



# ALMARVI

*“Algorithms, Design Methods, and Many-Core Execution Platform for Low-Power Massive Data-Rate Video and Image Processing”*

Project co-funded by the ARTEMIS Joint Undertaking under the

ASP 5: Computing Platforms for Embedded Systems

ARTEMIS JU Grant Agreement no. 621439

## D7.3 - ALMARVI Dissemination plan and strategies

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TUE

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**Description:** This document describes the dissemination strategy and plan in the ALMARVI project.  
*(max 5 lines)*

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	<b>PP</b>	Restricted to other programme participants (including the JU)	
	<b>RE</b>	Restricted to a group specified by the consortium (including the JU)	
	<b>CO</b>	Confidential, only for members of the consortium (including the JU)	

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# 1. Introduction

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This document describes the dissemination plan and strategy that is adopted in the ALMARVI project. The ALMARVI project results will be disseminated world-wide to ensure a high-degree of visibility and awareness of the project concepts, developments, and results. The dissemination activities will be performed by all the partners. The latest information on the developments and results of the ALMARVI project will be delivered to the general public by maintaining an up-to-date website. Further, exploitation and standardization activities are critically dependent on the dissemination activities. This document on dissemination plans defines the consortium strategy and the list of actions for disseminating the project results. This will ensure wide dissemination of research and practical outcomes to related industry and research communities and standardization bodies.

The dissemination plan and strategy is a part of Work package 7 (WP7) on exploitation and dissemination. It is the outcome of Task 7.2. The objectives of WP7 are to exploit and disseminate the ALMARVI project results. The key goal is to increase the applicability and visibility of the ALMARVI project results. The dissemination activities are driven keeping the following two objectives of WP7 in mind:

- Dissemination of the ALMARVI project results in the relevant communities through publications in premier conferences and journals, special sessions at relevant conferences/symposiums/workshops, dedicated ALMARVI technical workshops, information days, press releases, etc.
- Demonstration of the project results to the relevant/target audience (customers, business parties, related research groups, etc.) in the ALMARVI demonstration workshops.

## 2. Executive Summary

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ALMARVI targets three different communities: the general public, the scientific community and the industrial community. The key dissemination activities are the following:

- Website: Presence in the internet world.  
Target group: the general public, the scientific community, and the industrial community
- Scientific publications: High quality publications in international journals and conferences  
Target group: the scientific community and the industrial community
- Seminars, workshops and tutorials: The outcome will be disseminated to the wider scientific and industrial communities via seminars, special sessions, workshops and tutorials at nationally and internationally well-known conferences and other scientific and industrial forums.  
Target group: the industrial community and the scientific community

## 3. ALMARVI website and content

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The website contains and maintains the following structure of information:

**1. Overview of the project**

- ❖ Societal impact
- ❖ Technical innovation
- ❖ Objectives

**2. Consortium**

- ❖ Logos with weblinks to the members of the consortium

**3. Work packages**

- ❖ Overall design flow
- ❖ Work packages and their correspondence to tasks

**4. Latest news**

- ❖ News on meetings of the project
- ❖ Upcoming events such as workshops, annual meetings
- ❖ Announcement of important publications

**5. Publications**

- ❖ All public domain disseminations including journal, conference publications and Technical reports.
- ❖ Public domain deliverables
- ❖ Further, the website will offer limited/private level of access when it becomes relevant

