Language of Transformation

White Paper

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Introduction for Transformation language

1 Why a Transformation language?

To succeed in the Transformation of an Enterprise requires a wide range of skills with which to underpin the multiple facets of such a Transformation: Strategy, Marketing, Governance, Process Modeling, Organization, IT, Change management, Project management, Business Plan, Financial Model.
These disciplines are generally taught **independently** of each other: even if certain study programs group many of them together, they are nonetheless but an addition of independent trainings.
The specialization of concepts, language and methods leads to difficulties of comprehension and communication between professions. One of the most well known examples of this is the antagonism between those who specify the business needs and the IT people who must translate such needs into software.

We reckon that the use of a single language shared by all disciplines would have several advantages.

- It would considerably facilitate **cooperation** between the various parties involved in each Project.
- It would enable each one to better understand and assimilate the related disciplines and thus **broaden its scope of action**: this is more fulfilling for each Actor and more efficient for the Project which suffers from the multiplication of Actors.
- Coherence would help to establish connections between the various contributions, to implement an overall **simplification,** to allow a multidisciplinary approach, and to make the whole more easily digestible for teaching and application purposes.
- It would enable the establishment of courses of study for which one could choose the **best teachers** or researchers for each discipline, as long as they agree to reuse the language of Transformation: it would no longer be up to the student to seek out the correspondence between disciplines, but up to the teacher to adapt the form of what he or she is teaching, without changing its essential content.
- It would enable us to present a **Global Approach** to Enterprise Transformation henceforth rid of technical jargon, so as to make it more accessible to the Businesses.

Without a doubt, one of the biggest difficulties facing the Institute is to define and **ensure that the various disciplines use** a common core of shared coherent concepts, given that the traditional approach of the academic world is to make each discipline independent. Such a common core is nonetheless essential to:

- **Helping the student** to understand how each discipline contributes to the same goal and to obtain an overall vision that is more in keeping with the real difficulties he or she are likely to encounter later.
- **Helping teachers and researchers** in the various disciplines to exchange and mutually enrich each other, given that they all use the same common core.

2 What principles for building the language of Transformation?

We suggest defining a first version of this common language in the form of a hundred-page **pedagogic document** and which will be synthesized via a **glossary** of a hundred precise terms to be reused in all the documents or courses offered by the Transformation Institute.
We advise that people read the pedagogic document a first time for an understanding of the proposed choices. The glossary will thenceforth become the instrument of reference.

http://www.ap233.org/ap233-public-information/reference/ISO-FDIS-704-Terminology-Development.pdf

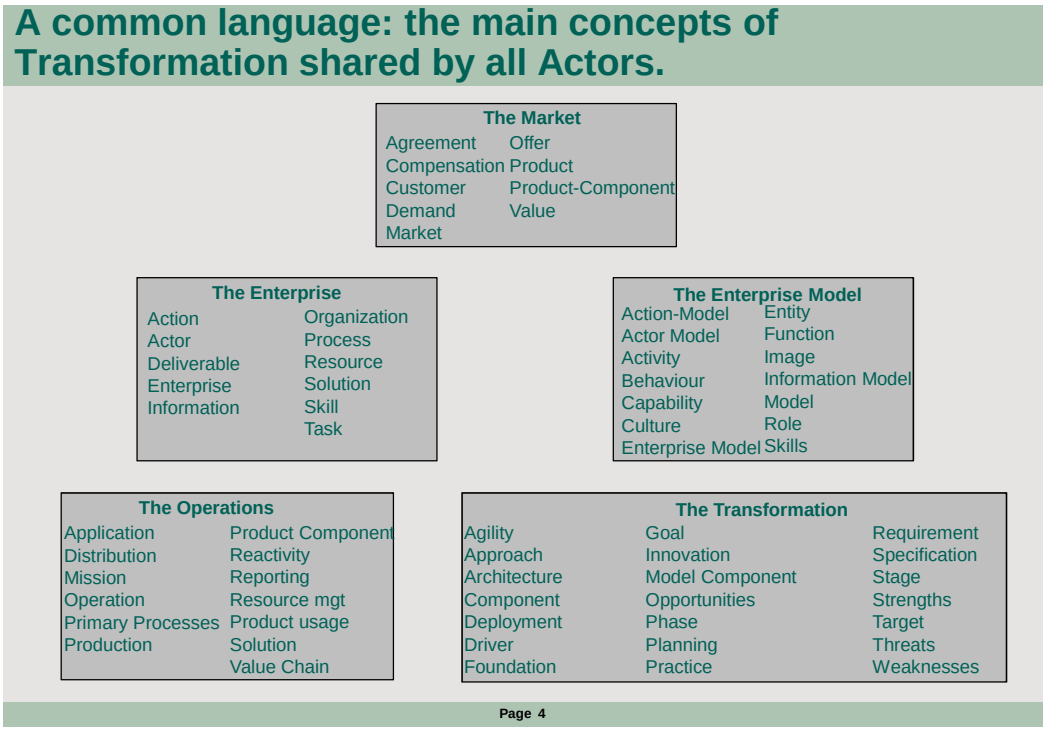
- Language is the **first** level of Modeling.
- We will choose only terms that are **reusable by the various disciplines**, and not terms that are specific to each discipline. Our goal is not to take the place of the experts of each discipline who are far more competent than us in their given fields. Our goal is to supply them with a Foundation of basic concepts which allow them to be coherent and to communicate with other disciplines.
- The words chosen must be **understandable by both Business and IT Actors**: over-technical terms are to be avoided.
- The definitions must be **short.**
- To indicate that a word is part of the Glossary its first letter will be **capitalized.** This rule is rigourous and helps to obtain precise definitions. But it prevented us from copying existing wordings from other sources: we had to translate already existing definitions with the Transformation glossary.
  An example is given with Togaf definitions: we agree on most definitions, but change some wordings (see last document).
- definitions of projects
- We will indicate the most common **synonyms**: the key point is to obtain consensus on the **concept**. Convergence on the most frequently used term can be gradually implemented at a second stage. If several synonyms exist for the same concept, we will chose a single word to facilitate reading.
- We will avoid **homonyms**: when a term has several significations (for example "Architecture" in terms of Description or in terms of Discipline), we will use compound words whenever necessary: "Architecture-as-Description" or "Architecture-as-Discipline". Compound words will be hyphenated with the dash '**-**'.
- To the greatest degree possible, we will use the definitions already offered by the **standardization bodies** as long as they are understandable to business Actors and sufficiently precise: one way of checking this is to make sure that the text of the definitions reuses words defined elsewhere.
- When we describe some Attributes of a concept to better explain it, we avoid to use "**validity period**" or "version" because it does not differentiate the concepts: it is useful for all concepts to describe evolution in time.
- We suggest the use of **modeling tools** to describe the language in a rigorous manner, using UML representation. We are attempting to apply the rigor of scientific method to a field that is currently overabundant with documentation and terminology.

This is an extremely difficult undertaking; we do not hope, as of the first version, to come up with a lexicon of complete definitions acceptable to all. We will need to iterate on the basis of this document which is but a first draft, and the role of the Transformation Institute will be to converge this project towards a lexicon of definitions that win the approval of the majority of the parties involved.

We have divided the concepts into 5 categories which we will now summarize.

- **"Market"** defines what an enterprise works for.
- **"Enterprise"** defines how works an Enterprise to satisfy the Market.
- **"Enterprise Model"** defines main concepts to Model an Enterprise

- **“Operation”** defines Processes, Actors and Information executed for Producing, Distributing and Managing Resources
- **“Transformation”** defines Processes, Actors and Information executed for executing Transformation Projects



We suggest the reader to follow these steps:

1. read the end of **this document** to have a global overview of the main concepts
2. if the reader wants to better understand some parts: read one or several of the **5 documents** which present the 5 topics: Market, Enterprise, Enterprise Model, Operations, Transformation
3. Then use the **glossary** document as a reference guide when the reader wants to check the exact meaning of a term.

3 Sources

We used many different sources to find the right definitions.
Public sources come from:

Ampolbiz
http://www.ampolbiz.com/consulting/resources/strategy_glossary.htm

ARIS
http://en.wikipedia.org/wiki/Architecture_of_Integrated_Information_Systems

Customer Value Inc
http://www.cval.com/glossary.htm#a

DoDAF
http://cio-nii.defense.gov/sites/dodaf20/AV-2.html

IBM
http://www.ibm.com/developerworks/rational/library/4751.html

Obashi
http://en.wikipedia.org/wiki/OBASHI

Sigsigma
http://en.wikipedia.org/wiki/Six_Sigma

Togaf
see following document

Wikipedia
http://en.wikipedia.org/wiki/Transformation

As the number of terms and definitions is huge, some have provided comparative glossaries.
For example, the Wideman comparative glossary accessible in
http://www.maxwideman.com/pmglossary/
explains that "*This version 5.0 contains around **6,500 entries** covering **4,250 discrete terms**".*
We tried to select the minimum number of concepts which help to formalize Transformation.
Each training organization or consulting company will be able to add its own complements which fit to its specific know how.

4 How we proceeded to select definitions

Many different definitions already exist for each concept.
We tried to take advantage of most of the good definitions.

To illustrate the process, let's take the example of the concept "Project".

A very good work was done by Max Wideman to gather definitions for useful Transformation definitions.
If you look at *http://www.maxwideman.com/pmglossary/ you can list many different definitions for projects that we analyzed.*

Project definitions

- A novel undertaking or systematic process to create a new product or service the delivery of which signals completion. Projects involve risk and are typically constrained by limited resources. [D01353]
- A process for conducting work that produces a new product of one sort or another. [D01342]
- A process or undertaking that encompasses an entire set of activities having a definable starting point and well defined objectives the delivery of which signal the completion of the project. Projects are usually required to be accomplished within limited resources. [D01343]
- A set of activities directed to an overall goal. Also, the collection of data relating to the achievement of that goal. More specifically, a network of activities, or file(s) containing such a network. [D01344]
- A temporary endeavor undertaken to create a unique product or service. [D01345]
- A unique venture with a beginning and an end, undertaken by people to meet established goals within defined constraints of time, resources, and quality. [D01346]
- An endeavor in which human, material and financial resources are organized in a novel way, to undertake a unique scope of work of given specification, within constraints of cost and time, so as to achieve unitary, beneficial change, through delivery of quantified and qualitative objectives. [D01347]
- An organized undertaking utilizing human and physical resources, done once, to accomplish a specific goal, which is normally defined by a Triple Constraint.
  Editor's Note: Triple Constraint*, i.e.* Performance*,* Time *and* Cost*, is an* obsolete *construct now considered inadequate to convey* project objectives *and* constraints *in today's* real world*.* [D01348]
- An organized undertaking, limited in time to achieve specific objectives.

[D01349]

- Any temporary, organized effort that creates a one-time product, service, process, or plan.

Editor's Note: "Temporary" suggests that the project's duration is at the whim of management irrespective of product delivery. "Transient" might be a better word. [D01350]

- Any undertaking that has a defined objective, a cost parameter, and a time element for its development. A **cluster of activities** that are pulled together to deliver something of value to a customer. [D01351]
- Any undertaking with a defined starting point and defined objectives by which completion is identified. In practice most projects depend on finite or limited resources by which the objectives are to be accomplished. [D01352]
- A unique, novel and transient endeavor undertaken to achieve novel objectives and involving considerable risk and uncertainty. [D02619]
- A systematic process for achieving a distinct objective. The "system" consists of a **period of planning followed by a period of "doing"**, and this system is **repeated at every level of detail**. These two "periods" are the genesis of the project life cycle. **Project management** is the process of managing the project process. [D03426]
- A one-time effort to accomplish an explicit objective by a specific time. Each project is unique although similar projects may exist. Like the individual activity, the project has a distinguishable start and finish and a time frame for completion. Each **activity in the project** will be monitored and controlled to determine its impact on other activities and projects. [D03604]
- A temporary management environment which is created in order to achieve a particular business objective through the control and co-ordination of logistical and technical resources. [D03909]
- Unique set of coordinated activities, with definite starting and finishing points, undertaken by an individual or organization to meet specific objectives within defined time, cost and performance parameters. See also BS ISO 10006. [D04589]
- Projects are performed by people, constrained by limited resources, and planned, executed, and controlled. A project is a temporary endeavor undertaken to create a unique product or service. Temporary means that every project has a definite beginning and a definite ending. Unique means that the product or service is different in some distinguishing way from all similar products and services. **Projects are often critical components of the performing organizations' business strategy.** [D04751]
- A human endeavor legitimately regarded by its stakeholders as a project [because] it encompasses a unique scope of work that is constrained by cost and time [and] the purpose of which is to create or modify a product or service to achieve beneficial change defined by **quantitative and qualitative** objectives. [D05066]
- A structure to complete a specific defined deliverable or set of deliverables. A project has a specific begin date and end date, specific objectives and specific resources assigned to perform the work. A project manager has overall responsibility and authority over a project. When the objectives are met, the project is considered complete. [D05067]
- A unique set of coordinated activities, with definite starting and finishing points, undertaken by an individual or organization to meet specific objectives within a defined schedule of cost and performance parameters.

Editor's Note: However desirable this might be, we think it possible that a project could be undertaken without either schedule or cost parameters, or both. [D05068]

- Any organized business activity **where an investment is made**. It most commonly refers to the work of creating and operating a physical asset, such as a bridge or a building. **However, it need not involve the creation of a new physical asset at all, for example if a company launches a new product which has been manufactured by existing**

assets. The project extends over the whole investment life-cycle of activity, **not just the initial phases** while the investment is being made. *Editor's Note: This definition is unfortunate in that practitioner consensus holds that a project and its life cycle or life span is concluded upon the delivery and transfer of the product to the customer or user and does not encompass the whole investment period. This latter is typically referred to as the "product"* life cycle. [D05069]

- An undertaking that is focused on **acquiring** a specific product. The product may include hardware, software, and services. Typically, a project has its own funding, cost accounting, and delivery schedule. [D05204]

We try to summarize contents of these definitions for "Project":

- has a Why : it is not the expected deliverable (model or resource) but
  - Perimeter
  - Goal, Objectives, Requirements, indicators
  - the Constraints: Time, Budget
- is an Action
- is unique, unique means risky
- is executed by resources
- uses Project data
- has a deliverable
- is decomposed into Processes and checkpoints

But this definition only works for an **independent Project**. When a large Program is decomposed into Projects, which can in turn be decomposed into sub-Projects, it becomes necessary to propose a larger vision:

- how to define a **global Goal** for the Program
- how to design a **global Architecture**
- how to **decompose** into smaller executable Projects
- how to **coordinate** these Projects
- how to **share Resources** among different Projects
- how to **integrate** the Models coming from different Projects
- how to **check** after integration that the Solution still works
- how to build a **Foundation** reused by the different projects
- …

This is why we propose: "*a Transformation Process is a Process to deliver a Model and/or Deploy this Model, having a Scope, a Goal and Project Constraints, executed by Transformation Resources*". According to the importance of the Transformation, Transformation-Process can be decomposed into sub-Processes which can be called Plan, Program, Project, Sub-Project, Phase, Step, ..

- "**unique**" is important: it is not a repeatable Process as an Operation Process which implies risk
- "**Transformation Process**" means that it is an Action from the Transformation world and not the Operation world
- "to **deliver a Model and/or Deploy this Model**" means that a Project has a Deliverable which can be a new or an updated Model (a new **Offer** composed of Goods, Services and/or Information, or a new **Operation Process**, or a new **Solution**, or a new **Function**…); it also means that the Project may include the **Deployment** of this Model (training, installation of computers, migration of information…); "and/or" means that the Project may only be a Deployment of an existing Model like opening of a new Branch according to a pre-existing Model
- "**having a Scope, a Goal and Project Constraints**" means that any Project must start defining the Scope (like territory, or Product Line, or Process Domain), the Goal (Value to achieve) and Project Constraints (like time, money or Transformation approach)
- "**executed by Transformation Resources**" means that a project is not executed by Operation Resources but specific Resources like Project Manager, Transformation Tools, Project Information

Transformation Institute Glossary

1 Market

Acquirer

Customer Role which consists in participating in an Agreement with a Distributor to obtain the requested Product

Agreement

Decision between a Distributor and an Acquirer to transfer a Product and its Value from a Provider to a Customer.

Notes:

- *the Provider (Distributor) is an Enterprise. The Customer (Acquirer) can be an Enterprise or a Person.*
- *an Agreement can be formalized as a Contract or an order, or be not formalized.*

Beneficiary

Customer Role who benefits from the Value of an acquired Product

Compensation

What is given by the Customer to the Provider in exchange of the Product (generally a payment).

Notes :

- *Compensation is defined by Provider in its Offer*

Contract

Formalized Agreement

Customer

The one who gets the Product from the Provider.
"Customer" embraces different Roles even they are played by different Actors: the Decider to who the Enterprise must sell, the Acquirer, the User of the Product, the Beneficiary of the Product, the Payer…"

Customer-Segment

Group of Customers with same characteristics.

Demand

What is expected by a potential Customer in a Market place.
Demand is expressed by the Beneficiary of the Expected Value

Distributor

Provider Role played by an Enterprise which consists in supplying Offers in a Market place and participating in Agreements with Acquirers according to these Offers.

Market

Place where Provider Offer and Customer Demand meet.

Offer

What is proposed by a Provider in a Market. It includes list of Product-Models proposed to Customer Segments, Distribution Model, in a given Customer Territory, for Customer Segments in exchange of a Compensation.

Product

Support of Value brought by the Provider to its Customer.
A Product can be a Material-Good-as-a-Product (like a car, a sandwich), a Service-as-a-Product (like a hair cut or a surgery), an Real-Information-as-a-Product (like weather forecast or financial information), a Model-as-a-Product (like a molecule structure or a software or a franchise Model) or Money_as_aProduct (like game winnings).

Value, user functionalities or decomposition into Product-Components, can be describe in a Product Model

Notes

- *The Product can be economic or not (for example, cultural value).*
- *Process to Produce, Distribute and Use the Product are defined in the Operation Model and not in the Product Model.*

Provider

The one who delivers the Product to a Customer.
"Provider" embraces different Roles even they are played by different Actors: the Producer, the Distributor.

Territory

Geographical perimeter
Customer Territory is the Territory defined in an Offer to precise its geographical marketing target
Execution Territory is the Territory where the Enterprise Operates or Transforms.

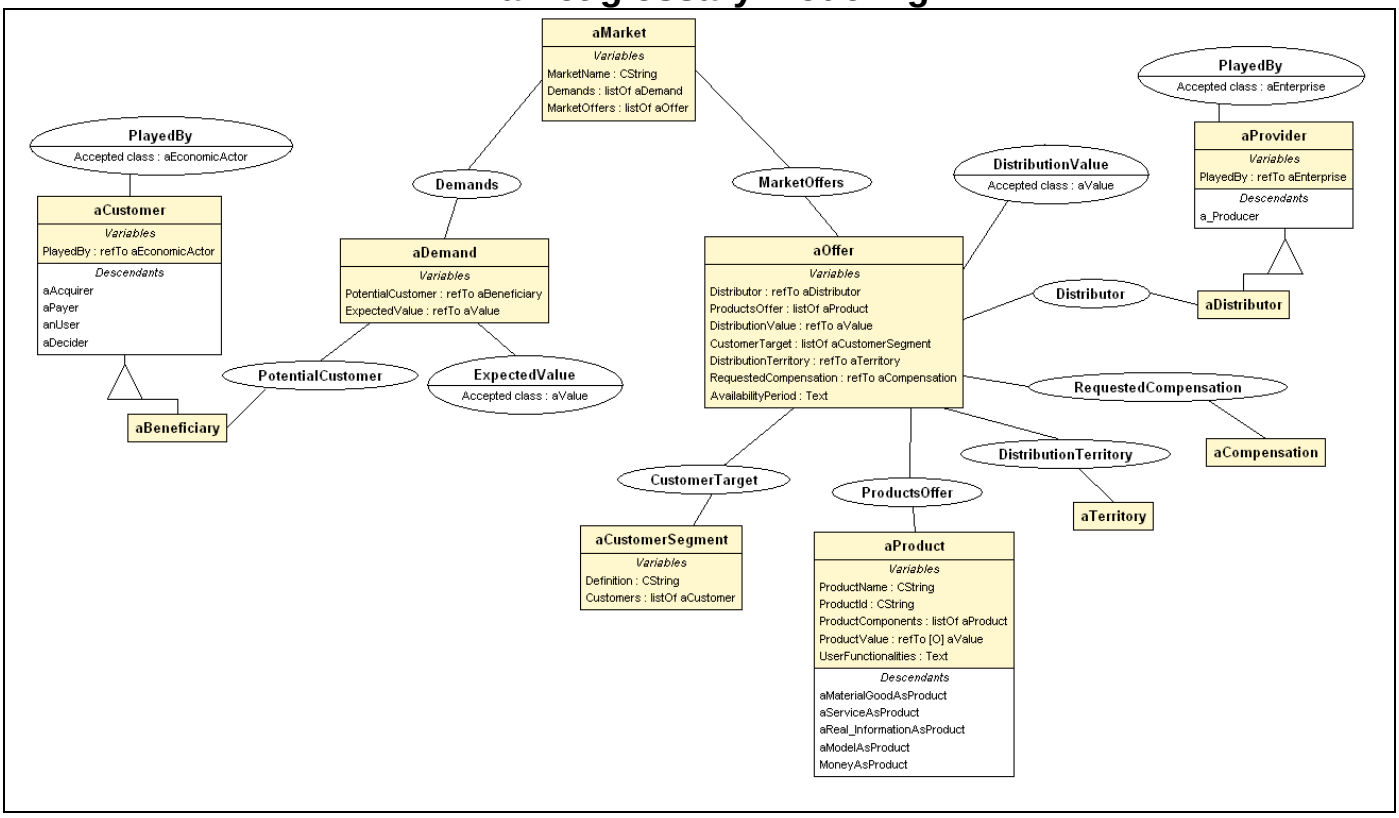
Value

Worth of a thing which is susceptible to be exchanged, sold, build or consumed by an economic Actor.
Expected Value is the Value defined by a potential Customer in his Demand
Product Value is the Value attached to a Product
Distribution Value is the added Value (complementary to the Product Value) proposed by a Distributor in its Offer

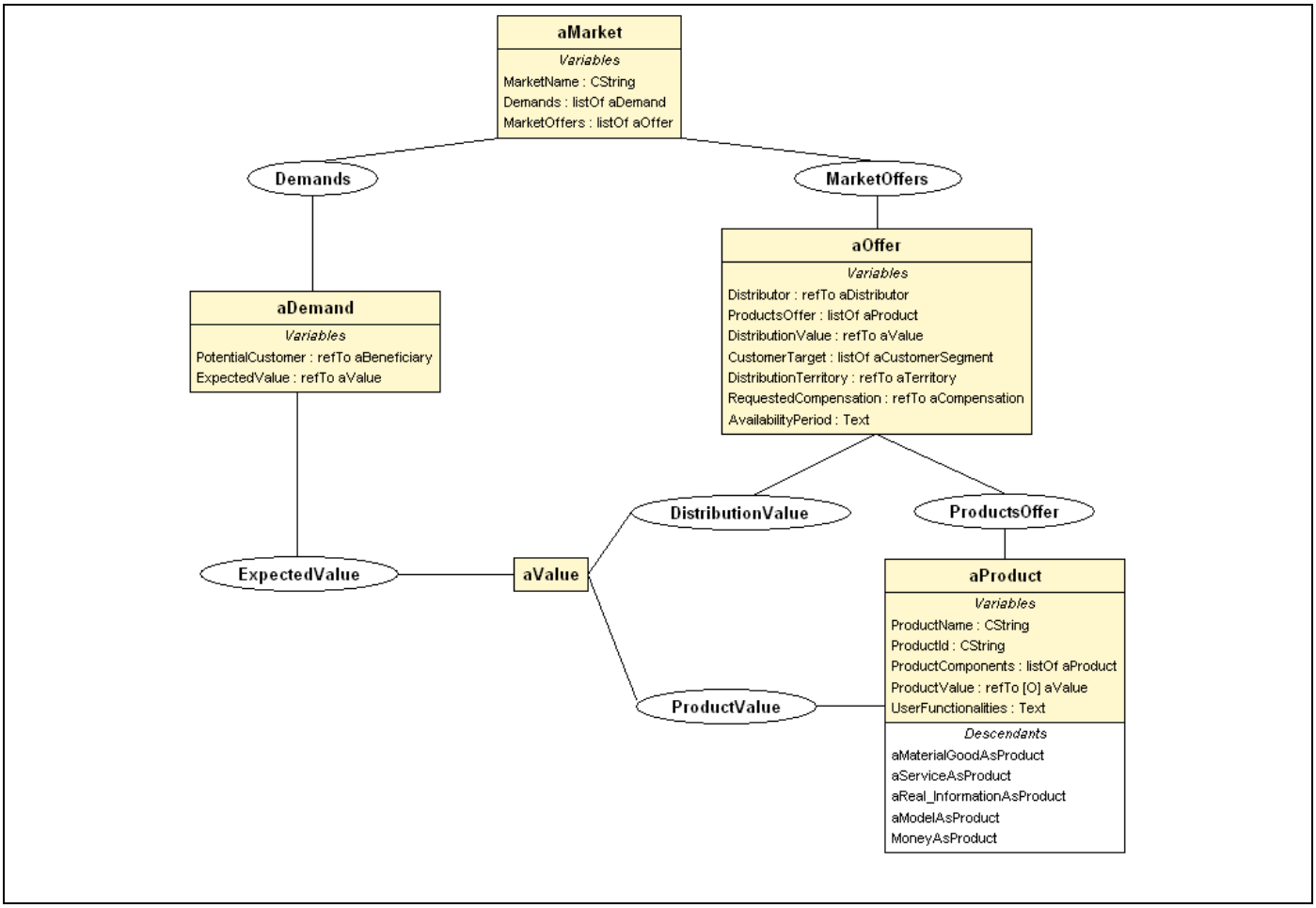
Notes:

- *classification of Value has been defined by Maslow (*http://en.wikipedia.org/wiki/Maslow's_hierarchy_of_needs*)*

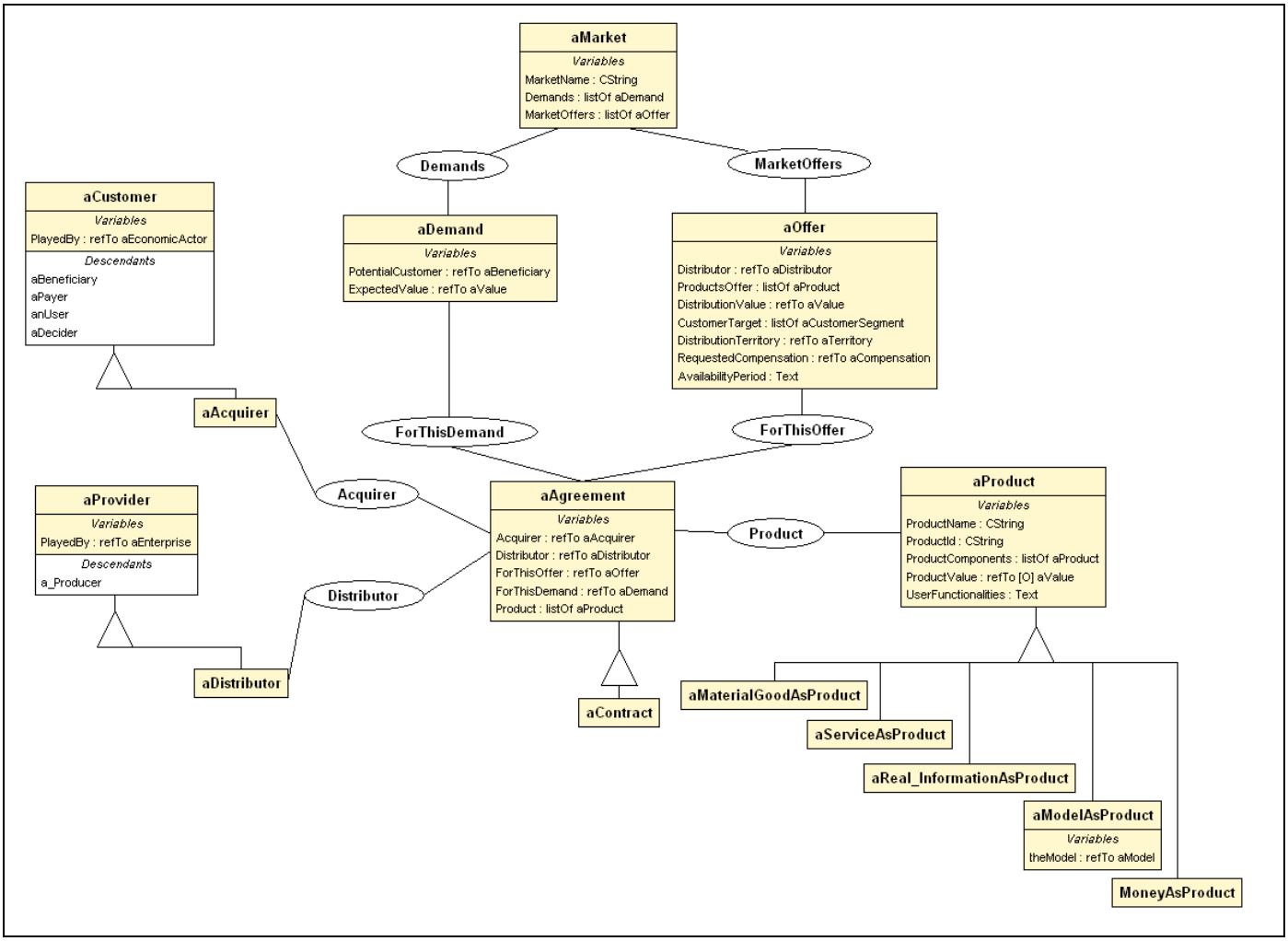
Market glossary modeling



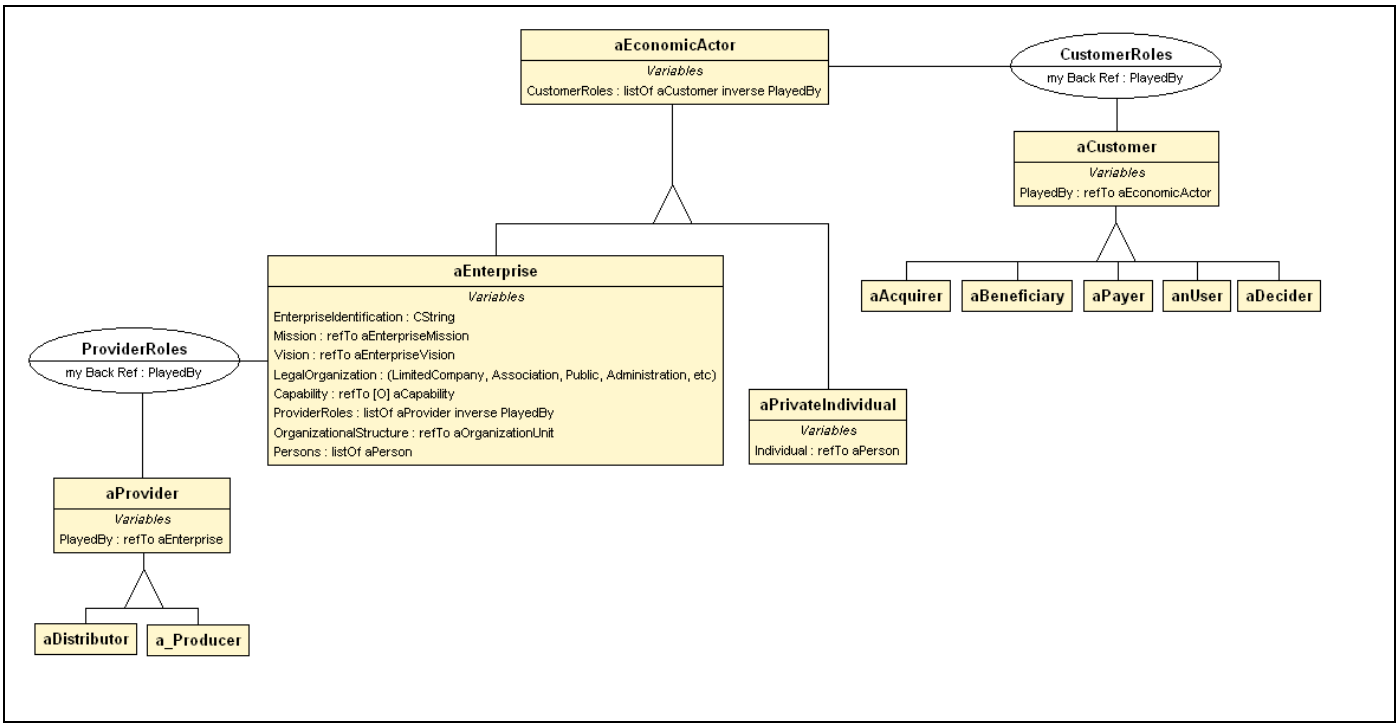
(Fig 1 : Demand & Offer View)



(Fig 2 : Market - Value)



(Fig 3 : Product & Agreement View)



(Fig 4 : Enterprise Customer and Provider roles)

2 Enterprise

Activity

Continuous unit of work executed by one Actor to provide Deliverables to an Activity-Client. Activity is executed within the framework of a Process in an Execution-Territory and can consume different types of Resources.

Notes:

- *instructions are given to Actors so that they correctly execute the Activities.*
- *For Human-Actors, instructions are documentation (procedure, user guide, cook recipe).*
- *For Computer-Actors, instructions are software.*
- *For an assisted-actor, instructions are documentation + software.*

> **Activity**
> A task or collection of tasks that support the functions of an organization. For example, a user entering data into an IT system or traveling to visit customers.

Actor

Being executing Activities.
An Actor can be a Human-Actor or a Computer-Actor (Automate) or a Team.

Notes:

- *An internal-Actor (employee, consultant) works inside the Enterprise, while an external-Actor (customer, partner, provider) works outside the Enterprise but may use the same Enterprise Model.*
- *Role defines a model for Human-Actor*

> **Actor**
> A person, organization, or system that has a role that initiates or interacts with activities; for example, a sales representative who travels to visit customers. Actors may be internal or external to an organization. In the automotive industry, an original equipment manufacturer would be considered an actor by an automotive dealership that interacts with its supply chain activities.

Deliverable

Result produced by an Activity or a Process for its Client

Notes

- *A Deliverable can be a Product when the Client is external*
- *Documentation Pattern, Templates are examples of Deliverable-Models for Transformation Processes*

Enterprise

Set of Persons sharing a common Mission, with a single decisional authority, to operate all or part of a Value Chain.

