European Connected Factory Platform for Agile Manufacturing

European Factory Platform

WP2: Requirements Elicitation and Pilot Scenarios

D2.4: EFPF Platform Requirements

Vs: 1.0

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Contributing Partners: ICE

Date: 2022-06-30

Dissemination: Public

Status: <~~Draft~~ ¦ ~~Consortium Approved~~ ¦ EU Approved>

Short Abstract

The deliverable describes the requirements gathered and the methodology applied that went into the development of the EFPF Platform and its components.

Document Status

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Type	Deliverable
Work Package	WP2: Requirements Elicitation and Pilot Scenarios
ID	D2.4: EFPF Platform Requirements
Due Date	2022-06-30
Delivery Date	2022-06-30
Status	<~~Draft~~ ¦ ~~Consortium Approved~~ ¦ EU Approved>

History

See Annexe A.

Status

This deliverable is subject to final acceptance by the European Commission.

Further Information

www.efpf.org

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Project Partners:

Executive Summary

The EFPF consortium partners managed to deploy a working first version of the EFPF Platform in M9 of the project. The partners agreed to continue to use the agile approach as it was very successful. As the quite diverse development activities of implementing platform components, services and piloting applications grew, the chosen approach was not feasible anymore.

To remedy the overheads produced to carry the development activities with a single SCRUM process the consortium decided to follow a "SCRUM of SCRUMs" like approach where the work was divided into thematic working groups. They are self-managed and the working group leaders met regularly to discuss current issues and other relevant progress.

In that way the development activities continued and as the requirement tool for the development activities all those issues and requirements were handled in the Gitlab tool. Until the time of writing ~1400 issues were created of which ~1100 were closed.

The approach to use Gitlab issues also for managing administrative and non-development work, like setting up the support infrastructure for the open calls or refinements to the platform architecture, proved to be quite useful.

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0 Introduction

0.1   EFPF Project Overview

EFPF – European Connected Factory Platform for Agile Manufacturing – is a project funded by the H2020 Framework Programme of the European Commission under Grant Agreement 825075 and conducted from January 2019 until December 2022. It engages 30 partners (Users, Technology Providers, Consultants and Research Institutes) from 11 countries with a total budget of circa 16M€. Further information can be found at www.efpf.org.

To foster the growth of a pan-European platform ecosystem that enables the transition from "analogue-first" mass production, to "digital twins" and lot-size-one manufacturing, the EFPF project will design, build and operate a federated digital manufacturing platform. The platform will be bootstrapped by interlinking four base platforms from FoF-11-2016 cluster funded by the European Commission, early on. This will inform the design of the EFPF Data Spine and the associated toolsets to fully connect the existing user communities of the four base platforms. The federated EFPF platform will also be offered to new users through a unified Portal with value-added features such as single sign-on (SSO), user access management functionalities to hide the complexity of dealing with different platform and solution providers.

0.2   Deliverable Purpose and Scope

The purpose of this deliverable D2.4**:** EFPF Platform Requirements is …

0.3   Target Audience

The deliverable is declared public and therefore its content can be used for raising the awareness of project among wider audience.

0.4   Deliverable Context

This document is one of the cornerstones for achieving the project aims. Its relationship to other documents is as follows:

- **Description of Action (DOA):** Provides the foundation for the actual research and technological content of EFPF. Importantly, the Description of Action includes a description of the overall project work plan.
- **Project Handbook (D1.1)**: Provides the foundation for the practical work in the project throughout its duration and helps to ensure that the project partners follow the same well-defined procedures and practices also in terms of information sharing.

0.5   Document Structure

This deliverable is broken down into the following sections:
- **Section 0** Introduction: An introduction to this deliverable, including a general overview of the project, an outline of the purpose, scope, context, status, and target audience of the deliverable at hand.

- **Section 1** EFPF Requirements Methodology: Describes the methodology and approach adopted within the EFPF Project.
- **Section 2** EFPF Platform Requirements: Presents the requirements gathered across working groups throughout the course of EFPF Project.
- **Section 3** Requirements Lists: Presents the EPIC's and User Stories collected throughout the course of the EFPF Project.
- **Annexes:**
  - **Annex A**: Document History

0.6 Document Status

This document is listed in the Description of Action as "public".

0.7 Document Dependencies

This document has no preceding documents or further iterations.

0.8 Glossary and Abbreviations

A definition of standard terms related to EFPF, as well as a list of abbreviations, is available at https://www.EFPF.org/glossary

0.9 External Annexes and Supporting Documents

Annexes and Supporting Documents:
- None

0.10 Reading Notes

- None

1   EFPF Requirements Methodology

1.1   Agile development approach

The aim in the EFPF project was right from the beginning to build a basic working platform to connect the base platforms to be integrated early in the project runtime.

Early in the project runtime we gathered the project vision in D2.1 (M3) and identified the major interoperation challenges in D2.2 (M5). As the initial platform was scheduled to be in place in month 9, the consortium decided to follow an agile development approach.

We started in the beginning to use a requirements tool called JIRA to streamline the process and followed the approach to create requirements and then label them as Epics and User Stories.

An Epic is a requirement that is so big that it cannot be implemented without splitting it up into several other requirements. A user story describes a functionality as well as a goal that a user wants to reach by executing the Story. The complete list of Epics can be found in chapter 3.1.EFPF Epics

In order to break down functionality required for EFPF platform coming from various sources such as requirements from Pilot applications as well as platform and service providers we created Stories that are much more manageable than Epics and to further break down them we created Sub-tasks for functionality that is being (re-)used in several Stories. In that way we reduced redundancy and efforts because common functionality was described in one place so that it was unlikely to create contradicting requirements. The complete list of Stories and Sub-tasks can be found in chapter 3.2.

Thereby we were able to gather requirements that provided both functionality but also could be grouped coherently to convey a message to the developers on what would be the final goal for the implementation. This coherence is often lost when requirements are collected and documented by just postulating functionality bits.

1.2   Requirements and platform development

As the consortium partners had decided to follow an agile approach in the development of the EFPF Platform and the Pilot Applications, a SCRUM based approach to specify the durations of Sprints, doing weekly standups was agreed on. After the Sprints were conducted a Review and then Planning meetings for the next Sprint took place.

What we found out is that the scope of the implementation of the many components, applications and services were too diverse so that we could not reap the benefits of an agile approach anymore e.g., the weekly standups took very long and large sections of those meetings were not relevant to the majority of the participants.

Another issue that came up was the fact that JIRA is a great tool for documenting requirements but since we did not have the paid extension to integrate with a source code repository tool Gitlab it turned out to be too cumbersome to manage issues for development in our Gitlab instance and trying to relate them to the existing Stories and Sub-tasks and keep everything in sync.

From those aspects the consortium partners involved in development activities decided to change our approach:

We identified the following working groups (WG) which were following an agile approach themselves:

- WG1 Data Spine
- WG2 Pub/Sub-Security
- WG3 Integration and Deployment Maintenance
- WG4 Portal
- WG5 Marketplace and Accountancy Service
- WG6 Matchmaking and Team Formation
- WG7 SDK and App Development
- WG8 Smart Factory and Pilot Applications
- WG9 Experimentation Support
- WG10 Blockchain
- WG11 (was closed and merged with WG8)
- WG12 WASP

This reduced the overheads substantially and by following such a Scrum-of-Scrum like approach the productivity increased a lot. We had then regular meetings of the WG leaders in order to update all about progress, blockers, and other issues. This turned out to be an approach that allowed to react flexibly to issues that inevitably come up and at the same time follow activities to reach the overall project goals.

2 EFPF Platform Requirements

2.1 Overview

As described in chapter 1.2 the methodology of the requirements work was changed in order to cater for the quite diverse needs from platform, component, and service development as well as administrative support for e.g., setting up the support structure for the Open Calls.

The links to access the Gitlab issues will be shared with the relevant persons from the commission and in this chapter, we will just provide an overview.

2.2 Requirements by WG's

The following table shows the number of requirements that the different components and services used – overall ~1400 issues were created and ~1100 were closed until the writing of this deliverable.

Working Group	Description	Open	Closed	All
WG1	EFPF Data Spine	41	143	184
WG1 & WG2	EFPF Security Components	9	74	83
WG1	EFPF Architecture	14	23	37
WG1	System Security Model	3	5	8
WG1	EFPF Platform Security and User Registration Service	9	44	53
WG1	Data Model Interoperability Layer	3	26	29
WG3	EFPF Documentation Portal	0	27	27
WG3	Testing	0	12	12
WG3	EFPF Integration and Deployment	21	66	87
WG3	Monitoring Infrastructure	1	7	8
WG4	Secure Data Store Solution	26	12	38
WG4	Tendering and Bid Management Service	5	14	19
WG4	Accountancy Service	2	13	15
WG5	Product Catalog Service	1	36	37
WG5	EFPF Marketplace Framework	36	77	113
WG6	Matchmaking Services	17	70	87
WG7	EFPF SDK environment	5	10	15
WG8	Data Analytics ELN	20	34	54
WG8	Real-time Anomaly Detection	8	50	58

WG8	Factory Connectivity and Smart Factory Solutions	20	82	102
WG8	Efficient Resources Management Solutions	1	14	15
WG8	Data Analytics	7	39	46
WG8	Business and Network Intelligence Service	12	51	63
WG8	Fill Level Sensors Design and Deployment	1	13	14
WG8	Work Environment Monitoring	3	22	25
WG9	EFPF Support	0	13	13
WG10	Blockchain and Smart Contracting	34	42	76
WG12	Workflow and Service Automation Platform (WASP)	18	32	50
	Total	**317**	**1051**	**1368**

3 Requirements lists

3.1 EFPF Epics

Epics are requirements that are too large to be tackled at once but will be split into several smaller requirements.

Overall, 18 Epics were identified.

