



Deliverable D9.6

Learn PAd Dissemination and Standardization Activities Report – Final Iteration

http://www.learnpad.eu













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Abstract

This document presents a status report of the dissemination activities and reports how Learn PAd project achieves dissemination targets. The document provides a final assessment of dissemination activities with refard to the dissemination strategy showing how project was disseminated towards the target audiences via various channels.

Keyword list

Dissemination strategy, target audience, dissemination channel, key performance indicator (KPI), dissemination plan, exploitation strategy, exploitation item, exploitation plan, collaborative exploitation approach, individual exploitation plans, technology readiness levels (TRL).



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Glossary, acronyms & abbreviations

Item	Description
BOC	BOC Asset Management GmbH
BPM	Business Process Management
CNR	Consiglio Nazionale delle Ricerche
EC	European Commission
EI	Exploitation Item
FHNW	University of Applied Sciences and Arts Northwestern Switzerland
KPI	Key Performance Indicator
LIN	LINAGORA GSO
MAR	Regione Marche
NME	No Magic Europe
OMG	Object Management Group
OSS	Open Source Software
PA	Public Administration
PTC	Project Technical Committee
R&D	Research and Development
UDA	University of L'Aquila
UNICAM	University of Camerino
WP	Work package
XWIKI	XWiki SAS
TRL	Technology readiness levels

Table of Contents

1.	Introdu	uction	2
	1.1. Purp	ose of This Deliverable	2
•	1.2. Struc	cture of This Deliverable	2
2.	Dissen	nination Activities Report	3
2	2.1. Disse	emination Strategy	3
2	2.2. Disse	emination Performance Assessment	4
2	2.3. Deta	iled Dissemination Channel Performance Analysis	6
	2.3.1.	Project Website Dissemination Channel	6
	2.3.2.	Media Dissemination Channel	8
	2.3.3.	Social Networks Dissemination Channel	9
	2.3.4.	Academic Conferences Dissemination Channel	10
	2.3.5.	Practitioner Conferences Dissemination Channel	15
	2.3.6.	Research Journals and Book Chapters Dissemination Channel	19
	2.3.7.	Other Dissemination Channels	
3.	Standa	ardization Activities Report	23
4.	Summ	ary and Conclusions	24



Table of Figures

Figure 1	Overall web pages statistics
Figure 2	Web pages accessed from Countries (geographic representation)
Figure 3	Web sessions from Countries (tabular representation)

1. Introduction

1.1. Purpose of This Deliverable

This document provides the final assessment of the Learn PAd project dissemination achievements towards the target audiences.

Deliverable D9.6 was originally planned for M30. However, after last review consortium needed additional 3 months to finish project and this deliverable was postponed to M33.

1.2. Structure of This Deliverable

The deliverable is organized as follows. Dissemination strategy, dissemination performance assessment, targets refinement and plans for future dissemination activities are provided in chapter 2. Chapter 3 provides information about standardisation activities. The deliverable is concluded in Chapter 4.

2. Dissemination Activities Report

2.1. Dissemination Strategy

The dissemination strategy defines how Learn PAd communicates the project results towards the target audiences via various channels, using dissemination content expressly prepared for that specific channel(s) and audience(s). The initial dissemination strategy was defined in the deliverable D9.2 and the actual strategy follows the same track. According to that strategy, Learn PAd was disseminated through identified channels to the following target audiences, which may benefit from Learn PAd results:

- Public administrations (PAs) adopt a better learning and training-on-the-job solution leading towards service effectiveness, efficiency, clarity and agility;
- Large business organizations adopt a better learning and training-on-the-job solution leading towards service effectiveness, efficiency, clarity and agility (similarly to PAs);
- e-Learning product vendors adopt model-based approaches in their product development and deployment;
- Modelling product vendors exploit the use of models for e-learning purposes;
- Consultants (BPM and e-Learning) adopt ideas and tools in service offerings;
- Universities adopt Learn PAd ideas and tools for education purposes, especially in their interdisciplinary courses.

Concerning the research results in terms of advances to state of knowledge, these were distributed through academic dissemination to the most adequate community. We mainly foresee interesting results in software modelling and model-driven development, in BPM methodologies including ontology, simulation and monitoring, as well as in tools and techniques for technology-enhanced learning and learners' assessment.

The deliverable D9.2 also provided dissemination performance plans with specific KPIs for every considered dissemination channel (see *Table 1*). This report will assess and show the progress of dissemination activities according to the initial dissemination performance plan. The report will let identify which dissemination activities where successful in terms of performance and will let to make final conclusions how effective where dissemination activities during whole project.

Dissemination channel	Key Performance Indicator (KPI)	Target at M30
Project website	Unique visitors	5000
Media	Number of international press releases	2
Twitter	Tweets Followers	1000 100
LinkedIn	Group Members Interactive Discussions	100 20
Slide Share	Shared Presentations Views (accumulated)	10 3000
Academic conferences	Papers Keynotes Co-organized workshops Attendees in co-organized workshops	16 2 2 50
Practitioner conferences	Presentations	8
Research journals	Scientific Papers	4
Standardization bodies (OMG)	Presentations	2

Table 1. Dissemination performance plans

2.2. Dissemination Performance Assessment

The dissemination performance plans are provided in *Table 1*. For dissemination progress planning and tracking, a Learn PAd dissemination dashboard has been created. All consortium partners used this dashboard for regular reporting of dissemination achievements. The dissemination dashboard allows to achieve a high degree of transparency about performance status and an effective collaborative planning of dissemination activities in the consortium. Progress and corrective actions related to dissemination activities were discussed according to this dashboard in partners' quarterly meetings. This dashboard is also used for dissemination performance assessment.

The present deliverable assesses dissemination performance from the beginning of the project until M30 and extended time. Initial targets were created for M30. As deliverable was postponed, the dissemination performance is now assessed for M33. *Table 2* shows what results were achieved for every dissemination channel. Mostly all dissemination performance targets have been reached, some targets are exceeded. There are some dissemination channels that didn't achieve primary KPI's. In *Table 2*, the dissemination achievements that fall below primary are coloured in red and the ones that are in line with or exceeding primary targets are coloured in green.

Playing an active monitoring of dissemination activities since the beginning, we found that some dissemination channels are performing well and dissemination performance is better than was planned:



- Unique visitors (Project website) the target for was 5000. Now we have more than 8000 website visitors and this number is still increasing by about 300 new users during each month. It means that dissemination performance for this channel has been met and exceeds planed targets (see *Table 2*). More detailed analysis and graphs about web visitors counting and changing are provided in chapter 2.3.1 Project Website Dissemination Channel.
- Presentations (Standardization bodies (OMG)) consortium planned to prepare two
 presentations at OMG technical meetings. It was planned to make one presentation to
 M15 and second to M30. This target also was achieved. We have made two
 presentations at OMG technical meeting. More about these presentations in chapter 3
 Standardization Activities Report.
- SlideShare (Shared presentations and Views) until the first half of project performance of this channel was low. Latter after uploading more slides and after participating in more conferences we achieved very good results that is better than was planned and now we have good number of accumulated views that is more than 5300 views (see *Table 2*)
- Academic conferences (Papers) and Practitioner conferences (Presentations) –
 during all period we were very active and participated in a lot of conferences with
 different presentations that shows progress done by our consortium in research and
 building an innovative holistic e-learning platform for PAs that enables process-driven
 learning and fosters cooperation and knowledge-sharing. In overall we prepared 40
 papers and did 25 presentations that is more than primary plans (see *Table 2*).

