The Factories of the Future PPP

Realising Europe's Industrial Potential



Chris Decubber

Technical Director

EFFRA

EUROPEAN FACTORIES OF THE FUTURE RESEARCH ASSOCIATION

Realising Europe's Industrial Potential



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Some figures…

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Nr of projects	Cumulative total
FoF-2010	25 projects								post-project impact & investments										25	25
FoF-2011		36 projects							post-project impact & investments										36	61
FoF-2012			37 projects						post-project impact & investments										37	98
FoF-2013				53 projects					post-project impact & investments										53	151
FoF-2014						25 projects			post-project impact & investments										29	180
FoF-2015							25 projects		post-project impact & investments										28	208
FoF-2016								37 projects	post-project impact & investments										*37*	245
FoF-2017									25 projects	post-project impact & investments									25	270

- 270 Projects to date.
- > 2,000 organisations participating
- High involvement of SMEs: >30% of funding

- Majority of projects feature demo activities
- 850 results have been reported on EFFRA Innovation Portal (portal.effra.eu)
- Leverage Factor: 5

Calls for Proposals



Factories of the Future (FoF) Call 2018 + NMPB 20-2018

The Factories of the Future call for 2018 is now open.

Call topics*:

- DT-FoF-01-2018: Skills needed for new Manufacturing jobs
- DT-FoF-02-2018: Effective Industrial Human-Robot Collaboration
- DT-FoF-03-2018: Innovative manufacturing of opto-electrical parts
- DT-FoF-04-2018: Pilot lines for metal Additive Manufacturing
- DT-ICT-07-2018: Digital Manufacturing Platforms for Connected Smart Factories

(*click on a topic for more information)

A separate call for a digital 'plug and produce' online equipment platform will open on 28 November:

- DT-NMBP-20-2018: A digital 'plug and produce' online equipment platform for manufacturing (IA)

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DT-FOF-01-2018: Skills needed for new Manufacturing jobs (CSA) 32
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DT-FOF-04-2018: Pilot lines for metal Additive Manufacturing (IA 50%) 36
DT-FOF-05-2019: Open Innovation for collaborative production engineering (IA) 37
DT-FOF-06-2019: Refurbishment and re-manufacturing of large industrial equipment (IA) 39
DT-FOF-07-2020: Reliable and accurate assembly of micro parts (RIA) 40
DT-FOF-08-2019: Pilot lines for modular factories (IA 50%) 40
DT-FOF-09-2020: Holistic energy-efficient factory management (IA) 42
DT-FOF-10-2020: Pilot lines for large-part high-precision manufacturing (IA 50%) 42
DT-FOF-11-2020: Quality control in smart manufacturing (IA) 42
DT-FOF-12-2019: Handling systems for flexible materials (RIA) 42
DT-NMBP-18-2019: Materials, manufacturing processes and devices for organic and large area electronics (IA) 43
DT-NMBP-19-2019: Advanced materials for additive manufacturing (IA) 44
DT-NMBP-20-2018: A digital 'plug and produce' online equipment platform for manufacturing (IA) 45

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Horizon 2020 - Work Programme 2018-2020
Information and Communication Technologies

Platforms and Pilots 83
DT-ICT-07-2018-2019: Digital Manufacturing Platforms for Connected Smart Factories 85

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ICT-08-2019: Security and resilience for collaborative manufacturing environments..... 22

Support to Hubs 78
DT-ICT-03-2020: I4MS (phase 4) - uptake of digital game changers and digital manufacturing platforms 82

ICT-38-2020 Artificial intelligence for manufacturing

ICT-39-2020 Digital advances for local/urban manufacturing

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From FoF 2020 roadmap to Factories 4.0 & Beyond

Building on the vision of the FoF 2020 roadmap and public consultation in 2016

→ **Key priorities for FoF 18-19-20**

Vision of the factories of the future: the challenge perspective



Vision of the factories of the future: the technology perspective

Agile value networks: Lot-size one - distributed manufacturing

Excellence in manufacturing: Advanced manufacturing processes and services for zero-defect processes and products

