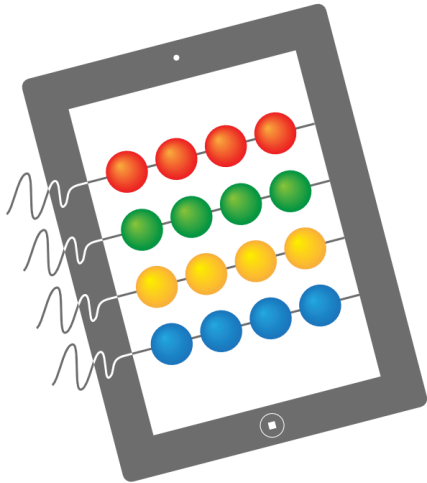




FP7 ICT STREP Project



LEARN PAD

Deliverable D1.2

Requirements Assessment Report

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Project Number	:	FP7-619583
Project Title	:	Learn PAd Model Based Social Learning for Public Administrations

Deliverable Number	:	D1.2
Title of Deliverable	:	Requirements Assessment Report
Nature of Deliverable	:	Report
Dissemination level	:	Public
Licence	:	Creative Commons Attribution 3.0 License
Version	:	4.0
Contractual Delivery Date	:	30 April 2015
Actual Delivery Date	:	30 April 2015
Contributing WP	:	WP1
Editor(s)	:	Nesat Efendioglu
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Reviewer(s)	:	

Abstract

This document presents assessment results that are acquired through the T1.3 activities; (1) collection of status of requirement from individual work packages that are directly commissioned for realization of identified requirements during the requirement analysis activities and (2) analysis and measurement of the realization status of requirements that are reported in individual work package assessment reports, and finally discovering the holistic status, which represents entire status throughout work packages.

The document introduces the identified methodology for requirement assessment that enables discovering the holistic status for each requirement in each of the four Learn PAd system dimensions. The document presents, subsequently, individual assessment reports from seven work packages, which are used as input to discover holistic realization status of requirements within first 12-Month-Period. Afterwards, discovered holistic status and relevant statistics, collected observations and remarks are provided in the document to hand over them as input to upcoming evaluation activities.

Keyword list

Requirement analysis, Requirement assessment, Learn PAd System Dimensions

Document History

Version	Changes	Author(s)
0.1	Initial Table of Content	Nesat Efendioglu
0.2	Methodology	Nesat Efendioglu
0.3	Integration of WP3 report	Alfonso Pierantonio, Barbara Thönssen , Nesat Efendioglu
0.4	Integration of WP5 and WP4 reports	Barbara Thönssen, Zhang Congyu, Alessio Ferrari, Nesat Efendioglu
0.5	Integration of WP2 and WP7 reports	Jean Simard, Nesat Efendioglu
0.6	Integration of WP6 report	Sarah Zribi, Nesat Efendioglu
0.7	Chapter 4	Nesat Efendioglu, Robert Woitsch
1.0	First Draft	Nesat Efendioglu
1.1	Requirement Status and Justification Review	Andrea Polini, Barbara Thönssen, Guglielmo De Angelis, Nesat Efendioglu
1.2	Consolidation of Review Results	Andrea Polini, Barbara Thönssen, Guglielmo De Angelis, Nesat Efendioglu
2.0	Second Draft	Nesat Efendioglu
2.1	Integration of updated Individual WP reports	Nesat Efendioglu
2.2	Statistics	Nesat Efendioglu
3.0	Internal Release	Nesat Efendioglu
3.1	Updates based on Internal Review Results	Nesat Efendioglu
4.0	Final Version	Nesat Efendioglu

Document Review

Release	Date	Ver.	Reviewers	Comments
ToC	17.02.2015		N.A	
Draft	15.04.2015		Andrea Polini, Barbara Thönssen, Guglielmo De Angelis	Reviewed during the online-workshop
Internal	23.04.2015		Andrea Polini, Barbara Thönssen, Guglielmo De Angelis	Reviewed during the online-workshop
Candidate Final	29.04.2015	4.0	Guglielmo De Angelis, Jovaldas Januskevicius.	Quality Check have been made and reports in XWIKI

Glossary, acronyms & abbreviations

Item	Description
BP	Business Process
BPMN	Business Process Model and Notation
DOW	Description of Work
KPI Key	Performance Indicator Metamodel
LCMM	Learn PAd Conceptual Metamodel
LPIMM	Learn PAd Platform-Independent Metamodel
LPSMM	Learn PAd Platform-Specific Metamodel
PA	Public Administration
WP	Work Package
WPL	Work Package Leader
XWiki	XWiki is a Wiki environment

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1 Introduction

1.1 Purpose of this deliverable

This deliverable reports on assessment of realization status of those requirements that have been collected, analysed, and reported in D1.1 (Woitsch, et al. 2014) and handed over the Work Packages (WPs) during T1.1 and T1.2 activities. As a report of T1.3, this deliverable D1.2 takes as observation period the first 12-Month-Period of the Learn PAd project.

The major objectives of task T1.3 are (1) collection of status of requirement from each individual WP, which are assigned to fulfil the identified requirements, (2) investigation about how to measure the realization status of requirements that are reported in individual WP assessment reports, in order discover the holistic status, which represents entire status throughout WPs, for each requirement in each Learn PAd system dimension (Woitsch, et al. 2014), finally (3) handover of the results to the evaluation work package.

In order to achieve abovementioned objectives and asses the realization status of requirements properly, we follow a methodology based on a bottom-up and decentralized approach, which defines a template and semantics of status for individual WP assessment reports, and which identifies structure of a reviewer-team and -phases of assessment.

Following the methodology, seven individual assessment reports have been collected from 7 WPs. We exclude WP9 and WP10 since they are not directly dealing with realisation of Learn PAd system but with dissemination and management of project. Also we exclude WP1, since it is the WP where all requirement activities are executed

Those individual reports from seven WPs have been investigated and assessed first of all, individually each reviewer in the reviewer-team and then the individual review results have been consolidated in three online-workshops, the review results and comments targeting WPs individually have been shared and asked for justification. Subsequently, the WP Leaders provide their updated detailed reports and those reports shared in the deliverable.

Finally, holistic realization status of requirements on Learn PAd system dimensions and the statistics composed based on individual reports are introduced.

1.2 Structure of this Deliverable

After introduction of deliverable, firstly, the applied Methodology for requirement assessment is introduced in Chapter 2. Secondly, each detailed individual WP assessment reports, which have been accrued after several phases of review and updating, are presented in Chapter 3. Thirdly, consolidated and composed realization status of each requirement is reported with categorizing in Learn PAd system dimensions in Chapter 4. Finally the work concluded in Chapter 5.

2 Applied Methodology for Requirement Assessment

As aforementioned, the aim of T1.3 is to investigate how to enable evaluation and refinement of requirement realisation and handover to evaluation work package.

During the requirement collection and analysis activities it has been determined that most of the requirements are related to multiple WP(s) and they shall be fulfilled by those WPs in collaboration.

Given that each WP has different nature and includes partners with expertise in wide spectrum such as software engineering and modelling, business process modelling and analysis, knowledge and learning management and public administration, the evaluation and refinement of requirement realisation status within individual WP perspective, and at the end decide about the holistic status of requirement is challenging.

Moreover, during the requirement analysis, the requirements were assigned to certain work packages approximately based on their knowledge. Over 12-Month-Period, the project has had chance to raise the knowledge via collective intelligence created within the Learn PAD Project such as during conceptualization of Learn PAD system, design of system, development of first prototypes, evaluation of the prototypes with end-users, and also during multiple technical partner meetings.

New knowledge stand enables to have better overview on the requirements and refine them. With new knowledge stand, on the one hand, we can evaluate realization progress of solutions to fulfil to identified requirements, on the other hand, we can justify better, how and where the requirements can be handled appropriately.

In order to overcome above mentioned challenges and utilize the knowledge that has been gained during the first 12-Month-Period through various collaborations, and finally to evaluate realisation of requirement and determine the overall status, we have selected a methodology, which follows bottom-up and de-centralized approach.

The methodology follows the decentralized approach, since each WP has different nature, expertise, and different perspective, which causes the need of regarding expertise to evaluate the realisation of requirements within for each individual WP separately. Hence following decentralized approach, the WP Leaders have been employed to evaluate and justify realisation of requirements within their WP, and finally to provide assessment reports individual to their WPs using an unified template (as depicted in Table 1) (Please note, that each WP Leader has been asked to evaluate the realisation of requirements, which are foreseen within the responsibility of the WP previously during the requirement analysis).

id	Title	Dimension	Status-<WP>	Justification-<WP>
<requirement ID from requirement collection in D1.1>	<Requirement title from requirement collection in D1.1>	<Requirement dimension from requirement collection in D1.1>	<Targeted or Partially Targeted or Not Targeted>	<justification regarding to status>

Table 1 Individual WP Assessment report Template

The template targets to collect following information;

- **Id and Title** of Requirement in order to identify the requirement under study
- **Dimension**, in order to determine dimension of belonging.
- **Status** of the requirements with predefined semantics and,
- **Justification** of the status

The methodology groups the status of realization of requirements for sake of unification as well as sake of easing the evaluation and defines semantics of the statuses as following;

- **Targeted:** a requirement has status “Targeted”, if for given requirement, a concept is defined, solution identified or a solution implemented at the time of writing deliverable
- **Partially Targeted:** a requirement has status “Partially targeted”, if for given requirement, a concept or solution is partially by the work package identified or the next steps in following period for the solution are planned, but the work was not completely done at the time of writing deliverable.
- **Not Targeted:** a requirement has this status, when the requirement has not been targeted in any level within the first 12-Month-Period, no further activities have been planned for the next project period.

The methodology follows the bottom-up approach, since the requirements status are collected from each individual WP, through the individual assessment reports provided by WP Leaders and the status of requirements from each individual assessment report need to be consolidated and raised to an holistic status presenting composed and overall status of requirement independent of WP perspective. The consolidation and composition of status have been made through several iteration among reviewer team and WP leaders.

As aforementioned, the methodology foresees a reviewer team that investigates individual assessment reports and consolidated status in one holistic assessment report on Learn PAd system dimensions level. The review team has been selected by WP Leaders during an online meeting.

The so called “reviewer team” consists of following members;

- Scientific Leader, who reviews the reported statuses from scientific and research direction point of view
- Technical Leader, who reviewed, who reviews the reported statuses from technical point of view
- Learn PAd Concept and Technology expert, who reviews the reported statuses from concepts and technology provided within project point-of-view
- Moderator, who moderates the individual reviews and consolidation meetings, finally channels the review results to specific WP(s) and collect their responses.

In addition to the reviewer team, a Learn Pad end-user (in that case the partner Regione Marche) is involved in whole assessment process, and revises individual and holistic status of realization of requirement, as well as revises reports and consensuses of reviewer team.

As abovementioned, the task of the team is to assess the status of requirements and justifications provided by individual WP(s) with comparing them with goal models introduced in (Woitsch, et al. 2014), work plan in Description of Work (DoW), already specified Learn PAd concepts, designed architecture, already implemented prototypes, as well as available deliverables D2.1 (Mancinelli and De Angelis 2014), D3.1 (Pierantonio 2014) , D3.2 (Pierantonio, et al. 2015), D5.1 (Thönssen and Zhang 2015) ,D6.1 (Marchetti 2015), D7.1 (Woitsch 2014) , D7.2 (Mancinelli 2014), D8.1 (Re 2015), and finally to consolidate the status and justifications given by individual WPs for same requirement.

Another task of the team is refinement of requirements with knowledge collected during the first 12-Month-Period, and also in case of conflicts between specified concepts, designed architecture, implemented prototypes, work plan and status of requirements and justification, to communicate with regarding WP to have detailed justification and clarify the conflicts.

The methodology foresees three phases in order to collect, investigate and to consolidate the realization status of requirements;

- In first phase,
 - Individual WP requirement assessment reports are collected with identified template
 - Individual WP requirement assessment are composed into a generic assessment report in requirement level by the moderator
 - generic assessment report with involvement of the end-user and WP Leaders is discussed in an online meeting
 - in requirement level-composed requirement assessments are reviewed individually by each member of the review team
 - Individual review results are discussed and consolidated in three online-workshops
- Second phase
 - Consolidated review results of reviewer-team are communicated with WP Leaders
 - Refinements, and updated detailed status and justification responding the review results are collected from WP Leaders by moderator
 - The end-user revises refinements and updated status and justification
- Third phase
 - Holistic realization status of requirement on Learn PAd system dimension level are exposed and statistics are investigated in respect to priority level of requirements (essential, desired or optional)

3 Individual Requirement Assessment Reports from Work Packages

Since each work package has different nature, each work package targets and assesses the requirements from different perspective, as mentioned before, each WP Leader has been asked to provide their individual requirement assessment report from their perspective.

In this chapter we each detailed individual WP assessment reports, which have been accrued after several iterations of review and updating among review team and WP Leaders.

3.1 WP2 Requirement Assessment Report

WP2 is dealing with definition of the high level architecture for the whole platform and providing the implementation of the framework where all the tools developed by the other work packages can be plugged in. The work package investigates the interfaces that make available contents to learners and the best approaches as well as system interfaces for feeding the platform with suitable contents. In that sense, Table 2 presents the targeted requirements and their justifications, Table 3 partially targeted ones and Table 4 presents not targeted one and their justifications within the first 12-Month-Period.

Table 2 The requirements that are targeted within WP5 and justifications

id	Title	Dimension	Status-WP2	Justification-WP2
43	Learning Sub-System	Technical View	WP2-Targeted	This has been addressed as part of the architecture design.
62	Content Traceability	Technical View	WP2-Targeted	This is about the Collaboration Environment package.
68	Keyword based search	Technical View	WP2-Targeted	Collaborative environment base functionality
84	BP-Modelling Processing: Adaptive Import / Export	Technical View	WP2-Targeted	Exchange format, service technology have been identified
85	BP Modelling: Process and Documentation Interaction	Technical View	WP2-Targeted	Function of the collaborative environment
93	Collaboration Mechanisms	Technical View	WP2-Targeted	Addressed by collaboration mechanisms into the wiki.

id	Title	Dimension	Status-WP2	Justification-WP2
105	Distinction Between Read-Only and Editable Content	Meta Model	WP2-Targeted	After import process from modelling environment to collaborative working space won't be editable. Additional Pages created by the user can be edited
142	Integration of Assessment System	Technical View	WP2-Targeted	For most of components are considered
143	Integration with APIs	Technical View	WP2-Targeted	APIs are identified, some of modelling component specific API are also identified
172	Roles and Actors	Learning Paradigm	WP2-Targeted	It is default functionality of collaboration workspace, but role categories and profiles should be defined by WP5
203	Content Governance and Protection	Technical View	WP2-Targeted	Rights system in collaborative environment
204	Learn PAd-System: Access Control	Technical View	WP2-Targeted	It is default functionality of collaborative workspace
205	Roles and Responsibilities	Technical View	WP2-Targeted	It is default functionality of Xwiki platform

id	Title	Dimension	Status-WP2	Justification-WP2
213	Integration into existing systems	Technical View	WP2-Targeted	The Learn PAd platform provides API; existing systems will have the possibility to develop plugins to connect to the Learn PAd platform.
255	Learners Collaboration	Technical View	WP2-Targeted	In architecture it is foreseen as component: collaborative working space
260	Content Governance and Protection	Technical View	WP2-Targeted	Management of Access Rights is default functionality of collaborative workspace
187b	Content - Search	Technical View	WP2-Targeted	Search will be made available by WP2 and exposed to the user through collaborative workspace (WP5)
249a	Collaboration Mechanisms	Technical View	WP2-Targeted	the functionalities foreseen in collaborative working space

Table 3 The requirements that are partially targeted within WP2 and justifications

id	Title	Dimension	Status-WP2	Justification-WP2
6	BP-Models: Content references	Meta Model	WP2-Partially Targeted	Definition of the Business Process Modelling Language is not specifically targeted but this goal will be achieved through collaboration between WP3 and WP5

19	BP-Wiki and BP-Model alignment	User Scenarios	WP2-Partially Targeted	formats for information exchange between the collaborative environment and the textual analysis software will be defined
38	BP-Wiki and BP-Model alignment	User Scenarios	WP2-Partially Targeted	communication between the modelling environment (WP3) and collaborative environment (WP6) to support this use case will be targeted
54	Education and training shall be traced	Learning Paradigm	WP2-Partially Targeted	Data exchange and storage of trace data shall be within the scope of WP2
60	Modelling Methodology	User Scenarios	WP2-Partially Targeted	The procedure should be define as part of the WP3.
61	Model-Versioning	Technical View	WP2-Partially Targeted	It is going to be targeted in following period
70	Expert Feedback and Knowledge Harvesting	Meta Model	WP2-Partially Targeted	The Collaborative Environment will support such retrieval but definition of the process will be done with the help of WP3
87	Collaboration Mechanisms	Technical View	WP2-Partially Targeted	Since Modeling Environment has been considered as an offline component, we never picture any interactive communication between modelers and end-users (accessing the collaborative

				environment). Therefore, the interactive communication should be a inside part of the Collaborative Environment.
90	Expert Feedback and Knowledge Harvesting	Meta Model	WP2-Partially Targeted	The knowledge will be available as part of the Collaboration Environment and part of the Modelling Environment (WP3).
90	Expert Feedback and Knowledge Harvesting	Meta Model	WP2-Partially Targeted	The knowledge will be available as part of the Collaboration Environment and part of the Modelling Environment (WP3).
91	Roles and Responsibilities	User Scenarios	WP2-Partially Targeted	This will be implemented within the collaborative environment but implementing it within the modelling environment is outside of this work package
107	Learn PAd-System: Agreed Standards	Technical View	WP2-Partially Targeted	Definition of data exchange protocols will be taken care of in WP2 and WP7
144	Learners Knowledge Assessment	Meta Model	WP2-Partially Targeted	There are some components identified to fulfill the requirement
145	Questionnaires for Knowledge Assessment	Meta Model	WP2-Partially Targeted	There are some components identified to fulfill the requirement
149	Learn PAd platform installation and evolution	Technical View	WP2-Partially Targeted	Software product quality requirement, targeted by both WP2 and WP7

