

DOCUMENT TITLE:

REPORT ON COOPERATION PROFILE MATRIX TOOL DEVELOPMENT

**Project: Improving RD and business policy conditions for
transnational cooperation in the manufacturing industry**

Acronym: Smart Factory Hub

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PP	Restricted to other Programme participants	
RE	Restricted to a group specified by the consortium	
CO	Confidential, only for members of the consortium	X

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1 Introduction

Cooperation profile matrix is a specific tool (or a functionality) integrated in the Smart Factory Hub Mapping tool. With the help of this feature, each partner will be able to match regional SMEs, projects and good practices by needs and available solutions as well as funding opportunities. In order to be able to successfully match so called “Supply and Demand”, thus increase cooperation in the region, partners shall be able to identify interested parties (SMEs) and map their cooperation potential/interest.

In order to allow matching the supply and demand, identification of interested parties and relevant information/data shall be possible on a longer term. The so called “matching” is possible only if collected data is relevant, updated, trustworthy and complete. In order to assure this, the Cooperation profile matrix tool entry form needs to be developed and provided, so that interested project partners, facilitators (at a later stage) and even interested parties by themselves can be identified and presented in a quality manner.

Developing a Form that allows further strategic development around the Cooperation profile matrix tool is the main goal of this activity and deliverable. The form will be usable and published in the Mapping tool, where each interested party can fill it in, while the project partners could then assess those entries (and interested parties) through the lens of their potential, cooperation possibilities, need/demand analysis, etc. In the final stage, the project partner could include interested party in the Mapping tool database, while making sure that those entries can be retrieved in the search mode, which will present the main functionality in matching relevant demand and supply.

1.1 Target group involvement

Developing the Cooperation profile matrix tool and preparing the report will not directly involve any target groups, except during the testing phase, when developing partner will approach several SMEs in order to test the form and relevant entries. At a later stage, the form itself will be used by the target groups regularly, by filling in the data and providing their initiative for collaboration in the Hub.

On the other side, the project partners will be using the database created through the Form in a match-finding way. This means that the Mapping tool users will be able to access data through a perspective of finding the right player for their specific needs/requests. This will mean that the target group will potentially be contacted with a specific opportunity, cooperation possibility and transfer of knowledge/technology request, which is indeed the major goal of using the mapping tool.

1.2 Deliverable structure

Cooperation profile matrix tool form will be used for collecting all relevant data and information about the interested party (mostly SME), which will, as a consequence, enable insertion of relevant data into the Mapping tool database.

The form shall be provided alongside clear instructions for the partner and interested party to understand what kind of information to be provided. The form shall be published on the project website and project partner websites (based on partner's decision) and potentially be prepared or integrated for publishing alongside Mapping tool, so that interested parties can fill-in the form through the Mapping tool itself, thus submitting the data automatically to the regional project partner for further assessment.

2 Introduction and technological background¹

Nowadays, the enterprises are entering into a new era of computing fuelled by big data, advanced business intelligence, cloud computing, and mobile devices. These have produced significant technological innovation – and disruption – for existing users and architectures. Review and enhancement of information architecture is needed to support the requirements for this new era and to enable many business opportunities it offers. A key component is to consider how to exploit the recent innovations in data management and business intelligence capabilities being offered by vendors today. Their assessment requires a deeper understanding in three critical areas – the What, the Why and the How behind these innovations and their corresponding technological advances.

- **The What:** These describe the drivers for the technologies that help both business and IT to acquire, analyse and understand all sources of information flowing into the enterprise today.
- **The Why:** These consist of the benefits derived from improved Business/IT efficiencies and effectiveness achievable through the utilization of technological advances.
- **The How:** These are the technological advances, derived from the What and Why factors, that enable the modern enterprise possible today.

The advent of big data and increasing interest in blending new sources of data (web, social computing and sensor data, for example) into the business decision making process has also resulted in significant advances in relational database technology. Today's relational database products now support a broad range of different data types and have been enhanced to support growing data volumes. Many of them also provide a rich set of analytic capabilities that enhance traditional descriptive data as well as providing more advanced predictive and prescriptive search techniques.

New disruptive technologies have led to a rich set of capabilities for automating business processes and deploying data warehousing and business intelligence (BI) solutions.

The challenge of course is how to determine which technology (provider) to use for any given need or project.

¹ Source: Technology Innovations for Enhanced Database Management and Advanced BI; Claudia Imhoff, Intelligent Solutions, Inc. Colin White, BI Research May 2013 Sponsored by IBM

The main objective is to extract useful business information from new types and sources of data for use by existing BI applications and for building new and advanced BI solutions. This can be done by either converting the data into a more usable format before loading into a data warehouse, or directly loading the data into a data warehouse and processing it there.