Key	Summary	Description	Labels	Priority	Epic Name
EF-52	Online Bidding Process for Circular Economy Enabled by Automated Matchmaking		ELDIA, Kleemann, agents, matchmaking, MilOil, online-bidding	Critical	Epic 10 - Reduce the burden of finding relevant partners for lot-size-one tasks
EF-57	Search for Specialised Products/Services in order to Process Waste More Efficiently		Kleemann	Critical	Epic 11 - Search for specialised products/services
EF-51	Enable the Integration of IT systems and Blockchain technology in the Supply Chain to Bring More Visibility and Real-time Support Across Distributed Activities While Keeping Regulatory and Compliance Procedures	The Epic is related to integration of IT Systems and Blockchain Technology to Circular Economy Scenario	Kleemann	Major	Epic 09 - Enable the integration of IT systems in the supply chain
EF-84	SMEs want to sell products or services (non-complex, built-to-print) by using B2B catalogues		Aerospace, nimble	Major	Epic 01 - Sell products or services

EF-89	SME want to sell spare parts via of B2B catalogues and using either smart or performance-based contracts for automated order processing, invoicing etc		Aerospace	Major	Epic 02 - Sell spare parts
EF-91	Multiple SMEs want to use scaling effects by pooling their procurement needs and joint orders of supply using B2B catalogues and digital platforms		Aerospace	Major	Epic 03 - Bundling of procurement needs
EF-294	EFPF Platform Security and User Registration Service	A new EPIC for EFPF Platform Security and User Registration Service. Previous User Stories covered by this EPIC: EF-A2: (General) As Sales / Purchasing / Marketing / Project / HR Manager I want to assign my company to an industry, so that I can find faster suppliers that match my needs.	ASC, CERTH, EF-A2, HAW, ICE, SRFG, VLC	Major	Epic 15 - EFPF Platform Security and User Registration Service
EF-295	Epic 13 - Business & Network Intelligence Service	A new EPIC for the Business and Network Intelligence Service Previous User Stories covered by this EPIC: EF-A5: (EPIC: 1 + 2) As a Sales Manager I need a "cockpit" that offers me KPIs and other important information and notification about my catalogue to be informed about my performance and the correctness of information. EF-A8: (EPIC: General) As Marketing Manager, I aim to receive information about upcoming trends at the earliest possible, so that I can develop and design products, and bring them as quick as possible on the market. For SMEs this is extremely important, because they usually do not have separate market analysis departments.	AID, EF-A5, EF-A8, HAW, SRFG, VLC	Major	Epic 13 - Business & Network Intelligence Service
EF-302	Workflow and Service Automation Platform	This EPIC covers the following two existing user stories. EF-303 As a Project Manager, I want to generate and forward status		Major	Epic 14 - Workflow and Service

		messages for orders, e.g., "Production started", "Production finished", "Loading completed", "Delivery completed" in order to get transparency about the processes in the supply chain. EF-19 Production Process monitoring. As a Sales, Production or Purchasing manager, I want to monitor the production process of goods I have requested so that I can detect problems during production and can keep a history for future reference.			Automation Platform
EF-305	Matchmaking services	New EPIC with all consolidated matchmaking service user-stories including * Federated search for suppliers and products/services * Online bidding service This EPIC includes the following existing User Stories. EF-15: As a Sales manager or Production manager, I want to condense more information of my customers so that I can arrange more business relationships with them. Acceptance Criteria: * A repository of customer's information * Analytics of relationships established with these customers through the platform, such as negotiations, information requests, accepted and rejected tender bids, etc. EF-24: As a Purchasing manager, I want to manufacture and deliver just-in-time so that I can reduce storage costs. Acceptance Criteria: * Mechanisms to get a detailed and general vision of the delivery status of the different goods to be sent * Mechanisms to cancel a logistics provider and quickly replace it with another one EF-27:	AIDIMME, C2K, CERTH, Lagrama, SRDC, SRFG, VLC, composition, matchmaking, nimble	Major	Epic 16 - Matchmaking Services

| | | As a Purchasing manager, I want to search for particular products and services so that I can define a specific supply chain for the production of particular goods.

Acceptance Criteria:
* Search mechanisms available in the platform to get a collection of products and services according to criteria
* Availability of text-based search and search by exploring the different categories of products and services available in the platform
* Mechanisms to filter the retrieved collection of products by specific properties (i.e.: price, color, etc.)

EF-28:
As a Purchasing manager, I want to send requests for quotation of customised product so that I can evaluate the adequacy of the parties to be involved in the supply chain.

Acceptance criteria:
* Mechanisms to send a request for quotation (RFQ) to other members of the platform indicating the particular product or service, quantity and particular considerations through the platform
* Reception of response of the RFQ indicating the quotation and particular considerations from the supplier party
* Grouping capabilities in order to have a clear and maintainable tracking of the RFQ processes carried out through the platform

EF-30:
As a Purchasing manager, I want to find logistics providers when delivering to a country for the first time so that I can provide an adequate delivery time at an adjusted cost.

Acceptance Criteria:
* Capability to search for logistics services in retrieve results according to indicated parameters (i.e.: origin, destination, delivery time, etc.)
* The management of nonconformities is not covered in this user story so it has been previously covered | | | |

		EF-54: As a Purchasing manager or Purchasing specialist, I want to negotiate prices and contracts so that I can obtain high-quality services/products at reasonable prices. Acceptance criteria: * An automated online bidding mechanism that provides suggestions of best available supplier for a service and enables the automation of negotiation procedures in a close loop EF-61: As a Purchasing manager, I want to negotiate prices and contracts with suppliers, so that I can buy specialised products at the best price. Acceptance criteria: * A repository of suppliers * A history of relationships established with these suppliers through the platform, such as negotiations, information requests, etc. * An evaluation of each company based on historical platform data (ranking) * Price and payment terms EF-88: As staff working for the purchasing, engineering or project management department, I aim to find partners for a variety of specific products and services, so that my company has the full overall view of available suppliers on the market without the need of huge research efforts, to be able to work with the best products (price/leadtime/quality) and suppliers (reliability/communication/quality). Acceptance Criteria: * Ability to search for suitable products and services on an adhoc-basis based on a rating system taking into account parameters like delivery reliability/quality and several other ones. Outcome: Supplier having the correct expertise, experience, required quality standards, certificates, and the capacity for successful collaboration			

		* Ability to get contact details or the possibility to send invitations to potential suppliers EF-262: Registration of new company for online bidding process EF-286: As a future supplier, I want to be able to add and update my company details and my products/services to the e-factory marketplace, so that potential customers can search for them easily, leading to a better visibility of our company to the marketplace. Acceptance Criteria: * Ability to add company information * Ability to update company information * Ability to add products and services in the form of a catalogue. * Ability to update products and services in the form of a catalogue			
EF-306	The activities to be carried out regarding product & catalog management	This EPIC includes the following existing epics: EF-29: As a Sales manager, I want to exchange catalogues of products and services with other members of the platform so that I can detect opportunities to improve the configuration of the supply chain. EF-85: As staff working for the sales or marketing department, I aim to place our products and services in a catalogue, so that potential customers (predefined user group like A/C OEM, Airlines, MRO, 1st-tier suppliers) can search for them easily, which leads to a better visibility of our capabilities to the respective customer groups. EF-86: As a Marketing Manager, I want to define catalogues for the products and services of my company so that those products / services can be	HAW, SRDC, nimble	Major	Epic 17 - Product Catalogue Service

offered to selected customers (companies).

EF-87:
As a Sales Manager, I want to create the B2B catalogue for specific customers and specify the sales conditions (prices, delivery terms and conditions, etc.) so that items (products / services) in the catalogue are offered to selected customers (companies) with those specified sales conditions (prices, etc.) negotiated in (smart) contract templates.

EF-90:
As staff working for the sales or marketing department, I aim to place relevant spare parts in a catalogue, so that potential customers (predefined user group like A/C OEM, Airlines, MRO, 1st tier suppliers) can search for them easily to find the relevant supplier.

EF-A1:
As a Sales / Purchasing / Marketing / Project / HR Manager I should be able to switch the language from English to others to find products/services faster

EF-A3:
As a Sales / Purchasing / Marketing / Project / HR Manager I want the listed information about a product to be available to use several criteria while searching products.

EF-A4:
As a Purchasing Manager I need an indicator that tells me whether a product or service can be customized in order to know whether this product or service is relevant for me.

EF-A6:

| EF-338 | Blockchain and Smart Contracting | EF-20: Delivery process monitoring

As a Sales manager, I want to monitor the delivery process of the produced goods all the way to the customer so that I can detect problems during delivery and customer reception keeping a history for future reference.

Acceptance Criteria:
* Live visualization at a glance of the delivery process
* Warnings to the subscribed users if some eventuality (problems or similar) is detected
* Mechanisms to get a confirmation of a success reception at the customer side
* A log of the whole delivery process available

EF-22: Local Reception of Goods
As a Purchasing manager, I want to monitor the reception of goods in my facilities so that I can be aware of any quick and unexpected problem during the reception.

Acceptance Criteria:
* Mechanism to report and manage nonconformities related to the supply process
* Tools for the internal management of invoices, delivery notes and stock

EF-23: Delivery Schedule
As a Managing director, I want to have a schedule of deliveries available so that I can be able to get a broader and quicker overview of the general status of the delivery.

Acceptance Criteria:
* Overview picture of the on-going delivery processes related to the different goods in a kind of a schedule indicating deadlines and current status of each delivery | Blockchain, Blockchain-based Delivery Monitoring APP, ELDIA, Kleemann, Lagrama, miloil | Major | Epic 22 - Blockchain and Smart Contracting |

"As a Sales / Purchase Manager, I would like to have support in the creation of contracts, e.g., through suitable templates, in order to quickly conclude a contract."

		EF-259: Blockchain verification to improve transportation security and reliability A dapp should be available for the enhancement of trust in delivery processes of the Circular Economy Scenario. The dapp should be able to cover the different stages of the scenario such as transportation from KLE to ELDIA and from ELDIA to Miloil Acceptance Criteria * dapp for the transportation processes in Circular Economy Scenario EF-339: Blockchain traceability to improve closed loop supply chain management A web-based application should be available to the user in order to explore details about negotiations (bidding processes) in every stage of supply chain (closed loop), details about certifications/documents and details about transportation processes Acceptance Criteria: * Availability of a Blockchain web-based application able to provide traceability to closed loop supply chain				
EF-337	Data Analytics	A new epic for Data Analytics that actually clones the epic: EF-263 - Data analytics solution for the optimization of activities related to circular economy scenario. EF-264: As an operation manager (ELDIA) I want to monitor bins fill level of my customers, to monitor the trend of fill level data, to explore price forecast per material and to see tonnage predictions per material EF-265: As an Operation manager (MILOIL) I want to deploy historical data related to previous purchases for raw material, to explore price forecast per raw material and to explore tonnage predictions per raw material	ELDIA, Kleemann, data-analytics, miloil	Medium	Epic 21 - Data Analytics

		EF-345: As a recycling management specialist for non-hazardous material, I want to monitor the bins' fill level, so that I can be notified when waste is ready for collection Acceptance Criteria: * COMPOSITION Analytics solution should be available to ELDIA and KLE through EFPF portal * Analytics solution related to tonnage and price forecasting should be available to MILOIL pilot * A dashboard for monitoring and a notification that the waste collection bins are almost full			
EF-64	Epic for User Stories from Technical Partner			Minor	Technical Partner Epic
EF-65	Search for products, services, or supply partners to meet production objectives		Lagrama	Minor	Epic 05 - Search for products, services, or supply partners
EF-66	Publish tenders and special supply requests inviting groups of companies to participate		Lagrama	Minor	Epic 06 - Publish tenders and special supply requests inviting groups of companies to participate
EF-67	Monitor production processes in order to get a schedule for planning activities and take appropriate corrective actions of incidences if unexpected events occur		Lagrama	Minor	Epic 07 - Monitor production processes
EF-68	Monitor delivery processes both incoming and outgoing in order to get a		Lagrama	Minor	Epic 08 - Monitor delivery processes both

	schedule of activities and take appropriate corrective actions of incidences if unexpected events occur				incoming and outgoing
EF-263	Data Analytics for the Optimization of Procedures Related to Circular Economy Activities	Data analytics solution for the optimization of activities related to circular economy scenario. Acceptance Criteria: * COMPOSITION Analytics solution should be available to ELDIA and KLE through EFPF portal * Analytics solution related to tonnage and price forecasting should be available to MILOIL pilot	ELDIA, composition, data-analytics, miloil	Minor	Epic 12 - Data Analytics for the Optimization of Procedures Related to Circular Economy Activities
EF-307	Creation of tenders and the associated management of the submitted bids			Minor	Epic 18 - Tendering and Bid Management Service
EF-308	Tracking of resource utilisation to support business process improvements			Minor	Epic 19 - Efficient Resources Management Solutions
EF-309	Factory Connectivity solution to improve Process Efficiency			Minor	Epic 20 - Factory Connectivity and Smart Factory Solutions
EF-94	OEM tendering process and HR support		Aerospace	Nice to have	Epic 04 - OEM tendering process and HR support

3.2   EFPF Stories and Sub-tasks

The Stories and associated Sub-tasks are listed in this chapter.

