

Welcome to Impact, the newsletter from the European Factories of the Future Research Association (EFFRA) focusing on the work of projects launched under the EU's research and innovation programme for advanced manufacturing – 'Factories of the Future'.

In this edition we report on the recent Factories of the Future Community Day. This event featured a high number of pitch presentations (centred on upcoming Factories of the Future call topics) and news from ongoing projects/project clusters.

EFFRA has launched an important public consultation on potential future priorities for the Factories of the Future partnership in Horizon Europe (the successor programme to Horizon Europe). We invite you to participate.

We are pleased to bring two open calls to your attention – one from the CloudiFacturing project and one from the I4MS (ICT Innovation for Manufacturing SMEs) project.

In project news, MEMAN has launched its final video on potential resource saving, RECOTRANS reports on its first six months of activity while the THOMAS project unveils its first concept video featuring mobile dual-arm robots.

In this edition we also introduce projects addressing re-usable and re-configurable parts for sustainable LED-based lighting systems (REPRO-Light), cloud-based situational analysis for factories providing real-time reconfiguration services (SAFIRE), versatile plug-and-play platform enabling remote predictive maintenance (SERENA) and zero-defect manufacturing strategies towards on-line production management for European factories (Z-FactOr).

If you have project news you wish to share you can submit it to: info@effra.eu.

Contents

EFFRA Hosts Successful Factories of the Future Community Day: Presentations Available.....	2
EFFRA Consultation on Factories of the Future Priorities in Horizon Europe.....	3
CloudiFacturing Launches Open Call.....	4
MEMAN: Discover the Resource Saving Potential of the Construction Machinery Industry in the Surface Finishing Cluster Video.....	4
I4MS Launches Disruptors Award Contest.....	5
RECOTRANS Marks Sixth Months of Activity.....	6
THOMAS Project Launches First Concept Video: Mobile Dual-Arm Robots.....	6
Introducing the REPRO-LIGHT Project.....	7
SAFIRE's First Newsletter Presents Cloud Business Cases.....	7
Versatile Plug-and-Play Platform Enabling Remote Predictive Maintenance – SERENA Project.....	8
Introducing Z-FactOr - Zero-Defect Manufacturing Strategies Towards On-line Production Management for European Factories.....	9

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Factories of the Future
Public Private Partnership

EFFRA Hosts Successful Factories of the Future Community Day: Presentations Available

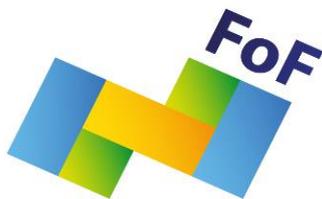
On 27 June 200 industry and research experts from across Europe attended this year's edition of the annual Factories of the Future Community Day. The principle purpose of this event was to support brokerage around the forthcoming Factories of the Future call topics and to view and discuss the latest developments from ongoing projects can clusters.

This year, representatives of the European Commission presented the call topics while close to forty pitches were presented by potential project participants. Most of the presentations delivered during the event can be viewed on the [EFFRA Cloud](#) using the following credentials:

- Username: Factories_cday
- Password: FoF-CD-2018

Online brokerage is underway on the EFFRA Innovation Portal. The Portal now features a “people” search feature which will assist potential partners to identify one another on the Portal. If you wish to be visible in this section (the feature will be activated at least one week before the event), please adjust your visibility via the ‘Privacy Setting’ under ‘Profile’ after you have logged into the Portal.

[View Presentations](#) | [Innovation Portal](#)



Factories of the Future
Public Private Partnership

EFFRA Consultation on Factories of the Future Priorities in Horizon Europe

EFFRA has launched an important online consultation on the future research and innovation priorities for Horizon Europe

Potential contributors should note that this consultation is available on the EFFRA Innovation Portal under the Profile section ('Your profile') after you have logged in. Should you not have an account in the EFFRA Innovation Portal yet, you should first register.

Before proceeding to the online consultation, please read the guide that is available on <https://www.effra.eu/fp9-consultation>.

The deadline is now extended to 14 September 2018 (17:00 CET).

