

# I-RAMP<sup>3</sup>

Intelligent Network Devices for fast Ramp-up



## NEWSLETTER

No.4

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### Editorial

Dear Reader,

before the summer break the consortium is proud to present the fourth issue of the I-RAMP<sup>3</sup> newsletter!

#### Halftime within I-RAMP<sup>3</sup> !

The consortium can look back proudly on 18 months massive technical developments highlighted by the availability of the second prototype and on a smooth and fruitful collaboration among the partners! The avid consortium is looking forward to the upcoming tasks and will definitely keep up the great spirit!

In the fourth edition of the newsletter we would like to give you an insight into our 2<sup>nd</sup> Hackfest which took place in Furtwangen, Germany and our 18 month partners meeting which took place in Stuttgart, Germany on page 2 and 3, respectively. Dive in the world of the I-RAMP<sup>3</sup> project, stay on track of the projects impressive developments and read more about the outstanding feedback of I-RAMP<sup>3</sup>'s PTA, Mr. Dimitrios Karadimas in the interview on page 4.

In the previous issues, we gave you the chance to get to know us better by sharing with you a chat with one of the I-Ramp<sup>3</sup> partners! This time on the occasion of Mr. Karadimas visit to the 18 month meeting we used the opportunity to have a chat with him. Get to know the PTA Mr. Karadimas, his view on projects developments and on future potential success on the market of I-RAMP<sup>3</sup>. Everything on page 4.

Last but not least, get an impression on past events that our partners attended read about upcoming events in the field and learn about the recently set-up of the Innovation portal EFFRA on page 6. And don't forget to have a look on our [LinkedIn profile](#) to follow the most topical news!

We are looking forward to your feedback and now enjoy reading!

### I-RAMP<sup>3</sup> ID

#### Title

Intelligent Reconfigurable Machines for Smart Plug&Produce Production

#### Project duration

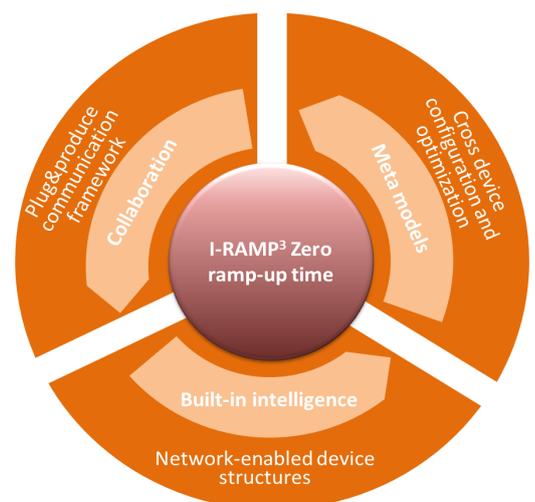
01/10/2012 – 30/09/2015

#### Main objective

I-RAMP<sup>3</sup> aims at enabling the European manufacturing industry towards smart manufacturing systems in conventional production. This goal will be reached by a novel concept for fast, optimized ramp-up and operation of production lines. Therefore I-RAMP<sup>3</sup> proposes the transformation of conventional production equipment into **Network-enabled Devices (NETDEVs)**.

#### Partner countries

Germany, Hungary, Portugal, France, Netherlands and Greece





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### I-RAMP<sup>3</sup> “Hackfest” in Furtwangen, Germany, 18th –21st of March 2014

**I-RAMP<sup>3</sup> 2nd Hackfest - All sorts of technical discussions by the software experts - with a successful outcome**

There are several regular important meetings within the I-RAMP<sup>3</sup> project during a year. But there is one to which all software developers are looking forward like no other meeting...

The famous **Hackfests**, in which the software experts are coming together in order to integrate their individual developments into a combined system setup of a prototype. This time, we had the pleasure to visit the wonderful Black Forest around Furtwangen in Germany, where the I-RAMP<sup>3</sup> partner IEF Werner is located.

