

Process (Human Activity)

System Description

Abstract

The system-of-interest for this System Description is a Process that is an essential element of a [Capability](#).

The process describes the activities and information used to carry out work within an organization. This document also contains the following:

- Process Work Product Descriptions
 - Process Description
 - Activity Description
 - Role Description

This document describes the concepts, principles and objects associated with a process.

- [PDF: System Description: Capability as a System, Version 0.17 27-November-2024](#)
- [PDF: System Description: Process \(Human Activity\), Version 0.5, 27-November-2024](#)
- Link to [Process Design Patterns PDF](#)

Author and Version

Bruce McNaughton, Version 0.5, 27-November-2024

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Revision History

- V0.5 27-November-2024 Restructure document to fit into Enterprise (SoS) Documentation Set.
- V0.4 22-August-2022 Updated with Process SD.
- V0.3 21-Dec-2018 Updated to reflect the full system element of a capability

V0.2 20-Sep-2017: Updated from revised System and Enterprise Conceptual Models.

V0.1 16-Apr-2017: Updated EntSoS Context Model Pictures.

V0.0 05-March-2017: Initial draft.

System Description: Process (Human Activity)

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The process describes the activities and information used to carry out work within an organization. This document also contains the following:

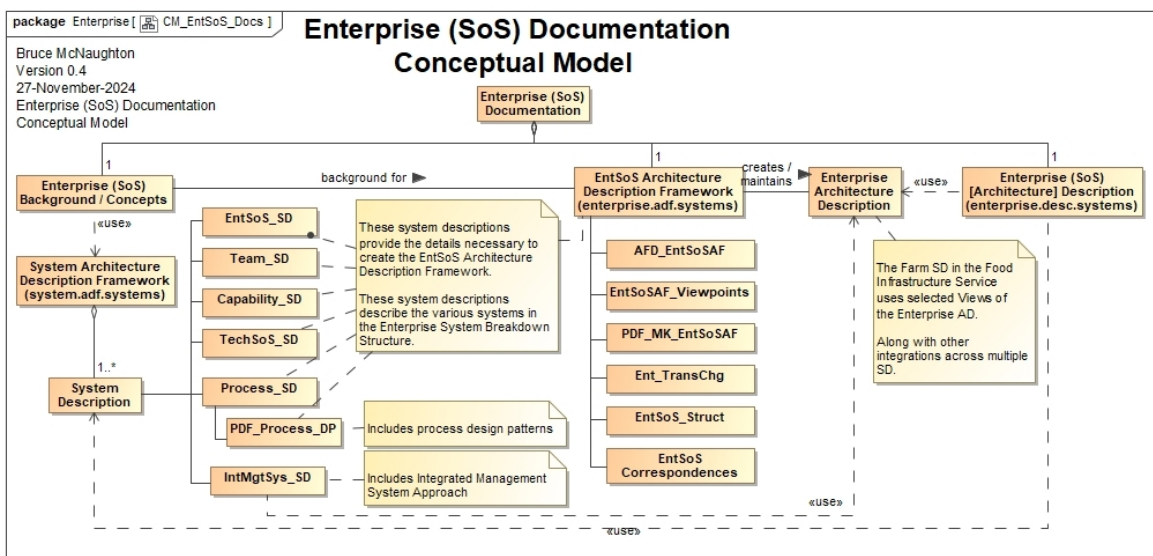
- Process Work Product Descriptions
 - Process Description
 - Activity Description
 - Role Description

This document describes the concepts, principles and objects associated with a process.

- [PDF: System Description: Capability as a System, Version 0.17 27-November-2024](#)
- [PDF: System Description: Process \(Human Activity\), Version 0.5, 27-November-2024](#)
- Link to [Process Design Patterns PDF](#)

Documentation Big Picture

The following diagram highlights the full set of information that supports the use of Enterprise (SoS) Documentation.



The following are links to the various documents that are available to read in PDF format.

[PDF: Enterprise \(SoS\) Background and Concepts, Version 0.3, 04-April-2025](#)

Link to [the System Description Architecture Description Framework](#)

System Description

[PDF: System Description: Enterprise as a System of Systems \(SoS\), Version 0.20, 25-November-2024](#)

[PDF: System Description: Team as a System, Version 0.11 15-December-2024](#)

[PDF: System Description: Capability as a System, Version 0.17 27-November-2024](#)

[PDF: System Description: Process \(Human Activity\), Version 0.5, 27-November-2024](#)

Link to [Process Design Patterns PDF](#)

[PDF: System Description: Integrated Management System, Version 0.18, 16-April-2025](#)

[PDF: System Description: Technology as a System of Systems \(SoS\), Version 0.2, 31-May-2021](#)

Link to [the Enterprise \(SoS\) Architecture Description Framework](#)

Link to [EntSoSADF AVPD PDF](#)

[PDF: Structuring Formalism: System Description \(SDSF\), Version 0.4, 07-February-2023](#)

Link to [Current EntSoSADF Viewpoints PDF](#)

Link to [Current EntSoSADF Model Kinds PDF](#)

Link to [the EntSoSAF Correspondence Section](#)

The [Enterprise Transformation and Change PDF](#) contains the Enterprise Transformation and Change Concepts. Version 0.5, 09-December-2022

Enterprise Architecture Description

Examples of Enterprise Architecture Descriptions are being prepared.

System: Process

View: System Name and Class

Name: Process

Based on: [Designed Abstract System](#)

A process¹ is a set of *interrelated or interacting activities that use inputs to deliver an intended result.* ISO 9000:2015.

Activities: descriptions of two or more activities to be carried out by people in the organisation. The activities also identify the Technology Interaction Points.

Inputs: The work products to be used or conditions necessary to carry out the activity

Interrelated or interacting: The activities within the process work together to produce the intended results required to achieve the objectives and goals of the process.

Intended Result: The intended result can be an output of a process, a product or service from the organisation. Other terms used are work product, outcome, etc.

A process is an essential element for the realization of a capability within an organization.

[PDF: System Description: Capability as a System, Version 0.17 27-November-2024](#)

Process is also called:

- Business Process
- Team Process
- Organizational Process.

