Connecting Integrated Financial Management Information System (IFMIS) with Public Investment Management (PIM) System for better fiscal management of Public Investments

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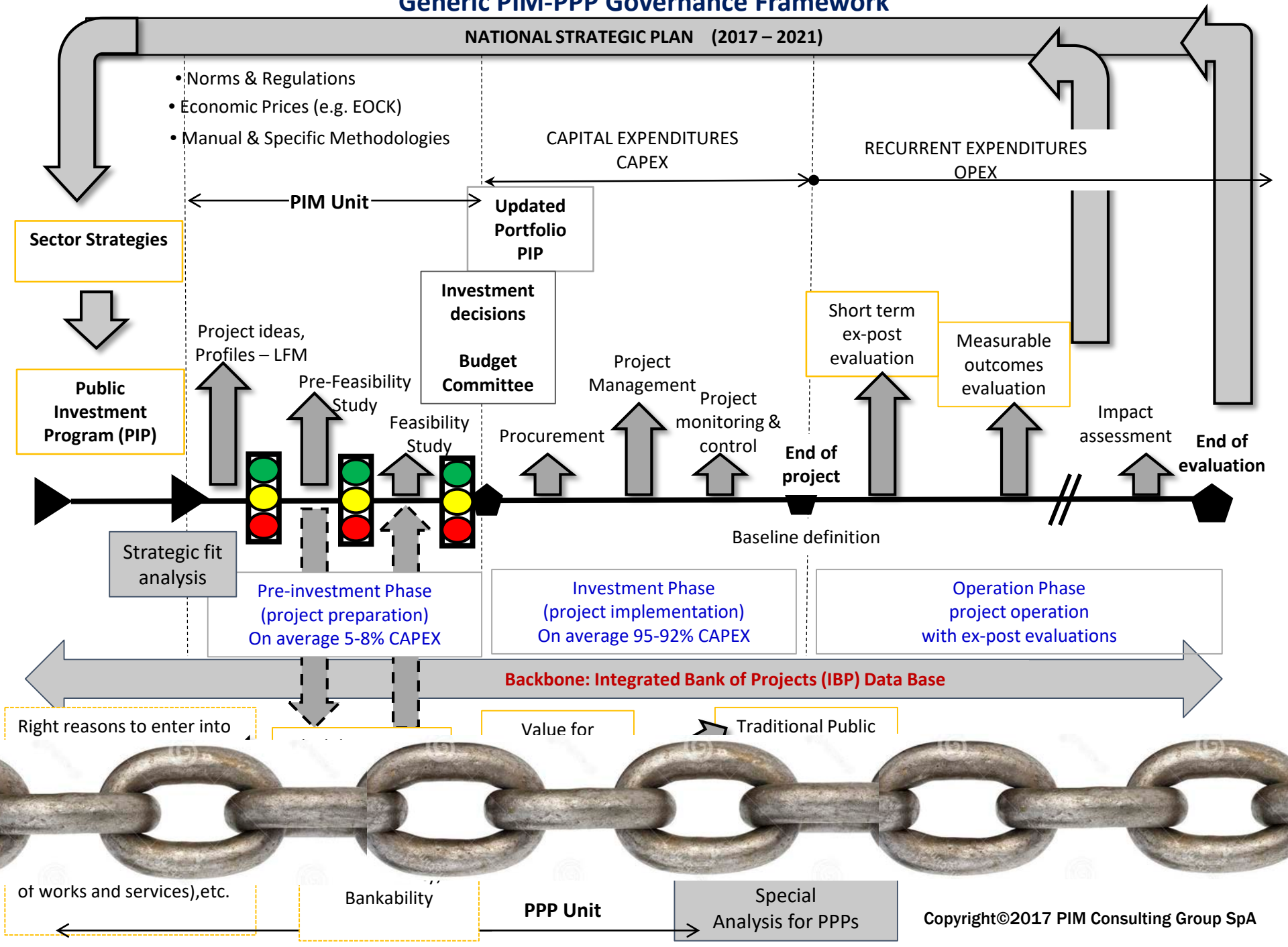
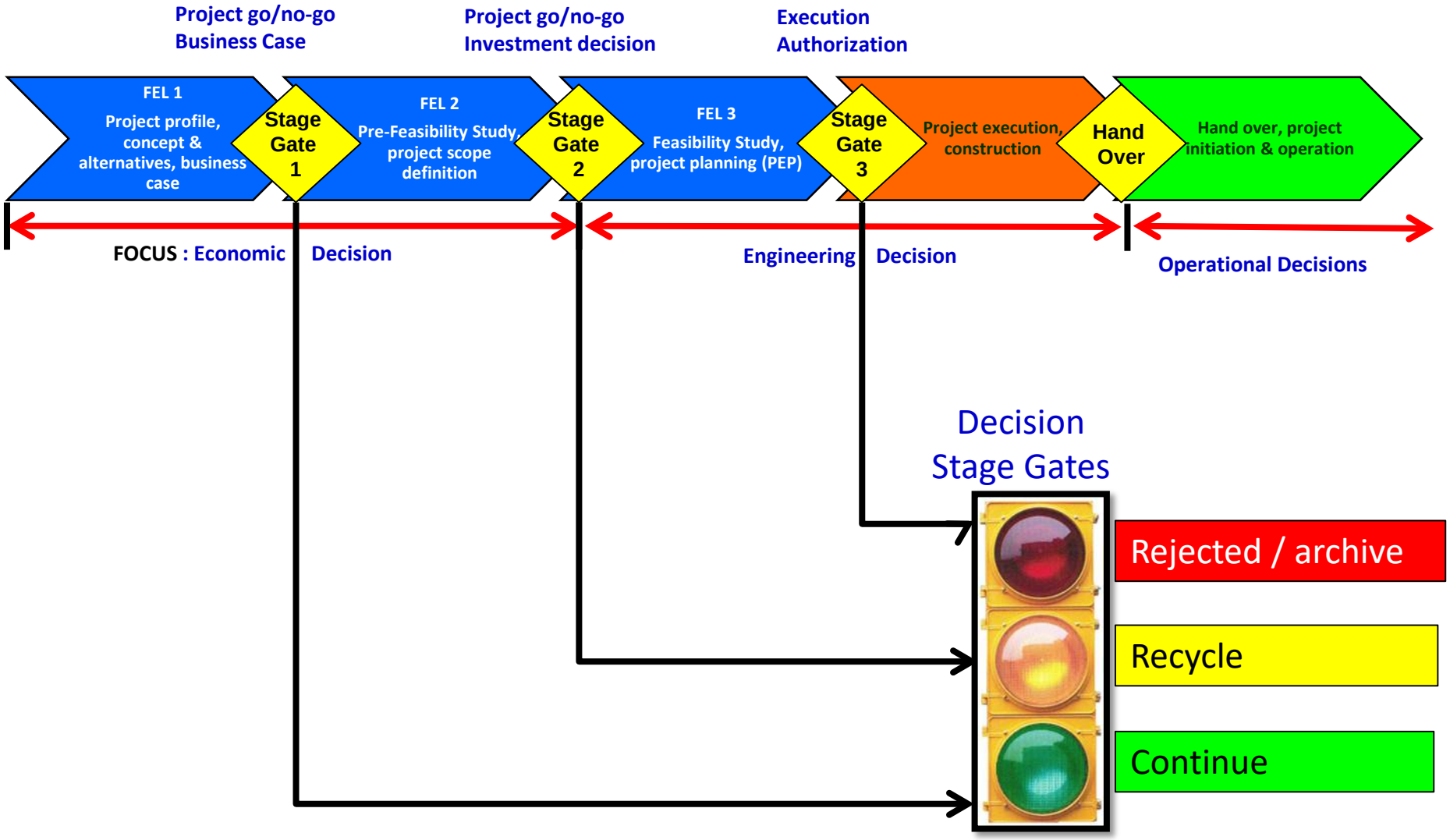
Generic PIM-PPP Governance Framework

