HOPEX IT Business Management

User Guide

HOPEX V4

MEGA

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INTRODUCTION TO HOPEX IT BUSINESS MANAGEMENT

HOPEX IT Business Management is a tool published by **MEGA International** to assist IT management in:

- Defining the company's value streams and business capabilities ;
- Aligning the application assets with business requirements;
- Reducing IS operating costs by removing applications no longer used;
- Managing technologies relating to applications;
- Identifying the business services covered by applications or application versions;
- Deciding on investments for maximum profits;
- Identifying and following the phases of the company's transformation.

The **HOPEX IT Business Management** solution enables to:

- Define an application assets management workflow, identify the different profiles involved and association of persons with each of these profiles;
- Identify the application assets, specify their characteristics, the technologies used, and define the costs;
- Assess all applications on relevant criteria;
- Generate comparison and analysis reports leading to effective transformation of application assets.
- Visualize the impact of the transformation of the applications on the data they use.

The purpose of this guide is therefore to present how to make best use of these functionalities for the successful evolution of your information system.

PRESENTATION OF HOPEX IT BUSINESS MANAGEMENT

Combined with the products of **HOPEX** suite, **HOPEX IT Business Management** supports a methodology and the tools used to describe and plan your business transformation.

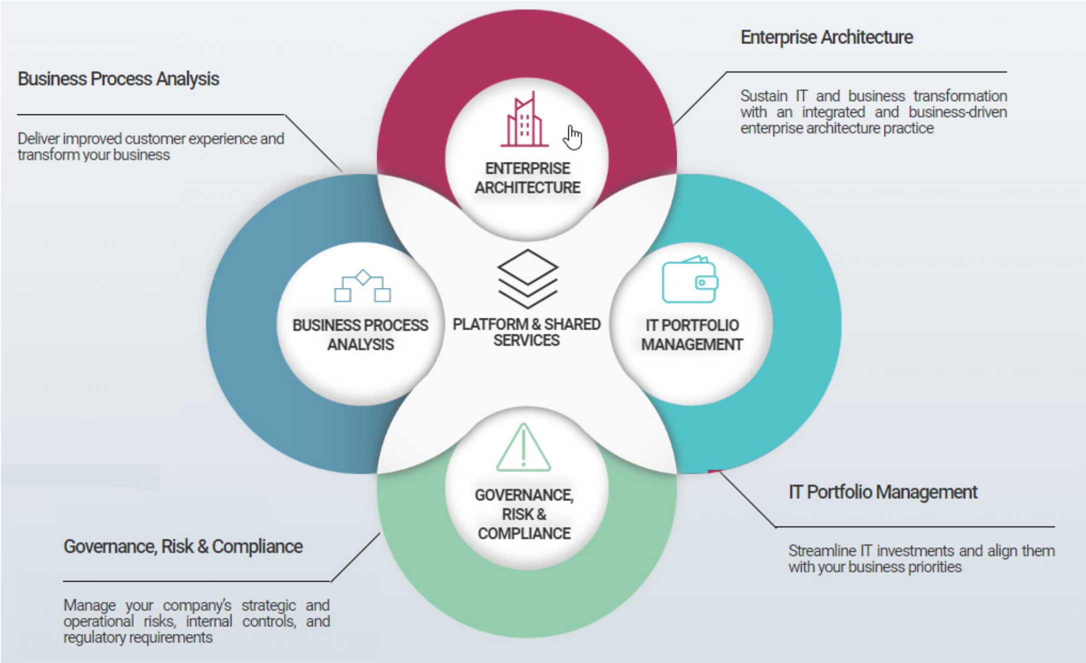
Positioning of the HOPEX IT Business Management Solution

HOPEX IT Business Management offers a formalism of reflection on the company's value streams and business capabilities. This solution makes it possible to define a business transformation strategy divided into phases with clearly identified objectives and means. At each of these phases, standard reports are proposed to simplify analysis of the subject and assist in decision-making.

It includes the **HOPEX IT Portfolio Management** which offers the following possibilities:

- Aligning the application assets with business requirements;
- Reducing IS operating costs by removing applications no longer used;
- Managing technologies relating to applications;
- Identifying the business services covered by applications or application versions;
- Deciding on investments for maximum profits.

HOPEX IT Business Management can be used with other products of the **HOPEX** suite.



HOPEX Business Process Analysis

The **HOPEX Business Process Analysis** solution provides **HOPEX IT Business Management** with:

- The description of organizations that implement the business functions and/or the business capabilities identified in **HOPEX IT Business Management** ;
- The description of organizational processes that implements the value streams identified in **HOPEX IT Business Management** .

HOPEX IT Architecture

The **HOPEX IT Architecture** solution provides **HOPEX IT Business Management** with the possibilities to model the information system architecture according to a number of analysis perspectives:

- Description of application architecture offers a detailed view of information exchanges between applications, services, databases and organizational.
- Description of information system technical infrastructure enables monitoring of applications deployment on the different enterprise.
- Description of complex systems involving different types of IT and non IT resources.

In addition, **HOPEX IT Business Management** provides **HOPEX IT Architecture** with the possibilities to support the description, analysis and transformation projects of the IT system.

HOPEX Risk Mapper

The **HOPEX Risk Mapper** solution offers to **HOPEX Business Architecture & Strategic Planning** a total visibility of operational risks, control points and value chains.

CONNECTING TO HOPEX IT BUSINESS MANAGEMENT

The menus and commands available in **HOPEX IT Business Management** depend on the profile with which you are connected.

Connecting to the solution

To connect to **HOPEX IT Business Management** , see HOPEX Common Features, "HOPEX Desktop", "Accessing HOPEX (Web Front-End)".

HOPEX IT Business Management Profiles

The rights of different users on objects of imported libraries depend on their assigned profiles. For more information on creation of users and assignment of profiles, see the chapter "Managing Users" in the **HOPEX Power Supervisor** guide.

In **HOPEX IT Business Management** , there are default user profiles with which specific rights and accesses are associated. These profiles are:

- ITPM Functional Administrator
- IT Business Manager
- Profiles available with **HOPEX IT Portfolio Management** for portfolio management :
  - Application Portfolio Manager
  - Application Owner
  - Chief Technology Officer
  - Technology Portfolio Manager
  - Financial Controller
  - Business Owner
  - IT Owner
  - Data Asset Manager

ITPM Functional Administrator

The ITPM functional administrator has rights on all objects and workflows.

He/she prepares the working environment and manages reference data used in the solution.

IT Business Manager

The IT Owner is the business user profile of the **HOPEX IT Business Management** solution for strategy aspects.

The business architect is responsible for creation and structuring data relating to Business Architecture.

If your license allows, and so that the users connected to this profile can integrate their work, the business architect can also access the objects and main functionalities of the **HOPEX Business Process Analysis**, **HOPEX IT Architecture**, and HOPEX Risk Mapper solutions via the **HOPEX IT Business Management** desktop.

– *For more details on the business architect desktop, see Presentation of the IT Business Manager desktop.*

Application Portfolio Manager

The Application Portfolio Manager:

- is responsible for the global process and its control.
- assures correct operation of tasks assigned to the "Application Owner".
- classifies and evaluates applications.

To allow the application portfolio manager to control the inventory of the application assets, application data entry and validation workflows are delivered with **HOPEX IT Portfolio Management.**

For more details on workflows, see the **HOPEX Common Features** guide.

Application Owner

The application owner is responsible for defining and updating applications.

When he/she is associated with applications, he/she is responsible for them. He/she in particular receives evaluation requests sent by the portfolio manager.

Chief Technology Officer

The chief technology officer is an application portfolio manager who is also in charge of assessing technologies. The assessment is driven by a workflow. See Validating a Technology.

Technology Portfolio Manager

The Technology Portfolio Manager is in charge of one or more technology portfolios. He chooses technologies and editors, and asks for the technology director validation.

Financial Controller

The role of the Financial Controller is to specify financial characteristics of applications and technologies for which he/she is responsible.

Business User

Business user of the application. Evaluates business aspects of applications for which he/she is responsible.

IT Owner

IT Responsible for application. Evaluates technical and technological aspects of applications.

For more details on assessment, see Evaluating Application Criticality.

Data Asset Manager

The Data Asset Manager is responsible for the creation of information assets.

The other profiles of **HOPEX IT Portfolio Management** can read access these assets and use them, for example in data flows or data stores.

Business Roles of HOPEX IT Business Management

In **HOPEX IT Business Management** , there are, by default, business roles that can be assigned to certain users. In addition to the roles common to several **HOPEX** solutions, the roles specific to **HOPEX IT Business Management** are the roles specific to **HOPEX IT Portfolio Management**.

– *For more details on roles dedicated to portfolio management, see Business Roles of HOPEX IT Business Management.*

Desktops of HOPEX IT Business Management

The menus and commands available in **HOPEX IT Business Management** depend on the product licenses that you have and on the profile with which you are connected.

– *For more details on using the Web platform for HOPEX solutions, see the **HOPEX Common Features** guide.*

Presentation of space common to all profiles

All users, with the exception of users connected with the **Contributor** and **Viewer** profiles, have a **HOPEX IT Business Management** desktop and access to the following panes:

- **Home**: presents the main tiles useful for the user.
- **Dashboards**: displays the list of indicators required to steer objects such as processes, applications or org-units.
- **Reports**, enabling access to the group of reports available for each solution.

  – *For more details on the use of these reports, see "Generating Reports" chapter in **HOPEX Common Features** guide.*
- **Collaboration**, which enables access to all collaborative tools provided by **HOPEX**.

  – *For more details on the use of collaborative tools, see "Accessing collaboration in **HOPEX**" chapter in the **HOPEX Common Features** guide .*

HOPEX IT Business Management **Home** space proposes a add tile button .

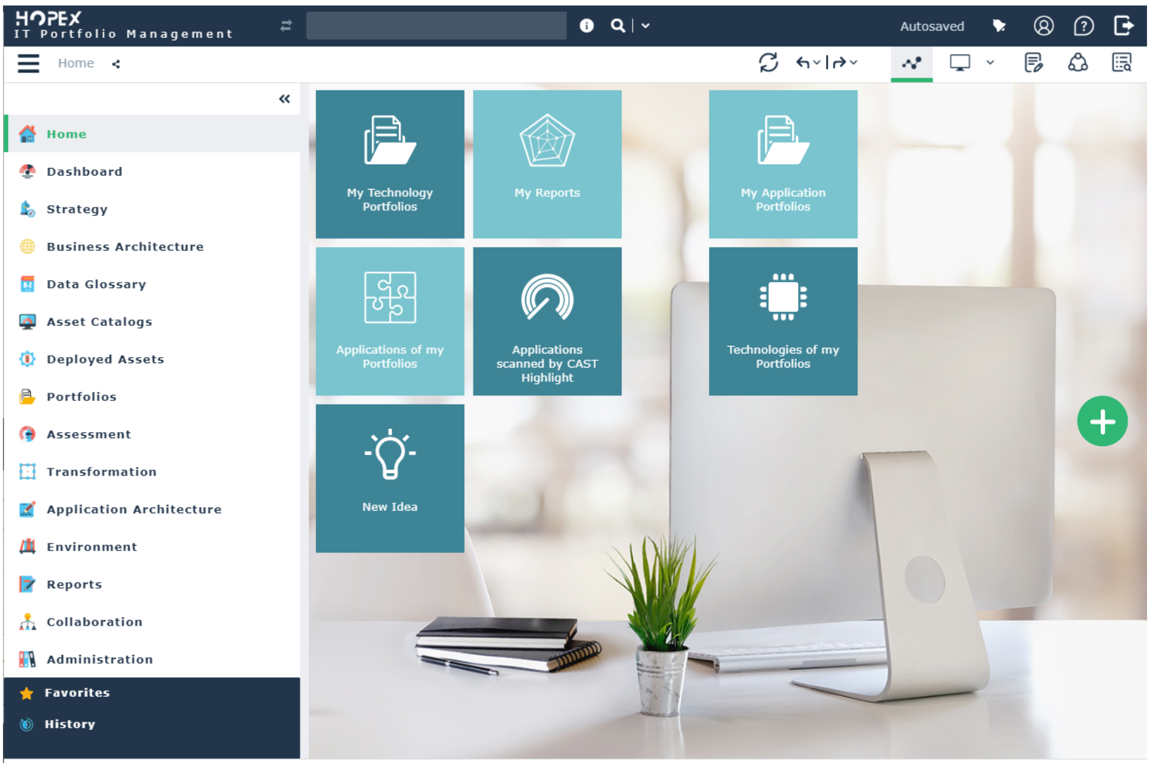
– *See "Adding a tile to your home page" chapter in the **HOPEX Common Features** guide.*

The panes provide access to the following menus:

- **History**, which contains all the objects you access or modify.
  – *For more details on the use of history, see "Using the History" chapter in **HOPEX Common Features** guide.*
- **Favorites**, to access to important objects and to usual actions.
  – *For more details on the use of favorites, see "Managing Favorites" chapter in the **HOPEX Common Features** guide.*

Presentation of the ITPM Functional Administrator space

In addition to the panes offered in standard mode to all **HOPEX IT Business Management** desktop users, users connected with the **ITPM Functional Administrator** profile have access to the panes described below:



The Environment pane

The **Environment** pane provides access to the following menus.

- **Organization**, to access the main objects processed with the **HOPEX IT Architecture** solution.
- **Standard Navigation**, to access the management features for libraries and Environments.
- **EA Projects**, to access the management features for projects.
  - *For more information on managing projects, see "Enterprise Architecture (EA) projects in HOPEX in the* ***HOPEX Common Features*** *guide.*

The Portfolio pane

The **Portfolio** pane provides access to the following menus.

– .

- **Portfolios**, to access the application portfolio management functionalities offered with the **HOPEX IT Portfolio Management** product.
  - *For more information, see* ***HOPEX IT Portfolio Management****.*
- **IT Architecture Projects**, to manage architecture projects.
  - *For more details on managing projects, see the "Projects in* ***HOPEX****" chapter in the* ***HOPEX Common Features*** *guide.*
- **Corrective Action Plans**, to describe and manage the action plans linked to the transformation of processes.
- **Controls & Risks**, for accessing the risk management features offered with the **HOPEX Risk Mapper** product.
  - *For more information, see* ***HOPEX Risk Mapper****.*

The Catalogs pane

The **Catalogs** pane provides access to the following menus:

- **Business Service Catalogs** to describe the user services offered by the information system.
- **Information Service Catalogs** to describe the user services offered by the information system.
- **Technical Service Catalogs** to describe the services offered by the technical elements of the information system.
- **Hardware Service Catalogs** to describe the services offered by the hardware elements of the information system.
- **Reports** to provide access to all the reports dedicated to the service catalogs.
  - *For more details on service catalogs, see ...*

The Campaign Management pane

The **Campaign Management** pane provides access to the creation and management functionalities.

The Collaboration pane

The **Collaboration** pane makes available different means of communication in your **HOPEX IT Architecture** desktop.

> – *For more details on collaboration tools, see the "Accessing collaboration in* ***HOPEX****" chapter in the* ***HOPEX Common Features*** *guide.*

The Administration pane

The **Administration** pane provides access to the user management features. The rights of different users on objects of imported libraries depend on their assigned profiles.

> – *For more details on the management users, see "Managing users" chapter in guide* ***HOPEX Common Features.***

Presentation of the IT Business Manager desktop

In addition to the panes offered in standard mode to all **HOPEX IT Business Management** desktop users, the users connected with the **IT Business Manager** profile have access to the following panes:

The Strategy pane

The **Strategy** pane provides access to the following menus.

- **Hierarchy View** to visualize the hierarchical decomposition of enterprises under study,
- **Enterprise** to view all enterprises under study,
- **Value Stream**, to access value streams of the company,
- **Business Capabilities**, to describe the business capabilities and business capability maps of the company.

The Business Architecture pane

The **Business Architecture** pane provides access to the following menus:

- **Business Architecture Environments** to display the Environments tree view and their breakdown into components by stage as well as several reports;
- **Business functions**, to describe the business functions and business function areas in the company,
- **Business Partners**, to describe the business partners and business partner groups in the company,

Switching Between Profiles with HOPEX IT Business Management

Using the **HOPEX IT Business Management** desktop, you can access to any **HOPEX** solution desktop, without logging out, just by switching to another profile.

For example, you can switch to a specific profile:

1. Select **Main Menu > Switch Profile**.
2. Select the profile with which you want to connect.

3. (If you made modifications in your private workspace) Click:
   - **Yes**, to save your modifications in the repository.
   - **No**, if you do not want to save in the repository the modifications you made since your last dispatch. Modifications to your desktop are also lost.

   The desktop associated with the selected profile is displayed.

   – *Click **Cancel** to stay in your private workspace.*

PREPARING THE WORK ENVIRONMENT HOPEX IT BUSINESS MANAGEMENT

Inventory and evaluation of the application assets are based on description of business elements - in order to map business requirements with the application architectures that serve as their support - as well as organizational elements such as org-units and deployment sites.

The following points indicate how to create elements that constitute your working environment. This step is executed by the Functional Administrator.

Defining Enterprise Org-Units

HOPEX IT Business Management is used to describe the *org-units* of your enterprise.

) *An org-unit represents a person or a group of persons that intervenes in the enterprise business processes or information system. An org-unit can be internal or external to the enterprise. An internal org-unit is an organizational element of enterprise structure such as a management, department, or job function. It is defined at a level depending on the degree of detail to be provided on the organization (see org-unit type). Example: financial management, sales management, marketing department, account manager. An external org-unit is an external entity that exchanges flows with the enterprise. Example: customer, supplier, government office.*

Creating an org-unit

To create an org-unit:

1. Click the **Environment > Org-Units** navigation pane.
2. In the edit area, click **My Org-Units**.
3. Click the **New** button.
   The org-unit appears in the list.
4. Modify the name of the org-unit.

Specifying org-unit properties

To specify the properties of an org-unit:

1. Select the org-unit and click the **Properties** button.

2. In the **Characteristics** page, in the **Org-Unit Type** field, select the org-unit.
   There are several types of org-units:
   - An "Accountable" org-unit (for example, Sales Manager).
   - A "Generic" org-unit corresponds to a role to be played during a project (for example, Writer, Requester).
   - A "Structure" org-unit (for example, Sales Management).
   - A "Function" org-unit (for example, Sales Engineer).

   – *You can also specify its details (company name, e-mail address, telephone number, etc.).*

Defining Business Processes

APQC proposes standard repositories of business processes specific to each major activity sector.

) *A business process represents a system that offers products or services to an internal or external client of the company or organization. At the higher levels, a business process represents a structure and a categorization of the business. It can be broken down into other processes. The link with organizational processes will describe the real implementation of the business process in the organization. A business process can also be detailed by a functional view.*

A set of standard business process repositories from APQC is supplied with **HOPEX IT Business Management** , in the APQC solution pack.

If you want to use APQC business processes for the different activity sectors, you can also import the corresponding libraries.

To import the APQC libraries, see the chapter "Prerequisites to using APQC libraries" of the **HOPEX Business Process Analysis** guide.

To access business processes of your enterprise:

› Click the **Environment > Libraries** navigation pane.
  The list of enterprises and libraries appears in the edit area. The **Process** folders attached to the enterprises or libraries contain the repository business processes.

About This Guide

This guide explains how to make best use of **HOPEX IT Business Management** to ensure efficient management of your Business Architecture projects.

Guide Structure

The guide **HOPEX IT Business Management** is divided into two parts consisting of the following chapters:

- concerning the strategy part
  - Business capability maps and value streams; explains how **HOPEX IT Business Management** helps you in analyzing the business capabilities of your enterprise to check their suitability with your business functions and your skills.
  - Identifying Strategic Transformation Elements; describes how the list of drivers specified to assess them in order to refine the list of transformation strategic goals of the enterprise.
  - Drawing the transformation roadmap; explains how to identify and plan the transformation stages necessary to acquire the business capabilities used to reach the enterprise goals.
- Concerning the portfolio management
  - Functional Administration: describes initializations of reference data to be set up before starting an application assets inventory campaign.
  - Drawing up an Application Inventory: presents functionalities proposed by **HOPEX IT Portfolio Management** to identify and characterize application assets.
  - Evaluating Application Assets: introduces the portfolio concept available in **HOPEX IT Portfolio Management** and explains how to evaluate applications during the inventory phase. Also describes the project concept on which the transformation phase of the application assets relies.
  - Glossary: summarizes definitions of the main concepts used in **HOPEX IT Portfolio Management**.
  - Importing Technology information from BDNA Technopedia™describes how to use the Technopedia connector.

Additional Resources

This guide is supplemented by:

- the **HOPEX Common Features** guide describes the Web interface and tools specific to **HOPEX** solutions.
  - *It can be useful to consult this guide for a general presentation of the interface.*
- The **HOPEX Business Process Analysis** guide, which describes the functionalities proposed to manage processes;
- The **HOPEX IT Architecture** guide, which describes the functionalities proposed IT systems;
- The **HOPEX IT Portfolio Management** guide, which describes functions proposed to manage all your applications;
- The **HOPEX Digital Transformation Desktop** guide, which describes how to use the Enterprise Architecture **HOPEX** solutions in a dedicated working environment;
- The **HOPEX Assessment** guide, which describes functions proposed by **HOPEX** to use and customize assessment;
- the **HOPEX Power Supervisor** administration guide.

Conventions used in the guide

– *Remark on the preceding points.*

) *Definition of terms used.*

M *A tip that may simplify things.*

. *Compatibility with previous versions.*

P **Things you must not do.**

Very important remark to avoid errors during an operation.

Commands are presented as seen here: **File > Open**.

Names of products and technical modules are presented in bold as seen here: **HOPEX**.

Defining the strategy

INTRODUCTION TO STRATEGIC TRANSFORMATION

HOPEX IT Business Management is based on tools offered by the **HOPEX** platform to support business transformation on the basis of the analysis of business capabilities and the enterprise model.

Business Architecture helps managers define the operating architecture of their enterprise to remain in compliance with its business model and to adapt to changes in the enterprise and in its economic and regulatory environment. **HOPEX IT Business Management** is thus a key tool for enterprise transformation.

The method offered by **HOPEX IT Business Management** is used to take into account the enterprise strategy: from driver analysis to the definition of objectives and action resources. **HOPEX IT Business Management** also constitutes an analysis solution for enterprise business capabilities to ensure the services it plans to provide.

Last but not least, **HOPEX IT Business Management** is combined with other **HOPEX** solutions dedicated to the enterprise architecture used to define organizational, application or infrastructure building blocks.

THE HOPEX IT BUSINESS MANAGEMENT METHOD

The method described in this guide is represented in the steps below.

Value Streams and Business Capabilities description: this step consists in drawing up the elements that provide value to the enterprise (using value streams) and how the enterprise can deliver those elements (using business capabilities). For a business capability, you can identify the associated functionalities and the components that implement them.

* *For more details on this step, see Describing the enterprise capabilty for creating value.*

Identifying Strategic Transformation Elements: this step consists in defining the enterprise transformation goals and identifying the associated means (Strategies and tactics) to be implemented. The means are specified in the entreprise transformation stages. Each transformation stage points out *Exhibited Business Capabiliies*.

& *An exhibited business capability is measurable objectively within the framework of an enterprise stage, on a defined geopolitical scope (site), and focused on a given market segment (business partner).*

For an exhibited business capability, you can identify the KPI dimensions of interest for the capability which are used to assess business value and performance (e.g.: for a delivery capability, we are interested in the "delivery time" expressed in minutes). The components that implement the exhibited capability are thus identified and are concerned by the transformation.

* *For more details on business capabilities, see Defining the transformation strategy.*

Defining the enterprise architectures: this work, performed during the transformation stages, can be done using **HOPEX IT Business Management** with other Enterprise Architecture solutions. This consists of identifying and describing the solution building blocks that contribute to the exhibited business capabilities implementation. The additional solutions of the **HOPEX** platform are used to describe in more detail your models (organizational, application and technological solution building blocks).

* *For more details on solution architectures, see Describing the Enterprise Architecture.*

Consulting the transformation roadmap: reports are provided to help you to analyze and reviewing the transformation stages of your enterprise.

* *For more details on the road map, see Consulting the transformation roadmap.*

Describing the enterprise capabilty for creating value

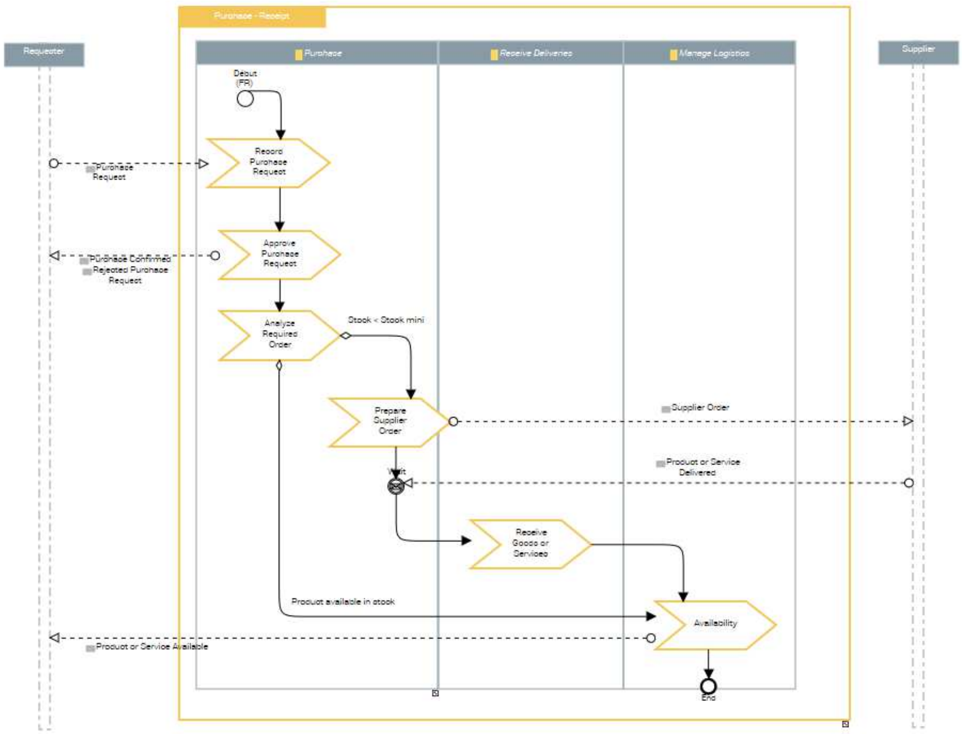
Describing value streams

A *value stream* is represented by a sequencing of *value creation steps* managed by the business functions of the architecture.

& *A value stream is an end-to-end collection of Value Stages that creates an outcome for a customer, who may be the ultimate customer or an internal end-user of the value stream.*

& *A value stage is a distinct, identifiable phase or step within a value stream that has a unique entrance criteria, exit criteria, and identifiable participating business function or business functional area.*

The following diagram presents an example of a value stream:



* *For more details on value streams, see Describing value streams.*

Describing the Architecture of Business Capabilities

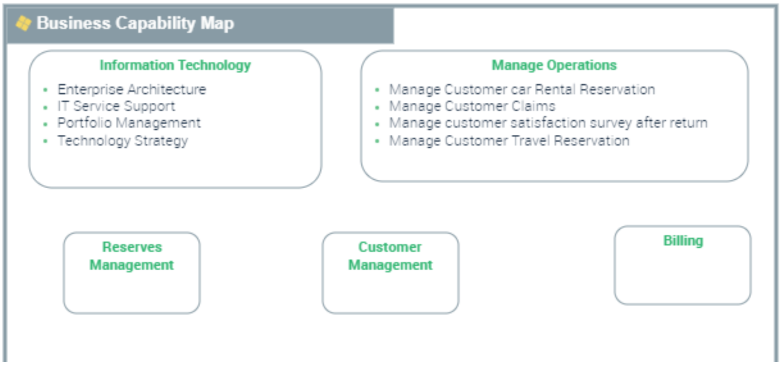
Building the business capability map

A business capability map describes what the enterprise is capable of producing for its internal needs or for meeting the needs of its clients.

& *A business capability map is a set of business capabilities with their dependencies that, together, define a framework for an enterprise stage.*

& *.A business capability is a set of features that can be made available by a system (an enterprise or an automated system).*

The business capability map thus presents the business capabilities of the highest level for one of the transformation stages.



* *For more details on business capability map diagrams, see Creating a business capability map diagram.*

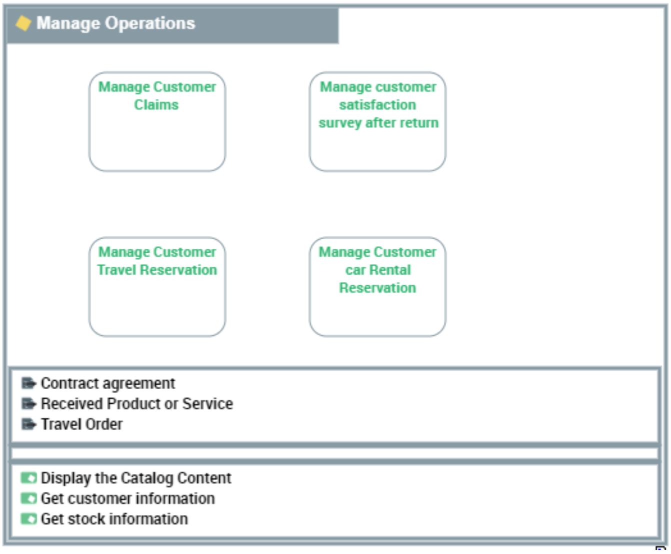
Describing the business capability breakdown

Business capabilities are then described more precisely to identify:

- a more detailed granularity capability breakdown;
- the expected effects of the capability;
- the business skills or functionalities required for each of them;
- the dependencies between capabilities (expected effect of one dependent from the result of the other).

```
For example, the business capability that consists of
managing operations is broken down into a number of business
```

capabilities: “Handle customer complaints”, “Manage reservations”.



Defining the business skills and functionalities associated with business capabilities

To be able to then check that each business capability is correctly implemented by suitable solution building block, you must define the required business skills and functionalities.

& *A functionality is a service required by an org-unit in order to perform its work. This functionality is generally necessary within an activity in order to execute a specific operation. If it is a software functionality, it can be provided by an application.*

* *For more details on skills and the business capability functionalities, see Defining the business skills and functionalities associated with business capabilities.*

Describing business capability implementation by the business functions

This involves connecting the *business capability*, which corresponds to what we know how to do or what we want to do and which represents the *goal* to be achieved, to a way of achieving what is represented by a *business function* or a *business functional area* at a conceptual level, that is, upstream of organizational and technical choices.

& *An application technical architecture describes one of the configurations possible for application deployment. It describes how the different technical areas of the application are connected to each other and the technologies and the communication protocols that they use. An application can have a number of possible technical architectures (E.g.: autonomous installation, horizontal or vertical deployment, etc.)*

This business functional area will itself carry the value processes whose steps will require its business function components.

Construction of the *business capability map* on the one hand and the *business architecture environment* on the other hand is used to check that the business capabilities are implemented by the business functions.

* *For more details on the businesses associated with business capabilities, see Creating Fulfillment of a Business capability.*

HOPEX IT Business Management provides a report that presents the result of the implementation of business capabilities by business functions.

* *For more details on the breakdown of business capabilities, see Creating Fulfillment of a Business capability.*

Defining the transformation strategy

After having described the current state and analyzing the suitability between the business capabilities of the enterprise and value architecture elements, this step consists in drawing up the list of needs for change (or driver) identified at the various levels by the stakeholders (or interested parties), and assessing them in order to establish the list of *enterprise goals*.

& *A goal tends to be longer term, and defined qualitatively rather than quantitatively. It should be narrow-focused enough that goals can be defined for it.*

Defining the enterprise and its evolution in time

An *enterprise* is described by the following elements:

- a business capability map,
- value streams,
- goals and strategies of the transformation,
- *Transformation stages* which define the concrete implementation of the transformation.

& *A transformation stage is a past, current or future stage of an enterprise.*

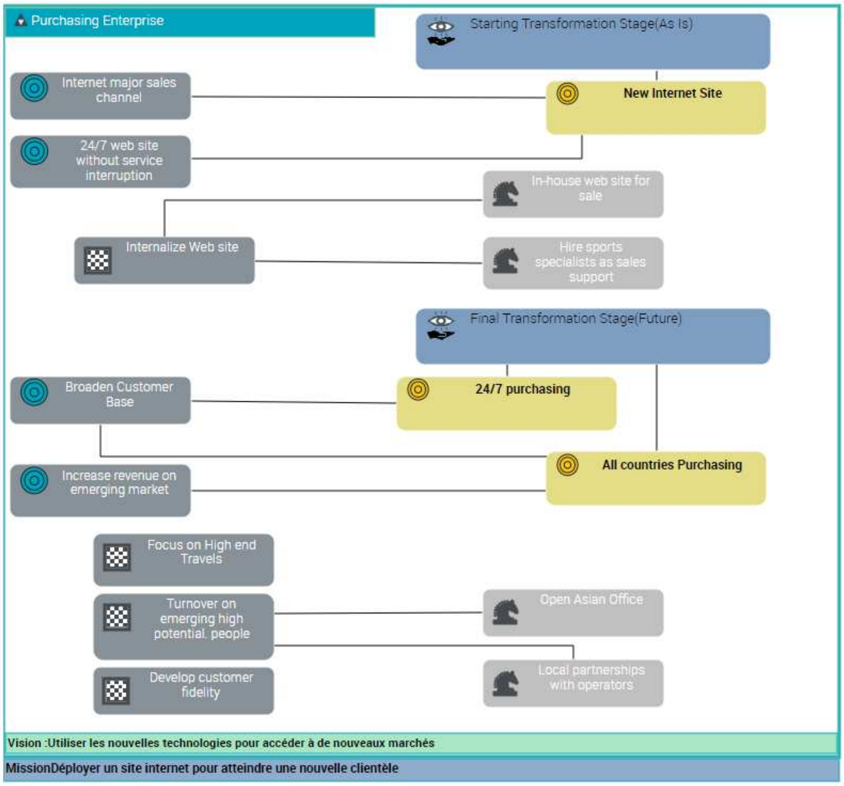
* *For more details, see Creating an enterprise.*

Identifying transformation strategic elements

This step consists of identifying the strategic elements that meets the transformation drivers.

* *For more details, see Defining enterprise strategic elements.*

An enterprise diagram is used to describe the links between the strategic elements (Goals, strategies, tactics and transformation stages).



* *For more information on this diagram, see Building an Enterprise Diagram.*

Assessing business capabilities and their implementation

& *.A business capability is a set of features that can be made available by a system (an enterprise or an automated system).*

From an enterprise stage, it is possible to assess the business capabilities of the business capability map connected to the enterprise.

Assessment - Capabilities Assessment

Current Assessment Status: Validated

+ New Assessment

Local name	Assessment Context	Business Value	Capability Effectiveness	Capability Efficiency	Financial Impact
Customer Management (Business Capability)	Customer Management,C...	1 - Significa...	2 - Very Effective	4 - Slightly Efficie...	4 - High
Manage Fulfillment (Business Capability)	Manage Fulfillment,Core ...	1 - Significa...	1 - Extremely Effective	3 - Somewhat Eff...	5 - Very High

* *For more details on assessing capability maps, see Using assessment for business capabilities and their implementation.*

Identifying exhibited business capabilities

& *An exhibited business capability is measurable objectively within the framework of an enterprise stage, on a defined geopolitical scope (site), and focused on a given market segment (business partner).*

From a transformation stage, it is possible to create exhibited business capabilities that can connect the transformation strategic elements to the technical or organizational elements that assure their implementation.

* *For more details on exhibited business capabilities creation, see Managing exhibited business capabilities.*

The exhibited business capabilities are assessed with respect to different criteria or dimensions (KPI dimension).

```
For example, the competitiveness of a delivery capability
is measured according to a 'delivery time at  target cost'.
```

These dimensions give rise, for a given transformation stage, to key performance indicators or KPIs.

```
For example, a delivery capability can have a target of
'delivery time in less than 48 hours for a cost price less
than 10% of the sales price' within the framework of a given
transformation stage.
```

& *A composite KPI defines the grouping of elementary KPIs that should be examined together in order to appreciate the performance of an item with KPI. E.g.: a delivery must take place in less than 20 minutes and cost less than 5 euros.*

* *For more details on KPIs, see Using KPIs.*

Describing the Enterprise Architecture

Business capabilities are implemented by components of the enterprise architecture. Technical and functional architectures may be described using different formalisms:

- by a business function architecture environment, which contains the elements that define the enterprise model (operating model) for the current stage.
  - the definition of the ecosystem of the enterprise (interactions with partners),
  - the business function architectures,
  - the business functions.
- By the solution building block environments that depend on product licenses used, for example, with **HOPEX IT Architecture** : the environment for Logical Application Systems, the environment for Application Systems, the environment for Resource Architectures, etc.

* *For more details, see Describing an enterprise architecture.*

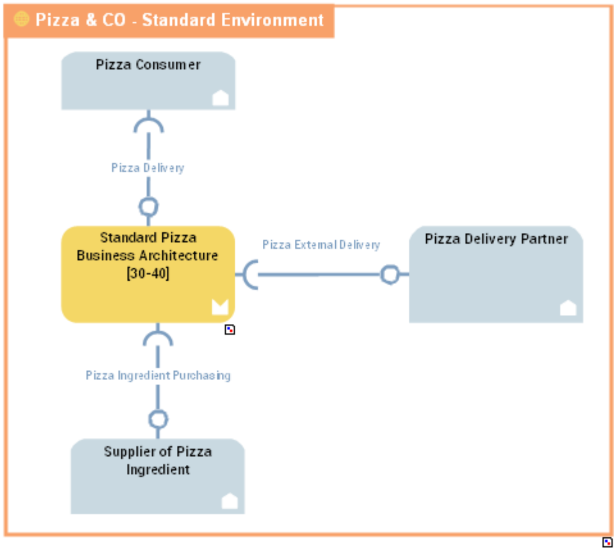
Describing the business architecture environment

& *A business architecture environment represents the relationships of a business functional area with its partners.*

In this example, the business function architecture environment of company is made up of the historical business function architecture and its interactions with external partners: clients and suppliers. You can see in the diagram that delivery is outsourced to a third party deliver partner.