[PDF: System Description: Process \(Human Activity\), Version 0.5, 27-November-2024](#)

View: System Purpose

Each process has a specific purpose and set of results or outcomes. A process is described in a process description.

The purpose of the Process as a system is:

- To identify the key activities to be performed by people to support a named Capability
- To create a process description in a consistent way to make it easy for people to use.
- To provide consistent guidance and information to support the Process
- To ensure that technology is aligned to the Process
- To ensure that training and examples are derivable from the process.

The following are key principles about process descriptions

- Activities, Decisions and Relationships are the core elements of business processes
- A person assigned to a role carries out activities (activity descriptions) that use and produce information or deliver an output / outcome.
- Critical activities are those that contribute to the achievement of objectives necessary to deliver the organisation's purpose.
- Processes are designed based upon knowing the skills, knowledge and experience (Competency) of a person carrying out an activity.
- Processes must be owned and managed throughout the life cycle of a capability to deliver the required performance.
- Each process must have a capability owner responsible for managing the process development, implementation, improvement and performance
- Capability Managers are responsible for the development, implementation and improvement of the process.
- Capability Managers are responsible for the business case for the investment for use and improvement

¹set of interrelated or interacting activities that use inputs to deliver an intended result. ISO 9000:2015.

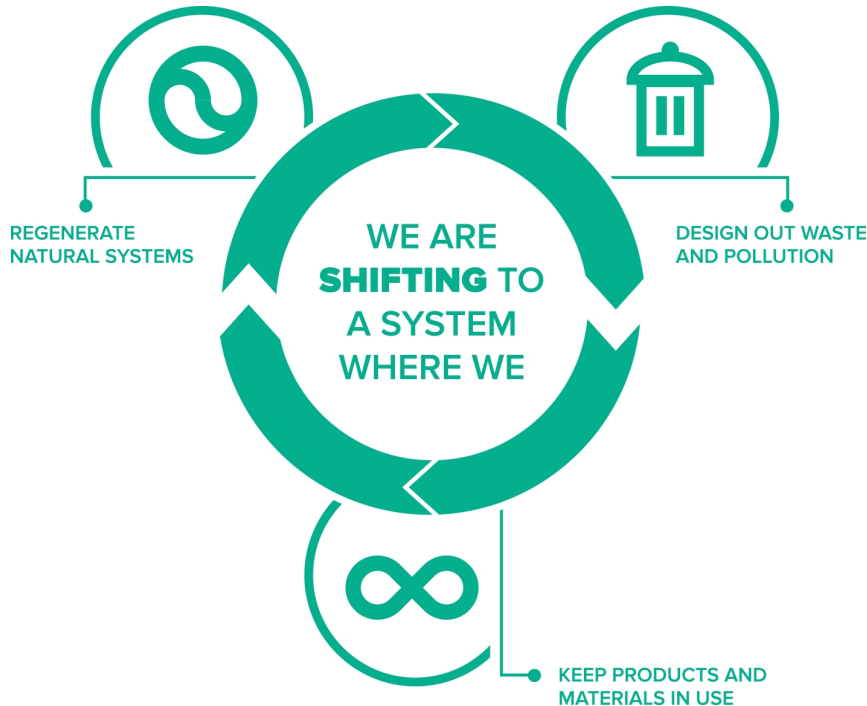
- Activities within processes identify the Technology Interaction Point necessary for proper integration of technology into the work.
- Inputs and outputs of a process are work products. Work products may be documents, people, or assets.

Circular Principles

The three principles of the [circular economy](#) are:

- Design out waste and pollution
- Keep products and materials in use
- Regenerate natural systems

Within an Enterprise, the new product development process provides the way to understand the products and services being developed and delivered and look at the whole life cycle implications of the product or service to ensure that all biological and technological nutrients are recycled (e.g. turn into food for other processes).



The next picture is from the [Ellen Macarthur Foundation](#) and represents the three principles and the various flows.

Concurrent Engineering of the product or service will ensure that all stakeholders needs are represented including the Household, the Government (local and national), the financial institutions and ensures that waste is recycled into food for other consumers. Recycling applies to both the biological and technical nutrients produced as part of the product or service.

Note: The new product development process includes the full Product Management Life cycle including:

- Design and Development of the primary product (including prototypes)
- Design and development of the manufacturing process
- The alignment and assessment of the full supply chain
- The support / warranty services
- The Return Services
- The Recycle processes and services.

This product team would include representatives from all of the areas identified above.

OUTLINE OF A CIRCULAR ECONOMY

PRINCIPLE

1

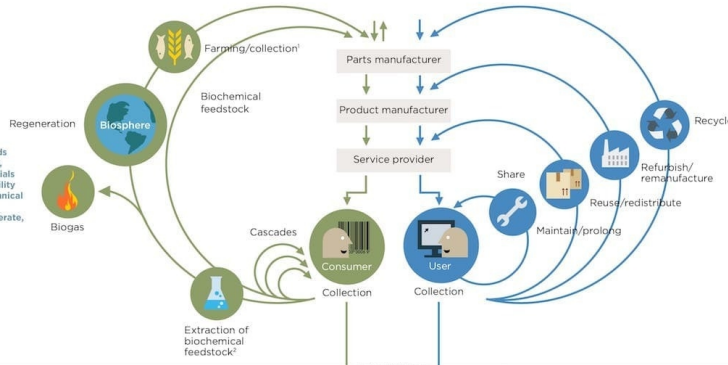
Preserve and enhance natural capital by controlling finite stocks and balancing renewable resource flows
ReSOLVE levers: regenerate, virtualise, exchange



PRINCIPLE

2

Optimise resource yields by circulating products, components and materials in use at the highest utility at all times in both technical and biological cycles
ReSOLVE levers: regenerate, share, optimise, loop