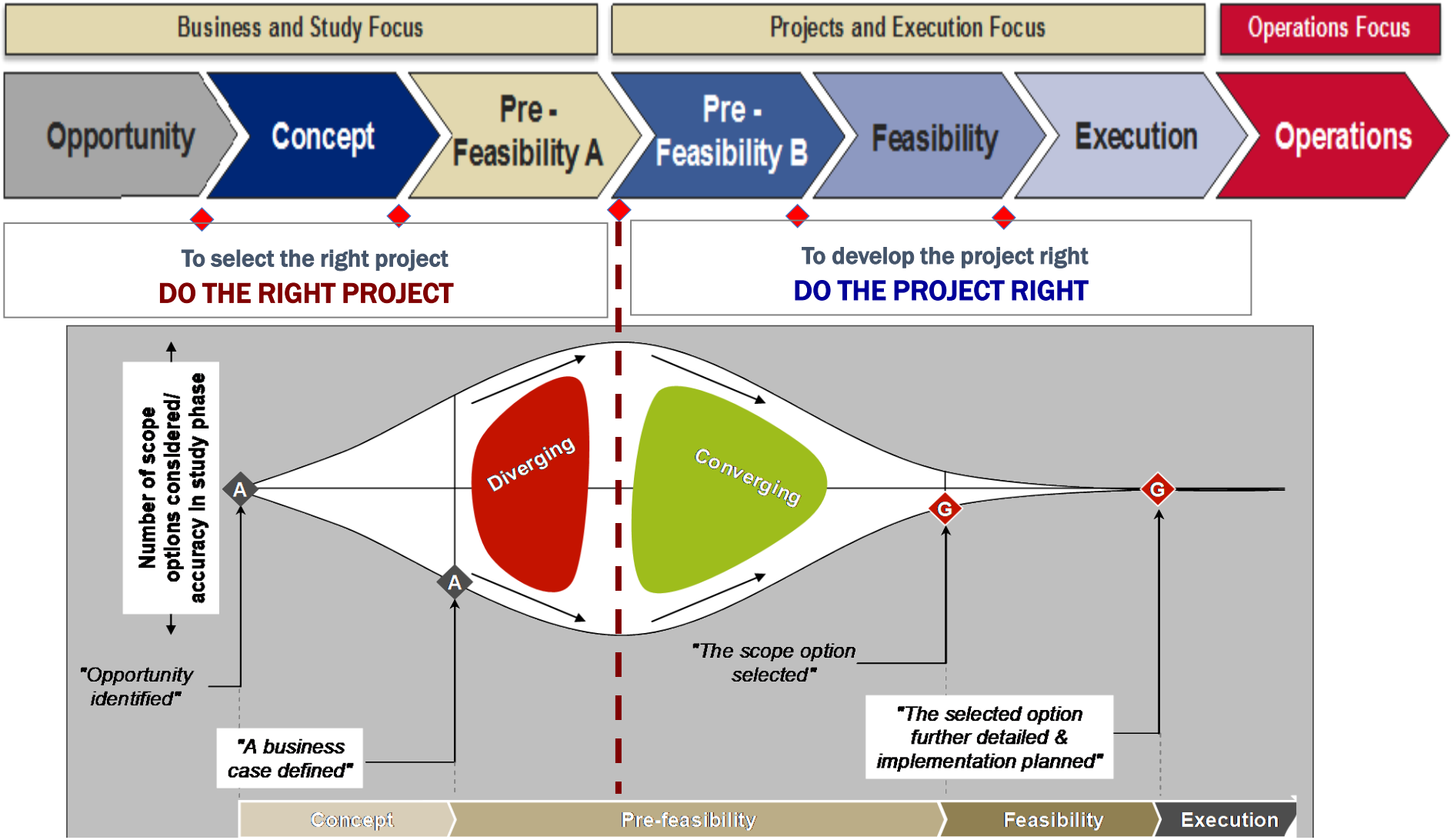


Capital Project Cycle

FEL - Stage Gate System and the Project Cycle



The current tendency to design projects



Tendency: To approve project execution phase counting with more advanced engineering design

STATE INSTITUTIONS WHO ARE INVOLVED IN THE PIM AND ES

The Finance Ministry and the Office of the Budget, pro nage the PIM System. Those regulations and rules allow a ifferent public institutions in the investment process, ea

The only way to work in coordination is through a Computer System – IBP

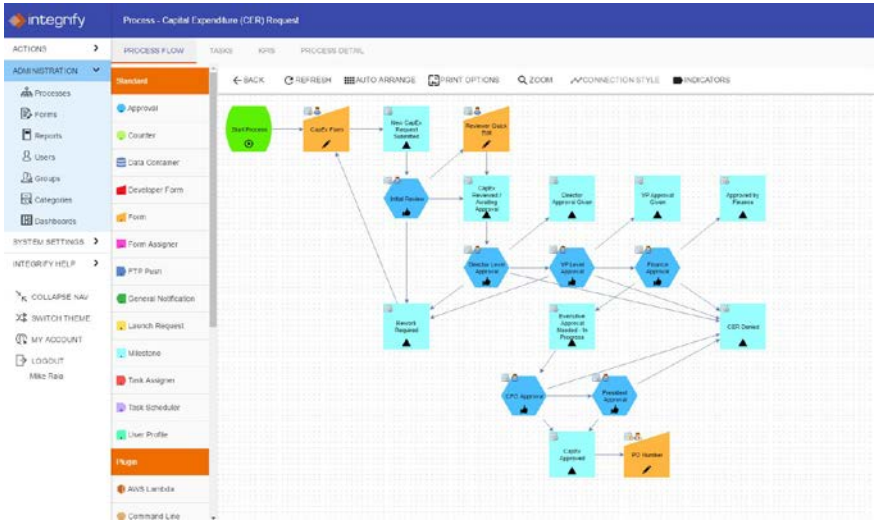
(**KEY**: never loose sight of the **Project** File)

Promoting agency	d,
Project Form	ecessity into an
	criteria to guarantee the highest eturn. This responsibility falls into the lanning and its provincial offices
F	is the entity providing the pecuniary resources
Techn	In charge of construction and setting up the project
Operating	In charge of maintenance and continuation of the project, its challenge is to produce the NPV(e)

