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MASP-T Rev. 2022 v1.0 **Business Process Modelling Policy**

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1. INTRODUCTION

1.1. BACKGROUND

The development of the Taxation Business Process Models (BPM)¹ started in 2010 with the elaboration of the specifications for the VAT Refund and Mini-One-Stop-Shop common system specifications. Since then it has been extended to cover the Direct Taxation and has been fully applied in Excise areas, benefiting from the work performed in the Customs area.

1.2. BPM PURPOSE AND VALUE

The BPM provides the Member States and possibly Economic Operators with:

- business analysis tools in order to ensure better understanding of the legislation and policies being prepared or revised, and of the impact on the overall business architecture and the specific processes;
- business models and interaction models allowing the necessary assurance regarding coherence between the Business Processes and procedures and the draft legal provisions before being voted;
- visual representation of business processes and detailed Functional Requirements to guarantee that the envisaged operational IT systems will function as foreseen in the legislation, international agreements or other instruments, such as guidelines and specifications.

The BPM serves several purposes:

- to depict and render understandable the business domains and processes foreseen in the legislation;
- to check the business logic provided in the legal draft for amendments against the existing or newly introduced legislation and to provide comments on the proposed business processes;
- to assess the effectiveness of the business process and identify opportunities for streamlining with the purpose of specifying potential economic gains and quality improvements in the business case;
- to perform a quality control on the legal text and provide comments on the legal draft;
- to assist in the overall project definition and in IT scoping² exercise by defining *firstly*, the business scenarios responding in the most appropriate way to the strategic goal, *secondly*, the (steps in the) processes that require automation and, *thirdly*, the business and IT architecture and solutions that can be considered for implementation and the business case for the identified IT project;
- to ensure that the functional and non-Functional Requirements for the development of a new IT system or the enhancement of existing IT systems are well specified and agreed with the Member States and Economic Operators.

¹ Business Process Modelling (BPM) is the activity of representing processes of an enterprise to analyse and improve current processes. The BPM is commonly performed by business analysts and managers who are seeking to improve process efficiency and quality.

² Defining the scope of a project develops a common understanding of what is included in and excluded from the project. Defining a project's scope helps establish a common understanding for all project stakeholders.

2. BPM LEVELLING DEFINITIONS

Levelling refers to different levels / layers of abstraction by which the representation of business processes is structured. Hierarchical modelling enables the development of a holistic view that can be presented to and understood by a wider audience. It is necessary to define the level of detail for this hierarchy, regarding the content of the model and the perspective from which it is viewed in order to assist the modeller in providing the right level of detail and ensuring that the levels are linked. It is also essential to adapt the level of detail in a model depending on the intended audience and the purpose of the model. Each level should be linked and have a common thread running through the hierarchy.

