Factories of the Future' PPP and Horizon 2020



Chris Decubber, EFFRA
Research Programme Manager

EFFRA
EUROPEAN FACTORIES OF THE FUTURE RESEARCH ASSOCIATION
a MANUFUTURE initiative

Factories of the Future PPP: Delivering Impact

150 Projects launched

Over €1000 M total project budget

Over 1,000 organisations

50% industry participation

SME participation

Demonstration

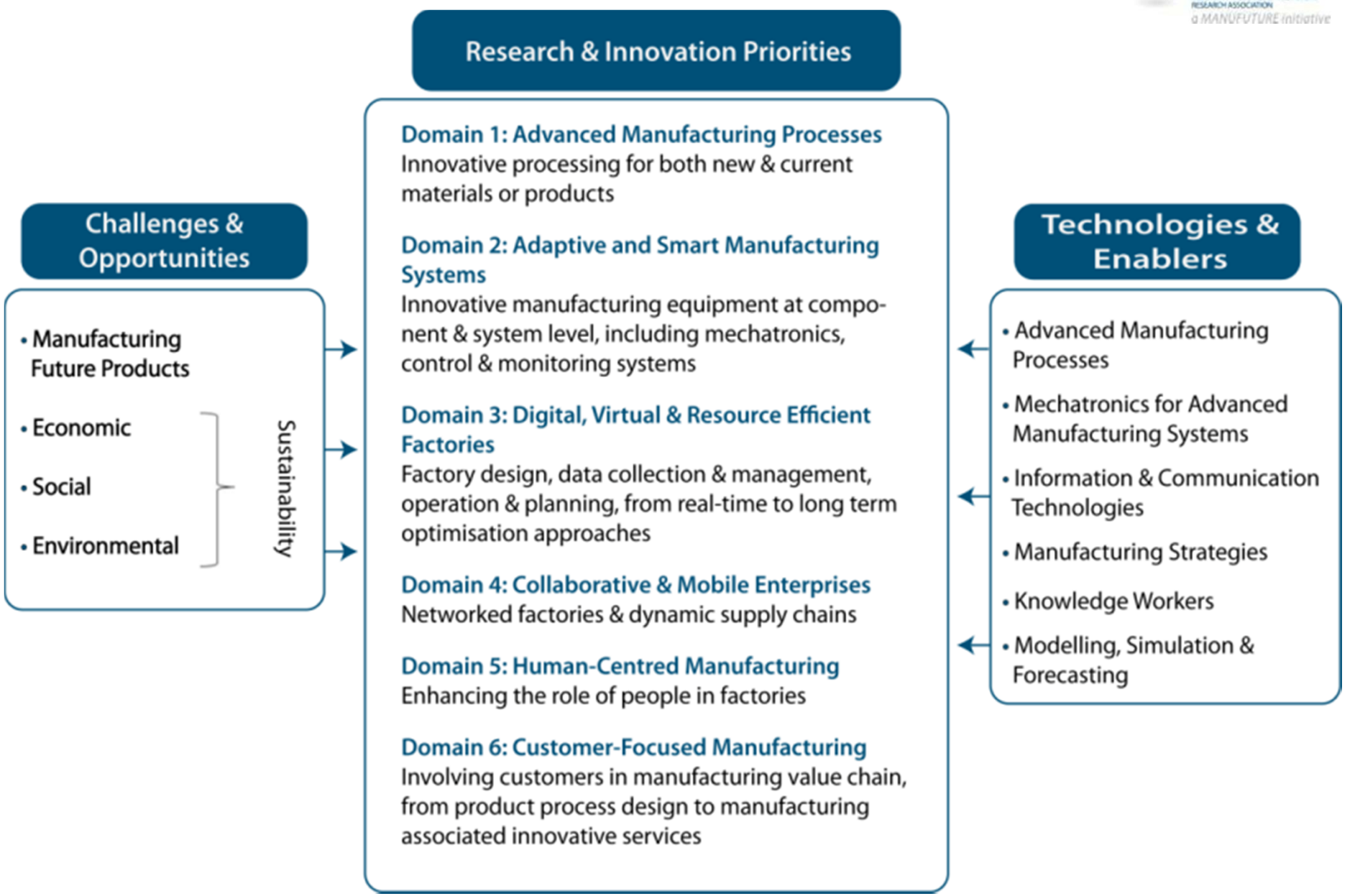
Dissemination

Committed industry & strong research network

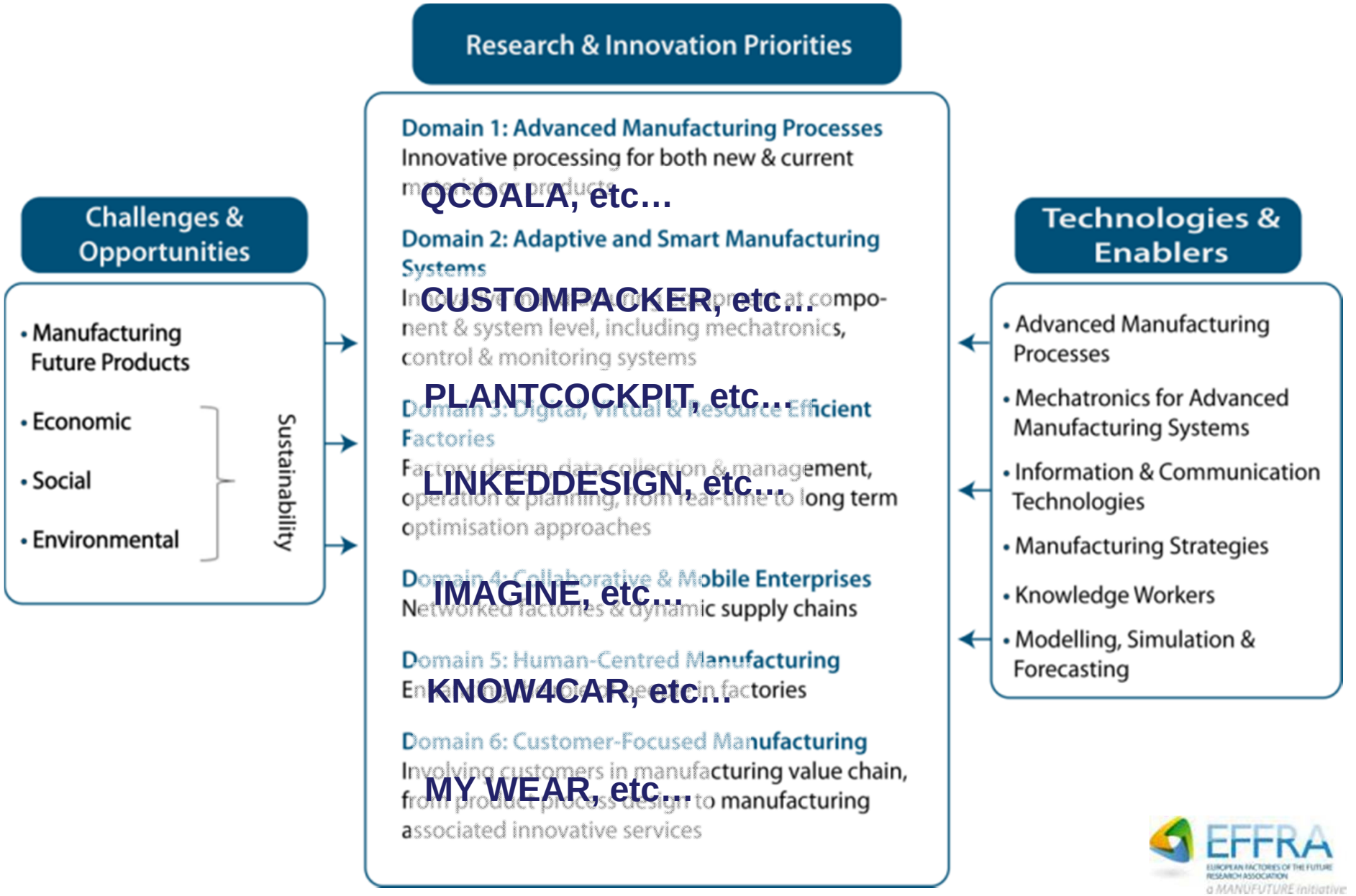
EFFRA
EUROPEAN FACTORIES OF THE FUTURE RESEARCH ASSOCIATION
a MANUFUTURE initiative

