D2.2 Mapping and Initial KPIs Measurement

Version 1.0

May 11th 2015

Executive Summary

FI-IMPACT has undertaken an analysis and initial mapping based on results from the First Call undertaken by 13 of the FI-PPP Phase III Accelerators as at 31 March 2015. The aggregated results are very positive demonstrating a good response from both web entrepreneurs and early stage SMEs across Europe to develop innovative applications and services leveraging FIWARE based on the specific focus on each individual Accelerator Call.

This public deliverable provides an overview of the foundation provided by FI-PPP Phase I and Phase II projects and focuses primarily on the initial outputs from Phase III Accelerators, analysing 538 initiatives selected for funding by 13 of the Accelerators. This analysis provides interesting insights into the market focus, technology coverage, selection models and activities that the Accelerators support. Over 4,000 applications were received by the Accelerators under the first Call, with a particularly strong response from web entrepreneurs and SMEs from Spain, Italy and Germany.

Five hundred and thirty eight proposals were selected for funding by the 13 Accelerators (CreatiFI, European Pioneers, FABulous, FI-Adopt FI-C3, FICHe, Finish, FINODEX, IMPACT, INCENse, SmartAgriFood, Soul-FI and SpeedUp Europe) whose data was analysed in the context of this report. It is very positive that 38 per cent of the initiatives selected were from web entrepreneurs and 48% from SMEs with 2 - 5 employees. Applications related to Healthcare, Agriculture and Manufacturing represented more than 50% of the initiatives. A detailed analysis is provided in Chapter 3, which makes very interesting reading. This monitoring and mapping exercise is a necessary input to estimate and forecast the potential Impacts of these initiatives and responds to the methodology described in D2.1.

The report also provides a refined and detailed methodological framework, including the description and the calculation methods of the Key Performance Indicators (KPIs) that will be used to measure and assess the performance of the projects funded by the Accelerators through the Self-Assessment Tool. This approach builds on the KPIs structure described in D2.1. It is clear based on the initial data kindly provided by the Accelerators that a second round of data collection is necessary to undertake an initial measurement of the KPIs across the FI-PPP Phase III Portfolio.

This public report is divided into 5 sections plus an Annex. Following a general introduction, Chapter 2 describes the results of the mapping of the FI-PPP ecosystem to provide a clear context for the analysis. Chapter 3 presents the comparative analysis of the 538 initiatives funded by 13 Accelerators from different perspectives: by country, by industry market sectors, by technology focus as well as a preliminary cluster analysis of these projects taking into account their targeted market sectors and their technology focus. Chapter 4 provides a structured description of the KPIs framework. Chapter 5 reports the overall conclusions of the analysis and the next steps planned.

Disclaimer

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1. Introduction

This deliverable presents the results of the mapping of the FIWARE ecosystem and the 538 proposals selected by 13 Accelerators after the First call of FI-PPP Phase III as well as a detailed methodological framework of the KPIs building on D2.1.

FI-IMPACT took stock of the potential investment, sectorial focus, organization and detailed plans of each of the accelerators. Once the accelerators had closed their first calls for proposals FI-IMPACT contacted each of the Accelerators and collected data in relation to the proposals received and subsequently the proposals selected for funding. FI-IMPACT carried out a comprehensive review of the selected proposals to determine market focus, target customers and industry sector. This data collection process was closed at 31st of March 2015 in order to write this report and the analysis undertaken is based on the data from the 13 Accelerators who had finished this process by the cut-off date.

This process was not intended to provide statistics for monitoring purposes. These activities were not considered "counting activities". On the contrary, this process, this data and consequently this deliverable, is necessary and propaedeutic to the analysis of the potential Impact these initiatives will have on the FIWARE ecosystem and in the real world market. The data collected will be used over the next three months to define the vertical market and correctly dimension the potential penetration in the specific vertical marketplaces for FIWARE technologies and the initiatives. The market and initiative information will be used over the next three months to perform a forecast of potential growth going towards 2020. The data itself was intended to give context to our analysis and an overall mapping which is an essential part of the methodology already described in Deliverable D2.1.