The number of international press releases and interactive discussions on the LinkedIn social network seem to be the KPIs which targets is not fully achieved.

- Number of international press releases (Media channel) Because of delays in technical work on Learn PAd software platform and its evaluation at Marche Region in Italy, Learn PAd project members decided to not invest into international press releases - a single international press release will be issues at the end of the project (after its final review) in order to share final project results and attract further leads for exploitation process and ensure Learn PAd sustainability;
- Interactive Discussions (LinkedIn) the effort spent on increasing LinkedIn discussions and achieved results show that dissemination performance of this channel is not so effective as we have expected. Our initial estimation was based on our belief that LinkedIn will be quite popular space for discussions about knowledge sharing and e-learning in PA's section. We were expecting to have new topics and new discussions every second week. These estimations were not achieved and we didn't achieve success in this channel (see *Table 2*).

Dissemination channel	Key Performance Indicator (KPI)	Target M30	Final results
Project website	Unique visitors	5000	+0008
Media	Number of international press releases	2	0 ¹
Twitter	Tweets Followers	1000 100	1200+ 105
LinkedIn	Group Members Interactive Discussions	100 20	83 14
SlideShare	Shared Presentations Views (accumulated)	10 3000	12 5300+
Academic conferences	Papers Keynotes Co-organized workshops Attendees in co-organized workshops	16 2 2 50	33 1 2 60
Practitioner conferences	Presentations	8	22
Research journals	Scientific Papers	4	7
Standardization bodies (OMG)	Presentations	2	2

Table 2. Dissemination performance dashboard

The chapter below will provide detailed information about dissemination achievements in all the dissemination channels.

2.3. Detailed Dissemination Channel Performance Analysis

Each sub chapter for each medium and dissemination channel is organized in the following way (if applicable):

- **Significant achievements in dissemination** provides information about significant dissemination activities results achieved by Learn PAd consortium;
- **Publications during the reporting period** provides information about papers, keynotes, presentations and workshops that have been prepared and delivered by Learn PAd consortium partners until M33. Publications and its abstracts can be accessed through Learn PAd web page http://www.learnpad.eu/pubs.php.
- Overview of events where publications have been made provides an overview of conferences where papers, keynotes, presentations, and workshops were presented;

2.3.1. Project Website Dissemination Channel

Significant achievements in dissemination:

- Created and launched Learn PAd Website: http://www.learnpad.eu;
- Learn PAd visited by more than 8000 unique visitors:

¹ A single international press release will be issues at the end of the project (after its final review).



- About 200 unique visitors visited http://www.learnpad.eu from page http://www.xwiki.com
- Reached more than 19300 page views;
- Prepared brochures and business cards presenting Learn PAd:
 - http://www.learnpad.eu/media/flyerLearnPAd.pdf
 - http://www.learnpad.eu/media/bcLearnPAd.pdf

Google analytics statistics shows that number of Learn PAd web page visitors dynamic is changing see Figure 1.

Until July of 2016 year it was growing or decreasing but now we have quite stable amount of visitors each month and it is about 300 visitors each month



Figure 1 Overall web pages statistics

Significant growth is seen in 2015 year when we have a lot of dissemination events and conferences. Now visitor's amount is not growing but it is quite stable and we have each month about 300 new visitors. We suppose that at the end of project exploitation activities also will increase number of new visitors as it was in 2015 year.

We identified good sign that number of new visitors is about for times larger in comparison with returning ones. It means that interest in Learn PAd is quite good and a dissemination activity performs well. The initial target of web page visitors was 5000. We have reached this target and the graphical representation shows that in the future we can have up to 100 – 200 new users as a trend. And we believe that number of new users will be growing with active exploitation activities and it can be more than 300 of new users during one month. These facts reassure us that Learn PAd dissemination is going quite well.

Google analytics also provide more statistical views about Learn PAd web pages consulting. In *Figure 2* you can find a distribution of web visitors according to the countries from which Learn PAd pages were accessed.

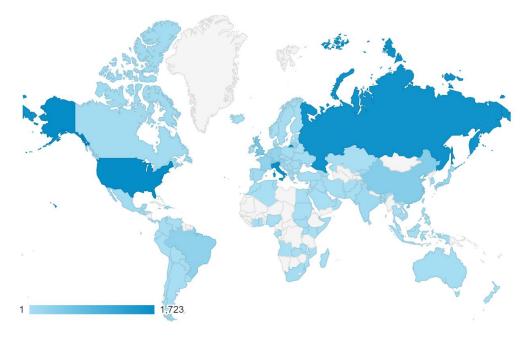


Figure 2 Web pages accessed from Countries (geographic representation)

Information in *Figure 2* is quite interesting and it shows that the biggest number of Learn PAd page visitors is from United States of America. There are also other non-European countries hosting users interested in Learn PAd project. Detailed statistics of top 10 countries are shown in *Figure 3*. In *Figure 3* forth line has description (not set). Google analytics didn't resolved country from what visitors opened Learn PAd page. We have only statistics but no country.



Figure 3 Web sessions from Countries (tabular representation)

Statistics about sessions of web page visitor's show that Learn PAd project could be quite interesting also in other non-European countries and it means a possible opportunity for future exploitation outside scenarios.

2.3.2. Media Dissemination Channel

At present we have not made any press release for Learn PAd. The main reason is the actual lack of mature enough exploitation content, which is suitable for follow up activities with leads generated from such a dissemination channel, which is very expensive to use.

Because of delays in technical work on Learn PAd software platform and its evaluation at Marche Region in Italy, Learn PAd project members decided to not invest into international press releases - a single international press release will be issues at the end of the project (after its final review) in order to share final project results and attract further leads for exploitation process and ensure Learn PAd sustainability

2.3.3. Social Networks Dissemination Channel

Significant achievements in dissemination:

- All partners are quite active in Twitter. We have been making many tweets about Learn PAd, e-learning, training on the job, collaborative platforms, business process modelling, and so on. Moreover we succeeded in re-tweeting a lot of interesting information about related themes from other sources.
- A group of discussions in LinkedIn has been created, named "Public Administration as a service". See Group: https://www.linkedin.com/grp/home?gid=6661961. This discussions group is not very active but we have some discussions in this space.
- Learn PAd content disseminated through Slide Share are available at http://www.slideshare.net/ProjectLearnPAd. We have slides from UNICAM, UDA, CNR, FHNW, MAR and NME and these slides have quite good summary of views.
- XWiki launched XWiki-labs, a research project where XWiki SAS itself and many other stakeholders, developers and partners are jointly participating in many open source and collaborative projects. Learn PAd is now a part of it (https://labs.xwiki.com/). Moreover XWiki uses its blog for Learn PAd dissemination http://www.xwiki.com/en/Blog/
- Marche Region has used local accounts on Twitter and LinkedIn (as well as their mailing lists) to share the possibility and opportunity for civil servants and public employees to contribute to a survey about users learning needs and issues and to stay informed and join innovative training methods. Marche region also made a lot of presentations, meetings and more introductory events that represented Learn PAd for potential customers and users.
- For Learn PAd dissemination, BOC uses its own ADOxx.org LinkedIn group (https://www.linkedin.com/grp/home?gid=5092201). In this group they have started some announcements regarding the development of the modelling environment in Learn PAd.
- Some active discussions have been started on the LinkedIn project group, with focus
 on the BOC core competences; BOC has also used its ADOxx.org LinkedIn group to
 start the same announcements regarding the development of the modelling
 environment in Learn PAd.
- BOC used ADOxx.org twitter account to tweet about the completion of their prototypes.
- Learn PAd results have been published by BOC's so-called "developer space" at the ADOxx.org community portal; a portal with more than 500 developers and more than 1.800 interested users. Learn PAd results are continuously uploaded and used for ADOxx trainings (http://www.adoxx.org/live/web/learnpad-developer-space/space). At the same time a banner at the welcome page points to the Learn PAd results.
- LIN made setup of a public Learn PAd page within the Linagora Labs website: http://research.linagora.com/display/learnpad



