, as well as on the field. This places SD as a springboard to greater challenges than a simple social approach. It means the question will no longer be: what is the People approach? But rather how is this model, policy, program, project fighting poverty? How does it consider the need of the poorest? Along the same lines, when the SDGs mention *to heal and secure our planet* it is not simply to describe what is the *Planet Agenda*, but rather to ask for how does it heal, how does it improve the past, present and future human footprint on nature? Also, when *Prosperity* is associated with ensuring that *economic, social and technological progress occurs in harmony with nature* means that economic growth is bound to be aligned with nature having all human beings as their end-users. The overall ambition aligned with SDGs is that “*the lives of all will be profoundly improved and our world will be transformed for the better*” (UNDESA, 2015, p. 1).

The ambition of this study is to give a contribution for this attitude to happen in the real world. To align development scientists and practitioners interested in implementing SD

models, that embrace human perspective in its broadest sense based on both emotional and rational decision-making processes.

1.3.2 Research Scope, The Question, The Design, and The Strategy

The Ph.D. Research Question

SDGs Why and for Whom?

And the subsequent question *How to implement Partnerships based in Sustainable Development to achieve the SDGs?* represents two levels of research, an immediate and very broad level, where the SDGs represent a new development paradigm, and therefore Why does it make sense to consider them? And Who is it going to benefit?

Although this broad-angle is ever-present, as it is critical to understand the adoption of the SDGs, this initial question is an introduction to the detailed research question:

How to Implement Partnerships Based on Sustainable Development to Achieve the SDGs?

This second level addresses the implementation challenges associated with the SDGs, considering that: there is a need to review development models; SD is a strong base to be considered as a framework, but then: How to implement? Where are the Players? Can Partnerships be implementing agents?

This research question has five keywords: *Development; Sustainable Development; Sustainable Development Goals; Partnerships and Institutions.*

The fifth word, institutions, although not showing on the research question is implicitly there. Using Douglass North analogy between institutions and *the rules of the game*, results that *the game* in this context is the positive transformational based on the SD three dimensions economic, social and environmental. Following the same logic and considering *Sustainable Development* to be *The (new) Game*, *Institutions* to be the *Rules of the Game*, *Partnerships* are the *Players of the Game*. The study will follow these three vectors of investigation. The first is Development and connects the first 3 keywords: development, sustainable development, and the SDGs, and refers to the evolution of the Development concept in time and substance. First for Development to become Sustainable

Development, and later for SD to become the UN agenda for 2030, being transformed into the SDGs. The second is about Institutions in its *three dimensions*: “formal rules and informal constraints, and the effectiveness of their enforcement” (North, 1990, p. 9), this comprehends the beliefs, the logic, the principles, the motivation, the experiences supporting the development rules, that make the players play the game. The third is about the *Players, Partnerships* in general and *PPPs* in particular, as the actors that can play the game to achieve the SDGs.

A Qualitative Equation to Support the Thesis

If a qualitative equation, and by qualitative meaning that rather than testing quantitative outputs, it is the group of variables and their alignment that is being evaluated, was to be written to describe, the thesis would include the following variables:



Fig.3 Thesis Qualitative Equation

Applied SD are the first 15 goals reflected on annex 1, where objectives are attached to transformational processes, describing what it means in terms of poverty reduction, health and education, water and energy, cities, production and consumption, climate change, and life on water and land without considering the process or the actors. These 15 initial goals are associated with tangible objectives, and are therefore called Applied Sustainable Development of the “SD Game”. The last two, Peace, Justice and Strong Institutions (*Goal 16*), and Partnerships for the Goals (*Goal 17*), are the means to achieve the initial 15, here referred as the “Rules of the SD Game” and the “Players of the SD Game” respectively. Strong Institutions are the means to achieve an end composed by the *rules of the game*, or *Institutions*, and *Partnerships* the *players of the game*, attracted to act and invest in *the game*, if they understand and agree with the rules. The rules are developed with a top-down

approach based on theory and rule of law, but also, rules that consider the empirical knowledge coming from the informal institutions linked with a bottom-up approach. Looking at the SDGs as the outcome of these variables gives a perspective that indeed they are achievable, but to reach them rules and players are critical.

The equation can also be written, considering SD to be the game, institutions to be the rules of the game and partnerships to be the players of the game, in the following way:



Fig.4 The Game, the Rules, and the Players to achieve the SDGs

The objective is to give a contribution to this qualitative equation to be understood with its complexity, but at the same time that it is possible to have workable ways to design, implement and manage development models.

Considering that *Development Models*, involve social sciences not always involved with the technicalities or the exactitude of math, physics or chemistry, this type of *Development Models* can be improved, with some of the approaches used in natural sciences, considering that the interrelation between the variables, their relative weight and the inputs for the variables on the equation. It is vital to recognize the exploratory approach, and the initial phase of implementation SD development models. It is also important to keep in mind that the aim is to look for development models and processes that work, and therefore with the proper adaptation can be tested and carefully implemented in different contexts, with the certitude that whatever the design model is, it can always be improved.

The Research Design

The following figure describes the relation between a theoretical plane with constructs and a proposition, and an empirical plane with variables and a hypothesis, involving the research, following the Bhattacharjee research design approach (Bhattacharjee, 2012, p. 37).

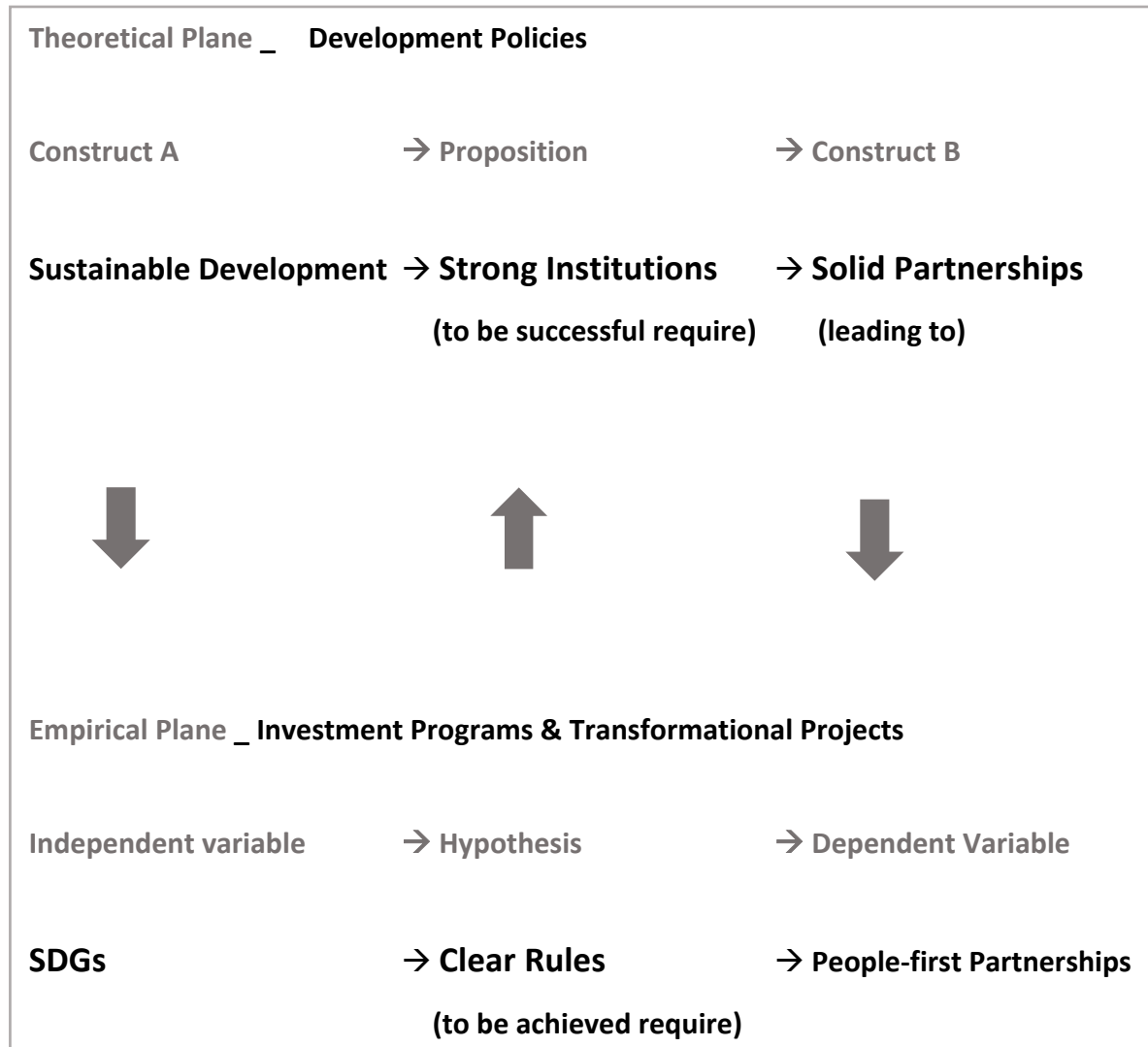


Fig.5 Research Design architecture following Bhattacharjee (2012).

“Research design is a comprehensive plan for data collection in an empirical research project. It is a “blueprint” for empirical research aimed at answering research questions or testing hypotheses” (Bhattacharjee, 2012, p. 35).

On the theoretical plane and following a Construct A, Proposition, Construct B approach, relating respectively Sustainable Development that to be successful require Strong Institutions leading to Solid Partnerships. The Empirical Plane relates the Independent Variable, Hypothesis and Dependent Variable, being in this study respectively the SDGs that to be achieved require Clear Rules, leading to Partnerships based on SD, called in this study People-First PPPs.

Crossing SD and Partnership Challenges with Independent and Dependent Variables

The detailed research question, *how to implement partnerships based on SD to achieve the SDGs*, aims to study the effect of partnerships using SD. The independent variable, SDGs and its 5Ps, according to this definition was therefore used to test the different types of partnerships that adopted an SD approach. The different types of partnerships was therefore tested being People-First Partnerships the dependent variable.

To develop this research, it has been defined as a strategy to consider SD as the construct at the theoretical plane, that is associated with the SDGs, as an independent variable, and to give special focus on the *Partnerships* as a dependent variable. Although the research design, as presented on figure 5, is presented with a reading approach from left to right, it has been perceived that also a right to left analysis can be done to see how *People-First PPPs* case studies, can contribute to the improvement of development policies and institutional performance mechanisms.

Partnerships involve all sorts of stakeholder's public, private and, civil society. Particular focus was given to partnerships where the public and the private sector agreed to cooperate to develop a project, a program or a policy. This challenge leads to investigate what lays behind the public sector such as public and national interest, as well as to what is behind the private interest such as profit, and how these interests can be aligned, considering an SD approach. Also created the basis to investigate how an SDG approach can contribute to attract and have good partnerships involved in the development process. Indeed, this process allows to analyse how SDGs as development policy contribute to have good partnerships, but also how good partnerships can also contribute to enhance development policies.

Case Study as Research Strategy to Evaluate Institutional Performance

Development models based on PPPs adopting an SD approach that involves mainly infrastructure assets were studied as the dependent variable. SDGs with the 5Ps were considered as the independent variable, used to evaluate institutional performance. This research describes how PPPs based on SD, generating *People-First PPPs*, can be used to increase institutional performance and contribute to achieving the SDGs. The Case Studies were the base to study the relation between Partnerships, SD and the 5Ps of the SDGs.

The investigation described in chapter 3, justifies why Case Study was used as a research strategy, the relation between the Research Question with the Research Strategy and how do Case Studies contribute to the knowledge production in this field of study. From the data analysis a qualitative analysis was done to 10 cases. Following the example of analyses made by Ostrom on *Governing the Commons* (Ostrom, 1990) the cases were divided in *Very Robust, Robust and Fragile*. The research reflects also the tools used when facing development situations either in real life for governments, developers, and investors, or while in the classroom. These are divided into original tools, and the second group of tools that have been designed by other parties.

1.3.3 Limits to Research

If this investigation would aim to cover all aspects dealing with SD or SDGs would make it impossible or very hard to achieve. However, avoiding the horizontal perspective attached to them would transform the study into a vertical knowledge silo approach. As described earlier in figure 4 the thesis qualitative equation can be considered as $SD + Institutions + Partnerships = SDGs$.

Considering that the challenge resides on understanding how the *Players*, the *Rules* and *Game* interact under an SD environment, how different parties cooperate, namely when partnerships are created, focus was given to the relationship between the public sector responsible for driving the public interest and the common good, and the private sector focused on profit. The horizontal perspective means that, the purpose is not to study PPPs by themselves, but rather how partnerships based on SD, can be used to achieve the SDGs. Considering that SD creates the base to achieve the SDGs, it is considered that partnerships

that do not understand and do not have an SD approach, may have greater difficulty in achieving the SDGs.

The limits of the research are therefore attached with a horizontal and transversal analysis on how partnerships in general and PPPs in particular, relate with SD and SDGs. Another limitation comes from the fact that development will be here attached to the development of assets that have the purpose of improving public service. This represents that these assets are associated with infrastructure, considering here mobility infrastructures such as roads, ports, airports, rail, and metro. Utilities such as energy, water and wastewater, gas, and telecom. Social infrastructure such as education and health facilities, public administration buildings, sports and culture facilities. Urban and regional development comprehending housing, retail, services, logistics, industry, and, agriculture as well as mining infrastructure. Again, the purpose is not to study this type of assets but the role they play on the development of a nation, a region or a city. Although some of these assets could be directly linked to some of the goals, represented on annex 1, for example, agriculture infrastructure with *Goal 2 - zero hunger*, or health facilities with *Goal 3 - good health and wellbeing*, or education facilities with *Goal 4 - quality education*, the purpose is not to study them individually but considering a backward approach what would be the group of assets that should be considered to achieve the SDGs. The study does not drill down on the impact of roads, water or education facilities. The research has been narrowed down, to an emphasis on the relation of the overall infrastructure, on the player's interaction, on the game they play involving the rules of the game, not attached to any particular location or sector. In other words, the emphasis is on learning how to improve the relationship between the parties to enhance institutional performance, rather than what the parties can do by themselves. The investigation is also focused on infrastructure, and although extrapolation can be done to other areas, the starting point will always involve development using infrastructure as a means to achieve it.

The limits involve the asset development and asset management based on DBFOM, considering its lifecycle approach as part of an integrated development model. This means that those looking for a school or a health facilities development project will not find an important contribution in this study. Likewise, those looking for specific climate change or environmental protection programs or “pure” fighting poverty programs will probably not find the contribution here. The same applies to those that are looking for detailed analysis in one of the Goals, the SDG targets or indicators. Instead, if the purpose is to find ways

and examples, on how an integrated development program can be structured, where there is a *People, Planet, and Prosperity* simultaneous approach, focused on how to bring the parties together, or reversely to look for reasons why a certain program did not succeed, then it is expected that this study is of assistance.

Another limitation comes from the interdisciplinary approach of the study. The challenge associated with *development* in general and SD, in particular, is one of integrating multiple experts, of aligning them, of creating and managing a common road map, and, verifying that the transformation will generate an asset that has an end goal, to improve quality of life and to protect the planet. This means that those expecting to find here a sociologist expert approach, or an environmentalist one will be frustrated, again the purpose is to bring an overall and workable qualitative equation together. Indeed, people and prosperity are directly linked with sociology and economics, part of social sciences. Planet, is directly linked with earth sciences and natural sciences. Prosperity is associated with the positive transformation that requires investment used for the designing and development of infrastructure assets, directly linked with engineering. Besides the immediate output materialized by the existence of new assets, the outcome is measured by the improvement of public services. The end goal is the positive impact on the community's quality of life as well as on the healing and protection of the planet. Rather than falling into a silo knowledge trap, that would be concerned with the borders of different types of science and would decrease the use of knowledge in an interdisciplinary way, this research by focusing on what could be workable development models, will combine theory with empirical knowledge from case studies, collected from the field, and a collection of new tools being developed and tested on the field.

1.3.4 Significance of the Study, Solution to a Practical Problem

The expected impact of this research can be considered in four different perspectives: the first results from the theoretical research, the second from the exploitation of the case studies, the third from the collection of tools that can be used to design development models, and the fourth from combining all of the above, giving development researchers and practitioners an integrated perspective for models involving partnerships based on SD.

The theoretical research covers three vectors, the evolution of the development concept from economic growth, to SD, and then evolve become the SDGs. The second vector covers the role of institutions and their impact on development models, namely, to explain different outcomes resulting from diverse development models, and the third vector discusses the concept of cooperation and partnerships.

The initial impact resulting from the variety of case studies, covering 57 countries, including LDCs, in five continents, is to confirm that it is possible to promote SD through partnerships across the world. The database of these case studies is accessible at the UNECE website and is being used for further research, namely, to go from a qualitative approach to a quantitative one. It is also being used to research evaluation methodologies aiming to define a rating system for partnerships.

Regarding the collection of tools, the impact is also taking place across different projects and in multiple countries where governments are designing development models. These tools can be considered as a way to practice the SDG language particularly in the field, as most stakeholders wish to have a hands-on approach to convert the SDGs into tangible outputs.

The last impact results from expecting that more development scientists will follow this exploratory work and will use it to further explore the relation between SD, Institutions, Partnerships, and SDGs.

1.4 Synopsis of the Thesis Storyline

The organization of this study has three more chapters, being the *background*, here called *The Game, The Rules, and The Players*, the *core* chapter named *Case Study as a Research Strategy to Achieve the SDGs*, and synthesis covering the discussion and the conclusion. Each chapter is then divided into sections, and sections into blocks.

The background chapter will cover the history and the current practice and is composed of the research done over three main areas, Development, Institutions, and Partnerships. The aim is to bridge a new game with new players where new rules are forged to ensure the process is implementable, and the outputs, outcomes, and impacts, resulting in a better

quality of life to communities, decrease the ecological footprint and remain sustainable in economic and financial terms.

The core chapter combines the use of case studies as a research strategy and a group of tools that have been designed to assist organizations in defining development strategies. The case studies describe how partnerships using an SD approach were formed and how they perform public services involving public, private and civil society partners that have aligned their competences resulting on a transformational project that improve the life of the citizens in their community. The tools are aligned with the 5Ps: People, Planet, Prosperity, Peace and Strong Institutions and Partnerships, and regard different phases and processes of sustainable development.

The synthesis chapter includes a discussion section and a conclusion. The first highlights the main findings acquired by me during the research period. These findings were listed from specific to general and were divided into findings in case studies, in partnerships, in institutions, in political economy, and sustainable development. The conclusion covers an overview of contributions and recommendations comprehending practical implications resulting from the findings. This is followed by future work that may be developed by researchers and development practitioners involved in the implementation of the SDGs. A final block closes with a personal answer to the question: Why SDGs? and For Whom?

The purpose of this study is to go beyond the concept or the awareness of the SDGs and to focus on its implementation through cooperation, involving not only the public and the private sector but also the civil society in a participatory manner, and therefore to enhance the balance of power among the different players. Considering the performance of partnerships is amplified when all different parties are aligned behind a common purpose, understanding what supports the SDGs and who are the beneficiaries is paramount. This represents that the main and secondary research questions are interlinked as the first, *SDGs Why? and For Whom?* looks to recognize the significance of SDGs, and how society will benefit from it, and the second *How to Implement Partnerships to Achieve the SDGs?* regards the challenge of implementation, recognizing that they cannot be achieved without cooperation.

Throughout the study, although different interrogations are presented in different forms, they should always be brought into this broad relationship between the two research

questions. Indeed, queries using a different configuration, such as the relationship between strong institutions and partnerships, the search for solutions to make partnerships cooperate, testing the balance between the three sectors, or even the exploration of aligning PPPs with SD to achieve the SDGs are all interconnected and should be seen as cross-questions. Likewise, when qualitative equations are addressed, the evaluation of partnerships and their association with improving the quality of public service, or the connection with the Common Good, or the country level of development, at the end there is always subjacent the initial questions, involving the interdependence between the Game, the Rules and the Players of the Game, and the way these relations can be brought to life.

II

The Game, the Rules, and the Players

“We believe that everyone in the development community should be an honest broker who helps find win-win outcomes – where owners of capital get a reasonable return, and developing countries maximize sustainable investments. There’s never been a better time to find those win-win solutions. The trillions of dollars sitting on the side-lines, earning little interest, and investors looking for better opportunities should be mobilized to help us meet the exploding aspirations of people all over the world” (Kim, 2017).

Development today faces an interesting paradox, a rise of inequality, an increase of human footprint, and, a greater amount of financial resources. Although the amount of available and sitting liquidity willing to be deployed exist, solutions to use it well, to eradicate poverty and to heal the planet in a way that the human race will be able to keep calling it home, have not been found at the necessary scale. It is like a family becoming richer every year, but not being able to divide the wealth among its members and seeing its house growing dirtier.

A *New Game* is needed, with new approaches, new dimensions, new attitudes, new rules that are transparent, clearly understood that attract new players with stronger motivation to use the available capital in way that future generations will recognize that the current transformation challenge was apprehended and, the necessary changes were adopted and implemented. With this perspective, SD will be in this study the *New Game*, where ethical, energetic, creative and innovative human beings and organizations will be the *Players*, that will find ways to work together and create partnerships aligning a civil society aware of these challenges and claiming for change, public servants defending the common good and the public interest, with teams coming from the private sector comprehending developers and capital providers, that perceive and practice people and planet agendas. To ensure humans and organizations wish to play the game, interact and perform, a set of formal and informal *Rules of the Game* and enforcement mechanisms are created.

2.1 Sustainable Development as The Game

2.1.1 A New Development Paradigm, Why?

Following an SD approach, there is today an association between development with prosperity, social cohesion, and planet protection. These three dimensions were formally combined at the mid of the twentieth century generating a new field of knowledge but, when these areas are considered individually, they can be traced down to the industrial revolution. The purpose of drilling down in time is to identify some of the characteristics of each of these fields, as well as, to name the *Game Changers* that gave particular contributions to each of these fields. The first is the economic dimension, and the impact the industrial revolution had on the extraordinary economic growth registered at this time. Adam Smith (1723-1790), comes to mind to be the name to symbolize *Prosperity*, although his work and legacy are wider. Considering the social impact, the industrial development promoted the concentration of people in the cities. This created conditions for the industrial workers to realize the quality of life differences, and to unite and to demand working conditions to be improved, generating the need for social conditions to be integrated under the development equation. This was also a base that leads to recognize the importance of inequality and to promote social cohesion. Sociology, the role of society, has therefore been studied since this period, and therefore considered as the root for the *People Agenda*, first studied by Auguste Comte (1798-1857) and then followed by Émile Durkheim (1858-1917). The recognition of the call to preserve nature happens in parallel, and the beginning of this concern on the development agenda can be traced to John Muir (1838-1914) and his expression “any fool can destroy trees they cannot run away”. Today and under the SD concept, these fields of knowledge complement each other. The purpose of this association is for one to imagine what could be a consensus being reached, between the three authors, Smith, Durkheim and Muir, almost two centuries ago. This perspective also wishes to highlight the fact, that a challenge to integrate development models with different angles exists for centuries, and therefore the SD roots result from a need of aligning fields of knowledge, that can be traced far beyond World War II. Looking however for someone that approached these fronts simultaneously leads to Karl Polanyi (1886-1964), and his approach to the “fictitious commodities, labor, land, and money”

(Polanyi, 1944) as being inseparable, and for this reason, in this study considered as a predecessor to the *people, planet and prosperity* formula later adopted by UN to form the three dimensions of SD.

Development as a Positive Transformation

Development associated purely with economic growth created a general feeling against the concept, it looked as if its purpose was to serve those with the financial capacity to define the development rules. When a more human perspective was attached the perspective changed and the question about development could be raised again. How could development be wrong? Usually it is associated with growth, expansion, and progress. A transformation process is usually associated with a positive outcome. However, it may also be associated with transformation processes that harmed the planet or decreased the quality of life of communities. This raises the question of whether development is positive? This perspective allows for economic growth, and GDP increase to eventually be associated with negative development or to a negative process of transformation. *Development* can be considered positive or negative, depending on the angle of observation and the outcomes and impacts resulting from the process of transformation. SD intends to ensure that the transformation process associated with development is positive as it aims to achieve simultaneously social, environmental and economic sustainability. Throughout this research *Sustainable Development* will be considered when the three dimensions are developed in parallel, meaning that when one speaks about sustainability attached to only one of the dimensions, maybe referring to the environment, or social sustainability, or economic and financial sustainability individually, it does not mean sustainable development, as it implies that this triple approach is done simultaneously.

In this study, development will be linked to the willingness of being positive towards the future, as well as to transform past negative processes, in a way that errors from the past will be corrected. The former UN Secretary-General Ban Ki-moon, considers that “We have the technology and the knowledge to guaranty success. With the effort and dedication of all, we can be the first generation to end extreme poverty and the last to face the existing threat of climate change” (Ki-moon, 2017, p. 12). For this change to occur, new development models need to integrate social and environmental challenges, while remaining financially and economically feasible.

From Growth to Development

Amartya Sen in the 80's was already making a distinction between growth and development emphasizing the need for considering that economic growth is one aspect of economic development.

Growth is not the same thing as development and the difference between the two has been brought out by a number of recent contributions to development economics. I shall take up the complex question of the content of economic development presently. But it can scarcely be denied that economic growth is one aspect of the process of economic development. And it happens to be the aspect on which traditional development economics - rightly or wrongly - has concentrated (Sen, 1983, p. 748).

In this research and looking at a broader perspective of development, it will be defended that economic development is one of the aspects of development in general, and in particular of sustainable development. Indeed, development was mainly associated with economic growth and changing this perspective took many years and the process is still evolving. Frances Stewart describes the decades between 1950 and 1980 with a focus on economic development happening across the world (Stewart, 2018). The first decades after world war II were characterized by economic growth but this didn't mean that poverty was being tackled and therefore not all groups of the population were benefiting. The following decades from 1980 until 2000 increased the economic and financial approach to development considered by Stewart "the neoliberal years", with monetarist policies of Reagan and Thatcher changed all this; interest rates rose sharply, commodity price fell, and almost every country in Africa and Latin America found itself unable to service its debts leading 31 SSA countries and 22 Latin American countries to have IMF programs between 1980 and 1985 (Stewart, 2018), creating a dependency on development models from these countries to financial policies designed, defined and implemented in Washington. It seemed the transformation of developed countries was a way for these to grow without much consideration for the first. The debt dependency became the driver and social and environmental agendas were secondary to the first. A different situation took place in Asian countries and therefore they could design and implement their development policies, namely industrial policies described with more detail later.

Asian countries, which had not accumulated debt and were able to adopt their policies, independent of the International Financial Institutions (IFIs) – also liberalized, but they did so much more gradually, retaining a strong role for the state in guiding development and supporting industrialization (Stewart, 2018, p. 30).

The lack of financial sustainability in the Least Developed Countries (LDCs), associated with an increase in poverty and inequality lead to a growing concern on the sustainability of the development models. “Many development scholars argued for a renewed focus on a human-oriented agenda for development and the revival of economic growth to support it. Promoting economic growth for the poor became the overriding objective of the World Bank” (Stewart, 2018, p. 31). This process implied recognizing that economic indicators were not reflecting a broader concept of development that considered the social dimension. “A major contribution of the Human Development (HD) approach was to secure growing acceptance of the inadequacy of GNP per capita as the exclusive way to assess outcomes” (Stewart, 2018, p. 31).

The turn of the century and the adoption of the UN Millennium Development Goals represented a shift in development policies, namely by considering the first goal to be, to fight poverty, although kept an assistance perspective based on *aid*. Indeed, it was as if development became an agenda for people, and particularly addressing those that had been left behind. As described by Stewart the 2000+, and the MDGs in 2000 demonstrated global support for the goal of reducing poverty (Stewart, 2018).

Bill Easterly expressed that “Poverty is not about a shortness of experts but is about a shortness of rights” (Easterly, 2014) as reflected on his research on what is happening in Uganda Mubende with the IFC project reported by Oxfam (Oxfam & Zagma, 2011). His vision about the needs to go beyond technical solutions, or even his remarks about Jeffrey Sachs, show that the challenges around development are convergent, even if the strategies are different. In a way this Jeffrey Sachs - Bill Easterly dispute look like a NYC excess of comfort zone issue, but also for this reason Acemoglu, Fukuyama, Ha-Joon Chang, Mazzucato, Moyo, Tirole, Piketty, Sen, Stiglitz as well as North and Ostrom with their unique lived experience are brought in to this study so that a wider approach to the complexity of Development is observed.

Conditionality reflecting Finance for Development attitude

The consideration for this social dimension is affecting the way *Conditionality* is perceived, and can reflect as well, how SD and SDGs can impact finance for development mechanisms. Conditionality represents an exchange of finance for policy reform. Behind traditional conditionality, an orthodox economic policy known as the Washington Consensus (WC), requires borrowers to revise their development, economic and fiscal

policy according to WC. This approach had an impact on how the Multilateral Financial Institutions, such as the International Monetary Fund (IMF) and the World Bank Group (WBG), defined their development policies. An SD approach and the SDGs imply a new strategy on Finance for Development, and this represents an opportunity to revise *Conditionality* at IMF and the WBG. This should lead to review *finance for development* policies to expect that outcomes are aligned with the SDGs (Neves, 2018b). A successful development solution on this front will have a major impact, namely on SSA communities, on how International Financial Institution (IFIs) and Development Financial Institutions (DFIs) operate and relate with member states. This should as well impact on how processes involving multi-stakeholders could improve, especially considering that a new post-Washington Consensus is being studied (Lopes, 2012).

The Context Behind a New Era for Sustainable Development

If on one hand there was an economic and financial association between growth and development, a parallel perspective aligning people and planet was making its way. Indeed, the period between 1940 and 2015 can be considered as one of growing awareness, and several paradoxes were transformed into a new development paradigm. The first was the social dimension, resulting from different velocities countries were taking, namely the recent independent nations, as well as between regions in the same country, lead to an increased perception of inequality, leading to consider the social dimension as a permanent variable on any development equation. Just as urbanization during the industrial revolution made people realize social inequality, globalization is creating the same effect at continental scale. This preparation period has also shown that development considers that multiple areas are interdependent and are indivisible. This phase will also be associated with an institutional transformation-related with the enlargement of public decision-makers with a top-down perspective, to one involving multiple stakeholders, from global, regional, national, sub-national and local levels, the private sector, and the civil society giving voice to the invisible people. Considering UN, a global forum where member states and stakeholders from the respective countries meet, the perception reflects the evolution of what can be called today the *People Agenda*. This institutional transformation at UN's is described as *people count*: “no one should be invisible” in the 1940s; then in the 1950s focus of development based on growth rates; the 1960s decade of “planning”; the 1970s “human and social”, the 1980s Bretton Woods IMF and WBG; and the 1990s and

2000s rediscovering the human and social agenda; “good life for human beings as the purpose of development” (Stewart, 2018, p. 23).

Creating Room for Environment to be part of the Development Agenda

This perspective shows the people agenda pushing the development agenda to open its initial dimension to the planet one, but indeed, the social and environmental agenda, pushed each other into a broader development concept. Considering a geometric vision, the goal went from finding a balance on a line with two variables, people and prosperity, and another line with planet and prosperity, to arrive at a triangle, and, geometrically instead of finding a balance on a straight line with two points, it became a challenge of finding a balance on a plan, with three points forming a triangle.

Looking for a formal year 1972 can be considered the year to see the Environmental Agenda being formally integrated at the development agenda. The milestone is associated with the UN conference in Stockholm on Human Environment (UNCHE, 1972), and there was a need to coordinate the human interaction with the environment. Stockholm Conference was the beginning of the environmental movement at global scale, whether it's Greenpeace, Friends of the Earth, Earth Day, UNEP, US EPA, and other EPAs, as well as startup of environment ministers in government, and environmental journalism; it all started around the same time as the conference (Ward & Dubos, 1972).

The Difference between Sustainability and Sustainable Development

Although the importance environment and climate change have on development is not questioned, it is, however, important to separate approaches that mainly focused on the trade-off between environmental protection and economic growth. Looking at the usual triangle associated with SD, one important question is to ask those debating the development model where would a “*point*” be placed to describe the current location of the “*as-is*” status.

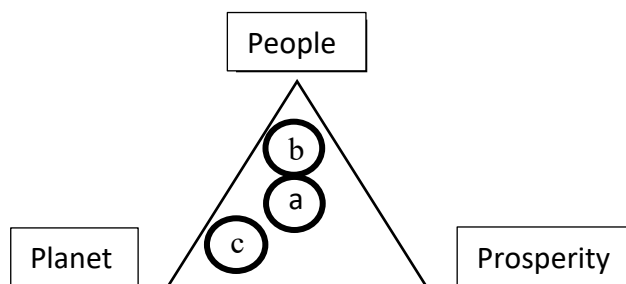


Figure 6 Positioning the “as-is” status at SD triangle

If there was a balance between the three dimensions the point would be in the center, position “a”, if the main concern would be poverty the point would be close to the people angle “b”, if the concern would be the environment would be located near the planet angle “c”.

From experience, people from North-Atlantic countries when referring to their nations, place this point close to the planet angle, as people from LDCs place this point on the people corner. An example is the analysis made by Portney at the initial definition of SD at the Brundtland report *Our Common Future*, as he describes that this “report put forth the very general notion that SD consists of economic-development activity ”that “meets the needs of the present without compromising the ability of future generations to meet their own needs”. This author refers systematically the term *Sustainable Economic Development*, and through his book *Sustainability* (Portney, 2015) his main concern is about the depletion of natural resources. Looking for example at “The Earth Brokers” (Chatterjee, Pratap; Finger, 1994) some years ago, this perception was already perceived. *Green Economy, National Policies on Sustainability*, are all important notions that are important to be addressed today, but they look at SD as if rather than being a triangle, it is a line with two dimensions being economics and environment. Independently from the recognized importance economics has on development, as well as the challenge of finding a balance between economic growth, and planet protection, in this study priority will be given to an indivisible approach integrating the social dimension. For this reason, the

term *sustainability* will be used when two dimensions are considered, reserving SD for a three-dimensional approach.

Authors and Events that Triggered the Sustainable Development Agenda

The SD innovation factor does not come from having a new dimension on development, but rather by the way the three dimensions are indivisible and complement each other, although may competition among them exists. Among the books and events that can be considered symbols and are usually related with the origin of SD and, looking at *Development* as the challenge that combine *People, Planet, and Prosperity*, an immediate relation can be made with *labour, land, and money*, from *The Great Transformation*, by Karl Polanyi. His approach to the indivisibility is admirable, as the triangle can be perceived in his words.

What we call land is an element of nature inextricably interwoven with man's institutions. To isolate it and form a market for it was perhaps the weirdest of all undertakings of our ancestors. Traditionally, land and labor are not separated; labor forms part of life, land remains part of nature, life and nature form an articulated whole (Polanyi, 1944, p. 187).

From a more only apparent bidimensional approach, Rachel Carson's book *Silent Spring* published in 1962, related how human action through the use of pesticides, could harm nature and humans (Carson, 1962). This raised the issue around industrial transformation, waste management, the impact on the environment and the life of communities. A similar impact, but this time related with the reproduction of the human species, is associated with the article of Garrett Hardin, published in 1968, *The Tragedy of the Commons*, (Hardin, 1968) where the demographic challenge is approached "Freedom to breed will bring ruin to all". *The Limits to Growth* by Donella Meadows, Dennis Meadows, Jorgen Randers, and William Behrens III, published in 1972, supported by the Club of Rome and the Volkswagen Foundation, report a computer simulation of economic and population growth associated with finite supply of resources (Meadows, Donella ; Meadows, Dennis; Randers, Jorgen; Behrens III, 1972). These books can be seen as milestones on the sustainable development history where alert flags were raised, stating that environment and the quality of life of communities needed to be considered as part of the economic growth process and therefore of economic development. If initially this approach looks for a compromise between nature and prosperity, the human dimension is also there although not from the poverty angle, but there once the purpose is the preservation of human species in the planet.

Below a vertical timeline with the dates of the above-mentioned books, article, and events:

1944 The Great Transformation _ Karl Polanyi
1962 Silent Spring _ Rachel Carson
1968 Tragedy of the Commons _ Garrett Hardin
1972 Club of Rome's Limits to Growth report
1972 UN Stockholm Only One Earth UNCHE Conference on Human Environment
1987 UN Oslo Our Common Future WCED World Comm. Environment & Development
1992 UN Rio Earth Summit _ Agenda 21 UNCED Conf. Environment & Development
2002 UN Johannesburg (Rio+10) WSSD World Summit on Sustainable Development
2012 UN Rio The Future We Want (Rio+20) UNCSD Conf. Sustainable Development
2015 UN NYC Transforming Our World UN Agenda 2030 SDGs

The environmental agenda has triggered the SD agenda, and with it has leveraged the social agenda as well. It is as if a *Beyond GDP Agenda for Development* has gotten support from the environmental dimension and this implicitly brought in the human perspective. The initial conflict between planet and prosperity, as well as between people and prosperity, was being transformed into a need of finding a common ground, a balance or simply a new paradigm for development.

2.1.2 Creating a Global Agenda for Sustainable Development

To analyze and grasp the context under which SD was formed, and how the concept got traction in a way that originated a global agenda for development, becomes simpler when looking at what happened at UN, as a global forum where people discussed initially peace as a way to prevent war, and then realized that peace required development. This balance has been creating greater scale for the development agenda, namely as way to prevent conflicts, as well as way to recover from human as well as natural destruction. To visualize, if a world organization chart would be drawn, one would find the International Monetary Fund (IMF) as being the Ministry of Finance, the World Bank as the Ministry of Economy, and the UN would be the Council of Ministers, where global development strategies are discussed and approved. By looking at the agenda and the reports of what is being discussed at these meetings, is possible to follow the evolution of what has been happening. Linner and Selin on their paper "The UN Conference on Sustainable Development: forty years in

the making” (Linner & Selin, 2013), highlight some important notes on the UN role, outputs, and outcomes, that may not be evident immediately but that have affected the *Global Development Policy*. This reflects the social environment, the ambition, the challenges, and the evaluation that is lived during the UN conferences. Topics comprehend the institutional challenge, the environmental neo-colonialism, the private sector participation and the evaluation of the process in the last decades. UN conferences are indeed a platform for framing problems; formulate informal new rules; support the creation of new organizations with the ability to influence political agendas; and design solutions to take them forward is probably the most general and ever-present feeling. Another key aspect of these events and the work that follows is the will, and, need to test “*institutional design issues*” that become simultaneously central and controversial as they impact directly on the way governance should be structured, decisions taken, where this should happen, and who is involved.

An aspect identified from their analyses, often not recognized by developed countries is the challenge associated with the *green agenda*, that for years was considered as a door to promote *environmental neo-colonialism*. “China and other developing countries feared that too stringent green economy language and mandates would restrict the rights of developing countries to choose their own development models and targets” (Linner & Selin, 2013, p. 979). Other countries considered that this was a strategy to promote a new type of colonialism, threatening to boycott the Stockholm Conference. On the other end, this *green agenda* was the base for creating environmental ministries across central administration governments, and therefore creating environmental policies.

The involvement of private sector as key stakeholder to address, and to partner with in development policies is another aspect described by Linner and Sellin and it has two angles. On one side the role PPPs could play, since the World Summit for Sustainable Development in Johannesburg (United Nations WSSD, 2002), increased attention has been paid to the role of PPPs; and the role of private funds, meaning that not only the private sector is a development partner but it is expected that acts as a capital provider, as proponents of partnerships hope that more private funds will complement public financing. It is however clear that involving the private sector in Development Policies shall not distract from the social and environmental agendas. Also for Bierman a clear landmark of Rio +20 is connected with the role that partnerships in general, Civil Society

Organizations (CSOs) and private sector should play on development policies and institutions (Biermann, 2013).

It was clear the need to look beyond GDP and therefore to go above an economic approach to development, as it was reinforced in Rio 2012 where the dominance of GDP as a measure of SD was questioned. This process of changing from an economic growth focus to one where the social and environmental dimensions are being brought in, is also evaluated and it recognizes that it is not to all good, nor all bad, and that is key to look for a new attitude of global governance. “The world is both a much better and a much worse place today than in 1972. Many global ecological trends are negative, including growing greenhouse gas emissions, continuing biodiversity loss, declining fish stocks, and higher waste levels. At the same time, there have been steep reductions in emissions of ozone-depleting substances and levels of oil pollution at sea” (Linner & Selin, 2013, p. 983).

Regarding human indicators, there is also a mix of signs, “more people live longer, are healthier and better educated, and have greater access to basic goods and services than they did forty years ago” (UNDP, 2010). On the other end, urban development shows “the number of people living in slums continues to grow, and over 600 million people lack access to safe drinking water and basic sanitation” (Linner & Selin, 2013, p. 983).

The UN SDGs Timeline

The concept leading to Sustainable Development has its roots attached to multiple sources, but the fact that became a recurrent topic at UN, leveraged its attention to a global level, and it is fact that it raised its spirit and expectations to the current position. It seems fair to consider that the SD concept was upgraded by the UN, but in return, the UN, its spirit, its agenda, its purpose, and therefore the attitude of its people were also upgraded by the SDGs.

Today, some people question the *sudden* appearance of the SDGs, as if it happened since 2015, indeed, the process can be traced to 1972, and even 2015 is composed by three separate moments that position the UN SD Agenda, as well as it prepares its implementation namely at cities level.

This perspective is reflected in the timeline bellow that represents decades of global development mind shifting.

1972 _ UN Conference on Human Environment (UNCHE) _ “Only One Earth”

Can be considered as the first milestone in UN timeline involving the Planet Agenda, when the, (Nations Conference on the Human Environment, 1972) took place in Stockholm at the initiative of the Government of Sweden to host it, to have a conference on human interactions with the environment.

1987 _ World Commission on Environment and Development (WCED) _ “Our Common Future” Is the next major milestone when in Oslo the presented the Brundtland Report also known as *Our Common Future*, creating the most current used definition of SD:

Sustainable development can be classified as development that meets the needs of the present without compromising the ability of future generations. (United Nations WCED, 1987, p. 41)

Key ideas relating to SD with an intrinsic relationship between people, resources, environment, and development, were formally addressed and can be considered as the initial formal base for the SDGs (United Nations WCED, 1987).

1992 _ UN Conference on Environment and Development (UNCED) _ “Agenda 21”

Represent the need to study further, the concept bridging Environment and Development. This is associated with the first UN conference on Environment and Development that took place in Rio, with the name Earth Summit producing the Agenda 21 (United Nations CSD, 1992).

2002 _ UN World Summit for Sustainable Development (UN WSSD) _ “Rio+10”

10 years after Rio 1992 a second Earth Summit took, also called Rio+10 although it took place in Johannesburg (United Nations WSSD, 2002).

2012 _ UN Conference on Sustainable Development (UNCSD) _ “The Future We Want”

A third Earth Summit, returned to Rio 20 years after Agenda 21, also known as Rio+20 (United Nations, 2012).

Beyond the Millennium Development Goals

Although the SDGs are formally the continuation of the Millennium Development Goals (MDGs), some major differences shall be noticed. The first being that the new goals address

all countries, instead of targeting the developing countries and LDCs. This clears the North-South, rich-poor approach, also brings in the cities and with it, the sub-national level of government. Another key difference is the role given to the private sector and the role partnerships gained to achieve the goals. The “table” set for 2015 was very different as along with ALL member states with an explicit equal status, (not separated by donors and recipients), mayors, civil society and the private sector all had their seats. If on one side this represents a major institutional change on the other side, represents that Development is no longer an agenda to discussed by central governments alone, everyone is needed. For these reasons, the year of 2015 can be considered a milestone year, but also a turning point for *Sustainable Development*. SD grew from being a parallel development vector to assume its leadership.

2015 July _ UN Addis Ababa Action Agenda _ Finance for Development

Addis Ababa conference can be seen today as a way to pre-answer an obvious question that would be raised later in September, as the SDGs, the UN agenda for 2030 implied a request for financing and funding at an unprecedented level. As a growing financial gap for development was acknowledged, and as an integrated approach to development is not complete without discussing a financial framework, the inclusion of the Addis Ababa Action Agenda (AAAA) is essential. Without it, the Sustainable Development Goals would not be an implementable agenda. The financial resources issue is critical to the initial concept of SD. AAAA connects the dots between finance, sustainable development with its three dimensions and partnerships. “Affirm our strong political commitment to address the challenges of financing and creating an enabling environment at all levels for sustainable development in the spirit of global partnership and solidarity” (United Nations AAAA, 2015, p. 6).

The transformation described by the 17 goals and its 169 targets requires an investment on an unprecedented scale, representing amounts of capital to finance that is not compatible with the public finance alone. Indeed, financing the SDGs is the initial challenge but more important is to fund or to pay for the investments. This double challenge of financing, as the process of raising capital to invest, and of funding, knowing whether the cost will be supported by taxpayers or by the customers, imply a new approach to development and to the way public sector development players interact with the private sector and the civil society. This conference can, therefore, be seen as the moment where this question was

addressed, allowing time to discuss it before the presentation of the Goals. This can be seen as the base to ensure that the debate and strategies for the financial foundations had been considered and therefore, this argument would not be an obstacle to have the SDGs approved later this year. In parallel and by addressing the financing and funding challenges, the challenge of having private sector participation, addressing a public development agenda for the globe was natural, as it was necessary to ensure the economic sustainability of the SDGs. AAAA can, therefore, be seen as the economic and the underground base, often not seen, that allowed the SDGs to have the level of ambition presented in New York City later the same year.

2015 September _ Transforming Our World _ The Sustainable Development Goals

Three months after approving the AAAA, the United Nations approves the UN 2030 agenda, and the SDGs. The text below shows the ambition from all UN member states, reflecting again the need for global cooperation, for ethical and environmental reasons, but also economic, financial and political ones as well.

Transforming Our World _ The UN 2030 Agenda for Sustainable Development

This Agenda is a plan of action for people, planet and prosperity. It also seeks to strengthen universal peace in larger freedom. We recognize that eradicating poverty in all its forms and dimensions, including extreme poverty, is the greatest challenge and an indispensable requirement for sustainable development.

All countries and stakeholders, acting in collaborative partnerships, will implement this plan. We are resolved to free the human race from the tyranny of poverty and want to heal and secure our planet. We are determined to take bold and transformative steps that are urgently needed to a sustainable and resilient path. As we embark on this collective journey, we pledge that No One Is Left Behind.

The 17 Sustainable Development Goals and 169 targets which we are announcing today demonstrate the scale and ambition of this new universal Agenda. They seek to build on the Millennium Development Goals and complete what they did not achieve. They seek to realize the human rights of all and to achieve gender equality and the empowerment of all women and girls. They are integrated and indivisible and balance the three dimensions of sustainable development: the economic, social and environmental.

UN HQ NYC September 25th, 2015” (United Nations SDGs, 2015, p. 1)

The preamble touches ten key messages for a new development agenda, formalizing and recognizing sustainable development, and, transforming it into the basis for an action plan:

1. The agenda is a call for action, representing the urgent desire for implementation;
2. Seeks to strengthen universal peace;
3. Recognizes the three dimensions of development and associates them with 3Ps;
4. Out of the People agenda eradicating Poverty is the greatest challenge of all;
5. Recall that SD is about ALL of us, that no one can be left behind;
6. Reinforce empowerment of women and girls;
7. The need to heal and protect the planet;
8. A collaborative partnership between countries and stakeholders is needed;
9. The need to be creative and innovative, and to urgently take bold steps;
10. They are integrated and indivisible and balance the e dimensions of SD.

Although not expressed with item numbers the message is clear and can be seen as a clarification, broadening the SD definition created in 1987, 28 years before 2015. It is of paramount importance to realize that if the initial definition, gave the idea that if needs of the present should not compromise future generations, it could suggest that the social perspective was included, but it did not specify the concept of leaving any one behind. This is indeed new, SD cannot be considered as a balance between Sustainable Economic Development and Environment as described on Sustainability (Portney, 2015), after the SDGs, the People agenda not only is there, but is the first one to be considered on Development equations, and leaving no one behind became a mandatory variable with the social chapter. The SDGs formalize SD with these three dimensions, and lay out the guiding principles to achieve goals by 2030, giving each nation and city flexibility to localize them. As it will be seen later, critics are abundant, but the fact that all UN member states agreed and the growing adherence from most stakeholders on any field, sector, geography, religion to the concept represents the willingness to have a common ground as well as the need to have a common language about development.

If the SDGs are an important contribution to the member states, and to all stakeholders, they are as well key for the UN to reposition itself globally. A new alignment was created, a new code, a new way to communicate, to interact, if an image would be drawn, there could be seen a valley with countries, nations, regions, and cities with needs and ambitions on one side and on the opposite side of the valley stakeholders with resources willing to use them and a bridge was missing to connect the two. The SDGs it is not the bridge, but the pillar that offers its support

Just as the Addis Ababa conference prepared the financial agenda for the SDGs, the idea was to go one step further on the Planet Agenda with COP XXI to be realized later this year.

2015 December _ The Paris Agreement _ COP 21

The fact that not all member states signed The Paris Agreement, at the 21st Conference of the Parties (COP 21), on December 12th, 2015, does represent that an overall approach on development didn't mean that the same type of agreement could be reached at the environmental level. However, the document signed at COP21 reinforces the spirit of interdependence between environment with economic and social development, and the impact climate change has poverty eradication (United Nations, 2015). This third agreement closes the 2015 cycle of what could be called the start of a *New Development Paradigm* as well as a *New Development Language*.

Considering the process at a sub-national level of government, a fourth event was the Conference on Housing and Sustainable Urban Development (UN Habitat III, 2016) that took place in Quito, Ecuador on 20 October 2016, and where the New Urban Agenda was adopted, and that can be seen as a localization of the SDGs from a City and Local Administration perspective.

SDGs are “GLocal”, adding Cities, Institutions, the Civil Society and the Private Sector

The SDGs are a unique milestone on the *Development* timeline for several reasons, have formalized the *environment* to be also at the top of the UN agenda, as well as have defined that fighting poverty means leaving no one behind, it is not just about statistics but about including the *most vulnerable People* globally on development model equations. The MDGs were designed with a particular focus on fighting poverty, the SDGs expanded the SD concept to become a global agenda. Also, by having a specific Goal 11 attached to the development of Cities and metropolitan areas, bringing the Mayors to the Palace of Nations, and therefore comparing and treating them as Heads of State. It also broke the taboo about public investment capacity, bluntly explaining that the investment needed to face the *people and planet agendas* could not be covered by public budget alone. Again, this represents a change of paradigm having the Private Sector decision-makers at the Nations table.

This new approach on finance for development, implies a new type of institutional innovation, and is probably, one of the biggest challenges within public investment managers. Moreover, public officials used to manage financially the cost line on budgets have today to think simultaneously, top and bottom line. Also, not having a public budget able to cope with the necessary investment, have to consider the adoption of a partnership approach.

SDGs as a Blueprint to Achieve a Better and More Sustainable Future for All

The fact that the SDGs were approved by all UN member states, implies that all governments have adopted SD as a guiding principle. Therefore, national development plans should, explicitly or implicitly, include the SDGs as a Blueprint to achieve a better and more sustainable future for all. This perspective includes the legacy of the MDGs that has raised a clear agenda to fight poverty, the financial ground created by the Addis Ababa Action Agenda and the environmental challenge addressed, and to be continued by the Paris Agreement. Besides these key complementary documents created in 2015, as mentioned above, it is important to highlight the New Urban Agenda NUA (United Nations Habitat III, 2017) that has adopted this form and adjusted to urban development policies. All UN agencies have done so as the UN-Habitat has embraced the SDGs as a *new development language*. The number of sub-national governments and municipalities that have taken the SDGs as a way to act and as a new development language, and events to have the local governments at the UN table grows every day.

Localizing the SDGs

This process of adopting the SDGs as a local government development language is now being called *Localizing the SDGs* (United Nations, 2017). This process initially used by municipalities is now also being adopted by the private sector, which is also adopting the SDGs as part of their corporate development strategies. This can be seen in how some of the main advisory firms have now created a product for corporations to adopt and report on SDGs (KPMG, 2017). My current experience associated with *Localizing SDGs* in cities that range from Grodno in Belarus, NurSultan in Kazakhstan, Butuan in the Philippines, Shiwa in Japan, Lilongwe in Malawi, Cascais in Portugal confirm the interest to combine development policy with social and environmental impact, macro with microeconomics and innovative financing involving partnerships while *leaving no one behind*. These processes lead to *Institutional Innovation* discussed in the next section. Indeed, this is now

also taking place with projects involving private sector companies such as BP, Galp, Grupo José de Mello, Schröder Hyperion that are using the SDGs to prepare the future by re-localizing their position in the market. For all these reasons it is fair to say that the SDGs spirit has spilled over from national development policies, or even better, are becoming of the national development policies from within.

