

UIC Railway Asset Management Global Conference 2017

4 - 6 OCTOBER 2017
UIC HEADQUARTERS, PARIS

Experience in applying an Asset Management in RFI

Ingg. Donatella Fochesato and Gian Piero Pavirani

Index

- Infrastructure manager:RFI
- AM introduction
- Processes
 - How a process is characterised
 - How process information is collected
- Process mapping
- SAMM's application

Index

- Infrastructure manager:RFI
- AM introduction
- Processes
 - How a process is characterised
 - How process information is collected
- Process mapping
- SAMM's application

RFI: National Railway Infrastructure Manager

Company and Mission

RFI is the company of the FS Group, which has the role of the National Railway Infrastructure Manager. It is responsible for lines, stations and installations.

Ensures rail companies access to the network, secures safe maintenance and circulation on the entire infrastructure, manages investments to upgrade the development of lines and railways and develops systems and materials technology.

On the international front, RFI promotes the integration of Italian infrastructure into the European Rail Network.

Currently operating lines extend for 16,727 km of which 11,902 km electrified and 7,537 km dual track. The stations with travel service are about 2,300.

Total staff *about 25.000*

RFI in numbers

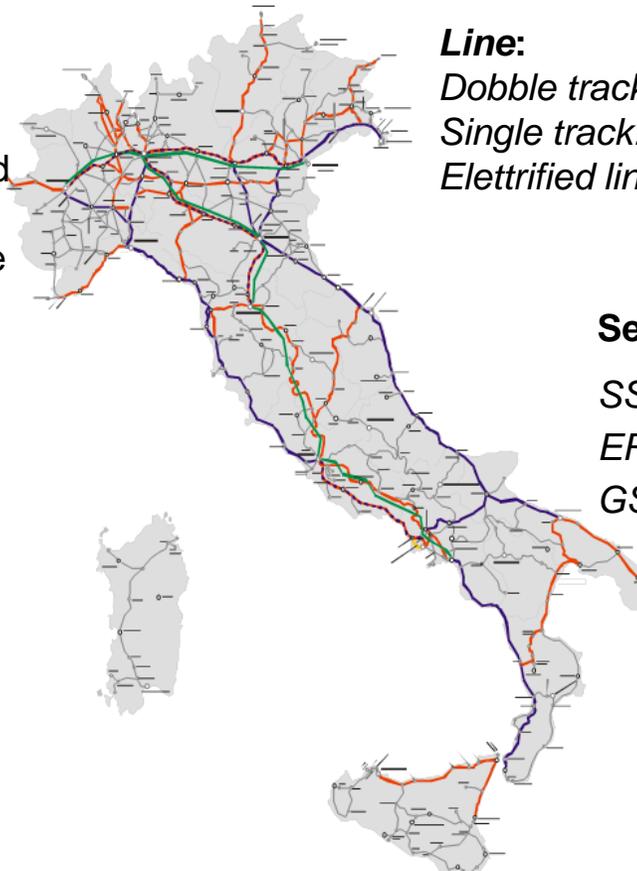
Line: **16.727 km**
Dobble track: 7.537 km
Single track: 9.190 km
Eletrified lines: 11.902 km (71 %)

~ 1.000 km	HS lines
~ 950 km	metropolitan nodes
~ 2.900 km	Main lines
~ 3.900 km	Integratve lines
~ 7.950 km	Secondary lines

Security Technologies

SSC – SCMT	16.086 km
ERTMS	641 km
GSM-R	9.000 km

17.000	Bridges
7.000	Over pass
1.300 km	Tunnel (<i>l. > 500m</i>)
24.000 km	Main track
26.000	Main switch
370	Energy power



Index

- Infrastructure manager:RFI
- **AM introduction**
- Processes
 - How a process is characterised
 - How process information is collected
- Process mapping
- SAMM's application

AM in RFI



L'Amministratore Delegato

ORGANISATIONAL COMMUNICATION n. 412 /AD del 01/05/2016 " Asset Management in RFI "

This Organizational Communication aims to introduce the principles in corporate Asset Management, in line with the international standards ISO 55000 (Overview on the Asset Management and Terminology), ISO 55001 (Requirements for Asset Management System) and ISO 55002 (Guidelines useful to apply ISO 55001), defining their objectives and activities, as well as related roles and responsibilities.



AM in RFI

The activities are divided into the following phases:

- **Detection business objectives** and long-term performance of the Asset Management indicators, depending on "the creation of value by the Asset";
- **Mapping of processes** aimed at these objectives;
- Analysis of the **integration processes** in relation to the objectives;
- Measuring **process maturity**;
- Verification of process **support tools**, procedures and information systems, and identification of actions' improvement;
- Proposal to top management of conflict resolution through the new internal culture and the **improvement of performance** in the management system.

AM in RFI

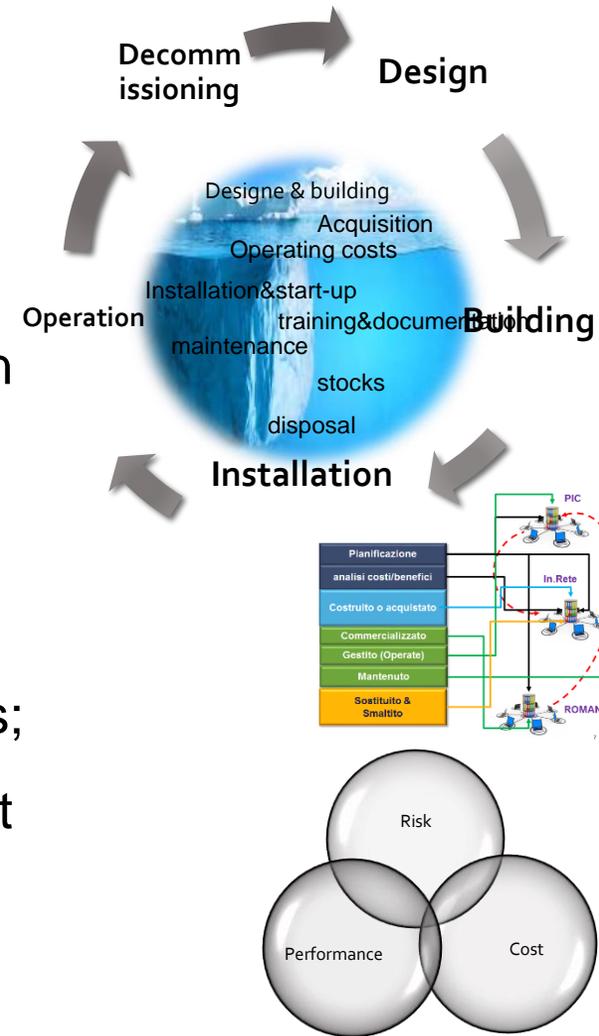
..... Asset Management analyzes business process and it's focused on:

"**asset centric**" management to ensure the orientation of business processes to the new way of seeing the Asset.



- **life cycle**, which involves a vision not only focused on the acquisition costs of the goods, but also on the effects of their management with respect to the business, optimizing the life of the plants;
- **systemic**, requiring the integration of the asset management processes with the functional management processes organization, such as finance, human resources, information systems and logistics;
- **risk**, which depends on good management based on finding the right balance between performance, cost and risk;

.....



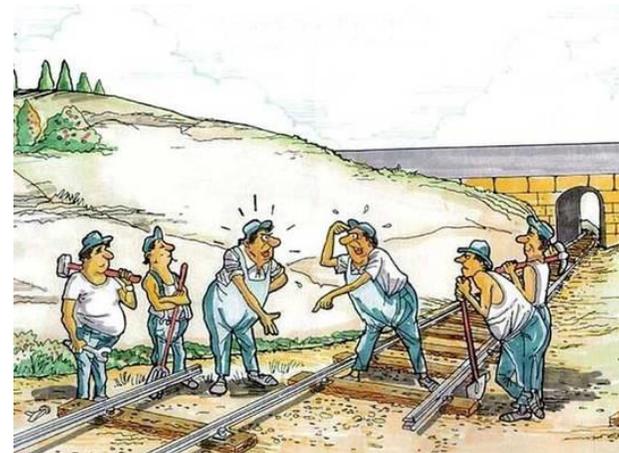
Index

- Infrastructure manager:RFI
- AM introduction
- **Processes**
 - How a process is characterised
 - How process information is collected
- Process mapping
- SAMM's application

What is a good asset management?



Think of a new asset



Take care of the design and installation phase

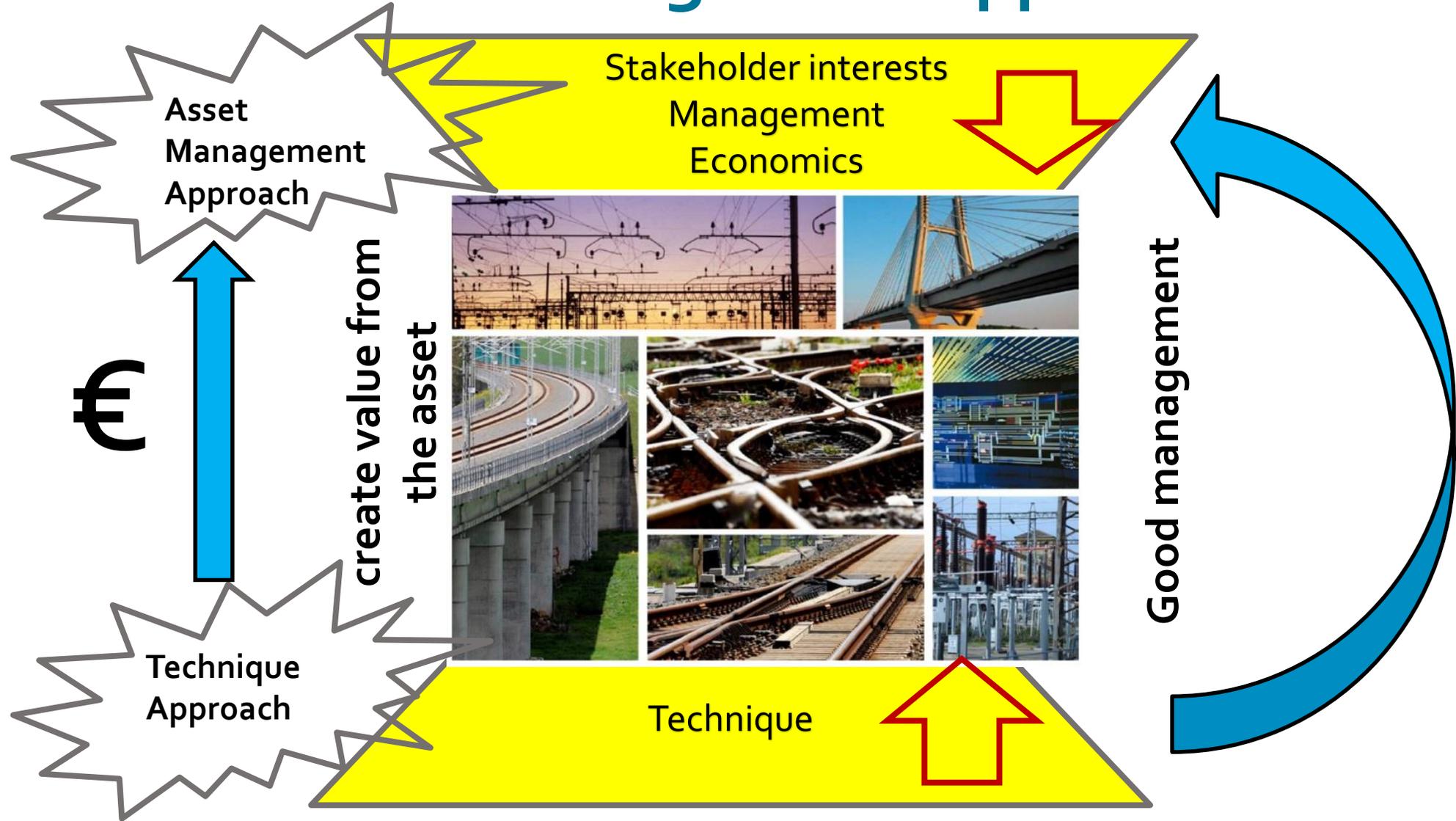


"Take advantage of them" at full capacity



Maintenance

Asset Management Approach



Implementation strategies of AM

The implementation of AM in an organization is not a fixed process: should be adapted in function of the needs of the organization and its maturity



