



Capacity Building Workshop

Best Practices of Project Management

Farhad Abdollahyan

Acílio Marinello

Practical Thinking Consultants

Who are we?

UNOPS is a central resource for the United Nations system in sustainable Project Management, Infrastructure and Procurement management, including the related capacity development activities

Over 6,500
employees

Headquarters
Copenhagen
Denmark

5 Regional
Offices

24 Hubs,
Operations
and Project
Centers

Over a
thousand
projects
annually

Activities in
more than 80
countries

Workshop Objectives and Outcomes

Part of a Capacity Building Program led by UNOPS Infrastructure and Project Management Group to foster better understanding about Project Management aspects and benefits

Over 35 editions
More than 1500 participants

Africa
Asia
Europe
North America
Latin America
Middle East

Understand the difference between projects and other works

The value you can get from managing your projects better

Basic steps of the planning process

Bring the results of the simulation exercise to the real projects

What is
Project
Management

The Value of
Project
Management

Project
Lifecycle

Planning and
Executing a
Project

Results and
discussion

Final
messages

Start time: 10:00

Finish time: 18:00

Lunch: 13:00 to 14:30

Certificate

- All attendees will receive a UNOPS Certificate of attendance electronically through email after the course

Feedback

- Help UNOPS to improve this workshop

What is Project Management



**Why are we here to
talk about project
management?**

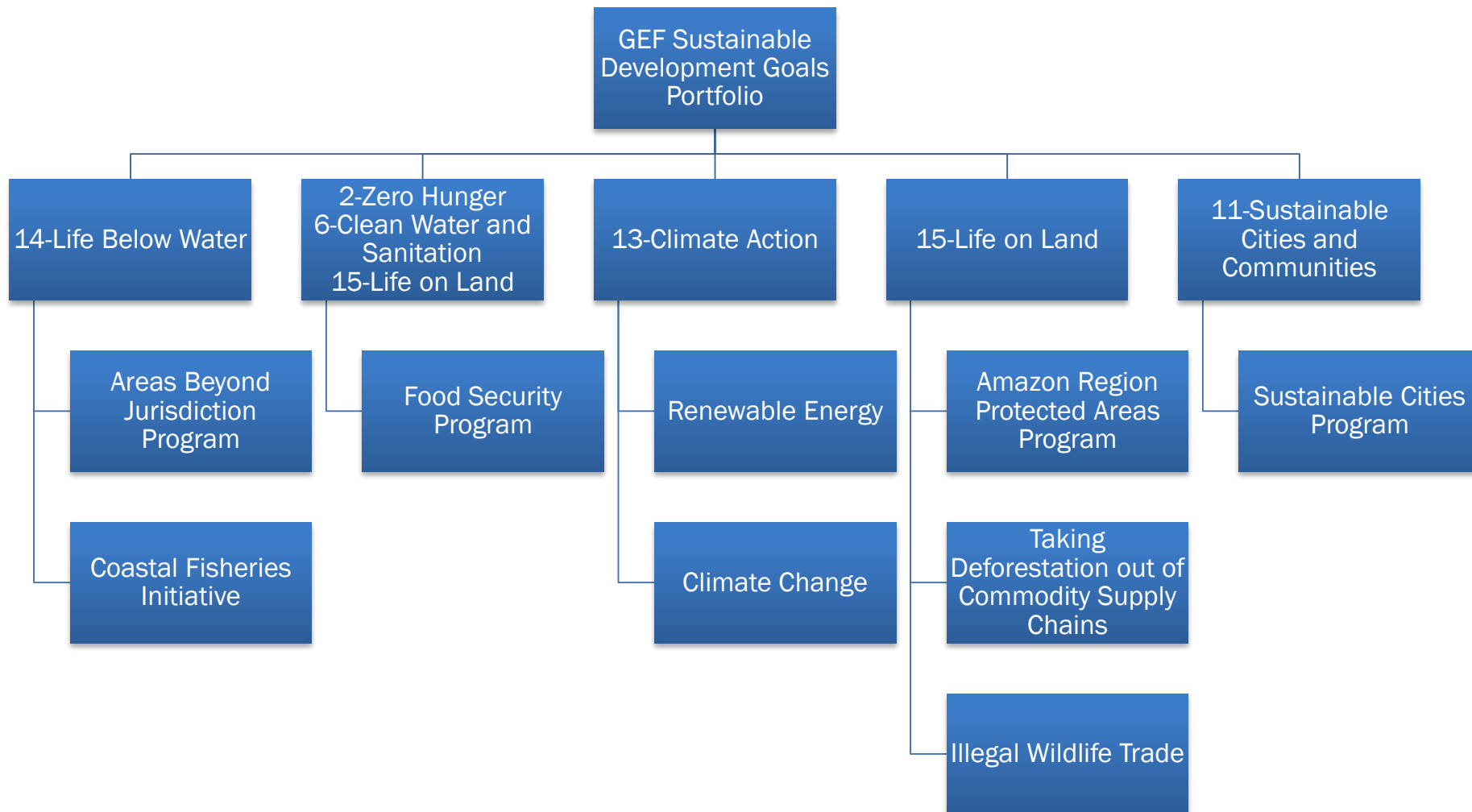
GEF 2020 Vision

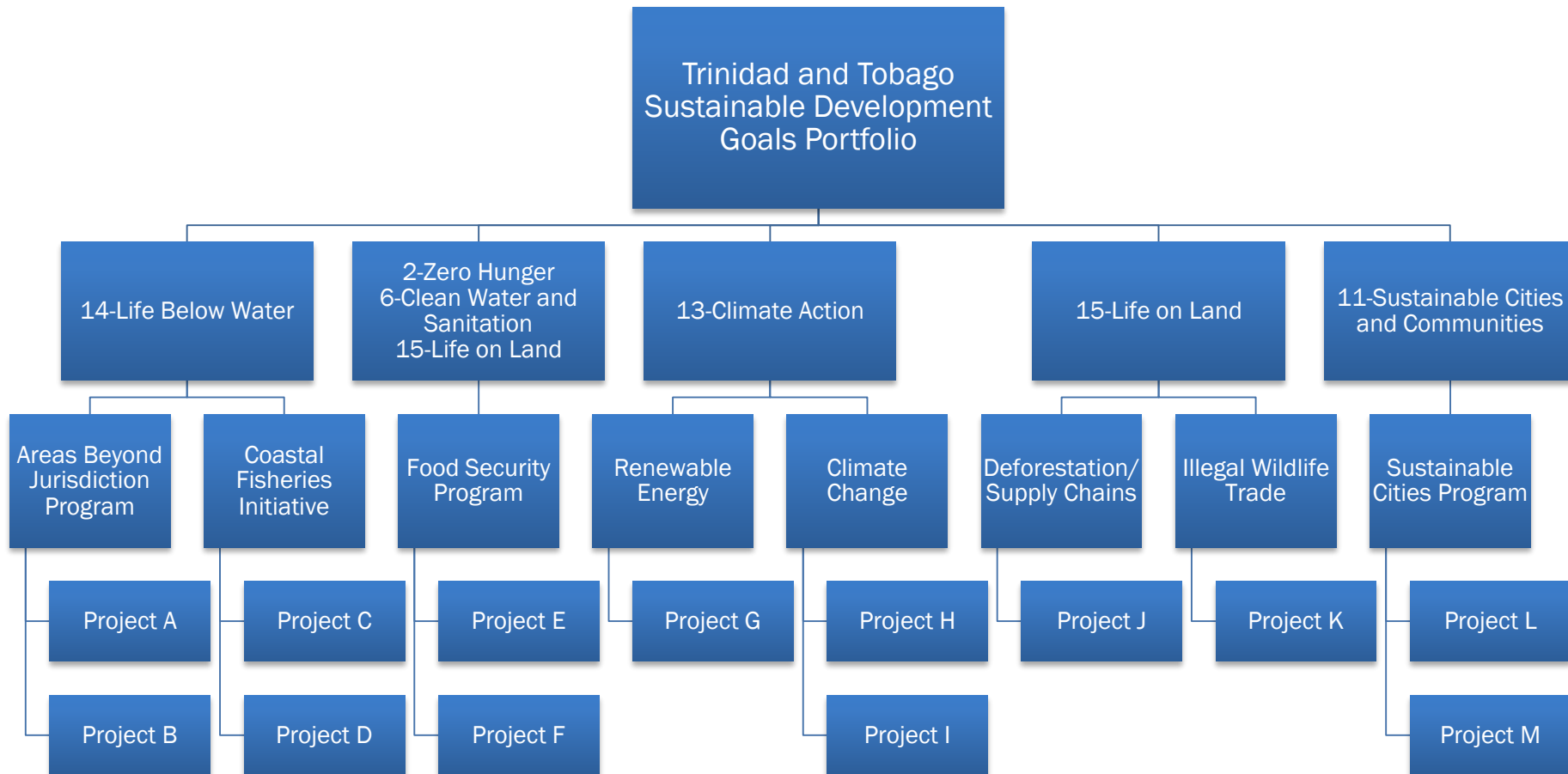
To be the champion of the global environment building on its role as financial mechanism of several multilateral environmental conventions, supporting transformational change, and achieving global environmental benefits on a larger scale.



GEF Key Strategic Priorities

Addressing drivers of environmental degradation
Delivering integrated solutions
Enhancing resilience and adaptation
Ensuring complementarity and synergies in the global financing architecture
Choosing the right influencing models





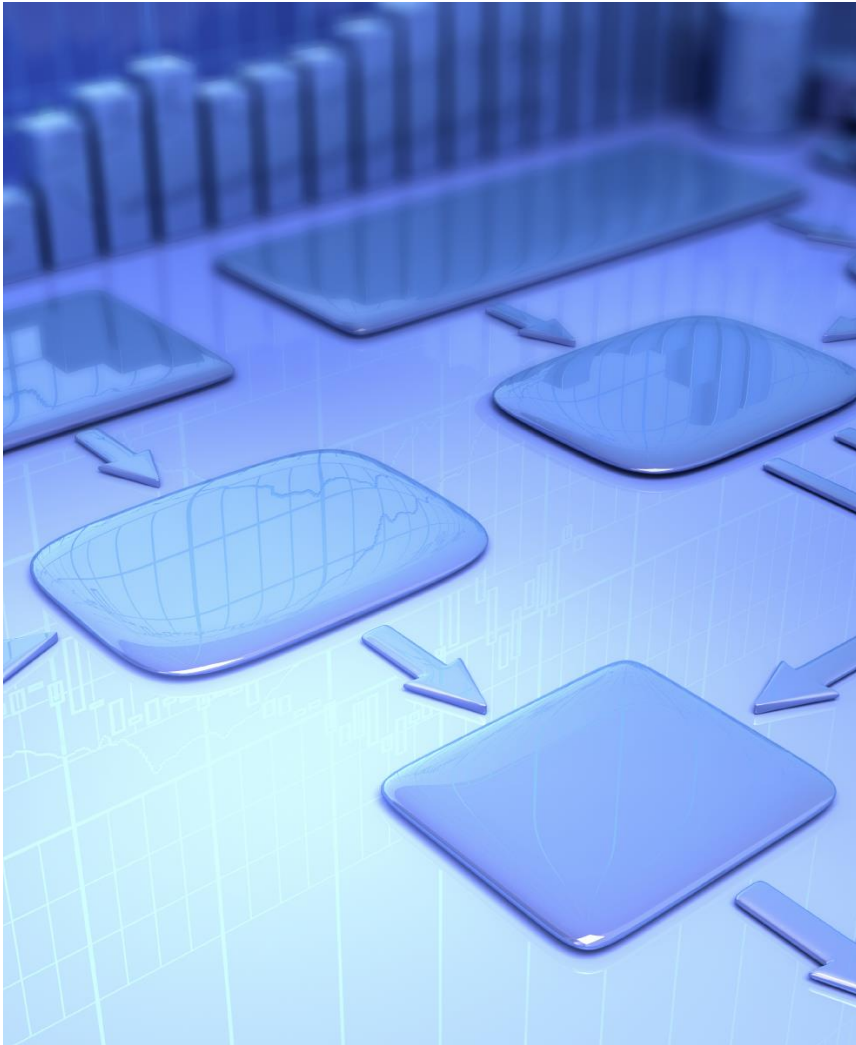
Temporary

- Has a specific end date!
- Can take 1 day, 1 year or 10 years
- Has a life cycle (start and finish date)

Unique

- It is something you do not do everyday!
- It requires a different approach to execute





Project Management is the application of knowledge, specific skills, tools, and techniques to project activities to meet the project requirements, in order to increase success rates.