PRINCIPLE

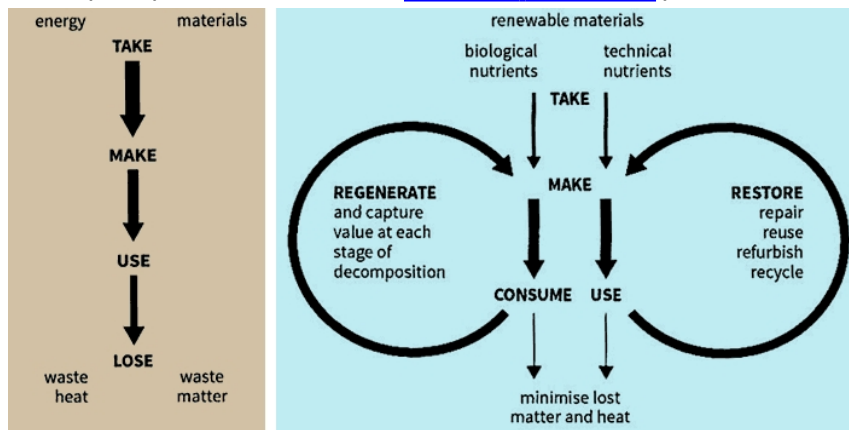
3

Foster system effectiveness by revealing and designing out negative externalities
All ReSOLVE levers



1. Hunting and fishing
2. Can take both post-harvest and post-consumer waste as an input
Source: Ellen MacArthur Foundation, SUN, and McKinsey Center for Business and Environment; Drawing from Braungart & McDonough, Cradle to Cradle (C2C).

These principles are shown in the [Doughnut Economics](#) pictures below:



Kate Raworth, 2017

[View: System Properties](#)

System Quantity Properties

- Number of Roles Defined or shared
- Number of Activities in the Process
- Number of completion criteria
- Number of improvements

Systemic Quality Properties

- Ease of use
- Consistency of outcome
- Planning accuracy

Systemic Capabilities or Functions

- Each process provides unique functions and capabilities when used in a capability.
 - These functions are described in the process outcomes.
 - functions for measurement and reporting (performance evaluation and status)
 - Functions for information management.(records management / configuration management)

System States

The various defined states that the capability as a system-of-interest can be in.

- Identified (as in an architecture)
- Planned (a team has been established)
- Designed.
- Developed.
- Piloted
- Rolled-out where used
- Maintained
- Improved
- Retired

View: System Stakeholders and Concerns

Capability Development Stakeholders in a [Capability Innovation Team](#) developing a capability and the core process.

Organizations using a Capability

- People (Practitioners) that are part of the capability
- Managers who plan and realize the capability in their organization or team.

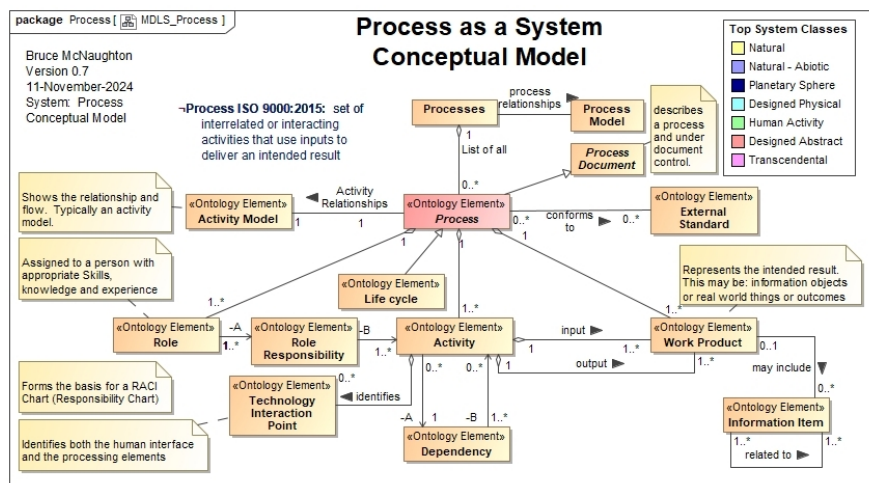
View: System Environment (Context)

The Capability that incorporates the process forms the environment of the process.

See the [Capability](#)

View: System Structure (Pattern of Organization)

System Element: Identification and Relationships



The process documentation is made from using the [Capability Innovation Life Cycle](#).

The following work product descriptions provide more details:

- [Process Documentation \(including Process Design Patterns\)](#)
 - Provides an overview of all process documentation
- [Activity Description](#)
- [Role Description](#)

View: System Behavior (Structural Changes)

Configuration / Scenario:

Describes any configuration / scenario attributes for a specific system-of-interest. This may not be appropriate for all system descriptions (e.g. patterns or abstract systems).

Cyclical (Repeating / Regular) Processes

The activities identified in the process form the regular and repeating processes when the process is used. **These are triggered by the events identified for each activity**

- **Trigger:** Entry point for an activity: **Process:** Actions to carry out the activity for the person with an identified role.

Changes are identified for a process based upon use. The normal Change Process is used.

- **Trigger:** Issue / improvement based upon use **Process:** Record the issue / improvement in the capability improvement log.

Development Life Cycle Processes

Development activities take the process through the life cycle of [Capability Innovation Life Cycle](#). Any improvements are coordinated by a [Capability Innovation Team](#). The capability innovation team uses the capability models, capability set models, and strategic plans to determine the changes to the life cycle of a process. (See [Capability](#)).

Process Documentation

Work Product Description

A process¹ is a set of *interrelated or interacting activities that use inputs to deliver an intended result.* ISO 9000:2015.

Interrelated or interacting: The activities within the process work together to produce the intended results required to achieve the objectives and goals of the process.

Activities: descriptions of two or more activities to be carried out by people in the organisation. The activities also identify the Technology Interaction Points.