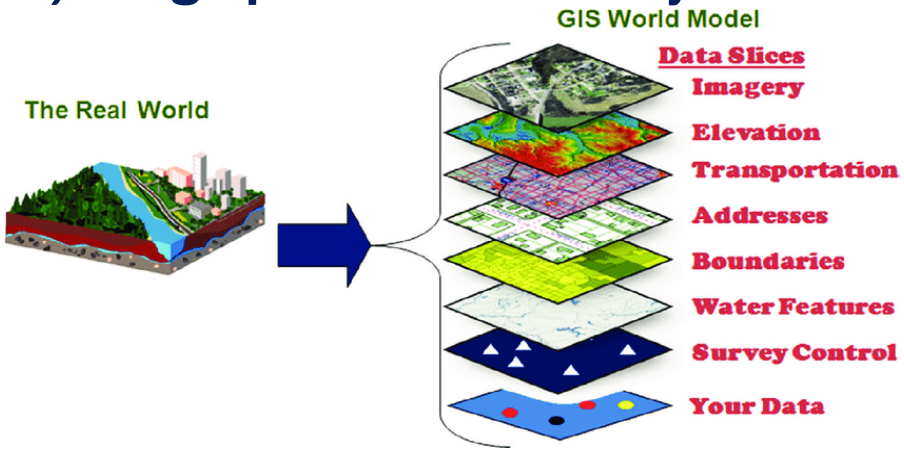
The Integrated Bank of Projects – IBP
4 functionalities

1) Data Base (relational)