2.3.4. Academic Conferences Dissemination Channel

Significant achievements in dissemination:

- An open event around the project topics, which was featured as a special session within MODELSWARD conference in Rome (Feb. 2016). Sabine Moebs, the coordinator of closely related project: EAGLE EnhAnced Government Learning, also attended the event and participated to a panel. Coordinators of project EAGLE exchanged ideas and results during a panel in which they discussed similarities, differences and synergies of the two projects. This discussion was very valuable to terms of sharing experience with similar project.
- A high visibility of Learn PAd approach in academic community: Learn PAd was
 presented in 33 papers/presentations at academic conferences, which highly exceeds
 the planned objective of 16 papers, and 7 journal papers and 15 proceedings, which
 exceeds the planned objective of 4 papers. Learn PAd was also presented in 1
 keynote and the project co-organized 2 workshops that were attended by over 60
 attendees.

Publications:

- Bano M., Ferrari A., Zowghi D., Gervasi V. and Gnesi S. <u>Automated Service Selection using Natural Language Processing</u>. Requirements Engineering in the Big Data Era. APRES 2015, Springer Berlin Heidelberg, 2015. 3-17.
- Basciani F., Rosa G.: <u>A Learning Architecture for Complex Organization</u>. In: LMCO Modelsward 2016 (Rome, 21 february 2016). Proceedings, article n. 3. http://www.crossref.org, 2016.
- Basciani F., Di Rocco J., Di Ruscio D., Di Salle A., Iovino L., Pierantonio A.: MDEForge: an Extensible Web-Based Modeling Platform. In: CloudMDE2014 2nd International Workshop on Model-Driven Engineering on and for the Cloud co-located with the 17th International Conference on Model Driven Engineering Languages and Systems (MoDELS 2014) (Valencia, Spain, 30 September 2014). Proceedings, pp. 66 75. CEUR Workshop Proceedings, 2014.
- Bertolino A.: <u>Software testing and/or software monitoring: differences and commonalities</u>. In: Jornadas Sistedes Jornadas de la Asociación de Ingeniería del Software y Tecnologías de Desarrollo de Software (Sistedes) (Cadiz, Spain, 16 19 September 2014). Plenary Keynote.
 - Description of the talk: the keynote covered current goals and approaches to validation through testing and monitoring, and included a part describing BPMN monitoring as being developed within Learn PAd project.
- Bertolino A., De Angelis G., Polini A., Silingas D.: <u>Learn PAd: Collaborative and Model-based Learning in Public Administrations</u>. Projects Showcase at STAF'15 (http://www.disim.univag.it/staf2015) (L'Aquila, 20-24 July, 2015).
 - Description of the paper: the paper presents an overview of Learn PAd goals and approach, and provides an outline of current status.
- Bertolino A., Calabrò A., Lonetti F., Marchetti E. <u>Towards Business Process Execution</u> <u>Adequacy Criteria</u>. Software Quality Days. pp. 37 - 48. Jan 18-21, 2016. Vienna, Austria
- Calabro' A., Lonetti F., Marchetti E.: <u>Monitoring of Business Process Execution based</u> on <u>Performance Indicators</u>. MOCS Track at the 41st Euromicro Conf. on Software

Engineering and Advanced Applications (SEAA 2015 http://paginas.fe.up.pt/~dsd-seaa-2015/ in Funchal, Madeira, Portugal Aug. 26-28, 2015.

- Description of the paper: the paper presents the monitoring framework under development of Learn PAd and describes its contribution to advance the state of art in BPMN monitoring.
- Calabrò A., Lonetti F., Marchetti E., Zribi S., Jorquera T.: <u>Model-based Learning Assessment Management</u>. In: MODELSWARD 2016 LMCO special session 4th International Conference on Model-Driven Engineering and Software Development Special Session on Learning Modeling in Complex Organizations (Rome, 19/02 2016). Proceedings, pp. 743 752. SCITEPRESS, 2016
- Calabrò A., Lonetti F., Marchetti E., and Spagnolo G. O.: "<u>Enhancing Business Process Performance Analysis through Coverage-based Monitoring</u>" In Proceedings of 10th International Conference on the Quality of Information and Communications Technology (QUATIC), pp 35-43 Lisbon, Portugal, September 6-9, 2016
- Calabrò A., Lonetti F., Marchetti E.: <u>KPI Evaluation of the Business Process Execution through Event Monitoring Activity</u>. ES2015. pp. 169 176 Basel, Switzerland, October 14 15, 2015.
- Cognini, R., Corradini, F., Fornari F., Polini, A., and Re, B.: A <u>Data Oriented Approach</u> to <u>Derive Public Administration Business Processes</u>. <u>Electronic Government and Electronic</u> Participation 201 E. Tambouris et al. (Eds.), Greece, Salonicco, 31 August 2 Septem- ber, 2015, 201 208.
- Cognini, R., Corradini, F., Polini, A., and Re, B. <u>Process Variability Modeling for Complex Organizations</u>. ES Conference. 2015.
 - Description of the paper: This paper presents a novel notation and approach
 to support variability modelling for those scenarios in which it is difficult to fully
 foresee in advance how variability can affect the various process perspectives.
- Cognini, R., Corradini, F., Polini, A., and Re, B. <u>Extending Feature Models to Express Variability in Business Process Models</u>. CAiSE 2015 Workshop on Enterprise Modeling, 245-256.
 - Description of the paper: in this paper we present a novel notation to describe variability of Business Processes and an approach to successively derive process variants. The notation takes inspiration from feature modelling approaches and has been implemented in a real tool using the ADOxx platform.
- De Angelis G., Ferrari A., Gnesi S., Polini A.: "<u>Collaborative requirements elicitation in a european research project</u>". In Proceedings of the 31st Annual ACM Symposium on Applied Computing (pp. 1282-1289). ACM 2016.
- Di Rocco J., Di Ruscio D., Iovino L., Pierantonio A.: Mining correlations of ATL model transformation and metamodel metrics. In: MiSE 2015 7th IEEE/ACM International Workshop on Modeling in Software Engineering (Firenze, 16 24 may 2015). Proceedings, pp. 54 59. IEEE Press, 2015.
- Emmenegger, S., Hinkelmann, K., Laurenzi, E., Thönssen, B., Witschel, H. F., & Zhang, C. (2016). Workplace Learning Providing Recommendations of Experts and Learning Resources in a Context-sensitive and Personalized Manner. In MODELSWARD 2016, Special Session on Learning Modeling in Complex Organizations. Rome.
- Eramo R., Pierantonio A., Rosa G. : <u>Managing uncertainty in bidirectional model transformations</u>. In: SLE 2015 2015 ACM SIGPLAN International Conference on



