

# IVVES

## Industrial-grade Verification and Validation of Evolving Systems

Labeled in ITEA3, a EUREKA cluster, Call 5

ITEA3 Project Number 18022

### D6.1 – Dissemination plan

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**Author(s):** Mark van Helvoort (Philips)

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**Description:** Plan for using and disseminating the knowledge in the context of the IVVES project  
*(max 5 lines)*

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<b>Dissemination Level:</b>	<b>PU</b>	Public	<b>x</b>
	<b>PP</b>	Restricted to other programme participants	
	<b>RE</b>	Restricted to a group specified by the consortium	
	<b>CO</b>	Confidential, only for members of the consortium	

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## DOCUMENT HISTORY

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V0.2	07/05/2020	Updated with comments on V0.1	Draft	IVVES consortium
V0.3	28/05/2020	Added reference to “dissemination overview” on collaborative environment	Concept	Submitted to PMT
V1.0	08/06/2020	Approved by PMT, to be submitted to ITEA3	Final	Uploaded to portal and website

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## Glossary

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AI	Artificial Intelligence
ML	Machine Learning

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## Executive Summary

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This document describes the plan for using and disseminating the knowledge in the context of the IVVES project, through various means including internal and external communication channels, the distribution of dissemination material and participation in dissemination activities. More specifically, the document includes the IVVES dissemination strategy, describing the target audience active in verification and validation of evolving systems and the means for communicating with them. Furthermore, the planned and performed dissemination activities are presented, including the participation in conferences and other relevant events and the publications in scientific journals.

This document does not describe the online experimentation and training platform, because WP5 is fully dedicated to this important dissemination topic.

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# 1. Introduction

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Dissemination is an important element of the IVVES project. It will be carefully planned and implemented in order to spread awareness about this ITEA3 labeled project to a wide audience, including its end-users. This will help guarantee an optimal exploitation of the project results and the long-term sustainability of the IVVES vision. For this reason, the IVVES participants have formulated dissemination plan that describes the objectives and foreseen channels for the dissemination of the knowledge generated by the project.

This plan is in compliance with the IVVES full project proposal CR#3<sup>1</sup> (ITEA3 18022), the IVVES Project Consortium Agreement<sup>2</sup>, and the ITEA Rules and Regulations version 18, August 2019. This plan will be revised as the need arises and on Month 39 of the project a final report on the dissemination activities will be published (D6.3 Dissemination report, including contributions to standardization organizations).

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<sup>1</sup> CR#3 is in preparation in parallel to this deliverable.

<sup>2</sup> PCA is works in progress.



**Table 1: List of IVVES Participants**

No	Partners	Country
1	ABB AB	SWE
2	Addiva	SWE
3	Addiva	SWE
4	Bombardier	SWE
5	CollectiveCrunch Oy	FIN
6	CRIM	CAN
7	Ekkono Solutions	SWE
8	F-Secure	FIN
9	Futurice	FIN
10	HeadAI ltd.	FIN
11	ING	NLD
12	InnSpire	NLD
13	KEYLAND SISTEMAS DE GESTION SL	ESP
14	Netcheck	ESP
15	Open University	NLD
16	Philips	NLD
17	Philips Healthcare	FIN
18	Praegus	NLD
19	Prover Technology	SWE
20	Rhea Inc.	CAN
21	RISE	SWE
22	SII CONCATTEL S.L.	ESP
23	Sogeti	NLD
24	Solita Oy	FIN
25	Techila Technologies	FIN
26	University of Helsinki	FIN
27	VTT	FIN

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## 2. Dissemination strategy

### 2.1 Means of communication

In order for dissemination to be effective, multiple communication channels are used in order to be able to effectively reach the desired target audiences. One focus of dissemination will be on scientific publications and to address the academic research community. Publications within the area of interest of the project include both technology oriented journals and conferences. Results to be published will naturally tend to fall into one of the two categories, with some overlap between the two in case conference proceedings are published as journal paper.