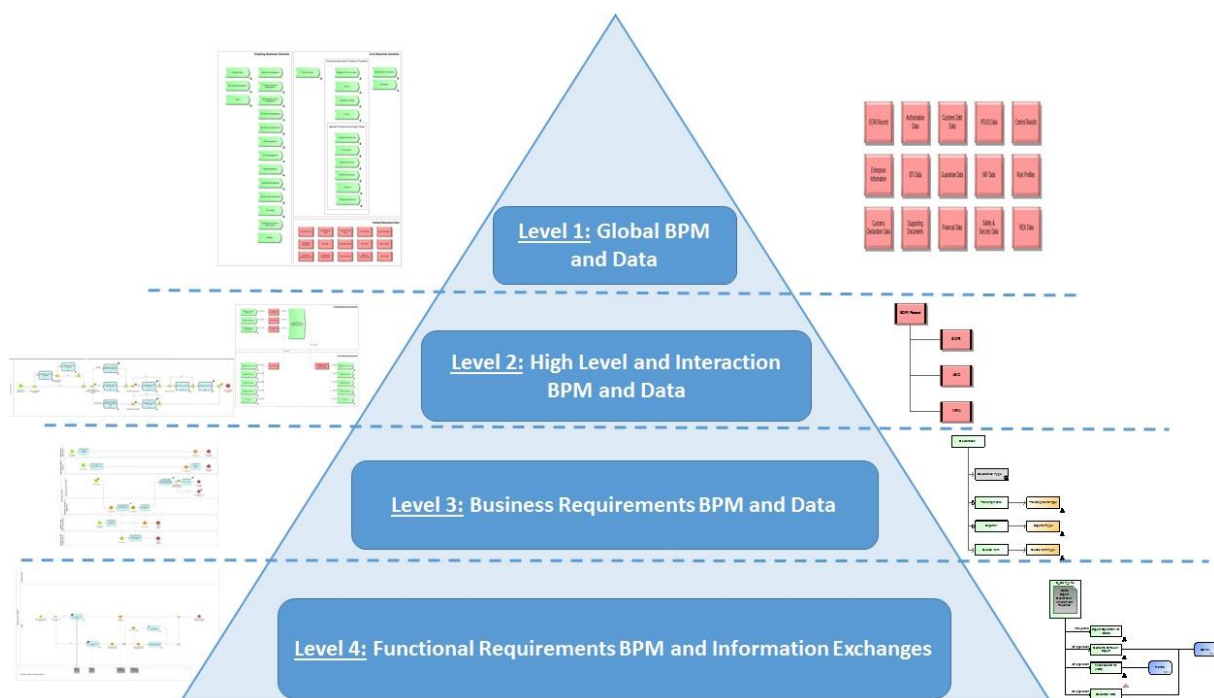
The approach for the BPM levelling encompasses four levels of models. Those levels present both horizontal and vertical views. When performing Business Process Modelling at different levels of abstraction, alternative viewpoints are made available:

The vertical viewpoint is a hierarchical view whereby the models are connected top down and bottom up.

- Every model has a connection to an upper level within the hierarchy;
- The top-level view looks at domains and their value-driven functionality, which can be traced by cascading down through the levels.

The horizontal viewpoint of a process refers to viewing the models at one single level, and each level presents a different viewpoint.

- The models can be interconnected and may have dependencies;
- The models may be grouped based on a common functionality or goal;
- The models are presented in different ways depending on the level (e.g. the lower levels provide an end-to-end view of a specific activity, whereas, the higher levels address interdependencies of an entire domain or domains).



Level 1 BPM & Data provides an overview of the business domains and global business data;

Level 2 Interaction BPM & Data shows the interactions between the business domains and depicts the input and output high level data for each business domain;

The Level 2 High Level BPM shows the interactions between the main business processes within one business domain;

Level 2 High Level Data refines the global business data following the legal data requirements and the data types defined in the legislation;

Level 3 BPM & Data depicts the detailed process flow and the conceptual data elements as defined by the legislation;

Level 4 BPM & Data specifies the functionality of the envisaged system, information exchanges, data rules and conditions, System Requirements and test scenarios.

The reader could best start from the overall Global BPM (Level 1) and then zoom into the next, more detailed Level 2-3-4 BPMs, which include also specific cross-references to different parts of the legislation where applicable.

2.1. LEVEL 1 - GLOBAL BPM & DATA

This model presents the highest aggregation level for the representation of DG TAXUD's business processes

The main goal of this level is to serve as a map providing the highest aggregation level for the representation of Business Processes and to facilitate the linking and traceability with lower level BPMs.

Ideally, the business domains depicted on Level 1 should be scoped around end-to-end Level 2 high level business processes and the global business data should be refined via Level 2 high level data models.

2.2. LEVEL 2 - INTERACTION AND HIGH LEVEL BPM & DATA

This level of abstractions refines the global business domains and data defined in the Level 1 model and consists of three model types that can be accessed via the Level 1 model. The three model types are:

- **Interaction BPM** – this model defines the relationships/connections between the business domains and highlights the global business data dependencies. The high-level data exchanged between the business domains are identified and depicted in the Level 2 Interaction BPMs.

The main goal of the Interaction BPM is to provide models that show the interfaces between business domains. This model has no link to current Level 3 models.

- **High Level BPM** – this model defines the main business processes within each business domain and represents the main business scenarios for a given domain. The Level 2 High Level BPMs are linked to the Level 1 business domains and the Level 2 main business processes are linked to Level 3 BPMN models that provide more details describing the flow for each business domain.