[Log in to the EFFRA Innovation Portal](#)

If you have any questions about the consultation, please contact us: info@effra.eu.



CloudiFacturing Launches Open Call

CloudiFacturing has launched its first open call. The call seeks seven new application experiments in "cloudification of production engineering for predictive digital manufacturing".

CloudiFacturing-Cloudification of Production Engineering for Predictive Digital Manufacturing-is a European Innovation Action (IA) in the framework of Factories of the Future (FoF) with the mission of optimizing production processes and producibility, using Cloud/HPC-based modelling and simulation, and leveraging online factory data with advanced data analytics; thus, contributing to the competitiveness and resource efficiency manufacturing companies, especially SMEs.

The experiments launched in response to this call will run for 12 months. More details can be found via the call information link below. Potential participants should pay close attention to the details provided.

A CloudiFacturing information webinar on the call will take place on 5 July at 12:00 (CET).

Deadline for applications: 30 September 2018

[Call Information & Contacts](#) | [CloudiFacturing Background](#) | [Register for Webinar](#)



MEMAN: Discover the Resource Saving Potential of the Construction Machinery Industry in the Surface Finishing Cluster Video

Earlier this month the project consortium released its third and last video on the surface finishing cluster. The cluster investigated the production process of a hydraulic piston rod – with a special focus on the last phase of surface finishing –, which is used in mechanical engineering applications, such as cars, cranes and construction machines in general.

The application of the MEMAN methodology allowed the industrial partners involved to demonstrate:

- 80% reduction in process failures, insufficient quality and scrap caused by manufacturing disturbances due to supply disorders (e.g. changed qualities of raw material and chemicals)
- Up to 26% cost savings along the value chain

- Up to 35% reduction of energy consumption and CO2 emissions
- Optimal specifications of steel quality (such as steel microstructure, inclusions) necessary to avoid any re-work of the product to be coated
- The methodology also contributed to assess and therefore reduce the health risks of workers from serious hazards.

View the video via the link below.

[More Information & Video](#)



I4MS Launches Disruptors Award Contest

The Factories of the Future initiative I4MS launched a Disruptors Award contest, a competition that aims to award the most innovative experiments and best cases in additive manufacturing, CPS, IoT, robotics, HPC or laser technologies.

A Disruptors Awards Call will select the best cases illustrating a company's ability to innovate and implement ICT technologies to meet its business needs, bring radical innovation to their sector and capacity of achieving national or international scale.

The call is available to SMEs that have received technological and financial support from the Innovation Actions that are part of the I4MS initiative since its foundation (this is, Fortissimo, Cloudflow, CloudSMEs, LASHARE, INTEFIX, EuRoC, Appolo, ReconCell, BeinCPPS, Fortissimo2, HORSE, MIDIH, Cloudifactory, L4MS and AMable).

The winning project will benefit from the I4MS visibility package which includes the promotion of the experiment and the winning SMEs or midcap via the I4MS online community, website, social networks, blog and I4MS newsletter as the best digital transformation case.

Deadline for applications: 5 September 2018 (17:00 CET)

[Call for Award Applications](#)



RECOTRANS Marks Sixth Months of Activity

The RECOTRANS project is now sixth months into its work and recently held its second General Assembly to explore what has been achieved to date.

In the first six months of the project, the progress has been focused on the requirements definition, either from the material and production system, for the three demonstrators that will be produced in the project (parts for automotive, truck and railway sector), together with the selection and adaptation of materials. The consortium has also published the first public deliverable of the project about regulatory, standardization and safety issues in the transport sector

RECOTRANS aims to create a new manufacturing system for obtaining multi-material metal composites products suitable for the transport industry, obtaining high quality lightweight multi-materials at high production rates; reducing production cost, energy consumption and time to market and contributing to reduce CO2 emissions.

The next steps will be the definition and design of the three demonstrators, the final formulation of the materials, the definitions of the laser technology parameters and the integration of the microwave technology into the Resin Transfer Moulding and pultrusion lines.