Level of application

1. Alignment:

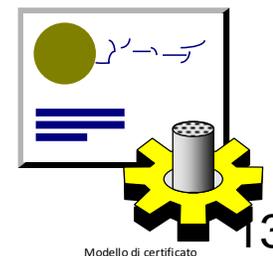
Analyze existing processes; updating current procedures than the standard with respect to the organizational changes, structural and environmental known internally, with a verification method and definition of the most critical procedures and more valuable.

2. Compliant:

develop a management system conforming to ISO without reaching certification.

3. Certification:

proceed with the full certification process by an accredited certifier.



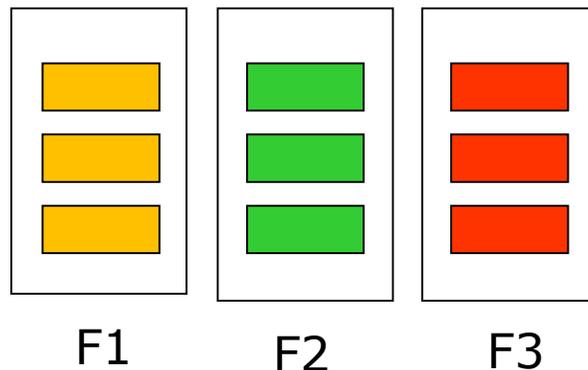
Process view

DEFINITION:

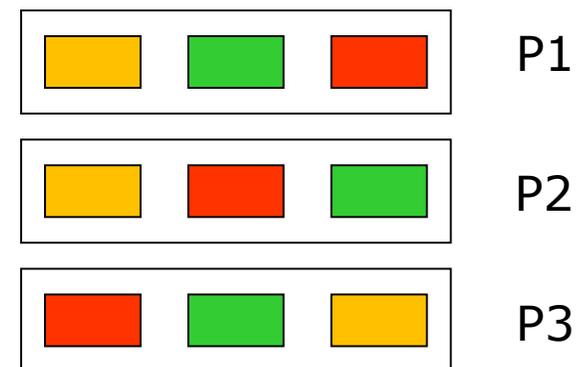
A business process is an organized and coordinated set of repeatable activities.

Through the use of available resources, is designed to create an output for the customer, and to which it assigns a well-defined value.