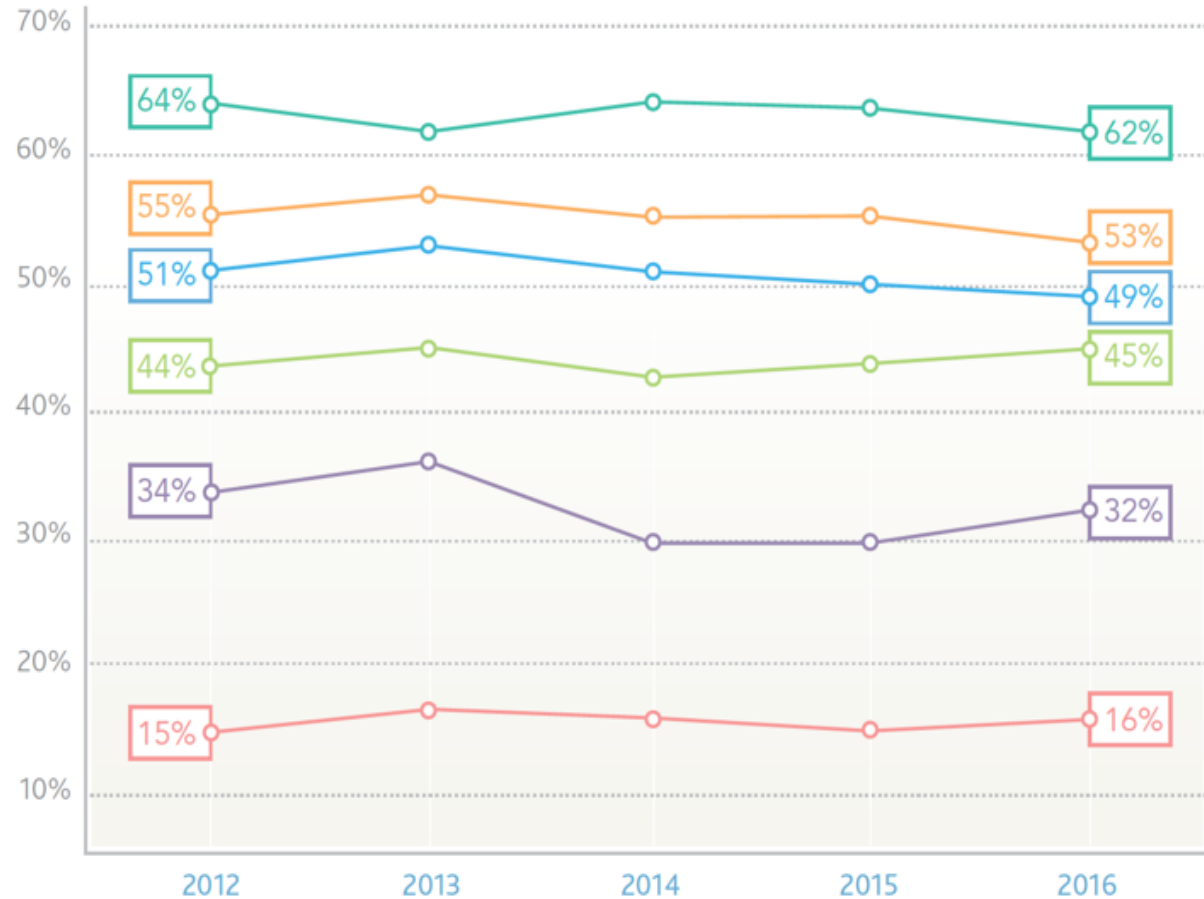
Manage/not manage a project is a personal and/or organizational decision

The Value of Project Management

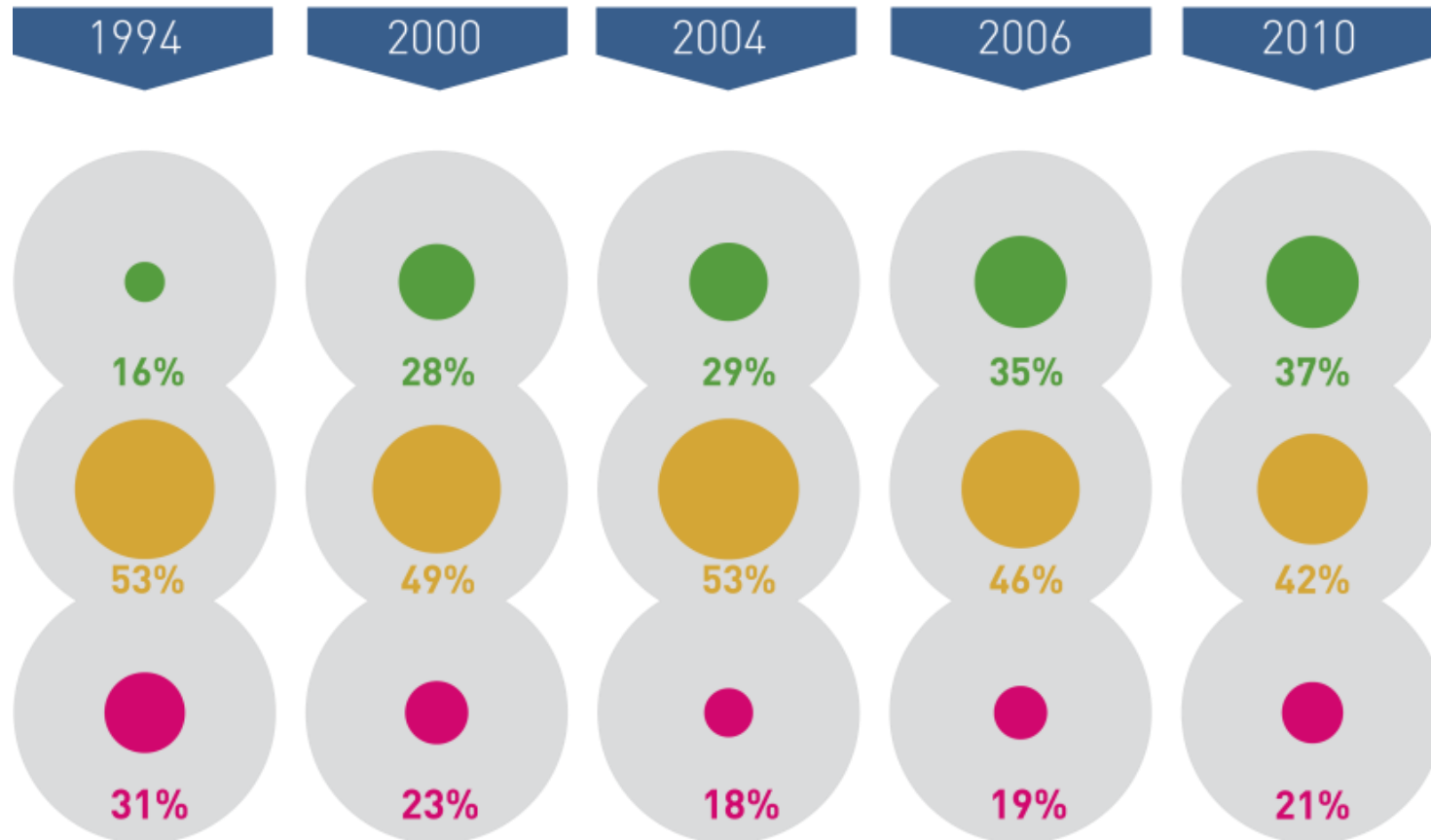
US\$109 million

The amount lost for every
US\$1 billion spent on projects

- Met original goals/business intent
- Completed within original budget
- Completed on time
- Experienced scope creep
- Failed project's budget lost
- Deemed failure