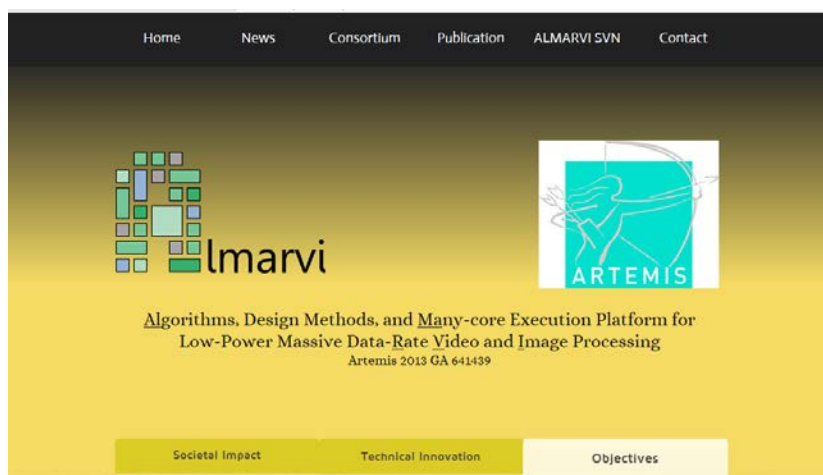
**6. Contact information**

- ❖ Project manager
- ❖ Technical manager
- ❖ Dissemination manager

In order to measure the degree of visibility, the ALMARVI website is equipped with **Google Analytics**. Several pieces of information are obtained to

- ❖ track and collect the statistical information on the visits of the site
- ❖ to assess the visibility of ALMARVI

On request, permission is granted to members of the consortium to access the statistics.



## 4. Scientific publications

To accentuate the ARTEMIS agenda and visibility to the international communities, a special emphasis will be given on project scientific publications in premier conferences and journals with a special focus on embedded systems. All publications supported by ALMARVI will contain the following ALMARVI acknowledgement:

"This research is supported by the ARTEMIS joint undertaking under grant agreement no. 621439 (ALMARVI)."

In the following, we present the plan for scientific publications in the ALMARVI project. A number of activities are already confirmed and papers and proposals are accepted at various venues in 2015.

The planned scientific publications are classified into two categories:

1. **Planned publications at the partner-level:** It is crucial that for visibility within the scientific and industrial community to publish scientific articles with the results of ALMARVI by individual partners. Each academic partner plans to publish:
  - ❖ 2-3 conference publications/year and/or
  - ❖ 1 journal publication/year

Since the scope of the project covers a wide range of topics, each partner has certain specific target forums. In the following, we provide the target conferences and the journals

Partners	Responsible	Target conferences	Target journals
UTURKU	Lauri Koskinen	ISSCC, VLSI symposium	IEEE TVLSI, IEEE Journal of Solid-State Circuits, IEEE TCAS I: Regular Papers,
VTT	Janne Keränen	IEEE CCV, Pattern Recognition and International Conference on Machine Learning	IEEE TPAMI, ELSEVIER Image and Vision Computing, Springer Machine Vision and Applications
OZYEGIN	Fatih Ugurdag	ARITH, FPGA, ReCoSoC, DATE, DAC	IEEE TC, IET Electronics Letters, Elsevier DSP Journal, Elsevier Microelectronics Journal, Elsevier VLSI Integration
UTIA	Jiri Kadlec	ICIP (e.g., Quebec, Canada in 2015) CAIP (e.g., Malta in 2015) WSCG (e.g., Czech Republic in 2015)	IEEE TIP
TUDeft	Zaid Al-Ars	DATE, ESWEEK, DAC, FPL, SAMOS	IEEE TC

TUE	Dip Goswami	DATE, DAC, EMSOFT, RTAS	IEEE TCST, IEEE TC, ACM TODAES, ACM TECS, JSA, STTT
TUT	Pekka Jääskeläinen	ICASSP, CASES	IEEE TCAS
UEF	Maarit Tamminen	IPTA, HIS, IS&T SPIE Electronic Imaging	Pattern recognition letters, Pattern recognition, ELSEVIER Image and Vision Computing, Computer Vision and Image Understanding
BUT	Pavel Svoboda	WSCG, SCCG, FPL, FPGA, SAMOS, DATE, VISAPP, ACIVS, BMVC	JRTIP

Industrial partners will be more focused on outreach activities at the national level while a number of non-academic partners will publish their results in international scientific forums. Individual dissemination plan for the industrial partners are described in the following:

**Philips Healthcare:** Philips Healthcare intends to make one or two contributions to technical magazines. The target magazine is the Bits and Chips magazine, a Dutch technological publication. The timing of these publication will be towards the end of the Almarvi project, so probably fall '16 or spring '17. Depending on the progress, one of these publications will probably be on the feasibility and methods of deploying a single code base on more than one accelerator (in 2016). Another could be on the advantages and limitations of the single box concept, where a number of devices and accelerators is integrated in a single compute platform (in 2017).