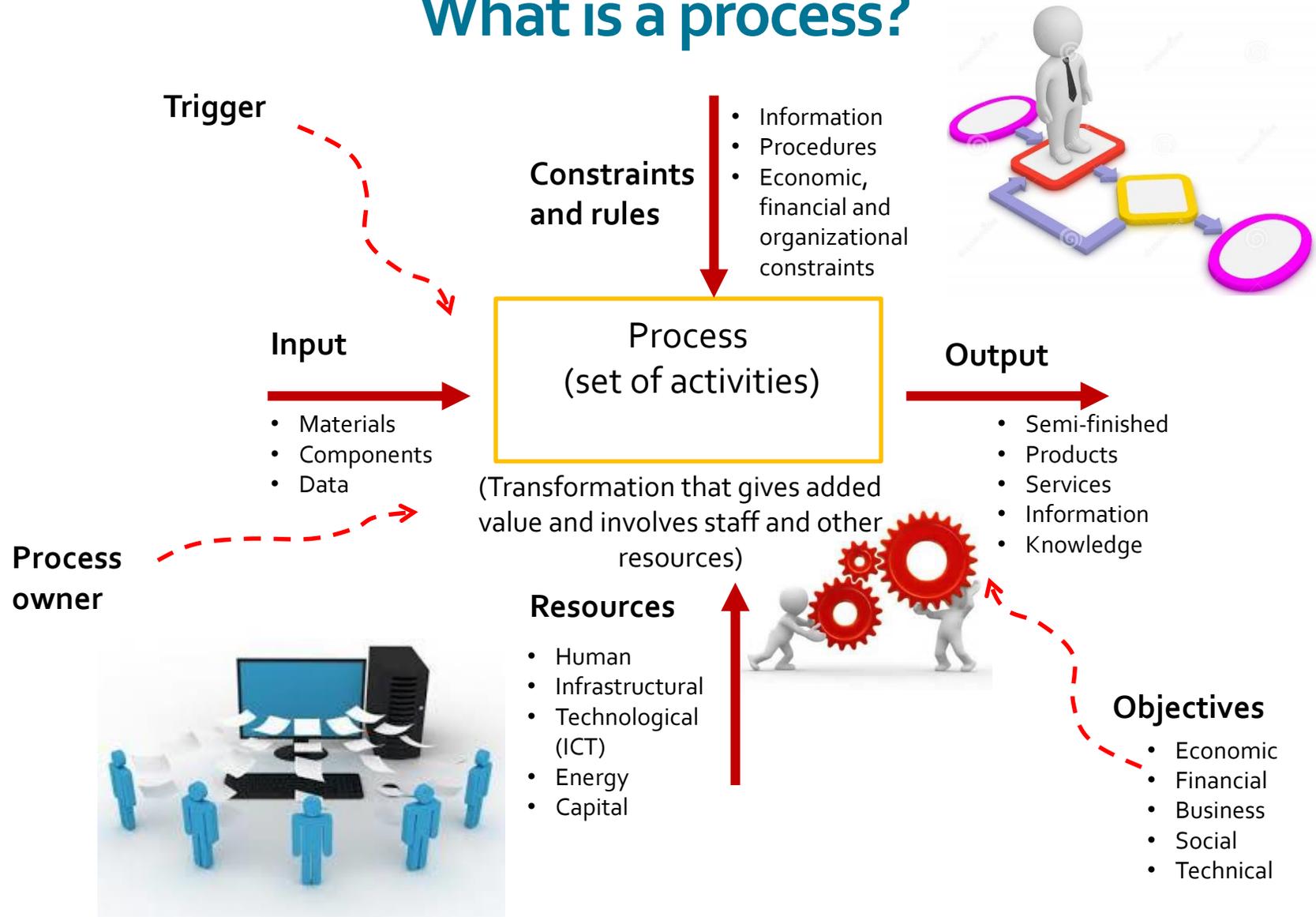
Functions



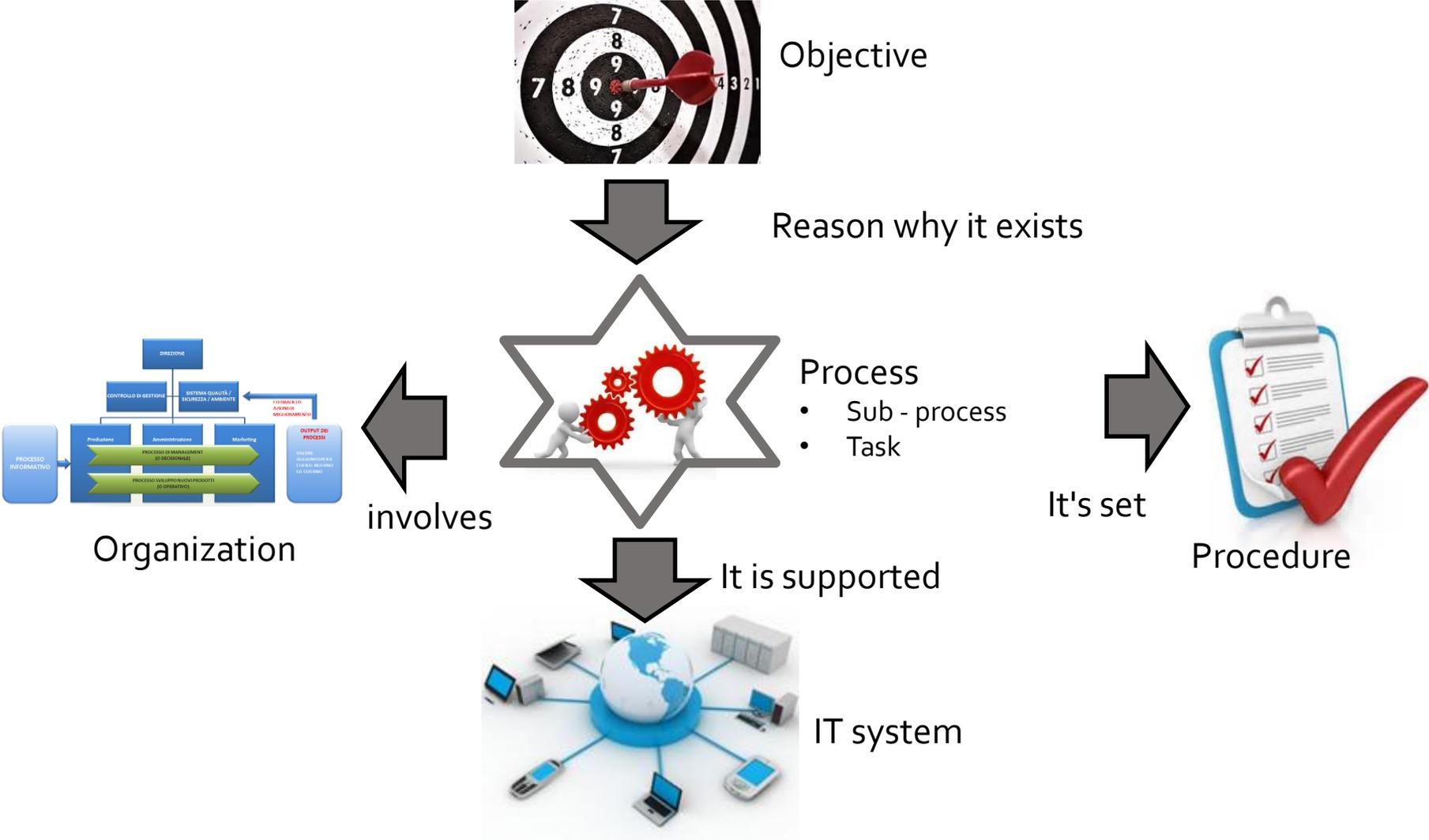
Processes



What is a process?



Process model (what to map?)



How to Know Business Processes

▲ Interviews with the staff involved



▲ Examination of business documentation
(procedures, manuals, etc.)



▲ Analysis of business systems



▲ Process Relationship Analysis



Collection of information

Goals and missions are reported

Who is the process owner

It describes the process, subprocess and task

Reporting the official document overseeing the process

Defining the degree of maturity

Tools Maturity

Objective		Who	Processes					Connections with other Departments	Defining the degree of maturity		Tools Maturity
Objective	Mission	Department/ Structure	Process	Under process	Task	Description	Input		Output	Title encoding	