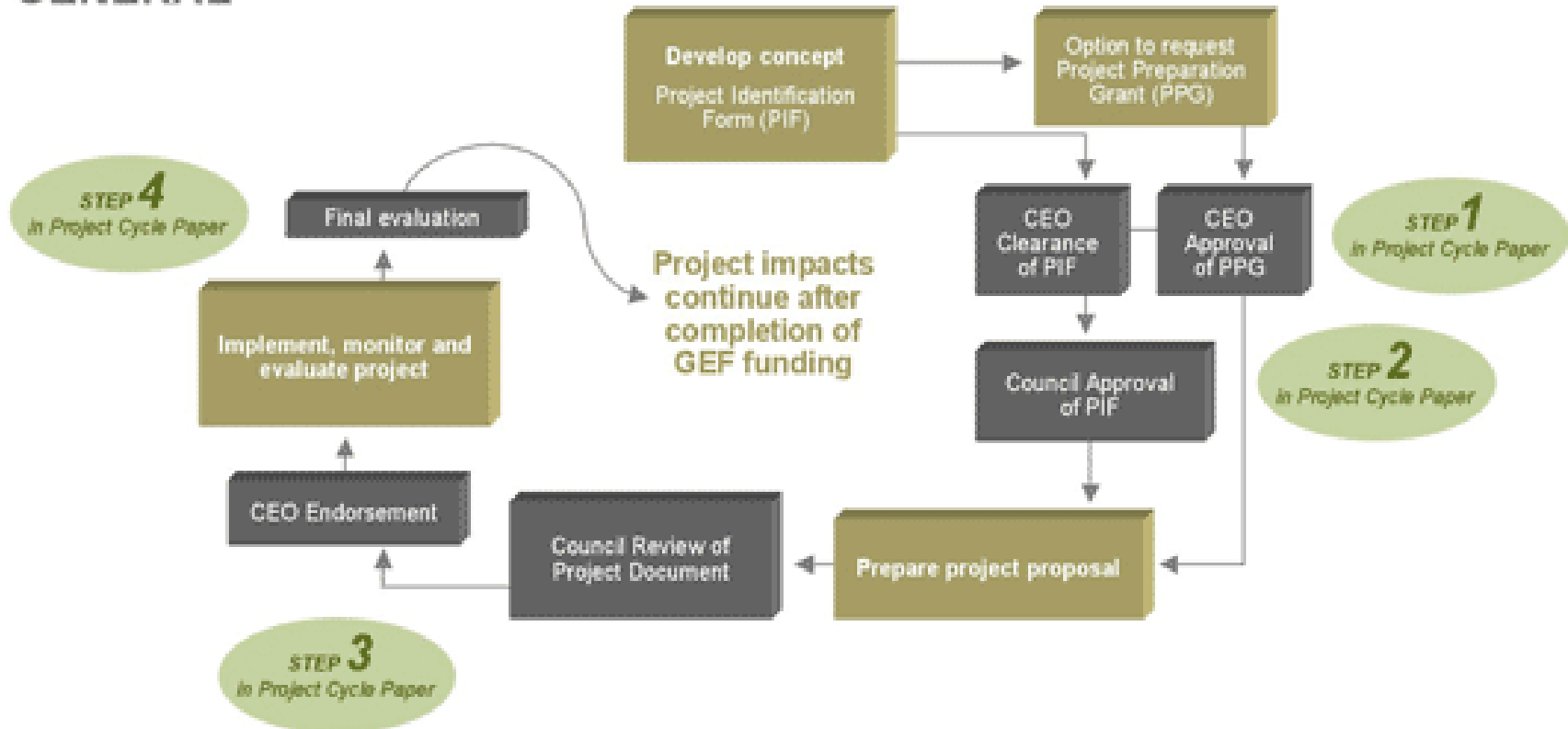


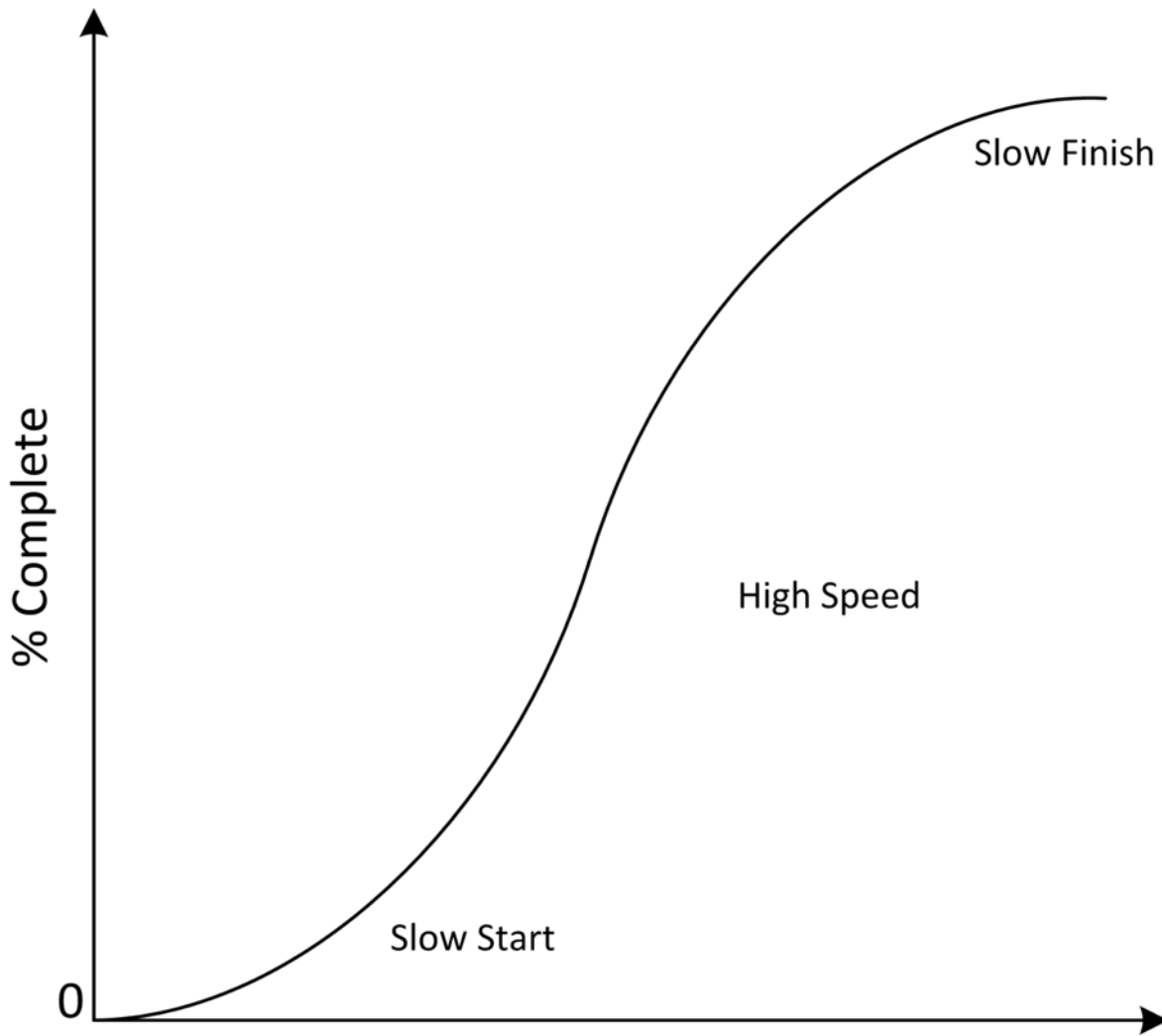
- Success
- Challenged
- Failed

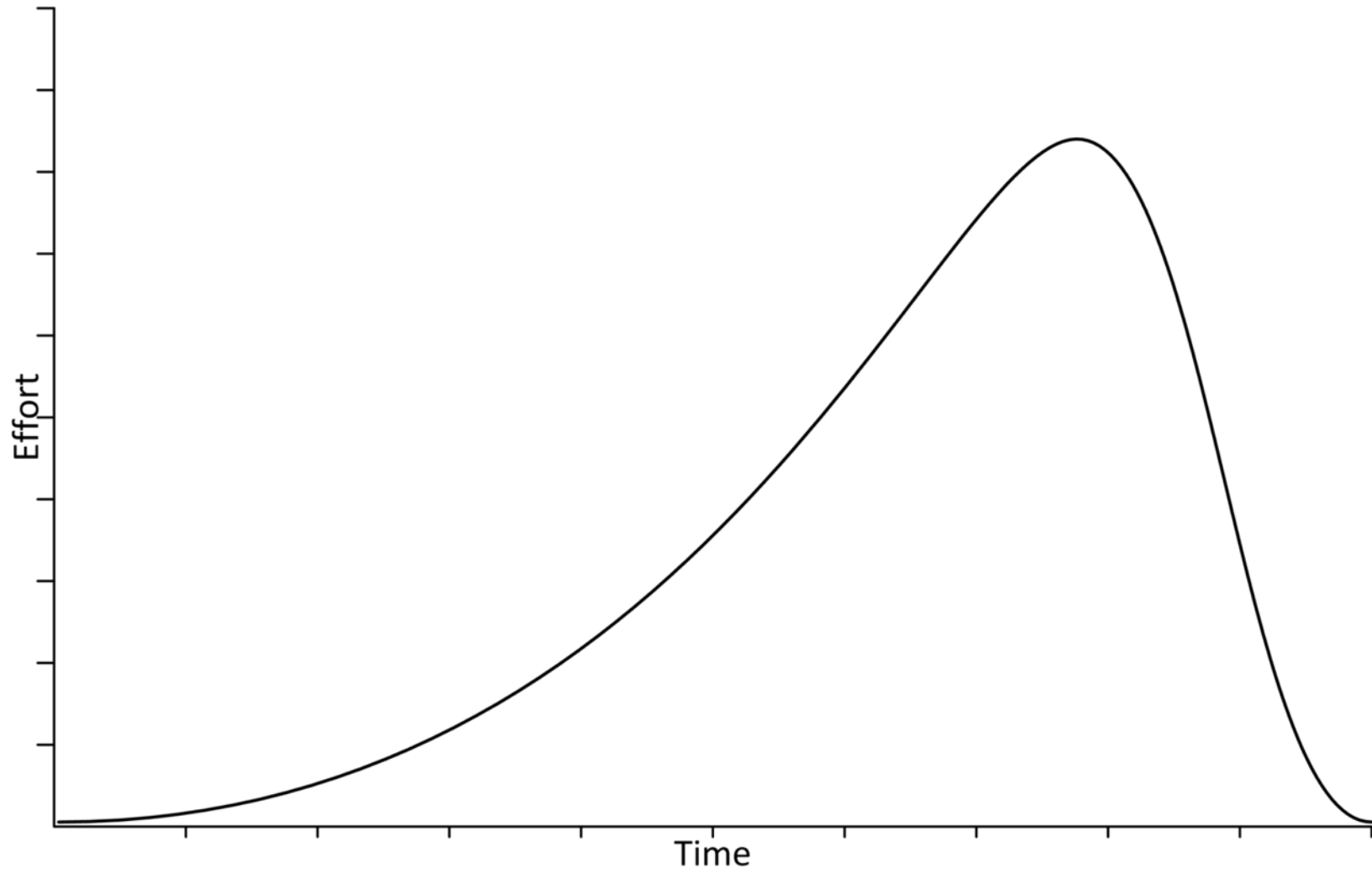


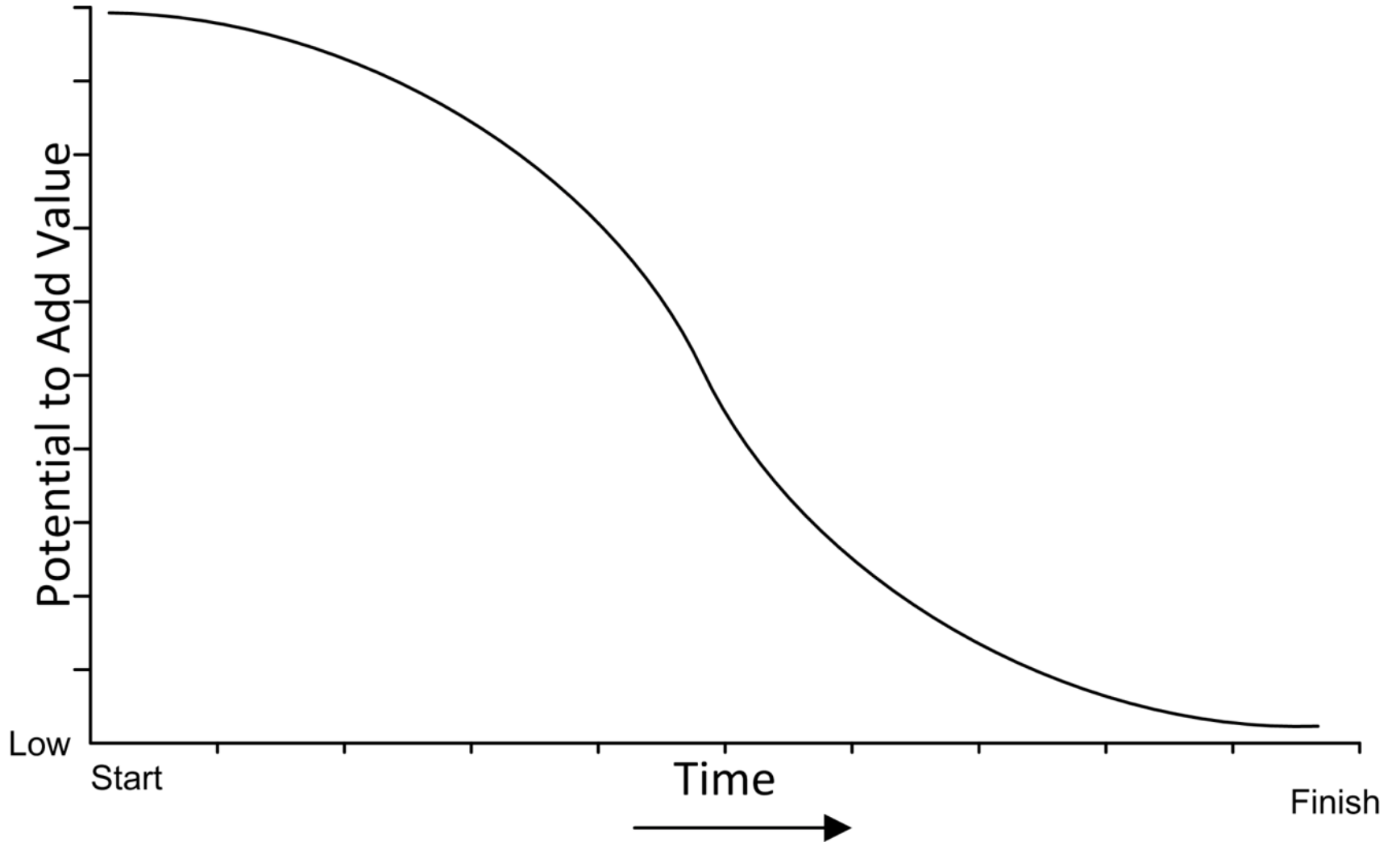
Project Life Cycle

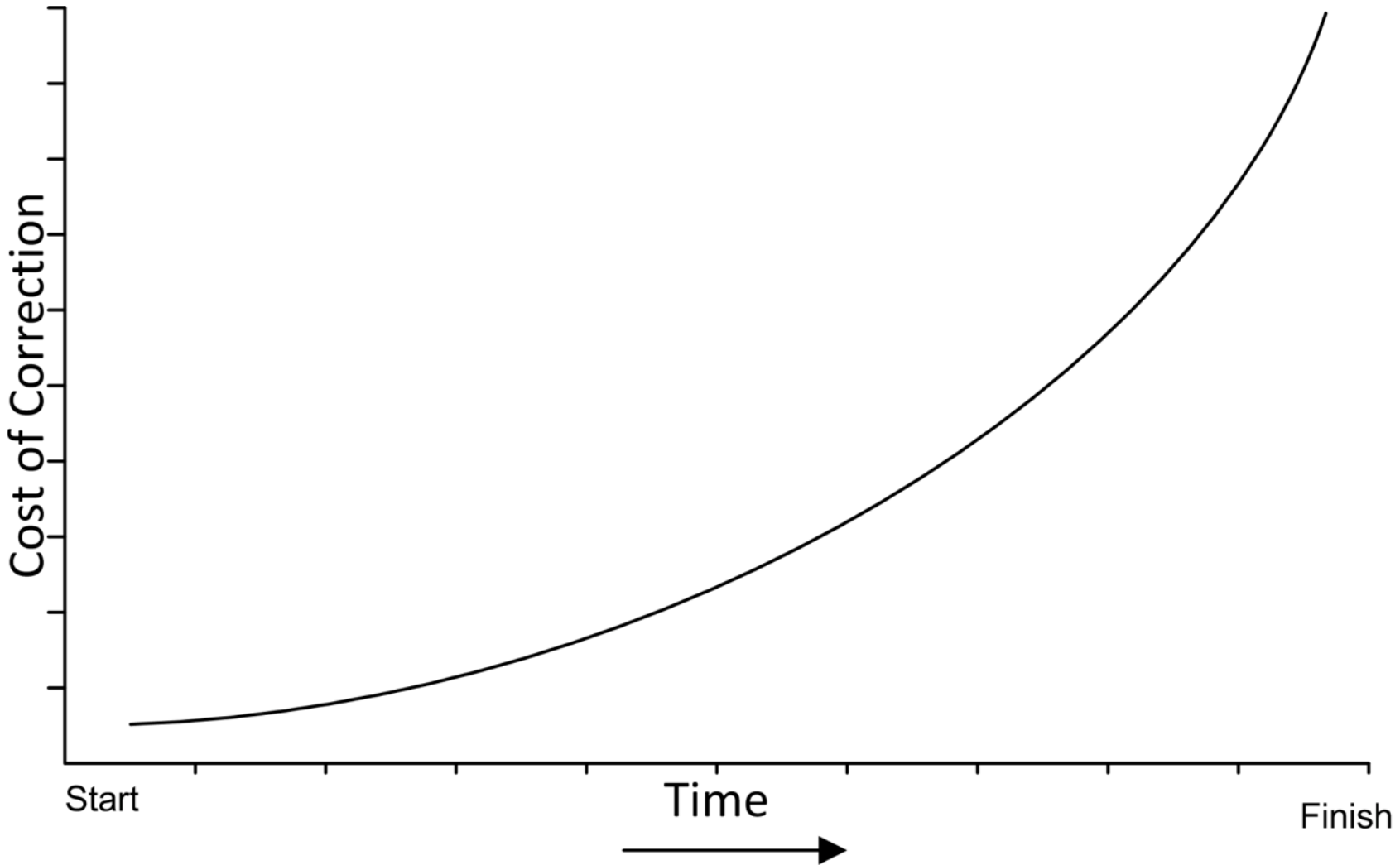
GENERAL

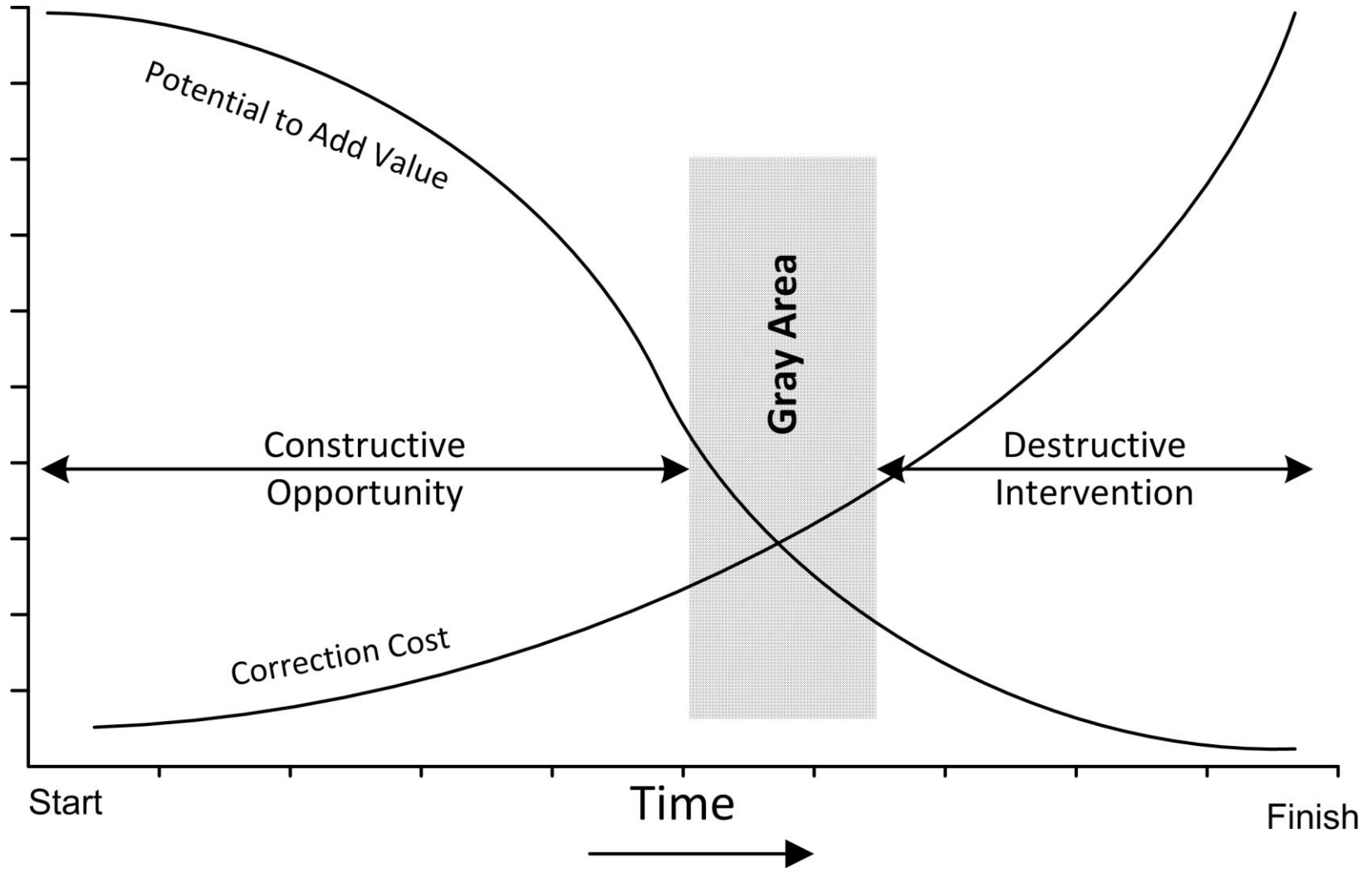












Planning & Executing a Project

Sustainable Bridge Simulation Exercise

Increase
success rate

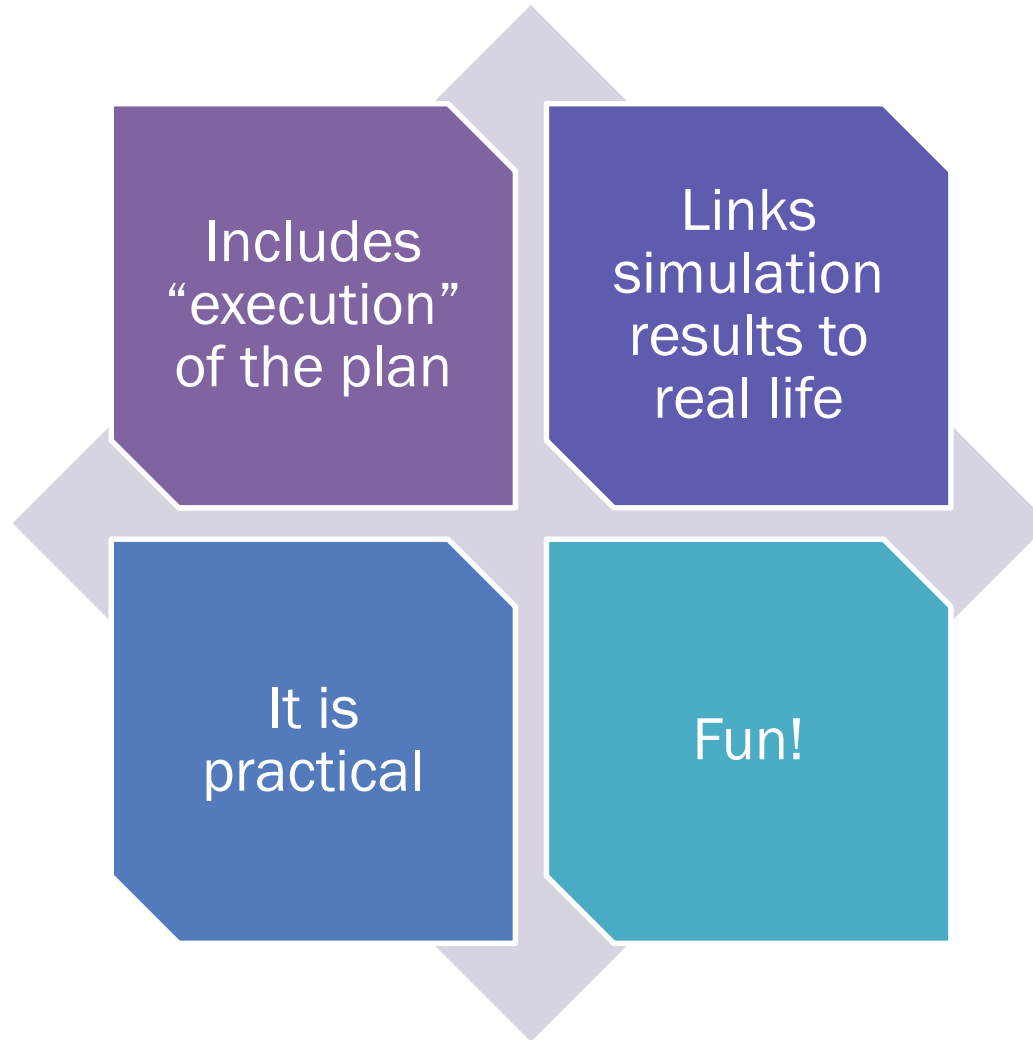
Reduce the
chances of
problems

Improve time
and cost
estimates

Increase
control

Optimize
resource
allocation

Reduce waste
(time, money,
resources)



Strategic
thinking

Teamwork

Haste makes
waste

Attention to
the rules

Team ethics



Sustainable Bridge Workshop

Over the last decades, the Government of Globalia has been implementing a development strategy, not strongly focusing on the environmental, social and economic dimensions of development.

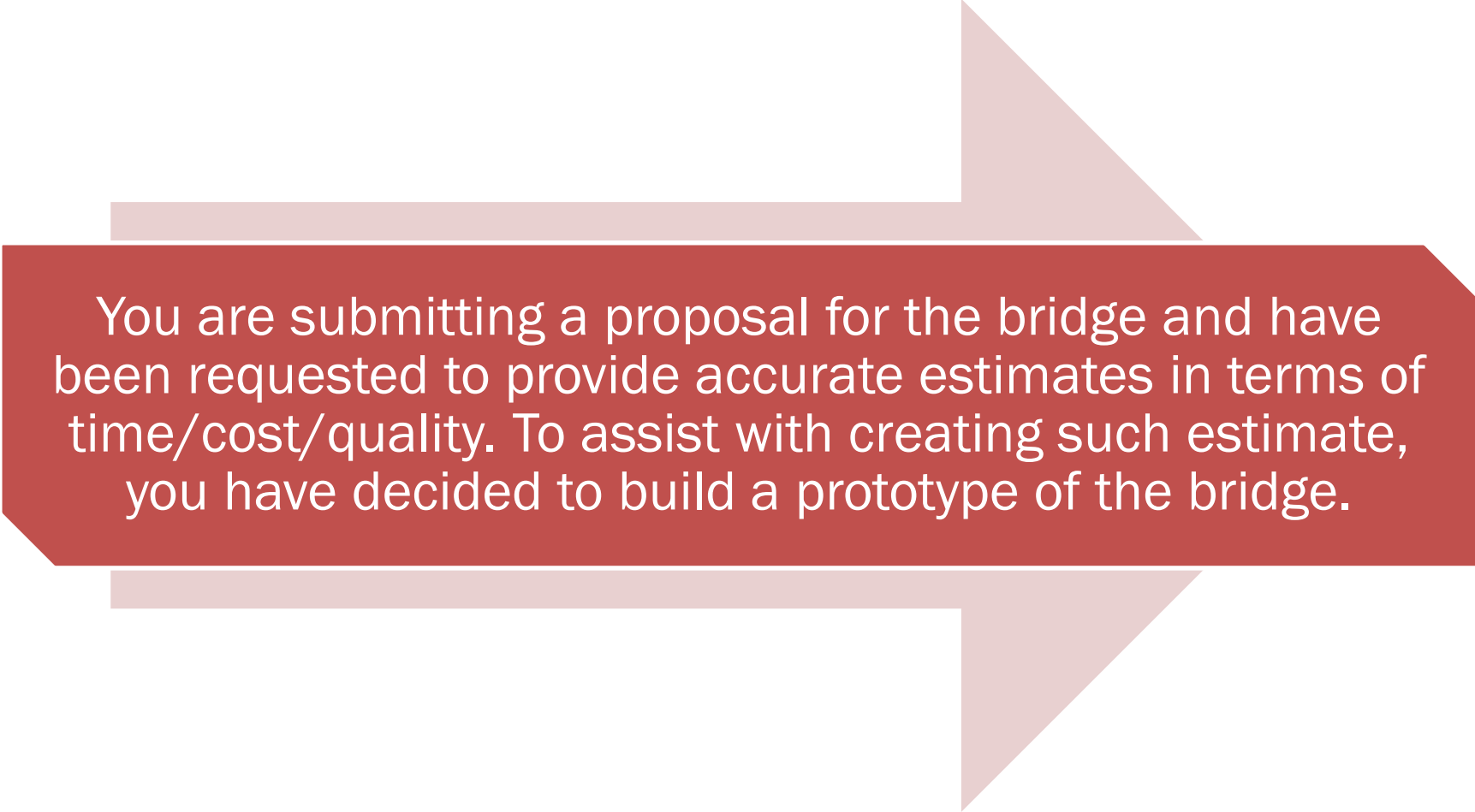
A new Government has just decided to strengthen strategic linkage of environment with socio and economic developmental goals.