**Figure 1 Example of external dissemination activities (IEEE-EMSB 2019)**

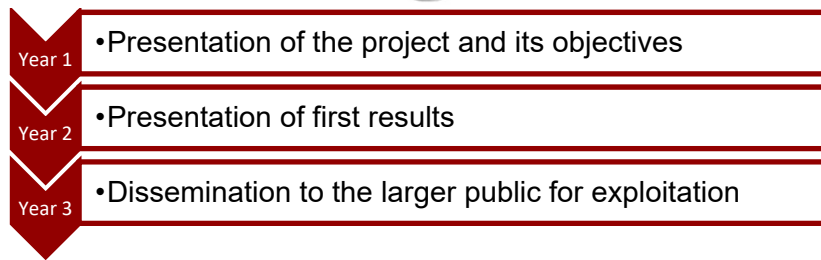
Several important target audiences for dissemination activities have been identified; these include academic researchers, manufacturers, maintenance providers, service providers as well as the general public. Different dissemination products are expected to appeal differently to each of these categories, and therefore it is necessary to be aware of what the focus of dissemination is expected to be during the different stages of the project, and how the results to be disseminated are to be best tailored to their target audience.

### 2.2 Timing

Concerning the timing of our dissemination strategy, three distinct phases of implementation can be identified (Figure 2). Year 1 is considered to be the first 15 Months of IVVES (on the total of 39 Months).

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**Figure 2: Focus of dissemination activities shifts over time.**

Early on, focus will lie on building general awareness among industry and the general public, including potential customers, generating interest by communicating application scenarios that appeal to a broad audience. As the project progresses, focus will also encompass the predictive maintenance, smart services and tools that are being developed.

## 2.3 Internal dissemination strategy

Continuous and effective internal communication is key to the success of international projects such as IVVES. For this reason, internal dissemination is considered as an essential part of the dissemination strategy as a whole, in particular because partners joined to learn from each other. Internal communication allows to:

- Keep track of project-related decisions and action points;
- Clearly communicate the role and responsibility of each project participant;
- Communicate on WP and demonstrator progress;
- Disseminate the right level of information to project participants;
- Identify problems and provide solutions.

## 2.4 External dissemination strategy

Much of the effort is aimed at 'external communication' to promote the project, and disseminate results. The major external dissemination objectives are to:

- Effectively use these communication channels to present the IVVES project's results;
- Establish links and encourage synergies with similar projects and initiatives;
- Provide the foundation of a comprehensive exploitation strategy.

Details of each dissemination activity/tool are provided in the section 4 ("Dissemination Tools")



## 3. Dissemination rules

### 3.1 Presentation and publication guidelines

All Partners will actively contribute to the publication policy, both at own initiative and upon request of other partners, work package leaders and the project managers.

When another partner is mentioned in a publication, written permission shall be requested from this specific partner. If a partner wishes to publish information generated in the IVVES project the approval of all partners has to be requested:

- This request shall be made preferably per e-mail;
- Reactions should be sent within 10 days;
- Without reaction permission is automatically granted after 10 days;
- In case of non-unanimous reactions the PM will take the final decision;
- A copy has to be send of the final publication to the project office for central archiving.
- The document will be published on the website until written indication is given that this is not allowed (e.g. due copyright rules from journals). In this case only the reference will be added.

### 3.2 Graphic identity

This section describes the features that contribute to giving a common graphic identity to all dissemination activities allowing for a better visibility and recognition of the project.

#### 3.2.1 Layout and templates

Common/similar **layouts** are used for the IVVES dissemination materials. **Templates** for project meeting minutes, deliverables and PowerPoint presentations were made available at the end of Month 2 of the project by the project coordinator, Philips.

#### 3.2.2 Logos

In addition to the IVVES project logo the ITEA3 logo should be used when possible (both are shown on the front page of this document, see Figure 1 for an example).