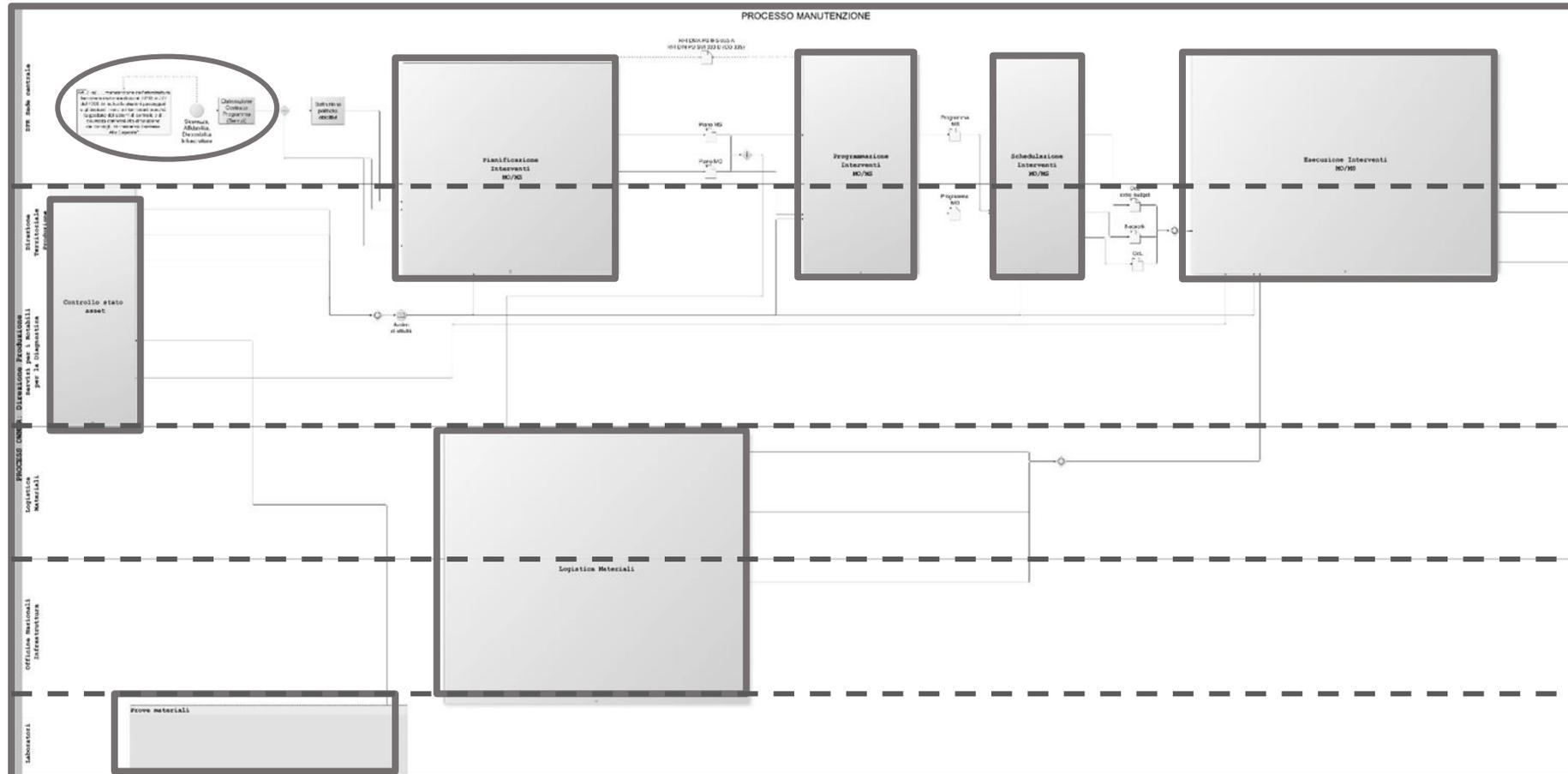
Any other structures involved and users in the process are reported