2.1.3 Challenges to Implement SD and Achieve the SDGs

Today four years have gone by since the approval of the SDGs and the challenges even if different remain. The SD concept is becoming familiar as more people discuss it, study it, and the process of localizing the SDGs is happening geographically and per sector. It is fairly easy to accept that transformation should consider economic and financial sustainability, to have a social agenda and to ensure that the planet is being protected. The challenge is therefore not so much about the concept but much more about implementation. The process grew from *what are the SDGs?* to *how to implement the SDGs?*

The importance given since the beginning of the implementation challenge is clear when looking at Mahmoud Mohieldin Corporate Secretary and President's Special Envoy of WBG President, concluding remarks at UNECE conference at the Palais des Nations made already in 2015.

Successful implementation of the SDGs is the world's best opportunity to end poverty and protect the planet while leaving no-one behind and for that unlocking the economic potential for Sustainable Development, requiring three transformative shifts: i) its financing requires private sector participation on an unprecedented scale; ii) it needs the generation and use of data to inform policy and measure the results; and iii) involves integrated and cross-sectoral approaches to implementation across all sectors and agencies (Mohieldin, 2015).

A key element from the SDGs, is the willingness to quantify development and to establish KPIs to each of the goals, the scale of numerical regime envisaged in the SDGs is unprecedented. This is also reflected by Morgan and Bach when they mention the importance of pushing agenda bottom-up by using accountability regimes that consider the transformation process. "It is not just that indicator numbers enable the public and journalists to access the information but that the public display of such numbers is designed to push the agenda from a top-down accountability regime to a bottom-up one" (Morgan &

Bach, 2018, p. 208). This bottom accountability is certainly the ambition of *The World That Counts*.

Besides the integration of the environment as a permanent variable on economic development, economic and financial sustainability are also to be integrated on development models particularly when considering a *post aid* agenda. The main focus will be on transformation processes that contribute to improving the life of communities, that protect the planet and that is economic and financially feasible. The focus will be given on how these vectors interact and how a development policy, investment program, or transformational project can combine simultaneously these three vectors, with a perspective of integration rather than justifying its complexity or impossibility. This process requires the interpretation of data that goes beyond a financial and economical interpretation. It asks now to integrate job creation, and it demands employment for all name for the youth and for those that require training and updating their skills to the new digital age, require integrating those with disabilities and the impact on eradicating poverty, as well as to find new ways to balance wealth distribution among the workforce. It needs a new approach towards man-made objects and processes, such as going beyond the way solid waste is treated, as “circular economy cannot be limited to simple procedures of reduction, reuse, and recycling” (Cardoso, 2018, p. 3).

Looking at the goals individually, it also means that rather than focusing on one sector alone such as energy or water, implementation shall link these areas with social infrastructure such as health and education. And this perspective of improving public services and developing the necessary respective assets, such as power and water treatment plants, hospitals and schools shall consider the impact on climate change, on ocean and land in a way that the human footprint will be reduced. When this analysis is done with a group involving social and environment specialists the equation although more complex doesn't lose any of its original logic, certainly allows for other bottom lines to be considered and interpreted. This is probably the most interesting challenge of SD, the fact that it requires a multidisciplinary team to write, analyse and implement development equations.

SDGs a New Language to Equate and Solve Development Equations

To face these challenges normal silo approach either by sector or by region, is no longer possible and changing it to a holistic approach although evident represents institutional innovation at a level that is not common. A multisector integrated approach is needed,

considering social issues such as local job creation with a gender equality perspective, with the reduction of solid and liquid and reduction of CO2 emissions. It also involves an integration between policies and project implementation, with new management processes that besides breaking the vertical knowledge silos also promote clear and sound communication between different levels of decision making. The SDGs can, therefore, be seen as guiding toolbox where transformation processes are inspired. “The SDGs should be the compass, the north pole for the future development of the planet between 2015 and the mid of the century” (Sachs, 2015, p. 14).

In parallel sublevels have to be created to address challenges in each front, an example is the distribution of wellbeing under the social agenda.

...there are at least five problems related with the distribution of wellbeing: extreme poverty (very poor people surrounded by abundance), inequality (differences between rich and poor are very big), social mobility (too big obstacles to grow), discrimination (identity issues for women, races, religious minorities) and social cohesion (lack of trust, animosity, cynicism, absence of moral codes) (Sachs, 2015, p. 22).

This brings the people agenda to go beyond a simple GDP approach and to look for a GDP per capita one. These challenges require a mind shift on the way development is understood, how the game of development is perceived, how equations and rules are written and, above all, the attitude of players towards cooperation to play the game and to do so in a way the outcomes are positive.

2.1.4 Critics to Sustainable Development and Sustainable Development Goals

The SDGs were still being discussed and the arguments against it grew in number and type. Some critics relate with the concept of Development, others with the oxymoron (Brand, 2012) of SD, others with the number of Goals, and with the process. Sustainable Development critics started after the Brundtland report, and the SDGs critics started in 2014 as the first draft was shared.

Critics on Sustainable Development

Although some critics on SD can be considered outdated as political support has been gathered to transform SD as the base of a global political agenda, the great majority remains valid and can be used to challenge and enhance improvements on development models.

When looking at the critics presented by Lippert from BT Universität Brandenburg in Germany it is perceived his scepticism towards the ability to consider today what the future needs will be, as well as the belief that technology will be able to provide eco-solutions, or even the capacity to find the resources required, or the expertise to create the necessary political ecosystem to create the necessary change (Lippert, 2004).

Lélé, from UC Berkeley in the US, already in 1991 questioned the capacity of making politicians understand and be mobilized for an SD agenda. He also challenged the ability of linking economic growth to fight poverty, and from this point the need to realign economic theory and practice to confront environmental protection and distributional issues. It also raised the need to consider the impact of technology, culture to development, and from here the need to understand the several dimensions of sustainability namely its principles, measures, and criteria. Lélé raised the attention to explore the patterns and levels of resources required and link them with notions of equity and social justice (Lélé, 1991).

A different type of critics is exploited by the platform planetary project. Here the term itself is considered incorrect as it contains an internal logical contradiction. It is also considered that the term is only referring to the environmental context, and at the same too vague allowing multiple definitions. One important critic is the fact that considers the term elitist and not covering everyone, allowing several interpretations from different geographies and social groups (Planetary, 2018).

Critics on Sustainable Development Goals

While the criticism on SD was mainly about the concept, the critics about the SDGs, reflect the implementation challenge and were done after 2015, and, therefore addressing the UN 2030 agenda.

Hickel from LSE in 2015, considers the SDGs financially unfeasible *at \$2-3 trillion per year*, expecting 7% GDP growth from LDCs, not considering the correct value for poverty definition, still too much attached with GDP growth and covering too much ground. He recognizes the fact that the SDGs were developed bottom-up approach, have emerged from

voices of developing countries, unlike the MDGs handed down by technocrats with a top down one, although it is not obvious this is a strength. Considers they require deep structural changes and need to address more fairness, equality, and wellbeing. Hickel also considers SDGs to be Blue Washing (Hickel, 2015).

Pogge from Yale in 2016, considers the SDGs to be a statement of aspirations as they fail to reflect the causes of poverty. He also considers that the level of structural reforms, as well as the required level of monitoring, is not existing, and the degree of clearness about the steps needed for implementation have not been addressed enough (Pogge, 2016).

Federico Demaria and Ashish Kothari Kalpavriksh, respectively from Universitat Autònoma de Barcelona, and ICCA Consortium, consider the history and structure of poverty are absent, the biophysical limits to economic growth have not been recognized, the subservience to private capital and the consumerism have not been tackled, the direct democratic governance has not been correctly looked at, and global governance is absent (Demaria & Kothari, 2017).

Kumar from WEF in 2017, describes an evolution of the perception of the SDGs from 2015 when they were created and 2017. While at the beginning he considered the whole SDGs to be a too complex and fruitless exercise, and the community would not pay enough attention as it would be hard to create accountability around them, he recognizes that he changed his mind two years later. On one hand, complexity could be a good thing, and companies liked to work against metrics. He also recognizes great merit in achieving a consensus between 193 UN member states, and to create an agenda that go beyond donors and recipients, where leaders become accountable. Kumar also recognizes that it was difficult to tie together so many different ideas, and above all highlights the fact that only through partnerships all questions addressed can be solved. But in 2017 he revised his position and three main ideas can be identified: Private Sector is ready to work in a complex but structured way; Development goes *Beyond Aid* with Donors and Recipients and makes leaders accountable; the challenge can only be solved through Partnerships that integrate the concept of *leaving no one behind* (Kumar, 2017).

Alternative Solutions to Implement Sustainable Development and Green Economy

Khotari, Demaria, and Acosta, describe alternatives to sustainable development and the Green Economy, criticize the SDGs, and explore three other ways:

Degrowth, uses the hypothesis that “we can live well with less, and in common and calls for a rejection of the obsession with economic growth as a panacea for the solution of all problems” (Khotari, Demaria, & Acosta, 2015, p. 369). Curiously they alert to an almost immediate confusion of recession with this concept: “It should not be interpreted in its literal meaning (decrease of GDP) because that phenomenon, already has a name, it is called “recession” (Khotari et al., 2015, p. 368).

Buen Vivir is a life culture originally from Latin America associated with the philosophy of indigenous communities, that opposes the concept of never-ending accumulation, proposing a return to this type of civilization.

Ecological Swaraj, meaning ecological autonomy, puts collectives and communities at the centre of governance and the economy; and is an approach coming to the Indian sub-continent based on real-life initiatives.

These critics can be divided into three different groups, the first refers to critics to the SD concept before 2015 and refer essentially to the challenges of predicting future needs, the ability to have technology supporting and answer to eco-solutions, the scepticism of creating political context, and the correctness of the term, then a second group already critics the SDGs and address issues such as financial feasibility, not addressing the poverty and social difficulties with the degree required, and again the challenge of institutions strong enough to support the required structural changes. The third group refers to alternatives to SD through different *geometries* but again do not question the need of aligning the three dimensions composed by the 3Ps agendas.

These three groups recognize however the importance to align economic, environmental and social agendas, although they reinforce the need to develop stronger institutions. Another comment usually made to the SDGs is the request to add a clear dimension associated with culture, once its impact on community development is very significant. However, and as it was recognized probably the most important characteristic of the SDGs, is that they have been defined and everyone can address them. It is also fair to recognize that certain targets overlap each other (UNStats, 2017) and again the degree of imperfection also here needs to be accepted, and to consider that this framework is currently being evaluated and improved.

The overall criticism does not question the desire or the concept but the way the process will progress. It is interesting the position taken by Kumar that has evolved and ends up

recognizing that although the challenge remains the initiative is creating workable outcomes and generating positive impact. Indeed and considering that the SDGs have added a fourth dimension to promote stronger institutions and a fifth dimension to align SD players, it can be considered that all these critics are indeed very positive for the implementation phase of the SDGs as from their scepticism and critics the obstacles ahead can be better identified and dealt with and therefore be a base for inspiration for development models in many geographies and contexts.

2.2 Institutions as The Rules of the Game

To bridge the players with the rules of the game, a sequence was organized that follows the importance of institutions based on Douglass North, how he brought to us the challenge of cooperation, the human factor associated with motivation, the question of enforcement and how institutions shape the economy. Then with Jean Tirole, the approach to the economy as not being an end in itself, the search for the Common Good and its link with dignity and how market and state are necessary for development. Fukuyama brings the view associated with the roles of governments and institutions, the public good and the public sector, the management of externalities and asymmetric information and then with dignity and identity. Ha-Joon Chang adds the development angle associated with the broad industrial policy perspective and the disruption from the North-Atlantic paradigm of development, the concepts of good enough solutions and islands of competence, and the multi-disciplinary of development decision-makers in Japan, Korea, and China. Following the disruption of North-Atlantic development models, and, from Dambisa Moyo, the *post aid* agenda standpoint associated with innovation and a positive environment to attract foreign direct investment (FDI). This ends with Elinor Ostrom and how she showed that institutional innovation associated with Common Pool Resources (CPR) and empirical knowledge from case studies can be a base to new development models that break away not from traditional, either public or private solutions.

2.2.1 Development Requires Institutions

Looking at Institutional Development, the rules involve understand the history, the culture, the local context and informal norms of behaviour, therefore people-centric, bringing the social dimension to SD.

Institutional development is a complex matter. It is embedded in a country's history and culture and involves the linkages between formal and informal rules of behaviour. However, experience-based knowledge about how to successfully support processes of institutional change is still limited. Institutions – formal and informal rules within which humans and organizations interact and perform – are key to sustainable development (Bergstrom, 2006, p. 5).

When looking at Institutional Economics one finds an immediate relation between rules and transactions, with risk, and, consequently with value, as expressed by Groenewegen, Spithoven & Van der Berg. “Institutions include all kinds of social rules and accompanying sanctions that make the economic interaction less risky and more predictable, to smooth transactions and increase welfare. Institutions are rules that facilitate transactions” (Groenewegen, Spithoven, & Van der Berg, 2010, p. 13).

These difference on how institutions are perceived between economics and development send us back to the question raised in the first chapter, to consider whether economics is focused on value and development on people?

This double perspective of institutions indeed complements each other and, reinforce the need to understand and improve the relationship between different parties. This is important on a globalized world and is an evidence for all development practitioners directly involved with the civil society, governments and the private sector, indeed the *Players of the Game*.

The purpose of this section is to bridge the *game* with the *players* through *rules*. This exploratory phase is about designing development models qualitative equations and the space the *rules of the game* can take in it. Achieving the SDGs cannot be studied without analysing the context, the way societies and communities are organized. SD concept asks to combine the 3Ps, but the way to apply them through institutional design is currently the main challenge.

Institutions should assist us to answer development questions such as: Why do some nations develop faster than others? Why do slowdowns happen? What is the environmental price in development? Why don't *All* benefit from development in a balanced way?

For this reason, the role of institutions and the evaluation of institutional performance, has been considered vital to understand and study the answer to these questions. Comprehending what is in between the lines, how the nations identify themselves and comprehend their social ecosystem, what are the ambitions of the people, is of primary importance, and institutions will be considered as a way to interpret, but also to provide the knowledge to eventually change the way relations occur and, generate new ways of interacting. This will mean that institutions in this study will have a broad approach to institutionalism concept connecting economics with other social sciences as described by Rutherford, “this discussion has reconnected economics with literature in sociology and political science” (Rutherford, 2001, p. 188). It is not only about formal rules and informal norms, governance structures and social networks, their interaction is very important.

How institutions have matured and the impact they are having on political economy and development. This perception that economics have to go beyond utility function, that needs to add transaction costs to production costs, that living ecosystems are neither static nor frictionless are key to address the challenge behind development models. The human dimension, and dignity, attached to sociology, psychology, and anthropology; the cultural, the motivation factors need to be appointed for one to perceive why decisions were taken in a certain way, and how likely they will affect future decisions. Institutions in this study can be seen as the immaterial link that connects the three dimensions of SD, *people, planet and prosperity*, and, the three parties behind PPPs, the public and private sectors and the civil society.

Bringing Institutions to the Economic Dimension

Previously it was observed how development today has evolved from an economic dimension attached with economic growth to one where the collective human dimension is added. By looking back, seems that at a certain time, this approach had gotten its independent path forgetting that the purpose to grow was to improve quality of life to *All* humans, and not just a group that had reached the capacity of maximizing its wellbeing. Whether institutions are more or less part of economics, certainly are a vital

element of development and particularly of SD. Chavance highlights the importance of this relation between institutions and economics, adding other disciples of social sciences.

Institutional economics can be regarded as a family of theories that share the thesis that “institutions matter” in the study of economics, that they even constitute an essential subject of reflection. This family is therefore distinct from theories in which economics as a discipline does not have to take account of institutions, on the grounds that these fall under disciplines such as political science, sociology or history (Chavance, 2009, p. 1).

Either because it was ethical to share the benefits of economic growth, or because growth itself could increase more if *All* would be involved and benefiting from it, development crossed the border of GDP and entered into a new geometry of GDP per capita. An evolution occurs from a *development growth model*, to one based on *growth and distribute*. As the African proverb describes “if you want to go fast go alone if you want to go far go together”. SD became a challenge of *togetherness* where the ones in the front, have to look to the ones behind, and, have to find a way with a minimum degree of alignment. The *butcher* can no longer think about its wellbeing but has to consider also the quality of life of its neighbour.

Bringing the Environment Dimension to the Institutions

This phase of going together has in it-self two challenges, the first being, the fact that the economy became global and therefore *togetherness*, is no longer about the neighbour next door or in the next country, but it is about the country in the next continent. This *global togetherness* is far from being solved and if one thing has been proven in the last decades is that simple extrapolation of social-economic development models from the North-Atlantic do not apply, and, other factors have to be taken into consideration.

The second challenge comes from the fact that the planet was perceived as a body with infinite resources, and with an infinite capacity of regenerating the outputs of the products and processes, normally associated with the linear economy. The fact that the environment has to be considered in development equations has brought a new set of challenges. The environment represents a balance between all human beings but involves as well, all-natural resources and the way the two interact with each other. Has to be taken into a timeframe broader than the human lifecycle. The fact the environment has to be considered in parallel with the economy and sociology represents that natural sciences and social sciences have to be considered simultaneously. Human knowledge has not been organized this way, and this fact alone reflects how the academy is organized today, as well as

explains why new approaches are being taken to promote interdisciplinarity. The profession of Sustainable Developer, that formally does not exist today in the academy requires knowledge and training that is distributed in different faculties. An example comes from the classes of Fukuyama in Stanford (Fukuyama, 2013) and reflected in his book, *Political Order and Political Decay* (Fukuyama, 2014) his charts use certain boxes to explain development. These comprehend: economic growth, social mobilization on an upper level, and then three boxes comprehending: the construction of the state, the rule of law, and the accountability, where he considers economy and society, the executive, the judicial and legislative bodies that will influence the design and implementation of development models but where the room for environment has not been integrated. Indeed, the discussion between economy and policies, and the resulting discipline of political economy has not yet integrated environment, as if the balance to be reached remained between power and economy, or as if one that is knowledgeable about economy and power could outsource the knowledge of what could be the environment impact on economic growth and social cohesion. It is as if Climate Change or Circular Economy, could be treated away from the social agenda. When the first governments had a ministry of environment, it looked strange and often it still is perceived as this body is in charge of water, air, and solid waste qualities and the inherent cost to be added to the production costs.

The following text by Stiglitz shows how his perspective about the role of the Fund (IMF) is important on economic and financial policies, on promoting global stability and helping developing countries to achieve stability and growth and “rhetorically” to be concerned with poverty. This can be seen as evolution as it shows that the fund is moving from the 1st P of Prosperity to the 2nd P of People, but as it can be seen the 3rd P for Planet is not there.

The International Monetary Fund’s less-than-successful efforts in the 1980s and 1990s raising troubling questions about the way the Fund sees the process of globalization – how it sees its objectives and how it seeks to accomplish these objectives as part of its role and mission. The Fund believes it is fulfilling the tasks assigned to it: promoting global stability, helping developing countries in transition achieve not only stability but also growth. Until recently it debated whether it should be concerned with poverty – that was the responsibility of the World Bank – but today it has even taken that on board as well, at least rhetorically (Stiglitz, 2017, p. 284).

In many governments at the central and local levels, the environment has not yet been perceived as transversal knowledge that needs to be part of all development equations. If

this integration of the environmental dimension still has to grow in the public sector as it has in the academy namely when holistic knowledge is required, the same applies in the private sector. As in governments some decades ago, where there was Minister of Environment, in private corporations the number of Chief X Officers (CxO) grows every day but the role of Chief Environment Officer does not exist, and for most CEO and Board Members environment remains a cost to be added to production.

The importance of the environment is critical to address sustainable development and to achieve the SDGs, and these simple illustrations reflect how this knowledge is represented, or not in the organizations of those in charge of designing and implementing development policies, programs, and projects. This illustrates how much SD as an integrated body of knowledge still has to grow.

The Challenge of Human Cooperation

Institutions in this study will be regarded not only with the perspective of evaluating governments, but how they cooperate with other parties, the starting point is about cooperation. Is the cooperation challenge associated with the individual aim of happiness, considering it a common purpose in life, is it about the difficulty of looking for collective wellbeing, is the term collective associated with public, and private with the individual? What about, when the individual interest is associated with a public official that is expected to defend public interest and the common good? What about a team defending collective goals and the common good that are employed by a private company?

North says that “the central focus is on the problem of human cooperation” (North, 1990, p. 7) and indeed working together has never been simple, if defining an objective and a strategy to attain it is challenging, to do it with others becomes even more complex. One difficulty has to do with the number of interfaces and therefore with the number of parties involved. Remembering the African proverb where to go far *togetherness* is essential, and looking at why speed and distance compete, makes one consider why different people or different organizations need to develop, to combine both speed and long distances. At this time the question is about understanding each party and the reasons they have to generate an understanding. The complexity of cooperation grows when people or organizations have different goals and therefore different strategies and often different attitudes towards life, towards time, towards togetherness. From this initial point, it will be considered that when two parties agree to act as one, then speed can be increased.

When coordination is taken to a public-private partnership level, the challenge increases, particularly when the parties reflect different public and private interests. At this moment the focus will be to keep in mind the natural difficulty of cooperation, and the impact the understanding of each other can have for collaboration to be more successful. Considering Cooperation as a combination of efforts between different parties is key for any activity that requires collective action, and therefore when considering the positive transformation of a community, a city, a region or a country, the need for cooperation is not a question. Collaboration is necessary for the development and therefore the question will be how to improve cooperation between different parties. Understanding each other, creating ways of working together, defining norms, creating rules, and verifying they are being followed will be key for cooperation. This spirit is reflected in goal 17 of the SDGs “Partnerships for The Goals” as a way to “strengthen the means of implementation and revitalize the global partnerships for sustainable development” (UNDESA, 2015, p. 14).

Institutions as The Rules of the Game

Institutions in its broad approach create the environment for cooperation, and this enables economic growth. But, if rules are needed for cooperation to thrive, then what is the impact of creating and managing them. One key aspect is to differentiate the rules of the game from the players of the game. *Institutions and organizations, differentiate the rules from the players* and as it can be perceived to have good rules and good players it is important to know what the end goal is. In terms of development what is the purpose of transformation, what are the constraints, the priorities, knowing that the objectives and strategies are often not as clear as it would be convenient for the relation between rules and players to be optimized. “Healthy” long-term vision and stability are therefore great contributors to both institutions and organizations.

It is also clear that rules impact on development as institutions reduce uncertainty by providing a structure to everyday life. The more predictable is an outcome the easier it is to attract players to evaluate and to take risks. As risks decrease, and predictability increases the easier it becomes for players to focus on production costs, and in parallel, the transaction costs decrease. Institutions affect the performance of the economy and therefore of development, by their impact on the cost of transactions and production. North goes to the point of considering that: “If political and economic markets were efficient there were zero transaction costs” (North, 1990, p. 8). For development practitioners used to manage

imperfection, production costs are far from representing the totality of costs, and clear rules have a clear impact on overall costs, efficiency, and overall performance. Another important perspective is their overall impact, particularly when players act in locations away from their usual environment. Often they perceive that having read, and understood the legal framework is distant from what is the local culture, and practice of doing things. Informal rules are harder to follow as often they are not written and are volatile. Besides the challenge of comprehending the rules, it is also crucial to know, and to understand, how enforcement is done. What are the consequences if the rules, formal and informal, are not followed, what degree of impact has? If coordination is key for cooperation, and consequently for development, then rules are vital for development.

There are three dimensions of institutions: formal rules, informal constraints, and the effectiveness of their enforcement (North, 1990, p. 9). These perspectives make us realize that it is not just about creating rules, but to generate an environment where they are accepted and therefore the constraints will not block them for being used. It is easy to think about legislation that not being respected does not create the desired outcomes. Going further, when rules are created, the process of explaining them, making them be used, and followed is critical to obtain the expected impact.

Formal and informal rules and their respective constraints become the basis under which cooperation occurs. They are defined to enhance the quality of the relationship between different parties. The fact that rules are defined does not necessarily mean that they will be followed and respected, and for this reason, the enforcement of these rules is, as important as the definition of the rules themselves. This triple perspective of institutions is key for the quality of cooperation and therefore for the quality of development. Understanding each other has a human perspective as it goes beyond what is written. Enforcement represents ensuring the rules are followed and are normally associated with delegated power attributed to different entities. It is also important to understand that it is not an end in itself, and therefore requires particular skills and a greater understanding of the process under which cooperation is being done, to avoid being a blockage without added values. Considering the power of making rules being followed, is crucial, as its wrong use, is very likely to have a negative impact on development.

Imperfection is part of the Human Factor

Imperfection should be taken into account to development models, or in other terms, models that will not use a *coefficient of imperfection* will not be representing real-life experience, and therefore will generate outputs that will require adaptation, or simply will produce results that are not reliable. North develops several considerations on the difficulty of enforcement:

Enforcement is typically imperfect. The inability of societies to develop effective, low-cost enforcement of contracts is the most important source of both historical stagnation and contemporary underdevelopment in the Third World. Enforcement is costly (North, 1990, p. 54).

Understanding the importance of enforcement leads to consider a third-party actor that can be independent can align interests and promote a balance able to create the necessary consensus for development to occur. “Third-party enforcement means the development of the state as a coercive force able to monitor property rights and enforce contracts effectively, but no one at this stage in our knowledge knows how to create such an entity” (North, 1990, p. 59). Considering the importance of enforcement and consequently the existence of a third-party, considering the impact would have on development processes, it would be natural that this role in institutional development would be taken with more attention, namely in what concerns the development of international cooperation involving private sector participation. This entity would very likely, not only decrease considerably transactions costs but would also generate a better environment to attract Foreign Direct Investment (FDI).

Including the Human Factor in Transaction Costs

Adding to the imperfection factor of enforcement, more human factors will weight on transaction costs, that require integration and indeed justify institutions economically.

My theory of institutions is constructed from theory of human behavior combined with a theory of the costs of transacting. When we combine them, we can understand why institutions exist and what role they play in the functioning of societies. If we add a theory of production we can then analyze the role of institutions in the performance of economies (North, 1990, p. 27).

North challenges us continuously to understand the post-industrial revolution period of growth, attaching the institutional dimension to it. This goes beyond, Ronald Coase question at the *Nature of the Firm*, with, “The question always is, will it pay to bring an

extra exchange transaction under the organizing authority?” (Coase, 1937). Indeed, it’s not simply about considering the in / outsource approach to the transaction cost but represents bringing the human perspective to the overall cost dimension. It is as if there is a technology (production) cost, and then a *psychological human factor* (transaction) cost. This psychological human factor is directly linked with Trust, that is built upon rules and the direct and indirect expenses of trust-building impacts on economy as it affects costs, it influences development not only because of the economy, but also because the impact it has on the social fabric, and the respect humans will have for the environment. As trust grows, the information exchanged is transparent, clear and reliable. This perception and integration of the psychological human factor in production expenses lead to a new perception of costs, important when considering the amount of energy necessary for transformational processes. It is as if a human ecosystem to process change occurs, where multiple variables are required. This impact grows as transactions become more complex because multiple parties participate in them because their time is extended over a long period because the transaction involves multiple locations and multiple levels of decision making.

Beyond Motivation of the Players, Their Utility Function

Once an imaginary box with the psychological human factor is open, development acquires a human dimension from the developer perspective, and suddenly the understanding about how decisions were or will be taken becomes clear, it is as if the search for rationality was impeding the justification of multiple acts. This psychological human factor is key to bring motivation, probably the most important keyword to understand the developer's mind and with it the behavior associated with the organizations involving them. The *Morale Building* concept explains that investing in team motivation by creating an environment where outcomes are commonly aligned can largely be recovered by the decrease in monitoring costs.

The unique feature of labor markets is that institutions are devised to take into account that the quantity and quality of output are influenced by the attitude of the productive factor – hence *Morale Building* is a substitute at the margin for investing in more monitoring. Recently became a major focus of economists’ attention (a consequence of the quality differences in labor outputs between Japanese and American automobile manufacturers) (North, 1990, p. 66).

This interconnection between motivation and institutions, and vice versa the impact produced by the way clear rules are designed to attract and motivate the players is important particularly in an environment of transformation. Empirical knowledge certainly has many examples where the development outcome is directly related to this relation between institutional design and players' motivation. The perception of the human dimension, and its association with motivation and the utility function, attaching this dimension to institutions represents that rules of the game are an *iceberg* that has to be taken beyond the immediate part that is seen *above the water*, and therefore have a more complex network of decision-making processes that will impact on the direction of development and consequently how parties cooperate.

What if one could know exactly what should be done, and under which order, always motivated and with the physical capacity at the top? What if not one, but a full team would be aligned under this working environment? What if the whole community would be like that? Although these conditions can exist in theory, it is unlikely they can be found in one person, and the chances of happening in one community are even less. The normal world is not perfect, to assume this full capacity of production with zero transaction costs is worse than to consider the world is static and frictionless. The opposite is however not true. Alignment between workflow, motivation and healthy environments can and do impact greatly on economic growth.

The institutional cost for writing the formal rules, for creating the proper culture and for enforcing it; meaning that an investment in culture, informal rules can be largely compensated by the cost or the amounts saved on enforcement.

Bringing the *Phygital* Dimension to the Institutions

If SD models combining economics, sociology, environment is a challenge when a digital and a time dynamic dimensions are also brought in, it becomes even more complex and this is a good reason, to add the institutions to the process.

Our first priority should be to restore our ability to communicate clearly and candidly with one another in a broadly accessible forum about the difficult choices we have to make. That means building vibrant and open "public squares" on the Internet for the discussion of the best solutions to emerging challenges and the best strategies for seizing opportunities. It also means protecting the public forum from dominance by elites and special interests with agendas that are inconsistent with the public interest (Gore, 2013, p. 451)

The point raised by Gore asking for digital “*public squares*” reflects this enlarged vision about the challenges aligned with new social tools that shall be used to defend the public interest. Technology needs to be always considered as it impacts both the quality of the institutions and of the partnerships.

As economic growth has to be associated with social cohesion and protection of the planet, the SD challenge, requires that simultaneously the economic, social and environmental dimensions have a physical and digital (“phygital”) approach. This “phygital” approach is vital as this will impact the goals, and consequently, the rules of the game need to be adapted. On top of this public interest associated with the improvement of public services that require an upgrade of public assets that represent an increase of public investment can no longer be supported by public funds alone.

The transformation is also associated with innovation that is easier to find in flexible working environments associated with meritocracy and reward systems normally found within the private sector. This triple approach, combining SD, public and private interests, with innovation, imply, new formal rules, new informal constraints and a new way to see them enforced. Institutions and Institutional Innovation are key to set the framework for partnerships and cooperation to occur. Having recognized previously the challenges associated with Development and recognizing that SD concept has been described and even adopted as an agenda by UN member states at the SDGs, and even considering this to be an *overnight change*, the question today remains to bring this level of knowledge to the perception of actors and agents that act at project as well as at policy level.

Recognizing Imperfection to Humanize the Economy

The challenge to go from a neoclassic theory, “based on the fundamental assumption of scarcity and hence competition, where frictionless exchange process in which property rights are perfectly and costlessly specified and information is likewise costless to acquire and to add an understanding of the nature of human coordination and cooperation” (North, 1990, p. 11), represents the need, and the importance to bring in institutions to create a more real and human framework. Indeed, when looking at a the State Approach to State Intervention, described by Groenewegen, Spithoven, & Van der Berg, in a system of indicative planning, the government guides the economic development in the direction of the objectives it has laid down in a plan (Groenewegen et al., 2010, p. 306), leads to raise the question: how many governments can confirm an alignment between what was planned,

and the outcomes, and impacts? In other words, how much imperfection should it be added for this to become a reality?

Humanizing the economy represents adding imperfection to the economy, but at the same time represents creating a more reliable basis for modeling and therefore for anticipating expectable outcomes. The acceptance of going beyond, and exploring the deficiencies of the rational choice approach, supported by motivation and interpretation of the context, relates to institutions.

The reinforcement of motivation that goes beyond wealth-maximization is essential for institutions as well as for the understanding and implementation of sustainable development as they reflect the evolution, from what has been considered the first level of development based on economic growth, to a second and third level where social cohesion and protection of the planet appear.

Rent-Seeking and Corruption

Considering the relation between public interest, public officials, rational decision making does not always take place, the perspective of understanding the social ecosystem evolves, and there is a need to know what type of formal and informal rules exist? What type of motivation exists? Who are the rules going to benefit? Does it make the player go from a public to a personal private position? As described by North, the question may not be at the level of following the rules, as they may have been created to defend private interest, but to question whether the decision making process including the rules are defending public interest, and therefore to question a broader political economy framework. “Rules are, at least in good part, devised in the interests of private wellbeing rather than social wellbeing; Property rights and hence individual contracts are specified and enforced by political decision-making, but the structure of economic interests will also influence the political structure” (North, 1990, p. 48).

The interconnection between economics and politics imply they impact on one another, but also reflects the strength the private interest have over public interest, which implies the need for institutions to keep in mind the public interest perspective, referred as “fighting for the little guy” as “a common denominator for public interest lawyers in the United States” (Rekosh, Buschko, & Terzieva, 2001, p. 22).

Entering into this area of defending public interest, is particularly important when considering having the private sector involved on providing public services, and this leads to approach corruption the *elephant in the room*. Congleton and Hillman define the term rent-seeking to “describe behavior in institutional settings where individual efforts to maximize value generate social waste rather than social surplus” (Congleton & Hillman, 2008, p. 56). It seems obvious that the simple rent-seeking approach goes against “fighting for the little guy”, and therefore rules and enforcement mechanisms should consider this fact.

Wankel makes a clear relation between bribery, rent seeking and the impact on inequality.

The reason bribery is so discouraged, beyond the consequences of its specific instances, it's because it creates a "rent-seeking" culture, in which those who cannot afford to pay cannot afford to play. The rent of rent-seeking is derived from Adam Smith's tripartite division of income into wage, profit, and rent, and does not refer specifically to property leasing. A rent-seeking culture is one in which individuals and organizations in that culture seek to increase their incomes through the manipulation of conditions, rather than through production or trade. (Wankel, 2009, p. 188).

Besides the output of rent-seeking, the impact is much more important as it will affect *culture* in its widest sense, it goes beyond value distribution and enters into exclusion, as it will not allow players who do not pay to play the game.

For Ahmed from the Centre for Strategic and International Studies CSIS in Washington, D.C. “Corruption is the misuse of office for unofficial ends”. The impact of corruption on development cannot be overemphasized, and as mentioned before it can be seen as adding a minus one (-1) multiplier variable to a development equation. Although corruption can be seen in simple terms as an extra tax, the impact goes further, as indeed it corrodes the development ecosystem. “Corruption is a massive tax on the private sector, ultimately holds back growth, and impedes poverty reduction. Businesses, large and small, increasingly see themselves as victims of corruption” (Hameed, 2014, p. 2).

To evaluate the financial impact of corruption, “CSIS has reviewed data from the World Bank Group and others and estimates that a segment of private-sector corruption alone in developing countries is at least \$500 billion, more than three times all foreign assistance is given in 2012” (Hameed, 2014, p. 3).

Rent-Seeking and Corruption alone justify the inclusion of Institutions in any development equation and reversely justify questioning the assumptions used on mathematical business

models. It certainly justifies why human imperfection needs to be considered, on development models. In parallel, it also justifies the importance of investing in its counter-culture.

Adapting Institutional Changes to LDCs

When one takes an airplane to fly an LDC country and is picked up from the tarmac, without having to go through customs and vaccination officers, when one stays in a hotel with a generator and a water tank with treated water that allows toothbrushing from water tap, when goes from this hotel straight to the ministry of foreign affairs and meets people trained in the best schools in the North Atlantic, when one gets sick and is picked up by a helicopter and transferred home by airplane with the support of insurance companies, when one does not go to the schools or visits slums and informal residential areas, then and although this person has gone beyond Amsden idea of “armchair theorizing” (Seguino, 2014, p. 3) and has moved one step closer to reality, still does not allow this person to design a mathematical development model assuming this reflects reality and therefore can be used to make simulations, indeed, these models mentioning the site visit experience are source of entropy for the development of these countries. As described by Piketty the childish passion for mathematics and theoretical speculation can be a major source of entropy as they may induce decisions to be made under the assumption *the economics of the special case* (Hirschman) can be extrapolated.

The discipline of economics has yet to get over its childish passion for mathematics and for purely theoretical and often ideological speculation, at the expense of historical research and collaboration with other social sciences. Economists are all too often preoccupied with petty mathematical problems of interest only to themselves. This obsession with mathematics is an easy way of acquiring the appearance of scientificity without having to answer to far more complex questions posed by the world we live in (Piketty, 2014, p. 32).

Institutions as the rules of the game, brought in the imperfection factor to economics, brought in the informal rules, the transaction costs, the motivation impact, the culture, and the cost of enforcement, but is there more to it? Are other factors able to influence Institutional Performance? The following example has the purpose to take us down this road to bring the importance of local context. Although a day has 24 hours, humans do not use all these hours to work, nor use 7 days of the week, indeed if a week is attached with 40 working hours when a week has 168 hours, this means that only 24% of the time is used. This is not considered an imperfection as it is commonly accepted that 40 hours man

working time per week is the *normal* weekly time in North-Atlantic terms, and economic models reflecting this assumption will be considered normal. However, in North-Atlantic terms, the energy availability time is 168 hours and any number below this figure will be considered abnormal and market inefficiency. However, if after visiting country a that happens to be an LDC country, the economic model will assume that energy availability is of 168 hours per week when in reality the power gap represents that electricity is available only 40 hours per week, then the model should use a 24% efficiency rate. If this process is extrapolated to the time and cost spent at customs, the cost associated with lack of housing, education, and health, then economic models will have to associate efficiency rates, which will be significantly lower than 14,28%. The great added value of institutional economics goes far beyond the transaction cost analysis, that can be observed in North-Atlantic or when the rules change, particularly formal ones can change, informal ones take longer as North states “The single most important point about institutional change, is that institutional change is overwhelmingly incremental” (North, 1990, p. 89).

Path Dependence an Inevitability?

Although *path dependence* will be initially developed here, to follow the logic presented by North, will be revisited when approaching alternative development policies.

Path dependence is a way to narrow conceptually the choice set and link decision making through time. It is not a story of inevitability in which the past neatly predicts the future. What happens when a common set of rules is imposed on two different societies? I can illustrate from a historical example. The U.S. Constitution was adopted (with modifications) by many Latin American countries. The results, however, are not similar to those in the U.S. Although the rules are the same, the enforcement mechanisms, the way enforcement occurs, the norms of behavior and the subjective models of **the actors are not** (North, 1990, p. 98).

However, his approach to *path dependence* is questionable as he argues that a more developed society is associated with rules that have been established by what has been considered the North-Atlantic approach and with a particular focus in an Anglo-Saxon one. As mentioned in this last sentence it is assumed that the actors not being the same, the outcome will induce different results, and therefore the actors are condemned to path dependence. Later and when looking at East Asian development models this point will be reviewed. This point is of particular importance to this study, as the actors, in this study the players of the game, and in this case, the partnerships, are not condemned to path dependence. This point is critical for development in developing nations, as it allows

breaking away from the past by local actors, by local players, that have their past, their own culture, often different from one associated with British history.

North defends the importance of technology and institutions on development but then he enters into a human dimension, almost considering that people are path-dependent, even if institutions are not, as if it was necessary that when rules change the players also have to change. Institutions are affected by a human psychology factor that is not present on technology, but even then, this factor is not condemned to stagnation.

Technological change and institutional change are the basic keys to societal and economic evolution, and both exhibit the characteristics of path dependence. The perception of the actors plays a more central role in institutional than in technological change because ideological beliefs influence the subjective construction of the models that determine choices. Lock-in and path dependence appear much more complicated in the case of institutions than in the case of technology (North, 1990, p. 103).

Path dependence is not a story of inevitability, but North doesn't refer how to break away from it, indeed his logic is basically that the same rules on a different context with different enforcement have different outcomes. He goes further on this concept as he refers that it is easier to break away technologically than institutionally.

Ha Joon-Chang uses Industrial Policy to show how Japan, South Korea, Taiwan, and Singapore have gotten away from path dependence and created their development model. Indeed, when following a country and sector approach, impressions may be perceived differently. This represents that different levels of institutional performance can be observed. Path dependence is, therefore, a key issue to be analysed under an institutional perspective, although for development purposes it will be important to take a double approach, to understand the grounds of *path dependence*, as well as forms to *break away* from it. Methods to escape from it will be developed further.

Incentives, Motivation and Efficient Institutions

Considering the importance of institutions for economics and development the next step concerns its implementation. If institutions determine the performance of economies, what creates efficient institutions? which factors weight on their performance? Is it possible to change North perspective that "Effective traditions of hard work, honesty, and integrity simply lower the costs of transacting and make possible complex, productive exchange" (North, 1990, p. 138).

Incentives, motivation and efficient institutions are all connected reinforcing the importance of the psychological human factor on transformational processes, where economic performance is linked with institutional performance, although this last relation is not obvious within economics it is when a development perspective is considered.

Incentives are the underlying determinants of economic performance. One gets efficient institutions by a polity that has built-in incentives to create and enforce efficient property rights. But it is hard – maybe impossible – to model such a polity with wealth-maximizing actors unconstrained by other considerations. We need to know much more about culturally derived norms of behavior and how they interact with formal rules to get better answers to such issues (North, 1990, p. 135).

Institutional Performance

By looking at the definition of how to measure Institutions, clarifies that the purpose of providing public services, and therefore the goal is not to simply measure how the management of scarce resources takes place, but mainly to see how the public perceives how services were provided. This means that the performance of public services and consequently of governments is the final objective.

Institutional performance, quality of public service provision. The concept focuses on the performance of various types of formal organizations that formulate, implement, or regulate public-sector activities and private provision of goods for the public. Therefore, institutional performance is often referred to as “governmental performance” or “quality of government,” and it excludes other types of social institutions, such as family or religion. To perform well, institutions have to be responsive to citizens’ demands and expectations and be able to effectively design and implement policies reflecting these demands and expectations. Therefore, the quality of institutional performance is assessed in reference to two broadly defined issues: responsiveness and efficiency. (Natalia, 2017).

By relating Institutional Performance (IP) with the SDGs it can be inferred that SDGs should enhance IP. Considering in this study the objective of evaluating how Partnerships provide Public-Services and following the same logic, Institutional Performance can also be used to analyse the performance of PPPs. The role of Institutions that perform well is therefore associated with the public-services that a government shall provide to the public, and therefore all services such as health, education, water, energy, as well as protecting those most vulnerable or the territory, can be evaluated through IP. Returning to the SDG logic this means that IP can and should be used to evaluate how SDGs are being implemented. It was certainly for this reason that Ostrom used Institutional Performance to evaluate CPR, and it will also be for this reason that IP will be considered to evaluate the case studies in this study.

Institutional Development Impact

Going one step further than evaluating institutions leads to the impact caused by institutions, it is as if beyond the quality of the public service provided the interest is to understand how the nation incorporated in its *DNA* the improvement from the interventions, the projects, the programs that had gone through. OECD created a definition:

The extent to which an intervention improves or weakens the ability of a country or region to make more efficient, equitable, and sustainable use of its human, financial, and natural resources, for example through (a) better definition, stability, transparency, enforceability and predictability of institutional arrangements and/or (b) better alignment of the mission and capacity of an organization with its mandate, which derives from these institutional arrangements. Such impacts can include the intended and unintended effects of action (OECD & Dabelstein, 2010, p. 25).

At this time rather than to drill down, the purpose is to share how important it is to evaluate Institutional Performance and Institutional Development Impact, certain that these fields of research will be directly linked with SDGs evaluation mechanisms.

2.2.2 Common Good

The intention is to associate a purpose to the rules being made; rules for what? For a common good! And what is the common good? How does it work, how does it affect the way rules are conceived? How do the public and private sector relate to the common good? What limits does common good suggest and impose? Is there a limit to what can be transferred to the private sector?

After reviewing the challenge associated with human cooperation, the way the actors of the game collaborate, the inherent need to define formal and informal rules and the process of transforming them, a perception of the importance of institutions is taken, however, a natural question could have been made upfront about the purpose of promoting cooperation and defining ways for players to do so. Considering people as the population of the planet as well as the population of a community one *common purpose* can be considered the *Common Good*. “The search for the common good has to do with the construction of institutions that aim to reconcile as much as possible, the individual interest and the general

interest. Following this perspective, the market economy is not, in any way, an end in itself” (Tirole, 2018, p. 16).

For Tirole institutions are a bridge, a way to reach a common understanding between *people* and *The People*, a way of bringing the cooperation challenge further as it combines the individual level to one where everyone is present. Also that market economy is not an end, and is an imperfect instrument as it has a gap, between the interest of private individuals, private organizations, and the interest of the nations and the general interest. Although the individual interest associated with those defending public interest is not mentioned here, it has to be considered to have a greater understanding of the imperfection of the economy.

Complementarity between the Market and The State

Considering that the gap exists between public and private interest, the question becomes how to make cooperation possible, and to find a balance between them.

The economy refuses that all is about the market, as it refuses that all is about the state. The economy is at the service of the common good; having as objective to make the world a better place. In this sense, its task is to identify the institutions and policies that promote general interest (Tirole, 2018, p. 18).

Considering the role of the economy to serve the common good, to make the world a better place, brings economics close to development and therefore to look for the necessary rules by aligning market with the state. This could mean that cooperation, as mentioned earlier, is not an option, and the way could be to identify the best of the public as well as the best of the private and a way to combine them. This perspective not only is crucial to understand the importance of institutions as it is to support the argument that multiple types of cooperation and partnerships can be created. “Our choice of society is not one between the State and the market, as the interventionists and laissez-faire followers want to make us believe. The state and the market are complementary and not exclusive. The market needs regulation, and the state, competition, and stimulation” (Tirole, 2018, p. 23).

The challenge becomes clear that it is about how to achieve the complementarity and therefore how actors interact with each other or which rules should be created. The concept of a dream world is important as a concept that needs to be enriched with reality. “We all dream of a world, where the actors do not need the incentive of the law to behave properly, do not pollute or that pay taxes and drive prudently, even when the authority is absent”

(Tirole, 2018, p. 30). Tirole brings the human dimension, and again the dimension of error, the imperfection exists and needs to be considered, and therefore institutions comprehend the rules and the enforcement of the rules.

Management of Scarcity

Tirole highlights the different ways to address scarcity and the multiple aspects to create rules and enforce them. These represent a panoply of options to design development models.

Historically scarcity has been managed through different ways: queue, lottery, tickets for shows, or fixing prices below a certain level that would balance offer and demand of certain good; corruption and favoring; violence and wars; and the last approach, the market, are different ways of managing scarcity (Tirole, 2018, p. 36).

Rather than pointing at one direction, the objective is to list the different options, almost suggesting that new ones will come, knowing however that the Common Good perspective will have to be safeguarded.

Market Moral Limits

Although the market is perceived as needed for development, caution is paramount not to allow the common good to become a hostage of the market dynamics. The market moral exists, and the state is expected to manage this value, here there is a limit or a border between economy and society as stated by Jospin *Yes to market economy, no to market society*. The perception of the need to control the market economy is perceived in different ways taken by different populations considering that to protect the virtue of the market, laissez-faire shall many times be abandoned.

What is Non-transferable to the Private Sector

Michel Sandel in his book “What Money can’t buy?”, raises the question of things money can’t buy, but not many, prison cell upgrade, emit a metric ton of CO₂ in the atmosphere, are examples that raise the awareness about the risks of becoming a market society (Sandel, 2012). Indeed, this leads to consider what is non-transferable to the private sector. Examples of public goods that cannot be bought and services are also presented by Sandel on his description “a range of goods and services, such as child adoption, replacement maternity, sexuality, drugs, military service, the right to vote, pollution, organ

transplantation, should not be banalized by the market, as friendship, admission to universities or the Nobel Prize should not be bought” (Tirole, 2018, p. 47).

2.2.3 Institutions and The Human Dimension

After reviewing the rules of the game, and how the rules apply to the common good, and the relation between economy and the common good, it is time to bring the political dimension to approach the human dimension not leaving the economic dimension behind. It is as if the world of the economy does not necessarily have to be followed or understood as the main priority, allowing a more social and individual perspective to be analyzed and to have their own space. This human perspective leads to exploring a political angle associated with development.

Dignity, Recognition, Identity and the Invisible Poor

After visiting the challenge of cooperation, the need for institutions to search for the common good, the human dimension will be further explored. Development is about People-First and humanizing the economy is crucial particularly if “the economy is at the service of the common good” (Tirole, 2018, p. 18). The economic dimension is overpassed by one, where the importance of the human being and his motivation depends on how others regard the individual. This perspective of dignity and respect of the individual can take national proportions, as described by Fukuyama while exploring the concept of humiliation.

The Chinese government of Xi Jinping has been talking extensively about the “100 years of humiliation” and how the USA and Japan and other countries have been trying to impede its return to the statute of great power according to what happened for thousands of years.” (Fukuyama, 2018, p. 26).

Up until now, motivation has been seen as a positive form to lead an individual or a community to act in order to improve their wellbeing and, by many to promote wealth maximization. Now motivation is being seen as a negative form that induces change. This perspective leads to the spirit of going beyond the normal, the average, to understand what the majority of the *visible man* do and aim for, essential to understanding the challenge of *leaving no one behind*. For this is crucial to take development beyond the economics, go

beyond models based on the initial approach of institutionalists that imagined an extrapolation of the Anglo-Saxon North-Atlantic.

The world pin code presented by Rosling demonstrates that the world population is increasing particularly in Asia and Africa. According to Rosling, the world pin code is in 2010, 1114, representing 1 billion people in Europe, 1 in the Americas, 1 in Africa, and 4 in Asia. In 2050 the pin code will be 1125, meaning that Africa will double its population and Asia will reach 5 billion. In 2100 the code will be 1145, meaning that Africa has reached 4 billion and all other continents stabilized (Rosling, 2012). Demographic growth is happening away from the North-Atlantic stage. It is also happening in the poorest regions of the planet. Considering this change of economic and demographic centre of gravity, towards the east and south, it is crucial to consider development at a global level with particular attention to the challenges these regions have. This leads us to question poverty attached to dignity. They are linked in multiple ways and to be invisible can be worse than to not having access to financial means as described by Fukuyama, “to be poor is to be invisible at the eyes of those close to us and, many times, the indignity of invisibility is worse than the lack of resources” (Fukuyama, 2018, p. 103).

Considering *leaving no one behind* perspective, the social dimension in a development equation gains particular importance. Job creation is no longer just a question of fighting poverty but a way to promote dignity. Fukuyama questions the economic utility factor adding a social utility factor and considering the later can overcome the first.

To have a job does not only guaranty the resources but also the recognition by the rest of society that one person is doing something socially valuable. Someone that is paid for doing nothing does not have motives to be proud. People do not compare with a universal pattern of wealth, but with the local group with whom they deal socially. The poor tend to be politically unorganized and to be worried about day to day survival” (Fukuyama, 2018, p. 108).

It’s fundamental to understand identity and to integrate its dimension on the development models. Recognizing groups that have been marginalized is therefore not just a question of ethics, and social cohesion is a quest for prosperity. Fukuyama addresses the importance of identity policies and goes further when he categorizes different ways used to form national identities. They have been created through “four main ways: 1) Transferring people, evacuating them or simply killing the natives: Australia, New Zealand, USA, and Chile; 2) Replacement of borders to follow linguistic or cultural traces: Ireland or Ukraine; 3)

Assimilating minorities: France, China; 4) Remodel the national identity: Indonesia, Tanzania” (Fukuyama, 2018, p. 163). Considering the impact identities have on the definition of a nation, makes review the North approach on efficient institutions, and raise the importance of development policies, and how they can be used. “Identity can be used to divide, but it can also be used and has been, used to integrate. In the end, this will be the remedy for the populist policies of the present” (Fukuyama, 2018, p. 205). By considering the importance of identity at the national level, it becomes obvious that the individual utility function associated with material wellbeing has to be taken beyond its first iteration.