The main goal of the High Level BPM is to present the high level end to end scenarios relevant for a specific business domain and to illustrate what main processes are needed to achieve business goals and objectives. The High Level BPM also facilitates the decomposition to the Level 3 BPM (each main business process potentially have a Level 3 BPM attached to it in order specify the business tasks).

- **High Level Data** – this model defines how each global business data collection from Level 1 is specified in data clusters.

The main goal of the High Level Data Model is to give an overview of the legally defined data requirements and to enable the creation of Level 2-Level 3 Matrix Models that provide the mapping between the business entities (high level data) and the data elements defined in the legislation.

2.3. LEVEL 3 - BUSINESS REQUIREMENTS BPM & DATA

This level provides detailed tasks on how to achieve a specific business objective through a detailed Business Process Model. It examines the steps taken and the interaction between actors in a process.

The main goals of this level are:

- to illustrate the involved business organisations and responsibilities through a series of process models which include actors, their roles and associated activities;
- to show all information exchanges and involved actors on the Level 3 BPMN diagrams;
- to provide a conceptual data model and link the high level data to this data model;
- to clearly and logically provide the steps to achieve a defined business objective(s), i.e. the trigger for the process and its intended results;
- to potentially provide a business data model and link the processes and tasks to it.

The Level 3 BPMN diagrams describe in detail the main business processes identified at Level 2. The Level 3 tasks usually have a legal reference and the legal provisions corresponding to the Level 3 task can be consulted directly via the Level 3 Functional Allocation Diagrams.

The ultimate goal of the model is to specify the legal and business steps and data and to evaluate which tasks or steps can be automated. In case of envisaged IT System, the Business Requirements identified at this stage are refined and linked to the Level 4 Functional Requirements and to the test scenarios specified in the Business Acceptance Criteria Document.

2.4. LEVEL 4 - FUNCTIONAL REQUIREMENTS BPM & DATA

This level provides detailed steps on how to achieve a specific business objective from a system point of view.

Level 4 Functional Requirements BPM & Data are considered an evolution of Level 3 BPM & Data and focus primarily on specifying the required functional and non-functional elements of the system. Level 4 BPM may be reused and a particular model may relate to more than one Level 3 BPM, and more than one business objective.

The main goals of this level are:

- to provide a detailed outline of tasks, as identified on a Level 3 model(s), to illustrate how a business objective might be achieved through human or system interaction;
- to fully explore exceptions and how to handle them. If an exception has a business impact, then it should be propagated to the Level 3 models and handled accordingly;
- to show all the electronic information exchanges and corresponding involved actors on the BPMN diagrams;
- to further explore the business data model and to complete the requirements for information exchanges for a complete end-to-end process;
- to specify the information exchanges structures, business code lists³ and their (re-) usage and to define rules and conditions for the data elements;
- to clearly identify user, semi-automated and fully automated tasks;
- to specify the link between the Business Requirements identified in the Level 3 BPM and the Functional Requirements defined in the Level 4 BPM;
- to define non-Functional System Requirements and Business Acceptance Criteria for the envisaged IT System(s).

The Level 4 BPM & Data translate the Business Requirements into System Requirements and Specifications to serve as a basis for the development of Technical Specifications for the related IT systems. For each business process, the detailed system flows, user tasks and the exchange of information between the actors involved are depicted in a Level 4 BPMN diagram. The data, input or output associated with each Level 4 task is identified and added to the details of the process steps. In addition, each information exchange and its structure is modelled with the optionality of the elements and its format. Rules and conditions are included in the business data models related to the information exchanges.

The data elements specified in the legislation and transformed into Level 3 Conceptual Data Models are reused in the Level 4 Information exchange models to ensure data consistency and alignment with the legal requirements.

3. BPM GOVERNANCE

DG TAXUD is responsible for the production of the BPM and requests its contractors to support this task. In order to ensure an adequate level of quality, DG TAXUD closely associates the Member States as experts during this activity.

³ Code lists are for example country code list, currency list.