**Lead:** Paul Zwart

**ASELSAN:** ASELSAN intends to present one or two posters/papers in the national conferences and universities in Turkey. Moreover, ASELSAN is planning to participate in a workshop on parallel processing where specific scientific ALMARVI concepts will be presented.

**Lead:** Toygar Akgün

**HURJIA:** Hurja Solutions will attend to international fairs when new applications developed in ALMARVI are ready for demonstration. The concrete plans for the fairs are Slush 2015 and ICTexpo 2016 (detailed in Section 5).

**Lead:** Antti Väänänen

**NOK:** Nokia will participate in a number of international and national fairs and workshops. For example, NOK will give a presentation on their results under ALMARVI in a workshop at WEEE organized by UTURKU (detailed in Section 6).

**Lead:** Heikki Berg

**CAMEA:** CAMEA will exhibit with its own booth in a number of national and international trade fairs. A number of products (systems related to traffic monitoring) and results/products of Artemis project will be shown. The details about ALMARVI will be provided on request. Current and updated results of the project such as hardware demos (e.g. object detection in ZYNQ and so on) will be shown in parallel.

**Lead:** Lukas Marsik

**VF:** VF will create white-papers regarding programming of multi-core architectures, that are published at the company's website. The company regularly receives a request for an invited presentation at major events in this domain. VF will give presentations at various national and international events to disseminate the outcome of the research performed under ALMARVI. Next to publications in (electronic-) magazines, the company presents its tools in the exhibition area of the major European conferences in this domain. This involves acquiring a booth in at least five such events yearly.

**Lead:** Jos van Eijndhoven

**VIS:** VIS will demonstrate at trade-shows, exhibitions, presentations to potential customers, relevant audience, publications, papers, articles, news feeds, printed documentation, etc.

**Lead:** Markus Tutinen

## 2. Scientific publications at the project-level

1. Special Issue in Springer Journal of Signal Processing Systems on the results of ALMARVI at the end of project
  - ❖ **Organizer:** Zaid Al-Ars & Jarmo Takala.
  - ❖ **Description:** The ALMARVI partners commit to writing journal papers based on the results of their work performed during the course of the ALMARVI project. Around 8 journal papers are requested, and collaboration publications are encouraged between project partners. The journal papers are to be peer reviewed and published in a special issue of the Springer Journal of Signal Processing Systems, 2017-2018.