2) Workflow management



4) Geographic Information System



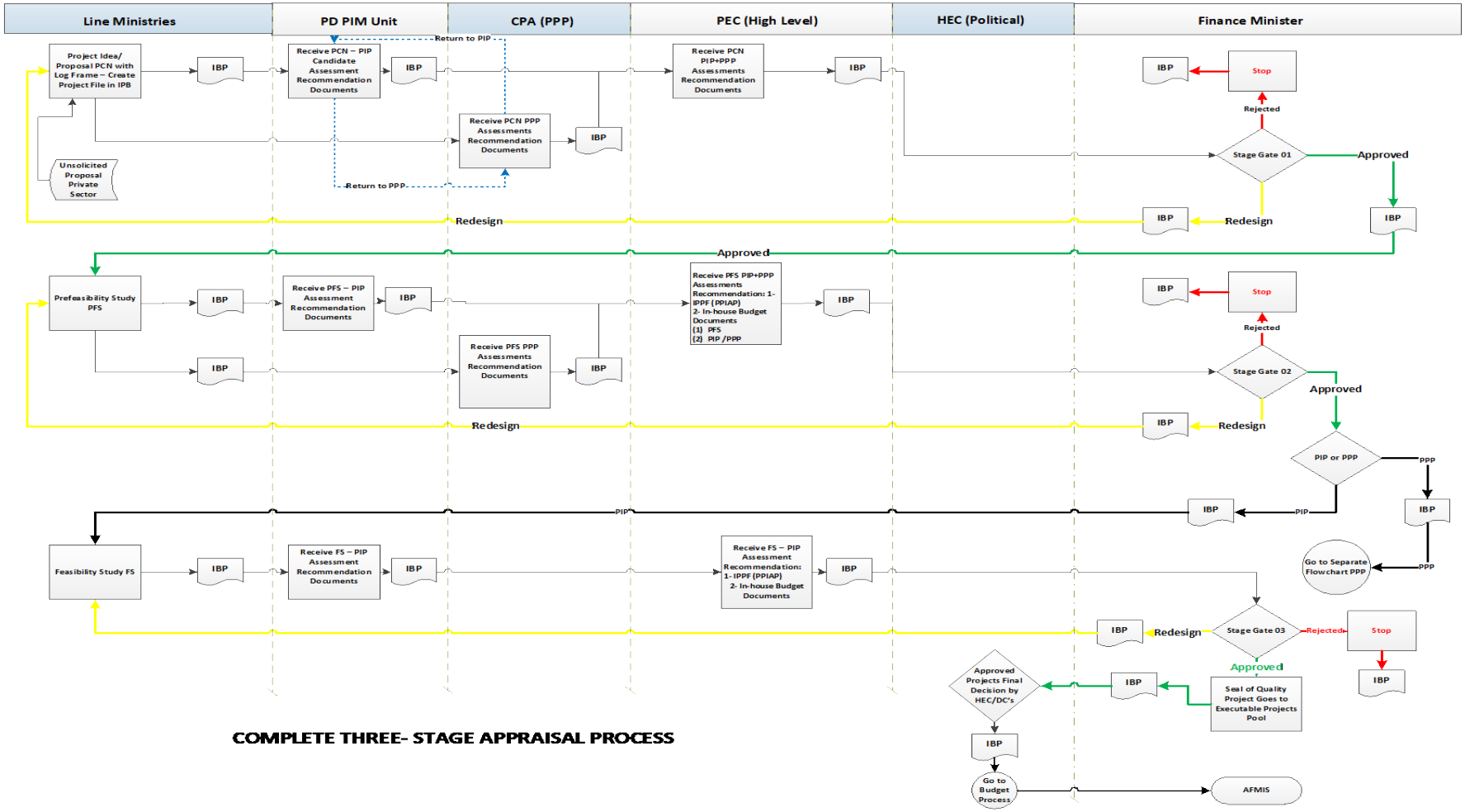
3) Document management

1) Relational Database

- Relational Database Management Systems (RDBMS) use complex algorithms that support multiple concurrent user access to the database, while maintaining data integrity
- Security management, which enforces policy-based access, is yet another overlay service that the RDBMS provides for the basic database as it is used in enterprise settings
- The relational database model is naturally scalable and extensible, providing a flexible structure to meet changing requirements and increasing amounts of data.
- The relational model permits changes to a database structure to be implemented easily without impacting the data or the rest of the database

2) Process Workflow Management

- The entire PIM business process workflow must be mirrored into the IBP



COMPLETE THREE- STAGE APPRAISAL PROCESS

3) Document Management System

By Document Management it is understood:

- A set of technical standards and practices used to manage the flow of documents of all kinds, within one organization or multiple organizations
- That it allows information retrieval from them, determines for how long documents should be saved and maintained
- It eliminates or purges those documents that no longer serve and ensure indefinite conservation of the most valuable documents
- Applying for this, the principles of rationalization and economics

3) Document Management System

Currently, several document management systems may coexist: from the simple manual registration of incoming and outgoing mail, to a paperless sophisticated computer systems that:

- Handles administrative documentation in electronic format
- Controls the workflow of the process of processing the files
- Captures information from production, accounting and other databases
- Links with the content of files, libraries, documentation centers
- Document management systems allow sophisticated searches and retrieval of information from anywhere

3) Document Management System

A document management system usually refers to the following areas:

- **Storage:** Where will we store our documents? How much can we pay to store them?
- **Recovery:** How can people find the necessary documents? How much time can you spend looking for them? What technological options are available for quick recovery?
- **Classification:** How do we organize our documents? How do we ensure that documents are archived following the most appropriate system?
- **Security:** How do we avoid the loss of documents, avoid the violation of information or the unwanted destruction of documents? How do we keep critical information hidden from who should not have access to it?