Overall, we identified 66 Stories and 157 Sub-tasks.

Key	Summary	Description	Labels	Priority	Issue Type	Linked Issues
EF-27	Search of products and services	As a Purchasing manager, I want to search for particular products and services so that I can define a specific supply chain for the production of particular goods. Acceptance Criteria: * Search mechanisms available in the platform to get a collection of products and services according to criteria * Availability of text-based search and search by exploring the different categories of products and services available in the platform * Mechanisms to filter the retrieved collection of products by specific properties (i.e.: price, color, etc.)	Lagrama, EFPF Federated Search, nimble	Critical	Story	EF-305, EF-88
EF-372	Predictive maintenance	As a Production manager, I want to monitor the operation of a machine and perform a data analysis so that I can detect anomalous working conditions and take preventive actions. Acceptance Criteria: * Overall machine operation log available for data analysis * Notification system for awareness of particular anomalous working conditions * This user story is focused on the internal production processes in LAGRAMA	Lagrama, new Production Monitoring Solution	Critical	Story	
EF-19	Production process monitoring in a supply chain	As a Sales, Production or Purchasing manager, I want to monitor the production process of goods I have requested so that I can detect problems during production and can keep a history for future reference. Acceptance Criteria: * Live visualization at a glance of the production process * Warnings to the subscribed users if some eventuality (problem or similar) is detected * A log of the whole production process available	Lagrama	Critical	Story	EF-368, EF-369, EF-370, EF-371, EF-103, EF-102, EF-302, EF-304, EF-21, EF-17

EF-26	Tender publication and tender bid assessment	As a Purchasing manager, I want to publish a tender so that I can get proposals for covering the supply of the different product parts. Acceptance Criteria: * Publication of a supply tender with detailed information * Invitation to companies to participate in a tender * Mechanisms to obtain a detailed description of supplies (i.e.: raw materials, components, substances) provided by the suppliers to assess its level of quality * Arrangement a reverse auction to catch the best applicants for the required element in terms of quality-price ratio * A transparent environment where every applicant can be aware of the basic information of the bids (i.e.: price and delivery time) submitted by other members in the auction	Lagrama, Tendering Service on SMECluster platform, composition, digicor, matchmaking	Critical	Story	EF-365, EF-366, EF-367, EF-101, EF-102, EF-28, EF-25, EF-328
EF-24	Replace logistics provider to meet just-in-time delivery	As a Purchasing manager, I want to manufacture and deliver just-in-time so that I can reduce storage costs. Acceptance Criteria: * Mechanisms to get a detailed and general vision of the delivery status of the different goods to be sent * Mechanisms to cancel a logistics provider and quickly replace it with another one	Lagrama, EFPF Matchmaking Service	Critical	Story	EF-158, EF-160, EF-102, EF-305, EF-30
EF-28	Request for quotation of customised product	As a Purchasing manager, I want to send requests for quotation of customised product so that I can evaluate the adequacy of the parties to be involved in the supply chain. Acceptance criteria: * Mechanisms to send a request for quotation (RFQ) to other members of the platform indicating the particular product or service, quantity, and particular considerations through the platform * Reception of response of the RFQ indicating the quotation and particular considerations from the supplier party * Grouping capabilities in order to have a clear and maintainable tracking of the RFQ processes carried out through the platform	Lagrama, nimble	Critical	Story	EF-101, EF-102, EF-305, EF-26
EF-53	Request and receive possible suppliers' details	As a recycling management specialist for non-hazardous material, I want to find a specialised waste management company, so that I can manage the collection and handling process in a more efficient way (automated and optimised) in order to reduce the management time and cost of the	Kleemann, composition, matchmaking, online-bidding	Critical	Story	

		internal logistics and supply chain processes. Acceptance criteria: * A list of specialised waste management companies' contacts available * An overview of each company based on the requested service/product * An evaluation of each company based on historical platform data (ranking) * Selection and invitation to waste management companies to start a collaboration				
EF-21	High level production overview	As a Managing director, I want to have a high-level overview of the enterprise processes so that I can get general information about production and delivery processes avoiding details. Acceptance Criteria: * Overview picture of the processes carried out by the company, such as production and delivery processes * This user story is focused on the internal production processes in LAGRAMA	Lagrama, new Production Monitoring Solution	Critical	Story	EF-103, EF-151, EF-152, EF-153, EF-102, EF-19, EF-335
EF-61	Browse, contact, and negotiate with suppliers	As a Purchasing manager, I want to negotiate prices and contracts with suppliers, so that I can buy specialised products at the best price Acceptance criteria: * A repository of suppliers * A history of relationships established with these suppliers through the platform, such as negotiations, information requests, etc. * An evaluation of each company based on historical platform data (ranking) * Price and payment terms	ELDIA, Kleemann, composition, federated-search, matchmaking, miloil, nimble	Critical	Story	EF-305, EF-56
EF-54	Online bidding process for scraps and wood wastes	As a Purchasing manager or Purchasing specialist, I want to negotiate prices and contracts so that I can obtain high-quality services/products at reasonable prices Acceptance criteria: * An automated online bidding mechanism that provides suggestions of best available supplier for a service and enables the automation of negotiation procedures in a close loop	ELDIA, Kleemann, agents, composition, matchmaking, online-bidding	Critical	Story	EF-305, EF-261
EF-30	Set up logistics supplier in new country	As a Purchasing manager, I want to find logistics providers when delivering to a country for the first time so that I can provide an adequate delivery time at an adjusted cost.	Lagrama, matchmaking	Critical	Story	EF-158, EF-102, EF-305,

							EF-14, EF-24
		Acceptance Criteria: * Capability to search for logistics services in retrieve results according to indicated parameters (i.e.: origin, destination, delivery time, etc.) * The management of nonconformities is not covered in this user story so it has been previously covered					
EF-29	Exchange product catalogue	As a Sales manager, I want to exchange catalogues of products and services with other members of the platform so that I can detect opportunities to improve the configuration of the supply chain. Acceptance Criteria: * Capability to share information of products and services (catalogue) with other companies * Mechanisms to export catalogue data in a given format, in order to be optionally imported in an ERP system * The deletion and updates of information about products and services is implicitly considered as an update of the catalogue data Explanatory note: In the activity diagram, the process is illustrated by a supplier that requests the catalogue of a manufacturer and then exports in some own system. However, the import could be done by the same manufacturer, in order to export the catalogue from EFPF and import it in its own system. The import process would be outside the scope of EFPF so the company is in charge of importing into its system. The export format needs to be represented in a comprehensive and structured manner to reduce the effort of developing ERP adapters.	Lagrama, nimble	Critical	Story	EF-306
EF-20	Delivery process monitoring	As a Sales manager, I want to monitor the delivery process of the produced goods all the way to the customer so that I can detect problems during delivery and customer reception keeping a history for future reference. Acceptance Criteria: * Live visualization at a glance of the delivery process * Warnings to the subscribed users if some eventuality (problems or similar) is detected * Mechanisms to get a confirmation of a success reception at the customer side * A log of the whole delivery process available	Blockchain-based Delivery Monitoring APP, Lagrama	Critical	Story	EF-153, EF-102, EF-338, EF-352, EF-23, EF-22

EF-352	Delivery process monitoring	As a Sales manager, I want to monitor the delivery process of the produced goods all the way to the customer so that I can detect problems during delivery and customer reception keeping a history for future reference. Acceptance Criteria: * Live visualization at a glance of the delivery process * Warnings to the subscribed users if some eventuality (problems or similar) is detected * Mechanisms to get a confirmation of a success reception at the customer side * A log of the whole delivery process available	Blockchain-based Delivery Monitoring APP, Lagrama	Critical	Story	EF-20
EF-335	High level production overview [DEV]	As a Managing director, I want to have a high-level overview of the enterprise processes so that I can get general information about production and delivery processes avoiding details. Acceptance Criteria: * Overview picture of the processes carried out by the company, such as production and delivery processes * This user story is focused on the internal production processes in LAGRAMA	Lagrama, new Production Monitoring Solution	Critical	Story	EF-21
EF-328	Tender publication and tender bid assessment [DEV]	As a Purchasing manager, I want to publish a tender so that I can get proposals for covering the supply of the different product parts. Acceptance Criteria: * Publication of a supply tender with detailed information * Invitation to companies to participate in a tender * Mechanisms to obtain a detailed description of supplies (i.e.: raw materials, components, substances) provided by the suppliers to assess its level of quality * Arrangement a reverse auction to catch the best applicants for the required element in terms of quality-price ratio * A transparent environment where every applicant can be aware of the basic information of the bids (i.e.: price and delivery time) submitted by other members in the auction	Lagrama, Tendering Service on SMECluster platform, composition, digicor, matchmaking	Critical	Story	EF-26
EF-323	Product request [DEV]	As a Purchasing manager, I want to publish a product demand so that I can get product offers that fulfil the expected technical and quality requirements.	Lagrama, Tendering Service on SMECluster	Critical	Story	EF-25

		Acceptance Criteria: * Mechanisms to publish a product request with detailed information in order to get information about companies able to offer supplies (i.e.: raw materials, components, substances) that can fulfil that product.	platform, composition			
EF-25	Product request	As a Purchasing manager, I want to publish a product demand so that I can get product offers that fulfil the expected technical and quality requirements. Acceptance Criteria: * Mechanisms to publish a product request with detailed information in order to get information about companies able to offer supplies (i.e.: raw materials, components, substances) that can fulfil that product.	Lagrama, Tendering Service on SMECluster platform, composition	Critical	Story	EF-101, EF-26, EF-323
EF-317	Invitation to join collaboration platform [DEV]	As a Production manager, I want to manage my contacts in an organized manner so that selected companies could be invited to participate in a particular supply chain. Acceptance Criteria: * List of contacts of the company * Mechanism to send invitation to companies to take part in a supply chain Explanatory note: Invited companies need to register in EFPF in order to take part in a supply chain. If the company is already registered in EFPF then the invitation can be done directly through EFPF. The mechanism to import contacts from EFPF to the company system is out of the scope of EFPF and the company would be in charge of this. The export format needs to be represented in a comprehensive and structured manner to reduce the effort of developing ERP adapters.	Lagrama, composition, matchmaking	Critical	Story	EF-14
EF-14	Invitation to join collaboration platform	As a Production manager, I want to manage my contacts in an organized manner so that selected companies could be invited to participate in a particular supply chain. Acceptance Criteria: * List of contacts of the company * Mechanism to send invitation to companies to take part in a supply chain Explanatory note:	Lagrama, composition, matchmaking	Critical	Story	EF-30, EF-317