**3. Scientific publications (including those accepted for publication) during M01-M08: (check for ALMARVI ack)**

- P. Jääskeläinen, H. Kultala, T. Viitanen, J. Takala, "Code Density and Energy Efficiency of Exposed Datapath Architectures", *Journal of Signal Processing Systems*, Springer, Jul. 2014
- P. Jääskeläinen, C. Sánchez de La Lama, E. Schnetter, K. Raiskila, J. Takala, H. Berg, "POCL: A Performance-Portable OpenCL Implementation", *International Journal of Parallel Programming*, Springer, Aug. 2014
- I. Pöllänen, B. Braithwaite, T. Ikonen, H. Niska, K. Haataja, P. Toivanen, and T. Tolonen, "Computer-Aided Breast Cancer Histopathological Diagnosis – Comparative Analysis of three DTOCS-based Features: SWDTOCS, SW-WDTOCS, and SW-3-4-DTOCS", *4<sup>th</sup> International Conference on Image Processing Theory, Tools, and Applications (IPTA'2014)*, Paris, France, October 14–17, 2014
- D. Goswami, D. Müller-Gritschneider, T. Basten, U. Schlichtmann, S. Chakraborty "Fault-tolerant Embedded Control Systems for Unreliable Hardware," *International Symposium on Integrated Circuits (ISIC)*, Singapore, 2014 (December)
- T. Ikonen, H. Niska, B. Braithwaite, I. Pöllänen, K. Haataja, P. Toivanen, J. Isola, and T. Tolonen, "Computer-Assisted Image Analysis of Histopathological Breast Cancer Images Using Step-DTOCS", *14th International Conference on Hybrid Intelligent Systems (HIS 2014)*, Kuwait, December 14-16, 2014
- B. Braithwaite, H. Niska, I. Pöllänen, T. Ikonen, K. Haataja, P. Toivanen, and T. Tolonen, "Optimized Curve Design for Image Analysis Using Localized Geodesic Distance Transformations", *IS&T SPIE Electronic Imaging*, San Francisco, California, USA, February 8–12, 2015

## 5. Participation in public events, tutorials and workshops

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In the following, we summarize the planned participation in public events, tutorials and workshops by the ALMARVI partners. A number of plans are already finalized with acceptance at the target venue.

- **Participation and presentation Artemis/ECSEL Brokerage Event by UEF**, Amsterdam, Netherlands, January 21-22 2015
  - Lead: Maarit Tamminen
- **Participation in Artemis - ITEA II Co-summit** in March, 2015 by UTIA and UEF at Berlin Congress Center, Germany
  - UTIA will prepare HW demo for the ALMARVI booth
  - Lead: Jiri Kadlec and Maarit Tamminen
- **Philips' in-house joint yearly research presentations**
  - posters on ALMARVI subprojects.
  - Audience: scientific and industrial ALMARVI partners
  - Lead: Paul Zwart
- **Presentation at TNO-ESI symposium by TUE**
  - Based on topics related to modeling and design optimization of multi-domain applications
  - Lead: Twan Basten (TUE)
- **Participation in Slush 2015 event in Helsinki**
  - Hurja Solutions attend to look for new business opportunities for services and applications which are developed in ALMARVI project
- **Participation in ICTexpo 2016 event in Helsinki**
  - Hurja Solutions attend to look new business opportunities for services and applications which are developed in ALMARVI project
- **Participation in Intertraffic in Istanbul 2015 by CAMEA(27.-29.5.2015)**
- **Participation in Intelligent Traffic Systems (ITS) World Congress Bordeaux by CAMEA (5.-9.10.2015) by CAMEA**
- **Participation in Expotrafic in Moscow by CAMEA (27.-29.4.2015)**
- **Participation in Transpoquip in Sao Paulo by CAMEA (10.-12.11.2015)**

## 6. Organization of public events, tutorials and workshops

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In the following, we summarize the plan for organizing in public events, tutorials and workshops by the ALMARVI partners. A number of plans are finalized with acceptance in the target venue.

### 1. **Special session in SAMOS 2015 on ALMARVI** (accepted)

**Session Organizers:** Zaid Al-Ars (TUDelft, Netherlands), Jarmo Takala (TUT, Finland)

**Description:** The expected participants include international technology experts, healthcare and security industry representatives, image processing device manufacturers, end users, industry and research representatives as well as the project partners. All partners will be invited to submit their contributions. The special session will have about 6 papers, preferably about collaborative work between different partners.

### 2. **ALMARVI Workshop at Ozyegin University** in 2015 in Istanbul, Turkey

**Organizer:** Fatih Ugurdag (OZYEGIN) and Aselsan (Ankara, Turkey)

**Description:** in parallel processing, and effective GPU programming and its application to video processing with target audience university researchers, doctoral candidates and graduate/undergraduate students

### 3. **Organizing Workshop at WEEE by UTURKU:** 3rd Workshop on Energy Efficient Electronics and Applications in 10-12 September 2015, Helsinki, Finland.