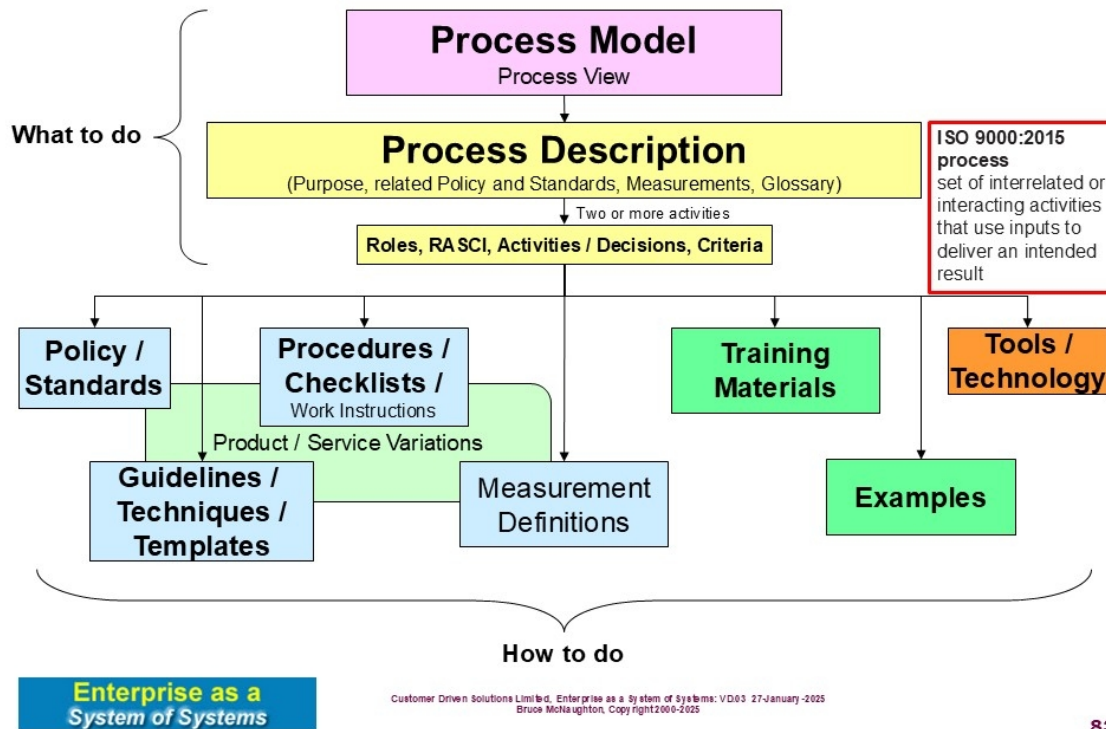
Inputs: The work products to be used or conditions necessary to carry out the activity

Intended Result: The intended result can be an output of a process, a product or service from the organization. Other terms used are work product, outcome, etc.

A Process Description contains the top level information about a specific process. This process description working view of the whole process and supporting information.

¹set of interrelated or interacting activities that use inputs to deliver an intended result. ISO 9000:2015.

Process Document Structure



The supporting documentation are all referenced through the process description to keep the process description focused on 'what to do' rather than the details of how to do the work.

Over time, the use of this document will reduce as people become competent using the process. The process description is also the starting point for any improvements to the process.

The process description and the supporting documentation becomes the full body of knowledge about the process.

Contents

The Process Description contents are:

- Introduction
 - Purpose / Scope
 - Objectives
 - Measurements
- [Process Activity Model](#)
- Roles and Responsibilities ([Process Responsibility Chart](#))
- For each Activity: [Activity Description](#)
- Tools and Training
- Document and Record Retention

Formal Support Documentation

- **Policy**¹ A policy is a statement of the management intention and direction. The Policy is a short document and is mandatory. Standards establish the minimum acceptable criteria for the work.
- **Procedure**² Procedures are used to ensure that critical work is performed in a consistent way. A procedure states how to carry out a work item and is mandatory.
- **Standard**³ Establishes the minimum criteria for an area.

¹Set management direction and intention

²proceeding; mode of conducting business or legal actions; mode of performing task.

³Sets the minimum acceptable standard for carrying out all or part of a defined activity.

- **Guideline**¹ Guidelines and Techniques provide guidance and best practice information to people carrying out an activity within the process. These are generally non mandatory and are generally introduced through training or examples. Checklists may also be used to provide support for using the process
- The inputs and outputs are also described in this set of documentation. This also includes the definitions of the templates for documents, forms, or other information objects.
- **Techniques**²
- Checklists
- **Template**³ A starting point for creating a work product.
- **Link to [Process Design Patterns PDF](#)** A way to reuse existing designs or create new process design patterns. An example is the [Capability Innovation Life Cycle](#). See [Process Design Pattern Template](#)

Detailed Support Documentation

- **Measurement Specification**
- **Glossary of Terms**

Training Materials

- Training Materials provide a way to transfer knowledge about a process. There is generally a structured set of materials which can be used by an individual (self study) or in a classroom environment. There may be an instructors guide, a workbook, some examples, etc.
- Additional guidance materials to help carry out the process
- Example of how to use the process
- Exercises to help practice the activities within the process.
- Practical and relevant examples are critical to a consistent implementation of a process. These may be created during development as a sample of expected best practice for use in piloting. The pilot teams using the process may then provide examples for the roll-out.

Tools

- Tools can provide both productivity and accuracy gains for people implementing the process. These must be carefully specified and evaluated by the team for suitability for use in the organisation.
- Descriptions of associated tools
- Examples of using the tools
- User guides or online help.

Processes Creating, Updating and Using this work product:

Created and Updated: [Capability Innovation Life Cycle](#)

Used: [Continual Management System Improvement](#)

Completion Criteria:

- Process Description has been reviewed and approved.
- Process Owner has taken responsibility for the process.

Examples

The [Managing Successful Projects \(PRINCE2\) Manual](#) is an example Process Description for the [Project Management](#). This PRINCE2 manual can also be condensed to 15 to 20 pages if people are all trained on the process. So given the correct training, the actual Process Description may be very small.

Process Model

Description

The full set of Processes or a specific subset identified for the organization. This model provides a basis for the design of each process.

¹Best practice information on how to carry out an activity.

²Recommended approach to performing an activity. These may be reused across many activities.

³A recommended approach to creating a document and capturing the information in a common format.

The process model identifies the relationships between the various processes. These models can also be used to map the processes to the [External Requirements Indicator Map \(ERIM\)](#).

Contents

The contents of a Processes Model are:

- Identified Processes for all processes or a named subset
- Relationships of the processes within the model.

Languages, Notations, Conventions

Processes must be identified by their exact names

The types are defined by the top level capabilities (generally).