EFFRA
EUROPEAN FACTORIES OF THE FUTURE RESEARCH ASSOCIATION
a MANUFUTURE initiative

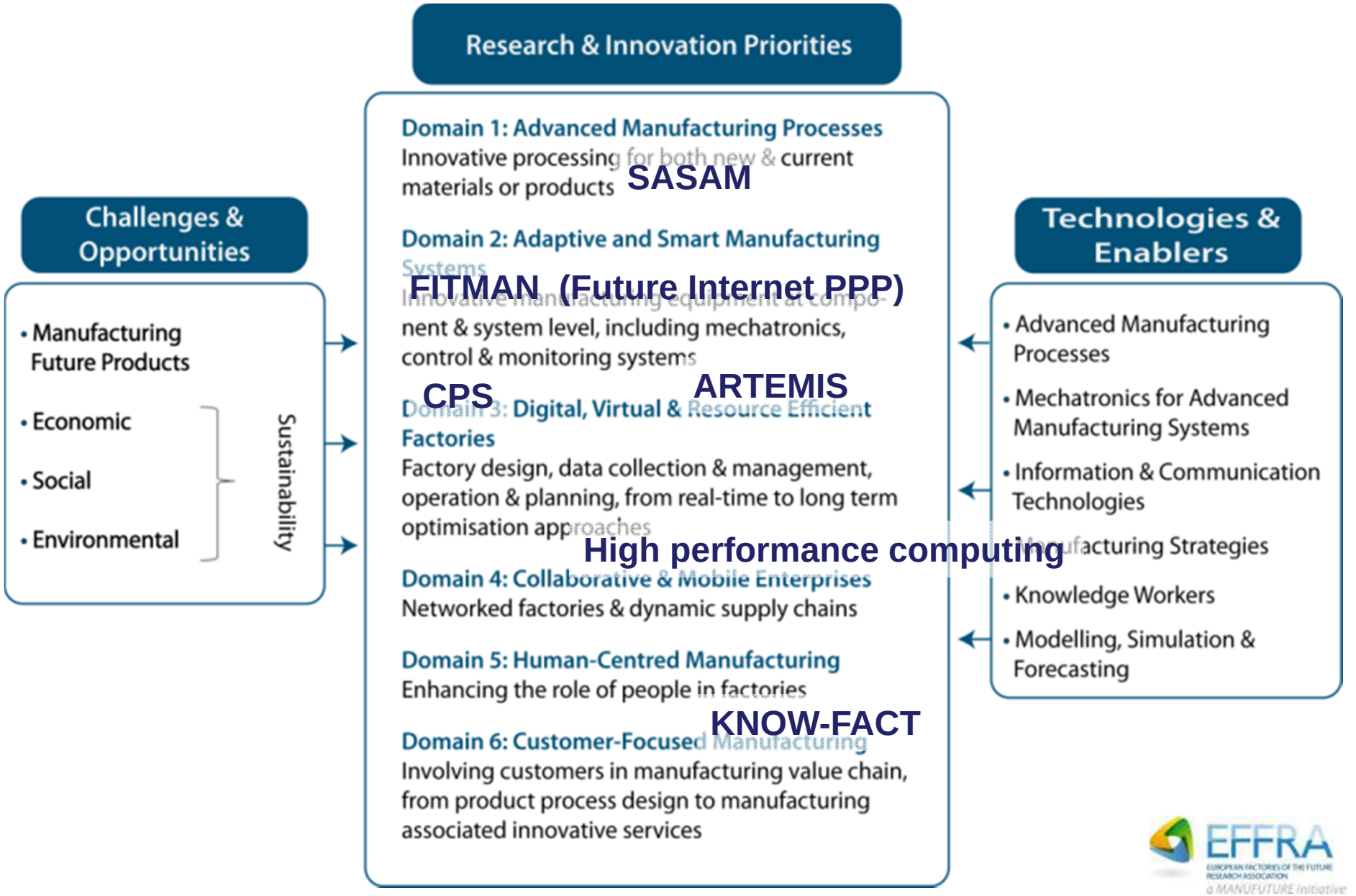