& *An application technical architecture describes one of the configurations possible for application deployment. It describes how the different technical areas of the application are connected to each other and the technologies and the communication protocols that they use. An application can have a number of possible technical architectures (E.g.: autonomous installation, horizontal or vertical deployment, etc.)*

& *A business partner designates a third-party who is in relation with the enterprise within the framework of a given business architecture environment. Examples: private sector client, regulatory organization, supplier.*



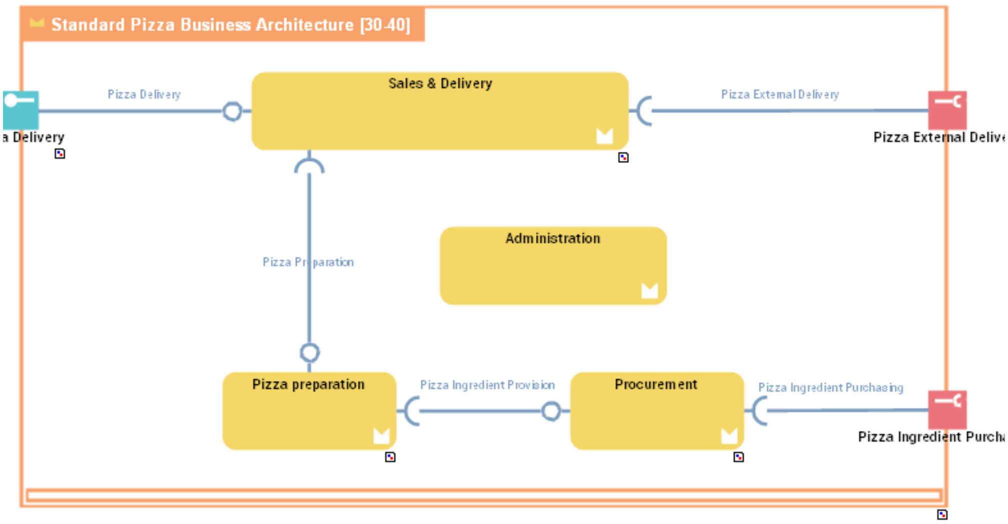
Communications between the objects are represented by interactions.

& *An interaction represents a contract established in a specific context between autonomous entities that are internal or external to an enterprise. These entities can be enterprise org-units, applications, activities or processes, as well as external org-units. The content of this contract is described by an exchange contract.*

Describing a business functional area

& *An application technical architecture describes one of the configurations possible for application deployment. It describes how the different technical areas of the application are connected to each other and the technologies and the communication protocols that they use. An* *application can have a number of possible technical architectures (E.g.: autonomous installation, horizontal or vertical deployment, etc.)*

```
In this example, the history functional area is based on the
business functional areas for selling, delivering and
command.
```



Defining the business skills and functionalities associated with business functions

To be able to subsequently check that each business capability is implemented by a suitable business function, you must define the required business skills and functionalities, for each business function.

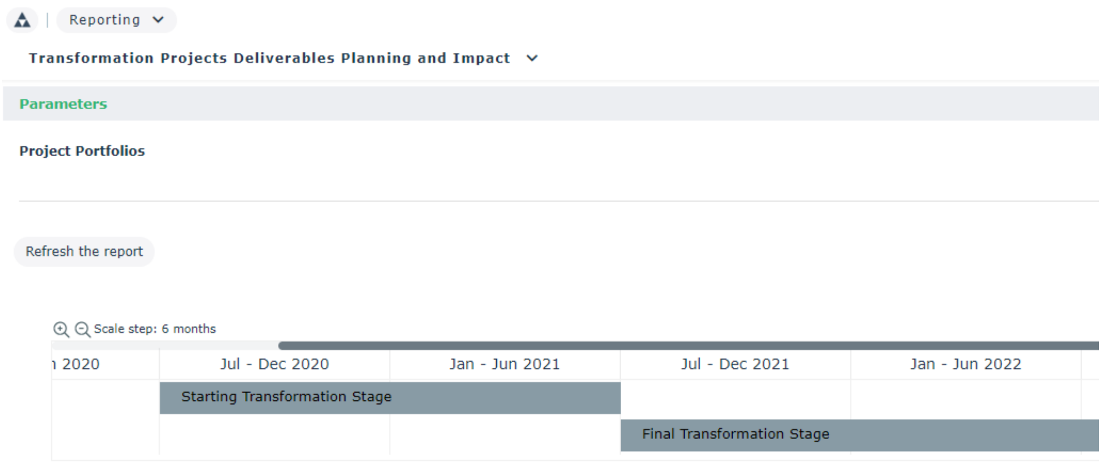
& *A functionality is a service required by an org-unit in order to perform its work. This functionality is generally necessary within an activity in order to execute a specific operation. If it is a software functionality, it can be provided by an application.*

* *For more details on skills and the business capability functionalities, see Defining the business skills and functionalities associated with business capabilities.*

Consulting the transformation roadmap

The transformation roadmap is presented in the form of a report that can be accessed from the Enterprise property page.

* *For more details on transformation plans, see Drawing the transformation roadmap.*



BEFORE STARTING WITH THE STRATEGIC TRANSFORMATION

Defining a work context

* *For more details on managing your work context, see the "Enterprises and Libraries" chapter in the **HOPEX Common Features** guide.*

A *library* and an *enterprise* are used to represent a unique work context.

In the context of the **HOPEX IT Business Management** solution, a *library* can hold all the elements of your project: processes and org-units, for example.

& *Libraries are collections of objects used to split repository content into several independent parts. They allow creation of virtual partitions of the repository. In particular, two objects owned by different libraries can have the same name.*

An *Enterprise* is used to represent a work context.

& *An enterprise is a purposeful undertaking, an effort conducted by one or more organizations, aiming at delivering goods and services, in accordance with the enterprise mission in its changing environment. In the course of its development, the enterprise must adapt to its environment and establish the transformation objectives and goals to be achieved as well as the strategic action plans used to achieve these objectives. The development and achievement of the different adaptation and transformation stages can lead to a modification of the organization's boundaries. This requires the implementation of an integrated team, under the responsibility of a governing body, to involve the stakeholders in the transformation.*

Accessing the list of libraries with HOPEX IT Business Management

To access the list of libraries from the **Environment** navigation pane:

â Selecting **Libraries**.
The library tree appears.

* *For more details on the working environments, see the "Managing an enterprise" chapter from the **HOPEX Common Features** guide.*

Using properties pages

Displaying the properties window on a permanent basis

You can choose to display the property windows in **HOPEX** on a permanent basis so as to view immediately the properties of an object.

To display the properties window on a permanent basis:

1. Click the **Properties** button on the top right-hand side.
   The **Properties** window appears in the Edit Area.
2. Select an object.
   Its properties appear.

HOPEX IT Business Management properties pages content

HOPEX IT Business Management provides properties pages available for several solutions.

* *Using the facilities described in the **HOPEX Power Studio** guide, you can customizing the properties pages of your solution.*

The pages below are common to main **HOPEX IT Business Management** objects.

- the **KPI Dimension** is used to access to:
  - the **Composite KPI Dimension** section which provides the list of composite KPI dimensions associated to the described object.
  - the **KPI Dimension** section which provides the list of KPI dimensions associated to the described object.

  * *For more details, see Using KPIs.*
- The **Implementation** page provides access to the list of Enterprise Architecture solution building blocks that implement the described object.

  * *For more details on implementation of business capabilities, see Describing component fulfillment.*
- the **Collaboration** page provides access to collaborative tools available with **HOPEX**.

  * *For more details on the use of collaborative tools, see "Accessing collaboration in **HOPEX**" chapter in the **HOPEX Common Features** guide .*

Importing an Existing Breakdown of Business capabilities

HOPEX IT Business Management Use Excel data exchange wizards to export import and breakdowns of business capabilities.

* *For more details on Excel data exchange wizards, see the "Exchanging Data with Excel" chapter in the **HOPEX Common Features** guide.*

*

Structure of the import/export Excel template of HOPEX IT Business Management

The Excel template of **HOPEX IT Business Management** allows you to import a breakdown of business capacities and a breakdown of functionalities.

- At the level of business capabilities, the elements are as follows:
  - *Business Capabilities*

    & *.A business capability is a set of features that can be made available by a system (an enterprise or an automated system).*
  - *Business capability maps*

    & *A business capability map is a set of business capabilities with their dependencies that, together, define a framework for an enterprise stage.*
  - *Business capability components*, which define the link between a business capability and the business capability map (or business capability) in which it is referenced.
  - *Business Capability fulfillments*, which define the link between a business capability and the application that implements it.
- At the level of functionalities, the elements are as follows:
  - *Functionalities*

    & *A functionality is a service required by an org-unit in order to perform its work. This functionality is generally necessary within an activity in order to execute a specific operation. If it is a software functionality, it can be provided by an application.*
  - *Functionality maps*

    & *A functionality map is a set of functionalities with their dependencies that, jointly, define the scope of a hardware or software architecture.*
  - *Sub-functionalities*, which define the link between a functionality and the functionality map (or the functionality) in which it is referenced.
  - *Functionality fulfillments*, which define the link between a functionality and the application that implements it.
- *Applications*, which here represent the supports for implementing business capabilities or functionalities.

    & *An application is a software component that can be deployed and provides users with a set of functionalities.*

The information contained in the Excel template delivered with **HOPEX IT Business Management** is presented as follows:

- One page per element type: *Business capability*, *Business capability map*, *Functionality*, *Functionality map*, *Application*, ...
- For each element of *Business capability*, *Business capability map*, *Functionality*, *Functionality map* or *Application* type:
  - **Short Name** : name of the object concerned.
- For each element of *Business capability component* (or *Sub-functionality*) type:
  - **Business Capability Building Block** (or **Owner Functionality Building Block**): name of the composite object (business capability map, for example).
  - **Business Capability Used** (or **Sub-functionality**): Name of the component object.
- For each element of *Business Capability fulfillment* (or *Functionality fulfillment*) type:
  - **Fulfilled Business Capability** (or **Fulfilled Functionality**): name of the implemented business capability (or functionality).
  - **Realizer Agent** (or **Fulfilling Enterprise Articfact**): name of the application that implements the capability or the functionality.
  - **Short Name** : name of the object associated with the implementation.

Importing the breakdown of business capabilities into an enterprise

* *For more information on the structure of the Excel template, see* *Building the import file for HOPEX IT Business Management.*

Several steps must be followed in order for the Excel import of a business capability breakdown to be performed correctly:

1. Checking the Excel Import/Export Options,
2. Specifying the current library,
3. Importing the breakdown of business capabilities into the current library,
4. Importing the breakdown of business capabilities into an enterprise.

* *For more information on the structure of the Excel template to be imported, see* *Building the import file for HOPEX IT Business Management.*

Specifying the current library

A *library* and an *enterprise* are used to represent a unique work context.

& *Libraries are collections of objects used to split repository content into several independent parts. They allow creation of virtual partitions of the repository. In particular, two objects owned by different libraries can have the same name.*

In order for the data you import with Excel to be linked to a specific *library*, you must specify the current library.

* *To link the imported objects to your enterprise, see* *Importing the breakdown of business capabilities into an enterprise.*

To define the current library using the **Environment** navigation pane:

1. Select **Enterprises > Container Tree View**.
   The container tree appears.

2. Expand the **Libraries** tree.
3. Right-click the library that interests you to open its pop-up menu and select **Set As Default**.
   The selected library becomes the current library.

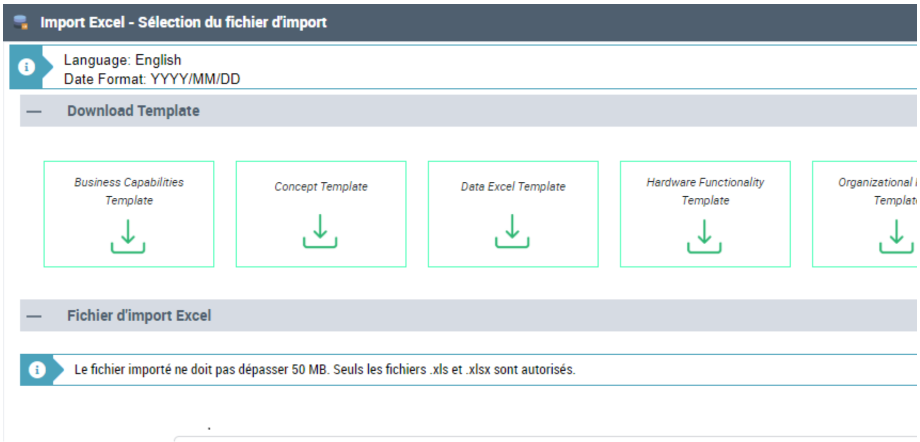
Importing the breakdown of business capabilities into the current library

To import objects using the Excel file of **HOPEX IT Business Management** :

1. Click the Main menu and select **Import > Excel (*.xls, *.xlsx)**.
   The import wizard appears in the edit window.
2. At the right of the **Excel Import File** field, click the **Browse** button.
3. Select the file to be imported.

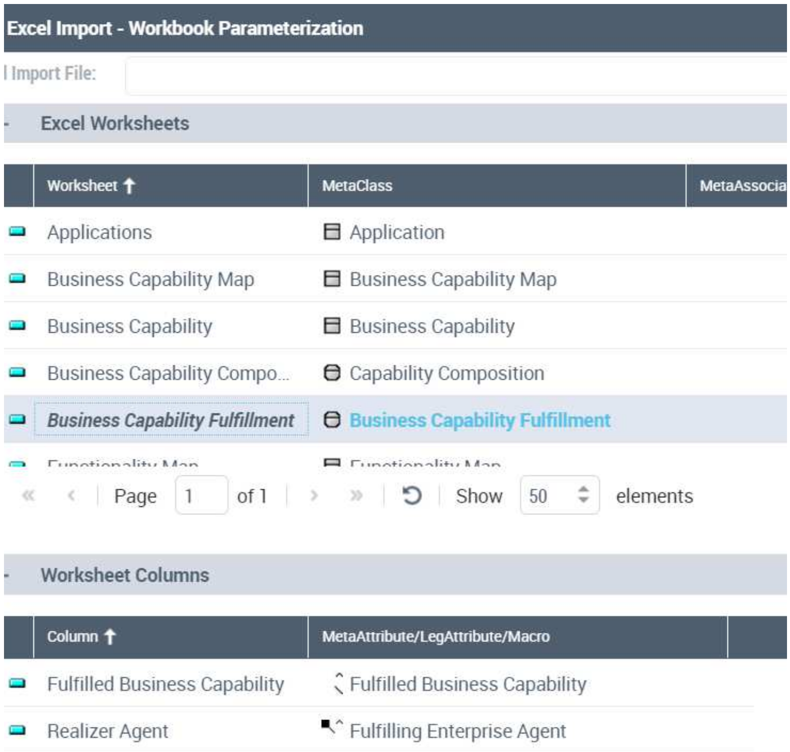
   * *For more information on the creation of the Excel file to be imported, see Building the import file for HOPEX IT Business Management.*

4. Select the **Import in the default library** check box.

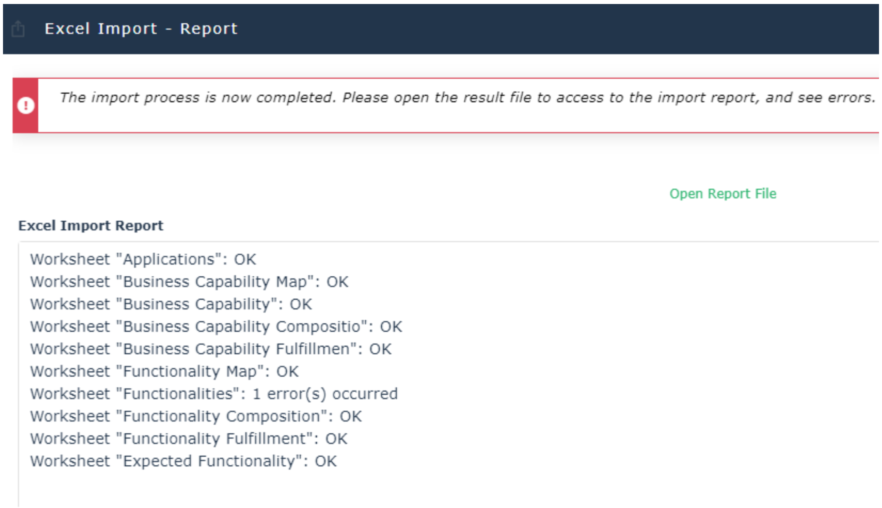


5. Click **Next**.
   The list of sheets in the imported Excel table appears.

   * *If you select a worksheet, the list of imported fields appears in the* ***Worksheet Columns*** *section.*



6. Click **Next**.
   The wizard provides a report of import results.



7. To obtain a detailed report of import errors, click the **Open Report** button.
   The .xls (or .xlsx) file opens indicating in color red the problem data.
8. To have the data imported into the current library, click **OK**.
9. To modify the imported file or the import parameters, click **Previous**.
10. To discard import, click **Cancel**.

Importing the breakdown of business capabilities into an enterprise

To use the objects imported via Excel into your *enterprise* you must import the objects themselves or the library that holds them into your enterprise.

> & *An enterprise is a purposeful undertaking, an effort conducted by one or more organizations, aiming at delivering goods and services, in accordance with the enterprise mission in its changing environment. In the course of its development, the enterprise must adapt to its environment and establish the transformation objectives and goals to be achieved as well as the strategic action plans used to achieve these objectives. The development and achievement of the different adaptation and transformation stages can lead to a modification of the organization's boundaries. This requires the implementation of an integrated team, under the responsibility of a governing body, to involve the stakeholders in the transformation.*

> * *For more details on use of objects in an enterprise, see the chapter "Defining the Scope of a Container" in the* ***HOPEX Common Features*** *guide.*

For example, to import library into an enterprise with **HOPEX Business Architecture & Strategic Planning**:

1. Open the **Import** property page of your enterprise.

2. In the **Container Import** section, click the **Connect** button.
   A connection dialog box opens.
3. Select the library that you want to import and click **Connect**.
   The library appears in the section and the objects it holds are also held by the enterprise.

To check the import of business capacities, you can access the breakdown report for business capacities.

Building the import file for HOPEX IT Business Management

For more information on the structure of the Excel template, see Structure of the import/export Excel template of HOPEX IT Business Management.

If you want to export business capability maps or functionality maps that exist in another repository than your current one, for example, you can use the Excel template of **HOPEX Business Architecture & Strategic Planning**.

For more details on exporting data, see Exporting business capabilities.

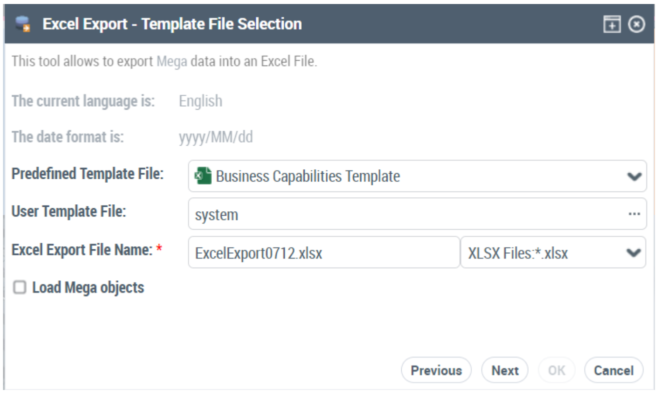
When the Excel file is filled with the names of the objects you want to import, you must complete the necessary information for import into **HOPEX Business Architecture & Strategic Planning**.

For more details on additional information, see Completing the import file for HOPEX IT Business Management.

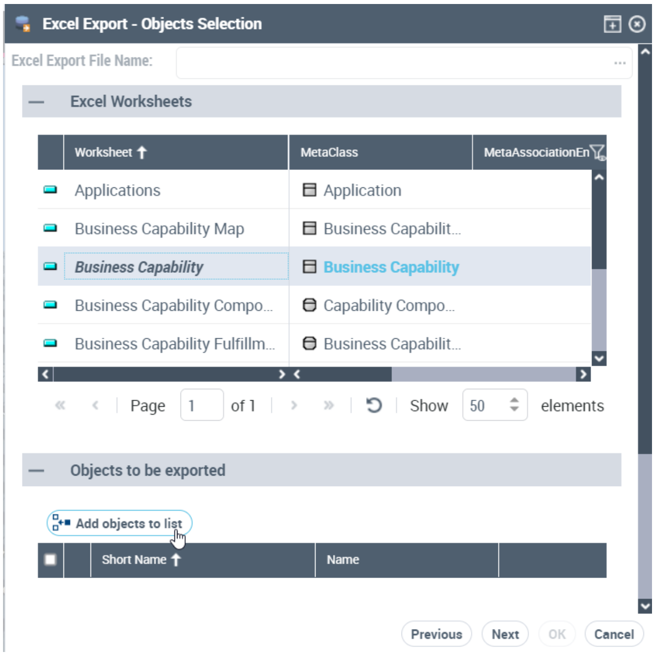
Exporting business capabilities

To access the settings of the data export wizard from **HOPEX Business Architecture & Strategic Planning** to an Excel file:

1. Check that your export options are correct. See Checking the Excel Import/Export Options.
2. Click the Main menu and select **Export > Excel (*.xls, *.xlsx)**.
   The export wizard appears in the edit window.
3. Select **From a template**.
4. Click **Next**.
5. In the filed **Predefined Template File** select **Business Capabilities Template**.



6. Click **Next**.
   An export window appears to select the objects to be exported according to their type.
7. In the **Excel Worksheets** section, select the type of object you want to export and, in the **Objects to be exported** section, click **Add objects to list**.



8. From the query window, select the objects you wish to export.
9. When you have selected all the objects you want to export, click **Next**.
10. Click **Open the Export file** to view the export file.
    The file opens in an xlsx table. You can save it if you wish.
11. To modify export parameters, click **Previous**.
12. To discard export, click **Cancel**.
13. Click **OK** to finish.
    The generated xlsx file is in the format expected for later import.

Completing the import file for HOPEX IT Business Management

For your import file to be correct, you must have specified the following elements:

- For each element of *Business capability*, *Business capability map*, *Functionality*, *Functionality map* or *Application* type, you must enter the name of each object:
- For each breakdown (**Business Capability Composition** or **Functionality Composition** Excel sheet), you must indicate:
  - the name of the composite object in the **Business Capability Building Block** (or **Owner Functionality Building Block**) column.

    `Name of a business capability map for example.`
  - the name of the composing object in the **Business Capability Used** (or **Sub-functionality**) column.

    `Name of a business capability for example.`
- To specify that an application implements a business capability, for example, you must indicate in the **Business Capability Fulfillment** sheet:
  - the name of the business capability implemented in the **Fulfilled Business Capability** column.
  - the name of the application concerned in the **Realizer Agent** column.
  - the name you want to give to the object that represents the implementation in the **Short Name** column.
- To specify that a functionality is associated with a business capability, you must indicate in the **Expected Functionality** Excel sheet:
  - the name of the business capability in the **Business Capability** column,
  - the name of the functionality concerned in the **Functionality** column.

M **The first two lines of each Excel worksheet are reserved for file configuration; ensure that the first two lines of the imported file remain identical to those obtained after an export.**

BUSINESS CAPABILITY MAPS AND VALUE STREAMS

To manage your business transformation initiatives, **HOPEX IT Business Management** offers a methodological framework established from international standards (BIZBOK and other architectural frameworks of NAF/DoDAF and TOGAF type), as well as our experience in this area.

The first step of this method consists in analyzing the value streams of your enterprise and connecting them to business capabilities you have identified. Then you can check the suitability of your business capabilities with your business functions and your skills. This work leads to a better understanding of the current state of your organization ('As-Is').

The following points are covered in this chapter:

DESCRIBING VALUE STREAMS

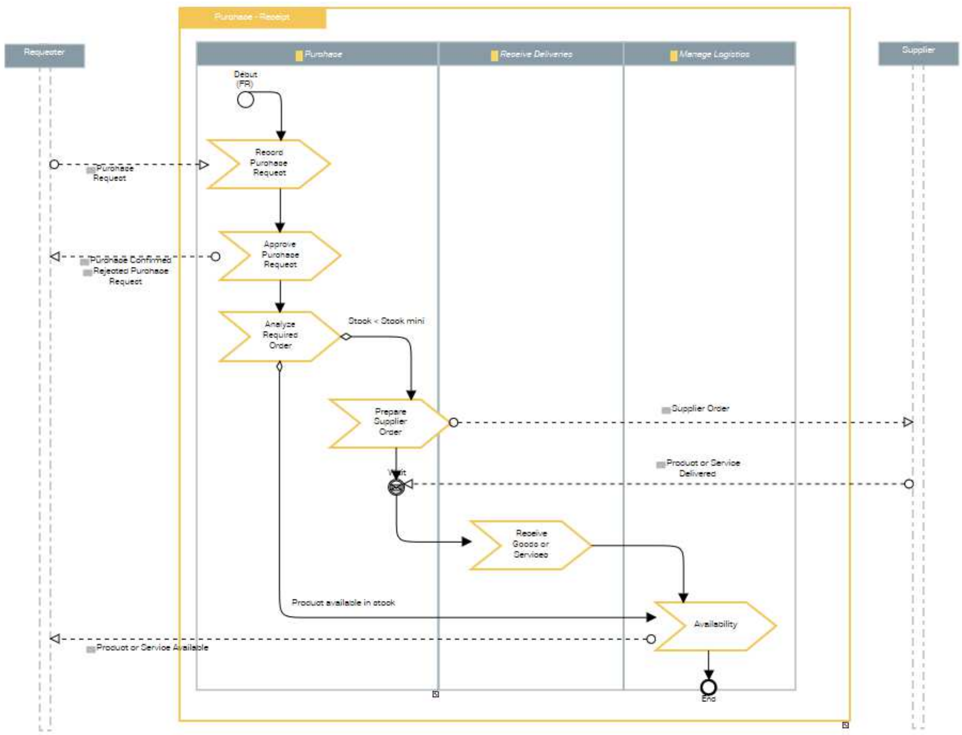
& *A value stream is an end-to-end collection of Value Stages that creates an outcome for a customer, who may be the ultimate customer or an internal end-user of the value stream.*

* *To display the **Value streams**, open the **Options** window and check that **Business Process and Architecture Modeling > Value Stream Modeling** is activated.*

Value Stream Example

In this value stream diagram, the *Business Function* or the *Business Functional Area* that create the value streams are linked to the participants represented in columns.

The following diagram presents an example of a value stream:



"Purchase reception" value stream

```
The purchase request is recorded and must then be approved.
The requester is informed of the approval or rejection of
```

```
the request. If the request is validated, an analysis of the
required order is carried out.
```

```
If stock is lower than a given threshold, an order is
prepared and sent to the supplier for resupply.
```

```
If the product is available, or as soon as it is received
from the supplier, it is made available to the requester.
```

In this example, the *business functions* concerned are represented in columns.

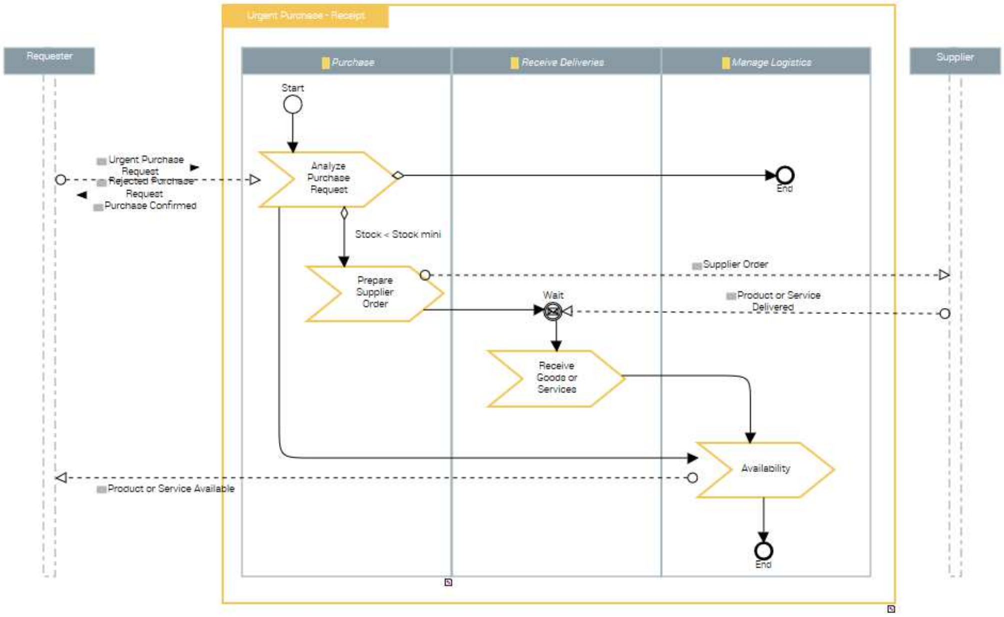
> & *A business function is a conceptual unit of the division of responsibilities in an enterprise. It is used to structure the management of information processing, energy, and equipment produced or used. Business functions define the skills and the functionalities necessary to the enterprise to fulfill its mission.*

In the organization previously presented, three org-units: purchasing assistant, purchasing manager and buyer, systematically participate to execute the first four steps: record and approve the request, analyze and send the order.

Optimization of the organized process "Process Purchase Requests" has saved one step: when amount of the order is not significant, the purchasing assistant can himself approve or refuse the purchase request.

In the case of urgent orders, you can again save steps by authorizing the purchasing assistant to send the order when the amount is not significant.

We obtain the following value stream for processing of urgent orders:



"Purchase reception" value stream

The first step consists of analyzing the purchase request. If the total amount is large, normal processing is carried out.

Otherwise, the availability request and a restock request are sent, if necessary. Continuation of this value stream is identical to the previous one: when the order has been received, it is made available to the requester.

Value Stream representation principles

Highlighting organizational choices

Each enterprise has activities related to its business that must be performed whatever the organization in place. These activities can be purchasing, sales, sales administration, manufacturing, etc.

Defining their organization consists of assigning these activities to the org-units that will perform them.

We can distinguish between:

- Processes relating to the business of the enterprise: these are difficult to change unless the enterprise decides to totally review its business.
- Processing depending on organizational choices.

Number of steps

Certain steps in an organizational process are exclusively linked to the chosen organization. In such cases, it is useful to check whether these steps provide any real added value to clients or only concern the way things are done.

Delivery times can also be reduced by restructuring the order of these steps.

To highlight possible improvements, you can represent a value streams by flows exchanged between enterprise *value stage*.

& *A value stage is a distinct, identifiable phase or step within a value stream that has a unique entrance criteria, exit criteria, and identifiable participating business function or business functional area.*

Using Value Streams

& *A value stream is an end-to-end collection of Value Stages that creates an outcome for a customer, who may be the ultimate customer or an internal end-user of the value stream.*

Accessing Value Streams

To access the list of *Value Streams* from the **Strategy** navigation pane:

â Select **Value Stream** menu.
The list of value streams appears.

Creating a value stream

To create a *Value stream* from the **Strategy** navigation pane:

1. Select **Value Stream** menu.
2. Click **New**.
   The value chain is created and added to the list of value chains.
3. Specify the name of the new *Value Stream*,

Creating a value stream diagram

To create a value stream diagram

1. Select the value stream that interests you and click **Create Diagram**.
   A window opens and prompts you to choose the Diagram Type that you wish to use:
2. Select the diagram type you want to create.

- a value stream diagram, see The value stream diagram;
- a value stream to capability diagram, see The value stream to capability diagram;

The value stream diagram

& *The value stream diagram shows the sequence of the value creation steps performed, the events that occur and the conditions under which they are sequenced. It also makes it possible to assign the participants who carry out these value-creation steps to the business skills needed to implement them. This representation of a Value Stream helps to answer the following question: "What are the skills needed to implement the Value Stream?".*

This type of diagram makes it possible to describe precisely a value stream.

If the value stream is already connected to components, it is possible to initialize a new diagram by inserting the existing components.

* *For more information on a Value Stream diagram initialization with **HOPEX Business Process Analysis**, see Organizational Process Diagram initialization.*

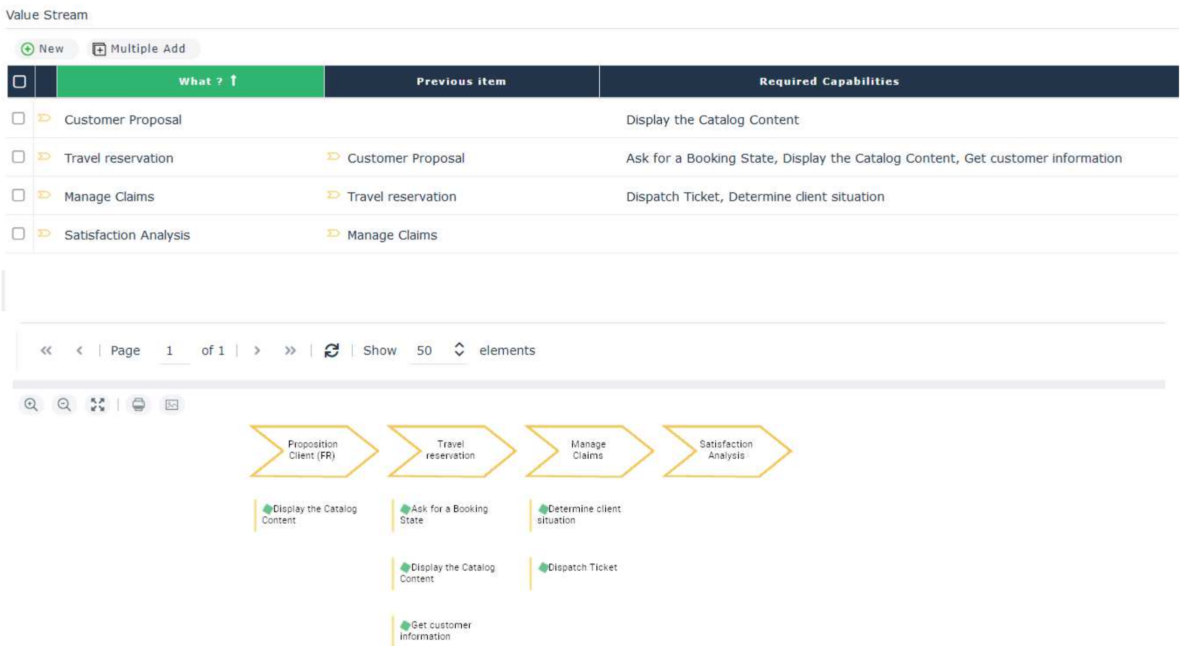
The value stream to capability diagram

The value stream to capability diagram can only be used in tabular input mode.

*

* *Tabular input is available with this diagram. For more information on using tabular input, see the "Entering a diagram in tabular mode" in the **HOPEX Common Features** guide.*

This diagram makes it easy to initiate a value stream diagram by creating the value stream steps and the links they have with the different business capabilities.



Representing the value stream implementation

You can represent the fulfillment of a value stream by an organizational process from the organizational process concerned

To access the list of *Organizational processes* from the **Environment** navigation pane:

1. Open the **Characteristics** property page of the organizational process.
2. In the **Fulfillements** section, click the **New** button.
3. In the Add dialog box, select **Value Stream Fulfillments** and select the concerned value stream.

Describing a Business Capability Map

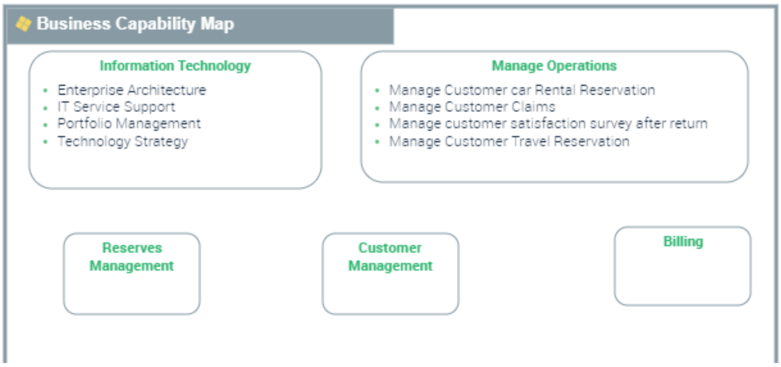
A business capability defines an expected skill.

& *.A business capability is a set of features that can be made available by a system (an enterprise or an automated system).*

```
For example, to respond to a customer satisfaction
objective, the organization must be able to provide
services conforming to contractual commitments.
```

A capability map describes what the enterprise is capable of producing for its internal needs or for meeting the needs of its clients. It is thus based on the main business capabilities of its activity at a given moment.

& *A business capability map is a set of business capabilities with their dependencies that, together, define a framework for an enterprise stage.*



Building the Business Capability Map

A business capability map is used to represent the main business capabilities that interact with an enterprise.

Creating a business capability map

To create a *business capability map*:

1. From **Strategy** navigation pane, select **business capabilities** .
2. Click on **All Business Capability Map** folder.
   The list of business capability maps appears in the edit area.
3. Click **New**.
   A creation dialog box opens.
4. Specify the **Name** and click **OK**.
   The new business capability map appears in the list.

The properties of a business capability map

The **Characteristics** property page of the business capability map provides access to:

- its **Owner**, by default on creation of the business capability map, the current enterprise.
- its **Name**,
- the text of its **Description**.

With **HOPEX IT Business Management** , a business capability map is described by the following pages:

- the **Structure** page is used to specify on the one hand the list of business capability components that constitute the business capability map described, and on the other hand, the dependencies between these components,

  * *For more details on business capacity structure, see Using the capability compositions and Defining business capability dependencies.*

- the **Business Capability Map Breakdown** page, used to access the dedicated report, see Breakdown map of business capabilities.

Creating a business capability map diagram

To create a business capability map diagram:

â Right-click the business capability map that interests you and select **New > Business Capability Map Diagram**.
The diagram opens in the edit area. The frame of the business capability map described appears in the diagram.

You can construct this diagram in tabular input mode.

*

* *Tabular input is available with the **HOPEX Web Front-End** module. For more information on using tabular input, see the "Entering a diagram in tabular mode" in the **HOPEX Common Features** guide.*

Using the capability compositions

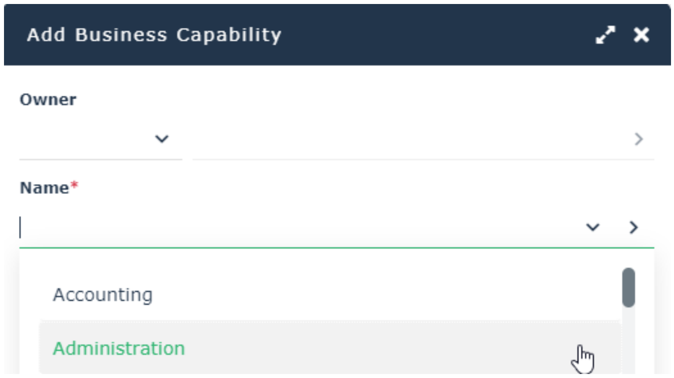
The components represented in a business capability map diagram are **Capability Compositions**. Each capability composition is associated with a business capability.