Notes

- *An Enterprise can be a Legal Entity, a part of a Legal Entity, a network of Legal Entities. The notion embraces not only capitalistic Enterprises but also governmental entity, university, research center, association…*
- *An Enterprise can be composed of other Enterprises. A Group of Companies may represent a real Economic Entity with a unique decision center, without being described as one big Legal Entity.*
- *The teams at Group level represent an Enterprise, and each Company inside the Group represents an Enterprise.*
- *In a Market place, an Enterprise can play different Customer roles and/or different Provider roles*

> **Enterprise**
> The highest level (typically) of description of an organization and typically covers all missions and functions. An enterprise will often span multiple organizations.
>
> *CEISAR comments : we also consider that Enterprise is a recursive concept: an Enterprise is composed of Enterprises.*

Entity

Information on a real world thing reachable by an identifier

Examples:

- *information about Mr Dupond, Contract of Mr Dupond, Account of Mr Dupond…*
- *A "Business Entity" is necessary to address the Market, independently of the Organization of the Enterprise, such as Product or Customer or Contract or Account.*
- *An "Organization Entity" is necessary for execution purpose: Internal-Actor, Organization-Unit, Position, Profile, Right, Duty, …*

> **Information**
> Any communication or representation of facts, data, or opinions, in any medium or form, including textual, numerical, graphic, cartographic, narrative, or audio-visual forms.

Function

Enterprise Action.
Business Functions are invariant. Ex: compute price, update customer
Organization Functions help to implement Business Functions for a given Organization. Ex: authorize, find next Actor.

Notes:

- *The same Function is reusable in different Processes or Activities.*
- *Operation Functions are used in Operation Processes. Ex: compute a price, get information on Product, authorize an Activity*
- *Transformation Functions (Practices) are used in Transformation Processes. Ex : define a goal, model a process, test an application.*

> **Business Function**
> Delivers business capabilities closely aligned to an organization, but not necessarily explicitly governed by the organization.

Organization-Unit

Node of an Enterprise structure like a direction, a department, a branch.

Notes:

- *Human-Resources and Computer-Resources are assigned to Organization-Units.*

> **Organization**
> A self-contained unit of resources with line management responsibility, goals, objectives, and measures. Organizations may include external parties and business partner organizations.

Position

Smallest Organization-Unit with only one assigned Human Resource.

Notes

- *Each Position should have a Role (Ex of Role : "Salesman", "Assistant")*

Process

Chain of Activities, triggered by an independent-event, bringing Process-Deliverable to Process-Client.
A Process can be decomposed into Processes.
For example, in a Transformation-Process, plan, program, project, sub-project, phase, step, up to Activity represent a hierarchy of Processes.

Notes

- *A Process can refer to a Process-Model*
- *some Processes are not Modeled because they cannot be. Ex: technology watching*
- *The Process-Client can be an Enterprise Customer, or other external Actors (External Partner, Provider, Government), or an internal Customer (Human Resource, Organizational Unit)*

Resource

What belong to the Enterprise and/or is used to execute the Enterprise Model: Human Resource, Material resource, Finance Resource, Information Resource, Premise Resource.
Capital Resources belong to the Enterprise: they are part of the Enterprise Capabilities

Execution Resources participate in Enterprise Activities execution

Notes:

- *Execution Resource like the Customer are not a Capital Resource, but can be an Execution Resource.*

Skill

What an Human-Actor is able to do.

Note:

- *Effective Skill is attached to each Human Actor: it is a real information*
- *Required Skill is attached to Role: it s a Model*

> **Skill**
> The ability to perform a job-related activity, which contributes to the effective performance of a task.
>
> *CEISAR comments: we use Function instead of task.*

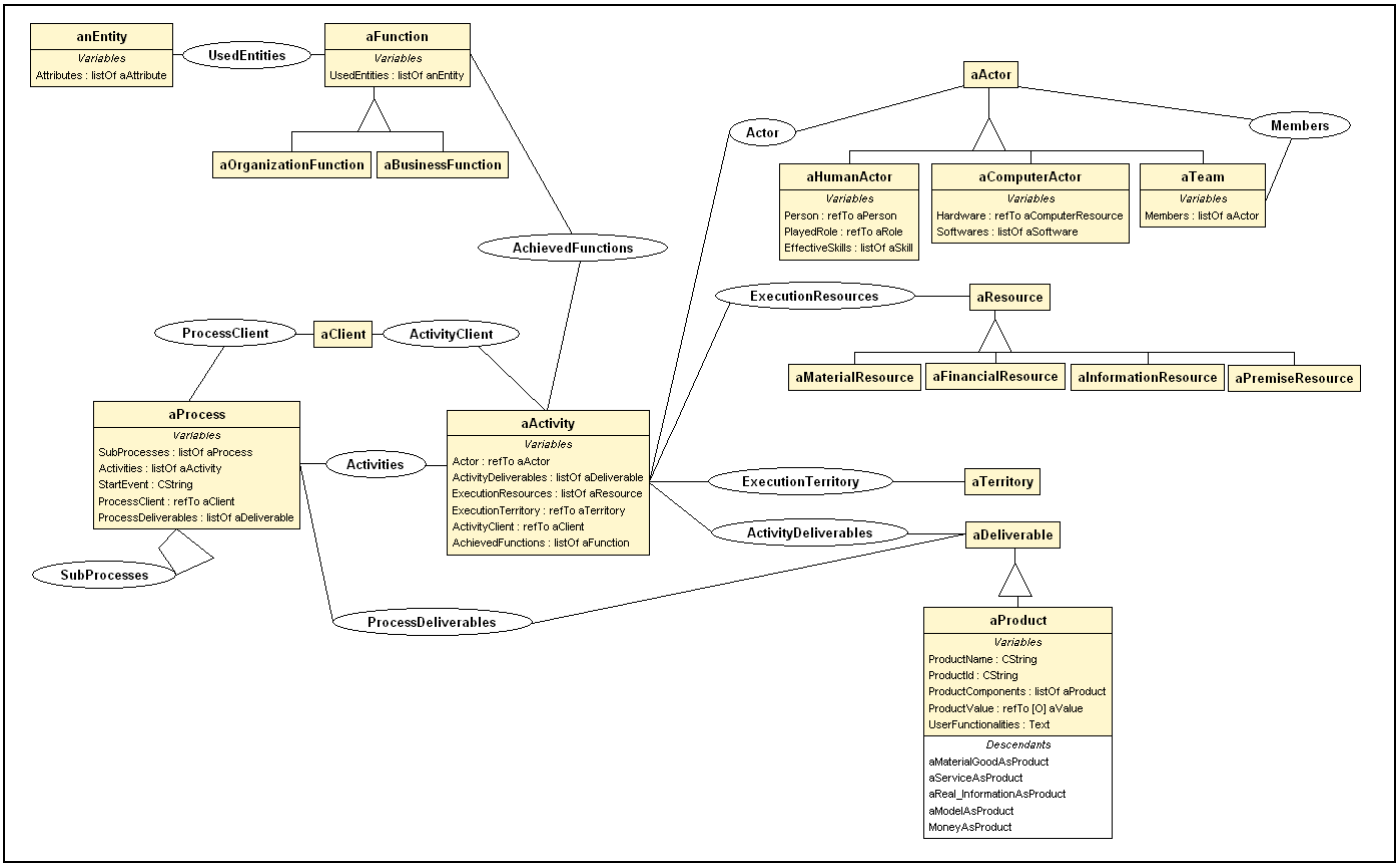
Team

Set of Actors

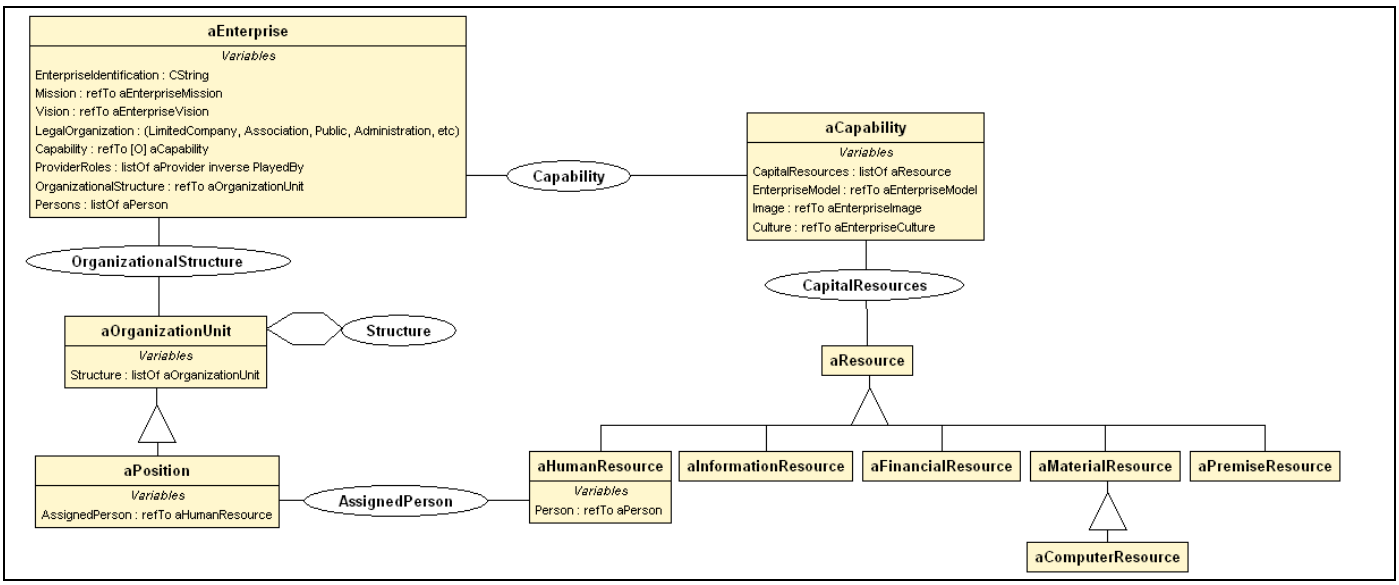
Notes :

- *For example, members of a steering committee are a Team making decision on a Project*

Enterprise glossary modeling



(Fig 5 : Enterprise - Action View)



(Fig 6 : Enterprise Organization)

3 Enterprise Model

Application

Software view of a Solution.

> **Application**
> A deployed and operational IT system that supports business functions and services; for example, a payroll. Applications use data and are supported by multiple technology components but are distinct from the technology components that support the application.

Application-Domain

Classification of Applications.

> **Application Architecture**
> A description of the major logical grouping of capabilities that manage the data objects necessary to process the data and support the business.
>
> *CEISAR comments on TOGAF Definition : is it a grouping of Applications or of Capabilities?*

Activity-Domain

Classification of Activity-Models.

Note:

- *Activity-Domain explains assignment of Activities to an Organizational-unit*

> **Business Domain**
> A grouping of coherent business functions and activities (in the context of a business sector) over which meaningful responsibility can be taken. For example, Finance, Human Resources (HR), Automobile Manufacturing, Retail, etc. The phrase is often used to identify specific business knowledge (a business domain expert).
>
> *CEISAR comments on TOGAF Definition : Business Domain should group Function Domains, Activities Domains but also Process Domain.*

Capability

Capability of the Enterprise to execute Operation and Transformation
Capability is composed of Capital-Resources, Enterprise Model, Culture, and Image

> **Capability**
> An ability that an organization, person, or system possesses. Capabilities are typically expressed in general and high-level terms and typically require a combination of organization, people, processes, and technology to achieve. For example, marketing, customer contact, or outbound telemarketing.

Culture

Shared behavior of Enterprise Internal Persons.

Note:

- *It is part of Immaterial-Assets, but is not formalized as is the Enterprise-Model.*
- *It may represent a real competitive advantage for the Enterprise.*

Duty

What a Role should do.

Enterprise-Model

Collection of Models describing how works the Enterprise : Offer, Operations Model, Transformations Model and Financial Model.

Notes:

- *Can be the present Model or a future Model.*

> **Strategic Architecture**
> A summary formal description of the enterprise, providing an organizing framework for operational and change activity, and an executive-level, long-term view for direction setting.
>
> **Target Architecture**
> The description of a future state of the architecture being developed for an organization. There may be several future states developed as a roadmap to show the evolution of the architecture to a target state.

Entity-Domain

Classification of Entity-Models.

> **Data Architecture**
> The structure of an organization's logical and physical data assets and data management resources.

Function Domain

Classification of Functions.

Financial Model

Model which summarizes financial flows (revenues from Products and expenses from Operations and Transformation) and stocks (capital, assets) of an Enterprise.

Image

Perception of the Enterprise by the external world.

Immaterial-Asset

Enterprise-Model + Enterprise Culture + Enterprise Image + Information-Resources.

Process Domain

Classification of Process-Models.

Right

What a Role is authorized to do.

Role

Model for a Human-Actor. It defines what the Human-Actor should do (Duty), is authorized to do (Right) and should be able to do (expected Skill)

> **Role**
> The usual or expected function of an actor, or the part somebody or something plays in a particular action or event. An Actor may have a number of roles.
>
> The part an individual plays in an organization and the contribution they make through the application of their skills, knowledge, experience, and abilities.

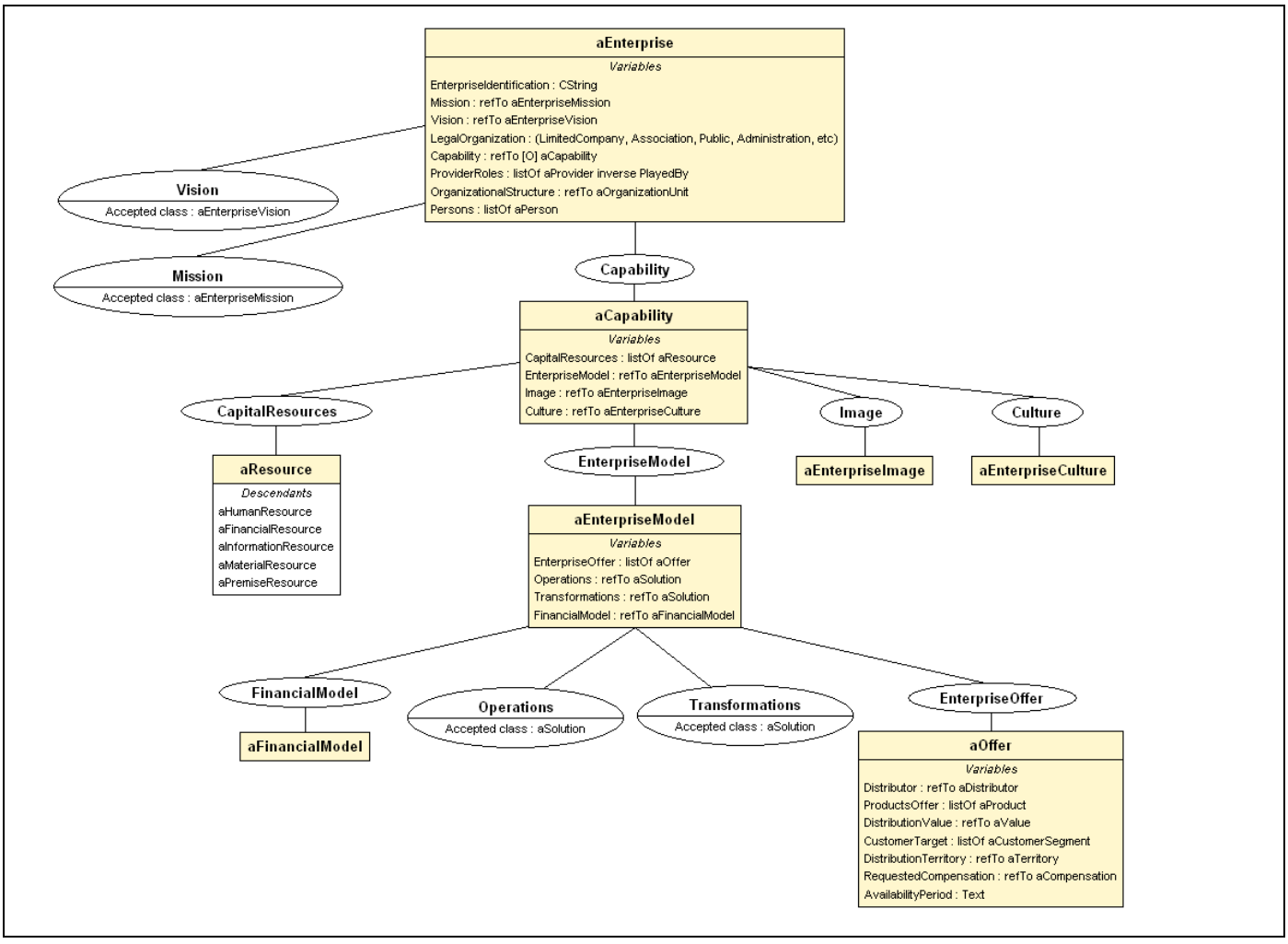
Solution

A consistent set of Models which groups and links together all element-Models (Process-Domain, Function-Domains, Activity-Domains, Entity-Domains, Application-Domains and Actor-Models) required for reaching a Goal.

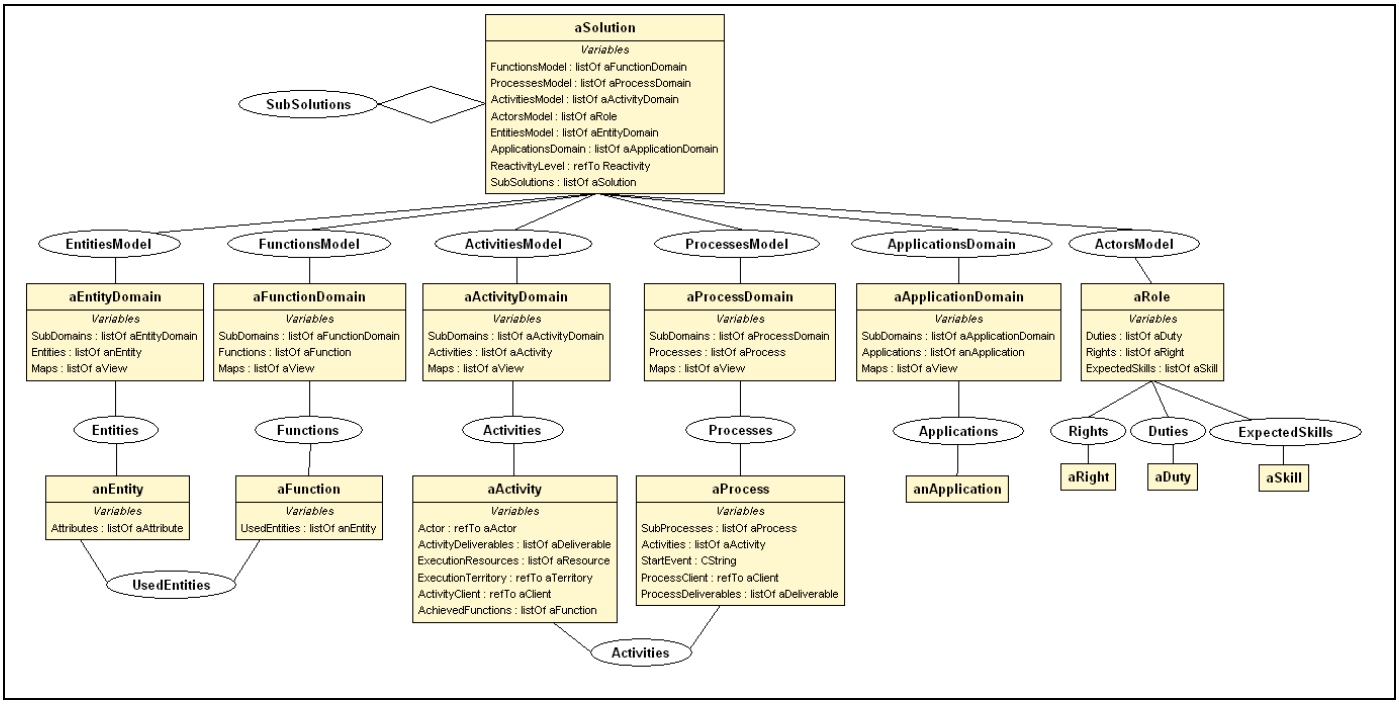
Notes:

- *The number of action Models (Activity-Models, Process-Models or Function-Models) is huge inside an Enterprise Model; they must be grouped into Solutions.*
- *Solutions may have different levels of granularity: a Pricing Solution could be a part of a CRM Solution.*
- *Classification of Solutions can be called "urbanism"*
- *Solution includes Model for Human-Actors(like procedures or manual Process Model) and Models for Computer-Actors (software) called Applications.*

Enterprise Model glossary modeling



(Fig 7 : Enterprise Capabilities)



(Fig 8 : Solution structure)

4 Operation

Commodity-Solution

Solution which is the same for the different competitors and whose requirements are predictable before implementation

Notes:

- *Ex: Solutions for Accounting, Payroll…*
- *Commodity Solutions were the first IT Solutions implemented in Enterprises.*
- *Commodity Solutions are usually Built with a Contractual Approach. (See Evolving Solutions).*
- *A Package offer generally exists for Commodity-Solutions because requirements are similar between Enterprises.*

Distribution

Global Solution aimed at delivering Products to the Customer.

Notes

- *Examples of Distribution processes: design Offer, manage a marketing campaign, make a proposal, subscribe a Contract, update a Contract, Bill…*

Evolving-Solution

Solution which is not the same for the different competitors and whose requirements are not predictable before implementation.

Notes:

- *Examples: Solutions for Front Office, Product Design, CRM, End to End Process, Business Intelligence…*
- *Many Evolving-Solutions require specific Models which can be based on reusable Components. Evolving-Solutions should be constructed with an Agile-Approach.*

Mission

Purpose of an Enterprise: why does the Enterprise exist?
Includes Enterprise Market and Enterprise-Value-Chain definitions.

Operations

Global Solution grouping at the Enterprise level all Processes which do not modify or deploy the Enterprise Model.

Notes:

- *Operations include Operation-Functions (like compute price, update customer, ..) , Operation-Processes (like production processes, distribution processes, …), Operation-Activities, Operation-Entities (like customer, contract, account, …), Operation-Actor-Models (like an agent, …) and Operation-Applications.*
- *Modifying or Deploying the Enterprise Model is the role of "Transformations".*

Architecture Landscape
The architectural representation of assets deployed within the operating enterprise at a particular point in time. The views are segmented into strategic, segment, and capability levels of abstraction to meet diverse stakeholder needs.

Primary Processes

Production Processes and Distribution Processes

Production

Global Solution to build Products.

Notes

- *Examples of Production Processes: design Product, purchase Product Components, manufacture, manage inventories, repair, …*

Product-Component

Product which is included inside another Product.

Product-Domain

Classification of Product-Models.

Product-Usage

Processes to use the product. This is true for usage of a Good (like use a car), or a Service (like get a surgery), or an Information (like read stock price).

Reactivity

Ability to Operate fast and well a Solution

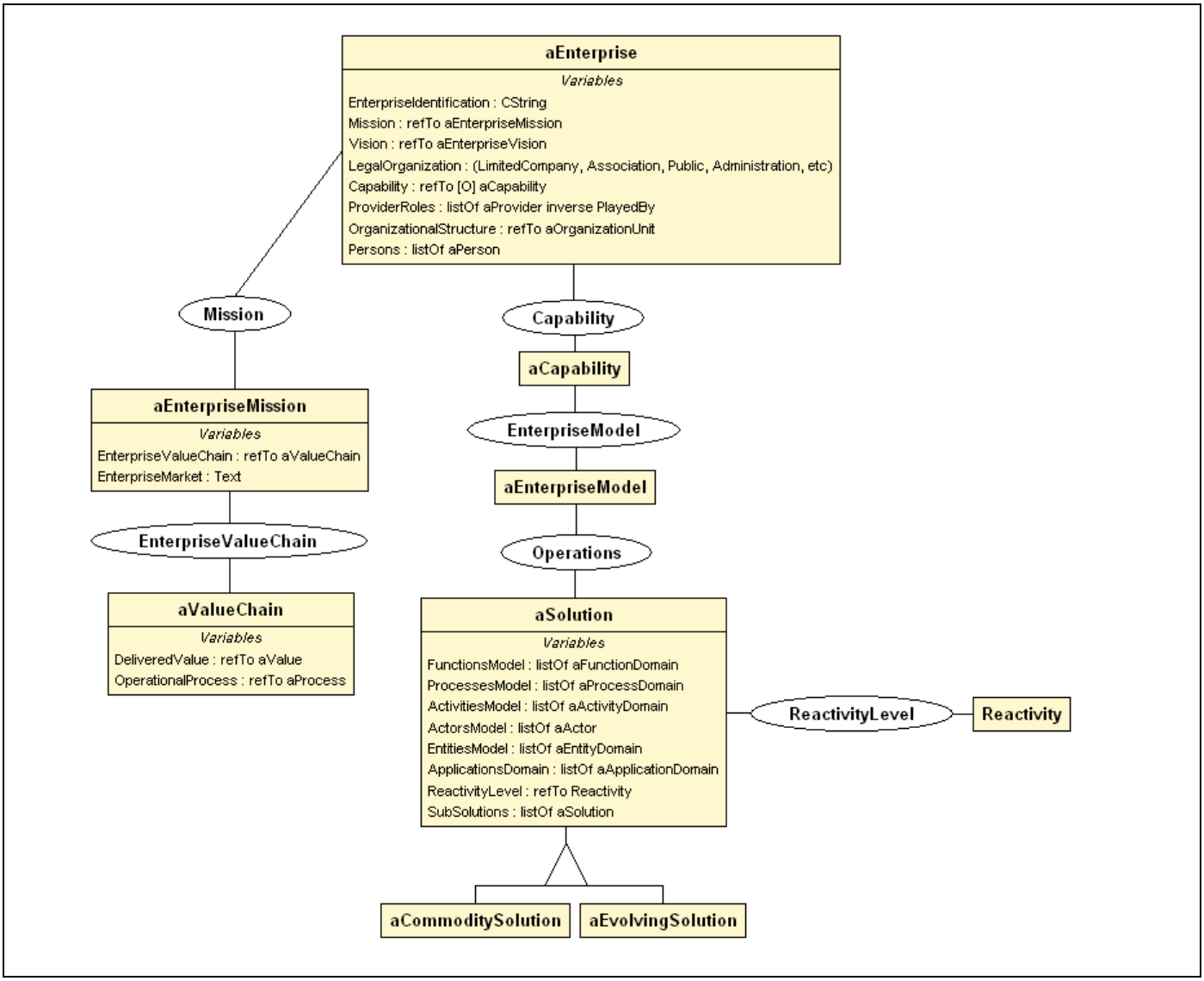
Note:

- *Agility is the ability to Transform fast and well*

Value Chain

Set of Processes delivering a Product to a Customer
Global Value Chain is the set of industry Processes which end up delivering a Product to a Customer.
Enterprise Value Chain is the sub-set of the Global Value Chain executed by the Enterprise. The choice is done according to its Operational Capability. Partners (Producers, Distributors) are called in to complete the overall Global Value Chain.

Operations glossary modeling



(Fig 9 : Operations)

5 Transformation

Agile-Approach

Approach that consists in building a Solution by successive Versions corresponding to progressive Requirements. Adapted to Evolving-Solutions.

Notes:

- *the Modeling team is a mixed team joining business and technical Skills.*

Agility

Ability to Transform fast and well.
Allows to reduce the time between the rise of a new idea and its availability in the Enterprise Operations.

Notes:

- *different from Reactivity (see definition).*

Approach

A consistent set of Models which groups and links together all element-Models to transform an Enterprise (Transformation-Processes, Practices, Transformation Activities, Transformation-Informations, Transformation-Tools and Transformation-Actors).

Notes :

- *Synonyms : 'Methodology"*
- *Term to define a consistent set of Models is "Solution" for Operations and "Approach" for Transformations*

Architecture Development Method (ADM)
The core of TOGAF. A step-by-step approach to develop and use an enterprise architecture.

Methodology
A defined, repeatable series of steps to address a particular type of problem, which typically centers on a defined process, but may also include definition of content.

Method
A defined, repeatable approach to address a particular type of problem.

Architecture Framework
A foundational structure, or set of structures, which can be used for developing a broad range of different architectures. It should contain a method for designing an information system in terms of a set of building blocks, and for showing how the building blocks fit together. It should contain a set of tools and provide a common vocabulary. It should also include a list of recommended standards and compliant products that can be used to implement the building blocks.

Architectural Style
The combination of distinctive features in which architecture is performed or expressed.

Service Oriented Architecture (SOA)
An architectural style that supports service orientation.

Architecture-Description

Structure of a Model (cf. norm IEEE 1471)

Architecture
- A formal description of a system, or a detailed plan of the system at component level, to guide its implementation (source: ISO/IEC 42010:2007).

- The structure of components, their inter-relationships, and the principles and guidelines governing their design and evolution over time.

Solution Architecture
A description of a discrete and focused business operation or activity and how IS/IT supports that operation. A Solution Architecture typically applies to a single project or project release, assisting in the translation of requirements into a solution vision, high-level business and/or IT system specifications, and a portfolio of implementation tasks.

Architecture-Discipline

Set of Transformation-Processes to Build the Architecture-Description

Contractual-Approach

Approach that consists in building a Solution by defining all Requirements before starting Modeling. Adapted to Commodity-Solutions.

Deployment

Set of Transformation-Process to adapt Resources to a new Solution.

Notes:

it generally includes

- *organize, motivate and train Human-Resources*
- *install Computer-Resources and software*
- *migrate Information-Resources*
- *adapt Premise-Resources and other equipment*

Direction

Value that an Enterprise wants to obtain by executing a Transformation-Process. Generally defined after analyzing:

- Opportunities and Threat: Market evolutions and potential competition
- its own Capabilities; Strengths and Weaknesses

Note:

- *Compared to an Objective, a Direction tends to be ongoing, qualitative (rather than quantitative), general (rather than specific), longer term*

Enterprise-Architecture ("EA")

Means 2 things:
Enterprise Architecture-Discipline is the discipline that thinks the Enterprise as a whole and makes the link from strategy to deployment. It represents the set of Transformation Processes to Build the Enterprise Architecture-Description.
Enterprise Architecture-Description represents the global Structure of the Enterprise Model

Notes:

- *Enterprise-Architecture-Description is generally represented by maps which offer a global View to better understand EA: Process Maps, Entity Maps, Function Maps, Solution Maps are the most commonly used.*

Foundation

Set of Model-Components. Reusability perimeter can be the Solution, the Enterprise, the group, the same business community, the country, or the world.

Notes:

- *Reuse of Models is a way to save time and money in Transformation Processes, to create synergy and to harmonize how the different Organizational-Units of an Enterprise work.*
- *We distinguish two levels of Foundation, depending on whether we consider the Enterprise Operations or the Enterprise Transformation.*
- *Operation-Foundation = Reusable Models for Operations which includes*
- *Reusable Solution Models (like reuse same HR Solution)*
- *Reusable Function, (like reuse same Security Function)*
- *Reusable Entity, (like reuse same representation for Customers, Products, Contracts,…)*
- *Reusable Process Patterns (like reuse same Subscription Process)*
- *Reusable Types (like reuse same identifiers)*
- *Reusable Human-Actor-Models*
- *Reusable Computer-Actor-Models (like reuse same IT Configurations)*
- *Transformation-Foundation = Reusable Models for Transformation which include*
- *Transformation Approach*
- *Practices*
- *Transformation Tools like Modeling tools*
- *Transformation Actor Model like Business Analyst, Architect …*

Foundation Architecture
An architecture of generic services and functions that provides a foundation on which more specific architectures and architectural components can be built. The TOGAF Foundation Architecture includes a Technical Reference Model (TRM).

Solutions Continuum
A part of the Enterprise Continuum. A repository of re-usable solutions for future implementation efforts. It contains implementations of the corresponding definitions in the Architecture Continuum.

Goal

Consistent set of Directions, Objectives (with Indicators) and Requirements that an Enterprise wants to reach thanks to a Transformation-Process

Indicator

Measure derived from a series of observed facts: performance of an Actor, market share, profitability, turn over to verify the achievement of an Objective.

Innovation

Important change in a Model.

- Innovation on Product is an important change in the Offer
- Innovation on Operation Processes is an important change in the Operation Model (such as a new distribution channel)
- Innovation on Transformation Processes is an important change in the Transformation Model (such as a new Approach)

Model

Formal and simplified representation of a portion of the complex real world to better understand it.

Notes:

- *The Model is formalized using Documentation, Software and Information: a Software is a Model.*
- *There exist different types of Models: Product Model, Process Model, Entity Model, Actor Model, Financial Model, Solution, …*

Artifact
An architectural work product that describes an architecture from a specific viewpoint. Examples include a network diagram, a server specification, a use-case specification, a list of architectural requirements, and a business interaction matrix. Artifacts are generally classified as catalogs (lists of things), matrices (showing relationships between things), and diagrams (pictures of things). An architectural deliverable may contain multiple artifacts and artifacts will form the content of the Architecture Repository.

Model
A representation of a subject of interest. A model provides a smaller scale, simplified, and/or abstract representation of the subject matter. A model is constructed as a "means to an end". In the context of enterprise architecture, the subject matter is a whole or part of the enterprise and the end is the ability to construct "views" that address the concerns of particular stakeholders; i.e., their "viewpoints" in relation to the subject matter.

Framework
A structure for content or process that can be used as a tool to structure thinking, ensuring consistency and completeness.

Model-Component

Model which is Reusable by other Models with different levels of granularity.

Notes:

- *Example: different Companies may Reuse the same Solution.*
- *Example: different Solutions may Reuse the same Function Model (“Software Services”)like an authorisation Function, or the same Information Model.*

Building Block
Represents a (potentially re-usable) component of business, IT, or architectural capability that can be combined with other building blocks to deliver architectures and solutions.

Building blocks can be defined at various levels of detail, depending on what stage of architecture development has been reached. For instance, at an early stage, a building block can simply consist of a name or an outline description. Later on, a building block may be decomposed into multiple supporting building blocks and may be accompanied by a full specification. Building blocks can relate to "architectures" or "solutions".

Solution Building Block (SBB)
A candidate physical solution for an Architecture Building Block (ABB); e.g., a Commercial Off-The-Shelf (COTS) package, that is a component of the Acquirer view of the architecture.

Model Specification

Detailed Model design.

Note

- *Do not mix Requirement which is part of the Goal with Model-Specifications*

Baseline
A specification that has been formally reviewed and agreed upon, that thereafter serves as the basis for further development or change and that can be changed only through formal change control procedures or a type of procedure such as configuration management.

Objective

Specific time-constrained, measurable, attainable result that an Enterprise seeks to reach in order to achieve its Goals.
Objectives must follow Directions.
Objectives must be quantified by Indicators.
Objectives can be detailed as Requirements.

Notes:

- *Indicators are defined to check that Objectives are achieved.*
- *For each Direction, one or several Objectives are defined.*

Objective
A time-bounded milestone for an organization used to demonstrate progress towards a goal; for example, "Increase Capacity Utilization by 30% by the end of 2009 to support the planned increase in market share".

Practice

Transformation Function

Example:

- *“evaluate workload of a project”, “model a Process”…*

Modeling
A technique through construction of models which enables a subject to be represented in a form that enables reasoning, insight, and clarity concerning the essence of the subject matter.

Abstraction
The technique of providing summarized or generalized descriptions of detailed and complex content.