The Hackfest took place from 18<sup>th</sup> to the 21<sup>st</sup> of March 2014 and targeted on the implementation of a prototype setup. Within the three days of the Hackfest, twelve software developers from almost every I-RAMP<sup>3</sup> partner organization came to Furtwangen. All of them had their “pockets” full of software codes for Network-enabled Device Structures (NETDEV) development for different applications and were eager to integrate them into a joint prototype setup. Using a prototype, the I-RAMP<sup>3</sup> NETDEV technology could be demonstrated for instance for car body feature measurement by optical systems, wireless sensor networks or diagnosis systems for welding and pressing applications. All of these applications have successfully been demonstrated at the I-RAMP<sup>3</sup> midterm meeting (read more about the 18 month meeting on the upcoming page 3)

Besides the intensive software coding and integration, the participants also had the chance to enjoy the breathtaking landscape around Furtwangen. The I-RAMP<sup>3</sup> partners had

the opportunity to visit the spring of the Danube River and were also impressed by the local specialties of the Black Forest area.

<http://www.naturpark-suedschwarzwald.de/essen-trinken>

Thanks to IEF Werner from the entire developer team for hosting us and a perfect organization of the Hackfest!





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### I-RAMP<sup>3</sup> partner meeting in Stuttgart, Germany, 21st-23rd of May 2014

#### Halftime of I-RAMP<sup>3</sup> - impressive developments and an eager consortium looking forward to the upcoming tasks

Moved by the highly motivated and conjointly **I-RAMP<sup>3</sup>** spirit, all partners were really excited to meet again for their 18 months partner meeting in Stuttgart hosted by our partner Fraunhofer IPA. This meeting was also the projects mid-term and review meeting in which the project progress is assessed by the European Commission.

Therefore the agenda for the upcoming days was rich in content and tightly structured. All partners were highly concentrated and eager to present results but also willing to accentuate the striking project developments to the PTA.

On day one all partners enjoyed in the morning an interactive dissemination session led by SEZ with the goal to set-up and plan activities for the upcoming period. In the afternoon a workshop on the demonstrator roadmap was headed by partner AWL. Here the goal was to clearly define all demonstrators, their associated prototype components and, consequently the preparation for the next day. This task was tricky for all, because the partners not only wanted to show the individual developments, implemented prototypes, components and how they would be integrated within physical demonstrator; but also the positioning, applicability and interaction of the demonstrators within the overall **I-RAMP<sup>3</sup>** concept. After intensive deliberating and exchange of ideas the concept for a coherent and sound story to tell was compiled and all members were excited about the following day 2.

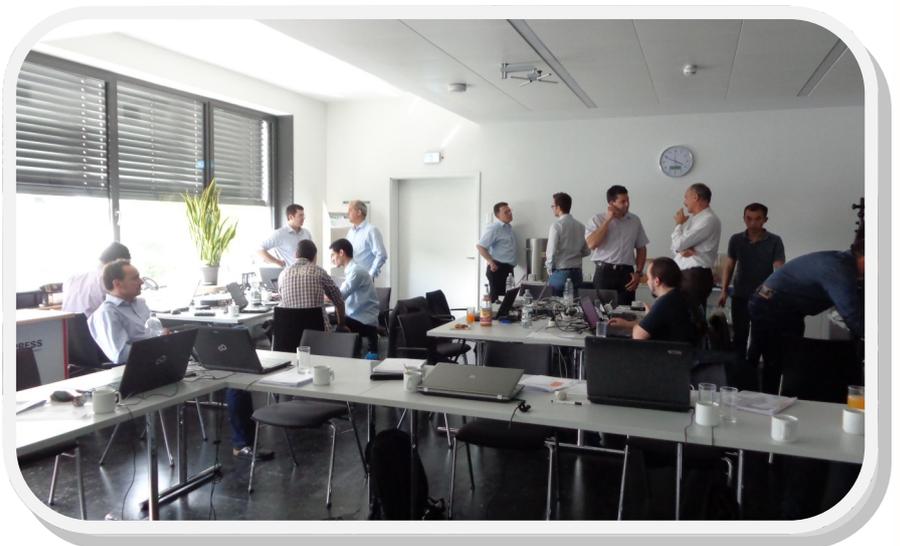
The review meeting started with a general project overview provided by the coordinator Michael Peschl (HWH) on project

structure, timeline and progress achieved during the period. The project's PTA Dimitris Karadimas joined the meeting in order to observe project developments and results achieved so far. On this basis, the PTA will provide feedback to the EU commission. All workpackage leaders presented the progress and results from the last period followed by the demonstration of the prototypes.

Let this much be said...partners had worked hard and their commitment was rewarded by the PTA. Hence the positive feedback was a good occasion to pop the corks!