151	Model Re-use	Meta Model	Wp2-Partially Targeted	Ensure quality of Natural Language content will be an input from WP4.
155	Modelling Methodology	User Scenarios	Wp2-Partially Targeted	We believe that this topic of "process skeletons for role view" is part of the model. The platform only play a role of transfer of models between components but is model agnostic (not completely since we do manage different format, but in the end, there is nothing about the semantic of the models).
164	Different Expert Levels on Feedback	Learning Paradigm	WP2-Partially Targeted	This is partly done through collaborative mechanism, but also by quality checks done in WP4
167	BP-Modelling Processing: Track Changes	Meta Model	WP2-Partially Targeted	The Collaborative environment will implement this in terms of content but not in models
168	Track Changes: Models	Meta Model	WP2-Partially Targeted	The ability to display changes in the model should be shown inside Collaboration environment (WP5) and Modeling environment (WP3)
168	Track Changes: Content	Technical View	WP2-Partially Targeted	Handled in the collaborative environment (WP5) There are default functionalities in collaborative workspace and functionalities will be extended
171	Roles and Profile	Technical View	WP2-Partially Targeted	Management of roles in the platform will be taken care of in collaboration with the wiki (WP5) and

				the simulation environment (WP6)
200	BP-Modelling: Query Feature	Technical View	WP2-Partially Targeted	Query functionalities are part of Modelling Environment. Default query functionalities of the environment have been utilized according to meta-model
200	Learners Results Access	User Scenarios	WP2-Partially Targeted	It is foreseen in the architecture: Learning Session Component
217	Learning Process History	Technical View	WP2-Partially Targeted	System will store the session information provided by Collaborative Environment (WP5) and Simulation Environment (WP6)
220	Simulation Environment	Technical View	WP2-Partially Targeted	Core Platform will provide interfaces discussed in collaboration with WP6 (Simulation Environment)
231	Learners Feedback on Content	Technical View	WP2-Partially Targeted	Core Platform should be able to gather logs from any other components of the platform
234	Help and Assistance	Technical View	WP2-Partially Targeted	This is part of the Collaborative Environment (WP5); platform may have to provide infrastructure to support this contacting possibilities.
237	Learners Community: Invitations	User Scenarios	WP2-Partially Targeted	The Collaborative Environment (WP5) will trigger these reminders to the system that will redirect it to the right people.
239	WIKI Content Traceability	Technical View	WP2-Partially Targeted	Platform will be used to store the information; collect this data will be done by other

				components.
254	Roles and Profile	Technical View	WP2-Partially Targeted	Management of groups in the platform will be taken care of in collaboration with the wiki (WP5) and the simulation environment (WP6)
264	Learn PAd-System: Activity Log	Learning Paradigm	WP2-Partially Targeted	Platform will be used to store the information; collect this data will be done by other components.
265	Content Consistency	Technical View	WP2-Partially Targeted	System provide mechanisms to keep the coherency of data between different components
147b	BP-Wiki and BP-Model alignment	Technical View	WP2-Partially Targeted	Pages created via Import are not editable
203 a	Information Access Autorization Based on Roles and Permissions	Meta Model	WP2-Partially Targeted	The platform will manage users in collaboration with the Collaborative Environment (WP5) and the Simulation Environment (WP6).
207 a	Content Types	Technical View	WP2-Partially Targeted	Collaborative Environment and Simulation Environment (WP6) should be involved
249e	Collaboration Mechanisms	Technical View	WP2-Partially Targeted	The functions are foreseen in collaborative workspace

64b	Expert to Domain Classification	Meta Model	WP2-Partially Targeted	Managing the roles in the system will be a collaboration between the platform, the Collaborative Environment (WP5), the Modelling Environment (WP3) and the Simulation Environment (WP6)
89a	Content Governance Based on User Permissions	Meta Model	WP2-Partially Targeted	Managing the roles in the system will be a collaboration between the platform, the Collaborative Environment (WP5), the Modelling Environment (WP3) and the Simulation Environment (WP6)

Table 4 The requirements that are not targeted within WP5 and justifications

id	Title	Dimension	Status-WP2	Justification-WP2
3	Learners Motivation	User Scenarios	WP2-Not Targeted	Falls under the category of collaboration (WP5)
4	KPI-Models: Guidelines	User Scenarios	WP2-Not Targeted	Quality of models is a collaborative work between WP3 and WP4
13	BP-Wiki and BP-Model alignment	Technical View	WP2-Not Targeted	Wiki description will be done in the Collaborative Environment (WP5)
14	BP-Wiki and BP-Model alignment	Technical View	WP2-Not Targeted	Description of models in the wiki is part of the WP5
15	Collaboration Mechanisms between Content and BP expert	Technical View	WP2-Not Targeted	Handled by the collaborative environment in WP5.
23	Content Interface Creation	Technical View	WP2-Not Targeted	Function of the collaborative environment with advice from scientific work packages

id	Title	Dimension	Status-WP2	Justification-WP2
44	Legacy Application Integration	Technical View	WP2-Not Targeted	
51	BP-Modelling Method: BPMN usage	Meta Model	WP2-Not Targeted	Modelling and business process definition is out of scope for this work package
56	Learners Feedback on Content	Technical View	WP2-Not Targeted	Quality check of contents are addressed in (WP4)
57	Help and Assistance	User Scenarios	WP2-Not Targeted	Handled by the collaborative environment in WP5.
59	BP-Models: Global and Local Views	Meta Model	WP2-Not Targeted	this requirement cannot be addressed within this work package at this time because it lacks specificity in terms of the ontology of this work package's domain
81	Custom Business Process Metamodel Extensions	Meta Model	WP2-Not Targeted	Providing extensions to the meta-modeling will be addressed as part of WP3 work.
83	BP-Modelling Processing: RDF Export	Technical View	WP2-Not Targeted	Not an architectural or development practices requirement
115	Content Filtering	Technical View	WP2-Not Targeted	WP2: Everything about the display of documents/pages about the models will be taken care of in the Collaborative Environment (WP5) Filtering on displayed data should be

id	Title	Dimension	Status-WP2	Justification-WP2
				done on the display support which imply either Modeling Environment, Simulation Environment or Collaborative Environment. Platform provide free access to the data and doesn't provide any UI for end-users. In the case of learners, we thought it was not concerning Modeling Environment but mostly Collaborative Environment. WP5:according the learners profile information can be filtered
117	Different Roles and Profiles	User Scenarios	WP2-Not Targeted	WP2: Everything about the display of documents/pages about the models with be taken care of in the Collaborative Environment (WP5). As for #115, this requirement is only about User Interface, therefore, it should be handle on end-user entry points (Modeling Environment, Collaborative Environment or Simulation Environment). In the case of multiple viewpoint, Collaborative Environment is implied.
119	BP-Modelling Processing: Simplified Graphical Representation	Meta Model	WP2-Not Targeted	All elements that contains end-users interfaces (UI) are concerned: Collaborative Environment, Modelling Environment (WP3) and Simulation Environment (WP6)

id	Title	Dimension	Status-WP2	Justification-WP2
124	Business Process Models in Multiple Levels of Detail	Meta Model	WP2-Not Targeted	
161	Ranking	Technical View	WP2-Not Targeted	Function of the collaborative environment
161	Ranking	Technical View	WP2-Not Targeted	Function of the collaborative environment
165	Learners Motivation	Learning Paradigm	WP2-Not Targeted	Motivational aspects are addressed in WP5 and WP6.
168	Track Changes: Content	Technical View	WP2-Not Targeted	Handled in the collaborative environment (WP5)
179	KPI-Models: Quality Metrics	Meta Model	WP2-Not Targeted	KPI are addressed into WP5
181	Roles and Expert Levels Assessment	Technical View	WP2-Not Targeted	This is work addressed into the Collaborative Environment (WP5)
190	Learners Entryp Point - Navigation	User Scenarios	WP2-Not Targeted	This will be part work done in Collaboration Environment (WP5) and Modelling Environment (WP3)
191	Content Navigation - Ontology Based	Technical View	WP2-Not Targeted	This is work addressed into the Collaborative Environment (WP5)

id	Title	Dimension	Status-WP2	Justification-WP2
208	Simulation Environment	Technical View	WP2-Not Targeted	Mocks are part of the simulation environment (WP6)
225	Simulation Environment	Technical View	WP2-Not Targeted	Function of the simulation environment (WP6)
227	Learners Feedback on Content	Technical View	WP2-Not Targeted	This is work addressed into the Collaborative Environment (WP5)
233	Ranking of Answers	User Scenarios	WP2-Not Targeted	This is work addressed into the Collaborative Environment (WP5), possibly in collaboration with WP4
235	Frequently Asked Learners Questions	Technical View	WP2-Not Targeted	This is work addressed into the Collaborative Environment (WP5)
266	Content Moderator	User Scenarios	WP2-Not Targeted	Moderation of the content should be done in Collaborative Environment (WP5)
103a	Learning Feedback	Technical View	WP2-Not Targeted	
163 b	Learners Motivation	User Scenarios	WP2-Not Targeted	Reward system will be provided as part of the Collaborative Environment (WP5)
187a	Content - Semantic Search	Meta Model	WP2-Not Targeted	This is part of the recommendation functionality (WP5).

id	Title	Dimension	Status-WP2	Justification-WP2
193c	Learnering Processes for different Learner Profiles	Learning Paradigm	WP2-Not Targeted	Learning is taken care of in WP5 and WP6.
194b	Different Knowledge Entry Points	Technical View	WP2-Not Targeted	Function of the collaborative environment
202d	Moderation of collaborative content modifications	User Scenarios	WP2-Not Targeted	Function of the collaborative environment (WP5)
202e	Civil servant reputation	User Scenarios	WP2-Not Targeted	Function of the collaborative environment (WP5)
207 b	Content Types	Meta Model	WP2-Not Targeted	Function of the collaborative environment (WP5)
243a	KPI-Model: Learning Assessment	Meta Model	WP2-Not Targeted	KPI are part of the WP5
243b	KPI-Model: Learning Logging	Technical View	WP2-Not Targeted	WP2: KPI is part of the collaborative work between the modeling (WP3) and the collaborative Environment (WP5)
243c	KPI-Model: Learning Assessment	User Scenarios	WP2-Not Targeted	KPI are part of the WP5
29a	BP-Model Hierarchical View Derivation	Meta Model	WP2-Not Targeted	Model consideration are part of WP3
29b	BP-Model Hirarchical Consistency Check	Technical View	WP2-Not Targeted	Model consideration are part of WP3

id	Title	Dimension	Status-WP2	Justification-WP2
57a	Help and Assistance	Technical View	WP2-Not Targeted	Function of the collaborative environment (WP5)
63a	Expert Roster	Meta Model	WP2-Not Targeted	Function of the collaborative environment (WP5)
63b	Expert Roster	Technical View	WP2-Not Targeted	Function of the collaborative environment
66 b	Expert Profile	Technical View	WP2-Not Targeted	This is about KPI and competencies models (WP3)
67a	Content Tagging	Technical View	WP2-Not Targeted	Function of the collaborative environment
7 a	Roles and Profile	Meta Model	WP2-Not Targeted	Falls under the category of collaboration (WP5) and/or simulation (WP6)
7 b	Roles and Skill Profile	Technical View	WP2-Not Targeted	Learning profiles is part of WP5
8a	BP-Model and Contents Iterative Refinement	Meta Model	WP2-Not Targeted	Refining of models is a function of the modelling environment and refining of wiki pages is a function of the collaboration environment
8b	BP-Model Feedback History Log	Technical View	WP2-Not Targeted	Function of the collaborative environment (WP5) and/or modelling environment (WP3)

3.2 WP3 Requirement Assessment Report

WP3 is dealing with definition of the meta-models for BP notations to be adopted within the project as well as definition of specific transformations in order to have informative specifications for the learners and at the same time specifications containing sufficient information to permit simulation and monitoring.

In that sense, Table 2 presents the targeted requirements and their justifications, Table 6 partially targeted ones and

Table 7 presents not targeted one and their justifications within the first 12-Month-Period.

Table 5 The requirements targeted within WP3 and justification

id	Title	Dimension	Status-WP3	Justification-WP3
6	BP-Models: Content references	Meta Model	WP3-Targeted	This is achieved by means of the weaving models which interconnect the component metamodels of LPIMM and provide the navigation within a model.
24	Meta Model based Modelling Environment	Technical View	WP3-Targeted	Defining domain-specific concepts (and the relationships among them) is possible by metamodeling, ie the possibility by means of appropriate notations (eg Ecore, UML CD, etc) to define domain-specific modeling notations.
34	Coherent levels of Abstractions	Learning Paradigm	WP3-Targeted	The abstraction levels given in the different artifacts are consistently related by means of weaving models.
38	BP-Wiki and BP-Model alignment	User Scenarios	WP3-Targeted	It relates to the general goals of LPIMM.
39	Learning Evaluation	Learning Paradigm	WP3-Targeted	The concepts are foreseen in Metamodel

id	Title	Dimension	Status-WP3	Justification-WP3
49	KPI-Models	User Scenarios	WP3-Targeted	Quality attributes can be defined by the administrator by means of the KPI metamodel.
59	BP-Models: Global and Local Views	Meta Model	WP3-Targeted	Global and local views are managed according to different abstraction mechanisms: a) the weaving models to related different views and b) the containment relations which permit to encapsulate concepts within other concepts.
81	Custom Business Process Metamodel Extensions	Meta Model	WP3-Targeted	It is foreseen and regarding mechanisms have been implemented
84	BP-Modelling Processing: Adaptive Import / Export	Technical View	WP3-Targeted	Import Export web services on ADOxx® side have been implemented
105	Content Governance and Protection	Technical View	WP3-Targeted	This can be specified within a model with the right attributions.
115	Content Filtering	Technical View	WP3-Targeted	The capability of hiding of showing details of a models depends on the modeling platforms, ie ADOxx® and Magic Draw, which will perform it according to the Learn PAd metamodels.

id	Title	Dimension	Status-WP3	Justification-WP3
117	Different Roles and Profiles	User Scenarios	WP3-Targeted	Roles and Profiles are concept present the Learn PAd metamodel. In order to permit the system to offer multiple viewpoints, which provide different perspectives for different roles, the platform must consistently interpret and used use the information represented by such concepts.
121	Business Process Model in Multiple Abstraction Levels	Meta Model	WP3-Targeted	LPIMM permits a layered organization of the knowledge representation.
124	Business Process Models in Multiple Levels of Detail	Meta Model	WP3-Targeted	The concepts and multiple level of BPs are foreseen in meta model. See also 59.
125	BP-Models: Different views	Meta Model	WP3-Targeted	In LPIMM each view is defined by a different component metamodel.
126	BP-Model Navigation	Meta Model	WP3-Targeted	LPIMM provides the modeling constructs from describing a process at different levels of abstraction which can co-exist and be cross-linked
128	Roles and Expert Levels	Meta Model	WP3-Targeted	
129	Content Document Modelling	Meta Model	WP3-Targeted	The Document and Knowledge metamodel is associated with all the other views of the

id	Title	Dimension	Status-WP3	Justification-WP3
				business process precisely connected by means of weaving models.
131	BP-Modelling Processing: Performance monitoring	Meta Model	WP3-Targeted	The modeling side is covered by the KPI metamodel
136	Learn PAd Meta Model: formalization	Meta Model	WP3-Targeted	The alignment with ontology has been obtained by a close cooperation with WP5, e.g., the weaving models derive directly from the triple relations in RDFS given in D5.1
137	Learning Goals for Process Model	Meta Model	WP3-Targeted	LPIMM provides the right constructs and links for modeling it, i.e., Performer is linked to Competency Set
141	Business Process Model Integration with Business Rules and Motivation, Data and Roles	Meta Model	WP3-Targeted	This is among the main goals of LPIMM and realized by the weavings interconnecting the component metamodels.
144	Learners Knowledge Assessment	Meta Model	WP3-Targeted	The questionnaire for performing the assessments are described by the corresponding metamodels (ie. MOTHIA-OUT). The way the questionnaire are evaluated is managed by the platform which consistently represents the outcome by means of the document and knowledge metamodel.

id	Title	Dimension	Status-WP3	Justification-WP3
145	Questionnaires for Knowledge Assessment	Meta Model	WP3-Targeted	Tests and questions for assessing learners' knowledge are formalized by means of the MOTHIA OUT component metamodel.
150	BP-Models: Role Projection	Meta Model	WP3-Targeted	It is targeted in Metamodel
176	Model Re-use KPI	User Scenarios	WP3-Targeted	It is a functionality which is based on the information modeled by the KPI metamodel.
178	KPI-Models: Subjective and objective	Meta Model	WP3-Targeted	The KPI metamodel covers both subjective and objective metrics (Means and Ends)
257	BP-Modelling Method: BPMN and CMMN	Meta Model	WP3-Targeted	LPIMM provides the right notation for specifying procedural and case business processes
108a	BP and Content Integration	Meta Model	WP3-Targeted	LPIMM permits to model the linkage between the processes (and their activities) with knowledge and document objects.
159b	KPI-Models: Scorecard	Technical View	WP3-Targeted	KPI models has been foreseen in meta model
243b	KPI-Model: Learning Logging	Technical View	WP3-Targeted	KPI concept is integrated in metamodel

id	Title	Dimension	Status-WP3	Justification-WP3
243c	KPI-Model: Learning Assessment	User Scenarios	WP3-Targeted	The KPI metamodel is part of the LPIMM.
7 b	Roles and Skill Profile	Technical View	WP3-Targeted	The Learn PAd metamodel contains the Role and Profile concepts. The way abstraction is managed according to this information is responsibility of the platform.