- Software Language Engineering (Pittsburgh, 26 & 27 October 2015). Proceedings, pp. 49 58. ACM, 2015.
- Eramo R., Marinelli R., Pierantonio A., Rosa G.: <u>Towards Analysing Non-Determinism in Bidirectional Transformations</u>. In: AMT Analysis of Model Transformations (Valencia, Spain, 29 Settembre 2014). Proceedings, pp. 76 85. http://ceur-ws.org/, 2014.
- Fanesi D., Cacciagrano D. R., Hinkelmann K.: <u>Semantic Business Process Representation to Enhance the Degree of BPM Mechanization with an Ontology</u>. In: ES 2015 Third International Conference on Enterprise Systems (Basel, 14.10. 15.10 2015). Proceedings, pp. 21 32. IEEE Computer Society Publications, 2015.
 - Description of the presentation: This paper presents a modelling approach for learning goals and their relation to business goals. The requirements for the modelling were derived from a case study. The learning goals are represented as means in the business motivation model. They support the achievement of business goals and strategies. To define the learning goals adequately, they can be classified according to the revised Bloom taxonomy of educational objectives. The modelling method allows to link learning goals of individual employees to the organisational learning goals. Furthermore, the learning goals can be arranged in a Learning Scorecard for monitoring purposes. The metamodel has been implemented in the ADOxx modelling toolkit.
- Ferrari A., Spagnolo G. O., Gnesi S., Dell'Orletta F. Contribution to Workshop, SPLAT 2015 - part of the Software Product Line Conference 2015. <u>CMT and FDE: tools to bridge the gap between natural language documents and feature diagrams</u>. SPLC 2015: 402-410
- Ferrari, A., Lipari, G., Gnesi, S., & Spagnolo, G. O <u>Pragmatic Ambiguity Detection in Natural Language Requirements</u>. In Artificial Intelligence for Requirements Engineering (AIRE), 2014 IEEE 1st International Workshop on (pp. 1-8). IEEE.
 - Description of the paper: the paper presents an artificial intelligence-based approach for detecting ambiguities in natural language sentences.
- Ferrari, A., Spoletini P., G., Gnesi, S . Ambiguity and Tacit Knowledge in Requirements Elicitation Interviews. Requir. Eng. 21(3): 333-355 (2016).
- Ferrari, A., Spagnolo, G.O., Gnesi, S., Dell'Orletta, F. CMT and FDE: Tools to Bridge the Gap between Natural Language Documents and Feature Models. SPLAT workshop (https://sites.google.com/site/splat2015w/) of the 19th International Software Product Line Conference (SPLC'15, July 20-24, Nashville, TN USA, http://www.splc2015.net).
 - Description of the paper: the paper presents a tool-chain to extract feature models from natural language documents.
- Ferrari, A., Spoletini, P., Gnesi, S. <u>Ambiguity as a Resource to Disclose Tacit Knowledge</u>. 23rd IEEE International Conference on Requirements Engineering (RE'15, August 24-28, 2014, Ottawa, Canada http://re15.org).
 - Description of the paper: the paper studies the phenomenon of ambiguity occurring in dialogues.
- Hinkelmann K., Pierfranceschi A.: <u>Combining Process Modelling and Case Modelin</u>.
 In: MeTTeG 14 8th International Conference on Methodologies, Technologies and Tools enabling e-Government (Udine, 25-26 September 2014). Proceedings, pp. 1 11. FHNW University of Applied Sciences and Arts Northwestern Switzerland, 2014.



- Pierantonio A., Rosa G., Silingas D., Thonssen B., Woitsch R.: <u>Metamodeling Architectures for Business Processess in Organizations</u>. In: PS Project Showcase@Staf2015 (L'Aquila, 22 July 2015). Proceedings, pp. 27 35. http://ceurws.org/, 2015.
 - Description of the paper: this paper presents the working version of Learn PAd metamodel that captures the concepts that are used to model processcentric business architecture useful for on-the-job learning
- Sanne U., Friedrich Witschel H., Ferrari A and Gnesi S.: <u>Ensuring action: identifying unclear actor specifications in textual business process descriptions</u>. In KIMS'16, Lisbon, Portugal, 9-11 Nov. 2016.
- Spoletini, P., Ferrari, A., & Gnesi, S.: <u>Context Transformations for Goal Models</u>. In Model-Driven Requirements Engineering Workshop (MoDRE), 2014 IEEE 4th International (pp. 17-26). IEEE.
 - Description of the paper: the paper presents a formal approach for adapting existing goal models to different contexts.
- Subramanian V. and Bertolino A. (2016). <u>Learning Path Specification forWorkplace Learning based on Business Process Management</u>. In Proceedings of the 8th International Conference on Computer Supported Education (Roma, 21-23 Aprile 2016) ISBN 978-989-758-179-3, pages 172-180.
- Subramanian V., and Bertolino A. (2016). <u>Monitoring of Learning Path for Business Process Models</u>. In Proceedings of the International Workshop on domAin specific Model-based AppRoaches to vErificaTion and validaTiOn (Roma, 19/02 2016). Proceedings, pp. 62 72.
- Zribi S., Calabrò A., Lonetti F., Marchetti E., Jorquera T., Lorré J.-P.: <u>Design of a Simulation Framework for Model-based Learning</u>. In proceedings of MODELSWARD 2016: 631-639 Rome 19-21 February 2016
- Zribi S., Jorquera T., Lorré J.-P.: Towards a Flexible Gamification Model for an Interoperable E-learning Business Process Simulation Platform. I-ESA 2016. Guimarães 29 March-1 April. 2016

Future events:

• Flavio Corradini, Fabrizio Fornari, Chiara Muzi, Andrea Polini, Barbara Re, and Francesco Tiezzi. On Avoiding Erroneous Synchronization in BPMN Processes. SAC2017.

Overview of events where publications were presented:

- FACS 2014 the 11th international symposium on formal aspects of component software. FACS 2014 is concerned with how formal methods can be used to make component-based development fit for the new architectures of today and the systems that are now pervading the socio-economic world. Formal methods have provided foundations for component-based software through research on mathematical models for components, composition and adaptation, and rigorous approaches to verification, deployment, testing, and certification. Whilst those avenues still need to be further explored, time is also ripe to bring new techniques to the fore, such as those based on stochastic models and simulation
- ACM SAC2016 the 31st ACM symposium on applied computing.
- ACM SAC2017 the 32nd ACM symposium on applied computing.
- i-CiTies 2016 2nd CINI annual conference on ICT for smart cities & communities. Making cities and communities smarter is a relevant goal, but also an extremely



complex process that involves several actors and poses a number of challenges in different fields. In this context the role of ICT is essential and ubiquitous to all challenges and "smart city"-related sectors. The conference, at its second edition, is an opportunity for people from academia, industries and public institutions to meet and define new collaborations in the perspective of next national and international project calls. It is not intended to disseminate theoretical scientific activities. Instead, its main goal is to present available innovative solutions and active research projects, as well as novel ideas for new project proposals.