Recently, the Government initiated a project for building a bridge in the town of Kan, northern part of Globalia. The main outcome of the project is to contribute to the environmental protection of Globalia's river (UNESCO biosphere reserve), improving fostering trade of the local community, by removing the need for polluting crossing ferries.



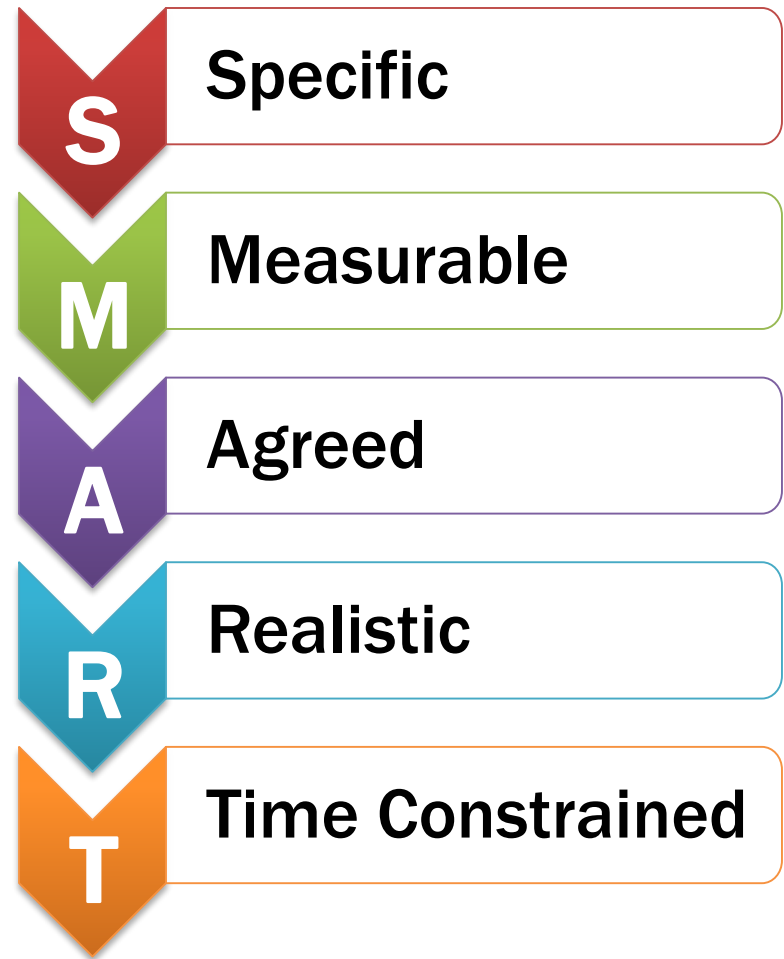
The bridge will **improve environmental conditions** in Globalia's river basin by:

- Eliminating polluting crossing ferries system that has been proven to contribute to habitat and biodiversity degradation
- Eliminating the use of old quays and jetties that are harmful to local fauna
- Provide safer means of river crossing to local communities
- Fostering economic development and facilitating trade, thereby improving access to market for agricultural products and removing isolation of communities

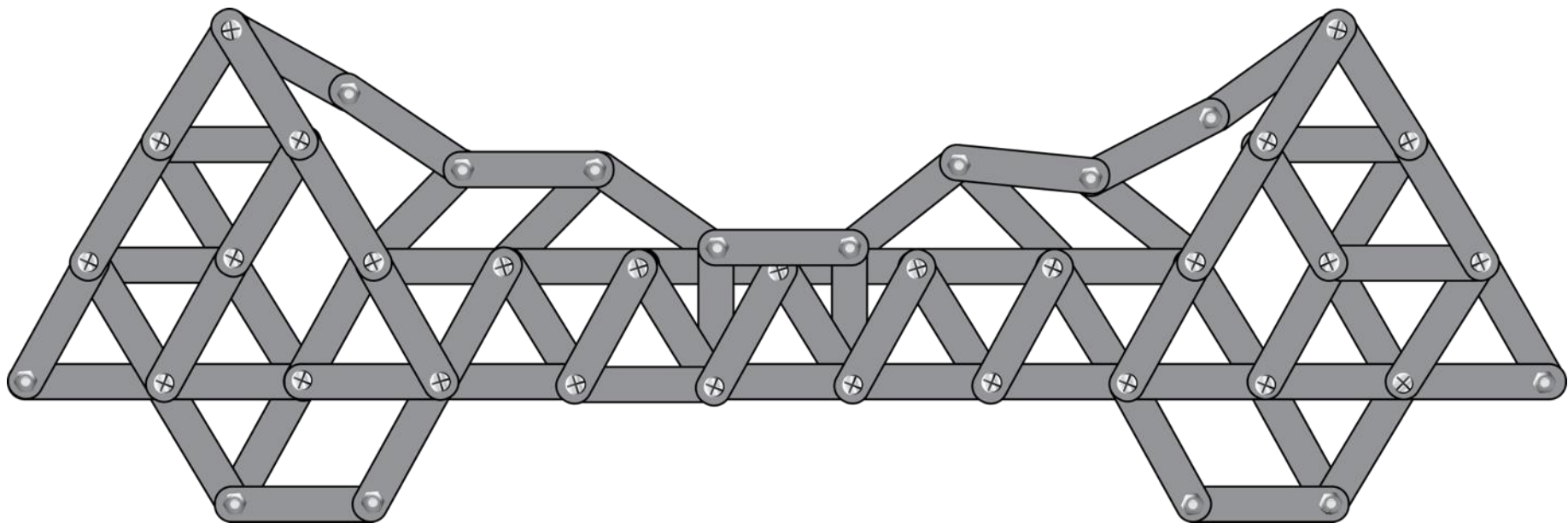


You are submitting a proposal for the bridge and have been requested to provide accurate estimates in terms of time/cost/quality. To assist with creating such estimate, you have decided to build a prototype of the bridge.

Build a 2 dimensional prototype of the Sustainable Bridge using the materials provided, within a duration under **50 minutes** and a **cost below \$5,000.00** as agreed with the Globalia procurement agency.