Abstraction, as in "level of abstraction", can also mean providing a focus for analysis that is concerned with a consistent and common level of detail or abstraction. Abstraction in this sense is typically used in architecture to allow a consistent level of definition and understanding to be achieved in each area of the architecture in order to support effective communication and decision-making. It is especially useful when dealing with large and complex architectures as it allows relevant issues to be identified before further detail is attempted.

CEISAR comments : Modeling and Abstraction represent two examples of Practices

Requirement

Detailed Objective.

Notes

- *It should not be confused with Design Specifications.*

Requirement
A quantitative statement of business need that must be met by a particular architecture or work package.

Strategy

Important Transformation-Process when the Goal is a strategic Goal and/or when the delivered Solution is a strategic Solution for the Enterprise.
“important” means :

- Important new Value
- Decision by top management
- Big investment
- High risk

Notes:

- *Synonym = business plan.*

> **Roadmap**
> An abstracted plan for business or technology change, typically operating across multiple disciplines over multiple years. Normally used in the phrases Technology Roadmap, Architecture Roadmap, etc.

Synergy

The fact that two or more Enterprise Organization-Units work together in a coordinated way, instead of on their own.
Synergy means two different things: share Resources (like Units or Computers or Information) or reuse Models.

Notes:

- *Synonym : Mutualization*
- *Reusable Models are grouped inside the Enterprise Foundation.*
- *Group Synergy means Shared and Reusable elements between Companies of the Group*
- *Company Synergy means Shared and Reusable elements between Business Units of the Company.*

> **Interoperability**
> The ability to share information and services.
>
> The ability of two or more systems or components to exchange and use information.
>
> The ability of systems to provide and receive services from other systems and to use the services so interchanged to enable them to operate effectively together.
>
> *CEISAR comments : Interoperability is a part of Synergy capabilty*

Transformations

Global Approach including all Transformation-Processes which modify Capability of the Enterprise.

Notes:

- *There exists large Transformations like “merge companies”, “launch new Offer”, “change Process Model” or small Transformations like “change a price”, or “create a security profile”.*
- *The Transformation Model formalizes how to Transform: Approach (Transformation-Processes and Practices), Transformation-Tools, Transformation-Information (Goal, Scope, ..) and Transformation-Actors.*

Transformation-Governance

Set of Transformation-Processes and related Human-Actors organization, to prepare, make and control Transformation decisions.

> **Architecture Governance**
> The practice and orientation by which enterprise architectures and other architectures are managed and controlled at an enterprise-wide level. It is concerned with change processes (design governance) and operation of product systems (operational governance).
>
> **Governance**
> The discipline of monitoring, managing, and steering a business (or IS/IT landscape) to deliver the business outcome required.

Transformation-Process

Process to deliver a Model and/or Deploy this Model, having a Scope, a Goal and Project Constraints, executed by Transformation Resources
It is decomposed in 3 Processes :

- Define Why Transform: analyze Enterprise-Model and Resources, identify drivers, decide Goals and quantified Objectives, decompose them into Requirements
- Get the new Solution
- Deploy the new Solution, which means adapt Operation Resources to this new Model

Notes:

- *Ex: create a new Product Model, define an Enterprise road map, execute a Solution project, execute an Architecture project, deploy a new Solution, maintain Solutions.*
- *Transformation Processes are built with Practices*
- *According to the importance of the Transformation, Transformation-Process can be decomposed in sub-Processes which can be called Plan, Program, Project, Sub-Project, Phase, Step, ..*

Work Package
A set of actions identified to achieve one or more objectives for the business. A work package can be a part of a project, a complete project, or a program.

Transformation-Tool

Software part of a Transformation Approach.

Notes

- *Example for IT Projects: Map tools, requirement tools, Product Modeling tools, Process Modeling tools, design tools, development tools, programming language, quality check tools, teamwork tools, test tools, software configuration management, documentation tools, integration tools...*

View

Presentation of a collection of Models adapted to a specific usage

Notes :

- *Presentation of a part of the Enterprise Model adapted to the Actor. The same Model offers different views: one for the Business Analyst, one for the IT Developer, one for the Operation Actor, one for the Architect…*

View
The representation of a related set of concerns. A view is what is seen from a viewpoint. An architecture view may be represented by a model to demonstrate to stakeholders their areas of interest in the architecture. A view does not have to be visual or graphical in nature.

Vision

Long term directions for Goal and Target Enterprise Capability.

Notes :

Compared to Mission,

- *the Vision is long term*
- *the Vision is only for future, while Mission can be applied to present and future*
- *both define Goals and Target, but do not define the Strategic Plan*

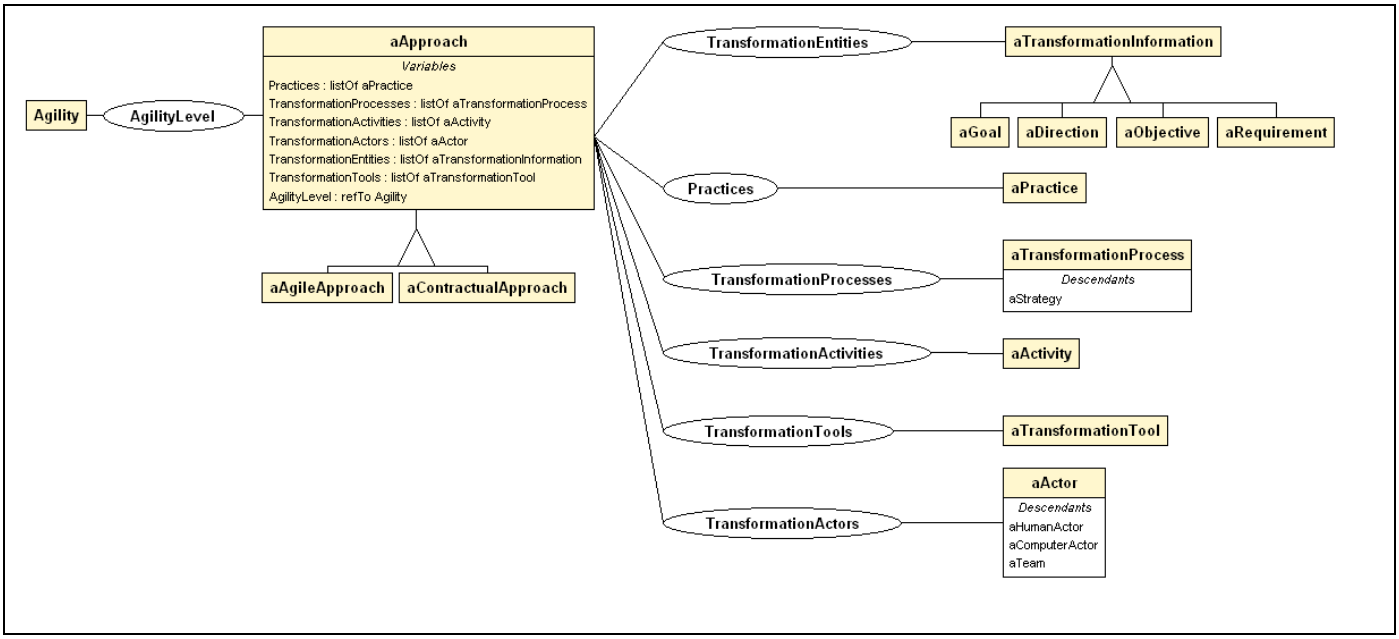
Architecture Vision
- a high-level, aspirational view of the Target Architecture.

- a phase in the ADM which delivers understanding and definition of the Architecture Vision.

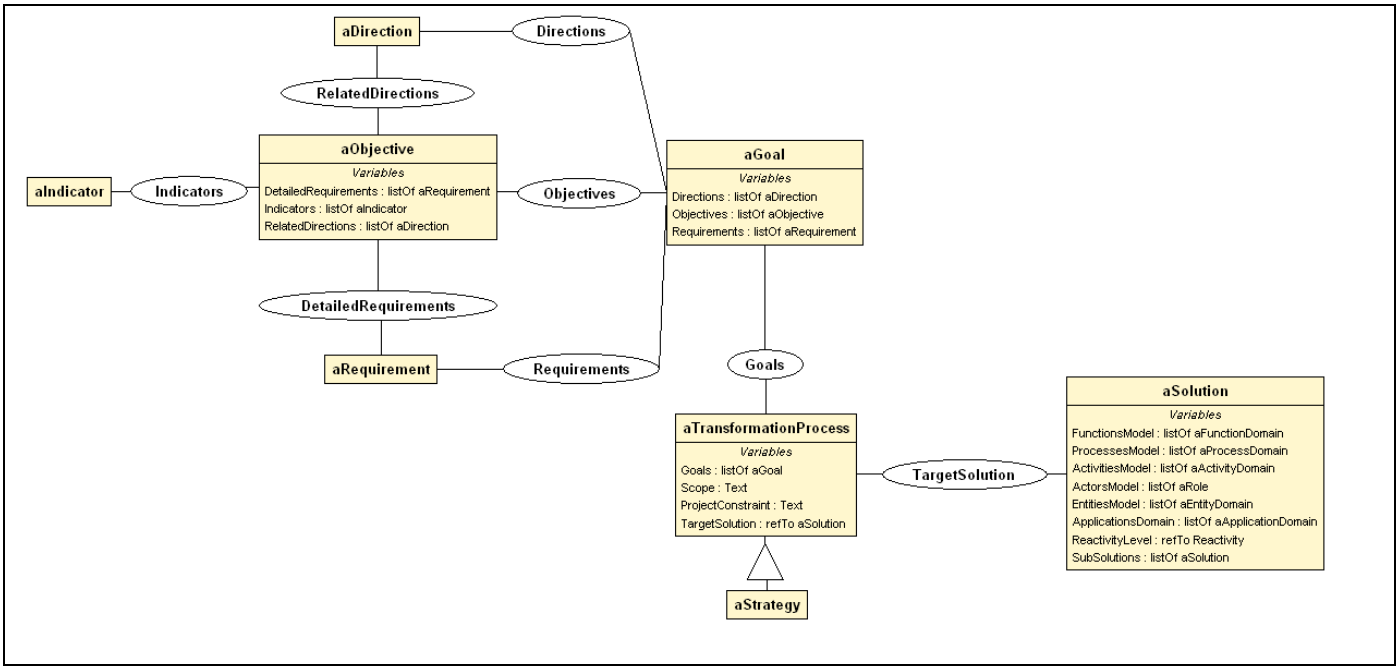
- a specific deliverable describing the Architecture Vision.

CEISAR comments : CEISAR Definition is aligned with the first definition of Architecture Vision of TOGAF

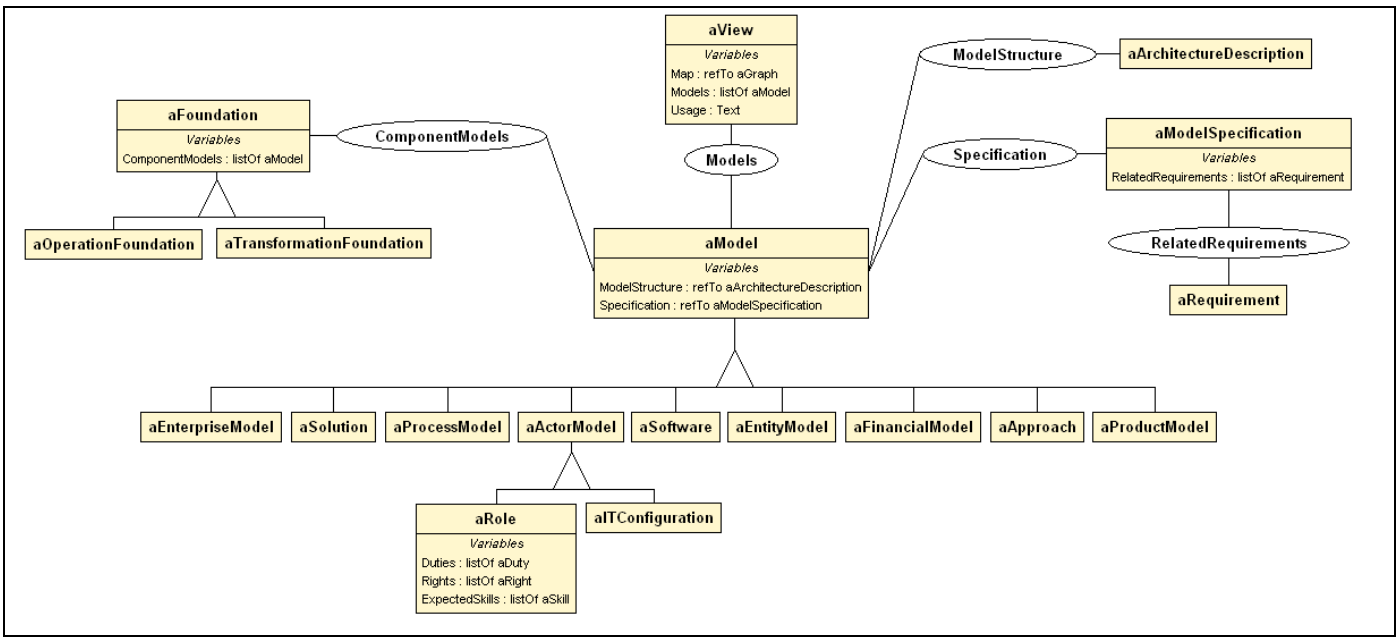
Transformation glossary modeling



(Fig 10 : Transformation Approach)



(Fig 11 : Goal & Transformation Process)



(Fig 12: Models and Foundation)

Terms not defined in this Glossary (Market)

- *Business Service*
- *Brand*
- *Channel partner and media*
- *Distribution Value*
- *Product Family*
- *Service line*

Terms not defined in this IT Glossary (Enterprise Model)

- *Attribute*
- *Behaviour*
- *Business Case*
- *Business Model*
- *Leadership*
- *Meta-Model*
- *Asset=Capability*
- *Business Model = Enterprise Model*
- *Entity-Model*
- *Model for Entities which have same Attributes and same behavior (same life cycle and same Functions).*

Terms not defined in this Glossary (Enterprise)

- *Business Unit*
- *Contractor*
- *Employee*
- *Knowledge Management*
- *Intervening Party*
- *IT Infrastructure*
- *IT Service*
- *Management*
- *Organization*
- *Partner*
- *Resource management*
- *Subcontractor*
- *Skill Management*
- *Transaction*

Terms not defined in this Glossary (Operation)

- *Supply Chain*

Terms not defined in this Glossary (Transformation)

- *Architect*
- *Business Analyst*
- *Business Architect*
- *Business Transformation*
- *Communication Management*
- *Complexity*
- *Continuous improvement*
- *Developer*
- *Engineering*
- *Global Approach*
- *Financial Assessment*
- *IT Architect*
- *IT Transformation Management*
- *Multi-disciplines*
- *Operation Strategy*
- *Planning*
- *Portfolio*
- *Portfolio Management*
- *Practice*
- *Program*
- *Program Management*
- *Project*

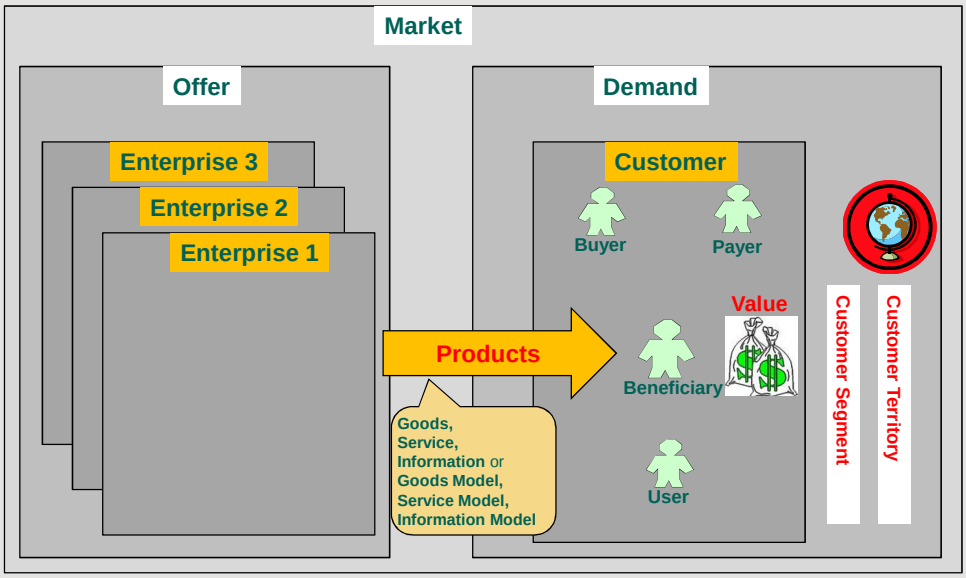
- *Project Model*
- *Project Management*
- *Project Manager*
- *Project owner*
- *Quality Management*
- *Risk Management*
- *Sponsor*
- *Stakeholder Management*
- *Step*
- *Strategy*
- *Strategic execution*
- *Strategy formulation*
- *Strategy Management*
- *Target Measure*
- *Transformation Engineering*
- *Transformation Management*
- *Value Management*
- *Valorization*

0-Language of Transformation: summary

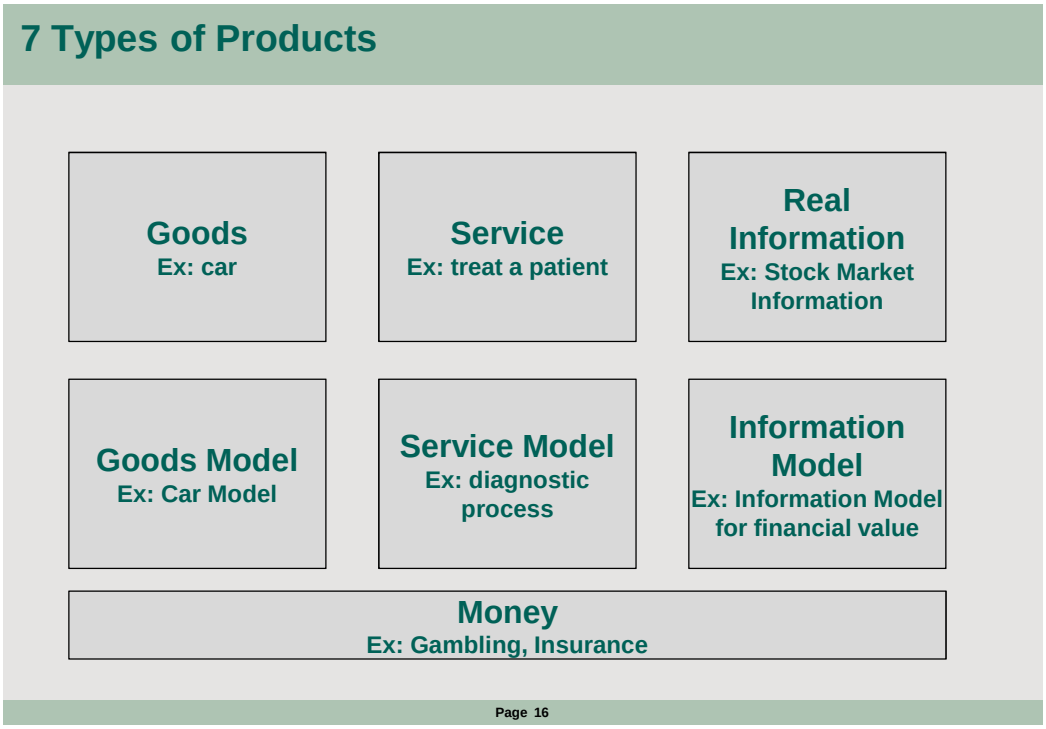
Contents

1 The Market

The Market: to obtain Value, the Customer acquires, then uses, a Product.



All begins with the **Value** that Customers **Demands**.
To obtain Value, the Customer must Benefit from a **Product** Offered by an Enterprise.
The Enterprise must **Produce** each Product
The Enterprise must also **Distribute** its Offers. An **Offer** represents one or several Product-Models, the Compensation (usually a price), the targeted Customer-Segments, the Customer Territory and the Distribution Value which completes the Product Value.
The **Market** enables the Demand and the Offer to meet. Each formalized exchange is the object of a **Contract.**



The Product can be **Goods** (such as a car), a **Service** (such as a medical consultation), or I**nformation** (such as stock market prices), or a mix of these categories.
A Product can also be a **Model** of Goods (such as the plan of a house) or a Model of a Service (such as a medical diagnosis Model) or a Model of a piece of Information (such as the structure of a DNA chain).
A Product can also be **Money** which allows to get other Products.

The **"Customer"** comprises different **Roles**: user, beneficiary, decider, payer, subscriber…
The **"Customer Territory"** defines the territory of potential Customers (and not the execution Territory on which Enteprise Distributes, or Produces, or Transform).
To define the Product we must distinguish each instance of real Product from the **Product-Model**.
It is the **Product-Model** which describes its Product-Value for the Beneficiary, the user functionalities and the decomposition into Product-Components.

2 Enterprise

Once the Offer has been defined, from there we must deduce how the Enterprise Actors ought to act to deliver this Offer.

Enterprise
An Enterprise is a group of Actors with a common Mission, aiming to supply Value (in the form of a Product) to a Customer, and Operating all or part of a Value Chain.

When you observe an Enterprise in action, you see Actors executing Activities. But what are Actors and Activities?

Mains Actors are **Human-Actors**: they can be employees of the Enterprise or people on the outside who play a part in the **extended Enterprise** as Customer, Provider or Partner.
The Actions of the Enterprise are executed not only by Human-Actors but also by **Computer-Actors** which play an increasing role in every domain: IT is present in Products, in Operations and in Transformation.
An Actor can also be a **team** of several Actors as is an executive committee who makes decisions, or the association of a Human-Actor with its Computer.

The **Activity** is the set of Actions which are executed by the same Actor at the same time.

To execute Activities, the Actor requires and produces **Information** on Business **Entities** such as Product, Customer, or Contract. A Business Entity has an identifier, **Data Values** and is **related** to other Business Entities which allows the Actor to navigate, for example, from the Contract to the related Product or the related Customer.

The end of an Activity may trigger another Activity for another Actor. The orchestration of Activities triggered from an independent event is generally called an **a Process**.
For complex Actions the Process can be decomposed into other Processes on successive levels.
For example, different levels are required for large Transformation: Plan, Program, Project, sub-Project, Phase, sub-Phase, Step, … up to Task.

3 The Enterprise Model

Complex Enterprises require to formalize how to work well: this is the **Model**.

3.1 Actor Model

The Enterprise must structure its hierarchical or matrix-type **Organization** into **Organizational Units** which can be termed group, company, division, department, service, region, branch office… down to the individual **Positions** allocated to the Actors.

Human Actor Model:
Skills (what the Actor "could do") are attached to Human-Actor-Model.
Rights (what the Actor "is authorized to do") and **Duties** (what the Actor "should do") are generally attached to the Position rather than directly to the Human-Actor.

Computer Actor Model:
Computer Actors have a **Configuration** that is expressed in terms of: software, equipment and capacity for exchange, and Rights and Duties.
They are organized around an **IT Infrastructure** which links the different computers, defines where information is localized, and where software programs are executed.

Thus IT must be considered as **a discipline like any other** that should not be isolated from the Businesses. The **terms** used by IT ought to be **the same** as those used by the business: Process, Business Entity, Function, Solution, Model, Program, Project, Foundation, Transformation… are together Business and IT terms.

3.2 Action Model

The **Action-Model** describes how to act (well): documentation for Human-Actors and software for Computer-Actors (the memory of the Enterprise often resides in this software).

The different Action Models executed by the Enterprise are classified in a hierarchy of **Functions**, from large **Function Domains** (such as "Manage Human resources") up to simple **Functions** (such as "Compute tax").
A Function =

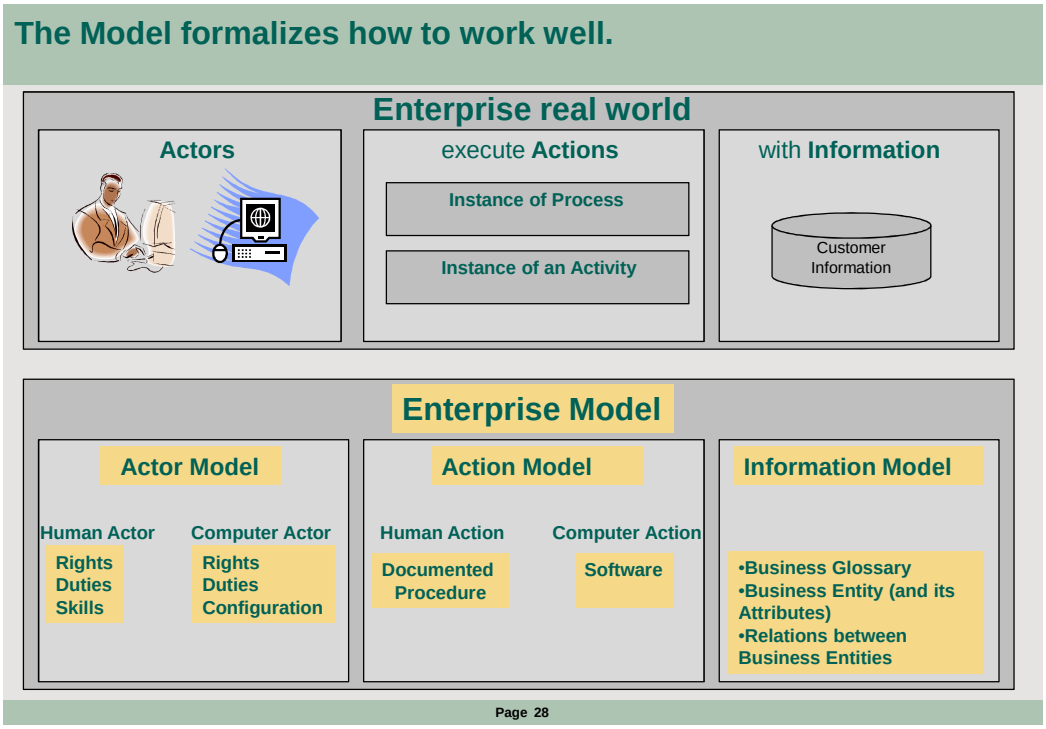
- a verb + a Business Entity (Ex: Price a Contract, or Read Customer)
- has a deliverable (Ex: Price or Customer Information)
- is independent from Organization ("Subscribe a Contract" can follow different organization scenarios, such as .

Each Process-Instance respects a **Process-Model**: it defines orchestration rules.
Each Activity-Instance respects an **Activity-Model**: it defines the Functions to be executed, which Roles must execute which Activities, and in which Process it is executed.
Activity-Models are classified in Activity-Domains.

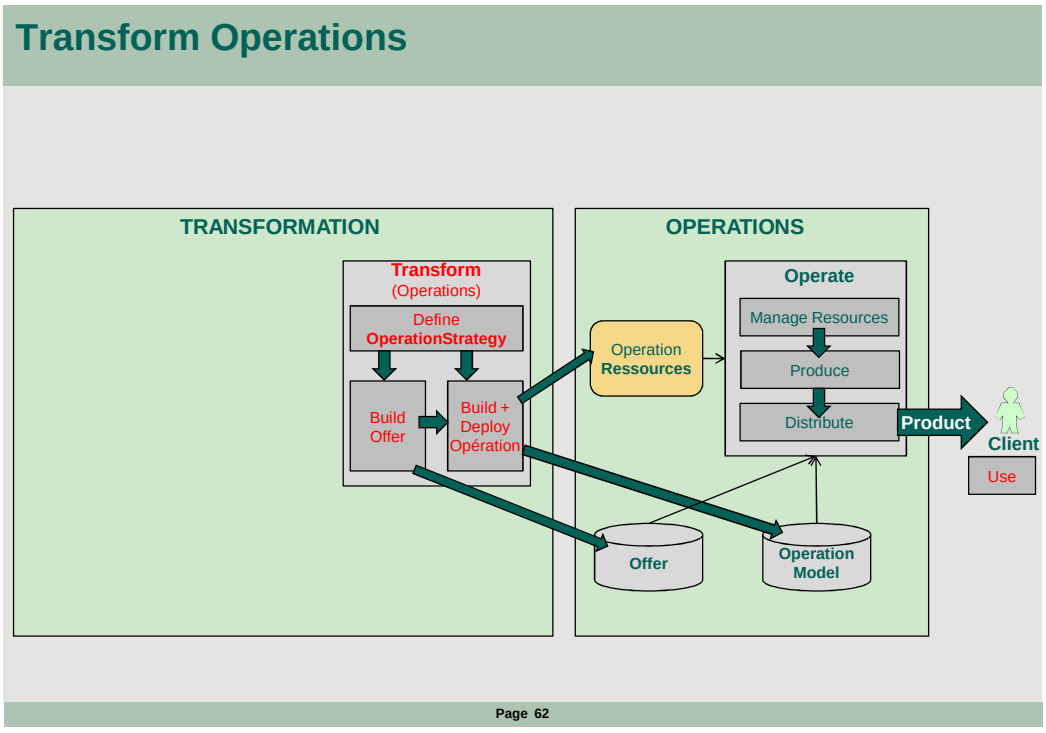
*Remark: **workflow engine** orchestrates **Activities** and not Functions*
*Remark: we **Reuse Functions** and not Activities*

3.3 Information Model

A Business Entity Model is defined by its identifier and its Attributes.
The Information Model groups Entities definitions, and relations between Entities.



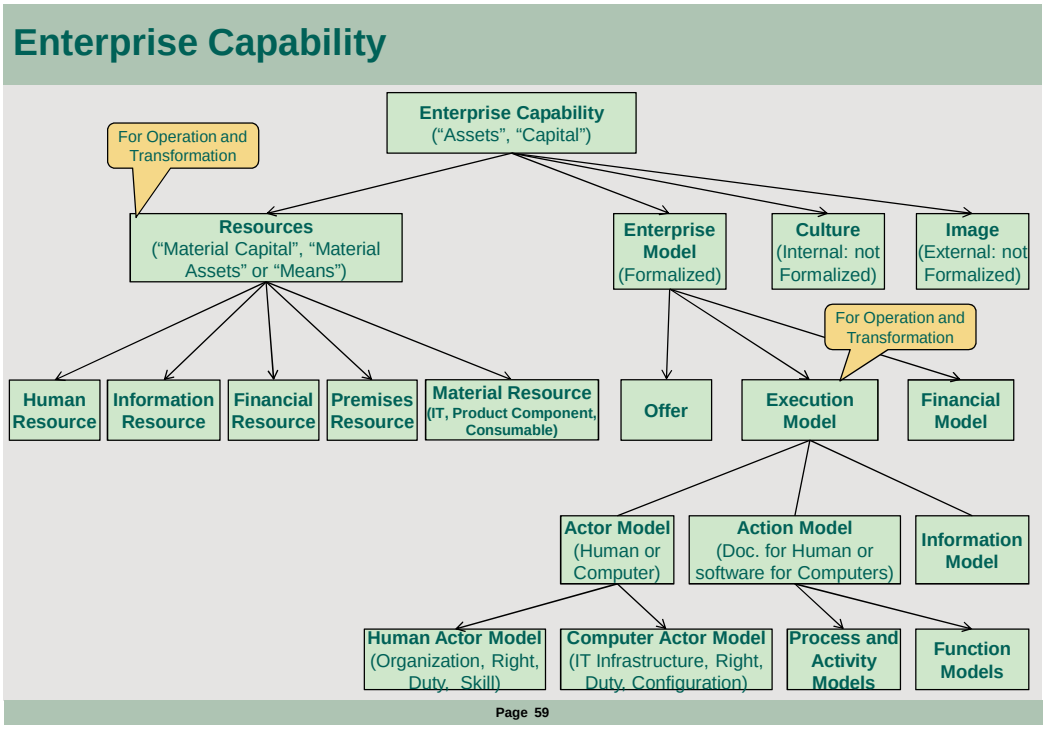
Operation and Transformation
Operation groups Processes and Resources required to Produce the Products, Use the Products, Distribute the Offer, manage Resources according to the Operation Model.
Transformation is necessary when an Enterprise decides to change its Model and/or Deploy a new Model (adapt Operational Resources).



Enterprise Model
The **Enterprise Model** comprises the Offer Model, the Operation Model, the Transformation Model and the Financial Model.

Capability
The **Capability** of an Enterprise is its capacity to execute. It is composed of:

- the **Image** of the Enterprise
- the **Culture** of the Enterprise
- the **Enterprise Model** which includes
  - the **Offers**
  - the **execution Model**: one cannot execute (Operate and Transform) a complex system without formalizing how it should properly function: this is broken down into:
    - Action Model
    - Human-Actor Model
    - Computer-Actor Model
    - Information Model describes the structure of Information Entities and their relations
  - the **financial Model** which consolidates Offer revenues and Operation/Transformation costs.
- The **Resources** which serve to execute the Models. They are essentially:
  - Human Resources: internal or external to the Enterprise
  - Information Resource
  - Financial Resource
  - Premises Resources
  - Material resources such as Computer-Actors or Product-Components



4 Operation

Operation is Producing, Distributing and Managing related Resources to deliver Products to Customer according to its Operation Model.
The Enterprise **Mission** defines the purpose of an Enterprise: its Market (which Products for which Customer Segments and which territory) and its Value Chain.
The Enterprise only Operates on a part of the **overall Value Chain**: this is its **Enterprise Value Chain** (or action Perimeter). It calls upon **Partners** (suppliers, producers, distributors) to complete the overall Value Chain.

The Operated Processes are essentially:

- The **Primary Processes:**
  - The **Product Production Processes**
  - The **Offer Distribution Processes**
  - The **Product Utilization Processes**
- The **Resources Management Processes**
- The **Enterprise Reporting Processes**

Share Resources
To optimize its Operations, the Enterprise seeks to **Centralize Resources** without de-motivating the various Actors.

- **Centralized Units** execute Actions for different Business units (call center, back office, procurement, legal, IT architecture…).
- **Master Data** contains the Information shared by various Solutions. This cannot be shared unless it is based on the same Information Model.
- **IT Infrastructure** is a shared Resource which brings together the IT Resources thanks to which the various Solutions are executed.

5 Transformation

Transformation is changing the Enterprise Model (Offer, Operation Model, Transformation Model or Financial Model) and/or Deploy it (adapt Operation Resources).

Why Transform?

The primary reasons for the Transformation of the Enterprise have to do with the evolution of its Offer:

- Launch of new Products
- Widening of Customer Territory
- Targeting of new Customer segments

These changes in the Offer lead to modifications in the Operation Model: one must Produce or Distribute in another way and elsewhere, with other partners.
Even without changing its Offer, the Enterprise may decide to Transform its image, its culture or its Operation Model, for instance in order to be more efficient, to merge with another Enterprise, or to change its positioning in the Value Chain.

Operation Strategy and Transformation Strategy

A **Transformation** of the Enterprise requires

- a decision regarding its **Operation Strategy**,
- subsequently a Modification of its Resources, its Offer, its Operation Model
- and its **Deployment** with Operational Actors.

The Transformation uses its own **Transformation Models** (Approach, Methodology, Tools) and **Transformation Resources** (Business analysts, Architects…) which are different from Operation Models and Resources.