It should be mentioned that the FIWARE community was quite interested in receiving partial and intermediate results and data so we happily published the data on the community web space "basecamp", on our website and through FIWARE channels via the FIWARE press office. The initial mapping results were also presented at the NetFutures conference in Brussels on 24 - 25 March 2015, both to the FI-PPP community and to the FI Forum composed of representatives of the Member States; they were also shared with the FIWARE Advisory Board at their meeting in Venice on 23 April 2015.

1.1. Scope of the Deliverable

Considering that the downstream work following this deliverable requires detailed data as described above; but that the FIWARE community is also looking for trustable information regarding the FIWARE ecosystem, this deliverable has the following objectives:

- Provide a detailed overview of the FI-PPP Phase 3 Ecosystem;
    - Include a concise overview of previous phases;

  - Provide a market overview of the Use Cases and Pilots from the FI-CONTENT, FINESCE, FISpace, FI-STAR and FITMAN projects;
- Present the results of the of the Accelerators projects including:
  - Call planning and execution phases;
  - Results of the Accelerators' first call;
  - Overview of the consortiums presenting those projects which were selected Overview of the selected projects market focus;
  - Overview of the selected projects technological product and business approach;
- Provide a detailed description of how the data being collected is used in the creation of the KPIs that are and their preliminary measurement.

1.2. Document Structure

Chapter 2 provides a comprehensive introduction and description of the FIWARE ecosystem. To complete our model of the FIWARE ecosystem we have gone beyond our mandate to analyze Phase III initiatives and included a review of Phase II initiatives. This was performed to ensure that context for phase III initiatives was clear, as many of the phase III Accelerators had identified Phase II technology platforms Use Cases and Pilots as their starting point.

Chapter 3 builds upon the description of the ecosystem giving detailed description of the FI-PPP Phase 3 Ecosystem, from information about the Accelerators to a review of the proposals selected so far. Although FI-IMPACT has collected detail on the single Accelerator initiative and the single proposal level, each of the Accelerators has a different plan and different objectives so comparative data is not presented. This chapter, on the other hand, looks across all of the Accelerators and presents the data as a whole looking at sectors, applications and business models across the entire Phase III. We will be looking at trends and overall mesa-level data and do not wish to instil competition amongst different accelerators.

Finally, this deliverable provides a structured description of how we derive the KPIs that we are using to judge success and potential of the single initiatives. **Chapter 4** provides the data collection templates and guides the reader through the process used to calculate these measurements and show how they are aggregated and can be used in tools (like our Self-Assessment tool) and classification schemes like our identification of Success Stories.

1.3. Glossary

This section provides an explanation of the terms used within this Deliverable:

- **Applications:** the proposals submitted to the Accelerators Calls. They are also called submitted proposals.
- **FI** = Future Internet refers to those technologies promoting Internet-enabled innovation
- **FI-PPP** = The Future Internet Public-Private Partnership, short: FI-PPP, is the European initiative promoting Internet-enabled innovation.

- **FIWARE** = FIWARE is used in the context of this guidebook to mean the entire FI-PPP community, the open source platform, the enabling technologies and the support infrastructure.
- **IA** = Impact Assessment. In the context of this deliverable the Impact Assessment abbreviated IA is the output of the FI-IMPACT Project pertaining to the qualitative and quantitative analysis and forecast of the FI-PPP potential socio-economic Impact.
- **KPIs** = Key Performance Indicators
- **Outcomes =** the effect the process has had on the initiatives targeted by it.
- **Outputs**= the products or results of the process.
- **Phase III Accelerator Projects** are referred to as Accelerators and not as projects.
- **Phase III initiatives** are all the projects responding to the FI-PPP Phase 3 Accelerators Open Calls, including those selected and not selected. They are also called proposals or applicants.
- **Phase III projects**, or in short "projects", are the initiatives which have successfully passed at least one phase of selection by one of the 16 FI-PPP Phase 3 Accelerators.
- **Policy** =A policy can be defined as an agreement or consensus on a range of issues, goals and objectives which need to be addressed
- **Program** = A group of activities which are designed to be implemented in order to reach policy objectives.
- **Project** = in this context a project is an initiative receiving grant funding from the European Commission though an FI-PPP Phase 3 Accelerator project call.
- **Proposers** are the components of the team presenting a proposal.
- **SE** = Socio-Economic
- **Submitted Proposals**: the Applications presented to the Accelerators calls.