Table 6 The requirements partly targeted within WP3 and justification

id	Title	Dimension	Status-WP3	Justification-WP3
48	KPI-Models: Quality Metrics	User Scenarios	WP3-Partially Targeted	Euristics are not covered by LPIMM as opposed as the heuristics
60	Modelling Methodology	User Scenarios	WP3-Partially Targeted	The procedure for mapping a business process should be defined according to the domain experts, eg WP5, WP3 provides the syntax for supporting the modeling.
61	Model-Versioning	Technical View	WP3-Partially Targeted	4 Scenarios identified solution implemented
78	KPI-Model Language Quality	User Scenarios	WP3-Partially Targeted	The requirement is not directly addressed, because while the measurements are covered by the LPIMM, the wiki is outside its scope.

88	Content Rating	User Scenarios	WP3-Partially Targeted	The LPIMM metamodel permits to model measurements, document, and knowledge, how this requirement is met depends of the rating mechanism which might depend of questionnaires which are provided by more platform-specific functionalities.
92	BP-Modelling Processing: Readiness for Execution	Meta Model	WP3-Partially Targeted	This a feature of the platform provided that the models are in a machine-readable format
119	BP-Modelling Processing: Simplified Graphical Representation	Meta Model	WP3-Partially Targeted	Learn PAd conceptual and platform-independent metamodels define only the abstract syntax, thus the graphical notation is not addressed in this deliverable. However, Learn PAd partners took care of minimizing the number of concepts to be used from standard modelling languages such as BPMN, BMM, and CMMN, which minimizes the variety of concepts and notations and makes it easier to learn and apply.
122	Simplified Graphical Notation	Meta Model	WP3-Partially Targeted	The very first solutions are implemented on LPSMM at ADOxx®

133	Learning Profiling Experience	Meta Model	WP3-Partially Targeted	The measurement side is covered by the KPI metamodel with a number of competency-related concepts, how to update the performance indicators is responsibility of the platform.
143	Integration with APIs	Technical View	WP3-Partially Targeted	some of modelling component specific API are also identified
148	Model Re-use of Reference Processes	User Scenarios	WP3-Partially Targeted	It is possible to associate a process to documents, e.g., explanatory text about a process.
155	Modelling Methodology	User Scenarios	WP3-Partially Targeted	The modeling procedure consists in guidelines which permit to elicitate requirements and information from the domain and represent them in terms of model. While the syntactic structure of the metamodels can provide a certain guidance in developing the artifacts, most of the development must be performed in according to practices which can only be provided by the domain experts.
168	Track Changes: Models	Meta Model	WP3-Partially Targeted	Four possible scenarios have been identified and implemented on ADOxx® side

168	Track Changes: Content	Technical View	WP3-Partially Targeted	This is outside the scope of LPIMM. Four possible scenarios have been identified and implemented on ADOxx® side
179	KPI-Models: Quality Metrics	Meta Model	WP3-Partially Targeted	LPIMM models the KPIs, how they are calculated is responsibility of the platform.
190	Learners Entry Point - Navigation	User Scenarios	WP3-Partially Targeted	This is partly addressed, within a model the weaving models permit to navigate the different views of the model, e.g., the organizational model starting from the process model (intra-model navigation)
206	Content Structure	User Scenarios	WP3-Partially Targeted	LPIMM includes weaving model, which enables association knowledge objects with business processes, which enables structuring relevant knowledge objects by process elements. Additional structuring mechanisms may be needed for user convenience and will be detected later on when the uses cases will be elaborated
266	Content Moderator	User Scenarios	WP3-Partially Targeted	It is considered in track changes scenario.

159a	KPI-Models: Scorecard	Meta Model	WP3-Partially Targeted	LPIMM permits the modeling of such entities, not the computational side.
202e	Civil servant reputation	User Scenarios	WP3-Partially Targeted	The LPIMM enables the modeling of competency levels and profiles which are needed for realizing a reputation mechanisms.
207 b	Content Types	Meta Model	WP3-Partially Targeted	While LPIMM provides the construct for modeling different forms of documents and knowledge with the Knowledge and Document metamodel, the management of the different formats is responsibility of the platform.
209a	Learning through Simulation	User Scenarios	WP3-Partially Targeted	It is among the goals of the metamodel, i.e., permitting simulations tasks which can be however only provided by the platform at runtime.
243a	KPI-Model: Learning Assessment	Meta Model	WP3-Partially Targeted	KPI concepts are considered in meta model, some learning concepts are need to be added

245d	Learning Monitoring Process	User Scenarios	WP3-Partially Targeted	Performance indicators are modeled, however it requires useful information which can be collected only executing the process (e.g, by means of questionnaire).
50a	KPI-Models to assess Model-Quality	Meta Model	WP3-Partially Targeted	LPIMM provides the constructs for representing measurements, how this measurements are managed, derived or calculated is responsibility of the platform
73a	KPI-Model Quality	User Scenarios	WP3-Partially Targeted	The KPI metamodel permits descriptions about measurements of different indicators, as such quality attributes for the model and the process should be possible, although not expressly thought for this scope.
77c	BP-Model: Feedback on Quality	User Scenarios	WP3-Partially Targeted	It is related to the requirement 73a, however rating a business process requires the right user privileges

Table 7 The Requirements not targeted within WP3 and justification

id	Title	Dimension	Status-WP3	Justification-WP3
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id	Title	Dimension	Status-WP3	Justification-WP3
10	BP-Modelling Processing: Automated Validation Check	Meta Model	WP3-Not Targeted	Checking such properties is a feature of the platform
19	BP-Wiki and BP-Model alignment	User Scenarios	WP3-Not Targeted	the natural language is not covered by LPIMM.
97	Content Pattern Mining	Meta Model	WP3-Not Targeted	This is a feature of the platform
98	Process Pattern Mining	Meta Model	WP3-Not Targeted	This is a feature of the repository of the platform
135	BP-Modelling Graphical Notation in	Meta Model	WP3-Not Targeted	
151	Model Re-use	Meta Model	WP3-Not Targeted	This is outside the scope of LPIMM, which provides a notation for modeling artifacts not their repositories.
167	BP-Modelling Processing: Track Changes	Meta Model	WP3-Not Targeted	This is a feature of the repository of the platform
183	Adaptive Tests	User Scenarios	WP3-Not Targeted	The generation and general management of questionnaires is part of the implementation.
184	BP-Modelling Processing: Critical Path Specification	Meta Model	WP3-Not Targeted	It is a feature of the platform.
203	Content Governance and Protection	Technical View	WP3-Not Targeted	Outside the scope of LPIMM, it must be enforced by the platform.

id	Title	Dimension	Status-WP3	Justification-WP3
233	Ranking of Answers	User Scenarios	WP3-Not Targeted	WP3-The community-based forums will be provided by the architecture.
175a	Roles and Profile	Meta Model	WP3-Not Targeted	This is outside the scope of LPIMM and related to the platform
192a	Learner Profiles	Meta Model	WP3-Not Targeted	This is outside the scope of LPIMM
202d	Moderation of collaborative content modifications	User Scenarios	WP3-Not Targeted	
216b	Learning Categories	Technical View	WP3-Not Targeted	Outside the scope of LPIMM
223a	Learners Gathering	User Scenarios	WP3-Not Targeted	The LPIMM models the information needed for meeting such requirement, which however can be fulfilled only at runtime on the platform.
29a	BP-Model Hierarchical View Derivation	Meta Model	WP3-Not Targeted	Outside the scope of LPIMM
63a	Expert Roster	Meta Model	WP3-Not Targeted	Outside the scope of LPIMM
64b	Expert to Domain Classification	Meta Model	WP3-Not Targeted	The learner profiling is responsibility of the platform, although measurements can be modeled with the KPI metamodel

id	Title	Dimension	Status-WP3	Justification-WP3
7 a	Roles and Profile	Meta Model	WP3-Not Targeted	Managing learning profile is part of the platform.
8a	BP-Model and Contents Iterative Refinement	Meta Model	WP3-Not Targeted	This is a feature of the platform

Besides requirement assessment activities within WP3 foreseen by the methodology, for the assessment of solutions implemented within WP3 and through that for the refinement of the requirements, the requirements and their possible solutions have been shared with community through “Learn PAd Developer Space” on ADOxx®.org (BOC and rest of Learn PAd Consortium 2014).

In this developer space, the requirements have been sorted and categorized by components of a modelling method according to Generic Modelling Method Specification Framework as introduced by (Karagiannis and Kühn 2002) (Kühn 2004) (Open Models Initiative 2007)

Besides sharing requirements with community (as depicted in Figure 1) , the Learn PAd Developer Space aims to share developed solutions (as depicted in Figure 2), which shall fulfil those requirements, with community.

The overall aims of the developer space are,(1) to share with community, with which challenges we are dealing and what kind of solution we have identified (2) take commitment of community to refine the requirements and solutions.

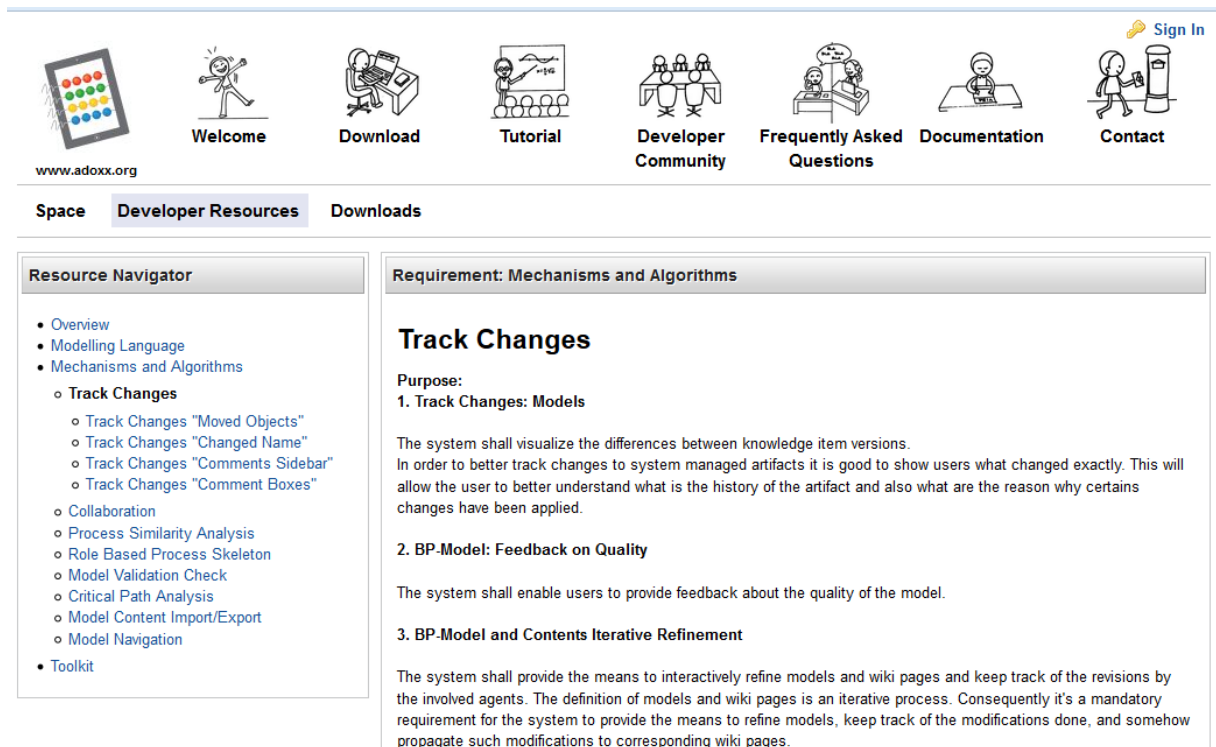


Figure 1 The requirements categorized according to modelling method components



Resource Navigator

- Overview
- Modelling Language
- Mechanisms and Algorithms
 - Track Changes
 - Track Changes "Moved Objects"
 - Track Changes "Changed Name"
 - Track Changes "Comments Sidebar"
 - Track Changes "Comment Boxes"
 - Collaboration
 - Process Similarity Analysis
 - Role Based Process Skeleton
 - Model Validation Check
 - Critical Path Analysis
 - Model Content Import/Export
 - Model Navigation
- Toolkit

Developer Resource: Modelling Language

Track Changes "Comments Sidebar"

Goal: Demonstrate how HOTSPOTS and AdoScript triggers can be used to implement comment functionality, using the modelling area setup in ADOxx for positioning of comments. All commented information is stored in the modified instance and also an archive/history is kept for review.

Case: Enable commenting per instance through user interaction. For this version, the focus lies on presenting the comments in the modelling area as a write-protected lane.

Downloads

ABL ALL

Script Files
[ModelGraphRepTrackChange.leo](#)
[TaskClassGraphRep.leo](#)
[WriteComment.asc](#)
[ClearComment.asc](#)

ADOxx Realisation Approach

Modelling Language Implementation

Step 1 and 2 can be skipped if your ADOxx implementation is available and should be used.

1. Implement the concrete modelling classes of the domain
2. Define modeltype and assign classes
3. Define a modeltype specific attribute and graphical representation to enable and disable the comment mode in the model.
4. Add attributes to store the comments and related meta-information in the model instances
5. Add PROGRAMCALL attribute for classes that should be commentable
6. Update graphical representation to add HOTSPOTS for adding and deleting comments

Mechanisms and Algorithms Implementation

1. Implement AdoScripts for add and delete action
2. Assign AdoScript to PROGRAMCALL through the graphical notation

Implementation Result

Figure 2 One of possible solutions implemented to fulfil a requirement

Although during this work has been prepared we have not received enough feedback from community, given that the Developer Space has been released recently-, we believe that in following period the Developer Space can contribute into evaluation and exploitation activities.

3.3 WP4 Requirement Assessment Report

WP4 is dealing with realization of support functionalities for quality assessment both BP model specifications and related contents as well as providing of automatic tools for quality assessment so to direct the activity of the community in order to have better learning material.

In that sense, Table 8 presents the targeted requirements and their justifications, Table 9 partially targeted ones and Table 10 presents not targeted one and their justifications within the first 12-Month-Period.