Beyond the Material Wellbeing

The image about utility function and material wellbeing is well represented on Fukuyama comparison between Madre Teresa and an edge fund partner: “To say that Madre Teresa and a speculative edge fund partner are both maximizing their utility, ignores something important about their motivations” (Fukuyama, 2018, p. 33). Humanizing the economy is going beyond the utility function associated with material wellbeing, and understanding that decisions are not all rational is understanding that if the error is part of the human dimension. Economics has to deal with error and accept that economic mathematics models not considering this human dimension of imperfection, will not be more than a hypothesis that hardly will match the reality. The need to bring the human dimension to development models is therefore paramount. The human dimension is present on the political approach and therefore the need to combine political economy with the development models. Fukuyama refers to this approach that reflects that “Modern economic theory is based on the assumption that humans are rational individuals that wish to maximize their utility – this is the material wellbeing – and politics is simply an extension of this maximizing behaviour” (Fukuyama, 2018, p. 29).

Development as the Change of Societies in Time

The human and social dimensions have to be integrated into development models as they are key elements for any political system, indeed the impact of these dimensions will define the quality and even the existence of the political systems. This justifies how important it is to understand how human and social dimension, will impact political systems as these will impact on the quality of life and the economy. This is the way for Fukuyama to present the interdependency between economics and political development: “The survival of

political systems in all these countries will depend, in a critical way, from the level of adaptation to the new social landscape generated by the economic growth” (Fukuyama, 2014, p. 15). This perspective drives him to give to institutions a broader perspective, as the rules of the game also affect human behaviour. “Institutions are “valued and recurring stable behaviour patterns” (Huntington 2006) that persist beyond the mandate of the leaders. Are essentially persistent rules that shape, limit and drive human behavior”. As it affects human behavior, it also impacts societies and their performance. Fukuyama considers that “Development means the change of societies in time, and about the process of appearance, evolution, and decay of political institutions” (Fukuyama, 2014, p. 17).

What People Want from Governments

Fukuyama makes a difference between Economics and Political Development, when he considers that “Economic Development can be defined in a simple way as the sustained productivity growth per capita and Political Development is the change of political institutions in time. This is different from the change of politicians and policies” (Fukuyama, 2014, p. 60). Although this perspective can diminish the role of economics in development, his intention is to connect the driving of political sciences to what people want. Rather than looking at the common good from an abstract perspective, he links it to clear and objectives such as safety, shared economic growth and quality public services, and he considers these as the deliveries by governments, considering that failing to do so is affecting contemporary democracies in consecrated power.

If one unique problem exists that has been affecting contemporary democracies in consecrated power, is its failure to supply the substance that people want from government: personal safety, shared economic growth and basic quality public services, such as education, health and the infrastructure needed to take advantage of individual opportunities (Fukuyama, 2014, p. 735).

Just as the approach to the common good was based on people's needs, decision making is also described as being based on emotions rather than on rationality. “In general, the following norms does not follow rationality, but emotions such as pride, guilt, fury, and shame. Institutions tend to be extremely conservative, this is, resistant to change” (Fukuyama, 2014, p. 19). Although presented in a different form, and from a political angle, the psychological human factor needs to be considered, or in other words, Human imperfection needs to be considered on development equations and models.

Governments to Balance Public Good and Private Interest

Further to Tirole's perspective on the role of government, Fukuyama shows that the frontier between public and private is one of flexible geometry, this is essential to design development policies as some functions may vary. “The frontier between public and private will always subject to renegotiation in all societies. But there will always be a public sector because some services and functions – what the economists call public goods – can only be guaranteed by governments” (Fukuyama, 2014, p. 79).

The role of managing public interest is however public and this represents that strategic roles such as managing externalities, namely the negative externalities associated with pollution, and asymmetric information remains public. The responsibility of redistribution is essential, but this represents understanding the development dynamics, the creation of value and its distribution. Indeed, private dynamics are essential to stimulate development and innovation and therefore the challenge of balancing the design of rules its enforcement and an environment for the private sector to be attracted to invest and to develop. To balance public with private dynamics Fukuyama suggests a trick consisting of avoiding the excessive representation of the elites without punishing them for their ability to generate wealth. Again, the perspective of managing the value created is essential to be secured by the public sector and this involves the ability to use enforcement mechanisms to achieve this purpose.

The level of transformation and the challenge of securing a balanced approach, where the public interest is preserved, involves “intervening” as described by Mazzucato, it represents taking risks, and tilting towards the kind of Development we want.

Policy is not just about “intervening”. It is about shaping a different future: co-creating markets and value, not just “fixing” markets or redistributing value. It’s about taking risks, not only “de-risking”. And it must not be about leveling the playing field but about tilting it towards the kind of economy we want (Mazzucato, 2018, p. 19).

This is probably one of the most important challenges in Anglo-Saxon models. As it will be seen ahead this has been well understood in east Asian development models.

2.2.4 Alternative Development Models

After covering institutions, the common good, the political-economic development globally, the perspective had mainly a North-Atlantic approach. The objective now is to break from this geographic perspective and to explore institutions as a set of rules that can be associated with alternative development models, namely those developed in east Asia and to consider its extrapolation to least developed countries (LDCs).

Alternative development models will require new approaches, that are human-centric and desired by the community, that are feasible and viable. This is the usual definition of design thinking (Brown, 2019). If under the feasible perspective, the environmental dimension is involved, then this type of approach is close to SD, and certainly can be inspirational to sustainable developers. Indeed, as Tim Brown describes, *Edison's genius* is associated with an integrated solution based on what People wanted and the way he engineered a solution. These are the ingredients and the attitude to design alternative sustainable development models. “Edison’s genius lay in his ability to conceive of a fully developed marketplace, not simply a discrete device. He was able to envision how people would want to use what he made, and he engineered toward that insight” (Brown, 2008, p. 85).

East Asian Development Models

From a traditional institutional approach, development models would follow an Anglo-Saxon approach, when Acemoglu at *Why Nations Fail* (Acemoglu & Robinson, 2012) compares the city of Nogales with an urban footprint sitting in Mexico and Texas, one is led to consider the chance of those exposed to the US system when he compares North and South Korea indirectly one is led to associate the US influence on the Korean development.

The challenge is however, to arrive at a certain level of development. “The international community would like to transform Afghanistan, Somalia, Libya, and Haiti in places idealized as Denmark, but it doesn’t have any idea how to get there” (Fukuyama, 2014, p. 40). This idealization of this Nordic country represents a Eurocentric perspective of development. Acemoglu & Robinson at the *Why Nations Fail*, associate the discontentment from LDCs to poverty “the roots of discontent in these countries lie in their poverty” (Acemoglu & Robinson, 2012, p. 1) and explain their motivation based on understanding these differences. These authors further explain the differences between

being an American and a Mexican and the differences between Bill Gates and Carlos Slim in an elucidative way by describing the impact:

...the schooling system in the united states enabled Gates and others like him to acquire a unique set of skills to complement their talents. The economic institutions in the united states enabled these men to start companies with ease, without facing insurmountable barriers. Those institutions also made the financing of their projects feasible. The U.S. labor market enabled them to hire qualified personnel, and the relative competitive market environment enabled them to expand their companies and market their products. These entrepreneurs were confident from the beginning that their dream projects could be implemented: they trusted institutions and the rule of law that these generated and they did not worry about the security of their property rights. Finally, political institutions ensured stability and continuity (Acemoglu & Robinson, 2012, p. 43).

On the other side, the Mexican business ecosystem allows Carlos Slim to obtain what he wants, in a way impossible to Bill Gates. This fact allows them to consider that economics is not enough to explain differences in development, but politics have to be part of the equation. “It is about the effects of institutions on the success and failure of nations – thus the economics of poverty and prosperity; it is also about how institutions are determined and change over time, and how they fail to change even when they create poverty and misery for millions – thus the politics of poverty and prosperity.” (Acemoglu & Robinson, 2012, p. 44).

However important this contribution may be in terms of explaining the importance of institutions, leaves the idea that one has to go to America to thrive or to import an American development model. Understanding how development occurs outside North-Atlantic is key, as there are examples of success, but and above all, the rest of the world does not have the North-Atlantic context as the natural base for development. Japan is probably the first and most important single cause of disruption that has allowed to avoid a single North-Atlantic approach. “The strong state tradition allowed Japan to escape the western colonization” (Fukuyama, 2014, p. 49).

Japan has indeed created a base for new development models to be considered and followed by South Korea, Taiwan, and Singapore, which have proven that it is possible to presently escape “western colonization” and to establish their own development models. China also brought in development innovation as it transformed its model from within entering and adopting market economy with its own type of democracy. “Chinese public servants do not practice the complex ritual of the Qing court nor use braids. Do not study Confucian texts, but a combination of Marxist-Leninist texts, engineering handbooks, and western literature

on business management” (Fukuyama, 2014, p. 507). The alternative path in China is also represented by the way unions are managed “In contemporary China forbid the creation of independent unions that would enhance the collective action of workers and kept a high level of job growth to keep them satisfied”(Fukuyama, 2014, p. 717). Mentioning this approach doesn’t mean that the Chinese approach is not people-centric, but they have opted to focus in economic growth. It does mean that they have broken away from North-Atlantic models and therefore deserves to be analysed.

This process of understanding the national identity, of mixing different blocks of development and creating new ones has been happening in East Asia and is now happening in southeast Asia, Taiwan, Singapore, and expanding to Thailand, Malaysia, Philippines, Indonesia, but also to Vietnam and Laos. Their success makes no surprise to see Mauritius and Rwanda adopting Singapore as a development model. The same happens with Chinese universities that use Singaporeans universities as models.

Up to which point is it possible to extrapolate to Africa in general and to SSA in particular? Fukuyama explains the difference between sub-Saharan countries basing the difference on their institutional capacity.

Many new countries in the developing world that emerged in that period, such as Nigeria or DRC, never existed as independent political structures, and as such never had traditional institutions at a national level. Countries with weak institutions or without institutions would always have been unstable, with or without modernization. Almost all experts have analyzed weak governments and deficient institutions as the fundamental cause of conflict and poverty (Fukuyama, 2014, p. 71).

There is a clear link about development and the strength of institutions, and therefore the need to promote capacity building for institutional development. One consequence of leapfrogging without the proper institutions being in place is described by the concept of modernity without development as one that happened without sustainable economic growth, “Modernity without development” – this is, urbanization and quick social change without sustainable economic growth” (Fukuyama, 2018, p. 89). This concept is very important when designing infrastructure development projects, where often assets are created but its operation and maintenance costs have not been properly integrated leading to modern infrastructures not providing the expected public services.

Industrial Policy as Development Strategy

Ha Joon-Chang takes this further as he explains why and how this process was done, and incentives other nations to follow new approaches. An interesting way to understanding this is by looking at the process of development initiated in Japan, and creating a cascade effect first in South Korea, and then followed in Taiwan, Singapore and now China.

New forms of industrial policies are now taking place and certainly, the most important example of industrial policy impacting a development strategy is the Belt and Road Initiative launched by the Chinese Government. It is significant how the relationship between the need to keep export prices competitive, was aligned with a transport development policy where the increase of labour costs is compensated by a decrease of transport costs, and in parallel how the SDGs are being used to align the Silk Road Spirit. This development program is impacting the development not only of China but also of countries that are part of this transport corridor. The book *The New Silk Road and the Portuguese Speaking Countries in the New world Context*, reflect this perspective (Neves, 2019). A different angle can now be perceived in Thailand and Malaysia, where again instead of looking into North-Atlantic development models, it was opted to have a “Look East Policy, which was mostly concentrated at looking towards Japan” (Somun, 2003, p. 101). Somun describes the Secret of Malaysian success following this approach and it can be perceived that other south-East Asian countries follow at different speeds. It is also interesting that the use of Industrial Policies has been gaining their ground in Africa, as shown by Mauritius and Rwanda, and therefore entering the continent and giving all development scientists ground for research.

Japanese Lawyers, Chinese Engineers and Scientists

East Asian development models are disruptive and considering that *backcasting* (Leung, 2016) can be used to national development models. These development models have been designed backward, the impression one gets today is that tangible objectives in time were defined and strategies were aligned to reach them. Among other things, they seem to have used different types of skilled people. Ha-Joon Chang describes lawyers, engineers and scientists were and are being used in Japan, Taiwan, and China today (Lin & Chang, 2009).

Rather than talking about the development model, they call it industrial policy, but as described by Chang it has a different meaning than a policy for industry, it could very well be called policy for development, or development policy.

When we talk about “industrial policy”, the majority of us do not mean any policy that affects industry but a very particular type of policy that affects industries. It is what is commonly known as “selective industrial policy” or “targeting” – namely, a policy that deliberately favors particular industries over others, usually (but not necessarily) to enhance efficiency and promote productivity growth. Industrial policy in this sense is usually associated with the development experiences of Japan and other East Asian economies (South Korea, Taiwan, and Singapore) in the post-WWII period (Chang, 2009, p. 2).

Chang explains with more detail what is associated with industrial policy: “Industrial policy in East Asia involved a lot more than handing out subsidies and providing protectionism (e.g. tariffs, import bans, quotas, domestic regulations at least partially intended to curb imports)”(Chang, 2009, p. 3). The broad concept behind Industrial Policy as described and used in East Asia is key to understand a holistic perspective of development in Japan, South Korea, Taiwan, and Singapore, but is also vital to understand the models now being followed in Malaysia, and being transferred to other countries in the region such as Vietnam, Laos, but also African countries such as Mauritius and Rwanda.

Chang describes what the industrial policy measures included, emphasizing the importance of Government coordination between complementary investments (the so-called Big Push); competition of investments “investment cartels”; policies to guaranty economies of scale economies (e.g., licensing conditional upon production scale, emphasis on the infant industries starting to export from early on, state-mediated mergers and acquisitions); articulation on foreign direct investment (e.g., entry and ownership restrictions, local content requirement, technology transfer requirements, export requirements); mandatory training programs for firms; State Venture Capital to incubate high-tech-firms; export policies with financial support (e.g., export subsidies, export loan guarantees, marketing help from the state trading agency); and with allocation of foreign exchange for top priority going to capital goods imports (especially for export industries) and the bottom priority to luxury consumption good imports (Chang, 2009, p. 4).

The role of the state as a strategic planner of development is clear, defining the vision, the objectives, the strategy and implementing with the support of the private sector. Indeed, this holistic perspective about economic development where the public creates the business environment for the local private sector to thrive can be perceived in several ways. The first could be the existence of a *high-level public-private partnership*, another can be the importance of being financially independent to create its own development policy rules and to avoid or bypass North-Atlantic dependence. In any case, it seems obvious that the rules

of the game are essential, that *path dependence* can be broken down with locally developed rules by local experts, that development goes far beyond economics, and that the role of the state was in these cases essential for the economic success of these countries. “After at least three decades of intense debate on industrial policy, few people would deny that there are instances where state intervention in industrial development is justified” (Chang, 2009, p. 13).

For development practitioners focus on outcomes, development is measured mainly by the impact it has on communities and planet, and to use the state and private is just a question of balance rather than an ideological option, this is probably “the distinction between experience and lived experience” (Fukuyama, 2018, p. 133). This integrated approach resulting from combining lived experience with strategic development planning goes further and has integrated outcomes, as it combines a multi-sectoral approach to development. The objectiveness of infrastructure development as a means to the national development represents a holistic approach that link development with exports, with industry, with infrastructure, the level of institutional capacity existing in government through a period long enough to allow these programs to succeed are an example for researchers and practitioners that have a horizon of decades. “We do not build some abstract infrastructure but either a road between the horticultural export region and an airport or a railway between a steel plant and a seaport” (Chang, 2009, p. 14), this integration goes further, and the link is made between exports required to promote economic development, that asks for industrial development, that demand infrastructure development.

“To put it bluntly, economic development is impossible without good export performance” (Chang, 2009, p. 27). Besides a multi-sectorial approach to integrated development, there is also an evolutive approach, with a clear focus on exports. There is an evolution towards exportable goods with higher added value, with industries that require different types of knowledge and consequently demanding different skills, and investment, and above all require a long-term approach to development.

In the 1950s, Korea's main exports were things like tungsten ore, fish, seaweed, and basic textiles and garments. In the 1960s, the government developed “non-traditional” export industries like wigs, plywood, shoes, and cheap electronics assembly. By the early 1970s, however, many of these export industries, especially plywood and wigs, were hitting the wall so it launched the HCI (Heavy Chemical Industrialization) program, developing industries

like shipbuilding, steel, petrochemical, automobile, and high-end electronics as export industries (Chang, 2009, p. 29).

Breaking Away from Path Dependence

One of the most important factors that deserves attention is the courage to break away from path dependence, from what others assume the East Asian DNA was associated with. “Before their economic development, the East Asian were typically described as lazy, un-enterprising, individualistic people, living for today. Korea’s saving rate on the eve of its economic miracle was barely 5% and started rising after growth took off.” (Chang, 2009, p. 6). This example certainly is key for so many countries in particular LDCs. This topic will be further approached when the *post aid* agenda will be discussed. It is also an example of perseverance and faith in the will of the people, and in public interest that needed to know how to be against a traditional market approach. “There are quite a few examples in history where government officials made investment decisions that blantly went against market signals, sometimes even using state-owned enterprises as vehicles, only to build some of the most successful businesses in history. Japanese automobile industry, Korea steel industry POSCO, Brazil aircraft industry Embraer” (Chang, 2009, p. 15).

Although not referred as much as the East Asian models, Israel is another example of a nation that transformed the territory and created an environment for social improvement even if going through periods of conflicts. These examples are lessons, for developing as well as for developed countries alike, as they represent a combination of the development of policies, the creation of strong institutions as well as a choice of partners for change.

It was not simple to convince people that growing fish in the desert makes sense” Professor Samuel Appelbaum. The story of how Israel got to where it is – fiftyfold economic growth within sixty years- is more than the story of the Israeli character idiosyncrasies, battle-tested entrepreneurship, or geopolitical happenstance. The story must include the effects of government policies, which had to be as adaptive as Israel’s military and its citizens and suffered as many turns of fortune. The first great leap occurred from 1948 to 1970, a period during which per capita GDP almost quadrupled and the population tripled, even amidst Israel’s engagement in three major wars. The second was from 1990 until today, during which time the country was transformed from a sleepy backwater into a leading center of global innovation (Senor & Singer, 2009, p. 103).

Considering that Israel is in a conflict area, and permanently in and out of the war, studying is even more significant, as it can be extrapolated is to other conflict areas.

Good Enough Solutions and Islands of Competence

How was this done? What can be taken from the industrial policy development model? Once again, the way rules were established, the way people were involved is fundamental, understanding culture, understanding the human dimension, defining tangible goals, appointing and empowering people and trusting them. Chang describes the key to understand the world, the people, design concrete solutions and make them happen. “In the real world, successful countries are the ones that have managed to find “good enough” solutions to their political economy problems and went on to implement policies, rather than sitting around bemoaning the imperfect nature of their political system” (Chang, 2009, p. 19).

Fukuyama establishes a link between trust and social capital reflecting the capacity of cooperation. “Trust is based on what has been designated by social capital, this is, the capacity to cooperate with other people based on informal norms and values shared” (Fukuyama, 2018, p. 155), under this type of development environment it is clear that to empower people and build trust is key.

Chang describes how these are created “this was done through a gradual but deliberate process of building “*islands of competence*” and then giving them greater responsibilities as they succeed and increase their legitimacy and status within the bureaucracy, finally replacing much of the old bureaucracy with a new one” (Chang, 2009, p. 21).

As mentioned earlier, North and somehow Acemoglu consider that Institutions require that a certain type of culture and people, is required for change to happen, and often being this associated with Anglo-Saxon culture. Chang not only breaks away from this understanding by showing how east Asian traditions and ways of life were not an impediment to create economic growth in these countries, but goes further by suggesting the ways for this to happen in different social environments. Eventually, the most important aspect is the way imperfection is accepted as a starting point. The process is people-centric and has a bottom-up approach. Chang insists on:

devising imperfect but workable solutions to problems; improve our understanding of issues like i) How effective political visions can be formed and deployed to inspire various individuals and groups to act in a concerted manner; ii) How to build nations and communities out of groups that may have very long history of hostility and mistrust; iii) How to work out social pacts and build lasting collations between them; iv) How to partially accept but improve the customs and organizational routines in the bureaucracy; v) How to minimize

socially harmful lobbying and bribing while maximizing the flows of information between the states and the private sector (Chang, 2009, p. 21).

The change of paradigms is associated with a new attitude that accepts imperfection, is people-centric, uses simultaneously bottom-up and top-down approaches, is interdisciplinary and bridges theory with empirical knowledge. If this does not create the basis for *Development* to become a new discipline and independent discipline in science at least challenges economics to expand greatly from its usual geometry. In order to fully address these issues, “we economists need to go beyond the usual boundaries and work with practitioners (e.g., politicians, government officials, businessmen) as well as academics from other fields (e.g., political sciences, sociology, anthropology, cultural studies)” (Chang, 2009, p. 21). There is an appeal to consider and integrate the human imperfection as a development dimension and to live with it, and by accepting this reality to have development happening with good enough solutions. “Real-life success stories were often based on “good enough” compromises, rather than perfect solutions.” (Chang, 2009, p. 19).

These examples from East-Asia and the middle east show that is possible to break away from path dependence, and it is possible to create *islands of competence*, the question is therefore how to do it? How to choose the right partners? How to strengthen the right institutions? and considering the SDGs era, how to use this 2030 Agenda to catalyse these reactions? Considering the LDCs one extra question arises naturally, is it possible to leapfrog? And, where does *aid* stand on this process?

Claiming for a *Post Aid* Agenda in LDCs

Considering the success East-Asian development models are having it is just natural that other countries look for these solutions as a possible way forward, in parallel questions are naturally raised to the existing and recent development models applied namely in SSA countries. When the Swedish International Development Agency (SIDA) researched critical success factors for development institutions, again motivation, local culture and ownership were considered keys (Bergstrom, 2006). Local conditions, local solutions, local people are starting points for development, but Dambisa Moyo goes one step further, claiming for independence, not from cooperation but from dependency, from expecting the others to do what should be done locally. This perspective associated with dignity, being

poor but not being invisible, defended by Fukuyama, makes sense and is key to enter into a *post aid* era, where donors and recipients are replaced by partnerships.

Dambisa Moyo questions *aid* as a development model and presents southeast Asia countries and Costa Rica as countries that have developed an institutional environment that is friendly for investors, on the other hand, considers that *aid* is associated with negative institutional frameworks that benefit only a few. “The experience of countries as far-flung as Singapore, Mauritius, China, and Costa Rica suggests that where there is a positive environment, FDI will flow and contribute to sustained growth” (Moyo, 2009, p. 109).

After considering a relationship between national identity, dignity, vision, common good and strong institutions, where economic growth is associated with, the capacity of society has to discuss and decide what is public interest, and to defend the development process through an internal process where common motivation promotes togetherness; institutional *aid* seems to represent all the contrary. If others finance and fund, if others decide, if when *aid* comes it serves a few, if *aid* is a business for an elite, why bother? Why work? Where are the functions of the state above described?

Moyo presents professor Yunus institutional innovation as a key example to build community trust as social capital.

Professor Yunus’s innovation was to find a way to lend to the poorest of the poor who have no collateral. Looking across Bangladesh, Yunus realized that although many villages had no obvious visible asset, they all shared one thing – a community of interdependence and trust. The genius behind Yunus’s Grameen Bank (literally translated from Bengali as “Bank of the Village”) was converting that trust into collateral. When the loan is repaid, the next \$100 loan is made to the group, which is then passed on to trader B. But if trader A does not repay, the group is extended no further loans (Moyo, 2009, p. 119).

Make it simple, make it possible, make it work. The practitioner perspective associated with innovation that can be implemented on the field, in this case again, the example is not about technology but of institutional innovation based on trust.

Financing Alternatives

Moyo makes a difference between three different types of *aid*: emergency, a charity based, and systematic *aid* (Moyo, 2009, p. 22). This author considers that specific *aid* programs following a catastrophe, natural or man-made resulting from war are essential, however, if *aid* becomes permanent it has a counter development impact.

The need to fight for solutions from within is important as it contributes to the development of cooperation, of rules to support cooperation, develops a sense of economic independence and therefore of responsibility. “We have offered an array of financing alternatives: trade, FDI, capital markets, remittances, micro-finance, and savings.” (Moyo, 2009, p. 135).

The importance of the rules of the game, or the impact the lack of clear rules that are well enforced, are considered to be the main reason to support why institutionalized *aid* does not work. “At the core of the *Dead Aid* proposal is accountability.” (Moyo, 2009, p. 136). Aligned with this fact Moyo considers that improved representation of development agencies, with new approaches, has been creating ground for institutional change at this level.

There is a push towards greater inclusion of perspectives (from technocrats and policymakers) from the emerging world in the upper echelons of development agencies. And terms like public-private partnerships and private capital solutions to development financing have seeped into development vocabulary, placing greater emphasis on the role of the private sector and seemingly now questioning rather than merely perpetuating the existing development model (Moyo, 2009, p. 141).

A new consciousness and innovation Moyo suggest a new attitude towards development in Africa based on awareness, creativity, transparency. “Africa’s development impasse demand’s a new level of consciousness, a greater degree of innovation, and a generous dose of honesty about what works and what does not as far as development is concerned. And one thing is for sure, depending on *aid* has not worked. Make the cycle stop” (Moyo, 2009, p. 142).

2.2.5 Common Pool Resources an Alternative Development Model

After reviewing alternative development models based on geography but where the main players are the state and the private sector, this block approaches disruptive development models based on institutions that do not follow the public nor the private sectors, but rather the civil society or the Commons. This model known as the Common Pool Resources (CPR) presented by Elinor Ostrom with the book “Governing the Commons” (Ostrom, 1990) is of great importance for multiple reasons. One was to demonstrate how, using real case studies, the Commons can, and, do organize themselves to defend their interests. This represents that there are alternatives to defend common interest, away from using the

central or local administration. Indeed, Ostrom demonstrates that in certain cases the *common good* of a community is better defended, by an organized community than by the public, or by a private sector organization. This fact contradicted the Tragedy of the Commons defended by Hardin (Hardin, 1968) where the individual interest prevails over the common one. Another key aspect for this research comes from the fact that it was developed through a bottom-up approach with case studies, and therefore built from empirical knowledge. Ostrom also demonstrated that the strength of these partnerships was dependent on the quality of the rules created, as well as, the way they were enforced. For this reason, this block is also the bridge to the following chapter, where case studies will be used again as a research strategy to improve development models.

Self-organization

The disruption brought in by Ostrom is raised by the usual association, that the interest of a group is either defended by a private organization that at the end will generate a profit or by the public sector that has the motivation to defend the public interest. Having demonstrated that communities can, and do unite, to face challenges and that can organize, provide solutions on their own and that these may go beyond the expected satisfaction, that a private or public organization could create, opens the space for a third type of organization to exist.

Having demonstrated that these can be applied to the management of natural resources such as water, fisheries, forests, Ostrom opens the door to another type of motivation for communities to defend community interest.

Ostrom shows that cooperation is possible when common goals and the proper rules exist.

The central question in this study is how a group of principals who are in an interdependent situation can organize and govern themselves to obtain continuing joint benefits when all face temptations to free-ride, shirk, or otherwise act opportunistically. Parallel questions have to do with the combination of variables that will (1) increase the initial likelihood of self-organization, (2) enhance the capabilities of individuals to continue self-organized efforts over time, or (3) exceed the capacity of self-organization to solve CPR problems without external assistance of some form (Ostrom, 1990, p. 29).

Motivation is once more a keyword for the process to thrive. It requires a strong alignment by the group members involved to create the initial organization, and a clear set of rules is needed to maintain the organization. It is interesting to realize that rules evolve and are enhanced according to the need, or the motivation to have an expected outcome, showing

again the human factor not directly linked with maximizing its wealth can be overpassed by dignity.

“Individuals vary in regard to the importance they place on acting in ways that they and others view as right and proper. Norms of behavior reflect valuations that individuals place on actions or strategies in and of themselves, not as they are connected to immediate consequences. When an individual has strongly internalized a norm related to keeping promises, for example, the individual suffers shame and guilt when a personal promise is broken” (Ostrom, 1990, p. 35).

It is relevant to consider that at this level of organization, the human dimension can play an important added value, to follow the what was established by the community, indeed the involvement of the individuals at community level, raises the respect of the rules and norms to an ethical level that goes beyond the application of the law. Defending a common interest can take place as if a private interest is at stake. “CPR appropriators who organize themselves to govern and manage a CPR are faced with some problems that are similar to those of appropriating private goods and other problems that are similar to those of providing public goods” (Ostrom, 1990, p. 33).

Social Capital

Community-based organizations and CPR create the ground to observe the importance and value of trust as the base of social capital, indeed the cost of enforcement, the acceptance of norms that are adopted and followed as social capital. A new type of behaviour is created that goes beyond agreeing and complying with rules established, that take the community and therefore the individual to a higher level of respect and consideration for one another. On top of this already upgraded relationship between Commons, the level of conflict management is also improved, as there are a common purpose and interdependence between the group. Although this level of cooperation enhances the positive side of the human factor, the need to manage conflicts and ensure the common good is protected and requires the use of sanctions when needed. These aspects associated with management opportunistic behaviour, monitoring and sanctioning are described by Ostrom. “In a setting in which there are strong norms against opportunistic behavior, each appropriator will be less wary about the dangers of opportunism”(Ostrom, 1990, p. 36).

Principles of CPR Institutions

Although an initial approach could lead to imagine a natural process of cooperation simply based on the alignment of interests between the parties, the CPR process is far more complex and the different case studies reflect that the success of each case is directly linked with the respect of the rules and norms created as well the enforcement mechanisms. These examples allow reinforcing the importance of the strength of institutions creates partnerships between parties that have a particular motivation to cooperate. Below the principles illustrate the importance of defining clear boundaries, to have them adapted to the context in terms of place, time, technology, labour, money. It is also relevant to observe that although rules and norms are clear, they remain adaptable to the will and observed need by the individuals. Also, the monitoring, sanctioning and conflict resolution mechanisms are well established in advance. The human factor is recognized from the starting point and certainly, this will have an impact on generating the upgraded human relationship between individuals. It is also interesting that CPR considers from the beginning the possibility of scaling up and replicating the organization and therefore to grow to a different level of participation.

Design Principles for long-enduring CPR Institutions

The principles are an example of how rules, norms and enforcement measures can be applied to *out of the box partnerships*. Indeed, if a first impression of breaking away from a public-centric or a traditional private-centric approach could, only lead, to a less organized model of cooperation, CPR shows exactly the opposite. CPR also shows that the Rules of the Game are vital, including the respective enforcement mechanisms. The question is not, about the need to have rules, but, who can create them and manage them. The “Design principles illustrated by long-enduring CPR institutions” (Ostrom, 1990, p. 91), reflect this concept well. The first principle is to Define Boundaries clearly, Individuals or households who have rights to withdraw resource units from the CPR must be clearly defined, as must the boundaries of the CPR itself. The second principle is about the harmony between the appropriation of the rules and the local conditions. These rules restrict time, place, technology, and/or quantity of resource units are related to local conditions and provision rules requiring labor, material, and/or money. The third is about the way arrangements can be made collectively. Most individuals affected by the operational rules can participate in modifying the operational rules. The fourth is about monitoring, who actively audit CPR conditions and appropriator behavior, are accountable

to the appropriators or are the appropriators. The fifth and sixth are about enforcement mechanisms, sanctions and conflict resolution mechanisms. Appropriators who violate operational rules are likely to be assessed graduated sanctions (depending on the seriousness and context of the offense) by other appropriators, by officials accountable to these appropriators and officials. Appropriators and their officials have rapid access to low-cost arenas to resolve conflicts among appropriators or between themselves and officials. The seventh is about recognizing their right to organize their institutions without being challenged by external governmental authorities. The eighth principle is about growth in today's words about scaling up and replication, being the ability for CPRs to become part of larger systems: "Nested enterprises. Appropriation, provision, monitoring, enforcement, conflict resolution, and governance activities are organized in multiple layers of nested companies" (Ostrom, 1990, p. 101).

Short-term Profit as the Cause of Destruction

A key aspect of CPR is the long-term approach to create value in time, and this perspective implies that rapid extraction of profit to be considered as counter-productive. The fact that a community approach implies that proper planning, including maturity phases, are used to allow the process to grow and produce the outcomes at a certain speed that should not be rushed to originate short-term results, particularly when these could jeopardize the medium and long-term impact. At this level, CPR goes beyond the traditional private listed organization where the management team has a certain time to perform but at that the same time as the same amount of time to obtain personal returns. This cooperation model where all simultaneously share and stakeholders generates a new approach to the management of profit distribution as described by Ostrom.

The institutional arrangement of an open market and the theoretical interest in static equilibria enable theorists to posit maximization of a single variable – profits – as an internal decision rule for rational individuals in a market situation. Simply following short-term profit maximization in response to the market price for a resource unit may, in a CPR environment, be exactly the strategy that will destroy the CPR, leaving everyone worse off. Nonmonetized relationships may be of importance (Ostrom, 1990, p. 207).

5000 Case Studies

Using empirical knowledge to demonstrate a certain phenomenon, is certainly a way to contribute to knowledge and science. Not only is a way to give voice to people that often are invisible, but it is also a way to bring lived experience to social sciences. The interesting

fact on Ostrom comes by sharing that when the concept was shared a great number of cases were raised. “First, an extraordinary rich case-study literature already existed. Within a short-time Fenton Martin, who compiled the resultant bibliography, had identified nearly 1,000 cases. More recently, the number was approaching 5,000 Martin 1989” (Ostrom, 1990, p. 15). The fact that the cases reflect certainly not perfect, but real evidence that this type of partnerships exists. From observing the case-studies the question changed from *Is it Possible?* to the question *How Does It Work?*

This is another important aspect of the study as although it does not relate with CPR but with PPPs, the same type of considerations can be made. These cases are in no sense a “random” sample of cases. Rather, these are cases that provide clear information about processes involved in (1) governing long-enduring CPRs, (2) transforming existing institutional arrangements, and (3) failing to overcome continued CPR problems.

Another important aspect that will be used from Ostrom experience is the evaluation methodology, again rather than looking for a simple yes or no, does it exist or not, the question will be: How Strong? or How Fragile is this Organization? or in other terms: How Strong are the Institutions Supporting the Organization? and to evaluate what they have in common, creating a base to consider what contributes to creating robust or fragile institutions. “The purpose of presenting these instances of success, failure, and fragility is to determine what these cases have in common.” (Ostrom, 1990, p. 178).

2.3 Partnerships as The Players of The Game

Empirical experience has shown that the challenge behind developing partnerships is not about what they mean, nor about what is *Sustainable Development*, but how interests can be aligned and rules including enforcement mechanisms formed. This includes a governance model to be designed and to be implemented through the lifecycle of an asset responsible for providing a public service. Partnerships can be seen as organizations filled with human factor, where the rules are vital for cooperation as interests need to be aligned. Creating common principles and values can therefore be of paramount importance. Among these human factors, if it is accepted that *trust* is a keyword for a partnership to work, then

the research question could have also been *How to build trust among partners to achieve the SDGs*.

The concept of development has changed and grew from one based on economic growth to one combining social and environmental agendas. This new paradigm has raised the importance of *living* institutions. This section will discuss new ways, to be more open and more transparent to cooperate. The flow will follow a logic starting with: Why Cooperate? looking at theories for partnerships, followed by Why to Co-invest for Development? discussing why investment is vital for development and the need to combine different sources of funding. Considering that private sources complement public ones the following block will be on How to Partner and create PPPs? Is funding the only issue behind PPPs? Then, and considering the complexity of cooperating for development, capacity building becomes essential, to have the best-trained teams possible to ensure long and healthy partnerships. Lastly and because PPPs are not a panacea for development and careful aspects shall be observed when this option is taken, the last block will cover critics on PPPs.

2.3.1 The Theory of Partnerships

“The central focus is the problem of human cooperation” (North, 1990, p. 9).

The challenge of cooperation presented by North earlier will be reviewed not from the rules of the game angle, but looking at the players. Cooperation and partnerships are complex, and therefore a starting question is: If cooperation is a challenge why does it exist? Are partnerships an option? Are they simply necessary on certain occasions, and which occasions are these?

Partnerships in this research can be used in a great variety of perspectives, but they will address concretely those where parties agree to join efforts to promote the development of infrastructure assets, or, to exploit these infrastructure assets to provide public service. The question can, therefore, be reformulated, and address more specifically the topic on infrastructure development, involving public investment, and private sector participation. The question addresses, infrastructure as man-made assets that provide mobility, utilities, and social infrastructure solutions. These solutions can also involve real estate activities, industry, as well as agriculture and the exploitation of the natural resources associated with oil and gas and mining. Particularly when considering LDCs, integrated solutions involving

simultaneously all these sectors, gain importance and shall be analysed as part of a broader development solution as the impact on communities is greater.

The infrastructure asset class has normally been developed by the public sector and represents the largest amount of public investment, meaning that there is a close relationship between public investment and infrastructure investment. The development of infrastructure has normally been done by private sector companies, although the financing and particularly the funding for this type of investment has come from the public budget. Considering that most construction activities are performed by private sector companies, partnerships for the infrastructure development involve a relation between the public and private sector; however, these partnerships acquire a different dimension when besides cooperation around the action of transformation or exploitation the cooperation involves investment. Partnerships will therefore in most cases in this section and throughout the research be associated with public-private partnerships, involving cooperation around development, exploitation, and provision of public assets that provide public services, through a cooperation agreement that also involves investment.

Partnerships, Co-operation, and Working Together

As argued earlier it is defended that development models although designed for a specific context can be applied through adaptation to other contexts. Therefore, and although examples of research have been done sometimes in the UK, particularly in Scotland and Wales, that does not mean that adjusted extrapolation cannot be done to other contexts. Cooperation has been considered complex without mentioning the geography, indeed, the types of challenges vary according to the context, but aligning public and private sector for the development of partnerships will imply institutional frameworks that are adapted to a certain region, culture, geography, climate, where human factor in all its forms will remain key. McQuaid has developed an interesting cascade between the understanding and the latitude behind the concept of partnerships, linking the different geometries, with several assumptions, its dimensions and the possible top-down and bottom-up approaches.

The term “partnership” covers greatly differing concepts and practices and is used to describe a wide variety of types of relationships in a myriad of circumstances and locations. Indeed, it has been suggested that there is an infinite range of partnership activities as “the methods for carrying out such (private-public) partnerships are limited only by the imagination, and economic development offices are becoming increasingly innovative in their use of the concept (McQuaid, 2000, p. 3).

The Sum is Greater Than the Parts

Considering that the geometry of public-private partnerships can be countless, let us consider what can be the basis of such partnerships, and touching the point of whether partnerships should exist. Following McQuaid approach there are some assumptions supporting the concept of partnerships: firstly, the potential for synergy of some form, so “the sum is greater than the parts”; secondly, the partnership involves both development and delivery of a strategy or a set of projects or operations; thirdly in public-private partnerships, the public sectors are not pursuing purely commercial goals (McQuaid, 2000). Even when it seems evident that greater value will be achieved by combining efforts and aligning interests, the challenge remains on how this will be implemented. For this five dimensions should clarify partnerships: (i) what the partnership is seeking to do, i.e. its purpose and whether it is strategic or project drive; (ii) Who is involved, i.e. the key actors and the structure of their relationship in the partnership; (iii) When i.e. the timing or stage of development of the partnership process; (iv) Where i.e. the spatial dimension; (v) How the activities are carried out, the implementation mechanisms (McQuaid, 2000).

Another important perspective is the fact that partnerships can be created from either a top-down or bottom-up approach, meaning they can be initiated from political decision-makers that wish to develop a certain type of public service, or requested by the communities wishing to see their quality of life improved.

Avoiding Bridges that Go From Nowhere, To Nowhere

Recognizing that a transformational process is complex, involves financial resources, energy, commitment, alignment not only between the public and private sector but also and always, with the civil society as they (we) are the end-users is vital. The number of *bridges that go from nowhere to nowhere* is far too great, and therefore careful preparation and involvement of all parties are essential. If these *bridges* harm society, when PPPs are involved, the degree of public interest's lack of credibility impacts the whole partnership concept.

Partnerships are a way for parties to cooperate on a transformation process with multiple phases, from identifying the need to design a concept, to implement it, and finally to test that the public service is being provided to the satisfaction of communities.

Why Partnerships are Created?

As the understanding of the concept around partnerships becomes clear the main question has not been answered. *Why enter into a partnership?* McQuaid has approached the enforced cooperation and the game theory to support the purpose of partnering, and he concludes that parties do so, because they consider they will benefit from it. The reasons to cooperate may be imposed by an authority or may result from the understanding that by working together players will reach their objective resulting in an output and outcomes that are interesting to the parties.

Enforced Co-operation Theory and Game Theory

These different approaches are described by McQuaid as he analyses Smith and Darwin's approach defending mankind's nastiness from one end and then Rosseau and Ridley defending the ability to act socially as this benefit the individual. The *Enforced Co-operation Theory* explains that: "The main reasons for co-operation are the threat of a central authority, common objectives or (other) self-interest. This threat may be positive (i.e. coercion) or negative factors" (McQuaid, 2000, p. 23).

The *Game Theory* approach is different and results from considering that players faced with an option of cooperating end up considering that partnering will be the choice that will result better for each party. Considering one area of economic theory that can structure the issues of inter-relationships and interaction is Game Theory. Axelrod uses this Prisoner's Dilemma to argue that for individuals pursuing their self-interest, incentives for co-operation will be greater than for selfish behavior.

The interesting fact is that either considering the *enforced co-operation* or the *game theory* can be recognized that partnerships do not form naturally but result from the interest of the parties to cooperate as they expect the outcome will benefit the parties involved.

Implications from the Theory for Partnerships

The motivation to partner is key once it represents the need to align, to get out of the comfort zone, to understand the other party, and to adjust to one another. If the outcome, more than the output, is not clear at the beginning, then the igniting point needed to cooperate may not generate the desired partnership. Likewise, during the process of transformation, and particularly when problems occur, the willingness to overcome them, will need to have present the vision of the future where both parties will benefit from the

emotional investment made on adapting the parties to each other. Considering this type of partnerships, PPPs, that at the end have the objective of improving public service, a public sector responsibility, understanding the need to motivate the private sector is essential. To openly and transparently consider that pay-offs are part of the trade-offs, is key to the design and implement a partnership.

Co-operation can be encouraged by changing the pay-offs, and by making deflections from co-operation more expensive. To attract increased private sector involvement, it is likely to be essential to change existing pay-offs. Also, if the costs of failure of a partnership are high, then a partnership is less likely to disintegrate (McQuaid, 2000, p. 26).

The maturity involved in understanding the trade-offs is important among all three parties, the public, the private and the civil society. Particularly considering the long-term perspective this type of partnership involves, avoiding a short-term and unbalanced position, where one party expects the other to be exploited, even if it can represent a quick win, will have dramatic consequences, on the public service delivery.

Two important dimensions result from this analysis, the first has to do with time, these type of partnerships involve the lifecycle of infrastructure assets normally designed to last over 30 years, this represents first of all to consider the public service with a time frame that goes beyond political mandates of four or five years, this represents indeed designing solutions that will go beyond the professional lifecycle of the team involved. This type of development approach, unlike a trading operation where once the financial transaction is completed the responsibility ceases to exist or is diluted, infrastructure development implies a long-term relationship associated with visible assets, seen and used by the community, and therefore implying a relationship between the parties that go beyond the simple public and private interests, to one where both teams wish to proudly say, *we have done this together!* This human dimension and individual level are key for the success of these types of partnerships and go well beyond the utility factor.

The second dimension is the flexible geometry involved on this type of transactions, theoretically and in an abstract static and frictionless state, one can imagine that an infrastructure asset will provide a public service that will be stable and that considering the maintenance required the service and the asset will be a constant. For development practitioners, this static and frictionless state simply does not exist, and to take them as an assumption for a relationship that will last over thirty years is a mistake, as it will lead to unnecessary conflicts. This happens because when the contract is designed doesn't consider

nor the human nor the technological dimensions of change in time and context. It is therefore rather wise, that the institutional framework considers both a dynamic as well as a system with friction, as adjustments will be required. Likewise, not to consider the technological impact is a way for conflicts to arise. A simple example can be considered if in a certain territory, the economic mobility changes. Mobility economics based on the fact that automobile ownership is part of individual status, leading to individual transport, and against public transport, will change with driverless vehicles, and improved public transportation, affecting traffic and therefore the use of highways, and consequently their revenue stream.

2.3.2 Co-Investment for Development

One major consequence of the 2030 UN agenda is the recognition that the public sector alone is not able to provide the financial resources needed for development and more concretely to achieve the SDGs. The search for other sources of funding, namely private capital can be an important option but involve risks and therefore requires careful preparation. Indeed, the PPP option opens an important window about how to improve the relationship between Development and Public Investment. Considering the availability and willingness for private capital to be deployed, namely investing in infrastructure assets, the question is how to align private investment with the public interest and common good. In general terms, the better the vision and strategy about what is the common good, and the stronger the public service is, understands and manages public interest, the easier it is for the ethical private sector to invest.

Transformation requires an input of energy and resources, and in development processes namely involving infrastructure, this implies investment with considerable amounts of capital. Development and investment go hand in hand, and, financing and funding, are vital aspects of investment. When the objective involves the development of public assets, public investment with public funding is the usual way to address this process. When transformational projects are required and there are not enough public funds to support investment, either investment will not occur, or other ways have to be found to overcome this fact. As it will be explored later, funding is not the only reason to promote cooperation between the public and private sectors, but it does represent a major motivation to do so.

Public Investment and Development

Accepting that to improve quality of life to communities and to protect the planet transformation is required, and that to make this happen public investment is necessary, then a relation between public investment and development is established. The degree of investment depends on the level of transformation required, which means the importance of investment is greater in LDCs. Considering that investment represents the means, but not the end in itself, the process must aggregate the social and economic development of the communities involved.

Public investment can be associated with different levels of importance, and its impact will vary within a country and region as well as within a sector. It is however accepted that the less developed a certain region is, the more likely a well-designed and well-implemented investment program, the greater the impact will be.

Once the importance of investment is acquired for development, the following step becomes to identify ways to have public investment taking place, in carefully selected projects that will originate not only the output but the desired outcome and impact. Considering that often the public sector cannot be the sole capital provider, even considering a traditional public debt approach, this is one circumstance where cooperation with the private sector is a possible option. “As the public sector alone cannot meet critical needs, it is vital to trigger private (foreign and domestic) investment. One way of leveraging private investment for development purposes is to link it to public investment” (UNCTAD, 2010, p. 1). At this point, the objective is simply to establish the link between development, investment, and capital providers, although should be clear that Public-private partnerships of various kinds entail both opportunities and risks. The policy challenge, therefore, is to maximize the benefits and appropriately manage the risks.

Complementing Public Investment with Private Capital

Investment will have different impacts on different countries and on the way it will be used. One important aspect is that the infrastructure gap is bigger in the least developed countries (LDCs), not only because the development of infrastructure was not done but also because these countries are normally associated with positive demographic challenges associated and with rapid urbanization. This means that infrastructure development may induce a virtuous cycle of growth if applied correctly, or on the contrary, may induce a vicious cycle. There is a correlation between infrastructure needs, population, and population density. The

development of the water system has a double impact, as the drinkable water system and water treatment plants will generate quality of life when they are created, and, its non-existence represents a source of public health challenges. Education is another example where infrastructure assets may contribute to economic growth and prosperity or social exclusion. PPPs frameworks imply having integrated approaches and therefore allow to combine, not only the infrastructure development, but the financing arrangements to be linked with the provision of the public services, of water and education for the cases above described. These infrastructure gaps, particularly in developing nations with financial constraints represent the development and public investment challenges, and therefore a potential destination for investment cooperation.

As the government in developing countries operate on limited budgets, especially in countries experiencing rapid population growth and urbanization, they need to tap into the private sector (domestic and foreign) for capital, for technology, and for the expertise to finance, develop, and manage public-sector projects in infrastructure and other areas. Evidence suggests that the more PPP projects are launched in a nation, the higher the rate of GDP growth is since such projects tend to be both large and long-term. Private investment of this nature also attracts other private investors to the market, creating a virtuous cycle for economic growth (UNCTAD, 2010, p. 10).

Lack of Fiscal Space Creates Room for PPPs

Although the financial gap for basic and priority infrastructure is more obvious in LDCs, the necessary fiscal space to provide public funding for public investment is an issue for most economies around the world. The World Bank addresses the question as a lack of fiscal space, as a reason for PPP development. This applies to many countries, but indeed PPPs have been growing in countries such as Norway where the fiscal space is not the main concern. Indeed, efficiency and innovation have also been reasons for governments around the world to look for PPP as a solution to improve the quality of life. However, if there is a considerable consensus on the benefits of what a well-structured PPP program can provide, the selection of the right projects, the right preparation and management remain a challenge as described by WBG.

Lack of fiscal space and the quest for better efficiency in projects and programs has led to an increasing interest in PPPs globally. While there is some consensus around what goes into the making of the right frameworks and what would give greater comfort to the private sector in terms of government support and risk allocation, and clarity and predictability, there is less consensus on what goes into the selection of the right projects(WBG, 2016, p. 2)

Aligning Public Strategic Interest with FDI

Investment cooperation can take place between public and private sectors as well as between domestic and foreign capital providers, and, looking at investment in global terms three areas have been identified as the ones that can best combine domestic and foreign investment: infrastructure, climate change, and agriculture. (UNCTAD, 2010)

On one end the importance of private capital to fund development is unquestionable, and this will represent a major source for foreign direct investment (FDI). Considering the importance of investment to development, FDI will consequently represent the main route to achieve the funding for national development programs. On the other end, FDI typically represents private foreign capital, which means that a double alignment needs to be established. One between public and private, and, the other between domestic and international. These facts serve to reinforce the need to manage well the public interest as its implications on communities will have a medium as well as long term impact.

As partnerships are not a panacea to solve all sorts of problems, investment and in particular private foreign investment has to be taken carefully as it affects directly the development strategy of each country. Considering private partners have their own agendas, FDI will as well, have their motivations that need to be carefully understood and managed. The national development plans when developed with a local perspective, rather than simply import from countries with their own FDI agendas, can and shall be vital instruments to evaluate and balance the best way to combine synergies. One key aspect is to align within a development policy, the industrial and the infrastructure policies as described earlier by Chang.

Ideally, the Infrastructure Investment Plan is developed by each country, nation, city and the investment opportunities are open according to a national development strategy. UNCTAD highlights the importance of national interest.

Countries need to decide on the extent to which they want to open their industries to private investment, and whether this would include foreign investment. The decision becomes particularly relevant in strategic industries, such as energy distribution and transmission, and also in industries considered politically sensitive for socio-cultural reasons (e.g. agriculture) (UNCTAD, 2010, p. 16).

Creating Value from Existing Public Assets

Although using private capital to complement public investment is an option, one important way to improve public investment can be through “*sweating public assets*”. This is another option to explore, that can involve the public as well as public and private cooperation on asset management rather than asset development cooperation. *The Economist* describes four categories of public wealth, two of them are land and infrastructure. The article can be seen as a counter-argument on fiscal space suggesting that by improving the asset management of public wealth, fiscal space could improve significantly. This line of thought may be linked directly with the cooperation of public interest and private dynamics and therefore one front to be exploited under partnerships.

Proponents of sovereign-wealth funds like to say that returns from publicly owned assets could, in theory, displace taxes. In countries that have not struck oil, however, the chance of politicians building up savings rather running up debt seems remote. Yet states may not need to save to enable at least some tax- free spending. Most already have plenty of assets. The problem is that they do not sweat them hard enough. Most public wealth falls into one of four categories: land and natural resources; property and infrastructure, such as ports and roads; public firms, such as utilities and state-owned airlines; and financial assets like those held by public pension funds (TheEconomist, 2018).

2.3.3 Public-Private Partnerships Perspectives and Definitions

After visiting the reasons for cooperation to work, and the need to co-invest it is time to look into how the concept associated with Public-Private Partnerships has been defined, the challenges behind the concept and new forms of cooperation that combine PPPs and SDGs.

The objective is to provide elements to answer the following questions regarding PPPs, normally addressed by the academy and practitioners, from public and private sectors as well as from the civil society regarding PPPs:

1. Is the concept of partnerships and PPPs too complex?
2. Are PPPs a panacea for development?
3. Is PPP's main goal to provide solutions through off-balance public financing?
4. Is the concept understood well by the public and private parties?
5. What is the role of the Civil Society Organizations (CSOs) and the academy?
6. Are PPPs above all, players of an economic and financial game?