2. FI-PPP Phase II the bridge from Technology to the Market

2.1. The Road There

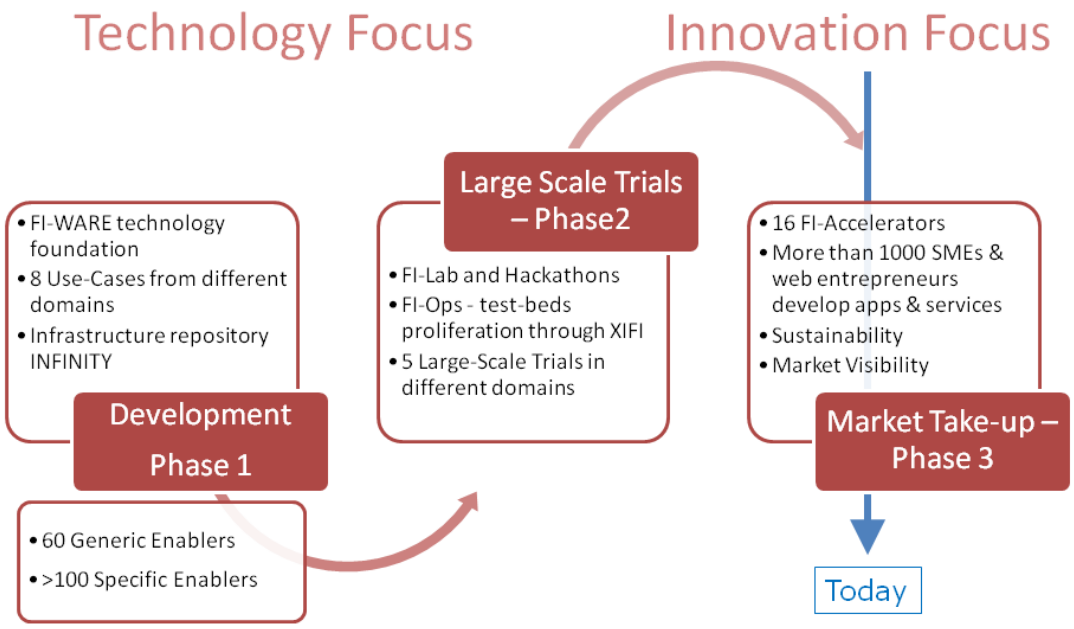
The FI-PPP Programme is articulated in 3 main Phases as shown in the following Figure:

- Phase 1 focused on the development of the FIWARE technology;
- Phase 2 focused on development of use cases and large scale trials
- Phase 3 focused on promoting innovation and take-up of the technologies developed by SMEs and web entrepreneurs.

FI-PPP Phase 1 focused on the development of the FI-WARE technology foundations and enablers. From Phase 3 onwards FIWARE (without a hyphen) is the brand used to promote all FI-PPP related products and services within the market, including – but not being limited to – the results of the FI-WARE project.

The Phase 3 projects rely on the FIWARE technology platform to support their solutions and tools and can leverage the results and infrastructures of Phase 2 projects to take their business ideas to the targeted markets. Together they constitute what we call the FIWARE ecosystem.

The following sections provide a quick overview of the main initiatives of Phase 2 to provide a better understanding of the landscape in which the Phase 3 initiatives develop their applications and services.



Source: Draft FI-PPP Evaluation report

Figure 1 The Future Internet PPP Lifecycle

2.2. Mapping of FI-PPP Phase 2

2.2.1. Overview

FI-PPP Phase II focused on catalyzing and strengthening the future competitiveness of Europe's ICT scientific and technology base. It was intended to advance European-scale development, implementation, uptake and adoption of Future Internet technologies in Europe, "making public service infrastructures and business processes significantly smarter – more intelligent, efficient and sustainable"[1].