To enhance agility or "time to market" we must define, not an Operation Strategy, but a **Transformation Strategy** which consists of modifying the Transformation Models and Resources.

We therefore use the **Modeling** Concepts: Enterprise Model, Offer, Operation Model, Transformation Model, Solution Model, Process Model, Information Model and Financial Model.
We must also define the key **Transformation-Profiles**: Sponsor, Architects, Analysts, Developers, Project leaders.

There exist a whole range of Transformation Processes, from the simplest to the most complex. Some only consist of Deploying an existing Model (ex: open a new branch).
The term "**Innovation**" is used to describe very new Models which represent ruptures in the Offer, the Operation Models, or the Transformation Models.

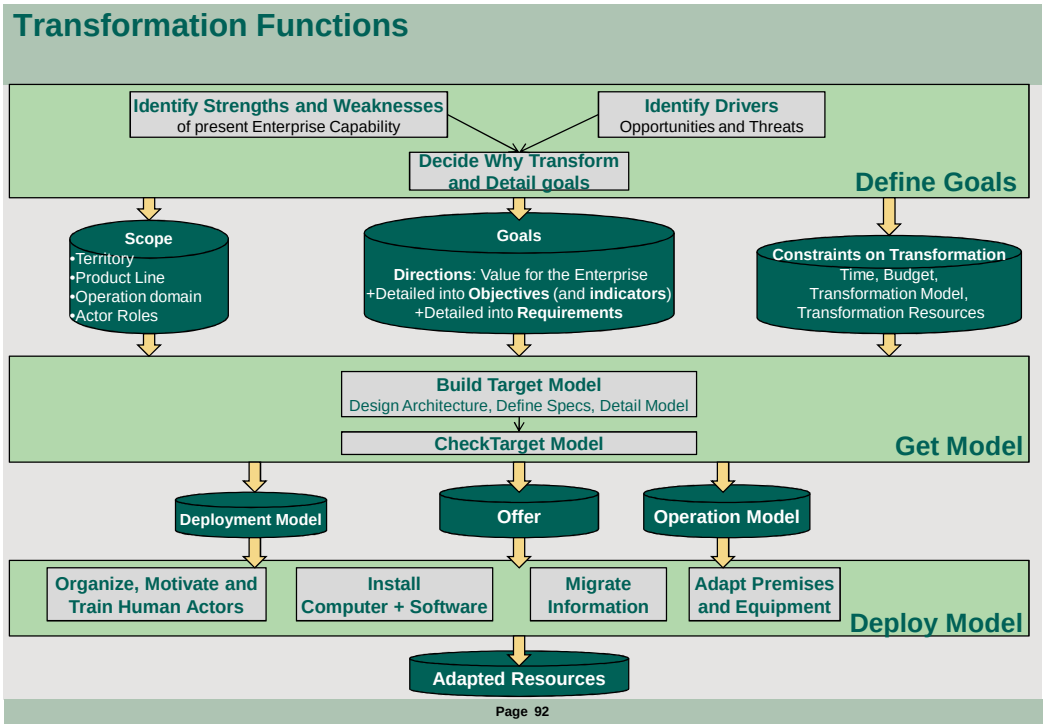
Foundation

All Models reusable for the composition of new Models are grouped in the **"Foundation"**. By way of example:

- reuse a Product Model: reuse a platform for different Models of cars
- reuse a Process Model: reuse the same subscription Process Model for many different Offers
- reuse a Function Model: reuse a security Function in numerous Processes
- reuse an Actor Model: reuse the same Rights and Duties to define the Profile of an Actor
- reuse an Information Model: reuse the exchange formats between airline companies (IATA norms).

The Foundation perimeter should be **in line** with the strategy of each Group.

The Strategic Approach

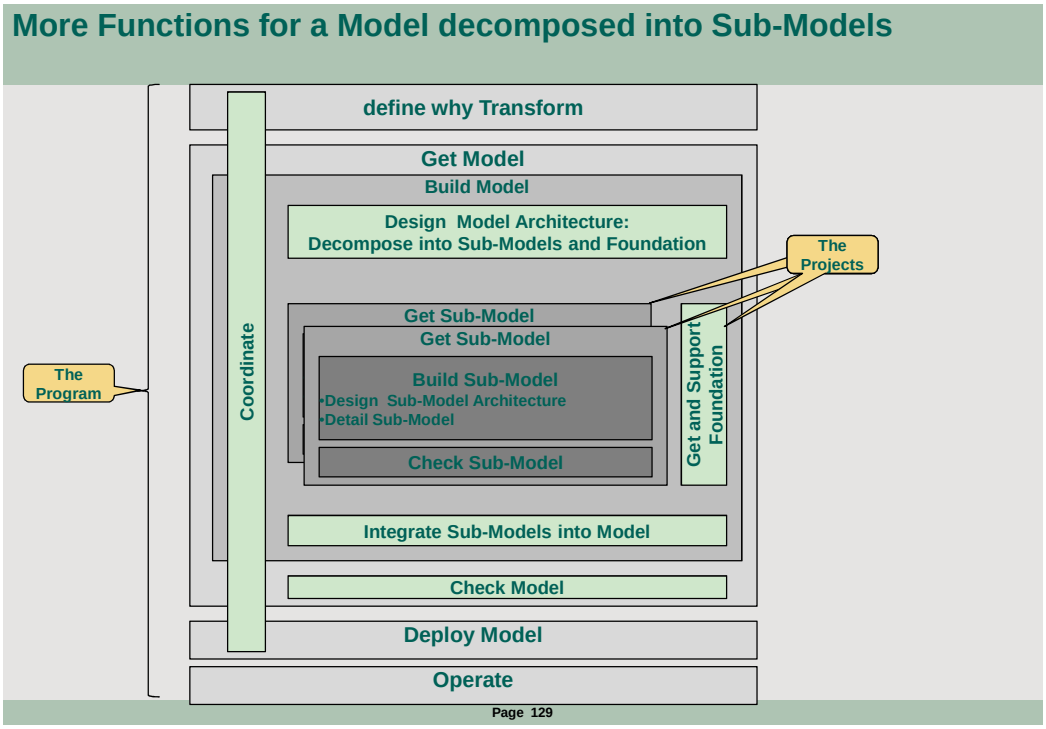


When Transformation is major, we speak of **Strategy**. The Strategic Approach consists to:

- **Define Goals**
  - The Enterprise ought to know itself: what Capability (Models, Image, Culture and Resources), what strengths and weaknesses
  - Then analyze the opportunities and the threats
  - Then deduce its **Goal** broken down into main **Directions**, **Objectives** (with success indicators), then **Requirements**
- **Get the Target Model**
  - The new Offer
  - The new Operation Model
  - The Deployment Model
- **Deploy the Target Model: adapt the Operation Resources**
  - Organize, Train, Motivate the Human Actors
  - Install Computers and IT infrastructure
  - Migrate the existing Information to the new Model
  - Adapt premises and equipment

The **financial assessment** of a Strategic Plan must take into account not only the cost of the Transformation and the Operational benefits, but also the **valorization of the Enterprise Capital,** in particular its immaterial Capital: Models (Offer, operation Model, Transformation Model), Information, Culture and Image.

Sub-Models
When a Target Model is complex, it is decomposed into several Sub-Models, which in turn can be decomposed into Sub-Sub-Models…until it is manageable by a team.



To be sure that the global Model is consistent, some more Functions are required:

- design the Model architecture as a whole to allow decomposition into Sub-Models
- Integrate the different Sub-Models into one Model
- Check the full Model:

The Transformation Processes

Once all these Transformation Actions are identified they must be organized in a planning decomposed in **Processes**.

Different level of Processes can be defined as a “Program”, a “Project”, a “Sub-Project”, a “Phase”, a “Step”, a “Task”…, the number of level depends on the size of the Transformation.

A Process is defined by begin and end dates, list of Activities or Processes to execute, and final breakpoint to formalize the end of a Process.

The **Activity** is the leaf of the tree. Transformation Actors are assigned to Activities. Activities chain orchestrate Functions.

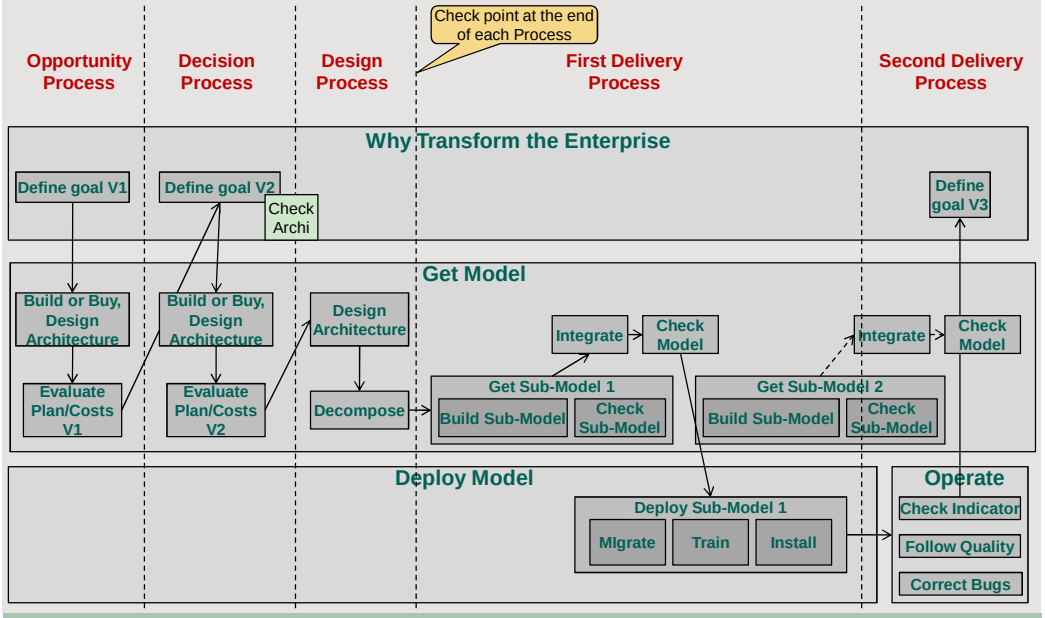
The same Function may be executed in different Processes or Activities as “evaluate workload”, “integrate”…

Managing Transformation Processes requires Transformation-Functions such as “follow Plan”, “assign Resources” which are **Transformation Organization Functions** and are different from **Transformation Engineering Functions** such as “Define Goals” or “Model a Process”.

Agile Approach and Top-Down Approaches have same Engineering Functions but different Organization Functions.

The Distinction between Transformation-Function (the contents) and Process (the container) is fundamental: it allows to execute iterative Processes without losing the logic of the Transformation.

Strategic Plan = plan Transformation Functions in time



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1-The Market:
Product, Offer, Customer

Contents

1 The Product brings Value to the Customer

An Enterprise only exists by virtue of its Customer, and Customers only call upon an Enterprise because this Enterprise brings them Value. To obtain this value one must "**Use"** a **Product**.
Here are some examples:

Value	Product	User
To get around	Automobile	Passenger (including the driver)
To satisfy hunger	Can of peas	The person who eats them
To understand better	Knowledge	The person who assimilates the knowledge
Care for one's appearance	Haircut	The hairdresser's Customer
To help in decision making	Advice of a consulting firm	He or she who uses the advice in their activity
To be up to date with the latest news	Newspaper	Reader

Remark: Value is represented by a verb, the Product by a substantive and the User by a Person.

The Value is supported by the **Product** which takes 3 forms: Goods, Information or Service.
The Value Transmitted by the Product increases the Value **Capital** of the Acquirer.

- The Value of the Product can diminish with its use: "wear" or "consumption" of the Goods.
- The Value of the Product can diminish with time: "weather forecast" or "stock prices" or "watching a match".
- The Value of the Product can be constant: mathematical model, dictionary.
- The Value of the Product can serve as a basis for the production of other Value.

2 The Enterprise's Market

Demand and Offer meet on Markets.
For each **Market**:

- the **Demand** is defined by the **expected Value** (rather than the Product which the customer doesn't always know).
- **The Market Offer** is all Enterprise Offers destined to satisfy the same Demand.
- An **Enterprise Offer** comprises one or several Products, the compensation asked for, the Distribution territory and the customer Segments targeted.

Every Enterprise must define its **Offer** before defining how it should **Operate:** one must determine one's target before defining how to reach it.
Remark: in the real world, the process tends to be more iterative given that the Enterprise defines its Offers taking into account its Operational strengths and weaknesses.

The term "**Market"** has multiple facets. Each time we use the term "Market" we should qualify it:

- Product Market: "the automobile Market"
- Segment Market: (clientele): "the Over-sixties Market"
- Local Market: "the South American Market"

which we can then combine 2 at a time:

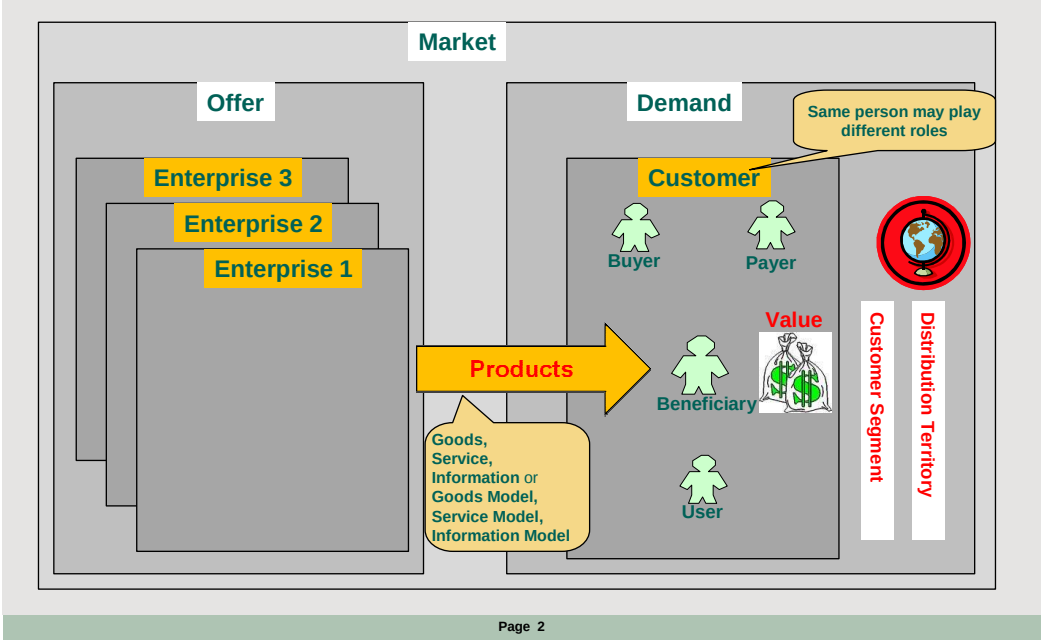
- Product/Segment Market: "the automobile Market for the over-sixties"
- Product/Local Market: "the automobile Market in South America"
- Segment/Local Market: "the Over-sixties Market in South America"

or 3 at a time:

- Product/Segment/Local Market: the "automobile Market for the over-sixties in South America"

Remark: a niche Market usually corresponds to an original combination of the 3 dimensions.

The Market: to obtain Value, the Customer acquires, then uses, a Product.



This document describes the essential concepts of the Market:

- What **Offers**?
- For what **Customer Segments?**
- In what **Distribution Territories**?

3 The Product can be a Goods-item, a Service or “Real” Information

Everyone knows what a product is: one buys a car, a newspaper, some food, which are all Products. Yet the notion of Product is richer than the simple notion of Material Goods. We therefore propose a terminology of the Product which should help communication between the various Enterprise participants.

3.1 Material Goods (or real Goods)

The Product can take the form of **material Goods**, such as a car, a newspaper, or an item of food.
The life-cycle of the Goods-item is always the same: the **Goods-item** must be Produced, then Distributed, then Used.
Most often the **Goods-item** can be stored and used several times:

- the Goods-item “Car” is storable and enables one to be transported several times.
- the Goods-item “Newspaper” is storable and can be read by various People.

There are exceptions, such as:

- certain Goods-items like food items are only usable once
- certain Goods-items like a bridge cannot be stored.

3.2 Services

The Product can also be a **Service** such as a package holiday, a haircut, person-transport, the repair of a Goods-item or a surgical intervention.
The **Service** has a life-cycle that is different from the Goods-item: one cannot store a Service. Thus Distribution usually precedes Production.
A **Service** can only be Used once, at the moment in which it is Produced:

- To manage money, the **bank** offers a number of financial Services: means of payment, loans, investments.
- To manage security, **insurance firms** offer a number of Services delivered in case of a bad devent.
- **The hospital** manages the Services that restore health.
- **The public administration** and the department of social security manage social Services.
- **Consulting firms** manage advice Services to Enterprises.

If one issues several checks, or if one has to undergo several operations in hospital, this involves successive and different Services.

3.3 Real Information

For as long as Information was only storable and readable on paper, the “Newspaper” represented a “Goods-item”. Yet the appearance of media such as radio, cinema, television or Internet has also enabled the diffusion of information. Thus Users now understand that there is a distinction between information and its support: hence what we call "News" is not simply that which comes in paper form, but also that which is transmitted and rendered in the form of written language, voice and/or pictures.
So over and above Goods and Services we must add a third category of Product: **Information**, such as the weather forecast, stock prices, knowledge, a novel, sales enquiries, or games.
The life-cycle of Information is that of Goods and not that of Services: one Produces Information, then one Distributes it, then one Consumes it.

Remarks:

- *One often encounters the term "Information access service", which some take to mean that Information is but a particular form of Service and hence comes under the category of "Services". We prefer to distinguish Information as a Product independent of Services given that its life-cycle is different.*
- *The Information Distribution Process is a Distribution Process like any other, as we will explicate in the second section, and not a Service: the Product-Value for the Consumer is Information, not its Distribution Process.*

To conclude, modes of consumption are evolving towards:

- **less material Goods:** the Goods economy now only accounts for 30% of the overall economy in the West
- **more Services**
- **greater access to Information.**

3.4 Different Products for the same Product-Value

The **same Value** "Reading" can be acquired by **different Products**:

- the Paper Book
- the Electronic Book

One should not confuse Value with Product.
Hence, **competitors** are not only those who offer **similar Products**, they are also those who provide the **same Value** with different Products:

- Enterprises who offer mobile phones have become the new competitors of camera manufacturers.
- The real competitor of the Encyclopedia Universalis is Wikipedia and not the Encyclopedia Britannica.

3.5 One Distributes Offers, one Produces Products

As their name indicates:

- that which is Produced is the Product: it belongs to the domain of **Production**
- that which is Offered is the Offer: it belongs to the domain of **Distribution.**

3.6 An Offer can combine different Products

- An "**iPhone"** Offer includes both the Goods-item -the device - and the telephone Services, SMS, Photo…
- A **"car"** Offer includes the Goods-item - "car" - and the Service, "free repairs for 3 years".
- A **"car hire"** Offer comprises a Goods-item - "car" - used for a defined period along with associated Insurance Services.
- A **"newspaper"** offer comprises the **Information** and the paper support which is a **Goods-item.** If it is read on Internet it only comprises the Information, but benefits from a different Distribution process.
- A "**GPS**" Offer comprises a **Goods-item**, **Services** such as calculation of the best itinerary and **Information** such as on-board maps.

3.7 Contract and Compensation

Agreement between Enterprise and Acquirer is generally formalized in a **Contract** which refers to the Offer.
In exchange, the Acquirer must offer **Compensation**, usually in the form of money.
The Compensation includes the price calculated on the basis of a tariff and the sales conditions (reduction, credit, etc…).
The Offer may be **marketable** or not: we buy the Automobile-Offer; we acquire the Knowledge-Offer free of charge at a State School.

3.8 Product made up of Products

If Product A is used as a **component** of another Product B, this involves 2 distinct Products.
A car seat is a Component-Product, the automobile is the end-Product.
The **Component-Product** is Used by way of assembly with other Component-Products to create a new Product.
A Component-Product can itself be assembled with the help of Component-Products: the Component-Product "car seat" uses the Component-Product "fabric".
A Product can be alternatively an end-Product or a Component-Product: a GPS can be part of a vehicle one acquires or one can acquire it independently.

There may be confusion between:

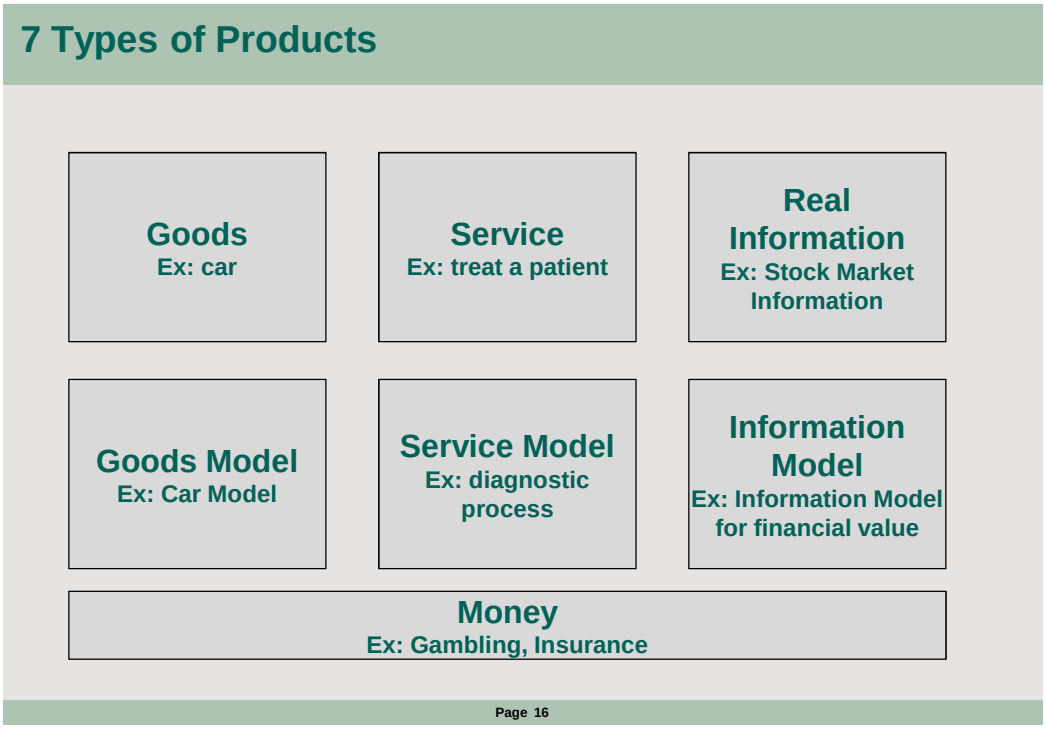
- grouping Products into an Offer
- assembling a Product from Component-Products.

To clarify this one should apply the following guideline: a **Product issues from production**, while an Offer is but an assemblage of Products defined by marketing.

3.9 Product-with-options

Certain Products feature various options.
A car can have a sun-roof or not, it can be gray or white, it can be equipped with a GPS or not…
The combinatory nature of options is sometimes so complex that we do not wish to create as many Products as there exist possible combinations.
The choice between different Products or different variants of the same Product-with-options cannot be subjected to a general rule: it is up to each enterprise to find the right break-down of its nomenclature.

4 The Product can also be a Model (of a Goods-item, a Service or real Information)



Models formalize how to Operate well.

- The **Plan of a house** supplied by an Architect is a Model.
- A **car Model** can be sold "under license".
- The **Pattern of a garment** is a Model that can be sold by a design Enterprise to clothing producers.
- In pharmaceuticals a **"molecule"** signifies "a chemical formula which has proven therapeutic properties". It is not the medicine-Product consumed by the patient, but a Model which can be sold by one laboratory to another laboratory so that the latter may manufacture associated products.
- A **cooking recipe** is not the meal-Product that is derived from it, nor is it the Service provided by the cook. It is a Model that can be sold to all cooks.
- A **method of medical diagnosis** is a Model that is taught to medical students and that is usable by doctors.
- The **Franchisee Operating Model** is a Model sold by the Franchiser to Franchisees.
- The **definition of an order Process** is a Model that an Enterprise organizer can acquire to help organize his or her Enterprise.
- A **Software application** is a Model: it is a set of instructions understandable by a Computer-Actor to perform, for example, word processing Services.
- The goal of **Research** is not to produce Goods, or Services or end-Information: it supplies new forms of know-how, new molecules, new approaches, which are all **Models**.

4.1 Goods, Service and Information Models

We define the Model as a formal and simplified representation of a portion of the complex real world to better understand it

- in its **static** and descriptive form: Model of a Car or Plan of a house
- and in its **dynamic** form, in other words, as a representation of how this reality functions (one could say Actions Model, Function Model, Process Model): the Actions Model is the list of instructions to Operate correctly. For example: cooking recipe, instructions for use, software.

Just as we have made the distinction between Goods, Services and Information, we also define different types of **Product Models**:

- **Goods Models** like the Plan of House, a Model of Car, a clothes designer's pattern, the composition of a Molecule created by a pharmaceutical laboratory, or a cooking Recipe.
- **Service Models** such as a method for medical diagnosis, the Operating Model defined by a franchise Group, the definition of a Process, a Software package.
- **Information Models** such as the list of Information to be entered for a new Customer, or the format of information exchanges between airlines companies.

The Product can also be a Model

PRODUCT	Real	Model
Goods (substantive)	**Goods** (often storable and reusable) Ex: Automobile, House, Medicine, Dish	**Goods Model** Ex: Car Model, House Plan, Molecule, Cooking Recipe
Service (verb)	**Service** (not storable, not reusable) Ex: Transport a Goods-item, Pay a damages claim	**Service Model** Ex: Driving guide, Software package
Information (substantive)	**Information** (storable, reusable) Ex: History of France, Customer Information, geographical map, TV news, medical consultation	**Information Model** Ex: Customer Information data entry Model
Goods + Service	Ex: Car + 3 years Maintenance + Financing	**See above**
Goods + Info	Ex: Printed novel = Paper Support + Text Content	**See above**
Service + Info	Ex: receive a lesson = Lesson presentation + lesson support Ex: package trip = Accompaniment + information on visit Ex: Medical Intervention = diagnosis + prescription + injection	**See above**
Goods + Service + Info	Ex: GPS = device + Traffic update Service + cartographic Information	**See above**

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4.2 Characteristics of the Model-as-Product

- The Model-as-Product possesses characteristics that are **close** to the Information-Product, as it is stored in the form of information:
  - A **Model-as-Product** (whether Goods, Service or Information) has the same **life-cycle** as an Information-Product: Production of the Model, Distribution of the Model, Utilization of the Model, maintenance of the Model.
  - Just as we can constitute a Product from Component-Products, we can also constitute a Model from Component-Models:
    - In a cooking recipe we reuse **Component-Recipes** such as "Make a mayonnaise" or "Fry the onions" which are Models defined elsewhere and which are reusable by different recipes.
    - A Software package can be made up of **Component-software** such as "Am I authorized?" or "Print a document" which are Models defined elsewhere and which are reusable by different software packages.
- The Model-as-Product possesses characteristics that are **different** from the Goods-Product.
  - A Model is made up only of **Information**
    - Documentary Information comprehensible by the human brain
    - Software comprehensible by the computer.
  - A Model is easy to duplicate, as it contains only Information: once the initial investment has been made, one can Produce it, that is, duplicate it, at very low cost. It is no accident that 2 of the world's 6 wealthiest people (Bill Gates founder of Microsoft and Larry Ellison founder of Oracle) are suppliers of Software-Models.

- As Information can be easily manipulated, a Model can evolve over the course of time: a same Model can have successive **Versions** which represent the different pictures of the Model at different times.

Acceleration of the demand for Models

The acceleration of Transformations which Enterprises have to deal with means they must Build and Deploy new Models. The more such Transformations increase in speed, the more Enterprises tend to seek already available Models so as to gain in agility. The market share of the Model-as-Product sector, to which the Software industry belongs, can only continue to grow in our economy.
The authorization to Distribute a Model takes the form of a Distribution License.

Moreover, as this is an industry which has low Production and Distribution costs, we can predict that a large part of the Enterprise "success-stories" of the 21st Century will involve Enterprises who build and diffuse Models: these will be the greatest sources of value in the knowledge era of the 21st Century.

The formalization of the Enterprise Model opens the doors to new forms of Activities: instead of Producing and/or Distributing Products, an Enterprise can content itself with Distributing an Enterprise Model or components of Enterprise Models. Their customer then uses this Model to Produce and/or Distribute.

- *A **Franchise Group** offers a Product Model and the Distribution Model for these Products. Distribution and Production are carried out by the affiliates who benefit from the Operation Model, Product Models and the Franchiser's image.*
- *One of the reasons for the iPhone's success is the fact that it is a support for executing Software applications (which are Models) developed by others: Apple feeds off the success of the Software Publishers and vice-versa. To help the Publishers, Apple has made available the SDK (Software Developers Kit) which includes a battery of standards to be respected and reusable Models such as calendar, GPS, maps, clock and keyboard. Today, the Appstore offers over 300,000 applications developed in record time.*

However, certain Models are never duplicated because they apply to a specific situation: this is the case of all Models derived from Enterprise Transformation Projects in the aim of gaining competitive advantage. The Software industry challenge consists of identifying in the course of specific projects what can become generic and applicable to various customers.

Protection of Models

As a Model consists solely of Information, it can be easily duplicated. So how do we protect the intellectual property of a Model? A Models industry which requires heavy investment in design cannot grow if it is unable to protect the ownership of its Models.

4.3 Knowledge

In our simplified approach, we consider that **Knowledge** is made up of:

- **Data** (For example: Information on Entities: a Person, the structure of an organization, the map of New York, the Earth which is round…)
- **Action Models** (For example: how to swim, how to make a pancake, how to get around Paris, how to express an idea, a craftsman's know-how).

***Remark:** we often use the term "knowledge" or "know-how" for Action Models.*

The Information that knowledge represents can be **stored** in 3 ways:

- In the **human brain,** thanks to memory.
- On **documentary supports** understandable by the human brain which contain:
  - **Data**: the content of a dictionary is rarely stored in the human brain, it is passed on via a dictionary readable by humans
  - **Action Models** like cooking recipes, or instructions for use, or procedures, or know-how or rules of behavior.
- On **IT supports** understandable by a computer which contain:
  - **Data**: in the IT **data bases**
  - **Action Models**: in the **Software** executable by the computer.

If the Information is stored in the human brain, one must strive to formalize it so as to communicate it: the non-formalized part is called "**Tacit** Information" as opposed to "**Explicit** Information" stored on documentary or IT supports.

- When one says that "The experience is incommunicable", this can be translated as "The experience is "Tacit Information".
- A brand is **explicit** Information for the Enterprise that creates it. The brand image is most often **tacit** Information for the Customer.

The Service for the Transfer of Explicit Information is a Service supplied by the press, the educational system, software publishers and research servers…

Remark:
We are thus obliged to distinguish 2 types of Information, ***Real Information*** *and* ***Models.***
Real Information *represents Information useful for Operations. It is directly Usable, such as Customer Information, weather Information, political Information, financial Information…*
Models *represents how this reality functions.*

5 Offer and Product-Model

The **Product-Model** defines: the Product-Value and the Product description (decomposition into Component-Products).
The **Offer** is a Model which describes:

- the set of **Product-Models** included in the Offer
- the **Distribution-Model** of the Offer if the Distribution Processes add Value to that of the Products: ordering simplicity, rapidity of delivery…
- the **Compensation**, essentially the **Price** at which it is distributed
- the **Distribution Territory**
- the **Customer Segments** targeted

Remark:

- *The breakdown of the Product into Component-Products defined by the R&D Team or the Product-designers belongs to the Production Model.*
- *The **Product Utilization Processes** (such as instructions for use) belongs to the Operation Model. (see below).*

Remark::
***"Time to Market**" is a new constraint for Enterprises.*
To meet the demands of the competition, they must rapidly come up with new Market Offers, which pre-supposes faster Modeling of:

- *new Product-Models*
- *Production Operational Processes*
- *Offers and Distribution Operational Processes.*

The Offer and Product Modeling Process must be rethought to reduce the lead-time between the emergence of a new idea and its availability for the Market.
*In particular, it would be useful to provide Enterprises with **Offer Modeling Processes** combining a same set of Products.*

6 Customer

6.1 User, Beneficiary and Acquirer

The **User** utilizes a **Product** so that the **Beneficiary** may obtain **Value**.
The Product User and Beneficiary are usually the same Actor.
Yet they can also be different: the User play a DVD, and all the members of the family benefit from it, the User drives a car and his or her passengers benefit from the potential mobility.
To be Used, the Product has to be **Acquired** by the **Acquirer**. The Acquirer must buy or order the Product, or subscribe to a contract which will give access to the Product.
For example:

- Acquire the Product - "Car Insurance" – because it offers the Value - "Reimbursement of repair costs and hospital expenses in case of an accident".
- Acquire the Product - "Book" - because it offers the Value – "Reading pleasure".

*Remark: when the User destroys the product by Using it we call he or she a "**Consumer**". This is the case for Products like food. To Consume is thus a synonym for Utilization of Goods that are destroyed in the course of Use.*

6.2 The Customer

The term **Customer** comprises several **Roles**: the Acquirer, the User, the Beneficiary we have just mentioned, but also the payer, the subscriber, the decider, the addressee of the Enterprise's mail…
These different Roles can be played by the same Person or by different People.
The Person can act as an independent **individual** or as the representative of a family or **Enterprise**.
The term "Customer" does not necessarily have a commercial signification: the "Citizen" or "Public Service User" or "Taxpayer" is a "User" of Products provided by the Public Administration.

6.3 Customer Segment

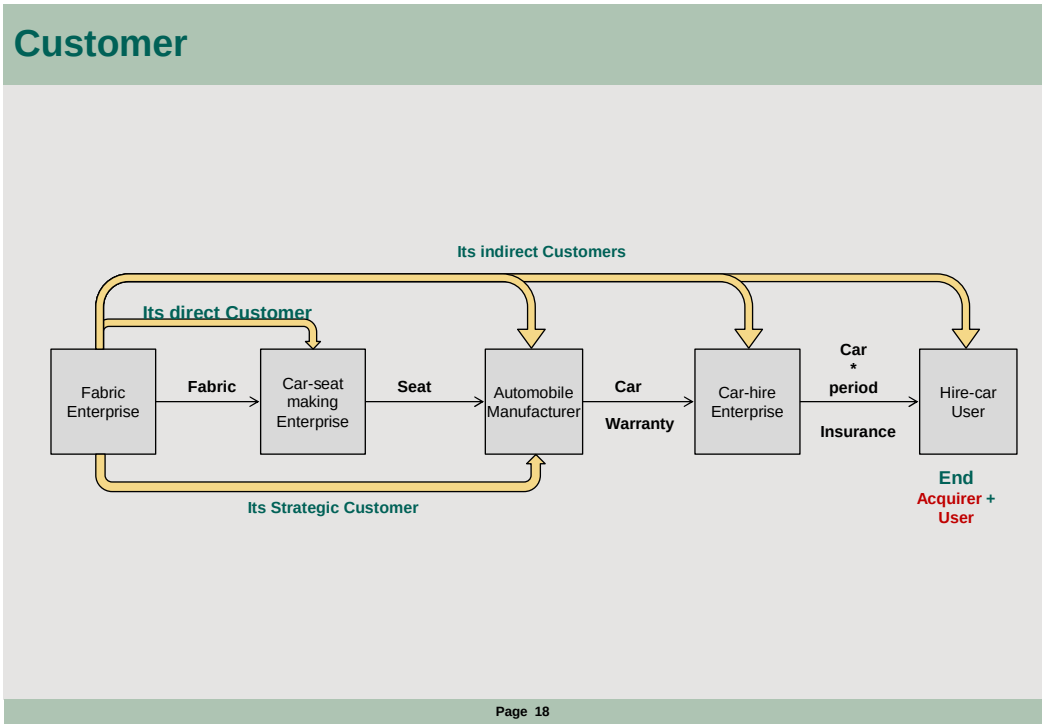
A Product can be universal and destined for all People.
It can also be limited to groups of Users called "Customer Segments" which have a certain number of attributes in common, such as age, Socio-Professional category, level of income, etc…

6.4 Indirect Customer for the same end-Product

If the Producer sells to the Distributor, who sells to the User:

- the Customer of the Distributor is the User
- the Customer of Producer is the Distributor

If the Producer doesn't manage to sell their Product to the Distributor, the User stands no chance of buying it. But if the User doesn't buy from the Distributor, the Producer stands little chance of continuing to sell to the Distributor. So the Producer must help the Distributor to sell to the User via Information indicated on the Product, via the price, via an advertising campaign, via the image, via training of the distributor's staff, etc…
We suggest using the terms **direct Customer** or **indirect Customer** to qualify the Customer of a Product (and not of an Enterprise).