7. What are the formal and most important informal rules of the game on PPPs?
8. Is value for money the best way to evaluate PPPs?
9. How is the utility function perceived in PPPs?
10. How are the rules enforced?
11. How to deal with vested interests?
12. Are People-first PPPs a new generation of Partnerships, how are they different?
13. How to leverage local SMEs, promote local jobs, and ensure the transfer of knowledge?

Contractual Arrangements for Partnerships

Partnerships reflect an agreement to cooperate, but when this cooperation has the intention of managing a complex transformational process, involving significant investment, multiple types of players from both the public as well as the private sector, the arrangements require contracts that are also complex. Rather than entering into the detail of what can be partnership contracts for PPPs, the objective is to highlight some of the definitions, key ideas, and “hidden” challenges so that players can avoid this type of relationship, or if decide to use it, increase the development rate of success. As ideas about partnerships evolve, it is natural to consider that partnerships are not an answer to every challenge and often should not be adopted. Indeed, the sooner the partnership option is out the better it will be for the development process. It is also important to consider that PPPs are not an end, but the means to an end. In any case, and considering PPP is a development option, formalizing the relationship becomes essential. At this moment it is important to recall that PPPs involve three parties, even if only two will be signing the contract. Considering that the civil society is, even if not formally at the table, is a key stakeholder, is vital for the success of the partnership. One key aspect of designing a healthy relationship between the parties is to understand each-other perspectives. If the private sector is associated with profit, a fairly simple and straightforward concept to integrate, the one associated with the public sector and certainly with civil society, is more complex as it is associated with the public interest and the common good.

The World Bank definition explains a PPP as a long-term contractual relationship between two parties that share risk, responsibility, and remuneration. “A long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility and remuneration is

linked to performance.” (WorldBankGroup, 2017, p. 2). Although the definition seems simple on a first approach, it does not reflect openly the real challenge behind this type of contracts. Indeed, as the private party is asked to take risks, it means that the private partner expects to be remunerated to take them, and expects as well to be involved in the management of the process to control and mitigate the risks. Until these two aspects are not understood and dealt with the likelihood for unsuccessful cooperation exists.

When looking for the reasons to establish a PPP the WBG highlights three main reasons linked with, cost, time and innovation. WBG considers that themes include: (i) the need for the public sector to reduce the cost of building and maintaining infrastructure assets without negatively impacting on the quality of public sector services; (ii) the need to accelerate delivery of both greenfield and rehabilitation infrastructure and the expansion of brownfield infrastructure; and, (iii) the advantages of crowding in private sector expertise in delivering certain innovative technologies and services (WBG, 2017). Deciding to improve the relation between cost, time and quality is easy to accept and is naturally aligned with the public interest, and, it is quite easy to accept while talking about asset delivery. When the process moves to asset management and the inherent provision of public services, the question often brings new ways that enter in conflict with existing practices. This aspect is perceived differently when the public service is provided in a country for example with power cuts, and the new power station improves the availability of electricity to communities. However, if the new asset and its operation, happens in a region without power cuts, and will question for example the number of operators that use to work for a state-owned company, then although the output is identical, the outcome and in particular the social impact will be very different.

The Canadian Council for Public-private Partnerships combines public service or public infrastructure and transfer of risk between partners. Their definition is often used among PPP development practitioners as it is very broad and therefore allowing new forms of cooperation to fall under it. "A cooperative venture between the public and private sectors, built on the expertise of each partner, that best meets clearly defined public needs through the appropriate allocation of resources, risks, and rewards." (Canada, 2017).

“Two deficiencies: funding insufficiency and low efficiency”

The geometry and purpose of a PPP solution will vary among nations and in a certain country will vary within sectors. There is, no one PPP size fits all, and therefore it is very

important to understand the challenges, “*failures and deficiencies*” a development system faces. Wang Tianyi who is also a Member of the Business Advisory Board at UNECE, a professor at Tsinghua University in Beijing, and Co-Chair of TUPPP Tsinghua University PPP Research Center (the think tank of the Government of China, responsible for implementing over 2000 PPPs in China in the last decade) gives an important contribution to the reason of creating PPPs in China, that can be applied globally when addressing the problem of “two deficiencies” and “two failures” as the main reason to develop PPPs.

In conventional economics, public goods can only be provided by the government. However, during the government’s provision of public goods, a problem of “two deficiencies” often exists, i.e. “funding insufficiency” and “low efficiency”, which is also known as “government failure”. How to resolve the issues of “two failures” and “two deficiencies” is, therefore, the proposition in economics which leads to the introduction of the concept of public-private partnership “PPP”.

Since the private sector is unwilling to provide the public goods and the government or the public sector is not doing well therein, will it be possible to adopt a semi-market and semi-administrative arrangement to combine the government-led equity and the enterprise-pursued efficiency so that the issues of “two deficiencies” and “two failures” could be tackled and the quality and efficiency of public goods and services could be continuously improved. This is the theoretical background and academic needs for the introduction of PPP (Tianyi, 2016, p. 1).

The bluntness assumed by a Chinese scholar responsible for the Chinese catching-up in what concerns infrastructure development is striking and should be seen as an example to deal with government challenges. Assuming funding is an issue for a country with the current financing capacity to launch the Belt and Road Initiative, the largest ever infrastructure program designed by men. The low efficiency is also key and although the topic is crucial for understanding the added value to bring in private sector participation will be left for further research. It should be noted at this time that China is today the country with the largest pipeline of PPP projects (Neves, 2019b).

Transfer of Decision-Making “Power” from the Public to the Private Sector

As described by Wang, the public sector suffers generally from two deficiencies, funding (PPP officials in Norway and for many years in Saudi Arabia, claim the reason for using PPPs does not involve a funding gap), and efficiency. As this becomes accepted, and if the public sector decides to invite the private sector to partner and contribute to a solution, at this moment the public sector asks and opens the door for the private sector to participate directly and indirectly on public development policy, this represents that decision power will be shared and for certain aspects transferred to the private sector. This happens in all

types of PPPs, but it takes particular relevance when the private sector is not only a service provider but is also an investor and a lender. Whether the efficiency provided by the private sector comes from the fact that financial returns represent a paramount concern to the capital providers, or because the motivation often associated with remuneration done at the private sector is more mobilizing, or on the other end because the public sector traditional type of management does not allow for delegated powers to occur in a way a project company requires, the fact is that the management process made with the private sector is different.

The power transfer can be treated differently according to the decision-making levels, but this represents that these levels are identified within the public sector. In other terms, it may be acceptable that at the project level the autonomy of the private sector is great as this affects directly the cost, time and quality and consequently capital expenditure (CAPEX), operational expenditure (OPEX) and revenue stream. However, at the program investment level, and particularly at the development policy level, it is less obvious that the private sector has the right to influence an investment or development strategy. If these levels are clearly defined, the fact that delegated powers are transferred to the private sector can induce an improvement in the public sector teams, investment, and development management. If these governance issues are not observed, and, the public sector management teams are not familiar to use the investment and development levels of management this can be perceived as a strong loss of decision-making power. As mentioned earlier the better the public sector teams understand common good and public interest, and, are used with PPP management as a way to improve development, the easier it will be to implement new development models and to attract quality developers, investors, and lenders.

PPPs Require that Public–Public and Private–Private Partnerships are in Place

A PPP before being a partnership between the public and the private sector, should result first, from a public-public partnership between local, central, federal and global public sector. The final purpose is always to improve the quality of life of communities and to protect the planet by providing quality public services, and therefore a common vision within the public sector about the objectives is essential. Then, there should also exist a private-private partnership combining developers, investors, and lenders. If these public-public and private-private partnerships are not in place, the alignment between public and

private is more difficult to reach. One advantage of using an SDG approach is that automatically both parties know that *people, planet and prosperity agendas* have to be aligned under this SDG language.

PPPs are Projects Driven by Project Companies

PPPs are project-driven and therefore project companies are created to implement them throughout their lifecycle. These project companies are normally called special purpose vehicles (SPVs). The fact that this is a project-driven process does not exclude the need to have the projects as part of a broader program, and that the program is part of development policy. Indeed, a common understanding of the role of the project, and, the impact it will have, normally enhances the degree of motivation on the management team and facilitates the process. This perception of the outcome expected in terms of social and environmental impact, and, how they are integrated on a global, central and local framework are key to design a solid strategy and consequently to attract the private sector.

Also essential is the alignment between the parties on the transformational process, particularly because the private party that is in charge of development and of the operation, is often the one that has the transformational knowledge comprehending in itself the design, the procurement of goods, services and equipment required to be assembled, and the construction or the transformation of the asset itself. The private partner is normally in charge of engineering, procurement, and construction (EPC), and called EPC contractor or developer. This reflects an association of specialties, as not all developers (indeed only very few), combine these three types of skills. Associated with the EPC that will be responsible for designing and implementing the asset on the field, these activities to be the upstream process on the lifecycle. Activities of operating and maintaining (O&M) the asset, to be considered as downstream and provided by O&M companies. Once the asset is developed and delivered, the activity of asset development ends, and the activity of asset management begins. In reality, asset managers follow the asset development phase as well as asset developers assist the asset management activity for a certain time to ensure the asset delivery was done successfully. These activities may include the provision of public service to the communities or not. In the case of health PPPs often the asset developer, responsible for providing the hospital, is also the asset manager, and therefore it is in charge of creating the asset and maintaining the asset. There are cases where the provision of health services

is also provided by the asset manager. But in most cases where the provision of the health services is being provided by a different public party.

Financing and Funding Perspectives

The first element within the private partnership, the developer, was observed, it is a key element as indeed the developer is the one that taking the design, construction and operation risks, it is the asset specialist, as it can develop the asset and can operate it. The second party, within the private-private partnerships, is the investor, and in this case, the investor specialty is to provide equity to the project. Unlike the developer that is an asset transformation and operation specialist, the investor is a financial risk specialist that has the ability of understanding and correlating CAPEX, OPEX and revenue stream and to choose the right projects where to place the initial capital for projects to take-off. As PPP projects are normally designed with a *first-in last-out capital approach*, the investor is the first one to put capital in the project, followed by the lender, the lender is the last capital provider to enter into the process. The lender complements the funds needed and initially provided by the investor, being the last capital provider in, and, the first to recover the funds used to complement the equity provided by the investor. As principal and interests are returned to the lender, the investor receives the equity, and, an expected return on investment, the last capital out. The second private party is, therefore, the investor that understands the developer process and takes the initial capital risk. The investor is a key private party as it bridges the developer, the private party with the capacity to transform and manage the asset, with the lender. The ratio of capital for this type of projects varies normally between 10 to 30 percent equity to 90 to 70 percent debt. The debt amount is provided by the lender. The lender is normally a financial institution, that recognizes the ability of the investor to choose the projects where to invest and accepts to fund the project normally assuming that the first capital loss will be taken by the investor and therefore is taking a much smaller amount of risk (WBG, 2017).

The private party normally associated as one party represents these three types of private partners that have a different risk approach, and, a risk allocation adjusted to the specialty of each party. It is, however, important to understand that the process of cooperation between public and private lays on a previous cooperation agreement between public parties and private parties. Having understood this already complex structure, between the different parties, is essential as the number of interfaces is indeed much bigger than simply

the one public and the second private partner. All these interfaces represent a potential lack of alignment and consequently cooperation risks. Today along with bankability, the term investability is being used as capital providers comprehend international financial institutions, banks, development, and commercial banks and infrastructure funds, with different types of relating with developers and the public sector.

“Capital is Coward”

The expression “*capital is coward*” (Kamel et al., 2017, p. 3) is probably a clear way of demonstrating that capital providers are careful about the way this resource is used, and this represents that the process of building the necessary trust for capital to be used, is a paramount importance to all development practitioners involved with fundraising activities. *Trust* is probably the most important keyword in PPPs, and, certainly applies to the relation between developers, investors, and lenders. Indeed, for a PPP project to be investable means that investors need to trust developers will build the project generating a profit, and for a project to be bankable, it means that investors and developers can service debt raised with interest. In practice, this means that the Private Partner’s operating cash flows need to be high enough to cover the debt service plus an acceptable margin to cover the risk of variation to the cash flows. Lenders will, therefore, focus on the payment mechanic and any risks which could adversely affect the expected payment (WBG, 2017).

Another key aspect involved with the financial angle of PPPs is *Value for Money* defined “as a utility derived from every purchase or every sum of money spent. Value for Money is based not only on the minimum purchase price (economy) but also on the maximum efficiency and effectiveness of the purchase” (Business, 2019). It is a key factor for PPP evaluation as described by Sarmiento. “In choosing to develop a project using traditional public procurement, or public-private partnerships, the decision should be based on a financial evaluation of the alternatives” (Sarmiento, 2010). Although Value for Money is certainly an important instrument to evaluate decisions concerning PPPs, the reality is that although being important is not able to reflect the whole development impact. Considering that the development impact of infrastructure goes far beyond its financial or economic evaluation VfM is short-sighted. For this reason, the concepts of Value for People and Value for Planet are being developed to have an evaluation methodology more aligned with SD and the SDGs.

Risk Evaluation and Management

One key characteristic of PPP solutions is that covers the full lifecycle of an infrastructure asset associated with the provision of public service with a risk analysis, resulting in risk sharing. There are two types of PPPs, depending on how the commercial risk is distributed; economic PPPs, have commercial risk and are based on user's payments, and, social PPPs, also called availability type of PPPs, where the revenue stream is secured by the public administration, and therefore do not have commercial risk. On top of how commercial risk is shared, it is also important that aspects covering expected cashflow involving financing and funding are clear from a very early stage, to approach investors and lenders.

In terms of risk management, the common PPP principle is that risk allocation is to have it managed by the party better equipped to do so. As an example, it is normally accepted that construction and operation risks involving CAPEX and OPEX are taken by the private sector, and political risk involving a change of law by the public sector. However more complex risk distribution analysis happens when geological risk has to be evaluated for example when the foundations require the soil studies data that require investment, and, often is not available before the private partner has been chosen; likewise, tariff risk that often is associated with political options, and, that have direct impact on revenue stream requires a more profound risk analysis and consequent risk allocation.

PPPs Imply a Holistic Perspective of Development and Provision of Public Services

The holistic approach behind PPPs is necessary as on one end the spill-overs can be very positive and, be used as start-up mechanisms to enhance for example asset management capabilities among the public sector, but it can also have negative consequences if the process originates a lack of credibility in the public sector or the quality of public services. One reason PPPs require a holistic perspective comes from the fact that it involves public investment and this reason alone would be enough to give particular attention to this fact. Indeed, one aspect that is not often considered is the fact that public investment with private sector participation is highly scrutinized which is very good as this leads directly to an improvement in how public spending occurs, and, on the type of impact has on society and nature. Unfortunately, the public sector without private sector participation does not have the same type of analysis, and, as referred on the economist article there is a considerable amount of value that can be created from an improved public asset management.

The following examples of PPPs in higher education, health, and environment sectors represent the need to take a holistic approach as well as the need to be open and creative about development processes occurring through partnerships. The use of PPPs in Higher Education presented by Renner is an example that reflects how a holistic approach to P3, as PPPs are called in the US is driving the change on how Universities address the future and a way to shift from public funding.

It has been more than a decade since a report by the Institute for Higher Ed Policy first noted a worldwide shift away from public funding sources and toward private capital to finance higher education projects. The cold, hard fact is that available public funds for higher education have been shrinking. It is also the reason so many institutions are looking to public-private partnerships as a financing solution for their biggest and most important projects (Renner, 2018, p. 1).

This report reflects the holistic approach and the variety of options associated with PPPs. Just as identified by Wang, Renner recognizes that funding being the original reason to look for PPPs was indeed complemented by more efficiency. Renner concludes by analysing the need to cope with the current fiscal space in the US.

An interesting fact is that although PPPs have been developed for centuries, with a particular increase over the past decades, it has resulted mainly from the action of practitioners, and the knowledge gathered is mainly of empirical origin. Roerich, Lewis, and George describe this fact on the health sector, but replicable to many others.

Governments around the world, but especially in Europe, have increasingly used private sector involvement in developing, financing and providing public health infrastructure and service delivery through public-private partnerships (PPPs). Reasons for this uptake are manifold ranging from rising expenditures for refurbishing, maintaining and operating public assets, and increasing constraints on government budgets stifle, seeking innovation through private-sector acumen and aiming for better risk management. Although PPPs have attracted practitioners and academic interest over the last two decades, there has been no attempt to integrate the general and health management literature to provide a holistic view of PPPs in healthcare delivery. We find that despite the scale and significance of the phenomenon, there is relatively limited conceptualization and in-depth empirical investigation (Roerich, Lewis, & George, 2014, p. 1)

This fact is particularly important coming from the health sector, as this is one sector where the financial resources being scarce, are not usually the main issue.

Another example comes from the environmental sector, certainly the most global sector, as air, and water does not usually reflect any sort of political border, and, therefore public interest takes a different dimension as it has to be taken at a global level. The challenge of

managing public interest globally goes far beyond this research on partnerships but certainly shows how the institutional design and partnerships are key to address challenges that the existing formal institutions are facing. Backstrand brings the identification of deficits that can be sorted out by partnerships. If global environmental politics for the above-mentioned reasons are hard to be addressed is understandable, the fact that there are implementation, and, participation deficits represent areas that are being exploited in the most traditional infrastructure PPPs.

Does the rise of global partnerships imply a re-location of and diffusion of authority from the government to public-private implementation networks? Partnerships have been framed as innovative forms of governance that can effectively address the three “deficits” of global environmental politics: the governance deficit, implementation deficit, and participation deficit (Backstrand, 2006, p. 1).

This holistic and borderless approach to PPPs is also shown by the way the partnerships spirit is used when development is associated with *aid*. The EU has been an example of institutional innovation in itself and is continuously looking for models to promote models among its member states, EPEC is the EIB PPP arm, and EIB is the EU Bank. It is therefore relevant to see that the EU fosters not only the use of PPPs but also the cooperation between EU Aid and PPPs as long as this is studied at the design phase. There is a significant complementarity between PPPs and EU State *aid* policy (EIB, EPEC, & Freehills, 2016).

Another angle of interest is the approach of non-governmental organizations (NGOs) to the PPP system, in this case, they are not bringing private capital, but rather they position themselves as delegated project managers of the public sector for ODA and soft loan finance. Although the spirit is limited when compared with public-private partnerships, it is an example of how PPPs integrated approach can be used by NGOs. Public NGO Partnerships (PNP) specifically directs ODA and institutional loan finance for projects towards core public services and productive capabilities (including their enabling infrastructure) (Dombkins, 2017).

2.3.5 Capacity Building for PPPs

PPPs are an innovative way that besides aligning public and private interests, may represent a backward approach to public services, which in it-self implies an integrated solution composed by interdisciplinary teams. This approach should lead to an increase in efficiency

that is complemented by an enhanced funding solution. If, to these aspects, PPPs are also used for nations and cities to implement SD and contribute to achieving the SDGs, then the scale of the institutional change is considerable and can represent significant catching-up. The purpose at this stage is to reflect on the human capital necessary to lead this type of process. This means that PPPs require that experienced interdisciplinary teams have received adequate preparation. As mentioned earlier this type of knowledge results today essentially, from empirical experience, and therefore the impact of hands-on training involving the development of real cases as shown to have more impact than traditional top-down classroom education. Another key aspect as highlighted while discussing the importance of institutions is to consider the local context. These two aspects together lead to consider the on-site and hands-on transfer of knowledge as an important way to have PPP experts being trained. Another complementary way is the involvement of public officials emerged in SPVs with executive functions. These on-site, hands-on approaches do not exclude the role of the academy, on the contrary, there is today a lack of research labs involved with public investment mechanisms, namely ones that align investment with, innovative financing and the SDGs. One thing seems obvious, the need to involve private sector participation in public investment will keep increasing, and the resulting impact will mainly depend on the ability of public officials to defend public interest and the common good. This represents managing public interest and consequently public decision-making “power” at a more strategic level.

It is never easy to share power, particularly public power, usually reserved to public officials, that are either elected or have been selected to become public servants. Although public power for those elected represents a delegated power that is limited in time, and public power for the public servants is normally associated as something that has been acquired and will last for the rest of their professional time life, in both cases it is something that it belongs and has been exclusive to the public sector. Involving the private sector in decision-making processes represents sharing something that, it was part of being a public servant, and that for a specific reason, will be shared with others that have not been elected or contracted to defend the public interest. Without understanding this it will be very hard to have public officials agreeing to sit and expect them to truly trust and share. Besides sharing what used to be only public, it is likely, if the public officials have not received the proper training, that the private partners come with people that are more familiar with the process of project management and development, with more investment and financial

knowledge, to generate assets that will create value in a way that will (for the case of user-pay) pay back the investment and generate a profit. It is likely, in these cases that the private sector can provide solutions the public has not been prepared for. This fact is aggravated by the fact that the legal teams brought in by the private sector, are normally better prepared to deal with specific types of infrastructure development contracts involving financing and investment.

Reflecting about transaction costs, i.e. nonproduction costs directly associated with the design, build and operation of public assets, there is a hidden transaction cost associated with this power-sharing that goes dip down into the iceberg of public officials psychology and can originate at least an initial inertia, for this type of processes to evolve. Value for money can have all the mathematical formulas to analyse the cost of capital, but a hidden variable, the cost of the dignity of being a public official sharing public power is not formally there. This applies to those public officials that have a genuine alignment, between their professional and personal interests, with the public interest. Others that will find a way to align their interests with private interest represent another type of transaction cost increase. Understanding this “guest” approach, one where a non-public servant is invited to enter a universe that belongs to *The Public*, is key to have a sound partnership taking place. It is vital to consider the personal trade-off these public officials will benefit from the partnership at individual, department, ministry, or SOE level. Showing that partnerships can be a way for them to materialize the improvement of quality of life to all and to defend the planet, allowing them to achieve the goal of defending public interest is crucial. This alignment between the capacity of the management of public assets is also key for the private sector, as the financial and economic outcome of PPPs can increase substantially if the whole team sees it as the common goal.

Below there are examples of capacity building programs promoted by the UN and by Universities suggesting the different fronts that PPPs demand from PPP practitioners.

The Belarus context is similar to many nations across the planet, namely nations that have decided to adopt a closer approach to market economies. The field experience shared by UNECE Art Smith in charge of designing, implementing and reporting a PPP capacity building program in Belarus allows the understanding of the challenges that governments face. “The Belarus PPP Capacity Building Project. The nation’s key infrastructure sectors were facing acute shortages of financing for their most critical modernization and

upgrading projects and were also affected by acute gaps in a management capacity and market-oriented operational approaches.” (Birsan, 2016, p. 8). Art describes how the project was designed focusing on three planned components: (i) Disseminating knowledge on different aspects of PPP; (ii) Supporting the establishment of the National PPP Unit; (iii) Developing instructional guidelines for identification and appraisal of pilot PPP projects in two selected infrastructure sectors. In Belarus as in most countries with a *planned economy*, the question is not about planning and articulating the relationship between project, investment program, and policy, but about the commercial approach, the project autonomy of decision-making, the risk-sharing approach, the role of the private sector, the drivers and consequences to motivate investors to participate along with public sector interests. Art also refers to the challenges in PPP capacity-building: (i) Ensuring a strong, stable and visible political commitment to PPPs; (ii) Developing the appropriate legal framework; (iii) Building private capacity for engaging in PPPs. Engaging in PPPs also requires a new set of skills from the private sector (UNECE, 2017).

This means that PPP capacity building in countries with *planned economy* requires an approach that goes beyond the challenge of planning, as this capacity exists, and that takes into account a more holistic approach involving interdisciplinary teams, with project decision-making autonomy, where business finance is aligned with the provision of public services. This decentralization process where strategic management is kept by governments but operational represents often a mind-shift that is sometimes complex for high-level government officials.

Another important challenge is to keep in the organization, the public officials that have been trained and are ready to manage PPPs, as often the incentives provided by the private sector are financially more interesting than those of the public sector, namely the acquisition and retention of this knowledge and skillset require both extensive training and knowledge management strategy which will ensure the maintenance and expansion of this capacity over time. (UNECE, 2017). This means that while the capacity building is taking place, the motivation and retention of public officials has to be considered. This point alone, an adequate remuneration of public sector officials would justify a new line of research. For our research and, as having motivated and committed public officials is a key condition for PPPs to thrive this point should be considered at the top of priorities when this type of strategy is adopted. Indeed, and as high-quality PPP managers are key for a development

program, PPPs can be used by the public sector to develop, keep and motivate a solid group of public managers.

Capacity building is indeed a vital aspect for governments to succeed, and, if the expected outcome and impact are considered, it will be easy to justify the training, research, required for this change to take place. One important aspect when analysing this angle is to consider that this type of knowledge applied to PPPs can, and applies to all sorts of projects, investment programs, and development policies, even when private sector participation is not present. In any case, the implementation of PPP requires skilled people, and this is important for governments to consider as a vital part of the process.

Governments generally find the implementation of Public-private partnerships (PPP) program to be a challenging and complex process. The challenges have been well-documented, and include, but are not limited to achieving and sustaining the institutional capacity to carry out such a program, implementing the legal and regulatory frameworks to enable and support PPPs, enabling investment and strengthening local financial markets, and creating the appropriate government structures (such as the unbundling of vertically-integrated government utilities) (UNECE, 2017, p. 2)

The July 2015 UN Conference on Finance for Development, generating the AAAA has considered that PPPs can have a significant impact on development, creating principles in the AAAA. Some key considerations for PPPs are presented here as they give important guidelines for institutional capacity to create, manage and evaluate PPPs is essential to ensure that they become an effective instrument of delivery of important services, such as infrastructure (Jomo, Chowdhury, Sharma, & Platz, 2016). The starting point is to create an alignment with national priorities and relevant principles of effective development cooperation, or as been defended to articulate development policies with investment programs and transformational projects. While doing this the economic and financial perspectives, for the short as well as for the long-term must be secured. Ensuring effective management, accounting, and budgeting for contingent liabilities, and debt sustainability. These two aspects should lead to a *sustainable, accessible, affordable and quality infrastructure*. The financial solutions should take development careful consideration is given to the structure and the use of blended finance instruments, that should use clear accountability mechanisms. These economic and financial considerations should see in parallel a transparent management system, including procurement frameworks and contracts where risks and rewards are shared fairly, and follow social and

environmental standards through the process ensuring public participation, particularly of local communities in decisions affecting their communities.

Also, private universities such as Bocconi in Italy have developed capacity-building solutions for PPPs. The description of the program reflects that *Infrastructure matters*. It brings services to citizens and companies. It is a crucial part of economic development and growth and it offers a potential asset class for investors. (Bocconi, 2018). The course comprehends areas such as Framing PPPs, infrastructure policy and strategies including the circular economy of PPP; infrastructure as an asset class; structuring an unbiased value for money (VfM) analysis; financing a deal: funding sources; unsolicited proposals; dealing with contract renegotiation.

McQuaid adds more angles on the importance of capacity building considering that it involves the civil society in general and therefore the need to involve local communities in economic activities.

There is a considerable emphasis on capacity building to enable more local communities to participate in economic initiatives. Key aspects of successful partnerships include: (i) Clarity of each organization's objectives; (ii) Agreement on the operation of the partnership; (iii) Clear lines of communication; Clear exit routes; (iv) Supportive institutional infrastructure; (v) Suitable system of incentives; (vi) Most important TRUST between the partners (McQuaid, 2000, p. 27).

The importance of trust-building cannot be overemphasized, and indeed when considering the end-user as the one that ultimately will judge the quality of the public service provided. Consequently, the process to reach it, capacity building should include the whole process of understanding the needs, the resources, defining priorities, defining the contributions and, all types of returns expected from all parties and to consider that a balanced and tangible consensual agreement should be the base of a workable frame of cooperation. This type of process involves a great amount of communication among all stakeholders, often considered as costly and inefficient but if done correctly can be the base for a virtuous cycle of community development that can go far beyond the dimension of the PPP project that has originated it.

2.3.6 Critics to PPPs

The last block has the purpose of bringing some of the advantages and disadvantages of partnerships. Partnerships in general and PPPs, in particular, reflect cooperation between multiple players, requiring a vast set of strong formal and informal rules and enforcement mechanisms, where an impact-driven strategy is recommended. There are a great number of problems that can result, and therefore careful planning is advisable, knowing that the player's attitude is key, to overcome all challenges that will occur and that were planned. The outcomes can, on the other hand, be cornerstones on the quality of life of communities, on protecting the planet, and on creating the conditions for sustainable economic growth. As reflected by McQuaid 2000, care must be taken when trying to generalize. “Partnerships allow bringing of non-public sector key actors, particularly the private, third sectors and local communities; Success will depend upon how partnerships are led, legitimized, resourced, managed and evaluated” (McQuaid, 2000, p. 16).

Potential Disadvantages of Partnership

The Portuguese experience has led Portugal to have the best road network in Europe and the third-best in the world (TheGlobalEconomy.com, 2019), but indeed this came with a price, and today, certainly a great number of people would be happy to exchange some of the overinvestment made in highways for another type of infrastructure that would have more impact on people's life.

PPP's were viewed as the perfect solution to all problems, but as everyone realized later, a financial impact on public budget and deficit happened after a grace period. PPP's have then considered a problem as the selection and preparation of projects was not always good and overinvestment occurred (Neves, 2017)

However, and looking back and forward it is certainly necessary to understand why overinvestment occurred in certain sectors and others were left behind. In any case, it is expected that the case studies and the research developed in this study will be of assistance to enhance development models on countries such as Portugal that have been able to launch programs but had certain difficulties in managing them throughout the lifecycle of their assets.

The Ministry of Finance from the Government of Lithuania PPP describes some of the potential disadvantages of PPP's attached to the possibility of seeing the infrastructure or

services delivered more expensive, to see postponed payment obligations for the future with impact on future fiscal space, a longer period for procurement, and with a complex legal framework (Lithuania, 2015). Also APMG International a certification program supported by the most important multilateral development banks (MDBs), namely the Asian Development Bank, (ADB), the European Bank for Reconstruction and Development (EBRD), the Interamerican Development Bank (IDB), the Islamic Development Bank (IsDB) and, the WBG point weak spots and potential disadvantages to PPPs. Being more complex than traditional procurement, more political exposure, the public belief that user charges can be higher, higher transaction costs, higher cost of surveillance, financially more expensive than direct government financing (APMG, 2019).

Eurodad affirms PPPs lead to dangerous debt to developing countries (Romero & Vervynnck, 2013, p. 8), and reinforces the need for careful preparation. Implementing and managing PPPs requires important institutional design and investment skills in the public sector, particularly in developing countries, where public organizations in charge of public procurement as well as of asset management to do this well might not be in place. When this is the case it takes both time and experience to establish capacities (Romero, 2015, p. 2). Jomo Sundaram highlights the importance of defending the public interest on the financial, as well as the legislative front. PPPs can limit government capacity to enact new legislation and other policies – such as strengthened environmental or social regulations – that might adversely affect or constrain investor interests. (Sundaram, 2019, p. 1)

Although several disadvantages can be addressed to the use of PPPs, and some are directly related with its variable geometry, such as the complexity of the legal framework, the cost involved with the need for careful preparation, the time required to discuss and align all stakeholders and to gather a workable consensus, the most important characteristic that can be a disadvantage, but can also be perceived otherwise is the need to build trust, and clear principles that anchor and align public interest with common good; this requires vision, transparency, and strategy, which implies that education and perception of the motivation, will certainly contribute for development models to improve.

Potential Advantages of Partnership

Advantages imply that the cooperation process was well designed, well implement, and, is well managed. Remembering Wang, the public sector two deficiencies: lack of funding and

efficiency, the key advantages of PPPs should be to overcome them. McQuaid comes with a similar result although it names them resource availability, and effectiveness and legitimacy.

The main assumption for using partnerships is that that the partners are not in a zero (or rather constant) sum game. Each partner to gain the benefits from co-operation, while retaining their autonomy. Although if the market imperfection is overwhelming and permanent, the product indivisible, economies of scale are large, externalities are enormous, information is bad or impossible, and the market becomes monopolistic then argues that the government should provide the good or service directly. The main advantages of partnerships can be grouped as resource availability; effectiveness and efficiency and legitimacy (McQuaid, 2000, p. 13).

Returning to the perspective of the Ministry of Finance from Lithuania, among the PPP advantages should be found at the complementarity of funding, higher quality and timely provision of public services, less cost and time overruns during implementation, the possibility to offer private entity long-term remuneration, transfer of private sector expertise and experience, reduced risk expenditure by proper risk allocation, the possibility of placing PPP agreements classified as of the public sector balance sheet (Lithuania, 2015).

IPFA the international project finance association presents the following arguments: “In the face of an ever-increasing world population, greater expectations, demands from society and budgetary constraints, governments are facing an increasing amount of pressure to deliver new and improved infrastructure projects” in the mobility, utilities, social infrastructure, urban and regional development. Also considering that in many nations “financing requirements of current and prospective infrastructure needs far outstrip resources available.” IPFA also considers that Infrastructure created through PPP can improve the quality and quantity of basic infrastructure. Another important aspect is the fact that can make the public sector develop a more disciplined and commercial approach to infrastructure development whilst allowing them to retain strategic control of the overall project and service. Also, the fact that there is evidence of better quality in design and construction than under traditional procurement. Another important aspect is that it enables the end-user to see an improvement in the services now. Also, the fact that if managed properly it can reduce “to reduce government debt and to free up public capital to spend on other government services which represent avoiding paying higher taxes to finance infrastructure investment development.” IPFA also highlights the benefit from a life cycle

approach, and consider that “PPPs are creating efficient and productive working relationships between the public and private sectors” (IPFA, 2018). Following this last aspect, an important argument of partnerships is the sentiment of complementarity that is created from working with people with different perspectives.

Partnerships also play an important role in breaking down the stereotypical views of partners towards one another, building trust and making joint working easier and more efficient, as well as improving understanding and knowledge of each-others’ organization. Partnerships can also allow greater legitimacy for a policy as they may involve participation from the local community directly rather than through the representative democracy of the Central and Local Government (McQuaid, 2000, p. 16).

2.4 Summing-up

The need to adopt a *New Development Paradigm*, represents a challenge for Development scientists and practitioners, and looking at SD as the Game, Institutions as the Rules and Partnerships as the Players, is a top-down holistic approach into development models and qualitative equations. While studying the evolution of development, a question about the feasibility and viability of the SD concept is ever-present. Theoretically is interesting, but is it implementable? Are there actors ready for it? How will they play this game? Clear formal and informal rules are obviously needed, but are they enforceable? This chapter certainly does not answer all these questions and probably there are no right answers. The aim was to integrate the three vectors knowing that it is possible to keep adding *giants* to these fields of knowledge. The purpose is now to compliment this theoretical approach with empirical knowledge, with the support of those in the field. In every mission governments ask for implementation, for examples, for people that are ready to start tomorrow, especially if they have done something similar elsewhere. This is the research meeting point. Accepting the imperfection of not mastering all that is needed, but with the attitude that change is needed, that new models can and shall be implemented, the study moves to a bottom-up approach where real case studies, managed by people willing to share their experience, to learn from others, and willing to create a better world. At the end the answers will remain, but the degree of incertitude will decrease, as the new data collected will certainly contribute for development models to improve.

III

Case Study as Research Strategy to Achieve the SDGs

This chapter with four sections focus on the Design, Strategy and Execution of the research including the Case Studies and a Toolbox created and used to plan and implement development models based on SD. The first section gives the context that led to the research design. It is followed by one with the process of data collection. The third consists on the data analysis from the selected case studies and a fourth section shares the tools to implement solutions for People-First Partnerships that are based on Sustainable Development for cities, nations, and stakeholders willing to cooperate to achieve the SDGs.

3.1 Using the Case Study as a Bottom-up Strategy to Test Partnerships

Analysing partnerships and the challenge of cooperation involving the three sectors, and simultaneously observe how SD and SDGs can be integrated into their development models, in a variety of countries with different development status, represents exploring a complex issue, requiring a holistic type of investigation, rich with the context of variables. In parallel the aim is also to create a database that could be visited by other researchers, that could test the results as well as evolve on the depth of study.

Choosing Case Study as a Research Strategy

Considering the method should be chosen to provide the best solution to answer a research problem, and the three research methods: surveys, *best suited for studies that have individual people as the unit of analysis* (Bhattacharjee, 2012, p. 73); experimental research, *best suited for explanatory research, involving a relatively limited and well-defined set of independent variables that can either be manipulated or controlled,*

(Bhattacharjee, 2012, p. 83); and case study, where this type of research strategy can be used for theory building and testing, that it is flexible and therefore can be adapted throughout the research process, allows having a more authentic, and therefore richer interpretation of the phenomenon being studied, and also allows having multiple participants working at different levels. (Bhattacharjee, 2012, p. 93).

Case Study was the best solution and the methodology described by Yin on Case Study Research Design and methods (Yin, 2003) was adopted, using an exploratory approach and a multi-case study based on question and answer format reflected on the presentation elaborated following a predetermined master slides described on annex 4 by each development partner.

Case Study to test the challenge of using Partnerships to Achieve the SDGs

The SDGs represent an important milestone for all development scientists and practitioners, in particular, those interested to use an SD approach. The preparatory works to have the UN agenda approved in September 2015 involved teams from across the world, and this was also true in Geneva at the UN Palais des Nations. In March 2015, considering the approval that would take place soon, of the 2030 UN Agenda, UNECE invited me to develop a concept about how the SDGs could contribute to improving PPPs, and how the PPPs could enhance achieving the SDGs.

The initial outcome led to the creation of a *Task Force to explore ways of contributing to the Sustainable Development Goals* (Neves, 2015c) to address this challenge. The case studies research started formally in 2015, when I started to develop this process and to design the research methodology, including contacting, discussing, collecting and having the case studies sponsors/developers/investors/lenders presenting and defending them, at UN events, where discussants chosen by UNECE would evaluate the cases.

The proposal consisted first to develop a bottom-up strategy, that would be shared with PPP organizations that had initiated an infrastructure development process a partnership approach. Ideally, the organizations would have reached the phase of exploitation of the assets and were already providing public services. Although this was the priority other cases were less mature. In many cases, they had reached financial close, meaning that financing structures had been agreed and therefore projects were under construction, and

other cases projects were being matured and therefore at the pre fund-raising stage. Once the organizations were identified the following step was to collect information in a way that the data could be compared among the different cases, where partners would share their experience. A key aspect was to identify how the case had a sustainable development approach, and, for this reason, considered their ambition to contribute to achieve SDGs.

A first “UNECE Compendium of People-First PPP case studies” (Hamilton & Neves, 2016) was developed, presented and published at the UNECE PPP International Forum on March 30th, 2016, at the UN Palais des Nations in Geneva. The initial goal was to collect 12 case studies, but the final number was 30. The outcome was considered very positive as the involvement of the presenters exceeded the initial expectations. PPP officials coming from the public as well as the private sector and civil society were happy to show and share their experiences, and, the fact that they followed the same criteria allowed the different cases from different sectors, from several countries representing all continents with different development status.

The cases were analysed by independent discussants chosen by UNECE Secretariat. They were analyzed and an environment was created where practitioners had the chance of learning from each other best practices and pitfalls. This also allowed the presenters and their organizations to be recognized by their accomplishments, and, above all to show and share that PPPs could be developed everywhere, as long as the right teams were in place.

The initial outcome, and, from the analysis made by the presenters, the discussants, and the development ecosystem of all stakeholders, it became clear that further alignment could be enhanced between PPPs and SDGs. The term *People-First PPP* was coined at that time, to represent those PPPs that had the ambition to contribute to achieving the SDGs and therefore followed a Sustainable Development approach. This generated the dynamic for a second compendium (Bonnici & Neves, 2017) to be developed and presented at the UNECE PPP International PPP Forum in May 2017, at the Hong Kong City University. Then a third was developed, presented and published in 2018 (Neves, 2018a) at the UNECE PPP International PPP Forum in May 2018, at the UN Palais des Nations in Geneva. These case studies are now being used as the research database for this study.

The research included the design and collection of the cases, as well as organizing their presentation at the conferences mentioned above. The data was collected following a case study protocol developed with UNECE attached as Annex 3. A description of the data

collection process is presented in the following section. The number of case studies collected and published has grown from 30 in 2016, to 58 in 2017, to 120 in 2018. It incorporates case studies from 57 countries and represents the contribution from the different types of stakeholders from the Public Sector: organizations from central and local governments; Private Sector: developers, investors, lenders, and consultants; from NGOs, and pro-active academy that has taken the role as leading partners for development.

Distribution of Case Studies per Country and per Sector

Considering UN DESA World Economic Situation and Prospects (WESP), and their 2019 report, all countries of the world are classified into one of the three categories: developed economies, economies in transition, and developing economies (UN DESA, 2019, p. 167). To provide the coverage obtained from the case studies collected, the following table presents the countries of the case studies according to WESP criteria, and the sector classification taking into account the presenter of the case.

An initially continental approach shows that 17% of the cases come from African countries, 15% from North, Central, and South America, 24% from Asia, 1% from Australia, and 43% from Europe. Considering the WESP categories 30% of the cases come from developed countries, 11% from economies in transition, and 59% from developing economies. Taking into account the purpose of analyzing Least Developed Countries (LDCs), a particular column was created to highlight 9 countries and 10 cases, which represents 16% of the 57 countries, 8% of the 120 cases, and 27% of the cases considering the developing economies alone.

A second analysis regards whether the source of the case comes from the public sector, the private sector, or from the civil society, knowing that in this last group are case studies presented by universities. From this angle the majority of the cases, 48%, comes from the public sector, comprehending central as well as local governments. The second group is the private sector with 43%, followed by civil society with 9%.

continents and countries	number of case studies	WESP (*) country classification				sector classification (**)		
		developed economies	economies in transition	developing economies	LDCs (as of March 2018)	public	private	civil society including academy
Africa	20							
Algeria	1			1			1	
Cape Vert	1			1			1	
Congo	1			1		1		
Cote d'Ivoire	1			1			1	
DRC	1			1	1		1	
Egypt	1			1			1	
Ethiopia	2			1			2	
Ghana	2			1			2	
Guinea Bissau	1			1	1			1
Kenya	1			1			1	
Madagascar	2			1	2	1	1	
Mali	1			1	1	1		
Mauritius	1			1		1		
Morocco	1			1			1	
São Tome Principe	1			1	1			1
Senegal	1			1			1	
Sudan	1			1	1			1
Americas	18							
Brazil	7			1		5	2	
Canada	1	1					1	
Chile	1			1		1		
Colombia	2			1		1		
Costa Rica	1			1			1	
Haiti	1			1	1	1		
Mexico	1			1			1	
Peru	1			1			1	
USA	3	1					2	1
Australia	1							
Australia	1	1					1	
Asia	29							
Armenia	2		1			2		
Bangladesh	1			1	1	1		
China	9			1		5	4	
India	3			1			3	
Indonesia	1			1		1		
Japan	1	1						1
Korea	3			1		2	1	
Mongolia	1			1		1		
Myanmar	1			1	1		1	
Philippines	3			1		1		2
Tajikistan	1		1				1	
Turkey	3			1		3		
Europe	52							
Albania	1		1				1	
Belarus	1		1			1		
Croatia	2	1				2		
Cyprus	1	1				1		
Finland	1	1						1
France	3	1					3	
Germany	2	1				1	1	
Holland	1	1					1	
Ireland	1	1					1	
Lithuania	2	1				2		
Poland	2	1				1	1	
Portugal	8	1				3	3	2
Russia	6		1			6		
Slovakia	1						1	
Spain	8	1				6	2	
Switzerland	1	1				1		
UK	6	1				3	3	
Ukraine	5		1			3	2	

* WESP = World Economic Situation and Prospects (UN DESA)

** Sector classification according to the presenter of the case study

Table 1 Distribution of Case Studies per Country and per Sector

Looking at the case studies from an SDGs angle, it was asked all presenters to associate their projects with at least one goal. This analysis considers the first tier with goals scoring more than 15%, and the results show that only goal number 9 (industry, innovation, and infrastructure), is at this level, being present in 17,2% of the projects. The second tier goes from 10% to 15%, and here goals number 3 (health), 7 (clean energy), and 11 (sustainable cities), with a presence of 12,4%, 11,8%, and 10,7% respectively. The third tier between 5% to 10% groups goal 6 (water) with 8,3%, goal 8 (decent work and economic growth) with 7,1%, goal 13 (climate action) with 6,5%, goal 4 (education) with 5,9% and goal 17 (partnerships) with 5,3%. At the last group with less than 5%, can be found goals 10 (reduced inequalities) and 2 (zero hunger) with 4,1%, followed by goal 1 (no poverty) and goal 14 (life on land) with 1,8%. The last two are Goal 5 (gender equality) with 0,6%, and goal 14 (life below water) with 0%.

The focus of the case questionnaire was to obtain feedback on the relation between partnerships, SD, and the SDGs and therefore didn't drill down on financial data, job creation, or CO2 emissions, which may be done on the following study, but some cases present financial figures. In general, and from empirical experience, partnerships directly involved with infrastructure asset development, have global investment values ranging from tens of millions to the hundreds of millions of USD. On the other end partnerships focused on operation and maintenance of services do not have this scale of investment and the values decrease to less than a million USD. The duration also varies with asset development and management with contracts that go from 20 to 30 years, and operation and maintenance contracts with a period up to five years. This type of analysis can be found in studies that cover standard PPPs and are used to compare different types of public procurement. Not disregarding the importance of the subject and the possibility of exploring the case studies database with this purpose, considering the motivation of this study it was an option not to use the case studies for this, but rather to evaluate the challenge of cooperation and the ability to enhance Institutional Performance.

Top-down and Bottom-up Strategies to Test SDGs Implementation

A top-down approach to this challenge would eventually conclude that the process could be too complex and therefore difficult to implement. The bottom-up approach based on empirical knowledge proved otherwise. Indeed, when the process started, doubts existed on whether the reaction was going to be positive because it was not obvious that case

studies existed and, also because it was not secured that those involved in making them happen were willing to come forward and share their experiences. After the first compendium, the question was no longer whether they existed, and evolved to one, on how to improve them and make them contribute to achieving the SDGs. The challenge is, therefore, not to understand the concepts but to see how they can be combined and implemented.

UNECE adopted a strategy to discuss, design and develop solutions to assist UN member states with *ways* to promote SD and Partnerships for implementing the SDGs, under its objectives and Mandate:

UNECE as a multilateral platform facilitates greater economic integration and cooperation among its fifty-six member States and promotes sustainable development and economic prosperity through policy dialogue; negotiation of international legal instruments; development of regulations and norms; exchange and application of best practices as well as economic and technical expertise; technical cooperation for countries with economies in transition. The UNECE contributes to enhancing the effectiveness of the UN through the regional implementation of outcomes of global UN Conferences and Summits. (UNECE, 2009).

It may seem simple for practitioners to look at bottom-up strategies once this is what we do daily, but as referred on the previous chapter, UN conferences are usually events where policies are discussed and top-down principles and best practices are suggested. Adopting a strategy based on listening to what is happening on the ground and considering this information is influencing the way development models is being designed is a game-changer, as it represents a 180° degree shift. This change is also reflected in the term *People-first*, as indeed, it is not about Government define or write but about what *People* think and ask for.

The purpose is not to replace but to complement a *top-down* and theoretical approach, based on *regulations and norms*. Bottom-up represents a hands-on approach, based on real experience, where data is being collected, shown and shared through case studies. This approach also reflects the incorporation of imperfection into a development approach, as these *cases* rather than looking for perfect examples of partnerships, report and reflect *real-life* where *real-people* from the field expose how they designed, implement and manage development models, based on Sustainable Development.

This *U-turn* was vital to research the following questions, and to allow UNECE to study the possible correlation between PPPs and SDGs as it was part of its purpose. *This interest*

in PPPs has been stimulated by the SDGs and in particular, SDG 17 which validates PPPs as a key tool for implementing the SDGs (UNECE, 2016).

Initial Challenge: Is it Possible to Combine PPPs and SDGs? Does it Work in LDCs?

The Case Studies collected were developed to answer two initial questions:

1. Is it possible to combine SDGs and PPPs, to what what is called People-First PPPs?

2. Is it possible to use this type of partnership in the Least Developed Countries (LDCs)?

This reflects the work done using a case study as a research methodology, on real-life to test a new paradigm of development based on SD. The variety of data gathered from the multiple case studies allows to develop exploratory research, to generate initial ideas on how to combine SDGs and PPPs, and whether these type of partnerships can be used on LDCs. It can also be used as explanatory research to identify causal factors and outcomes, contributing to concepts on how partnerships based on SD can be implemented, and, to test how they can put up to achieve the SDGs, closing the loop with the research question.

The Interdependence Between SD, the Public and the Private Sectors

The case studies allow studying empirical observation, namely how the role of the state and that of the private sector varies from a free and self-regulating market to one where state-led has greater control of development. Between these two positions, a dynamic pendulum looking for the right balance can be imagined. On one hand, there are advantages of having public sector defending the public interest, assuming the purpose is to defend social cohesion and human rights, as well as environmental protection and, the correct use of natural resources is prioritized. On the other hand, the private sectors can be associated with characteristics such as entrepreneurship, dynamics, meritocracy, innovation, available liquidity, originating faster economic growth. Considering that the public sector, defending the public interest, is associated with social and environmental agendas, and a private sector is associated with economic growth and prosperity, complementarity can be found between public and private sector interests under the three dimensions of SD: ethics, environment, and economy. Considering that these vectors are dynamic, SD applied to PPPs may be considered as a dynamic qualitative equation, looking to find the right balance, on development models that combine ethics, environment, and economy, and, that align public and private interests simultaneously. The SDGs can be considered as a formal interpretation

of an SD agenda for 2030, reinforcing this interdependence: “The 17 Sustainable Development Goals and 169 targets, which we are announcing today, demonstrate the scale and ambition of this new universal Agenda. ... They are **integrated and indivisible and balance the three dimensions of sustainable development**: the economic, social and environmental” (United Nations SDGs, 2015).

If conceptually the challenge of doing research involving a 180° degree shift, taking bottom-up approaches and looking to balance public and private interests is in itself an interesting hypothesis to study, the hard reality is that the motivation for this is linked with a financial need at a global scale. If the SDGs represent a human ambition to eradicate poverty and heal the planet, it does also represent a financial challenge, and therefore the purpose being academically very curious, the purpose behind it is also to provide ground for new development models that are financially sustainable.

The challenge of developing and implementing the SDGs, represents a need of an additional \$2.5trillion per year, according to Arunma Oteh Vice President and treasurer of the WBG in a speech on May 15, 2018. “As you know, UNCTAD estimates that achieving the Sustainable Development Goals (SDGs) by 2030 will require \$3.9 trillion to be invested in developing countries each year. It also notes that with an annual investment of only \$1.4 trillion, the annual investment gap is \$2.5 trillion” (Oteh, VPandTreasurer, & WorldBank, 2018). This would represent an increase of public financing, or to bring in additional fund providers. It is considered today that partnerships between the public with private sectors may be responsible to provide part of the solution needed.

This represents that also at the level of analysing how to combine financing and funding the case studies, are key as it can be observed from the different cases, how multiple solutions were created with different degrees of involvement in terms of mix of types of capital, equity, quasi-equity, debt, guarantees as well as from the different sources.

Partnerships, PPPs and People-First PPPs

The need for partnerships to achieve the SDGs can be interpreted in several ways, one is that the alignment of interests between multiple parties with multiple interests is necessary. Alignment between Central and Local Governments is one, the same applies between civil society and those that are elected, between the academy and the industry, and between the public and the private sector. One of the main reasons, why alignment between the public

and private sectors is necessary, regards the amount of capital required to invest, to achieve the SDGs. Besides the capital involvement of the private sector, and therefore the development of partnerships and PPPs it is also needed to develop partnerships between central and local government, as well as partnerships involving the civil society and the academy.

Value for People

Among the different types of partnerships presented in the previous chapter, Public-Private Partnerships represent the reasons described above in a major group. PPPs, in general, are designed to develop solutions that have a primary objective Value for Money (VfM). This represents that the main focus behind traditional PPPs is economic efficiency, and therefore associated with one dimension of SD.