Bridge prototype with provided materials



Based on the concept drawing of Vista Learning Company - Canada

Solid construction

Exact design

Parts can not be
bended or twisted

Resources can not
be shared between
work packages and
teams

Work area must be
kept organized

Duration must be
below 50 minutes
and the cost should
be below \$5,000

Project Planning

Manage the development of the product/services to be created by the project

Lead the project team

Manage project risks

Negotiate all project aspects

Lead and
inspire the
team

Communicate
clearly project
objectives

It is not risk
averse and not
a risk seeker

Plan properly

It is a very
scarce
resource



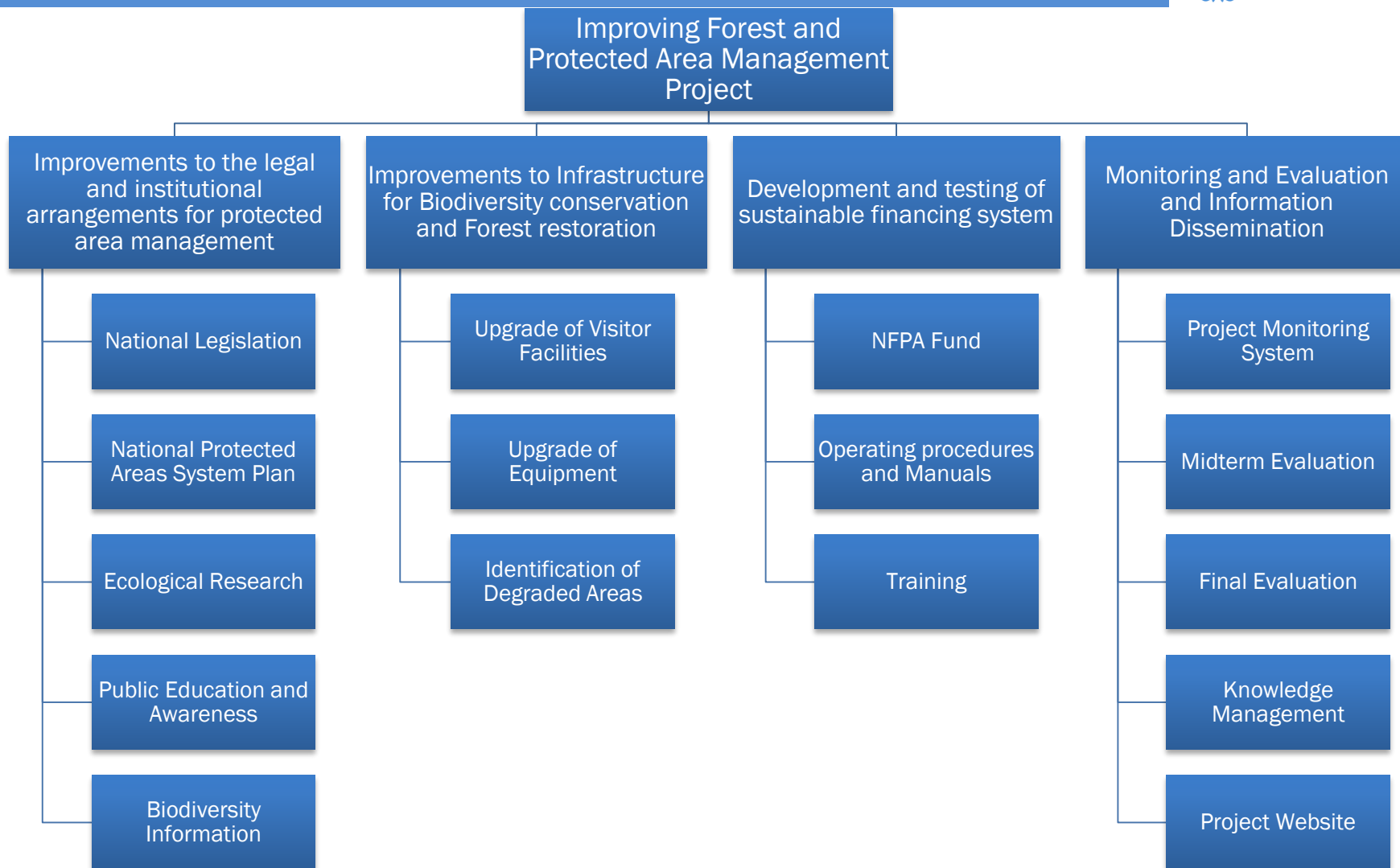
UNOPS

**PROJECT
MANAGER**

www.unops.org



- Scope management tool
- Addresses all work that must be completed
- Can be detailed to the level you and the team feel is needed to **track performance** and are comfortable with





- Related to the deliverables
- Zero duration
- Checkpoints
- Simplify the reporting process

The Good!

- Arrange the work in a logical way
- Group elements by affinity
- Easy to assign resources/responsibilities



The Bad!

- Does not relate the duration with the size of the boxes
- Does not show relationships among packages



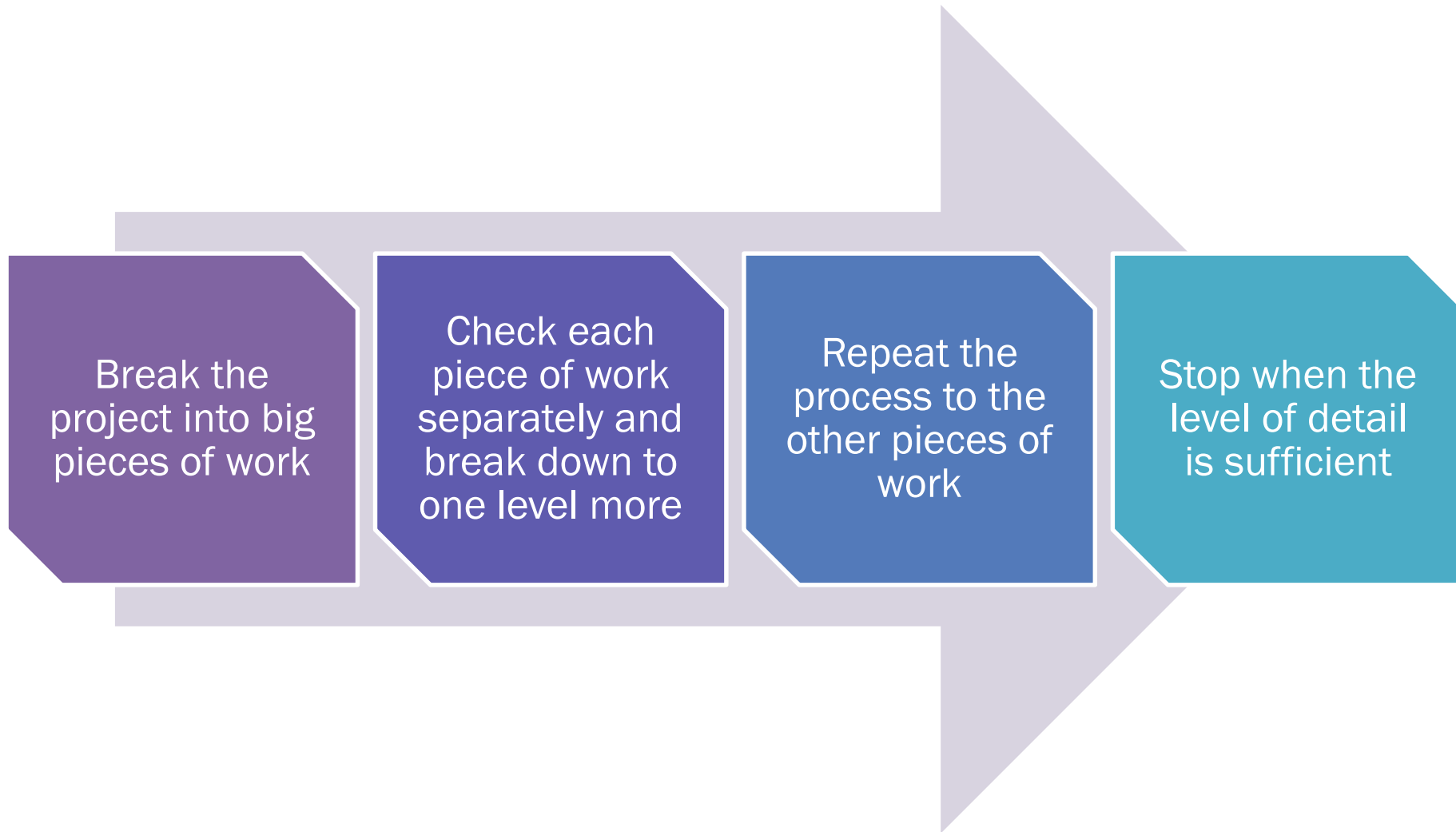
Product Oriented
(PBS)

Foundation of
the planning
process

Usually detailed
to 4/6 levels

Does not contain
verbs (actions)

No “single child”
for package

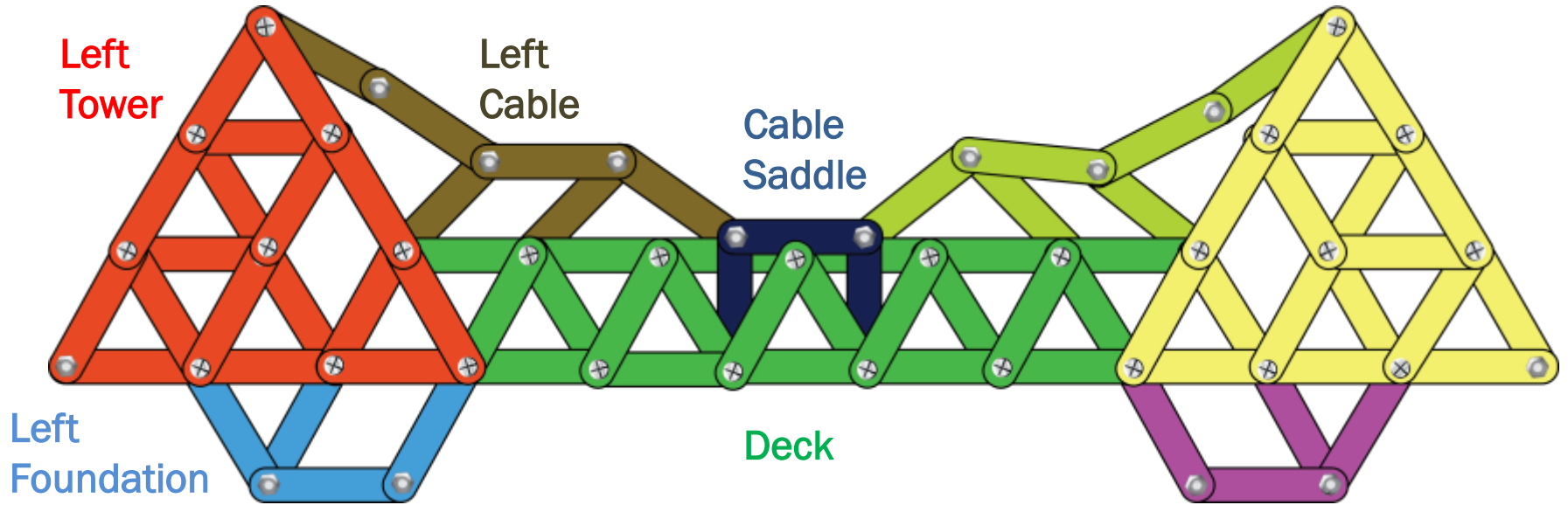


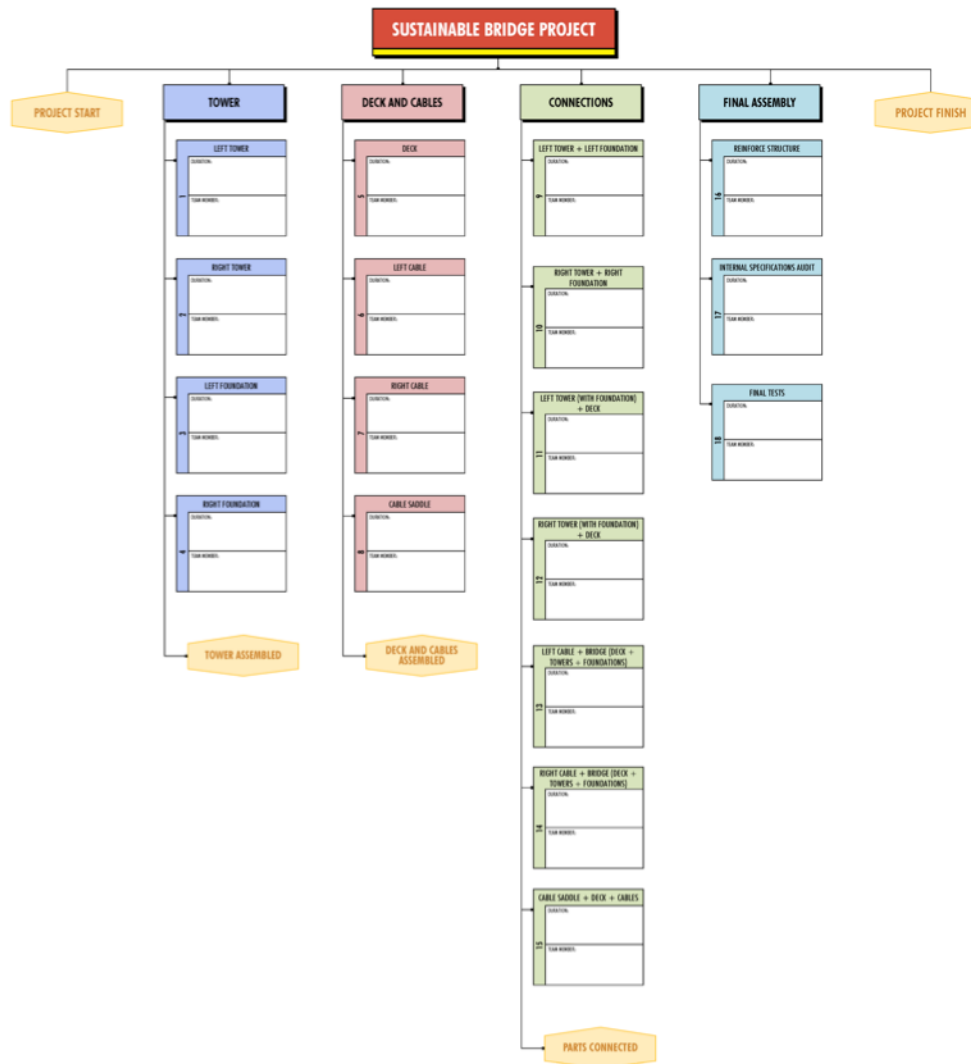
Group Exercise

Using *Post-It*® Notes, suggest a WBS for the Sustainable Bridge Project

- Up to 3 levels (including the project level)
- No “single child”