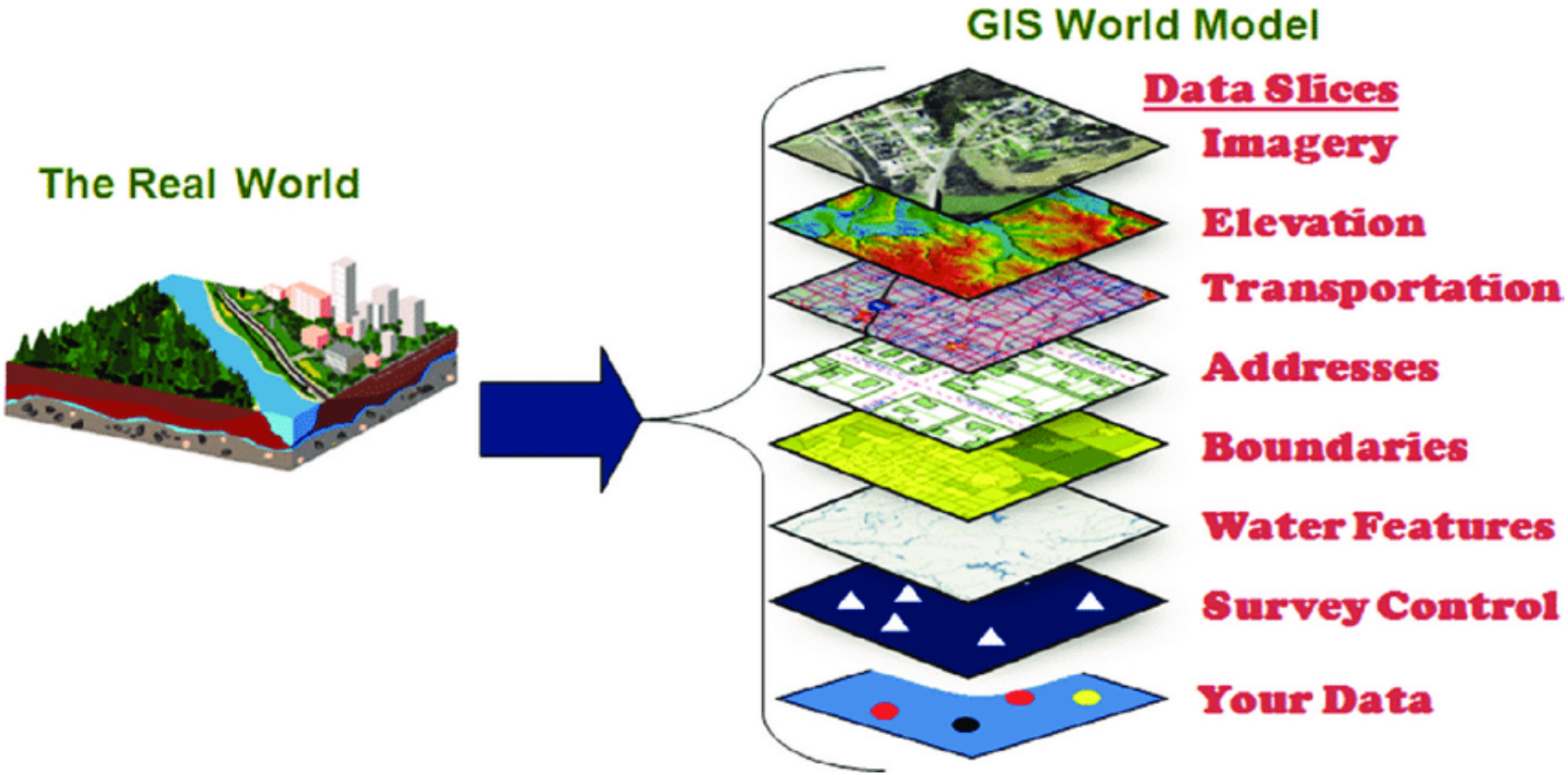
3) Document Management System

A document management system usually refers to the following areas: (continuation)

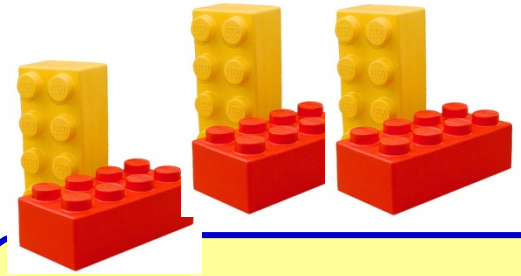
- **Custody** How do we decide which documents to keep? How long should they be saved? How do we proceed with its elimination (document purge)?
- **Distribution** How do we distribute documents to the people who need it? How long can we take to distribute the documents?
- **Workflow** If the documents need to be passed from one person to another, what are the rules for the flow of these documents?
- **Creation** If more than one person is involved in creating or modifying a document, how can they coordinate & collaborate in those tasks?
- **Authentication** How do we provide the necessary requirements for legal validation to the government and private industry about the originality of the documents and meet their standards for authentication?

4) Geographic Information System

- In some countries the IBP allows to have even a 360-degree street view of each project

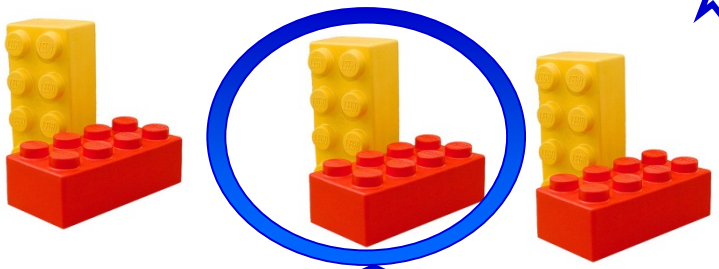


Interaction between the PIM & IFMIS



1.- Sub-system: Technical Economical Analysis
(Basic Investment Statistics System)

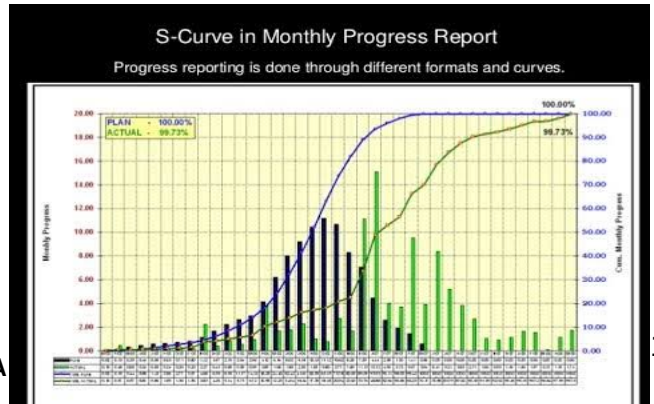
2.- Sub-system: Annual & Multi-annual Capital Budget Formulation



PIM

3.- Sub-system: Annual Budget Execution (Rewards and penalties)