Identifying the tool used

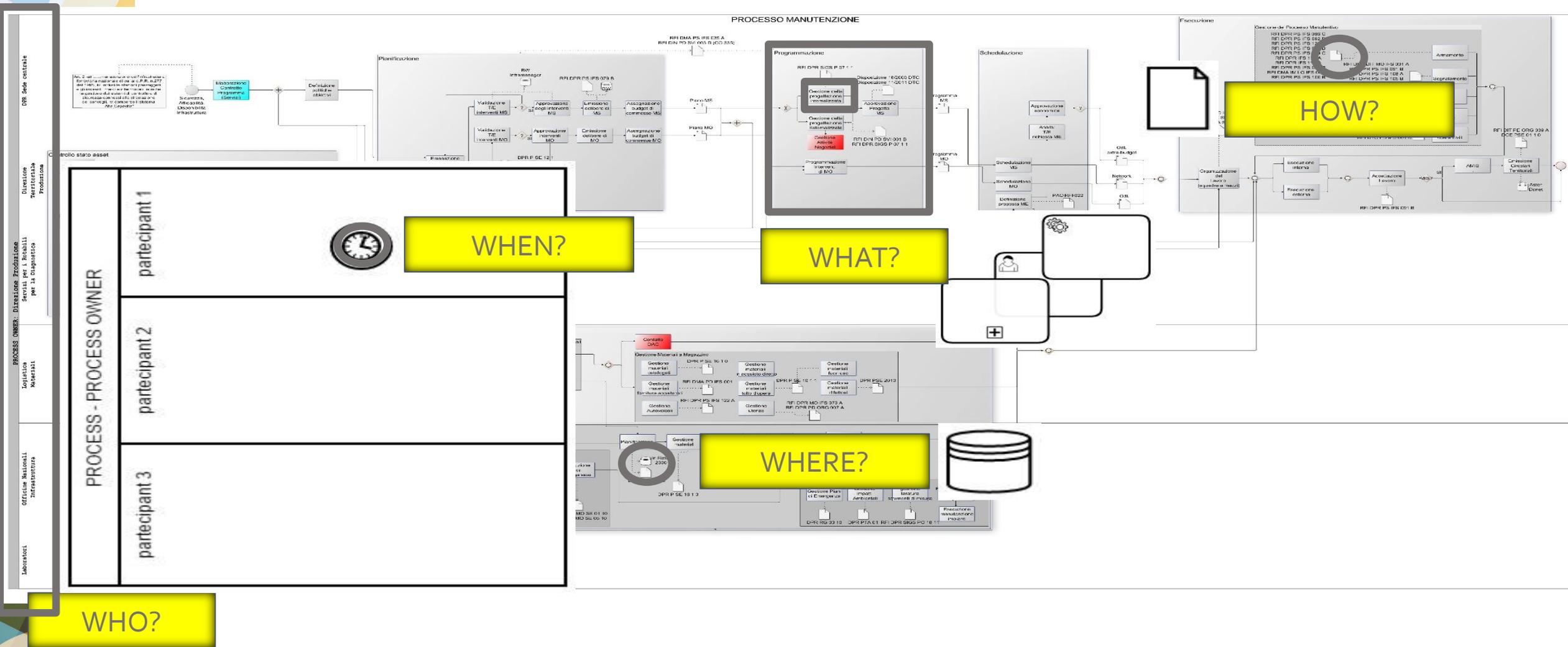
Index

- Infrastructure manager:RFI
- AM introduction
- Processes
 - How a process is characterised
 - How process information is collected
- **Process mapping**
- SAMM's application

The maintenance process



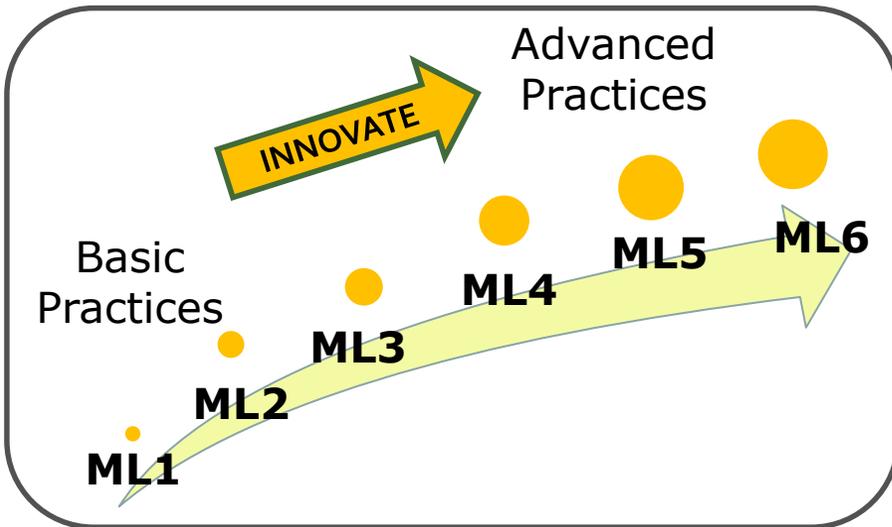
The maintenance process



Index

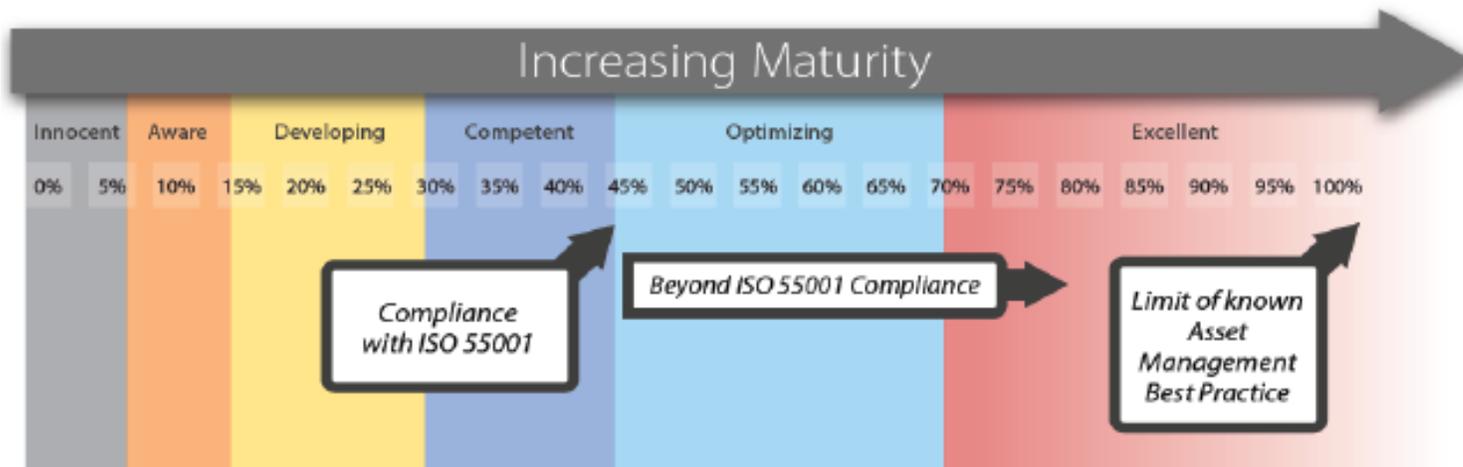
- Infrastructure manager:RFI
- AM introduction
- Processes
 - How a process is characterised
 - How process information is collected
- Process mapping
- **SAMM's application**

Asset Management Maturity

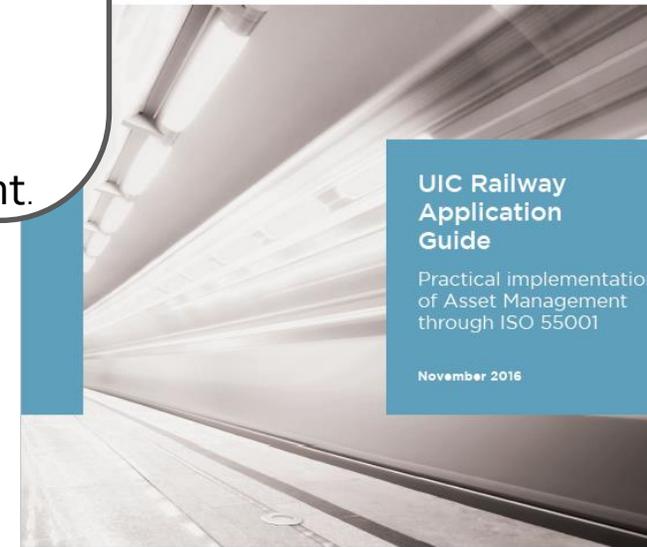


Asset Management maturity refers to the capability of an organisation's people, processes, technology, leadership and culture to derive and deliver value from its assets to meet the needs of the organisation and its stakeholders in a sustainable manner.