We use the term "**strategic Customer"** to designate the essential Customer of an Enterprise.

Thanks to the label "Intel Inside", the Component-Producer Intel indicates to the Consumer that the end-Product, the computer, includes a Component-Product that is an Intel Microprocessor. It's a sales pitch for the Producer of the computer who benefits from Intel's image, yet it is also a means for Intel to promote its image.
Intel can henceforth consider that its strategic Customer, which was formerly the computer manufacturer, is now the end-consumer who wishes to buy a computer fitted with an Intel processor.

6.5 Identify the Customer well so as to choose the right Product

Let's take the example of a University:
If we consider that its goal is to train students in what Enterprises need so that the students will find a job, the **Customer is the Enterprise** and the Product is the knowledge passed on to the student.
If we consider that its mission is to give students a broad general culture independent of the needs of Enterprises (for instance the French Open University "l'Université de tous les Savoirs"), the **Customer is the Student.** The Product is still the knowledge passed on to the student, but the need expressed by the student will doubtless be different from that expressed by the Enterprise, which leads to **different Products.**

7 Customer Territory

The same Product can be destined for Consumers the world over.
For reasons of culture, language and distance it can also be limited to a given territory: the world, a region of the world, a country, a city...
This is particularly true of proximity Services.
Yet the trend is towards Product convergence: good ideas spread rapidly today, they are copied and lead to the emergence of Products whose Customer Territory is worldwide.
If Distribution is carried out without need for the Customer to travel, for example, via Information transfer (postal mail, telephone, web) it is easier to distribute over wider territories.

*Remark: the **Distribution Territory** or the **Production Territory** can be significantly different from the Customer territory.*

2- Enterprise

Contents

Once the Offer has been defined, from there we must deduce how the Enterprise Actors ought to act to deliver this Offer.
When you observe an Enterprise in action, you see Actors executing Activities. But what are Actors and Activities?

1. The Actors

As its name indicates the **Actor** is the one who Acts.

1.1 Human Actors

Key Actors are **Human-Actors**: they can be employees of the Enterprise or people on the outside who play a part in the **extended Enterprise such** as Customer, Provider or Partner.

1.2 Computer Actors

The Actions of the Enterprise are executed not only by Human-Actors but also by machines, essentially **Computer-Actors,** which play an increasing role in every domain. IT is present:

- in Products: Goods like cars embed more and more IT, Services are Produced and Distributed with IT, Information (including Models) is mainly stored in computers
- in Operations: a growing part of Operations is executed through IT
- and in Transformation: Projects use more and more IT to manage projects, to model the enterprise and its products, or to develop software.

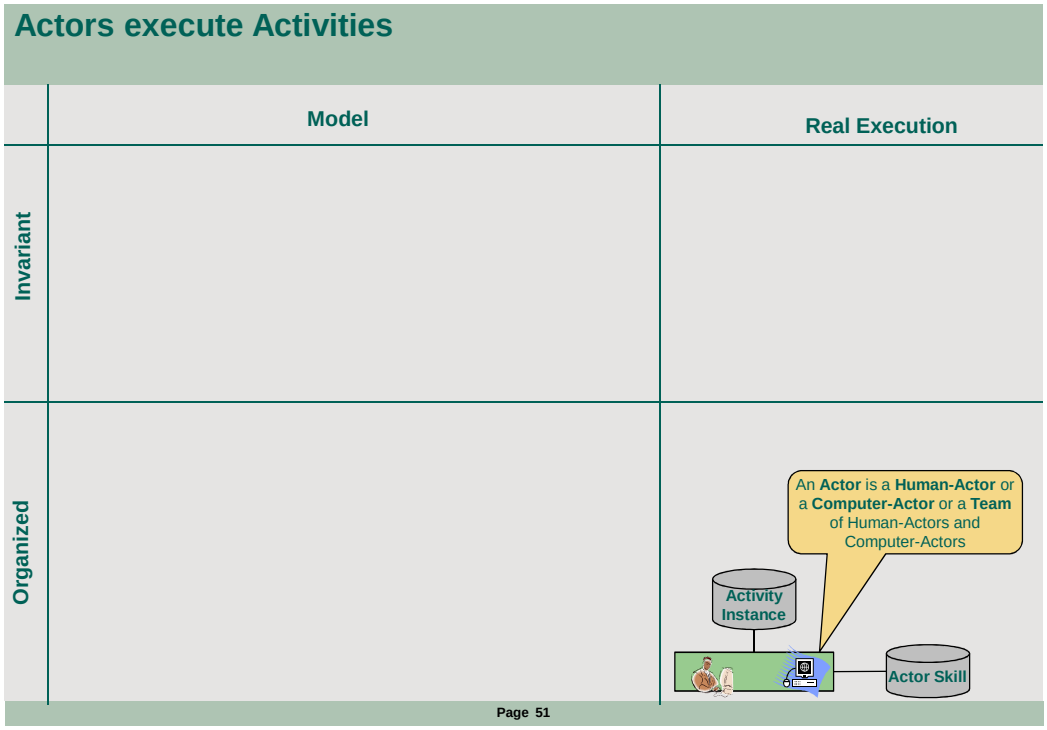
Remark:

- *We can generalize the Computer-Actor to machine-Actor*
- *The intention in using the term "Actor" to designate the subject who acts is not to lower Human Beings to the level of the machine. It is to provide instruments to identify how the computer can play an increasing role in the sharing of Actions and to free Human Beings to carry out actions of greater added value.*

1.3 Team

An Actor can also be a **team** of several Actors as is an executive committee who makes decisions, or the association of a Human-Actor with its Computer.

2. The Actions



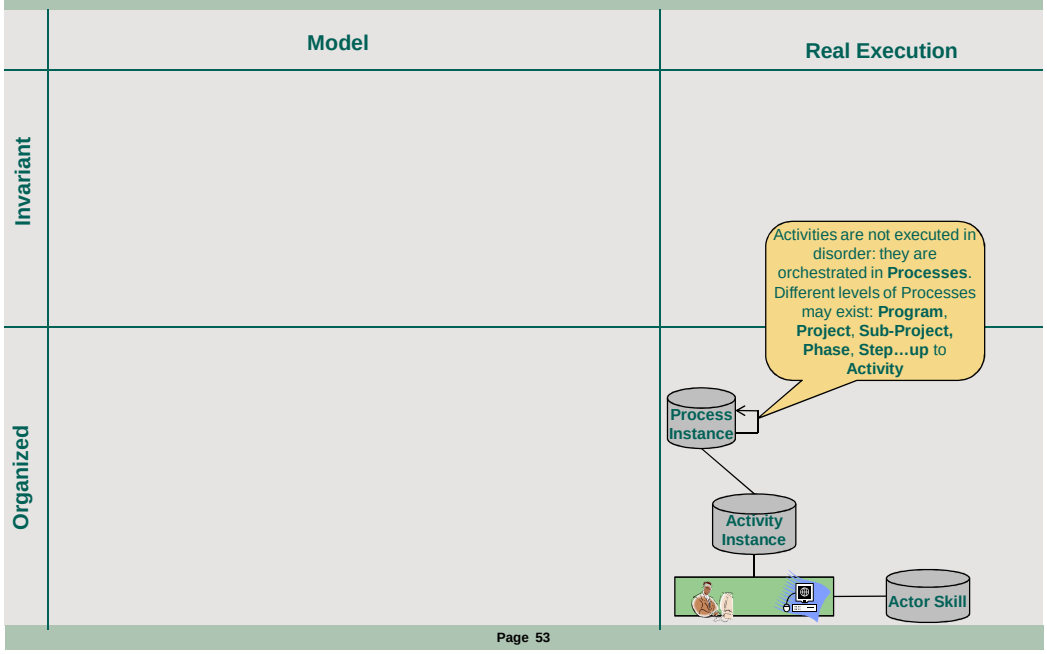
The **Activity** is the set of Actions which are executed by the same Actor at the same time.

The end of an Activity may trigger another Activity for another Actor. The orchestration of Activities triggered from an independent event is generally called **a Process**: it delivers Process-Value to a Process-Client.
Ex: manage an order, hire a new employee, execute a Project…

Remark:
*It is often necessary to identify not just the Actor, but also who is **Responsible** for the Action, the **legal entity** who does not necessarily act. This is either an **Individual** or a **Legal Personality.***

For complex Actions different levels of Processes are required.
For Transformation Actions, we use Process levels such as Plan, Program, Project, sub-Project, Phase, Step…up to Activity.

Activities are orchestrated in Processes



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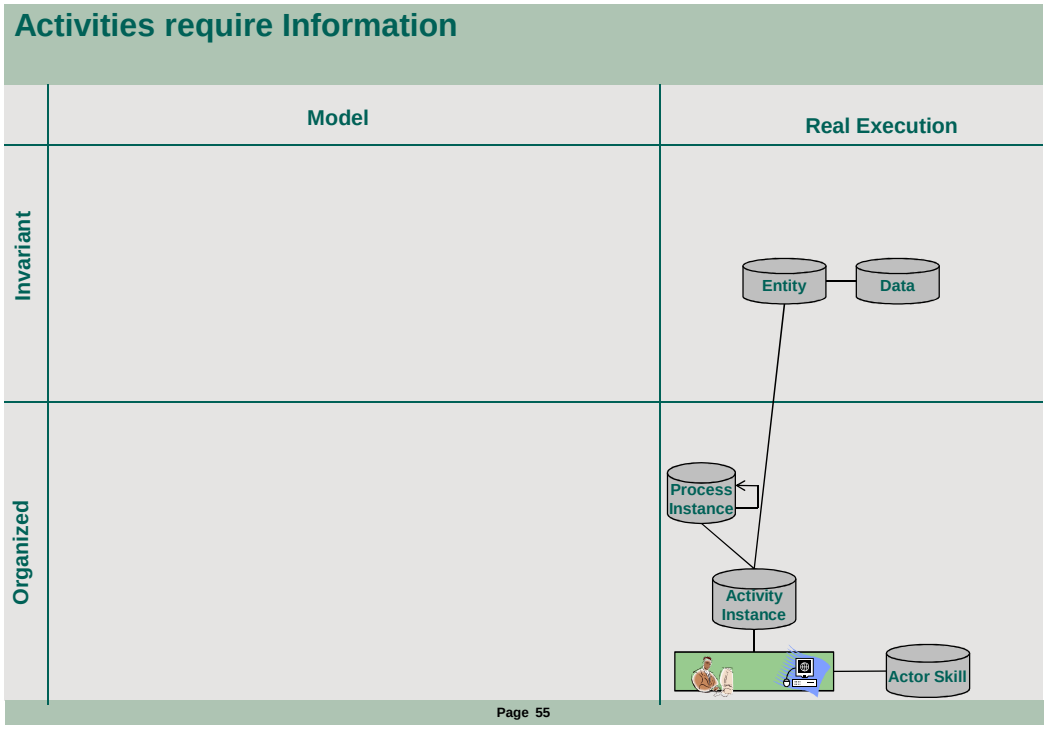
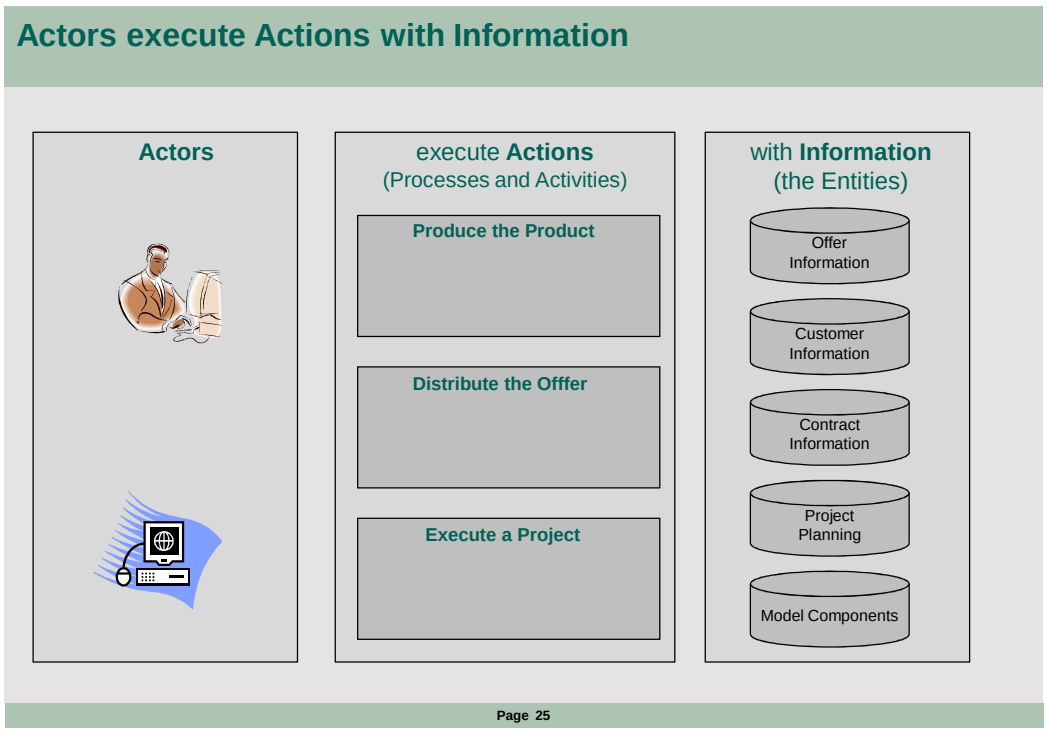
3. The Information

To execute Activities, the Actor requires and produces **Information** on Business **Entities** such as Product, Customer, or Contract. A Business Entity has an identifier, **Data Values** and is **related** to other Business Entities: through relations, the Actor navigates from the Contract to the related Product or the related Customer.

This Information is represented in **documentary form** understandable by the brain of Human-Actors: paper files, agenda…
It can also be represented in **digital form** storable on electronic supports and understandable by the Computer-Actor.





4. The Resources

Actors and **Information** are main Enterprise Resources.
Other Resources are

- **Financial** Resources
- **Premises** Resources
- **Material** resources: Computer-Actors, Product-Components, consumables

5. Enterprise

Wikipedia offers the following definition:
An enterprise is an economic and social structure which brings together human, material, immaterial and financial means that are combined in an organized manner to supply goods or services to customers in a competitive (the market) or non-competitive environment (the monopoly) with a goal of profitability. An enterprise is generally a legal structure: a public limited company, a joint stock company, a limited liability company, a worker cooperative, etc.

In this definition we find all the key elements, namely: the Market, the Products, the Customers, the profitability, the legal structure, the Means (or Resources), and the Organization which we will develop further in this document.

We will add elements concerning: the Value Chain, the distinction between Operations and Transformation, the Enterprise Model, and the Business Model which broadens the theme of profitability. Our definition of an Enterprise is as follows: "a set of **Actors** sharing a common **Mission**, with a single decisional authority, to Operate all or part of a **Value Chain"**.

Remark: we suggest the term "Enterprise" rather than "Organization" which has an internally oriented connotation, whereas "Enterprise" encompasses not just a company's internal organization but also its external environment, and in particular its Market. Furthermore, "Entreprendre or Undertake" means "to Transform".

Enterprise made up of Enterprises
The Enterprise Model we have just described applies at different levels of granularity.
An Enterprise **can be made up of Enterprises**. A group can be made up of subsidiaries: the group is an Enterprise just as each subsidiary is an Enterprise.

Legal Entity
An "Enterprise" can take various **legal forms**: thus the Enterprise can be an "Enterprise listed on the stock exchange", a "Ministry", an "Association", a "public Enterprise", a "Research Center"
a "University".

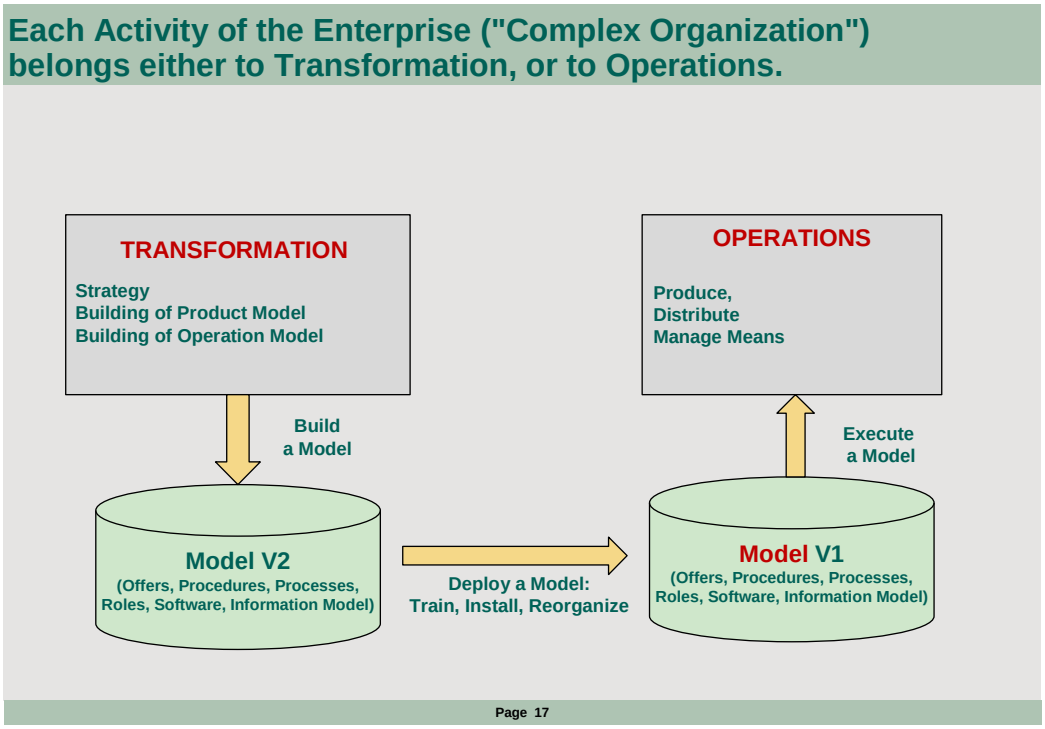
In the case of an Economic Interest Group, or a partnership, responsibility can be borne not by an individual, but by a **group of individuals** derived from the various partners. According to whether its Governance enables rapid decision making or not, the Enterprise can prove efficient or cumbersome (for examples see: the European Community, the Carte Bleue Economic Interest Group, SkyTeam…).

6. Organization

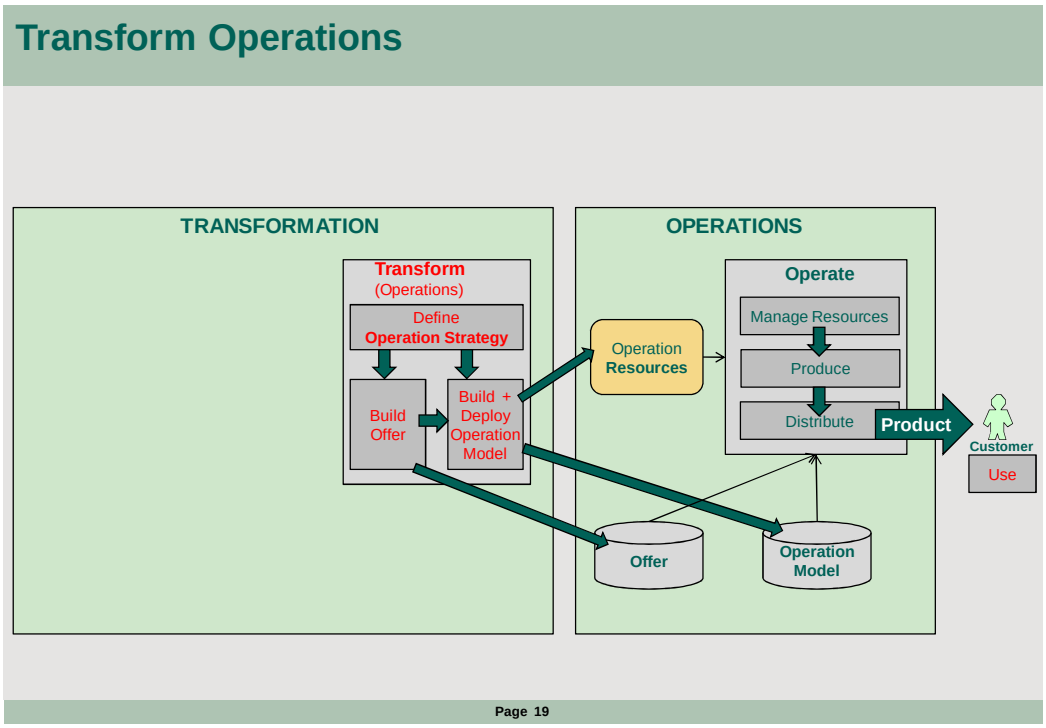
An Enterprise must structure itself to coordinate its efforts.
The Actors are grouped according to (Organizational) **Unit**: department, division, service, region, group, branch office… these are various types of Unit.
The smallest Unit is the Position to which only one Actor is assigned.
The Units are grouped hierarchically into an **Organization**.

7. Two key Domains: Operations and Transformation

We can group the Activities of the Enterprise into 2 key domains: To **Operate** and to **Transform**.



Operation groups Processes and Resources required to Produce the Products, Distribute the Offer and manage Resources according to the Operation Model.
Transformation is necessary when an Enterprise decides to change its Model: Build/modify Offers, Build/modify the Operation Model, and to Deploy these new Models, which means adapting Resources to the new Model.



It means that Transformation is properly defined when the Model is well defined. We now have to define what is a Model.

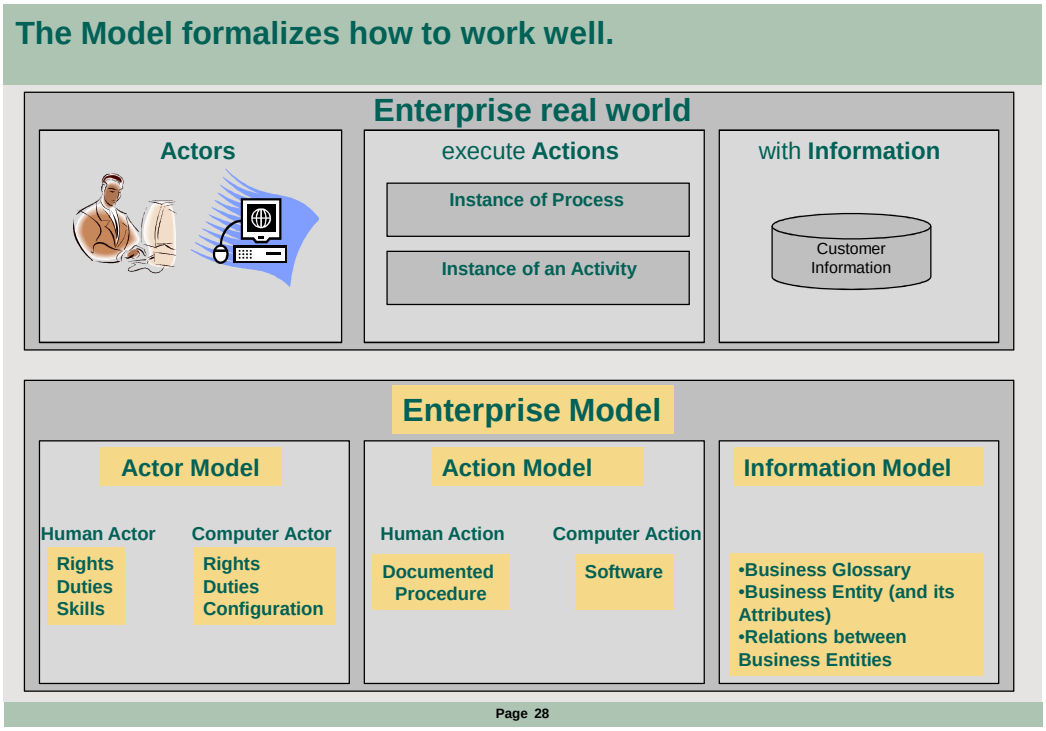
3- Enterprise Model

Contents

1 The Model

We can use good Resources in a totally chaotic fashion. To succeed in Producing and Distributing properly in a Complex Enterprise, one must apply a **Model** that formalizes how to proceed well.

- The **Human-Actor-Model** defines organization, rights, duties and skills.
- The **Computer-Actor-Model** defines IT Infrastructure, rights, duties and Configuration.
- The Action-Model (**Process-Model, Activity-Model, Functions)** formalizes how to execute well:
  - via documentation if this is for a Human-Actor (like Procedure, Operating mode, user guide, cooking recipe…)
  - via software if it is for a Computer-Actor.
- The **Information-Model** gives definitions and Attributes for Business Entities, and formalizes relations between them.



2 Human Actor Model

The Enterprise must organize its Human-Actors, in other words it must develop their **Capability** or **Skill**, define their **Rights and Duties**, structure their hierarchical or matrix-type **Organization** into **Organizational Units** which can be termed group, company, division, department, service, region, branch office… down to the individual **Positions** allocated to the Actors.

Skill represents the capability of an Actor to execute Actions.
The Skill of a Human-Actor is the set of Models and Information he or she possesses in their brain. This is completed with the person's power, namely the quantity of energy he or she can deploy (with regard to temperament, work-time input, motivation) and their behavior.

The **duty** represents those **Activities that we wish to see executed by an Actor** within a given perimeter (geographical perimeter, set of Customers).
It is desirable that the duty allocated to an Actor correspond to his or her Skill. If not they will find it difficult to Act well.

The **right** represent what the Actor is authorized to do.

Synonym: **Role** is a synonym for Actor Model.

An Actor is assigned to a Position. For example Mr Smith is assigned to the **Position** “Branch-Director for Lafayette Branch”: “Branch-Director” is the **Actor-Model** or the **Role**, while “Lafayette Branch” is the **Organization Unit**.

3 Computer Actor Model

Computer-Actors have

- a **Configuration** that is expressed in terms of: software, equipment, capacity for exchange, stored Information
- rights
- duties

They are organized around an **IT Infrastructure (**equipment, operating system, network, middleware, addressing system, security system…) which links the different computers, defines where information is localized, and where software programs are executed.
We distinguish:

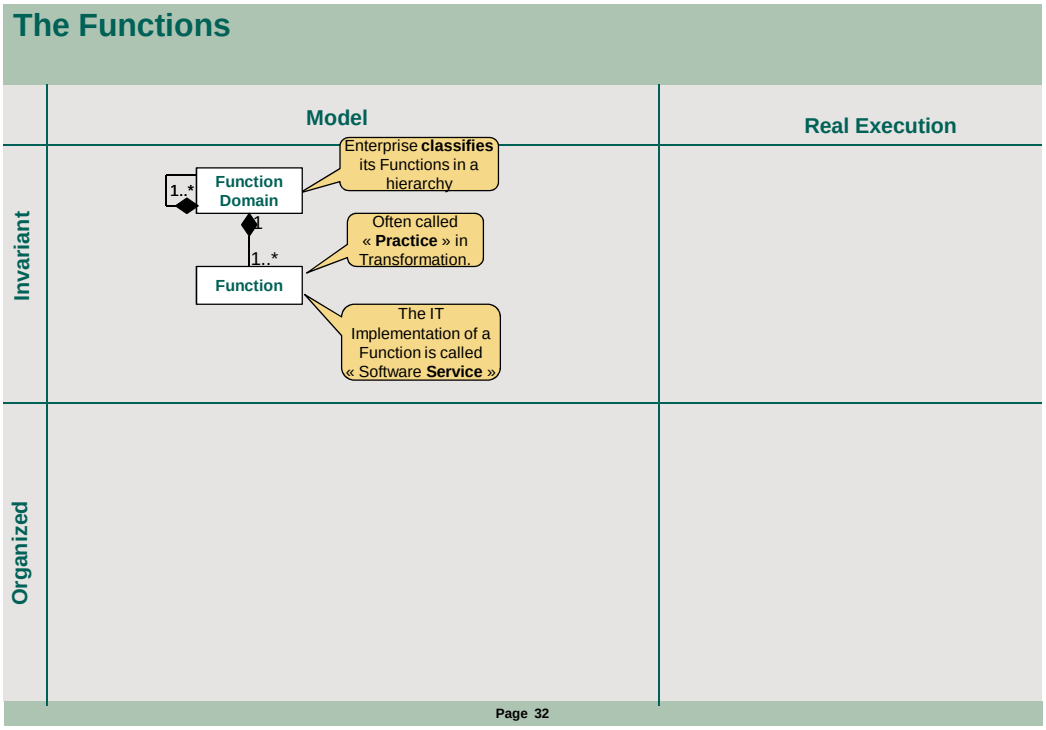
- IT Infrastructure for Operations
- IT Infrastructure for Transformation.

Synonyms: some also use the terms **Platform** or **Technical Architecture.**

Thus IT must be considered as **a discipline like any other** that should not be isolated from the Businesses. The **terms** used by IT ought to be **the same** as those used by the business: Process, Business Entity, Function, Solution, Model, Program, Project, Foundation, Transformation…

4 Function Model

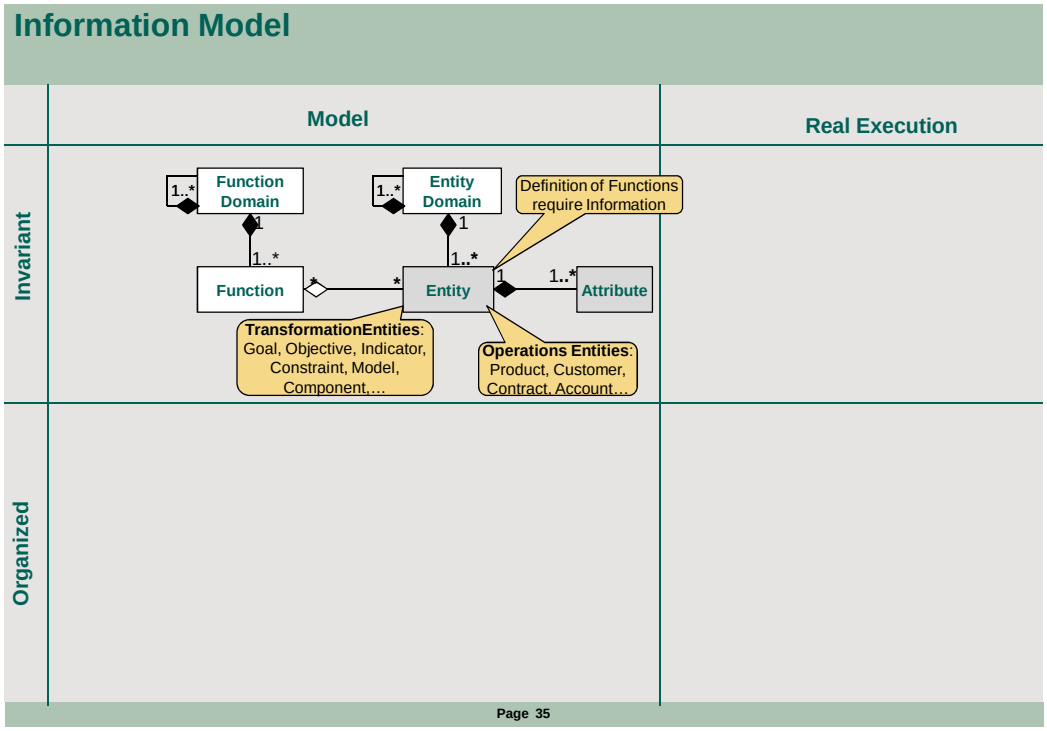
To Produce Products and distribute Offers, Enterprise must execute Functions.
Functions are classified in hierarchies from large Function Domains (such as “manage Human Resources”) up to small Elementary Functions (such as “Compute the price”).



The Modeling of the Functions will enable their **reuse** in different Processes leading to an overall simplification of the Enterprise Model.