### 3.3 Compulsory acknowledgements

Any partner in the IVVES project will in their dissemination activities clearly acknowledge the ITEA3 Program with reference to the project "IVVES" and the grant number 18022.

Preferred reference:

*"This work was labelled by ITEA3 and funded by local authorities under grant agreement "ITEA-2019-18022-IVVES"*  
+include link to the project website and where appropriate to the online experimentation platform

## 4. Dissemination tools

### 4.1 Internal dissemination tools

The project coordinator, Philips (NLD), together with the respective work package leaders, has put in place a variety of mechanisms to optimize the communication workflow.

#### 4.1.1 Project meetings

As detailed in the IVVES FPP CR#3, there are several types of project meetings<sup>3</sup>:

- General Assembly meetings taking place at least three times a year;
- Regular project management team meetings;
- Regular work package meetings;
- Technical workshops;
- Additional telephone when needed for day-to-day coordination of the project.

At the moment of writing of this document so far 2 general assembly meetings<sup>4</sup> have been organized. An impression of these meetings is given in Figure 3. **Error! Reference source not found.** The General assembly meetings serve to update each other on project results, and to align the activities for the next period.



**Figure 3: Impression from General Assemblies**

<sup>3</sup> Due to COVID-19 pandemic, face-to-face meetings may be replaced by online meetings

<sup>4</sup> Due to delays in national funding the first kick-off meeting was with an incomplete consortium.



### 4.1.2 Information sharing

IVVES consortium members use a file sharing and storage system to safely share project information, presentations and even photos. A link is given on the public website. Access is shielded by a user code and password. The user-friendly file transfer environment is structured around Documents (frozen) and Workspace (works in progress). The Documents section contains o.a. the current project plan and approved deliverables. Within the Workspace section different work packages (WPs) each have their own space.

In parallel a Teams environment has been create for collaborative editing of deliverables and other documents. When successful this will replace the Workspace section above.

### 4.1.3 Workshops

In addition to the general assemblies smaller workshops have been and will be held on either National level, use cases or specific topics.

### 4.1.4 Other Tools

Other internal communication tools include mailing lists (participant, WP and at the consortium levels), internal staff meeting and meeting minutes, web conferencing etc.

## 4.2 External dissemination tools

External dissemination designates actions aiming at ensuring the visibility and awareness of the results outside the Consortium borders, i.e., in the scientific community, in academic institutions, in other research organizations, or among the lay public. These tools include:

### 4.2.1 Project Public Website

The IVVES public website presents general project information, participant information, downloadable publications and deliverables. When the online experimentation platform is up and running it will be showcased prominently. Furthermore, the website informs viewers about previous and forthcoming events and activities of the project as well as of other relevant projects and collaborations. Additional features can be added as needed.

Philips Healthcare (NLD) designed and maintains the website of IVVES. The referring address has been arranged by ING (NLD). Other IVVES participants' contributions will be requested throughout the project.

Link to the IVVES public website:

<http://ivves.eu/>



**Industrial-grade Verification and Validation of Evolving Systems**

The use of AI and complex, evolving systems (ES), i.e. systems that rapidly change, either due to fast iteration cycles in development or due to their capability to self-adapt and learn, will grow significantly in automation, computation and novel digital services. Targeting the challenges in verification and validation of AI and evolving systems, IVVES will systematically develop Artificial Intelligence approaches for robust and comprehensive, industrial-grade V&V of "embedded AI", i.e. machine-learning for control of complex, mission-critical evolving systems and services covering the major industrial domains in Europe.