The FoF 2020 Roadmap



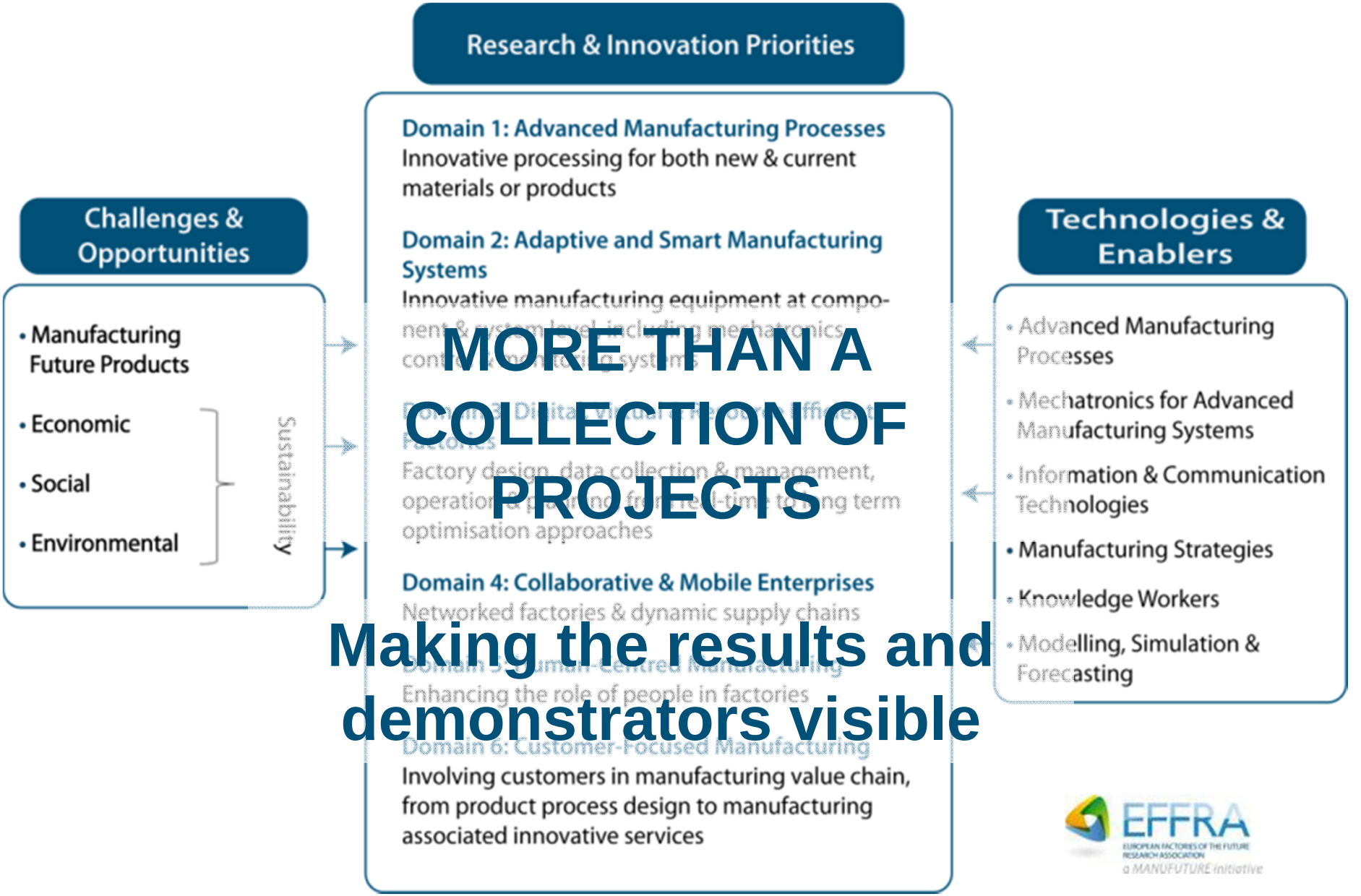
FoF past and ongoing projects and the FoF 2020 Roadmap