Methods - Create, Analysis, Identify

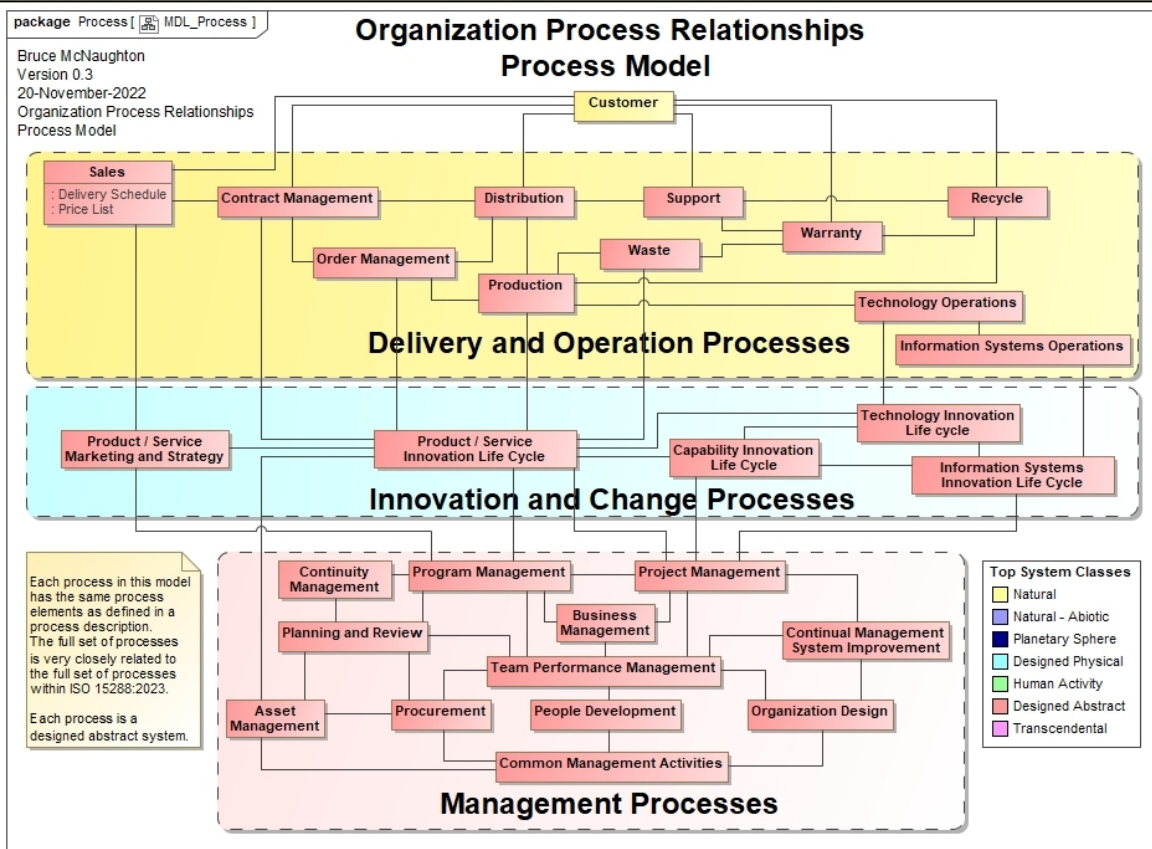
1. Analyse the various capability models to identify unique processes supporting each Capability
2. Group the process by type if necessary
3. Identify the relationships between the processes (invoke, use work product, etc)
4. Review the model

Modelling Techniques

Simple Class diagram

or an Activity Diagram (optional)

Examples



References

Model Kind Links

External Requirement Indicator Map

Description

A mapping from requirements in an external standard, regulation or best practice document to the activities identified in the [Process Model](#).

There is also a rating associated with the item being mapped. This indicator drives any corrective actions or improvement investments.

External standards essentially place requirements on the way work is carried out or the way products and services are delivered and used.

Contents

For each external standard, regulation or best practice requirement, an indicator is prepared indicating the following:

- Identifier of the Requirement
- Processes / Activities that map to the requirements (may also map to measurements or artefacts)
- Assessment of the implementation of the practice

These will be rolled up by external standard, regulation or best practice to see how well the requirements are being addressed within the organization.

Languages, Notations, Conventions

The map is best viewed in a table with colors indicating the status of the implementation.

Methods - Create, Analysis, Identify

Create: Identify the external standards, regulations and best practice models to use

Analysis: Map the requirements to the current processes / activities and make an assessment (formal or informal)

Identify: Identify any actions that are necessary to close any gaps. Prioritise based upon planning.

Filter: Filter by external standard or best practice model

NOTE: comparisons across external standards or best practice should be avoided. They should always have an activity (work to be carried out) in a process as the focal point).

Modelling Techniques

Use the Activity Models of the work necessary to satisfy the external requirements. These may either exist or can form the basis for a new process.

Map the activities using a table or database for sorting, addressing duplicates, etc. (Basically Requirement to Activity / Process).

Examples

Similar to PIIDs for the CMMI SCAMPI process (older versions of the process).

References

Model Kind Links

Process Top Level Design Model

Description

The Process Top Level Design Model identifies the top level design for a process. Each process identified on the Process Model will have an associated Process Top Level Design.

These Top Level Designs can be based upon the Process Design Patterns included in this Architecture Description Framework.

Each Process Design Pattern will then be translated into a Process Description as the core document of the [process documentation](#).

Contents

The contents of the Process Top Level Design Model Include:

- Purpose
- Entry Criteria
- Work Products
- Process Owner

- Activities
- Roles

Languages, Notations, Conventions

Entry Criteria: Explains how the process is invoked and the conditions necessary to start the process

Work Products: Identifies the Work Products used as inputs or outputs

Process Owner: The typical jobs where the process owner may come from

Activities: See the types of activities identified in the modelling techniques section. (these are normally shown in an Activity Model)

Roles: The roles that will be identified and owned by this process.

Methods - Create, Analysis, Identify

Review any of the Process Design Patterns for a close match to the process to be designed.

Create a rough one page description of the process at an architectural level

Check the process fit with the other processes in the Process Model

Review the process top level design with appropriate stakeholders.