The exploitation strategy seminar on day 3 was led by SEZ. In joint exercises and discussions all participants were intensively involved in order to review already identified exploitable results, started to characterize those. Ownership and use interest were also treated. The session was very agile and productive and completed the all around successful partner meeting!

Many thanks to Fraunhofer IPA for providing an excellent framework to the meeting and to all participants for their great spirit and impressive work efforts!





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### Interview with Dimitrios Karadimas, PTA

Dimitris, can you briefly tell us which tasks do you have as a PTA?

The principal activities of the **Project Technical Advisor (PTA)** are as follows:

- **Provide technical advice** to the Commission Project Officer
- **Monitor the progress of the project** on the basis of deliverables, milestones, progress reports, on-site visits, and project meetings
- **Assess periodic and final reports** of the project, and make recommendations for contract related decisions to be taken by the Commission services
- **Propose workable solutions** to any contractual and/or managerial matters, as they arise, ensuring that scientific, administrative and financial reporting for the assigned project is maintained on schedule. Also, in case required, facing crisis management related to project implementation
- **Provide assistance to project** in the areas of project management and planning to ensure that the results are exploited at the earliest opportunity
- **Provide assistance to the Commission Project Officer** in the areas of dissemination and exploitation of project results
- **Provide support** to the analysis and assessment of project results, the impact of the project, and to promoting the dissemination of noteworthy technological achievements

**You've been accompanying and monitoring the project from the beginning. From the perspective of your long-year experience as PTA, what's your view on how the project evolved during its first half?**

The project is making **good and promising overall progress**. All major technical milestones for the period have been fulfilled, while deliverables are of high quality. What comes, as a pleasant surprise is that the project has **produced already and briefly demonstrated several pro-**

#### Profile Dimitrios Karadimas

Dimitri has more than 25 years of industrial technical and managerial experience. He is the founder and Managing Director of Vision Business Consultants, a technology consultancy established in 2005 to facilitate SME access to innovation, markets and finance and provide services to industry on operations support, IPR management & technology transfer, research & technological development, marketing, training and communication, as well as dissemination & exploitation of EU project results.

Prior to this, he has served as General Manager in an innovative technology solutions & services start-up, focusing on delivery of ICT solutions and services to the IT & Telecoms industry. Earlier, he has served for several years at senior technical and commercial leadership positions in medium and large size multinational manufacturing companies. He has also worked considerably in the past with EU and national funded RTD projects in the areas of Production Management, Product & Process Design, Enterprise & Business Process Modelling, Supply Chain & Logistics Support and Product Life-Cycle Management. Moreover, he is providing consultation as an industry expert to several of the European Commission DGs and Agencies on Framework Programme projects' review & evaluation, project technical advisory (PTA), as well as exploitation and innovation strategy consultancy. Dimitri has got an MSc in Computer Integrated Manufacturing from Cranfield University, Milton Keynes, UK, as well as a BSc in Computer Engineering from Roger Williams University, Bristol, USA.

**totype NETDEV (network enabled devices) applications** associated with different production processes. This indicates the clear commitment and ambition of the consortium partners to develop and implement solutions that will have the potential to be as close to the market as possible.





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### Interview with Dimitrios Karadimas, PTA

**An important question, especially from the point of view of future tangible market application, the potential attractiveness of solutions as are being developed here are for industry. Within the consortium we, of course, have that view of industrial relevance covered by our industrial partners and their customers. But from a business innovation point of view, what would be the bigger scope?**

The NETDEVs under development are aimed to be agent-based production devices equipped with standardized communication protocols and self-descriptive capabilities, which have the potential to form the building blocks of heterogeneous production networks and adapt themselves in continuously changing production configurations. As such, the business perspective of this innovation could be very high, considering that **a significant portion of capital expenditure tied to conventional production equipment will not be made quickly obsolete due to rapid technological advancements**. Instead, **it could be upgraded via the integration of NETDEVs and continue to operate and produce in a much smarter and efficient mode**, having the additional capability of being networked and remotely controlled within a modern manufacturing environment. This fact could represent a much-appreciated added value, especially in industrial sectors where CAPEX costs, associated with conventional production equipment replenishment, have become a barrier in maintaining competitiveness in the market.