Other manufacturing projects and the FoF 2020 Roadmap



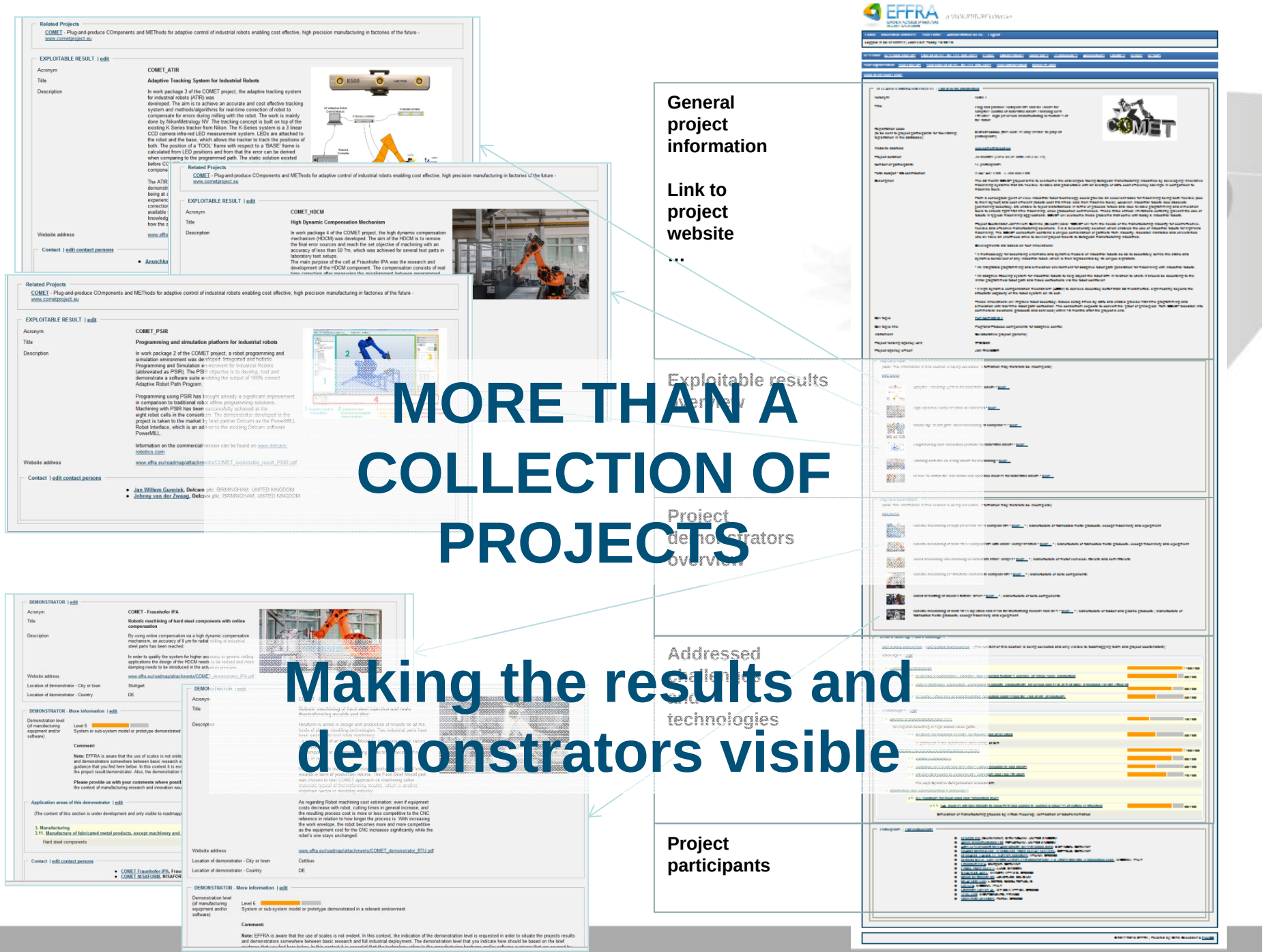
Other manufacturing projects and the FoF 2020 Roadmap