- e-Challenge 2014 The eChallenges e-2014 Conference takes place in Vilnius, Lithuania. This is the twenty-fifth in a series of annual technology research conferences supported by the European Commission and hosted by national governments.
- **EGOV 2014** the annual international IFIP Electronic Government (EGOV) conference is the European core conference in the domain of ICT in the public sector. Each year, scholars from all over the globe present the state of the art and most recent innovations in e-government, e-governance and related fields of study. The conference is organised by the IFIP Working Group 8.5 on information systems in the public sector.
- **DAB2014** 12th international conference on business process management.
- CAISE 2015 27th conference on advanced information systems engineering.
- CloudMDE2014 A workshop to explore combining model-driven engineering and cloud computing. CloudMDE is an international workshop that aims to bring together researchers and practitioners working in MDE or cloud computing, who are interested in identifying, developing or building on existing synergies.
 - CloudMDE aims to identify opportunities for using MDE to support the development of cloud-based applications (MDE for the cloud), as well as opportunities for using cloud infrastructure to enable MDE in new and novel ways (MDE in the cloud).
- Conference Jornadas Sistedes: This is the flagship national event organized by the Association of Software Engineering and Software Development Technologies (SISTEDES). It has plenary international keynotes.
- **Workshop AIRE'14**: the AIRE (http://re.cs.depaul.edu/ai4re/) workshop explores synergies between artificial intelligence and requirements engineering.
- Workshop MoDRE'14: the MoDRE workshop (http://www.modre2014.ece.mcgill.ca)
 explores the challenges of model-driven development for requirements engineering.
- Conference LET's 2014: LET'S (Leading Enabling Technologies for Societal Challenges see at http://www.lets2014.eu/) is an international Conference bringing together more than 1000 delegates from all over the world to discuss how Europe can support the growth and the creation of new jobs and face Societal Challenges through new products, processes and services, creating opportunities for European actors.
- PS@Staf2015: Project Showcases are dedicated to national and international projects of dissemination and cooperation and represent a specific opportunities for share experience, ideas, on-going work, and knowledge that can lead to fruitful collaborations and cross-sectoral concentrations among projects.
- Conference MoDELS 2014: MoDELS is the premier conference series for model-based software and systems engineering which since 1998 has been covering all aspects of modelling, from languages and methods to tools and applications. MoDELS 2014 challenges the modelling community to promote the magic of



modelling by solidifying and extending the foundations and successful applications of modelling in areas such as business information and embedded systems, but also by exploring the use of modelling for new and emerging systems, paradigms, and challenges including cyber-physical systems, cloud computing, services, social media, security, and open source. We invite you to join us at this conference and to help shape the modelling methods and technologies of the future!

- SPLAT'15: SPLAT is a workshop on tools supporting product line engineering.
- **RE'15**: RE is the main conference on requirements engineering.
- SEAA is a long-standing international event in the field of Software Engineering and Applications, the event is organized in topical tracks. MOCS track focuses on modelbased approaches.
- **BPM-WS15** The workshop is aimed to promote new, non-traditional ways of modelling and controlling business processes, the ones that promote and facilitate collaboration and creativity in the frame of business processes.

2.3.5. Practitioner Conferences Dissemination Channel

Significant achievements in dissemination:

- In September 2014 BOC held the strategic partner meeting with about 300 guests, where the Learn PAd results have been presented at the exhibition in the research booth. Distribution took place in special BOC flyer indicating the EU projects.
- On June 7-10, 2015, No Magic (a parent organization of NME) organized <u>No Magic World Symposium 2015</u>, which attracted about 200 participants. In the Business Architecture and Integration track, Darius Silingas delivered a presentation "Enabling Organizational Learning by Collaborative Business Process Modeling", which introduced Learn PAd project, approach, proof of concept prototypes and discussed practical challenges that are being addressed in the project currently.
- Dissemination activities served as an instrument for generating high quality leads to the exploitation process. It helped to establishing contacts with organizations who are interested in deploying Learn PAd approach and/or software platform. Since early adopters were mostly likely to appear within the region of one of Learn PAd partners, a special forum BPM in Public Sector was organized in Vilnius, Lithuania in order to attract Lithuanian PA organizations and disseminate Learn PAd approach. The event, which attracted over 100 participants mostly from public sector and presented BPM and Learn PAd as the future approach for organizing work managing knowledge in PA organizations. The forum featured a conference with presentations on the first day and a day of workshops, which included a workshop specifically addressing mapping process knowledge in BPMN and using Learn PAd approach to share this knowledge and facilitate collaboration. As a result, NME was able to initiate a consulting engagement with Lithuanian Police Department on establishing a business process modeling practice. It also resulted in a similar engagement with Lithuanian Post, which is non-PA organization, but it is a large state-owned organization, which faces similar challenges and is a potential early adopter of Learn PAd approach and software platform.
- A Technology Enhanced Training and Learning flyer with prominent results from Learn PAd has been drafted, and is selectively distributed.
- Efendioglu N. Presentation of Learn PAd Solutions and Experiences at Webster University to Business Process Management Class



- Efendioglu N. Presentation of LearnPAd Idea and Results at University of Vienna to Knowledge Management, Master Class
- Rifatbegovic N. Webinar about LearnPAd Modelling Method.
- Contribution to the PRO-VE 2015 European Projects workshop Learn PAd Project Presentation

Publications:

- Bertolino A., De Angelis G., Polini A., Silingas D. :<u>Learn PAd: Model-based Social Learning for Public Administrations</u>. Poster at CSEDU 2016 (International Conference on Computer Supported Education) within the "European Project Space" (Rome, Italy, 22 June 2016).
- Bertolino A., De Angelis G., Polini A.: <u>Learn PAd: Collaborative and Model-Based Learning in Public Administrations</u>, Presentation at i-CiTies 2016 2nd CINI Annual Workshop on ICT for Smart Cities & Communities (Benevento, Italy, 29-30 Sept. 2016). Atti, article n. 81. CINI, 2016
- Bertolino A., De Angelis G., Polini A., Silingas D.: <u>Learn PAd: Model-based Social Learning for Public Administrations</u>. In: LET'S 2014 Leading Enabling Technologies for Societal Challenges (Bologna, 29 September 1 October 2014).
 - Description of the poster: this is a poster presenting an overview of Learn PAd project goals and approach.
- Cognini R., Corradini F., Polini A., Re B.: <u>Modelling Process Intensive Scenarios for the Smart City</u>. In: e-Gov International Conference on e-Government (Dublin, Ireland, 2-4 September 2014). Proceedings, vol. 8653 pp. 147 158. (Lecture Notes in Computer Science). Springer, 2014.
 - Description of the paper: In this paper we present an approach to support flexibility of Business Processes regulating the behaviour of ICT systems deployed within a smart city.
- Corradini F., Polini A., Re B., and Tiezzi F.: <u>An Operational Semantics of BPMN Collaboration</u>. Formal Aspects of Component Software 11th International Symposium, FACS 2014, Niteroi, Rio de Janeiro, Brazil, October 14 16, 2015.
- Cognini R., Hinkelmann K., Martin A.: <u>A Case Modelling Language for Process Variant Management in Case-based Reasoning</u>. In: AdaptiveCM'15 4th International Workshop on Adaptive Case Management and other Non-workflow Approaches to BPM (Innsbruck, 31.08. 2015). Proceedings, pp. x y. (LNBIP). Springer, 2015.
 - Description of the paper: The paper presents an approach to solve the problem of the case representation in a CBR system using the BPFM notation. Using the notation it is possible to encapsulate many similar cases in a single model. The possibility given by BPFM to model just BP fragments leaving some part of the activities flow unspecified gives to performers the needed flexibility during the execution of a case.
- Cognini, R., Corradini, F., Polini, A., and Re, B. (2014). <u>Using data-object flow relations to derive control flow variants in configurable business processes</u>. In DAB2014, BPM2014 workshop.
 - Description of the paper: In this paper we propose business process Feature Model (bpFM) to deal with data objects in flexible BPs. In bpFM features are activities that can differentiate a BP from another in term of BP structure and



execution paths. In bpFM data objects can be modeled as input/output of activities, then the life cycle of data objects can be deduced from a bpFM model.