UNECE Business Advisory Board coined the term People-First PPPs (pfPPP). This term results from bringing the SDGs as an objective to the PPP business design. Considering that traditional PPPs were economic-centric, pfPPP are People-centric meaning that besides a Value for Money approach a *Value for People* perspective shall be adopted for their business design. People-first PPPs should be interpreted as PPPs that follow SD and aim to contribute to the SDGs and therefore have simultaneously a *Value for People*, *Value for Planet* and *Value for Money* approach.

Case Studies to Study the Relation Between SD, Partnerships, and the SDGs

Understanding how the double challenge behind Sustainable Development Goals and Partnerships is important, as it shows the complexity of analysing these concepts simultaneously. Sustainable Development requires the alignment of the *people, planet, and prosperity* (3Ps). Regarding partnerships, the challenge is to align the interests of the parties forming them. These parties are the public, the private sector, and civil society. In many cases, the academy is often involved, with a triple role of business catalyser, knowledge transfer through hands-on capacity building, and institutional research. Indeed, when looking at the case studies it can be inferred that a higher level of institutional performance is associated with partnerships involving the academy, namely Toyo University from Tokyo in Japan, Tsinghua University from Beijing in China, IESE Business School in Barcelona and Technical University of Madrid from Spain. A pure theoretical approach would have variables that would be harder to define and position their relative weight

among them. An empirical approach, based on case studies allows testing qualitatively the hypothesis behind the research question, as well as to relate the independent and dependent variables.

3.2 Case Study as a Research Strategy _ Data Collection

This section will analyse the relationship between the context of the research, the research questions, case study as a research strategy, and the existing case studies.

For Yin, Case Study applies particularly well, when the research question is “how” or “why”, and when we are facing a contemporary phenomenon.

The case study is but one of several ways of doing social science research. Each strategy has peculiar advantages and disadvantages, depending on three conditions: a) the type of research question; b) the control an investigator has over actual behavioral events; and c) the focus on contemporary as opposed to historical phenomena. In general, case studies are the preferred strategy when: a’) “how” or “why” questions are being posed; b’) when the investigator has little control over the events; c’) when the focus is on a contemporary phenomenon within some real-life context (Yin, 2003, p. 1).

For Zainal, case studies are considered a robust method, for holistic *and* in-depth investigations, *and adapted for* government and management type of studies, *allowing data to be examined on specific contexts*: “Case study research, through reports of past studies, allows the exploration and understanding of complex issues. It can be considered a robust research method particularly when a holistic, in-depth investigation is required; areas that have used case study methods include government and management” (Zainal, 2007, p. 1).

For Schell, case studies are the best, when we have “complex research questions with the rich context of variables. The case study method is unparalleled for its ability to consider a single or complex research question within an environment rich with contextual variables” (Schell, 1992, p. 1). Eisenhardt highlights the importance “Theory developed from case study research is likely to have important strengths like novelty, and empirical validity, which arise from the intimate linkage with empirical evidence” (Eisenhardt, 1989, p. 548).

Considering that in this study the research uses cases studies where the institutional performance and the balance between public, private sector, civil society, the pro-active academy are being tested, the questions are:

1. How were partnerships established?
2. How they contribute to achieve the SDGs?
3. How is it being possible to combine partnerships and SDGs?
4. How do the this development models work?
5. How were they designed and build?

Considering the suggestions made by Yin and mentioned above, the research question is indeed a “HOW?” question, and therefore there is a match with the first condition to using a case studies research method. The second condition refers to the control of the investigator, and indeed this bottom-up approach consists of collecting real data of social, economic and political processes that are taking place with no intervention from the investigator. The goal is to observe and exploit, without affecting the outcome of the project being developed, and therefore there is a second match. The third condition relates to the timing at which the phenomenon takes place, as well as the opportunity of understanding the context and again there is a perfect match as the cases reflect a contemporary phenomenon and its real-life context (Yin, 2003).

After confirming all the above, case studies seem to be an appropriate research method, from all perspectives checked above. The next step will be to address how the use of case studies as a research strategy relates to the Research Question.

Relating the Research Question with Case Study as a Research Strategy

Considering the research project is being developed with the Research Question:

How to Implement Partnerships in Sustainable Development to achieve the SDGs?

To connect this Research Question with the Case Studies it was established a group of questions to present the status:

1. How do case studies contribute to the research question?
2. What data exists?
3. How was the data collected?
4. How will this data be exploited?

5. Researcher experience in partnerships?
6. How was the wrapping up stage developed?

Creating a governance model among them to achieve the agreed goals is complex. The following items should be considered:

1. the complexity of using a sustainable development approach;
2. the ambition of implementing and achieving the SDGs at the global level;
3. the challenge of aligning different stakeholders under a common objective.

These points launch immediate questions: Is it possible? Does it work? Are there real-life examples? It was under this context that it was decided to see how this process could come to life. The initial goal was to see if these partnerships existed. Whether the different parties agreed to discuss a sustainable development approach? And then, if they could relate to SD and the SDGs? Today the information collected allows going from an exploratory type of research to an explanatory type, identifying causal factors and outcomes.

How Do Case Studies Contribute to the Research Question?

Considering the type of feedback gathered from the field, there is today a considerable amount of information that allows new discussions to take place, to raise new questions and qualitatively evaluate different development models applied over different sectors and at different geographies. New discussions are taking place namely on how to quantify expected outcomes to prioritize projects. Likewise, new questions regarding: scalability and replicability; governance models; political and social dimension; the balance between the different parties on the transition process, and, as it will be seen the strengthening of the institutional performance.

What Data Exists Today?

Today 120 case studies are registered, were presented and are published.

This information was gathered over three periods, the first one took place between 2015 and 2016 (Hamilton & Neves, 2016), the second between 2016 and 2017 (Bonnici & Neves, 2017), and the third from 2017 to 2018 (Neves, 2018a).

How Was the Data Collected?

A team composed by me and a team of UNECE officials agreed on the information to be gathered and that could present how the transformation process took place, and later by discussants chosen by UNECE to peer review and test the cases. To collect information, a protocol was developed by this team and this protocol was addressed to all participants. The first phase had the following points to be addressed:

1. Context: describing the: “As Is” and the future “To Be”;
2. Strategy: how did the change occur to “get there” impact on public service;
3. Main figures: milestones and processes describing the transformational project;
4. Impact on people and planet: changes over the community and environment;
5. SDGs perspective: considering the 17 SDGs what was the impact of each goal;
6. Scaling up and replicating: how could the project grow? And be copied;
7. Management team: what type of partnership organization exists?

After the first compendium in 2016, and as the initial hard questions had positive feedbacks: Is it possible? Does it work in LDCs?

questions were reviewed to address more specifically each of the SD pillars.

On the second phase, an adaptation took place leading to focus on:

1. Description of the Context: Where, Why, What, Who, When;
2. Increase access to essential services and promote equity; (social dimension)
3. Develop a resilient infrastructure and improve environmental sustainability; (environmental dimension)
4. Economic and financial sustainability; (economic dimension)
5. Replicable and scalable; (institutional perspective)
6. Engage all stakeholders. (partnership perspective)

How Will This Data Be Exploited?

So far, the information was presented at UN international meetings, where representatives of each case study had a group of experts, as peer reviewers and discussants. At this moment the information has been treated at a qualitative level only. I have now been invited to lead a group to study replicability and scalability including capacity building, part of an evaluation methodology research group. The initial work is using the existing 120 case

studies. These cases and their presenters keep being involved and sharing their experiences and the development of their projects in multiple forums around the world.

Researcher Experience on Partnerships and Sustainable Development?

The experience was described earlier¹ and covering the double approach of PPP and SD.

How Was the Wrapping Up Stage Developed?

Considering the vast number of case studies, and considering the similitude of the research done by Elinor Ostrom on the role of the Commons to promote and manage Institutions, the report will follow Ostrom strategy, choosing case studies among the database that will represent different degrees of Institutional Performance strength, covering different geographies and nations with different development status.

Methodological Aspects

Following Yin suggested methodology, key points were observed to conclude the case study analysis. Although the answers confirm how methodological aspects were followed, in this type of research and considering each case continues to *live*, the process should not be seen as a *start/end process*, but rather as growing social lab where new examples of partnerships are added and share information.

The data collected permitted exploratory research on an initial phase, to verify initial questions and today test institutional performance, allowing to improve the design of development models.

Following Yin suggestion, the following components of research design were verified:

1. *study's question;* (done)
2. *its proposition;* (*reflects the important theoretical issue, begins to tell where to look for evidence*) (done)

¹ I have been responsible for development projects for 30 years both with the public and the private sector as well as with organizations that combined both the public and private sectors. The overall projects and programs, global investment value exceeds €10bn and covers presently more than 80 countries in Europe, Africa, Asia, and the Americas. My experience is also related with sustainable development approaches to transformational projects since the 1990s, and lecturing Sustainable Development courses since 2002, in Lisbon-Portugal, in Beijing and Shenzhen in China since ¹2016, in Tokyo-Japan and Paris-France since 2018, and more recently asked to coordinate a module on How to Localize the SDGs at the University of Geneva. In 2015 was also appointed to be the task force leader for SDGs and PPPs before the SDGs were approved in NYC and have since been involved with UNECE and UNCTAD training governments of how to design and implement development models using People-First PPP solutions.

3. *it's units of analysis*; (People-First PPP projects)
4. *the logic linking the data to the proposition*; (data collected reflects the existence of models implementing solutions based on partnerships that follow the SD approach)
5. *the criteria for interpreting the finding*. (UN 5Ps criteria)
6. *data collection, using a case study protocol: the purpose of case studies + procedures + schedule* (done, see annex 2, 3 and 4)
7. *collecting evidence* (from 6 sources):
 - 7.1. *documents* (yes, case studies involved documentation developed and published)
 - 7.2. *archived records* (yes, a case studies database has been created at UNECE)
 - 7.3. *interviews* (yes, all case studies had multiple interviews)
 - 7.4. *direct observation* (yes, in some cases includes site observation)
 - 7.5. *participant observation* (only in one case)
 - 7.6. *physical artifacts* (yes, most cases involve physical infrastructure)
8. *the importance of having*:
 - 8.1. *multiple sources of evidence*; (in all cases chosen and explored at the thesis)
 - 8.2. *case study database*; (already exists and it has been published, part of UNECE website (Hamilton & Neves, 2016)(Bonnici & Neves, 2017)(Neves, 2018a)
 - 8.3. *chain of evidence* ∅ *explicit links between questions asked, data collected, and conclusions drawn* (yes)

The positive outcomes from multiple-cases, has allowed to use pattern matching (Yin, 2003, p. 116) to evaluate the different cases and has generated the willingness to grow the data base to 500 hundred cases, also showing the interest of multiple-case research. “Most multiple-case designs are likely to be stronger than single-case designs” (Yin, 2003, p. 148).

A preliminary theory has been created relating development, partnerships, SD and SDGs:

Partnerships following an SD approach are more likely to combine public and private interests, have more chances of success and, therefore to contribute to achieve the SDGs, described *From Sustainable Development to SDGs* (Neves, 2018a).

Reporting Case Studies

Considering the variety of nations, organizations, locations, sectors involved, a question and answer type of research was elaborated, as each organization had to consider certain

topics and provide a written answer to each of them “if questions & answer format has been used for multiple-case study, the advantages are potentially enormous” (Yin, 2003, p. 148).

Remarks on the choice of research strategy

Considering the context, the objectives, the suggestions observed, and the checks passed, we conclude that case study methods are appropriate for this specific challenge as:

1. Responds to research question starting by “How”;
2. The researcher had little control over the events;
3. It is based on contemporary events where real-life is being taken into account.

3.3 Case Study as a Research Strategy _ Data Analysis

This section focus on analysing the data presenting emergent concepts to find the patterns between these concepts. The strategy used followed Elinor Ostrom (Ostrom, 1990) while analysing the case studies demonstrating the ability of the Commons to defend their interests and creating CPR. As Ostrom did, the cases will be divided into *Very Robust*, *Robust and Fragile*. A similar table to the one used by Ostrom is presented, to evaluate qualitatively the Institutional Performance of each case.

Emergent Concepts, Patterns, Exploratory and Explanatory Research

SD is challenging and complex as it asks for an alignment between three dimensions. This requires interdisciplinary analyses combining natural sciences, protecting the planet; with social sciences, economy, and sociology. This is the starting point of the *Construct A*, *SD*, that leads to the *SDGs* the independent variable. Following *Guiding Principles* leads to *People-First PPPs* (fig. 5). The goal of the research is to verify if an *SD* approach based on *Strong Institutions* leads to *Solid Partnerships*. In other words, if an *SD Game*, with *Clear Rules*, leads to *Solid Players*. In parallel it is also true that the reverse is also being tested, if the *Players of the Game* to have a long-term positive impact on the processes of transformation they lead and considering they have *Clear Rules of the Game* lead to an *SD Game*. The ***emergent concept*** is, therefore, to ***explore how the relationship between SD, Strong Institutions and Partnerships can generate a Virtuous Development Cycle that Contributes to Achieve the SDGs.***

The *patterns* being analysed follow the questions asked on the case studies and the respective answers. The research developed by Elinor Ostrom, *Governing the Commons* for two reasons. First, the Commons concept challenged the approach that considered that management of public and private interests with a “common” interest such as water, forest, fisheries administration had to be done either by the public sector or by the private sector. The second is the fact that Elinor Ostrom used case studies and empirical observation to defend that Commons were able to design, implement and manage the Common Interest.

The objective of this study is to analyse, whether a third party such as the Commons, in this research a *partnership*, resulting from combining the first and the second party, the Public and the Private, can align and manage simultaneously the Public and the Private Interests.

Following Elinor Ostrom methodology, and considering the 120 case studies collected and published, and the fact that all case studies represent an effort from different groups to show and share how they have worked to contribute to the development of their nation and cities, the division used will be Very Robust, Robust and Fragile. Also succeeding Ostrom's example, the criteria used to analyse each case are reflected in the presentation made by the organizations in charge of the case, but the analyses are done by me based on the interviews, site visits, cross information, and experience. The very robust will be those cases with yes sign on all 5 criteria, robust will be those with 4 yes signs, and fragile all other ones.

Very Robust will be used for cases such as Wales where the degree of robustness has reached the project, program and policy level. Robust will be used for cases such as Portugal where Partnerships have only reached the project and program level but failed to reach the policy level. The third type Fragile will be used for those cases that have been presented but that remain to prove their success at the project level.

One of the key challenges had to do with the degree of development of each country, the case studies chosen will also reflect this perspective. Haiti is an LDC that has a very Robust Case, and Finland a developed country with an example of Fragile Case.

This research and in particular the data analysis will be simultaneously Exploratory and Explanatory. Exploratory as the goals are “to scope out the magnitude of a phenomenon, problem, or behavior; to generate initial ideas about the phenomenon; to test the feasibility of undertaking a more extensive study regarding the phenomenon”. Explanatory as the goals are also to “identify causal factors and outcomes of the targeted phenomenon”

(Bhattacharjee, 2012, p. 6). On one hand, the *emergent concept* relating the potential impact of Sustainable Development on the quality of Partnerships is new and therefore there is a need to scope how the phenomenon, *Partnerships based on SD*, should be addressed and tested presently qualitatively as well as quantitatively in the future. On the other end, the existing data allows to look for causal factors and outcomes, that can contribute to theory building.

3.3.1 Very Robust Cases

PPPs are an important group of Players, but they are not the only actors responsible for positive transformation and certainly, not all development challenges can be addressed through this type of partnerships.

Wales _ Case 29.2016 _ Well-being of Future Generations _ Climate Change

After reviewing again all case studies the one that stands out is Wales. Ostrom associates the cases with locations, and in most cases, a geographic association that can be done and therefore the use of geography such as Wales makes sense. The first contact with Wales happened in 2014 while doing business research on the best places to invest. The process combined understanding how each region was using the Juncker Plan to promote development through a Public agenda open for Private sector participation. The first contact with the Welsh Infrastructure Investment Plan, WIIP (WelshGovernment, 2017), reflects a vision for the nation, objectives, a strategy and a pipeline of projects to be developed by the public, the private and the public and private sector simultaneously. There is enough space in development for all actors that understand the public interest and are willing to work under the local rules. This is reflected in the first case study presented by the Government of Wales as, indeed, their goal was not to present a project but to present the “Institution” in its broadest sense. The first time the discussant's team saw the presentation asked for the project, “where is the project?” and it was an interesting process to understand that Wales had gone beyond the project level approach normally associated with Partnerships and PPPs. Wales had gone straight to the Sustainable Development policy level and developed a construct at a theoretical level with a proposition leading to the Wales we want in 2050 “or the “Future Generations Bill” “A Welsh society’s commitment to a better quality of life for future generations” (WelshGovernment, 2019a).

Wales presented two case studies, the first in 2016, being part of the first compendium with number 29 (Hamilton & Neves, 2016). The first case study is *the Well-being of Future Generations (Wales) Act 2015*. When asked why this was a case study is? the answer was:

New legal framework for a small country to clear legal requirements on the public sector in Wales to deliver sustainable development goals and to contribute to UN SDGs by setting Welsh specific goals, duties and an independent Future Generations Commissioner (WelshGovernment, 2019a).

The second case study was presented in 2018 (Neves, 2018a), is case number 60, presented on pages 494 to 511. In 2018 the name of the case study was *Mutual Investment Model (MIM)* (WelshGovernment, 2019b), the case study is presented by the Welsh Treasury a branch of the Welsh Government. When asked why this is a case study for People-First PPPs, the answer is: *The MIM embeds transparency about the costs and performance of PPP projects in Wales, and also foresees the delivery of several important public policy objectives. PPP companies will be required to deliver community benefits, and to incorporate the Welsh Government commitment to an ethical employment code. Furthermore, PPP companies will be required to deliver sustainable development objectives by helping the Welsh Government deliver its ground-breaking Well-being of Future Generations legislation* (WelshGovernment, 2019a).

Wales case studies reflect a top-down approach where the institutional development policy design embracing the Sustainable Development Construct was embedded in the Welsh Constitution and presented and shared this as a case study and two years later came back to present a program Mutual Investment Model. Some key points can be extracted from these two case studies. One initial highlight is the fact that partnerships are a means to an end, the goal is to set a vision defending future generations. This is done through a development policy anchored on Sustainable Development. Partnerships are a combination of strengths between public interest and private dynamics and capital where the private partner is guided to adopt sustainable development objectives. A second highlight is a fact that the Welsh experience is inherited from the *Scottish* experience. The case study *Hub Program presented by the Scottish Futures Trust (SFT)*, number 59, in pages 485 to 493, is a regional development program composed of five hub companies in charge of developing a vast range of community infrastructure projects. In Scotland, the *Non-Profit Distribution* model (NPD) was developed by the SFT but was not approved by the Eurostat. The government of Wales developed the MIM based on the experience of Scotland. The

second highlight is therefore about how development models grow from each other. While the MIM design comes from NPD, it has added the SD approach that had been reflected in the Future Generations Act (ScottishFuturesTrust, 2015).

Looking at National *Institutional Innovation* and the impact it can have on *Institutional Performance*, Wales cases demonstrate the importance of aligning long-term vision, objectives, and strategy. By presenting transparently the space to grow, the rules of the game, and the opportunities for private sector participation, a broad development ecosystem is created involving the three dimensions of SD. Indeed, and following attentively the outcome of this strategy, it is relevant the impact the new pfPPPs using MIM is already having in terms of social impact as this is being used on the criteria to choose the private partners. This reflects the type of social return, on top of the financial one that can be received by the local communities. This is certainly a good base for future research looking for Virtuous Development Models.

Haiti _ Case 01.2016 _ Agricultural Sector _ Banana Production

To share that partnership models, work in the UK namely in Scotland seems natural, although as it was presented above, development models do not cease to grow institutionally as the rules of the game improve. Also, they grow as they embrace an SD approach with community and social impact such as local job creation is a major concern. Partnerships normally assume a degree of complexity associated with developed nations, and therefore Wales development models fit easily in what Fukuyama calls the way to Denmark (Fukuyama, 2014, p. 40). On the other end, one of the most interesting findings on this research has been to find what Ha-Joon Chang calls "*Islands of Competence*" (Chang, 2009) in completely different environments. Haiti is one of them. The first conversation on the phone with Rose-Lourdes was enlightening and the challenge soon became to have all the work developed and accomplished being reflected on a case study. If the only criteria to rate Partnerships was the impact on the community, "Agricultural Project for Production of Organic Bananas and Vegetables in Haiti" this would be at the very top. For many years Haiti stopped exporting bananas, arriving at a point where the country was importing them. This case reports how the government of Haiti, namely the Unit for the Management of Public-Private Partnerships, reporting to the Ministry of Economy and Finance, with the support of the Ministry of Agriculture, promoted an "association of funds from the Public and the Private sectors, to build

infrastructure for public use (roads, irrigation, wells) in an area fit for farming but unused due to lack of investments”. The financial support also allowed for new available equipment and manpower. “The project has a significant economic and social impact on the life of peasants and small farmers of the North and North-East and thereby on the Haitian population in general. Other projects have since been submitted to replicate the model in other parts of the country.” Indeed, since this project was first presented in Geneva at UN Palais des Nations, in 2016, Rose Lourdes has been repeating this presentation and this example and now other countries are studying it to replicate it in other countries. The highlight of this case is the fact that comes from an LDC, showing that islands of excellence can be developed in countries with lower ratings of development.

The purpose of this research is to look for cases that can be replicated in other environments, and for this reason, Haiti gains particular importance, as the number of countries that similar agricultural challenges are vast, and on these countries, policymakers will identify easily with Rose Lourdes and this program. For this reason, last year, she came to the Finance for Development Conference organized by the Ministry of Economy of Angola. The conference was organized in 2019 during *Feira Internacional de Luanda* (FILDA) and the effect on the government officials, in DFIs as well as on private organizations was key for two reasons: allowed once more to show the Islands of Competence can be created everywhere, as long as the right teams and the right rules are in place; and showed that knowledge transfer among practitioners that have the same of type of challenge is very positive as they are perceived as doable.

Japan _ Case 30.2018 _ Smart & Sustainable Cities _ Shiwa & Ogal public real estate

The third case that is an outstanding example of *Very Robust* comes from Japan. A case coming from Japan would seem obvious, but considering the Shiwa Region and the present challenge of negative demography, this case is not only an example on how to promote Regional Development in remote areas but even more important how to revitalize a city, by bringing life back to a city. Ogal Shiwa Real Estate Project is a project that has generated an urban management program, and that can be recognized as the base for an urban policy that goes beyond economic and financial sustainability, or that protects the planet by promoting circular economy solutions. Shiwa case reinvents urban policy for the future generations by reverting the tendency of negative demography in remote locations, and to do this by defining objectives that required a strong articulation between long-term public

interest with medium-term private investment. “This project is a small-scale economic development project. It does not depend on mega shopping malls but creates a local economic ecosystem among local industries. The area attracts about one million visitors. The town receives land leasing fees and property tax from the development.”

A key highlight from this project comes from the fact that Toyo University has started the project in cooperation with the city, and a student Kamada San involved at the conceptual stage is today the director of the project. Listening to Senichi Kamada today, one can understand that the border between the Town of Shiwa and OGAL is not clear, it is an organization that exists to promote quality of life for the Shiwa community. Kamada worries about how to create events to make the city more alive, to attract new residents. For this, he knows that to attract young parents, sensible to find exceptional conditions for children. For this reason, the SPV has created in parallel a library, and a football field as urban anchors. As these anchors attract people, retail stores are attracted to be present, and a virtuous cycle is created. While exchanging ideas with Kanada, and Yu Namba from Toyo University, one understands the degree of spontaneous innovation required for these cases to succeed. According to them, the library wasn't an anchor strong enough to mobilize traction of people and therefore retailers, and, one night at a local coffee shop, a football coach suggested that a football field would bring in the kids, and with them their parents. The formula worked, and today Kanada repeats every time he wants to create an event; quality of life attracts people, people attract retailers, investors. The events and lively areas attract new residents, probably the most important indicator of development in these cities in Japan.

Toyo University is an example of a pro-active academy as they go far beyond applied research, indeed Toyo University sits with public officials and jointly design development plans. As the development plans grow and are transformed into a sustainable business plan, Toyo bridges the community and the concept with developers and development banks. As the concept gets traction and is leveraged by the local government, the academy and a development bank, developers, private investors, and lenders enter the process. For this reason, Shiwa Case besides showing how to transform a bottom-up PPP approach into urban development policy is a case on how the academy can go “beyond armchair theorizing” (Seguino, 2014) as Seguino described the research done by Alice Amsden.

Looking back to Chang and his vision about Industrial Policy, the same spirit can be found in Shiwa, as a clear local public interest is formulated based on reversing negative demography, and with this objective and understanding civil society and align with private interests, to create a cascade generating a positive transformation process.

Tajikistan _ Case 19.2016 _ Pamir Hydropower plant _ GoTajik, Aga Khan, IFC, IDA

The fourth case is an example of resilience, institutional innovation and global partnerships as it involves first the Government of Tajikistan that was able to attract and develop a partnership, first with Aga Khan Fund for Economic Development, which was then able to attract IFC. One important aspect of this considered an example case study by all multilateral development banks (MDBs) and development financial institutions (DFIs) is that this initiative resulted from a direct negotiation established first between these three parties. Considering the quality of the structure and the impact on the region and the country then a fourth partner came in IDA with a soft loan, again an example of blended finance being used to promote PPPs. This case is also an example of how important, it is to create strong institutions and the impact they have on attracting good partners. This is certainly the reason why SECO the Swiss Economic Cooperation Office was so willing to become involved and to show and share this case.

A curious point with this project was the difficulty to first reach Daler Jumaev the General manager of Pamir Energy Company as he was on one hand very busy promoting the case around the world and in parallel developing the second phase, the expansion of the project.

This case study is not only an example on how impact was created in the country but also in the region and the development community, as the institutional innovation promoted here generated the base to discuss how to approach unsolicited proposals in certain regions and certain sectors, that through traditional procurements would have seen this initiative take much longer if developed at all.

Ethiopia _ Case 07.2017 _ Energy Sector _ Shine Refugee Camp

The fifth case is another great example of international cooperation, involving the academy the Innovation and Technology Development Centre from the Technical University of Madrid, the United Nations High Commission for Refugees (UNHCR), the Norwegian Refugee Council (NRC), the Spanish Agency for International Development Cooperation

(AECID) and a consortium of private companies with Iberdrola, Philips, and Acciona. This simple fact shows how partnerships can have multiple geometries and with the right motivation to assemble a variety of players to achieve an objective. The goal was to install a new lighting system in the Shire Refugee Camp in Ethiopia and from this initiative behind providing lighting at night, providing safety and promoting gender protection. Again, the success of this case study is contributing to establish new partnerships between DFIs, bilateral cooperation, and Private Sector, creating the base for this initiative to be replicated in other conflict areas. It is also relevant to highlight the role of Carlos Alonzo from Iberdrola that works exclusively to design, partner and implement this type of project with Iberdrola.

Other Very Robust cases worth mentioning and exploring are:

Brazil _ Case 17.2016 _ Energy Sector _ Light for All (Luz para Todos)

Switzerland _ Case 53.2018 _ Transport Sector _ TOSA Electric Bus

3.3.2 Robust Cases

Robust cases will be those that are a clear success when a project and a program approach have succeeded but that have not reached the level of impacting development policy in the long-term.

Three cases will be presented, one in China, in Portugal, this with considerable personal involvement, and in Albania. The three cases differ from the degree of institutional support from the public and private sectors. This lack of balance is the main reason for these cases not being considered as *Very Robust*.

China _ Case 14.2016 – Water Sector _ Sponge City at Jinan

The first meeting with Wang Tianyi and Pei Peng in 2015, PPP was a relatively new concept being explored in China. The eagerness of Chinese government officials and academicians to know more about the process, to learn and gather information, was the key to organize PPP conferences in China the following year. In 2016 it was a pleasure to be a keynote speaker in the 1st Chinese PPP comprehensive training in Qingdao and then to lecture on how to design and implement PPPs at Tsinghua University in Beijing and

Shenzhen. Auditoriums filled with hundreds of high-level government officials, university professors, entrepreneurs, reflected that China was very seriously launching PPP as a development model. Today China proudly states that is the only country in the world with more than 2000 PPP projects implemented.

The Sponge City Concept (SPC) is part of the case study Environmental Water Projects in China, developed and “popularized” as described in China jointly by the Ministry of Finance MoF, Ministry of Housing and Urban and Rural Development (MoHURD) and the Ministry of Water Resources (MWR) with local municipal governments first and then with the “Private Sector”. The innovation on this model comes from the financial approach, as well as water management, namely, stormwater has been considered and managed.

The PPP design can adopt five categories: service contract, management contract, lease, design-build-operate-transfer, and concession. In this model the CAPEX and OPEX costs are supported by government and 10% of the basic subsidy fund is used for good performance of PPP, “new investment and financial supporting mode based on public-private partnerships concept is employed to handle the SPC construction and operation cost”.

The SPC concept is to manage storm-water and to include it in the water-lifecycle in a positive way for cities. In short consists of capturing and using it, considering positive, instead of negative, something that should be avoid it and get rid it, by discharging it: *“development is to change traditional thinking and approach to quickly discharge the storm-water runoff to avoid flooding and inundation but capture and utilize storm-water at the maximum extent possible”*(Li, Li, Fang, Gong, & Wang, 2016).

In this case, the public interest has been identified at the policy level, has been adopted by the central government, has been researched and benchmarked with the best practices, and is now being implemented through pilot projects. It is an example of using a planet agenda to promote prosperity, and it is also an example of scaling up and replicability. It has not yet been tested extensively with the private sector, and indeed, “need to be aware that the local government should not transfer all the responsibility and economic burden to the private sector through the PPP model (Li et al., 2016).

The concept and the public support at line ministries level with the support of the Ministry of Finance, makes this case to be Robust. It is the lack of testing, and the fact that private sector in China is very close to state-owned enterprises (SOE), that does not allow presently

to considered as *Very Robust*. In this case, a clear top-down solution, with a too strong on the public side; the next case in Portugal will show that strong bottom-up solutions may not be perfect either when there is a lack of vision and understanding from a policy level.

Portugal _ Case 44.2018 _ Smart & Sustainable Cities _ Urban Regeneration in Lisbon

Alan Tragger from Johns Hopkins University describes PPPs with three degrees of complexity, the first level is about economic PPP's. These are about projects that have an independent revenue stream that can pay back the investment capital expenditures (CAPEX) made to develop the asset, as well as to cover operating expenditures (OPEX). This type of project is normally associated with energy, airports, ports, and roads. The second level is about social PPPs and, in this group, exist health, education, libraries, police and fire stations, jails. This type of assets do not generate a revenue stream, or the revenue created is not able to cover CAPEX and OPEX. This type of PPPs is associated with an availability type of payment that is provided by the central or local governments to the SPV. This second level, uses the guarantees provided by the government, to structure the financial solution. In this type of PPPs, besides the political risk, the government also takes the financial risk, and the private sector is responsible for CAPEX and OPEX risks and for ensuring the provision of public services to the end-users.

The third level of PPP's, for Tragger, is Urban PPPs. In this type, the complexity increases for several reasons. Normally the solutions involve several assets that besides providing public service, are responsible to promote urban quality of life. The political risk associated involves normally and simultaneously the central as well as the local government. The market risk is normally associated with the real estate cycle, which, and considering the lifecycle of project and asset development requires a clear understanding of the evolution of the market.

The group of projects developed within Parque das Nações in Lisbon Portugal can be associated with an urban regeneration program. Parque das Nações is certainly the largest urban renewal program ever developed in Portugal and its relation, with the Expo 98 event was considered an urban landmark for all cities that developed Expo sites before and after Lisbon in 1998.

The urban regeneration is vast, and the case study presented involves solely the blocks within Parque das Nações, developed through explicit PPPs, also called institutional PPPs. Aware of the Urban PPP governance challenges, the business design was developed with a bottom-up approach where the SPVs were created by Parque Expo the public entity with clear project objectives that were aligned with the urban public objectives, agreed by the central and local governments. To ensure a good level of interest from private sector developers and investors, the development program was presented at the most global important urban development events, with the perspective that the business models had taken care of the risks the private sector tries to avoid, such as the political risk and the permitting risk. To manage and mitigate political risk, in parallel with road showing the program internationally to attract the best private sector partners, an equivalent “roadshow” was done in Portugal involving the Municipality and the Central Government to ensure the alignment between the line ministries and the minister of finance. Besides the alignment between the Central and Local Administration, a key aspect for the success of this program was the presentation of the concept to the Court of Auditors and to obtain their recommendation on top of their approval. Alignment between these three bodies in-charge of defending public interest was certainly a key success factor and therefore is now used as a “lessons learned” and being replicated elsewhere. Considering what was previously explored, this means that a careful public-public-public private partnership was created before entering into a public-private one.

Institutionally the image below shows how the business design was developed to ensure a coherent institutional framework.

Involving Central, Local and Court of Auditors to guaranty public alignment

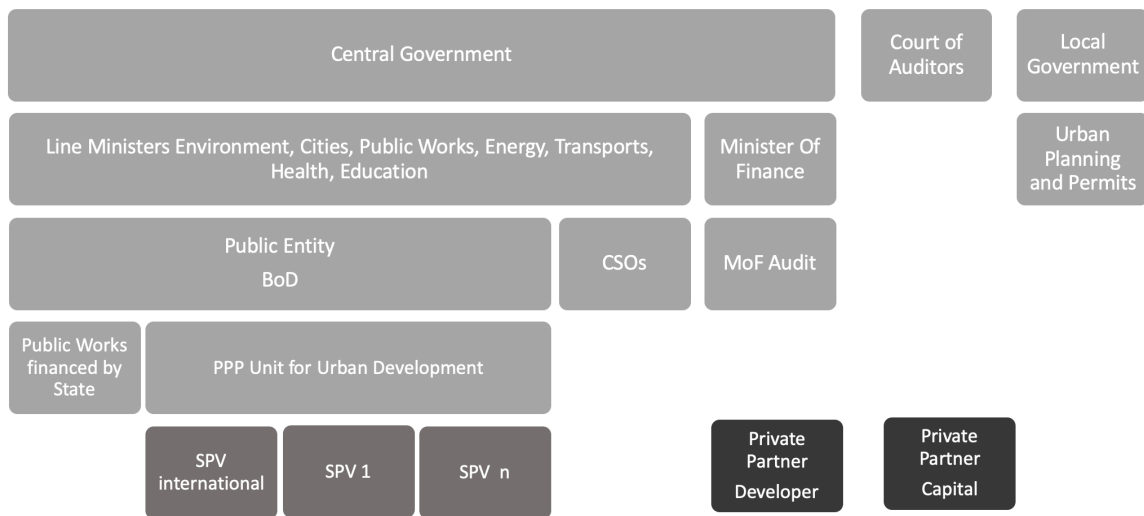


Figure 7 Institutional PPP framework involving multiple public stakeholders

From this figure, it can be perceived that for the SPVs to be created at the bottom, between the PPP Unit and the Private Developers and Investors, respectively in dark grey and black, a public-public-public partnership in light grey had to be developed. This process of creating a strong institutional framework as the public parties had alignment on urban development strategies, allowed to create an attractive business ecosystem for developers and investors.

The output was very positive as all projects and therefore the program was developed respecting budget, the timeframe and the quality of the assets. This case is presented to highlight that by looking at the five criteria adopted by UNECE to analyse case studies all would give a natural high score to this case but one. Indeed, the people, planet, and economic and financial agendas are an example. Even when scalability and replicability are analysed, the outputs, as well as the outcomes, are very positive.

As the first project represented a success, scaling up at Parque das Nações happened in a very short time. Likewise, the dynamic created was replicated in Brazil, in Algeria in the first years and other countries followed. The reason for not comparing this case study with Wales, Scotland, Haiti or Japan, has to do with the incapacity of involving all stakeholders at policy level for the long-term. Indeed, and although an alignment was agreed for projects

taking place at Parque das Nações, the necessary work was not done politically at high-level, and therefore, were not replicated as part of Urban Development Policy.

This case study is used in all my lectures and workshops, was part of Master Dissertation at IGOT in 2018, and certainly will be further exploited on future research. The fact that has not been able to grow into the third level of development policies justifies the difference between very robust and robust. This means, that unlike the Chinese case, where a top-down approach has not reached the bottom, in this case, a bottom-up approach, had not reached the top, as it worked at project and program level, but was not able to raise enough impact capable on urban development policies.

Portugal has today 8 case studies within the 3 UNECE Compendiums, and the same pattern applies to all; the projects presented have been developed with success at project level reflecting the national capacity of structuring projects.

Today new partnerships were, and are responsible for the development of important assets in Portugal, such as the new Nova Business School Campus, already inaugurated and being prepared to be a future case study for UNECE, the new Central Hospital in Lisbon, the future development of the Port of Sines, or the recent agreement to enlarge the Lisbon airport with a second facility to be developed in Montijo. All these projects reflect public investment being done with different forms of private sector participation, but without adopting the terminology PPP. This represents that public investment remains a “box” without long-term planning. This certainly is the reflex of the lack of strong institutions to design, implement and manage public investment, public assets and ensure the subsequent public services.

Albania _ Case 01.2018 _ Transport Sector _ Tirana Airport

As mentioned earlier the main criteria for considering the cases Very Robust is that the project has been recognized and therefore can be replicated at the program level and adopted as a development policy. The case of Tirana Airport is one of great success, in terms of project development and impact on the country, but that in parallel suffered from its extreme success. After the first concession being established in 2005, the project went through such a dynamic development that the original private concessionaire transferred the concession to a new private partner. The main lesson from this project is, indeed, the need for the public partner to consider what to do in case of extreme success and therefore

to manage the public interest accordingly. This case is an example of the need to have a long-term perspective, about the public service to be provided, and how it relates to the asset management. Often the focus on PPP teams is to organize well a public tender and ensure the development phase occurs according to plan and do not consider at this stage how to relate with the private partners as the operation and management phases arrive. Frequently this process is dealt with by different ministries, and considering the timeframe from different governments, that have not articulated the process in advance and therefore eventually a ministry of public works has created the asset and the provision of public services is ensured by the ministry of transports.

This example shows as well as how important it is for the public-public partnerships between different ministries to be addressed.

3.3.3 Fragile Cases

Madagascar _ Case 12.2016 _ Water Sector _ Androy Region Water Network

The conversations with Jean Baptiste were long and sharing this case study mean an important effort from the Government of Madagascar, to present a very simple concept.

Madagascar in the southern region has too much water during the rainy season, and drought during the dry season. “Each year, Government warns extreme food shortages in the south and several organizations to come and bring help to the south World Food Program; (UNICEF; USAID; JICA; ...)”. Also, while speaking with Jean Baptiste two important lessons were shared: “We do not need water treatment plants! We need a water system that gives us water on the tap and the fields! We have a great number of agencies coming here, with funds, but we do not know how to organize them”.

Projects need to be designed with a public service-oriented perspective and comprehending an integrated solution for the full project lifecycle. This project is a clear example claiming for institutional capacity building. As will be seen in the next case, this happens in countries with a much greater development index as well.

An abstract of the thesis from Katherine Frances Valentine for the degrees of Honours Baccalaureate of Science in Environmental Sciences and Honours Baccalaureate of Arts in

International Studies presented on December 3, 2015. Title: An Investigation of Water Access and Quality in the Ambovombe Area of Southern Madagascar.

The Ambovombe area proved to be a truly unique and water insecure community. NGOs and others providing *aid* can build wells and provide basins and borne fountains, but these are only short-term solutions. In a place such as this, where groundwater supplies essentially all of the community's water at an unsustainable rate, an alternative source of water is crucial. Without it, life in Ambovombe simply cannot persist. (Valentine, 2016).

The Madagascar case study is an example of the need to integrate solutions and to align the organizations to implement them locally, it can also be referred as an example of the need to enter rapidly into a *post aid* agenda.

Finland _ Case 23.2016 _ Road Sector _ E18 Road Program

“The E18 is Finland’s most international arterial road” a highway connecting Turku, the Baltic sea gate to Sweden, to Vaalima, the border to Russia. If the criteria was simply to finalize a key important infrastructure for the nation, and, if it was to recognize that a Public-Private Partnerships was the best solution “If a conventional investment approach had been taken, the benefits to society would never be realized”, then the E18 could be a Robust case, but if on the other hand, it took the Finish government over 60 years to accomplish 344km to deliver the most important mobility asset in the country, it shows lack of consideration for the people, for the planet, and prosperity, and even if the case can be scaled up and replicated, it clearly shows a lack of institutional capacity to design and deliver key public investment assets (EditorialTeam, 2018).

Evaluating Case Studies According to their Institutional Performance

The following table synthesizes the 10 case studies described above, and having a qualitative evaluation using a people, planet, prosperity, replicability and stakeholder involvement key. The first five cases are considered to have a positive impact on institutional performance on all five criteria and for this reason, are considered to be Very Robust. The cases of China, Portugal, and Albania, not having the required stakeholder's involvement, are considered to be robust. The cases of Madagascar and Finland are considered Fragile as they have are negative in more than one criterion.

Case	People	Planet	Prosperity	Replicate Scale Up	Stakeholders Involvement	Institutional Performance
Wales	yes	yes	yes	yes	yes	Very Robust
Haiti	yes	yes	yes	yes	yes	Very Robust
Japan	yes	yes	yes	yes	yes	Very Robust
Tajikistan	yes	yes	yes	yes	yes	Very Robust
Ethiopia	yes	yes	yes	yes	yes	Very Robust
China	yes	yes	yes	yes	no	Robust
Portugal	yes	yes	yes	yes	no	Robust
Albania	yes	yes	yes	yes	no	Robust
Madagascar	yes	yes	no	no	no	Fragile
Finland	no	no	no	yes	no	Fragile

Table 2 Institutional Performance analysis based on the 5Ps

Case Studies on Partnerships Based in SD to Achieve the SDGs

Based on the outcomes originated from the existing Case Studies, UNECE has requested the existing number of 120 Case Studies to grow to 500. UNECE has also requested an evaluation methodology to be developed so that a quantitative approach can also be done. This bottom-up approach is leading the way today to design new models of investable projects, that should allow nations and cities to transform needs into investment programs, that combine different sources of funding: public and private. The end goal is to improve the design and implementation of *Development Models* that lead to enhancing the quality of life, to protect the planet and reduce the financial gap through a sustainable development approach that will contribute to achieving the SDGs.

These facts demonstrate, how successful Case Studies have been, in terms of attracting experts from member states, from the academy, from the private sector to become involved in discussing and learning from this development model.

Considering the impact that this research has over UNECE and UN member states, a research team is being created to address this challenge. Scaling up and replicating this research method is being done as this thesis is being developed.

3.4 Toolbox for People-First PPPs to Achieve the SDGs

This fourth section of the Core chapter complements the empirical knowledge provided by the case studies. It is being called a toolbox as it gathers 12 tools² that have been created throughout the past years to assist governments, developers, investors and academic teams involved in developing models using a People-First PPP approach. During the Ph.D. research, and the writing of the Thesis it became evident that the simultaneous development of empirical research based on Case Studies and theoretical research based on Literature Review could be strengthened by the organization of existing tools that were adapted as well as original tools. The concept of original follows the definition *existing since the beginning, or being the earliest form of something* (Cambridge, 2019) and was used for concepts developed by myself. When tools presented were inspired on tools designed by others they have been referred accordingly.

All tools presented here are now being used and tested on the field, and in development labs, considering the research groups involved in this matter to be labs. This double source of data, one coming from case studies, and the second from literature review, feed into a common body, that after digesting the information, returns the output to the field and to the lab, creating a Butterfly Knowledge due to the shape of information flow with two symmetrical cycles see figure 7 below.

This cycle of information is pushed forward with inputs from empirical and theoretical knowledge that answers to requests made from the practitioners and scientists. The answer to these requests is transformed in processual schemes, here called tools, that are being used to support workshops, presentations, and diagrams proposing government implementation processes. The feedback from the testing of these models is then being reported backward in two directions. The first one, is being called a report and goes back to the empirical knowledge field and is being used by practitioners namely those involved in case studies. The second is being incorporated in the theoretical knowledge field and is part of presentations, workshops, lectures, and now in this thesis.

² During this research requests were made to share how a pipeline of investable projects could be created. To answer this question and also to exemplify how these tools could be used, a note was created to be published on a UNECE document on Innovative Finance. This note was incorporated here as Annex 6, using the case study Parque das Nações as an example. Annex 6 refers to 10 tools, not reflecting the 12 described below once it addresses a specific question.

The common denominator of these tools is that they are being adapted and designed to assist Sustainable Developers to promote solutions aiming to achieve the SDGs. Below the table reflects the group of tools (schemes) used to launch and upgrade development models for the implementation of People-First PPPs. These tools can be used for other purposes that consider a sustainable development approach using the 5 Ps: People, Planet, Prosperity, Peace and Strong Institutions, and Partnerships.

The table below describes 12 tools, their name, and 5 columns referring to the 5Ps with an X each time the Ps are used. As can be seen, some tools use the 5Ps, and others focus essentially on the rules and actors of the game (Peace and Strong Institutions – Partnerships).

Nr	Tool Name	People	Planet	Prosperity	Peace SI	Partnerships
1	Knowledge Butterfly (*)				X	X
2	Back to the Present				X	X
3	SDGs Virtuous Cycle (*)	X	X	X	X	X
4	Bridging the Gap (*)				X	X
5	4G Master Plan (*)	X	X	X	X	X
6	Four Season Pizza (*)				X	X
7	Gate System				X	X
8	J Curve & Saw Curve (*)				X	X
9	SD Institutional innovation (*)	X	X	X	X	X
10	People-First PPP Design (*)	X	X	X	X	X
11	Multi-Level Approach (*)				X	X
12	Round-Table Approach (*)	X	X	X	X	X

Table 3 Toolbox for PPPs and SDGs

(*) original concepts

SDGs Why? and For Whom?

A short description of each tool is given below.

These tools are normally used to bring teams together around a holistic approach to development models. They are normally used on exploratory phases, and subsequent tools and detailed designed tools originate from the ones presented above. This list and new tools grow as new challenges appear and new solutions have to be exploited.

Knowledge Butterfly

An original concept combining simultaneously empirical and theoretical knowledge. Describes a double-entry information flow. One comes from a theoretical knowledge perspective, below represented by Literature Review. The other comes from empirical knowledge namely from Case Studies. This information is used to reply to requests coming from the field. To answer these requests new tools are designed and tested on the field. The information from the field is then transformed into reports and incorporated in new case studies. On the other end, the information is also transformed in feedbacks that incorporated in presentations, lectures and other forms that end up being reflected in the literature review.

As the research and writing of this Ph.D. thesis are occurring while development projects are taking place the knowledge apprehended both in theory and practice enhance development models and the models contribute to the thesis.

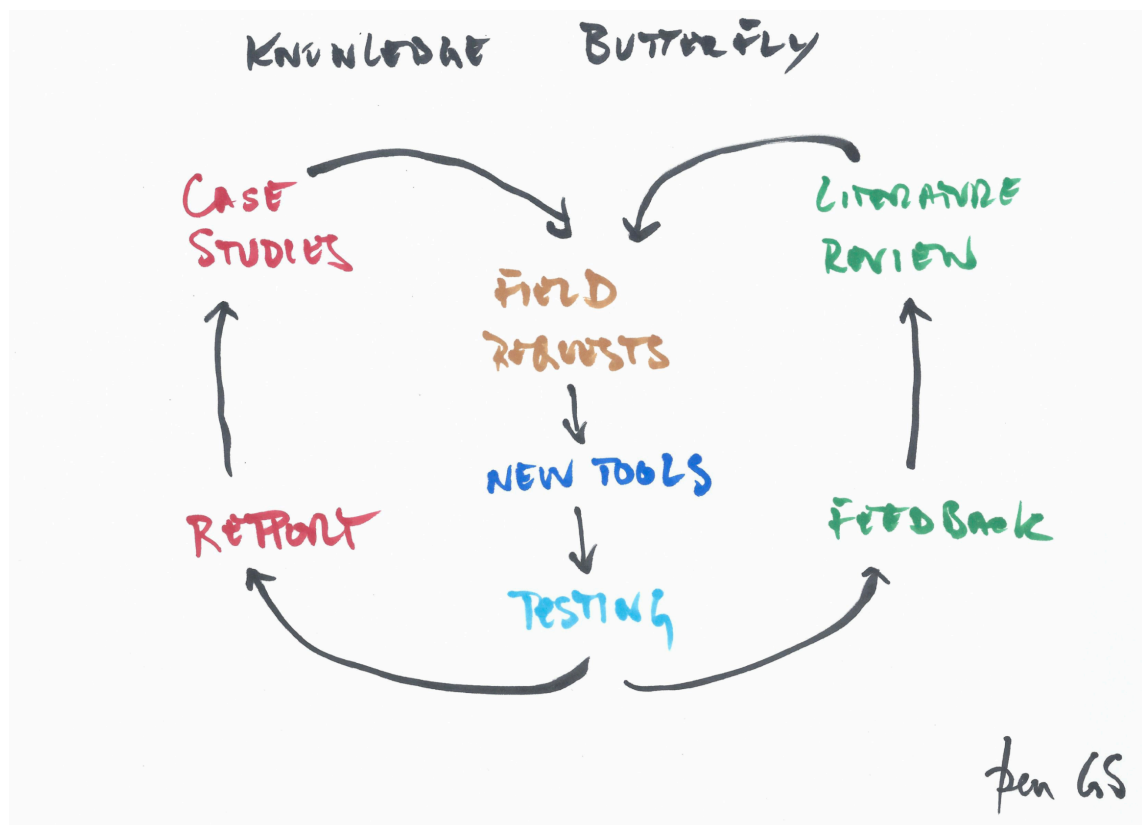


Figure 8 Knowledge Butterfly

Note: Tool developed for this study to articulate how knowledge resulting from the literature review and case studies is contributing to the design of new tools.

Back to the Present

Results from an adaptation of The Natural Step (TNS, 2019) backcasting scheme to SDGs, and the creation of a pipeline of investable projects. This tool reflects a process that starts by identifying the present as an *AS-IS* status. The following step is to consider a 2030 *TO BE* Vision. With this Vision in mind, the next move is to return to today, the *AS-IS* position, meaning being *Back to the Present*. Considering the vision of the future, the third step is to list the projects required to achieve the *TO BE*, meaning the SDGs in 2030. This list of projects is the *Pipeline of Investable Projects* needed to Achieve the SDGs.

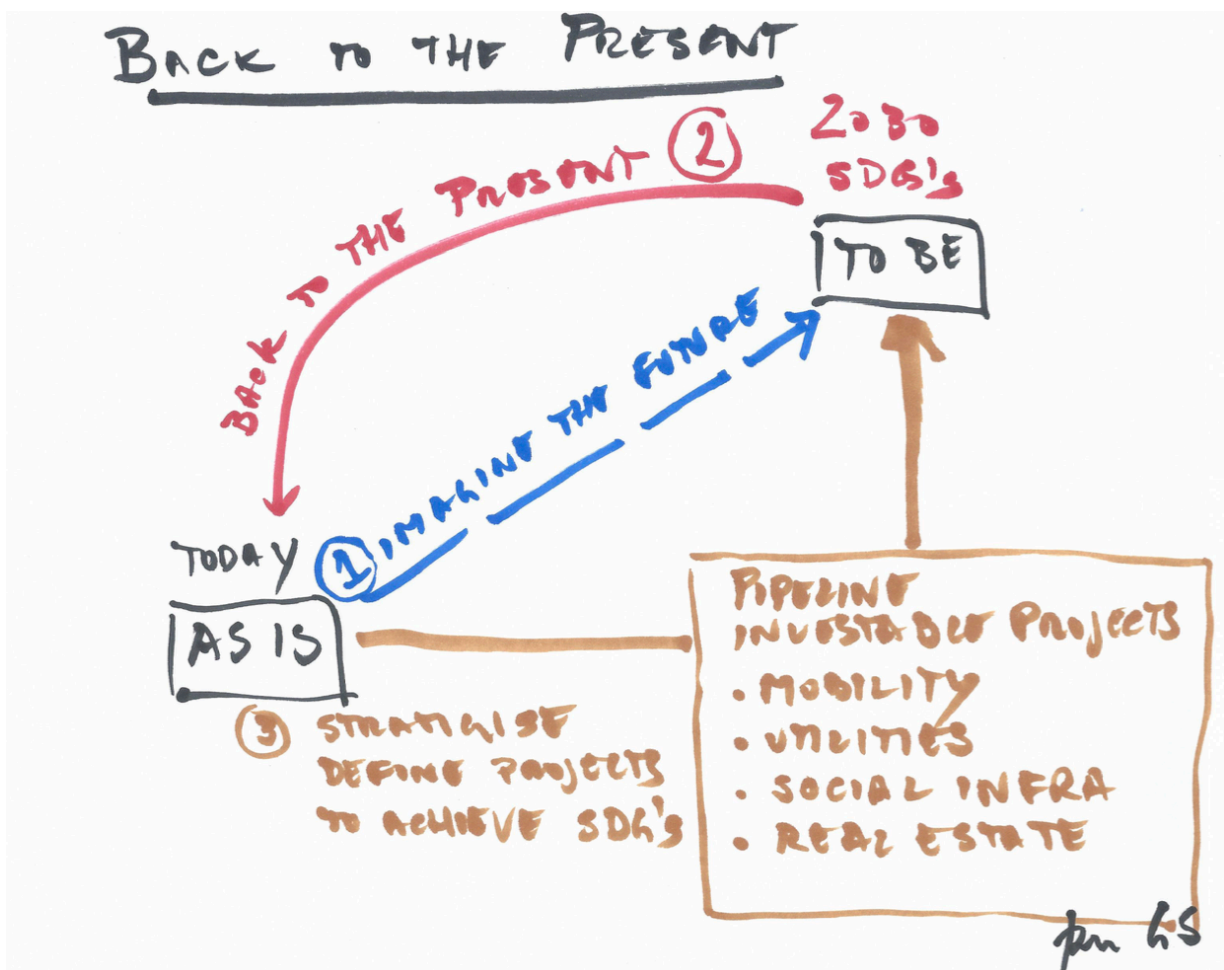


Figure 9

Back to the Present

SDGs Virtuous Cycle

An original concept that starts with an SDG vision, that originates transformational projects, that induce the improvement of community Quality of Life, that simultaneously Protects the Planet and therefore is more likely to attract Investment.