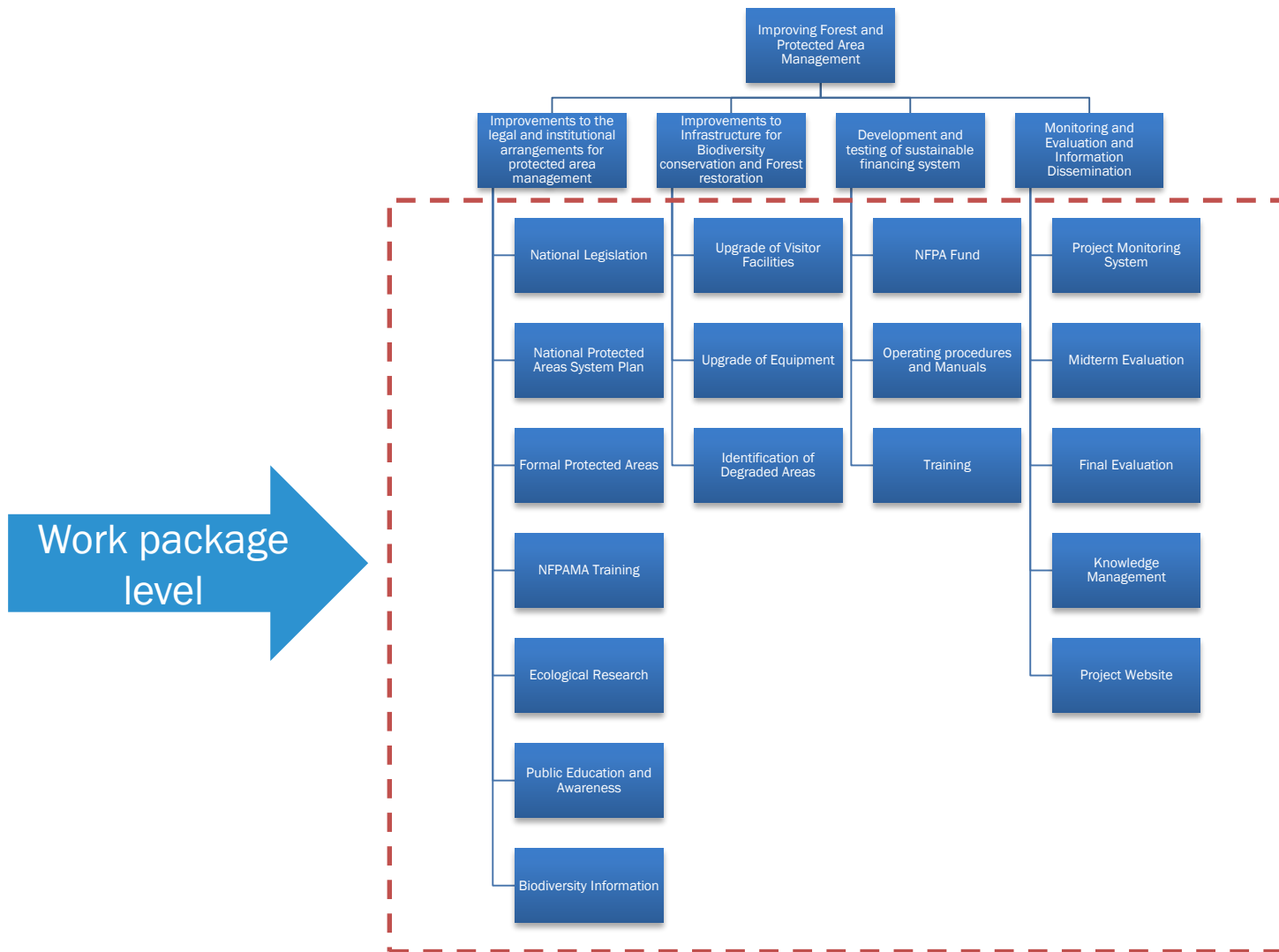


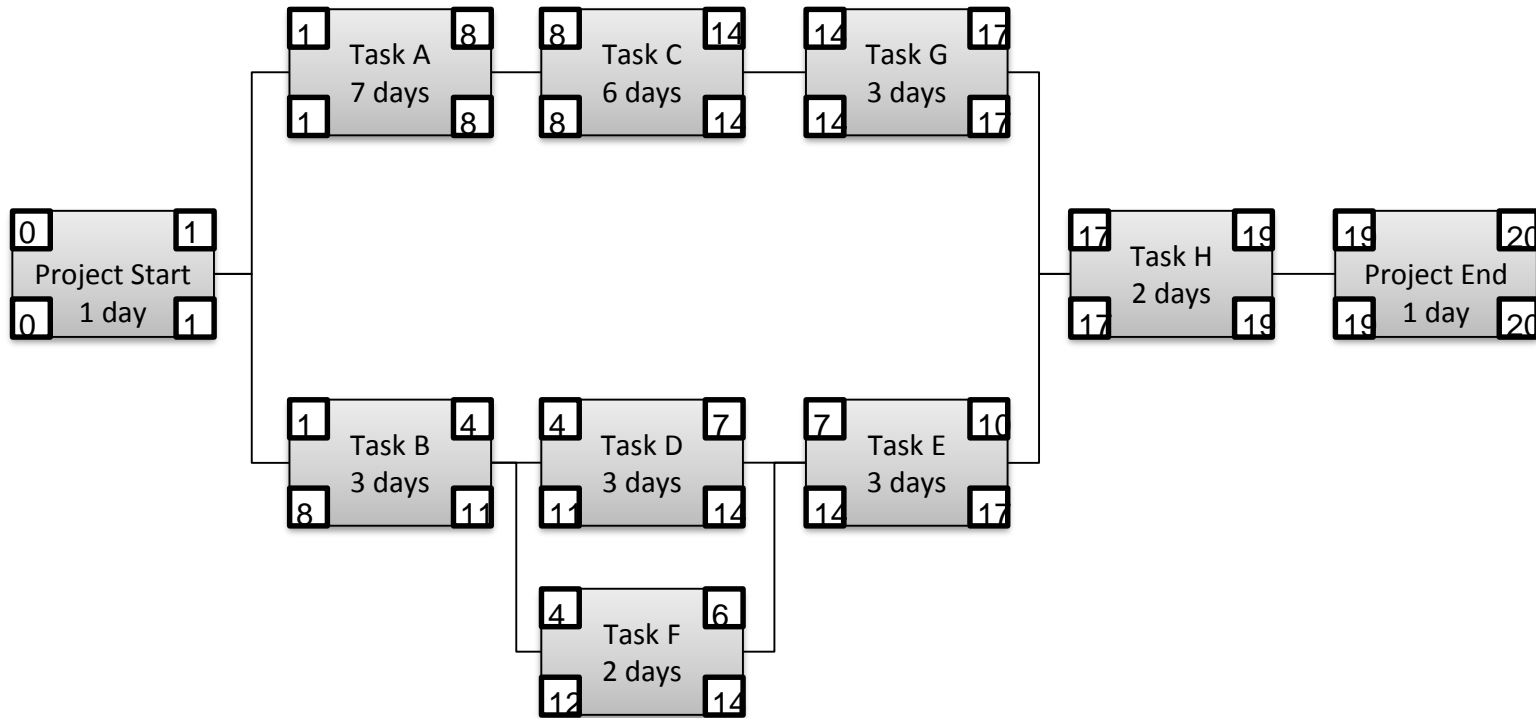
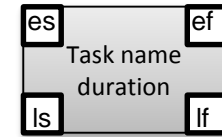






Now that we have identified **what** needs to be produced, **in what order** should things be done and produced?





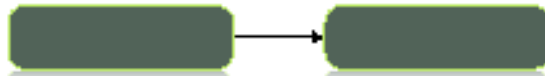
Organize tasks / packages in a specific order of execution

Predecessor

- A task (or activity) that must be started or finished before another task or milestone can be performed.

Successor

- A task or milestone that is logically linked to one or more predecessor tasks.



Finish - Start



Start - Start



Finish - Finish



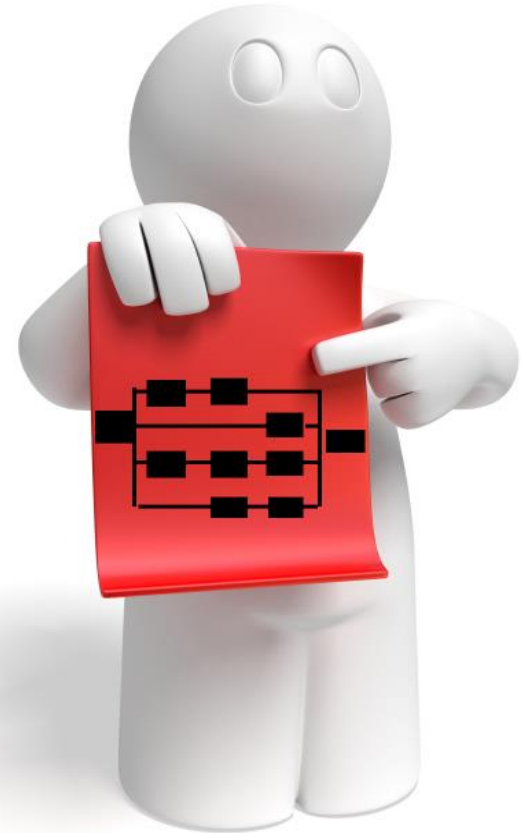
Start - Finish

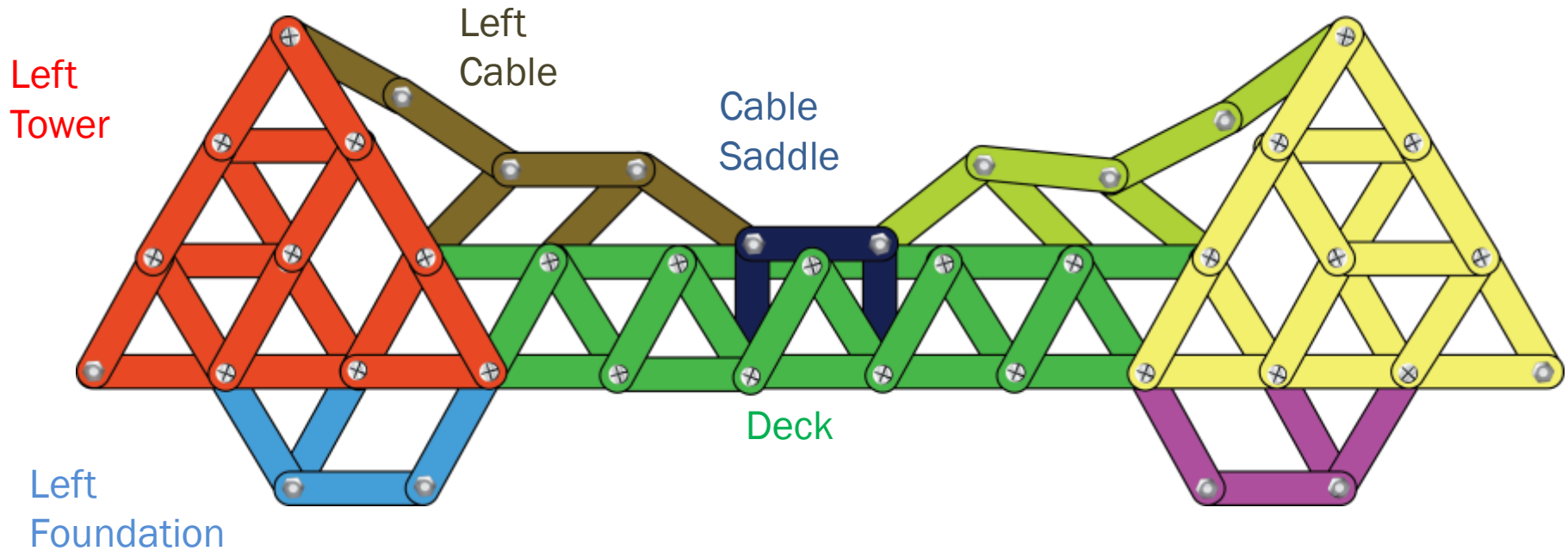
Group Exercise

Using *Post-It*® Notes, suggest a Network Diagram for the Sustainable Bridge Project

- Use the Proposed WBS you received as a starting point
- Use only Finish to Start relationships