Table 8 The requirements that are targeted within WP4 and justifications

id	Title	Dimension	Status-WP4	Justification-WP4
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id	Title	Dimension	Status-WP4	Justification-WP4
4	KPI-Models: Guidelines	User Scenarios	WP4-Targeted	WP partners have identified in literature different guidelines for writing "good" models. A specific investigation and validation is currently under study with respect to properties related to learning.
11	BP-Model Alignment Changes and Wiki after	Technical View	WP4-Targeted	The consistency between the content of BP Models and Wiki pages is currently ensured by the strategy of generation of the Wiki pages, which foresees one Wiki page for each BP model construct, as described in the deliverable D5.1, Sect. 5. After changes to the Wiki pages are provided by a user, we have foreseen and planned a quality check of the linguistic content. Preliminary requirements (user and technical) and a high level scenario have been provided in http://goo.gl/9uhlhK . Further scenarios are under definition.
14	BP-Wiki and BP-Model alignment	Technical View	WP4-Targeted	The current prototype generates one Wiki page for each BP model and one Wiki page for each BP model element, as described in Deliverable 5.1, Sect. 5. As stated for requirement 13, we foresee that each page is linked to another Wiki page that follows the template in http://goo.gl/yb0RiH .

id	Title	Dimension	Status-WP4	Justification-WP4
19	BP-Wiki and BP-Model alignment	User Scenarios	WP4-Targeted	Different approaches have been defined to check the ambiguity of the NL content of the Wiki pages. In particular, we have identified rule-based approaches for identifying typical ambiguous terms, and we have put the basis for the implementation of a machine learning approach for the identification of ambiguous and unclear sentences. The status of these activities is reported in http://goo.gl/2dmufk .
22	Content Governance: Automatic Runtime Checks of Content Quality	Technical View	WP4-Targeted	At the current stage, the planned quality checks for Wiki NL content are expected to be provided after the user presses a VALIDATE button, and not at runtime. The reason for this choice is that, given the large variety of quality checks, it might be resource consuming to apply all of them at runtime. Probably we should consider which quality checks shall be performed at runtime and which quality checks shall be performed after pressing a VALIDATE button.
32	BP-Modelling Standards	Meta Model	WP4-Targeted	WP partners have based their activities on the standards provided by other WPs, in particular WP3 (see Deliverable D3.1 and D3.2).

id	Title	Dimension	Status-WP4	Justification-WP4
49	KPI-Models	User Scenarios	WP4-Targeted	Currently, the quality attribute defined are expected to be fully comprehensive of the possible quality checks to be performed. However, some additional quality checks (e.g., coherence) could be in principle plugged in the platform, but not at run time. Indeed, different, and currently unknown additional quality checks might need different treatments in terms of input and output data. At this stage, we foresee a design of the quality checks that is easily extensible to novel quality checks plugged by the developer, but not by the system administrator.
51	BP-Modelling Method: BPMN usage	Meta Model	WP4-Targeted	The BPMN2 standard is considered by WP4 tools to check properties of BP specification.
56	Learners Feedback on Content	Technical View	WP4-Targeted	Mock-ups foresee that "Like" buttons are available for all content (See Deliverable D5.1). Later, more sophisticated rating mechanisms may be introduced.
88	Content Rating	User Scenarios	WP4-Targeted	The mock-ups that have been created for the collaborative workspace include feedback mechanisms that allow commenting and giving semi-structured feedback regarding BPs. The mock-ups are described and depicted in

id	Title	Dimension	Status-WP4	Justification-WP4
				Deliverable D5.1.
99	BP-Wiki and BP-Model alignment	Technical View	WP4-Targeted	We identified automatic analysis services
186	Separation of Concern based on Ontology	User Scenarios	WP4-Targeted	Mock-ups foresee that feedback is provided via comments. For commenting, civil servants can use the XWIKI comment function that consists in highlighting a piece of text to comment on. The specification of the translation procedures (models -> Wiki) foresees that generated Wiki pages will be internally structured such that the position of the highlighted text can be used to infer the entity that the user is commenting on. For further details, see Deliverable D5.1.
192a	Learner Profiles	Meta Model	WP4-Targeted	The specification for the collaborative workspace foresees that learner profiles exist. They contain competencies and competency levels as well as learning goals. In the mock-ups, we have shown how the learner's profile is exploited to make suitable recommendations of content or discretionary sub-tasks in certain contexts (See Deliverable D5.1).

id	Title	Dimension	Status-WP4	Justification-WP4
57a	Help and Assistance	Technical View	WP4-Targeted	A solution that includes the contact of an expert for each generated page has been foreseen, as shown in Deliverable 5.1.
73a	KPI-Model Quality	User Scenarios	WP4-Targeted	WP4 partners have identified in literature different attributes characterizing "good" models and processes. A list of reference works is provided here: http://goo.gl/lecSP2 .
77a	BP-Model: Feedback on Quality	Meta Model	WP4-Targeted	The approach described for requirement 88 covers also this requirement.
77c	BP-Model: Feedback on Quality	User Scenarios	WP4-Targeted	The approach described for requirement 88 covers also this requirement.

Table 9 The requirements that are partially targeted within WP4 and justifications

id	Title	Dimension	Status-WP4	Justification-WP4
10	BP-Modelling Processing: Automated Validation Check	Meta Model	WP4-Partially Targeted	WP partners have implemented a tool chain permitting to verify structural correctness properties for BP models. On the other hand a general framework permitting the evaluation of general properties is still under development.
13	BP-Wiki and BP-Model alignment	Technical View	WP4-Partially Targeted	A template has been defined to provide a NL description of an entire model. At this stage, the idea is that one Wiki page is generated from the BP model, which includes the summary of the BP model as provided by the BP

id	Title	Dimension	Status-WP4	Justification-WP4
				Modeller. Such Wiki page shall have a link to another Wiki page, that follows the template for the NL description. Such Wiki page can be edited by a BP model manager (i.e., a person that is in charge of managing the BP model and the whole learning content associated to it), or by the civil servants.
23	Content Creation Interface	Technical View	WP4-Partially Targeted	A template has been defined for Wiki pages that display NL content. Such template has been derived from public administration guidelines, and from interviews and questionnaires with civil servants. The presence of a template enables the NL contributor (civil servants and BP model managers, i.e., people in charge of managing a BP model in Learn PAd) to provide complete content, which include reference documents, summary, examples, and other fields that have been defined in the template. The current version of the template, with a description of the fields, is available here: http://goo.gl/FvjMyp
30	Guidelines in form of KPIs for assessing Model-Quality	Learning Paradigm	WP4-Partially Targeted	The issue of different KPI has been currently addressed for NL content, and has to be addressed for models. Concerning NL content, we have identified a quality model with the following quality

id	Title	Dimension	Status-WP4	Justification-WP4
				<p>attributes: Completeness, Simplicity, Non-Ambiguity, Correctness, Content Clarity, Presentation Clarity, The idea is to allow the user selecting one or more quality attributes (i.e., KPI) to check the quality of the NL content. The system returns a numerical quality index for each quality attribute, and provides recommendation for improvement. The quality model is reported here: http://goo.gl/Z0APDI. The foreseen quality measures are currently under definition, and are reported here: http://goo.gl/YMg7hj.</p>
34	Coherent levels of Abstractions	Learning Paradigm	WP4-Partially Targeted	<p>Coherence among different level of abstractions has not been addressed yet by the partners and will constitute the focus of future activities. At this stage, the learning content is generated directly from the models, therefore the structure of the learning content is coherent with the structure of the model. Details are reported in Deliverable deliverable D5.1, Sect. 5. Guidelines concerning the appropriate level of details on the models, and consequently on the learning content, shall be derived and documented along with the experience of the demonstrators</p>

id	Title	Dimension	Status-WP4	Justification-WP4
				(WP8).
38	BP-Wiki and BP-Model alignment	User Scenarios	WP4-Partially Targeted	Currently, each BP Model construct has a corresponding Wiki page, which describes the activities associated to the construct in NL, as described in as described in the deliverable D5.1, Sect. 5. Therefore, consistency is ensured by construction, and no analysis is foreseen. Weaker consistency checks can be foreseen, regarding the identification of acronyms and relevant terms in the Wiki NL documents, which have no definition at the level of the BP model or at the level of the glossary adopted.
48	KPI-Models: Quality Metrics	User Scenarios	WP4-Partially Targeted	The different quality attributes to be checked on NL content have been listed in requirement 30. We are currently defining metrics to evaluate each quality attribute, which are based on the percentage of defect-free sentences with respect to the total amount of sentences. User-friendly interpretations of such metrics are also under development. Works concerning there issues are reported here: http://goo.gl/vpzysl .

id	Title	Dimension	Status-WP4	Justification-WP4
57	Help and Assistance	User Scenarios	WP4-Partially Targeted	For each Wiki page, we foresee a field where the contact of an expert person is provided. However, the actual implementation of a helpdesk structure has to be provided in the system.
59	BP-Models: Global and Local Views	Meta Model	WP4-Partially Targeted	The impact of local vs. global perspectives has not been investigated in deep yet. Future activities will also concentrate on this aspect.
71	Learners Feedback on Content	Technical View	WP4-Partially Targeted	The mock-ups that have been created for the collaborative workspace include feedback mechanisms that allow commenting and giving feedback on specific parts of the NL content. The mock-ups are described and depicted in Deliverable D5.1. However, the integration of quality feedback from users and automated quality checks is still a topic of debate within WP4.
78	KPI-Model Language Quality	User Scenarios	WP4-Partially Targeted	Among the different quality attributes and corresponding quality metrics under definition, we have identified a part of them that are independent from the language. We expect to implement different quality checks for English and Italian for those quality attributes that appear more relevant

id	Title	Dimension	Status-WP4	Justification-WP4
				according to the results of the questionnaire with civil servants.
184	BP-Modelling Processing: Critical Path Specification	Meta Model	WP4-Partially Targeted	<p>The guidelines for writing quality models that are currently under development within WP4 are specifically target to simplify the BP model and make it more understandable.</p> <p>However, WP4 is currently not focused on defining the possible difficulties that might occur in implementing the process in practice. To address this latter goal, it is required to log the feedbacks of the Learn PAd learners and experts, and use such feedbacks to highlight the parts of the BP Model that are more critical to put into practice. This usage of the feedbacks and the highlighting task shall be duties of the BP Model Manager, i.e., a person who is in charge of managing a specific BP Model. Handling the content of the feedbacks is part of WP5 and not WP4.</p> <p>Moreover, according to this view, the capability of highlighting critical paths shall be part of the Modelling Component (mainly WP3).</p>
21b	KPI-Models: Quality of Content	Technical View	WP4-Partially Targeted	At the level of the linguistic content, we foresee different quality checks (see http://goo.gl/wh7ecR),

id	Title	Dimension	Status-WP4	Justification-WP4
				each one having a specific criticality degree. The degree of criticality of each check is still under definition. At the level of models, similar considerations will be taken into account. To appropriately display the content depending on its degree of criticality, support from the XWiki platform is also required.
29a	BP-Model Hierarchical View Derivation	Meta Model	WP4-Partially Targeted	Coherence among different level of abstractions has not been addressed yet by the partners and will constitute the focus of future activities.
29b	BP-Model Hierarchical Consistency Check	Technical View	WP4-Partially Targeted	Equivalent to 29a
50a	KPI-Models to assess Model-Quality	Meta Model	WP4-Partially Targeted	Different quality attributes have been defined for the NL content, according to the quality model described in the comments for requirement 30. For BP models the definition of quality attributes to be checked is currently ongoing.
50b	KPI-Models for assess Model-Quality	Learning Paradigm	WP4-Partially Targeted	Equivalent to 50a
72b	Different Expert Levels on Feedback	Technical View	WP4-Partially Targeted	It is under consideration but the solutions for this requirement have not been provided yet.

id	Title	Dimension	Status-WP4	Justification-WP4
77b	BP-Model: Feedback on Quality	Technical View	WP4-Partially Targeted	The mock-ups that have been created for the collaborative workspace include feedback mechanisms that allow commenting and giving semi-structured feedback regarding BPs, which might also include feedback on the usability. The mock-ups are described and depicted in Deliverable D5.1. The concept of usability for BP models has been also analyzed from a theoretical perspective. Current results are reported here: http://goo.gl/ckgAuP

Table 10 The requirements that are not targeted within WP4 and justifications

id	Title	Dimension	Status-WP4	Justification-WP4
54	Education and training shall be traced	Learning Paradigm	WP4-Not Targeted	Tracing issues are currently not considered within WP4.
97	Content Pattern Mining	Meta Model	WP4-Not Targeted	The definition and experimentation with pattern-matching algorithms require data-sets. At this stage, we do not have data-sets to experiment on. Moreover, this requirement cannot be related to any part of the DoW for WP4.
98	Process Pattern Mining	Meta Model	WP4-Not Targeted	The definition and experimentation with pattern-matching algorithms require data-sets. At this stage, we do not have data-sets to

id	Title	Dimension	Status-WP4	Justification-WP4
				experiment on. Moreover, this requirement cannot be related to any part of the DoW for WP4.

3.4 WP5 Requirement Assessment Report

WP5 is dealing with providing semantic metamodels for collaboration, content management and performance measurement as well as their relations and interrelations to process meta models.

In that sense, Table 11 presents the targeted requirements and their justifications, Table 12 partially targeted ones and Table 13 presents not targeted one and their justifications within the first 12-Month-Period.

Table 11 The requirements that are targeted within WP5 and justifications

id	Title	Dimension	Status-WP5	Justification-WP5
15	Collaboration Mechanisms between Content and BP expert	Technical View	WP5-Targeted	Refer to Deliverable D5.1, chapter 6
18	Learners Feedback on Content	Technical View	WP5-Targeted	Reference to Deliverable D5.1 chapter 3.1.3 and 3.2.2, indicated by the "like" button in the mock-up
56	Learners Feedback on Content	Technical View	WP5-Targeted	Reference to Deliverable D5.1 chapter 3.1.3 and 3.2.2, indicated by the "like" button in the mock-up
57	Help and Assistance	User Scenarios	WP5-Targeted	Reference to Deliverable D5.1 Chapter 3.1.3 and 3.2.2
83	BP-Modelling Processing: RDF Export	Technical View	WP5-Targeted	Refer to Deliverable D5.1, Chapter 4, all processes knowledge is stored in RDF anyway

id	Title	Dimension	Status-WP5	Justification-WP5
105	Distinction Between Read-Only and Editable Content	Meta Model	WP5-Targeted	After import process from modelling environment to collaborative working space won't be editable. Additional Pages created by the user can be edited
109	BP-Model: Textual Description	Technical View	WP5-Targeted	Refer to Deliverable D5.1 chapter 3.1.3, always via a "modeller"'s approval
125	BP-Models: Different views	Meta Model	WP5-Targeted	Refer to deliverable D5.1 chapter 3.1.3 and 3.2.2
135	BP-Modelling in Graphical Notation	Meta Model	WP5-Targeted	Refer to Deliverable D5.1 chapter 3.1.3 and 3.2.2
136	Learn PAd Meta Model: formalization	Meta Model	WP5-Targeted	Refer to Deliverable D5.1
161	Ranking	Technical View	WP5-Targeted	Refer to Deliverable D5.1 chapter 4.4.1 Competence questions 2, 3, 11
161	Ranking	Technical View	WP5-Targeted	Refer to Deliverable D5.1 chapter 4.4.1 Competence questions 2, 3, 11
186	Separation of Concern based on Ontology	User Scenarios	WP5-Targeted	Refer to Deliverable D5.1 chapter 6.3
190	Learners Entry Point - Navigation	User Scenarios	WP5-Targeted	Reference to Deliverable D5.1 chapter 3.1.3 and 3.2.2
191	Content Navigation - Ontology Based	Technical View	WP5-Targeted	Reference to Deliverable D5.1 chapter 5.2

id	Title	Dimension	Status-WP5	Justification-WP5
213	Integration into existing systems	Technical View	WP5-Targeted	external PA applications (legacy systems) can be called via a link from the wiki; since a shallow workflow functionality shall be provided after completing a task in the external tool a 'done button' should be clicked at the respective wiki page to continue with the flow
227	Learners Feedback on Content	Technical View	WP5-Targeted	Refer to Deliverable D5.1 chapter 3.1.3 and 3.2.2, indicated by the "like" button in the mock-up and the commenting in chapter 3.1.4
235	Frequently Asked Learners Questions	Technical View	WP5-Targeted	Refer to D5.1 chapter 3.1.3 and 3.2.2
256	Learning and Business Process Context	Learning Paradigm	WP5-Targeted	Refer to Deliverable D5.1 chapter 3.1.2 Ways of learning (execution mode)
139a	BP-Modelling Combining Structured and Unstructured Processes	Meta Model	WP5-Targeted	Refer to Deliverable D5.1 chapter 6 excluding the tracking of the causes
139b	BP-Modelling Method: CMMN Extension	Technical View	WP5-Targeted	Refer to Deliverable D5.1 chapter 6 excluding the tracking of the causes
202d	Moderation of collaborative content modifications	User Scenarios	WP5-Targeted	Refer to Deliverable D5.1 chapter 6
57a	Help and Assistance	Technical View	WP5-Targeted	Refer Deliverable D5.1 Chapter 3.1.3 and 3.2.2
63a	Expert Roster	Meta Model	WP5-Targeted	Refer Deliverable D5.1 Chapter 3.1.3 and 3.2.2

id	Title	Dimension	Status-WP5	Justification-WP5
63b	Expert Roster	Technical View	WP5-Targeted	Refer Deliverable D5.1 Chapter 3.1.3 and 3.2.2
67a	Content Tagging	Technical View	WP5-Targeted	Refer to Deliverable D5.1, chapter 3.1.4