The submission deadline for Call 2 closed in October 2012, focused on two central objectives:

A. Provision of Generic Service Platforms supported by reusable, standardised and commonly shared key technology components → Generic Enablers
B. Validation of the Service Platforms via large-scale service and application use case trials in a multiple "smart application" usage domains in various sectors

Six selected projects commencing their activities in March/April 2013.

I. FI-CONTENT 2 - Future media Internet for large scale CONTENT experimentation 2
II. Finesce - Future INternEt Smart Utility ServiCEs
III. FIspace - Future Internet Business Collaboration Networks in Agri-Food, Transport and Logistics
IV. FI-STAR - Future Internet Social and Technological Alignment Research
V. FITMAN - Future Internet Technologies for MANufacturing
VI. XIFI - eXperimental Infrastructures for the Future Internet

The Phase 2 projects were expected to:

- Ensure the availability of the necessary test infrastructure for the early trials;
- Develop the core platform and the use case specific functionalities, and instantiate them on the test infrastructure;
- Finalise selection, prepare and run early trials for all use cases.
- Prepare large-scale trials in terms of SME participation as application and service developers and infrastructure integration across Europe.

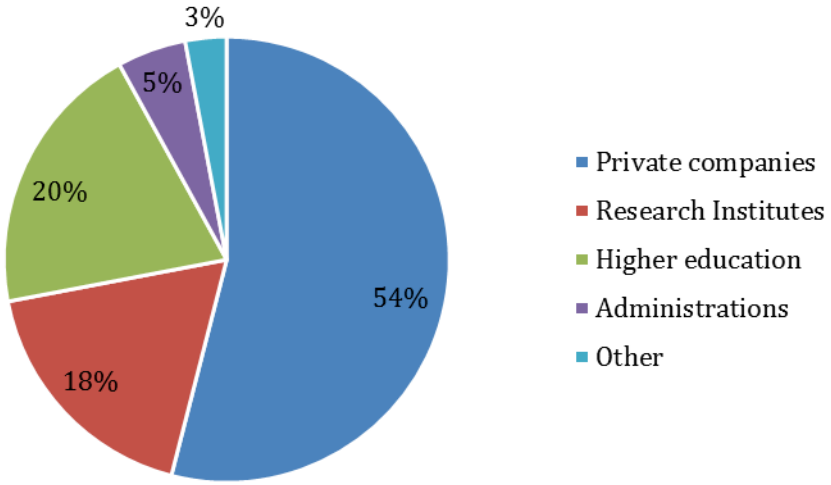
Use cases focused on the following outcomes:

- Experimentation sites building upon common components and Generic Enablers complemented by use case specific capabilities
- Selected test applications implemented on these experimentation sites;
- Validation of the openness and versatility of the Core Platform and its software development kit, through implementation of mixed use case scenarios originating from more than one use case project;

[1] FI-PPP, Cordis at http://cordis.europa.eu/fp7/ict/netinnovation/home_en.html accessed on 25/03/2015

- Plan for how transmission to Phase 3, including detailed plans for large scale expansion of platform usage facilitated by local and regional stakeholders including SMEs.

The European Commission invested € 78.165.000 in research funding in Phase II while private organizations contributed co-funding of an additional €32.011.943 to provide a total budget of 110.176.943 Euros. By the end of 2013 approximately 247 million had been invested in the FI-PPP Phase I and Phase II, of which 67% had been invested by the European Commission and 33% in co-funding from partnering organisations. Of the co-funds contributed by organisations, European Industry itself contributed more than 60% to the overall investment. Phase II had good industry representation (54 per cent) while Research institutes and Higher Education also figured prominently as outlined in Figure 2.



Source: Digital Agenda for Europe 2013

Figure 2 Who is involved in Phase II

Sections 2.2.2 - 2.2.7 provide a brief overview of the Phase II projects with special emphasis on the sectors and markets being supported.

2.2.2. FI-Content 2 - Social Media, Smart City, Gaming

FI-Content 2 focused on Social Connected TV, Smart City Services and Pervasive Games. It provides "Enablers" to SMEs and developers, so they can create applications and services in the areas of social connected TV, smart city services, and pervasive games. The FI-Content 2 Enablers complement the FIWARE catalogue of Generic Enablers (GE), with technologies dedicated to media & content.

