Introduction to EFPF Project and Platform
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EFPF Introduction

European Connected Factory Platform for Agile Manufacturing

[2019 – 2022]

- 30 Partners
  - 17 SMEs
  - 7 Research Organisations
  - 2 Large Companies
  - 2 Industry Association
- 11 Countries
- 3 Pilots
- 1 Open Call for Experimentation
EFPF Objectives

- Form a technology platform for cross-organisational and cross-sectorial integration with embedded intelligence and embodied tools and services to create an industrial ecosystem in Europe.

- To enable SMEs and mid-caps to develop and/or integrate different technologies, unlock the value of their data, deploy complementary applications and to become more responsive to changing value-chains.

- Extensible Marketplace Framework to interlink tool and App stores through intelligent service discovery, match-making and recommendation mechanisms.

- Ecosystem creation through piloting and large scale experimentation, including the setup for mechanism for financial and technical support for the creation and experimentation of agile value networks.

- Realisation of scenarios for the extension, maintenance and sustainability of federated EFPF platform and its ecosystem.

- Develop a comprehensive adoption strategy to attract large number of SMEs and mid-caps to the EFPF ecosystem.
General Image of EFPF

- Linking and offering existing technologies
- Building an open federated platform for connected smart factories
- Developing new business models

**Agile Collaboration Platform**
- Matchmaking and team formation
- Distributed workflows
- Distributed production planning
- Scheduling of distributed activities
- Risk Management in agile network
- Privacy and user management

**Integrated Information Management**
- Blockchain based messages
- Big data analytics & learning
- Modelling, simulation & forecasting
- Secure data and service exchange
- Agent base bidding in marketplace
- Semantic matchmaking

**Interoperable EFPF Data Spine**

**Federated Platforms & Marketplaces**
- Access and user management
- Semantic catalogues for products
- Semantic search over catalogues
- Negotiation in supply chains
- Business process enactment
- B2B and M2M communication

**Operating System for Smart Factory**
- Factory connectors & IoT gateway
- Software development kit
- App store with PCI compliance
- Data middleware and protocols
- Process design & execution
- Monitoring and alerting
Data Spine as an enabler of Industrial Ecosystem
Embedded Pilots - I

Aerospace Supply Chain
Design, enactment and monitoring of distributed activities in supply networks

- Implementation of the pilot project based on the perspectives and requirements of manufacturing SMEs
- Support production through agile cooperation and innovative production management feature of the EFPF platform
- Increased digitalization and utilization of Industry4.0 solutions in the aerospace SMEs
- Evaluation of KPIs (time, cost, resources, etc.), assessment of the operational and economic impact of using the EFPF

Relevant Solutions

- Efficient Resource Management using IoT Gateway with a monitoring and alerting service
- Workplace Environment Monitoring using EFPF Factory Connector and AI-based visual analytics
- Distribution Workflows (WASP) for Supply Chain Visibility
- Product Catalogue Service for B2B communications
Embedded Pilots - II

Furniture Supply Chain
Design, enactment and monitoring of distributed activities in supply networks

- Implementation of the pilot project based on the perspectives and requirements of manufacturing SMEs
- Support production through agile cooperation and innovative production management feature of the EFPF platform
- Increased digitalization and utilization of Industry4.0 solutions in the furniture SMEs
- Evaluation of KPIs (time, cost, resources, etc.), assessment of the operational and economic impact of using the EFPF

Relevant Solutions

- Predictive Maintenance using Factory Connector, risk management and data analytics
- Bin Fill Level Monitoring using EFPF Factory Connector with monitoring and alerting
- Distribution Workflows and supply chain management using WASP
- Business and Networking Intelligence using EFPF B&NI service
Embedded Pilots - III

Circular Economy
Design, enactment and monitoring of distributed activities in supply networks