Modelling Techniques

There are various Patterns of Process design used in an Architecture Description. These are:

Object Management Pattern: Create, manage, and Release a Business Object (work product)

Examples of a process object pattern are:

- **Team** - Team Performance Management (Create and operate a team)
- **Person** - Recruit, Select, Develop, Assign, review performance.
- **Business Process** - Design, implement, rollout and measure
- **Product and Service Business Unit** - Business Management Activities.
(A type of Team responsible for the Business Mode or Business Plan of a Portfolio / Catalogue of Products and / or Services using the Business Management Business Process.)
- **Programme or Project** - Project Management Process.

Object Translation or Object Innovation Pattern: Translate Requirements of a Business Object (Work Product) into a fully tested and accepted Business Object.

- New / updated Product / Service Development
- New / updated ICT System development
- New / Updated Process

Examples

All of the Process Design Patterns are examples of the Process Top Level Design Model.

Link to [Process Design Patterns PDF](#)

References

Model Kind Links

Process Activity Model

Description

A Process Activity Model shows the relationship of the related activities and their use of information. This model is typically used to understand / analyze the activities within a single process. These activities form the basis for Role identification and related training.

Contents

There are many types of models that cover the formal relationships of activities. These are:

- BPMN
- Activity Diagrams (UML)
- IDEF
- DataFlow diagrams

Some use swim lanes to highlight the roles carrying out the work (BPMN / UML).

Each of the above standard models has a corresponding set of definitions to create them.

Note: Informal diagrams that are more understandable by a set of stakeholders are also in this set and must be based upon a formal model.

Note: These activity models also need to provide a way to identify a ["Technology Interaction Point"](#)

Languages, Notations, Conventions

See the procedures for each of the various activity models. Example: [UML Activity Diagram](#)

Methods - Create, Analysis, Identify

See the procedures for each of the various activity models.

In addition, the activity model may also identify some [critical decision points](#) that may bring in additional models

Modelling Techniques

[Brown Paper and Postits.](#)

methods and techniques

The [Soft Systems Methodology \(SSM\)](#) problem solving approach is a good approach for both identifying the activity model and the issues surrounding the implementation / changes necessary to implement the benefits.

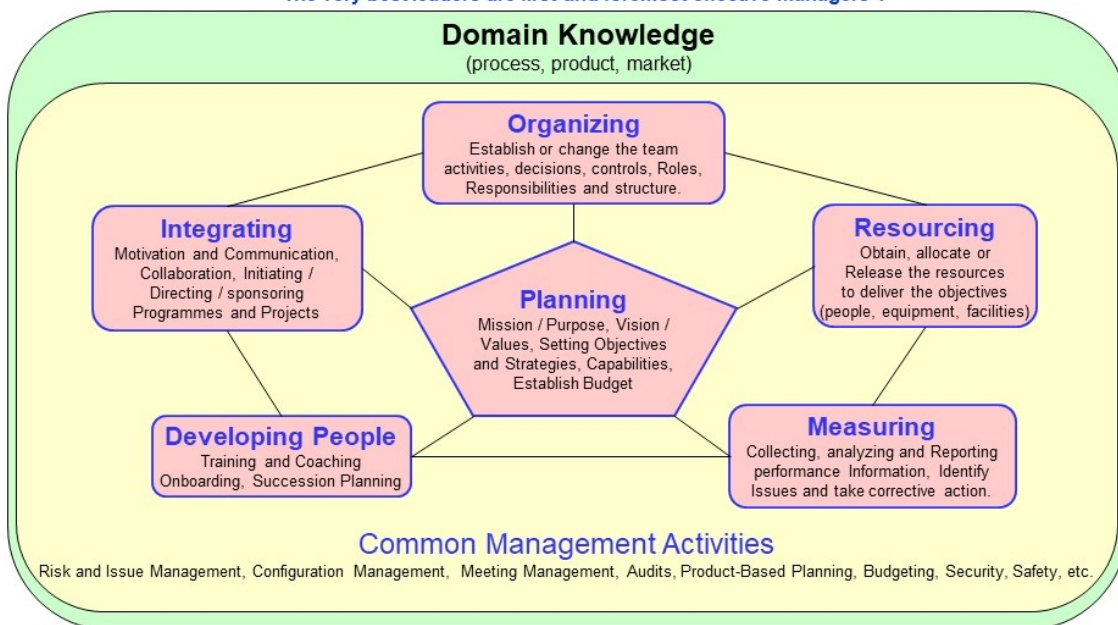
Examples

The Activities of a Manager are shown as a simple Activity Model.

The Activities of a Manager

Leadership

"The very best leaders are first and foremost effective managers".



Adapted from: Peter Drucker, *Management: Tasks, Responsibilities, Practices, 1974, Abridged*

Enterprise as a System of Systems

Customer Driven Solutions Limited, Enterprise as a System of Systems: V8.12 12-January-2023
Bruce McNaughton, Copyright 2000-2023

References

Model Kind Links

Responsibility Chart

Description

A responsibility chart is a two dimensional matrix with role related to either an activity, decision, or outcome of a process. The intersection of the row / column is the RASCI for this item.

Contents

Two dimensional matrix relating the role to the activity, decision, or outcome of a process.

A cell in the matrix contains the RASCI Responsibility of this role. This type of diagram is typically done once for a process and then maintained as the process matures.

Languages, Notations, Conventions

RASCI = Responsible, Accountable, Support, Consulted and Informed.

Methods - Create, Analysis, Identify

Identify roles
Identify process, activities, outcomes,
Create a Responsibility Chart (a Table mapping outcomes to roles).

Modelling Techniques

Use of a simple Table or matrix with outcomes on the left column with Roles across the top. The specific RASCI allocated to a role is located at the intersection of outcome and role. Generally a single letter is used.

Examples

References

Model Kind Links

Process Decisions

Description

A Process may contain a number of related decisions and actions. This can result in a number of types of models that represent the problems and the outcomes of the decision process.