& *A **Business capability component** is the involvement of a business capability in the context of a business capability map (one and only one) linked to an enterprise.*

To add a business capability composition to a business capability map diagram:

1. In the diagram insert toolbar, click **Capability Composition**.
2. Click in the frame of the business capability map.
The creation window for a capability composition opens.

3. Click on the arrow associated with the **Name** field and select the business capability that interests you.



4. Click **OK**.
   The capability composition appears in the diagram.

   > * *If the business capability is associated with functionalities, they also appear. For more details on the capabilities and functionalities associated with business capabilities, see Defining the business skills and functionalities associated with business capabilities.*

Defining business capability dependencies

A dependency link between one capability composition and another is used to specify the elements on which this dependency is based.

```
For example, “Billing” uses “Order Management”. Note that
the expected result (business effect) of "Billing" is an
"Invoice" and the expected result (business effect) of
"Order Management" is a "Order to be delivered".
```

Dependent Business Effect and **Desired Business Effect** are the business capability results.

> * *For more details on the results of business capabilities, see Describing the outcomes.*

> * *A single capability composition can have more than one dependency within a single diagram.*

To create dependency links between two capability compositions:

1. In the insert toolbar, click **Business Capability Dependency**.
2. Click the user component, and keeping the left mouse button pressed, move the cursor to the assembly used.
3. Release the mouse button.
   The capability composition appears in the diagram.

To enter the results concerned by a dependency between two business capability components:

1. Open the **Characteristics** properties dialog box.
2. Enter the user component result in the **Dependent Business Effect** field.

```
For example, “Invoice”.
```

3. Enter the user assembly result in the **Desired Business Effect** field.

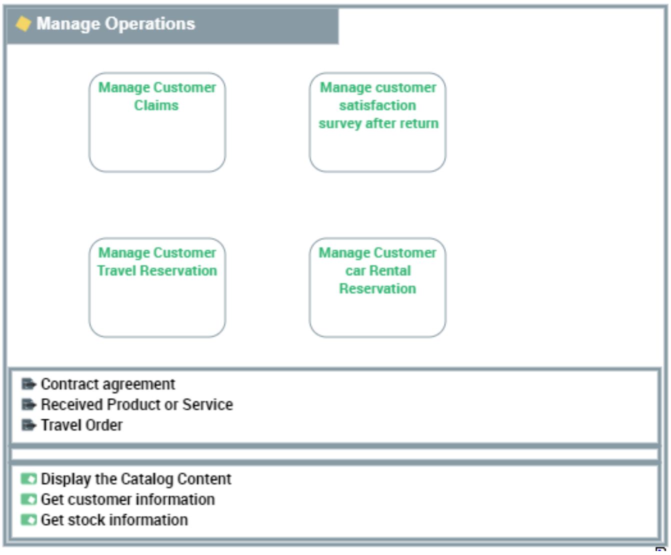
   `For example, "Order to be delivered".`

Describing a business capability

A business capability can be based on business sub-capabilities. The capabilities expected by the business capabilities described are the capabilities associated with each business sub-capability.

`For example, the business capability that consists of managing operations is broken down into a number of business capabilities such as: "Handle customer complaints", "Manage travel reservations".`

With **HOPEX IT Business Management** , the capability structure diagram describes the composition of a business capability.



* *For more details on the breakdown map of business capabilities, see Breakdown map of business capabilities.*

Creating a business capability

You can create a new business capability in several ways:

- From the business capability map diagram,
- From the properties page of a business capability map,
- From the navigation pane.

To create a *business capability* from the **Strategy** navigation pane:

1. Select **Business Capability > All Business Capabilities**.
   The list of business capabilities appears in the edit area.

2. Click **New**.
The new business capability appears in the list.

The properties of a business capability

The **Characteristics** property page of the business capability map provides access to:

- its **Owner**, by default on creation of the business capability, the current enterprise.
- its **Name**,
- the text of its **Description**.
- the **Desired Capability Effect** is an **Outcome**.

```
For example, the desired capability effect of "Manage
operations" is a "Contract acceptance"
```

* *For more details on results, see Describing the outcomes.*

* *For more details on the use of results, see Defining business capability dependencies.*

With **HOPEX IT Business Management** a business capability is described by the following pages:

- the **Structure** page specifies a part of the list of components that constitute the business capability described, as well as the dependencies between these components,

  * *For more details on the structures of a business capability, see Defining the structure of a business capability.*
- the **Expected Capabilities** property page is used to specify a list of business skills and functionalities that are expected from the business capability.

  * *For more details on the skills and functionalities associated with a business capability, see Defining the business skills and functionalities associated with business capabilities.*
- the **Transformation** page provides access to the transformation stages for which the described capability becomes an exhibited capability.

  & *An exhibited business capability is measurable objectively within the framework of an enterprise stage, on a defined geopolitical scope (site), and focused on a given market segment (business partner).*

  * *For more details on transformation stages, see Defining transformation stages.*

Creating a capability structure diagram

To create a capability structure diagram:

â Right-click the business capability that interests you and click **New > Capability Structure Diagram**.
The diagram opens in the edit area. The frame of the business capability described appears in the diagram.
You can construct this diagram in tabular input mode.

*

* *Tabular input is available with the **HOPEX Web Front-End** module. For more information on using tabular input, see the "Entering a diagram in tabular mode" in the **HOPEX Common Features** guide.*

Defining the structure of a business capability

The components represented in a business capability structure diagram are **Capability Composition**. Each capability composition is associated with a business capability.

> & *A **Business capability component** is the involvement of a business capability in the context of a business capability map (one and only one) linked to an enterprise.*

> * *For more details on how to use business components in a diagram, see Using the capability compositions.*

A dependency link between one capability composition and another is used to specify the elements on which this dependency is based, that is, the effect of one required by the effect of the other.

> * *For more details on creating dependency links between two capability compositions, see Defining business capability dependencies:*

The capability compositions and their dependencies appear in the **Structure** property page of the business capability described.

Defining the business skills and functionalities associated with business capabilities

> & *A functionality is a service required by an org-unit in order to perform its work. This functionality is generally necessary within an activity in order to execute a specific operation. If it is a software functionality, it can be provided by an application.*

> & *A value stream is an end-to-end collection of Value Stages that creates an outcome for a customer, who may be the ultimate customer or an internal end-user of the value stream.*

Each business capability is associated with functionalities that it is able to provide and that it needs to ensure its functionalities.

To associate a *skill* with a business capability:

1. Open the **Expected Capabilities** properties window of the business capability.
2. In the **Expected Business Skill** section, click **New**.
   An **Expected Business Skill** creation dialog box opens.
3. Click, for the **Connect a Business Skill** check box.
4. Specify the name of the skill.
5. Click **OK**.
   The business skill appears in the list of skills associated with the business capability.

> * *For more information on enterprise skills, see Describing business functions.*

To associate a *functionality* with a business capability:

1. Open the property pages of the business capability concerned and select the **Expected Capabilities** page.
2. In the **Expected Functionality** section, click **New**.
   An **Add functionality** window appears:
3. Click the down arrow.
4. Select a functionality.

5. Click **OK**.
The functionality appears in the list of functionalities associated with the business capability.

For more information on enterprise functionalities, see Describing functionalities.

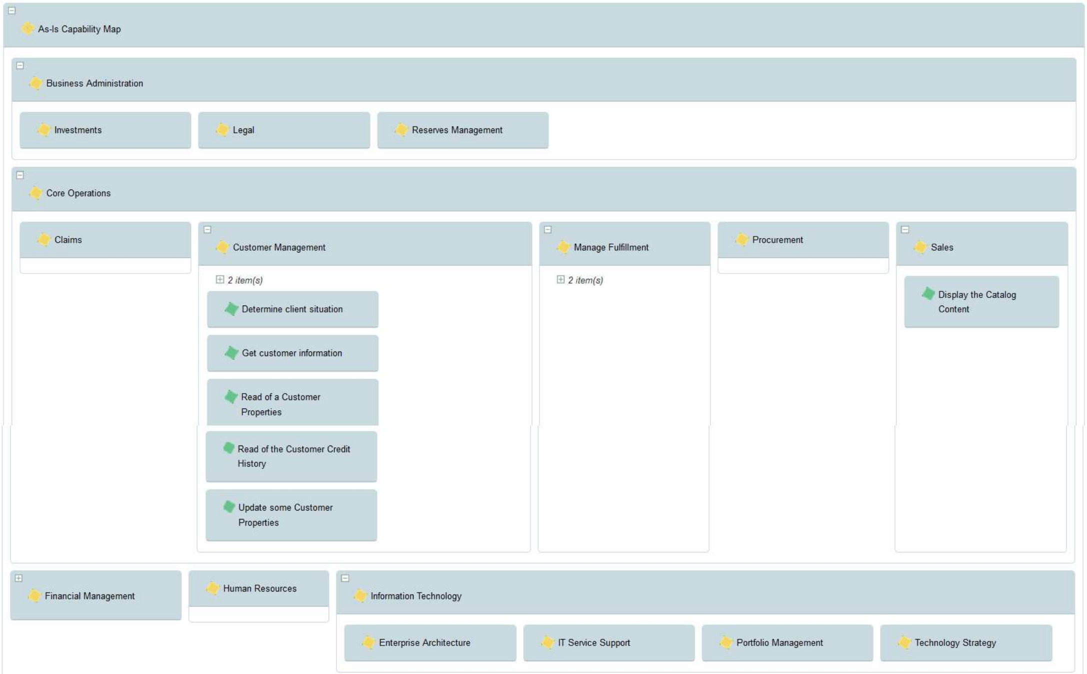
The business skills, functionalities and the expected effects appear in the diagrams, at the bottom of the frame of the capability described.

A report is available to check the suitability between the business capability map and the operational environment, for more details, see Describing component fulfillment.

Breakdown map of business capabilities

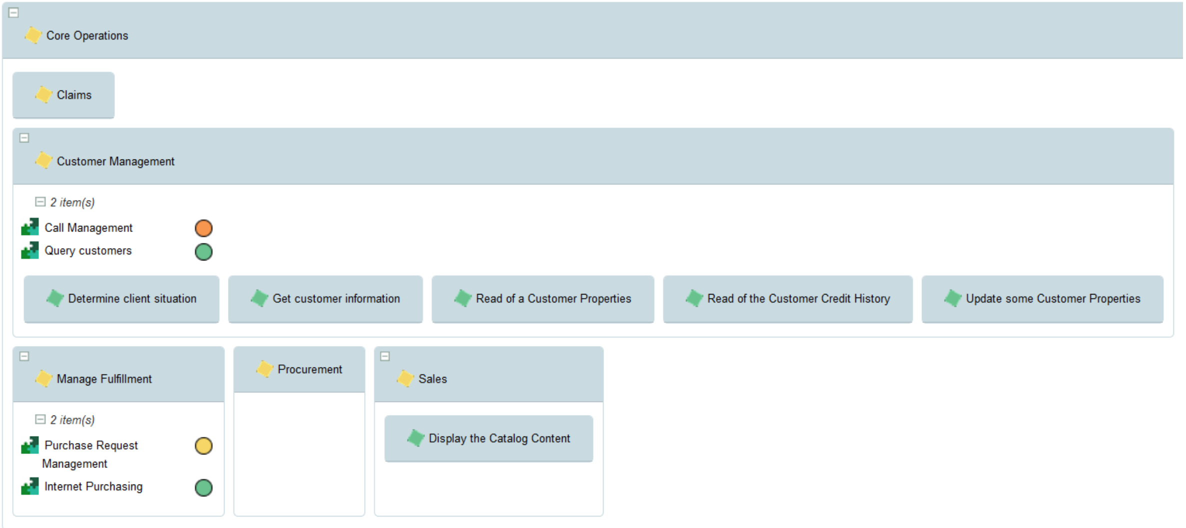
You can use this report to display the realization coverage of business capability elements by operational elements such as logical and physical applications, application systems, etc.

Report examples



The example below shows how the functionalities associated with capabilities are implemented by application components.

* *For more details on how to associate a business capability with a functionality, see Creating Fulfillment of a Business capability.*



Report parameters

This consists of defining report input data.

Parameters	Parameter type	Constraints
Root object	Capability map, Capability	One object mandatory.

DESCRIBING FUNCTIONAL COVERAGE

Describing the Functionality Map

& *A functionality map is a set of functionalities with their dependencies that, jointly, define the scope of a hardware or software architecture.*

Accessing the list of functionality maps

To access the list of functionality maps from the **Environment** navigation pane:

â Click **Functionality > All Functionalities** in the navigation menu.
The list of functionality maps appears in the edit area.

The properties of a functionality map

The **Characteristics** properties page of a functionality map provides access to:

- its **Owner**, by default on creation of the business function, the current enterprise.
- its **Name**,
- the text of its **Description**.
- the **Owned Functionalities** section,

* *For more information on the functionality components, see Creating a functionality component in a functionality map diagram and Defining Functionality dependencies.*

With **HOPEX Business Architecture & Strategic Planning** a Functionality map is described by:

- the **Report** page.

Creating a functionality map

To create a functionality map diagram:

â Right-click the functionality map that interests you and select **New > Functionality Map Diagram**.
The diagram opens in the edit area. The frame of the functionality map described appears in the diagram.

Creating a functionality component in a functionality map diagram

The components represented in a functionality map are **Functionality components**.

& *A functionality is a service required by an org-unit in order to perform its work. This functionality is generally necessary within an activity in order to execute a specific operation. If it is a software functionality, it can be provided by an application.*

To add a functionality component in the functionality map diagram:

1. In the diagram insert toolbar, click **Functionality Component**.
2. Click the functionality map frame.
   The functionality component creation window opens.
3. Click, for example, **Reusing an Existing Functionality**.
4. Click **Display Scope** to access the list of functionalities linked to the enterprise.
5. Select the functionality that interests you.
6. Click **OK**.
   The functionality component appears in the diagram.

Defining Functionality dependencies

A dependency link between one functionality and another is used to specify the elements on which this dependency is based.

To create dependency links between two functionalities in a functionality map diagram:

1. In the insert toolbar, click **Functionality Dependency**.
2. Click the functionality component, and keeping the left mouse button pressed, move the cursor to the functionality component used.
3. Release the mouse button.
   The creation window for the functionality dependency opens.
4. Enter the user component result of the user functionality in the **Dependent Application Effect** field.
5. Enter the content result of the functionality used in the **Necessary Application Effect** field.
6. Click **OK**.
   The link appears in the diagram.

* *A single sub-functionality can have more than one dependency within a single diagram.*

Describing functionalities

& *A functionality is a service required by an org-unit in order to perform its work. This functionality is generally necessary within an activity in order to execute a specific operation. If it is a software functionality, it can be provided by an application.*

To access the list of functionalities from the **Environment** navigation pane:

â Click **Functionalities > All Functionalities** in the navigation menu.
The list of functionalities appears in the edit area.

To create a new functionality:

1. In the **Environment** navigation pane, click **Functionalities > All Functionalities**.
2. Click **New**.
   A **Functionalities** creation dialog box opens.
3. Enter the name.
4. Click **OK**.
   The functionality created appears in the list of functionalities.

The **Characteristics** property page of the functionality provides access to:

- its **Owner**, by default during creation of the functionality, the current enterprise.
- its **Name**,
- the text of its **Description**.
- the **Desired Application Effects**:

  * *For more information on the effects of expected functionalities, see Defining Functionality dependencies.*

With **HOPEX IT Business Management** , a functionality is described in the following pages:

- the **Structure** page is used to specify a list of functionalities owned and the dependencies between them.

  * *For more information on the structure of functionalities, see Creating a Functionality Diagram.*

- the **Implementation** page provides access to the list of architecture elements that implement the functionality.
- In the **Usage** page, the **Capability Component** section provides access to the functionality maps that use the described functionality.

  * *For more details on the relationship between functionalities, see Creating a functionality component in a functionality map diagram.*

- In the **Usage** page, the **Business Capability** section provides access to the business capabilities that require the described functionality.

  * *For more details on the functionalities associated with business capabilities, see Defining the business skills and functionalities associated with business capabilities.*

- In the **Usage** page, the **Business Function** section provides access to the business functions that require the described functionality.

  * *For more details on businesses, see Business properties.*

- In the **Usage** page, the **Capability Exhibition** section provides access to the exposed business capabilities that require the described functionality.

  & *An exhibited business capability is measurable objectively within the framework of an enterprise stage, on a defined geopolitical scope (site), and focused on a given market segment (business partner).*

Creating a Functionality Diagram

To create a functionality diagram:

â Right-click the functionality that interests you and click **New > Functionality diagram**.
The diagram opens in the edit area. The frame of the functionality described appears in the diagram.

To create a functionality in a diagram, see Creating a functionality component in a functionality map diagram.

To define the dependencies of sub-functionalities, see Defining Functionality dependencies

DESCRIBING THE OUTCOMES

The outcomes of a business capability, a functionality, or a skill are represented by a content.

> & *The content designates the content of a message or an event, independent of its structure. This structure is represented by an XML schema linked to the content. A content may be used by several messages, since it is not associated with a sender and a destination. There can be only one content per message or event, but the same content can be used by several messages or events.*

The contents associated with the outcomes are used to describe the content of flows exchanged in the value streams.

The outcomes are used to define the dependencies between:

- The business capabilities in the business capability maps, see Defining business capability dependencies.
- The sub-functionalities in the functionality maps, see Defining Functionality dependencies.

Connecting an outcome to a business capability

An outcome can be used by a business capability or by an exhibited business capability. It appears in the **Desired Capability Effect** section of the **Characteristics** page of the capability property pages.

```
For example, the desired capability effect of "Billing" is
an "Invoice"
```

To connect an existing outcome to a business capability, for example:

1. Open the property pages of the business capability that interests you.
2. Select the **Characteristics** page.
3. In the **Desired Capability Effect** section, click **New**.
   The **Creating a Desired Business Effect** window opens.
4. Select **Reusing an existing content**.
5. Select the content that interests you and click **OK**.
   The content appears in the list of **Desired Capability Effects**.

DESCRIBING COMPONENT FULFILLMENT

To represent the implementation of a component such as a business capability or functionality you must create a **Fulfillment** of the component.

Creating Fulfillment of a Business capability

A business capability can be implemented by different types of object such as a Business Function, Business Functional Area, a Process or an Application.

To associate an organizational or a business process with a business capability, you must create a business capability fulfillment

> & *A business capability implementation is the physical agent (e.g. an Application System) or the logical agent (e.g. a Business Function) that implements the capability.*

To specify that an existing business capability is fulfilled by an organizational process:

1. Open the **Fulfillments** property page of the business capability that interests you.
2. Click **New**.
   The Implementation creation dialog box opens.
3. Select **Reusing an existing Organizational Process, Application...**.
4. Select **Organizational Process**.
5. Select the desired Organizational process and click **OK**.
   The business capability realization appears in the list with the name and the type of the selected object.

Reports are used to display the realization capabilities by operational elements such as business functions, and according to different perspectives: Organizational, Business/Data, Logical/Physical Application, etc.

> * *For more details on fulfillment reports for enterprise capabilities, see* *Breakdown map of business capabilities.*

Identifying Strategic Transformation Elements

After having described the current state, and analyzed the suitability between the business capabilities of the enterprise and its value streams, this step consists in drawing up the list of strategic elements of the enterprise transformation.

To access all the strategic elements of your enterprise and its transformation stages from the **Strategy** navigation pane: select **Hierarchy View** and expand the enterprise folder that interests you. The enterprise and its transformation stages appear in the form of a tree.

The following points are covered here :

- Enterprise strategic elements,
- The strategic elements of a transformation phase,
- Using KPIs.

ENTERPRISE STRATEGIC ELEMENTS

) *An enterprise is a purposeful undertaking, an effort conducted by one or more organizations, aiming at delivering goods and services, in accordance with the enterprise mission in its changing environment. In the course of its development, the enterprise must adapt to its environment and establish the transformation objectives and goals to be achieved as well as the strategic action plans used to achieve these objectives. The development and achievement of the different adaptation and transformation stages can lead to a modification of the organization's boundaries. This requires the implementation of an integrated team, under the responsibility of a governing body, to involve the stakeholders in the transformation.*

The strategic elements of an enterprise can be accessed from:

- Its properties pages, see Defining enterprise strategic elements,
- Its enterprise diagram, see Creating an Enterprise Diagram,
- The **Strategy > Hierarchy View** in the navigation pane.

Creating an enterprise

Accessing the list of enterprises with HOPEX IT Business Management

To access the list of enterprises from **Strategy** navigation pane:

› Select the **Enterprise** navigation menu.
The list of enterprises is displayed.

Creating an enterprise with HOPEX IT Business Management

To create an enterprise from the **Strategy** navigation pane:

1. Select **Strategy > Enterprise** in the navigation menu.
   The list of enterprises is displayed.
2. Click the **New** button.
   An enterprise creation dialog box opens.
3. Specify the name of the enterprise.
4. Select the **IT Transformation** or **Business Transformation** or **Other** check box.
5. Click **OK**.

Enterprise characteristics

The **Characteristics** properties page of an enterprise provides access to:

- its **Name**,
- its **Owner**, by default the current library.
- The **Strategic Theme** table enables to define the enterprise strategic themes.

) *A strategic theme i used to classify the enterprise goals.*

Connecting the capability map to an enterprise

The *business capabilities* valid for the given enterprise are contained in a *business capability map*.

) *A business capability map is a set of business capabilities with their dependencies that, together, define a framework for an enterprise stage.*

The business capability map is used to identify the exhibited business capabilities that meet the enterprise goals for the transformation.

– *For more details on the business capability maps management, see Building the Business Capability Map.*

To connect a business capability map to an enterprise:

1. Select **Characteristics** property page of the Enterprise that interests you.
2. In the **Capability Architecture** section, click the right arrow of the **Business Capability Map** field and select **Connect...**.
   A selection window opens.
3. Select the business capability that interests you and click **Connect**.
   The business capability map is associated to the enterprise and its transformation stages.

Connecting the value stream to an enterprise

) *A value stream is an end-to-end collection of Value Stages that creates an outcome for a customer, who may be the ultimate customer or an internal end-user of the value stream.*

– *For more details on the list of business capabilities, see Describing value streams.*

The *value creation steps* are connected to *Business Capabilities* valid for the enterprise.

) *A value stage is a distinct, identifiable phase or step within a value stream that has a unique entrance criteria, exit criteria, and identifiable participating business function or business functional area.*

To connect a value stream to an enterprise:

1. Select **Characteristics** property page of the enterprise that interests you.
2. In the **Value Stream** section, click **Connect**.
   A selection window opens.

3. Select the Value streams that interests you and click **Connect**.
   The value streams are connected to all the enterprise transformation stages.

Defining enterprise strategic elements

Strategic elements of an enterprise are classified in the following categories:

- Ends, see: Identifying enterprise ends,
- Means, see: Defining Means.
- The transformation stages, see Defining transformation stages.

Identifying enterprise ends

Describing the Enterprise Vision

>) *A vision is the ultimate, possibly unattainable, state the enterprise would like to achieve. A vision is often compound, rather than focused toward one particular aspect of the business problem. A vision is supported or made operative by missions. It is amplified by goals.*

To describe an *enterprise vision*:

1. Open the **Strategy** properties page of an enterprise.
2. In the **Ends** section, select the **Vision** field.

Identifying enterprise goals

The *enterprise goals* are determining elements in your enterprise model since they interconnect the ends of the enterprise transformation with the objectives of the transformation stages.

>) *A goal tends to be longer term, and defined qualitatively rather than quantitatively. It should be narrow-focused enough that goals can be defined for it.*

To create an *enterprise goal*:

1. In the **Strategy** properties pages of an enterprise, open the **Ends** section.
2. In the **Goals** section, click **New**.
   The **Creation of an Enterprise Goal** dialog box opens.
3. Specify the goal name and click **OK**.
   The goal appears in the list.

The **Characteristics** page of the property pages of an enterprise goal is used to access:

- its **Name**,
- its **Owner**, by default the current enterprise.
- the **Comment** text.
- the **Strategic Theme Category** section, which specifies the **Strategic Themes** connected to the enterprise goal.

Defining Means

To ensure that the *strategies* and tactics implemented in the enterprise correspond to the enterprise goals, you can use **HOPEX IT Business Management** to align the objects representing the ends of the strategy with the means to be implemented.

) *A strategy is a component of a mission. It represents a means of action essential to achievement of ends of the enterprise, and more practically its goals. A strategy channels enterprise efforts towards these goals. A strategy is the approach considered by the enterprise as being the best suited to achieving its goals, taking account of constraints imposed by the environment and by risks.*

To check the consistency of the transformation plan, chaque *strategy* is connected to an *enterprise goal*.

Describing a Mission

) *The mission describes what the business is or will be doing on a day-to-day basis. A mission makes a vision operative; that is, it indicates the ongoing activity that makes the vision a reality. A mission is planned using strategies.*

To describe an *enterprise Mission* :

1. Open the **Strategy** property page of the enterprise.
2. In the **Means** section, select the **Mission** field.

Defining Strategies

) *A strategy is a component of a mission. It represents a means of action essential to achievement of ends of the enterprise, and more practically its goals. A strategy channels enterprise efforts towards these goals. A strategy is the approach considered by the enterprise as being the best suited to achieving its goals, taking account of constraints imposed by the environment and by risks.*

To create a *strategy*:

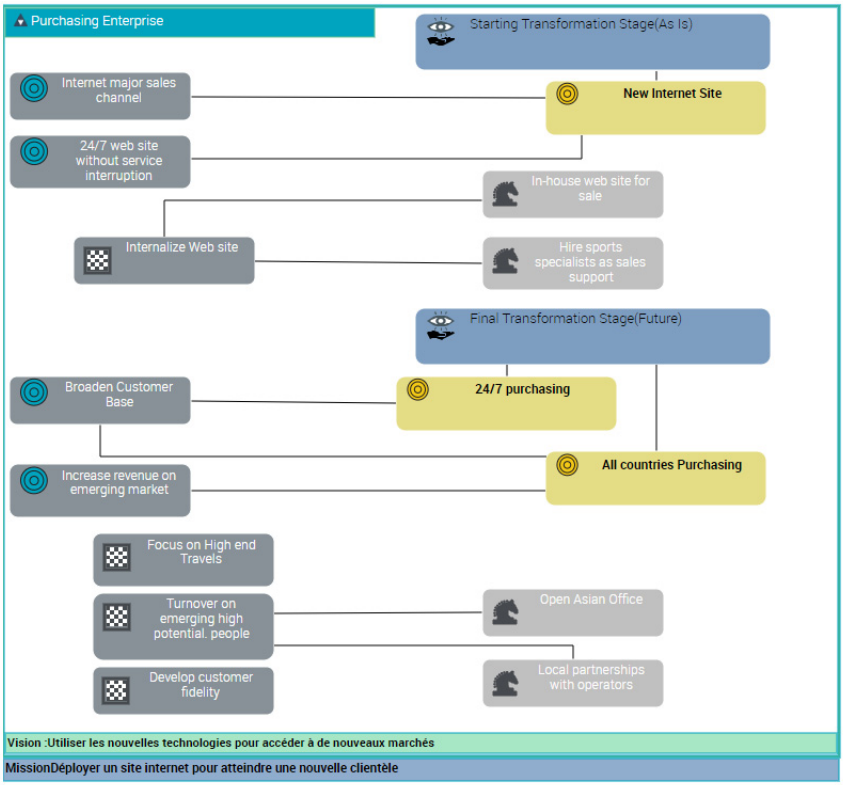
1. Open the **Strategy** properties page of an enterprise.
2. In the **Mean** section and the **Strategy** Sub-section.
3. Click **New**.
   The **Creation of a strategy** dialog box opens.
4. Specify the strategy and click the **OK** button.
   The new strategy appears in the list.

The **Characteristics** properties page of the strategy provides access to:

- its **Name**,
- Its **Enterprise**,
- the **Comment** text.
- the list of **Supported Goals**.

Building an Enterprise Diagram

An enterprise diagram is used to describe the links between goals, strategies, tactics and transformation stages.



Creating an Enterprise Diagram

To create an Enterprise Diagram:

› Select the enterprise concerned and click **New > Enterprise Diagram**. The diagram opens in the edit area. The frame of the described enterprise appears in the diagram.

Describing the strategic elements

The components represented in an enterprise diagram are the strategic elements connected to the enterprise and to its *Transformation stages*.

) *A transformation stage is a past, current or future stage of an enterprise.*

– *For more details, see The strategic elements of a transformation phase.*

The components represented in an enterprise diagram are :

- The enterprise ends, described by the *enterprise goals* and the *enterprise objectives* (that are described at the *transformation stages*).

) *A goal tends to be longer term, and defined qualitatively rather than quantitatively. It should be narrow-focused enough that goals can be defined for it.*

) *An objective is a goal that a company/organization wants to achieve, or is the target set by a process or an operation. An objective allows you to highlight the features in a process or operation that require improvement.*

- The enterprise means that are described by *strategies* at the enterprise level and by *tactics* at the transformation stage level.

) *A strategy is a component of a mission. It represents a means of action essential to achievement of ends of the enterprise, and more practically its goals. A strategy channels enterprise efforts towards these goals. A strategy is the approach considered by the enterprise as being the best suited to achieving its goals, taking account of constraints imposed by the environment and by risks.*

) *A tactic is a course of action that implements part of the detailing of strategy. A tactic contributes to a strategy implementation.*

The strategic elements of a transformation phase

The implementation of an *enterprise* is described by the *enterprise stages* that correspond to its state at a given time.

) *An enterprise is a purposeful undertaking, an effort conducted by one or more organizations, aiming at delivering goods and services, in accordance with the enterprise mission in its changing environment. In the course of its development, the enterprise must adapt to its environment and establish the transformation objectives and goals to be achieved as well as the strategic action plans used to achieve these objectives. The development and achievement of the different adaptation and transformation stages can lead to a modification of the organization's boundaries. This requires the implementation of an integrated team, under the responsibility of a governing body, to involve the stakeholders in the transformation.*

) *A transformation stage is a past, current or future stage of an enterprise.*

Thus, when an enterprise is created, the following two *enterprise stages* can also been created:

- The current ('As-Is') stage that concerns existing elements;
- The target 'To-Be' phase that contains the target elements determined by the review of the transformation strategic goals.

The *business capability map* is associated to the enterprise and its transformation stages.

) *A business capability map is a set of business capabilities with their dependencies that, together, define a framework for an enterprise stage.*

The strategic elements of a transformation phase Users that follow:

- The enterprise objectices and the corresponding tactics, see Transformation stage characteristics,
- the business Capability assessments, see Using assessment for business capabilities and their implementation,
- the exhibited business capabilities, see: Managing exhibited business capabilities.

Defining transformation stages

From an enterprise, you can create transformation stages.

Each transformation stage is scheduled in the enterprise project depending on real or estimated dates. The scheduling is used to buid the enterprise transformation roadmap.

Creating a Transformation Stage

To create a *transformation stage* from an enterprise:

1. Select the **Strategy> Enterprise** navigation pane.
   The list of current Enterprises appears.
2. Open the **Strategy** properties page of the enterprise that interests you.
3. In the **Stages** section, click **New**.
   A transformation stage Add dialog box opens.
4. Specify the **Name** of the transformation stage.
5. Specify the **Period** of the transformation stage: As Is, Future or Passed.
6. Specify the **Begin Date** and the **End Date**.
7.
8. Click **OK**.

Transformation stage characteristics

The **Characteristics** property page of an enterprise stage provides access to the following information:

- **Name**,
- **Owner** the current enterprise,
- **Period**: As Is, Future or Passed. This attribute can be used if the dates are not specified.
- **Begin Date** of the phase,
- **End Date** of the phase,
- the **Description** text.
- the **objectives** section, to define the transformation stage objectives as well as associated tactics.

  – *For more details on objectives and tactics, see Defining the strategic characteristics of a transformation stage.*

Transformation stage properties

With **HOPEX IT Business Management** , a transformation stage is described by:

- the **Characteristics** page,

  – *For more details on transformation stages, see Transformation stage characteristics.*

- the **Assessment** page that provides access to the assessment facilities of an enterprise stage.

  – *For more details on assessing capability maps, see Using assessment for business capabilities and their implementation.*

- the **exhibited capabilities** page that is used to access to the business capabilities involved in the transformation stage.

  – *For more details on strategic elements, see Managing exhibited business capabilities.*

- The **Architecture Description** page that is used to access to the architecture elements involved in the transformation stage.

  – *For more details on architecture elements, see Describing an enterprise architecture.*

Defining the strategic characteristics of a transformation stage

The enterprise strategic elements are aligned with strategic element of the transformation stage: enterprise goals and objectives, strategies and tactics.

– *For more details on enterprise strategic elements, see* *Defining enterprise strategic elements.*

Defining an enterprise objective

) *A goal tends to be longer term, and defined qualitatively rather than quantitatively. It should be narrow-focused enough that goals can be defined for it.*

Creating an Enterprise Objective

To create an *Enterprise Objective*:

1. Open the **Characteristics** properties page of a transformation stage.
2. In the **Objectives** section, click **New**.
   The **Creation of an enterprise objective** dialog box opens.
3. Specify the objective name and click **OK**.
   The new enterprise objective appears in the list.
4. In the **Enterprise goals** column of the table of enterprise objectives, select the *enterprise goals* covered by the objective.

) *A goal tends to be longer term, and defined qualitatively rather than quantitatively. It should be narrow-focused enough that goals can be defined for it.*

– *For more details on enterprise goals, see* *Identifying enterprise ends*

Enterprise Objective properties

The **Characteristics** property page of an enterprise objective is used to access:

- its **Name**,
- its **Owner**, by default the current transformation stage.
- the **Comment** text.
- the list of **Enterprise goals** the objective aims to satisfy.

Defining Tactics

) *A tactic is a course of action that implements part of the detailing of strategy. A tactic contributes to a strategy implementation.*

Creating tactics

A *tactic* is a way to achieve an *enterprise objective*. So a *tactic* is created from an *enterprise objective*.

To create a *tactic*:

1. Open the **Characteristics** properties page of a transformation stage.
2. In the **Objectives** section, select the objective that interests you.
3. In the sub-section **Contributing tactic**,

4. click **New**.
   The new tactic appears in the list.
5. Specify the name of the tactic.
6. In the **Strategy** column of the tactic table of the transformation stage, select the *strategy* corresponding to the tactic.

Tactic properties

The **Characteristics** property page of the tactic provides access to:

- its **Owner**, by default the current enterprise.
- its **Name**,
- the **Comment** text.
- the list of **Supported enterprise objectives**.
  - *For more details, see* *Creating an Enterprise Objective.*
- the list of **Strategies** that it implements.
  - *For more details, see* *Defining Strategies.*

Using assessment for business capabilities and their implementation

The assessment are based on a business capability map and are accessible using the enterprise stages to which the map is connected. These assessments are therefore valid in the context of a transformation stage and at a given date.

Creating a business capability assessment

The assessment of business capabilities deals with the following characteristics:

- the business value,
- capability effectiveness,
- capability efficiency,
- financial impact.

From a transformation stage, you can create a new assessment with a view to assessing some business capabilities connected to the enterprise business capability map.

To create a business capability assessment:

1. Open the **Assessment> Capability Assessment** properties page for the transformation stage that interests you.
   - *The transformation stage is connected to business capability map associated to the enterprise, see* *Connecting the capability map to an enterprise.*
2. Click the **New Assessment** button.
   A selection window presents the tree of the business capabilities of the enterprise business capability map.
3. Select the business capability that you want to assess and click **OK**.
   The selected capabilities appear in the property page.

4. For each business capability, fill in the columns corresponding to the assessment characteristics.
   - the business value,
   - capability effectiveness,
   - capability efficiency,
   - financial impact.
5. Click the **Validate Assessment** button.
   A validation window opens.
6. Define the Evaluation date and click **OK**.
   The assessment results are displayed in the property page.


Assessment - Capabilities Assessment

Current Assessment Status: Validated

New Assessment

Local name	Assessment Context	Business Value	Capability Effectiveness	Capability Efficiency	Financial Impact
Customer Management (Business Capability)	Customer Management,C...	1 - Significa...	2 - Very Effective	4 - Slightly Efficie...	4 - High
Manage Fulfillment (Business Capability)	Manage Fulfillment,Core ...	1 - Significa...	1 - Extremely Effective	3 - Somewhat Eff...	5 - Very High

Creating an assessment of business capability implementation

The assessment of business capabilities realization deals with the quality of the capability realization. The possible values are between very low and very high.

From a transformation stage, you can create a new assessment of business capability realizations.

To create an assessment of business capability implementation:

1. Open the **Assessment > Capability Realization Assessment** properties page for the transformation stage that interests you.
   – *The transformation stage is connected to the business capability map associated to the enterprise, see Connecting the capability map to an enterprise.*
2. Click the **New Assessment** button.
   A selection window presents the tree of the business capabilities of the enterprise business capability map as well as those capabilities realizations.
3. Select the business capability realization that you want to assess and click **OK**.
   The selected capability realizations appear in the property page.
4. For each realization, complete the **Capability Realization Quality** column.
5. Click the **Validate Assessment** button.
6. Define the Evaluation date and click **OK**.

Managing exhibited business capabilities

) *An exhibited business capability is measurable objectively within the framework of an enterprise stage, on a defined geopolitical scope (site), and focused on a given market segment (business partner).*

Accessing the list of exhibited business capabilities

To access the list of exhibited capabilities of a transformation phase:

1. Select the **Strategy > Hierarchy View** in the navigation pane.
2. Select the enterprise that interests you and unfold the tree of strategic components.
3. Expand the **Transformation stages** folder.
4. Expand the tree of the strategic component that interests you.
5. Expand the **Exhibited Business Capabilities** folder.
   The list of exhibited business capabilities appears.

Creating an exhibited business capability

To create an *exhibited business capability* from an transformation stage:

1. Open the **Exhibited Capabilities** properties page of the transformation stage.
   A page presents the tree of the business capabilities of the enterprise business capability map.
2. Select the business capabilities that interests you and click **Add**.
   The exhibited business capability is created and appears in the **Exhibited business capability** column.
3. Select the exhibited business capability.
   An **Exhibited business capability** properties page opens on the right.
4. In the **Enterprise objectives** column, click the arrow to display the transformation stage objectives.
5. Select the objectives concerning the exhibited capability.
6. In the **Business Capability Realization** column, click the arrow to display the realizations of the current business capability in transformation stage context.

   – *For more details on implementation of business capabilities, see* *Creating Fulfillment of a Business capability.*
7. Select the realizations concerning the exhibited capability.