**Organizer:** Lauri Koskinen (UTURKU)

**Description:**

- 10<sup>th</sup> September (student day): Course on TTA architectures
- 11<sup>th</sup> September (Workshop day 1): 2 ALMARVI related presentation (Nokia, TUT)
- 12<sup>th</sup> September (Workshop day 2): ALMARVI related presentation (Phillips Healthcare)

### • **Tutorial in DATE or ESWEEK 2016** by TUE

**Organizer:** Dip Goswami (TUE)

**Speakers:** Twan Basten, Marc Geilen and other partners (e.g., Paul Zwart from Philips Healthcare) will be invited

**Description:** Topics related to modeling and design optimization of multi-domain applications. In particular, tutorial will be based on the results on co-design of co-existing steaming and control applications in the context of healthcare use-case from Philips.

## 7. Conclusions

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This document has described the dissemination plan and strategy of ALMARVI. The dissemination will be done at two levels. The first mode of dissemination is at partner-level by individual partners. This will be done by publishing at high quality national and international conferences and in journals. In addition, the results will be presented at various public events such as tutorial, workshops and conferences. These dissemination activities will be performed both by individual partners and jointly by a number of partners. The second mode of dissemination is the project-level where multiple partners jointly participate. Examples of such activities are organizing workshops, tutorials and special sessions in conferences.

Non-academic partners will be specially active at the national level towards advertising their results or products that are the outcome of their work in ALMARVI.

Finally, there will be a special session published from Springer Journal of Signal Processing Systems on the results of ALMARVI at the end of project.

## Appendix: conferences and journals

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1. DATE: Design, Automation & Test in Europe
2. DAC: Design Automation Conference
3. EMSOFT: International Conference on Embedded Software
4. RTAS: Real-Time and embedded technology and Applications Symposium
5. IEEE CCV: IEEE Conference on Computer Vision
6. CASES: International Conference on Architectures, Compilers and Synthesis of Embedded Systems
7. IEEE ICASSP: IEEE International Conference on Acoustics, Speech, and Signal Processing
8. ISSCC: International Solid-state Circuit Conference
9. ICIP: International Conference on Image Processing
10. CAIP: International Conference on Computer Analysis of Images and Patterns
11. WSCG: International Conferences in Central Europe on Conference on Computer Graphics, Visualization and Computer Vision
12. IPTA: Inverse Problem – from Theory to Application
13. HIS: Healthcare Infection Society
14. SAMOS: International Conference on Embedded Computer Systems: Architecture, Modeling and Simulations
15. ARITH: IEEE Symposium on Computer Arithmetic
16. FPGA: International Symposium on Field-Programmable Gate Arrays
17. VISAPP: The International Conference on Computer Vision Theory and Applications
18. ACIVS: Advanced Concepts for Intelligent Vision systems
19. ICPR: IEEE International Conference on Pattern Recognition
20. BMVC: British Machine Vision Conference
21. FPL: The International Conference on Field Programmable Logic and Applications
22. SCCG: Spring conference on Computer Graphics
  
23. IEEE TPAMI: IEEE Transactions on Pattern Analysis and Machine Intelligence
24. IEEE TC: IEEE Transactions on Computers
25. IEEEETCST: IEEE Transactions on Control Systems Technology
26. IEEE TCAS: IEEE Transactions on Circuits and Systems
27. IEEE TVLSI: IEEE Transactions on Very Large Scale Integration (VLSI) Systems
28. IEEE TIP: IEEE Transactions on Image Processing
29. ACM TODAES: Transactions on Design Automation of Embedded Systems
30. ACM TECS: ACM Transactions on Embedded Computing Systems
31. JSA: Journal of Systems Architecture
32. JRTIP: Journal of Real-Time Image Processing
33. International Journal of Software Tools for Technology Transfer: STTT