[More Information](#)



THOMAS Project Launches First Concept Video: Mobile Dual-Arm Robots

Factories of the Future project THOMAS has launched its first concept video to introduce the main aims of the project.

The vision of THOMAS is: "to create a dynamically reconfigurable shop floor utilizing autonomous, mobile dual arm robots that are able to perceive their environment and through reasoning, cooperate with each other and with other production resources including human operators".

[Watch Video](#) | [More About THOMAS](#)



REPRO-LIGHT

Introducing the REPRO-LIGHT Project

Repro-light is a European research project that aims to support the European lighting industry in moving towards a more sustainable and competitive future. The Repro-light project intends to harness innovative technologies and materials to design a modular luminaire architecture with a smart production scheme as part of the circular economy, a reconfigurable customised LED luminaire, the 'Luminaire of the Future'.

Led by representatives and driving forces from the European lighting industry, as well as manufacturers, experts on lighting sustainability and the Social Sciences, the Repro-light consortium possesses the excellence and the influence to not only execute this project successfully, but also invoke a sustainable change in the European lighting industry beyond the lifetime of the project.

[REPRO-Light](#)



SAFIRE's First Newsletter Presents Cloud Business Cases

After two years of activity, Factories of the Future project SAFIRE has launched its first newsletter with this first edition reporting on what has been achieved so far and business cases.

The SAFIRE project is developing innovative technologies and infrastructure that enable Reconfiguration-as-a-Service for dynamic smart factory systems and manufactured smart products. The innovations being developed exploit cloud-based services and computing power to continually optimise the performance of production systems and products focusing on throughput, power consumption, usage, maintenance, utilisation levels, and other key factors.

Since its launch, the project has produced methodologies and early prototypes for all the main components and services of SAFIRE (predictive analytics engine, dynamic reconfiguration and optimisation engine etc).

So far, SAFIRE has demonstrated (or will shortly demonstrate) its solutions through business cases in conjunction with Electrolux, OAS and ONA.

[SAFIRE Newsletter](#) | [More about SAFIRE](#)



Versatile Plug-and-Play Platform Enabling Remote Predictive Maintenance – SERENA Project

The growing complexity of modern engineering systems and manufacturing processes is an obstacle to concept and implement Intelligent Manufacturing Systems (IMS) and keep these systems operating at high levels of reliability. Additionally, the number of sensors and the amount of data gathered on the factory floor constantly increases. This opens the vision of truly connected production processes where all machinery data are accessible allowing easier maintenance of them in case of unexpected events.

The SERENA project will build upon these needs for saving time and money, minimizing the costly production downtimes. The proposed solutions are covering the requirements for versatility, transferability, remote monitoring and control by:

- plug-and-play cloud based communication platform for managing the data and data processing remotely,
- advanced IoT system and smart devices for data collection and monitoring of machinery conditions,
- artificial intelligent methods for predictive maintenance (data analytics, machine learning) and planning of maintenance and production activities,
- AR based technologies for supporting the human operator for maintenance activities and monitoring of the production machinery status.

SERENA's vision is: "to introduce a powerful platform to aid manufacturers in simplifying their maintenance burdens, by reducing costs, time and improving the productivity of their production processes".

[More about SERENA](#)



Introducing Z-FactOr - Zero-Defect Manufacturing Strategies Towards On-line Production Management for European Factories

Launched in 2016, Z-FactOr, the focus of this project are zero-defect manufacturing strategies towards on-line production management for European factories.

The Z-FactOr solution comprises the introduction of five multi-stage production-based strategies targeting:

1. The early detection of the defect (Z-DETECT),
2. the prediction of the defect generation (Z-PREDICT),
3. the prevention of defect generation by recalibrating the production line (multi-stage), as well as defect propagation in later stages of the production (Z-PREVENT)
4. the reworking/remanufacturing of the product, if this is possible, using additive and subtractive manufacturing techniques (Z-REPAIR)
5. the management of these strategies through event modelling, KPI (key performance indicators) monitoring and real-time decision support (Z-MANAGE).

[Z-FactOr](#)

Contact

If you have suggestions, questions or comments concerning this newsletter, contact info@effra.eu.

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