   – *The details of elements connected to an exhibited business capability are displayed in a transformation stage report, see* *Stages Capabilities Synthesis report.*

The properties of an exhibited business capability

The **Characteristics** property page of the exhibited business capability provides access to:

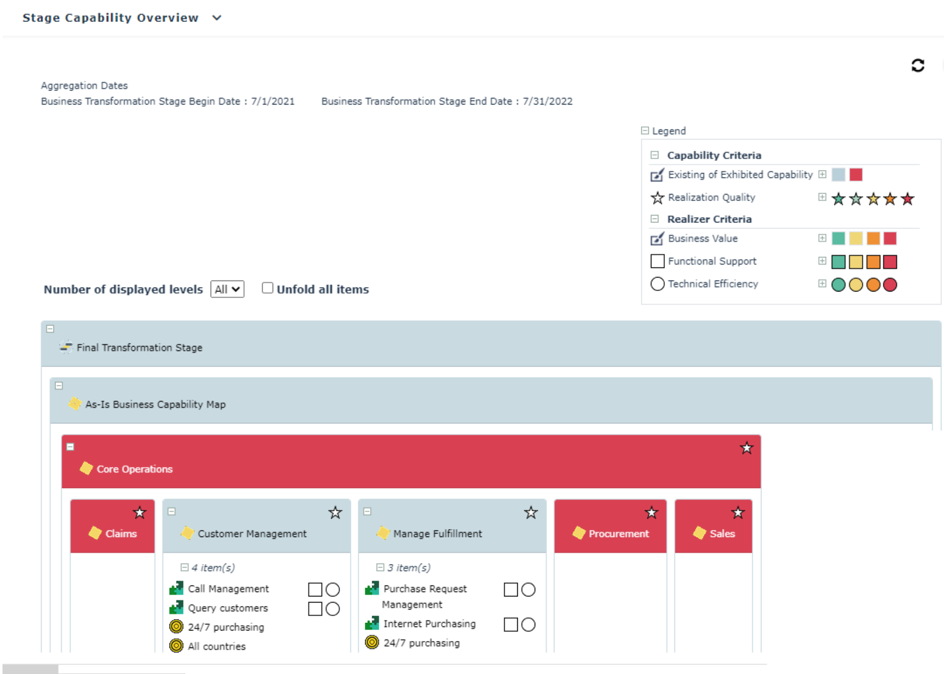
- its **Name**,
- its **Owner**, by default the current transformation stage,
- **Desired Capability Effect**, provides access to the exhibited business capability outcomes.

An exhibited business capability is described by the following pages:

- the **Structure** page specifies a part of the list of business capability components that constitute the exhibited business capability, as well as the dependencies between these components,
    - *For more details on business capabilities components, see Using the capability compositionsand Defining business capability dependencies.*
- the **Implementation** page provides access to the list of business functional areas or solution building blocks that implement the Business Capability.
    - *For more details on implementation of business capabilities, see Creating Fulfillment of a Business capability.*
- The **KPI** and **KPI dimension** pages ^provide access to the list of indicators associated with the exhibited business capability.
    - *For more details on KPIs, see Using KPIs.*
- the **Assessment** page provides access to the assessment results of the business capabilities realization.
    - *For more details on the assessments of business capabilities, see Creating a business capability assessment.*
- the **Transformation** page provides access to transformation stages connected to the exhibited business capability.

Stages Capabilities Synthesis report

This report is available on a dedicated **Report** properties page of the transformation stage. It presents a view of the enterprise business capabilities highlighting the exhibited business capabilities.



USING KPIS

KPIs and *KPI dimensions* are used to define the performance constraints that must be complied with by the building blocks making up the enterprise, at the forefront of which are the business capabilities and the exhibited business capabilities in a transformation stage.

The nature of a *KPI* is defined by *KPI dimensions*.

) *A KPI dimension expresses the nature of indicators (duration, mass, cost, etc.) and defines the unit used to measure them (minutes, kilograms, euros, etc.). KPI dimensions can be elementary or composite. Elementary dimensions are described by KPI units: kg, Liter, Gallon, Hour, Minute.*

) *A KPI (key indicator) defines how much of something that can be quantified, either as a singular value or as range of values, according to a KPI Dimension. KPI are valued KPIs. Example: Response Time < 20 seconds.*

KPI dimensions can be connected to the following objects:

- business capabilities,
- value streams,
- business functions,
- application systems.

```
A KPI dimension for the "Command management" business
capability is "Delivery time".
```

KPIs can be connected to exhibited business capabilities; that is, a capability highlighted within the context of a transformation stage.

```
For example, the KPIs of the "Command management"
exhibition of the exhibited business capability) in a given
transformation stage (existing or future) can be "Deliver a
pizza in less than 20mn" or "Take the order in less than
3mn".
```

Finally, *KPI* or *KPI dimensions* can be grouped to define *composite KPI* and *composite KPI dimensions*.

) *A composite KPI defines the grouping of elementary KPIs that should be examined together in order to appreciate the performance of an item with KPI. E.g.: a delivery must take place in less than 20 minutes and cost less than 5 euros.*

) *A composite KPI dimension consolidates a set of KPI dimensions that must be considered jointly to assess the performance of a tracked element. E.g: a delivery must take place within a target timeframe AND at target cost*

Describing a KPI dimension

) *A KPI dimension expresses the nature of indicators (duration, mass, cost, etc.) and defines the unit used to measure them (minutes, kilograms, euros, etc.). KPI dimensions can be elementary or* *composite. Elementary dimensions are described by KPI units: kg, Liter, Gallon, Hour, Minute.*

Accessing the list of KPI dimensions

To access the list of *KPI dimensions*:

1. Expand the **Business Architecture** navigation pane.
2. Click **Inventories > KPI dimension**.
   The list of KPI dimensions appears.

Creating a KPI dimension

Creating a *KPI dimension*:

1. From the **Vision** navigation pane, select **Inventories > KPI dimension**.
2. Click **New**.
   The new KPI dimension appears in the list.
3. Open its property pages and enter:

- its **Name**,
- the text that describes its **Unit**,
- the text of its **Description**.

The properties of a KPI dimension

The **Characteristics** property page of the KPI dimension provides access to:

- its **Name**,
- the text that describes its **Unit**,
- the text of its **Description**.

The **Usage** property page of the KPI dimension provides access to:

- the **KPI** section provides the list of KPIs that are based on this KPI dimension.
  - *For more details, see Connecting a KPI dimension to a KPI.*
- the **Composite KPI dimension** provides the list of composite KPI dimensions that use the KPI dimension.
  - *For more details, see Creating a composite KPI dimension.*

Describing a key performance indicator - KPI

) *A composite KPI defines the grouping of elementary KPIs that should be examined together in order to appreciate the performance of an item with KPI. E.g.: a delivery must take place in less than 20 minutes and cost less than 5 euros.*

Accessing the list of KPIs

To access the list of KPIs:

1. Expand the **Business Architecture** navigation pane.

2. Click **Inventories > KPI**.
   The list of KPIs appears in the edit area.

Creating a KPI

– *You create a KPI from the KPI dimension page of all the objects that can be connected to simple or composite performance indicators.*

To create a *KPI* from the navigation tree:

1. From the **Business Function Architecture** navigation pane, select**Inventories > KPI**.
2. Click **New**.
   The KPI creation dialog box opens.
3. Select the **KPI dimension** that you would like to use.

   `For example, "Delivery time"`
4. Select the **operator** that you want to use (less than, greater than or equal to).

   `For example, "Less than"`
5. Specify the **Value**.

   `For example “48 hours”`
6. Click **OK**.
   The KPI is created with a **Name** calculated from the KPI characteristics.

   `In the example, the name is "Delivery time < 48 hours"`

Connecting a KPI dimension to a KPI

The KPI dimension is mandatory on creation of a KPI; it is used in calculating the name of the KPI: ***dimension name*** + ***logical operator*** + ***dimension unit***.

The KPI dimension is given in the KPI property pages.

To connect a KPI dimension to a KPI:

1. Open the property pages of the KPI that interests you.
2. Select the **Characteristics** page.
3. In the **Dimension** field, specify the KPI dimension that interests you.

KPI properties

The **Characteristics** property page of the KPI dimension provides access to:

- its **Name**, which is calculated automatically on creation,
- Its **dimension**, which defines its nature,
- its **unit**, which is that of the KPI dimension and which cannot be modified,
- its **operator** which positions it with respect to its value,
- its **Value**,
- the text of its **Description**.

The **Usage** property page of the KPI provides access to:

- the **Composite KPI** section: provides the list of composite KPI that use the KPI described.
  - *For more details, see Creating a composite KPI.*
- the **Exhibited Capabilities** section: provides the list of exhibited capabilities connected to the KPI described.
  - *For more details, see Connecting a KPI to an exhibited business capability.*

Connecting a KPI to an exhibited business capability

) *An exhibited business capability is measurable objectively within the framework of an enterprise stage, on a defined geopolitical scope (site), and focused on a given market segment (business partner).*

– *For more details on exhibited business capabilities, see Managing exhibited business capabilities.*

A KPI can be used by an exhibited business capability. It appears in the **KPI** page of the property pages of the exhibited business capability.

To connect an existing KPI with an exhibited business capability:

1. Open the property pages of the exhibited business capability that interests you.
2. Select the **KPI** property page.
3. In the **KPI** section, click **Connect**.
   A connection window opens.
4. Select the KPI that interests you and click **Connect**.
   The KPI appears in the list.

Using a composite KPI

) *HOPEX IT Business Management*

Creating a composite KPI dimension

) *A composite KPI dimension consolidates a set of KPI dimensions that must be considered jointly to assess the performance of a tracked element. E.g: a delivery must take place within a target timeframe AND at target cost*

A *Composite KPI Dimension* uses either a KPI dimension, or a composite KPI dimension.

A KPI dimension or a composite KPI dimension can be used by several composite KPI dimensions. During creation of a composite KPI dimension, you can thus reuse a KPI dimension, or a composite KPI dimension that already exists.

Creating a *Composite KPI Dimension*:

1. From the **Business Architecture** navigation pane, select **Inventories > Composite KPI dimension**.
2. Click **New**.
   The new composite KPI dimension appears in the list.

3. Open its property pages, select the **Characteristics** page and specify its **Name**.
4. Select the **Structure** page and click the **New** button.
   The composite KPI dimension creation window opens.
5. Select the **Reusing a composite KPI dimension or a KPI dimension** check box.

   – *For more details on creating the composite KPI dimension, see* *Creating a composite KPI dimension.*
6. Select, for example, the **Connect a KPI dimension** check box.
7. Click **Display scope**.
   The list of KPI dimensions appears.
8. Select the KPI dimension concerned and click **OK**.
   The new component appears in the list.
9. Click **New** and proceed the same way to connect other KPI dimension or composite KPI dimension.

Linking a composite KPI dimension to an enterprise object

To connect, for example, a composite KPI dimension to a business capability:

1. Open the property pages of the business capability that interests you.
2. Select the **composite KPI dimension** page.
3. In the **composite KPI Dimension** section, click **Connect**.
   A connection window opens.
4. Select the composite KPI dimension that interests you and click **Connect**.
   The new composite KPI dimension appears in the list.

Creating a composite KPI

) *A composite KPI defines the grouping of elementary KPIs that should be examined together in order to appreciate the performance of an item with KPI. E.g.: a delivery must take place in less than 20 minutes and cost less than 5 euros.*

A *Composite KPI* uses either a KPI, or a composite KPI.

A KPI or a composite KPI can be used by several KPI dimensions. During creation of a composite KPI, you can thus reuse a KPI, or a composite KPI that already exists.

Creating a *Composite KPI*:

1. From the **Business Architecture** navigation pane, select **Inventories > Composite KPI**.
2. Click **New**.
   The new composite KPI appears in the list.
3. Open its property pages, select the **Characteristics** page and specify its **Name**.
4. Select the **Structure** page and click the **New** button.
   The composite KPI creation window opens.
5. Select the **Reusing a composite KPI or a KPI** check box.
6. Select, for example, the **Connect a Composite KPI**.
7. Click **Display scope**.
   The list of composite KPI appears.

8. Select the composite KPI that interests you and click **OK**.
The new component appears in the list.
9. Click **New** and proceed the same way to connect other KPI or composite KPI.

Connecting a composite KPI to an exhibited business capability

) *An exhibited business capability is measurable objectively within the framework of an enterprise stage, on a defined geopolitical scope (site), and focused on a given market segment (business partner).*

– *For more details on exhibited business capabilities, see Managing exhibited business capabilities.*

A composite KPI can be used by an exhibited business capability. It appears in the **KPI** page of the property pages of the exhibited business capability.

– *To connect an existing composite KPI with an exhibited business capability: see Connecting a KPI to an exhibited business capability.*

DRAWING THE TRANSFORMATION ROADMAP

The roadmap is used to plan the business capabilities that the enterprise must acquire to reach its strategic objectives. The changes in these business capabilities over time takes place through *exhibited business capabilities*.

) *An exhibited business capability is measurable objectively within the framework of an enterprise stage, on a defined geopolitical scope (site), and focused on a given market segment (business partner).*

The *exhibited business capabilities* are connected, through the implementations, to the technical or business components of the enterprise. The enterprise transformation takes place through the architecture components transformation.

Drawing up the roadmap consists of identifying the enterprise *transformation stages* that define the timeframe of the transformation goals.

) *A transformation stage is a past, current or future stage of an enterprise.*

This chapter describes the procedures to be followed to:

- Describing an enterprise architecture,
- Describing a business architecture environment,
- Drawing up the roadmap.

DESCRIBING AN ENTERPRISE ARCHITECTURE

The enterprise architecture is described through the architecture description of each transformation stage that represent the architecture evolution over the time.

A transformation stage is defined by a number of components that represent its architecture. This consists of:

- The lists of exhibited business capabilities;

) *An exhibited business capability is measurable objectively within the framework of an enterprise stage, on a defined geopolitical scope (site), and focused on a given market segment (business partner).*

  – *For more details on how to associate an exhibited business capability with a transformation stage, see Creating an exhibited business capability.*
- the business architecture environment;

) *A business architecture environment represents the relationships of a business functional area with its partners.*

  – *For more details, see Describing a business architecture environment.*
- the solution building block environments.

  – *For more details on how to access this information from an enterprise or a transformation stage, see Describing physical solutions.*

Describing the operating architecture

The business architecture environment contains the elements that define the enterprise model (operational model) for the current stage.

– *For more details on the managing the business architecture environment, see Managing a business architecture environment.*

The elements constituting the enterprise operational model are:

- the enterprise ecosystem defined by the interactions with the partners,
- the business function architectures,
- the business functions.

To describe the business architecture environment for a transformation stage:

1. Open the **Architecture Description** properties page of the transformation stage.
2. In the **Functional Architecture** section, click the right arrow of the **Operational Model** field.
3. Click **Connect a business architecture environment**.
   A selection window opens.
4. Select the business environment architecture that interests you and click **Connect**.
   The business architecture environment is connected to the transformation stage.

Describing physical solutions

The possibilities to describe physical solution depend on the product licenses that you have, for example:

For example, with **HOPEX IT Architecture** you have access to the **Logical Application System Environments**, **Application System Environments** as well as **Environment for Resource Architectures**.

To connect technical or application architecture building blocks to an transformation stage:

1. Open the **Architecture Description** properties page of the transformation stage.
2. In the **Functional Architecture** section, click **Connect**.
   A selection window opens.
3. Select the environment type concerned and click **Find**.

) *A business architecture environment represents the relationships of a business functional area with its partners.*

) *A resource architecture is the combination of physical and organizational assets configured to supply a capability.*

) *An application system environment allows presenting the other application systems, applications or micro-services with which this application system can interact.*

) *A logical application system environment presents a logical application system use context. It describes the interactions between the logical application system and its external partners, which allows it to fulfill its mission and ensure the expected functionalities.*
4. Select the environment that interests you and click **Connect**.
   The environment is connected to the transformation stage as well as to all the building blocks that it comprises.

DESCRIBING A BUSINESS ARCHITECTURE ENVIRONMENT

One of the most important phases in describing a business architecture environment is defining and understanding of the enterprise functional architecture.

The functional architecture enables the organization to understand, independently of its physical structure, which capabilities and skills it includes, those it needs, and how these contribute to its processes.

The description of the functional architecture also enables identification of areas of the organization where skills and processes are duplicated and where synergies exist. These areas are not necessarily visible from the organizational structure.

The following points are covered here:

- Managing a business architecture environment;
- Describing a business functional area;
- Describing business functions;
- Describing Business Partners;
- Describing the business partner groups.

Managing a business architecture environment

) *A business architecture environment represents the relationships of a business functional area with its partners.*

A business architecture environment diagram describes the interactions between the main internal components of the environment described and the external components. It thus describes:

- the internal and external business functional areas,

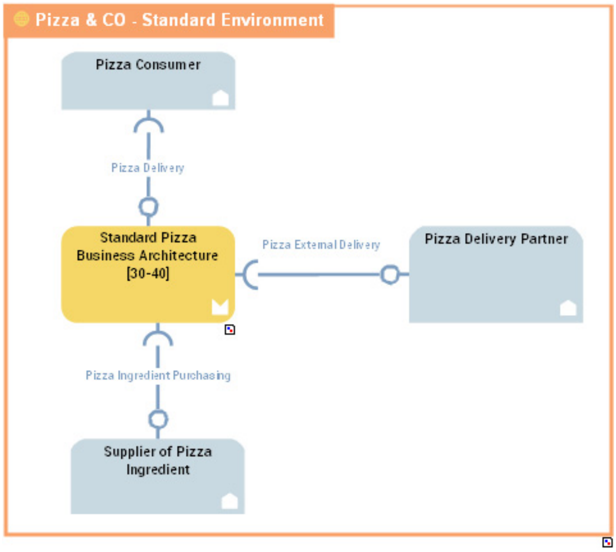
) *A Business functional area is a set of business functions and their associated value streams on the conjunction of two main criteria: their need in accomplishing one or more business capabilities and the common skills and functionalities required to accomplish these business capabilities.*

- the business partners,

) *A business partner designates a third-party who is in relation with the enterprise within the framework of a given business architecture environment. Examples: private sector client, regulatory organization, supplier.*

```
In this example, the business function architecture
environment of company is made up of the historical business
function architecture and its interactions with external
partners: clients and suppliers. You can see in the diagram
```

```
that delivery is outsourced  to a third party deliver
partner.
```



Communications between the objects are represented by interactions that represent requests and service provision.

) *An interaction represents a contract established in a specific context between autonomous entities that are internal or external to an enterprise. These entities can be enterprise org-units, applications, activities or processes, as well as external org-units. The content of this contract is described by an exchange contract.*

– *For more details on interactions between components, see Managing Interactions.*

Creating a business architecture environment

To create a *business architecture environment*:

1. In the **Business Architecture** navigation pane, select **Business Architecture Environment** menu.
2. Select the **View List** tab.
   The list of business architecture environments appears in the edit area.
3. Click **New**.
   The new business architecture environment appears in the list.

The properties of a business architecture environment

The **Characteristics** properties page of the business architecture environment provides access to:

- its **Name**,
- its **Owner**,
- the text of its **Description**.
- its **Owned Realizations**

  – *For more details on the realization of business capabilities, see Creating Fulfillment of a Business capability.*

With **HOPEX IT Business Management** , a business architecture environment is described by the following property pages:

- the **Structure** page which provides access to the list of components of the business architecture environment.

  – *For more details on the components of the business architecture environment, see Creating a business architecture environment diagram.*

- the **Implementation** page, which provides access to the list of resource architecture environments, applications, application system or logical application system that implement the business architecture environment.

Creating a business architecture environment diagram

To create a business architecture environment diagram:

› Right-click the business function architecture environment and click **New > Business Function Architecture Environment Diagram**.
The diagram opens in the edit area.
You can construct this diagram in tabular input mode.

–

– *Tabular input is available with the **HOPEX Web Front-End** module. For more information on using tabular input, see the "Entering a diagram in tabular mode" in the **HOPEX Common Features** guide.*

Creating an internal or external business functional architecture area

To define that a functional area is used in the context of a business architecture environment, you can:

1. Create a *Business functional Area Use* component that is part of the architecture environment described or a *Partner Business functional Area Use* type component if it is a business functional area that belongs to another environment.
2. Associating the Business functional Area fulfilled to the *Business functional Area Use* created.

   `In our example, the history business function is an internal environment element.`

   – *For more details on business partners, see Describing a business functional area.*

To create a **Business Functional Area Use**:

1. In the insert toolbar for the business architecture environment diagram, click **Business Functional Area Use**.
2. Click in the business architecture environment frame described.
   A creation dialog box prompts you to **Connect Business Functional Area**.
3. Select the business functional area that interests you and/or create a new one.

   ```
   Create, for example, the "Manufacturing" business
   functional area.
   ```
4. Click **OK**.
   The business functional area appears in the diagram.

   – *Proceed in the same way to create an **External Partner Business Functional Area Use**:*

Creating a business partner component

To describe a business architecture environment that uses participants internal or external to the environment described, you must:

1. Create a *Business Partner Component*.
2. Associate the person (or the person group) to the *Business Partner Component* created.

   ```
   In the example of the business architecture environment of
   the manufacturing company, the business partners used are
   the clients and the service provider who ensures the
   delivery.
   ```

   – *For more details on business partners, see Describing Business Partners.*

To create a **Business Partner Component**:

1. In the insert toolbar for the business architecture environment diagram, click **Business Partner Component** and click in the frame of the diagram.
   A creation window prompts you to choose the existing **Business Partner** or create a new one.

   ```
   Create for example the "Clients" business partner.
   ```
2. Click **OK**.
   The business partner use appears in the diagram.

Describing a business functional area

) *A Business functional area is a set of business functions and their associated value streams on the conjunction of two main criteria: their need in accomplishing one or more business capabilities and the common skills and functionalities required to accomplish these business capabilities.*

Accessing the business functional area list

To access the business functional area list from the **Business Architecture** navigation pane:

› Select **Business Functions > Business Functional Areas** in the navigation menu.
The list of business functional areas appears.

The properties of a business functional area

The **Characteristics** properties page of a functional area provides access to:

- its **Name**,
- its **Owner**, by default on creation of the business functional area, the current enterprise.
- the text of its **Description**.
- its **Owned Realizations**

– *For more details on creating a business capability, see Creating Fulfillment of a Business capability.*

With **HOPEX IT Business Management** , a business functional area is described in the following pages:

- the **Structure** page, which provides access to the list of components of the business functional area.

  – *For more information on the components of a business functional area, see Describing a business functional area.*

- the **Performed Process** page, which provides access to the value streams executed in the context of the business functional area.

  – *For more details on value streams, see Describing the outcomes.*

Describing a business functional area

A business functional area diagram describes the interactions between the main internal components of the architecture described. It thus describes:

- the *uses of the business functional area*,

) *A Business functional area is a set of business functions and their associated value streams on the conjunction of two main criteria: their need in accomplishing one or more business capabilities and the common skills and functionalities required to accomplish these business capabilities.*

  `In this example, the history functional area is based on the business functional areas for selling, delivering and command.`

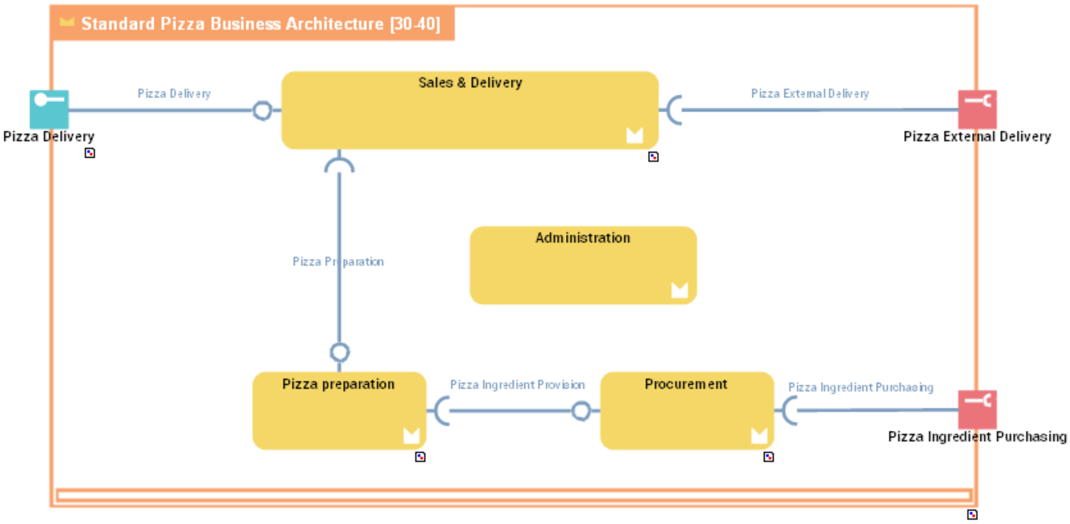
  – *For more information on the use of a business functional area, see Creating an internal or external business functional architecture area.*

- the *business components*.

) *A business function is a conceptual unit of the division of responsibilities in an enterprise. It is used to structure the management of information processing, energy, and equipment produced or used.*

Business functions define the skills and the functionalities necessary to the enterprise to fulfill its mission.

– *For more details on business functions, see Describing business functions.*



With **HOPEX IT Business Management** , communications are based on:

- access points: *service points* and *request points*.

) *A service point is a point of exchange by which an agent offers a service to potential customers.*

) *A request point is a point of exchange by which an agent requests a service from potential suppliers.*

– *For more details on interactions between components, see Managing service points and request points.*

- *interactions*

) *An interaction represents a contract established in a specific context between autonomous entities that are internal or external to an enterprise. These entities can be enterprise org-units, applications, activities or processes, as well as external org-units. The content of this contract is described by an exchange contract.*

– *For more details on interactions between components, see Managing Interactions.*

Managing service points and request points

A business business functional area is created to ensure one or more services. These services are represented by *service points*. The service is requested according to precise terms defined by an *exchange contract* assigned to the service point.

) *A service point is a point of exchange by which an agent offers a service to potential customers.*

) *An exchange contract is a model of a contract between organizational entities. This contract is described by exchanges between an initiator role and one or several contributor roles.*

A *request point* is used to represent the use of an external service.

) *A request point is a point of exchange by which an agent requests a service from potential suppliers.*

The service is requested according to precise terms defined by an *exchange contract* assigned to the request point.

Components that issue a request are linked to the request point by an interaction.

```
In the example, the request point that represents the
"External delivery" is linked to the "Sales and deliveries"
business functional area by an interaction.
```

Creating a service point or a request point

The process for creating a *service point* or *request point* is identical.

To create a service point:

1. In the diagram insert toolbar, click **Service Point**.
2. Position the object at the edge of the architecture frame.
   A creation dialog box opens.
3. Click the arrow to the right of the **Exchange Contract** field to define the exchange contract enabling activation of this service point, and select, for example, **Connect Exchange Contract**.
   A query window opens.
4. Select the exchange contract associated with this service point.
5. Click **Next**.
   A dialog box opens proposing a list of exchange contract roles that can be associated with the service point.

   – *This second dialog box is not proposed if there is only one candidate role that can be associated with the service point.*
6. Select the role that interests you and click **OK**.
   The service point appears in the diagram.

To change the service point name:

1. Click the name of the service point and press key F2.
2. Enter the new name used when specifying interaction points.

Managing Interactions

An *Interaction* represents the exchange of information between architecture components.

) *An interaction represents a contract established in a specific context between autonomous entities that are internal or external to an enterprise. These entities can be enterprise org-units, applications, activities or processes, as well as external org-units. The content of this contract is described by an exchange contract.*

Content of an interaction is described by an *exchange contract*.

) *An exchange contract is a model of a contract between organizational entities. This contract is described by exchanges between an initiator role and one or several contributor roles.*

Creating an Interaction

To create an interaction:

1. In the diagram insert toolbar, click **Interaction**.
2. Draw a link between the two communication entities.
3. In the add interaction dialog box, specify the exchange contract you wish to use.

   – *You can also create a new exchange contract, see Creating an Exchange Contract from an Interaction.*
4. Click **OK**.

Creating an Exchange Contract from an Interaction

You can create an exchange contract:

- from a library,
- from an interaction in a diagram.

To create an exchange contract, in a diagram, from an interaction:

1. In the diagram insert toolbar, click **Interaction**.
2. Draw a link between the two communication entities.
3. In the add interaction dialog box, click the arrow at the right of the **Exchange Contract** box and select **New**.
   The **Creation of Exchange Contract** dialog box opens.
4. Enter the name of the exchange contract in the **Name** box.
5. Click **OK**.
   The interaction and exchange contract are created.

Describing business functions

) *A business function is a conceptual unit of the division of responsibilities in an enterprise. It is used to structure the management of information processing, energy, and equipment produced or used. Business functions define the skills and the functionalities necessary to the enterprise to fulfill its mission.*

Accessing the list of business functions

To access the list of business functions from the **Business Architecture** navigation pane:

› Select **Business Functions > Business Functional Areas** in the navigation menu.
  The list of business functions appears in the edit window.

Business properties

The **Characteristics** properties page of a business function provides access to:

- its **Owner**, by default on creation of the business function, the current enterprise.
- its **Name**,
- the text of its **Description**.
- its **Owned Realizations**

  - *For more details on creating a business capability, see Creating Fulfillment of a Business capability.*

With **HOPEX IT Business Management** , a business function is described by the following pages:

- the **Required Abilities** page is used to specify a list of skills and functionalities required by the business.

  - *For more details, see Describing functionalities.*

- the **Performed Process** page, which provides access to the value streams executed.

Describing Business Partners

) *A business partner designates a third-party who is in relation with the enterprise within the framework of a given business architecture environment. Examples: private sector client, regulatory organization, supplier.*

Accessing the business partners list

To access the list of business partners from the **Business Architecture** navigation pane:

› Select **Business Partners > All partners** the navigation menu.
The list of business partners appears in the edit area.

The properties of a business partner

The **Characteristics** properties page of the business partner provides access to:

- its **Owner**, by default on creation of the business partner, the current enterprise.
- its **Name**,
- Its **business partner group**, see Describing the business partner groups,
- the text of its **Description**.

With **HOPEX IT Business Management** , a business partner is described by:

- the **Service and Request Points** page, which specifies the services expected or delivered by a business partner.
  - *For more information on these service points and request points, see Managing service points and request points.*
- The **Usage** page provides access to the business function architecture environments that use the described object, see Describing a business architecture environment.

Describing the business partner groups

Accessing the business partner group list

To access the business partner group list from the **Business Architecture** navigation pane:

› Select **Business Partner > All Business Partner groups** in the navigation menu.
The list of business partner groups appears in the edit area.

The properties of a business partner group

The **Characteristics** properties page of a business partner group provides access to:

- its **Owner**, by default on creation of the business partner, the current enterprise.
- its **Name**,
- the text of its **Description**.
- the list of business partners belongs to the group.

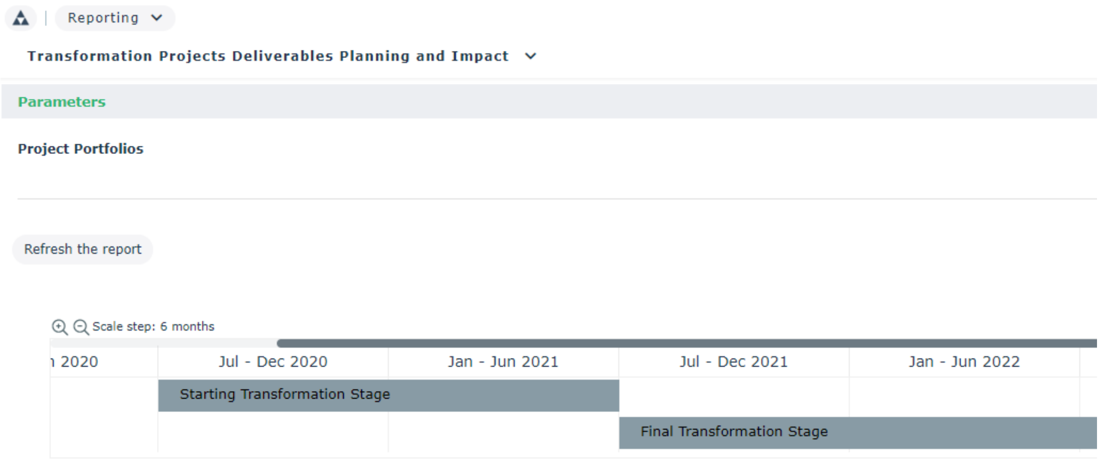
DRAWING UP THE ROADMAP

A number of facilities are available to display and analyze the transformation strategy and its deployment.

Each transformation stage is positioned in the enterprise according to their period, in order to define the transformation roadmap for the enterprise underway.

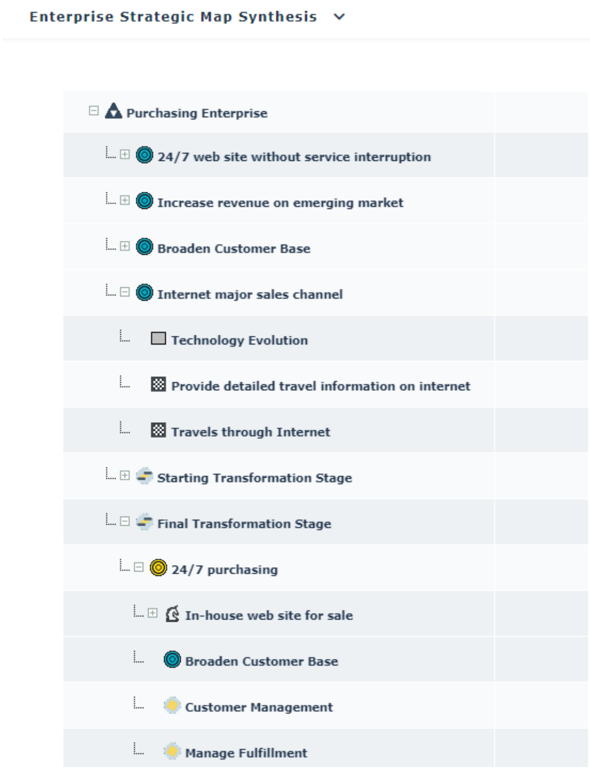
– *For more details on transformation stages, see Defining transformation stages.*

The transformation stages dates are presented in the colons of the dedicated report of the enterprise.



The strategic components of the enterprise and its transformation stages are displayed in another enterprise report.

– *For more details on strategic elements, see Identifying Strategic Transformation Elements.*



Portfolio management

DRAWING UP AN APPLICATION INVENTORY

The application inventory phase consists of collecting information from different viewpoints: descriptive, functional, financial, technical, etc.

This chapter presents functionalities proposed by **HOPEX IT Portfolio Management** to help you inventory the application assets of your enterprise.

The following points are covered here:

BUILDING APPLICATION ASSETS

HOPEX IT Portfolio Management offers the possibility of describing simple applications or more complex applications via the use of application systems.

Applications and application systems of the organization can be created by the Administrator, Application Portfolio Manager or Application Owner.

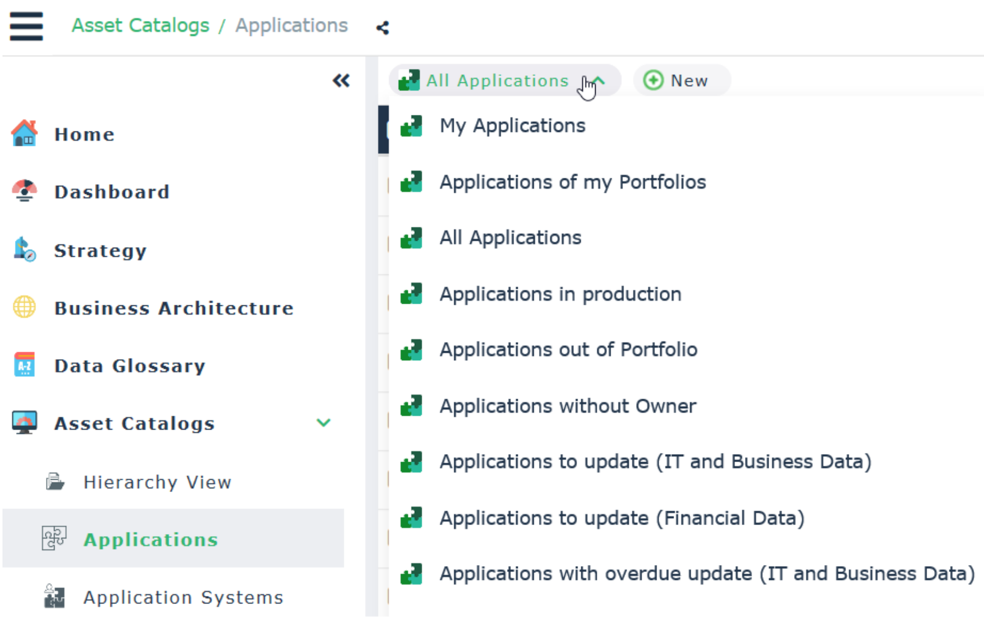
Creating an Application

To inventory applications, **HOPEX IT Portfolio Management** provides a navigation tree.

Depending on whether you are an application owner or an application portfolio manager, you can access applications from the **Home** page or **Asset Catalogs** navigation pane of the ITPM desktop.

Under **Asset Catalogs** a drop-down list classifies the applications according to the following criteria:

- All applications of the repository
- Applications without owner
- Applications outside portfolio (those not belonging to any inventory portfolio)
- Applications of the connected user portfolio
- etc.



ITPM desktop of application portfolio manager

To create an application:

1. Click the **Asset Catalogs** > **Applications** navigation pane.
2. In the edit area, click on the drop-down list then **All Applications**.
   The list of applications appears in the edit area.
3. Click the **New** button.
4. In the application creation window, indicate the following characteristics:
   - name
   - life cycle
   - Life cycle begin and end dates
   - Cloud Computing
     - *For more details, see Application Characteristics.*
5. Click **Next** if you also want to define the different characteristics of the application. If not, click **OK**.
   - *The user that created an application becomes its manager.*

Creating an Application System

An application system comprises applications and/or sub-application systems.

Prerequisite

Application systems are not visible by default To use them in **HOPEX IT Portfolio Management**:

1. On the desktop, click **Main Menu** > **Settings** > **Options**.
   The options window appears.
2. In the tree on the left, click the **IT Portfolio Management** folder.
3. In the right pane of the window, select the option **Use of Application Systems**.
4. Click **OK**.
5. Save the modification and restart **HOPEX IT Portfolio Management**.

Creating an application system (as portfolio manager)

The administrator, application owner and application portfolio manager can all create application systems.

To create an application system as portfolio manager:

1. Click the navigation menu, then **Asset Catalogs** > **Application Systems**.
   In the edit area, a drop-down list classifies the application systems according to different criteria.
2. Click the drop-down list then **All Application Systems**.
   The list of repository application systems appears in the edit area.
3. Click the **New** button.
4. In the dialog box for creating an application system, indicate:
   - its name
   - life cycle
   - begin and end dates
     - *For more details on life cycles, see Defining Life Cycles.*
   - Cloud Computing: defines how the application system should be installed.
5. Click **Next** if you also want to define the functional scope of the application system (see Defining Application Functional Scope). If not, click **OK**.