- See [Wikipedia: Decision Theory](#)
- See [Wikipedia: Decision Tree](#)
- See [Wikipedia: Decision Analysis](#)
- See [Wikipedia: Action Axiom](#)

Additional information can be found in ISO 15288:2023:

- 6.3.3 Decision Management Process
- 6.3.4 Risk Management Process
- 6.4.6 System Analysis Process (for single parameter based decisions)

Contents

There are many types of decision models / tools that help describe processes. These are:

- Decision Trees
- Outcome Analysis (related to reviews or stages)
- Decisions modelled in Activity Diagrams related to a process.
- Log of decisions and rationale
- Others....

Note: These activity models also need to provide a way to identify a "System Interaction Point".

Languages, Notations, Conventions

Some tools have decision tree models others can be embedded in Activity Diagrams

Methods - Create, Analysis, Identify

See the procedures for each type of models / diagram being produced.

Modelling Techniques

[Brown Paper and Postits.](#)
methods and techniques

These decision analysis approaches need to be in line with Decision Analysis found in ISO 15288.

Examples

The Activities of a Manager are shown as a simple Activity Model.

References

Model Kind Links

Activity Diagram

Description
An Activity Diagram is a standard UML Diagram.
Contents
Activity
Information Object
Flow / sequence
Start / Stop
Branch / Integrate
Languages, Notations, Conventions
Activity Diagram
Methods - Create, Analysis, Identify
Activity Diagram
Modelling Techniques
Activity Diagram
Examples
Examples
References
Model Kind Links

Soft Systems Methodology (SSM)

Messy problem solving technique based upon a model (see page 163 of [Systems Thinking, Systems Practice](#)) similar to the architectural process identified in ISO 42010.

See Peter Checkland 's book, Systems Thinking, Systems Practice for more information on [Soft Systems Methodology \(SSM\)](#)

The steps for this approach are:

See page 163 Figure 6 for the 7 steps in the process:

- 1) The Problem Situation Unstructured
- 2) The Problem Situation expressed
- 3) Root Definitions of Relevant Systems
- 4) Conceptual Models
 - 4a) Formal System Concept
 - 4b) Other systems thinking
- 5) Comparison of 4 with 2
- 6) Feasible, desirable changes
- 7) Action to improve the problem situation

The focus for the model building steps 3 and 4 is identifying and understanding the [Human Activity Systems \(HAS\)](#).

The Human Activity Systems are defined by the [Root Definition](#) (essentially the system purpose): CATWOE.

Along with a powerful language for expressing active elements in the system PQR.

NOTE: The concept of a [System Description](#) applicable to any type of system is based upon the concept of a Root Definition.

NOTE: The current expression of a Human Activity System is based upon a Living [Social System](#). In this way, a social system that includes people is a Human Activity System. This allows the SSM concepts to be used for a wider range of system types. These concepts come from Fritjof Capra and his book, [The Systems View of Life](#).

See Wikipedia: [Soft Systems Methodology \(SSM\)](#)

See UCL AC UK: [Soft Systems Methodology \(SSM\)](#)

Brown Paper and Post-its

Group work around a particular topic.

Useful for the following:

- Activity analysis
- Decision analysis
- Planning

Role Description

Work Product Description

A Role Description provides a way to group a number of responsibilities and activities into a package that can be assigned to a person.

A Role Description is an element of a process as there are clear links between the role and the way the process results will be delivered.

Note: Some Job Descriptions and Role Descriptions may overlap. (e.g. Project Manager may be both a Job and a Role). The need for both still exists. A job may be defined by a number of relevant and related roles.

The Role Description is derived from a Responsibility Chart found in the Process Description.

The Role Description provides the Skills, Knowledge Experience, Attitudes and Behaviours necessary for a person to take on a role. The Role relates to one or more activities within a process description.

Contents

Description of the Role

Responsibilities typically allocated to this role

The activities and work products that are typically associated with the role

The skills, knowledge, experience, attitudes and behaviors necessary to carry out the role.

Any performance measures or completion criteria for the role.

Processes Creating, Updating and Using this work product:

The Role Descriptions are typically created and revised when the process description is created or revised.

The Role Descriptions are usually reviewed and updated along with the process description.

The Role Descriptions improve based upon Practitioner involvement in the creation and updating of Role Descriptions. (Practitioners are people who take on the role and have skills, knowledge and experience using the process and the role.

Created and Updated: [Capability Innovation Life Cycle](#)

Used: [Continual Management System Improvement](#)

Completion Criteria:

Role Descriptions are reviewed and approved as part of process description reviews.

The Responsibility Chart reflects the responsibilities and outcomes from this Role Description

Examples

Project Manager

Team Manager

Contract Administrator

Activity Description

Work Product Description

A **process**¹ is a set of *interrelated or interacting activities that use inputs to deliver an intended result*. ISO 9000:2015.

Interrelated or interacting: The activities within the process work together to produce the intended results required to achieve the objectives and goals of the process.

Activities: descriptions of two or more activities to be carried out by people in the organisation. The activities also identify the Technology Interaction Points.

Inputs: The work products to be used or conditions necessary to carry out the activity

Intended Result: The intended result can be an output of a process, a product or service from the organization. Other terms used are work product, outcome, etc.

Each activity within a process has an Activity Description. This is typically a one page description of the activity. This provides an overview of all of the aspects of the activity.

These activity descriptions are written with the following assumptions about the people using the people carrying out the activity:

- A person has the appropriate skills, knowledge and experience to carry out their responsibilities in the activity
- Training on the process and this specific activity has been provided including any examples.
- Any additional details necessary to carry out the activities are described in the supporting documentation.

The activity is also shown in the [Process Activity Model](#) for this process to show the relationships of this activity to all of the other activities found in this process.

Contents

- Activity Name
- Role Responsible for the Activity
- Activity Description, including any [Technology Interaction Points](#) and input work products
- Work Product Description (input or output) .. see Examples below.
- Completion Criteria (Outcomes)
- References and [supporting documentation](#), including identification of work product descriptions for outputs

Processes Creating, Updating and Using this work product:

The creation, analysis and identification methods are found in the [Capability Innovation Life Cycle](#). A [Capability Innovation Team](#) is responsible for creating, analysing, and identifying an activity description.