The Functions are described as documentation for Human-Actors and software for Computer-Actors.
*Remark: the **memory** of the Enterprise often resides in this software because software is updated, while documentation is not.*

5 Information Model



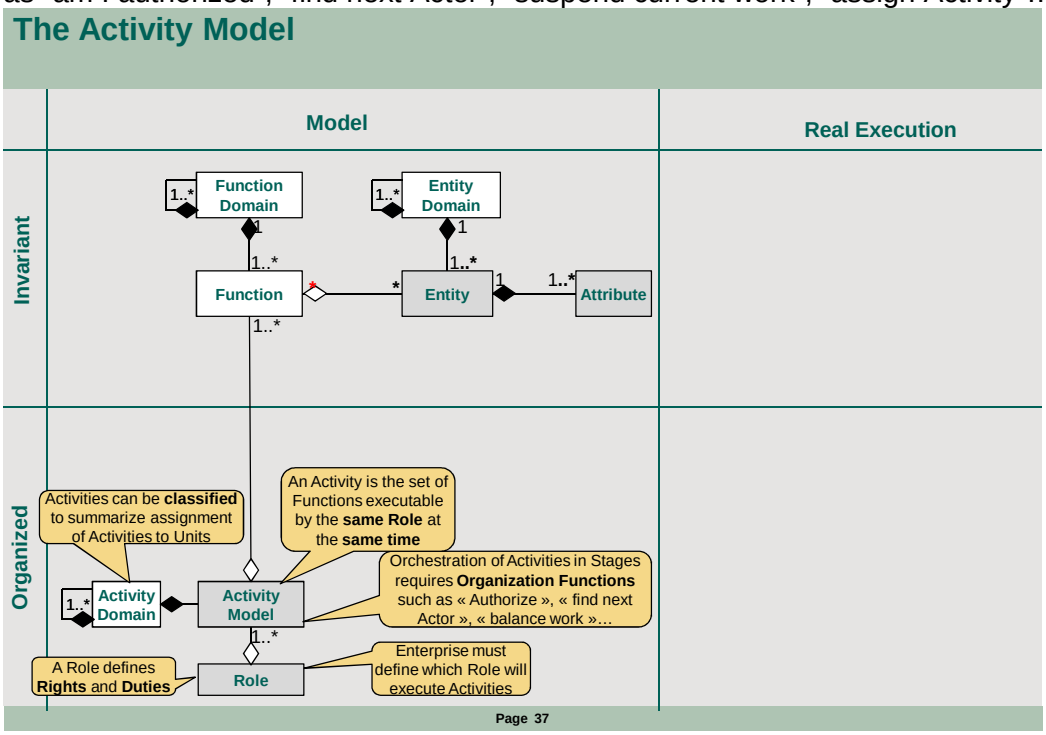
When one observes an Enterprise functioning, one sees Actors who take Action in offices, factories, stores, branches, or at a Customer's premises. Thus it seems obvious that the Processes and the Actors must be Modeled so that the Processes be executed efficiently.
That Information too must be Modeled seems less obvious: though we clearly see Actors executing Functions, the underlying Information is less visible. Yet it is vital to order this Information correctly. This is one of the most important Modeling undertakings. For example:

- To define the Functions we need to have first defined a business **Glossary**: the Function "Create a Customer" or "Document a Product" only makes sense if we have unambiguously predefined what a Customer and a Product are.
- The various Functions have to inter-operate, which requires that we correctly **Model the Information which acts as a link between these various Functions.** This is especially true of the interactions of the Enterprise with its Partners, who operate in the same Industry.
- Today, Enterprises want to **manage the Customer globally** in all its relations with the Enterprise: Modeling of Customer Information has become vital.
- The sharing of the same Products across the various distributed Entities of a Group requires that **Product Information** be Modeled**.**
- Decision making can only be based on the consolidation of **coherent** Information: hence **decisional Information** must be Modeled.

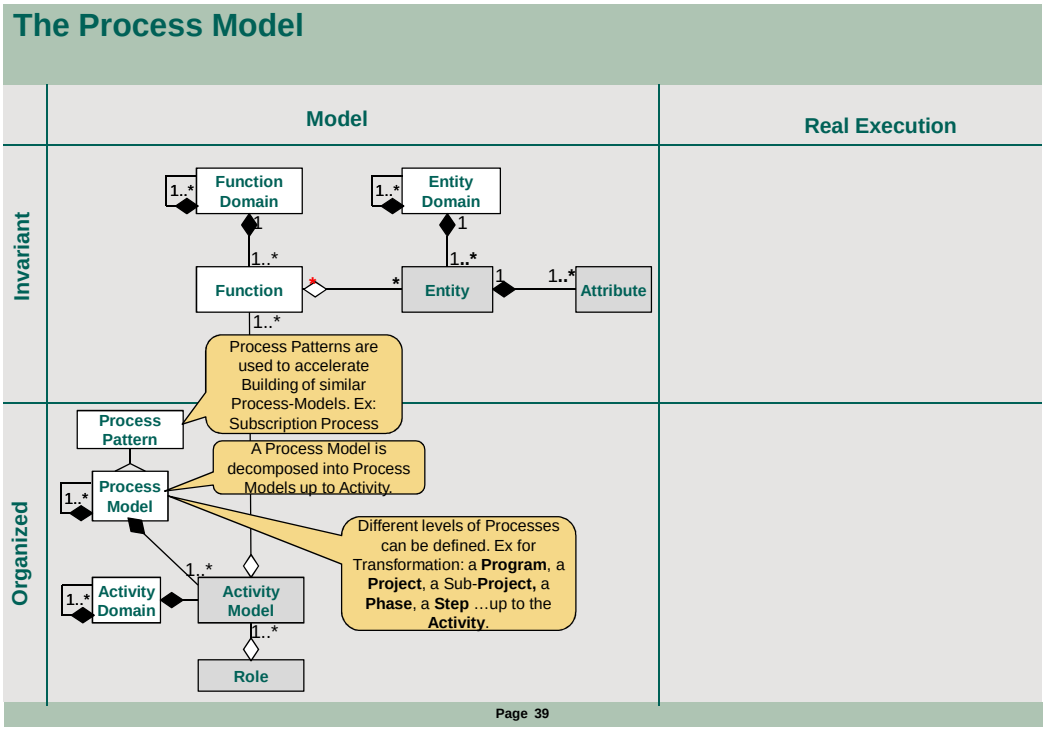
One can give endless reasons why Information ought to be Modeled. It is what constitutes the Knowledge of the Enterprise and its environment.

6 Activity Model

An Activity is the set of Functions executed by the same Actor at the same time.
An Activity orchestrates Functions: not only Business Functions, abut also Organization Functions such as “am I authorized”, “find next Actor”, “suspend current work”, “assign Activity”…



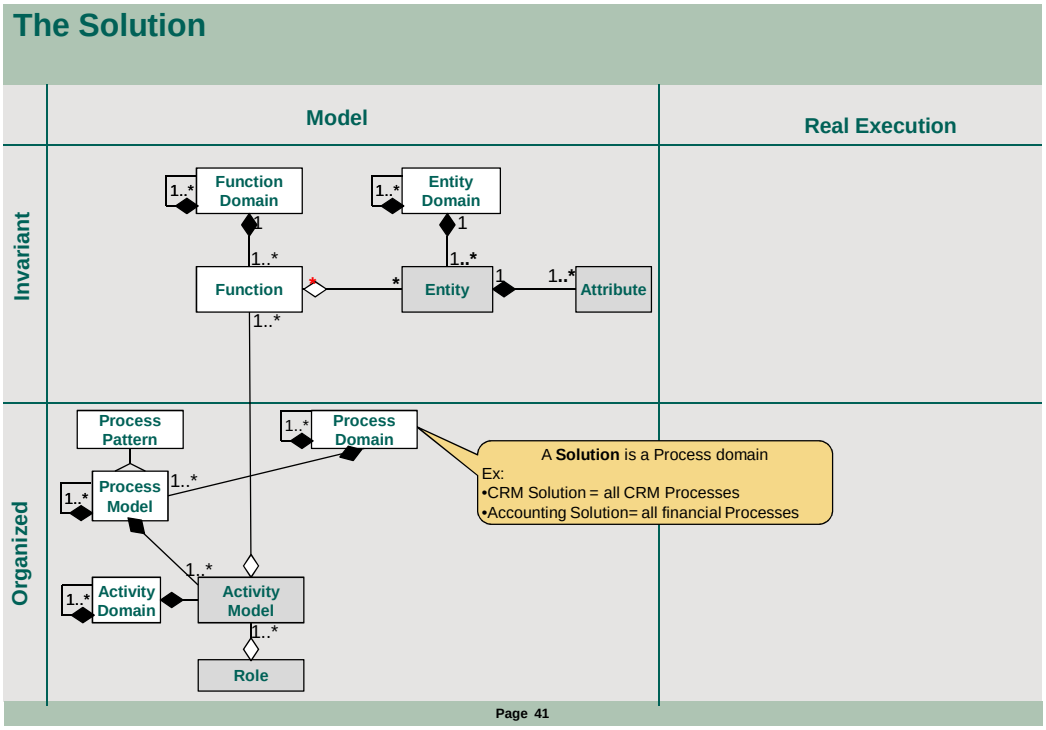
7 Process Model



Remark:
Certain Processes cannot be Modeled either because they are very rarely executed or because their unfolding is random. For example: technology-watch.

8 Solution

In Enterprises, the number of Process and Function Models is becoming so significant that we use a level of Action grouping called a "**Solution**":
Ex: the "CRM" Solution groups all Models (the “Function-Models”, the “Process-Models”, the “Activity Models”, the “Information-Models”) relative to sales approach
Ex: the "Accounting" Solution groups all Models relative to accounting
Ex: the "Security" Solution groups all Models relative to security checking.



A Solution can be made of Solutions.
For example, the Enterprise Solution is made of the Operation Solution and the Transformation Solution.

The Operation Solution can be decomposed into: Distribution Solution, Production Solution , HR Solution…

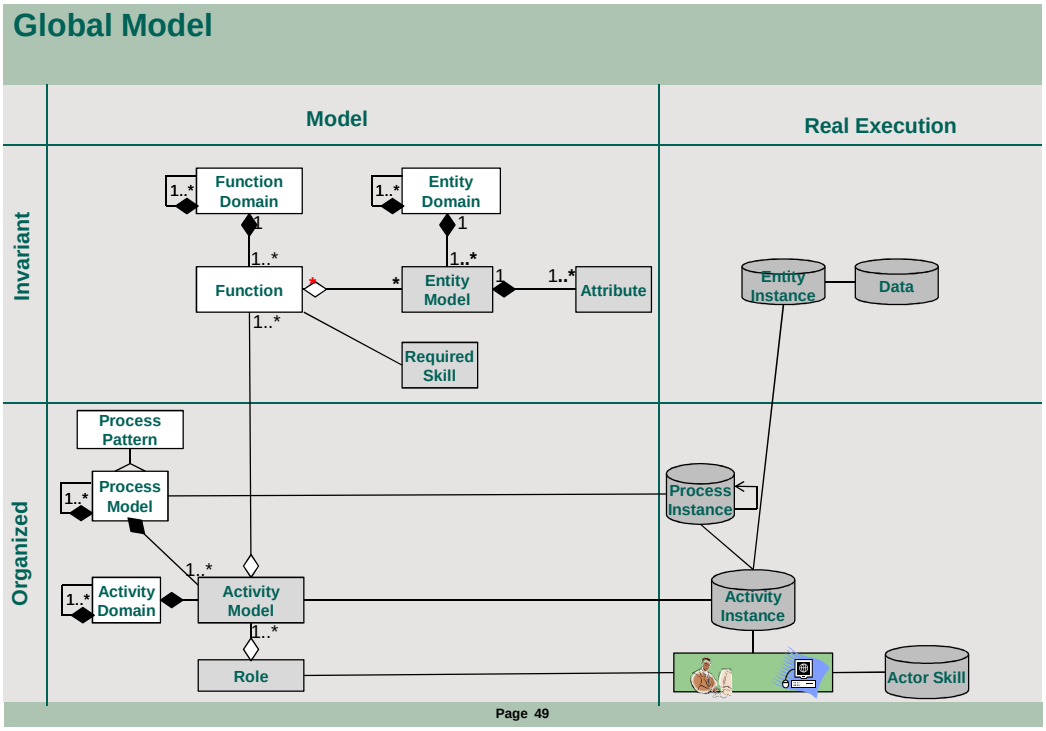
The Transformation Solution is defined by Functions and Processes:

- it achieves Functions such as “merge Enterprises”, “Launch new Products”, “Optimize Processes”, “open a new Branch”…
- it models Process, Activities, Actor, Application…, to achieve the Function

A Strategy is an Important Transformation Solution which always achieves same Functions:

- define Strategic Goal
- get new Strategic Model
- Deploy new Strategic Model

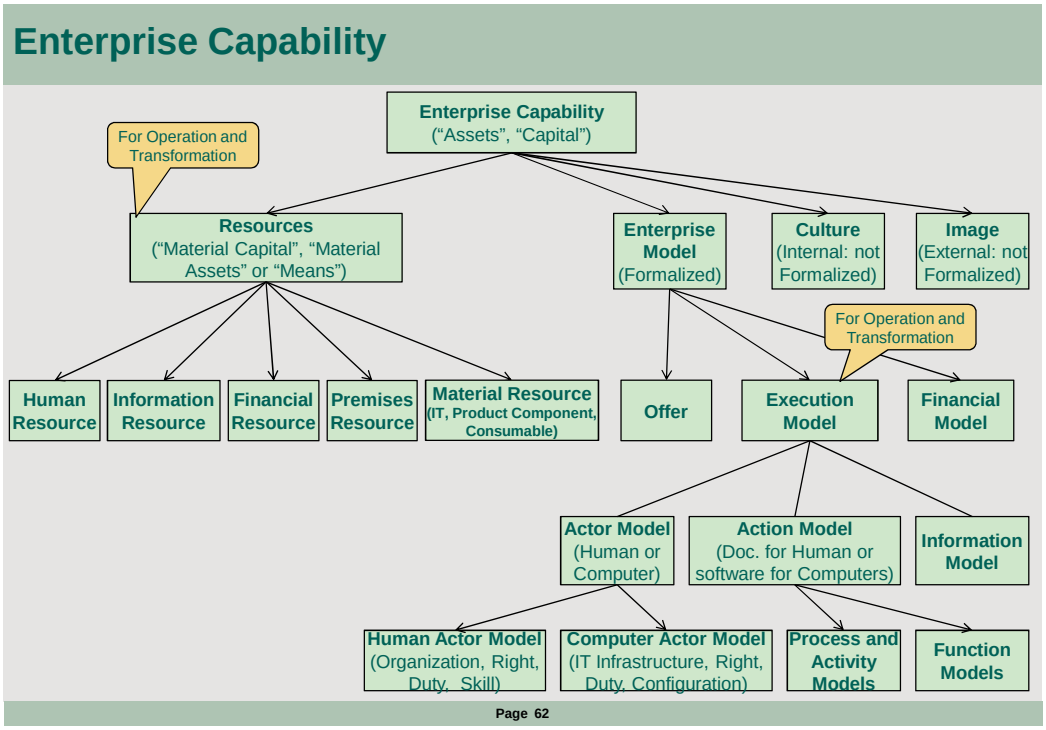
9 Global Model



10 Capability

We base ourselves on the work of immaterial capital experts.
(http://fr.wikipedia.org/wiki/Capital_immat%C3%A9riel).
The **Capability** of an Enterprise to execute is:

- the Enterprise Model
- the Image of the Enterprise and of its Offers (external)
- the Culture of the Enterprise (internal)
- The Operation Resources which serve to execute the Models, they are essentially:
  - Human-Resources: internal or external to the Enterprise
  - Information-Resources
  - Financial Resources
  - Premises Resources
  - Material resources: Computer-Actors, Product-Components, consumables



At each level, the Enterprise should be modeled the same way.
By way of example, the Personnel Department is an “Enterprise” and defines its Capability in the following manner:

- Its Offer composed of:
  - Product-Models: recruitment Offer, training Offer, career management Offer…
  - Its Customer-Segments which are the Enterprise Units for which it works…
  - Its Distribution Model which defines its relation Processes with its Customers and the associated software packages…
- Its Production and/or purchasing: defines its recruitment and training Processes and the associated software packages…
- Its Resources: defines its personnel, its premises, its budget, its staff information…

Remarks:

- *The term "**Business Model**" is often used to mean "Enterprise Model". Not to be confused with "Strategic Approach" which explains why we wish to Transform and how to go about it.*
- *Synonyms for "Resources": "material Capital", or "material Assets", or "Means"…*
- ***Immaterial Capital** comprises: Information-Resources + Enterprise Model + Culture + Image*

10.1 Enterprise Model

An Enterprise is defined by its Offer, its Operations and its Transformation.
Thus the **Enterprise Model** comprises the Offer, the Operation Model, the Transformation Model and the Financial Model which consolidates Offer revenues and Operation/Transformation expenses.

10.2 Image

The **Image** of the Enterprise enhances its attractiveness.
The Image of the Enterprise can be split into 3 parts, just like the Enterprise Model which is made up of the Offer, the Operation Model and the Transformation Model:

- Offer Image: the taste of Coca Cola.
- Operations Image: the Mercedes is reliable.
- Transformation Image: Apple brings out innovative products.

10.3 Culture

The **Culture** of the Enterprise should encourage its Human-Actors to do a good job.

The main concern is the fact that most people do not like change: if the Goal is relevant, if the new Model is perfect, the Transformation may fail because Operation Actors do not accept any Transformation.
This is the role of the management to explain the necessity of Transformation for the Enterprise, and its consequences on their rights and duties, to carefully prepare Deployment.

10.4 Financial Model

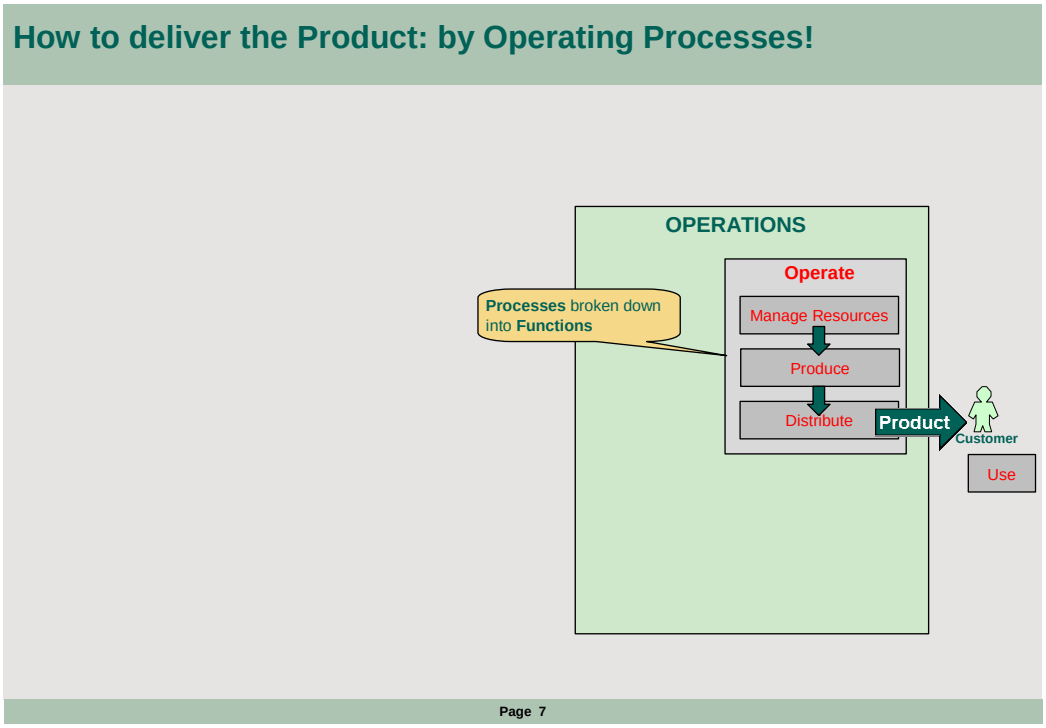
To survive, an Enterprise has to be profitable over the long term. In the public domain it is asked to balance its books. Hence the Enterprise must at least balance its revenues and its costs.
The **Financial Model** represents the financial inflow and outflow of the Enterprise: revenue from Products and the overheads of Operations and Transformation.
"Goodwill" is the book value of the Immaterial Capital: generally it takes only the Enterprise Model into account and rarely the Culture and Image of the Enterprise.
This explains why the sales price of an Enterprise is usually greater than the book value of its Resources.
During all Transformations we must be able to compare the original financial Model with the target financial Model.

4-Operations

Contents

1 Operation Processes

1.1 Examples of Operation Processes



A multitude **of Functions** must be executed to succeed in delivering the Product to the Customer: one must Purchase, Assemble, Communicate, Check, Direct, Distribute, Train, Print, Deliver, Maintain, Organize, Plan, Produce, Enter data…
These Functions are organized into Processes broken down into Processes and/or Activities.

Process	Deliverable	Customer	Event	Functions
Produce a car	Car-Product	Distribution Unit	Sales level	• gather parts • assemble • test
Distribute a car	Offer (Goods-item/car + Warranty Service)	Private individual	Decision to buy	• customer defines criteria • customer compares Offers • customer subscribes • Distribution Unit delivers car
Recruit	A new staff member	Employing Unit	Insufficient Capability	• define profile • select candidates • make proposals • get agreement • welcome new entrant

To begin, let's present a few examples of Operational Processes (see chart below).
For each Product Range, there exist Processes of Production, Distribution and Utilization.
For Goods and Information, the Production and Distribution Processes are usually initiated by the Enterprise, whereas the Utilization Processes are initiated by the Customer.
For Services, Production Process is shared between the Enterprise and its Customer.

Production, Distribution, Utilization

Product		Process		
		Production	**Distribution**	**Utilization**
Goods	Automobile	Produce a car	Sell a car	Drive car
	Medicine	Produce a medicine	Prescribe and Sell a medicine	Take a medicine
Service	Haircut	Cut hair	Receive in a hair salon	Look pretty
	Insurance	Pay damages claim	Sell an insurance contract	Buy another vehicle
	Flight	Transport passenger	Sell a plane ticket	Get to destination
Info	News	Produce content and print or make it consultable	Sell a subscription or a newspaper	Read News on paper or Internet
Model	Plan of a house	Design a Plan	Contract with architect	Use Plan to build house
	Software	Design a software application	Sell a software application	Use a software application

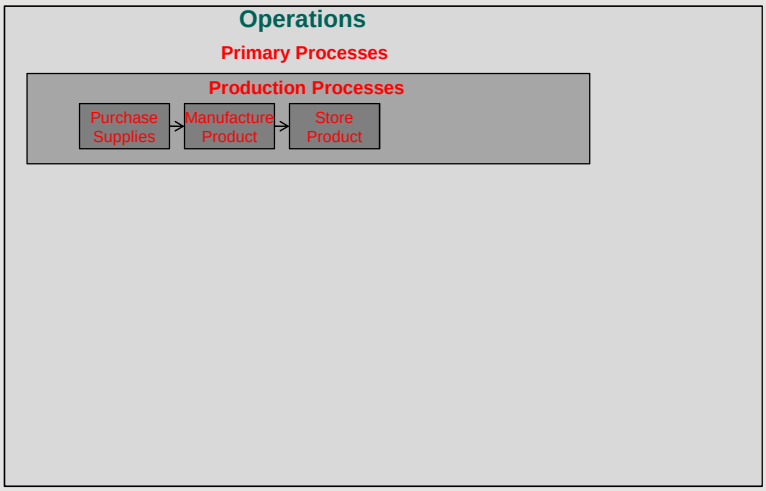
***Remark**:*
In certain businesses, the terminology is used in a different sense; for example, in insurance, "Production" designates Contract Distribution and not Production of Benefits if an accident occurs.

1.2 Production Processes

The Production Processes are different for Goods, Services and Information.
A **Goods-item** Production Process involves purchasing the Component-Products and supplies, manufacturing the Product and storing it with the help of logistics Processes. For example: Produce a car.
A **Service** cannot be stored. For example: to carry out (from the surgeon's point of view) or undergo (from the patient's point of view) a surgical intervention.
And **Information** Production Process comprises the Production of Information and its storage.

Remark: in "direct selling", Production does not require storage.
*Remark: according to the Product range, the Product **repair** Processes are carried out by the Distribution (For example: Car Dealership) or Production Entities (For example: Software). The same goes for **recycling.***

Production Processes



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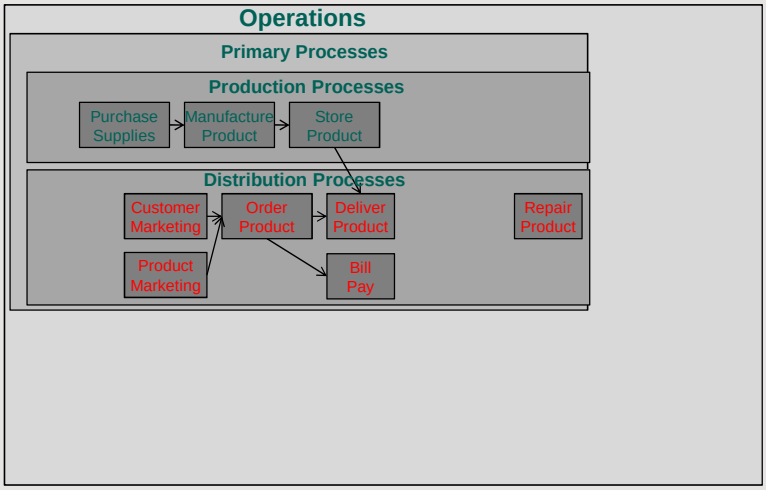
1.3 Distribution Processes

Distribution Process



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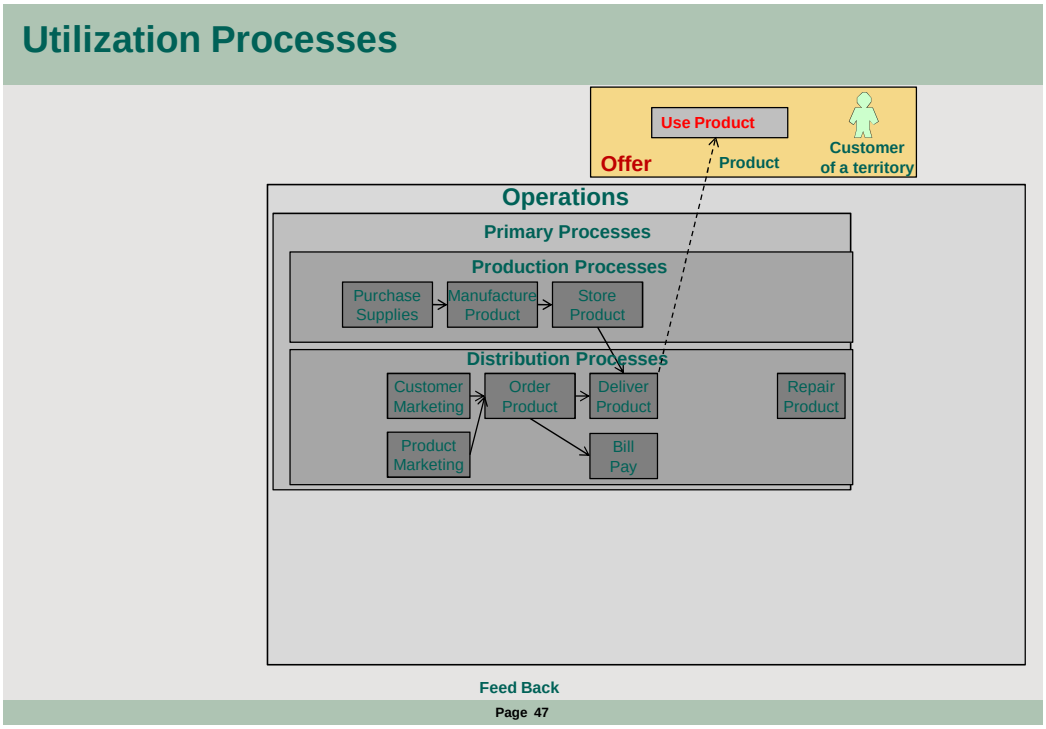
The key Distribution Processes are:

- Customer marketing Process: sales campaign…
- Product marketing Process: information on the Products, publicity…
- Contracting Process: contract or order
- Delivery Process, billing, payment
- Product repair Process

Distribution and Production Processes are called the **Primary Processes** of the Enterprise as they represent its core activity.

1.4 Utilization Processes

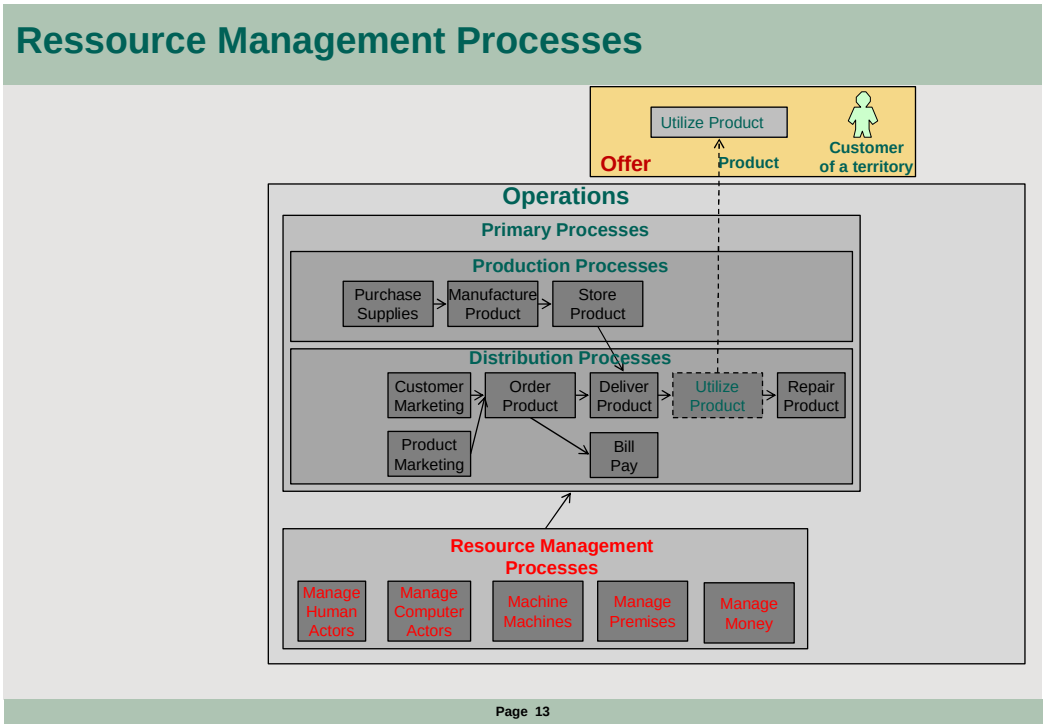
These are the Processes destined for the Product user.
They are Modeled in the form of documentary Instructions for Use or software-based User Guides.



1.5 Operational Resources Management Process

Resources have to be managed. So to the Primary Processes we must add the Processes of:

- Human Resources Management: how to recruit, train, allocate, encourage, remunerate, transfer…staff or external people used by the Enterprise.
- IT infrastructure Management: how to select and install equipment, install and download software, maintain the computers used by the Enterprise.
- Management of machine-tools: likewise.
- Premises Management: how to choose, build, optimize use of and maintain.
- Financial Management: how to obtain money when necessary to invest or to finance operating expenses, how to invest surplus cash.



1.6 Reporting Processes

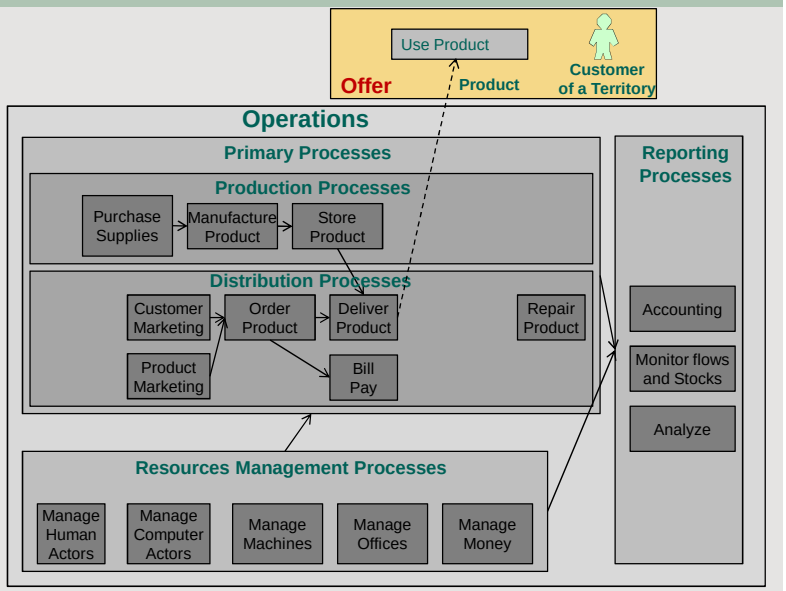
These are the Processes that enable planning and monitoring of Enterprise activity: both on the Market front (new customers, new contracts, average activity of contracts…) and on the Operation front (follow up of Processes, Resources).
We can also adopt the convention of classifying the activity planning and reporting Processes

- under Distribution Processes, for the monitoring of Distribution (for example: monitoring of sales figures, number of new customers, sales success by branch…)
- under Production Processes, for the monitoring of Production (production productivity, scrap rate, stock level…)
- under Resources Management Processes, for the monitoring of Resources (staff level, cash level, average response time of IT applications).

It will nonetheless be necessary to maintain this classification for those activity planning and monitoring Processes which cover several "Distribution", "Production" and "Resources" domains, such as:

- regulatory documents
- share-holder information
- profitability by Operational Unit

Reporting Processes



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To summarize: Operation Actions are Processes broken down into Activities. The **Operation Processes** are essentially:

- The **Primary Processes:**
  - The **Product Production Processes**
  - The **Offer Distribution Processes**
  - The **Product Utilization Processes**
- The **Resources Management Processes**
- The **Reporting Processes**

Remark: synergy of Processes

- *The Processes of Distribution, Resources Management and Reporting are often **common** to different types of Products. Some people call these **"Transversal Processes"**.*
- *However, the Processes of Production and Utilization are **specific** to each Product Range. For example, we must define different Processes per Product to:*
  - *Produce Goods:*
    - *Produce a car*
    - *Produce furniture*
    - *Construct a building*
  - *Produce Services*
    - *Produce a surgical operation*
    - *Produce advice to executive management*
    - *Produce training courses*
  - *Produce Information*
    - *Produce a Newspaper*
    - *Produce the Weather Forecast*
    - *Produce financial value listings*

2 Value Chain

The Enterprise only Operates on a part of the **overall Value Chain**: this is its **Enterprise Value Chain** (or action Perimeter).

2.1 What Value Chain for Operations?

The set of Processes which end up delivering a Product to a Customer is called the **Global Value Chain.** For example, to supply Goods, one must extract raw materials, manufacture components from these raw materials, assemble the end Product, and distribute it…
A single Enterprise can execute all the Industry Processes: in this case it is totally **integrated**.
But in the real world, different Enterprises share this undertaking: they concentrate on a sub-set of Industry Processes which we call the "**Enterprise Value Chain"** and which is chosen according to their Operational Capability. **Partners** (suppliers, producers, distributors) are called in to complete the overall Value Chain.

***Remark**:*
Understandably, some use the term "Value Network "as the relations between the various Actors do not constitute a simple sequential chain. However, we have chosen to keep the more generally known term "Value Chain".

In a stable Industry, the Enterprise can choose to evolve its positioning by executing new Processes or passing on certain Processes to partners, so as to focus on the domains where it is most efficient.
Hence, the Enterprise must decide

- which Processes it will execute itself: it generally focuses on those Processes where it has a sustainable competitive advantage
- which Processes will be executed by its partners, suppliers or distributors and how to **inter-Operate.**

The Industry can also evolve: thus the Enterprise must be aware of the fact so as to call its positioning into question if need be.

The choice of the Enterprise Value Chain concerns essentially Production and Distribution:

- An Enterprise can execute the entire Value Chain: in this case it is **integrated**. The Enterprise can take care of both the **Production** and the **Distribution** of its Product to its Customers. This is the case of Enterprises like IKEA, Décathlon, Renault or Zara.
- It can also choose to execute only part of the Value Chain:
    - It can rely on other Producers so as to focus only on Product **Distribution**: for example car-hire or large-scale retailing.
    - It can **Produce** by itself and rely on Distributors to diffuse its Products: an Insurance company can distribute its products via brokers.
    - It can also combine: continue to distribute via its own Distribution networks while seeking partners who also distribute via other channels.

  Large Enterprises combine these different modes to take advantage of their strengths in each field.