Adding an application to the application system

To connect an existing application to the application system:

1. Display the properties of the application system.
2. Click the drop-down list then **Characteristics**.
3. In the **Component** section, click **Application**.
4. Click **New**.
   The application component creation dialog box opens.
5. Click the **Reuse an application** field.

6. From the list of applications, find and select the desired application.
7. Click **OK**.

Aggregation Type

Applications in the application system can be considered as components or as independent applications. This distinction modifies evaluation data of application system costs. See Application System Costs.

DEFINING THE PROPERTIES AND THE ENVIRONMENT OF AN APPLICATION

All elements of an application are accessible from its properties pages.

Accessing Application Properties

Depending on whether you are an application owner or an application portfolio manager, you can access applications from the **Home** or **IT Portfolio Management** navigation pane.

To access the properties pages of an application:

1. Click the **Asset Catalogs** > **Applications** navigation pane.
2. In the edit area, click on the drop-down list then **All Applications**. The list of applications appears in the edit area.
3. In the edit area, select the required application and click the **Properties** button that appears.
4. Click the drop-down list to access the following properties pages:
   - **Characteristics**. See Application Characteristics.
   - **Installation**. See Managing application installations.
   - **Version**.**See Managing Application Versions**.
   - **Projects**. See Defining Project Applications.
   - **Evaluation**. See Evaluating Application Criticality.
   - **Cost**. See Managing Application and Application System Costs.
   - **Reports**. See List of Analysis Reports Available on Applications and Application Systems.

Application Characteristics

To access characteristics that enable identification of an application:

› In the properties window of an application, select the **Characteristics** page.

You can specify the following characteristics:

Application identification

The identification includes:

- the **Name**
- the internal **Code**
- the **Application type**
- if it is an **Application template**: to be selected if the application is used to create other applications
- the **Cloud Computing**, which indicates how the application should be installed:
  - **On premises**: the application is installed and runs on computers on the premises (in the building) of the company.
  - **Infrastructure as a Service (IAAS)**: the application is installed and runs on an external provider infrastructure (physical or virtual machines and other additional resources such as images in a virtual-machine image-library, raw (block) and file-based storage, firewalls, load balancers, IP addresses, virtual local area networks (VLANs), and software bundles).
  - **Platform as a Service (PAAS)**: the application is installed and runs on an external provider computing platform including operating system, programming language execution environment, database, and web server. Internal/external developers can develop and run their software solutions on a cloud platform.
  - **Software as a Service (SAAS)**: the application is designed, installed and runs by an external delivery partner. Some customization can be implemented during the design phase.
- a **Comment**.

Other characteristics

Other characteristics of an application:

- the **Service Legal Agreement**: displays the indicators that define the application quality level.
- **Functional Scope** of the application. See Defining Application Functional Scope.
- **Responsibility**: it relates to the person or persons responsible for the application. See Assigning an Application to Persons.
- **Technology** used. See Specifying the Technologies of an Application.
- **Exchanges** with other objects. See Specifying Data Exchanged With Other Applications.
- the **Data** processed by the application. See Defining the Data Used by an Application.
- the **Risks** associated with the application. See Specifying the Risks Associated with an Application.
- **Gantt Chart** of the application presenting the application lifeline. See Defining Application Life.
- associated **Attachments**. See Attaching Documents to an Application.

Defining Application Functional Scope

To indicate the objects that define application functional coverage:

1. Open the application properties.

   – *See also Accessing Application Properties.*

2. Click the drop-down list then **Characteristics**.
3. Expand the **Functional Scope** section.

   – *A report covers functional characteristics of a list of applications. See Analyzing an inventory portfolio.*

The types of data that define functional coverage of the application are:

- The business lines that use the application

) *A business line is a high level classification of main enterprise activities. It corresponds for example to major product segments or to distribution channels. It enables classification of enterprise processes, organizational units or applications that serve a specific product and/or specific market. Regulation frameworks of certain industries impose their own business lines.*

  – *See also: Defining Business Lines.*

- The business processes that use the application

) *A business process represents a system that offers products or services to an internal or external client of the company or organization. At the higher levels, a business process represents a structure and a categorization of the business. It can be broken down into other processes. The link with organizational processes will describe the real implementation of the business process in the organization. A business process can also be detailed by a functional view.*

  – *For more details on the list of available business processes, see Defining Business Processes.*

- The business capabilities covered by the application

  – *For more details on the list of available business capabilities, see Defining Business Capabilities.*

  – *A report covers distribution of applications in business capabilities, see Generating the Business Capability Map of a Portfolio .*

- functionalities implemented by the application

) *A functionality is a service required by an org-unit in order to perform its work. This functionality is generally necessary within an activity in order to execute a specific operation. If it is a software functionality, it can be provided by an application.*

This data is used in the “Application Overview” and “Application Environment Graph” reports of the application.

See Application Environment Graph of an application.

Connecting a functionality to the application

To create a functionality and connect it to the application:

1. In the **Functional Scope** section, select **Implemented Functions**.
2. Click the **New** button.
   The new functionality appears in the list of functionalities of the application.

To connect an existing functionality to the application:

1. In the **Functional Scope** section, select **Implemented Functions**.
2. Click the **Connect** button.
   The connect wizard appears.
3. Click the **Find** button.
   The list of repository functionalities appears.
4. Select the required functionality.
5. Click **Connect**.

Assigning an Application to Persons

You can assign applications to persons who perform the following business roles:

- Application Owner
- Financial Controller
- IT Owner
- Business User

– *For more information on these roles, see the associated profiles in HOPEX IT Portfolio Management Profiles.*

To assign an application manager, for example a business manager:

1. Display the properties of the application.

   – *See also Accessing Application Properties.*

2. Click the drop-down list then **Characteristics**.
3. Expand the **Responsibilities** section.
4. Click the **Business Manager** tab.
5. Click **Connect**.
   The query dialog box appears.
6. Find and select the person concerned.
7. Click **Connect**.

Specifying the Technologies of an Application

To specify technical characteristics of an application:

1. Open the application properties.

   – *See also Accessing Application Properties.*

2. Click the drop-down list then **Characteristics**.
3. Expand the **Technologies** section.

You can:

- connect existing technologies to the application
- create new technologies.

) *A technology is a definition or format that has been approved by a standards organization, or is accepted as a standard by the industry.*

– *A report covers the list of applications by technology. See Analyzing an inventory portfolio.*

For more details on technologies, see Drawing up an Application Inventory.

Attaching Documents to an Application

You can attach external references to an application.

External references are of URL type: They enable association with an object of a document from a source outside HOPEX.

To attach an external reference to an application:

1. Open the application properties.
   - *See also Accessing Application Properties.*
2. Click the drop-down list then **Characteristics**.
3. Expand the **Attachments** section.
4. Click the **New** button.
5. Indicate the name and URL of the reference.
6. Click **OK**.

Specifying Data Exchanged With Other Applications

You can describe the message flows exchanged between applications, with their direction and content. This information enables creation of exchange mapping.

For more details on obtaining this report, see Generating an Application Environment Report.

A message flow is information flowing within an enterprise or exchanged between the enterprise and its business environment. A message flow can carry a content.

A Business data indicates content of a message flow. A Business data can be used by several message flows, since it is not associated with a sender and a destination. The same business data can be used by several message flows.

To create a message flow of a source application to a target application:

1. Open the properties pages of the source application.
   - *See also Accessing Application Properties.*
2. Click the drop-down list then **Characteristics**.
3. Expand the **Exchanged Flows** section.
4. Click **Sent Application Flows** and click the **New** button.
   The Creation of Message Flow - Content dialog box appears.
5. Select the Receiver application.
6. From the **Content** field, select the business data you want to associate with the message flow.
7. Click **OK**.

See also Defining the Data Used by an Application.

Describing a Scenario of Application Flows

With **HOPEX IT Portfolio Management** you can define scenarios that present the flows exchanged between an application and system components in specific contexts.

To create a scenario of application flows:

1. Click the icon of the application and click **New > Scenario of Application Flows**.
   A flow scenario diagram opens in the edit area.

For more details, see Describing a scenario of flows.

Specifying the Risks Associated with an Application

HOPEX IT Portfolio Management is used to identify the risks associated with an application, and to retrieve the evaluations defined in the **HOPEX Enterprise Risk Management** solution. You can define a new risk using the application or connect a previously defined risk.

To connect a risk to an application:

1. Open the properties pages of the application.
   - *See also Accessing Application Properties.*
2. Click the drop-down list then **Characteristics**.
3. Expand the **Risk** section.
4. Click **Connect**.
   The query dialog box appears.
5. Find and select the risk required and click **OK**.

For more details on risks and their evaluation, see **HOPEX Enterprise Risk Management**.

Generating an Application Environment Report

Application Environment Graph of an application

The “Application environment graph” report presents links between an application and its environment. Components appearing in the graph can be applications, installations, technologies, functionalities, consumer org-units or business processes linked to the application.

To open the environment graph of an application:

1. Select the application concerned and display its properties.

2. In the properties window, select the **Reporting > Application Environment Graph** page.
   The report consists of four report chapters:
   - **Exchange and Content**: displays data flows between the application and other applications. See also Application Exchange Graph for a set of applications.
   - **Installation and Use** :displays the sites that host the application. See also Managing application installations.
   - **Functional scope**: displays the objects that define application functional coverage. See also Defining Application Functional Scope.
   - **All the Environment**: provides a complete view of the application environment. The **Layers** option associated with the graph allows you to filter the display according to the desired viewpoint (functional scope, installations or data flows).

Application Exchange Graph for a set of applications

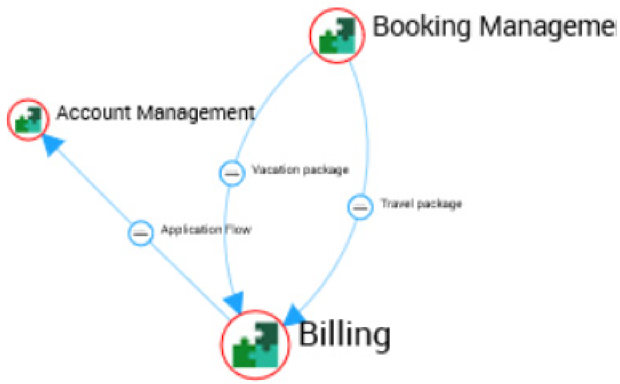
You can generate an Application Exchange Graph from a selection of applications to see their connecting links.

To generate an Application Exchange Graph on a set of applications:

1. Display the application list, for example from the **Asset Catalogs** > **Applications** navigation pane.
2. In the list displayed, select the applications and click **Instant Report**.
3. Select the **Exchange Between Applications** instant report type.
4. Click **OK**.
   The instant report opens in the edit area.

This report displays:

- in the form of nodes: the selected applications
- In the form of an arc: the flows that connect the applications. When there are several flows between applications, they are grouped within the same arc.



You can filter display:

- by content: it is the exchanged data, defined in the application properties. See Specifying Data Exchanged With Other Applications.
- by context: this concerns application flow scenarios, which you can create if you have the **HOPEX IT Architecture** application.

For more visibility an option available under the report allows you to hide applications without link.

See also: List of Analysis Reports Available on Applications and Application Systems.

Defining the Properties and the Environment of an Application System

Similarly to applications, the inventory phase consists of collecting information on application systems from different viewpoints: descriptive, functional, financial, technical.

Accessing Application System Properties

Depending on whether you are an application owner or an application portfolio manager, you can access application systems from the **Home** or **Asset Catalogs** navigation pane.

To access application system properties:

› In the list of repository application systems, select the required application system and click the **Properties** button of the edit window. Application system properties pages appear:

- Characteristics. See Application System Characteristics.
- Installation. See Creating an Application System Installation.
- Projects. See Transforming the Application Portfolio.
- Evaluation. See Evaluating Application Systems.
- Cost. See Managing Application and Application System Costs.
- Reports. See List of Analysis Reports Available on Applications and Application Systems.

Application System Characteristics

To access characteristics that enable identification of an application system:

› In the application system properties, select the **Characteristics** page.

You can specify:

- the **Identification** (name, internal code, etc.)
- the **Service Legal Agreement**: displays the indicators that define the application quality level.
- the **Components**. See Adding an application to the application system.
- the**Functional Scope**. See Defining Application Functional Scope.
- the **Responsibility**: see Responsibilities.
- the application system **Gantt** chart. See Application system Gantt chart.
- associated **Attachments**. See Attaching Documents to an Application.

Responsibilities

Owner

An owner should be defined on the application system. He/she is responsible for application system technical and functional information He/she can be application owner or portfolio manager.

Financial Controller

A financial controller should be connected to an application system. He/she is responsible for defining application system financial information, in particular at time of evaluation.

Business User

A business manager can be specified if necessary, but this is not mandatory.

Application system Gantt chart

The application system has its own life cycle. It is confronted with the life cycle of its components so that possible conflicts in reports can be detected. The application system Gantt chart therefore displays life cycle of the application system with that of its components.

See Defining Application Life.

Describing a Scenario of Application System Flows

You can define scenarios that present the flows exchanged between an application system and others components in specific contexts.

To create a scenario of application system flows:

1. Click the icon of the application system and click **New > Scenario of Application System Flows**.
   A flow scenario diagram opens in the edit area.

For more details, see Describing a scenario of flows.

Evaluating Application Systems

Similarly to applications, the application manager can evaluate application systems for which he/she is responsible on three criteria: business, functional and technological. For more detailed information, see Evaluating Application Criticality.

The Portfolio Manager can evaluate the application assets he/she supervises by creating an application portfolio and associating with it additional evaluation criteria. See Evaluating Application Assets.

DEFINING APPLICATION LIFE

To enable detailed analysis of repository object evolution scenarios and the associated costs, **HOPEX IT Portfolio Management** enables description, from an *object life*, of the planning of steps in the object life cycle.

) *The object life is a set of time periods representing the updated calendar of object life cycle states.*

Viewing Application Life (Gantt Chart)

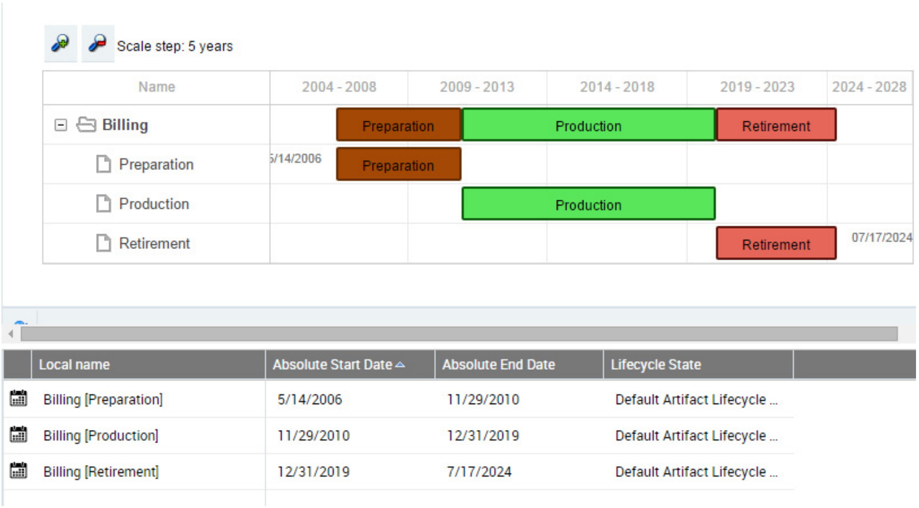
An object evolving over time can take different states (preparation, production, retirement, etc.).

The *Object life* enables viewing of the planning of these different states in the form of a Gantt chart.

To view the Gantt chart representing the different states of an application for example:

1. Open the application properties.
   – *See also Accessing Application Properties.*
2. In the properties of the application, click the drop-down list and select **Characteristics**.
3. Expand the **Gantt** section.

The first line shows the synthesis of the life cycle of the application (here "Billing"), with the sequence of different states. Under this line you access the details of the time periods associated with each state (preparation, production, etc.).



Gantt Chart Report

On an application, a report in the form of a Gantt chart enables viewing of steps in the application life cycle, its deployment and the technologies used. See Analyzing Application Life Cycle and Installations.

Initializing the life of the object

The object life is a set of time periods representing the updated calendar of object life cycle states.

To create the life of an application:

1. In the **Gantt** section, click **Initialize the Life of the Object**.
   – *If the life of the object already exists, the **Delete the Life of the Object** button appears.*

   The creation of object life dialog box appears.
2. Specify the following characteristics:
   - a **Life Cycle** which enables definition of the list of possible states of the object.
     – *For more information on proposed life cycles, see Defining Life Cycles.*
   - a **Begin Date** and an **End Date** which enable positioning of the object life in time.
3. Click **OK**.

The object life appears in the Gantt chart of the application.

From information on *object life*, the Gantt chart represents planning of the different steps in time.

Updating the dates of the object life

By default, the different steps in the object life cycle are distributed in equal *time periods* between object life begin and end dates.

These dates are accessible and can be modified in the application Gantt chart.

Accessing properties of a time period

In the Gantt chart, the pop-up menu of a time period presents commands specific to the described application ("Billing" in our example), followed by the commands relating to the time period itself.

To access properties of a time period of the application life:

1. In the Gantt chart, right-click the time period.
2. In the time period pop-up menu, select **Properties**.

MANAGING APPLICATION INSTALLATIONS

HOPEX IT Portfolio Management enables management of application deployments.

Applications and Installations

HOPEX enables association of an application with one or several installations. A software installation is supported by a site or server.

– *A software installation represents use by a given population of an application over time. The installation is therefore associated with a life cycle which is specified at the time of its creation.*

On the same site, an application is installed to offer different services to different users. Each installation is therefore associated with several *usage contexts* which enable specification of lists of functionalities available to different users.

) *The usage context of an application or an application system enables specification of the list of functionalities offered to each population of users for a given installation over a period of time. Several contexts can be created for a given installation.*

The application installation mechanism supplements the version management functionality offered by **HOPEX**.

Consulting Application Installations

To access the installations of an application:

1. Open the application properties.
2. Select the **Installation** page.
   The list of installations associated with the application is displayed with:
   - deployment date
   - planned retirement date

To access characteristics of installations of an application:

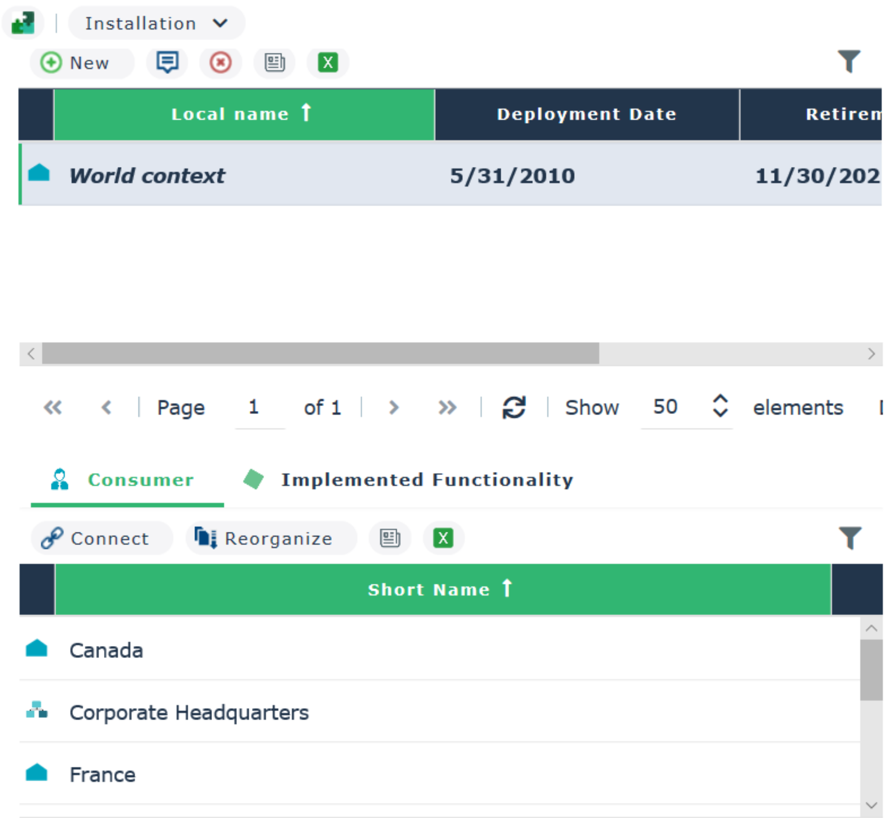
1. Select an installation.
   The hostings and usage contexts associated with the installation appear in the following sections.

In **Context of Use** you can define :

- context begin date:
- proposed functionalities retirement date
- planned number of users

By clicking a context, you display in the following section:

- The list of functionalities associated with the context (**Implemented Functionality**)
- The list of users of these functionalities (**Consumer**)



Creating an Application Installation

Application installation on a site offers functionalities adapted to different populations of users over a time period.

You can create a first installation at creation of the application, or create it later via its properties pages.

To create an application installation:

1. Open the application properties.
2. Select the **Installation** page.
3. In the **Software Installation** section, click the **New** button.
   The **Creation of Software Installation** dialog box opens.
4. Enter the name of the deployment.
5. Select the **Deployment Life Cycle** from the drop-down list of this field.

6. Specify:
   - **Start Date**, corresponding to the effective deployment date
   - **End Date**, which can correspond to the application production end date.
7. Select the **Freeze the Source Object of the Software Installation** to avoid modification of the deployed application.

   > – *You cannot modify a locked application. If the application is to be modified, a new version must be created.*

   > – *For more details on variations, see the* ***HOPEX Common Features*** *guide, "Handling Repository Objects", "Object Versions" chapters.*
8. Click **Next**.
9. In the **Deployment Support** section, select the site or server that hosts the deployment.
10. Click **OK**.
    The new installation appears in the application properties.

Creating an Installation Usage Context

The usage context of an application or an application system enables specification of the list of functionalities offered to each population of users for a given installation over a period of time. Several contexts can be created for a given installation.

To create a *usage context* of an application installation:

1. Open the application properties.
2. Select the **Installation** page.
   The list of installations associated with the application is displayed.
3. Select the installation that interests you.
4. In the **Usage Context** section, click the **New** button.
   The **Creation of Use Context** dialog box opens.
5. Specify the **Life Cycle**, **Start Date** and **End Date** of the context.
6. Click **Next**.
   The Add Consumer dialog box appears.
7. Click the **Connect** button to select users specific to the usage context.
8. Click **Next**.
   The add functionality dialog box appears:
9. Click the **Connect** button to select the functionalities that will be proposed to users in the usage context.
10. Click **OK**.
    The new usage context appears in the properties of the deployed application.

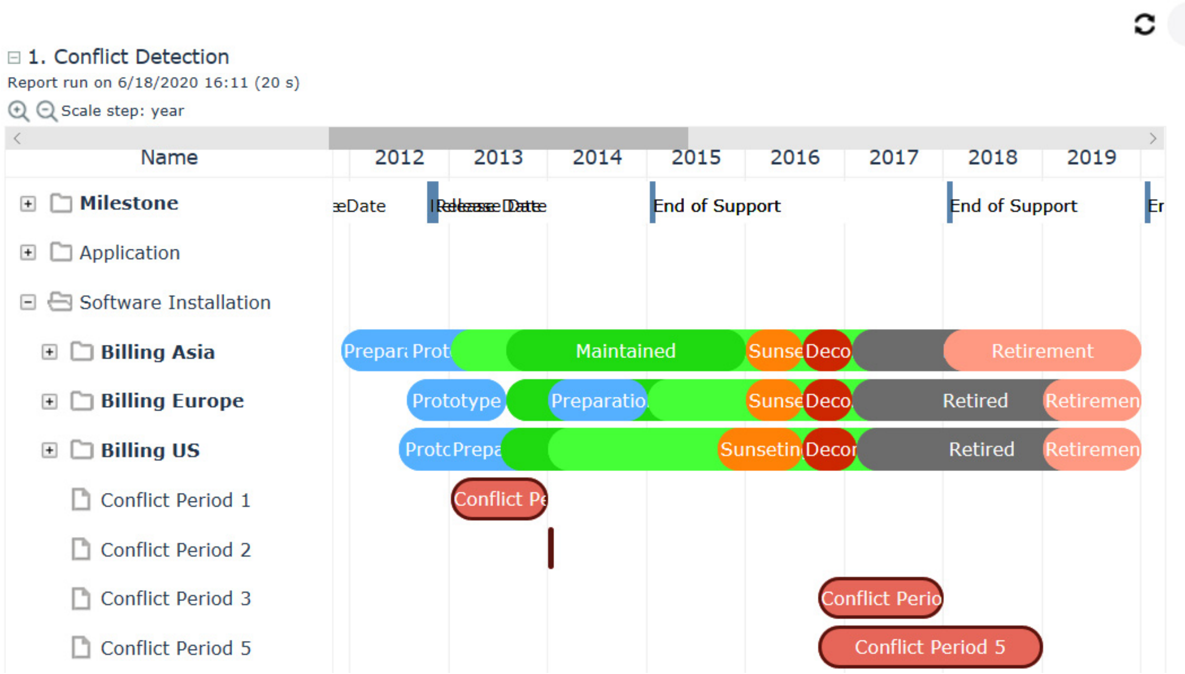
Analyzing Application Life Cycle and Installations

A report enables display in the same Gantt diagram of life cycle steps of the application and its installations.

A second report indicates any conflicts between life cycles of these objects.

To access these reports:

1. Open the properties of the application concerned.
2. Click the **Reports** page then:
   - **Gantt Chart** to view life cycles of the objects
   - **Gantt chart with conflicts** to view any conflicts.



Detection of conflicts report on an application

See also: Creating an Application System Installation.

Creating an Application System Installation

When we refer to application system installation, this means installation of all or only certain of its components.

You can create several installations for the same application system.

When you create an application system installation, the wizard allows you to automatically create software installations for all application system components. You can also manually define software installations to be associated with the application system (see Defining Application System Software Installations).

To run application system installation:

1. Open the properties of the application system.
2. Select the **Installation** page.
3. In the **Application System Installation** section, select **New**.

4. In the window that appears, enter:
   - installation name
   - installation start and end dates
5. Indicate if you want to install all components. In this case, the tool creates these automatically.
6. Click **Next**.
   You can specify:
   - the **Consumers**, in other words the users of the deployed application system.
   - the **Implemented Functions**.
7. Click **OK**.

Application System Installation Contexts

A usage context is automatically associated with an application system installation To this context you can connect consumers and implemented functions.

) *The usage context of an application or an application system enables specification of the list of functionalities offered to each population of users for a given installation over a period of time. Several contexts can be created for a given installation.*

You can create several contexts for the same application system installation.

To add a context to an application system installation:

1. Open the properties of the application system.
2. In the **Installation** page, **Application System Installation** section, select the application system installation concerned.
3. In the **Application System Installation Context** section, select **New**.
   The context appears in the section.
4. Select the context created and in the next section, indicate the **Consumers** of the context and the **Implemented Functions**.

Defining Application System Software Installations

To indicate manually which components are deployed in an application system installation:

1. Open the properties of the application system.
2. In the **Installation** page, **Application System Installation** section, select the application system installation concerned.
3. In the **Software Installation** section, select **New**.
4. From the listed components, select the application to be installed.
   - If the selected application has no existing installation, create an installation. A context is automatically created for this installation in which the consumer is the installation of the application system.
   - If the application presents existing installations, select the required installation. A context is automatically created for this installation in which the consumer is the installation of the application system.

MANAGING APPLICATION VERSIONS

HOPEX IT Portfolio Management enables management of different versions of applications.

Managing Versions

Application versions enable creation of application variants. Each version constitutes a new application which inherits elements of the application from which it is derived. The user can then indicate the differences to be added to the new application, by modifying or replacing obsolete elements.

The system of versions therefore enables follow-up of updates of an application over time.

– *For more details on versions, see the **HOPEX Common Features** guide, "Handling Repository Objects", "Object Versions".*

M *To use variations, select the **Business Process and Architecture Modeling** option, **Activate Variations**.*

If you create a version of an application, the parent application is automatically locked. To modify the application, you must create a new version or unlock the application.

– *The version of an application is created without an object life, even if the parent had one.*

Unlocking an application

To unlock the parent object that has been versioned:

› Click the icon of the initiative and select **Manage > Unlock Object**.

This command appears if you are authorized to unlock protected objects.

For more information on locks, see lock management in chapter "Managing Transactions" of the **HOPEX Power Supervisor** guide.

MANAGING APPLICATION AND APPLICATION SYSTEM COSTS

The aim of modeling costs with **HOPEX IT Portfolio Management** is to be able to compare the cost of different components and to compare the different evolution scenarios on identical financial criteria.

To be able to take account of the time (past and future), the cost of a component is represented by a fixed part and a periodic part.

    For example, a purchase price is specified in a fixed part, and annual maintenance in a periodic part.

Finally, costs are characterized by different criteria that enable more detailed comparison. Criteria are:

- the type to distinguish investment costs.
- the nature to isolate costs of infrastructure, license, service or manpower.
- life cycle of the component concerned.

Cost Calculation Principles

Each fixed expense is associated with an amount and a date.

Each periodic expense is associated with an initial amount, a start date, and the amount and periodicity of timespots.

– *For more details on modeling of costs, see Creating a fixed expense and Modifying a periodic expense.*

The cost of the object can be calculated in the absolute, or in the context of a portfolio. In the case of a portfolio, sums are calculated between begin date and end date of the portfolio.

    We assume for example that retirement of an application starts in July with a decreasing periodic cost. The periodic cost is 500€ and the decreasing cost -100€.

Begin Date	End date	Period cost	Total cost obtained
7/1/2012	7/30/2012	500	500
7/1/2012	8/1/2012	400	900
7/1/2012	9/1/2012	300	1200

Begin Date	End date	Period cost	Total cost obtained
7/1/2012	10/1/2012	200	1400
7/1/2012	11/1/2012	100	1500
7/1/2012	12/1/2012	0	1500

The cost calculation formula proposed as standard in **HOPEX** is based on fixed and variable cost characteristics.

Specifying Costs Components

In **HOPEX IT Portfolio Management** costs on a component can be specified by:

- a user with "Financial Controller" role, who has been declared responsible for the component in question;
- the portfolio manager.

– *To define those responsible for an application, see Application Characteristics.*

One or several *cost lines* can be associated with a component.

) *A cost line enables identification of cost kind and type.*

A cost line is characterized by:

- a **type** : operating or capital.
- a **nature**: infrastructure (for a deployment), license (for an application), service, manpower.
- a **state** of the life cycle of the component concerned, such as specification or development phases.

Associated with a cost line can be:

- a periodic expense
- one or several fixed expenses

Creating a cost line

To associate costs with an application for example, you must begin by creating a *cost line*.

You can create cost lines singly, or automatically create three cost lines corresponding to the three cost natures possible for an application: license, service, manpower.

To create a *cost line* for an application:

1. Click the icon of the application and select **Properties**.
2. In the properties page, click **Costs**.
3. In the **Cost line**section, click **New**.
   The **Creation of a cost line** box opens.
4. To create a single cost line, select option **Create only one cost line**.
5. Click **Next**.

6. Specify the **Name** of the cost line.
7. Select the **Cost Type**.
8. Select the **Cost Nature**.
9. Select the **State** of the application life cycle.

   – *The states proposed in the drop-down list are the states of the life cycle associated with the object life.*

10. Click **Next**.
    The periodic expenses creation dialog box opens.

    – *Fixed expenses, which can be multiple, are defined separately. For more details on fixed expense creation, see Creating a fixed expense.*

11. Define the periodic cost and click **Next**.

    – *For more details on fixed expense creation, see Modifying a periodic expense.*

12. Click **OK**.
    The new cost line appears in the **Cost Line**.

Creating a fixed expense

Fixed expenses associated with a component are accessible from the component properties pages, in the **Costs** tab.

To create a new fixed expense on an application from a cost line:

1. Click the icon of the application and select **Properties**.
2. In the properties page, click **Costs**.
3. In the **Cost Line** section, select the cost line that interests you.
4. In the **Fixed Expenses** section, the list of fixed expenses associated with the cost line appears. In this section, click **New**.
   The **Creation of Expense** dialog box opens.
5. Specify:
   - the **Name** of the expense
   - the **Date** of the expense,
   - the **Amount** of the expense.
6. Click **OK**.
   The new expense appears in the **Fixed Expenses** section.

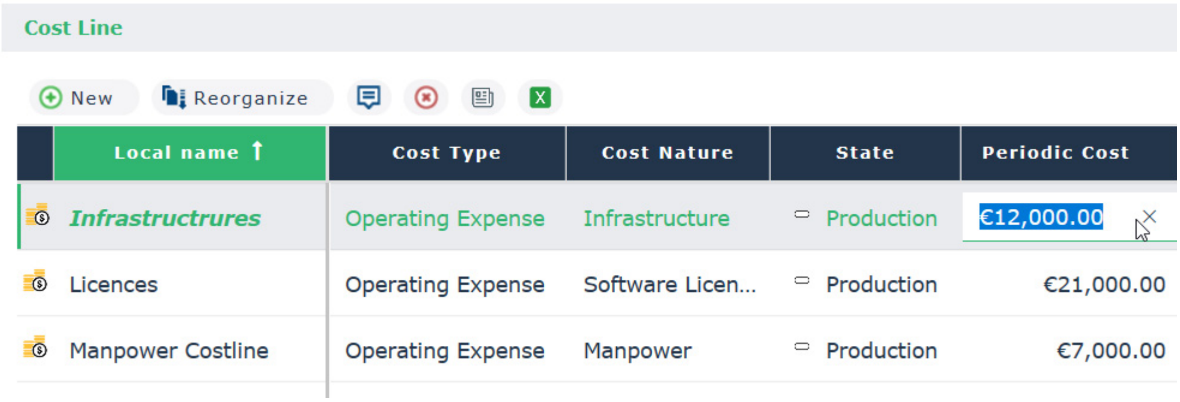
Modifying a periodic expense

To modify characteristics of a periodic expense associated with an application:

1. Click the icon of the application and select **Properties**.
2. In the properties page, click **Costs**.
3. In the **Cost Line** section, select the cost line that interests you.
4. Columns specific to the periodic expense are associated with the cost line:
   - **Periodic cost**
   - **Periodicity**
   - **Up/Down Amount**

5. Click the column to be modified and enter the new value.

   – *If you indicate a negative amount, at each time period the amount will be deducted from the periodic cost until this reaches zero.*



Application System Costs

The cost of an application system can be calculated from its different components or or globally:

- When an application used by the application system is specified "Application", the cost of this application is not charged to the application system, in other words the cost relates only to the application.
- When an application used is specified "Component", the cost of this application is charged to the application system and is no longer listed on the application.

To indicate that an application is used by the system as a component:

1. Open the properties of the application system.
2. Click the drop-down list then **Characteristics**.
3. In the **Component** section, select **Application Component** to display applications making up the application system
4. Select the required application , and in the **Aggregation Type** column, select "Component".

Specifying a Currency

At the level of each HOPEX environment the currency used can be specified. The monetary numeric format adapts as a result.

To modify currency:

1. In the HOPEX installation folder, double-click the "Administration.exe" file.
2. Access your work environment.

3. Right-click the desired environment and select **Options** > **Modify**.
   The options window appears.
4. In the navigator on the left, expand the **Installation** folder and select **Currency**.
5. On the right indicate the currency.
6. Click **OK**.

The format of costs is modified depending on the specified currency. Note also that the format of figures depends on the interface language.

Analyzing Application Costs

In **HOPEX IT Portfolio Management** , a report summarizes the costs of an application and its deployments. The results are derived from values that you specified in the cost page of the application and its deployments.

– *The report is also available on an application system.*

To view the report on costs of an application:

1. Open the properties of the application concerned.
2. Click the drop-down list then **Options** > **Standard Application Cost**.

Evaluating Application Criticality

Criticality of an application is assessed related to criteria linked with the business, to functionalities covered and to technologies used. The evaluation of an application therefore involves different user types. For more details on users, see HOPEX IT Portfolio Management Profiles.

Assessment can be done:

- in the properties of the applications in question. See Direct Assessment.
- through an evaluation questionnaire sent to the appropriate recipients: see Assessment By Campaign.

The evaluation is supplemented by result analysis tools.

Application Evaluation Criteria

Evaluation of an application relates to:

- its **Business Value** enabling evaluation of the nesting level of the application in enterprise production.
  - Level 1: operational business processes will be stopped if the application no longer functions and a workaround solution exists.
  - Level 4: major production processes will be stopped in the case of application malfunction with no workaround solution.
- its **Business Value** enabling evaluation of the support level of the application in enterprise process.
  - Level 1: low level
  - Level 4 the application is critical from a functional viewpoint, since it supports key processes on its own.

    – *For more details on businesses addressed and functionalities covered, see Defining Application Functional Scope.*
- its **Technology** enabling assessment of evolution possibilities of the application from the techniques that support it.
  - Level 1: technology is frozen
  - Level 4: corresponds to a flexible and upgradable technological platform.

    – *For more details on technologies, see Specifying the Technologies of an Application.*

Direct Assessment

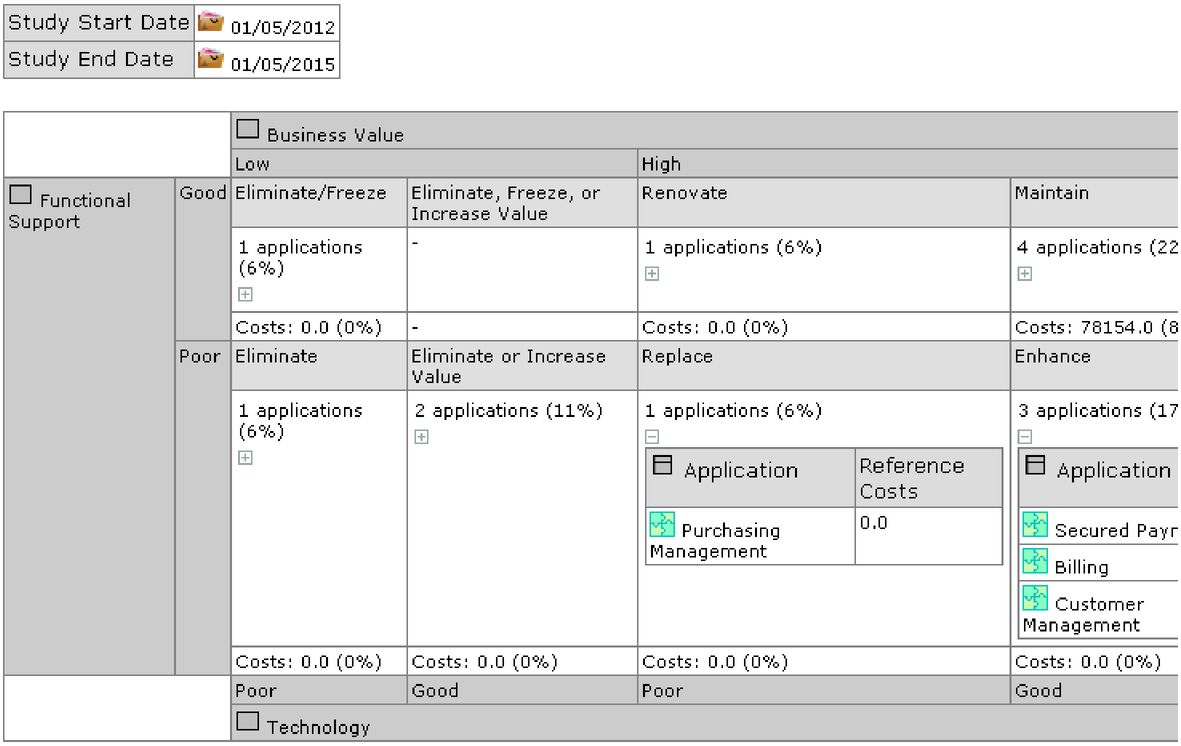
You can evaluate an application at precise moments, by creating a new assessment measure each time.