- Polini A. "<u>Learn PAd: Modeling for Learning in Public Administrations</u>" eChallenge 2014 "Workshop 6a: Applications, Tools and Technology for Conceptual Modelling and Semantics"
- Woitsch R.: Business-oriented Learn PAd white paper D9.4 <u>The Learn PAd Solution</u> to Process Oriented Learning.
- Woitsch R. and Efendioglu N., Business Process Oriented Learning: <u>A Collaborative Approach of Organisational Learning</u>, I-Know 2015, Graz, Austria
- Presentation about new approaches in the e-Government domain e" oder "i" mobiles BPM in der Wolke der Versuch einer Auslegeordnung
 - Description of the presentation: The presentation was given at a networking event organized by the Initiative BPM4eGov. The initiative aims to help exploiting synergies and potentials of Business Process Management (BPM) and eGovernment. The initiative serves as a platform for networking on the topics BPM and eGovernment (URL: http://www.bpm4egov.ch/bpm4egov/).
- Presentation at a yearly event of the BPMN4eGov initiative in Bern, CH.
 - Description of the presentation: The initiative is designed to help exploit synergies and potentials of disciplines Business Process Management (BPM) and e-government and to serve as a platform for a specific networking on the subject BPM and eGovernment. Synergies generate added value potentials are often untapped opportunities. The presentation was about future trends in eGov including research activities. http://www.bpm4egov.ch/9-netzwerktreffen/
- D. Silingas. Presented Learn PAd approach in workshop <u>BPM + Knowledge</u> <u>Management + Collaboration = Continuous Process Improvement</u>. BPM Europe 2016 London, UK.
- D. Silingas. Presentation of Learn PAd project in E-Challenge 2015, Vilnius Lithuania
- D. Silingas. Presentation of Learn PAd project in Forum BPM in Public Sector 2016, Vilnius Lithuania
- D. Silingas, J. Januskevicius. BPMN modeling workshop for Public Sector in Forum BPM in Public Sector 2016, Vilnius Lithuania
- Efendioglu N., Woitsch R. and Albayrak M., Designing Modelling Methods: <u>The Learn PAd Scenario</u>, eChallenges 2015 Vilnus, Lithuania
- Efendioglu N. and Wotisch R., <u>Modelling Method Design: A Model-Driven Approach</u>, iiWAS 2015, Brussels, Belgium
- Efendioglu N. and Wotisch R., Modelling Method Design: An ADOxx Realisation, ModTool 2016, EDOC 2016, Vienna Austria
- Efendioglu N., Woitsch R. and Utz W., A Toolbox supporting Agile Method Engineering, POEM 2016, Skövde, Sweden
- Prof. Knut Hinkelmann made presentation at OMG about <u>integration of BPMN and CMMN</u> that is researched and used in Learn PAd. This approach was presented in OMG technical meeting in Berlin on June 15-19, 2015.
- Learn PAd project presentation to Marche local public administrations attended by 55 persons (http://www.slideshare.net/AndreaSergiacomi/10092015-presentazione-progetto-learnpad-model-based-social-learning-for-public-administrations



Overview of events where publications made:

- Modelsward 2016 the 4th international conference on model-driven engineering and software development. The purpose of the International Conference on Model-Driven Engineering and Software Development, MODELSWARD 2016, is to provide a platform for researchers, engineers, academicians as well as industrial professionals from all over the world to present their research results and development activities in using models and model driven engineering techniques for Software Development. Model-Driven Development (MDD) is an approach to the development of IT systems in which models take a central role, not only for analysis of these systems but also for their construction. MDD has emerged from modelling initiatives, most prominently the Model-Driven Architecture (MDA) fostered by the Object Management Group (OMG). In the scope of MDA, a couple of technologies have been developed that became the cornerstones of MDD, like metamodelling and model transformations. MDD relies on languages for defining metamodels, like the Meta-Object Facility (MOF) and Ecore (developed in the scope of the Eclipse Modelling Framework), and transformation specification languages like QVT and ATL.
- PRO-VE 2015 16th IFIP working conference on virtual enterprises. Enterprises and society in general are increasingly challenged by unexpected disruptive events. The acceleration of globalization, demographic shifts, regional economic crises, changes in regulations, and rapid technological evolution lead to turbulences and instability. Additional factors contributing to this changing environment include global warming, terrorism, cyber-attacks, scarcity of resources, raising of nationalisms, racism and religious conflicts, among others. Collaborative Networks (CNs) can provide tools to help organizations cope with unexpected changes and disruptions, particularly when exploring rapid consortia formation and dynamic structural re-organization mechanisms. CNs may also support addressing new business opportunities in these highly dynamic scenarios.
- I-Know 2015 he International Conference on Knowledge Technologies and Datadriven Business – i-KNOW – has a 15-year history of bringing together the best minds from science and industry. Together we have successfully shaped research and practice on how knowledge and data are best leveraged in business and industry, and how knowledge technologies shape this relationship
- iiWAS 2015 The 17th International Conference on Information Integration and Webbased Applications & Services (iiWAS2015) is a leading international conference for researchers and industry practitioners to share their new ideas, original research results and practical development experiences from all information integration and web-based applications & services related areas.
- EDOC 2016 IEEE EDOC 2016 is the twentieth conference in a series that provides the key forum for researchers and practitioners in the field of enterprise computing. EDOC conferences address the full range of models, methodologies, and engineering technologies contributing to intra- and inter-enterprise application systems. Since 1997, EDOC has brought together leading computer scientists, IT decision makers, enterprise architects, solution designers, and practitioners to discuss enterprise computing challenges, models and solutions from the perspectives of academia, industry, and government. The EDOC conference series emphasizes a holistic view on enterprise applications engineering and management, fostering integrated

approaches that address and relate business models, business processes, people and technology.

- POEM 2016 9th IFIP WG 8.1 Working Conference on The Practice of Enterprise Modelling (PoEM). The PoEM conferences contribute to establishing a dedicated forum where the use of Enterprise Modeling (EM) in practice is addressed by bringing together researchers, users and practitioners. The main focus of PoEM conferences is EM methods, approaches, and tools as well as how they are used in practice. More specifically the goals of the conference are to contribute to a better understanding of the practice of EM, to contribute to improved EM practice as well as to share knowledge among researchers and practitioners.
- **BPM Europe 2016** Europe's Foremost Independent Business Process Management Conference.
- **E-challenge 2015** The eChallenges e-2015 Conference takes place in Vilnius, Lithuania. This is the twenty-fifth in a series of annual technology research conferences supported by the European Commission and hosted by national governments.
- Forum BPM in Public Sector 2016
- MiSE 2015 7th international workshop on modeling in software engineering.
- AMT@Models2014: The central objective of the AMT workshop is to provide innovative ideas for the analysis of model transformations, broadly construed. Analyses might support a variety of model transformation activities including the development, quality assurance, maintenance and evolution.
- **ES2015 conference** focuses on both the technical and application aspects of enterprise systems technology, and the complex and cross-disciplinary problems of enterprise integration
- The "eCH-BPM Prozessplattform für E-Government Schweiz" contributes to the implementation of eGovernment Switzerland. It benefits from the knowledge exchange and networking with partners of all federal levels, with representatives of the private sector and with scientists. The platform contains a process repository, basic information on process modelling, process related information like records management and risk controlling, and a market place. URL: http://www.ech-bpm.ch (not publicly accessible yet).
- MeTTeG 14: Public administrations made great effort to provide more sophisticated E-Government services, for example offering one-stop services and supporting personalization. While strategies, methodologies and realization of E-Government services vary significantly between the various actors and stakeholders, the alignment of IT with the processes and objectives of the service providers plays an increasing role in service management.