2.2 Production and Distribution Territory

The Production Territory defines the territories in which the Enterprise sets up its Production units.
These days, Customer Territory and Production Territory are increasingly dissociated. Tastes have harmonized and the cost of Goods Transport and Information Transport have considerably diminished. Proximity between Distribution and Production is no longer a decisive asset: Enterprises seek to Produce where Production costs are most competitive.
Global Enterprises spread their Production across their various Production Units according to criteria of equilibrium rather than criteria of proximity.

The Distribution Territory defines the territories in which the Enterprise sets up its Production units. It generally is the same as the Customer Territory so that the Distribution Actors have human contact with

their Customers. But it can be different: Call Centers are Distribution Units which can be installed far away from their Customers.

2.3 Industries

A grouping of Enterprises who Produce and/or Distribute the same Products is called an "Industry". For example: the "**Automobile Industry"** designates those Enterprises who Produce and/or Distribute Automobiles or Component-Products for the Industry.

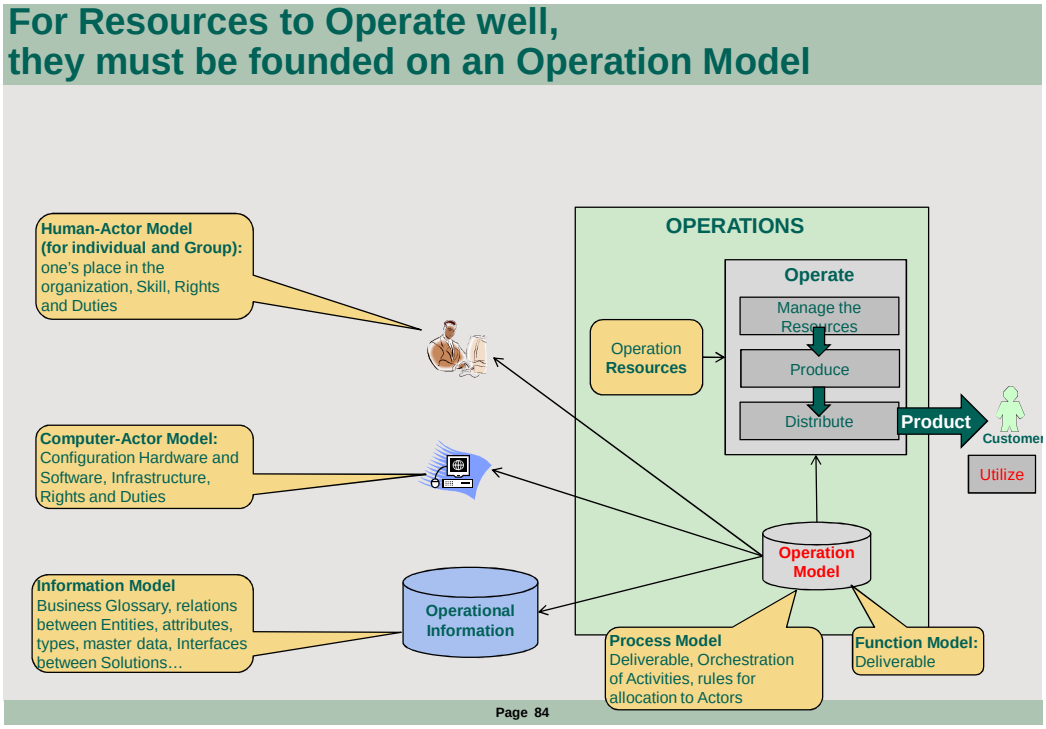
Remark: as Enterprises increasingly diversify, the classification into Industries becomes increasingly problematic. To what Industry does Apple belong? IT equipment maker, software publisher, audio and video content provider…?
Should Enterprises be classified according to Value or to Products?
Should classifications be refined so that they take into account the portions of the Enterprise which devote themselves to a certain Product range?

2.4 What Transformation?

Some Enterprises may decide to limit their Operations perimeter to devote themselves essentially to Transformation: they become suppliers of Models and are mainly made up of Transformation teams. If the Model is successful, the Enterprise can become extremely profitable given that the costs of Model Production and Delivery are simply those of information duplication. See for example, Software Publishers like Microsoft, Oracle, SAP, or franchise systems.

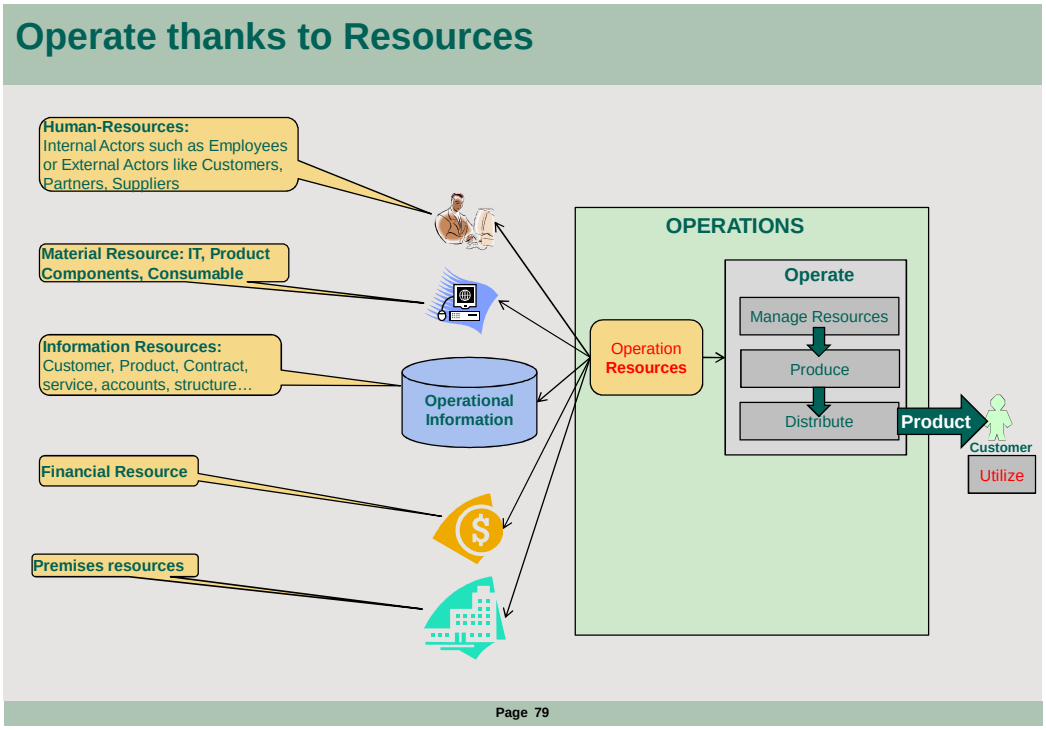
3 Operation Model

The multiplication of Products, Actors, Processes and Information requires that one must properly formalize the way one should Operate.
To **Operate** well, in other words to properly execute its Operational Processes (produce, sell, purchase, transport, maintain, diffuse…) and to finally deliver its Products to its Customers, the Enterprise relies on an **Operation Model**: procedures, instructions for use, Process and Function models, information models, definition of organization and roles are all practical elements of the Operation Model, formalized into documentation for Human-Actors and Software for Computer-Actors.
The quality of the Operation Model has a major impact on the Operational indicators: productivity, reactivity, quality, reliability, comfort of use…



The Production and Distribution of the various Products are executed by the Operational Actors (Human or Computer) who carry out Operational Actions with Operational Information according to an **Operation Model.** This Operation Model models the Actors, the Actions (Processes and Functions) and the Information.

4 Actions are executed thanks to Operation Resources



The essential Resources to execute Operations are:

- Human Resources: employees or external like sales force, manufacturers, resource managers
- Material resources: Computers-actors (Station, Server, Mobile medias, network), Product-Components to Produce Products, Consumables…
- Information Resource: information on customers, products, contracts, competition, stock level, customer order, place of delivery, mail received……
- Financial Resource
- Premises Resource and equipment

5- Transformation

Contents

How should the strategic Process that leads to the Building and Deployment of a new Enterprise Model be expressed?
It is difficult to employ all of the multifarious terminology that abounds in the world of Strategy: for example, on the theme of "Why?" one could choose among concepts like "Competitive Advantage",

"Strategic Orientation", "Benefit, "Needs", "Goal", "Challenge", "Drivers", "Gain", "Intention", "Problem", "Objective", "Strategy"…?
We suggest selecting a small number of concepts to be completed by each Strategic Approach specialist.

1 The growing role of Transformation

1.1 Transformation is getting and/or deploying the Enterprise Model

As explained before, the Enterprise Model includes the Offer, the Operation Model and the Transformation Model.
Any Transformation involves creating or modifying a part of the Enterprise Model, and Deploy it:

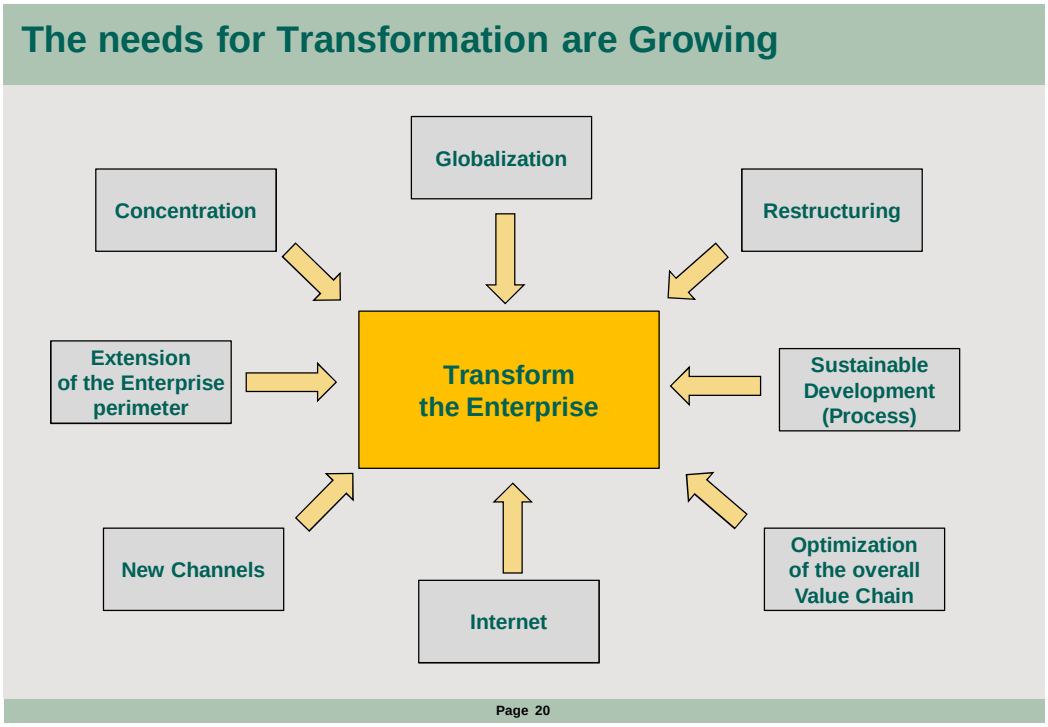
- "Propose new Offers to a new customer segment" consists to adapt Product-Models, Operation Models (Production-Models and/or Distribution-Models)
- "Improve Productivity" consists to adapt Operation Actor Model and Operation Process Models through documentation and Software: the creation or modification of this new **Operation Model** must be followed by **deployment** which consists to adapt Operation Resources to the new Model: train Operation Actors, install Computers and Software adapt organization.
- "Improve the time to market" consists to adapt Transformation Actor Model, Transformation Approach and Transformation Tools: the creation or modification of this new **Transformation Model** must be followed by **deployment** which consists to adapt Transformation Resources (Architects, Business Analysts, Developers) to the new Model.

The **Creation of a new Enterprise** is a Transformation where a full Enterprise Model is Built: define a new Product Model is not sufficient, a new Operation Model and a new Transformation Model must also be defined.

There can be Transformations that do not involve modification of Models and which focus solely on **Deployment** of the existing Model: for example, opening a new branch office according to a predefined branch office Model only amounts to deploying an existing Model (training of Actors, installation of equipment, initialization of information), but this is still Transformation.

1.2 Transformation is key in a moving world

In the old days, an Enterprise could Operate according to the same Model for quite a long time.



Today that is impossible: the Enterprise must be capable of very regularly evolving

- its Offer: Product life-cycles are increasingly short

- its Operation Model: and reorganizations ever more frequent
- its Transformation Model: agility and time to market become major success factor

1.3 Continuous or Clean Break Transformation and Innovation

There can be **major Transformations**: create an Enterprise, merge two Enterprises, launch a new range of Products, re-found Distribution or Production Processes, set up in a new country…There can be **small Transformations**: open a new Branch, change a Tariff, train a new Employee…

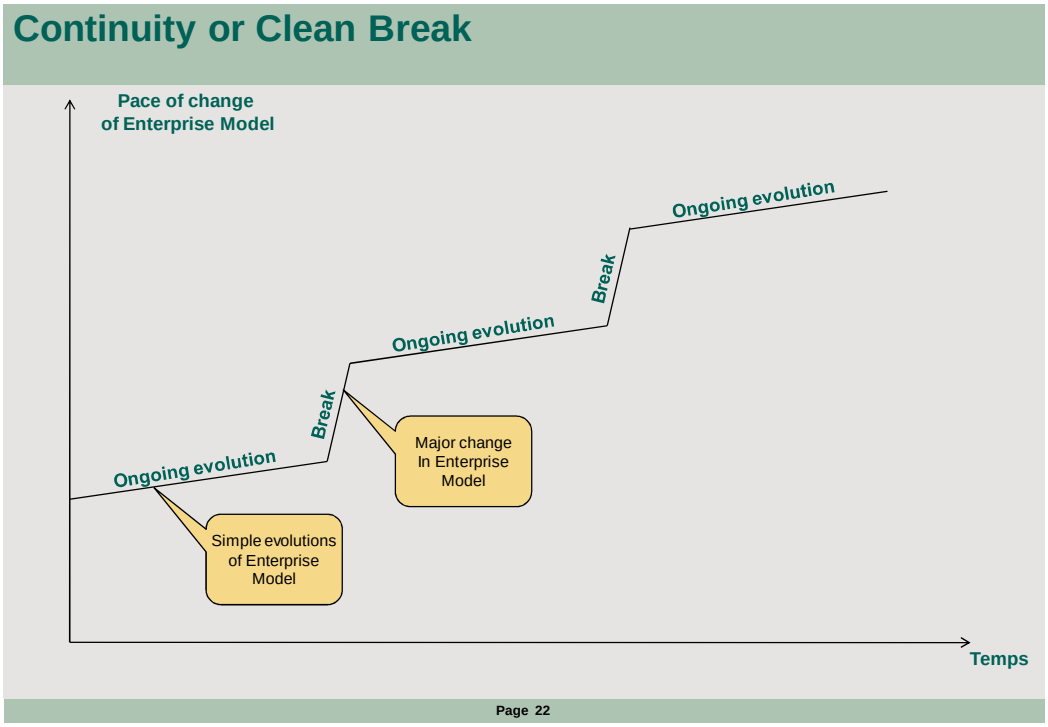
So there is a whole range of **Transformation Processes** which adapt to these variants and which are very distinct from the already described Operation Processes.

The evolution of an Enterprise is made up simultaneously of:

- **continuous Transformation** whereby the Models in place are optimized (for example thanks to "lean management" for optimization of Processes),
- and **clean-break Transformations** which call the existing Models profoundly into question.

The latter are obviously more difficult to implement because they involve greater risk:

- the risk of **poorly defining the new Goal**
- the risk of **poorly building** the new Model
- the risk of **poorly managing the changeover** for the beneficiaries of the new Model.

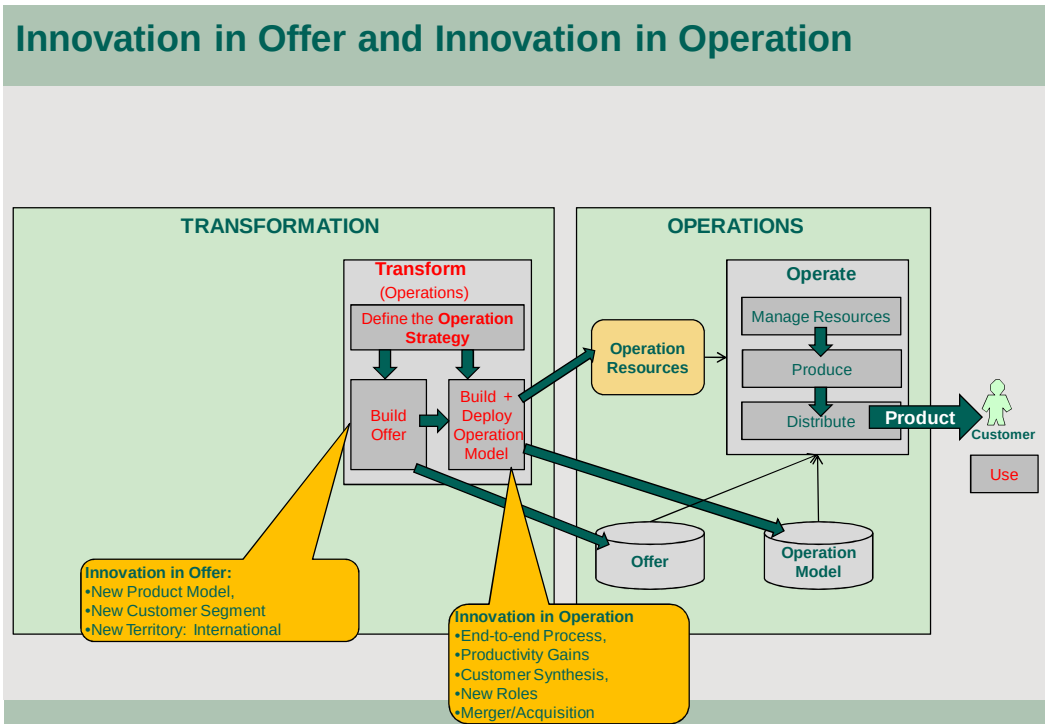


A **continuity Strategy** sets in motion a set of ongoing Transformations over the medium term aiming to achieve an Operational Goal with the same Model Architecture: improve rate of growth, improve profitability, improve efficiency?
A **clean break Strategy** sets in motion a set of clean break Transformations with a **Model that is reworked in depth**: new Offer, new Operation Model, new Transformation Model.
To select between continuity and clean break strategies, just answer the question "**Is my Enterprise able to become more Agile in Transformation and/or more efficient in Operations than my competitors with the present Enterprise Model**":

- if the answer is "yes": continuity strategy
- it the answer is "no": clean break strategy

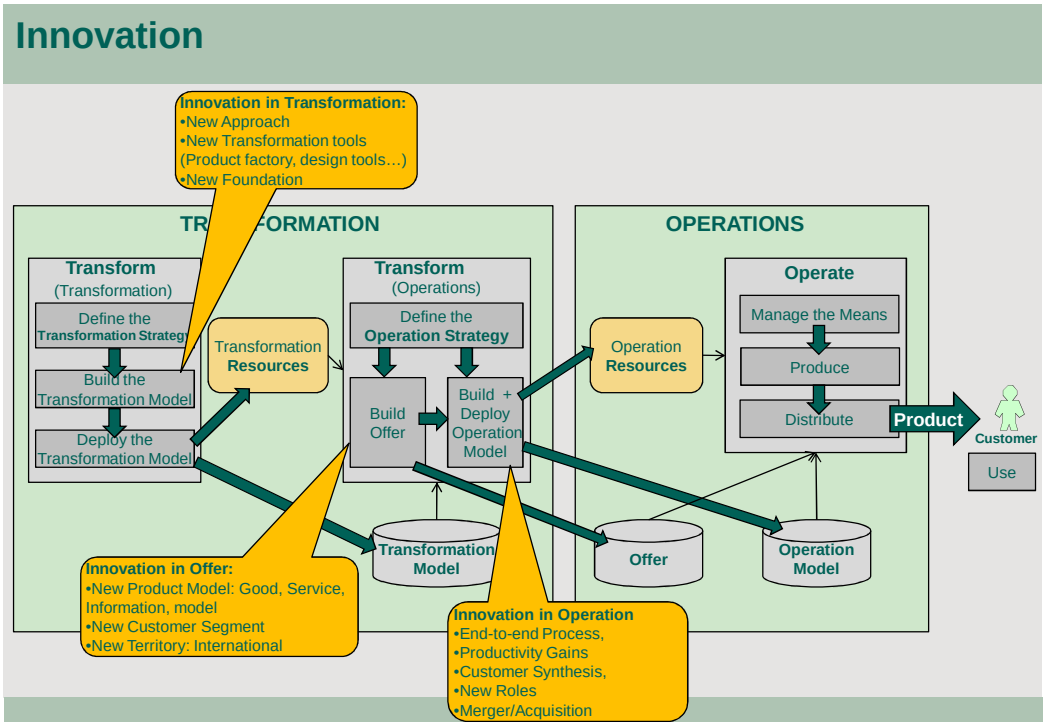
Innovation:
If we create a new Product or a new Process which represents a clean break with regard to existing Products or Processes, we then speak of **Innovation**.

In other words, innovation is a creation or modification of a Model which brings a significant increase in Value. The term "**Innovation**" is used to describe major changes, clean breaks not only in the Offer as it is always presented, but also in the Operation Models (Process Innovation) or in the Transformation Models (Agility Innovation).



Hence, we can distinguish:

- **Innovation in the Offer**, of which **Product Innovation** is part
  - **Innovation in Goods** (we invent a new vehicle)
  - **Innovation in Services** (we invent travel insurance)
  - **Innovation in Information** (we invent the weather forecast)
  - **Innovation in Models** (we invent a franchise Model)
- **Innovation in Operation Model** (eBay invents a new way of putting Buyers and Sellers in contact): we do not innovate by way of a new Product but by way of a new Process (in this case, the eBay Distribution Process). We often use the term **Process Innovation.**
- **Innovation in Transformation Model**: we innovate in the way we Transform, whether it be:
  - at the Process level: in the field of Transformation, instead of "Transformation Process", we often use the term "approach", "methodology" or "governance" when it involves a process of decision making
  - or at the Actor level: Skill, Right, Duty, Organization.



Remark:
Innovation is thus not just a matter of Innovation in Goods. Bear in mind that the Production of Goods represents less than 30% of the economy: 70% of Products are Services, Information or Models.
And Innovation is not limited to Offer Innovation as presented in the slide above..

Remark:
A clean-break Transformation can comprise Innovations. But we can also implement a clean-break Transformation founded on already existing innovative models: there is a leap forward without being the first one to invent a new Model.
We can also Innovate on a Product-Component without calling the essence of the Model into question: there is Innovation without a clean break.

1.4 Operation Strategy and Transformation Strategy

1.4.1 It is difficult to innovate better than one's competitors

Good innovations do not all come from the same Enterprise. They emerge from within different Enterprises. It is impossible for any one Enterprise to claim permanent leadership in innovation. Furthermore, it is very difficult for an Enterprise to maintain a sustainable competitive advantage in Products: all innovative Products are quickly copied and imitated when they are successful. The same goes for Processes.
One can only maintain a leadership position if the size factor becomes the key competitive edge on a new market (it is hard to oust Microsoft or Google).

1.4.2 It is possible to be more agile than one's competitors

Another Strategy consists of giving oneself the ability to **change the Offer** and the **Operation Model** faster than the competition.

By rapidly imitating a large part of the good innovations of one's widespread competitors one can develop an Enterprise whose overall Model is comparatively the most advanced: competitive edge does not depend on Product-innovation but on Enterprise agility, in other words on the capacity to Transform one's Operational Model.
This approach is particularly efficient in the domain of Services once the IT tool has been perfectly mastered: it is not simply the management tool, but also the tool of Distribution and Production.

The Strategy of Agility ought to be adopted by many **Large Enterprises**: they have difficulty innovating because their internal functioning tends to favor the order essential to managing their complexity at the expense of innovation and risk taking. However, they have the means to equip themselves with an efficient Modeling team able to rapidly Transform the Enterprise's Operations so as to benefit from innovations that have emerged elsewhere.
On the other hand, **Small Enterprises** can innovate in the fields of: Goods-Product, Service-Product or Process.

1.4.3 Operational Strategy and Transformation Strategy

If an Enterprise wants to reduce its “Time to Market”, to become more agile, to reduce its complexity, to increase mutualization between subsidiaries, to rapidly copy the Products or the Processes of successful competitors… then it must actively evolve the way in which it Transforms itself.
It is no longer a matter of Operational Strategy affecting Operation Model, it is a matter of Transformation Strategy which aims to improve the Transformation Model.
To enhance agility or "time to market" we must define, not an Operation Strategy, but a **Transformation Strategy** which consists of modifying the Transformation Models and Resources.
The implementation of an Agility Strategy involves:

- Choice of Transformation **approach**
- Choice of **Modeling tools** (not only tools to manage “boxes and arrows”, but also tools to Model software or tools to Model goods such as Catia from Dassault-System)
- Creation of a **Foundation** of reusable Models for the rapid assembly of Product Models and Process Models from common components. Modeling drives generally show that different Products and Processes are a lot closer that at first imagined. The upshot is greater **synergy** between the different Units of an Enterprise. The **Reuse** of Model-Components is the key to faster evolution that one's competitors, as new Models can be far more rapidly created via assemblage.
- The setting up of Transformation teams that are **independent** of Operations and the singling out of the **best talent** for Transformation, given that it is far more complex than Operations.

Lastly, decision makers must be convinced that there exist not only Operation Models, but also Transformation Models, and that it is necessary to earmark budgets for these Models: **to improve Transformation efficiency one must invest.**

1.5 Separate Transformation Actions and Transformation planning

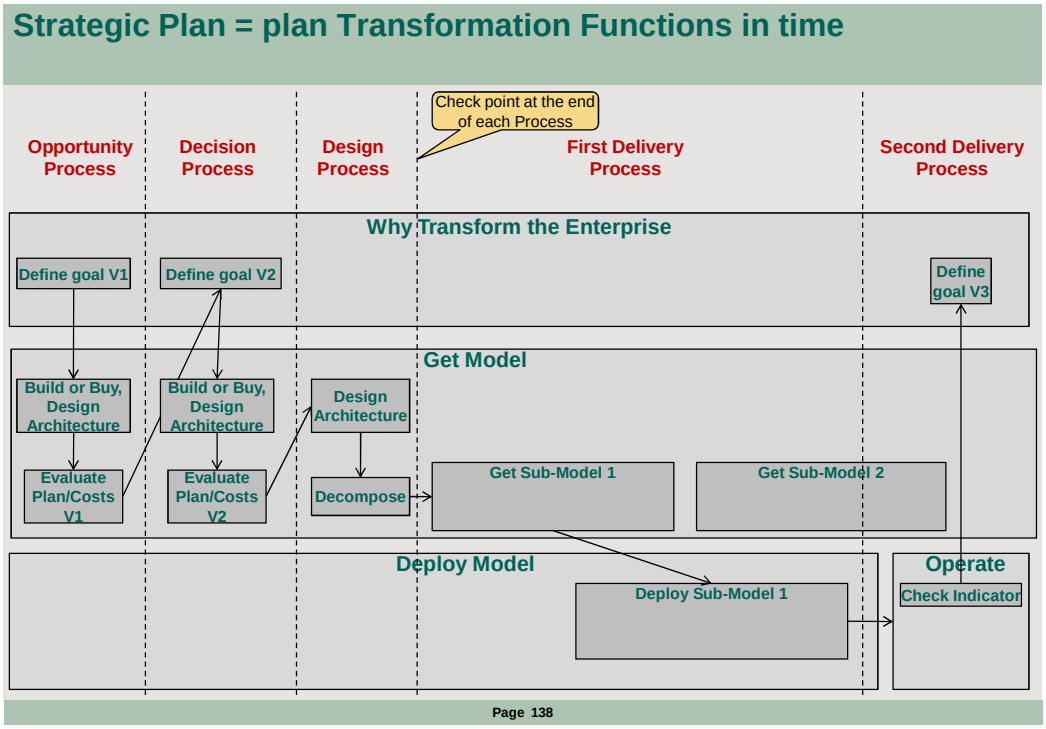
Waterfall and Agile approaches are very different: the first one considers that all Requirements must be defined before Building the Model and all Model must be available before checking it, while Agile Approach considers that Transformers must iterate between Requirement definition and Model Building.
So it appears that there is a difference between Transformation Actions and Transformation Plan:

- **what** must be done: define goals and requirements, build and check the Model are the same for Waterfall and Agile Approaches
- **when** this is executed and by **who** are different for Waterfall and Agile Approaches

In the following slide exist 2 dimensions:

- vertical dimension represents the different Transformation Actions: “define Why Transform”, “Get the new Model” and “Deploy this new Model” which are Invariant Actions
- horizontal dimension represents the different Stages in time: Opportunity Process, Decision Process…which depend on the selected Approach

Note that the action “define Goals” is executed several times: not only in the Opportunity Process, but also in the Decision Process because Cost and Planning deducted from 1st version of Goals are not acceptable by the management who reduces ambition and define a second version of Goals; and also in the Second Delivery Process when top management realizes that expected Value is not reflected by Indicators, which produces a third version of Goals.



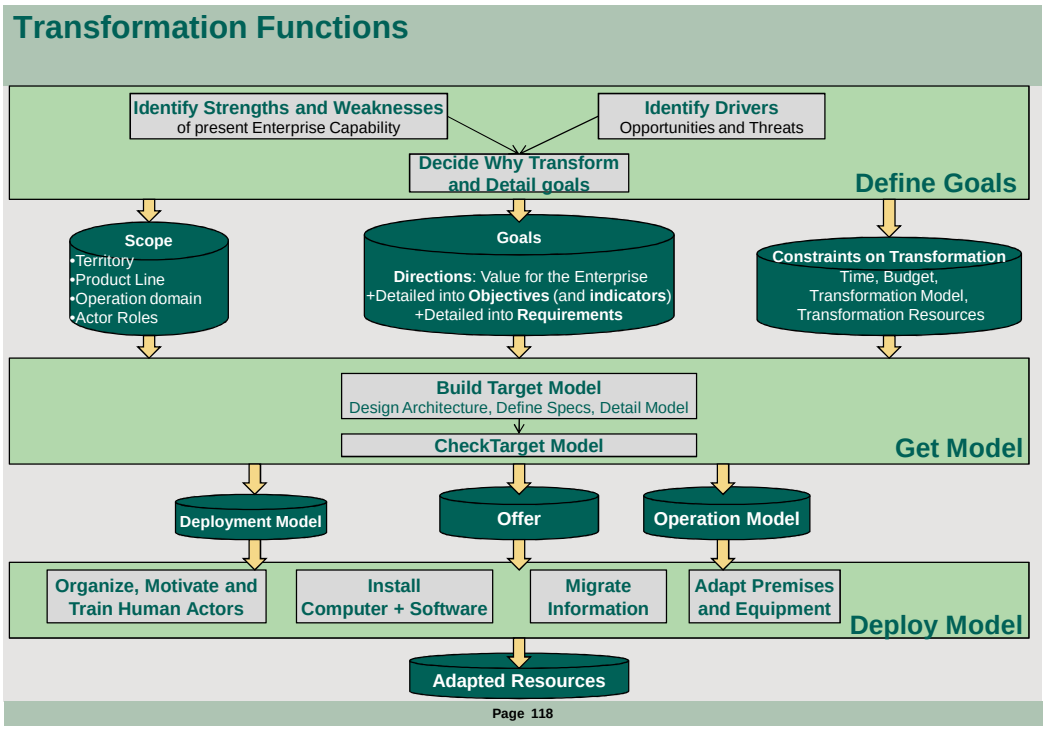
We propose to first define Transformation Actions, then define decomposition in time.

2 The Transformation Actions

2.1 Why, Get Model, Deploy Model

As Transformation is Getting the Model and Deploying it, any Transformation is divided into 3 major Actions:

- **Why** Transform the Enterprise?
  - The Enterprise ought to know itself: what Capability (Offer, Models, Culture, Image and Resources)
  - Then analyze the opportunities and the threats
  - Then deduce its **Goal** broken down into Directions and Objectives and quantify the success indicators
- **Get the new Model :** Update the existing Model or Create a Model (Build of Buy)
- **Deploy The Model:** adapt Actors and Resources to new Model



2.2 The Practice

We defined “Transformation Function-Model” such as “How to define requirements” and “Transformation Function-Instance”, such as “define the requirements of my current Project”.
To simplify wording we use “**Practice**” for “Transformation Function-Model”.
We suggest classifying Practices into:

- **Engineering Practices**: "Model a Process", "Configure a Product", "Define the interactions between Solutions"…
- **Management Practices**: "Evaluate the workload", "Plan", "Define the Roles", "Follow a Project", "Manage changes in the course of the Project"…

Engineering Practices cover Transformation Actions, while Management Practices cover execution in time of these Actions.

A Practice is defined by:

- Its deliverable
- How to properly execute a Practice (including a workload evaluation measuring tool).
- The Skills required to properly execute it.

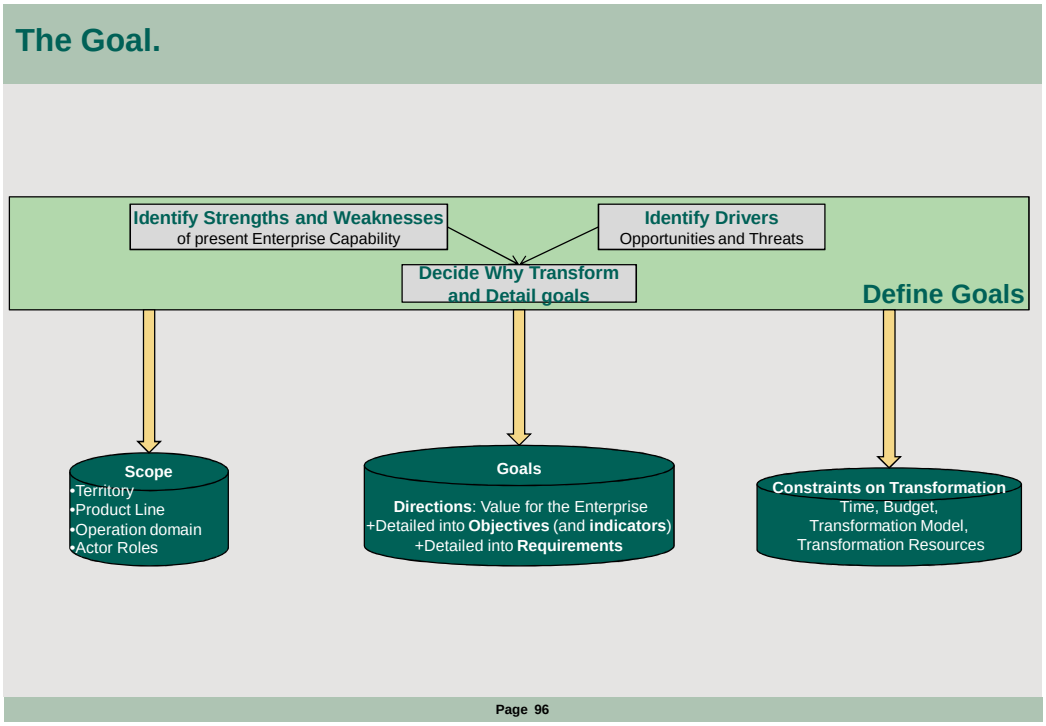
3 Define Goals

3.1 Many kinds of Transformation

The most frequent Transformations Enterprises have to face are the following:

- Create a new Enterprise
- Merge Enterprises
- Split up an Enterprise
- Launch a new range of Products
- Use a new Distribution Channel
- Target a new Customer Segment, which may require adaptations in the Product Model and the Operation Model
- Widen the Customer Territory, which may require adaptations in the Product Model and the Operation Model
- Widen the Production or Distribution Territory, which may require adaptations in the Operation Model
- Deploy the existing Enterprise Model on a larger scale: new Units, new Customer Segments, new Distribution or Production Territories
- Enlarge or reduce the Enterprise Value Chain
- Optimize existing Operation Processes
- Adapt the Operation Models to new Roles
- Optimize existing Transformation Processes
- Change the Transformation Model to be more Agile
- Equip itself with a new Foundation
- Deploy a Foundation for a "Solution" team

They all start by defining the Goal:



3.2 Analyze present capability

"Know your own self": this is the first action to be undertaken before defining a Transformation.
One must grasp both the external reality of the Enterprise, its current Offer (Products, customer segments and distribution territory), and its internal reality: how it Operates and how it Transforms itself.