Completion Criteria:

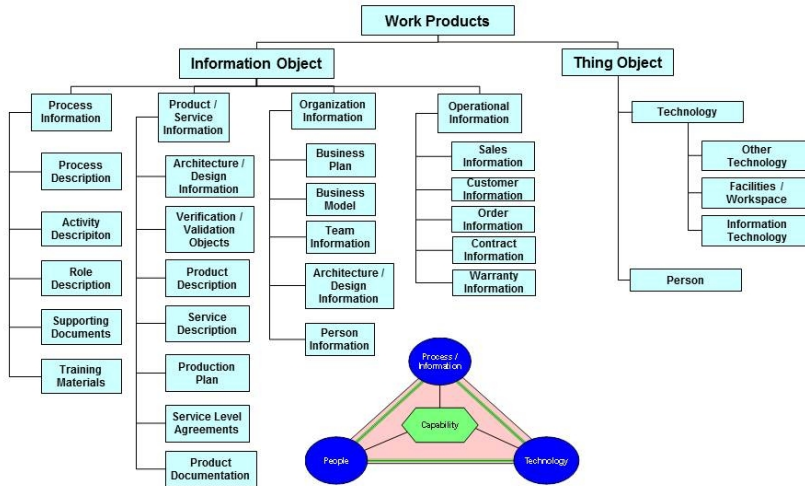
Activity Description is complete and reviewed

Activity Description includes all of the

Examples

¹set of interrelated or interacting activities that use inputs to deliver an intended result. ISO 9000:2015.

Work Products



Customer Driven Solutions Limited, Enterprise as a System of Systems: V0.21 11-February-2017
Bruce McNaughton, Copyright 2000-2017

Quality Reviews

This section builds on the quality review section of PRINCE2 or the inspection process from Tom Gilb. (to be updated)

Types

- formal
- informal

Inspections

SpecQC <- Gilb

Quality Inspection <- PRINCE2

Quality Check <- PRINCE2

very powerful part of any work .. most value if done correctly

purpose identify and remove faults

Data, Capta, Information, Knowledge, Understanding, Wisdom (DCIKUW)

This section builds on the information from Peter Checkland and Russell Ackoff. (Peter Checkland provided the Capta step; the others from Russell Ackoff). (to be updated.)

This area is necessary for process / product improvement and organisational learning.
shared understanding of a particular area.

- best practice
- product understanding
- customer understanding

Knowledge

Wisdom

Learning

Technology Interaction Point

Description

A Technology Interaction Point is a step within a [process activity description](#) that a user carries out to formally interact with technology, typically, an information system.

Contents

A technology interaction point identifies:

- The technology (typically an Information System) to interact with (may be multiple)
- The Reason for the interaction
- The specification reference ... typically a UML Use Case
- The response required.

Languages, Notations, Conventions

Typically this interaction is embedded in an activity description or a related document procedures, guidelines, etc or screen help.

The interaction point directs the user to the correct technology (typically an information system) to use.

Methods - Create, Analysis, Identify

Created: by analyzing the [Process Activity Model](#) that people use within a defined and managed process.

Analysis: Analysis typically ends up in the supporting specification for the specific interaction point. This may also be a number of specifications.

Identify: System Interactions Points should have a unique identifier and reference.

Modelling Techniques

Analysis of activities using the [Process Activity Model](#)

Examples

See BPMN examples (t.b.d). for the identification of the interaction point.

References

Model Kind Links

References

Process / Quality

Doughnut Economics, Kate Raworth

[Doughnut Economics](#)

Two models in the book are being used heavily in the development of the Human Activity Ecosystem models: The **Doughnut** and the **Embedded Economy**. The Doughnut is like a balanced scorecard for the planet and the Embedded Economy model is a good starting point to explore the systems that are creating the doughnut problems and the changes that are needed to bring the world into the doughnut safe and just place.

[Kate Raworth and Herman Daly Video](#)

Doughnut Economics pictures used with permission, Kate Raworth, 2017

Ellen MacArthur Foundation

[Ellen MacArthur Foundation](#)

- [Circular Economy](#)
- [Publications](#)
- [A new Dynamic 2](#)

PRINCE2

[Managing Successful Projects. PRINCE2](#)

A project management process used worldwide maintained by the UK Government.

Suitable for any types of projects.

Management Best Practice

PRINCE2, Managing Successful Projects

[PRINCE2, Projects in a Controlled Environment.](#)

supported by [Portfolios, Programmes and Project Offices. P3O](#)

Portfolio, Programme, and Project Management Offices (P3O), UK Government

[Portfolio, Programme, and Project Management Offices \(P3O\).](#)

Establishing and offices to support programmes and projects

Managing Successful Programmes, MSP.

[Managing Successful Programmes \(MSP\).](#)

A programme management process used worldwide maintained by the UK Government.

Suitable for any types of programmes.

CMMI for Development

- [CMMI – Development](#)
-

CMMI for Services

- [CMMI for Services](#)
-

Systems Thinking, Systems Practice, Peter Checkland

[Systems Thinking, Systems Practice: Includes a 30 Year Retrospective](#)

Chapter 4 describes System Thinking and the need to establish a system classification framework that is based upon holism rather than reductionism.

Chapter 4 contains a simple system classification scheme that is being used to define the top level system types in a System Classification Model. The system classification system is described in the book from page 102 to page 122. Figure 4, page 112 highlights the 5 [system classes](#). This book also has a good glossary of terms.

This book also contains a good description of a [Human Activity Systems \(HAS\)](#) based on a [root definition to describe a human activity system](#) (CATWOE). These are both used in the [Soft Systems Methodology \(SSM\)](#). The concept of the Root Definition has been extended to the [System Description](#) that is produced using [the System Description Architecture Description Framework](#). This framework captures the identified systems and their type. The [Human Activity System \(HAS\)](#) based upon the System Description has also been derived from a [living social systems](#).

The Systems View of Life, Fritjof Capra and Pier Luigi Luisi

[The Systems View of Life](#)

This book is supported by the [Capra Course](#) which provides a 12 week course covering the four dimensions of life: Biological, Cognitive, Social, and Ecological.

A Capra Course Glossary is available in the Capra Course Alumni Network - A global Community of Practice related to the book.

See chapter 14 for information on social systems.