Within the Social Media, Smart City and Gaming sectors, Fi-Content 2 focused on:

1. Social Connected TV
    a. Multi-screen interaction
    b. Personalised TV experience
    c. User tracking and privacy
2. Smart City Services

   a. Contextualisation
   b. Live information
   c. Live sharing and communication
3. Pervasive Games
   a. Augmented reality
   b. Blending real and virtual worlds
   c. Toys, installations, and city-wide games

2.2.3. FINESCE - Smart Energy

FINESCE focused on developing an open IT-infrastructure and new app-based solutions leveraging FIWARE enablers for the energy sector. FINESCE built on and extends the results of the FI-PPP FINSENY project to realise sustainable real time smart energy services. The consortium included leading energy and ICT operators, manufacturers and service providers as well as research organisations and SMEs who undertook the following trials :

- Virtual Power Plant/ Virtual factory (Aachen/Cologne, Germany)

  This trial combined a cross border Virtual Power Plant (VPP), based on renewable energy sources (RES) with the Demand-Side Management (DSM) of an intelligent scale factory. The trial site focused on balancing the energy between the smart factory and the virtual power plant in a business to business (B2B) electricity eco-system.

- Electric Vehicle/Smart Grid (Waterford/Portlaoise, Ireland)

  In the Irish Electric Vehicle (EV) trial, Finesce designed and built an electrical vehicle charging system including EV charge-points, communications networks, a control system and control algorithms using generic enablers and domain specific enablers. A second Smart Grid Communications using OPST integrated this system with DSO demand response management systems.

- Intelligent Home (Horsens, Denmark)

  The trial site in the Horsens area upgraded the 20 homes to intelligent homes of the future with the latest energy and ICT technology linked together and managed via a local Smart Grid. The families tested the technologies in real life and developed them further in close cooperation with the suppliers and producers/ manufacturers.

- Intelligent Building (Madrid, Spain)

  The City of Madrid implemented an integrated energy management in one of its office buildings.. Renewable energies from photovoltaic and wind power systems was integrated into the building's micro grid. Weather forecasts are used as an input for the building management system. Energy sub-metering in big buildings as well as for multiple buildings was tested. The building is monitored and controlled with a building management system (BMS) where sensors measure temperature, relative humidity, luminance, power production and consumption

- Energy Management Buildings (Malmo, Sweden)

This trial focused on Demand Side Management and Demand Side Response tests with external buildings in the Hyllie district, Malmö, Sweden, testing pricing and CO2 emissions for both heat and electrical loads.

- Renewable Energy and Grid Management (Terni, Italy)

  This trial was set up a test site in Terni to test integration of photovoltaic (PV) plants and a hydroelectric power station and monitor effects on the grid.

2.2.4. FIspace - Agri-Food, Transport and Logistics

FIspace developed and validated novel Future-Internet enabled solution use cases from the Agri-Food, Transport and Logistics industries. FIspace validated FIWARE Generic Enablers to develop an extensible collaboration service for business networks together with a set of innovative test applications for networked businesses. Those solutions were demonstrated and tested through the following trials:

1. Crop Protection Information Sharing

   This trial demonstrated the use of FIWARE Enablers to address social, business, environmental benefits and food security.

2. Greenhouse Management & Control

   The Greenhouse Management & Control trial involved several Business Actors collaborating via the FIspace platform in order to accomplish specific business scenarios. The trial used FIWARE enablers to demonstrate effective management of greenhouses.

3. Fish Distribution and (Re-) Planning

   The trial was built on the export of fish from Norway.

4. Fruit & Vegetables Quality Assurance

   This trial used FIWARE enablers to facilitate the network of interconnected actors in the 'Fresh Fruits and Vegetables Chain'.

5. Flowers and Plants Supply Chain Monitoring

   This trial was concerned with monitoring transport and logistics processes and focuses on the tracking and tracing of shipments, assets and cargo, including quality conditions and simulated shelf life.

6. Meat Information Provenance

   This trial used FIWARE Enablers to optimize management of the origin of meat, meat type, company and date of slaughtering and further processing of the meat item bought by the consumer at some supermarket or other retailer.