2.1 Business intelligence tools

Business Intelligence Software (or BI software) is a class of computer applications that process and analyse corporate data to produce quality insights, and help understand the health of your business. BI software uses a variety of formulas and metrics to measure, compare, and relate business indicators, and makes it possible to distinguish the strengths and weaknesses of every company. The main functions of these systems are data discovery, data management, and reporting, but some of them also evaluate functionality and employees' performance.

The goal of business intelligence programs is to allow for the easy and deeper interpretation of large volumes of business data. Finding out opportunities to grow and adopting effective strategies based on these deep, analytical insights can provide businesses a huge competitive market edge over competitors, aside from long-term stability.

In addition, business intelligence software programs can provide businesses historical, current, and predictive online views of various operations of their business.

Thus, it is no wonder that a lot of businesses—whether they are a small start-up, a medium-size company, or an enterprise firm—use these tools to support a wide range of business decisions, whether they are operational or strategic in nature. It's always a good idea to get more information on each product first.

Business Intelligence Apps and systems are designed to analyse and transform big data into operable business intelligence, which is especially beneficial for large businesses with complex structure and organization. They need robust and well-integrated solutions that will reveal the whole picture of how their business is doing, in particular such that detect important trends and opportunities, and reveal risk on an early stage to help them avoid severe financial damage. Plus, large enterprises benefit from the quote-based pricing which is very typical for these products, as they obtain an individually tailored package that is priced and equipped according to their needs.

2.2 Customer Relationship Management (CRM) Tools

A CRM database system uses an expansive set of computer files to keep track of pertinent information regarding sales leads, clients, and other stakeholders, saving time and money over other tracking methods. Sales teams and other personnel can keep this information up to date with minimal fuss, especially using programs that integrate with other everyday business tools such as Outlook. These databases can draw information from multiple departments, including sales, marketing, and customer service, creating a complete profile on each customer a business handles. Personnel from other departments can then pull this information at a moment's notice, avoiding communication failures and redundancy issues which occur when data stays spread across many individuals.

2.3 The relation between the HUB and the CRM tools

One of the important goals of the Smart Factory Hub project is to implement, test and use the advanced CRM or similar tools for the specific purpose of HUB operation. This means that the standard database creation and utilization in the scope of one single entity is no longer efficient, since the tool has to support multi-national, multi administrative and multi-user approach specific to HUBs. The mapping tool is to be developed and used in the SFH project, which will give partners new knowledge on using these kinds of advanced software tools in their daily business.

One of the most important in difficult questions when increasing the tool usability is how to make sure that the input data is relevant, up-to-date, structured and managed in such a way, that the mapping tool user can easily extract useful information from the tool. If succeeding to have a quality database, one can easily exploit many different and very efficient tools, which are fitting different purposes. What is to be achieved in the scope of the Smart Factory Hub project is: to be able to construct a tool which will be able to support the user in finding the appropriate supply-demand match between production oriented SMEs, solution providers, projects and support measures. This is also the wider scope of developing a Cooperation profile matrix tool, which will allow and support exactly that particular feature.

3 Cooperation profile matrix tool development

Cooperation profile matrix is a part of mapping tool, providing the user with the search functions that shall result with connecting "supply and demand". It shall give clear guidelines for Mapping tool developers for developing and implementing proper information fields and also for platform users when searching and collecting cooperation possibilities.

As a result of analysis performed during other supporting activities (such as Regional mapping and best practice guidelines planning) a set of relevant data to be collected through a form (and implemented in the mapping tool) was determined. Consequently, a template was prepared for making collection of data by the project partners easier.

Contextual fields from the Form presented in the Table 1 are also part of Mapping Tool input data to be collected by users and to be entered to the Mapping tool. The entered data based on company/institution information and their best practice information represents a "Profile" of a company/institution.