		Invited companies need to register in EFPF in order to take part in a supply chain. It the company is already registered in EFPF then the invitation can be done directly through EFPF. The mechanism to import contacts from EFPF to the company system is out of the scope of EFPF and the company would be in charge of this. The export format needs to be represented in a comprehensive and structured manner to reduce the effort of developing ERP adapters.					
EF-60	Market research for specialised product customers	As a Sales Manager, I want to perform analytics on my customers so that I can sell them specialised product at the best price Acceptance criteria: * A repository of customers * A history of relationships established with these through the platform, such as negotiations, information requests, etc. * An evaluation of each company based on historical platform data (ranking) * Price and payment terms	Kleemann	Critical	Story	EF-55, EF-15
EF-88	Finding suppliers for specific products and services on an ad-hoc basis	As staff working for the purchasing, engineering or project management department, I aim to find partners for a variety of specific products and services, so that my company has the full overall view of available suppliers on the market without the need of huge research efforts, to be able to work with the best products (price/leadtime/quality) and suppliers (reliability/communication/quality). Acceptance Criteria: * Ability to search for suitable products and services on an adhoc-basis based on a rating system taking into account parameters like delivery reliability/quality and several other ones. Outcome: Supplier having the correct expertise, experience, required quality standards, certificates, and the capacity for successful collaboration * Ability to get contact details or the possibility to send invitations to potential suppliers	Aerospace	Major	Story	EF-305, EF-27
EF-93	Finding partners for joint purchase of (raw) materials and products with high MOQ	As staff working for the purchasing department, I aim to find partners for joint purchase of (raw) materials and products with high MOQ, so that my company is able to get into market with competitive pricing also from the lot size one perspective. Acceptance Criteria: * Ability to search for different (raw) material and products providers.	Aerospace	Major	Story	

		* Ability to search for (raw) material and products also taking into account needed quantities (e.g. via internal or external catalogues). Outcome: Partner companies needing same (raw) materials and products for similar time periods. * Ability to provide possibility to search also time-related (when do the materials and products have to be physically available at respective company facility). * Ability to get contact details or the possibility to get into contact with potential partner companies (send invitations). * Ability to provide legal framework as contractual basis for potential partners and the possibility to initiate smart contract and joint order. * Ability to perform all order related communications (order administration/payment etc.) via EFPF based on ATA Spec2000 standard. * Ability to track and trace shipment				
EF-15	Customer analytics	As a Sales manager or Production manager, I want to condense more information of my customer so that I can arrange more business relationships with them. Acceptance Criteria: * A repository of customer's information * Analytics of relationships established with these customers through the platform, such as negotiations, information requests, accepted and rejected tender bids, etc. Explanatory note: EFPF needs to provide a sort of Dashboard with analytics prompting indicators related to the activity of the company with other parties (mainly customers). The concrete list of indicators needs to be defined. A mechanism to export these analytics would be valuable. The import mechanism is out of the scope of EFPF and the company would be in charge of this. The export format needs to be represented in a comprehensive and structured manner to reduce the effort of developing ERP adapters. Regarding the customer information to be managed in EFPF, the following can be stated: * On one hand, LAGRAMA is interested in collecting data about those	Customer Data Analytic Application, Lagrama	Major	Story	EF-127, EF-305, EF-60

		customers on areas where the sales are particularly low, in order to get some insights about the situation in comparison to areas where the sales are higher. * On the other hand, they are interested in what furniture are they selling to those customers, and the consumer profile of its buyers.				
EF-264	Optimization of Planning Activities for Effective Waste Management through EFPF Platform	As a Planning manager, I want to use a set of analytics functionalities so that I can optimize my planning activities for the waste management procedures that the company provides to its customers. Acceptance Criteria: * Analytics dashboard to provide bins monitoring, fill level trend analysis, statistics, price and tonnage forecasting.	ELDIA	Major	Story	EF-337, EF-59
EF-265	Optimization of Planning Activities for Purchasing New Materials	As a Planning manager, I want to use a set of analytics functionalities so that I can optimize my planning activities Acceptance Criteria: * Analytics dashboard to provide price and tonnage forecasting. Planning activities' optimization would be enabled by analytic services related to price and tonnage forecasting for raw materials	miloil	Major	Story	EF-337
EF-261	Online bidding for processed wastes	As a Purchasing manager or Purchasing specialist, I want to negotiate prices and contracts so that I can obtain high-quality services/products at reasonable prices Acceptance criteria: * An automated online bidding mechanism that provides suggestions of best available supplier for a service and enables the automation of negotiation procedures in a close loop	ELDIA, agents, matchmaking, miloil, online-bidding	Major	Story	EF-54
EF-59	High level market opportunities overview	As a Managing director, I want to have a high-level overview of the market opportunities based on predictions that support my decision to sell (if, whom and when). Acceptance criteria: * Overview picture of the price predictions carried out by the platform	Kleemann	Major	Story	EF-264
EF-260	Blockchain traceability to improve closed loop supply chain management	As a Purchasing manager, I want to monitor the online bidding process activities in every stage of the loop so that I can have full visibility of negotiation processes and their details in the Circular Economy Scenario. Acceptance Criteria:	Blockchain, ELDIA, Kleemann, miloil	Major	Story	EF-339

		* Availability of a Blockchain web-based application able to provide traceability to closed loop supply chain. The web-based application should be available to the user in order to explore details about negotiations (bidding processes) in every stage of supply chain (closed loop), details about certifications/documents and details about transportation processes				
EF-259	Blockchain verification to improve transportation security and reliability	As a Purchasing manager, I want to monitor the different stages of a transportation so that I can trust and have fully visibility of delivery processes of the Circular Economy Scenario. Acceptance Criteria * dapp for the transportation processes in Circular Economy Scenario. The dapp should be available for the enhancement of trust in delivery processes of the Circular Economy Scenario. The dapp should be able to cover the different stages of the scenario such as transportation from KLE to ELDIA and from ELDIA to Miloil	Blockchain-based Delivery Monitoring APP, ELDIA, Kleemann, miloil	Major	Story	EF-338, EF-355
EF-92	Find partners for joint purchase of consumables	As staff working for the purchasing department, I aim to find partners for joint purchase of consumables, so that potential savings are identified and lower purchasing prices secure the competitive position with long lasting perspective. Acceptance Criteria: * Ability to search for different consumables providers. * Ability to search for consumables also taking into account needed quantities (e.g. via internal or external catalogues). Outcome: Partner companies needing same consumables for similar time periods. * Ability to provide possibility to search also time-related (when do the materials and products have to be physically available at respective company facility). * Ability to get contact details or the possibility to get into contact with potential partner companies (send invitation). * Ability to provide legal framework as contractual basis for potential partners and the possibility to initiate smart contract and joint order. * Ability to perform all order related communications (order administration/payment etc.) via EFPF based on ATA Spec2000 standard.	Aerospace	Major	Story	
EF-85	Place products and services in catalogue	As staff working for the sales or marketing department, I aim to place our products and services in a catalogue, so that potential customers (predefined user group like A/C OEM, Airlines, MRO, 1st-tier suppliers)	Aerospace, nimble	Major	Story	EF-306, EF-356,

							EF-357, EF-358
and offer them to a predefined user group	can search for them easily, which leads to a better visibility of our capabilities to the respective customer groups. Acceptance Criteria: * Ability to place products and services with applicable detailing descriptions as well as other specific information (leadtime, purchase conditions etc.) in the form of a catalogue. * Ability to search for different products and services, presented in predefined categories. * Ability to include or exclude certain customers/suppliers for the products and services (white list/black list). * Ability to take into account leadtimes and price ranges when searching for products and services. * Ability to receive (supplier) / provide (customer) more information of the project standing behind the search of the specific products and services. * Ability to get contact details or the possibility to get into contact with potential partner companies. * Ability to provide legal framework as contractual basis for potential partners (e.g. initiate smart contract as an option). * Ability to provide information for customer directly out of factory connector (e.g. spare part status ("in production"/"Under quality review"/"Ready to ship" or similar). * Ability to perform all order related communications (order administration/payment etc.) via EFPF based on ATA Spec2000 standard. * Ability to track and trace shipment.						
EF-86	Define a product / service catalogue	As a Marketing Manager, I want to define catalogues for the products and services of my company so that those products / services can be offered to selected customers (companies). Acceptance criteria: * Products / services can be listed in catalogues and those catalogues can be linked to selected customers	Aerospace, nimble	Major	Story	EF-306, EF-357
EF-87	Create product / service catalogues for customers and specify sales conditions	As a Sales Manager, I want to create the B2B catalogue for specific customers and specify the sales conditions (prices, delivery terms and conditions, etc.) so that items (products / services) in the catalogue are offered to selected customers (companies) with those specified sales conditions (prices, etc.) negotiated in (smart) contract templates.	Aerospace	Major	Story	EF-306, EF-359