Asset Management maturity is generally assessed against known best practice in Asset Management.



ASSET MANAGEMENT WORKING GROUP

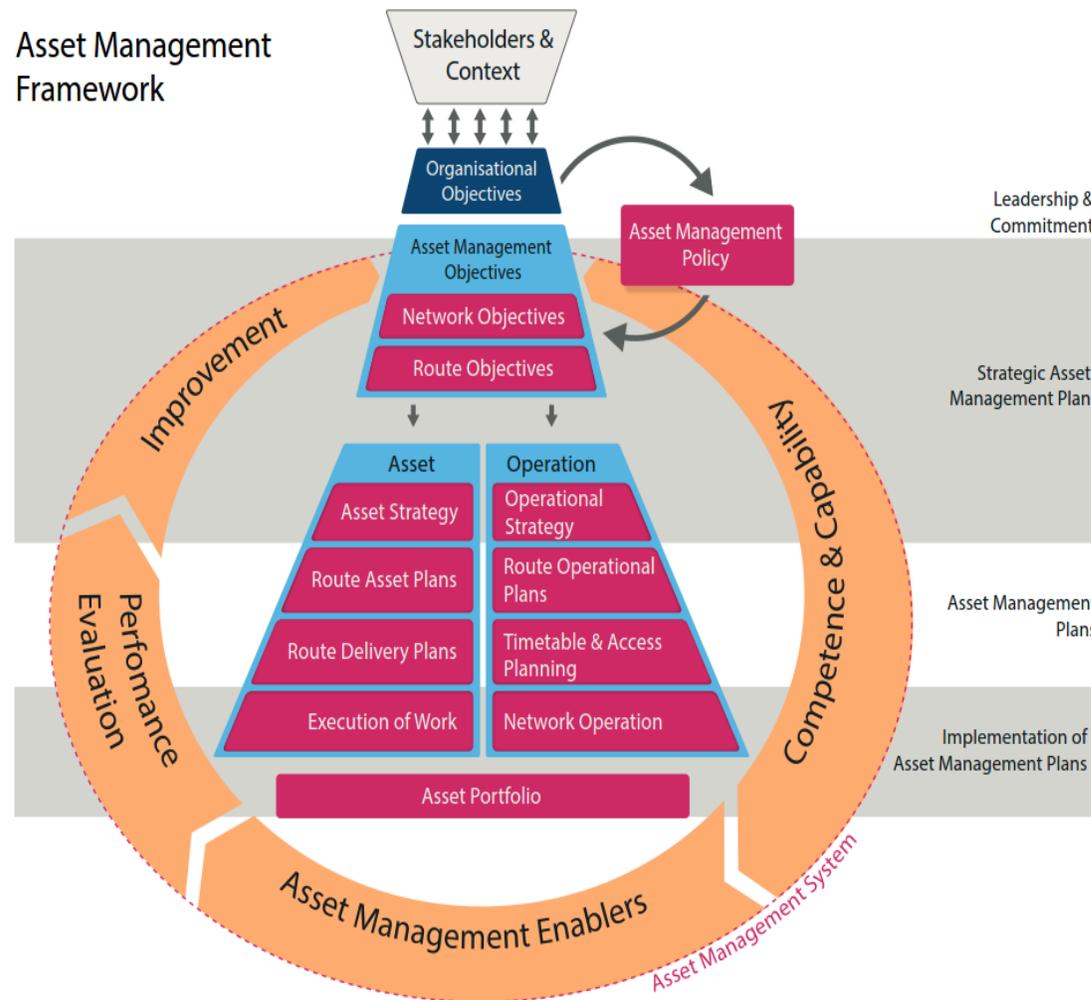


Definition of framework components

❖ Components of framework are macro elements of analysis.

❖ The **framework** reference is defined on Guidelines published by UIC.

❖ Framework components have a logical order



The Tool

A form to manage input and output data

AM Tool MATURITY LEVEL ASSESSMENT

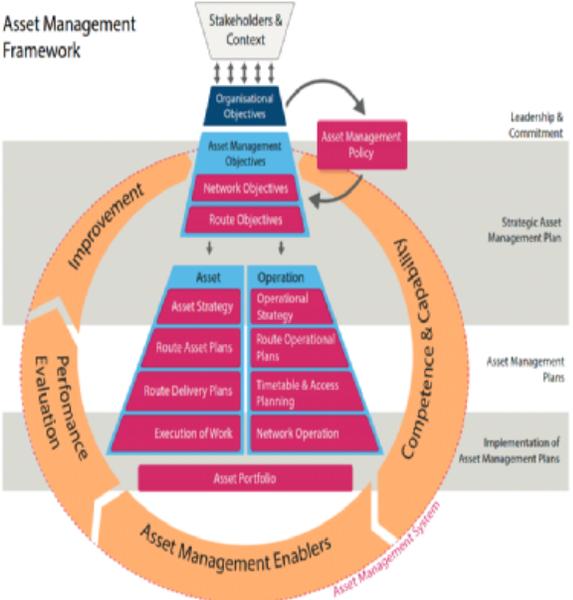
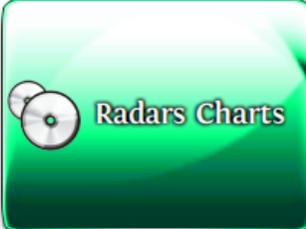
Company Name: © nico Cocciglia Copyright 2016

Responsible of answers:

Assessor name:

data:

Output Management

The diagram shows a hierarchical structure of Asset Management Framework. At the top is 'Stakeholders & Context', leading to 'Organisational Objectives'. Below this are 'Asset Management Objectives', 'Network Objectives', and 'Route Objectives'. The 'Asset Management Objectives' are further divided into 'Asset' (Asset Strategy, Route Asset Plans, Route Delivery Plans, Execution of Work) and 'Operation' (Operational Strategy, Route Operational Plans, Timetable & Access Planning, Network Operation). The 'Asset Portfolio' is at the base. The framework is supported by 'Asset Management Enablers' and 'Asset Management System'. The process is also influenced by 'Leadership & Commitment', 'Strategic Asset Management Plan', 'Asset Management Plans', and 'Implementation of Asset Management Plans'. A circular flow of 'Improvement', 'Evaluation Performance', and 'Competence & Capability' surrounds the central structure.



Input Buttons



Output Buttons

A form multipage for read the questionnaire and evaluate your answers

[Home](#) [Inserisci](#)

NETWORK E

FW Component

ENABLED PROCESS

PROCESS DESCR.

QUESTION

ID QUESTIONS

maturity level 1
 maturity level 2
 maturity level 3
 maturity level 4
 maturity level 5
 maturity level 6

maturity level 1

Minimal stakeholder consultation, process undefined or not-existent

maturity level 2

Limited awareness for process definition. Some basic actions have been taken and some targets set. Mostly isolated and unguided activities. Level of competencies and know-how unknown.

maturity level 3

Awareness among top and middle management exists. Process of consultation of stakeholders defined and targets mostly set. Process implementation kicked-off. Level of competencies and know-how mediocre.

maturity level 4

Processes have been defined and process implementation close to completion has been kicked-off.

maturity level 5

Fully managed process completed. Views are collected according to process definition, target achievement monitored. High level of competencies.

maturity level 6

A standardized process has been defined and fully managed according to stakeholder consultation. Views collected, documented and published.

Evidences

Comments

Process Owner Organization

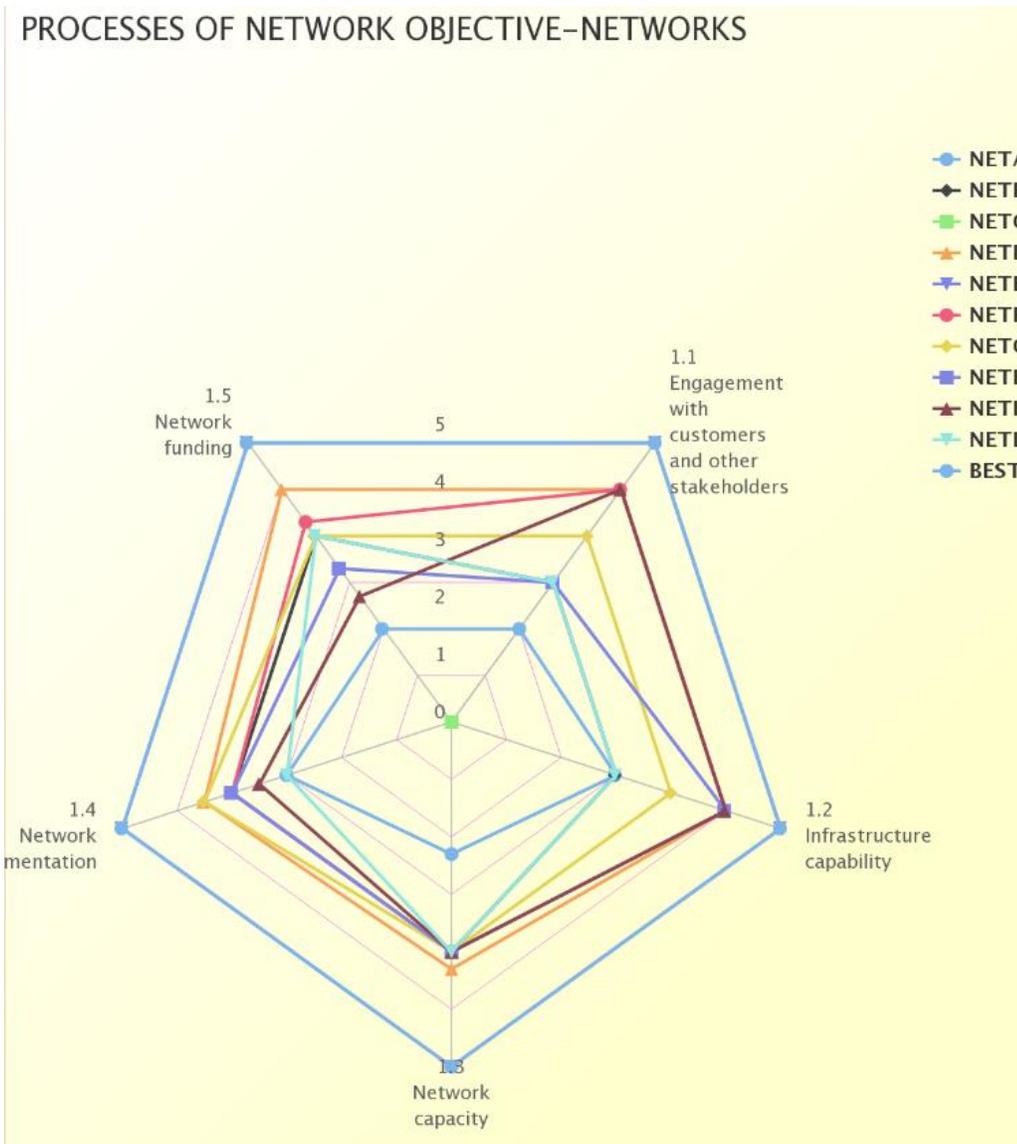
Process User Organization

Name of process in use

Process Norms/Procedures

Enabling IT Tools

Graphical representation of results



Thank you for attention