Table 1: Data to be collected for each applicant

Item	Data/Input	Description/comment	Data type
General information			
Country	(applicant country of registration)	Provide the applicant country of registration	Public
NUTS2		Provide region according to NUTS2 classification	Public
Name	(full title)	Name of the Applicant	Public
Organization type	(one selected from list)	<ol style="list-style-type: none"> 1. SME 2. Large company 3. Research Institute 4. University 5. Association 6. Public Authority 7. OTHER (Please specify) 	Public
Year Established	(year)	State the year	Public
Market sectors	(More than one possible from list)	Select the markets the Applicant is focusing to: <ol style="list-style-type: none"> 1. Aeronautics industries 2. Automotive industry 3. Biotechnology 4. Chemicals 5. Construction 6. Cosmetics 7. Defense industries 8. Digital economy 9. Electrical and electronic engineering industries 10. Food industry 11. Gambling 12. Healthcare industries 13. Maritime industries 14. Mechanical engineering 15. Medical devices 16. Postal services 17. Pressure equipment and gas appliances 18. Raw materials, metals, minerals and forest-based industries 19. Social economy 20. Space 21. Textiles, Fashion and creative industries 22. Tourism 23. Toys 24. OTHER (Please specify) 	Public

Item	Data/Input	Description/comment	Data type
Services provided	(More than one possible from list)	Select the main services provided by the Applicant: 1. Consulting 2. Education/Training 3. Engineering 4. Manufacturing 5. Policy 6. Research and development 7. Services 8. OTHER (Please specify)	Public
Geographical and contact information			
Address	(street, ZIP code, city, country)	Please provide	Public
Phone	(number, including country code)	The telephone number that can be contacted for more information	Public
e-mail	(email)	The email address that can be contacted for more information	Public
Website	(URL)	The main website of the Applicant	Public
Social Media	(Facebook, Twitter, LinkedIn, YouTube, other).	Please enter the links to social media	Public
Logotype	(file)	Please provide logotype file in a *.jpeg or *.gif format.	Public
Description and keywords			
Description	(mission, scope, services provided)	Description	Public
Description in local language – optional	(Description)	Description in local language	Public
Keywords	(maximum 10 keywords)	Please provide relevant keywords for the company, product etc.	Public
Keywords local language - optional	(maximum 10 keywords)	Please provide keywords for the company, product etc. in local language	Public
Additional information			
Turnover	(Only one possible from list)	The turnover (approximately): Unit: [€] 1. 0-250.000 2. 250.000-500.000 3. 500.000-1.000.000 4. 1.000.000-5.000.000 5. >5.000.000	Non-public
Number of employees	(Only one possible from list)	Select the number of persons permanently employed in the Applicant (approximately): Unit: [FTE]	Non-public

Item	Data/Input	Description/comment	Data type
		<ol style="list-style-type: none"> 1. 0-9 2. 10-49 3. 50-250 4. >250 	
Geographical scope	(one selected from list)	Select the main geographical scope: <ol style="list-style-type: none"> 1. Local/Regional 2. National 3. European 4. Global 	Non-public
Partner, partner type	(More than one possible from list)	Please state your main business partners (name, abbreviation) and indicate their organizational type: <ol style="list-style-type: none"> 1. University 2. Research & Technology organization 3. Incubator/accelerator 4. Start-up company 5. SME 6. Large enterprise 7. Industry association 8. Chamber of Commerce 9. Networked, cluster organization 10. Private investors, institutes 11. Economic development agencies 12. Vendors 13. Educational institutes 14. National governments 15. Regional governments 16. User community 17. Other, Please specify 	Non-public
Funding	(More than one possible from list)	What funding resources have been used in the past: <ol style="list-style-type: none"> 1. EU Funds (both EU and National level) 2. Startup/Seed/Venture funding 3. Own funding 4. Public funding 5. Memberships 6. Bank loans and funds 7. Other - Please specify 	Non-public
Applicant areas of interest	(More than one possible from list)	Such as interests and cooperation possibilities in the following areas: <ol style="list-style-type: none"> 1. Market support / internationalization 2. Research and Development cooperation 3. Pilot / technology transfer actions 4. Supply chain integration and 	Non-public

Item	Data/Input	Description/comment	Data type
		cooperation 5. Policy level cooperation 6. Funding support 7. Other. Please specify	
Projects (up to 10)			
Project abbreviation	(data)	Insert project abbreviation	Non-public
Project name	(data)	Insert full project name	Non-public
Programme name	(one selected from list)	Select from the list: 1. FP7 2. H2020 3. INTERREG - Transnational (e.g. Danube, Europe, Adrion, Alpine Space, Central, ...) 4. INTERREG - Crossborder 5. Other EU programmes 6. National 7. Other	Non-public
Duration	(year Start – year End)	Start year and end year	Non-public
Short description	(description)	Short summary of the project idea and goals	Non-public
Main outputs / products / tools / trainings	(description)	Description of project outputs, products, tools and trainings executed in the project.	Non-public
Project webpage and other social media	(data)	Web link to project homepage and other social media links (LinkedIn, Facebook, Twitter etc)	Non-public
Project Partners	(More than one from list/Enter partner names)	List project partner names – in mapping tool option to select from the list of existing entries	Non-public
Product and service data (up to 10)			
Short description of the Product/Service	What service(s) provided (different from example?)	Describe the service/product and its functionality.	Non-public
Example of Product/Service usage	(description)	What problem can be solved and/or need can be addressed with the product/service?	Non-public
Other relevant information about the product/service	(description)	Provide additional information if existing such as case studies, whitepapers, awards and other relevant information.	Non-public
Link to webpage	(data)	Web link to product/service description	Non-public
Link to datasheet, video, pictures etc.	(data)	Web link to additional information related to product/service	Non-public
Product/service technological focus	(More than one possible from	Select the technologies that the product/service is addressing:	Non-public