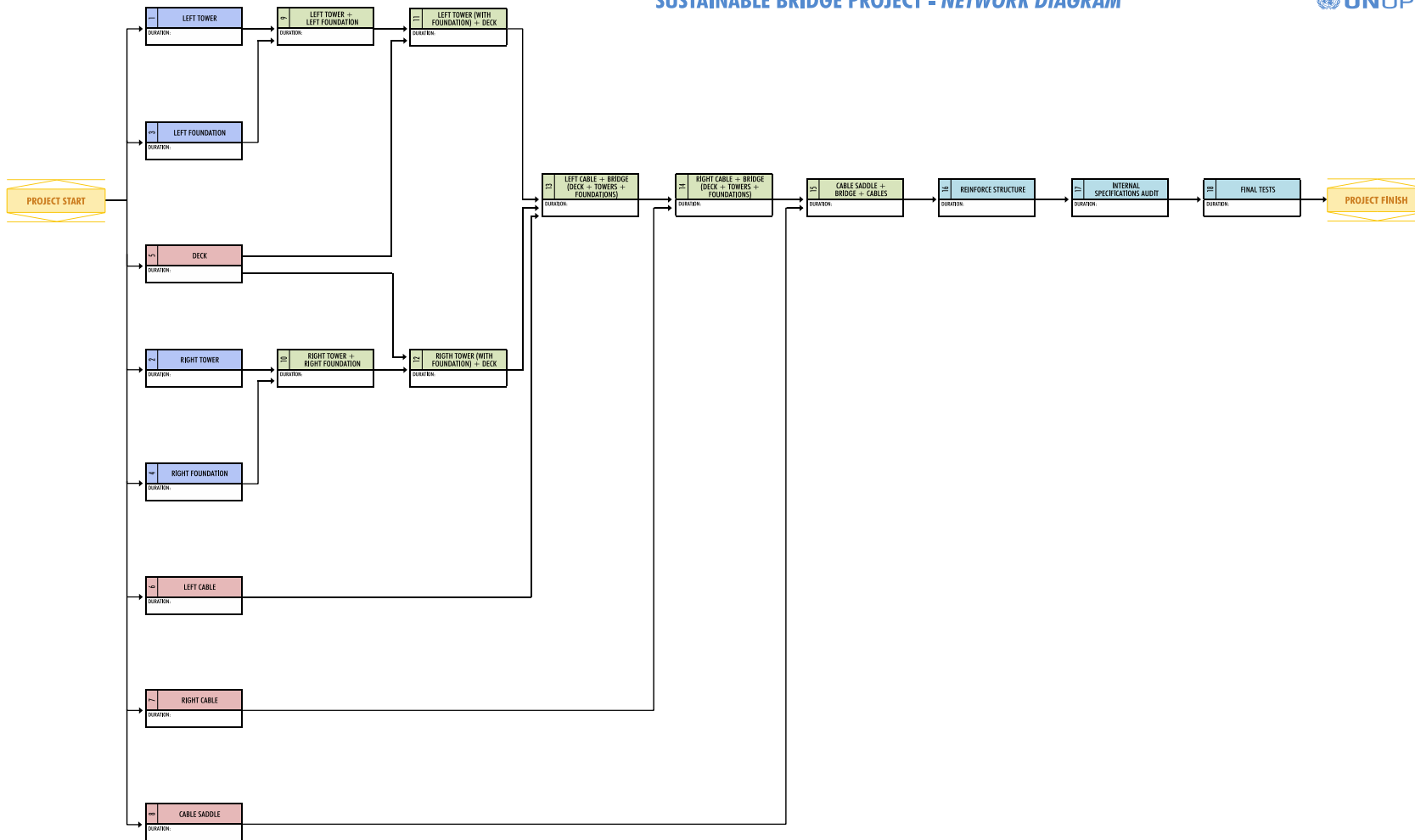
10 Minutes





Bridge prototype build with provided materials

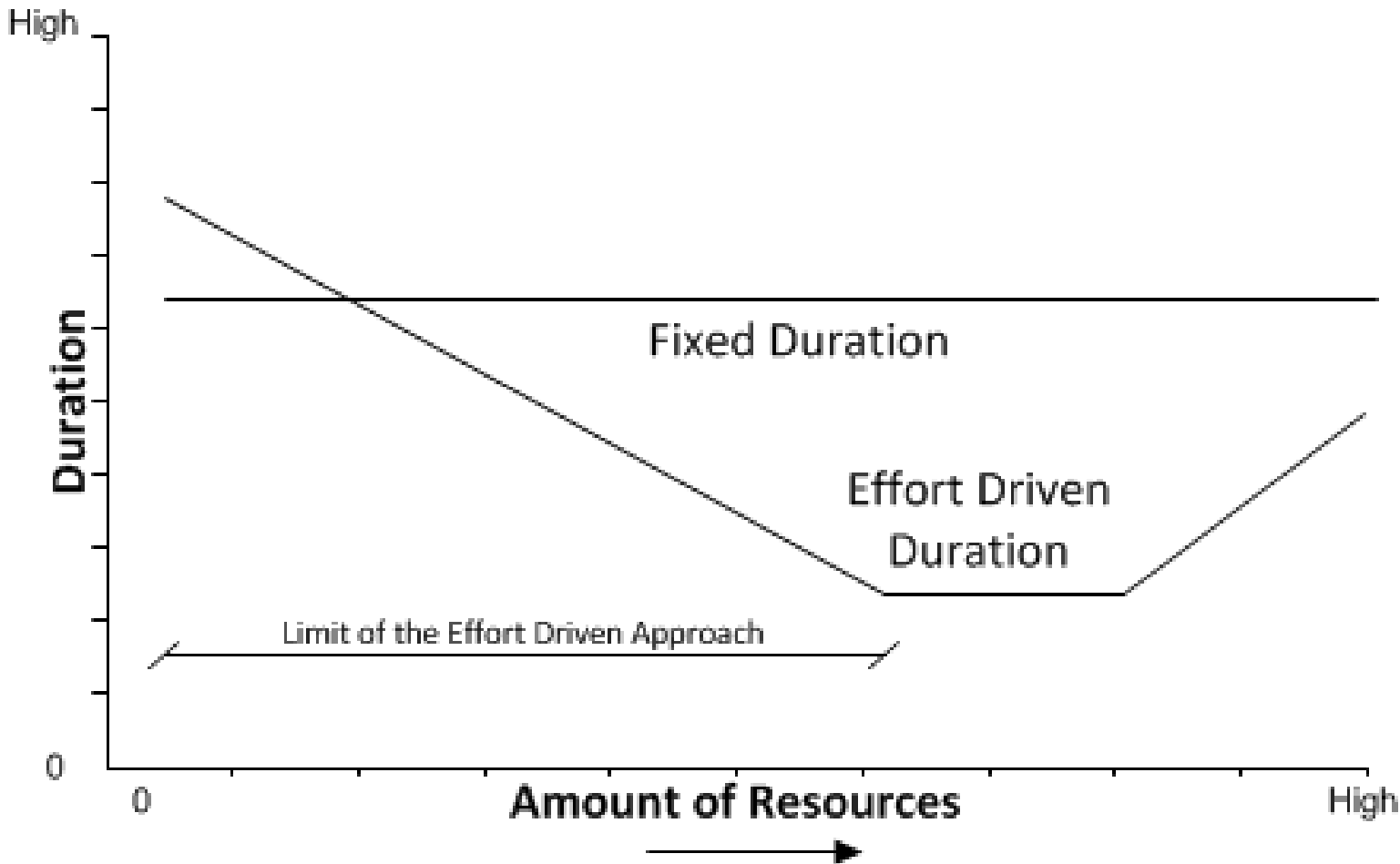
SUSTAINABLE BRIDGE PROJECT - NETWORK DIAGRAM



Duration: Time you need to execute the task/package

Directly related to the resources you have to execute the task/package





**SUSTAINABLE BRIDGE PROJECT
WBS DICTIONARY**

DURATION:

Optimistic	12 min
Most Likely	15 min
Pessimistic	20 min

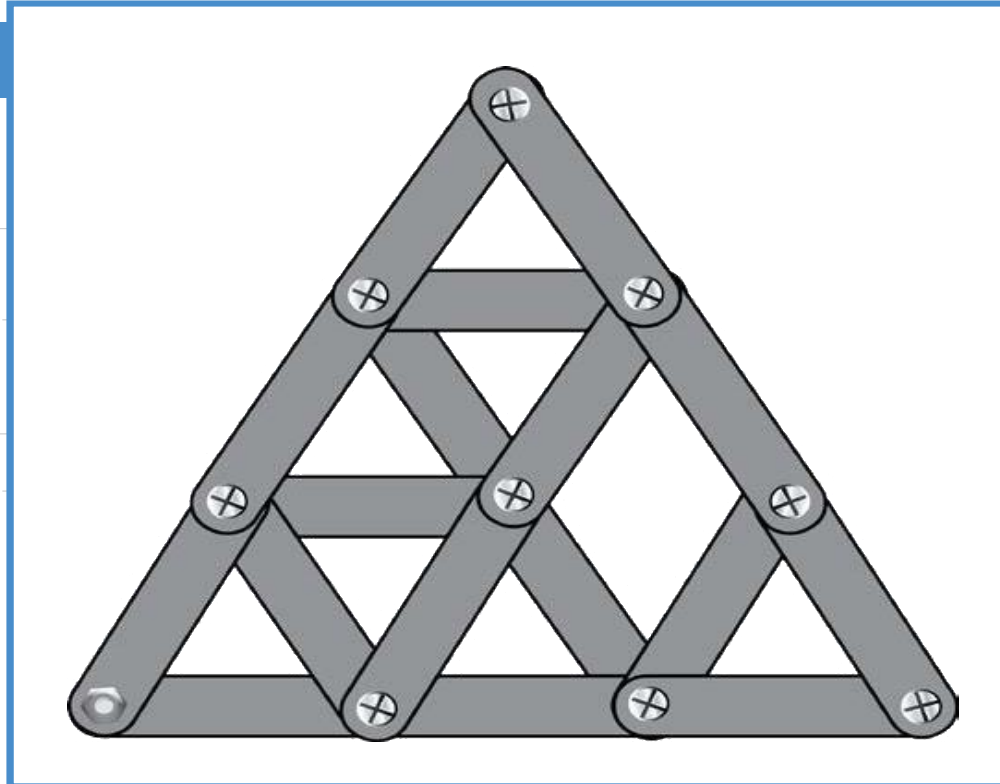
PREDECESSOR(S):
PROJECT START

SUCCESSOR(S):
9 - LEFT TOWER + LEFT FOUNDATION
TOWERS ASSEMBLED

AVAILABLE RESOURCES

team members: 2 ; pieces used: 37

PIECES INVENTORY	
type	quantity
BEAM	17
SCREW	10
NUT	10



WHITE PARTS AND STRUCTURES ARE A REFERENCE OF PREVIOUS STEPS.

Distribute WBS Dictionary

Distribute Planning Pieces

Exercise – Part 1



Based on the team experience, WBS Dictionary and the use of the planning materials, estimate the **duration** of each work package in minutes.

- There is no right answer
- The team can choose any duration they think is reasonable

Add the duration on the Network Diagram Provided

5 Minutes

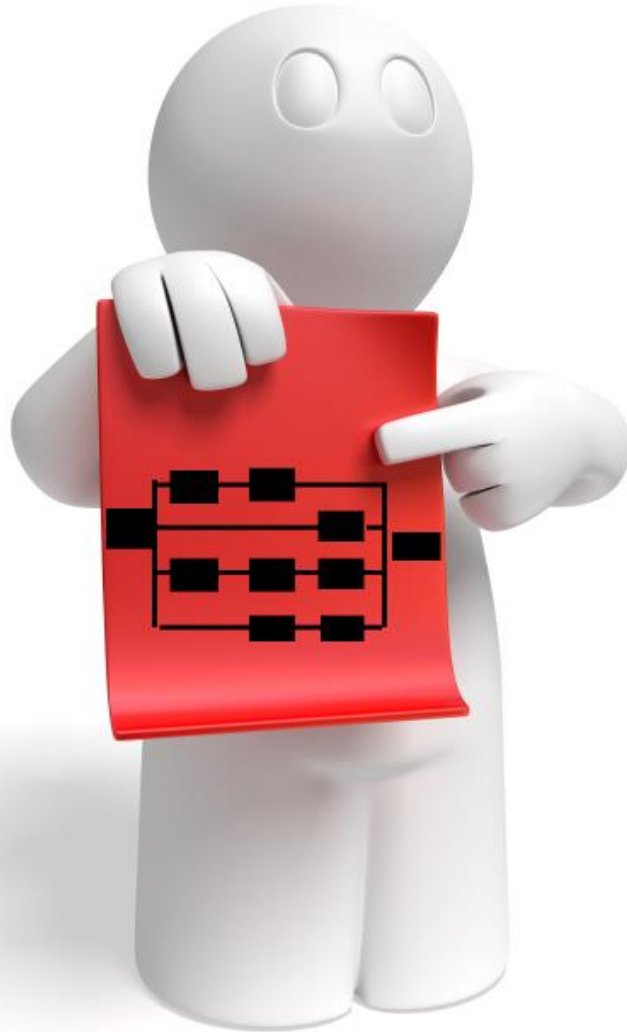
Exercise – Part 2



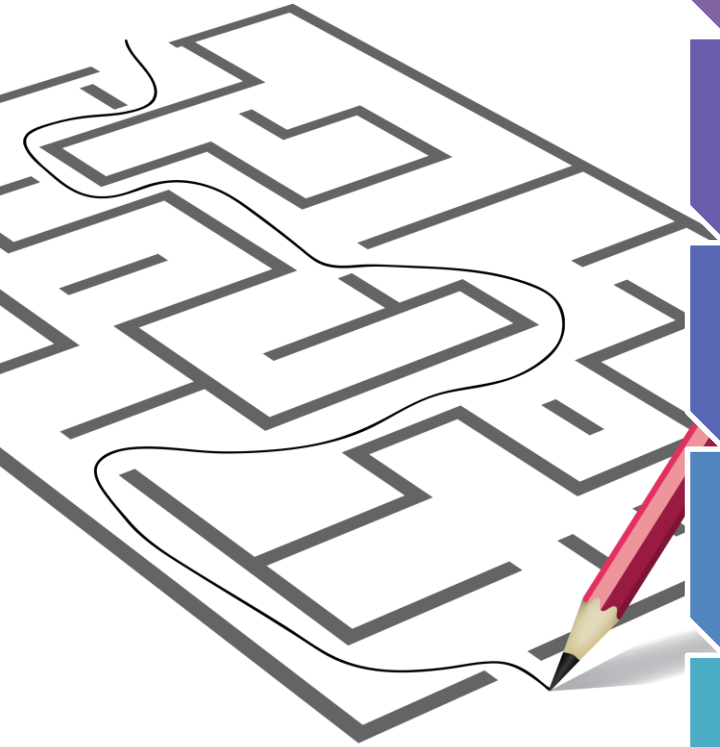
Based on the team experience, WBS Dictionary and the use of planning materials, estimate the **required resources** of each work package in minutes.

- There is no right answer
- The team can choose any team members

Put the name of the team members on the WBS Chart Provided



- The critical path is the path with the tasks that directly affect the duration of the project.
- Any delays on the critical path activities will impact the project finish date.