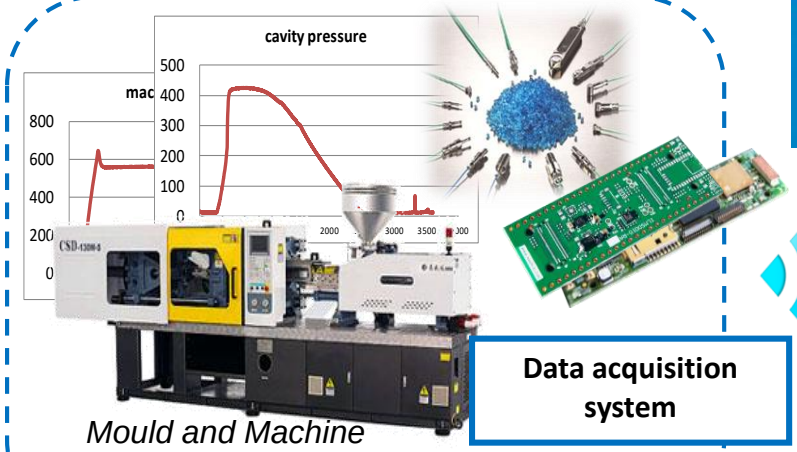
The human factor: Human competences in synergy with technological assets

Sustainable value networks: Manufacturing in a circular economy

Interoperable digital manufacturing platforms: connecting manufacturing services

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PREVIEW



Mould and Machine parameters

Data acquisition system

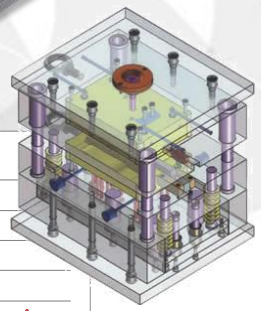
Industrial Wireless Comms

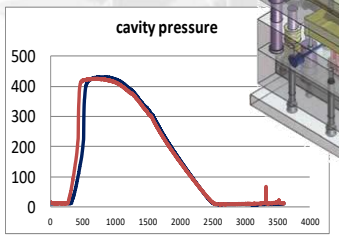
Advanced Predictive System

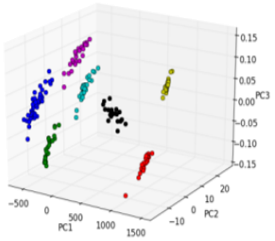


Cloud-based computing

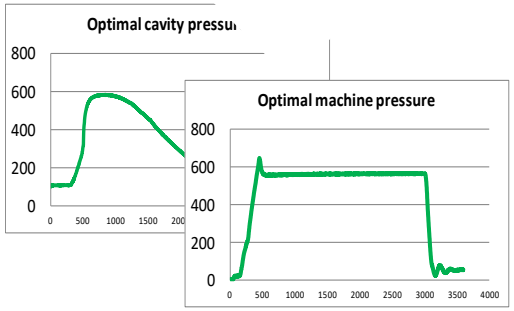
Mould DNA







Recommended setup parameters based on historical data



Location based content delivery



Factories of the Future
Public Private Partnership

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The FAR-EDGE Way



H2020 Research and Innovation Action - This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N. 723094

CONNECTED FACTORIES

Factories of the Future
Public Private Partnership



Challenges and requirements from the field

Research & Innovation Projects

A common mapping framework

Guidance: Structured glossary

CONNECTED FACTORIES

Digital manufacturing platforms on the market

Pathways to the industrial deployment of digital manufacturing platforms

Application scenarios (personas)

DIGICOR

NIMBLE

FOS

ISRUPT

DAEDALUS

FAREDGE

COMPOSITION

SAFIRE

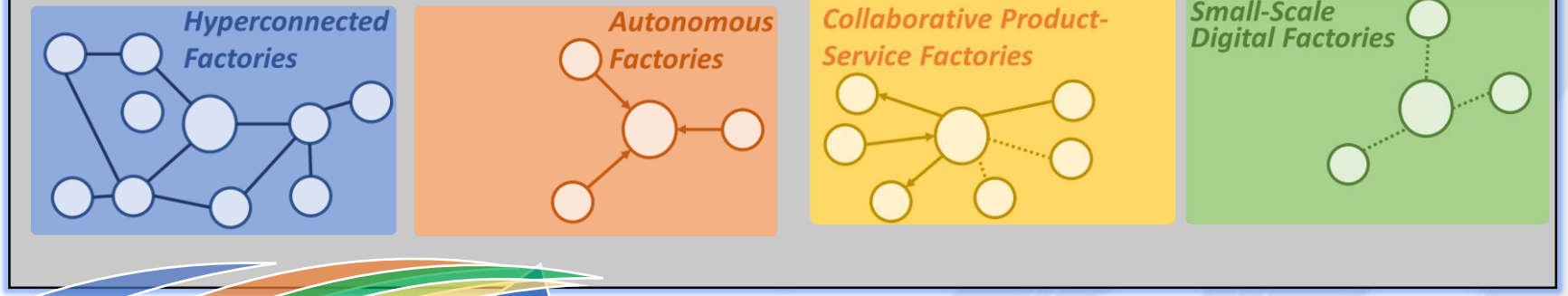
AUTOWARE

ScalABLE4.0

Etc…

CONNECTED FACTORIES

Desired Future Vision Connected Factories 2030



https://portal.effra.eu

Show advanced search

Selected filters:

- **Digital mapping framework:** Standards

+ Create project

http://www.connectedfactories.eu/connectedfactories-project-information-sharing-and-analysis

Show 25 entries

Showing 1 to 13 of 13 entries

	Acronym	Title	Start date	End date	Call topic	Details
AUTOWARE	AUTOWARE	Wireless Autonomous, Reliable and Resilient Productlon Operation ARchitecture for Cognitive Manufacturing	01-10-2016	30-09-2019	FoF.2016.11-ii	Results: 1 | Demos: 0

Standards

Standards

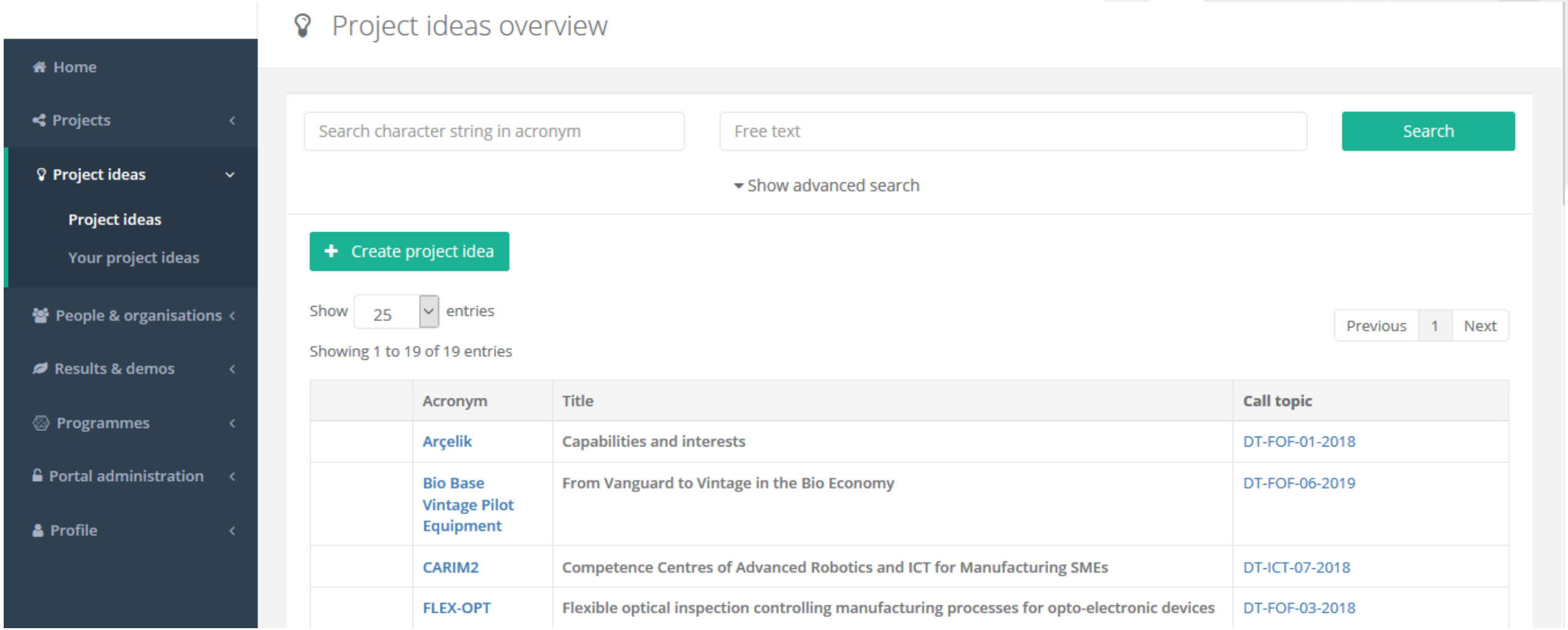
Comment: Automation Industrial Data Space (IDS).
Public-subscribe OPC-UA ; OPC-UA rt.
NFV-Low latency networks.
5G, TSN, WirelessHart

http://effra.eu/events/5-6-february-2018-connectedfactories-dissemination-event



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Make your interest in the call topics also visible on portal.effra.eu/projectideas.



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Thank you for your attention

chris.decubber@effra.eu

info@effra.eu

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