The MeTTeG conference intends to bring together researchers and practitioners active in the area of electronic government with a focus on the role played by the information and communication technologies. It provides a forum for participants from different perspectives and disciplines to present innovative methodologies, technologies and tools, share experiences and lessons learned from case studies and discuss challenges.

2.3.6. Research Journals and Book Chapters Dissemination Channel

Significant achievements in dissemination:



- UniCam contributes to formally check correctness for BP models. Indeed, in defining the notation, OMG did not provide a rigorous semantics for the various graphical elements; instead the meaning is given using natural language descriptions, permitting a wider adoption of the notation in different contexts. The use of formal tools to define the semantics of the various elements, and then of a process model, is particularly interesting in order to enable automatic analysis activities that allow the designers to check if the process satisfies desired properties or not. We consider a mapping from BPMN to Petri Net and we extensively describe properties that can be checked such as reachability, liveness, soundness, etc. We also consider unfolding techniques as a valuable approach to explore the state space of concurrent systems without considering all possible events interleaving. This makes the verification possible avoiding the typical verification problem such as state explosion.
- Journal publication results from this research activity. It was submitted and accepted by Business Process Management Journal.

Publications:

- Cognini R., Corradini F., Polini A., Re B.: <u>Inter-organizational Business Process Verification in Public Administration</u>. In: Business Process Management Journal., vol. 21 article n. 5. Emerald, September 2015.
- Guglielmo De Angelis, Alfonso Pierantonio, Andrea Polini, Barbara Re, Barbara Thönssen, and Robert Woitsch. <u>Modelling for Learning in Public Administrations – The Learn PAd Approach. Domain-Specific Conceptual Modelling</u>: Concepts, Methods and Tools. Dimitris Karagiannis, Heinrich C. Mayr, John Mylopoulos (Ed.), 575-594, Springer, 2016
- Riccardo Cognini, Flavio Corradini, Andrea Polini, Barbara Re: <u>Business Process Feature Model: An Approach to Deal with Variability of Business Processes. Domain-Specific Conceptual Modelling</u>: Concepts, Methods and Tools. D. Karagiannis, H. C. Mayr, J. Mylopoulos (Editors), 171 - 194, Springer, 2016.
- R. Cognini, F. Corradini, S. Gnesi, A. Polini, B. Re. <u>Business Process Flexibility A Systematic Literature Review with a Software Systems Perspective</u>. Information systems frontiers, first on-line, Springer, pp. 1 29, July 2016.
- Alessio Ferrari, Paola Spoletini, Stefania Gnesi. <u>Ambiguity and Tacit Knowledge in Requirements Elicitation Interviews</u>. Requir. Eng. 21(3): 333-355 (2016).
- Di Rocco J., Di Ruscio D., Iovino L., Pierantonio A.: <u>Collaborative Repositories in Model-Driven Engineering</u>. In: SOFTWARE TECHNOLOGY, vol. 3 pp. 28 34. IEEE Software, 2015.
- D. Silingas, B Thoenssen, A. Pierantonio, N. Efendioglu, R. Woitsch. <u>Business Architecture for Process-Oriented Learning in Public Administration</u>. <u>Business and Dynamic Change</u>: the Arrival of Business Architecture, L. Fischer (ed.). Future Strategies, 2015, pp. 171-184.

2.3.7. Other Dissemination Channels

Significant achievements in dissemination:

- Production and release of a video interview of a Learn PAd representative (on the occasion of the 7th LearnPAD meeting) published in the Learn PAd public website.
- The meetings held among all the institutions and actors involved in the Marche Region, regarding the standardization of procedures and the sharing of regional actions in terms of OSS, are listed in the web page



http://www.impresa.marche.it/SportelloUnicoAttivitaProduttiveSUAP/Documentazione TavoliSUAP.aspx

- Regional initiatives by the MAR councillor of "industry and handcrafts" and the office for "simplification and liberalization of the business" (including the Learn PAd project) were presented during an event ("Innovattori", at Civitanova Marche MC, 5-6-7 June 2014, http://www.impresa.marche.it/Ricercaeinnovazione/Innovattori.aspx)
- On the web site <u>www.ecommunity.marche.it</u> the Learn PAD project is described among the regional activities of the Digital Agenda for Marche – particularly among those dedicated to the "smart education" community.
- Marche Region, UNICAM, CNR, FHNW, together with all the partners of the Consortium, have worked to implement a questionnaire that has been given (among the other European Public Administrations) to the local potential users of the platform (SUAP/OSS from Marche involving at least the 51 local offices, that, according to a previous 2014 questionnaire, had required specific training actions from the regional level and other public bodies users interested in innovative and collaborative learning methods). The questionnaire aims to highlight learning needs, end-users familiarity with ICT-based e-learning systems, web/app technology and collaborative digital tools, and also to communicate and assess the proposed Learn PAd training environment (in terms of collected business processes and related contents, competence model, professional skill model, didactic and engaging solutions) according to the user expectations.
- Description of the LearnPAD project in the Digital Agenda for Marche website within the area dedicated to the "smart education" community http://www.ecommunity.marche.it/SmartEducation/tabid/272/Default.aspx
- Questionnaire about PA end users learning needs (IT https://docs.google.com/forms/d/1HvjJwiyDpJwoS_Tgqi4R9qVaDXFCunPkg6d5wWz RzFs/viewform EN https://docs.google.com/forms/d/15FD4s7FwV1tUonslZYRHcySJ4iDEexdbNHrKJfo6u 9Y/viewform) and answers/results http://www.slideshare.net/AndreaSergiacomi/learnpad-project-results-for-the-public-survey-on-learning-challenges-in-public-administrations
- Presentations at practitioner conferences LearnPAd project presentation to Marche local public administrations attended by 55 persons
 (http://www.slideshare.net/AndreaSergiacomi/10092015-presentazione-progetto-learnpad-model-based-social-learning-for-public-administrations
 http://www.ecommunity.marche.it/Eventi/PresentazioneProgettoLearnPAD/tabid/278/Default.aspx).
- Insertion of the LearnPAd project as a best practice in the digital skills Coalition database managed by AgID a public Agency (Digital Italy) from the Presidency of the Italian Council of Ministers (http://competenzedigitali.agid.gov.it/).
- Presentation of the initiatives and projects of the Digital Agenda of Marche supporting the digitalization of Public Administrations - to the students of the course "Jean Monnet" 2015 "The Network, Citizens and Rights" (third edition – module held by prof. S. Di Minco).
- Presentation of the LearnPAd project to the Regions of Emilia-Romagna, Lazio,
 Tuscany, Umbria that, with Marche, signed the protocol "Italia mediana" to share the
 most relevant ICT projects among their digital agendas and to evaluate some joint
 inter-regional initiatives related to various actions and between the others: B
 (interregional communities of practice), IM09 (federated e-learning platforms), IM19
 (repository of public business processes).