MORE THAN A COLLECTION OF PROJECTS

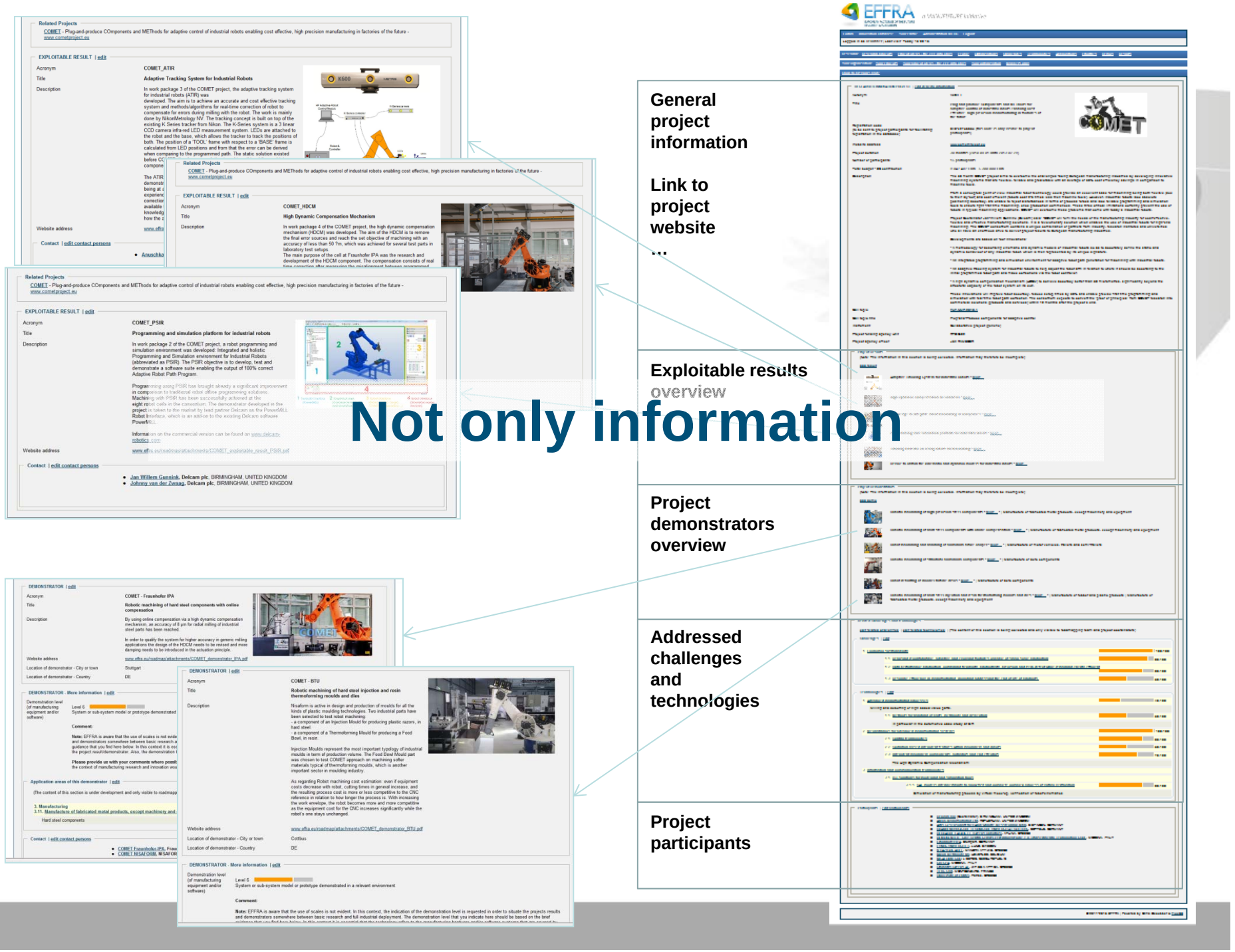
Making the results and demonstrators visible

EFFRA
EUROPEAN FACTORIES OF THE FUTURE RESEARCH ASSOCIATION
a MANUFUTURE initiative


General project information
Link to project website
...
Exploitable results overview
Project demonstrators overview
Addressed technologies
Project participants
MORE THAN A COLLECTION OF PROJECTS
Making the results and demonstrators visible



There is a public access level: Register at www.effra.eu/portal


General project information
Link to project website
...
Exploitable results overview
Project demonstrators overview
Addressed challenges and technologies
Project participants
Not only information


Not only information
Also people

The FoF Calls 2014 and 2015

EFFRA
EUROPEAN FACTORIES OF THE FUTURE RESEARCH ASSOCIATION
a MANUFUTURE initiative

FoF Call 2014

FoF 1 – 2014: Process optimisation of manufacturing assets

FoF 2 – 2014: Manufacturing processes for complex structures and geometries with efficient use of material

FoF 3 – 2014: Global energy and other resources efficiency in manufacturing enterprises

FoF 4 – 2014: Developing smart factories that are attractive to workers

FoF 5 – 2014: Innovative product-service design using manufacturing intelligence

FoF 6 – 2014: Symbiotic human-robot collaborations for safe and dynamic multimodal manufacturing systems

FoF 7 – 2014: Support for the enhancement of the impact of FoF PPP projects

FoF Call 2014

FoF 1 – 2014: Process optimisation of manufacturing assets

CPS-based process optimisation (Cyber-Physical Systems) for adaptive and smart manufacturing systems bringing together novel concepts for CPS, progress in advanced control and new modelling and simulation technologies.

Collaborative and mobile manufacturing: Development of agile collaboration tools for process optimisation of manufacturing assets across the supply chain towards the Cloud-enabled Manufacturing Business Web.