Table 12 The requirements that are partially targeted within WP5 and justifications

id	Title	Dimension	Status-WP5	Justification-WP5
19	BP-Wiki and BP-Model alignment	User Scenarios	WP5-Partially Targeted	WP4, only semi automatic checks are foreseen, link to WP5
39	Learning Evaluation	Learning Paradigm	WP5-Partially Targeted	It will be targeted in following period
58	Feedback History Log	Technical View	WP5-Partially Targeted	Reference to Deliverable D5.1 Chapter 6
61	Model-Versioning	Technical View	WP5-Partially Targeted	It is going to be targeted in following period
94	Roles and Profile	Technical View	WP5-Partially Targeted	This issue will be targeted within T5.6
98	Process Pattern Mining	Meta Model	WP5-Partially Targeted	This issue will be targeted within T5.3
104	Learning Dashboard	Technical View	WP5-Partially Targeted	It is going to be targeted in following period
115	Content Filtering	Technical View	WP5-Partially Targeted	according the learners profile information can be filtered
128	Roles and Expert Levels	Meta Model	WP5-Partially Targeted	

id	Title	Dimension	Status-WP5	Justification-WP5
130	KPI Logging	Technical View	WP5-Partially Targeted	WP5 defined the KPI concept
144	Learners Knowledge Assessment	Meta Model	WP5-Partially Targeted	This issue will be targeted within T5.6
145	Questionnaires for Knowledge Assessment	Meta Model	WP5-Partially Targeted	This issue will be targeted within T5.6
172	Roles and Actors	Learning Paradigm	WP5-Partially Targeted	Concepts are under investigation and further activities has been planned for coming period
177	KPI-Models: Guidelines	User Scenarios	WP5-Partially Targeted	This issue will be targeted within T5.4
178	KPI-Models: Subjective and objective	Meta Model	WP5-Partially Targeted	This issue is being handled within T5.4, results will be released in D5.4
179	KPI-Models: Quality Metrics	Meta Model	WP5-Partially Targeted	This issue will be targeted within T5.4
183	Adaptive Tests	User Scenarios	WP5-Partially Targeted	This issue will be targeted within T5.6
200	Learners Results Access	User Scenarios	WP5-Partially Targeted	It is going to be considered in following period
229	BP-Model Processing: Automatic Recommendation of Process Optimization	Technical View	WP5-Partially Targeted	Refer to D5.1 chapter 6.1, but need to be extended with intelligence

id	Title	Dimension	Status-WP5	Justification-WP5
233	Ranking of Answers	User Scenarios	WP5-Partially Targeted	This issue will be targeted within T5.4
236	Feedback Interaction with Process Documentation	Technical View	WP5-Partially Targeted	Refer to D5.1 chapter 3.1.4, commenting
100a	Change Reasons Log	Meta Model	WP5-Partially Targeted	Refer to Deliverable D5.1 chapter 6 excluding the tracking of the decisions
100b	Feedback History Log	Technical View	WP5-Partially Targeted	Refer to Deliverable D5.1 chapter 6 excluding the tracking of the decisions
101 b	Feedback History Log	Technical View	WP5-Partially Targeted	Refer to Deliverable D5.1 chapter 6 excluding the tracking of the decisions
103a	Learning Feedback	Technical View	WP5-Partially Targeted	The possible concepts are under investigation, the evaluation will go on further in next period
118a	Content Role Based Views	Meta Model	WP5-Partially Targeted	The concept is not clear now, but it is going to be considered in following period
118b	Content Role Based Views	Technical View	WP5-Partially Targeted	The concept is not clear now, but it is going to be considered in following period
130a	KPI Logging	Technical View	WP5-Partially Targeted	WP5y defined the KPI concept
147b	BP-Wiki and BP-Model alignment	Technical View	WP5-Partially Targeted	it has been discussed with WP4 and next steps are planned.
159b	KPI-Models: Scorecard	Technical View	WP5-Partially Targeted	This issue will be targeted within T5.4

id	Title	Dimension	Status-WP5	Justification-WP5
187a	Content - Semantic Search	Meta Model	WP5-Partially Targeted	This issue will be targeted within T5.5
194b	Different Knowledge Entry Points	Technical View	WP5-Partially Targeted	Refer to D5.1 chapter 3.1.2 browsing mode, searching will be done in T5.5
207 b	Content Types	Meta Model	WP5-Partially Targeted	Refer to Deliverable D5.1 chapter 3.1.3 and 3.2.2 (graphical models, video as links, chat to experts)
216a	Learning Categories	Meta Model	WP5-Partially Targeted	This issue will be targeted within T5.6
216b	Learning Categories	Technical View	WP5-Partially Targeted	This issue will be targeted within T5.6
21b	KPI-Models: Quality of Content	Technical View	WP5-Partially Targeted	It is going to be targeted in following period
243a	KPI-Model: Learning Assessment	Meta Model	WP5-Partially Targeted	This issue will be targeted within T5.6
249e	Collaboration Mechanisms	Technical View	WP5-Partially Targeted	It is going to be considered in following period
64a	Expert to Domain Classification	Technical View	WP5-Partially Targeted	This issue will be targeted within T5.4/T5.5
66 b	Expert Profile	Technical View	WP5-Partially Targeted	This issue will be targeted within T5.4/T5.5
7 a	Roles and Profile	Meta Model	WP5-Partially Targeted	it is going to be targeted in following period

id	Title	Dimension	Status-WP5	Justification-WP5
7 b	Roles and Skill Profile	Technical View	WP5-Partially Targeted	it is going to be targeted in following period
72b	Different Expert Levels on Feedback	Technical View	WP5-Partially Targeted	it is going to be targeted in following period
8a	BP-Model and Contents Iterative Refinement	Meta Model	WP5-Partially Targeted	Refer to Deliverable D5.1 chapter 6 excluding the tracking of the revisions
8b	BP-Model Feedback History Log	Technical View	WP5-Partially Targeted	Refer to Deliverable D5.1 chapter 6 excluding the tracking of the revisions

Table 13 The requirements that are not targeted within WP5 and justifications

id	Title	Dimension	Status-WP5	Justification-WP5
3	Learners Motivation	User Scenarios	WP5-Not Targeted	No relevance with the activities within WP5
23	Content Creation Interface	Technical View	WP5-Not Targeted	No relevance with the activities within WP5. It should be targeted within WP4
62	Content Traceability	Technical View	WP5-Not Targeted	No relevance with the activities within WP5. It should be targeted within WP4. Built into Xwiki
68	Keyword based search	Technical View	WP5-Not Targeted	No relevance with the activities within WP5. It should be targeted within WP4. Built into Xwiki
164	Different Expert Levels on Feedback	Learning Paradigm	WP5-Not Targeted	This issue will be targeted within T5.4

165	Learners Motivation	Learning Paradigm	WP5-Not Targeted	This issue will be targeted within T5.2
176	Model Re-use KPI	User Scenarios	WP5-Not Targeted	This issue will be targeted within T5.4
181	Roles and Expert Levels Assessment	Technical View	WP5-Not Targeted	This issue will be targeted within T5.6
184	BP-Modelling Processing: Critical Path Specification	Meta Model	WP5-Not Targeted	
159a	KPI-Models: Scorecard	Meta Model	WP5-Not Targeted	This issue will be targeted within T5.4
163 b	Learners Motivation	User Scenarios	WP5-Not Targeted	No relevance with the activities within WP5
187b	Content - Search	Technical View	WP5-Not Targeted	This issue will be targeted within T5.5
202e	Civil servant reputation	User Scenarios	WP5-Not Targeted	This issue will be targeted within T5.4
207 a	Content Types	Technical View	WP5-Not Targeted	
64b	Expert to Domain Classification	Meta Model	WP5-Not Targeted	This issue will be targeted within T5.4

3.5 WP6 Requirement Assessment Report

WP6 is dealing with the construction of a simulation environment that also includes monitoring feature providing feedbacks for the evaluation of learners, business processes, and associated learning contents.

In that sense,

Table 14 presents the targeted requirements and their justifications, Table 15 partially targeted ones and Table 15 presents not targeted one and their justifications within the first 12-Month-Period.

Table 14 The requirements targeted within WP6 and justification

id	Title	Dimension	Status-WP6	Justification-WP6
127	Meta Model Evolution	Meta Model	WP6-Targeted	The system can support evolution of the meta-models as long as they are compatible with BPMN 2.0
130	KPI Logging	Technical View	WP6-Targeted	The monitoring component will collect and send information related to Key Performance Indicator to the Persistency Layer. The values will be collected according to the KPI specification as soon as they will be provided by WP5. Actually only some KPI concepts are available.
133	Learning Experience Profiling	Meta Model	WP6-Targeted	We have started the implementation of User Profiles
210	Simulation Environment: Usage	Technical View	WP6-Targeted	This requirement have been addressed
225	Simulation Environment	Technical View	WP6-Targeted	This requirement has been addressed.
130a	KPI Logging	Technical View	WP6-Targeted	The monitoring component will collect and send information related to Key Performance Indicator to the Persistency Layer. The values will be collected according to the KPI specification as soon as they will be provided by WP5. Actually only some KPI concepts are available.

Table 15 The requirements partially targeted within WP6 and justification

id	Title	Dimension	Status-WP6	Justification-WP6
94	Roles and Profile	Technical View	WP6-Partially Targeted	
104	Learning Dashboard	Technical View	WP6-Partially Targeted	Up to month 12 of the project, this requirement has not been addressed yet. We will work for the satisfaction of this requirement
142	Integration of Assessment System	Technical View	WP6-Partially Targeted	
165	Learners Motivation	Learning Paradigm	WP6-Partially Targeted	We are working for the satisfaction of this requirement and we are including in the monitor framework facilities for collecting information about percentage level of coverage and violation of the KPIs. The priority of this requirement should be modified from "Discarded" to "Idea". Moreover, the scope should be also modified to "Essential"
184	BP-Modelling Processing: Critical Path Specification	Meta Model	WP6-Partially Targeted	Up to month 12 of the project, this requirement has not been addressed yet. We will work for the satisfaction of this requirement. But to do it, a preliminary work is needed to

id	Title	Dimension	Status-WP6	Justification-WP6
				define what is exactly the expected functionalities of the simulation with regard to critical paths in BP.
208	Simulation Environment	Technical View	WP6-Partially Targeted	Up to month 12 of the project, this requirement has not been addressed yet. We will work for the satisfaction of this requirement.
213	Integration into existing systems	Technical View	WP6-Partially Targeted	
215	Simulation Environment	Technical View	WP6-Partially Targeted	Up to month 12 of the project, this requirement has not been addressed yet. We will work for the satisfaction of this requirement.
241	Simulation History	Technical View	WP6-Partially Targeted	Up to month 12 of the project, this requirement has not been addressed yet. We are working for the satisfaction of this requirement
264	Learn PAd-System: Activity Log	Learning Paradigm	WP6-Partially Targeted	In the Learn PAd Simulator API, an access to logs is planned. This Log concerns the activities of the BP. Up to month 12 the requirement implementation status is still ongoing.

id	Title	Dimension	Status-WP6	Justification-WP6
163 b	Learners Motivation	User Scenarios	WP6-Partially Targeted	We are working to consider rewarding system within Learn PAd Simulator Platform. However, WP3 and WP5 are concerned with this work and should be involved in the satisfaction of this requirement.
193c	Learning Processes for different Learner Profiles	Learning Paradigm	WP6-Partially Targeted	This requirement expresses a precondition for the monitoring activity. The status should be modified from optional to desired.
209b	Learning through Simulation	Technical View	WP6-Partially Targeted	Up to month 12 of the project, this requirement has not been addressed yet. But we have started the implementation of robots (mocks).
223a	Learners Gathering	User Scenarios	WP6-Partially Targeted	Up to month 12 of the project, this requirement has not been addressed yet. We will work for the satisfaction of this requirement.
245a	Learning Process Monitoring	Learning Paradigm	WP6-Partially Targeted	We are working for the satisfaction of this requirement. Up to month 12 the requirement implementation status is still ongoing. We would like to change the scope of the requirement from desired to essential.

id	Title	Dimension	Status-WP6	Justification-WP6
249d	Collaboration Mechanisms	Technical View	WP6-Partially Targeted	Up to month 12 of the project, this requirement has not been addressed yet. We are working on it. The Learn PAd Simulator Platform will provide chatting support for participants in a simulation instance. In contrast, other social contribution to community's contents (liking, tagging, etc.) that are not directly related to the simulation should not be addressed by WP6.

Table 16 The requirements not targeted within WP6 and justification

id	Title	Dimension	Status-WP6	Justification-WP6
131	BP-Modelling Processing: Performance monitoring	Meta Model	WP6-Not Targeted	Up to month 12 of the project, this requirement has not been addressed yet
137	Learning Goals for Process Model	Meta Model	WP6-Not Targeted	This requirement is out of WP6's scope.
145	Questionnaires for Knowledge Assessment	Meta Model	WP6-Not Targeted	This requirement is out of WP6's scope.
164	Different Expert Levels on Feedback	Learning Paradigm	WP6-Not Targeted	This requirement is out of scope of WP6.
216b	Learning Categories	Technical View	WP6-Not Targeted	Up to month 12 of the project, this requirement has not been addressed yet. We are working for the satisfaction of this

id	Title	Dimension	Status-WP6	Justification-WP6
				requirement.

3.6 WP7 Requirement Assessment Report

WP7 supports the integration of the results of both research and development, maintains test beds, and keeps an overview, without content contributions to the supplying work packages. This work package is dealing with guiding all software components so that to fit them into the overall Learn PAd Architecture, ensuring that all interfaces between software components foreseen within WP2 are correctly implemented and sufficiently documented and guiding the definition of integration scenarios that will be also referred by the demonstrators.

In that sense, Table 17 presents the targeted requirements and their justifications, Table 18 partially targeted ones and Table 19 presents not targeted one and their justifications within the first 12-Month-Period.

Table 17 The requirements targeted within WP7 and justification

id	Title	Dimension	Status-WP7	Justification-WP7
149	Learn PAd platform installation and evolution	Technical View	WP7-Targeted	Software product quality requirement, targeted by both WP2 and WP7

Table 18 The requirements partly targeted within WP7 and justification

id	Title	Dimension	Status-WP7	Justification-WP7
107	Learn PAd-System: Agreed Standards	Technical View	WP7-Partially Targeted	Definition of data exchange protocols will be taken care of in WP2 and WP7

Table 19 The requirements that are not targeted within WP7 and justifications

id	Title	Dimension	Status-WP7	Justification-WP7
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119	BP-Modelling Processing: Simplified Graphical Representation	Meta Model	WP7-Not Targeted	All elements that contains end-users interfaces (UI) are concerned: Collaborative Environment, Modelling Environment (WP3) and Simulation Environment (WP6)
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3.7 WP8 Requirement Assessment Report

WP8 is dealing with demonstration of applicability, acceptance and effectiveness of the overall Learn PAd Platform

In that sense, Table 20 presents a partially targeted requirement within the first 12-Month-Period and its justification.

Table 20 The requirements that are not targeted within WP8 and justifications

id	Title	Dimension	Status-WP8	Justification-WP8
155	Modelling Methodology	User Scenarios	WP8- Partially Targeted	As introduced in D8.1 the methodology and the technical charts that were used to map the WP8 proceedings. This could be a part of the guide, but it is not sufficient to explain how to create the BP models and other digital content in order to obtain all the stuff needed to configure a new training course. In this sense a complete guide should be provided (both for modelers and for trainers and course designers).

4 Overall Status from Learn PAd System Dimensions Perspective

Due to fact that there is strong collaboration between activities among work packages in order to realize a solution to fulfil the same requirement. the results from individual assessment reports from the WPs have to be assessed to understand holistic realization status of requirements.

The most appropriate perspective to understand and measure overall realization status of requirement would be the Learn PAd system dimensions (Woitsch, et al. 2014); (1) paradigm, (2) language, (3) technology and (4) user. Doing so would give us the opportunity to have more sound assessment, in which dependency among work packages on system level considered.

As described in D1.1 (Woitsch, et al. 2014) , considering that Learning and Knowledge Management systems are typical socio-technical systems and existence of different level of user interaction with the Learn PAd system, the requirement considered in four different dimension. For completeness reason, we are citing the dimensions shortly;

- The **Learn PAd system** describes the socio-technical eco-system and hence includes the technical components, the content, the organizational context and processes as well as the conceptual thinking paradigm. Observations and requirements are grouped as **PARADIGM**.
- The **Learn PAd platform** describes all technical aspects starting with the core building blocks of the Learn PAd platform, and also includes the interaction with legacy systems. Observations and requirements are grouped as **TECHNOLOGY**.
- The **Learn PAd concept** describes the bridge between the Learn PAd system and the Learn PAd platform, by introducing conceptual and semantic modelling that can be represented by and to the human users in an appropriate - mainly graphical - way but have the capability to be processes by technology. Hence, those conceptual thoughts reflect aforementioned interface from learning and knowledge dimensions towards technical components. Observations and requirements are grouped as **LANGUAGE**.
- The **Learn PAd usage** describes how the Learn PAd system can be introduced and applied into an organization and considers cultural, organizational, change management and legal aspects when introducing such a system. Observations and requirements are grouped as **USER SCENARIOS**.

As announced, the review team consolidated the realization status and related justification from individual assessment reports that are introduced in previous chapters per requirement, so holistic realization status of the requirement independent from WP perspective has been acquired.

The overall status of the requirements are presented in following section grouped according the abovementioned dimensions.