7. Import & Export of Consumer Goods

   This trial addressed a supply chain network which can be differentiated by the nature of the markets (i.e. consumer expectations in the markets), by product ranges (relative importance i.e. priority of a product in that specific market), and by sourcing types (production or trading).

8. Tailored Information for Consumers (TIC)

The aim of the TIC trial was to test and present the potential of the Future Internet and the FIspace platform to improve food awareness among consumers.

2.2.5. FIStar - Healthcare

FI-STAR undertook trials in the healthcare domain to create a robust framework based on the 'software to data' paradigm and validate the FI-PPP core platform concept. FI-STAR built a vertical community in order to create a sustainable ecosystem for all user groups in healthcare. Like the other Phase II projects it has developed a central core platform based on FIWARE and validated the following use cases:

1. Tele-health network for Diabetes patients (Tromso, Norway)

   The Norwegian Centre for integrated Care and Telemedicine in Tromso Norway is a well-established telemedicine center providing care to a rural community north of the Arctic Circle. This use case used FIWARE to extend the existing tele-health network for Diabetes patients through the development of smart phone based streaming of different data at the same time (sensor data and audio and video).

2. Pharmaceutical 2D Barcoding (Leeds, UK)

   This Use case used FIWARE enablers to perform 2D barcoding for the real time reverse medicament supply chain: Medlchem (a SME Pharmacy whole seller in Leeds) implemented the 2D barcoding use case trial to offer real-time reverse supply chain modelling to prevent error and counterfeiting and create interfaces to additional third party services.

3. Healthcare Access for Mental Health problems (Osakidetza, Spain)

   This use case applied FIWARE Enablers to existing healthcare services provided by Odskidetza in Spain to more than 2 million people to test improved access to healthcare.

4. Healthcare data sharing (Ferrara, Italy)

   This Use case demonstrated the use of FIWARE Enablers to connect different applications and devices allowing general practitioners, specialists and healthcare professionals to share the assisted person's healthcare and disease data in real-time, allowing citizens to know and access healthcare data at anytime from anywhere. The use case focused on implementing a regional Health administrative framework where necessary medical Information is collected and elaborated using FIWARE platform, tested with patients affected by Chronic Obstructive Pulmonary Disease (COPD).

5. Virtualization of operating theatres environment(Munich, Germany)

   This use case was implemented by Klinikum Rechts der lsar (teaching hospital) to develop innovative methodologies for minimal invasive operating theatre environments and real time data integration for monitoring and reduction of errors

6. Interactive online facilities for access and quality of care (Krakow, Poland)

   John Paul II Hospital in Krakow implemented this use case to design improved interactive online facilities for cancer patients including hardware (life monitoring sensors, tablets, cameras) and software (knowledge portal also web based treatment

diary, mobile application and a videoconferencing client) to improve access and quality of care.

7. Online Cardiology Service (Bucharest, Romania)

   The University of Medicine and Pharmacy "Carol Davila from Bucharest in Romania undertook this use case to demonstrate the use of FIWARE enablers to develop an Online Cardiology service for people with heart failure through its teaching hospitals. It aimed to establish an online cardiology service for people with heart failure, and in particular for people after myocardial Infarction, by testing software applications in the integration experimentation site, real time vital parameters internet-monitoring, improvement of physical training and improvement in secondary prevention programs.

2.2.6. FITMAN - Manufacturing

The FITMAN (Future Internet Technologies for Manufacturing industries) project aimed to provide the FI PPP Core Platform with 10 industry-led use case trials in the domains of Smart, Digital and Virtual Factories of the Future. FITMAN Trials (4 conducted by Large Enterprises (LE), 6 by SMEs) tested and assessed the suitability, openness and flexibility of FI-WARE Generic Enablers while contributing to the STEEP (social-technological-economical-environmental-political) sustainability of EU Manufacturing Industries.

The use case trials fall under several manufacturing sectors including automotive, aeronautics, white goods, furniture, and textile/clothing, LED lighting, plastic, construction, and manufacturing assets management.