To create an assessment measure:

1. Click the icon of the application to evaluate and select **Properties**.

2. In the properties drop-down list, click the **Assessment** page.
3. Click the **Evaluate** button.
   The assessment creation window opens.
4. Indicate the value of each criterion as well as the evaluation end date.

From evaluation data, a report allows you to classify applications of the installation in a matrix and to rapidly identify the applications to be upgraded. See Accessing Embedded Reports in a Portfolio.



Study Start Date	01/05/2012
Study End Date	01/05/2015

		Business Value			
		Low		High	
Functional Support	Good	Eliminate/Freeze	Eliminate, Freeze, or Increase Value	Renovate	Maintain
		1 applications (6%)	-	1 applications (6%)	4 applications (22
		Costs: 0.0 (0%)	-	Costs: 0.0 (0%)	Costs: 78154.0 (8
	Poor	Eliminate	Eliminate or Increase Value	Replace	Enhance
		1 applications (6%)	2 applications (11%)	1 applications (6%) Application | Reference Costs Purchasing Management | 0.0	3 applications (17 Application Secured Payr Billing Customer Management
		Costs: 0.0 (0%)	Costs: 0.0 (0%)	Costs: 0.0 (0%)	Costs: 0.0 (0%)
		Poor	Good	Poor	Good
		Technology			

"Application positioning" report on an application portfolio

It is also possible to evaluate a set of applications at the portfolio level. This evaluation is performed by the application portfolio manager. See Evaluating Application Assets.

Assessment By Campaign

The functional administrator can create evaluation campaigns or sessions for data.

On creation of a campaign, questionnaires are sent to designated respondents to obtain qualitative estimations on the objects for which they are responsible.

For more details on campaigns and sessions, see Introduction to Assessment by Campaign in the IRM solution guide.

Prerequisites for data assessment

Before starting a data assessment campaign, you must first prepare the work environment. Ensure that you have defined respondents for the data, and specify for each one the entity to which he/she is attached as well as an email.

Creating assessment campaigns

To create an assessment campaign:

› Click the navigation menu then **Assessment > Campaign List**.

1. In the edit area, click **New**.
   A new assessment appears.
2. If necessary modify the name of the campaign.
3. In the **Assessment template** column, select an assessment template.
4. Specify the **Begin Date** and the **End Date**.
5. Click **Next**.
6. In the **Scope Selection** window, select the objects that define the evaluation context.
   The context encompasses the elements of the branch that extends from the object in question up to the root.
   - *If you deselect a node of a branch, only the child elements of this branch are deselected.*

Next step: Creating an Assessment Session.

See the chapter “Managing Assessment Campaigns > Creating an Assessment Session” in the IRM solution guide.

List of Analysis Reports Available on Applications and Application Systems

HOPEX IT Portfolio Management provides predefined report templates that are used to analyze the applications of your repository from different angles.

Application and Application System Embedded Reports

The reports available for an application or an application system are:

- **Application / Application System Standard Cost**: presents the detailed costs of an application or an application system. See Analyzing Application Costs.
- **Gantt Chart** and **Gantt Chart with Conflicts**: displays the lifeline of the application / the application system and any conflicts in its deployments. See Analyzing Application Life Cycle and Installations.
- **Environment Graph**: provides a graphical view of the environment of the application / application system in terms of data flow, deployments, functional scope. See Application Environment Graph of an application.
- **Overview**: presents a summary of the information specified for the application or application system.
- **Application Impact** : allows you to visualize the scope of the data used and to measure the impact of application deletions on the data they use. See Analyzing the Impact of an Application on the Data Used.

Reports Applicable to a Set of Applications

Instant reports

Instant reports offer a statistical graphic analysis of the data. You can generate instant reports on a selection of applications in order to view certain data graphically (for example, their exchanges) or to compare the applications for specific characteristics (for example, costs).

To launch an instant report on a set of applications:

1. Click the navigation menu then **IT Portfolio Management**.
2. In the edit area, click the **Applications** tile.
3. Select the applications in question.
4. Click the**Instant Report** button.

5. Select the type of report to create and then, if necessary, the application data to be analyzed.

   ```
   For example, to display a histogram of application costs,
   select a "Quantitative" type report then select the "Cost"
   attribute.
   ```

See also:

Managing Instant Reports.

Application Exchange Graph for a set of applications.

Dashboard reports

The dashboard provides different reports that analyze automatically all the applications of the repository or the applications that you own:

- Application by state: displays the distribution of applications by state
- Application by state for the application owner (AO)
- Applications and deployments by owner
- Reports on application completeness; a set of reports identifies potential gaps in application specification:
  - cost completeness: number of applications for which the cost is determined
  - deployment completeness: number of applications deployed
  - Assessment completeness: number of applications assessed
  - lifecycle completeness: number of applications with a lifecycle
  - technology completeness: number of applications associated with a technology
- Application by age: displays the distribution of applications by age
- Time model by application (Bubbles): this report uses a TIME (Tolerate, Invest, Migrate and Eliminate) model to analyze the business value of applications in a portfolio.

To generate a report in your dashboard:

1. Click the navigation menu then click **Dashboard**.
2. Click + to add a report.
3. Expand the **IT Portfolio Management** folder, then the **Dashboard** sub-folder.
4. Select the report concerned.
   The report appears in your dashboard.

Application portfolio reports

It is possible to analyze a set of applications within a portfolio. See Analyzing an inventory portfolio.

DRAWING UP A TECHNOLOGY INVENTORY

Similarly to applications, **HOPEX IT Portfolio Management** enables to draw up an inventory of available technologies and to collect information according to different criteria.

The following points are covered here:

Defining and Validating Technologies

Application asset technologies can be created and managed by the Technology Portfolio Manager or the Application Owner. They are then validated or rejected by the Chief Technology Officer. Their cost is determined by the Financial Controller.

Validation and updating of technologies is assured by workflows.

Creating a Technology

HOPEX IT Portfolio Management produces a navigation tree for technologies, accessible in the **IT Portfolio Management** navigation pane of the ITPM desktop. The navigation tree displays the list of technologies and classes according to different criteria:

- All technologies of the repository
- Technologies outside portfolio (those not belonging to any inventory portfolio)
- Technologies of the connected user portfolio

To create a technology:

1. In the desktop click the navigation menu then **Asset Catalogs** > **Technologies**.
2. In the edit area, in the drop-down list select **All technologies**.
3. Click the **New** button.
4. In the dialog box that appears, indicate:
   - its name
   - the vendor
5. Click **OK**.

When a technology is created in **HOPEX IT Portfolio Management**, a workflow is automatically started and a validation request sent to the Chief Technology Officer, who defines the Company Standard. See "Validating a Technology", page 151.

See also:

"Importing Technologies from BDNA", page 154.

Defining Technology Properties

To access technology properties:

1. In the list of repository technologies, select the required technology and click the **Properties** button  of the edit area.

2. In the properties window, click the drop-down list to access the following pages:
   - Characteristics
   - Version and installation
   - Application
   - Cost
   - Reports
   - BDNA

Characteristics

In this page you can specify:

- **Identification** of the technology:
  - the **Name** of the technology
  - the internal **Code**
  - the **Vendor**
  - The **Company standard**: this attribute indicates the organization policy regarding the usage of a technology or technologies of a vendor. It is specified by the Chief Technology Officer.
    - *See also "Validating a Technology", page 151.*
  - a **Comment**.
- the **Official Life Cycle** of the technology, with its publication and support end dates.
  - *The end of support date can be imported from BDNA or specified manually.*
  See also: "Technology Support Alert".
- **Technology Type**: IT service, operating system, platform, DBMS. A technology can be connected to one or to several technology types.
  - *New technology types can be created by the functional administrator only.*
- **Responsibility**: this is the person or persons responsible for the technology:
  - the management controller responsible for financial aspects of the technology
  - the local correspondent who is the main referrer for the technology
    - *This business role is not associated with a specific desktop.*
- **Gantt Chart** presenting the technology life cycle. This is the life cycle within the organization; it can differ from the official life cycle specified by the supplier.
  For more information on the object life cycle and its Gantt chart, see "Viewing Application Life (Gantt Chart)", page 128.
  For more information on the technology official life cycle, see "BDNA properties in HOPEX", page 22.
- associated **Attachments**.

Version

See "Managing Deployments of Technologies", page 178.

Application

This page allows you to connect the technology to existing applications. For each application you can indicate:

- Total expenses for the year
- Capital expenditure (CAPEX)
- Operating expenses (OPEX)

Cost

In this page you can define costs linked to the technology. The definition of costs of a technology is the same as for an application. See "Managing Application and Application System Costs", page 136.

An analysis report summarizes costs of the technology. See "Costs Report", page 150.

Reports

The **Reports** page accesses analysis reports available on the technology.

Costs Report

Summarizes technology costs, by cost nature and by year.

Gantt Chart

Displays technology life cycle steps. See "Defining Technology Life", page 174.

Gantt Chart with Conflicts

This report presents possible conflicts between the technology life cycle and the life cycle of the applications that use it.

Rules Application

Displays modeling rules in cases where a rule is active.

Overview

Displays a summary of technology characteristics.

BDNA

This page displays properties imported from BDNA. See "Displaying BDNA properties in HOPEX", page 160.

See also "Importing Technologies from BDNA", page 154.

Validating a Technology

At technology creation

On creation of a technology in ITPM, a task is automatically assigned to the technology manager, who must validate or refuse the technology. The task appears in his/her desktop, in which are displayed the objects for which he/she is responsible.

To validate a Technology:

1. Click the navigation menu then **List of tasks**.
2. In the edit window, click **Technologies**.
   The list of technologies to be validated appears in the edit area.
3. Click the icon of the technology to be validated and select **Assessment of the Technology** > **Defined as Accepted**.

The **Expected** command also validates the technology, but in a more pronounced way, since it specifies that it is an expectation.

Company standard (calculated)

The **Company standard** attribute indicates the organization policy regarding the usage of a technology or technologies of a vendor. This attribute, visible in the technology characteristics, is modified depending on the validation workflow.

It can take the following values:

- Expected
- Accept
- Forbidden
- Unknown

If a technology belongs to a "prohibited" or "unknown"supplier, it automatically takes the same value.

On demand

The Portfolio Manager can subsequently request a new validation of the technology.

He/she can also request financial validation from the Financial Controller responsible for this technology.

Defining a Technology Stack

A technology stack makes up a technology grouping.

It is obsolete when one of the technologies that it contains is obsolete.

It can be associated with applications.

Creating a technology stack

To define a technology stack:

1. In the desktop click the navigation menu then **Asset Catalogs** > **Technologies**.
2. In the edit area, click **New**.
   The technology stack creation dialog box appears.
3. Enter the name of the technology stack and an owner if necessary.
4. Click **OK**.

Specifying its properties

To specify the properties of the technology pile created:

› Select the technology concerned and click **Properties** in the edit window.
You can specify:
- its components (technologies)
- its life cycle
- its owner
- the applications used

Support alert

The **Support Alert** attribute available on each technology compares the official life cycle of a technology (imported from BDNA or defined manually) with its life cycle in the organization.

On a technology pile, the value of this attribute is calculated using the values defined for the technologies that it contains.

- If one of the technologies that it contains is "Not Supported", the support alert for the pile is "Not Supported".
- Otherwise, if one of the technologies that the pile contains is "Delayed Use", the support alert for the pile is "Delayed Use".
- Otherwise, if one of the technologies that the pile contains is "Early Use", the support alert for the pile is "Early Use".
- Otherwise, the support alert for the pile is "Supported".

Company standard (computed)

The **Company Standard** attribute indicates the organization policy regarding the usage of a technology.

– *See "Validating a Technology", page 151.*

This attribute can take values:

- Expected
- Accept
- Forbidden
- Unknown

On a technology stack, the value of the **Computed Company Standard** attribute is calculated using the values defined for the technologies that the technology stack contains.

- If one of the technologies the stack contains is "Forbidden", the Computed Company Standard is "Forbidden".
- Otherwise, if one of the technologies the stack contains is "Unknown", the Computed Company Standard is "Unknown".
- Otherwise, if one of the technologies the stack contains is "Accepted", the Computed Company Standard is "Accepted".
- Otherwise, the Computed Company Standard is "Expected".

This computed value is providing a reference only. The director of the technology can define a different value for the **Company Standard** attribute for the technology stack.

Conflicts between a technology stack and its components

The “Gantt chart with conflicts” report is used to view any conflicts between the life cycle of a technology stack and those of the technologies that it contains.

To display this report:

1. Open the properties of the technology stack.
2. Slect the page **Reporting** > **Gantt Chart with Conflicts**.

IMPORTING TECHNOLOGIES FROM BDNA

BDNA™ is a large repository of technology market information. It provides an up-to-date IT reference catalog of software and hardware information. **HOPEX IT Portfolio Management** provides an integration tool with BDNA™, allowing Enterprise Architects and Technology Portfolio Managers to take full benefit of this information and make more accurate decisions on their IT asset.

With the BDNA Connector you can:

- Import new technologies (as well as technology types and vendors)
- Align BDNA technologies with existing technologies of your repository
- Update technologies imported in your repository

Presentation of the BDNA Connector

Use Case in HOPEX ITPM

In the ITPM solution, the BDNA Connector is available to the Functional Administrator. He/she is in charge of importing data from BDNA. He/she can initialize a new repository by importing software technologies from BDNA and use the Functional Administration Desktop to manage automatic update workflows and alert tools.

The Technology Portfolio Manager (TPM) is responsible for software technologies and their life cycle. He can include his software technologies in the scope of the automatic update in order to be notified automatically of any changes. He/she can also send the Functional Administrator a request to prepare the import of new software technologies using BDNA.

The Application Portfolio Manager should subscribe to the standard notification on sensitive software technologies that are used by his applications. Thus, when these software technologies are updated by automatic or manual import from BDNA properties, he will receive a notification of the change. He will analyze the impact and decide how to proceed (keep the software technology, use a new version or change it).

Prerequisite Conditions

The BDNA Connector is available with **HOPEX IT Portfolio Management** and requires the BDNA license that you will specify in the authentication settings.

To be able to connect to BDNA, you must set the **Data Exchange** options related to exchanges between **HOPEX** and third party tools.

To define the required options:

1. Start **HOPEX Administration**.

2. In the navigation tree, right-click the **HOPEX** site name and select **Options** > **Modify**.
   The site options window opens.
3. Expand the **Data Exchange** > **Import** folder.
4. Click the **BDNA** folder.
5. In the right pane of the window, enter information to access BDNA APIs (provided by BDNA). These are the options visible under **Activate BDNA**:
   - **URL address of the BDNA API**: this is the URL of the BDNA (formely BDNA) public catalog The HTTP protocol is used by default but to secure the exchanges you can use the HTTPS protocol by entering it directly in the option.
   - **Authentication user for the BDNA API**; BDNA user
   - **Authentication key for the BDNA API**: password
6. Activate **SMTP proxy** if necessary (provided by your IT service):
   - Check **Activate Proxy for BDNA API**.
   - Enter the address of the proxy.
   - Enter the port.
7. Check the **Authentication for the proxy** option if required.

Scope of BDNA Connector

Within the context of the technology management in ITPM, the BDNA Connector enables import of the following concepts:

- Technology types: categorizes software products by the function they perform.
- vendors. Example: Microsoft
- Software technologies. Example: MS Office

Mappings with **HOPEX** concepts are detailed below.

Object correspondence

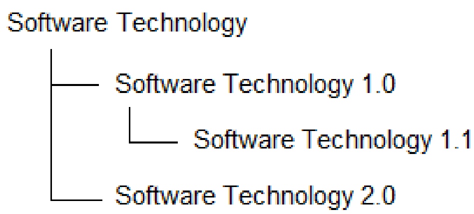
BDNA	HOPEX
Manufacturer (vendor)	Org Unit
Taxonomy (technology type)	_Type
Software Product	Technology
Software Edition	Variation of Software Technology
Software Standard Major/Minor Release	Variation of Software Technology

In BDNA, software technologies are divided into:

- Products (for example: Microsoft Office)
- Editions (for example: Family, Professional)
- Versions (for example: 2013, 2016)
- Releases (major, minor)

Only versions and releases have information on the life cycle (publication date, end support, end of extended support).

Software Products imported from BDNA into **HOPEX** are saved as Software Technologies. Editions and versions of a software are represented by variations of the Software Technology in MEGA.



Importing new Objects from BDNA

Objects you can import from BDNA are:

- Technology types
- Vendors
- Technologies

Data import is carried out by the functional administrator.

To import data with the BDNA Connector:

1. Connect to ITPM as a Functional Administrator.
2. In the desktop click the navigation menu then **Asset Catalogs** > **BDNA**.
3. The edit window displays the following folders:
   - BDNA technology types
   - BDNA vendors
   - BDNA technologies

Technology types

Importing technology types implies import of all technology types of the BDNA repository.

To import technology types:

1. Click the **Asset Catalogs** > **BDNA** navigation pane.
2. In the edit window, click **BDNA Technology Types**.
3. Click **Import**.
   The list of technology types appears in the **Technology Types** folder.

Vendors

You can search vendors to be imported by name, specifying where applicable the Industry and Owner.

The import wizard displays the search results and prompts you to select the vendors to be imported from among the list displayed.

The **Direct Creation** option speeds up the import by eliminating this intermediate stage that lists and displays the vendors found; it creates the vendors found by the wizard directly, without prior validation.

To import a vendor:

1. Click the **Asset Catalogs** > **BDNA** navigation pane.
2. In the edit window, click **BDNA Vendors**.
3. In the edit area, click the **Import** button.
   You can search a vendor by specifying:
   - the name (or a part of the name) of the **Vendor**.

   Under the Advanced options, you can specify:
   - The **Industry** within which a vendor belongs, based on the majority of their products.
   - The **Owner** of the vendor. For example, Microsoft is now the owner of Skype.
   - The **Tier**: categorization of vendors based on priority/importance. For example level 1: well-known vendors.

     – ***Direct Creation****: check this option if you want to ignore the results display and directly create the technologies found.*
4. Click **Next**.
   The wizard displays the search results.
5. Select from the list the vendors you want to import.
6. (Optional) At this stage you can merge a vendor to be imported with a vendor of your repository. To do that, click the **Matching Vendor in HOPEX** column and select the vendor of your repository that corresponds to the vendor to be imported.

   – *The existing vendor is maintained in the repository. In its properties you can see the ID as well as the BDNA name of the vendor to which it corresponds. See also "Merging technologies on BDNA import", page 162.*
7. Click **Next**.
8. Select the import option:
   - Now
   - As soon as possible: execute the import after saving updates
   - Scheduled: execute the import at the date and time specified
9. Click **Import**.
   The imported vendors are shown in the edit area.

Technologies

You can search software technologies to be imported by:

- their name
- the type of technology and the vendor.

The import wizard displays the search results and prompts you to select the technologies to be imported from among the list displayed.

The **Direct Creation** option speeds up the import by eliminating this intermediate stage that lists and displays the technologies found; it creates the technologies found by the wizard directly, without prior validation.

Note that when importing minor technologies, the tool also imports the major versions from which they are derived.

Searching by name

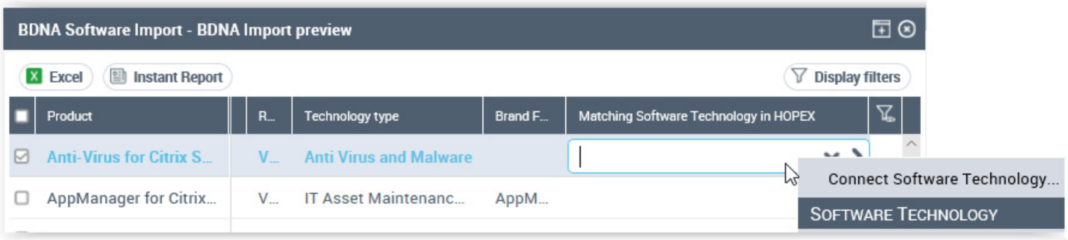
To find a technology using its name:

1. Click the **Asset Catalogs** > **BDNA** navigation pane.
2. In the edit window, click **BDNA Technologies**.
3. Click **Import**.
4. Select the **Import Software technologies by name** query mode and click **Next**.
5. Complete the following fields:
   - Software Technology Name (enter the name or a part of the name)
   - Technology Version
   - Software Version Group (year)

   Under the Advanced options, you can specify if it is:
   - A minor or major version
   - A technology suite
   - A licensable technology

   – ***Direct Creation*** *: check this option if you want to ignore the results display and directly create the found technologies.*
6. Click **Next**.
   The wizard displays the search results.
7. Select from the list the technologies you want to import.
8. (Optional) At this stage you can merge a technology to be imported with a technology of your repository. To do that, click the **Matching Software Technology in HOPEX** column and select the technology of your repository that corresponds to the technology to be imported.

   – *For more details, see* *"Merging technologies on BDNA import", page 162.*



9. Click **Next**.
10. Select the import option:
    - Now
    - As soon as possible: execute the import after saving updates
    - Scheduled: execute the import at the date and time specified
11. Click **Import**.

Searching by the type of technology and the vendor

To find a technology using its type and vendor:

1. Click the **Asset Catalogs** > **BDNA** navigation pane.
2. In the edit window, click **BDNA Technologies**.
3. Click **Import**.
4. Select the **Import Software technologies by selecting technology types and vendors** query mode and click **Next**.
5. Select the technology type.
6. Click **Next**.
7. Select the vendor.
8. Click **Next**.
9. If necessary, filter the technologies by name.

   – ***Direct Creation*** *: check this option if you want to ignore the results display and directly create the found technologies.*
10. Click **Next**.
    The wizard displays the search results.
11. Select from the list the technologies you want to import.
12. (Optional) At this stage you can merge a technology to be imported with a technology of your repository. To do that, click the **Matching Software Technology in HOPEX** column and select the technology of your repository that corresponds to the technology to be imported.
13. Click **Next**.
14. Select the import option:
    - Now
    - As soon as possible: execute the import after saving updates
    - Scheduled: execute the import at the date and time specified
15. Click **Import**.

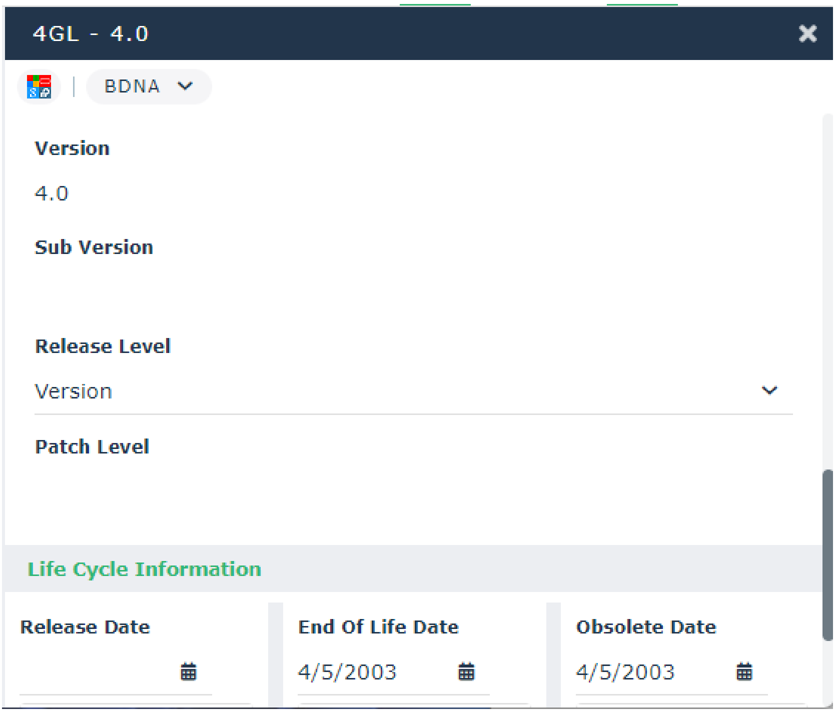
See also:

"Updating BDNA Objects Imported into HOPEX", page 164.

"Merging BDNA technologies with existing technologies of your repository", page 161

Displaying BDNA properties in HOPEX

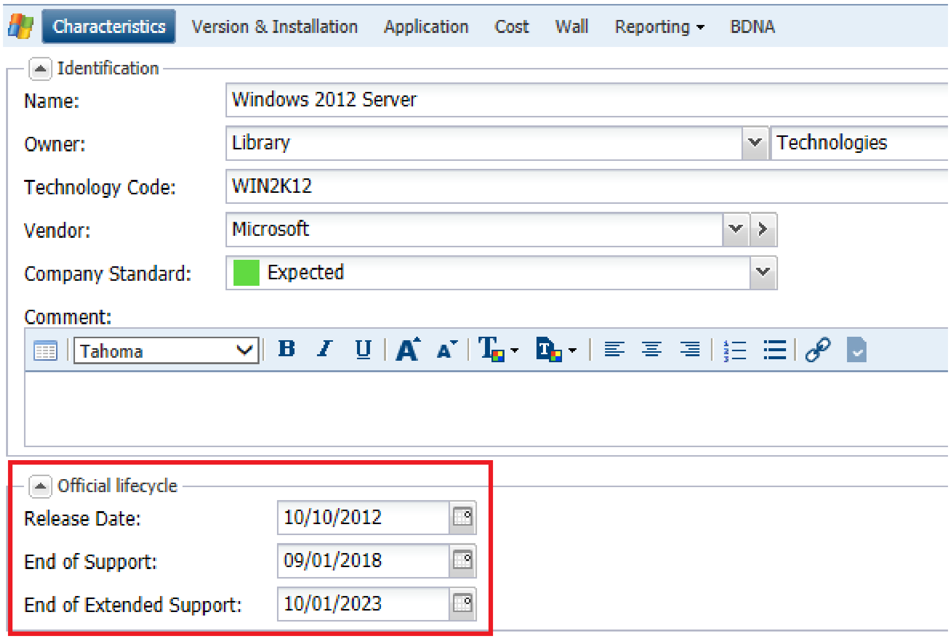
Most of the BDNA properties imported into **HOPEX** appear in the **BDNA** property page of the object concerned (software technology, technology type or vendor).



Technology properties related to the official technology life cycle are automatically defined in the **Characteristics** page of the technology properties.

- Release date
- End of Support
- End of Extended Support

– *These properties can be specified manually if you do not use the BDNA Connector*



A **Support Alert** report uses this data to track technology obsolescence. For example, the solution automatically detects current and future conflicts when an underlying technology component becomes obsolete while the business application is still in production.

See "Technology Support Alert", page 175.

Merging BDNA technologies with existing technologies of your repository

Your repository may contain technologies created outside of the BDNA import. These technologies do not benefit from the provider data and updates supplied by the BDNA connector, such as official life cycle dates, for example. To keep the data for these technologies while benefiting from BDNA information, you can merge it with the BDNA technologies that you import **HOPEX IT Portfolio Management**.

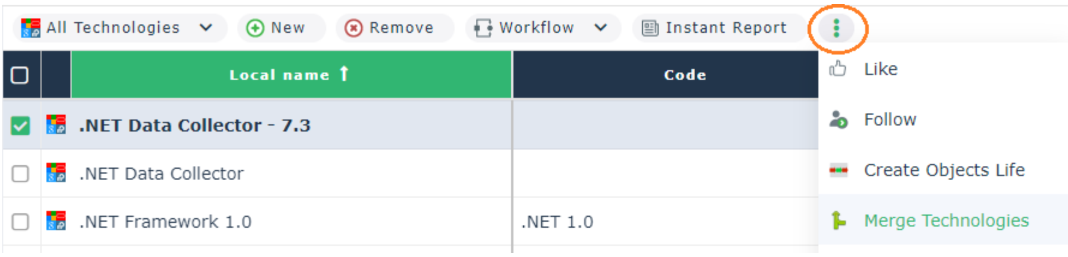
You can merge technologies in three different ways:

- By merging the technologies already contained (BDNA and non-BDNA) in your repository case by case
- By specifying, during the import of BDNA technologies, those that correspond to technologies existing in your repository
- By specifying the BDNA identifier in the technology's properties

Merging two technologies in HOPEX

To merge two technologies:

1. Click the navigation menu then **Asset Catalogs** > **Technologies**.
2. In the edit area, select the technologies to merge.
3. Click the button **More** > **Merge technologies**.



4. In the wizard that appears, enter:
   - The source technology, which will be merged in the target technology
   - The target technology, which will include information of the source technology.
5. Click **Next**.
6. Select the properties you want to keep from the source and target technologies. By default, properties of the target technology are selected.
7. In the same way, select the links you want to keep.
8. Click **OK**.

Merging technologies on BDNA import

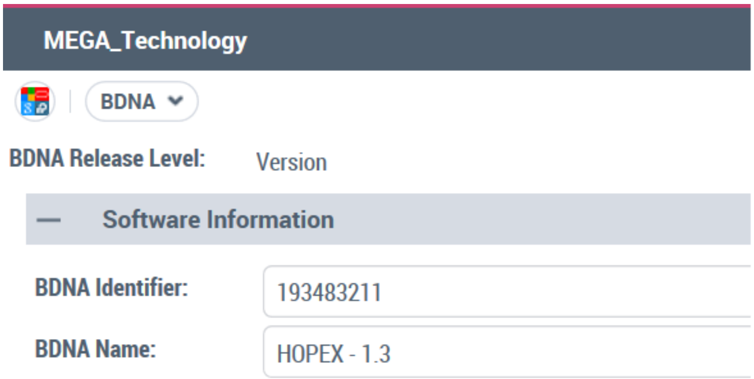
When you import technologies in your HOPEX repository, you can merge them with technologies already present in your repository. The technologies merged in this way are identified as BDNA technologies and can subsequently be updated as such.

In the same way, you can merge vendors.

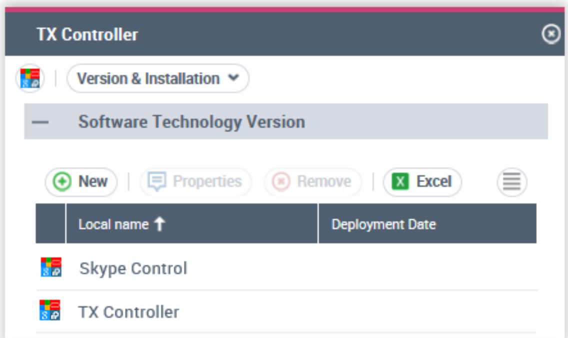
Example of merged technologies

You want to import the "TX Controller V1.15" technology that corresponds to the "Skype control" technology in your repository.

Once the technologies are merged, the existing technology, "Skype control", is kept in your repository. In its properties you can see the ID as well as the BDNA name of the technology to which it corresponds: "TX Controller V1.15".



The "TX Controller" version has also been imported. This is the major version of "TX Controller", from which the imported version is derived. In its properties, in the **Version** page, you can see the different versions of this technology that exist in your repository.



For more details on how to merge technologies and vendors at import, see "Importing new Objects from BDNA", page 156.

Modifying the BDNA Identifier of a technology in HOPEX

To define a technology as a BDNA technology, you can manually specify its BDNA identifier.

To specify a BDNA identifier:

1. Select the technology in question.
2. Click the **Properties** button in the edit area.
   The properties of the technology appear.
3. Select the **BDNA** page.
4. In the **Identifier** field, enter the BDNA identifier number.

See also: "Updating BDNA Objects Imported into HOPEX", page 164.

Updating BDNA Objects Imported into HOPEX

At any time you can update information available on software technologies and vendors imported into **HOPEX**.

To do so:

1. Click the **Asset Catalogs** > **BDNA** navigation pane.
2. In the edit area click **BDNA Vendors** or **BDNA Technologies**, depending on the objects you want to update.
3. In the edit area, click the **Update** button.

   – *If necessary, click to display the hidden commands.*

You can also define an automatic update.

Technology Automatic Updating and Alerts

Automatic update checks, at a given frequency, if the properties of software technologies imported into **HOPEX** have changed in the BDNA repository and updates the corresponding technologies in **HOPEX**.

Defining Update Frequency

To activate an automatic update, you must create a trigger in the administration tool which implements the BDNA Automatic Update macro.

Once the trigger is created, you can plan the update in ITPM.

To create a trigger:

1. Open the Administration module.
2. Open the environment.
3. Expand the repository folder concerned.
4. Right-click **Scheduler** and select **Manage Triggers**.
5. Click the **Triggers Definitions** tab.
6. Click the **New** button to create a trigger definition.
7. In the wizard, create a job definition that implements the macro "BDNA Automatic Update Job Implementation".
8. Complete the planning.
9. Click **Finish**.

To define automatic update on technologies:

1. Connect to ITPM as a Functional Administrator.
2. Click the navigation menu, then **Administration**.
3. Select the **Scheduling Management** navigation pane.

4. In the edit window, click BDNA Automatic Update.
   You can set the alert:
   - Daily
   - Weekly
   - Monthly

Subscribing to Alerts

A user can be notified of updates made on the technologies he is in charge of.

To subscribe to an alert:

1. In the edit window, display the list of technologies.
2. Select the technology concerned and click the **Follow** button.

   – *For more details on alerts, see the HOPEX Common Features guide, chapter "Communicating in HOPEX", section "Threads of Posts and Alerts on Objects".*

Support Alert Report

A **Support Alert** MetaAtribute available on each technology compares the technology life cycle (imported from BDNA or defined manually) with its life cycle in the organization.

– *For more information on technology life, see "Defining Technology Life".*

A report uses the **Support Alert** MetaAttribute to analyze technologies in the **HOPEX** repository and displays all possible conflicts between the use of these technologies in the organization and their official life cycles.

See "Technology Support Alert".

IMPORTING TECHNOLOGIES FROM IT-PEDIA

IT-Pedia™, from Eracent, is a large repository of technology market information. It provides an up-to-date IT reference catalog of software and hardware information. **HOPEX IT Portfolio Management** provides an integration tool with IT-Pedia™, allowing Enterprise Architects and Technology Portfolio Managers to take full benefit of this information and make more accurate decisions on their IT asset.

With the IT-Pedia connector you can:

- import new technologies
- align IT-Pedia technologies with existing technologies of your repository
- update technologies imported in your repository

Presentation of the IT-Pedia Connector

Use Case in HOPEX ITPM

In the ITPM solution, the IT-Pedia connector is available to the Functional Administrator. He/she is in charge of importing data from IT-Pedia. He/she can initialize a new repository by importing software technologies from IT-Pedia and use the Functional Administration Desktop to manage automatic update workflows and alert tools.

The Technology Portfolio Manager (TPM) is responsible for software technologies and their life cycle. He can include his software technologies in the scope of the automatic update in order to be notified automatically of any changes. He/she can also send the Functional Administrator a request to prepare the import of new software technologies using IT-Pedia.

The Application Portfolio Manager should subscribe to the standard notification on sensitive software technologies that are used by his applications. Thus, when these software technologies are updated by automatic or manual import from BDNA properties, he will receive a notification of the change. He will analyze the impact and decide how to proceed (keep the software technology, use a new version or change it).

Prerequisite Conditions

Importing the IT-Pedia Connector V2

The IT-Pedia connector V2 provides advanced features. It is available as a module. To import the module, click on the following link and follow the installation steps: : https://github.com/mega-international/itpedia/releases.

Once the module is installed, import the "Unlink.IT-Pedia.V1.-.from.Hopex.V4.Menu.mgl" file in HOPEX to remove the connector provided by default.

Exchange options betwwen Hopex and IT-Pedia

In HOPEX you must:

- authorize in the options the exchanges with IT-Pedia
- define a user and a password

To set the required import options:

1. Open the **Administration** desktop.
2. In the edit area, click **Environment Options**.
   The options window opens.
3. In the navigation tree, click **Tools** > **Data Exchange** > **Import** > **IT-Pedia**.
4. In the right pane of the window, enter information to access IT-Pedia API (provided by Eracent):
   - **IT-Pedia URL address**: this is the URL of the IT-Pedia public catalog.
   - **IT-Pedia API user**
   - **IT-Pedia API password**

Eracent APIs are available at the following address: https://itpedia.eracent.com/MPAPI/.

Importing New Technologies from IT-Pedia

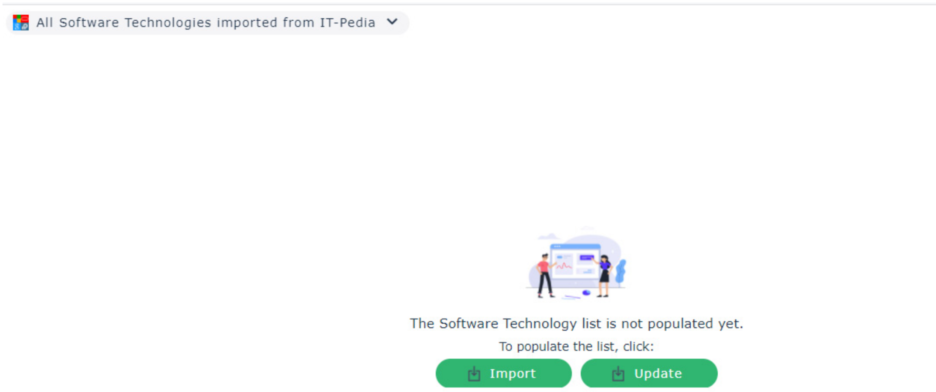
See: "Prerequisite Conditions".

Data import is carried out by the functional administrator.