- Demonstrate the support and impact of EFPF in the recycling industry
- Support new business opportunities, negotiations and partnerships using advance digital solutions in the EFPF platform
- Increased digitalization and utilization of Industry4.0 solutions to make existing processing more optimized & transparent
- Evaluation of KPIs (time, cost, resources, etc.), assessment of the operational and economic impact of using the EFPF

Relevant Solutions

- Data Analytics using EFPF Factory Connector and real-time data analytic services
- Track and Trace of material and waste using Blockchain and mobile-based applications
- Online Bidding and Negotiation using agent based marketplace
- Monitoring and Alerting for Waste Bins using EFPF Factory Connector and real-time data analytic services
Available Resources

Latest News → www.efpf.org/blog

Visual Analytics for Operational Safety in the Manufacturing...

Through their wide ranging applications in the manufacturing environments, it is increasingly evident that Artificial Intelligence techni...

Overview of Pilot Activities in the EFPF Project - II

With all its twists and turns 2020 is eventually going to end with a good few achievements in the EFPF projects. The last 12 months period...

Deliverables → www.efpf.org/deliverables

D2.1: Project Vision and Roadmap for Realising Integrated Digital Platforms

This vision document acts as a guide during the project and will be used by all partners to stay focused on the main ideas and goals of EFPF. Although the Description of Action gives a clear description of what the project will achieve, and how the achievements will happen, there are still many questions that need to be clarified when the details of the different subtasks are tackled and this vision provides this further guidance.

D2.2: Initial Platform Interoperation Challenge

This deliverable provides an overview of the platform development methodology devised in the EFFP project. Based on this methodology the development of the EFPF platform is kick-started through a small set of business challenges that involve implementing different usage scenarios across the 4 base platforms in the EFFP project. The specifications of these scenarios, implementations and outcomes are described in this deliverable.

D2.3 - Requirements of Embedded Pilot Scenarios.

The purpose of this EFFP deliverable D2.3 Requirements of the Embedded Pilot Scenarios is to gather and analyse the requirements concerning agile collaborations, lot-size one manufacturing and other technology needs of the EFFP pilot partners. The analysis of the gathered requirements kicks-off the relevant development and integration activities in the EFPF project.

Deliverables → www.efpf.org/ipr-documents

IPR Documents

- Accountancy Service
- Agent-based Marketplace
- AI Data Analytic Suite
- API Security Gateway
- API Security Services
- Business and Network Intelligence Service
- Cerith Data Analytics
- Composition Blockchain
- Data Model Transformation Tool Suite
Managing Expectations - I

Expectation of Tool/Platform Providers

- Access to interoperable tools and services
- Knowledge sharing and cross fertilisation of ideas
- Leverage and build upon open-source solutions
- Not only develop but also test and validate
- Be part of a community interested in innovation
- New business opportunities through ecosystem
Managing Expectations - II

Expectation of EFPF from Tool/Platform Providers

- Make your ‘stuff’ work with the EFPF Data Spine
- Establish connectivity with EFPF service (Portal, Marketplace etc)
- Enhance your innovation into a market ready state
- Promote your use of the EFPF platform and federated offerings
- Interact with the EFPF partners and share your experiences
- Support the creation of a collaborative ecosystem e.g. through EFF

www.efpf.org
European Connected Factory Platform for Agile Manufacturing
European Factory Foundation

- Non-profit association setup in Austria
- Initiated with 12 Partners as Members
- Membership Structure and Management Team already defined
- Beneficiary in the EFPF project

Sustainable Operating Model

- Management and enhancement of EFPF Platform and ecosystem
- ‘From the ecosystem – For the ecosystem’
**EFPF Platform and Marketplace**

The EFPF **Platform** provides an entry point to EFPF federation - through Single-Sign-On.

The EFPF **Marketplace** framework provides a unified interface to multiple marketplaces from the EFPF federation.
Virtual Tour of the EFPF Platform

The EFPF Portal is now available for public access

http://portal.efpf.org/