4.1 Overall Status in Dimension: Paradigm

The holistic realization status of the requirement that are related to “Paradigm” dimension are presented in Table 21 with overview of status of requirement in each individual WP, where the requirement has been expected to be targeted.;

Table 21 Consolidated Individual WP Assessment Report per Requirement and Overall Status in Dimension Paradigm

id	Title	Dimension	Priority	Status-WP2	Status-WP3	Status-WP4	Status-WP5	Status-WP6	Status-WP7	Status-WP8	OverallStatus
30	Guidelines in form of KPIs for assessing Model-Quality	Learning Paradigm	Essential			WP4-Partially Targeted					Partially Targeted
34	Coherent levels of Abstractions	Learning Paradigm	Essential		WP3-Targeted	WP4-Partially Targeted					Partially Targeted
39	Learning Evaluation	Learning Paradigm	Desired		WP3-Targeted		WP5-Partially Targeted				Partially Targeted
54	Education and training shall be traced	Learning Paradigm	Essential	WP2-Partially Targeted		WP4-Not Targeted					Partially Targeted
164	Different Expert Levels on Feedback	Learning Paradigm	Essential	WP2-Partially Targeted			WP5-Not Targeted	WP6-Not Targeted			Partially Targeted

id	Title	Dimension	Priority	Status-WP2	Status-WP3	Status-WP4	Status-WP5	Status-WP6	Status-WP7	Status-WP8	OverallStatus
165	Learners Motivation	Learning Paradigm	Essential	WP2-Not Targeted			WP5-Not Targeted	WP6-Partially Targeted			Partially Targeted
172	Roles and Actors	Learning Paradigm	Desired	WP2-Targeted			WP5-Partially Targeted				Targeted
256	Learning and Business Process Context	Learning Paradigm	Essential				WP5-Targeted				Targeted
264	LearnPAd-System: Activity Log	Learning Paradigm	Essential	WP2-Partially Targeted				WP6-Partially Targeted			Partially Targeted
193c	Learnering Processes for different Learner Profiles	Learning Paradigm	Optional	WP2-Not Targeted				WP6-Partially Targeted			Partially Targeted
245a	Learning Process Monitoring	Learning Paradigm	Desired					WP6-Partially Targeted			Partially Targeted
50b	KPI-Models for assess Model-Quality	Learning Paradigm	Desired			WP4-Partially Targeted					Partially Targeted

Figure 3 depicts the detailed statistics on realization status of requirement separately for a) Essential Requirements, b) Desired Requirements, c) Optional Requirements as well as overall proportion of realization status in the dimension “Paradigm”

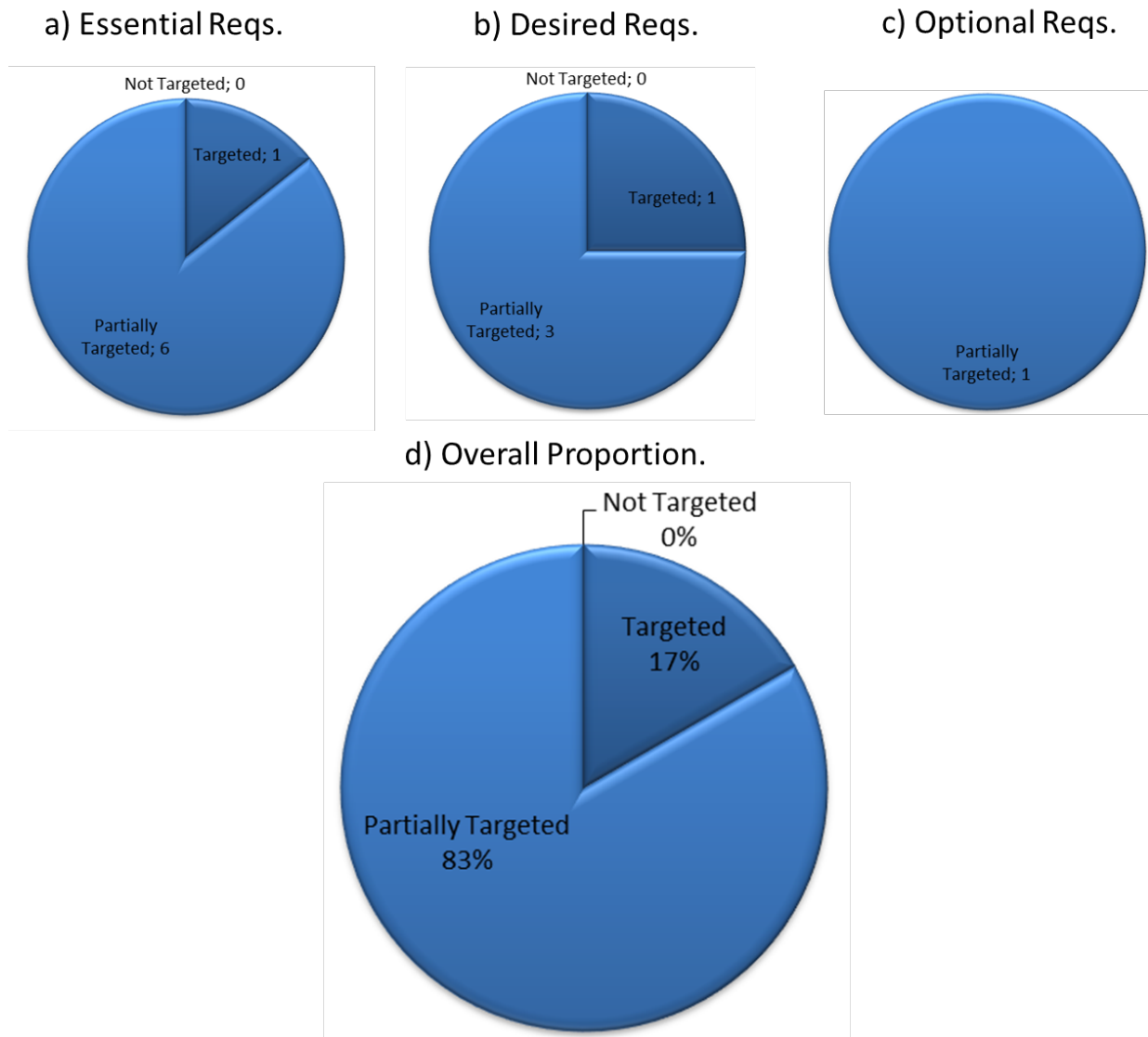


Figure 3 Overall Statistics about Realization of Requirements in Dimension Paradigm

Although observation period was the first 12-Month period, according to the figure all requirements in dimension “Paradigm” have been already either targeted or partially targeted.

In particular to essential requirements, 1 of them has been targeted and 6 of them have been partially targeted, 1 of desired requirement fully and 3 of them have been partially targeted and optional requirement has been partially targeted. Overall 83 percent of requirements have been partially, 17 percent are fully targeted.

Even at the this early stage of the project, in this dimension all requirements are completely or at least partially targeted and next steps for implementation of solution have been planned. Having that strict definition of “targeted” status bigger proportion of work has been classified as “partially targeted”

4.2 Overall Status in Dimension: Language

The holistic realization status of the requirement that are related to “Language” dimension are presented in Table 22 with overview of status of requirement in each individual WP, where the requirement has been expected to be targeted.

Table 22 Consolidated Individual WP Assessment Report per Requirement and Overall Status in Dimension Language

id	Title	Dimension	Priority	Status-WP2	Status-WP3	Status-WP4	Status-WP5	Status-WP6	Status-WP7	Status-WP8	OverallStatus
6	BP-Models: Content references	Meta Model	Essential	WP2-Partially Targeted	WP3-Targeted						Targeted
10	BP-Modelling Processing: Automated Validation Check	Meta Model	Essential		WP3-Not Targeted	WP4-Partially Targeted					Partially Targeted
32	BP-Modelling Standards	Meta Model	Essential			WP4-Targeted					Targeted
51	BP-Modelling Method: BPMN usage	Meta Model	Essential	WP2-Not Targeted		WP4-Targeted					Targeted
59	BP-Models: Global and Local Views	Meta Model	Essential	WP2-Not Targeted	WP3-Targeted	WP4-Partially Targeted					Partially Targeted
70	Expert Feedback and Knowledge Harvesting	Meta Model	Essential	WP2-Partially Targeted							Partially Targeted
81	Custom Business	Meta Model	Essential	WP2-Not Targeted	WP3-Targeted						Targeted

id	Title	Dimension	Priority	Status-WP2	Status-WP3	Status-WP4	Status-WP5	Status-WP6	Status-WP7	Status-WP8	OverallStatus
	Process Metamodel Extensions										
90	Expert Feedback and Knowledge Harvesting	Meta Model	Essential	WP2-Partially Targeted							Partially Targeted
90	Expert Feedback and Knowledge Harvesting	Meta Model	Essential	WP2-Partially Targeted							Partially Targeted
92	BP-Modelling Processing: Readiness for Execution	Meta Model	Essential		WP3-Partially Targeted						Partially Targeted
97	Content Pattern Mining	Meta Model	Essential		WP3-Not Targeted	WP4-Not Targeted					Not Targeted
98	Process Pattern Mining	Meta Model	Essential		WP3-Not Targeted	WP4-Not Targeted	WP5-Partially Targeted				Partially Targeted
105	Distinction Between Read-Only and Editable	Meta Model	Desired	WP2-Targeted			WP5-Targeted				Targeted

id	Title	Dimension	Priority	Status-WP2	Status-WP3	Status-WP4	Status-WP5	Status-WP6	Status-WP7	Status-WP8	OverallStatus
	Content										
119	BP-Modelling Processing: Simplified Graphical Representation	Meta Model	Essential	WP2-Not Targeted	WP3-Partially Targeted				WP7-Not Targeted		Partially Targeted
121	Business Process Model in Multiple Abstraction Levels	Meta Model	Optional		WP3-Targeted						Targeted
122	Simplified Graphical Notation	Meta Model	Essential		WP3-Partially Targeted						Partially Targeted
124	Business Process Models in Multiple Levels of Detail	Meta Model	Desired	WP2-Not Targeted	WP3-Targeted						Partially Targeted
125	BP-Models: Different views	Meta Model	Essential		WP3-Targeted		WP5-Targeted				Targeted
126	BP-Model Navigation	Meta Model	Essential		WP3-Targeted						Targeted

id	Title	Dimension	Priority	Status-WP2	Status-WP3	Status-WP4	Status-WP5	Status-WP6	Status-WP7	Status-WP8	OverallStatus
127	Meta Model Evolution	Meta Model	Essential					WP6-Targeted			Targeted
128	Roles and Expert Levels	Meta Model	Essential		WP3-Targeted		WP5-Partially Targeted				Targeted
129	Content Document Modelling	Meta Model	Essential		WP3-Targeted						Targeted
131	BP-Modelling Processing: Performance monitoring	Meta Model	Essential		WP3-Targeted			WP6-Not Targeted			Targeted
133	Learning Experience Profiling	Meta Model	Essential		WP3-Partially Targeted			WP6-Targeted			Targeted
135	BP-Modelling in Graphical Notation	Meta Model	Essential		WP3-Not Targeted		WP5-Targeted				Partially Targeted
136	LearnPAd Meta Model: formalization	Meta Model	Essential		WP3-Targeted		WP5-Targeted				Targeted

id	Title	Dimension	Priority	Status-WP2	Status-WP3	Status-WP4	Status-WP5	Status-WP6	Status-WP7	Status-WP8	OverallStatus
137	Learning Goals for Process Model	Meta Model	Essential		WP3-Targeted			WP6-Not Targeted			Targeted
141	Business Process Model Integration with Business Rules and Motivation, Data and Roles	Meta Model	Essential		WP3-Targeted						Targeted
144	Learners Knowledge Assessment	Meta Model	Essential	WP2-Partially Targeted	WP3-Targeted		WP5-Partially Targeted				Partially Targeted
145	Questionnaires for Knowledge Assessment	Meta Model	Essential	WP2-Partially Targeted	WP3-Targeted		WP5-Partially Targeted				Partially Targeted
150	BP-Models: Role Projection	Meta Model	Essential		WP3-Targeted						Targeted
151	Model Re-use	Meta Model	Desired	Wp2-Partially Targeted	WP3-Not Targeted						Partially Targeted
167	BP-Modelling Processing: Track Changes	Meta Model	Essential	WP2-Partially Targeted	WP3-Not Targeted						Partially Targeted

id	Title	Dimension	Priority	Status-WP2	Status-WP3	Status-WP4	Status-WP5	Status-WP6	Status-WP7	Status-WP8	OverallStatus
168	Track Changes: Models	Meta Model	Optional	WP2-Partially Targeted	WP3-Partially Targeted						Partially Targeted
178	KPI-Models: Subjective and objective	Meta Model	Optional		WP3-Targeted		WP5-Partially Targeted				Targeted
179	KPI-Models: Quality Metrics	Meta Model	Desired	WP2-Not Targeted	WP3-Partially Targeted		WP5-Partially Targeted				Partially Targeted
184	BP-Modelling Processing: Critical Path Specification	Meta Model	Essential		WP3-Not Targeted	WP4-Partially Targeted	WP5-Not Targeted	WP6-Partially Targeted			Partially Targeted
257	BP-Modelling Method: BPMN and CMMN	Meta Model	Essential		WP3-Targeted						Targeted
100a	Change Reasons Log	Meta Model	Essential				WP5-Partially Targeted				Partially Targeted
108a	BP and Content Integration	Meta Model	Essential		WP3-Targeted						Targeted

id	Title	Dimension	Priority	Status-WP2	Status-WP3	Status-WP4	Status-WP5	Status-WP6	Status-WP7	Status-WP8	OverallStatus
118a	Content Role Based Views	Meta Model	Essential				WP5-Partially Targeted				Partially Targeted
139a	BP-Modelling Combining Structured and Unstructured Processes	Meta Model	Essential				WP5-Targeted				Targeted
159a	KPI-Models: Scorecard	Meta Model	Desired		WP3-Partially Targeted		WP5-Not Targeted				Partially Targeted
175a	Roles and Profile	Meta Model	Optional		WP3-Not Targeted						Not Targeted
187a	Content Semantic Search -	Meta Model	Desired	WP2-Not Targeted			WP5-Partially Targeted				Partially Targeted
192a	Learner Profiles	Meta Model	Optional		WP3-Not Targeted	WP4-Targeted					Partially Targeted
203a	Information Access Autorization Based on Roles and	Meta Model	Desired	WP2-Partially Targeted							Partially Targeted

id	Title	Dimension	Priority	Status-WP2	Status-WP3	Status-WP4	Status-WP5	Status-WP6	Status-WP7	Status-WP8	OverallStatus
	Permissions										
207b	Content Types	Meta Model	Desired	WP2-Not Targeted	WP3-Partially Targeted		WP5-Partially Targeted				Partially Targeted
216a	Learning Categories	Meta Model	Desired				WP5-Partially Targeted				Partially Targeted
243a	KPI-Model: Learning Assessment	Meta Model	Desired	WP2-Not Targeted	WP3-Partially Targeted		WP5-Partially Targeted				Partially Targeted
249b	Collaboration Mechanisms	Meta Model	Desired								Not Targeted
29a	BP-Model Hierarchical View Derivation	Meta Model	Essential	WP2-Not Targeted	WP3-Not Targeted	WP4-Partially Targeted					Partially Targeted
50a	KPI-Models to assess Model-Quality	Meta Model	Desired		WP3-Partially Targeted	WP4-Partially Targeted					Partially Targeted
63a	Expert Roster	Meta Model	Essential	WP2-Not Targeted	WP3-Not Targeted		WP5-Targeted				Partially Targeted

id	Title	Dimension	Priority	Status-WP2	Status-WP3	Status-WP4	Status-WP5	Status-WP6	Status-WP7	Status-WP8	OverallStatus
64b	Expert to Domain Classification	Meta Model	Essential	WP2-Partially Targeted	WP3-Not Targeted		WP5-Not Targeted				Partially Targeted
7 a	Roles and Profile	Meta Model	Essential	WP2-Not Targeted	WP3-Not Targeted		WP5-Partially Targeted				Partially Targeted
77a	BP-Model: Feedback on Quality	Meta Model	Essential			WP4-Targeted					Targeted
89a	Content Governance Based on User Permissions	Meta Model	Essential	WP2-Partially Targeted							Partially Targeted
8a	BP-Model and Contents Iterative Refinement	Meta Model	Essential	WP2-Not Targeted	WP3-Not Targeted		WP5-Partially Targeted				Partially Targeted

Figure 4 depicts the detailed statistics on realization status of requirement separately for a) Essential Requirements, b) Desired Requirements, c) Optional Requirements as well as overall proportion of realization status in the dimension “Language”