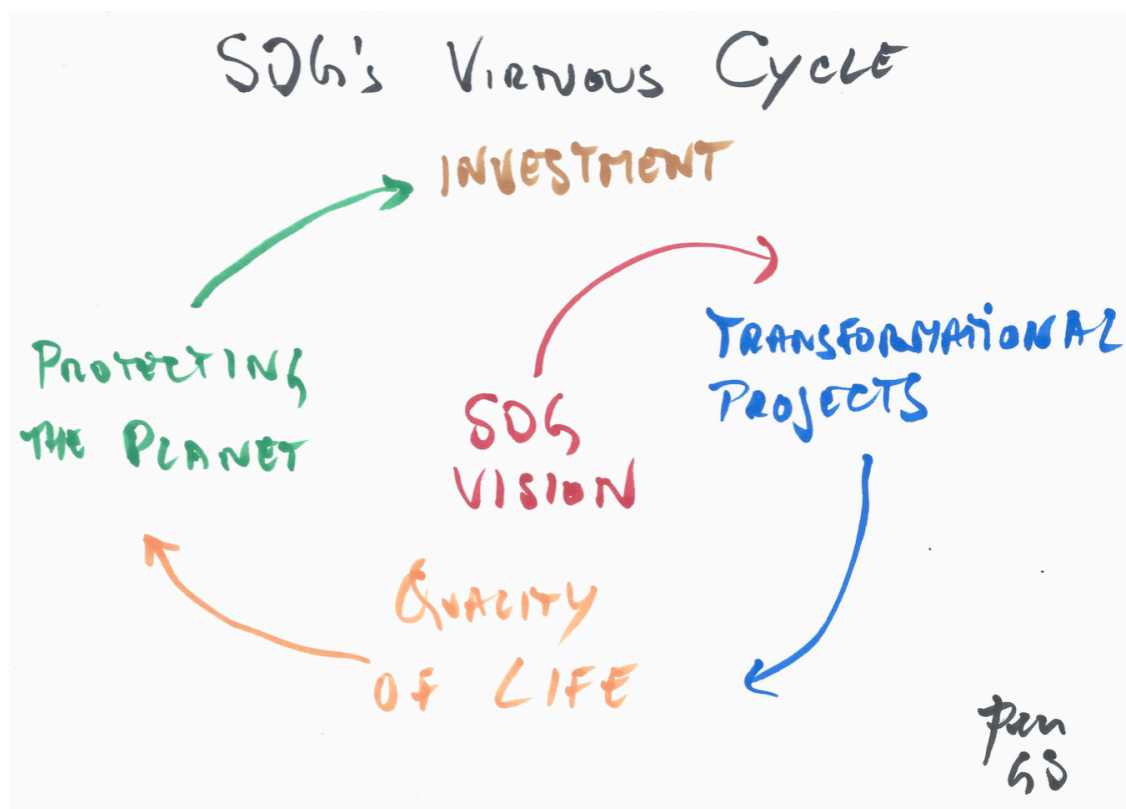


Figure 10

SDGs Virtuous Cycle

Bridging the Gap

Bridging the Gap is a tool used to enlighten the existing gap between the excess of liquidity existing today that is looking for investable projects, and the infrastructure needs that require to go from a project stage to become investable businesses on cities and countries. The bridge bringing together policymakers with investors occurs when investable projects are structured. Although it is not explicit, it is considered that investable projects representing the bridge are based on SD, and where the central pillar can be considered as the SDGs.

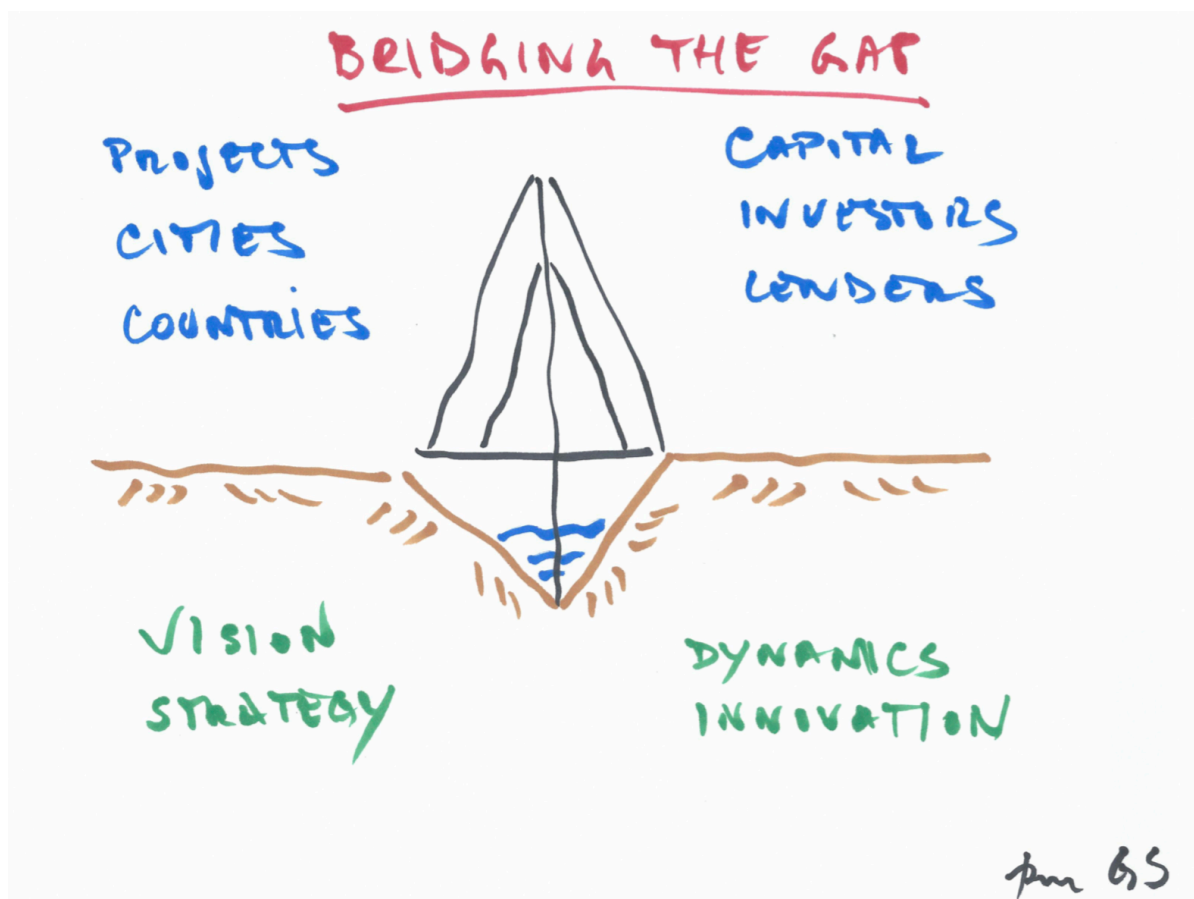


Figure 11

Bridging the Gap

4G Master Plan (4th generation)

An original concept that consists of adding to a traditional master plan that describes zoning and building capacity with three extra layers, being each layer associated with Prosperity, the ability of the land to promote economic growth; People, the ability to generate jobs, Planet, the eco-footprint impact from transformation.

A traditional master (1G) plan reflects in the territory the zoning, representing the type of transformation that can occur, and the building capacity, namely the number of buildable square meters per square meter of land. Considering an SD approach, three extra layers are added to the traditional master plan. A second generation, 2G reflects the economic approach, the ability to generate monetary value from land; the 3G will be about social impact namely job creation, and therefore the ability to associate land development into number of jobs created; the fourth and last generation 4G is about environmental impact resulting from the new use the land will have. If trees are planted the eco-footprint will be positive, if there will be building the impact can be negative and if there will be a green building there will be a middle case.

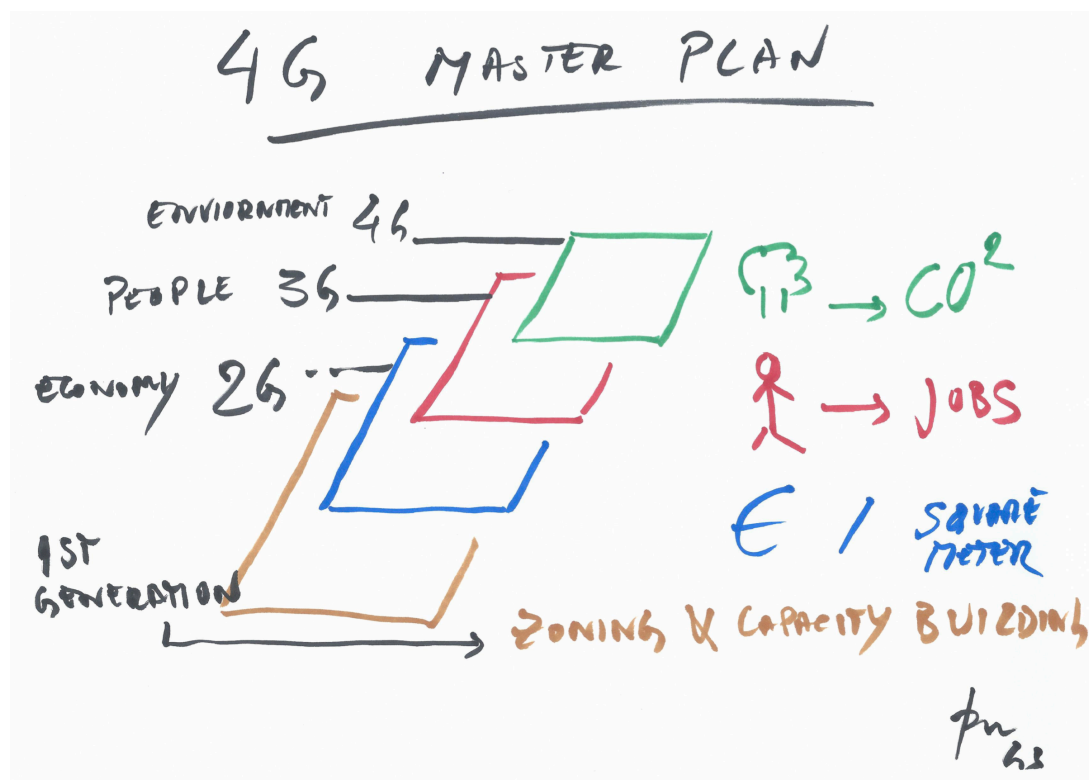


Figure 12

4G Master Plan

Four Season Pizza

An original concept that links infrastructure assets to the seasons of the year. Spring is associated with Mobility assets responsible for people and cargo to go from location “a” to location “b”, such as airports, ports, railway, and roads. Summer relates to Utilities, including all types of networks necessary for human interaction, comprehending energy, telecommunication, water and wastewater, solid waste, and gas. Autumn links with Social Infrastructure, such as health, education, safety, public administration, sports, and culture. Winter reflects Real Estate assets such as housing, retail and offices, as well as logistics, and industrial buildings. The four-season pizza is used to integrate urban and regional development implying multi-sector coordination between multiple ministries.

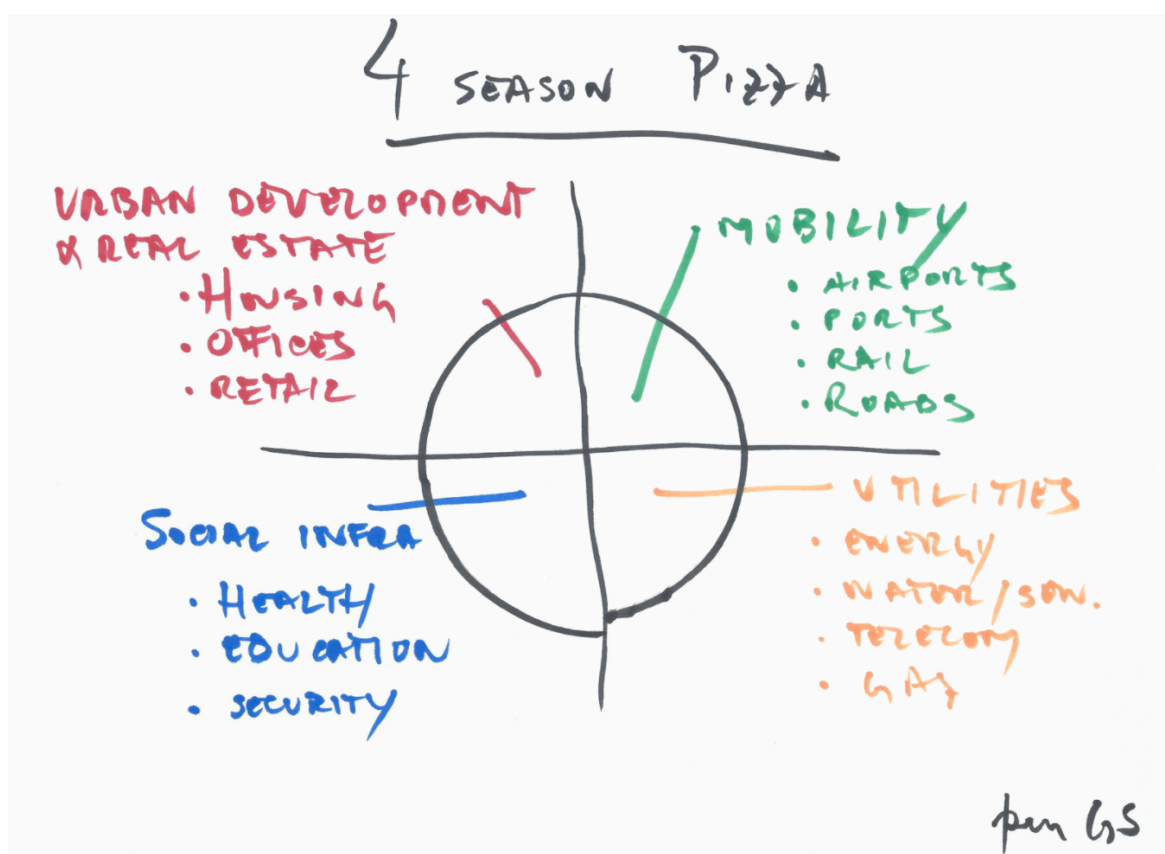


Figure 13

Four Season Pizza

Gate System

The Gate System concept was designed by TCN Urop (Jager & Jager, 2005) in the Netherlands. The adaptation has been simplified and resumed to a development model to describe the project lifecycle, composed by concept, testing, negotiation, transformation, and exploitation. It is a process to cover the full lifecycle of a development and asset management, that separates each phase with a “gate” as if the process was part of a pipeline and to move to the next phase a gate needs to be open. The process starts with a concept phase where the needs are identified and transformed into a project, for the idea to be accepted as a project a gate 1 needs to be opened. The second gate is opened as the concept has been transformed into a project to be tested. As the project has gone through a due diligence process and is considered sustainable and viable the third gate is opened. When the contracts for transformation occur, considering that these cover social and environmental targets, as well as economic and financial ones such as reaching financial the fourth gate is opened. As the asset is ready to enter into exploitation and start providing public services the gate five is opened.

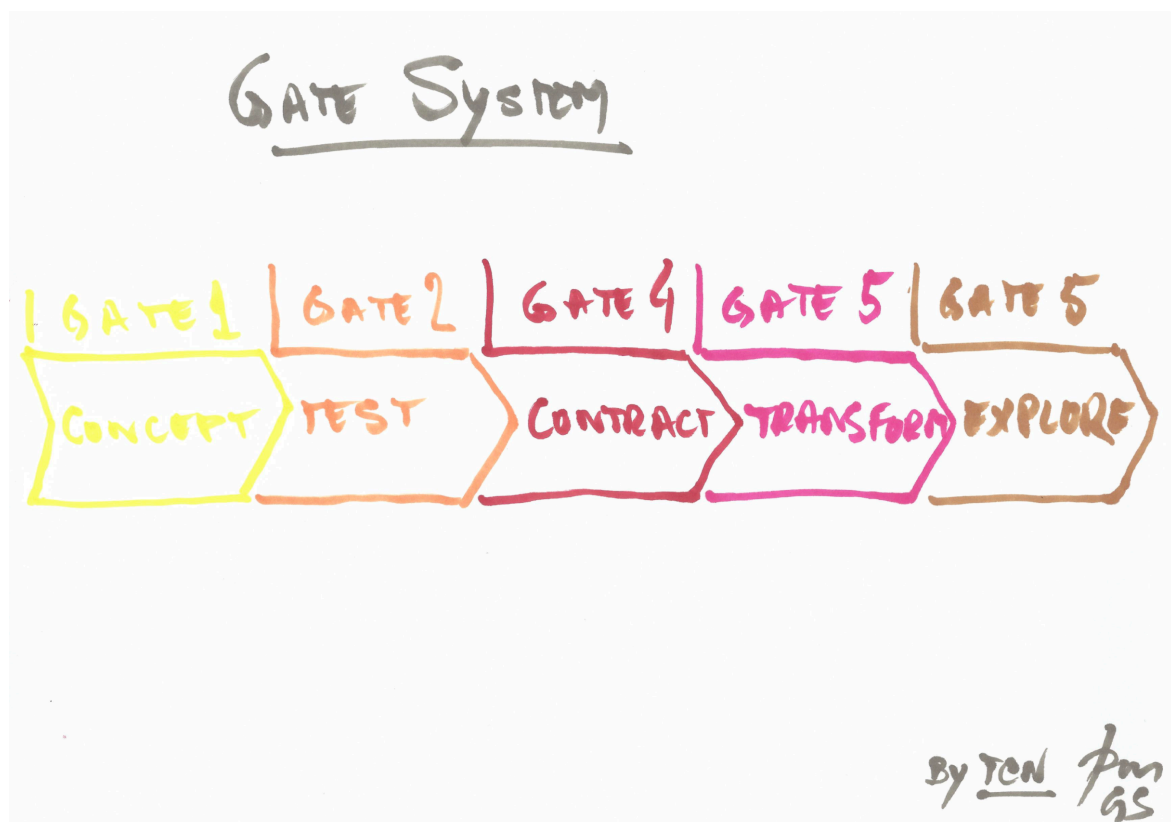


Figure 14

Gate System, a concept developed by TCN

J-Curve

Results from recognizing the cash-burn investment shape into a J Curve. This represents a typical cashflow with an initial cash burn phase-aligned with research, preparation works, negotiation, that inflects as turnover starts to occur, and leading to positive cash flow as it reaches payback. The J shape describes the cashflow evolution for an investment project, representing a “cash burn” phase where development costs are associated with gates 1 to 4, as described at the gate system.

This perception is particularly important as several transformational projects that have not evaluated these phases adequately are left behind. As the cash burn phase evolves the projects start generating cash flow and in time have their payback period reached. After this period the projects generate a revenue stream that may be used for new investments.

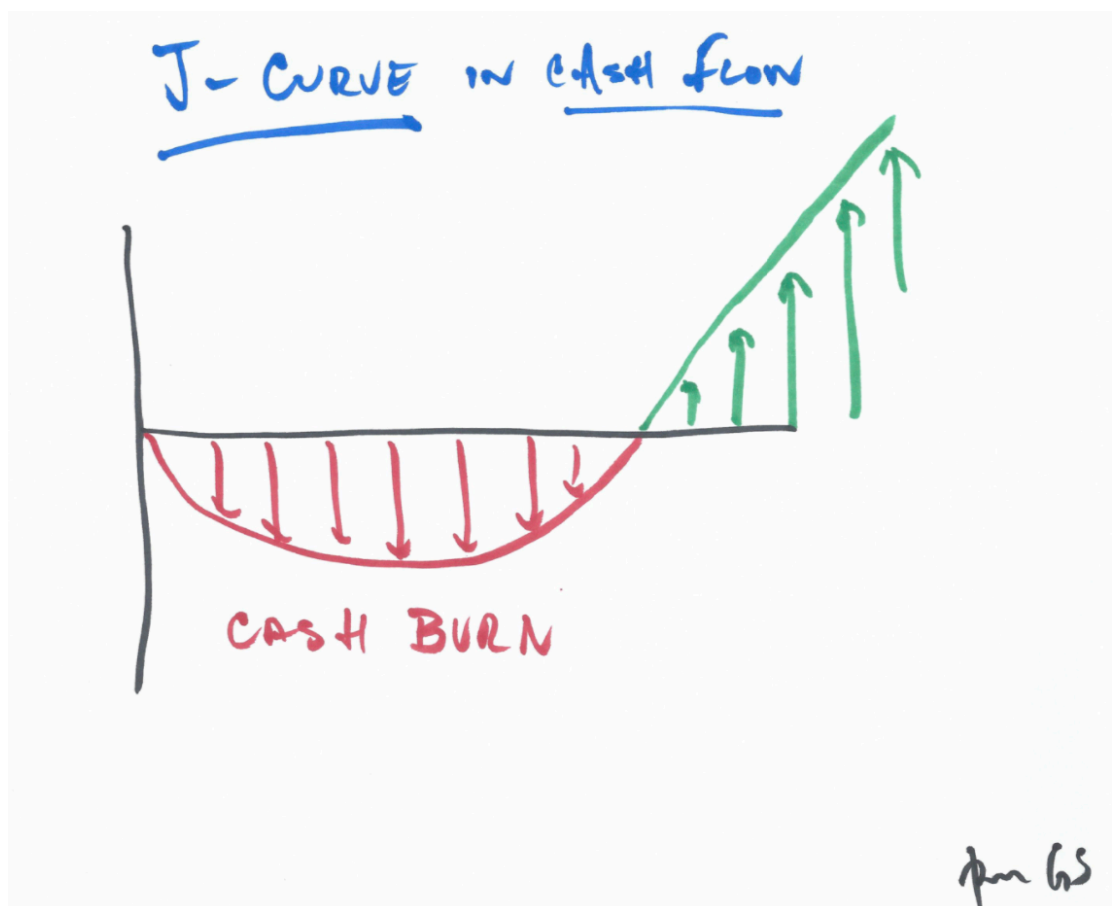


Figure 15

J Curve

Saw Curve

The original concept that consists of adding multiple J curves together and therefore use the positive returns to develop other projects. This program perspective is particularly important for investment programs that require alignment between different project stages to ensure the program viability. The Saw Curve intends to design programs considering the investment cash flow of individual projects to reach an investable program status.

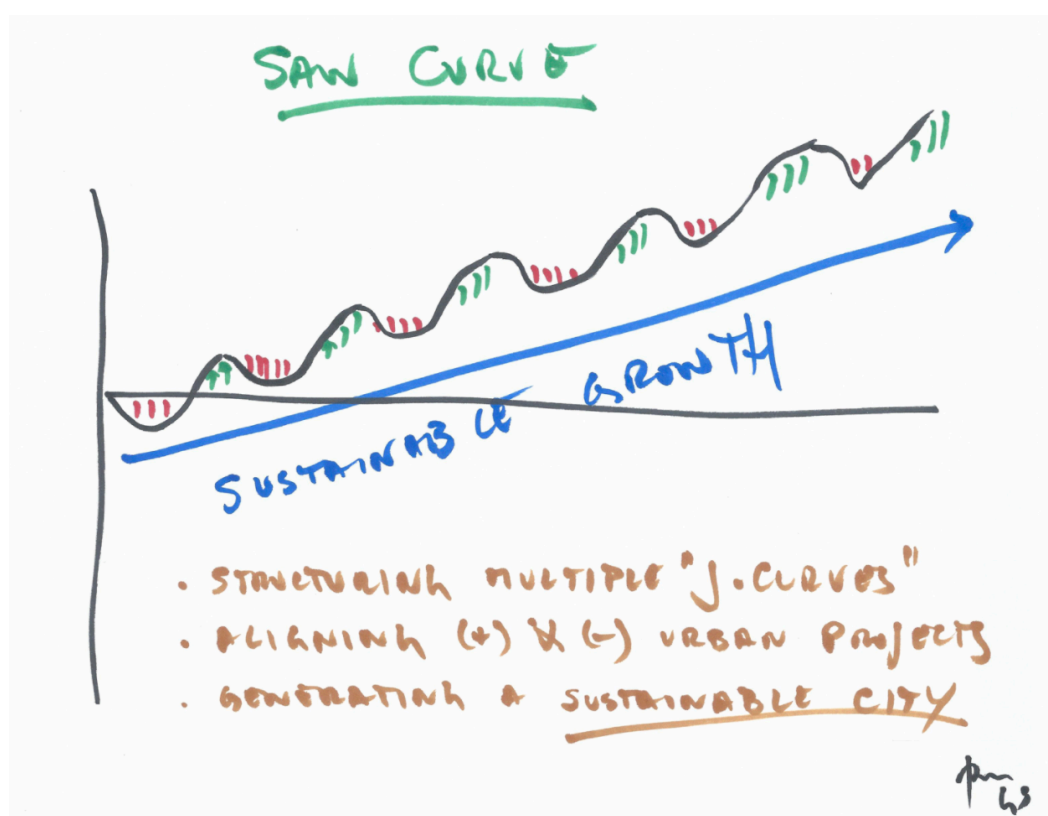


Figure 16

Saw Curve

Sustainable Development Institutional-Innovation Design

SD I2 integrates at the centre the three pillars of SD, people, planet, and prosperity, but attach an initial inner circle reflecting the rules of the game and enforcement measures associated with a transformational project or program. A second circle reflects the potential game players for the process to take place.

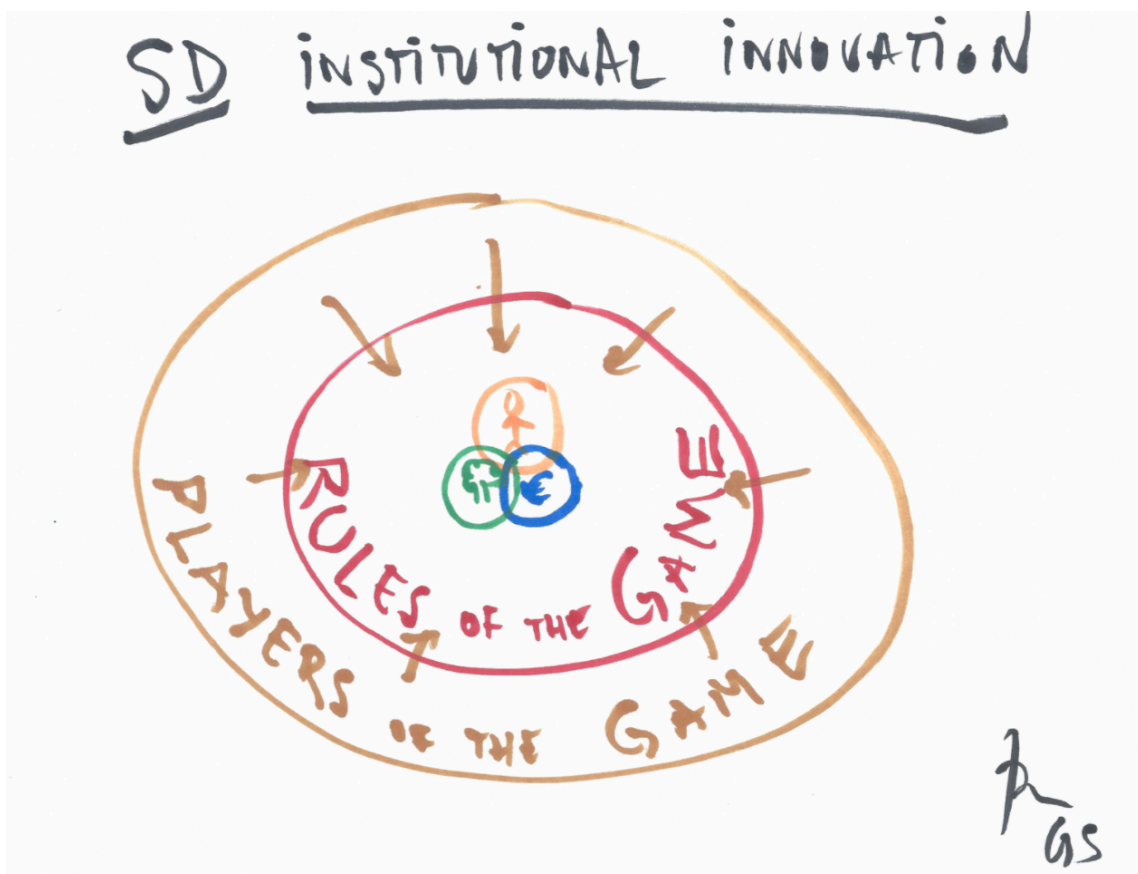


Figure 17 SD Institutional Innovation

People-First PPP Business Design

This tool reflects the traditional PPP design with the Special Purpose Vehicle at the centre and its four arms. The WBG design has the SPV at the centre and in the vertical axis, the government is found on the top and the user on the bottom. The horizontal axis has on the left-hand side the developer responsible for engineering, procurement and construction, and the asset manager responsible for operation and maintenance, and on the right the capital providers namely the investor for equity and the lenders for debt.

On a People-First PPP approach, the user and the people should be on top to reflect the People-First spirit. On top of the user, comes the community represented by the People and on its side, the environment represented by the Planet. As in the Back to the Present, this scheme results from an adaptation of an existing scheme but now reflecting an SD approach.

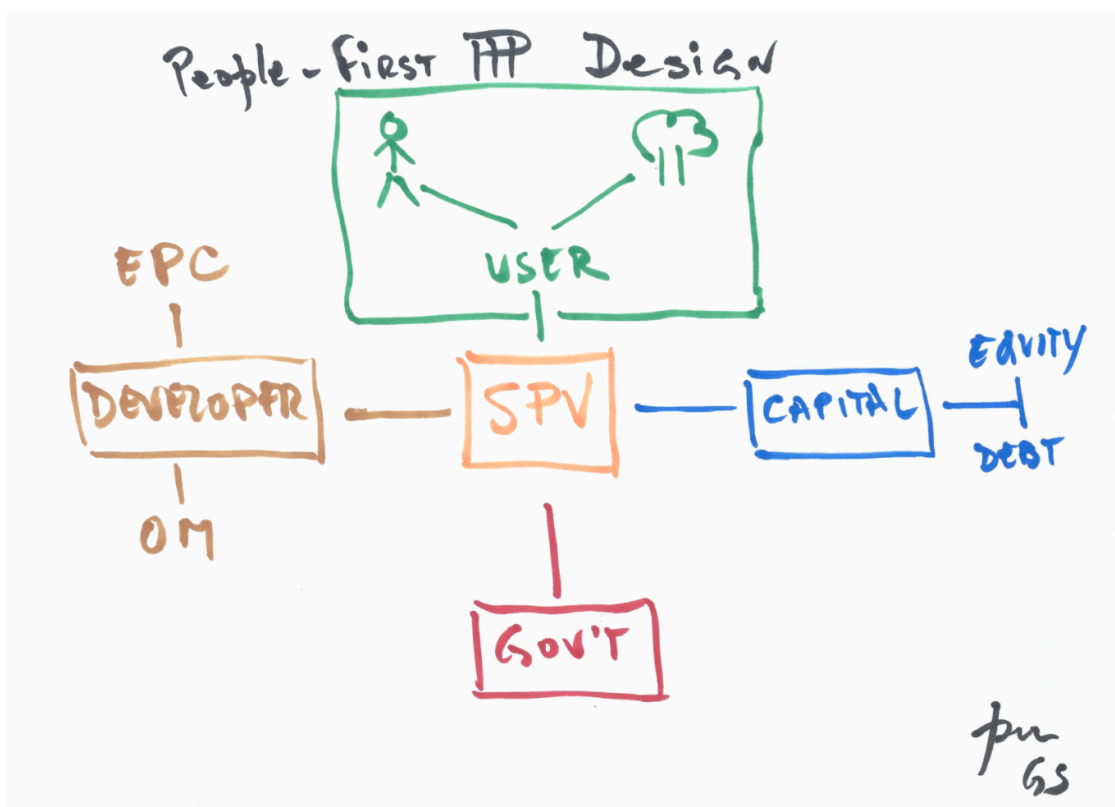


Figure 18

People-First PPP Design

Multi-Level Approach

An original concept that considers that Development happens at three different levels. On top, there is a Development Policy Level, followed by an Investment Program Level and at bottom a Transformational Project Level. The information comes top-down from policymakers to project managers and goes bottom-up from project to policy levels. The lack of communication between these levels represents an important entropy factor in development. The concept reflects the need to articulate different levels of decision making on development. At the top the Development Policy Level responsible for the top-down information, at a lower level the Investment Program Level, in charge of transforming policies into programs, and at the bottom the Transformational Projects Level responsible for implementing the projects on the field and for sending Bottom-Up information. This scheme reflects the need to articulate Policies with Programs and Projects, Top-Down with Bottom-Up information.

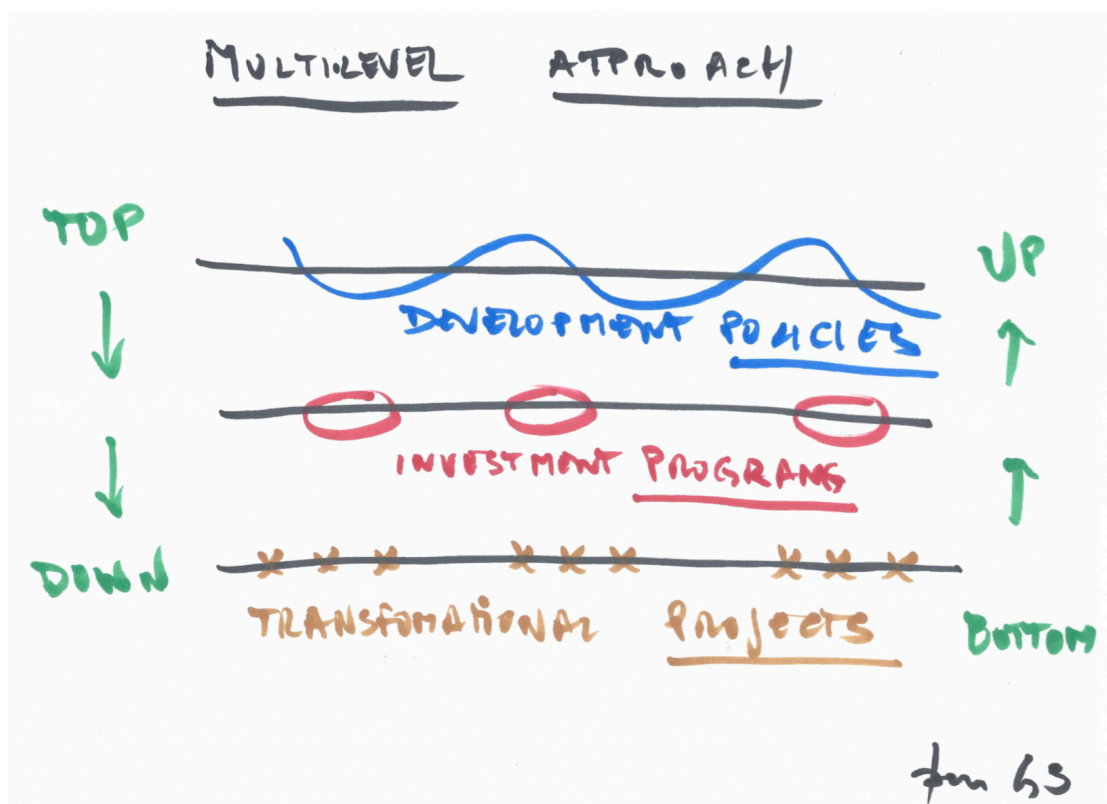


Figure 19 Multi-Level Approach

Round Table Approach

An original concept inspired on King Arthur round table, a table with no head implying everyone who sits there has equal status. This concept reflects probably the key success factor for partnerships based on sustainable development to achieve the SDGs. The round table approach considers that a group of people representing multi-levels (policymakers, investment programs, transformational project managers) different sectors, (mobility, utilities, social infra, urban and regional development); interdisciplinary knowledge (economy, sociology, natural sciences, engineering, finance, law), along with the public, private sector, and civil society are needed. Together they shall cooperate to design, implement and manage, sustainable development models through an iterative and interactive process. The participation on this RTA will contribute to understand, relate, connect and materialize public interest > public service > public assets > private sector participation > transformational projects > investment programs > integrated sustainable development policies.

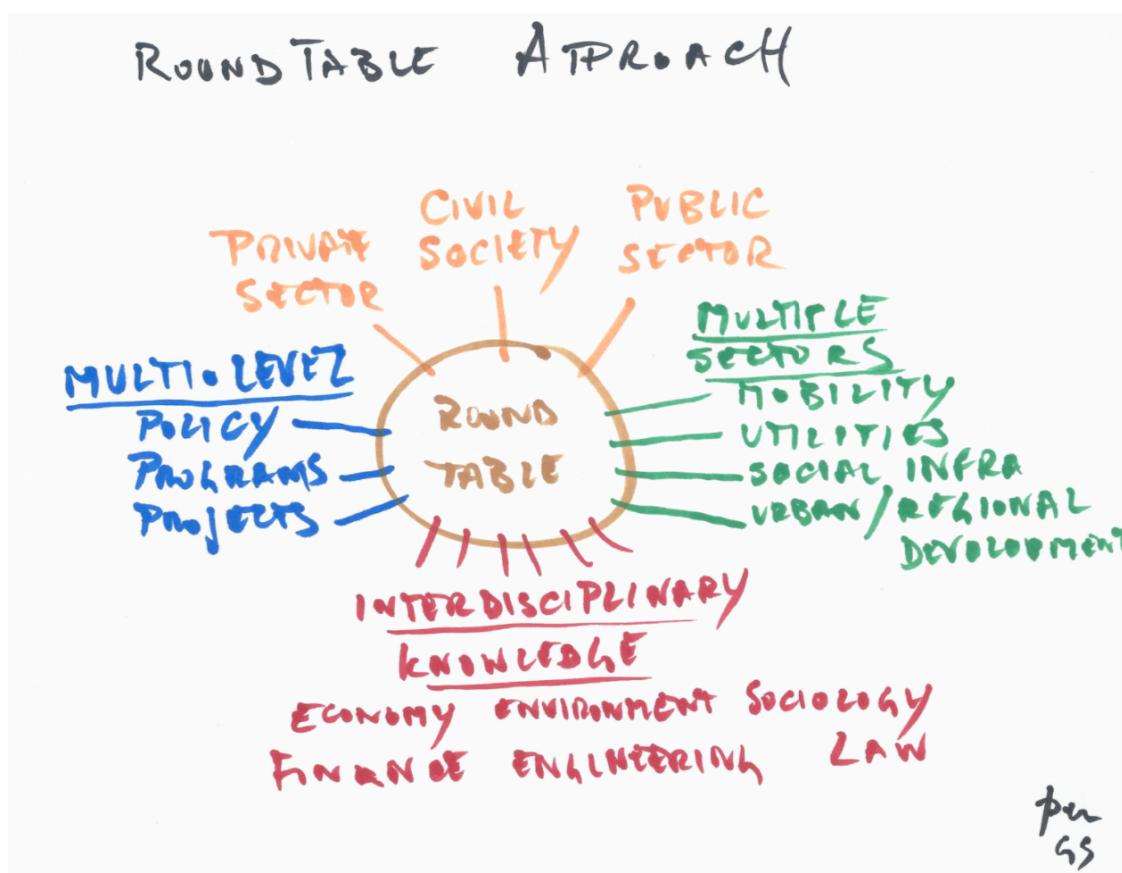


Figure 20

Round-Table Approach

Lessons from the Case Studies to the Practitioner's Toolbox

The following table reflects how could the tools and the toolbox presented can be used to improve the Institutional Performance of each of the case studies shared. This allows not only to evaluate qualitatively the cases from a different angle but also to analyse how projects could benefit from the tools. As an example, and considering the tool *Back to the Present*, the perspective of looking into the future and transforming this vision into a pipeline of investable projects is weak for Madagascar and Finland, which means that the use of this tool should greatly enhance the performance of these projects. On the other hand, and looking at the Haiti example, it can be perceived that the case is strong, which means that this tool can still contribute to improving this project.

It should be highlighted that the tools are designed to be used by interdisciplinary teams and therefore to create and lead an agenda for positive transformation with a continuous improvement approach, which means that even projects that have a very robust result, and experienced teams will benefit from using the toolbox.

(*) original concepts	Very Robust	Very Robust	Very Robust	Very Robust	Very Robust	Robust	Robust	Robust	Fragile	Fragile
Tool Name / Case Study	Wales	Haiti	Japan	Tajikistan	Ethiopia	China	Portugal	Albania	Madagascar	Finland
Knowledge Butterfly (*)	not applicable	not applicable	not applicable	not applicable	not applicable	not applicable	very strong	not applicable	not applicable	not applicable
Back to the Present (*)	very strong	strong	very strong	very strong	strong	very strong	very strong	very strong	weak	weak
SDGs Virtuous Cycle (*)	very strong	strong	very strong	very strong	very strong	strong	very strong	strong	weak	weak
Bridging the Gap (*)	very strong	very strong	very strong	very strong	strong	strong	very strong	very strong	weak	strong
4G Master Plan (*)	very strong	strong	very strong	strong	strong	strong	very strong	very strong	weak	weak
Four Season Pizza (*)	very strong	strong	very strong	strong	weak	strong	very strong	very strong	weak	weak
Gate System	strong	strong	very strong	very strong	strong	very strong	very strong	strong	strong	weak
J Curve & Saw Curve (*)	very strong	very strong	very strong	very strong	weak	weak	very strong	strong	weak	strong
SD Institutional innovation (*)	very strong	very strong	strong	very strong	very strong	strong	weak	weak	weak	weak
People-First PPP Design (*)	strong	very strong	very strong	very strong	very strong	strong	strong	strong	weak	weak
Multi-Level Approach (*)	very strong	very strong	strong	very strong	very strong	strong	weak	weak	weak	weak
Round-Table Approach (*)	very strong	very strong	very strong	very strong	very strong	very strong	very strong	very strong	strong	strong

Table 4 Using the Toolbox to enhance the Institutional Performance of the Case Studies

IV

Synthesis

Drawing together the contribution of this research is a base for reviewing the different types of findings since the initial process, to examine the results in light of the previous state and to share how and why they are valuable. It is also an opportunity to give an overview of the contribution of the work of the previous chapters and to make some recommendations based on the practical implications of the findings. Although development models will never cease to evolve, this analysis is an exploratory work for future research to be followed, expecting that the community of researchers in this area will grow along with the positive impact on the life of communities and the protection of the planet.

The first section is a discussion based on my own findings from this research. These vary from new concepts learned, links made between different areas of knowledge, the attitude of those showing and sharing their experiences on case studies so that others may leapfrog and avoid pitfalls. The findings have been grouped in five blocks following a bottom-up and specific to the general approach. The first block is about findings regarding the case studies, the second concerns findings found during the research on partnerships, then on institutions, followed by political economy and the last block is about sustainable development and SDGs.

The second section is the conclusion and is organized in four blocks. The first covers a general overview of the contribution of the work, the second comprehends recommendations related to practical implications from the findings and the third block is about future work. The last explores a personal answer to the main research question: *SDGs Why? and For Whom?*

Analysing the findings from the field and data from 120 case studies confirms that it is possible to create islands of competence in multiple sectors, in countries with different development profiles, to validate that public and private sector can find ways to cooperate and that a sustainable development approach, enhances the chances of success of improving public services and therefore communities quality of life, as well as to protect the planet.

This allows considering that it is possible to have *People-First PPPs* being developed across the world. The following step directly attached to the research question is therefore on “*How to implement partnerships based on sustainable development to achieve the SDGs?*”. The findings here involve the analysis of the institutional performance and the reasons for different cases to be very robust, robust or fragile, following the logic used by Elinor Ostrom.

This chapter focuses first on what was learned and what these findings mean, and then on the practical implications resulting from them, their recommendations and future work to be followed. A first example comes from what was learned by using case studies as a research strategy that goes beyond gathering, evaluating and presenting the outputs. The preparation phase for collecting case studies is a process worth analysing, as it involved the definition of what was going to be tested, implying gathering consensus on the type of outputs, the spectrum of cases, sectors, and geographies. Evaluating the outputs and current outcome, and, the fact that it has been already decided to expand the research and to evolve to a quantitative approach is meaningful, particularly when universities from east Asia, Toyo from Tokyo and Tsinghua from Beijing, and Europe, IESE from Barcelona have shown their interest to be involved. An important finding is how the process becomes part of us and, evolves as knowledge and the process grows.

Another important aspect was to realize the synergy from combining empirical with theoretical knowledge. An example was to bring together the theoretical research done on partnerships and concepts like game theory and to test it on the field. The chemistry between different areas of knowledge was even greater when the research on institutions started. Understanding how the formal and informal rules of the game, and the way they are enforced, affects the way players act on PPPs is very important. This has an impact on those designing partnerships, namely the way shareholders agreements, reflect decision-making involving risks and profit-sharing.

On a different level, the findings involving the need to humanize the economy, the impact of personal motivation, the importance of dignity and tolerance. It represented an alert to have the human factor associated with non-rational decision-making processes. The need to understand and test *People-First* as a general concept that starts by including the *Invisibles* on one end, and then on the other end to consider the psychology of power associated with the visible ones, within a timeframe of their political mandate, that is never

as long as the asset lifecycle and therefore requires a solid 3Ps approach. Then and as a consequence, it is essential to understand how the management of scarce resources will take place under these contexts, namely when development models are considered in countries with weak institutions. Understanding how to transfer knowledge and promote capacity building is of paramount importance for PPPs, as there is a basic assumption that the public interest is being protected by public servants.

The SDGs bringing together partnerships and institutions ask for these findings to be treated at a holistic and strategic level. But if the analysis of the findings and their respective value was important, to synthesize them and to see what practical implications they could have for those in the academy as well as for those in the field was even more grateful. As the research and the writing of the thesis were done while working with policymakers, investment program directors and project managers, indeed these findings are and will keep being tested on the field, as well as during conferences and lectures. Examples of how these findings can be used on the field are the ongoing projects in Angola currently implementing a People-First PPP program aligned with the Angolan National Development Plan (PDN) and “*Programa de Desenvolvimento de Exportações e Substituição de Importações*” (PRODESI) from Ministry of Economy and Planning at the Government of Angola in 2018 (MinisterioDaEconomia, 2018), a program to develop exports and replace imports. In this case, a program that started with designing People-First PPP workshops for all Angolan ministries of the government was soon transformed into a hands-on operation that has led to the approach on how to use PPPs. If at the beginning the program had in mind using PPPs to replace state budget assistance, it is being transformed into a process where the perspective of what needs, and should be achieved by 2030, could be enhanced through an integrated approach where besides delivering new assets, it is attached a perspective of creating local jobs and fighting poverty. It is also part of the process considering a reduction of the eco-footprint. This approach, also meant that the ministry of the economy considered that the new approach would enhance foreign direct investment (FDI), and therefore a conference on Finance for Development was organized aligning the vision of Angola for 2030, with the pipeline of potential projects to develop through a People-First PPP approach. One interesting aspect was to see Rose Lourdes from Haiti case study coming to Angola to share her experience, and to see how important it was for African development policymakers to get involved, and, to eventually partner with the Government of Haiti for knowledge sharing.

Another example is the design of a smart and sustainable city program in Astana, today Nur-Sultan in Kazakhstan, where again the perspective of discussing the vision for 2030, defining and prioritizing a list of investable projects to developed under a People-First PPP approach. Again, in this example, resonates that this new language being created around SDGs has ground to grow. Another program is taking place in Portugal, and, in this case, it deals directly with *Localizing the SDGs*, “Cascais 2030” being implemented for the Cascais Municipality, where the municipality has opted to have an inside out approach, meaning that all collaborators shall *Breath SDGs*, meaning the activities to be performed daily shall be oriented to the People and the Planet, while looking for ways to find economic and financial sustainability. This general approach will then be applied to specific sectors such as local farms Goal #2; health Goal #3; education Goal #4; water Goal #6, ..., and to enhance this approach new rules and norms are being designed, and, new partnerships are being created. Another example is the new Program at the University of Geneva with the same name “*Localizing the SDGs*” a post-graduation module designed for diplomats so that they will be able to improve their co-working skills by using the SDGs language.

All these examples show that these findings and recommendations are already part of “future work”, and, should be considered with a broad spectrum of applications for those involved in the challenge of implementing and achieving the SDGs.

4.1 Discussion

The Discussion section aims to examine the findings of this research and to make judgements about what was learned. The goal is to share what the findings mean, how and why they are valuable. The topics are organized bottom-up from the practical to theoretical findings and linked with a literature review to the strategy of implementing SD and SDGs.

4.1.1 Case Studies

Case studies as a research strategy are considered a robust method, for holistic and in-depth investigations, and adapted for government and management type of studies, allowing data

to be examined on specific contexts (Zainal, 2007), as it can be verified on the present research. A key finding from this research was to confirm that it is possible to have development models using partnerships involving the public and private sectors, the civil society, and the academy, that create *islands of competence* (Chang, 2009) that simultaneously use a sustainable development approach. Considering the number of case studies, the different geographies and, the different levels of economic development of the countries considered, it can be ascertained that partnerships can be implemented in multiple countries and sectors.

It is also important to highlight the willingness to show and share from those that have been involved in these processes. All development projects require time, tolerance and alignment, particularly involving different parties, but this complexity enhances the willingness to see others leapfrogging. To partner to achieve certain goals represents new ways to cooperate, the creation of new rules and therefore an example of institutional innovation. From exploring the case studies results in the need to have different types of disciplines and knowledge cooperating. A traditional silo approach with multiple interfaces is not suited for a partnership approach. The final objective is to provide a public service, that results from a complex and lengthy process that comprehends, the analysis of the community needs, the transformation of this need into a sustainable project, the design of a business model for private sector participation that follows simultaneously a people, planet and prosperity agendas. It also involves the due diligence and testing of as many assumptions as possible. The negotiation and the financial close and the creation or transformation of the asset. Previous to have access to the services, there is a commissioning and start-up phase of the asset and then finally the exploitation begins to provide the desired public services. For this reason, the DNA of partners requires a particular set of skills, perseverance, and motivation that is associated with this holistic perspective. Likewise, the need to understand public service, public interest, common good requires an approach that goes beyond wealth maximization, often not present within the private sector. In parallel it is relevant to have a value for money perspective to attract the private sector, knowing that this implies efficiency, planning, and measurable outputs.