4.- Sub-system: Ex-Post Evaluation (feedback & quality control)



Courses in Project Preparation and Evaluation

The I.B.P is NOT a computer system, it is a system based on 3,000 professionals (in Chile) who know how to prepare projects and evaluate projects

This is the biggest investment a country has to do in order to make this work

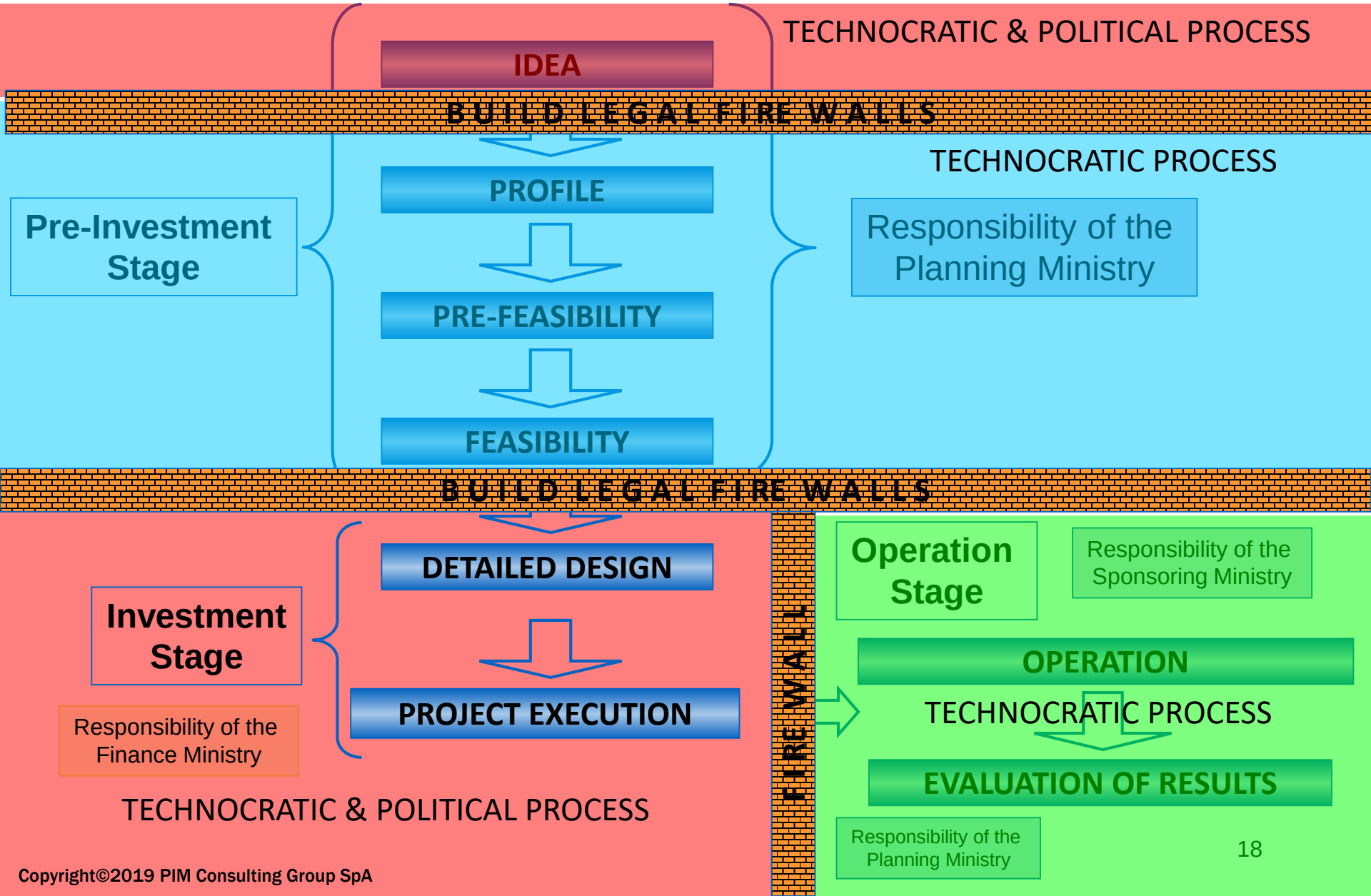
PIM Systems in Latin America

http://www.cepal.org/cgi-bin/getprod.asp?xml=/ilpes/noticias/paginas/6/52956/P52956.xml&base=/tpl/blanco.xsl

In 2014 the 16 member countries of the PIM Sistems network were:

- Argentina
- Bolivia
- Chile
- Colombia
- Costa Rica
- Ecuador
- El Salvador
- Guatemala
- Honduras
- México
- Nicaragua
- Panamá
- Paraguay
- Perú
- República Dominicana y
- Uruguay