- Meetings with the SUAP Stakeholders and technicians from the Province of Ancona, Macerata, Pesaro about the simplification of User Interfaces for OSS services to enterprises.
- Demonstration to the officers of Monti Azzurri SUAP of the platform content and UI to assess and populate with new material its sections, functionalities and pages (recommender, simulation, process browsing).
- Presentation to people from Senigallia Municipality and Monti Azzurri Mountain
 Union of the revised BP structure about conference of services and inner interactions
 between SUAPs and Local/PA Third Parties, to be deployed in the new multi-users
 simulation.
- Presentation of the Learn Pad project to the officers of the Municipality of Marsala (on the occasion of the 9th meeting).

3. Standardization Activities Report

Learn PAd projects aims at influencing modelling standards. The initial dissemination plan defined an objective to deliver 2 presentations at Object Management Group (OMG) technical meeting(s). This objective was achieved by making the following 2 presentations at Business Modeling and Integration (BMI) domain task force meeting in Berlin on June 18, 2015:

- Dr. Darius Silingas. Business Process Organizational Learning. OMG Technical Meeting (15.-19.6.2015, Berlin, Germany): http://www.slideshare.net/ProjectLearnPAd/learn-p- adbusinessprocessorganizationallearningdsilingas;
- Prof. Knut Hinkelmann. Integration of BPMN and CMMN. OMG Technical Meeting (15.-19.6.2015, Berlin, Germany):

http://www.slideshare.net/ProjectLearnPAd/2015-0612-omgbmiintegration-of-bpmn-and-cmmn.

The first presentation introduced the main ideas and scientific concepts in the project and explained the approach, used by Learn PAd, to integrate multiple OMG modeling standards (BMM, BPMN, CMMN, etc.) and custom metamodels into a single Learn PAd metamodel, which enables modelling a business process-based and learning-oriented business architecture of public administration organizations. It explained how Learn PAd subsets BPMN to make it practical for an application in public administration and how weaving models are used to integrate model kinds. The second presentation has been elaborated on a need for defining a common modelling language set that combines the features of BPMN and CMMN for modelling business processes that are in between strictly defined procedures and loosely defined cases. Both presentations initiated a lot of discussions between the task force members who are experts and contributors in the development of majors business modelling standards - such as Business Process Model and Notation (BPMN) and Case Management Model and Notation (CMMN), that are heavily used inside the Learn PAd metamodel.

Although formal standardization objectives defined in Learn PAd description of work are reached, there is a mutual interest to continue tight interactions between Learn PAd partners (in particular the representatives by NME and FHNW) and the Business Modeling and Integration (BMI) domain task force. In addition to this, Darius Silingas was in contact with the leadership of Business Architecture Guild - and we would like also to underline a strong potential for collaboration with this emerging professional practice body, which works in a close relationship with OMG. Last but not least, NME intends to build a proof of concept for using Learn PAd approach to manage knowledge and learning into and about OMG standardization processes. This is planned to be done in collaboration with Dr. Andrew Watson, who is a Technical Director of OMG and a member of Learn PAd Project Advisory Board. These activities will enable to maximize the long-term impact of Learn PAd findings on both existing and emerging business modelling standards.

4. Summary and Conclusions

During all period of the project consortium played an active monitoring of dissemination activities and also did a lot dissemination activities. Finally at the end of the project the assessment of these activities shows us that Learn PAd project is well known as potential solution for enhanced learning and knowledge sharing. Also we have a lot of potential adopters who are interested in solution that where researched in Learn PAd project.

These conclusions based on dissemination statistics that shows quite good achievement almost in all dissemination channels. We have very good and even stable number of Learn PAd portal visitors, we have good activity in social networks, all partners where active and participated in lot events and made impressive number of presentations and publications. All this shows that Learn PAd project is well known ant finally we have good number of potential adopters who are interested in solution that where researched in Learn PAd project.

During dissemination activities we also organized an open event around the project topics, which was featured as a special session within MODELSWARD conference in Rome. Sabine Moebs, the coordinator of closely related project: EAGLE EnhAnced Government Learning, also attended the event and participated to a panel. Coordinators of project EAGLE exchanged ideas, results and issues that they met. Also it was very valuable discussion about similarities, differences and synergies of the two projects.

We have good progress in organizing meetings and presentations for Public Administrations by trying to present Learn PAd as one of solutions that allows the digitalization and transparency of Public Administrations. Our partner from Marche region made meetings and presentations for Municipality of Marsalla, for Municipality of Senigallia, meetings with the SUAP Stakeholders and technicians from the Province of Ancona, Macerala, Pesaro. We have prepared questionaries' about Pubic Administrators as end users learning needs and also have got answers with expectations of potential users of Learn PAd. These activities allowed us to communicate with real users, understand real issues that are met in PA everyday activities and it allows us to adopt our solution to better suit these needs.

Dissemination activities also served as an instrument for generating high quality leads to the exploitation process. It helped to establishing contacts with organizations who are interested in deploying Learn PAd approach and/or software platform. Early adopters were mostly likely to appear within the region of one of Learn PAd partners, a special forum BPM in Public Sector was organized in Vilnius, Lithuania in order to attract Lithuanian PA organizations and disseminate Learn PAd approach. As a result it was able to initiate a consulting engagement with Lithuanian Police Department on establishing a business process modeling practice. It also resulted in a similar engagement with Lithuanian Post, which is non-PA organization, but it is a large state-owned organization, which faces similar challenges and is a potential early adopter of Learn PAd approach and software platform.

Learn PAd reached and exceeded most of the planned dissemination objectives. Some of the most significant dissemination achievements are the following ones:

- A high visibility of Learn PAd approach in academic community: Learn PAd was
 presented in 33 papers/presentations at academic conferences, which highly exceeds
 the planned objective of 16 papers, and 7 journal papers, which exceeds the planned
 objective of 4 papers. Learn PAd was also presented in 1 keynote and the project coorganized 2 workshops that were attended by over 60 attendees;
- Influential Learn PAd presentations were delivered by Dr. Darius Silingas (NME) and Prof. Knut Hinkelmann (FHNW) at Object Management Group (OMG) technical meeting in Berlin, Germany on June 15-19, 2015, which acts a standardization body



for modeling languages. The presentations initiated intensive and heated discussions and contributed to a currently ongoing initiative at OMG to integrate business modeling languages BPMN, CMMN, and DMN and provide better mechanisms for integrating various existing modeling languages into a single metamodel such as Learn PAd metamodel;

• A high number of presentations at practitioner conferences (25 instead of planned 8), which provided a lot of feedback and a proof that Learn PAd approach and software platform are relevant for practitioners and have a high potential for exploitation.

The following dissemination objectives were not reached due the following reasons:

- Because of delays in technical work on Learn PAd software platform and its evaluation at Marche Region in Italy, Learn PAd project members decided to not invest into international press releases - a single international press release will be issues at the end of the project (after its final review) in order to share final project results and attract further leads for exploitation process and ensure Learn PAd sustainability;
- LinkedIn group channel was not effective and did not reach the level of interaction that would ensure its further growth and sustainability.