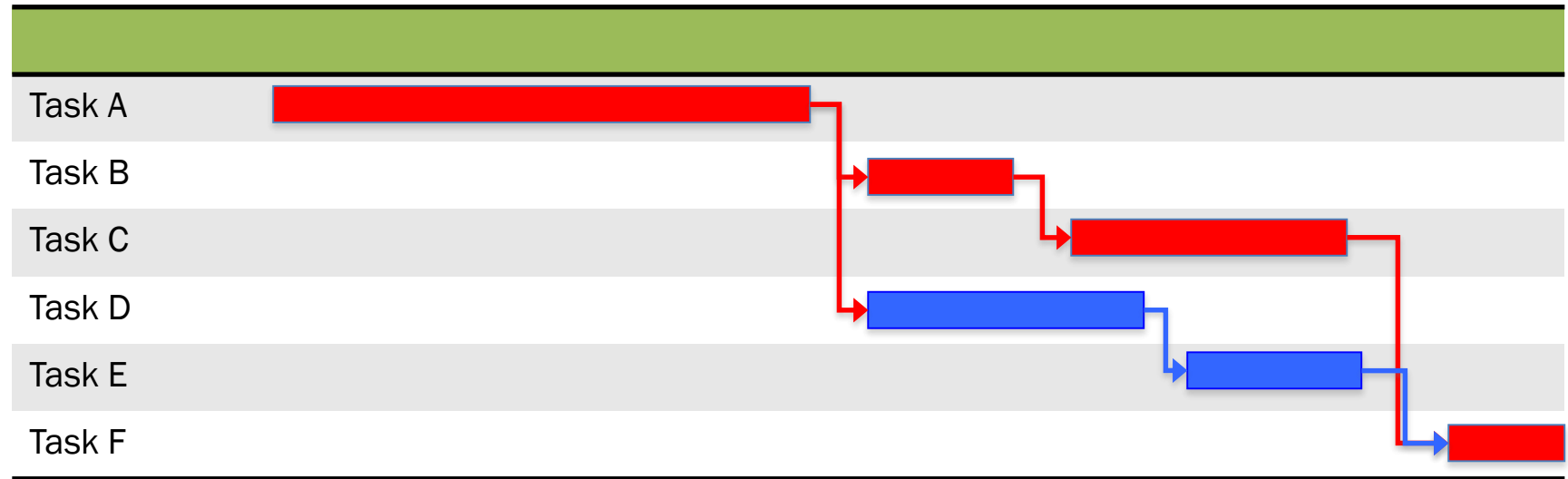
It's a path where any delay in any task will impact the project duration.

It's the longest path of all possible paths on a project.

There can be more than one critical path.

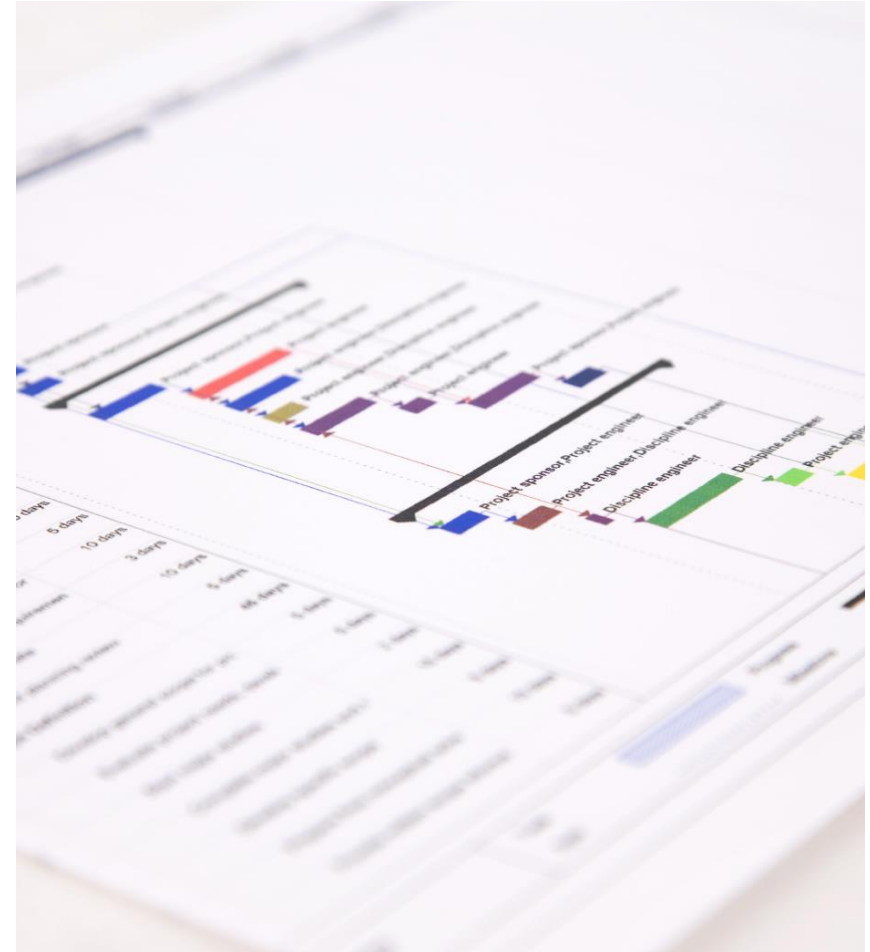
It's the path with no floats or with the smallest float.

It determines the shortest possible duration for the project.



Based on the
provided Network
Diagram,
calculate

- Project Duration
- Critical Path Tasks

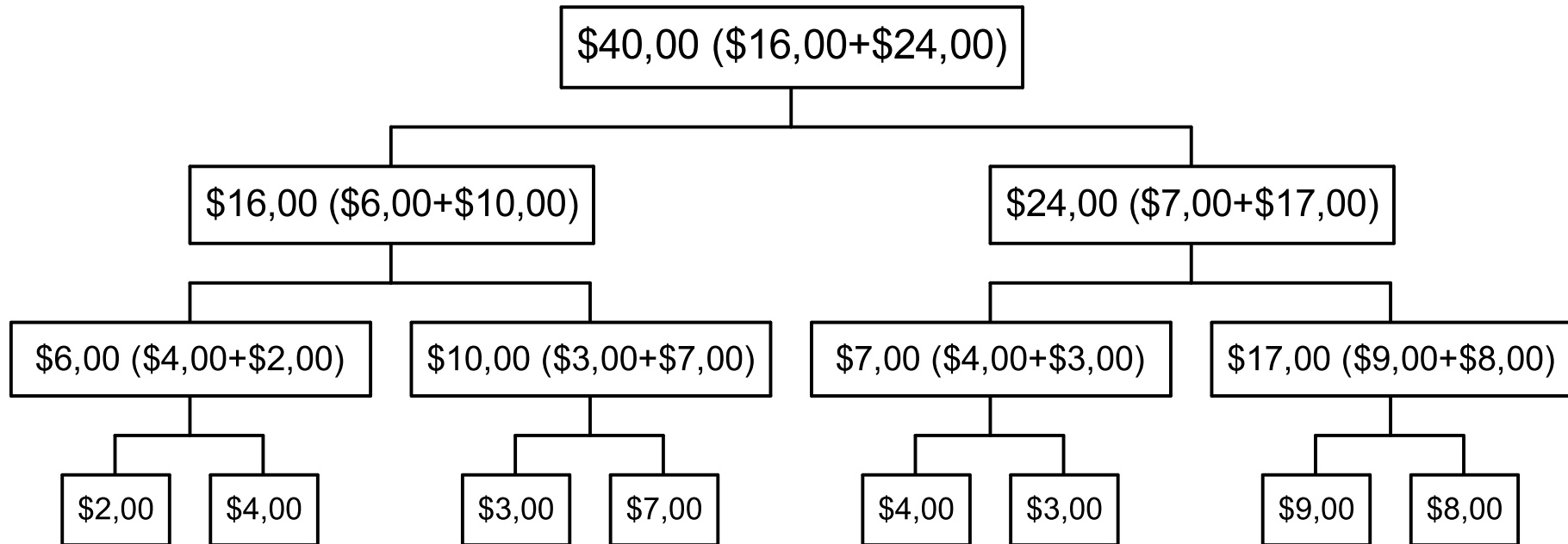


Directed related to
the project work

Calculate based on
the project scope
and allocated
resources

Poor scope leads to
poor cost
budgeting





Group Exercise

Prepare your Project Cost

Assembly Kits

- K\$2.000,00

Team member

- K\$15,00 per minute per member


Can not be over

- K\$5.000,00

Personnel Costs					
	WP	Name	Duration (min)	Team Member(s)	Team Member Cost (\$15/min)
TOWER	1	Left Tower		2	\$
	2	Right Tower		2	\$
	3	Left Foundation		1	\$
	4	Right Foundation		1	\$
DECK AND CABLES	5	Deck		2	\$
	6	Left Cable		1	\$
	7	Right Cable		1	\$
	8	Cable Saddle		1	\$
CONNECTIONS	9	Left Tower + Left Foundation		2	\$
	10	Right Tower + Right Foundation		2	\$
	11	Left Tower (with Foundation) + Deck		2	\$
	12	Right Tower (with Foundation) + Deck		2	\$
	13	Left Cable + Bridge (Deck + Towers + Foundations)		2	\$
	15	Right Cable + Bridge (Deck + Towers + Foundations)		2	\$
FINAL ASSEMBLY	15	Cable Saddle + Bridge + Cables		2	\$
	16	Reinforce Structure		4	\$
	17	Internal Specifications Audit		2	\$
	18	Final Tests		4	\$
					PERSONNEL TOTAL \$
		Assembly Kit			\$
		Reserves and Risk Provisions			\$
		TOTAL COST			\$

Based on your planning documents, propose a bid for your team using the form provided

TEAM BID



Team Name: _____

Name: _____

Name: _____

Name: _____

Name: _____

Name: _____

Name: _____

Name: _____

Duration: _____ min

Cost: _____

Quality requirements

1. Solid construction
2. Exact design
3. All parts can not be bent or twisted
4. Teams members are expected to complete only the assigned tasks
5. Resources can not be shared between work packages and teams
6. Materials are to be used for their specific work packages
7. Work area must be kept organized
8. Duration must be below 50 minutes and the cost should be below \$1,000

Our team is aware of the quality requirements

Signature: _____

Execution



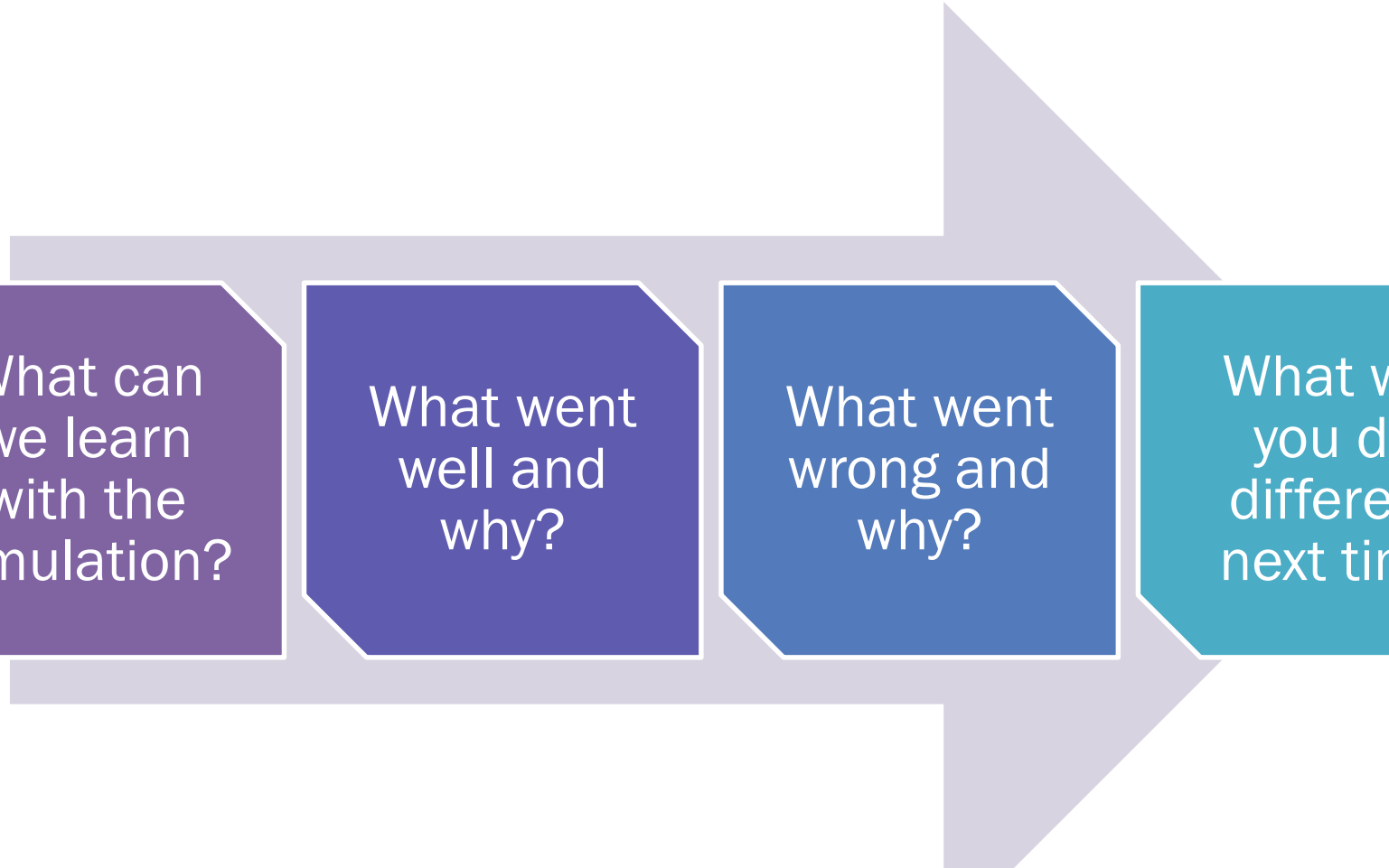
Clean all
the tables

Wait for
the Clock

Good
luck!



Results and discussions



What can
we learn
with the
simulation?

What went
well and
why?

What went
wrong and
why?

What will
you do
different
next time

Final messages

Understand the difference from project and other works

The value you can get of managing your projects better

Basic steps of the planning process

Bring the results of the simulation exercise to the real projects

Project Management is one of the most reliable tools that a government has to deliver value

Despite of great machines, people are always managing the projects

Understand the project context is a critical knowledge for long term sustainability



Thank you!

Farhad Abdollahyan – farhad@practical-thinking.com

Acílio Marinello – acilio@practical-thinking.com