Politics vs Technocracy in the life-cycle of projects



LEGITIMACY OF THE PIM SYSTEM

Through time the PIM System has achieved a high level of legitimacy in 4 dimensions :

- **TECHNICAL- ECONOMICAL DIMENSION** due to its success in filtering the bad and finding the best projects among 0.5 million alternatives that are revolving in the data base. This gain in efficiency has helped to solve more social demands with the limited, available public funds
- **ETHIC DIMENSION** for the increasing transparency and availability of contemporary information regarding the public investment process. Any project in the Integrated Bank of Projects has been made public through the Internet.
- **DEMOCRATIC DIMENSION** for the increasing participation of civil society in the discussion of investment decisions process. Private and non-governmental organizations may also propose and formulate investment projects, but they must coordinate through the Provincial or Local governments in order for them to apply indirectly for public funding
- **POLITICAL DIMENSION** for the coordination of government policies and strategies, the political negotiation between Executive and Legislative Branch

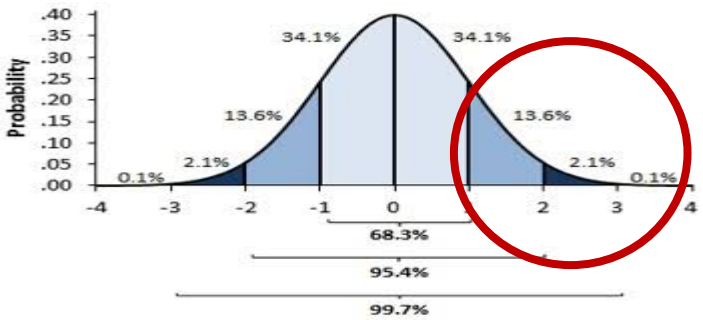

Protest
Conflict
Crisis
Unrest
Civil disobedience
Vandalism
Roadblocks
Fragility
Narco-terrorism
Anarchism
Anger
Poverty
Algeria
Bolivia
Britain
Catalonia
Colombia
Chile
Ecuador
France
Guinea
Haiti
Honduras
Hong-Kong
Iraq
Kazakhstan
Lebanon
Pakistan
And
counting.....
Limits of Technocracy
Case of CHILE
Oct 2019
Conspiracy Theories
Social media
Encrypted messaging

Inequality changes in per-capita income in different segments between 1990 and 2015 (USD at PPP, 2015)

Chile 1990 - 2015	Redistribution Effect	Growth Effect	Total Compounded Effect
Top 10 %	- 19.1 %	280 %	208%
Top 20 %	-14.2 %	280 %	226 %
Second 20 %	+ 13.9 %	280 %	333 %
Middle 20 %	+26.2 %	280 %	380 %
Fourth 20 %	34.8 %	280 %	413 %
Bottom 20 %	+41.2 %	280 %	437 %
Bottom 10 %	+41.7 %	280 %	439 %

Source: IMF & TWB

Satisfaction = (Perception of performance) - Expectations



Perception of Fairness

Inequality

- Top 10% Richest salaries is 39 times the salary of the bottom 10% poorest
- The salary of legislators (i.e. senators and reps.) is 50 times the salary of the bottom 10% poorest
- If the Bottom 10% Poorest salary is 1

Behavioral Economics
Dr. Richard Thaler (Economics Nobel Prize Winner 2017)

All human beings (rich or poor) have a preference for Justice, before a preference for Money. The "ultimatum exercise" showed:

If we receive less that 10% of a given wealth to be distributed, we start feeling so agitated that we start destroying wealth …

ERGO : There is a limit !

A minimal perception of Justice is necessary to secure peace and to have productivity and prosperity

Integrated Project Evaluation General Relationship

$$NPV^{ECON}_{eco.dr} = NPV^{FIN}_{eco.dr} + \sum PV^{EXT}_{eco.dr}$$

It holds when all benefits and costs are discounted using same discount rate (i.e. economic discount rate = opportunity cost of public funds)

Project appraisal must not contribute to UNFAIRNESS.
The stakeholder analysis -created by Profs. Harberger and Jenkins- must be adopted.

Who wins and Who looses with a project and by how much.
And, how losers are going to be fairly compensated by the winners

Lessons learned

In retrospect we went too far in Chile. We left almost no space for politics in investment decision making. Too rigid rules about having only positive NPV projects, automatic algorithms calculating rates, all contracts pegged to inflation.

When in fact -we know- that there are certain intangible benefits that can not be monetized in our resources flow calculation

What is the shadow price of Dignity and Respect ?

Engineering Joke

Thank you !

Questions?

Contact Details

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Presenter

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Ph.D(c) in Public Policy at University of Birmingham, UK. Master in Public Policy at Harvard University, Executive-MBA at UAI, and Civil Engineer from the University of Chile.