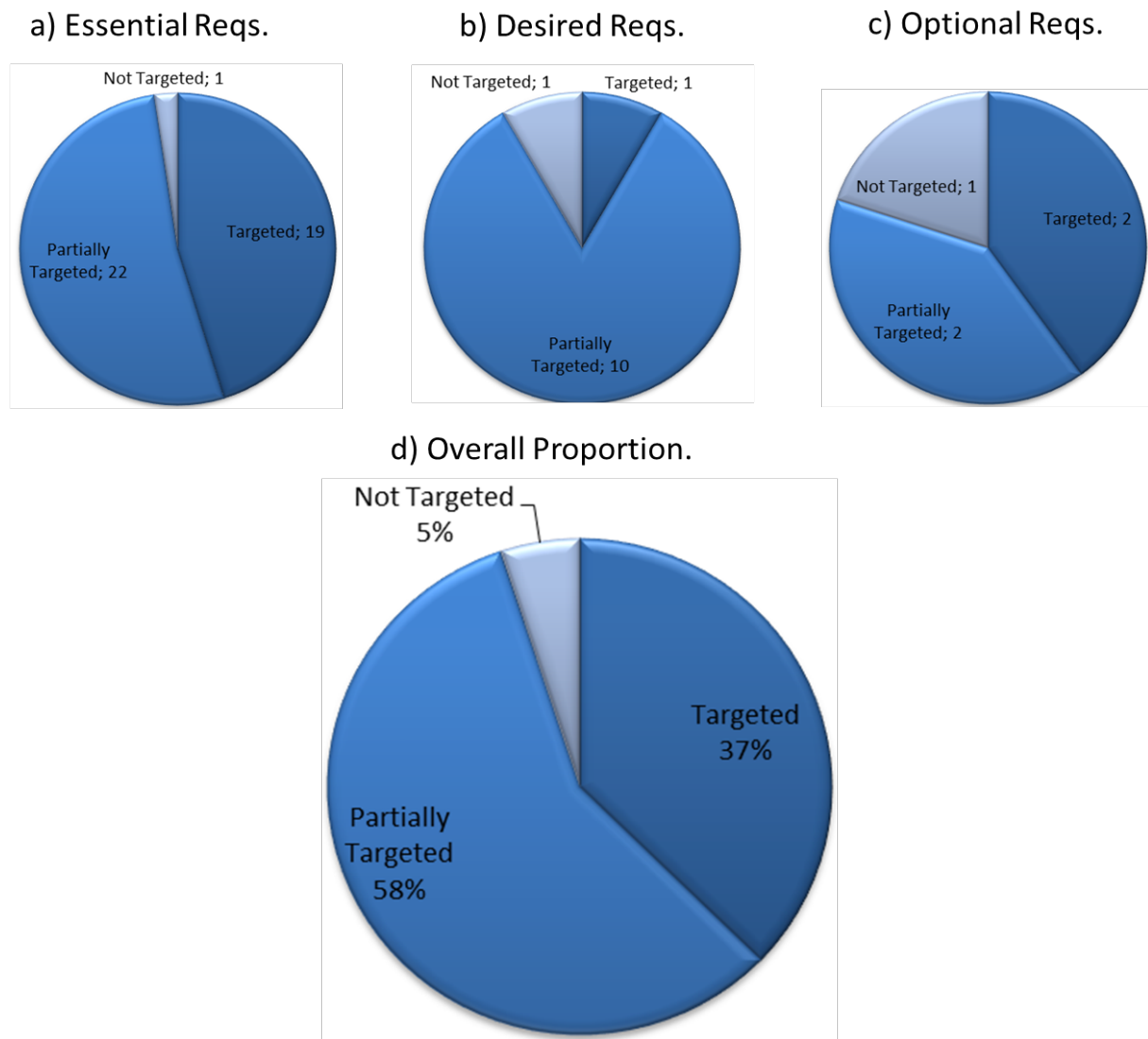


Figure 4 Overall Statistics about Realization of Requirements in Dimension Language

According to the figure in dimension “Language” in particular to essential requirements, 19 of them have been targeted, 22 of them have been partially targeted and 1 of them has been not targeted, 1 of desired requirement fully, 10 of them have been partially targeted and 1 of them has been not targeted, and finally 2 of optional requirements fully, 2 of them have been partially targeted and 1 of them has not been targeted. Overall 58 percent of requirements have been partially, 37 percent fully targeted and 5 percent have not be targeted.

In this dimension almost half of essential requirements have been targeted and the other half has been partially targeted, missing only one requirement. At the corner of desired and optional requirements, bigger proportion of requirements has been partially targeted. Having in mind WP3 and WP5, which are the major contributors to language have tasks that are recently begun or not yet begun, as well as because of strict definition of “targeted, it is reasonable to have most of the requirements has the status of “partially targeted”.

4.3 Overall Status in Dimension: Technology

The holistic realization status of the requirement that are related to “Technology” dimension are presented in Table 23 with overview of status of requirement in each individual WP, where the requirement has been expected to be targeted.

Table 23 Consolidated Individual WP Assessment Report per Requirement and Overall Status in Dimension Technology

id	Title	Dimension	Priority	Status-WP2	Status-WP3	Status-WP4	Status-WP5	Status-WP6	Status-WP7	Status-WP8	OverallStatus
11	BP-Model and Wiki Alignment after Changes	Technical View	Essential			WP4-Targeted					Targeted
13	BP-Wiki and BP-Model alignment	Technical View	Essential	WP2-Not Targeted		WP4-Partially Targeted					Partially Targeted
14	BP-Wiki and BP-Model alignment	Technical View	Essential	WP2-Not Targeted		WP4-Targeted					Targeted
15	Collaboration Mechanisms between Content and BP expert	Technical View	Essential	WP2-Not Targeted			WP5-Targeted				Targeted
18	Learners Feedback on Content	Technical View	Desired				WP5-Targeted				Targeted

id	Title	Dimension	Priority	Status-WP2	Status-WP3	Status-WP4	Status-WP5	Status-WP6	Status-WP7	Status-WP8	OverallStatus
22	Content Governance: Automatic Runtime Checks of Content Quality	Technical View	Essential			WP4-Targeted					Partially Targeted
23	Content Creation Interface	Technical View	Optional	WP2-Not Targeted		WP4-Partially Targeted	WP5-Not Targeted				Partially Targeted
24	Meta Model based Modelling Environment	Technical View	Essential		WP3-Targeted						Targeted
43	Learning Sub-System	Technical View	Essential	WP2-Targeted							Targeted
44	Legacy Application Integration	Technical View	Essential	WP2-Not Targeted			WP5-Partially Targeted				Partially Targeted
56	Learners Feedback on Content	Technical View	Essential	WP2-Not Targeted		WP4-Targeted	WP5-Targeted				Targeted
58	Feedback History Log	Technical View	Essential				WP5-Partially Targeted				Partially Targeted

id	Title	Dimension	Priority	Status-WP2	Status-WP3	Status-WP4	Status-WP5	Status-WP6	Status-WP7	Status-WP8	OverallStatus
61	Model-Versioning	Technical View	Essential	WP2-Partially Targeted	WP3-Partially Targeted		WP5-Partially Targeted				Partially Targeted
62	Content Traceability	Technical View	Essential	WP2-Targeted			WP5-Not Targeted				Targeted
68	Keyword based search	Technical View	Essential	WP2-Targeted			WP5-Not Targeted				Targeted
71	Learners Feedback on Content	Technical View	Essential			WP4-Partially Targeted					Partially Targeted
83	BP-Modelling Processing: RDF Export	Technical View	Essential	WP2-Not Targeted			WP5-Targeted				Targeted
84	BP-Modelling Processing: Adaptive Import / Export	Technical View	Essential	WP2-Targeted	WP3-Targeted						Targeted
85	BP Modelling: Process Documentation and Interaction	Technical View	Essential	WP2-Targeted							Targeted

id	Title	Dimension	Priority	Status-WP2	Status-WP3	Status-WP4	Status-WP5	Status-WP6	Status-WP7	Status-WP8	OverallStatus
87	Collaboration Mechanisms	Technical View	Desired	WP2-Partially Targeted							Partially Targeted
93	Collaboration Mechanisms	Technical View	Essential	WP2-Targeted							Targeted
94	Roles and Profile	Technical View	Essential				WP5-Partially Targeted	WP6-Partially Targeted			Partially Targeted
99	BP-Wiki and BP-Model alignment	Technical View	Essential			WP4-Targeted					Partially Targeted
104	Learning Dashboard	Technical View	Essential				WP5-Partially Targeted	WP6-Partially Targeted			Partially Targeted
105	Content Governance and Protection	Technical View	Desired		WP3-Targeted						Targeted
107	LearnPAd-System: Agreed Standards	Technical View	Essential	WP2-Partially Targeted					WP7-Partially Targeted		Partially Targeted
109	BP-Model: Textual Description	Technical View	Essential				WP5-Targeted				Targeted

id	Title	Dimension	Priority	Status-WP2	Status-WP3	Status-WP4	Status-WP5	Status-WP6	Status-WP7	Status-WP8	OverallStatus
115	Content Filtering	Technical View	Optional	WP2-Not Targeted	WP3-Targeted		WP5-Partially Targeted				Partially Targeted
130	KPI Logging	Technical View	Optional				WP5-Partially Targeted	WP6-Targeted			Partially Targeted
142	Integration of Assessment System	Technical View	Essential	WP2-Targeted				WP6-Partially Targeted			Targeted
143	Integration with APIs	Technical View	Essential	WP2-Targeted	WP3-Partially Targeted						Targeted
149	LearnPAd platform installation and evolution	Technical View	Essential	WP2-Partially Targeted					WP7-Targeted		Targeted
161	Ranking	Technical View	Desired	WP2-Not Targeted			WP5-Targeted				Partially Targeted
161	Ranking	Technical View	Desired	WP2-Not Targeted			WP5-Targeted				Partially Targeted

id	Title	Dimension	Priority	Status-WP2	Status-WP3	Status-WP4	Status-WP5	Status-WP6	Status-WP7	Status-WP8	OverallStatus
168	Track Changes: Content	Technical View	Optional	WP2-Partially Targeted	WP3-Partially Targeted						Partially Targeted
171	Roles and Profile	Technical View	Desired	WP2-Partially Targeted							Partially Targeted
181	Roles and Expert Levels Assessment	Technical View	Desired	WP2-Not Targeted			WP5-Not Targeted				Partially Targeted
191	Content Navigation - Ontology Based	Technical View	Desired	WP2-Not Targeted			WP5-Targeted				Partially Targeted
199	LearnPAd: Privacy of Learners Log Data	Technical View	Optional								Not Targeted
200	BP-Modelling: Query Feature	Technical View		WP2-Partially Targeted							Partially Targeted
203	Content Governance and Protection	Technical View	Desired	WP2-Targeted	WP3-Not Targeted						Targeted

id	Title	Dimension	Priority	Status-WP2	Status-WP3	Status-WP4	Status-WP5	Status-WP6	Status-WP7	Status-WP8	OverallStatus
204	LearnPAD-System: Access Control	Technical View	Essential	WP2-Targeted							Targeted
205	Roles and Responsibilities	Technical View	Optional	WP2-Targeted							Targeted
208	Simulation Environment	Technical View	Optional	WP2-Not Targeted				WP6-Partially Targeted			Not Targeted
210	Simulation Environment: Usage	Technical View	Essential					WP6-Targeted			Targeted
213	Integration into existing systems	Technical View	Optional	WP2-Targeted			WP5-Targeted	WP6-Partially Targeted			Targeted
215	Simulation Environment	Technical View	Essential					WP6-Partially Targeted			Partially Targeted
217	Learning Process History	Technical View	Optional	WP2-Partially Targeted							Partially Targeted
220	Simulation Environment	Technical View	Essential	WP2-Partially Targeted							Partially Targeted

id	Title	Dimension	Priority	Status-WP2	Status-WP3	Status-WP4	Status-WP5	Status-WP6	Status-WP7	Status-WP8	OverallStatus
225	Simulation Environment	Technical View	Essential	WP2-Not Targeted				WP6-Targeted			Targeted
227	Learners Feedback Content on	Technical View	Essential	WP2-Not Targeted			WP5-Targeted				Targeted
229	BP-Model Processing: Automatic Recommendation of Process Optimization	Technical View	Desired				WP5-Partially Targeted				Partially Targeted
231	Learners Feedback Content on	Technical View	Essential	WP2-Partially Targeted							Partially Targeted
234	Help and Assistance	Technical View	Optional	WP2-Partially Targeted							Partially Targeted
235	Frequently Asked Learners Questions	Technical View	Optional	WP2-Not Targeted			WP5-Targeted				Targeted
236	Feedback Interaction with Process	Technical View	Optional				WP5-Partially Targeted				Partially Targeted

id	Title	Dimension	Priority	Status-WP2	Status-WP3	Status-WP4	Status-WP5	Status-WP6	Status-WP7	Status-WP8	OverallStatus
	Documentation										
239	WIKI Content Traceability	Technical View	Desired	WP2-Partially Targeted							Partially Targeted
241	Simluation History	Technical View	Essential					WP6-Partially Targeted			Partially Targeted
254	Roles and Profile	Technical View	Essential	WP2-Partially Targeted							Partially Targeted
255	Learners Collaboration	Technical View	Desired	WP2-Targeted							Targeted
260	Content Governance and Protection	Technical View	Essential	WP2-Targeted							Targeted
265	Content Consistency	Technical View	Essential	WP2-Partially Targeted							Partially Targeted
100b	Feedback History Log	Technical View	Essential				WP5-Partially Targeted				Partially Targeted

id	Title	Dimension	Priority	Status-WP2	Status-WP3	Status-WP4	Status-WP5	Status-WP6	Status-WP7	Status-WP8	OverallStatus
101b	Feedback History Log	Technical View	Essential				WP5-Partially Targeted				Partially Targeted
103a	Learning Feedback	Technical View	Desired	WP2-Not Targeted			WP5-Partially Targeted				Partially Targeted
118b	Content Role Based Views	Technical View	Essential				WP5-Partially Targeted				Partially Targeted
130a	KPI Logging	Technical View					WP5-Partially Targeted	WP6-Targeted			Partially Targeted
139b	BP-Modelling Method: CMMN Extension	Technical View	Essential				WP5-Targeted				Targeted
147b	BP-Wiki and BP-Model alignment	Technical View	Essential	WP2-Partially Targeted			WP5-Partially Targeted				Partially Targeted
159b	KPI-Models: Scorecard	Technical View	Desired		WP3-Targeted		WP5-Partially Targeted				Partially Targeted
187b	Content - Search	Technical View	Desired	WP2-Targeted			WP5-Not				Targeted

id	Title	Dimension	Priority	Status-WP2	Status-WP3	Status-WP4	Status-WP5	Status-WP6	Status-WP7	Status-WP8	OverallStatus
							Targeted				
194b	Different Knowledge Entry Points	Technical View	Desired	WP2-Not Targeted			WP5-Partially Targeted				Partially Targeted
207a	Content Types	Technical View	Desired	WP2-Partially Targeted			WP5-Not Targeted				Partially Targeted
209b	Learning through Simulation	Technical View	Essential					WP6-Partially Targeted			Partially Targeted
216b	Learning Categories	Technical View	Desired		WP3-Not Targeted		WP5-Partially Targeted	WP6-Not Targeted			Partially Targeted
21b	KPI-Models: Quality of Content	Technical View	Essential			WP4-Partially Targeted	WP5-Partially Targeted				Partially Targeted
243b	KPI-Model: Learning Logging	Technical View	Desired	WP2-Not Targeted	WP3-Targeted						Partially Targeted
249a	Collaboration Mechanisms	Technical View	Desired	WP2-Targeted							Targeted

id	Title	Dimension	Priority	Status-WP2	Status-WP3	Status-WP4	Status-WP5	Status-WP6	Status-WP7	Status-WP8	OverallStatus
249c	Collaboration Mechanisms	Technical View	Desired								Not Targeted
249d	Collaboration Mechanisms	Technical View	Desired					WP6-Partially Targeted			Partially Targeted
249e	Collaboration Mechanisms	Technical View	Desired	WP2-Partially Targeted			WP5-Partially Targeted				Partially Targeted
29b	BP-Model Hirarchical Consistency Check	Technical View	Essential	WP2-Not Targeted		WP4-Partially Targeted					Partially Targeted
57a	Help and Assistance	Technical View	Essential	WP2-Not Targeted		WP4-Targeted	WP5-Targeted				Targeted
63b	Expert Roster	Technical View	Essential	WP2-Not Targeted			WP5-Targeted				Targeted
64a	Expert to Domain Classification	Technical View	Essential				WP5-Partially Targeted				Partially Targeted

id	Title	Dimension	Priority	Status-WP2	Status-WP3	Status-WP4	Status-WP5	Status-WP6	Status-WP7	Status-WP8	OverallStatus
66 b	Expert Profile	Technical View	Essential	WP2-Not Targeted			WP5-Partially Targeted				Partially Targeted
67a	Content Tagging	Technical View	Essential	WP2-Not Targeted			WP5-Targeted				Targeted
7 b	Roles and Skill Profile	Technical View	Essential	WP2-Not Targeted	WP3-Targeted		WP5-Partially Targeted				Partially Targeted
72b	Different Expert Levels on Feedback	Technical View	Essential			WP4-Partially Targeted	WP5-Partially Targeted				Partially Targeted
77b	BP-Model: Feedback on Quality	Technical View	Essential			WP4-Partially Targeted					Partially Targeted
8b	BP-Model Feedback History Log	Technical View	Essential	WP2-Not Targeted			WP5-Partially Targeted				Partially Targeted

Figure 5 depicts the detailed statistics on realization status of requirement separately for a) Essential Requirements, b) Desired Requirements, c) Optional Requirements as well as overall proportion of realization status in the dimension “Language”