Towards zero-failure laser-based manufacturing: Fast and accurate process monitoring systems allowing feedback control of laser process parameters in highly dynamic manufacturing processes.

FoF Call 2014

FoF 1 – 2014: Process optimisation of manufacturing assets

FoF 2 – 2014: Manufacturing processes for complex structures and geometries with efficient use of material

FoF 3 – 2014: Global energy and other resources efficiency in manufacturing enterprises

FoF 4 – 2014: Developing smart factories that are attractive to workers

FoF 5 – 2014: Innovative product-service design using manufacturing intelligence

FoF 6 – 2014: Symbiotic human-robot collaborations for safe and dynamic multimodal manufacturing systems

FoF 7 – 2014: Support for the enhancement of the impact of FoF PPP projects

FoF Call 2015

FoF 8 – 2015: ICT-enabled modelling, simulation, analytics and forecasting technologies

FoF 9 – 2015: ICT Innovation for Manufacturing SMEs (I4MS)

FoF 10 – 2015: Manufacturing of custom made parts for personalised products

FoF 11 – 2015: Flexible production systems based on integrated tools for rapid reconfiguration of machinery and robots

FoF 12 – 2015: Industrial technologies for advanced joining and assembly processes of multi-materials

FoF 13 – 2015: Re-use and re-manufacturing technologies and equipment for sustainable product life cycle management

FoF 14 – 2015: Integrated design and management of production machinery and processes

AGORIA
no future without technology

EFFRA
EUROPEAN FACTORIES OF THE FUTURE RESEARCH ASSOCIATION
a MANUFUTURE initiative

FoF Call 2015

FoF 8 – 2015: ICT-enabled modelling, simulation, analytics and forecasting technologies

FoF 9 – 2015: ICT Innovation for Manufacturing SMEs (I4MS)

FoF 10 – 2015: Manufacturing of custom made parts for personalised products

FoF 11 – 2015: Flexible production systems based on integrated tools for rapid reconfiguration of machinery and robots

FoF 12 – 2015: Industrial technologies for advanced joining and assembly processes of multi-materials

FoF 13 – 2015: Re-use and re-manufacturing technologies and equipment for sustainable product life cycle management

FoF 14 – 2015: Integrated design and management of production machinery and processes

AGORIA
no future without technology

EFFRA
EUROPEAN FACTORIES OF THE FUTURE RESEARCH ASSOCIATION
a MANUFUTURE initiative

FoF Call 2015

FoF 8 – 2015: ICT-enabled modelling, simulation, analytics and forecasting technologies

FoF 9 – 2015: ICT Innovation for Manufacturing SMEs (I4MS)

- Highly flexible and near-autonomous **robotics systems** (application experiments).
- **HPC Cloud-based modelling, simulation and analytics services** for modelling multiple interconnected phenomena; for integrating multiple tools across the process chain; for exploiting the dynamic availability of "big data"; for integrating novel mobile interfaces for data management and decision support; for achieving real-time response (application experiments), and addressing comprehensively security and privacy issues at all levels.
- **Integration of Cyber-Physical-System modules in manufacturing processes and process chains** (application or assessment experiments) to increase sophistication and automation in production SMEs and to create novel value added services linked to process surveillance and maintenance.

FoF Call 2015

FoF 8 – 2015: ICT-enabled modelling, simulation, analytics and forecasting technologies

FoF 9 – 2015: ICT Innovation for Manufacturing SMEs (I4MS)

FoF 10 – 2015: Manufacturing of custom made parts for personalised products

FoF 11 – 2015: Flexible production systems based on integrated tools for rapid reconfiguration of machinery and robots

FoF 12 – 2015: Industrial technologies for advanced joining and assembly processes of multi-materials

FoF 13 – 2015: Re-use and re-manufacturing technologies and equipment for sustainable product life cycle management

FoF 14 – 2015: Integrated design and management of production machinery and processes

AGORIA
no future without technology

EFFRA
EUROPEAN FACTORIES OF THE FUTURE RESEARCH ASSOCIATION
a MANUFUTURE initiative

PPP Infodays 16-17 December

(registration open – check www.effra.eu)

Post your project ideas

→www.effra.eu/portal

Thank You

chris.decubber@effra.eu

EFFRA.EU @EFFRA_Live EFFRA.Live

EFFRA
EUROPEAN FACTORIES OF THE FUTURE RESEARCH ASSOCIATION
a MANUFUTURE initiative