		Acceptance criteria: * B2B catalogue for dedicated customers can be created and contract terms and the (smart) contract template can be specified				
EF-90	Place spare parts in catalogue and offer them to a predefined user group	As staff working for the sales or marketing department, I aim to place relevant spare parts in a catalogue, so that potential customers (predefined user group like A/C OEM, Airlines, MRO, 1st-tier suppliers) can search for them easily to find the relevant supplier. Acceptance Criteria: * Ability to place spare parts with applicable detailing descriptions as well as other specific information (lead time, purchase conditions etc.) in the form of a catalogue. * Ability to search for different spare parts, presented in predefined categories. * Ability to include/exclude (white/black list) certain customers/suppliers for spare parts * Ability to take into account lead times and price ranges when searching * Ability to receive (supplier) / provide (customer) more information of the project standing behind the search of the specific spare part. * Ability to provide legal framework as contractual basis for potential partners (e.g. framework contracts with service levels regarding reaction time, availability, performance, quality etc.). * Ability to provide information for customer directly out of factory connector (e.g. spare part status (in production, under quality review, ready to ship, or similar). * Ability to perform all order related communications (order administration/payment etc.) via EFPF based on ATA Spec2000 standard. * Ability to track and trace shipment.	Aerospace	Major	Story	EF-306, EF-356, EF-358, EF-360
EF-58	Equipment Selection and Purchasing	As a Purchasing Manager, I want to order the selected equipment from my suppliers so that I can utilise it in a specific product (e.g., wood) process Acceptance criteria: * Mechanisms to send/receive orders including contract agreements and banking information * Availability of tracking the status of an order	Kleemann	Major	Story	EF-16
EF-56	Search for suppliers	As an Operations Manager and a Purchasing Manager, we want to search and extend the network of our suppliers so that we can arrange	Kleemann, federated-	Major	Story	EF-61

		the purchase of more specialised equipment at reasonable prices Acceptance criteria: * A repository of suppliers * A history of relationships established with these customers and suppliers through the platform, such as negotiations, information requests, etc. * Technical characteristics of the specialised equipment * A maintenance agreement * An evaluation of each company based on historical platform data (rankings-shortlist) and customers' ratings * Price and payment terms	search, matchmaking			
EF-55	Search for new customers	As a Sales Manager, I want to grow my repository of potential customers so that I can arrange more business relationships with them Acceptance criteria: * A repository of customers * A history of relationships established with these through the platform, such as negotiations, information requests, etc. * An evaluation of each company based on historical platform data (ranking)	Kleemann, federated-search, matchmaking	Major	Story	EF-60
EF-262	Registration of new company for online bidding process	This is a new one	ELDIA, Kleemann, agents, miloil, online-bidding	Major	Story	EF-305
EF-286	Add or update services/products	As a future supplier, I want to be able to add and update my company details and my products/services to the e-factory marketplace, so that potential customers can search for them easily, leading to a better visibility of our company to the marketplace. Acceptance Criteria: * Ability to add company information * Ability to update company information * Ability to add products and services in the form of a catalogue. * Ability to update products and services in the form of a catalogue	federated-search	Major	Story	EF-305, EF-340
EF-23	Delivery schedule	As a Managing director, I want to have a schedule of deliveries available so that I can be able to get a broader and quicker overview of the general status of the delivery.	Blockchain-based Delivery	Major	Story	EF-103, EF-148, EF-151, EF-152,

		Acceptance Criteria: * Overview picture of the on-going delivery processes related to the different goods in a kind of a schedule indicating deadlines and current status of each delivery	Monitoring APP, Lagrama			EF-153, EF-158, EF-159, EF-160, EF-102, EF-338, EF-20, EF-354
EF-345	Bins' fill level monitoring [DEV]	As a recycling management specialist for non-hazardous material, I want to monitor the bins' fill level, so that I can be notified when waste is ready for collection Acceptance criteria: * A dashboard for monitoring and a notification that the waste collection bins are almost full	Kleemann, Lagrama, fill-level	Major	Story	EF-337, EF-49
EF-354	Delivery schedule	As a Managing director, I want to have a schedule of deliveries available so that I can be able to get a broader and quicker overview of the general status of the delivery. Acceptance Criteria: * Overview picture of the on-going delivery processes related to the different goods in a kind of a schedule indicating deadlines and current status of each delivery	Blockchain-based Delivery Monitoring APP, Lagrama	Major	Story	EF-23
EF-355	Blockchain verification to improve transportation security and reliability	A dapp should be available for the enhancement of trust in delivery processes of the Circular Economy Scenario. The dapp should be able to cover the different stages of the scenario such as transportation from KLE to ELDIA and from ELDIA to Miloil Acceptance Criteria * dapp for the transportation processes in Circular Economy Scenario	Blockchain-based Delivery Monitoring APP, ELDIA, Kleemann, miloil	Major	Story	EF-259
EF-49	Bins' fill level monitoring	As a recycling management specialist for non-hazardous material, I want to monitor the bins' fill level, so that I can be notified when waste is ready for collection Acceptance criteria: * A dashboard for monitoring and a notification that the waste collection bins are almost full	Kleemann, Lagrama, fill-level	Major	Story	EF-345
EF-46	Track, trace, and Credit Users	As an EFPF platform owner, I want to track, trace and credit users, so that this data can be processed for the selected business model(s).	Challenge, M10	Major	Story	

		Acceptance Criteria: * User journey visible for Accountancy Service * Provided data can be used for business models				
EF-48	Access other Platforms with one Login	As an EFPF platform user, I want to access other platforms with one login, so that I do not have to manage multiple logins for each platform. Acceptance Criteria: * User can use its default credentials to use a tool provided by the EFPF Portal. * User does not have to provide credentials multiple times.	Challenge, M10	Major	Story	
EF-47	Usage of Tools and Services from other Platforms	As an EFPF platform user, I want to use tools and services from other platforms, so that it helps/supports me in my business/brings me an advantage. Acceptance Criteria: * Tools are available in EFPF Portal * Tools can be used independent of the user's origin platform.	Challenge, M10	Major	Story	
EF-45	List Products on the EFPF Marketplace	As a base platform marketplace owner, I want to list own products on the EFPF Marketplace, so that users from other base platforms can find them. Acceptance Criteria: *Connection between EFPF marketplace and base platform marketplace * Same search results when using same search parameters	Challenge, M10	Major	Story	
EF-373	Waste collection optimization	As a Production manager, I want to monitor the fill level of the outdoor waste bins so that I can optimize the waste collection procedure. Acceptance Criteria: * Bin fill level monitoring information available * Notification for awareness of ready-to-collect bins * This user story is focused on the internal production processes in LAGRAMA	Lagrama, new Production Monitoring Solution	Medium	Story	
EF-301	Visualise the status of all products and services within a company's catalogue	Create visualisations within the company dashboards to show the status of all products and services in a company's catalogue This will allow users to view information about trends within their own catalogue of products or services at the earliest possible time.	AID, EF-A5, HAW, SRFG, VLC	Minor	Story	

EF-300	Visualise the most searched products in a company's catalogue	Create visualisations within the company dashboards to show the most searched products in a company's catalogue This will allow users to view information about trends within their own catalogue of products or services at the earliest possible time.	AID, EF-A5, HAW, SRFG, VLC	Minor	Story	
EF-299	Create company dashboards that can visualise company specific data	Create company dashboards within Kibana for the Business & Network Intelligence Service. These dashboards will only display information relevant to a user's registered company. This will allow users to view information about trends within their own catalogue of products or services at the earliest possible time.	AID, EF-A5, HAW, VLC,	Minor	Story	
EF-298	Visualise the most searched companies in the EFPF Platform	Create visualisations to show the most searched companies within the EFPF platform. e.g., most searched company by Region, Industry, Size, Technology This will allow users to view information about platform trends at the earliest possible time	AID, EF-A8, HAW	Minor	Story	
EF-297	Visualise the most searched products in the EFPF Platform	Create visualisations to show the most searched products within the EFPF platform. e.g., most searched product by Region and by Industry This will allow users to view information about platform trends at the earliest possible time	AID, EF-A8, HAW	Minor	Story	
EF-296	Visualise the most searched keywords in the EFPF Platform	Create visualisations to show the most queried keywords within the EFPF platform. e.g., most searched term weekly, monthly, yearly, all-time This will allow users to view information about platform trends at the earliest possible time	AID, EF-A8, HAW	Minor	Story	
EF-18	(Removed from LAG use case) Manage bill of materials (BoM) of products.	As a Production manager, I want to manage the bill of materials (BoM) of my products so that I can get an overview of the different parts that compose my products in order to plan its production and supply. Acceptance Criteria: * Visualization of the different parts that make up a product * Mechanisms to associate these parts to own production processes or supply from other partners	Lagrama	Minor	Story	

EF-16	Send and receive orders	As a Production manager, I want to send orders to suppliers and receive orders from customers so that I can improve the efficiency of the supply process. Acceptance Criteria: * Mechanisms to send/receive orders * Availability of tracking the status of an order	Lagrama, nimble	Trivial	Story	EF-58, EF-22
EF-22	Local reception of goods	As a Purchasing manager, I want to monitor the reception of goods in my facilities so that I can be aware of any quick and unexpected problem during the reception. Acceptance Criteria: * Mechanism to report and manage nonconformities related to the supply process * Tools for the internal management of invoices, delivery notes and stock	Lagrama	Trivial	Story	EF-104, EF-105, EF-106, EF-338, EF-20, EF-16, EF-353
EF-353	Local reception of goods	As a Purchasing manager, I want to monitor the reception of goods in my facilities so that I can be aware of any quick and unexpected problem during the reception. Acceptance Criteria: * Mechanism to report and manage nonconformities related to the supply process * Tools for the internal management of invoices, delivery notes and stock	Lagrama	Trivial	Story	EF-22
EF-50	Product processing and remote maintenance	As an Operations manager, I want to process waste material (e.g., wood) so that I meet the criteria regarding size and quality and achieve higher productivity, efficiency, and profitability. Acceptance criteria: * Mechanisms to initialise a connection with maintenance support in case of a breakdown * Availability of ordering spare parts from specific suppliers (as suggested by the maintenance support team)	Kleemann	Nice to have	Story	
EF-96	Place tender also for 1st suppliers and downwards	As staff working for the purchasing or engineering department, I aim to have only one portal available to place tenders for my sub-suppliers for specific products and services, I can get quotations in an efficient way that also allows automatic comparison of the relevant quotations taking into account different provided frame conditions of the suppliers. Acceptance Criteria:	Aerospace, composition	Nice to have	Story	EF-334

		* Ability to search for suppliers with specific products and services. * Ability to place a tender with all relevant information (kind of product/service with detailed description/ timeline/conditions of purchase/deadline for quotation etc.) taking into account a defined "receiving" group of companies. * Ability to be contacted for queries from the suppliers. * Ability to receive quotations for the needed product and services.				
EF-95	Finding skilled staff for interim support on an ad-hoc basis	As staff working for the HR department, I aim to find rapidly highly skilled staff for production line, so that my company can also deal with short-term high workloads and is not forced to refuse due to capacity restrictions. Acceptance Criteria: * Ability to search for different skilled staff based on needed skills, years of experience, timely availability, location of work etc. * Ability for HR companies to provide available staff in the form of a catalogue. * Ability to get contact details or the possibility to get into contact with potential HR companies. * Ability to provide legal framework as contractual basis for temporarily hiring staff.	Aerospace, matchmaking	Nice to have	Story	
EF-17	Production optimization	As a Production manager, I want to speed up the production so that I can reduce the time to serve the customer. Acceptance Criteria: * Mechanisms available to configure and optimise production processes and the supply chain in order to improve its performance	Lagrama	Nice to have	Story	EF-19, EF-310
EF-334	Place tender also for 1st suppliers and downwards [DEV]	As staff working for the purchasing or engineering department, I aim to have only one portal available to place tenders for my sub-suppliers for specific products and services, so that I can get quotations in an efficient way that also allows automatic comparison of the relevant quotations taking into account different provided frame conditions of the suppliers. Acceptance Criteria: * Ability to search for suppliers with specific products and services. * Ability to place a tender with all relevant information (kind of product/service with detailed description/ timeline/conditions of purchase/deadline for quotation etc.) taking into account a defined "receiving" group of companies.	Aerospace, composition	Nice to have	Story	EF-96