To import data with the IT-Pedia connector:

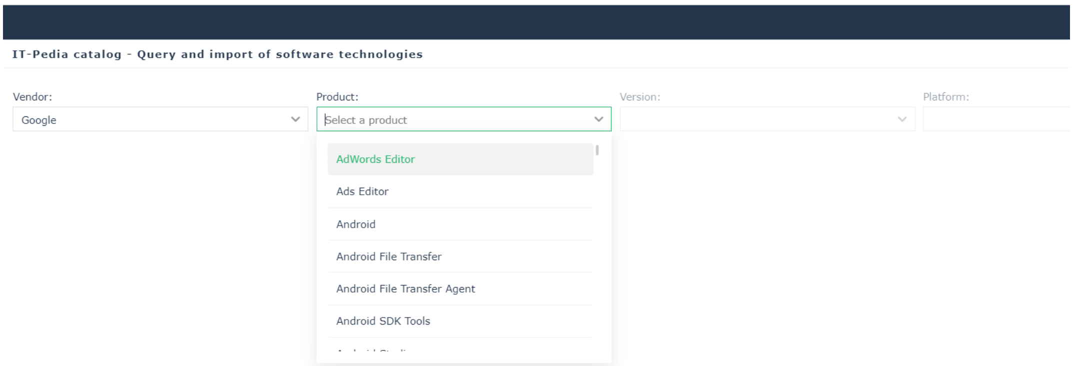
1. Connect to ITPM as a Functional Administrator.
2. Click the navigation menu then **Asset Catalogs** > **IT-Pedia**.
3. In the edit area, click the **IT-Pedia V2** tile.
   If technologies have already been imported, they are displayed.

4. Click the **Import** button.

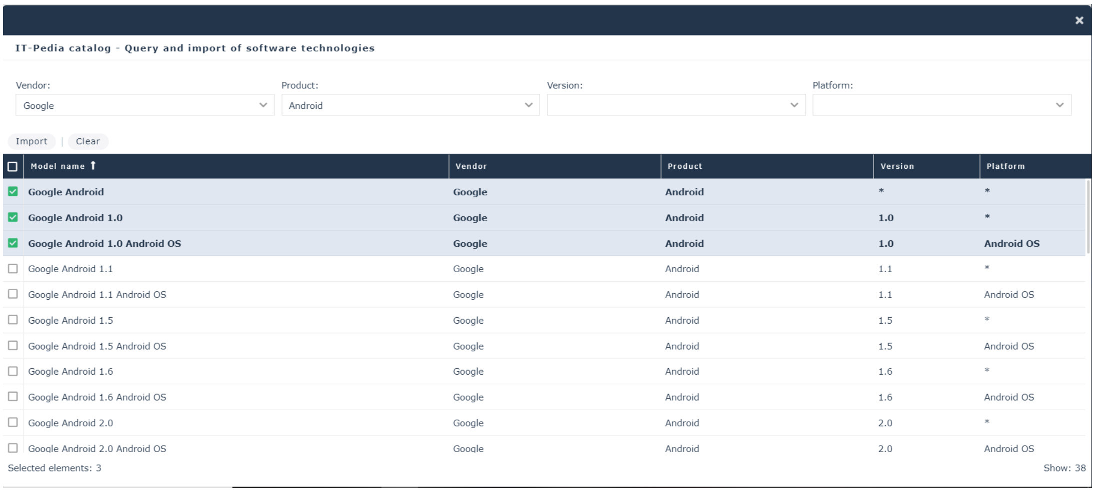


The import wizard appears.

5. Select:
   - A vendor
   - A product
   - The version
   - The platform (Mac or Windows)



6. Check the product of the selection that appears.



7. Click **Import**.
8. Select the import option:
   - Now
   - As soon as possible: execute the import after saving updates
   - Scheduled: execute the import at the date and time specified
9. Click **OK**.
   A message indicates the progress then the success of the import.

Filtering the display of technologies

You have the possibility to filter the display of technologies according to:

- Software technologies found in IT-Pedia My Products
- Software technologies not found in IT-Pedia My Products
- All Software technologies imported from IT-Pedia

When you import technologies from IT-Pedia V2, these technologies are automatically added to the "My Products" list of the IT-Pedia catalog. When updating a technology in HOPEX, if the technology no longer exists in IT-Pedia, it is displayed in the list "Software technologies not found in IT-Pedia My Products".

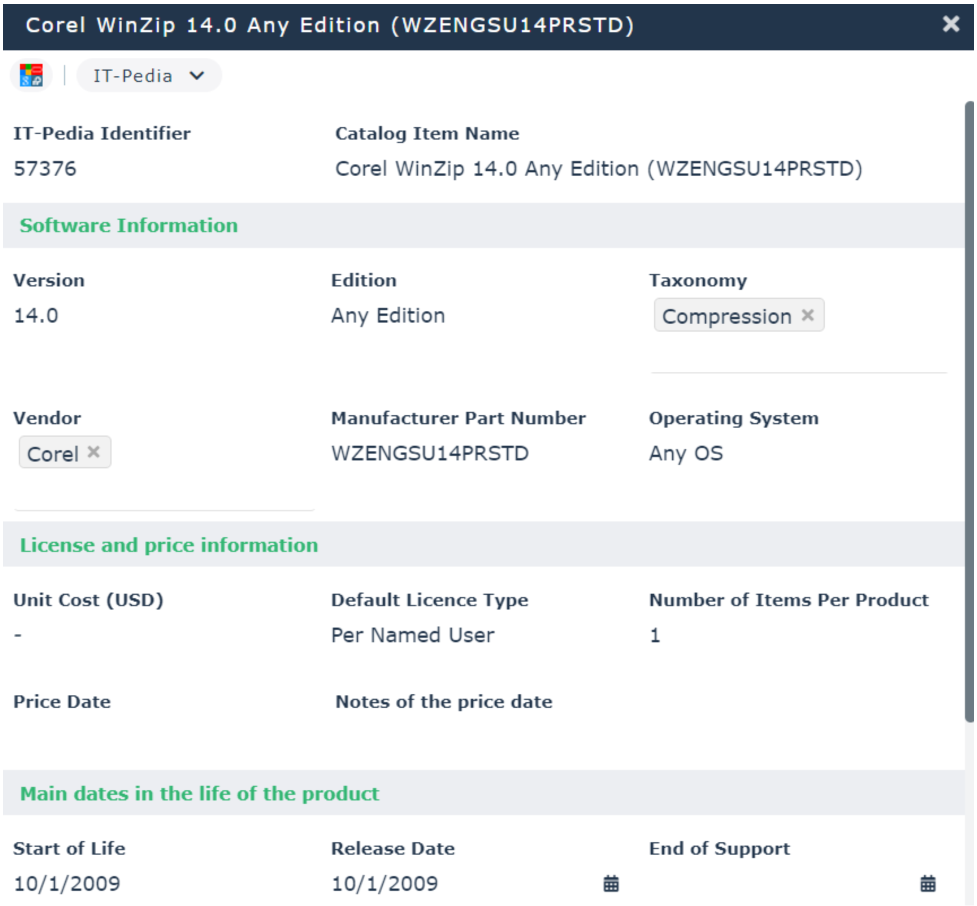
See also:

"Updating IT-Pedia Objects Imported into HOPEX", page 172.

"Merging IT-Pedia Technologies With Existing Technologies of Your Repository", page 171.

Displaying IT-Pedia Properties in HOPEX

The IT-Pedia properties imported into **HOPEX** appear under the **IT-Pedia** properties page of the relevant technology.



Technology properties related to the official technology life cycle are automatically defined in the **Characteristics** page of the technology properties, under the **Official Lifecycle** section.

- Release date
- End of Support
- End of Extended Support

– *These properties can be set manually when you are not using the IT-Pedia connector.*

A **Support Alert** report uses this data to track technology obsolescence. For example, the solution automatically detects current and future conflicts when an underlying technology component becomes obsolete while the business application is still in production.

See "Technology Support Alert", page 175.

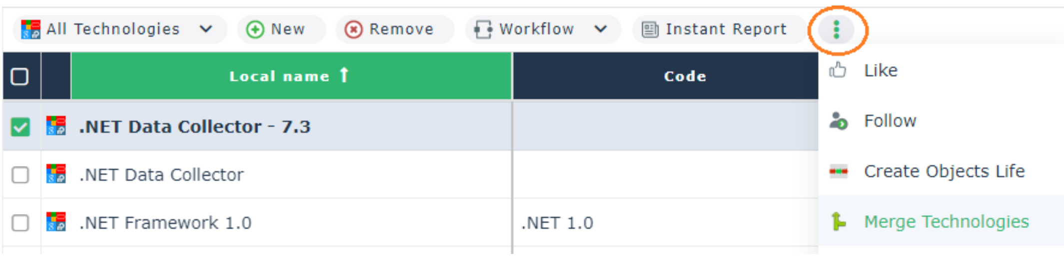
Merging IT-Pedia Technologies With Existing Technologies of Your Repository

Your repository may contain technologies created outside of the IT-Pedia import. These technologies do not benefit from the provider data and updates supplied by the IT-Pedia connector, such as official life cycle dates, for example. To keep the data for these technologies while benefiting from IT-Pedia information, you can merge it with the IT-Pedia technologies that you import **HOPEX IT Portfolio Management**.

Merging two technologies

To merge two technologies:

1. Click the navigation menu then **Asset Catalogs** > **Technologies**.
2. In the edit area, select the technologies to merge.
3. Click the button **More** ⋮ > **Merge technologies**.



4. In the wizard that appears, enter:
   - The source technology, which will be merged in the target technology
   - The target technology, which will include information of the source technology.
5. Click **Next**.
6. Select the properties you want to keep from the source and target technologies. By default, properties of the target technology are selected.
7. In the same way, select the links you want to keep.
8. Click **OK**.

Updating IT-Pedia Objects Imported into HOPEX

At any time you can update information available on software technologies imported into **HOPEX**.

To do so:

1. Click the **Asset Catalogs** > **IT-Pedia** navigation pane.
2. In the edit area, click the **Update** button.

   – *If necessary, click* *to display the hidden commands.*

You can also define an automatic update.

Technology Automatic Updating and Alerts

Automatic update checks, at a given frequency, if the properties of software technologies imported into **HOPEX** have changed in the IT-Pedia repository and updates the corresponding technologies in **HOPEX**.

Defining Update Frequency

To activate an automatic update, you must create a trigger in the administration tool which implements the BDNA Automatic Update macro.

Once the trigger is created, you can plan the update in ITPM.

To create a trigger:

1. Open the Administration module.
2. Open the environment.
3. Expand the repository folder concerned.
4. Right-click **Scheduler** and select **Manage Triggers**.
5. Click the **Triggers Definitions** tab.
6. Click the **New** button to create a trigger definition.
7. In the wizard, create a job definition that implements the macro "BDNA Automatic Update Job Implementation".
8. Complete the planning.
9. Click **Finish**.

To define automatic update on technologies:

1. Connect to ITPM as a Functional Administrator.
2. Click the navigation menu, then **Administration**.
3. Select the **Scheduling Management** navigation pane.
4. In the edit window, click BDNA Automatic Update.
   You can set the alert:
   - Daily
   - Weekly
   - Monthly

Subscribing to Alerts

A user can be notified of updates made on the technologies he is in charge of.

To subscribe to an alert:

1. In the edit window, display the list of technologies.
2. Select the technology concerned and click the **Follow** button.

   – *For more details on alerts, see the HOPEX Common Features guide, chapter "Communicating in HOPEX", section "Threads of Posts and Alerts on Objects".*

Support Alert Report

A **Support Alert** MetaAtribute available on each technology compares the technology life cycle (imported from IT-Pedia or defined manually) with its life cycle in the organization.

– *For more information on technology life, see "Defining Technology Life".*

A report uses the **Support Alert** MetaAttribute to analyze technologies in the **HOPEX** repository and displays all possible conflicts between the use of these technologies in the organization and their official life cycles.

See "Technology Support Alert".

DEFINING TECHNOLOGY LIFE

The technology life is characterized by:

- Its official life cycle, specified by the vendor
- Its life cycle within the organization; it can differ from the official life cycle.

Official Life Cycle

Dates of the official technology life cycle are automatically defined in the **Characteristics** tab of the technology properties.

- Release date
- End of Support
- End of Extended Support

These properties are defined automatically when you import a technology from BDNA or IT-Pedia.

They can be specified manually if you do not use the BDNA or IT-Pedia Connector.

See also:

"Importing Technologies from BDNA", page 154.

Technology Life Cycle within the Organization (Gantt Diagram)

An object evolving over time can take different states (preparation, production, retirement, etc.).

The *Object life* enables viewing of the planning of these different states in the form of a Gantt chart.

To view the Gantt chart representing the different states of a technology:

1. Open properties of the technology.
   - *See also "Defining Technology Properties", page 148.*
2. In the properties of the technology, click the drop-down list and select **Characteristics**.
3. Expand the **Gantt** section.

For more details on object life, see "Viewing Application Life (Gantt Chart)", page 128.

Analyzing the life cycle of a technology and the applications that use it

A report enables display in the same Gantt diagram of life cycle steps of the technology and those of the applications that use it.

A second report indicates any conflicts between life cycles of these objects.

To access these reports:

1. Open the properties of the technology concerned.
2. Click the **Reports** page then:
   - **Gantt Chart** to view life cycles of the objects
   - **Gantt chart with conflicts** to view any conflicts.

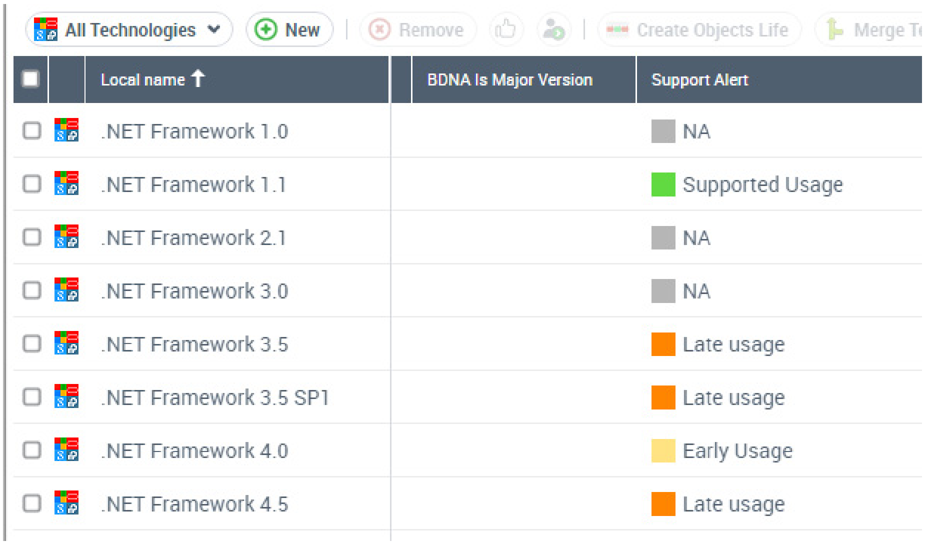
Technology Support Alert

A **Support Alert** MetaAtribute available on each technology compares the technology life cycle (imported from BDNA or defined manually) with its life cycle in the organization.

Viewing the support alert of a technology

To view the Support Alert attribute on a technology:

1. Click the navigation menu then **Asset Catalogs** > **Technologies**.
2. Display “All Technologies”.
   The **Support Alert** column defines the use of each technology within the organization.



Local name	BDNA Is Major Version	Support Alert
.NET Framework 1.0		NA
.NET Framework 1.1		Supported Usage
.NET Framework 2.1		NA
.NET Framework 3.0		NA
.NET Framework 3.5		Late usage
.NET Framework 3.5 SP1		Late usage
.NET Framework 4.0		Early Usage
.NET Framework 4.5		Late usage

The attribute can take the following values:

- **Early life cycle**: the technology has a life cycle in the organization which started before the official release date of the software technology.
- **Supported usage**: the life cycle of the technology begins after the release date of the technology and ends before the end of the support date.
- **Delayed use**: the life cycle of the technology begins after the release date of the technology and ends before the end of the extended support date.
- **Non-supported use**: the life cycle of the technology begins after the release date of the technology and ends before the end of the extended support date.

Attribute calculation

The value of the **Support Alert** attribute is defined by the following parameters:

Technology life cycle	Support Alert value
Life cycle not defined	NA (Non applicable)
Support end date and extended support end date not defined	NA (Non applicable)
The release date of the technology is later than the current date and the begin date of use.	Early life cycle
The support end date is not defined or later than the usage end date, and the extended support end date is later than the usage end date.	Supported usage
The support end date is earlier than the usage end date, and the extended support end date is later than the usage end date.	Delayed use
The usage end date is later than the support end date and the extended support end date.	Non-supported use

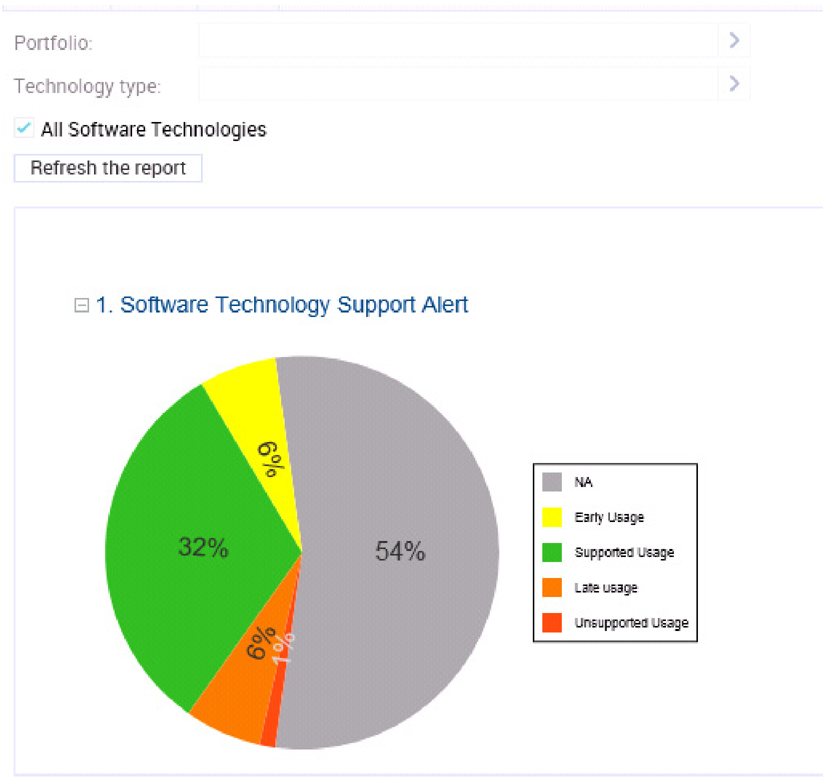
Support Alert report

A report uses the **Support Alert** MetaAttribute to analyze technologies in the **HOPEX** repository and displays all possible conflicts between the use of these technologies in the organization and their official life cycles.

To generate a **Support Alert** report:

1. On the IT Portfolio Management desktop, click the navigation menu, then **Reports**.
   - *This report is also available in the properties of a portfolio.*
2. Click the **Technology** navigation pane.

3. In the edit window, click **Technology Support Alert**.
   The report appears in the edit area.
4. Select the technologies you want to analyze:
   - Technologies of a Portfolio. You can select an Application or a Technology portfolio. In case of an application portfolio, it analyses the technologies linked to the applications.
   - Technologies of a certain Type (Taxonomy).
   - All Technologies
5. Click the **Refresh the report** button.
   The report results appear in the edit area.



MANAGING DEPLOYMENTS OF TECHNOLOGIES

HOPEX IT Portfolio Management enables management of deployments of technologies.

Versions and Deployments

HOPEX enables association of a technology with one or several deployments. A deployment is supported by a site or server and associated with a life cycle.

On the same site, a technology is deployed to offer different services to different users. Each deployment is therefore associated with several *usage contexts* which enable specification of lists of functionalities available to different users.

Consulting Technology Deployments

To access deployments of a technology:

1. Open properties of the technology.
2. Select the **Installation** page.
   The list of associated deployments is displayed.
   - deployment date
   - planned retirement date

To access characteristics of a technology deployment:

1. In the **Deployed Technology** section, select a deployment.
   The hostings and usage contexts associated with the deployment appear in the following sections.

In **Context of Use** you can define :

- context begin date:
- proposed functionalities retirement date
- planned number of users (consumers)

Creating a Technology Deployment

Technology deployment on a site offers functionalities adapted to different populations of users over a time period.

You can create a first deployment at creation of the technology, or create it later via its properties pages.

To create a technology deployment:

1. Open properties of the technology.
2. Select the **Installation** page.

3. In the **Deployed Technology** section, click the **New** button.
   The Deployment creation window opens.
4. Specify the deployment name.
5. Select the **Deployment Life Cycle** from the drop-down list of this field.
6. Specify:
   - **Start Date**, corresponding to the effective deployment date
   - **End Date**, which can correspond to the technology production end date.
7. Select the **Freeze the Source Object of the Software Installation** to avoid modification of the deployed technology.

   – *You cannot modify a locked technology. If the technology is to be modified, a new version must be created.*

   – *For more details on variations, see the **HOPEX Common Features** guide, "Handling Repository Objects", "Object Versions" chapters.*
8. Click **Next**.
9. In the **Deployment Support** section, select the site or server that hosts the deployment.
10. Click **OK**.
    The new installation appears in the technology properties.

Creating an Deployment Usage Context

The deployment context of a technology enables specification of the list of functionalities offered to each population of users for a given deployment over a period of time. Several contexts can be created for a given deployment.

To create a *usage context* of an application installation:

1. Open properties of the technology.
2. Select the **Installation** page.
3. Under **Deployed Technology**, select the deployment.
4. In the **Usage Context**section, click the **New** button.
   The **Creation of Use Context** dialog box opens.
5. Specify the **Life Cycle**, **Start Date** and **End Date** of the context.
6. Click **Next**.
   The wizard offers you to add **consumers**. It relates to the application installations that will use the deployed technology in this context.
7. Click the **Connect** button to connect the consumers to the usage context.
8. Click **Next**.
   You can add functionalities to the context:
9. Click the **Connect** button to select the functionalities that will be proposed to consumers in the usage context.
10. Click **OK**.
    The new usage context appears in the properties of the deployed technology.

Managing Costs of Technologies

Similarly to application, **HOPEX IT Portfolio Management** allows you to specify and analyze the costs of your organization's technologies.

The definition of costs of a technology is the same as for an application.

See "Managing Application and Application System Costs", page 136.

EVALUATING APPLICATION ASSETS

Each application manager can evaluate applications for which he/she is responsible based on three criteria: business, functional and technological. See "Evaluating Application Criticality", page 141.

The Portfolio Manager can evaluate the application assets he/she supervises by creating an application portfolio and associating with it additional evaluation criteria.

He/she can also evaluate the quality of the application code of a portfolio by launching a scan campaign with CAST Highlight for the application managers.

The numerous reports proposed by **HOPEX IT Portfolio Management** to analyze applications before starting the transformation phase.

The following points are covered here:

DESCRIBING INVENTORY PORTFOLIOS

An inventory portfolio groups a set of applications.

Creating an inventory *portfolio* consists of defining all the information (comparison criteria, timelines, etc.) that will allow you to assess applications to be implemented.

) *A portfolio enables representation of all investments of an enterprise (or department) necessary to carry out changes required to achieve strategic objectives. It comprises a set of objects (for example applications for a an inventory portfolio) to be compared based on comparison criteria associated with the portfolio.*

You can also create inventory portfolios for technologies, as Technology Portfolio Manager. The technology portfolio definition uses the same methods than applications portfolios.

Creating an Inventory Portfolio

HOPEX IT Portfolio Management proposes two types of *portfolios*:

- The inventory portfolio: comprising different applications (or technologies), it enables follow-up of a given set of applications.
- The transformation portfolio: this intervenes after the inventory and assessment and comprises project lines (including deliverables that can be applications or technologies) and can include several project lines for the same application to measure the option costs of different scenarios. See "Transforming an application portfolio", page 73.

To create an application inventory portfolio:

1. Connect to **HOPEX IT Portfolio Management** as Application Portfolio Manager.
2. Click the navigation menu then **Asset Catalogs** > **Portfolios** > **Application Portfolios**.
3. In the edit area, select **All Application Portfolios**.
   The list of application portfolios appears in the edit area.
4. Click **New**.
   The new portfolio appears in the list. You can open its properties to define its characteristics.

Defining Inventory Portfolio Content

All elements of a portfolio are accessible from its properties pages.

To access application portfolio properties pages:

1. In the **All Application Portfolios** list, select the portfolio that you wish to study.
2. In the command bar associated with the edit area, click **Properties**.
   Portfolio properties pages appear.

Portfolio characteristics

Portfolio characteristics are broken down into five groups:

- **Identification**: name, portfolio type, study dates, comment.
- **Portfolio Criteria**: see "Defining Portfolio Assessment Criteria", page 189
- **Responsibility**: displays person responsible for the portfolio
- **Sub-Portfolios**
- **Timeline**: see "Using Timelines", page 195.
- **Report: enables creation of analysis reports on the portfolio.** See "Accessing Embedded Reports in a Portfolio", page 200.

Inventory

This page enables listing of portfolio applications - or technologies - and evaluation of their criticality. See "Evaluating Application Criticality", page 141.

In this page, the portfolio manager can launch information gathering for a set of applications. See "Collecting Data for a Set of Applications", page 185.

It is also possible to run instant reports on selected applications or technologies. See "Instant reports", page 144.

Evaluation

This page enables definition of values of *criteria* associated with applications. See "Evaluating Applications on Portfolio Criteria", page 192.

) *A criterion is a reference element used to compare objects in a portfolio. Criterion values can be predefined.*

Reporting

This page displays the different dynamic analysis reports of the portfolio.

Collecting Data for a Set of Applications

Principle and prior conditions

The goal is to enable a portfolio manager to ask application owners to enter the properties of a set of objects.

The local owner of the application receives a link to the questionnaire by email enabling him/her to enter the properties in which the portfolio manager is interested.

You must first ensure that each application has an owner. For this, in the application properties window, expand the **Responsibilities** section, and link an application owner if this has not already been done.

Request completion of data via an assessment questionnaire

To ask the owner of an application to complete the data:

1. Select an application portfolio and open its properties window.
2. In its properties window, click the drop down-list and select **Inventory**.
   The portfolio components (applications) appear.
3. Select the applications for which you wish to collect data.

   – *Check that the objects selected are linked to an application local owner.*
4. Click the **Fill Data** button.
5. Scroll the creation wizard and select the elements that you wish to make available to the application owner:
   - one or more properties pages (for example the properties page that concerns risks if you want the application owner to specify the application risks)
   - advanced characteristics (special MetaAttributes, for example, the validation date of the application)
6. Start the session immediately.
   The application owner receives the questionnaire.

Entering data for an application via a questionnaire

To view and fill in the assessment form that was sent to you by your manager:

1. Click the navigation menu then **List of Tasks> My Questionnaires**.
2. Select a questionnaire and click **Display Questionnaires**.
   The applications for which you must complete the data appear.
3. Once the fields are filled in, right-click on the questionnaire and select **Assessment Questionnaire (To be Filled In) > Complete**.

Generating the Business Capability Map of a Portfolio

HOPEX IT Portfolio Management enables you to generate a business capability map in the form of a report that reflects the functional coverage of an application portfolio.

To generate a Business Capability Map from an application portfolio:

1. Select the portfolio concerned and, in the command bar associated with the edit area, click **Properties**.
   The portfolio properties appear.
2. Click the drop-down list then **Reporting** > **Business Capability Map Breakdown**.

The report positions the portfolio applications in the areas that represent business capabilities. It therefore reflects the functional coverage of portfolio applications.

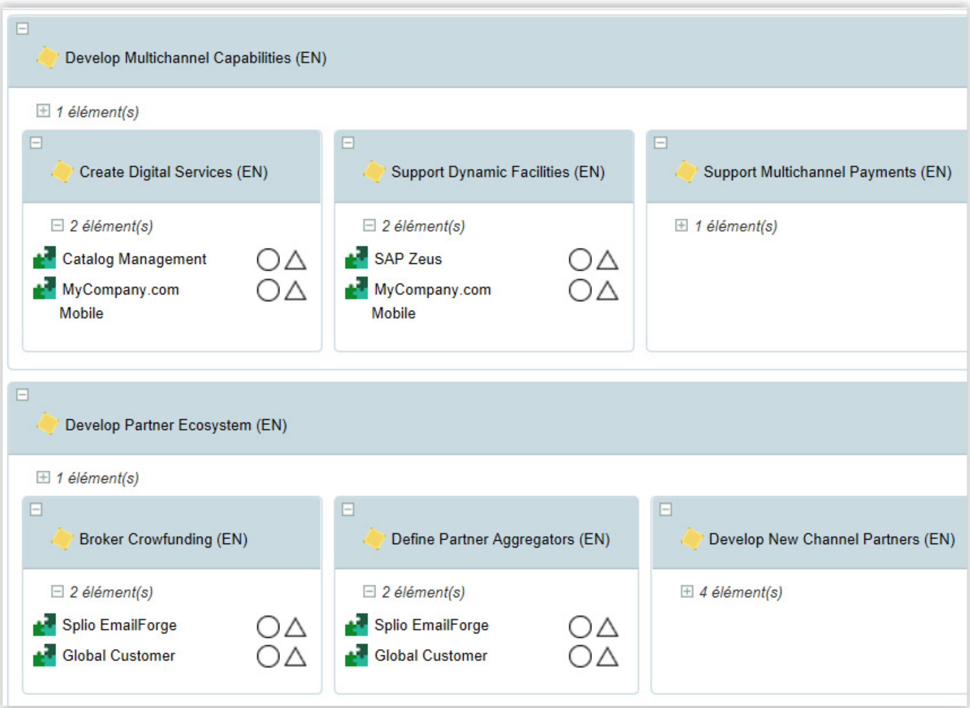
– *For more details on capability maps, see* *"Defining Business Capabilities", page 18*.

Report parameters

This consists of defining report input data.

Parameter	Parameter object	Comment
Business capability	Business capability / Business capability Map	One object mandatory.
In-depth research of the application in portfolios and sub-portfolios.		This option displays the applications defined in the sub-portfolios of the portfolio to which the report relates.
Characteristics	Evaluation criteria See "Defining Portfolio Assessment Criteria", page 189.	Displays in the report the application evaluation results for the selected characteristics: - Technology compliance - Cost - Technical efficiency - Etc. Select the form in which you want to display a characteristic: graphic element or highlighting of the application concerned by the characteristic.

Example of a business capability map example



You also have the **Business Capability Breakdown Time Report** that shows the evolution of the functional coverage of an application landscape over time.

See also "Analyzing an inventory portfolio", page 200.

DEFINING PORTFOLIO ASSESSMENT CRITERIA

You can compare applications defined in a portfolio based on common criteria associated with the portfolio.

) *A criterion is a reference element used to compare objects in a portfolio. Criterion values can be predefined.*

To define portfolio criteria, you can:

- use existing criteria in the repository,
- Create new criteria and associated values.

– *Criteria are defined from the MetaClass (object type)* ***TaggedValue****. Certain dialog boxes use this term rather than* ***Criterion****.*

Using Existing Criteria

To connect existing criteria to a portfolio:

1. Click the navigation menu, then **Asset Catalogs** > **Portfolios**.
2. Select the portfolio concerned and, in the command bar associated with the edit area, click **Properties**.
   The properties dialog box of the portfolio appears.
3. Click the drop-down list then **Characteristics**.
4. In the characteristics, expand the **Portfolio Criteria** section.
5. In the section, click the **New** button.
   The search pane is displayed with a list of criteria already defined.
6. Select the criteria that interest you.
7. Click **Connect**.
   Each selected criterion is displayed in portfolio characteristics.

Using Existing Criteria

Standard criteria are proposed to process costs modeled on objects and initiatives.

– *For more details on modeling of costs, see* *"Managing Application and Application System Costs", page 136**.*

Standard criteria enabling analysis of costs declared on initiatives as a function of their **type** and **nature** are the following:

- For **type**:
  - Capital expenses
  - Operating expenses
- For **nature**:
  - Infrastructure costs
  - Software licenses costs
  - Manpower costs
  - Service costs

The names of standard criteria enabling analysis of costs declared on objects carry the extension "Reference", for example "Reference Costs".

Given that certain criteria are automatically calculated, they cannot be modified from the **Inventory** or **Assessment** tabs of the portfolio.

– *For more details, see "Evaluating Applications on Portfolio Criteria", page 192.*

Creating a New Criterion

To create new criteria for portfolio application comparison:

1. Open the **Criteria** properties page of the current portfolio.
2. Click the **New** button.
   The creation window opens.
3. Indicate the name of the site and click **OK**.
   The new criteria appears in the list of portfolio criteria.

Defining criteria format

Specification of type and format of a criteria (or **TaggedValue**) is identical to that of a **MetaAttribute**. For more details on declaration of criteria format, see chapter "MetaAttributes" of the **Studio** guide .

To define characteristics of a criteria:

1. Open the **Characteristics** properties page of the current criteria.
2. In the **MetaAttribute Type** field, indicate the type that will take the criteria values.

MetaAttribute Type	Meaning
String	Alphanumeric, the value of the MetaAttribute Length attribute should then be specified
DateTime	Date
VarChar	ASCII text
VarBinary	Binary text (reserved)
Boolean	Boolean (0 or 1)
Short	Integer (0-65535)
Long	Integer (0- 4294967295)
Binary	Binary (reserved)
Double	Integer (0- 18446744073709551616)
Float	Floating number

3. In the **MetaAttribute Format** field, indicate the Format that will take the criteria values. Possible values are:
   - **Standard**: for character strings
   - **Currency**: for currencies
   - **Enumeration**: for a list of character strings with predefined values
   - **Enumeration (Opened)**: for a list of character strings open to the user
   - **Duration**: for dates
   - **Percent**: to enter a percentage
   - **Double**: to enter a number
   - **Object**: to enter an object
   - **Signed Number**: to enter a number possibly negative. In this case, **MetaAttribute Type** must be **Short**, **Long**, **Double** or **Float**.

     M *The following formats are recognized in analysis reports:* ***Standard**, **Enumeration** and **Signed Number.***
4. Click **OK**.

To define values associated with a criterion of **Enumeration** format:

1. Open the **External Value** properties page of the current criteria.
2. Click the **New** to create new values.

Defining Criterion Aggregation Rules

Aggregation of a criterion enables definition of calculation rules that will be applied to application values to obtain the criterion value on a portfolio. In this way you can compare portfolios.

To define criterion aggregation rules:

› Open the properties pages of the criterion.
› Click the drop-down list then **Characteristics**.

Aggregation policies proposed as standard are:

- **Minimum**
- **Maximum**
- **Average**
- **Sum**

`For example, the Cost criterion associated with a portfolio can be obtained by calculating the average cost of initiatives making up the portfolio, or the sum of costs of each of the elements.`

To fix more specific aggregation rules, the aggregation policy can be defined by a **Macro**. The name of the macro is defined in the **Aggregation Macro** column.

– *For more information on **Macros** in **HOPEX**, see the guide **All about starting with APIs**.*

The result of aggregation of different criteria is accessible in the **Aggregation Value** column.

Evaluating Applications on Portfolio Criteria

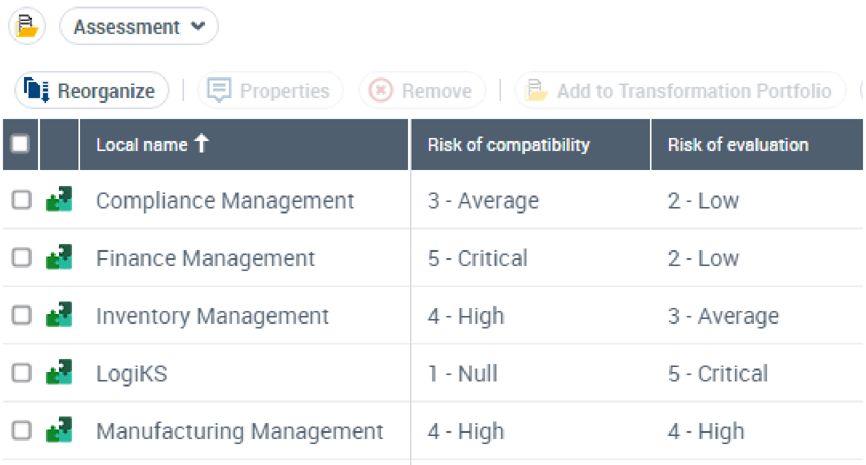
Portfolio applications are evaluated related to different portfolio criteria.

> – *Standard criteria relating to costs are automatically calculated, they cannot therefore be modified in this tab. For more details on these criteria, see* *"Using Existing Criteria", page 189*.

Accessing applications to be evaluated

To access evaluations of all portfolio applications:

1. Open the properties pages of the portfolio.
2. Click the drop-down list then **Evaluation**.
   The list of evaluations of all portfolio applications according to different criteria is displayed.
3. To define a criterion value on an application, select the application concerned and click in the criterion column.



Generating a PDF or Excel evaluation data file

The **PDF** and **Excel** allow you to generate PDF and Excel files of evaluation results.

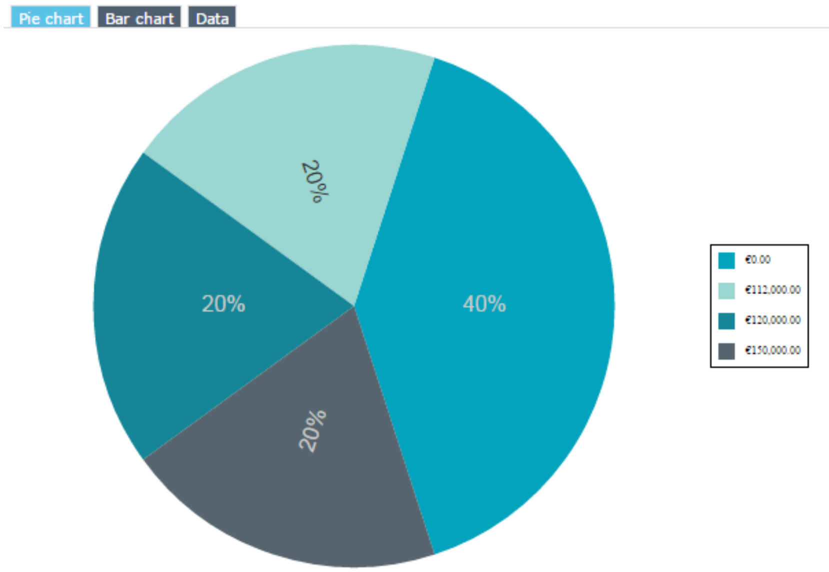
> – *For reasons of readability, the PDF file contains a maximum 12 columns.*

Generating an instant report on evaluation data

Instant reports allow you to carry out drill-down analysis on evaluated objects. They provide greater detail depending on specific analysis perspectives (quantitative, time, etc.).