FITMAN use case Trials included Smart factories, Digital Factories and Virtual factories:

1. Smart Factories Trials:
   a. TRW (LE) automotive supplier – Safe & Healthy Workplace,
   b. PIACENZA (SME) textile/clothing – Cloud Manufacturing,
   c. WHIRLPOOL (LE) white goods manufacturer – Mobile workforce.
2. Digital Factories Trials:
   a. VOLKSWAGEN (LE) automotive manufacturer – PLM ramp-up for reduced Time to Market ,
   b. AGUSTAWESTLAND (LE) aeronautics manufacturer – Training services for blue collar workers, WHIRLPOOL (LE) white goods manufacturer – Mobile workforce,
   c. CONSULGAL (SME) construction – As-designed vs. As-built Interoperability,
   d. AIDIMA (SME) furniture – Mass Customised Production.
3. Virtual Factories Trials:
   a. APR (SME) plastic industry – Collaboration valorisation,
   b. TANet (SME) manufacturing resource management – Networked Business Innovation,
   c. COMPLUS (SME) LED smart lighting – Collaborative Production.

2.2.7. XiFi –Support and training

The XIFI project focused on promoting the uptake and deployment of tools, set-up and operation of FIWARE instances and a federation of test infrastructures to enable the federation of computational resources where users can execute deployments and

experiments. The interconnection of the infrastructures is supported by the national research networks (NRENs) and the pan-European GÉANT network. XIFI focused on three main areas:

1. The XIFI Infrastructure Federation

   The XIFI infrastructure federation comprises 18 nodes to support large trial deployments and a broad set of Future Internet users and experimenters

2. FIWARE Ops set of tools

   FIWARE Ops is a collection of tools that eases the deployment, setup and operation of FIWARE instances by Platform Providers. It is designed to help expanding the infrastructure associated to a given FIWARE instance by federating additional nodes (datacenters) over time and allowing cooperation of multiple Platform Providers. FIWARE Ops is the tool used to build, operate and expand a FIWARE Lab.

3. Infrastructure training portal

   This training portal provides training materials relevant for Infrastructure Owners and Operators who are interested in joining the FIWARE Federation of Infrastructures on the following topics:

   - Training Introduction - FIWARE, FIWARE Ops, FIWARE Lab - the pillars of the Future Internet
   - Federated Platform Architecture
   - Process for Joining the Federation
   - Components that you need
   - A Guide to the Infrastructure ToolBox
   - Detailed Components – Monitoring
   - Marketplace and Resource Catalogue
   - Support Processes
   - Deployment and Configuration Adapter
   - Network Controller

2.3. Overview of the FI-PPP Phase III

Phase III of the FI-PPP programme has the overarching goal of multiplying the market uptake and Impact of the Generic and Specific Enablers coming from previous FI-PPP Phases I and II, and capitalizing these investments.

The Call for proposals under Phase III (Future Internet, FP7-2013-ICT-FI) was launched by the European Commission in June 2013 and closed in December 2013, with the aim of selecting 20 projects (Accelerators and Support Actions).

Phase III covers the period from 2014 to 2016, and with an overall budget of €130 million to expand the core platform and run open calls to encourage SMEs and web entrepreneurs to develop applications and services using the FIWARE Enablers through Accelerator projects.