**Is there anything that you personally like or appreciate in particular about I-RAMP<sup>3</sup>?**

One of the most important elements of the NETDEV concept is that it provides a significant **flexibility**, which was missing, especially in several partially-manual or semi-automated production environments. That flexibility is an **enabler for many serious improvements & benefits**, such as cost reduction of operations, better efficiency and control, improved visibility of work-in-progress, more effective management of resources & manufacturing processes, rapid transferability of equipment upgrades to

other parts of the production – given the standardized common interfaces, improved products quality, rapid adaptation to changing customer demands, etc.

**We received your recommendations on work progress and activities, which we appreciate a lot. But if you were asked to give the consortium an advice in more general terms, what would that be?**

A NETDEV feature, which will be very important for its adoption by the market, regards its **capabilities for integration with existing MES, SCADA, DCS and ERP systems**. Depending on the particular market it will be aiming at (large industries, SMEs, etc.), its capability to be easily adapted and integrated will be crucial for its potential success.

Typical examples of potential customers and their possible infrastructure limitations have to be given thorough consideration, even from this stage of the project, so as **to better anticipate additional critical requirements, standardization features and NETDEV specifications** that may be missing from the current project pilots. Industrial environments ranging from a modern **SME cloud-based ERP/MES environment**, or a large process-based industry with several **PLC-based processes and DCS-managed equipment**, or even a traditional **batch-based semi-automated assembly factory**, will have to be carefully considered as potential prospective customers, so as to be able to conceive and decide which could be the **target market with the most competitive advantages for a successful final product offering**.

*Thank you very much for sharing your opinion with us! We're looking forward to another 18 months period and fruitful collaboration with you in I-RAMP<sup>3</sup>!*



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### News from the field

#### Innovation portal EFFRA

The “European Factories of the Future Research Association” (EFFRA) is a non-for-profit, industry-driven association which promotes the development of new and innovative production technologies. The key objective of EFFRA is promoting pre-competitive research on production technologies within the European Research Area.

Further info on activities, objectives and how to join:  
<http://www.effra.eu>

#### Website update I-RAMP<sup>3</sup>

Visit our updated website and download our deliverable on “Industrial requirements and use-case description”  
[http://www.i-ramp3.eu/downloads\\_documents.html](http://www.i-ramp3.eu/downloads_documents.html)

### Past events (partners at fairs and events)

**Cebit Hannover March 2014:** FreedomGrow attended the 2014 Cebit Hannover with a company booth and promotional material on I-RAMP<sup>3</sup>.



**Hannover Fair April 2014:** Fraunhofer IPA attended the Hannover fair with a company booth and promotional material on I-RAMP<sup>3</sup>.

**Automation & Engineering May 2014 in Brussels:** Partner IEF Werner participated as an exhibitor and promoted the I-RAMP<sup>3</sup> project by distribution of flyer and inspiring

conversations with interested visitors about the project.

**Mechatronic Dialog, IHK Karlsruhe, May 2014:** SEZ presented the possibilities for innovative companies within the European research funding by means of the example of I-RAMP<sup>3</sup> and distributed flyers.



#### Manufacturing Forum, July

**2014 in Milan, Italy:** The I-RAMP<sup>3</sup> project was represented by SEZ and HWH. The representatives did some relevant networking with important stakeholder in the field.

### Future events

**33rd Motek – International trade fair for automation in production and assembly, October 3rd–6th 2014, Stuttgart, Germany**

Motek is the world’s leading event in the fields of production and assembly automation, feed technology and material flow, streamlining through handling technology, and industrial handling and clearly focus on all aspects of mechanical engineering and automation and on the presentation of entire process chains.

Further info: <http://www.motek-messe.de/en/motek/>

**SEMICON Europe 2014, October 7th–9th 2014, Grenoble, France**

With more than 4000 industry experts, professionals and executives attended SEMICON is the largest industry

event in Europe. Visitors get the opportunity to meet key decision makers from the global semiconductor, microelectronics and related industries.

Further info: <http://www.semiconeuropa.org/node/2271>

**SPS IPC Drives, 25th–27th of November 2014, Nürnberg Germany**

SPS IPC Drives is one of the leading exhibition for electric automation technology. It covers all components down to complete systems and integrated automation solutions. Combined with a conference it is the ideal platform for networking, exchange on products, innovations and current trends within the electric automation industry.

Further info: <http://www.worldmanufacturingforum.org/>