		* Ability to be contacted for queries from the suppliers. * Ability to receive quotations for the needed product and services.					
EF-310	Production optimization [DEV]	As a Production manager, I want to speed up the production so that I can reduce the time to serve the customer. Acceptance Criteria: * Mechanisms available to configure and optimise production processes and the supply chain in order to improve its performance	Lagrama	Nice to have	Story	EF-17
EF-178	EF-54 As a purchasing manager (requester) I want to receive information for the pickup arrangement	If selected is yes, the corresponding agent/company should be notified	ELDIA	Major	Sub-task	EF-177, EF-179
EF-179	EF-54 As a purchasing manager (supplier) I want to receive confirmation for the pickup.	Manual Task by now. It should be done automated by agents' ecosystem and bidding process UI	ELDIA, Kleemann, agents	Major	Sub-task	EF-176, EF-178
EF-273	EF-262 As a sales/purchasing manager I want to insert my company information.	* Short description * Location * Legal name * Services/products: o Service/product name o Service category o Good(s) o Certification	agents, matchmaking, online-bidding	Major	Sub-task	
EF-274	EF-262 As a sales/purchasing manager I want to edit my company information.	Update company/agent information	matchmaking, online-bidding	Major	Sub-task	
EF-371	EF-19 Aerospace-Pilot, Use Case: Camera Monitoring (IAI)	Online camera monitoring to protect defined area from unauthorized access without personal protection equipment (PPE). Without PPE no function of spray gun possible. Further Information: https://owncloud.ascora.de/index.php/apps/files/?dir=/eFactory/Work%20Packages/WP9&fileid=1415830	Aerospace, HAW	Major	Sub-task	EF-19

EF-370	EF-19 Aerospace-Pilot, Use Case: Vacuum Monitoring (IAI)	Monitoring of the vacuum forming machine, as a failure of the vacuum pump leads to defect parts that must be scrapped. Further Information: https://owncloud.ascora.de/index.php/apps/files/?dir=/eFactory/Work%20Packages/WP9&fileid=1415830	Aerospace, HAW	Major	Sub-task	EF-19
EF-369	EF-19 Aerospace-Pilot, Use Case: Temperature Monitoring (IAI)	Temperature monitoring in a freezer for raw material without opening to ensure constant temperature and material quality. Further Information: https://owncloud.ascora.de/index.php/apps/files/?dir=/eFactory/Work%20Packages/WP9&fileid=1415830	Aerospace, HAW	Major	Sub-task	EF-19
EF-368	EF-19 Aerospace-Pilot, Use Case: Temperature Monitoring (WOM)	Temperature monitoring in the production area to adjust the machine settings to maintain the machining quality. Further Information: https://owncloud.ascora.de/index.php/apps/files/?dir=/eFactory/Work%20Packages/WP9&fileid=1415830	Aerospace, HAW	Major	Sub-task	EF-19
EF-367	EF-26 Aerospace-Pilot, Use Case: Tender for one-way pallets (3DI)	There is always a certain amount of the one-way pallets stored in the company, the idea is that the amount of the one-way pallets is controlled and after a certain amount/size an automatic request is put on the platform where third parties can place an offer for these pallets. Further Information: https://owncloud.ascora.de/index.php/apps/files/?dir=/eFactory/Work%20Packages/WP9&fileid=1415830	Aerospace, HAW, Tendering Service on SMECluster platform	Major	Sub-task	EF-26
EF-366	EF-26 Aerospace-Pilot, Use Case: Joint Energy Purchase (3DI)	Every company holds a yearly energy contract (e.g., electricity), the intention is, the demand from several companies will be collected and offered via the platform. The best offer automatically gets an order. Further Information: https://owncloud.ascora.de/index.php/apps/files/?dir=/eFactory/Work%20Packages/WP9&fileid=1415830	Aerospace, HAW, Tendering Service on SMECluster platform	Major	Sub-task	EF-26
EF-365	EF-26 Aerospace-Pilot, Use Case: Prepregs (3DI)	Prepregs are preimpregnated fibres and have expiry dates. Some days before expiration information is needed and the operator should have the opportunity to decide whether the material can be used for own production or could be sold to other companies for their production purposes using the tender and bid management of EFPF.	Aerospace, HAW, Tendering Service on SMECluster platform	Major	Sub-task	EF-26

		Further Information: https://owncloud.ascora.de/index.php/apps/files/?dir=/eFactory/Work%20Packages/WP9&fileid=1415830				
EF-233	EF-61 As a purchasing manager I want to select a possible supplier	Manual Task	Kleemann	Major	Sub-task	EF-232, EF-234
EF-232	EF-61 As a purchasing manager I want to view products' detailed information		Kleemann	Major	Sub-task	EF-194, EF-231, EF-233, EF-219, EF-230
EF-231	EF-61 As a purchasing manager I want to view suppliers' details	If offer is rejected If contract is not agreed upon	Kleemann	Major	Sub-task	EF-192, EF-228, EF-232, EF-238, EF-239, EF-229
EF-234	EF-61 As a purchasing manager I want to contact a supplier.		Kleemann	Major	Sub-task	EF-233, EF-235
EF-236	EF-61 As a supplier I want to send an accept notification and pricing terms	If invitation is accepted	Future Suppliers	Major	Sub-task	EF-198, EF-238, EF-235, EF-186, EF-223
EF-238	EF-61 As a purchasing manager I want to receive a notification		Kleemann	Major	Sub-task	EF-200, EF-225, EF-231, EF-236, EF-239, EF-237, EF-188
EF-222	EF-60 As a possible customer I want to check an invitation		Future Customers	Major	Sub-task	EF-197, EF-221, EF-224, EF-235, EF-185, EF-223

EF-221	EF-60 As a sales manager I want to contact a possible customer.		ELDIA	Major	Sub-task	EF-220, EF-222, EF-184
EF-220	EF-60 As a sales manager I want to select a possible customer.	Manual Task As a sales manager (EDLIA) I want to select a possible customer based on need, product or service characteristics and price.	ELDIA	Major	Sub-task	EF-221, EF-183, EF-219
EF-217	EF-60 As a sales manager I want to view customer details and previous transactions ratings	As a sales manager (EDLIA) I want to view customer details like expertise, quality, price time of delivery.	ELDIA	Major	Sub-task	EF-215, EF-182, EF-216, EF-219
EF-237	EF-61 As a supplier I want to send a rejection		Future Suppliers	Major	Sub-task	EF-199, EF-224, EF-238, EF-235, EF-187
EF-235	EF-61 As a supplier I want to check invitation.		Future Suppliers	Major	Sub-task	EF-197, EF-222, EF-234, EF-236, EF-237, EF-185
EF-215	EF-60 As a sales manager I want to search for customers	If invitation is not accepted As a sales manager (EDLIA) I want to search for customers via search engines or a published catalog. I want to search based on the characteristics of the product we need along with the price.	ELDIA, Kleemann	Major	Sub-task	EF-217, EF-224, EF-180
EF-272	EF-265 As an operation manager (MILOIL) I want to explore tonnage predictions per raw material	Tonnage forecasting methods should be available for raw materials related to bioenergy production	miloil	Major	Sub-task	
EF-271	EF-265 As an operation manager (MILOIL) I want to	Price forecasting functionality should be available for raw materials related to bioenergy production	data-analytics, miloil	Major	Sub-task	

	explore price forecast per raw material					
EF-270	EF-265 As an Operation manager (MILOIL) I want to deploy historical data related to previous purchases for raw material	Import historical data to eFactory platform for further analysis	data-analytics, miloil	Major	Sub-task	
EF-266	EF-264 As an operation manager (ELDIA) I want to monitor bins fill level of my customers.	Dashboard to monitor bins fill level	ELDIA, fill-level	Major	Sub-task	
EF-177	EF-54 As a purchasing manager (supplier) I want to receive a selection /rejection notification.	via email.	ELDIA, Kleemann, matchmaking	Major	Sub-task	EF-175, EF-176, EF-178
EF-176	EF-54 As a purchasing manager (requester) I want to select an offer.	As a purchasing manager (KLE) I want to select an offer by clicking on the preferred offer and then send an email or UI notification to the successful company.	Kleemann	Major	Sub-task	EF-173, EF-177, EF-179
EF-285	EF-54 As a purchasing manager (requester) I want to explore details of the offers.	UI should support offers exploration	matchmaking, online-bidding	Major	Sub-task	
EF-284	EF-54 As a purchasing manager (requester) I want to receive a ranked list of offers.	A ranked list of available offers should be provided to the requester agent/company	matchmaking, online-bidding	Major	Sub-task	
EF-175	EF-54 As a purchasing manager (supplier) I want to submit an offer (predefined or new).	User should be able to set predefined offers or add new ones during the bidding phase	ELDIA	Major	Sub-task	EF-173, EF-174, EF-177, EF-258
EF-174	EF-54 As a purchasing manager (supplier) I want to receive	via email or app/UI notification.	ELDIA	Major	Sub-task	EF-175, EF-257

	notification for a new bidding process.					
EF-281	EF-259 As a purchasing manager (KLE) I want to know in a secure and trusted way that the real driver/company insert my place in order to provide an order/pickup service	Receive the pickup order's details	ELDIA, Kleemann, miloil	Major	Sub-task	
EF-280	EF-259 As a purchasing manager (ELDIA) I want to use an app that provides a secure handover with my customers	A mobile app should be available for a trusted handshake with my customers	ELDIA, Kleemann, miloil	Major	Sub-task	
EF-225	EF-60 As a sales manager I want to receive acceptance/rejection notification		ELDIA	Major	Sub-task	EF-200, EF-202, EF-238, EF-226, EF-188, EF-223
EF-224	EF-60 As a possible customer I want to send acceptance/rejection	If invitation is not accepted	Future Customers	Major	Sub-task	EF-199, EF-215, EF-222, EF-237, EF-186, EF-187, EF-223
EF-184	EF-55 As a sales manager (ELDIA) I want to contact a collaborator	As a sales manager (ELDIA) I want to contact a collaborator via email, call, or SMS.	ELDIA	Major	Sub-task	EF-196, EF-221, EF-183, EF-185
EF-240	EF-61 As a purchasing manager I want to establish a contract.	If offer is agreed upon	Future Suppliers, Kleemann	Major	Sub-task	EF-239