As it becomes clear that private capital is needed to develop and provide better public services, it becomes evident that partnerships are needed, and for this reason, these case studies also reflect the need to research further, how patterns to achieve stronger institutions can be perceived and pitfalls avoided. Understanding how the public interest and private

dynamics can be aligned, or in other terms, how to design PPP solutions that are people-first, with value for people and planet, aligned with value for money. This research will certainly enable more public and private, civil society and academic developers, being practitioners or scientists to have projects to go from paper to the field, and to see development gaps particularly in LDCs being covered.

4.1.2 Partnerships

Although the development of partnerships may represent an opportunity to have new players taking a role at the development game, the process is complex, and partnerships and PPPs should not be considered a panacea for development. Among the findings in this area, the *Theory of Enforced Cooperation* (McQuaid, 2000) was important to understand the variety of motivations behind cooperation. Understanding there is a need to consider *mankind's nastiness* and prevent wrongdoings but also that this will not inhibit the willingness for partnerships to act socially and benefit the communities. Another finding relates to the use of game theory, and, to consider that players faced with an option of cooperating end up considering a partnership as this choice may be the one more advantageous for the parties. As ideas about partnerships become clear, it is natural to realize that partnerships and PPPs may not be an answer to every challenge, and often should be avoided. The earlier this decision is taken the better it is for the development process. A key starting point for this process is to consider that *partnerships reflect an agreement to cooperate*. This cooperation has in most cases the intention of managing complex transformational processes, involving significant investment and risks, multiple players that need to build a trust-worthy platform where all parties can rely on. This represents the need to understand the informal rules and to ensure that formal ones are necessary.

Another key finding is the importance, and, the challenge behind the capacity building. The process is complex as this represents having people with particular skills, able to work in multidisciplinary teams with a long-term perspective. This challenge increases as the teams grow and need to articulate with multiple stakeholders with different technical origins. One key aspect has to do with the ability of the public sector to retain talent once they are trained. This aspect is important for the public sector as the public interest requires top experts, but

it is also for the private sector, as sustainable and long-term partnerships require balanced expertise in both sectors. This finding relates directly to the need for solid management of public interest. A short-term approach to a PPP may lead to an interesting profit-oriented result to the private sector, however, this short-sighted vision normally is not sustainable in the long-term, and the cost of disruption can be very significant for both parties financially. This will have, as well, a negative impact on the provision of public services. The public interest perspective from the private sector angle is, therefore, another key finding and challenge for a sustainable PPP to thrive.

The finding involving the difference, and, in parallel the complementarity between development, investment, financing and funding in PPPs is another important factor that deserves particular attention and that represents challenges in cooperation, as it involves the management of expectations between these players. A partnership consists of distributing different types of risks, and, consequently involving different types of risk-takers. Normally risks are associated with rewards, but the balance may vary significantly. Considering the long-term associated with the lifecycle of the process, trust becomes a key factor between partners as well as the strength of the institutions.

Another important finding is the importance of the concept of People-First on partnerships and PPPs. This is a people-centric activity and therefore the term People-First PPP is appropriate. It is first of all about designing and implementing a service for the People, leaving no-one behind, but this human dimension covers everyone involved in the process, the user, the community, as well as the people working for each of the parties directly involved on the partnership.

PPPs involve Multiple Levels of Partnerships

Although PPP is associated with the combination of two parties one public and one private, the reality is that these parties have other parties partnering underneath this initial level. The public party reflecting the public interest has four other levels: a global public interest, involving normally the environment, a central government, a local government involving the voters, and finally the user and the taxpayer. This means that it is expected from government representatives that a public-public partnership exists, reflecting an alignment among the public sector, and representing the public interest. Likewise, behind the private sector should be understood that different parties are also involved, namely the capital providers: investors and lenders, the developers and the workers that provide services to

these organizations. When the location of projects or programs, geographically coincides with organizations, the workers are also the taxpayers, and therefore they can be considered simultaneously as end clients and service providers. This last fact is becoming more important as the role of civil society on development policies is more recognized.

Returning to the game approach, it is as if each player reflects a group of players and that these players have a relationship among themselves, and therefore alignment is crucial as communication occurs simultaneously at multiple levels. In other words, if the players at the table are not reflecting the interest of the sublevel, the sublevel players will resist and create entropy to the game. This alignment brings complexity to the game and the rules but should increase the game resilience. This is an argument that is considered every time a Round Table Approach is used. Considering that taxpayers are the end clients of the public sector but are also the base of services providers of private organizations, this supports the claim for a People-First approach the reason being not just an ethical and social one, but also economic. This is an important base for partnerships to be developed for the people and by the people, where people were the players of the game, define the objectives of the game, design and implement the rules of the game.

4.1.3 Institutions

This research has been about achieving the SDGs through SD, meaning that to promote quality of life several public services and goods are necessary, and for these goods and services to exist, public investment is required. As public funds are often scarce the request for private funds has been established as necessary in the majority of countries. Although this is not the only reason for partnerships involving the public and private sector, this is a key factor for establishing PPPs. In other words, in a perfect world, where access to financial resources for the public sector the number of PPPs could be lower. Although not being obvious that this would be the best solution, as the involvement of multiple stakeholders on transformational projects in cities and nations can be of great added value.

For this research, it shall be considered that there exists an SD game, where PPPs are one of the players. One purpose of the literature review was to understand what has been researched over the game, the rules, and the players. Then in the chapter using case studies

as a research strategy, the goal was to share how players have been playing the game in different sectors and different geographies. The purpose now is to discuss more concretely how these partnerships can be created or improved, to promote SD and achieve the SDGs. A key aspect for this will be to always keep in mind the attractiveness of the game, the motivation of the players, and rules that should reflect this spirit, and, that can be written in the hearts of the players.

A key finding in this research has been to learn that *the quality of the rules will impact on the quality of the players*. Indeed, the quality of the rules and the respective enforcement is linked with the quality of the players attracted and therefore of the outcome of the game. Along these lines, it was important to realize that although there is a direct association between energy, transport and communication technological innovation associated with the industrial revolution, the institutional innovation is not treated in the same way. As mentioned by North, the lack of understanding of the role that institutions played in the industrial revolution, should be avoided today when several transformational processes are taking place.

A key important finding from this research is, the role institutions as rules of the game have, decisive impact on the development of the game. Considering the importance of this topic, a reflection is made below on the impact, the purpose, and different types of rules have on attracting players.

The rules of the game, the players of the game and the purpose of the game

Rules impact the behaviour of players, and likewise, players are attracted to a game with interesting rules, but the hard reality is that what shapes both the rules and the player's motivation is the purpose of the game.

Let's consider three different games: monopoly, risk, and ticket to ride.

Monopoly is a game where players occupy territory from throwing dice and acquiring a certain spot. This entitles the player to charge rates to other players leading to recover the investment and ideally leading other players to bankruptcy, being the winner the one that leads all other players to bankruptcy. The competition exists from the beginning and conflicts take place every time one enters into an occupied territory making the visiting player pay a rent.

Risk is a game where territory is occupied and lost, and after an initial phase where territories are occupied the first time, these territories are permanently subject of being overtaken by other players as conflicts occur permanently. The purpose is not to lead the others to bankruptcy but simply to exterminate other players by occupying the predefined number of territories.

Ticket to ride, unlike the previous two games, guarantees that all players reach the end of the game and indeed only after finishing all resources the counting is done. Also, the fact that there are multiple criteria to have points, the winner is known only after the game is over. In this game, there are no dices and therefore the choice is made by each player based on the cards it has, and, the objectives that are also defined by each player throughout the game.

These games have clear rules but the purpose changes as well as the game environment. While in Monopoly the purpose is to be the richest player leading all others to bankruptcy. At the game Risk, the purpose is to acquire a predefined territory through permanent conflict with other players. Ticket to ride purpose is to create routes that are acquired by each player throughout the game without throwing players out of the game, and the fact that other players do not know each other objectives means that there is no feeling while playing about defeating or throwing others out. The different purposes and game environments attract players differently. If permanent competition, to become rich and to have the largest territory is the main motivation, players will play the first two games. However, if the purpose is for smooth competition, for a more friendly game environment the later will be the one chosen.

Although the rules are well defined and assuming the group of players will be the same, the purpose of the game will, therefore, be decisive when players choose what to do with their time, and what type of time reward they will have from playing.

In chapter 2 the game, the rules, and the players were treated in three different sections, and although they were approached separately, they are intrinsically connected. In a nutshell, if the rules are well established and the players are good it is not certain the game will be played.

The interesting fact behind sustainable development is the purpose of the game. It is fairly easy to imagine players willing to play to promote economic prosperity, social cohesion while protecting the planet. With such purpose, players will naturally be attracted to

become actors and to have a role in the game. The way rules will be designed and enforced is therefore of primary importance to move to implementation.

Following this approach, of attracting and motivating players to the *SD game*, another aspect is the complexity of the game. If the rules are too complex not perceived or its enforcement is not secured, or the entry ticket too high, then the likelihood of attracting players will decrease, in other words, to increase the number of players it is fair to consider that having a game with a purpose and with clear rules, will attract players.

The SDGs as analysed earlier represent the outcome of an iterative process realized at multiple levels, and, different geographies where overlapping can be found as well as incoherencies but represents a structured approach to SD, eventually the only one that has gathered consensus among all UN member states. This fact allows all types of players to have a reference, to benchmark their policies, programs, and projects, allowing all *SD players* to skip the phase of SD interpretation that can induce development discussions endlessly, and often not providing the tools needed for those that are responsible for implementation. It shall be considered that this process will evolve, and, the SDGs will be finetuned and improved in the future namely after 2030. But today, and, for the next years a common base to design and implement development models exists.

Another important finding was to understand the need to consider that **imperfection is part of the human dimension and therefore needs to be reflected in the political economy**. There is a need to humanize, to recognize human imperfection, that human decision is composed by rational as well as emotional processes. Avoiding this human dimension represents designing models that do not reflect reality, and, therefore are difficult to use, or that produce wrong outputs. The notion that for transaction costs, there is a need to include the imperfection that exists in the real economy, is vital for development models.

As mentioned by Picketty there is an excess of math in economic models (Picketty, 2014), and as a consequence, the models have to be questioned and economic policies need to be carefully evaluated. There is a need to humanize the economy, just as there is a need to “environmentalise” the economy. Without combining this social, environment, and economic approaches simultaneously, it will be difficult to articulate common good with public and private interests (Tirole, 2018).

In particular, this social and human approach to the economy is strongly suggested by Fukuyama namely when he associates the concepts of identity, dignity, motivation (Fukuyama, 2018), as a base for people to be aligned with a development agenda.

Another key finding was the concept of “*modernity without development*” meaning that leapfrogging has pitfalls, and, that technological innovation requires alignment with institutional innovation is analysed to ensure sustainability in the process.

4.1.4 Political Economy

Considering political and development economics as the process of change of one type of economy into some other more advanced type (Alacevich & Boianovsky, 2018), then the economy interest for scarce resources (North, 1990), is today challenged to enlarge its approach to people and planet. The social dimension requires to consider the visible but also the invisible people. The environmental dimension demands to consider a timeframe that goes far beyond the yearly quarter stock-market analysis and CEO mandates timeframe; it requires one to be accountable for the present and future livestock, and, for the period required for synthesized products to be reintegrated back in nature. This perspective may represent extra costs today that have to be integrated into a sustainable financial economy. This rewriting of economics, of key performance indicators that go beyond GDP, was another finding, and certainly, its research is important in development economics.

Considering the political economy and development economics as an upstream dimension of economics, then a similar analysis can be made on the downstream dimension. The distance between economics, management, business and engineering as suggested by (Göpel, 2016), can be revised and improved. The space between armchair theorizing described by Alice Amsden, and, the real-life in particular those that are poor in LDCs, require more pragmatic approaches, that represent the need to blend knowledge from the silos of economics, management, and business schools, need to integrate engineering and sociology and to come up with field implementable development models. This finding is directly attached to the lack of interdisciplinarity in development mentioned by North. The academy approach based on a division from natural and social sciences requires revision,

the comfort zones of knowledge separated by faculties has a challenge ahead, the lab concept needs to be extended to integrate simultaneously not only the social and economic dimensions with natural sciences but also to integrate empirical with theoretical knowledge.

The multilevel perspective (MLP) defended by Geels (Geels, 2002) raised the awareness to the lack of articulation between projects-programs-policies, that happens between in real life from the lack of communication, feedback management between those responsible for field implementation and those designing policies considering a bottom-up flow, and likewise the lack of transmission of vision, purpose, strategy from the policymakers and program managers towards those in charge of implementation, considering a top-down information flow.

Another key finding was the European and North American centric, here called North Atlantic influence on development. One of the most profound mind-shifts from the MDGs, UN agenda 2000-2015, to the SDGs, UN agenda 2015-2030, comes from a North-South approach, considering North as North-Atlantic, and poverty to be a south issue; the concept that the North will guide the change, is still happening. But this process is at its very early stage and will take a revision in the programmed capacity building models being implemented today. The importance of the industrial revolution requires a different perspective for countries in general, but LDCs in particular. Following Ha-Joon Chang East-Asian development models, *breaking away from path dependence, using good enough solutions & islands of competence* is a key finding and an important leverage point for new development approaches. This should not mean that East-Asian models replace North-Atlantic ones, but rather that there are alternatives development models to those currently being implemented, and that a local perspective needs to be taken. This leads to another key finding to confirm the need to review this perspective is well described by Moyo in her book *Dead Aid*. *Post aid* development models are needed, as models based on *aid* have not been effective, as they could do more to dignify or promote those requiring assistance.

As mentioned at the beginning of this block, and for the reasons above described the need for further research in development economics, in particular, applied research is of great importance for developed nations, but it is of vital importance for LDCs.

4.1.5 Sustainable Development

This research has led to travel in time and to understand how the development concept evolved to reach the current status reflected on the SDGs. History of development from economic growth to social cohesion to planet protection. The importance of the UN timeline of 1972, 1987, 1992, 2002, 2012, 2015; the tracing back this process to the industrial revolution allowed to connect the three dimensions associated with people, planet and prosperity. Then, the challenge of using and implementing it in real life raised the need to integrate Institutions and Partnerships. Being development such a broad concept with so many different variables, sustainable development, and the three pillars create a base for areas of development to be written simultaneously in development equations and models. The SDGs go one step further and open the geometry and possible ways to approach development. If overlapping and incoherencies can be found, and, are questioned and debated, when looking at the overall development challenge, the SDGs certainly represents a key milestone on development to the point of considering a new development paradigm. The critics, the process of resistance, the obstacles, the non-debate presented by Lele (Lélé, 1991), Lippert (Lippert, 2004), Pogge (Pogge, 2016), Hickel (Hickel, 2015), Kumar (Kumar, 2017), as well as the variants of Degrowth, Buen Vivir, Ecological Swaraj (Khotari et al., 2015), by Khothari, Demaria, Acosta, can be perceived as the vitality of the subject, and, the need to have a tolerant approach to the concepts around the theme. The key finding is therefore that considering today's challenges of positive, as well as negative demography in different regions, of inequality, of climate change, the ability to create growth and to have liquidity in the financial markets, an integrated approach, that takes a timeframe approach from short to very long-term, that involves multiple disciplines of knowledge, multiple levels of decision-makers, and multiple geographies is needed. SD and SDGs are today at least reasonable answers to development challenges.

Considering the challenges being faced today, understanding the concept, debating it, reaching a global consensus around a definition, and creating global goals was certainly complex. Considering the UN timeline and 1972 as a starting date, the process has now in 2020, 48 years. This has been the time to formulate, to name, to raise awareness, but not to solve it. Indeed, although the challenge could be considered as a public challenge, considering the life cycle approach to public assets, the lack of public funding, the need to

change attitudes, to use different sources of funding, requires above all institutional innovation. As referred by sources such as UN DESA and ECE, or the *economist*, the unknowns when looking at implementation are numerous and have multiple dimensions. Recognizing the lack of knowledge on how implementation should take place, is essential to prepare the next steps. This research intends to be just one contribution for those in the field, and social laboratories to debate, to adjust, to design, to test, to replicate and to scale up the development models, that proof having positive impacts when taking multiple criteria, associated with people, planet and prosperity.

Today implementation is indeed the biggest challenge of all, and at this stage, it is proposed to use simultaneously a top-down and bottom-up approach to address some of these challenges. The past 50 years were the wake-up moment that showed us that, the business, as usual, has to change, that new development models are required, coordination is required at multiple levels, different disciplines, combining theoretical and empirical knowledge, different levels of governance, the involvement of the private sector on traditional public management sectors. Indeed, the SD implementation pathway has just started, and although problems have been identified, solutions are far from being defined and even further away from being tested with success. Areas of research are described below, some are already being tested, others have been tested and have not produced the desired outcomes, and, others need improvement. For development scientists and practitioners, the fact that there is a new development paradigm filled with opportunities to be researched and tested certainly creates an interesting time for Development Studies.

4.2 Conclusion

This section with four blocks: contributions, recommendations, future work and personal reflection on the research question.

4.2.1 Overview of Contributions

The contribution of this work is to provide a comprehensive approach to the implementation of development models that involve partnerships, PPPs, and People-First PPPs that have a sustainable development approach using a people, planet and prosperity agenda, promoting stronger institutions, that can be used to achieve the SDGs. This contribution is based on personal empirical knowledge, and the information gathered from case studies. It is also based on the tools developed and being tested on the field. Lastly, there is the contribution made from the literature review. These contributions are divided into two groups, the tangible ones, that can be seen and have been materialized through schemes, and, the intangible ones, reflecting mainly the identification of needs to be addressed for development models and that can be integrated into other broader development concepts.

As described on chapter 3.4, during this research requests were made asking to exemplify how the tools can be used in real-life. A note was created addressing a demand regarding the process to generate to a pipeline of investable projects. Annex 6 reflects this exercise and there can be observed how certain tools are chosen and applied to a achieve a specific purpose.

Tangible Contributions

Different occasions require the use of tools adapted to a new development context involving partnerships and SD, or, that create the environment for new tools to be designed. These occasions appear when challenges involving conferences when concepts need to be presented, or when governments, investors or developers ask for solutions that involve assembling existing concepts that demand adaptation for a particular context. Examples are requests being made by Governments such as the one recently made by Bulgaria asking to

design solutions to improve road safety based on PPPs; Cascais Municipality to have the SDG spirit being part of the way their collaborators work; from UN to develop financing innovation tools for the development of smart and sustainable cities; from Grupo Mello an important corporation in Portugal with more than 150 years that wishes to understand how SDGs may contribute for the longevity of the Group; or when an investor looks for an innovative approach to be developed in a certain market. These challenges have in common the combination of several factors: common good, public interest, private sector participation, institutional innovation and development models based on sustainable development. In some examples the development of these tools uses the 5Ps (*People, Planet, Prosperity, Peace and strong institutions, and Partnerships*), others use only institutions and partnerships. As described in the core chapter, a Toolbox to implement People-First PPPs to achieve the SDGs with 12 tools is being used today. From these 12 tools, 10 represent an original concept developed specifically for this field of study. The innovation comes mainly from combining Partnerships and Institutions with the 3 pillars of SD to design tools that can be used by Sustainable Developers in the field as well as in the academy.

Among these tools named presented in chapter 3, (Table 2 Toolbox for PPPs and SDGs) two groups can be identified. The first group deals solely with partnerships and institutions, and among these tools can be found Knowledge Butterfly, Bridging the Gap, Saw Curve and Multi-Level Approach that address information, management, and government processes. The second group involving: SDGs Virtuous Cycle, 4G Master plan, Four Season Pizza, SD Institutional Innovation, People-First PPP Design and The Round-Table Approach address specifically the People, Planet and Prosperity agendas and their interfaces with Institutions and Partnerships.

Besides the use of new tools, there is also a systematic approach to the development process that is reflected in the organization of the toolbox.

The process starts by considering a timeline that ends in 2030, as this is a date associated with the SDGs, but that can grow to a post SDG period. The time horizon sets a time framework for the model. The SDGs and the 3Ps are then used as a guide to determine a vision, and, to define the objectives for certain geography that can be a city, nation, or a specific sector. Having a time frame and goals, the next step is to have a program that is decomposed on multiple projects, being these the transformational projects required to

achieve the SDGs under a certain context. This initial approach reflected on the *Back to the Present* tool, lead to all other tools to answer questions such as How to do it? What to do? Who can do it, and considering the possibility of doing it through partnerships, How can they be established and managed?

The order the tools are presented also reflects a logic that starts by identifying the 2030 vision for a specific territory and ends up answering: what, whom, and how. These questions should allow sustainable developers to design an adjusted policy, program or project.

Innovation comes from using the 5Ps to formulate development equations, comes also from the institutional innovation. It is about setting new rules for players to be willing to play the development game. Technology is taken as it is being developed but focusing on how people associate it with the transformation process, and, how it will contribute to promoting quality of life to communities, protecting the planet and economic growth. Integrating human imperfection, the human factor has been a key point of this research and although this approach will not solve this challenge, it transforms into something that is considered feasible. This represents that the resulting development models become closer to what may be found while implementing them on the field. As can be seen from the different tools, they have been growing as needs arise, which means that new tools will keep appearing.

Intangible contributions

Although less tangible contributions, this research has allowed considering new concepts, or factors that when integrated on development models may contribute to these to become more effective when applied in real life, or, when used in other development studies research. Below the contributions are associated with the identification of needs.

The need to integrate the human imperfect dimension on development models

At the beginning of the research and considering an engineering background, the expectation was that economics in general and political economy, in particular, would fill in, most the development gaps to design new models. As research moved on it was obvious the need to expand the research to political sciences, then to sociology and psychology. The human dimension associated with the imperfection of rational decision-making is important, particularly when there is a possibility of testing models in real life. The analysis of the multiple case studies shows the importance of institutional performance when comparing fragile with robust solutions. When an institutional design is analysed and the

need to evaluate parameters such as trust, or to analyse how public interest can be resilient and to overcome political cycles, rational approaches are not enough. An example is when developed nations with strong institutions such as the case study on road development in Finland, where difficulties implementing solutions that will impact positively society and environment, reflect a link with a human dimension. The imperfection dimension associated with designing, communication, planning, transforming is always present, and, the need to consider a human imperfection coefficient, is key.

This coefficient is even more important when the institutional strength of development policies is weak. Considering political decision making in several countries, des-alignment between community public interest, and, the personal interest of public decision-makers can be easily identified. The imperfection coefficient can be also traced to the private sector, and examples can be associated with the concepts of green or blue washing. Greenwashing can be associated with non-sustainable environmental agendas or the apparent adoption of green processes that are not followed during implementation. Blue washing, blue from being the UN colour associated with SD, adds the social dimension to the environmental one. An example is a process of recruiting, knowledge transfer to local players, and human resources management.

The need to promote integrated solutions

When considering development as broad concept that integrates multiple disciplines, such as economics, finance, sociology, engineering, law; and multiple sectors that often represent different ministries such as agriculture, health, education, water, energy, transport; with a social, environmental, and economic dimensions, a system of equations is required. This results in a complex model that cannot be found when national development plans are observed. The reality reflects in most cases a silo approach that is often linked with a particular program. This results for example on agriculture plans that are not linked with transports and trade; or industry not linked with education and environment; or climate change with ocean and riverfront development. This lack of integration should be used to support the need to evolve to a more complex structure, with an integrated and flexible system of equations able to provide simulations with multiple types of impact for the decision-makers. This point of integration is an example where the association with technology can provide solutions that will enhance the holistic perspective for

development. Examples can be linked to information systems associated with land management using a 4G Sustainable Development approach.

As this level of integrated solutions starts to be used by local governments, normally closer to the field, it means that the research and development for urban environments will certainly be used at a larger scale for regional and national development plans. The pros and cons of development models of cities such as Barcelona, Lisbon, part of the existing case studies, Singapore and Dubai with case studies being prepared, will certainly contribute to this type of integrated development model.

The need to articulate top-down and bottom-up policies and project implementation

Particularly when development is associated with the construction of new infrastructure assets, the period between the identification of the needs of communities, the design, and the transformation phases, lasts several years which means that the likelihood of covering different political mandates in a democratic environment is great. The fact that the lifecycle period will have multiple political decision-makers represents a development risk, in other words, a development process will benefit from political stability. This stability is equally important to those on the field, implementing the projects, often associated with political decision-makers, that is no longer executing their mandate to follow the projects and programs. If this relationship between top-down development policies and project implementation is not clear, often the output will not be the one initially expected, and this likely will represent an even greater difference when an outcome or impact evaluation will take place.

Considering the feedback, a bottom-up approach can give to policymakers, the process can be improved. If a project with the social or environmental negative outcome will not be reported the development policy will not be adapted. Considering a project as part of a development program, then the impact can be disastrous. Sometimes the impact of one project can be positive but if the feedback will not be integrated on a national overall approach, and the project will be repeated without careful analysis the program can be considered negative while the initial project was positive. The example of the road network in Portugal is an example where the initial PPPs had an important impact, but as the process was repeated without careful consideration the outcome of the last phase of the program was negative.

The quality given to a development process that articulates multilevel approaches is clear, and therefore the motivation for this to happen is worth exploring.

The need to combine short-term action plans with long-term strategies

Another important contribution is the timescale consideration of development processes based on partnerships to achieve the SDGs. While discussing integrated solutions above the need to compose a system of equations did not have a time dimension, and as context variables change, equations will need to be revised and consequently, the outputs will be different. It is as if a process box was continuously receiving different inputs, the process was being updated and consequently, the results would keep changing. This never-ending process of combining the type of impact is different for the short-term, medium and long-term, and requires short and long-term management.

As processes are directly linked with policymakers often associated with political time agendas, there is frequently a need to have quick wins in a short time, considering this a period of 6 months to a year. The medium-term means the time associated with one mandate term with a period from 1 to 4 years, and long-term means the next mandate. This time perspective represents the need to have cross-party development strategies, as well as independent development institutions to navigate throughout the process, and, able to keep dynamic management of the box, their inputs, and outputs.

The non-existence of these institutions make-it very hard to manage development processes, independently from the fact of having private participation or not. However, if a process has private involvement namely as capital provider, then the articulation throughout time becomes even more critical.

The need to align public & private interests at an early stage, avoiding PPPs when not appropriate

Private interest is per definition associated with profit, this should make private participation easy to understand and therefore to integrate. If the energy resulting from the use of knowledge, equipment, resources, capital, will not end up creating a predictable outcome where costs are covered and a profit is generated, then the private sector may not be the right partner. On the other end, if a process requiring innovation, dynamism, risk where people need to work outside a comfort zone, and receiving a premium for the potential outcome, then public sector participation may have problems taking off. The

problem is often associated with the fact that public servants have chosen a public career to avoid risk, being compensated by a predictable and steady lifestyle. These two facts have produced new models where public organizations are designed to have governance models prepared to take unforeseen risks and to recruit development experts from the private sector giving them motivation packages comparable to those of the private sector. It is as if the best of the two worlds are mixed under a state-owned enterprise. This concept of taking the best of the public and the private can also be implemented through PPPs. The point is to have this diagnosis done as early as possible and to accept simply that PPPs are not a panacea able to provide solutions to all development challenges, and that as soon as this PPP option is taken off the table the best it is for all parties.

The need to develop Institutional PPPs within the PPP framework

Within the multiple types of partnerships and PPPs, institutional PPPs, where the special purpose vehicle has as shareholders the public and the private sector, will represent a different breed where the partnership can have a particular purpose. It can be a test to possible privatization or simply a process of knowledge transfer to the public sector. In any case, this type deserves particular attention and follow up. Institutional capacity needs to be trained hands-on, involving senior-level decision-makers and this approach certainly provides efficient results.

The need to manage long-term debt and liabilities for the public sector

PPPs can be used to promote off-balance financial management where debt and liabilities for the public sector are not perceived initially. These processes have a terrible impact on the credibility of partnerships as it makes the general public associate them with the non-transparent, and dubious type of financial engineering. The involvement of the ministry of finance, and, the court of auditors as soon as possible, is vital to safeguard the financial public interest perspectives have been considered, and, all liabilities have been treated with the transparency that is associated with the public interest. To know what are, the direct and indirect impact on long-term public finance is mandatory for the success of positive cooperation. This perspective besides being very important for the parties, it is even more important for public support, crucial for this type of relationships to thrive.

The need to incorporate the costs of SD in development equations

Promoting social cohesion as well as environmentally friendly solutions may represent an extra cost. Other extra costs have been taken such as safety having very positive outcomes and impacts on development. Preparation work also represented an extra cost. Reports represented an extra cost. Welfare represents an extra cost for a vast group, but it is perceived that the social outcome resulting from providing health and education to all is worth it.

There should be no illusion about increasing labour costs or process costs to a transformational process, the immediate result is likely to be a cost increase, and if this is the case then it shall be assumed and regulated in a way that all service providers will comply.

Having considered the worst-case scenario, the contribution is to include these conditions in the overall system of qualitative equations. In many cases, the overall cost analysis will indicate that the transformational cost during a certain period will be compensated by social stability, or by a carbon-free solution where pollution costs are not transferred to the community. But even if the overall system results in a cost increase, and the balance needs to be found, then again the system shall integrate these inputs and look for solutions within the fiscal space, the tariff space, the incentives, the innovation but the respect for the people and planet agendas should not be questioned as this will question the whole SD approach.

The need to create the academic space for Sustainable Developers, SD practitioners

Considering SD is a new paradigm that will remain, then it is important to consider that the concept of an SD practitioner will be in high demand. It is important to realize that this Sustainable Developer is required to deal with multiple disciplines that are present today in different faculties, and therefore rather than associating an SD to a certain faculty, it should be considered the existence of an SD transversal course with disciplines coming from multiple faculties. Along these lines, the management of a triple bottom line approach requires multidisciplinary experienced teams, and, again the interface with these lines of expertise should be enhanced. As it is today stressed by most organizations involved in SD, the challenge is the implementation rather the understanding of the concept, and therefore this type of training should use case studies and hands-on experience. Also considering that implementation of partnerships between all stakeholders requires an institutional mind-shift, this process should represent a significant weight on the academic syllabus.

4.2.2 Recommendations

The practical implications from these findings, the ongoing fieldwork, with the public and the private sector, and believing that SD is an opportunity to improve the life of our communities and to protect the planet for humans to live in it, allows me at this stage to make some recommendations:

- 1: adopt Sustainable Developer as a new profession;
- 2: use Back to the Present as start-up mode to listen and understand where organizations are, and build on top of what exists, people and organizations have informal SD approaches, and adopt a Round-Table Approach to design and implement new development models;
- 3: consider that islands of competence exist in any country, in any sector, find them, learn from them! Test “sacred cows”;
- 4: bring the economic and financial sustainability aspects to development equations, as early as possible, and therefore avoiding having to stop processes on a later stage;
- 5: use the energy and innovation associated with young generations but, avoid shutting down the empirical experience of older generations, including the 4th generation (over 80). Believe in your motivation, look for what others have done in this field, avoid reinventing the wheel but do not mind about some overlapping to enter into new territories; do not be constrained by less theoretical work; squeeze the empirical knowledge and extrapolate it to other contexts, above all keep in mind the purpose of your research.

As all nations have agreed to achieve the SDGs by 2030, and development models need to be revised to integrate an SD approach, the search for implementable models is being requested by central as well as local governments, comprehending the need to develop further PPPs that are aligned with SDGs or People-First PPPs.

4.2.3 Future Work

Future work is already taking place, as the need for sustainable development models, that are implementable, workable, balanced, less complex, using clear institutional frameworks, models that combine value for money, with value for people and value for planet is highly

requested by all stakeholders, namely governments, municipalities, developers, investors, lenders, and the civil society. Also, for this reason, the request for the involvement of the academy as a knowledge centre, and as a neutral broker, but also as capacity building provider is in high demand. These reasons make me consider that future work is required over the following five vectors:

- 1: promoting a proactive academy as an independent and third-party player on paradigm shifts, with a cross-political party and ideological concepts and theories;
- 2: developing further the concept of *partnership* and the implication of their use with a spectrum as broad as possible, naming all eventual constraints whether they are supported on evidence or simply based on human fears not explained; it is clear that rationality is not always followed, and, if the ideological psychological threats are not exploited then potential new institutional models will not be given a chance to be tested;
- 3: exploiting the concept of *breaking away from path dependence*, in particular when associated with traditional left and right, North and South concepts, allowing developing nations to use existing knowledge while finding their development path;
- 4: exploiting *institutional innovation* as a knowledge area that is likely to be as important as technological innovation;
- 5: exploiting the acceptance of imperfection, integrating it on economic models, strengthen the humanizing the economy concept.

4.2.4 SDGs Why? and For Whom?

During this research I worked in Butuan, the second poorest city in the Philippines aligning urban waterfront with agriculture and industry, in Shiwa a 30.000 people city in Japan fighting negative demography, lecturing in Beijing, Qingdao, Shenzhen, China, in Kazakhstan, developing smart and sustainable city in Nur-Sultan, in Bishkek, Kyrgyzstan, in Kuala Lumpur, Malaysia, in Singapore, in Jakarta, Indonesia, in Dubai, UAE in Grodno, Belarus, in Geneva, Switzerland, in Paris, France, in Cascais, Portugal, in Kampala, Uganda, in Lilongwe, Malawi, in Luanda, Angola, in Teresina, Brazil, in Los Angeles,

USA, and discovered that everywhere we all have a New Development Language called SDGs.

It is easy to align a discussion about 2030 based on People, Planet and Prosperity, and that new rules are needed, and cooperation is necessary.

This means we agree that climate change is a global issue and *leaving no one behind* is probably the toughest challenge of all.

It is a direct consequence of the SDGs. Without a global provocation about the need to go beyond economic growth, development would eventually remain, a north-south, top-down, central government public sector driven subject. Today the *Table is Round*, and we all have a seat.

Humanizing and Environmentalizing the Economy has a way to go. The academy, Development Studies, and particularly Sustainable Development Studies are still quasi empty rooms waiting for proactive SD scientists and practitioners to join and give air to what the SDGs have initiated, a New Development Paradigm.

The beauty of this challenge is that it does not stop there, SDGs are for everyone and can be used in multiple occasions. The current health crisis is an example of a global challenge that shows how much all citizens need to *live the Goals*, taking care of each other, *leaving no one behind*, preserving the planet and prosperity. The legacy for the next generations is being written everyday by everyone and this is part of the new game, with new rules being created all the time, and where we are all players.

References

- Acemoglu, D., & Robinson, J. A. (2012). *Why Nations Fail* (1st editio). New York, United States: Crown Publishers Group.
- Alacevich, M., & Boianovsky, M. (2018). *The Political Economy of Development Economics*. (Michele Alacevich & M. Boianovsky, Eds.). Durham and London 2018: Duke University Press.
- APMG, I. (2019). Disadvantage and Pitfalls of the PPP Option. Retrieved March 2, 2020, from <https://ppp-certification.com/ppp-certification-guide/54-disadvantages-and-pitfalls-ppp-option>
- Backstrand, K. (2006). Multi-stakeholder partnerships for sustainable development: rethinking legitimacy, accountability and effectiveness. *European Environment*, 16(5). <https://doi.org/10.1002/eet.425>
- Bergstrom, L. (2006). *Development of Institutions is Created from the Inside*. Stockholm: Edita Communication AB.
- Bezançon, X. (2004). *2000 ans d'histoire du partenariat public-privé*. (Presses de l'école nationale des Ponts et Chaussées, Ed.).
- Bhattacharjee, A. (2012). *Social Sciences Research: Principles, Methods, and Practices* (second). Tampa: University of South Florida Scholar Commons.
- Birsan, M. (2016). *UNECE Project "Capacity Development to Support the Implementation of Public Private Partnership (PPP) in Belarus*. Geneve.
- Bocconi, S. (2018). Public Private Partnerships & Project Finance. Retrieved November 22, 2019, from <https://execed.economist.com/sda-bocconi-school-management/public-private-partnerships-project-finance-2017-09-11>
- Bonnici, T., & Neves, P. (2017). *International PPP Forum: "Implementing the United Nations 2030 Agenda for Sustainable Development through effective, people-first Public-Private Partnerships"*; Retrieved from http://www.unece.org/fileadmin/DAM/ceci/documents/2017/PPP/Forum/Case_Studies_Compendium.pdf
- Brand, U. (2012). Green Economy – the Next Oxymoron? No Lessons Learned from Failures of Implementing Sustainable Development. *GAIA - Ecological Perspectives on Science and Society*. <https://doi.org/10.14512/gaia.21.1.9>
- Brown, T. (2008). Design Thinking. *Harvard Business Review*, 85–95. Retrieved from https://new-ideo-com.s3.amazonaws.com/assets/files/pdfs/IDEO_HBR_DT_08.pdf

- Brown, T. (2019). DESIGN THINKING DEFINED. Retrieved November 24, 2019, from <https://designthinking.ideo.com>
- Business, D. (2019). value for money (VFM). Retrieved November 22, 2019, from <http://www.businessdictionary.com/definition/value-for-money-VFM.html>
- Cambridge, D. (2019). Definition of Original. Retrieved November 24, 2019, from <https://dictionary.cambridge.org/dictionary/english/original>
- Canada, Ppp. C. C. for. (2017). Scale of Public-Private Partnerships Risk Transfer and Private Sector Involvement. Retrieved November 24, 2019, from https://www.pppcouncil.ca/web/Knowledge_Centre/What_are_P3s_/Definitions_Models/web/P3_Knowledge_Centre/About_P3s/Definitions_Models.aspx?hkey=79b9874d-4498-46b1-929f-37ce461ab4bc
- Cardoso, J. L. (2018). The Circular Economy: historical grounds. In *Annual Conference of The European Society for the History of Economic Thought* (p. 13). Madrid.
- Carson, R. (1962). *Silent Spring*. Greenwich Connecticut: Fawcett Crest.
- Chang, H.-J. (2009). Industrial Policy: Can We Go Beyond Unproductive Confrontation? In *ABCDE (Annual World Bank Conference on Development Economics)*. Seoul, South Korea. Retrieved from <https://rrojasdatabank.info/wbdevecon10-9.pdf>
- Chatterjee, Pratap; Finger, M. (1994). *The Earth Brokers - Power Politics and World Development*. London and New York: Routledge.
- Chavance, B. (2009). *Institutional Economics*. New York, United States: Routledge.
- Coase, R. (1937). The nature of the firm. *The Economic Nature of the Firm: A Reader, Third Edition*, 79–95. <https://doi.org/10.1017/CBO9780511817410.009>
- Congleton, R., & Hillman, A. (2008). *40 Years of Research on Rent Seeking*. (K. Konrad, Ed.). Fairfax: Springer International Publishing.
- Demaria, F., & Kothari, A. (2017). The Post-Development Dictionary : Paths to the pluriverse. *Third World Quarterly*. <https://doi.org/10.1080/01436597.2017.1350821>
- Diversity, U. (2018). Happiness SDG Pyramid. Retrieved from <http://www.sdgpyramid.org>
- Dombkins, D. (2017). *PNP Public NGO Partnerships*.
- Easterly, W. (2014). *The Tyranny of Experts*. Basic Books. Retrieved from <https://www.youtube.com/watch?v=GEFEmwp7NO8>

- EditorialTeam. (2018). 60 Years In the Making – The First Finnish Motorway E18 Is Now Finished. Retrieved November 22, 2019, from <https://finlandtoday.fi/60-years-in-the-making-the-first-finnish-motorway-e18-is-now-finished/>
- EIB, EPEC, & Freehills, H. S. (2016). *PPPs and State aid*. Luxembourg. Retrieved from PPPs and State aid
- Eisenhardt, K. (1989). Building Theories from Case Study Research. *Academy of Management Review*, 14(4), 532–550. Retrieved from <https://www.jstor.org/stable/258557>
- Elkington, J. (1998). Accounting for the triple bottom line. *Measuring Business Excellence*, 2(3), 18–22. <https://doi.org/https://doi.org/10.1108/eb025539>
- Fukuyama, F. (2013). What is Development? Retrieved November 22, 2019, from <https://www.youtube.com/watch?v=iG3G56YdFeE>
- Fukuyama, F. (2014). *Political Order and Political Decay : From the Industrial Revolution to the Globalization of Democracy*. New York, United States: Farrar, Straus and Giroux.
- Fukuyama, F. (2018). *Identity: The Demand for Dignity and the Politics of Resentment* (1st Editio). Farrar, Straus and Giroux.
- Geels, F. (2002). Technological transitions as evolutionary reconfiguration processes: a multi-level perspective and a case-study. *Research Policy*, (31), 1257–1274.
- Göpel, M. (2016). *The Great Mindshift* (Vol. 2). Cham: Springer International Publishing. <https://doi.org/10.1007/978-3-319-43766-8>
- Gore, A. (2013). *The Future: Six Drivers of Global Change* (First Edit). Random House Trade Paperbacks.
- Groenewegen, J., Spithoven, A., & Van der Berg, A. (2010). *Institutional Economics* (1st ed.). New York: Palgrave and Macmillan.
- Hameed, S. (2014). *The Costs of Corruption Strategies for Ending a Tax on Private-Sector-Led Growth*. Washington: Center for Strategic & International Studies.
- Hamilton, G., & Neves, P. (2016). *UN SDGs 4 PPPs Digital Platform International PPP Centre of Excellence People First Public-Private Partnerships for the United Nations Sustainable Development Goals*. Geneva. Retrieved from http://www.unece.org/fileadmin/DAM/ceci/documents/2016/PPP/Forum_PPP-SDGs/Compendium_revised_-_16_June.pdf
- Hardin, G. (1968). The Tragedy of the Commons. *American Association of Advanced Science*, 162(3859), 1243–1248.

- Hickel, J. (2015). The Problem with Saving the World, 1–9. Retrieved from <https://www.jacobinmag.com/2015/08/global-poverty-climate-change-sdgs/>
- IPFA. (2018). Benefits of PPPs. Retrieved November 22, 2019, from <https://www.ipfa.org/industry-resources/benefits/>
- Jager, P., & Jager, C. (2005). *TCN Navigator*. Utrecht.
- Jomo, K., Chowdhury, A., Sharma, K., & Platz, D. (2016). *Public-Private Partnerships and the 2030 Agenda for Sustainable Development: Fit for purpose?* New York, United States. Retrieved from <https://www.un.org/development/desa/publications/working-paper/ppps-2030-agenda-fit-for-purpose>
- Kamel, M., Montaser, A., & Abd El-Rashid, I. (2017). Public Private Partnership in Egypt. *6th CSCE-CRC International Construction Specialty Conference 2017 - Held as Part of the Canadian Society for Civil Engineering Annual Conference and General Meeting 2017*, 2(June), 1188–1197.
- Khotari, A., Demaria, F., & Acosta, A. (2015). Buen Vivir, Degrowth and Ecological Swaraj: Alternatives to Sustainable Development and the Green Economy. *Society for International Development*, 57(3-4)(Development 2014), 362–375. <https://doi.org/10.1057/dev.2015.24>
- Ki-moon, B. (2017). Foreword. In *The Age of Sustainable Development* (pp. 11–12). New York, United States: Columbia University Press.
- Kim, J. Y. (2017). Speech by World Bank Group President Jim Yong Kim: Rethinking Development Finance. *World Bank Group*. Retrieved from <https://www.worldbank.org/en/news/speech/2017/04/11/speech-by-world-bank-group-president-jim-yong-kim-rethinking-development-finance>
- KPMG. (2017). How to report on the SDGs. Retrieved November 22, 2019, from <https://home.kpmg/xx/en/home/insights/2018/02/how-to-report-on-the-sdgs.html>
- Kumar, R. (2017). Critics of the Sustainable Development Goals were wrong. Here's why. *World Economic Forum*. Retrieved from <https://www.weforum.org/agenda/2017/01/turns-out-sdg-critics-were-wrong/>
- Lélé, S. (1991). Sustainable Development: A Critical Review. *World Development*, 19(6), 607–621. [https://doi.org/10.1016/0305-750X\(91\)90197-P](https://doi.org/10.1016/0305-750X(91)90197-P)
- Leung, P. (2016). Backcasting: Starting with the End in Mind. Retrieved November 23, 2019, from <https://www.naturalstep.ca/backcasting-starting-with-the-end-in-mind>

- Li, X., Li, J., Fang, X., Gong, Y., & Wang, W. (2016). Case Studies of the Sponge City Program in China. *World Environmental and Water Resources Congress 2016*, (May), 295–308. <https://doi.org/10.1061/9780784479858.031>
- Lin, J., & Chang, H.-J. (2009). Should Industrial Policy in Developing Countries Conform to Comparative Advantage or Defy it? A Debate Between Justin Lin and Ha-joon Chang. *Development Policy Review*, 27(5), 483–502. Retrieved from https://www.researchgate.net/publication/296845922_Should_Industrial_Policy_in_Developing_Countries_Conform_to_Comparative_Advantage_or_Defy_it_A_Debate_Between_Justin_Lin_and_Ha-Joon_Chang
- Linner, B.-O., & Selin, H. (2013). The United Nations Conference on Sustainable Development: Forty Years in the Making. *Environment and Planning C: Government and Policy*, 31, 971–987. <https://doi.org/10.1068/c12287>
- Lippert, I. (2004). *An Introduction to the Criticism on Sustainable Development*. Bradenburg.
- Lithuania, M. of F. of the R. of. (2015). PPP Advantages and Disadvantages. Retrieved January 13, 2020, from <https://finmin.lrv.lt/en/competence-areas/public-and-private-partnership-ppp/ppp-advantages-and-disadvantages>
- Lopes, C. (2012). Economic Growth and Inequality: The New Post-Washington Consensus. *Revista Critica de Ciencias Sociais*, 1(4). <https://doi.org/10.4000/rccsar.426>
- Maxwell, C. (2020). Business Design: Business Thinking + Design Thinking. Retrieved December 4, 2020, from <https://peerinsight.com/blog/business-design/>
- Mazzucato, M. (2018). *The Value of Everything* (2nd ed.). London: Penguin Books.
- McQuaid, R. W. (2000). The Theory of Partnership : Why have Partnerships ? In J. Osborne (Ed.), *Managing Public-Private Partnerships for Public Services: An International Perspective* (pp. 9–35). London: Routledge. Retrieved from https://www.researchgate.net/publication/291300642_The_theory_of_partnership_Why_have_partnerships
- Meadows, Donella ; Meadows, Dennis; Randers, Jorgen; Beherens III, W. (1972). *The Limits to Growth*. New York, United States: Universe Books.
- MinisterioDaEconomia. (2018). *Programa de apoio à produção, diversificação das exportações e substituição de importações*. Luanda.
- Mohieldin, M. (2015). Unlocking the Economic Potential for Sustainable Development. In *9th Session of the Committee on Innovation, Competitiveness and Public-Private Partnerships 3 - 4 September 2015*. Geneva.

- Morgan, M. (2001). The Formation of "Modern" Economics: Engineering and Ideology. Retrieved October 10, 2019, from <https://web.archive.org/web/20070607071423/http://www.lse.ac.uk/collections/economicHistory/pdf/WP6201.pdf>
- Morgan, M., & Bach, M. (2018). Measuring Development from the UN's Perspective. In *The Political Economy of Development Economics: A Historical Perspective* (pp. 193–210). Durham and London 2018: Duke University Press.
- Moyo, D. (2009). *Dead Aid: Why Aid is Not Working and How there is a Better Way for Africa* (first amer). New York, United States: Farrar, Straus and Giroux.
- Natalia, L. (2017). Institutional Performance. Retrieved November 22, 2019, from <https://www.britannica.com/topic/institutional-performance>
- Neves, P. (2015a). 2015 UNECE Business Advisory Board _ PPPs for SDGs.pdf. London: UNECE. <https://doi.org/10.131155/PN.2015.18.06.002>
- Neves, P. (2015b). *SDGs for PPPs, a way of developing Integrated Solutions , generating data that inform and measure results , leveraging public financial resources and knowledge* . New York, United States. <https://doi.org/10.131154/PN.2015.13.10.001>
- Neves, P. (2015c). Task Force to explore ways of contributing to the Sustainable Development Goals. In *9th Session of the Committee on Innovation, Competitiveness and Public-Private Partnerships 3 - 4 September 2015*. Geneva. Retrieved from https://www.unece.org/fileadmin/DAM/ceci/documents/2015/CECI/Presentations/Pedro_Neves.pdf
- Neves, P. (2017). The Development of PPPs in Portugal: How did Portugal Transform itself in the last 30 years; Why do Portuguese live better today. *Tsinghua University PPP Research Center*, 12. <https://doi.org/10.13142/PN.2017.16.04.002>
- Neves, P. (2018a). International PPP Forum: Scaling up: Meeting that challenges of the United Nations 2030 Agenda for Sustainable Development through people-first Public-Private Partnerships "; Database of Case Study Material. *UNECE Website*. Retrieved from https://www.unece.org/fileadmin/DAM/ceci/documents/2018/PPP/Forum/Documents/Case_Study_Database_2018.pdf
- Neves, P. (2018b). *SDGs an Opportunity to Revise Conditionality (exchange of finance for policy reform). The Case of Sub-Saharan Africa (SSA)*. Lisbon.
- Neves, P. (2019a). How can the Sustainable Development Goals be used in Portuguese-speaking Countries to Promote the Belt and Road Initiative? In F. Ilheu, F. Leandro, & P. Duarte (Eds.), *The New Silk Road and the Portuguese Speaking Countries in the New World Context* (first edit, pp. 1–9). Lisbon: Instituto Internacional de Macau and Associação Amigos da Rota da Seda.

- Neves, P. (2019b). How can the Sustainable Development Goals be used in Portuguese Speaking Countries to promote the Belt and Road Initiative. In F. Ilhéu, F. Leandro, & P. Duarte (Eds.), *The New Silk Road and the Portuguese Speaking Countries in the New World Context* (1st ed., pp. 113–122). Lisbon: Instituto Internacional de Macau and Associação Amigos da Nova Rota da Seda.
- Neves, P. (2020). *Guide to Implement People-first PPPs using the Gate System*. Geneva.
- Newell, M. (2002). *Preparing for the Project Management Professional (PMP) certification exam* (2nd ed.). New York: Library of Congress - Cataloging-in-Publication Data.
- North, D. C. (1990). *Institutions, Institutional Change and Economic Performance*. (J. Alt & D. North, Eds.), *Cambridge University Press*. Cambridge, New York, Sydney: Cambridge University Press.
- OECD. (2019). Making Blended Finance Work for the Sustainable Development Goals. <https://doi.org/https://doi.org/10.1787/9789264288768-en>.
- OECD, & Dabelstein, N. (2010). *Glossary of Key Terms in Evaluation and Results Based Management*. Paris: OECD PUBLICATIONS. Retrieved from <https://www.oecd.org/dac/evaluation/2754804.pdf>
- Ostrom, E. (1990). *Governing the commons : the evolution of institutions for collective action*. Cambridge University Press. Retrieved from <http://www.cambridge.org/gb/academic/subjects/politics-international-relations/political-theory/governing-commons-evolution-institutions-collective-action-1?format=PB#CYVGviYfokcywygg.97>
- Oteh, A., VPandTreasurer, & WorldBank. (2018). Leveraging Innovative Finance For Realizing The Sustainable Development Goals. Retrieved November 24, 2019, from <https://www.worldbank.org/en/news/speech/2018/05/15/leveraging-innovative-finance-for-realizing-the-sustainable-development-goals.print>
- Oxfam, & Zagama, B. (2011). Land and Power : The growing scandal surrounding the new wave of investments in land. Retrieved November 21, 2019, from <https://books.google.pt/books?id=fd6iidlRR7QC&pg=PA36&lpg=PA36&dq=mubende+uganda+ifc+failure&source=bl&ots=Tqy2fg6yFP&sig=ACfU3U0slNuVb7wNm-6dCx7cSQtpCSV5og&hl=pt-PT&sa=X&ved=2ahUKEwjAqMWTkPvIAhWHAmMBHQYNA7cQ6AEwAnoECAoQAQ#v=onepage&q=mubende uganda ifc f>
- Piketty, T. (2014). *Capital in the Twenty-First Century*. Cambridge, Massachussets and London: The Belknap Press of Harvard University Press.
- Planetary, P. (2018). CRITICISM OF THE CONCEPT OF SUSTAINABLE DEVELOPMENT. Retrieved November 22, 2019, from www.planetaryproject.com/planet_project/critical/

- Pogge, T. (2016). *A Critique of the Sustainable Development Goals' Potential to Realize the Human Rights of All: Why Being Better than the MDGs is not Good Enough*. New Haven. Retrieved from https://cpb-us-w2.wpmucdn.com/campuspress.yale.edu/dist/6/1129/files/2015/10/SDG-HR_Rev-Jan-25-uugh97.pdf
- Polanyi, K. (1944). *The Great Transformation: The Political and Economic Origins of Our Times*. Boston: Beacon Press books.
- Portney, K. (2015). *Sustainability*. Cambridge, Massachusetts and London: MIT Press.
- Prieto, B. (2012). Comparison of Design Bid Build and Design Build Finance Operate. *PM World Journal*, 1(V), 1–7.
- Rekosh, E., Buschko, K. A., & Terzieva, V. (2001). *Handbook for legal professionals and activists*. Columbia University Law School.
- Renner, C. G. (2018). A Few Lessons About Public-Private Partnerships. Retrieved November 18, 2019, from <https://www.insidehighered.com/views/2019/01/28/advice-institutions-embarking-public-private-partnerships-opinion>
- Roehrich, J. K., Lewis, M. A., & George, G. (2014). Are public-private partnerships a healthy option? A systematic literature review. *Social Science and Medicine*, 113, 110–119. <https://doi.org/10.1016/j.socscimed.2014.03.037>
- Romero, M. (2015). *What lies beneath? A critical assessment of Public Private Partnerships and their impact on sustainable development*. Brussels.
- Romero, M., & Vervynck, M. (2013). PPPs lead to dangerous debts for developing countries — it's time for the World Bank to act. Retrieved September 27, 2020, from <https://www.eurodad.org/PPPs-dangerous-debts-developing-countries>
- Rosling, H. (2012). World Pin Code. Retrieved November 18, 2019, from <https://www.gapminder.org/answers/where-do-people-live/>
- Rutherford, M. (2001). Institutional Economics: Then and Now. *Journal of Economic Perspectives*, 15(3), 173–194. <https://doi.org/10.1257/jep.15.3.173>
- Sachs, J. (2015). *The age of sustainable development*. New York, United States: Columbia University Press.
- Sandel, M. J. (2012). *What Money Can't Buy: The Moral Limits of Markets* (Reprint ed). Penguin Books Farrar, Straus and Giroux.