Item	Data/Input	Description/comment	Data type
	list)	<p>AGRICULTURE AND MARINE RESOURCES</p> <ul style="list-style-type: none"> • Agriculture • Resources of the Sea, Fisheries • Silviculture, Forestry, Forest technology <p>AGROFOOD INDUSTRY</p> <ul style="list-style-type: none"> • Food quality and safety • Micro- and Nanotechnology related to agrofood • Technologies for the food industry <p>BIOLOGICAL SCIENCES</p> <ul style="list-style-type: none"> • Biology / Biotechnology • E-Health • Genome Research • Industrial Biotechnology • Medicine, Human Health • Micro- and Nanotechnology related to Biological sciences <p>ELECTRONICS, IT AND TELECOMMS</p> <ul style="list-style-type: none"> • Electronic circuits, components and equipment • Electronics, Microelectronics • Information Processing & Systems, Workflow • IT and Telematics Applications • Multimedia • Telecommunications, Networking <p>ENERGY</p> <ul style="list-style-type: none"> • Biogas and anaerobic digestion (AD) • Carbon capture and energy • Energy efficiency • Energy production, transmission and conversion • Energy storage and transport • Fossil Energy Sources • Nuclear Fission / Nuclear Fusion • Other Energy Topics • Renewable Sources of Energy <p>INDUSTRIAL MANUFACTURING, MATERIAL AND TRANSPORT</p> <ul style="list-style-type: none"> • Aerospace Technology 	

Item	Data/Input	Description/comment	Data type
		<ul style="list-style-type: none"> • Construction Technology • Design and Modelling / Prototypes • Industrial Manufacture • Materials Technology • Packaging / Handling • Plant Design and Maintenance • Process control and logistics • Traffic, mobility • Transport and Shipping Technologies • Transport Infrastructure <p>MEASUREMENTS AND STANDARDS</p> <ul style="list-style-type: none"> • Amplifier, A/D Transducer • Electronic measurement systems • Measurement Tools • Recording Devices • Reference Materials • Standards <p>OTHER INDUSTRIAL TECHNOLOGIES</p> <ul style="list-style-type: none"> • Other Industrial Technologies <p>PHYSICAL AND EXACT SCIENCES</p> <ul style="list-style-type: none"> • Chemistry • Meteorology / Climatology • Micro- and Nanotechnology • Physics • Separation Technologies <p>PROTECTING MAN AND ENVIRONMENT</p> <ul style="list-style-type: none"> • Environment • Safety • Waste Management • Water Management <p>SOCIAL AND ECONOMICS CONCERNS</p> <ul style="list-style-type: none"> • Citizens participation • Creative products • Creative services • Education and Training • Information and media, society • Infrastructures for social sciences and humanities • Socio-economic models, economic aspects • Sports and Leisure 	

Item	Data/Input	Description/comment	Data type
		Technology, Society and Employment	
Number of customers for the product/service annually	(Only one possible from list)	Select the number of customers annually using the products or services of the Applicant: Unit: [Customers] 1. 0-5 2. 6-10 3. 11-25 4. 26-50 5. >50	Non-public
Type of customers	(More than one possible from list)	Select the target group of customers: 1. SMEs (<250 employees) 2. Large companies 3. Public institutions 4. End customer (Business to Customer) 5. Other, please specify	Non-public
Market availability	(data)	Enter year from which the product is/will be available	Non-public
Declaration			
Declaration	Yes	I hereby declare that the information provided is correct and true and I agree that it can be included in the Mapping tool and relevant projects and published online.	Non-public
Respondent e-mail for administrative communication	(data)	Enter e-mail address of contact person that was entering the data	Non-public
Data entry date	(date)	Fill in date	Non-public