EF-239	EF-61 As a purchasing manager I want to evaluate the offer (price and payment terms)	Manual Task If offer is accepted	Kleemann	Major	Sub-task	EF-201, EF-231, EF-238, EF-240
EF-228	EF-61 As a purchasing manager I want to search for suppliers		Kleemann	Major	Sub-task	EF-190, EF-231
EF-173	EF-54 As a purchasing manager (requester) I want to choose the priority of the offer evaluation criteria.	Available evaluation criteria · Price (service, transportation, and insurance) · Delivery time · Payment terms (credit) · Business ranking · Certificate · Delivery methods (optional) · Payment methods (optional)	Kleemann, matchmaking	Major	Sub-task	EF-175, EF-176, EF-172
EF-172	EF-54 As a purchasing manager (requester) I want to initialize an online bidding process	User should be able to add info about: · Service · Good · Criteria & priority	ELDIA, Kleemann, agents, matchmaking, online-bidding	Minor	Sub-task	EF-173
EF-204	EF-56 As an operations manager (ELDIA) I want to receive products	Manual Task	ELDIA	Minor	Sub-task	EF-203
EF-203	EF-56 As a future supplier I want to send products	Manual Task	Future Suppliers	Minor	Sub-task	EF-202, EF-204, EF-226
EF-202	EF-56 As a future supplier I want to receive an order	If order is true via email or app notification.	Future Suppliers	Minor	Sub-task	EF-201, EF-203, EF-225, EF-227
EF-201	EF-56 Evaluate offer (price and payment terms)	If accepted The user wants to evaluate the offer based on the following criteria: price, quality, delivery time, certifications, ranking based on other users. The criteria should be customisable (see EF-247).	ELDIA	Minor	Sub-task	EF-192, EF-200, EF-202, EF-239, EF-247

EF-200	EF-56 As an operations manager (ELDIA) I want to receive a notification		ELDIA	Minor	Sub-task	EF-192, EF-198, EF-199, EF-201, EF-225, EF-238, EF-188
EF-199	EF-56 As a future supplier I want to send a rejection	If not accepted	Future Suppliers	Minor	Sub-task	EF-197, EF-200, EF-224, EF-237, EF-187
EF-198	EF-56 As a future supplier I want to send an accept notification	If accepted includes pricing terms	Future Suppliers	Minor	Sub-task	EF-197, EF-200, EF-236, EF-186, EF-223
EF-197	EF-56 As a future supplier I want to check invitation	Manual Task	Future Suppliers	Minor	Sub-task	EF-196, EF-198, EF-199, EF-222, EF-235, EF-185
EF-196	EF-56 As an operations manager (ELDIA) I want to contact a collaborator		ELDIA	Minor	Sub-task	EF-195, EF-197, EF-184
EF-195	EF-56 As an operations manager (ELDIA) I want to select a possible collaborator	Manual Task	ELDIA	Minor	Sub-task	EF-194, EF-196, EF-183
EF-194	EF-56 As an operations manager (ELDIA) I want to view products' detailed information	As an operations manager (ELDIA) I want to view products' detailed information by clicking on a specific field. Product details should include characteristics: cost and delivery time.	ELDIA, Kleemann, miloil	Minor	Sub-task	EF-192, EF-193, EF-195, EF-252, EF-232, EF-219

EF-193	EF-56 As a future supplier I want to add a product catalog	By creating a new product catalog. Up to 50 (e.g., spare parts) products should be in a catalog. The products should be presented with the basic characteristics There should be a product search and filters (depending on the product)	Future Suppliers	Minor	Sub-task	EF-191, EF-194, EF-218, EF-230
EF-192	EF-56 As an operations manager (ELDIA) I want to view suppliers' details and previous transactions ratings	if not accepted 201: if order is false	ELDIA	Minor	Sub-task	EF-190, EF-191, EF-194, EF-200, EF-201, EF-231
EF-191	EF-56 As a future supplier I want to add company information to the eFactory Marketplace	Private (any GDPR related information, financial information etc) Public (the product we are searching, the required certifications etc)	Future Suppliers	Minor	Sub-task	EF-192, EF-193, EF-181, EF-216, EF-229
EF-190	EF-56 As an operations manager (ELDIA) I want to search for suppliers	As an operations manager (ELDIA) I want to search for suppliers by using a search engine. Criteria may vary depending on the product. Price, quality, delivery time, certifications, ranking based on other users (etc, criteria and weights should be customisable) Results: top 3 offers based on the pre-defined criteria	ELDIA	Minor	Sub-task	EF-192, EF-228
EF-106	EF-16 As a sales manager (supplier/service provider) I want to receive a dispatch advice.		Lagrama	Minor	Sub-task	EF-22
EF-105	EF-16 As a production manager I want to send a dispatch advice		Lagrama	Minor	Sub-task	EF-22
EF-102	EF-16 As a sales manager (supplier/service provider) I want to process the order	Existing functionality/software at user premises	Lagrama	Minor	Sub-task	EF-28, EF-19, EF-20, EF-21, EF-24, EF-26, EF-30, EF-23

EF-101	EF-16 As a production manager I want to place an order		Lagrama	Minor	Sub-task	EF-28, EF-25, EF-26
EF-100	EF-16 As a production manager or a sales manager (supplier/service provider) I want to negotiate conditions		Lagrama	Minor	Sub-task	EF-171
EF-99	EF-16 As a production manager I want to select product(s) to acquire	Afterwards the conditions are evaluated. If acceptable, the order will be placed. If not, the conditions will be negotiated with the supplier of materials or components or service provider. As soon as an agreement has been reached, the order is placed.	Lagrama	Minor	Sub-task	
EF-103	EF-16 Manufacturing process	Existing functionality/software at user premises	Lagrama	Minor	Sub-task	EF-19, EF-21, EF-23
EF-226	EF-60 As a sales manager/possible customer I want to negotiate online for collaboration		ELDIA	Minor	Sub-task	EF-203, EF-225, EF-189, EF-227
EF-218	EF-60 As a future customer I want to add a product catalog		Future Customers	Minor	Sub-task	EF-193, EF-216, EF-219, EF-230
EF-75	EF-50 As a maintenance technician (supplier) I want to receive the request for remote support		SUP	Minor	Sub-task	EF-76, EF-74
EF-77	EF-50 As an operations manager (ELDIA) I want a	As an operations manager (ELDIA) I want to have visualisation of the breakdown via photo, video or it should be visualized on the company's maintenance system.	ELDIA	Minor	Sub-task	EF-76, EF-74, EF-251

	visualization of the breakdown					
EF-74	EF-50 As an operations manager (ELDIA) I want to send a request for remote support	As an operations manager (ELDIA) I want to send an email describing in brief the problem. Process waste material at required specifications, if there is a breakdown then do this task. Request to be sent by operations manager at ELDIA and to be received by Maintenance Technician at SUP.	ELDIA	Minor	Sub-task	EF-75, EF-77, EF-245
EF-181	EF-55 As a future customer I want to add company information to eFactory Marketplace	As a future customer I want to add information about history, goals, what our company does, projects, customers.	Future Customers	Minor	Sub-task	EF-191, EF-79, EF-182, EF-229, EF-249
EF-216	EF-60 Add company information to eFactory Marketplace		Future Customers	Minor	Sub-task	EF-191, EF-217, EF-218, EF-229
EF-219	EF-60 As a sales manager (EDLIA) I want to view products' detailed information		ELDIA	Minor	Sub-task	EF-194, EF-217, EF-220, EF-232, EF-218
EF-227	EF-60 As a future customer I want to receive products		Future Customers	Minor	Sub-task	EF-202, EF-226
EF-189	EF-55 As a sales manager (ELDIA) and as a future customer I want to discuss collaboration	If accepted Manual Task	ELDIA, Future Customers	Minor	Sub-task	EF-226, EF-188
EF-188	EF-55 As a sales manager (ELDIA) I want to receive a notification	As a sales manager (ELDIA) I want to receive a notification if the invitation was accepted or rejected via e-mail or SMS.	ELDIA	Minor	Sub-task	EF-200, EF-225, EF-238, EF-186, EF-187, EF-189

EF-187	EF-55 As a future customer I want to send a rejection	If not accepted As a future customer I want to send a rejection via email or through the app with 3 answers YES/Give me x hours/NO.	Future Customers	Minor	Sub-task	EF-199, EF-224, EF-237, EF-185, EF-188
EF-186	EF-55 As a future customer I want to send an accept notification	If accepted As a future customer I want to send an accept notification via email or through the app with 3 answers YES/Give me x hours/NO	Future Customers	Minor	Sub-task	EF-198, EF-224, EF-236, EF-185, EF-188, EF-223
EF-223	EF-60 Send Accept Notification and place order	If invitation is accepted	Future Customers	Minor	Sub-task	EF-198, EF-222, EF-224, EF-225, EF-236, EF-186
EF-185	EF-55 As a future customer I want to check an invitation	Manual Task	Future Customers	Minor	Sub-task	EF-197, EF-222, EF-184, EF-235, EF-186, EF-187
EF-183	EF-55 As a sales manager (ELDIA) I want to select a possible collaborator	From the top 3 options, As a sales manager (ELDIA) I want to view the collaborators' profile and then choose the preferred one.	ELDIA	Minor	Sub-task	EF-195, EF-220, EF-184, EF-182
EF-182	EF-55 As a sales manager (ELDIA) I want to view collaborators details and previous transactions rating	As a sales manager (ELDIA) I want to view 3-5 previous transactions ratings. The number should be customisable.	ELDIA	Minor	Sub-task	EF-217, EF-180, EF-181, EF-183
EF-180	EF-55 As a sales manager (ELDIA) I want to search for collaborators	As a sales manager (ELDIA) I want to search for collaborators based on the following criteria: price, delivery time, certifications, ranking based on other users.	ELDIA	Minor	Sub-task	EF-215, EF-182, EF-247, EF-248
EF-230	EF-61 As a future supplier I want to add		Future Suppliers	Minor	Sub-task	EF-193, EF-232,

	a product/service catalog					EF-218, EF-229
EF-229	EF-61 As a future supplier I want to add company information to the eFactory Marketplace		Future Suppliers	Minor	Sub-task	EF-191, EF-231, EF-181, EF-216, EF-230
EF-83	EF-53 As a purchasing manager (ELDIA) I want to receive an invitation for offers submission	As a purchasing manager (ELDIA) I want to receive an invitation for offers submission via email or app notification.	ELDIA	Minor	Sub-task	EF-82, EF-255, EF-256
EF-82	EF-53 As a non-hazardous materials manager (KLE) I want to ask for offers	As a non-hazardous materials manager (KLE) I want to ask the supplier's personnel responsible for drafting offers for offers via email or app.	Kleemann	Minor	Sub-task	EF-81, EF-83
EF-81	EF-53 As a non-hazardous materials manager (KLE) I want to view the company profiles' evaluation	As a non-hazardous materials manager (KLE) I want to view the company profiles' evaluation on a graph or in a ranking table.	Kleemann	Minor	Sub-task	EF-80, EF-82, EF-254
EF-78	EF-53 As a non-hazardous materials manager (KLE) I want to request available waste management companies	As a non-hazardous materials manager (KLE) I want to request available waste management companies.	Kleemann, matchmaking	Minor	Sub-task	EF-79, EF-80, EF-253, EF-244
EF-80	EF-53 As a non-hazardous materials manager (KLE) I want to view details of available waste management suppliers	As a non-hazardous materials manager (KLE) I want to view the following details about available waste management suppliers: Pick-up time, price, payment method and certifications.	Kleemann	Minor	Sub-task	EF-78, EF-81
EF-209	EF-59 As a managing director (ELDIA) I want to monitor price predictions based on historical data		ELDIA, matchmaking	Minor	Sub-task	EF-210