- / Transportation
- / Finance
- / Healthcare
- / Industrial automation
- / Forestry
- / Cybersecurity



The IVVES consortium consists of 32 partners spread over 5 countries and will run from October 2019 to September 2022

**Canada**

- Centre de recherche informatique de Montréal
- Rhea

**Finland (pending funding decision)**

- CollectiveCrunch
- F-Secure
- Futurice
- HeadAI
- Philips Healthcare
- Solita
- Techila Technologies
- University of Helsinki
- VTT Technical Research Centre of Finland

**Netherlands**

- ING
- InnSpire
- Open University
- Philips
- Praegus
- Sogeti

**Spain (pending funding decision)**

- Keyland Sistemas de Gestion
- NETOcheck
- SII Concastel

**Sweden**

- ABB
- Addiva
- Bombardier
- Ekkono Solutions
- Prover Technology
- RISE - Research institute of Sweden

**Figure 4: IVVES public website**

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## 4.2.2 Publications and presentations

IVVES project results will be submitted for publication in scientific journals, conferences, and workshops. The submission of papers jointly written by project participants is encouraged.

Given the diversity of use cases and tools being addressed in IVVES, a wide variety of national and international journals, conferences and workshops can be targeted to disseminate IVVES results. The selection of a certain dissemination platforms will, apart from the topic, also depend on the timing. Not all conferences are held every year, and also the timing within the year may vary.

Journals targeted by IVVES include:

- Applied Soft Computing
- European Journal of Operations Research
- IEEE Computer Society
- IEEE Industrial Applications
- IEEE Industrial Informatics
- IEEE Sensors Journal
- Industry 4.0
- Information Fusion
- International Journal of Advanced Manufacturing Technology
- International Journal of Data Science and Analytics
- Journal of Manufacturing Technology Management
- Operations Research
- Manufacturing and Service Operations Management
- Mechanical Systems and Signal Processing
- Reliability Engineering and System Safety

Conferences:

- BNAIC/BENELEARN The reference AI & ML conference for Belgium, Netherlands & Luxemburg
- Data Science Summit
- European Alliance Summit
- European Safety and Reliability Conference (ESREL)
- European Supply Chain Forum
- IEEE Sensors Conference
- IMA International Conference on Modelling in Industrial Maintenance and Reliability (MIMAR)
- International Conference in Manufacturing Research(ICMR)
- International Conference on Product-Focused Software Process Improvement (PROFES)
- International Conference on Software Engineering (ICSE)
- International Conference on Sustainable Design and Manufacturing (KES International)
- International Symposium on Empirical Software Engineering and Measurement (ESEM)
- Probabilistic Safety Assessment and Management Conference (PSAM)
- Reliability and Maintainability Symposium
- The association of European Operational Research Societies Conferences (EURO Conferences)

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- The Institute for Operations Research and the Management Sciences Conference (INFORMS)

#### 4.2.3 Press releases and social media

Press releases will be organized on an ad hoc base to disseminate special milestones and/or project results. Very often media coverage cannot be orchestrated but “happens” as a result related dissemination activities.

#### 4.2.4 Alignment with other European Projects

IVVES exploits the result of FP7 project FITTEST and ITEA3 project TESTOMAT which delivered and extended the open source test tool TESTAR which will be enhanced by IVVES. IVVES will complement the objectives of CELTIC-PLUS IoD which is focused on increasing the automation of software integration, testing, deployment and operation. IVVES also builds on the results ITEA3 REFLEXION project. Close contacts are maintained with the ITEA3 DayTiME which collects system data for predictive maintenance. Contacts with ECSEL SECREDAS “Product Security for Cross Domain Reliable Dependable Automated Systems” will be established.

#### 4.2.5 Education and Innovation

Educating young scientists and involving them in innovation is an important aspect of the IVVES project. IVVES is actively involved in graduation assignments for M.Sc. and Ph.D. students which (partially) take place at industrial partner premises. In addition some industrial researchers have also an university position.

Several partners also employ company internal means to educate colleagues in the activities and results of the IVVES project (see Figure 5).



**Figure 5: Impression of partner internal dissemination activities (Philips Healthcare, October 2019)**

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## 5. Other

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To track and trace publication, standardisation and exploitation results throughout the project the ITEA3 template is used. It is hosted on the collaborative Teams environment and before each ITEA3 report a snapshot will be saved. Publications will also be listed on the appropriate section of the website [ivves.eu](http://ivves.eu).

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