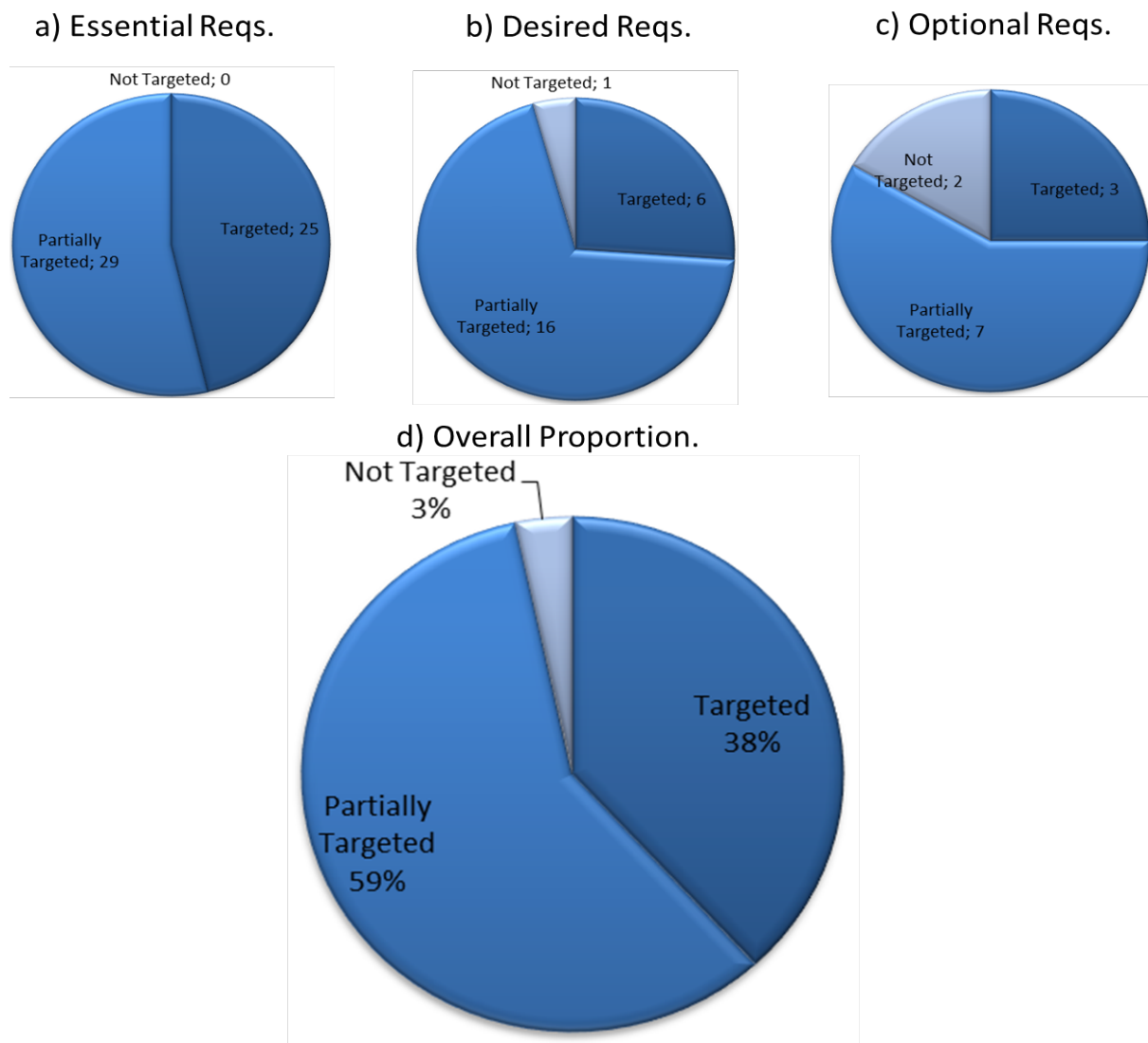


Figure 5 Overall Statistics about Realization of Requirements in Dimension Technology

According to the figure all requirements in dimension “Technology” in particular to essential requirements, 25 of them have been targeted, 29 of them have been partially targeted, 6 of desired requirement fully, 16 of them have been partially targeted and 1 of them has been not targeted, and finally 3 of optional requirements fully, 7 of them have been partially targeted and 2 of them has not been targeted. Overall 59 percent of requirements have been partially, 38 percent fully targeted and 3 percent have not be targeted.

In this dimension all essential requirements have been targeted or partially targeted. At the corner of desired and optional requirements, almost all requirements have been targeted or partially targeted. Again the bigger proportion of requirements has been partially targeted. But having in mind the technology has tight dependency with paradigm and language the progress in this dimension rather pleasing fast. Since the technology providers follows rapid

prototyping in order to take frequently feedback from end-users, so improve the technology in minor steps but constantly in the direction guided by end-users, and having mature, and flexible enablers such as PROMOTE®, ADOxx®, XWIKI®, Magic Draw ®, the progress in this dimension is fast.

4.4 Overall Status in Dimension: User

The holistic realization status of the requirement that are related to “Paradigm” dimension are presented in Table 24 with overview of status of requirement in each individual WP, where the requirement has been expected to be targeted.

Table 24 Consolidated Individual WP Assessment Report per Requirement and Overall Status in Dimension User

id	Title	Dimension	Priority	Status-WP2	Status-WP3	Status-WP4	Status-WP5	Status-WP6	Status-WP7	Status-WP8	OverallStatus
3	Learners Motivation	User Scenarios	Desired	WP2-Not Targeted			WP5-Not Targeted			WP8-Not Targeted	Not Targeted
4	KPI-Models: Guidelines	User Scenarios	Essential	WP2-Not Targeted		WP4-Targeted					Targeted
19	BP-Wiki and BP-Model alignment	User Scenarios	Essential	WP2-Partially Targeted	WP3-Not Targeted	WP4-Targeted	WP5-Partially Targeted				Targeted
38	BP-Wiki and BP-Model alignment	User Scenarios	Essential	WP2-Partially Targeted	WP3-Targeted	WP4-Partially Targeted					Targeted
48	KPI-Models: Quality Metrics	User Scenarios	Desired		WP3-Partially Targeted	WP4-Partially Targeted					Partially Targeted
49	KPI-Models	User Scenarios	Desired		WP3-Targeted	WP4-Targeted					Targeted
57	Help and Assistance	User Scenarios	Essential	WP2-Not Targeted		WP4-Partially Targeted	WP5-Targeted				Targeted
60	Modelling Methodology	User Scenarios	Essential	WP2-Partially	WP3-Partially						Partially Targeted

id	Title	Dimension	Priority	Status-WP2	Status-WP3	Status-WP4	Status-WP5	Status-WP6	Status-WP7	Status-WP8	OverallStatus
				Targeted	Targeted						
78	KPI-Model Language Quality	User Scenarios	Essential		WP3-Partially Targeted	WP4-Partially Targeted					Partially Targeted
88	Content Rating	User Scenarios	Essential		WP3-Partially Targeted	WP4-Targeted					Targeted
91	Roles and Responsibilities	User Scenarios	Essential	WP2-Partially Targeted							Partially Targeted
117	Different Roles and Profiles	User Scenarios	Desired	WP2-Not Targeted	WP3-Targeted						Partially Targeted
148	Model Re-use of Reference Processes	User Scenarios	Optional		WP3-Partially Targeted						Partially Targeted
155	Modelling Methodology	User Scenarios	Essential	Wp2-Partially Targeted	WP3-Partially Targeted					WP8-Partially Targeted	Partially Targeted
176	Model Re-use KPI	User Scenarios	Desired		WP3-Targeted		WP5-Not Targeted				Targeted

id	Title	Dimension	Priority	Status-WP2	Status-WP3	Status-WP4	Status-WP5	Status-WP6	Status-WP7	Status-WP8	OverallStatus
177	KPI-Models: Guidelines	User Scenarios	Essential				WP5-Partially Targeted				Partially Targeted
183	Adaptive Tests	User Scenarios	Essential		WP3-Not Targeted		WP5-Partially Targeted				Partially Targeted
186	Separation of Concern based on Ontology	User Scenarios	Desired			WP4-Targeted	WP5-Targeted				Targeted
190	Learners Entryp Point - Navigation	User Scenarios	Optional	WP2-Not Targeted	WP3-Partially Targeted		WP5-Targeted				Targeted
200	Learners Results Access	User Scenarios	Desired	WP2-Partially Targeted			WP5-Partially Targeted				Partially Targeted
206	Content Structure	User Scenarios	Optional		WP3-Partially Targeted						Partially Targeted
233	Ranking of Answers	User Scenarios	Essential	WP2-Not Targeted	WP3-Not Targeted		WP5-Partially Targeted				Partially Targeted
237	Learners Community:	User Scenarios	Optional	WP2-Partially							Partially Targeted

id	Title	Dimension	Priority	Status-WP2	Status-WP3	Status-WP4	Status-WP5	Status-WP6	Status-WP7	Status-WP8	OverallStatus
	Invitations			Targeted							
246	Questionnaires Generation	User Scenarios	Essential								Not Targeted
266	Content Moderator	User Scenarios	Desired	WP2-Not Targeted	WP3-Partially Targeted						Partially Targeted
163b	Learners Motivation	User Scenarios	Desired	WP2-Not Targeted			WP5-Not Targeted	WP6-Partially Targeted			Partially Targeted
202d	Moderation of collaborative content modifications	User Scenarios	Desired	WP2-Not Targeted	WP3-Not Targeted		WP5-Targeted				Partially Targeted
202e	Civil servant reputation	User Scenarios	Desired	WP2-Not Targeted	WP3-Partially Targeted		WP5-Not Targeted				Partially Targeted
209a	Learning through Simulation	User Scenarios	Essential		WP3-Partially Targeted						Partially Targeted
223a	Learners Gathering	User Scenarios	Optional		WP3-Not Targeted			WP6-Partially			Partially Targeted

id	Title	Dimension	Priority	Status-WP2	Status-WP3	Status-WP4	Status-WP5	Status-WP6	Status-WP7	Status-WP8	OverallStatus
								Targeted			
243c	KPI-Model: Learning Assessment	User Scenarios	Desired	WP2-Not Targeted	WP3-Targeted						Targeted
245d	Learning Process Monitoring	User Scenarios	Desired		WP3-Partially Targeted						Partially Targeted
73a	KPI-Model Quality	User Scenarios	Essential		WP3-Partially Targeted	WP4-Targeted					Targeted
77c	BP-Model: Feedback Quality	User Scenarios	Essential		WP3-Partially Targeted	WP4-Targeted					Targeted

Figure 6 depicts the detailed statistics on realization status of requirement separately for a) Essential Requirements, b) Desired Requirements, c) Optional Requirements as well as overall proportion of realization status in the dimension “User”

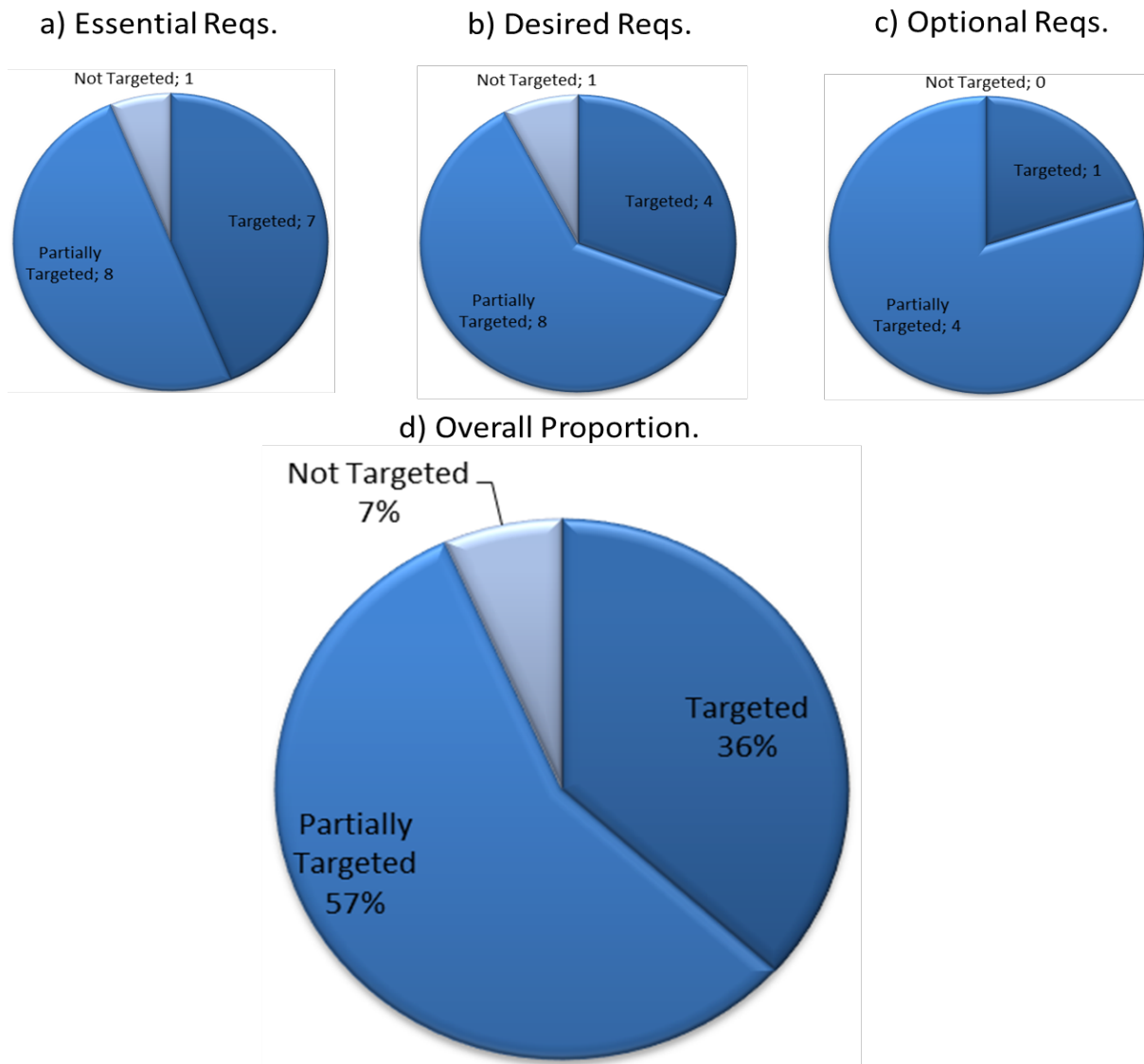


Figure 6 Overall Statistics about Realization of Requirements in Dimension User

According to the figure requirements in dimension “User”, in particular to essential requirements, 7 of them have been targeted , 8 of them have been partially targeted and 1 of them has been not targeted, 4 of desired requirement fully, 8 of them have been partially targeted and 1 of them has been not targeted, and finally 1 of optional requirements fully,4 of them have been partially targeted and 1 of them has not been targeted. Overall 57 percent of requirements have been partially, 36 percent fully targeted and 7 percent have not be targeted.

In this dimension except two requirements all requirements have been completely or partially targeted. Missing one requirement half of essential requirements have been targeted and the other half has been partially targeted. At the corner of desired and optional requirements, bigger proportion of requirements has been partially targeted. Having in mind most of the

tasks dealing with usage of Learn PAd system starting currently, obtained progress in line with work plan, even pleasing advanced.

5 Conclusion

During the requirement assessment process (1) we have defined the rather sound and pragmatic methodology involving consortium partners in wide spectrum, even external stakeholders, (2) collected assessment reports from individual WPs, (2) reviewed the reports from different perspectives and letting a end-user supervising all process and finally (3) we exposed the overall realisation status of requirements that are achieved in first 12-Month-Period of the Learn PAd project.

As depicted in Figure 7 in the first year 36 percent of the requirements are completely targeted and 60 percent are partially targeted and only 4 percent are not targeted and sorted out as nice-to-have or rather out of scope of the project.

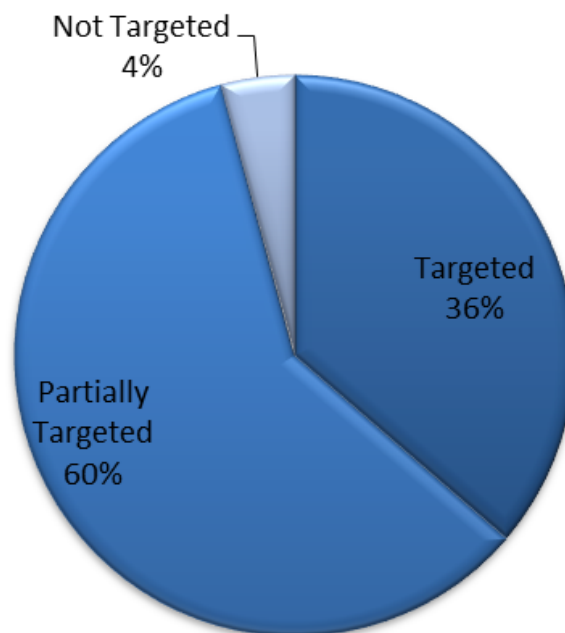


Figure 7 General Overview on Status

In general, the partially targeted requirements are in majority, but having in mind that the requirements have been classified as “partially targeted”, even they were already considered by consortium and partners of consortium are working on them, but not finished the work completely yet, as well as being in the early stage of the project, we believe that it is reasonable, even pleasant advanced considering work plan of the project.

The positive lessons-learned during T1.3 was utilization of the tight collaboration between WP Leaders, reviewer team under supervision of end-users. We suggest, that this collaboration should be utilized in further evaluation activities

Herewith the assessment results are being handed over to evaluation activities as input

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