EF-161	EF-22 As a sales manager (supplier/service provider) I want to produce goods	Existing functionality/software at user premises	Lagrama	Minor	Sub-task	
EF-212	EF-59 As a (future) supplier/customer I want to provide overview of market opportunities		Customer, Future Customers, Future Suppliers, Supplier	Minor	Sub-task	EF-211, EF-213
EF-211	EF-59 As a (future) supplier/customer I want to have historical data analysis and predictions		Customer, Future Customers, Future Suppliers, Supplier	Minor	Sub-task	EF-210, EF-212
EF-214	EF-59 As a managing director (ELDIA) I want to select the most suitable one / final decision		ELDIA	Minor	Sub-task	EF-213
EF-213	EF-59 As a managing director (ELDIA) I want to monitor market opportunities		ELDIA	Minor	Sub-task	EF-212, EF-214
EF-210	EF-59 As a managing director (ELDIA) I want to request an overview of market opportunities		ELDIA	Minor	Sub-task	EF-209, EF-211
EF-79	EF-53 As a purchasing manager (ELDIA) I want to add company information		ELDIA	Minor	Sub-task	EF-78, EF-181
EF-76	EF-50 As a maintenance technician (supplier) I want to perform remote maintenance	As a maintenance technician (supplier) I want to interact with the platform via video (with technicians) or photos. If there is availability, perform task.	SUP	Minor	Sub-task	EF-75, EF-77

EF-73	EF-49 As a non-hazardous materials manager I want to get a collection notification	If fill level is over 80% (=almost full), notify otherwise monitor fill level. The user wants to be notified by e-mail or SMS. The following persons should be notified: * Recycling specialist * Environmental Management specialist * Maintenance supervisor * Logistics department manager.	Kleemann	Minor	Sub-task	EF-72, EF-242, EF-243
EF-72	EF-49 As a non-hazardous materials manager I want to monitor fill level	Bin's fill level should be represented visually and in numbers. It should be in real time.	Kleemann, matchmaking	Minor	Sub-task	EF-71, EF-73, EF-243
EF-71	EF-49 As a non-hazardous materials manager I want to access fill level live data	Current fill level data shall include weight, height, percentage of fill.	Kleemann	Minor	Sub-task	EF-72
EF-171	EF-30 As a purchasing manager or a sales manager (Provider of logistics services) I want to negotiate delivery terms		Lagrama	Minor	Sub-task	EF-100
EF-136	EF-26 As a purchasing manager I want to send a tender invitation to selected suppliers	The invitation includes supply terms.	Lagrama	Minor	Sub-task	
EF-130	EF-25 As a purchasing manager I want to publish a product request	A product request includes product specifications and terms.	Lagrama	Minor	Sub-task	
EF-154	EF-21 As a managing director I want to launch the internal production order	Order (+ product specifications)	Lagrama	Minor	Sub-task	
EF-145	EF-17 As a production manager		Lagrama	Minor	Sub-task	

	(supplier/service provider), I want to view company information					
EF-104	EF-16 As a production manager I want to report nonconformity		Lagrama	Minor	Sub-task	EF-138, EF-22
EF-122	EF-15 As a production manager I want to export analytics information	Afterwards the data is imported into the legal system.	Lagrama	Minor	Sub-task	
EF-121	EF-15 As a production manager or sales manager (collaboration partner) I want to generate analytics data for a dashboard		Lagrama	Minor	Sub-task	
EF-118	EF-15 As a production manager I want to get customer company information		Lagrama	Minor	Sub-task	EF-119
EF-119	EF-15 As a sales manager (collaboration partner) I want to public my company profile		Lagrama	Minor	Sub-task	EF-118
EF-129	EF-14 As a sales manager (collaboration partner) I want to send a rejection note.		Lagrama	Minor	Sub-task	
EF-128	EF-14 As a production manager I want to export contacts.		Lagrama	Minor	Sub-task	
EF-127	EF-14 As a production manager I want to store company information.		Lagrama	Minor	Sub-task	EF-15
EF-126	EF-14 As a sales manager (collaboration		Lagrama	Minor	Sub-task	

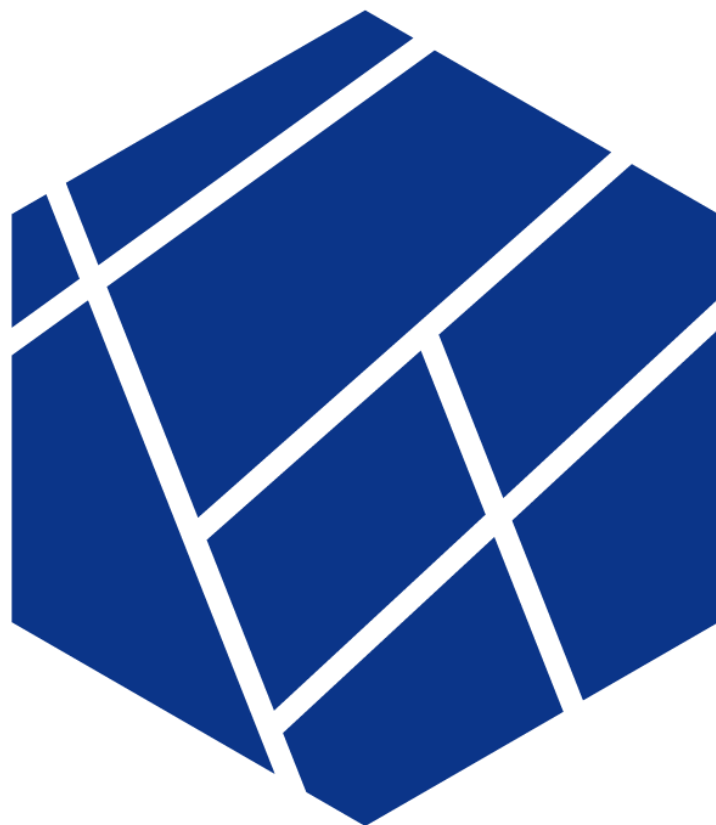|						
	partner) I want to register on the platform					
EF-125	EF-14 As a production manager I want to invite a company to be a member of the platform		Lagrama	Minor	Sub-task	
EF-168	EF-24 As a purchasing manager I want to cancel an order.		Lagrama	Minor	Sub-task	
EF-167	EF-24 As a purchasing manager I want to search for a new provider		Lagrama	Minor	Sub-task	
EF-166	EF-24 As a purchasing manager I want to evaluate the production and delivery plan		Lagrama	Minor	Sub-task	
EF-170	EF-30 As a purchasing manager I want to select a logistics supplier		Lagrama	Minor	Sub-task	
EF-169	EF-30 As a purchasing manager I want to search for logistics service		Lagrama	Minor	Sub-task	
EF-139	EF-26 As a purchasing manager I want to compare among candidate bids		Lagrama	Minor	Sub-task	
EF-138	EF-26 As a purchasing manager I want to send nonconformities		Lagrama	Minor	Sub-task	EF-104
EF-137	EF-26 As a sales manager (Supplier/Service Provider) I want to submit a bid		Lagrama	Minor	Sub-task	

EF-135	EF-26 As a purchasing manager I want to publish a tender		Lagrama	Minor	Sub-task	
EF-133	EF-25 As a purchasing manager I want to notify a rejection		Lagrama	Minor	Sub-task	
EF-132	EF-25 As a sales manager (supplier/service provider) I want to send an offer for supplying		Lagrama	Minor	Sub-task	
EF-131	EF-25 As a sales manager (supplier/service provider) I want to have a visualisation of the request		Lagrama	Minor	Sub-task	
EF-165	EF-24 As a sales manager (Provider of logistics services) I want to report incidence		Lagrama	Minor	Sub-task	
EF-160	EF-20 As a production manager I want to update the delivery status and schedule		Lagrama	Minor	Sub-task	EF-24, EF-23
EF-159	EF-20 As a production manager I want to monitor the delivery process		Lagrama	Minor	Sub-task	EF-23
EF-158	EF-20 As a production manager I want to launch the delivery order	Delivery items	Lagrama	Minor	Sub-task	EF-24, EF-30, EF-23
EF-153	EF-19 As a production manager I want to save the history	As a production manager I want to save the history after the production is completed.	Lagrama	Minor	Sub-task	EF-20, EF-21, EF-23

EF-152	EF-19 As a production manager I want to update production status and schedule		Lagrama	Minor	Sub-task	EF-21, EF-23
EF-151	EF-19 As a production manager I want to monitor the production process		Lagrama	Minor	Sub-task	EF-21, EF-23
EF-147	EF-17 As a production manager I want to set a production process as an internal process		Lagrama	Minor	Sub-task	
EF-146	EF-17 As a production manager I want to assign a partner to process		Lagrama	Minor	Sub-task	
EF-144	EF-17 As a production manager I want to search for production partners		Lagrama	Minor	Sub-task	
EF-143	EF-17 As a production manager I want to define production processes		Lagrama	Minor	Sub-task	
EF-142	EF-17 As a production manager I want to select a product or a product part		Lagrama	Minor	Sub-task	
EF-206	EF-58 Negotiate contract terms		ELDIA, SUP	Minor	Sub-task	EF-205, EF-207, EF-208
EF-208	EF-58 Process order	If terms are agreed	SUP	Minor	Sub-task	EF-206
EF-207	EF-58 Place order	If terms are agreed	ELDIA	Minor	Sub-task	EF-206
EF-205	EF-58 Select equipment to purchase		ELDIA	Minor	Sub-task	EF-206
EF-124	EF-29 Access to catalogue		Lagrama	Minor	Sub-task	

EF-123	EF-29 Introduce product/service catalogue data	Introduce product/service catalogue data (pictures, certifications, technical specifications, specific properties, price, documentation)	Lagrama	Minor	Sub-task	
EF-116	EF-28 Group RFQs		Lagrama	Minor	Sub-task	
EF-114	EF-28 Generate quotation		Lagrama	Minor	Sub-task	
EF-113	EF-28 Send request for quotation	Send request for quotation (product specifications)	Lagrama	Minor	Sub-task	
EF-112	EF-27 Apply filters		Lagrama	Minor	Sub-task	
EF-111	EF-27 Product data		Lagrama	Minor	Sub-task	
EF-110	EF-27 Get results		Lagrama	Minor	Sub-task	
EF-109	EF-27 Explorative search		Lagrama	Minor	Sub-task	
EF-108	EF-27 Task-based search		Lagrama	Minor	Sub-task	
EF-107	EF-27 Search for product / service	Search for product / service (Product information)	Lagrama	Minor	Sub-task	

Annex A: History

Document History	
Versions	V0.1: • Document set-up and draft Table of Contents V0.9: • First version for review
Contributions	all partners

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