It is advised not to waste too much energy detailing the existing Models, but to focus rather on the **strengths and weaknesses** of the Enterprise.

3.3 Define the drivers for change

In a stable world, an Enterprise would define its Operation Model once and for all, and then permanently Operate according to this stable Model.
But every Enterprise is obliged to evolve its Model via an increasing number of Transformation Projects beneath the pressure of well identified **drivers for change** such as:

- Globalization: not only do we seek to harmonize Products, but also to harmonize the Processes to facilitate the transfer of individuals between the various units of a same Enterprise or to balance its activity
- Major turnaround in the economic climate
- Sustainable development and energy savings which impact Process Modeling
- Technological innovations, including the increasing role of Internet
- Extension of the Enterprise perimeter to its partners and customers
- Ongoing concentration via mergers and acquisitions
- Restructuring
- Optimization of the overall Enterprise value chain
- Multiplication of Distribution channels
- Evolution of regulatory constraints
- Cultural and societal change
- The search for coherent information for decision making, which presumes the reuse of reusable Information Models between the various group subsidiaries

All types of industries are currently affected. By way of example and in brief:

- Manufacturing: the pressure of ecological norms and energy savings, international synergy
- State Administration: redefinition of missions, decentralization, cost-cutting, increasing efficiency
- Health: necessary reform of the health-care system which can no longer be financed as is
- Finance: reform of financial institutions, new distribution channels, the search for international Solutions, concentration
- Telecom and media: change of Model, competition from new entrants

Those who innovate find themselves temporarily in a monopoly situation: their research efforts are rewarded with revenues. But to renew this revenue they must invest in new innovations: Apple is a striking example. Even those Enterprises who today consider themselves to have a competitive edge must envisage the Transformations required to bounce back once the competition catches up. They must not become victims of their past successes. (“The Icarus Complex”, by Danny Miller).

3.4 Define Goals

Translating “Strengths and Weaknesses” and “Drivers” into realistic “Goals” is the difficult part: we do not cover this domain in the Glossary explanations.

The Goal is generally broken down into

- Main **Directions** given by the Transformation Sponsor
- decomposed into **Objectives** quantified by **Indicators** which should be checked once the new Model has been Deployed
- decomposed into **Requirements** (and not “Specifications” which are a design piece of the Model)

3.5 Define Scope

The Goal must be achieved for a specific Scope which is a combination of

- Territory Ex: Transformation is for Europe only
- Product Line Ex: Transformation is for Life Insurance and not for P/C (Property and Casualty) Insurance

- Operation Domain (or Transformation domain) Ex: Transformation is for Distribution and not Production
- Actor role Ex: Transformation is for Back Offices only

3.6 Define Constraints on Transformation Process

The Sponsor of the Transformation may impose Constraints on the Transformation Project such as:

- date limit
- Budget limit
- use of a Transformation Model: approach and Tools
- use of Transformation resources: internal or external Actors

3.7 Financial appraisal

One can only decide to undertake key Transformations when one has all the necessary decision-making elements at one's disposal: one such key element is the **financial** one.

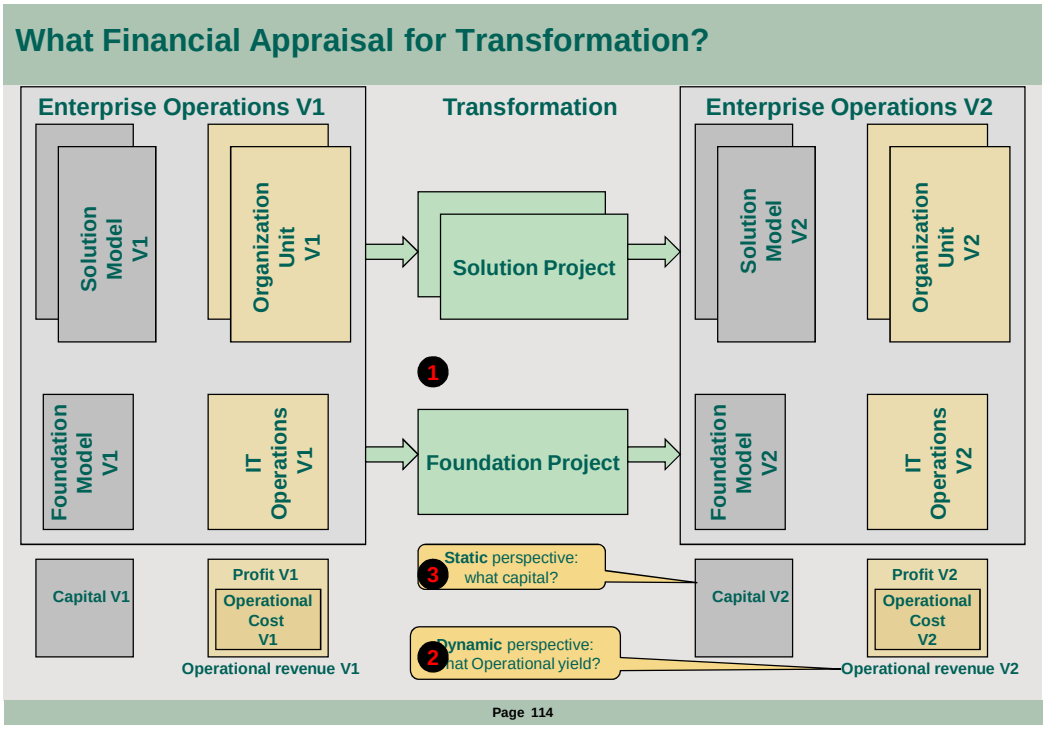
Decision depends on

- **Operational Gains**
- **Transformation costs**
- Valorization of the **Immaterial Capital**: Model and Resources adapted to the Model

The valorization of **Immaterial Capital** is often absent from investment decisions for various reasons:

- The advantages involved are often **difficult to translate into financial terms**: how to quantify an enhanced evolution capability?
- It involves **long-term** structural advantages which are beyond the scope of deciders constrained to furnish growing quarterly results in order to survive within their Enterprise.
- It often involves **difficult topics**: how to valorize Foundations, namely the Component-Models which enable the Enterprise to build and more rapidly evolve its Product Models or Operations Models?

The absence of Immaterial Capital valorization leads to the taking of decisions based solely on the first two criteria (cost of Project and Operational benefits) and bridles the ambitions of Transformation. Better mastery of Immaterial Capital valorization allows this criterion to be taken into account in the Transformation decision Processes. But the Institute must provide responses on this issue.



4 Get the Target Model

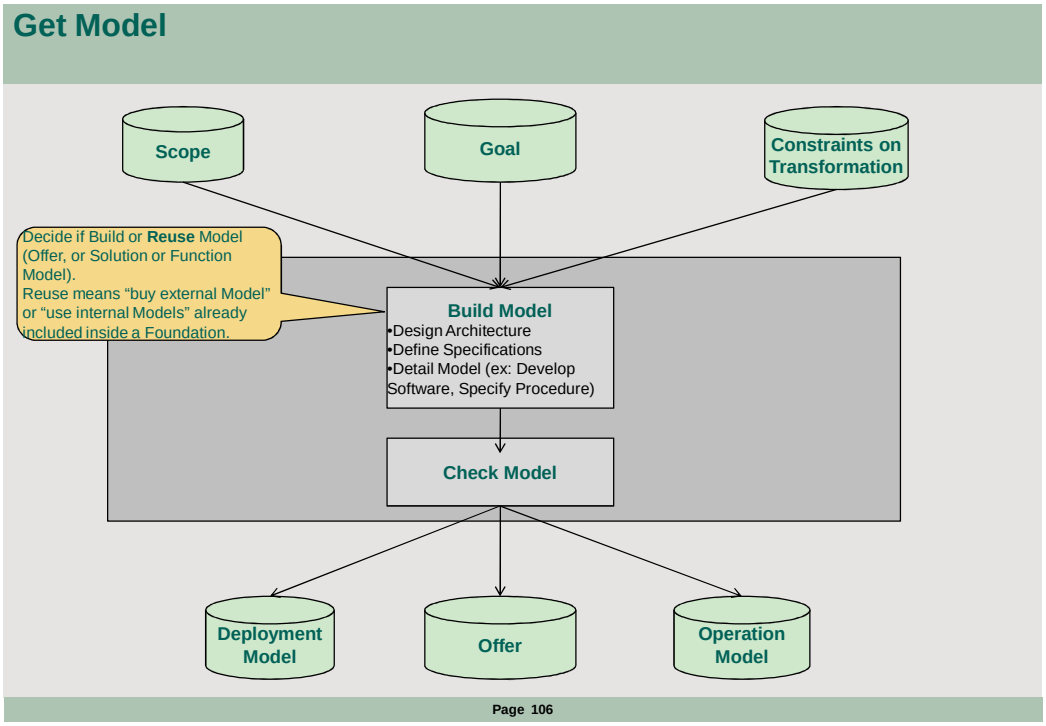
Once the Goal is defined, it must be translated into an Enterprise Model:

- The primary reasons for the Transformation of the Enterprise have to do with the **evolution of its Offer**:
  - Launch of new Products
  - Widening of Distribution Territory
  - Targeting of new Customer segments

  These changes in the Offer lead to modifications in the **Operation Model**: one must Produce or Distribute in another way and elsewhere, with other partners.
- Even without changing its Offer, the Enterprise may decide to Transform its **image**, its **culture** or its **Operation Model**, for instance in order to be more efficient, to merge with another Enterprise, or to change its positioning in the Value Chain.
- Or, the Enterprise may decide to modify and Deploy a new **Transformation Model** to gain in agility and time to market.

Deployment of the new Model also requires a **Deployment Model**: how to train Business Operation Actors, how to train IT Operation Actors, how to Migrate Information from the old Model to the new one, how to configure the Operation Computers…

The Summary of Goals and Target Enterprise Model is often called "**Vision**".



4.1 Foundation

Complexity of a Model increases with its size; and it is more than proportional.
The best way to simplify the Model is to decompose it into Sub-Models.
For example, an Enterprise Model can be decomposed into a set of Solution Models (the Distribution Solution, the Production Solution, the Human Resource Solution, the Business Intelligence Solution…)
Two questions:

- how these different Solutions **interact**, so that the sum of these Solutions represent a consistent Model
- how to minimize efforts when Building each Solution by **reusing Model-Parts**.

4.1.1 Exchange Foundation for interactions

Exchange Foundation enables the different Solutions to Interoperate: the "Procurement" Solution knows how to communicate with the "Production" Solution or the "Distribution" Solution.
It avoids having to duplicate information and errors in the transfer of information between Solutions. It also helps to order the overall plan of the Operation Model and facilitates the consolidation of information.

- **Information exchange Models** with partners, customers, suppliers**,** such as the exchange formats between airline companies (IATA norms).

4.1.2 Building Foundation for Reusing Model parts

One of the keys for speeding up the building of Models is to assemble them using already existing or reusable Models:

- **Business Entity Information Models** such as Customers, Organization, Contracts, which enables sharing and aggregation of homogenous Information for better decision making.
- **Component-Product Models** to speed up the assembly of new Products, such as the reuse of a platform for different Models of cars
- **Function Models** such as identification and authorization checks, or ergonomic norms, or Information search on Customers, Contract, Products…which are reusable in numerous Processes.

Building Foundation brings together the Model-Components which, through assembly, enable faster fabrication of Product or Process Models that are both more reliable and more homogenous. If a new Product or Process Model is built with 80% of already available components, we gain in time, reliability and coherence of use. A **Component** is a reusable Action Model.

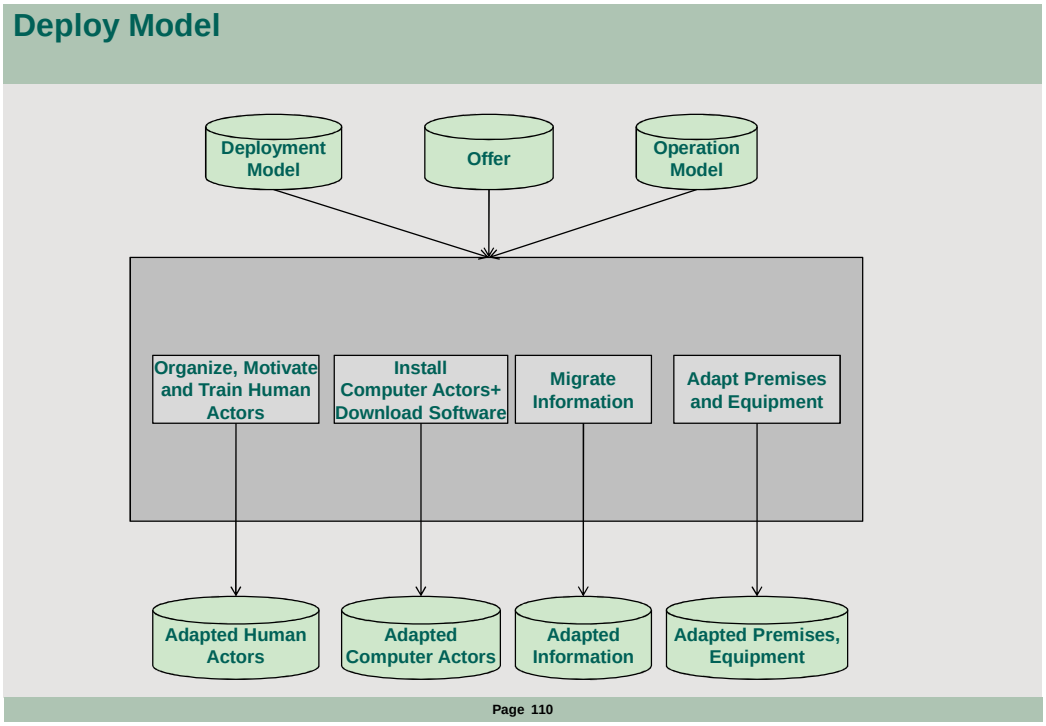
In general, the Reuse of Models

- **reduces the** overall **complexity** of the Enterprise Model: fewer Products, fewer Processes, fewer Functions
- **speeds up** Transformations and "Time to market"
- and enables the **deployment of the best Products and Processes** in the various subsidiaries and in the different countries without negatively impacting the benefits of decentralization.

If the dispersed Operational Units are delivering similar Products to similar Customer Segments, one should converge towards a single Operation Model. This means a single Transformation team which works on behalf of all the Operational Units, even if some local adaptations prove necessary.

To summarize, Foundation is a set of reusable Models to simplify the Enterprise Model made up of Exchange Foundation and Building Foundation.
Needless to say, the Foundation perimeter should be **in line** with the strategy of each Group.

5 Deploy the Model



Deploying the Model is also called “Change Management”: it consists to adapt Actors and Resources such as Information so that they can use the new Model.
It includes evolution of Resources, training, communication, re-organization…

6 Transformation in time

6.1 The Transformation Process

The Transformation Process is commonly called “Project”.
Each Project is defined by:

- Its deliverable
- Its planning and breakdown into Processes
- Its Resources, including its budget
- Its Conditions for success

A Project is broken down into successive **Processes**. A Process is a period of time that concludes with a significant deliverable.
By way of example:

- **Launch Process:** its deliverable is the description of the Goal and a planning budget proposal.
- **Specification Process:** its deliverable is the list of Functionalities and a fine tuning of planning and budget.
- **Model Building Process:** it delivers the new Model or modifications on an existing Model.
- **Quality Control Process:** it delivers the guarantee of verifiable quality.
- **Model Deployment Process:** it delivers the training, reorganize, and install the Operational Resources.

These Processes execute Transformation-Functions (often called “Practices”): “How to evaluate workload”, "How to Plan", "How to Evaluate a Project workload", "How to describe a problem", "How to Build a Model", "How to test", “How to train Operational Actors”…
The same Practice can be executed in different Processes. For example, the Management Practice "Evaluate the workload" or the Engineering Practice "Model Information" are progressively fine tuned in the successive Processes.

Process / **Practice**	Launch	Specifications	Model Building	Quality control	Model Deployment
Evaluate Workload	**Activity**	**Activity**	**Activity**		
Plan	**Activity**	**Activity**	**Activity**		
Describe the Goal	**Activity**	**Activity**			
Build or Modify a Model			**Activity**	**Activity**	
Test a Model				**Activity**	
Train Operational Actors					**Activity**

6.1.1 The Project Model

To help Actors properly execute their tasks, we must supply them with a **Project Model** that consists essentially of **Approaches** and **Tools**.
Given the variety of Transformation Projects, there exist **multiple Project Models**: "launch a Product", "open a branch office", "optimize a Process"…which can reuse the same Practices.

6.2 The Activities

Once the planning has been drawn up, the Transformation Actors execute different Activities within each Process.

Each Activity corresponds to a **Management Practice** (such as evaluating a workload) or an **Engineering Practice** (such as Modeling a Process). The same Practice can be executed in different Processes (for example: "evaluation" which is progressively fine-tuned).

An **Activity** is thus the crossing of a Process with a Practice to which we must allocate **Resources** and **Actors**.
An Activity can be executed by **several Actors**, full time or part time.
For each Activity, we must ensure that the **Skills required** by the Practice match the **Skills of the allocated Actors.**

Each Activity is defined by:

- Process
- Practice (which informs us how the Task should be properly executed)
- Allocation list
    - What Actor (potential skill) for each skill required by the Practice
    - Allocation time during the Activity: which may be full time or part time
- Beginning and end of Activity

6.3 Several levels of Processes: Strategic Plan, Program, Project, Sub-Project, Phase

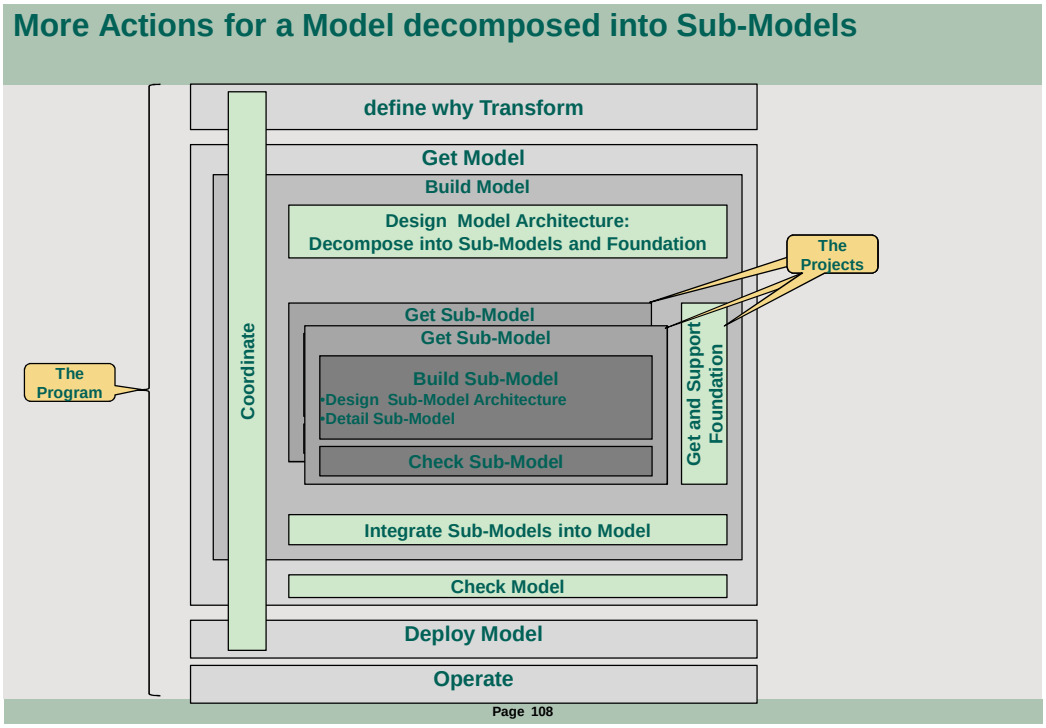
In a complex organization, one cannot execute a set of Transformations independently of each other: they must be part of a coherent ensemble wherein different Transformations pursue the same goals.
It is the Strategy that defines the **major** Enterprise Transformations: **long term** orientations to obtain a **sustainable competitive advantage**. As we have seen, it can concern both the exterior (Offer) and the interior (Operations or the Agility obtained via Transformation).
Execution of the Strategic Plan required several levels of Processes:

- the Strategic Goal is implemented through a **Strategic Plan**
- the Strategic Plan is divided into **Programs**
- each Program is broken-down into **Projects**
- each Project is broken-down into **sub-Projects**
- each Project is broken-Down into **Phases**

And more levels can be defined if necessary: the number of subdivision levels depends on the Transformation perimeter.

For example, if a **Program** consists of Building a **large new Model**, it must be decomposed into **sub-Models** progressively delivered through successive **Projects**.
The difficulty of the Plan is then much more important than the sum of Project efforts because:

- **coordination** of the different Projects is required
- design of an overall **Architecture** of the Model is required before executing each Project
- the part of the Model which is reused by the different Sub-Models (the "**Foundation**") requires a complementary Project to get the Foundation and support it
- **Integration** of the different Sub-Models is required
- **check the Model** after integration: even if each sub-Model has been tested, an overall Test Phase is required



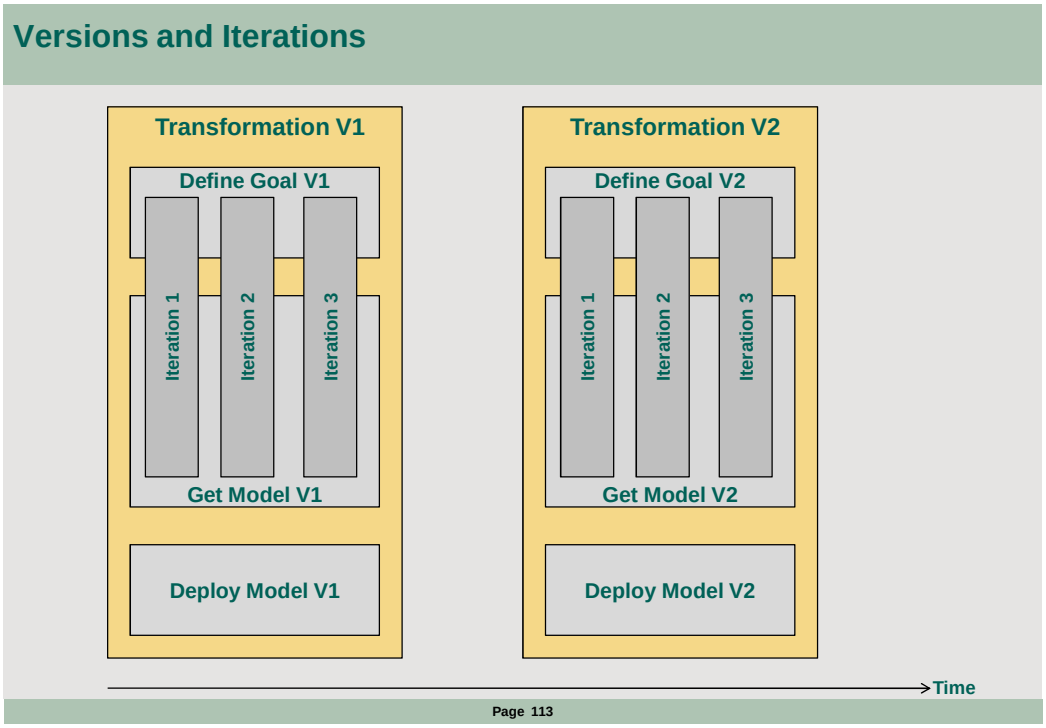
The difficulty is higher if more levels of Processes are required: it explains why the difficulty of Transformation is exponentially related to the size of the Model.

The Plan is characterized by:

- The description of the Goal, the Scope and the Transformation Constraints
- The Target Model
- Its planning, its breakdown into Projects and associated organization
- Its Actors and Resources, including its budget
- Its Conditions for success
- Its own Activities (see below).

6.4 Versions and Iterations

A Strategic Plan ought to be able to evolve: pursue, reorient or interrupt.



6.4.1 Versions

A Strategy evolves so as to take changes in the business environment and one's own successes and failures into account. Each Version of the Strategy re-executes the entire Strategic Process and deliver a new Version of the Model.

- In a Strategy of continuity, the strategic Plan is **updated yearly** with regard to the rules of Governance in place. This is known as a sliding Plan.
- In a clean-break Strategy the strategic Plan cannot be a sliding Plan. The **medium-term Goal and the Target Model must be stable**: only the Strategic Plan evolves according to the successes or difficulties of the Projects.

6.4.2 Iterations

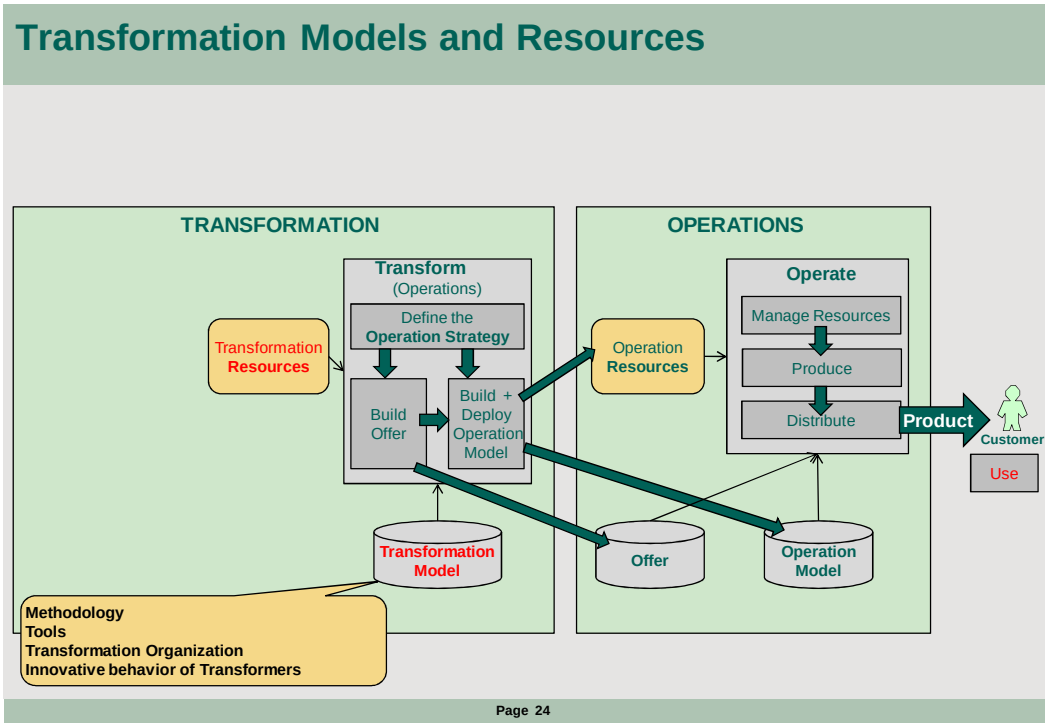
Each Version of the Model can be built by Iteration so as to gradually find the right balance between goals and feasibility.
The defining of a Strategy is not merely a Top-Down Approach whereby we define the final Goal, get the final Target Model and Deploy it. In terms of cause and effect reasoning this ought to be the case, but the elaboration of a Strategy tends to proceed by Iterations in complex Organizations because:

- every decision is a **compromise** between business hopes and possibilities of implementation: as long as we have not evaluated the consequences of the Goal in terms of cost, deadline and complexity, it is difficult to make a clear decision.
- **certain decisions lead to others**: for example launching a new range of Products could require the rethinking of the Production and Distribution Processes which in turn demand the creation of new Actor Models and changes in organization. The overall cost can thus prove higher than expected, unless we choose to modify the Product characteristics.

7 Transformation capability

Transformation uses its own **Transformation Models, Actors and Resources** which are different from Operation Models, Actors and Resources.
If an Enterprise has to Transform its Offer or Operation Model, it must rely on a **Transformation Model** which describes the Transformation Processes, the Transformation tools, the Transformation Actor Models, their Organization, and the Reusable Component Model.
We must Model how to Transform well, just as we strove to Model how to Operate well.
It involves simultaneously **Building/Modifying the Models** and **Deploying** them.
It basically comes down to methodologies, approaches, tools, defining roles and governance.

Remark: management quite readily sees the need to Model Operational Processes such as "Supply Chain" or "Recruitment". However it tends to forget that Transformation Processes, which play such a vital role in any Enterprise with ambitions to evolve, must also be mastered.

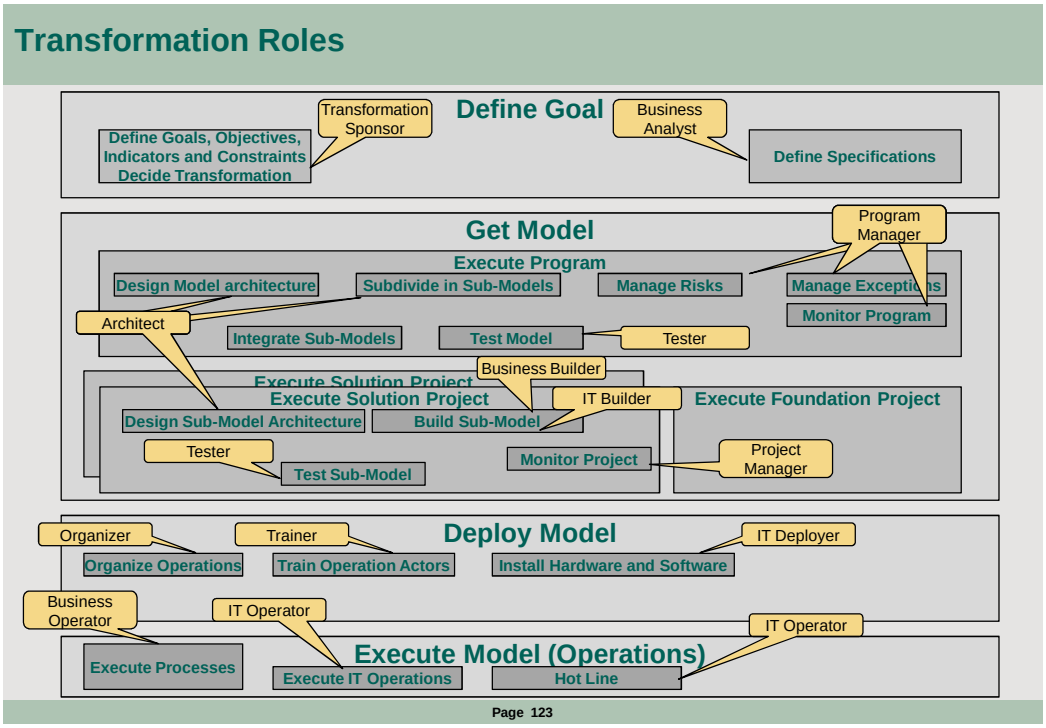


7.1 Set up the Governance for Transformation decision

Transformation Governance is the list of Transformation Processes to decide and check, such as:

- How to present each Project prior to decision making?
- How to justify Foundation investments that are not requested by the Businesses, but which benefit everyone in the end?
- How to check that the expected Value has been attained?
- How to decide the reorientations?
- How to manage the changes?

7.2 Transformation Actors



The Resources and Actors are defined for each Activity.
Usually, a Transformation Project uses the intervention of Enterprise staff Actors and outside Actors like Partners or Customers. Whatever their origin, the following Roles ought to be represented:

7.2.1 Actors who Define Goals

- The **Sponsor:** he takes the decision, validates the Goal, Scope and Constraints, finances the Transformation and checks the result through pre-defined Indicators..
- The **Business Analyst**: he details the Goal into **Requirements** (and avoid to define Design Specifications of the target Model)

7.2.2 Actors who produce the Enterprise Model

- The **Program Manager**
  - monitors overall Program: define priorities and planning, assign Actors, follow Program execution
  - manages exceptions at Program level
  - manages risks at Program level
- The **Model Architect**
  - defines the overall Model Architecture and ensures its quality
  - subdivides the Model into Sub-Models
- The **Model Tester** tests and accepts the integrated Model.
- The Program **Integrator** assembles the different Project Deliverables

7.2.3 Actors who produce the Solution Sub-Model or the Foundation Sub-Model

- The **Project-Manager**
  - monitors Project progress
  - manages exceptions at Project level
  - manages risks at Project level
- The **Sub-Model Architect** defines the Sub-Model Architecture which respects the Model Architecture
- The **Business Builder** and **IT Builder** Build the Sub-Model: Specification, Development, Tests
- The **Sub-Model Tester** Tests and Accepts the Sub-Model.

7.2.4 Actors who Deploy the Model

- The **Organizer** defines the new Organization: structure, assignment of Actors, definition of Roles
- The **Trainer** trains Operation Actors before they use the new Model
- The **IT Deployer** install hardware and software

7.2.5 Actors who execute the Model

- the **Business Operators** (often called “Users”) execute new Processes
- the **IT Operators** run IT Operations
- The **Hot Line** supports Business Operators

7.3 Skills

A Transformation Project can be broken down into a certain number of Practices, such as:

- Understanding the existing Model
- Understanding the Vision of the Enterprise
- Choosing the right Transformation Model: Transformation approach, tools and organization
- Expressing the Goals and Requirements
- Building the Target Operations Model which fits the Strategy, namely building the Procedures and Software, the Information Models, the roles of each Actor involved
- Managing the Project
- Operations Changeover into the new Model

For each Actor Model a list of Skills is required.

7.4 Behaviour

Behaviour of Actors is key for success of Transformation.
Operation requires order, respect of the Model, while Transformation requires risk taking, innovation, decision making in uncertain context…

7.5 Resources

Most important Transformation resources are **Transformation Actors** and **Model-Components** that can be reused to assemble new Models.