To generate an instant report on a list of evaluated applications:

1. Open the properties pages of the portfolio.
2. Click the drop-down list then **Inventory**.
3. In the list of applications, select those to be analyzed.
   If you do not select an application, by default the report covers all applications.
4. Click **Instant Report.**
   - *If necessary, click to display the hidden commands.*
5. Select the required analysis type, for example "Breakdown".
6. Click **OK**.
7. In the list of possible grouping criteria, select "Costs".
   For all selected technologies, you receive the cost breakdown according to their levels.



For further information on instant reports, see the **HOPEX Common Features** guide, "Generating documentation", "Launching instant reports on lists".

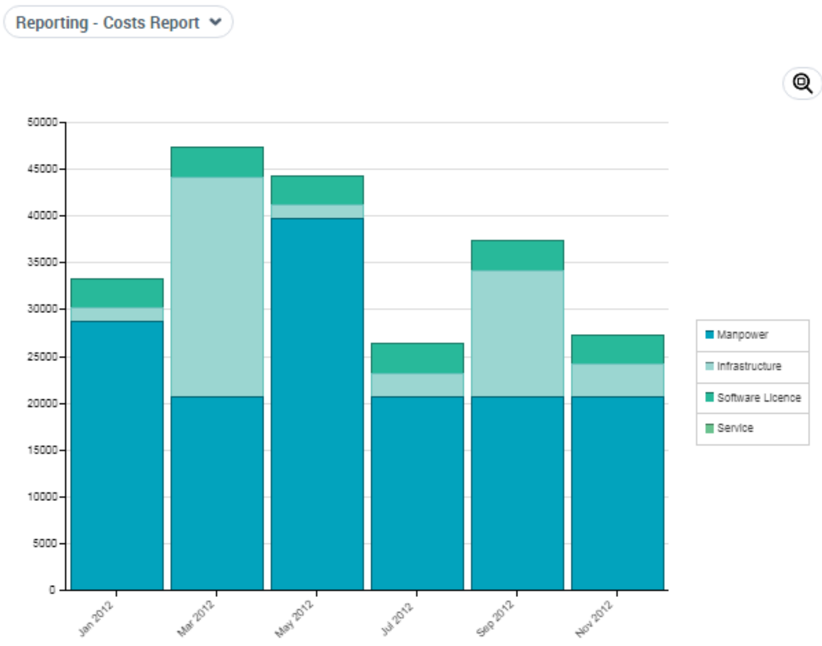
Portfolio costs report

A report automatically displays the global costs of applications contained in a portfolio.

To access the portfolio cost report:

1. Open the properties of the portfolio.

2. Select **Reporting** > **Costs Report**.



⊟ 2. Detailed Cost per Nature

	Manpower	Infrastructure	Software Licence	Service	Total
Jan 2012	€28,667.00	€1,500.00	€3,167.00	€0.00	€33,334.00
Mar 2012	€20,667.00	€23,500.00	€3,167.00	€0.00	€47,334.00
May 2012	€39,667.00	€1,500.00	€3,167.00	€0.00	€44,334.00
Jul 2012	€20,667.00	€2,500.00	€3,167.00	€0.00	€26,334.00
Sep 2012	€20,667.00	€13,500.00	€3,167.00	€0.00	€37,334.00

An analysis report also summarizes costs of applications and of their versions and deployments between the portfolio start date and end date.

Using Timelines

The analysis phase of portfolio applications is based on *timelines*.

) *A timeline presents key timespots of the organization from fixed dates or defined periods.*

A timeline is an object specific to the enterprise and can be referenced by portfolios or master plans.

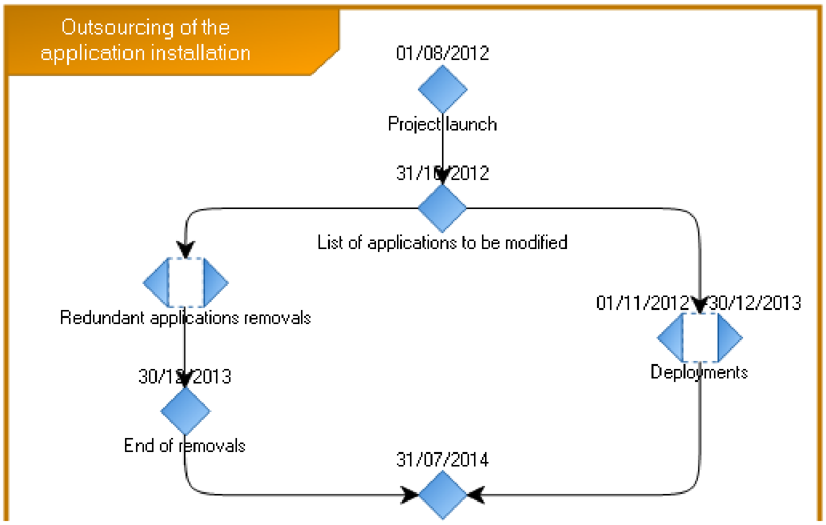
The timeline associated with an application portfolio is used in time distribution of the application portfolio business capability map. See "Generating the Business Capability Map of a Portfolio", page 186.

To view timelines associated with a portfolio:

1. Open the **Timeline of Reference** properties page of the portfolio.

This page is in two parts:

- **Timeline of Reference**: indicates a global calendar showing a certain number of timelines over a given time period. You can define a new timeline or connect an existing timeline.
- **Owned TimeSpot**: corresponds to timeline milestones; milestones appear when you select a timeline in the upper part.




```
The above example presents a timeline for the upgrade of
application assets. Phases of deletion of obsolete
applications are synchronized with phases of deployment of
new applications.
```

Creating a timeline

To create a timeline:

1. In the first frame of the **Timeline** section, select **New**.
   The **Timeline creation** dialog box appears.
2. Enter the name of the timeline.
3. Click **OK**.
   The timeline is created and added to the list of portfolio timelines.

Defining timespots

The **Timeline diagram** allows you to define the different key events that make up the timeline, as well as their dependency links.

To create a new timeline diagram:

1. Click the icon of the timeline and select **New > Timeline Diagram**.
   An empty diagram appears.

To create an **TimeSpot**:

1. In the insert toolbar, click the **Timespot**  button, then click in the diagram.
   The Add TimeSpot dialog box appears.
2. Indicate the name of the timespot and click **OK**.
   The timespot appears in the diagram.

To specify time links between timespots, you will create a sequence flow:

1. Click the **Sequence Flow** button .
2. Click the timespot representing the start step, and holding the mouse button down, draw a line to the timespot representing the next step.
3. Release the mouse button.
   A directional link from one timespot to the next appears in the diagram. Previous and next timespots also appear in timespot **Properties**, in the **Characteristics** page.

Dating a timespot

A timespot can be associated with a precise date or a time interval. The time interval is defined by a date at earliest and a date at latest.

To define timeline timespot dates:

1. Open the **Characteristics** properties page of the timeline.
2. In the **Owned TimeSpot** section, you can date timespots.
   - *You can also specify sequence flows.*

ANALYZING THE APPLICATION CODE OF A PORTFOLIO WITH CAST HIGHLIGHT

On a portfolio containing in-house applications, the portfolio manager can launch a code analysis campaign to analyze the quality of the application code and issue alerts on any risks that might affect the portfolio.

Prerequisite Conditions

The CAST Highlight code analysis functionality requires:

- Entering the client number in HOPEX ITPM
- Identifying the functional administrator as the first CAST Highlight user
- Declaring other users in CAST Highlight
- Establishing the connection between HOPEX and CAST Highlight

Entering the CAST Highlight customer ID

The administrator must specify the CAST Highlight Customer ID in HOPEX. This number is provided by the sales administration.

To specify the CAST Highlight Customer number in HOPEX ITPM:

1. Connect to HOPEX ITPM as HOPEX Administrator.
2. Click **Environment options**.
   The options window appears.
3. In the left pane of the window, expand the **Data Exchange** folder then **Import/Export Synchronization**.
4. Click **CAST Highlight**.
5. In the right pane of the dialog box enter the number of the **CAST Highlight Customer ID**.
6. Click **Apply**.
7. Click **OK** to close the window.

Identifying yourself as the first user (Functional Administrator)

As the first CAST Highlight user, the ITPM functional administrator must register with the CAST Highlight portal.

Once registered, the functional administrator must enter his/her CAST Highlight user number in HOPEX ITPM, which was allocated by CAST Highlight during his/her registration.

To enter your CAST Highlight user number in HOPEX ITPM:

1. On the HOPEX ITPM desktop, click the navigation menu then **IT Portfolio Management**.
2. In the navigation pane, select **CAST Highlight**.

3. In the edit window, click **Manage CAST Highlight Users**.
4. Click the drop-down list, then **Me** to display your information relating to CAST Highlight.
5. In the **Action** column relating to your name, click **Properties**.
   The properties window of the user appears.
6. In the **CAST Highlight ID** field, enter your user number.

The functional administrator can then define other CAST Highlight users in HOPEX ITPM.

Declaring other users in CAST Highlight

Once the functional administrator is registered in CAST Highlight and has established a connection between HOPEX ITPM and CAST Highlight, he/she can declare other CAST Highlight users in HOPEX ITPM. The persons concerned receive an email from CAST Highlight asking them to register in the account created in the CAST Highlight portal.

To add a CAST Highlight user:

1. On the HOPEX ITPM desktop, click the navigation menu then **Assessment** > **CAST Highlight**.
2. In the edit area, click **Manage CAST Highlight Users**.
   The list of users appears.
3. Select the user in question and click **Create user in CAST**.
   The user receives an email from CAST Highlight to confirm the registration, and the user connexion status switches to “Missing token”.

Establishing the connection between HOPEX and CAST Highlight

Before the first use of the code analysis functionality, each user, previously declared as a CAST Highlight user, must establish a connection between HOPEX and CAST Highlight.

To establish the connection between HOPEX and CAST Highlight:

1. On the HOPEX ITPM desktop, click the navigation menu then **Assessment** > **CAST Highlight**.
2. In the edit area, click **Manage CAST Highlight Users**.
3. Click the drop-down list, then **Me** to display your information relating to CAST Highlight.
4. Select your name and click the **More...** button. > **Generate Token**.
   The window for creating a token appears.
5. Specify:
   - your CAST Highlight user email
   - your password entered in CAST Highlight
6. Click **OK**.

Launching a Code Analysis Campaign

The code analysis campaign is on the initiative of the application portfolio manager. It relates to the portfolios whose applications are of the "Specific Development" type.

> – *The "Specific Development" application type is defined in the application page, in the* ***Identification*** *section of the* ***Characteristics*** *page.*

To launch a code analysis campaign on an application portfolio:

1. Click the navigation menu, then **Assessment**> **CAST Highlight**.
2. In the edit area, click **Portfolios Containing in-house Applications**.
3. Display "All Application Portfolios Developed Specifically".
4. Select the application portfolio concerned and click **Scan Application Source Code**.
   The campaign creation window appears.
5. Specify:
   - The campaign name
   - The closing date, which determines the date on which the scan results are automatically transferred in HOPEX
   - A message to the application managers
6. Click **OK**.

Following this creation, CAST Highlight sends a notification to the managers concerned inviting them to launch an analysis of their application codes.

Launching the Code Analysis

Following the notification received, each application manager connects to CAST Highlight to:

- download the local agent if this has not already been done

  > – *The local agent is used to run code analyses and to create the results file to be uploaded to the CAST Highlight portal.*

- launch a code analysis on the applications concerned.

The analysis results are saved in a file. The application manager can transfer them to the CAST Highlight portal.

To report the results of the analysis in HOPEX ITPM and update the analysis values on an application:

1. Display the properties of the application in question.
2. Click the drop-down list then **Assessment** > **CAST Highlight Metrics**.
3. Click **Update Metrics from CAST Highlight**.

ANALYZING AN INVENTORY PORTFOLIO

HOPEX IT Portfolio Management provides predefined report templates for application portfolio analysis.

Accessing Embedded Reports in a Portfolio

The different report templates proposed as standard by **HOPEX IT Portfolio Management** are designed to compare initiatives of a portfolio based on specific criteria. Different report types offer different analysis possibilities.

To access existing reports on an application portfolio:

1. Open the properties of the portfolio.
2. Click the drop-down list then **Reporting**.
   You have access to the following reports:
   - Cost report: presents the cost analysis of the portfolio applications.
     - *For further information on application costs, see "Managing Application and Application System Costs".*
   - Business capability map breakdown: shows the distribution of applications in the business capabilities.
     - *See "Generating the Business Capability Map of a Portfolio".*
   - Gantt Chart: presents the lifelines of three objects
     - *For more information on application life cycle, see "Defining Application Life".*
   - Business capability breakdown time report: shows the functional coverage changes of an application portfolio over time.
     - *See "Generating the Business Capability Map of a Portfolio", page 186.*
   - List of applications: presents functional characteristics of portfolio applications as a matrix.
   - Application positioning: shows the distribution of applications with respect to the business function addressed, functionalities covered and the technologies used. This presentation enables rapid identification of applications to be developed.
   - Application TIME report: uses the Gartner TIME model to analyze the business value of applications.
   - Software technology support alert: used to track the obsolescence of technologies.
     - *See also "BDNA properties in HOPEX", page 22.*
   - Business Capabilities Tree Map: breaks down a capability hierarchy according to the quantitative data of the applications in the portfolio (number of applications realizing the capability, cost of the applications).
     - *See "Generating a Business Capability Treemap on an Application Portfolio".*

TRANSFORMING THE APPLICATION PORTFOLIO

To upgrade the application and technological assets according to the objectives set, ITPM provides the tools to plan and follow up on the transformation projects to be achieved.

In ITPM, transformation projects can concern business capabilities, applications, application systems or technologies.

With these objects, depending on your connection profile, you can:

- submit an idea that could become a project demand
- submit a project demand
- directly launch a candidate project

The objects concerned are attached to the project demand or the candidate project as deliverables.

Once submitted, the ideas and projects are completed then assessed before being validated or rejected.

For more information on project portfolio management, see the "Managing project portfolios" section in the **HOPEX Common Features** guide.

Creating a Project in ITPM

Before creating a project, you must have defined the project domain to which the project belongs. See "Defining Project Domains", page 8.

To create a project in ITPM:

1. Click the navigation menu, then **Transformation** > **Projects**.
2. In the edit area, click **Projects**.
   The list of projects appears.
3. Click **New**.
   The window for creating a project appears.
4. Select the project type:
   - demand
   - candidate project
   - Ongoing project
5. Click **Next**.
6. Specify:
   - the owner project domain.
   - the project code (optional)
   - the planned start date
   - the planned end date
7. Click **OK**.

   – *For more details on projects, see* *"Defining Enterprise Projects", page 7*.

Defining Project Applications

The applications that you associate with a project are integrated as deliverables in the project.

When you add an object to a project, you must specify the action to be performed on the object. An event can be:

- a creation
- an update
- a removal

To add an application to a project:

1. Open the project properties
2. Select the **Business Case** page.
3. Expand the **Project Deliverables** section.
4. Click **New**.
5. Select the type of action to be performed on the deliverable.
6. Click **Next**.
7. Select the type of deliverable (here an application).
   The list of repository applications appears.
8. In the list, select the application concerned.
9. Click **Next**.
10. Specify the production dates.
11. Click **OK**.

– *See also "Defining the Business Case of a Project", page 11.*

– *You can also add an application to a project using application properties.*

Life of the application in the transformation project

The life of the transformation project development deliverables is separate from the life of the applications in place. This is to be able to modelize change scenarios on these applications without impacting their effective life.

When the project is terminated (with the corresponding workflow command), the life cycle of the deliverables that it contains is automatically transferred to the repository applications.

– *See also: "Terminating a Project", page 24.*

Describing a Transformation Portfolio

Building a *portfolio* with **HOPEX IT Portfolio Management** consists of defining all the information, in particular the comparison criteria, that will allow you to choose the projects to implement.

For more information on project portfolio management, see "Project portfolio management", page 37.

MANAGING THE DATA USED IN THE APPLICATION ASSETS

The following points are covered here:

- Introduction to Data Management in HOPEX IT Portfolio Management
- Creating a Business Glossary in HOPEX IT Portfolio Management
- Drawing up a Data Inventory in HOPEX IT Portfolio Management
- Data Responsibility in HOPEX IT Portfolio Management
- Defining the Data Used by an Application
- Assessing the Data Quality in HOPEX IT Portfolio Management

INTRODUCTION TO DATA MANAGEMENT IN HOPEX IT PORTFOLIO MANAGEMENT

Scope

HOPEX IT Portfolio Management allows you to link the application assets to the data it uses. You can therefore:

- make the inventory of data
- build a business glossary
- connect the data to the relevant applications
- assess data quality
- generate reports on an application to visualize the scope of the data used and measure the impact of an application removal on this data.

Thanks to the integrated HOPEX platform you can exploit this data inventory in the solution dedicated to the data architecture description **HOPEX Information Architecture**.

For more details on data governance see the **HOPEX Information Architecture** guide.

Profile Associated with Data Management

The Data Asset Manager is responsible for the creation of information assets.

The other profiles of **HOPEX IT Portfolio Management** can read access these assets and use them, for example in data flows.

CREATING A BUSINESS GLOSSARY IN HOPEX IT PORTFOLIO MANAGEMENT

HOPEX IT Portfolio Management allows you to make an inventory of the concepts that define business terms and generate a business glossary from which you can view their definitions, synonyms and illustrations.

Consulting Term Definitions

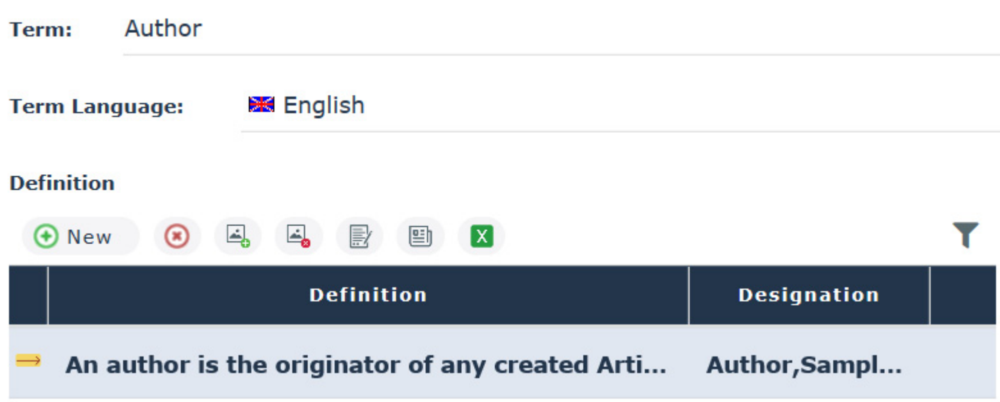
A term is the designation of a concept in a given language.

```
Example: the "Country" concept has the "Pays" in French and
"Country" in English.
```

HOPEX IT Portfolio Management offers a tool for easy consultation and creation of terms, from which you can generate a business glossary.

To display a term definition:

1. Click the navigation menu then **Data Glossary** > **Term Definitions**.
2. In the edit area click the first arrow located to the right of the **Term** title to scroll the list of terms or enter the first letter of the term in question to display the list of corresponding terms.
3. Select the term in question from the list.



Its definition, if it exists, appears under the **Definition** section, with the associated object (concept, concept type, etc.).

See also: Concept and Term.

Creating Terms

To create a term:

1. Click the navigation menu then **Data Glossary** > **Term Definitions**.
2. In the edit area, click the **New** button.
3. In the dialog box that appears, specify:
   - the term name
   - the holder (optional)
   - the language of the term
4. Click **OK**.
   The new term appears in the edit area.
5. In the **Definition** section, click **New**.
6. Select:
   - the holder dictionary (optional)
   - the definition text
7. Click **OK**.
   By default a concept is automatically associated with it.

   – *For more details about concepts see Describing Concepts.*

The terms created can be classified in business dictionaries. The description of business dictionaries and all the construction elements of the business ontology enriches the glossaries.

See Business Dictionary.

Generating a Business Glossary

HOPEX Information Architecture provides a ready-to-use glossary report to automatically build the business glossary with terms derived from a set of Business dictionaries. For each term, the glossary displays a list of associated definitions with their text, synonyms and components list.

To launch an glossary report:

1. Click the navigation menu then **Data Glossary** > **Glossary Report**.
2. In the edit area select the source business dictionary(ies).

   – *You can select more than one.*

3. Refresh the report to display its content.

DRAWING UP A DATA INVENTORY IN HOPEX IT PORTFOLIO MANAGEMENT

In **HOPEX IT Portfolio Management** you can define business data (Concepts, Terms, etc.) and logical data (Classes, Attributes, etc.).

Business Dictionary

A business dictionary collects and structures a set of concepts that expresses the knowledge of a particular area.

The basic component of a business dictionary is the **Concept**.

>) *A concept expresses the essential nature of a being, an object, or a word through its properties and characteristics or its specific qualities.*

The word that is associated with a **Concept** and which depends on language is a **Term**.

>) *A term is a word or word group, that is used for a specific meaning in a specific context.*

To create a business dictionary in **HOPEX IT Portfolio Management** :

1. Click the navigation menu then **Data Glossary** > **Business Dictionaries**.
2. In the edit area, click **Business Dictionaries**.
3. Click **New**.

From the Hierarchy View of the business dictionaries you can create concepts and terms, as well as business information areas.

For the definition of terms see also Creating a Business Glossary in HOPEX IT Portfolio Management.

Concept

To create a concept from a business dictionary:

1. In the business dictionary hierarchy, unfold the one that concerns the concept.
2. Click the **Concept** folder icon then **New > Concept**.
3. Enter the **Name** of the concept.
4. The **Existing Terms** section lists terms with the same name as the new concept. You can choose to use an already existing term, or create a new term.

>) *A term is a word or word group, that is used for a specific meaning in a specific context.*

> – *If a term has already been created with the same name as the new concept, this term is automatically connected and appears automatically in the **Term** section.*

5. In the **Definition Text** field, enter the text of the concept definition.
6. Click **Next** to associate an image with the concept or **OK** to finish.

Business information area

A business information area is a sub-set of elements of a business dictionary that reduces the scope of a field.

To create a business information area:

1. Click the navigation menu then **Data Glossary** > **Business Dictionaries**.
2. In the edit area, click **Business Information Areas**.
3. Click **New**.

Business information map

A business information map is a business information urbanization tool. It represents the business information areas of a business dictionary and their dependency links.

Creating a business information map

To create a Business Information Map:

1. Click the navigation menu then **Data Dictionary** > **Business Dictionaries**.
2. In the edit area, click **Business Information Maps**.
3. Click **New**.
   The map appears in the list.

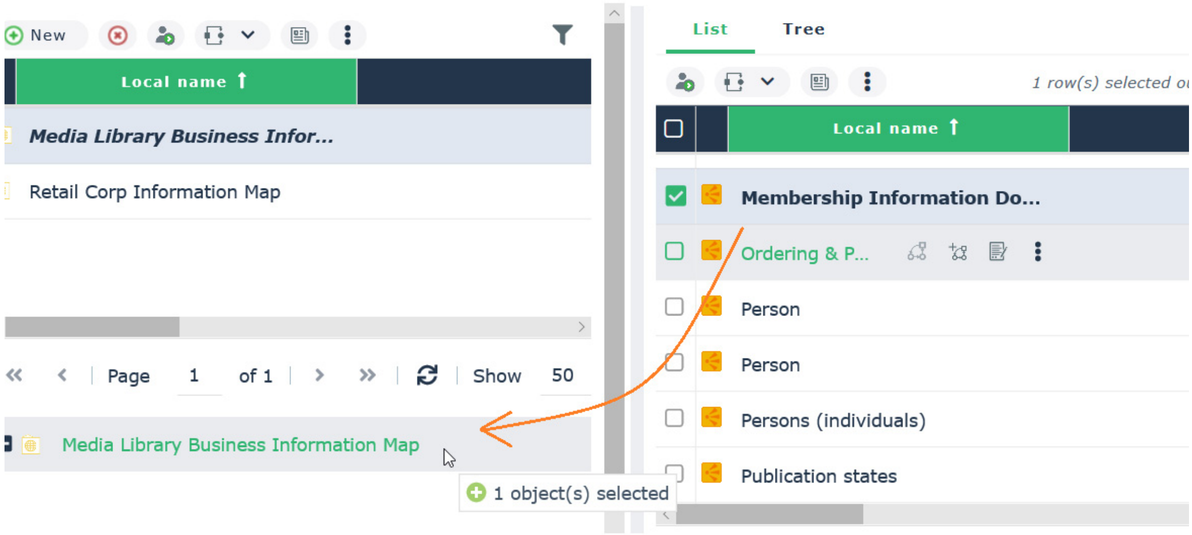
Defining the map components

To add a business information area to the business information map:

1. Select from the list of business information maps the one you want to define.

2. From the tree on the right, select the business information areas you want to include in the map and drag them to the lower part of the tree on the left, on the name of the map in question.

   – *You can also define sub-areas by dragging them to the map areas.*



The business information areas thus added are internal components of the map; they are part of the scope of the business information map (whether or not they belong to the owner business dictionary).

– *The external components of a map are those used in the map but that are not part of the scope analyzed. You can access them in the map properties.*

Removing a component from the map

To remove a business information area from a business information map:

1. Select the relevant business information map to display its components.
2. Click the icon of the component and select **Remove**.
   A window displays the list of existing links on the selected object.
3. Select the link between the component and the relevant map.
4. Click **Delete**.

Analysis reports of a business information map

In the properties of a business information map, reports allow you to visualize :

- The hierarchy of business information areas in a map, and whether these areas use sensitive or reference data. For more details, see Data Domain Map.
- Dependencies between business information areas of the map
- Use of information of a business information map. See Use of information of an information map.

Data dictionary

A data dictionary collects and structures a set of logical data.

Logical data is a realization of business data (concepts). You can define logical data to describe the data used in applications (Data Store) and in flows exchanged between applications.

See also: Defining the Data Used by an Application.

Defining data categories

The data category is a mechanism to classify data such as concepts or classes. One or more categories can be defined on the data.

Examples of data classification :

- Sensitive Data
- Golden data
- Confidential data
- Etc.

Importing the category solution pack

To use the categories, you must import the corresponding solution pack.

The categories are delivered in a compressed file that you must unzip before importing into a repository.

To unzip the file:

1. In the folder where HOPEX is installed, open the **Utilities** folder and then the **Solution Pack** folder.
2. Double-click the file **Information Architecture.exe**.
3. Extract the contents of the file.
   The categories are available under the **Data Categories** folder.

To import the library:

1. Run "Administration.exe" and log on with a user who has the data administration authorization.
2. Select the environment then the repository you want to work on.
3. Right click the repository and select **Object Management** > **Import Solution Pack**.
   The solution pack selection window appears.
4. Select the category library and click **OK**.
5. Exit the administration application.

Accessing the list of categories

To access the list of categories :

1. With the "Data Manager" profile, click the navigation menu then **Environment** > **Data Categories**.
   The list of categories delivered by default appears in the editing area, with their description. You can create new ones.

Indicating the category of a data

You can define the category of a data in the data properties.

You can also indicate the category when you link data to an application. See Connecting Data to an Application.

Visualizing the data of a data category

The **Data Categories Dendrogram** report allows you to visualize where the data of a category is used, for example in the application inventory.

To launch this report:

1. Click the navigation menu then **Reports** > **Data Reports**.
2. In the edit area, click the **Dendrogram Data Categories** tile.
3. Select the required data category.

You can also run a report from a portfolio of applications to view data from specific categories used by the applications in that portfolio.

To launch the report on a portfolio of applications:

1. Open the properties of the portfolio in question.
2. Click **Reports** > **Data Category of Portfolio Dendrogram**.

Importing Data in HOPEX IT Portfolio Management

Two Excel templates are available for importing and exporting data:

- The "Concept Template" to import a list of terms with their definitions, synonyms, etc. See Importing Business Data from an Excel File.
- The "Data Excel Template" template to import classes, attributes, parts, etc. See Importing Logical Data from an Excel File.

Importing classes can result in the creation of concepts or the linking to concepts that exist under the same names. In this way, business and logical data are automatically linked. This mechanism is used to initialize a business dictionary. It can be configured using the **Business dictionary initialization** option. For more details, see Initializing a Business Dictionary Using Logical or Physical Data.

DATA RESPONSIBILITY IN HOPEX IT PORTFOLIO MANAGEMENT

Business Roles Associated with Data

Data created in **HOPEX IT Portfolio Management** has a **Data Owner** and a **Data Designer**; by default the Data Designer is also the Data Owner.

) *The Data Designer is the person responsible for designing an object (such as a package, data domain, database, etc.).*

) *The Data Owner is the authority that decides on access to and use of the data. The owner of the data may be the designer of the data, one of its users or a third party. Data stewards can ask data owners to check or complete the value of a field, for example to correct a data quality defect.*

Other business roles can be explicitly assigned to the data.

The data on which you can designate responsible persons are:

- Business dictionaries
- Business information areas
- Concepts
- Data dictionaries
- Classes

Defining Who is Responsible for a Data Item

To define responsibilities for a data item:

1. Select the data concerned and click the **Properties**  button in the edit area.
2. In the properties, select the **Assignment** page.

   – *Only assignable objects have an **Assignment** page.*
3. Click **New**.
4. Indicate the name of the person and the business role.
5. Click **OK**.

DEFINING THE DATA USED BY AN APPLICATION

Within the framework of personal data protection, the application owner and data manager have the possibility to document the data used by the applications and the way in which this data is accessed.

The information you can enter on an application is:

- the personal data processed by the application, with access rights (CRUD).
- the rights of the persons concerned.
- the management of information to the persons concerned and their consent.

Connecting Data to an Application

To connect data to an application:

1. Open the properties pages of the application.
   - *See also Accessing Application Properties.*
2. Click the drop-down list then **Characteristics**.
3. Expand the **Data** section.
4. Click **New**.
5. In the wizard that appears, select the object type that comprises the data item (Class) and the object in question.
6. Click **Next**.

Once the data has been defined, you can specify:

- the access to the data: in create mode (**C**reate), read mode (**R**ead), update mode (**U**pdate), or delete mode (**D**elete).
  - *The content of the **Data access** column is calculated automatically according to the selected actions ("CRUD" is the default value).*
- the category of data: biometric, financial, medical, etc. See Defining data categories.
- if the application is “Golden Source” or “Golden Copy” of this data.

Defining an Application as “Golden Source”

An application defined as "Golden Source" is an application within the information system that guarantees the validity of the data it holds.

When checked, this attribute means that the application is "Golden Source" for the data that is used in the application store and that functionally belongs to the domain referenced by it.

Defining an Application as "Golden Copy"

A Golden Copy is a true copy of the golden source.

When checked, this attribute means that the application is Golden Copy for all the data it uses.

Analyzing the Impact of an Application on the Data Used

The **Application Impact** report allows you to visualize the scope of data used by an application and to measure the impact of its deletion on the data it uses.

To generate an impact report on an application:

1. Open the application properties.
2. In the properties drop-down list, click the **Reporting > Application Impact** page.
   The report displays the following labels:
   - **Data**: data used by the application
   - **Exchanged Data**: data contained in the flows exchanged by the application
   - **Golden Sources**: data for which the application is declared "Golden Source".
   - **Golden Data**: application data classified under the category "Golden data".
   - **Sensitive Data**: application data classified as "Sensitive Data".
   - **Quality**: quality level of the data used by the application. The report provides an average of the data quality of the latest evaluations performed on all data used by the application, at the level of the application's store or through flow exchanges with other applications.
3. Click on a label to view the details.

Assessing the Data Quality in HOPEX IT Portfolio Management

An assessment is designed to give values, in a specific context, to data characteristics.

In **HOPEX IT Portfolio Management** it is possible to carry out a direct assessment on the data, as an expert.

– *For an assessment campaign on the data, you need the* ***HOPEX Information Architecture*** *solution.*

The assessment is supplemented by results analysis tools.

Assessing a Data Item

The assessment can focus on business data such as concepts or logical data such as classes.

To directly assess a data item:

1. Open the properties of the data item in question.
2. Select the **Evaluation** page.
3. Click **New**.
4. On the page that appears, select a value for each question.

   – *For certain identified problems, an optional remediation plan can be created for data cleansing.*
5. Click **OK**.

Data Evaluation Criteria

HOPEX IT Portfolio Management provides by default a data evaluation template that focuses on the following criteria:

Completeness

Identifies percentage completeness of data and missing properties.

Example

Below some columns have no value (in red) and others are truncated (Dupont@Samp.gm)

First Name	Last Name	Billing Address	Shipping Address	Email
Dupont		9 rue Rene Coty Paris 75002	NULL	Dupont@Sample.gm
Durand	Robin	344 rue de Rivoli 75001	NULL	Durand@Sample.com

Accuracy

Identifies the percentage of accurate, reliable data.

Example

Below, for Dupont, the position and the department are reversed.

For Durand, the item displays a typographical error

For Rene, the department displays an erroneous value.

First Name	Position	Department	Email
Dupont	Product Management	Business Analyst	Dupont@Sample.gmail
Durand	Sftware Engineer	Product Development	Durand@Sample.com
René	Test Analyst	xxùpoi*£	Rene@Sample.com

Consistency

Identifies the percentage of inconsistency in the data.

Example

Below is an inconsistency in the data format.

Order Number	Client Id	ShipDate	Total
1000	1	1/12/2018	100$
1001	2	1/12/2018	200£

Validity

Identifies the percentage of invalid data.

```
Example
```

```
The value of the "Available units" field on Prod1 should not
be negative.
```

```
A withdrawal date is set to Prod2 but the field "Available
units" does not display a null value.
```

Product Code	Name	Units Available	Retire Date
1000	Prod1	-10	12/4/2020
1001	Prod2	100	31/12/2017
			-

Uniqueness

This criterion evaluates duplicate data.

```
Example
```

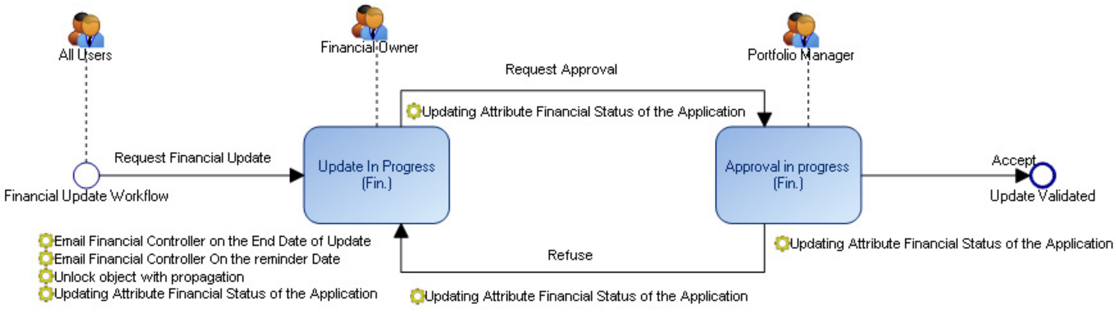
```
The "Client" table must not contain the same occurrence
twice, each record must be unique.
```

Annexes

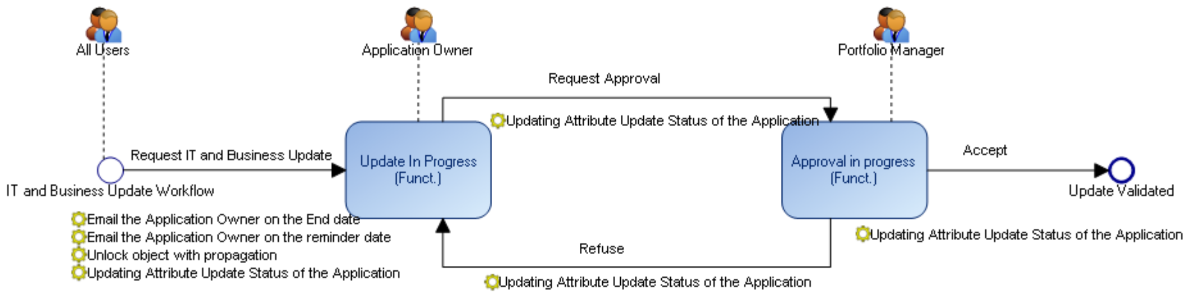
APPENDIX - HOPEX IT PORTFOLIO MANAGEMENT WORKFLOWS

This chapter presents **HOPEX IT Portfolio Management** workflow diagrams.

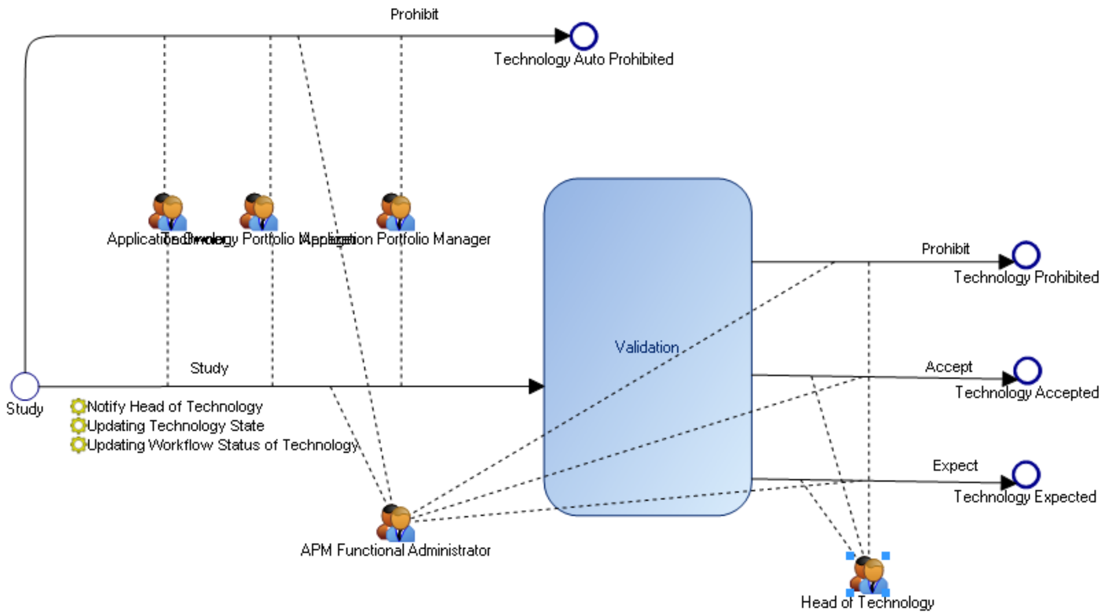
FINANCIAL UPDATE WORKFLOW



IT and Business Update Workflow



TECHNOLOGY VALIDATION WORKFLOW



Technology Financial Update Workflow