- Sarmiento, J. (2010). Do Public-Private Partnerships Create Value for Money for the Public Sector? The Portuguese Experience. *OECD Journal on Budgeting*, 1. <https://doi.org/10.1787/budget-10-5km8xx3fgws5>.
- Schell, C. (1992). *1992_charles schell_manchester business school_value of case study as research strategy.pdf*. Manchester.
- ScottishFuturesTrust. (2015). *Non Profit Distribution Model Explanatory Note*. Retrieved from [https://www.scottishfuturestrust.org.uk/storage/uploads/Explanatory_Note_on_the_NPD_Model_\(Updated_March_2015\).pdf](https://www.scottishfuturestrust.org.uk/storage/uploads/Explanatory_Note_on_the_NPD_Model_(Updated_March_2015).pdf)
- Seguino, S. (2014). How Economies Grow : Alice Amsden and the Real World Economics of Late Industrialization, 1–9. [https://doi.org/10.1044/0161-1461\(2005/004\)](https://doi.org/10.1044/0161-1461(2005/004))
- Sen, A. (1983). Development: Which Way Now? *The Economic Journal*, 93(372), 745–762. <https://doi.org/10.2307/2232744>
- Senor, D., & Singer, S. (2009). *Start-Up Nation: The Story of Israel's Economic Miracle* (1st ed.). New York, United States: Hachette Book Group.
- Somun, H. (2003). *The Secret of the Malaysian Success* (3rd ed.). Kuala Lumpur: Pelanduk Publications.
- Stewart, F. (2018). Changing Approaches to Development since 1950: Drawing on Polanyi. In Michele Alacevich & M. Boianovsky (Eds.), *The Political Economy of Development Economics: A Historical Perspective* (pp. 17–38). Durham and London 2018: Duke University Press.
- Stiglitz, J. E. (2017). *Globalization and Its Discontents Revisited : Anti-Globalization in the Era of Trump*. Penguin Books.
- Sundaram, J. K. (2019, May 21). Public-Private Partnerships Fad Fails. *May 21*, pp. 1–2.
- TheEconomist. (2018). Public Wealth How to Spend it _ If Public Assets were Managed Better, Governments Coffers would Enjoy a Much-needed Boost. *The Economist*, October 20. Retrieved from <https://www.economist.com/finance-and-economics/2018/10/20/how-to-plug-budget-holes-by-managing-public-wealth-better>
- Tianyi, W. (2016). Address by Mr. Wang Tianyi, the Co-director of Center for Public Private Partnership, Tsinghua University. In Tsinghua University (Ed.), *Qingdao PPP Conference*. Qingdao.
- Tirole, J. (2018). *Économie du Bien Commun*. Presses Universitaires de France / Humensis.

- UN DESA. (2019). *World Economic Situation and Prospects*. New York, United States. Retrieved from https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/WESP2019_BOOK-ANNEX-en.pdf
- UN Habitat III. (2016). *New Urban Agenda*. Retrieved from www.habitat3.org
- UNCHE. (1972). Report of the United Nations Conference on the Human Environment - A/CONF.48/14/Rev.1. Retrieved from <http://www.un-documents.net/aconf48-14r1.pdf>
- UNCTAD. (2010). *Partnering Public and Private Investment for Development*. Geneva. Retrieved from https://unctad.org/en/docs/ciimem3d8_en.pdf
- UNDESA. (2015). Sustainable Development Goals _ The 2030 Agenda for Sustainable Development. Retrieved November 24, 2019, from <https://sustainabledevelopment.un.org/sdgs>
- UNECE. (2009). UNECE Objectives and Mandate.
- UNECE. (2016). UNECE Objectives and Mandate. Retrieved November 22, 2019, from https://www.unece.org/oes/nutshell/mandate_role.html
- UNECE. (2017). *Draft Guiding Principles on People-First Public-Private Partnerships for the United Nations Sustainable Development Goals*. Geneva. Retrieved from https://www.unece.org/fileadmin/DAM/ceci/documents/2018/PPP/Forum/Documents/Revised_Guiding_Principles_for_People-first_PPPs_in_support_of_the_UN_SDGs-Part_I.pdf
- UNGA. (2015). *Transforming Our World: The UN 2030 Agenda for Sustainable Development*. UN General Assembly. New York, United States: United Nations. <https://doi.org/10.1017/S0020818300007827>
- United Nations. (2015). Paris Agreement COP 21. Retrieved from http://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf
- United Nations. (2016). Sustainable Development GOALS - 17 Goals to transform our world. *Sustainable Development Goals - United Nations*. [https://doi.org/United Nations Development Program \(UNDP\)](https://doi.org/United Nations Development Program (UNDP))
- United Nations. (2017). Localizing SDGs. Retrieved November 18, 2019, from <https://www.local2030.org/about-us.php>
- United Nations AAAA. (2015). Addis Ababa Action Agenda of the Third International Conference on Financing for Development. *United Nations New York*. Retrieved from www.un.org/esa/ffd

- United Nations CSD. (1992). Agenda 21 UN Conference on Environment & Development; Rio 1992. Retrieved from <https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf>
- United Nations Habitat III. (2017). *NOVA AGENDA URBANA*. Retrieved from <http://habitat3.org/wp-content/uploads/NUA-Portuguese-Angola.pdf>
- United Nations SDGs. (2015). Transforming our world: the 2030 Agenda for Sustainable Development. *General Assembly 70 Session, 16301*(October), 1–35. <https://doi.org/10.1007/s13398-014-0173-7.2>
- United Nations WCED, U. (1987). *Our Common Future: Report of the World Commission on Environment and Development*. Retrieved from <http://www.un-documents.net/our-common-future.pdf>
- United Nations WSSD. (2002). *World Summit on Sustainable Development implementation report. Johannesburg: WSSD* (Vol. 2002). New York, United States. Retrieved from <https://digitallibrary.un.org/record/478154?ln=en>
- UNStats. (2017). SDG Indicators Global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development. Retrieved November 19, 2019, from <https://unstats.un.org/sdgs/indicators/indicators-list/>
- Valentine, K. F. (2016). *An Investigation of Water Access and Quality in the Ambovombe Area of Southern Madagascar*. Oregon State University. Retrieved from [http://ir.library.oregonstate.edu › downloads/0A](http://ir.library.oregonstate.edu/downloads/0A)
- Wankel, C. (2009). *Encyclopedia of Business In Today's World*. (J. G. Golson, Ed.). Thousand Oaks: SAGE publications.
- Ward, B., & Dubos, R. (1972). *Only One Earth*. United States: WW Norton & Co.
- WBG. (2016). Country Readiness Diagnostic for Public-Private Partnerships.
- WelshGovernment. (2017). Infrastructure investment. Retrieved November 22, 2019, from <https://gov.wales/infrastructure-investment>
- WelshGovernment. Governing the future and the search for spatial justice: Wales' Well-being of Future Generations Act (2019). <https://doi.org/10.11143/fennia.77781>
- WelshGovernment. (2019b). *Mutual investment model for infrastructure investment*. Retrieved from <https://gov.wales/mutual-investment-model-infrastructure-investment>

- WorldBankGroup. (2017). *Guidance on PPP Contractual Provisions*. Washington DC: WBG. Retrieved from https://ppp.worldbank.org/public-private-partnership/sites/ppp.worldbank.org/files/documents/Guidance_PPP_Contractual_Provisions_EN_2017.pdf
- WorldBankGroup. (2020). DBFOM Contracts. Retrieved January 3, 2020, from <https://ppp-certification.com/ppp-certification-guide/22-infrastructure-procurement-options-may-be-regarded-ppps>
- Yin, R. (2003). *Case Study Research : Design and Methods* (third). Thousand Oaks, London, New Delhi: SAGE publications.
- Zainal, Z. (2007). Case Study as a Research Method. *Jurnal Kemanusiaan*, 9. Retrieved from https://www.researchgate.net/publication/41822817_Case_study_as_a_research_method

Annex 1 Sustainable Development Goals (SDGs)

Goal 1. End poverty in all its forms everywhere

Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Goal 3. Ensure healthy lives and promote wellbeing for all at all ages

Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Goal 5. Achieve gender equality and empower all women and girls

Goal 6. Ensure availability and sustainable management of water and sanitation for all

Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all

Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Goal 10. Reduce inequality within and among countries

Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable

Goal 12. Ensure sustainable consumption and production patterns

Goal 13. Take urgent action to combat climate change and its impacts

Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Goal 17. Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development (United Nations, 2016)

SUSTAINABLE DEVELOPMENT GOALS



Annex 2 Case Study _ Invitation Letter

Dear,

I am now developing the 3rd Compendium of case studies for UNECE of public-private partnerships that have a people, planet and prosperity angle.

Our main goal is to gather these examples from many organizations so that others may replicate their development model. The purpose is to show and share that public and private organizations can work together to create jobs, protect the planet and promote economic growth to communities throughout the world.

I am sharing below the links to the compendiums presented and published in 2016 and 2017 for your reference.

http://www.unece.org/fileadmin/DAM/ceci/documents/2016/PPP/Forum_PPP-SDGs/Compendium_revised_-_16_June.pdf

http://www.unece.org/fileadmin/DAM/ceci/documents/2017/PPP/Forum/Case_Studies_Compendium.pdf

Again, it would be an honour to have you involved and I would be very pleased to assist you in case you wish to present a case study.

Please find the invitation text below, the open letter from UNECE attached, and the slides also attached.

We are pleased to be expanding our 500 People -First PPPs Case Studies and would like to invite you to share your project and experience with us and to have it presented at the 3rd annual UNECE International Forum, taking place in Geneva on May 7th-9th.

As mentioned below in the open letter from UNECE and note from Tony Bonnici UNECE Secretariat:

“One of the main highlights of the third annual UNECE International PPP Forum to be held in Geneva on 7-9 May 2017 will be showcasing PPPs projects in low and middle-income countries that aspire to meet the UN Sustainable Development Goals.”

Our goal is to share the best case-studies from around the globe with governments, NGOs, developers, capital providers, and other stakeholders and enhance the implementation of the SDGs, improve the quality of life for all, protect the planet, and promote prosperity and peace.

The case studies received and selected will be analysed and used at the forum and have the opportunity to also be showcased on the UNECE website.

For this reason, we have created a uniform presentation layout (Master Slides) and an index of content that we would ask that you follow.

We also stand ready to assist you and your team in developing the presentation and would

be happy to answer any questions that you may have.

To ensure we will have all material prepared before the Forum on May 7th we have established the following milestones:

1.	Distribution of Master Slides	February 26 th – March 2 nd
2.	Clarifications on Master Slides	February 28 th – March 15 th
3.	Reception of presentations of Case Studies	March 18 th – April 6 th
4.	Analysis and clarifications	April 9 th – 16 th
5.	Analysis of presentations by the Secretariat	April 16 th – 23 rd
6.	Final revision and assembly of presentations	April 23 rd – 30 th

Looking forward to hearing from you and to your contribution, I am
Truly yours

Pedro Neves

United Nations Economic Commissions for Europe

Member of the Business Advisory Board

Task Force Leader for implementing the Sustainable Development Goals through People-First PPPs

Senior Advisor for PPPs

Annex 3 Case Study _ Protocol

Dear colleagues,

One of the highlights of the third annual UNECE International PPP Forum to be held in Geneva on 7-9 May 2018 will be showcasing PPP projects in low- and middle-income countries. In particular, showcasing PPPs that aspire to meet the UN Sustainable Development Goals and put People First.

We invite you to share with us any projects in low, and middle-income countries that are 'People First' and would like to be showcased at the Forum in Geneva. Projects that:

- a) **increase access and promote equity**, which means people have better and increased access to essential services such as water and sanitation, energy, health etc., and in particular those that are socially and economically vulnerable.;
- b) **improve resiliency and environmental sustainability in infrastructure**, thereby cutting CO2 emissions, moving towards a green economy, and building systems that can withstand unpredictable and challenging climate change;
- c) **demonstrate economic effectiveness**, which means projects must be successful, achieve value for money, and have a measurable impact by removing barriers or integrating more people and communities into the global market place;
- d) **are replicable and scalable** so that successful project models can be repeated and/or scaled up and have the transformational impact required by the 2030 Agenda; and
- e) **engage all stakeholders**, which means bringing more of those impacted by infrastructure projects and services into a participating role and delivering more effective People driven projects.

If you are familiar with any candidate projects,

I encourage you to contact **Pedro Neves** (pedroneves@globalsolutions4u.com and PPPForum@unece.org), who is assisting the Secretariat in developing the content for this important session.

Finally, unless you had already done so, I encourage you to register for the Forum as early as possible. Confirmations and personalised invitation letters will be sent to delegates on a first-come, first-served basis so your prompt registration is necessary. **Participation is free of charge.** We will be producing a draft programme for the Forum shortly, which will also be sharing with those that are registered as well as placing it on our website. For more information, please visit (<https://www.unece.org/index.php?id=44746#/>):

Thanks, and best regards, Tony

Annex 4 Case Study _ Questionnaire

International PPP Centre of Excellence
 People First PPPs for the United Nations Sustainable Development Goals



Project:	
Project Proponent:	
Project Organization:	

Photo of the presenter

- Public Organization:** please identify the public organization(s) involved
- Private Organization:** please identify the private organization(s) involved, including developer(s), contractor(s), primary supplier(s) and/or operator(s)
- Capital Providers:** please describe public and private sources both in terms of equity and debt
- Why is this project a Case Study for People First PPPs:** Please identify the most important aspects of the project in terms of social and environmental impact. Describe as well if the combination of Public Private represented a 'win-win' solution

2 min Which SDG is closer to your project

Throughout the slides it is important that presentations and presenters show the holistic people first aspects of their projects. How: people and social cohesion, environmental sustainability, economic and financial systemic efficiency were combined, AND how the projects outcomes were prioritized.

Place a picture emblematic of your project

UNECE 500 People First PPPs for the SDGs... ending poverty, protecting the planet, and leaving no one behind

International PPP Centre of Excellence
 People First PPPs for the United Nations Sustainable Development Goals



Please use this slide to describe briefly the context and strategy supporting the project:

- 1) **Where:** is the project located, the area and population covered by the project, the key economic sectors;
- 2) **Why:** describe the communities and environment before the project started; the context that lead you to make the improvements; the main topics studied in the feasibility phase; what made you decide for PPP solution;
- 3) **What:** do you expect to achieve with the project in terms of social and/or environment impact;
- 4) **Who:** are the key players and how were tasks, risks, responsibilities shared between public and private partners;
- 5) **When:** were/are the key milestones: project planning, government approval(s), procurement, commercial/financial close, startup of operations and key project delivery milestones, maintenance period, contract term

Project Name

2 min Which SDG is closer to your project

Place the same or another picture emblematic of your project

UNECE 500 People First PPPs for the SDGs... ending poverty, protecting the planet, and leaving no one behind

a) Increase access to essential services and promote equity

Please use this slide to briefly demonstrate how this project has / is:

- increasing access and
- promoting equity

How has/will it increase access to and the distribution of essential services, such as water and sanitation, energy, health etc., especially to the poor and/or socially and economically vulnerable.

How has/will it make essential services more accessible or more fairly available to all, such as fewer or no restrictions, lower tariff/user rates, racially inclusive, etc.

Please limit your description to 1 slide

Project Name

2 min
Which SDG is closer to your project

Place the same or another picture emblematic of your project

UNECE 500 People First PPPs for the SDGs... ending poverty, protecting the planet, and leaving no one behind

b) Develop a resilient infrastructure and improve environmental sustainability

Please use this slide to describe how this project develops a resilient infrastructure (e.g., how the design, construction and use will withstand the test of time through its lifecycle).

Describe its environmental impact, both during its development and use, and how the environmental impact will be measured and controlled (e.g. one concrete way of measure the impact is by how much the project is cutting CO2 emissions).

Please limit your description to 1 slide

Project Name

2 min
Which SDG is closer to your project

Place the same or another picture emblematic of your project

UNECE 500 People First PPPs for the SDGs... ending poverty, protecting the planet, and leaving no one behind

International PPP Centre of Excellence
 People First PPPs for the United Nations Sustainable Development Goals



c) Demonstrate the economic and financial effectiveness of the project

Please use this slide to answer how this project is economically and financially sustainable, what are the economic and financial returns.

- funding sources to support the project, including style of agreement e.g. availability payment, user pay, mixed, etc.
- financial sources to support the project, debt and equity, any guarantees or contingent liabilities involved, payback terms and expectations
- key KPIs such as the number of years for payback, IRR, ERR, Value for Money and Public Sector Comparators when used

Please describe how the project will enhance the local economy

Please limit your description to 1 slide

Project Name

2 ^{mn}
 Which SDG is closer to your project

Place the same or another picture emblematic of your project

UNECE 500 People First PPPs for the SDGs... ending poverty, protecting the planet, and leaving no one behind

International PPP Centre of Excellence
 People First PPPs for the United Nations Sustainable Development Goals



d) Be replicable and scalable

Please use this slide to describe how this project can:

- be replicated in the country or in another country
- positively affect other sectors or eventually be replicated in other sectors
- grow in size, e.g. additional phases planned or optioned in its development, conditions that need to be met for this to happen, flexibility to expand or contract in operations

Please describe how human capital was managed, how the project implementation and/or operations team(s) were prepared and trained to manage the project and operations. Please note both public and private roles and responsibilities.

Please limit your description to 1 slide

Project Name

2 ^{mn}
 Which SDG is closer to your project

Place the same or another picture emblematic of your project

UNECE 500 People First PPPs for the SDGs... ending poverty, protecting the planet, and leaving no one behind

International PPP Centre of Excellence

People First PPPs for the United Nations Sustainable Development Goals



e) Engage all stakeholders

The development of People First PPPs involves not only the direct Public and Private Promoters but also the civil society organizations, academia, labor organizations, environmental organizations, stakeholder groups, etc.

Please describe how stakeholders were involved in the project preparation, development and operations phases. What roles did they have, what were the main challenges observed and how were they managed.

A governance model showing their involvement would very much appreciated.

Please limit your description to 1 slide

Project Name



Place the same or another picture emblematic of your project

UNECE 500 People First PPPs for the SDGs... *ending poverty, protecting the planet, and leaving no one behind*

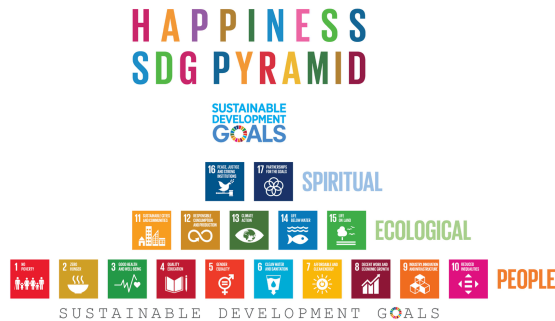
Annex 5 Toolbox to Develop People-First PPPs to Achieve the SDGs

Other tools for SDGs implementation not adapted or designed by the candidate but used on lectures and presentations.

SDGs as a guiding tool (UNDESA, 2015), the toolbox first image are the 17 SDGs, that are presented as guiding tools that may be used as guiding tools on any development model.



SDGs Inverted pyramid from Bali, inspired and using the United in Diversity (Diversity, 2018) SDGs pyramid.



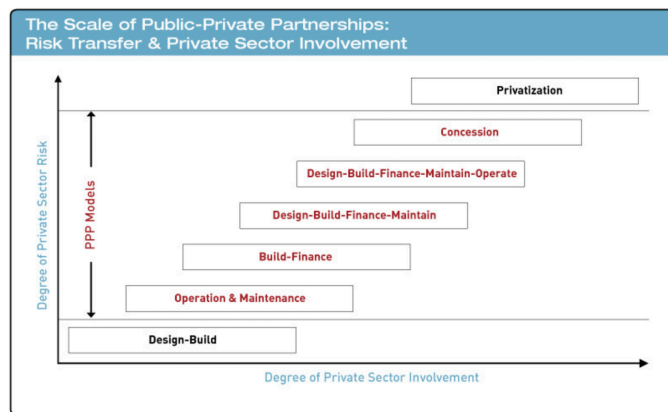
SDGs inverted pyramid consists of inverting the SDG pyramid invented in the island of Bali that has at the base People, Goals 1 to 10; at an intermediary level Planet, Goals 11 to 15 and associates Goal 16 and 17 to Spirituality. By inverting the pyramid, the message is to highlight the importance of the rules of the Game and the Players (Partnerships), to design and implement SDGs.



Canadian PPP Approach use the Canadian PPP association (Canada, 2017) approach that identifies infrastructure transformational projects in three groups. At the bottom are projects supported entirely by state budget involving processes of low complexity, such as design and build. At the top are projects that are privatized and therefore that the Public Sector transfers entirely to the Private Sector. Between these two types are all sorts of PPPs. This scheme defines PPPs by the negative, meaning that if it is not a “pure” public or privatization approach then it is a PPP.

Scale of Public-Private Partnerships

The options available for delivery of public infrastructure range from design-build to outright privatization, where the government transfers all responsibilities, risks and rewards for service delivery to the private sector. Within this spectrum, public-private partnerships can be categorized based on the extent of public and private sector involvement and the degree of risk allocation. A simplified spectrum of public-private partnership models used in Canada follows:

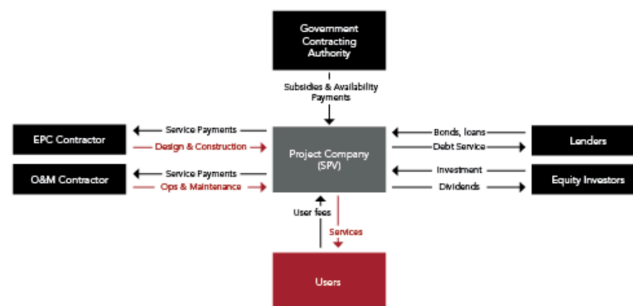


© The Canadian Council for Public-Private Partnerships

WBG PPP Business Design describing the financial flows (WorldBankGroup, 2017).

Although it has the users “the people” at the bottom of the scheme, it is a clear way of showing the trade-offs on a PPP development model, relating government budget, subsidies, investment and dividends, loans and debt services, design, build, operation and maintenance with service payments.

Flow of Funds



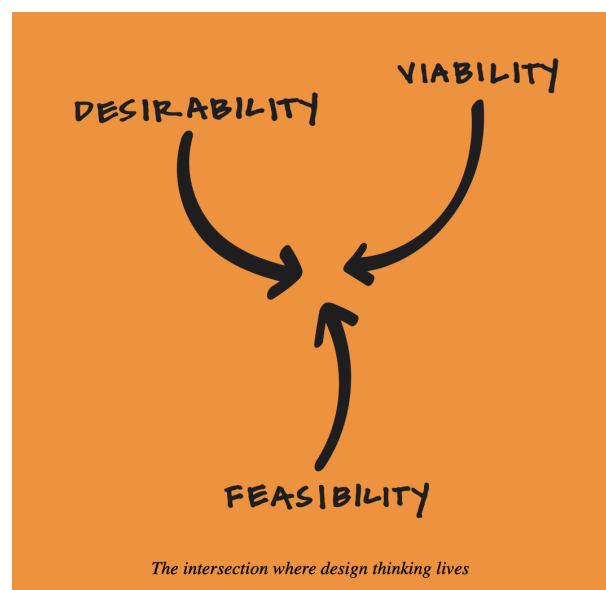
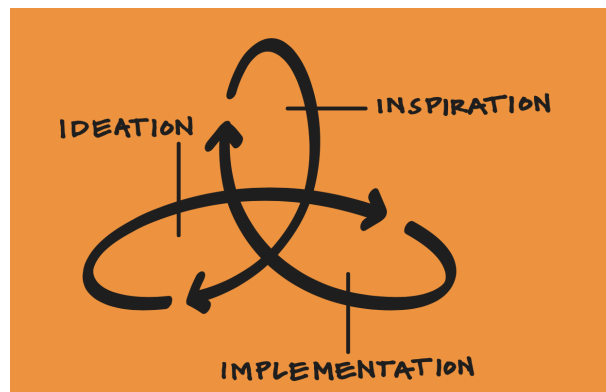
Blended Finance or a financial PPP, OECD Blended Finance scheme (OECD, 2019) describes how public Investment can mobilize private capital, and how the SDGs can enhance this attraction dynamics.

www.oecd.org/cgfi/



Design Thinking Diagrams

Design thinking is a human-centered approach to innovation that draws from the designer's toolkit to integrate the needs of people, the possibilities of technology, and the requirements for business success. Thinking like a designer can transform the way organizations develop products, services, processes, and strategy. This approach, which is known as design thinking, brings together what is desirable from a human point of view with what is technologically feasible and economically viable. It also allows people who aren't trained as designers to use creative tools to address a vast range of challenges (Brown, 2019).



Annex 6 Tools Usage Example on Urban Development

How to Create an Investable List of Investable Projects based on SDGs

The willingness and the need for a city to develop projects and achieve the SDGs, represents a transformation process occurring under an Urban Development Policy that will originate Investment Programs. These Programs will have multiple transformational projects.

*The list of projects considered necessary requires generally financing that go beyond the city fiscal space. This means that the projects have to be designed in a way that other funding solutions can be used. The projects designed in such a way will be able to attract private sector capital providers and will be called **investable projects**. The challenge is therefore not only to create a list of projects but that these attract investors and lenders for their development.*

10 Tools to obtain a List of Investable Projects

and Originate a Virtuous Sustainable Urban Development Cycle

Below there are 10 tools³ to assist Sustainable Development managers to design and create the list of investable projects and in parallel originate a virtuous urban development cycle. For each tool the Lisbon case study Parque das Nações was used as an inspiration to reflect how a specific tool was used or could have been used if the SDGs existed at that time.

It is considered that the SDGs are a new global development language used by all UN member states. The use of this language enhances the understanding among stakeholders, increasing the chances of projects finding the best development partners and to improve the financial conditions.

Case Studies can be found at UNECE compendium of People-first case studies

http://www.unece.org/fileadmin/DAM/ceci/documents/2016/PPP/Forum_PPP-SDGs/Compendium_revised_-_16_June.pdf

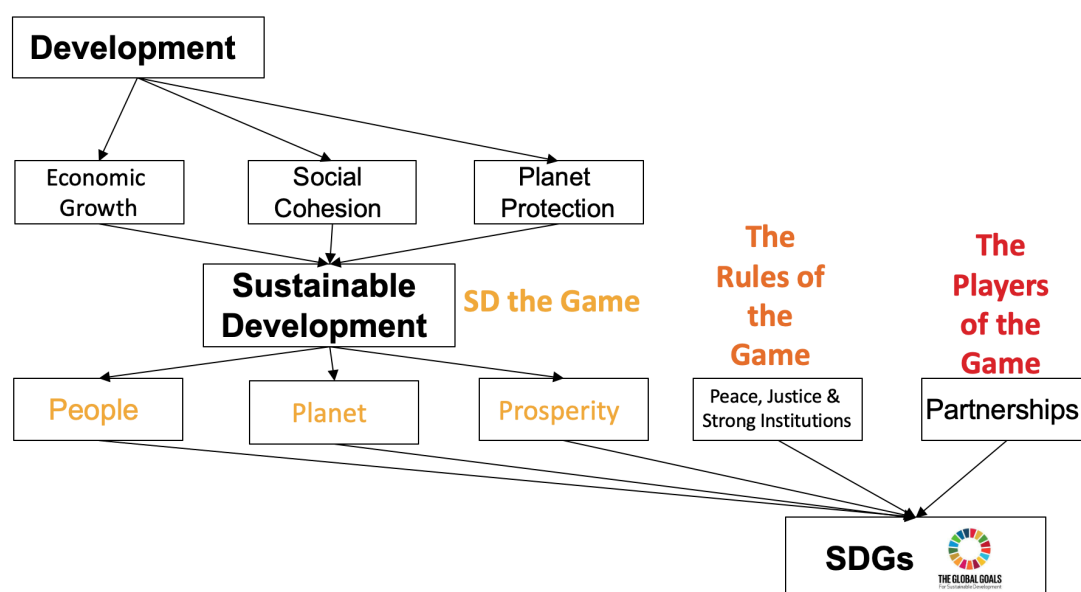
http://www.unece.org/fileadmin/DAM/ceci/documents/2017/PPP/Forum/Case_Studies_Compendium.pdf

http://www.unece.org/fileadmin/DAM/ceci/documents/2018/PPP/Forum/Documents/Case_Study_Database_2018.pdf

³ The 10 tools in this note, are part of the Toolbox presented and described on Chapter 3.4 and represent a practical application to an Urban Development environment aiming to achieve the SDGs.

Tool 1 _ The Game, The Rules and The Players

SDGs reflect an indivisible and integrated approach to People, Planet and Prosperity, the three dimensions of Sustainable Development (SD). This represents that every project shall reflect that its development will originate positive social impact, for example will generate jobs, will decrease the human footprint, for instance will reduce the CO2 emissions or will improve the quality of water, and will contribute to economic prosperity. These three dimensions, social, environment and economical are considered to be the Game. A Game to be played requires clear and transparent rules as well as enforcement mechanisms. The Game also requires Players that often result from different parties agreeing to cooperate. This 1st tool asks to have the 3 dimensions of the Game to be associated with the project, for the rules to be clearly enunciated as well to identify who are the payers.



Example 1: although the SDGs didn't exist at the time Parque das Nações was created, the SD approach was used as the Game, and new Rules were developed for The Invented City⁴ to exist. It was also clear that multiple type of partnerships, including PPPs had to be designed and implemented to reach the desired outcome. For localizing the "SDGs" the Game, the Rules and the Players approach is being used today.

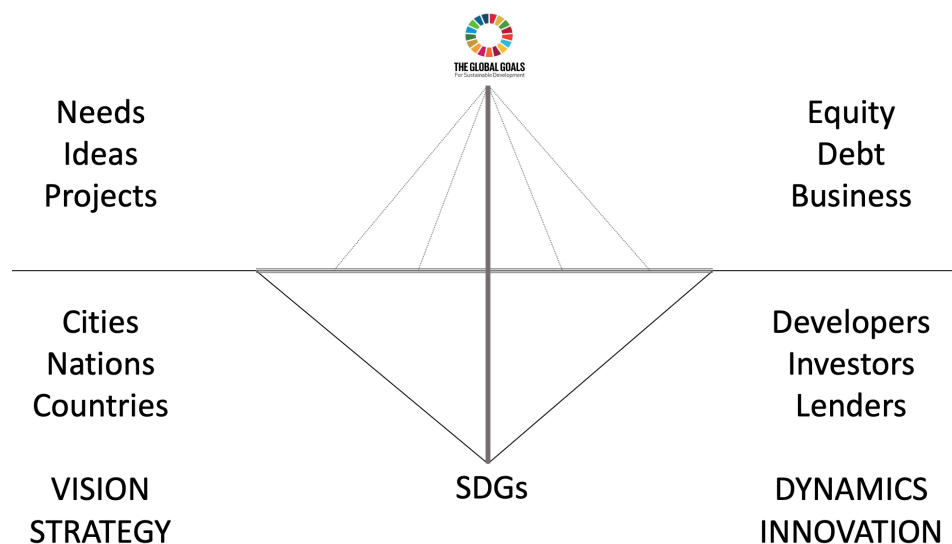
⁴ Parque das Nações is also known as The Invented City

Tool 2 _ Bridging the Gap

Transformations of the territory result from the needs and ambitions of the communities. Considering that the list of projects demands for financing and funding solutions, as well as efficiency that normally go beyond what public sector budget and organization can provide. Bearing in mind there are capital providers eager to finance and fund transformational projects. Leads to design a bridge between the public and the private sectors.

These needs and ambitions shall be transformed into projects that can be associated with public interest and common good, but that require to be translated in a language that is understood by capital providers, knowing that these are looking for a profit and a return on their investment.

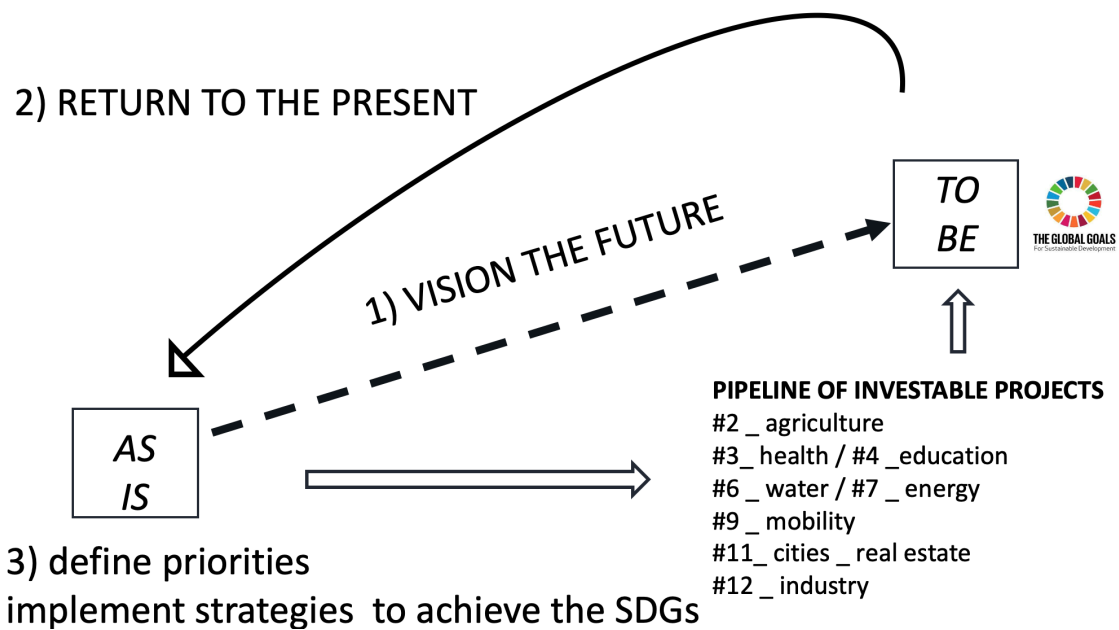
There is a need to bridge cooperation between municipal development decision makers and private sector developers and capital providers. Associating this idea with a valley, there is a need to build a bridge to connect the two margins and therefore to “bridge the gap”.



Example 2: A clear 3D vision reflecting the ideas, needs associated to projects created a “bridge” for Multiple Investment Programs, using a Sustainable Development approach to attract developers, investors and lenders to become development partners.

Tool 3 _ Back to the Present

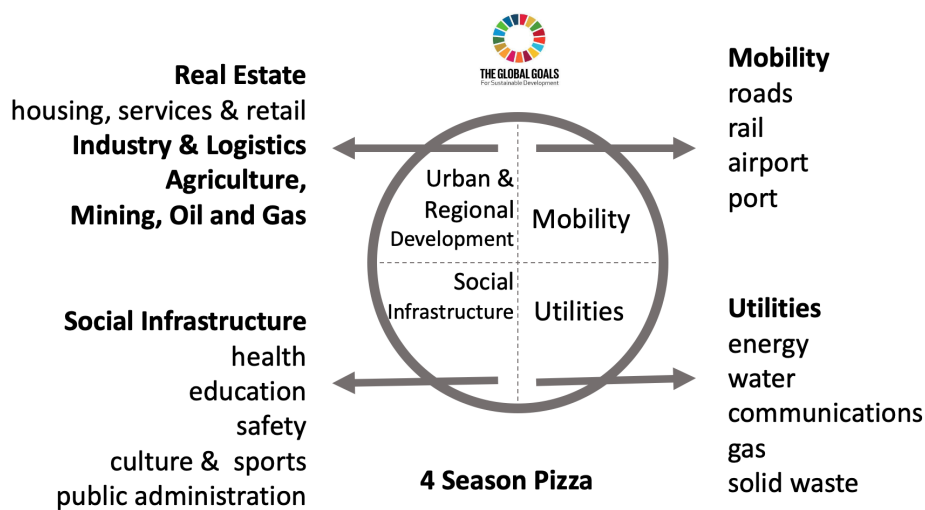
Consists on a first moment to evaluate the “as – is”, the current situation on a pre-defined perimeter, that can be a city or the region. After having characterized this area of intervention it is asked to visualize what the perimeter will look like in 2030, if all needs and ambitions of the community are to be materialized. This will create a “to – be” scenario representing the vision. Using the SDGs as a guiding tool help to define the objectives to be achieved. The following step on this exercise is to return to today, to be **BACK TO THE PRESENT**, knowing what the objectives for the future are. At this moment it is possible to define the necessary Transformational Projects, that will generate the Pipeline of Projects.



Example 3: The Urban Renewal project in Lisbon called Parque das Nações reflects this concept. The perimeter defined as intervention area went through a 180º transformation process where a new liveable new city with 25.000 new inhabitants and 18.000 permanent new jobs replaced a refinery, a slaughter-house, a waste dump.

Tool 4 _ Four-Season Pizza

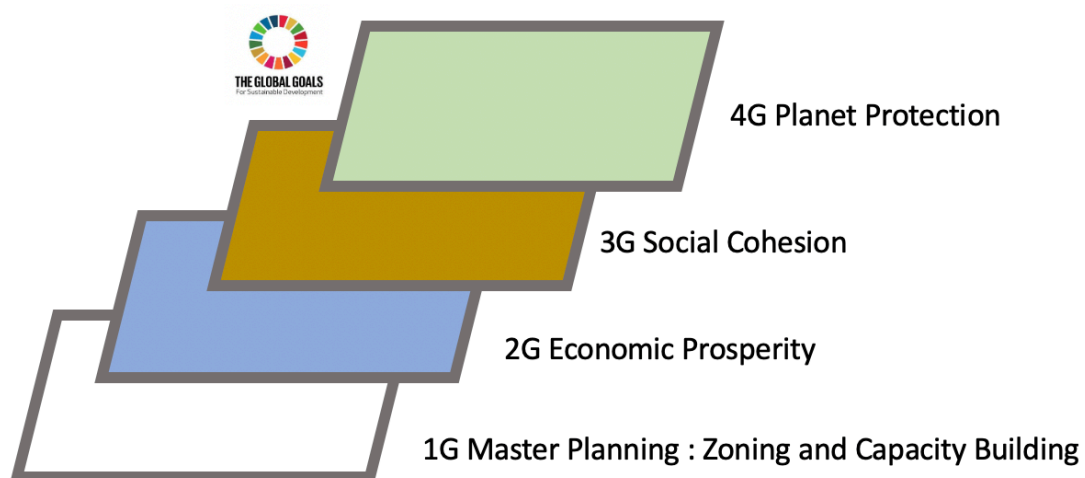
To identify the “as – is” status, as well as the “to – be “ vision, is advisable to use the tool: Four-Season Pizza. This tool reflects what exists, and what is needed for a transformational project to occur. An image associated with a “Four-season pizza” is used to analyze 4 sectors, the first being mobility, consisting of roads, rail, port and airports, all infrastructure required for people and cargo to go from a location “a” to a location “b”. The second is about utilities and analyzes energy, water and wastewater, solid waste, gas, telecom, and wi-fi networks. The third concerns social infrastructure and covers education, health, security, sports, arts, public spaces, green spaces and in some cases social housing. The fourth season reflects real estate and therefore where most cash positive projects can be found, namely retail, services, housing but also, logistics and industry. Cities and regions directly associated with oil and gas, or mining exploitation or agriculture, can include these activities on this fourth season, or define a surrounding circle involving the first four.



Example 4: a key success factor for Parque das Nações, was to be developed under a people-centric and integrated approach. The base is to consider what people need? To have a house, to work, to buy, to educate the children, to have health, cultural and sports facilities and at the same time to have police and fire-stations to ensure the safety and security.

Tool 5 _ 4G Master Plan

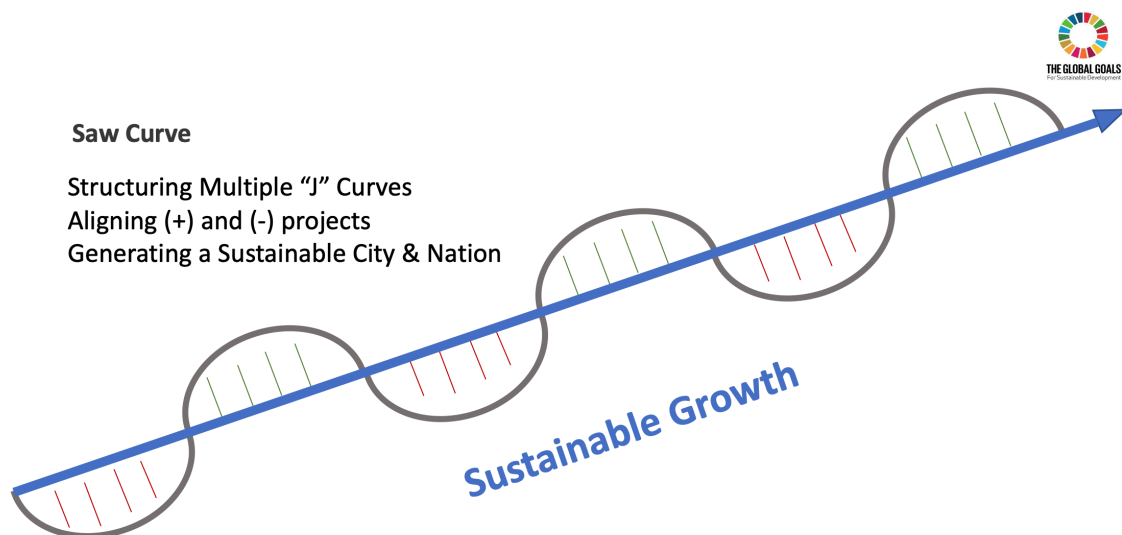
Planning shall not be considered static, adaptations will occur while assets are being created, as well as during the asset management phase. Consists of evolving from the traditional Master Plan approach, associated with the type of use and the building capacity, considering the first layer to be the first generation (1G). This tool adds new layers respectively the economic, social and environmental dimension. A second layer (2G) can be added to the first to reflect the economic dimension adding the value of the land and the assets of the plan. Likewise, a new layer for the social dimension (3G) for example associated with job creation. The last layer (4G) reflects the fourth dimension, reflecting the environmental impact associated with the transformation process. The most obvious use is to consider the CO2 emission, but can be used for water and solid waste as well. impact. This tool called the (4G Master Plan) should be associated with urban GIS.



Example 5: Parque das Nações development consisted on using the traditional 1G master plan and quantitatively 2G. The number of square meters was decided to ensure economic viability of the transformation, following the composition described at the four-season pizza. The 3G was used to plan the number of jobs. The 4G was done only with a qualitatively approach

Tool 6 _ Saw Curve

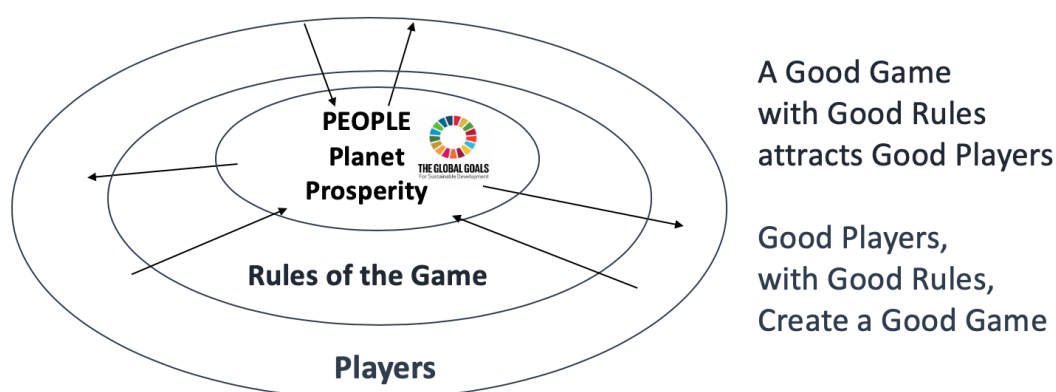
The use of this tool starts with a list of projects identified in tool 3. Looking at these projects, it will be identified that they are not all investable by the private sector. This means that the group of projects need to be organized in a way to generate a viable program. As the group of projects will be composed by some that can be considered cash positive, meaning their development will generate positive cash flow and positive return on investment, and others that will be cash negative, it is necessary to plan the projects in a way that the cash negative will be compensated by cash positive projects. This exercise is done by using the Saw Curve that creates a program cash flow for the group of projects.



Example 6: Parque das Nações example, the program had schools, museums, roads, waste collection networks that were not cash positive. In parallel office building, retail shops and housing products were developed generating positive cash flow that compensated for the cash negative ones.

Tool 7 _ Institutional Innovation

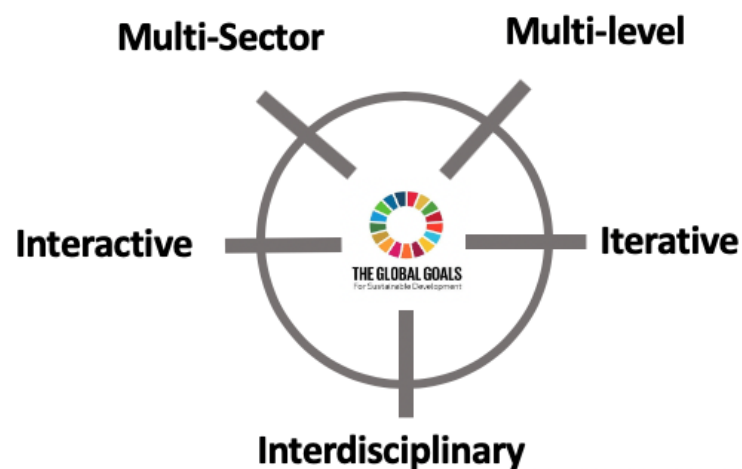
This tool involves understanding the need to create new rules and enforcement mechanisms for transformational projects. This overall approach requires intensive participation from the public sector, from the civil society including a pro-active academy, and the private sector. This tool considers that a Good Game, with Good Rules, will attract Good Players, and the backward process is also valid, Good Players and Good Rules will enhance the Quality of the Game. This approach calls for all parties to adopt an SD approach aiming to achieve the SDGs. In parallel, it represents an opening for consideration of the existing rules and enforcement mechanisms, to question them, and accepting using new ones.



Example 7: To develop Parque das Nações, rules of the game had to be approved at the Portuguese parliament namely to allow the development company to have the authority of managing the zoning and permitting required to transform the land in a way foreign investment would be attracted. Considering FDI as key players and considering existing rules were inappropriate institutional innovation was applied.

Tool 8 _ The Round Table Approach

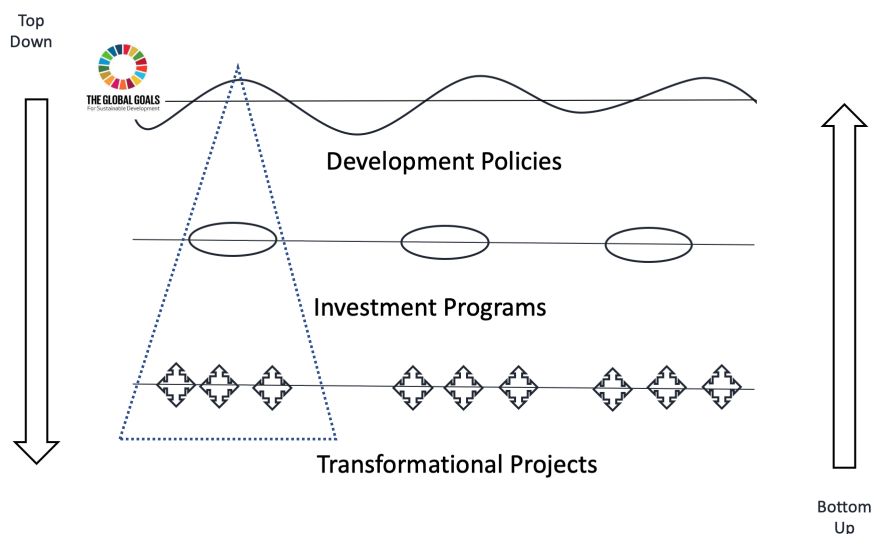
Step 8 results from using the previous tool and consists of adopting a round table approach. Inspired on King Arthur's spirit of having a table with no head and were all invited will be heard. This means embracing formal representation from the stakeholders involved in the urban development, at multiple decision-making levels, interdisciplinary, multi-sectorial approach, involving the public sector at central and local administration, the private sector including developers, investors and lenders, the civil society and the academy. This round table approach should also be iterative and interactive, meaning that the process is flexible and evolves based on data received from the field.



Example 8: Parque Expo during the development phase was also a living example of an ongoing roundtable approach. The SOE SPV, was in constant contact with the municipality, with the academy, with developers, with capital providers, as well as with civil society, to continuously improve the attraction of the city to all stakeholders.

Tool 9 _ Multi Level Approach

Step 9 is to grow from the Project and Program perspectives into the development policy level. This means that projects are organized into program approach to ensure its economic and financial sustainability. In the same way, programs have to follow a development policy (described by the triangle below). This represents a bottom up approach at multiple levels. The same happens with a top down approach. Policies will generate programs that will be implemented through transformational projects. The Multi-Level Approach asks for information to circulate from the top and the bottom simultaneously to ensure alignment between all levels of decision makers, and therefore to enhance the chances of obtaining the desired outputs, outcomes and impacts. This leads to predictability vital for attracting investors.



Example 9: using the Parque das Nações example, groups of projects were developed under the mobility program comprehending: roads, metro-line, railway station, parking lots. The mobility program with the utilities, and social infrastructure were part of an urban development policy defined for the area. As the new city evolved and new products were considered necessary, such as 5star hotels, the urban policy was adapted, and new projects were developed.

Tool 10 _ Virtuous Sustainable Urban Development Cycle

Step 10 is to demonstrate that the investment is being done at the right place. Everyone likes to be involved in successful projects. It is therefore essential that the narrative about one project is involved with a positive context, one where investors understand the future will be positive because there is a positive business environment around the program. This means that there is a coherent a development policy that leads to social cohesion, to protecting the planet, and to economic growth, and therefore, to a Virtuous Sustainable Urban Development Cycle.



Example 10: Parque das Nações has generated this virtuous development cycle. The starting point was a clear vision about the future, aligned with SD. There were many projects for investors to choose, different sizes, different sectors but all part of a common program. There was a clear complementarity between public and private investment. The Saw Curve demonstrated that the public sector was investing on the cash negative projects with capital raised from the cash positive ones. The projects generated the business environment, for companies to move in the city creating new jobs. For all these reasons, the program was perceived as an example of people, planet and prosperity, with clear rules and open to multiple and diverse type of partnerships, which generated a virtuous cycle to take place.