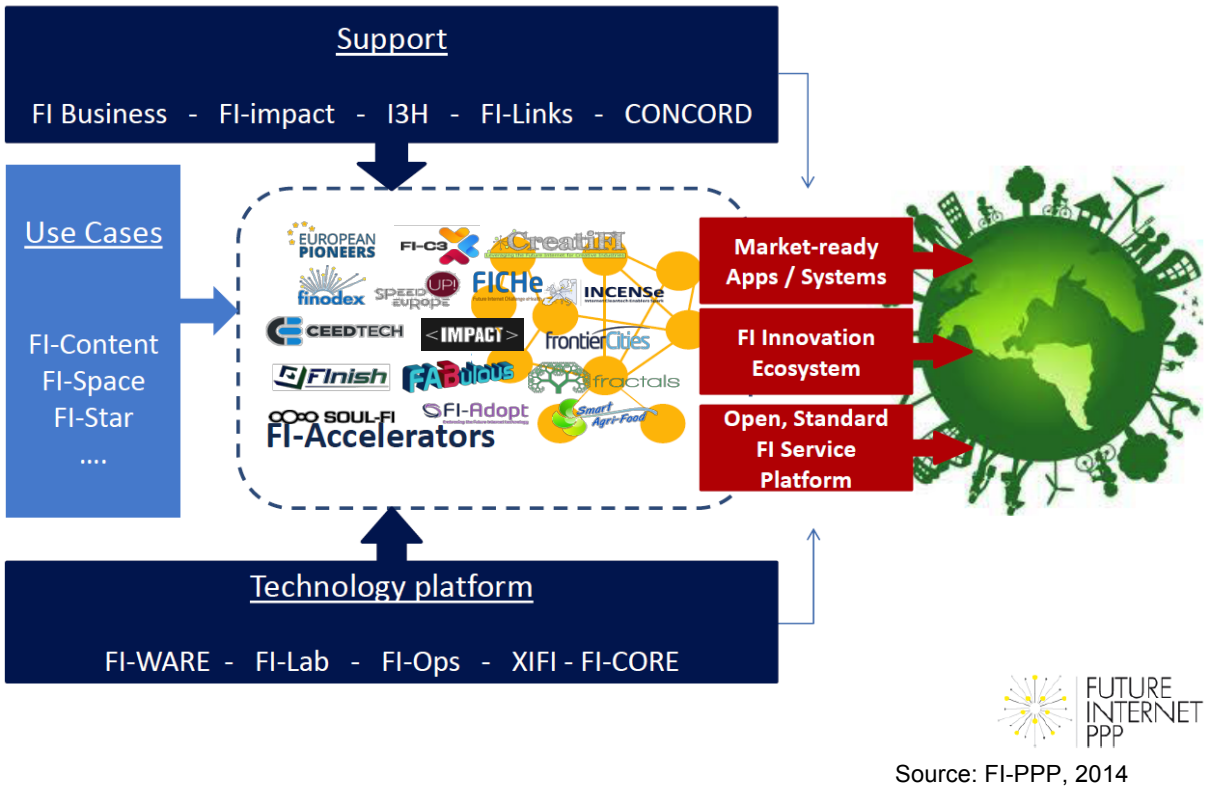
The services and application developed under Phase III aim to make business processes significantly smarter by integrating Internet networking and computing capabilities, and exploiting open data.

Call 3 was structured around 4 types of funding schemes:

- Coordination and support actions (CSA): actions focused on coordination and networking of projects, programmes and policies.
- Large-scale Integrated projects (IP): Objective-driven research projects with a comprehensive programme approach, including a coherent integrated set of activities dealing with a range of aspects, tackling multiple issues and aimed at specific deliverables
- Coordination and networking actions (CA): Support to activities aimed at coordinating or supporting research activities and policies (networking, exchanges, transnational access to research infrastructures, studies, conferences...)
- Specific support action (SA): Contribute to the implementation of the Framework Programme and the preparation of future community research and technological development policy, the development of synergies with other policies or to stimulate, encourage and facilitate the participation of SMEs

Following the evaluation of FP7-2013-ICT-FI, 21 projects were funded to support Phase 3 of the FI-PPP:

- 16 Accelerator projects (described in Section 2.4),
- 1 Technology Foundation Extension
- 4 Support Actions (FI Business, FI-IMPACT, FI-Links, I3H).



Source: FI-PPP, 2014

Figure 3 Figure Phase III Map: from Technology to Market

2.4. Mapping of Accelerators

The overarching goal of the 16 Accelerators is to foster the development and market uptake of innovative solutions and services based on the FIWARE technology catalogue with the ambition to place the European ICT Industry at the centre of the Digital Economy. Through the launch of open calls, the Accelerators will provide start up funding (equity free) to SMEs, Start-ups and web entrepreneurs with the most promising ideas based on the call criteria. Their ambition is to support the creation of up to 1600 Future Internet market-ready applications by 2016. tThe FIWARE Accelerator Programme was officially launched by the European Commission at the 2nd ECFI (European Conference of the Future Internet) on 17-18 September 2014 in Munich.

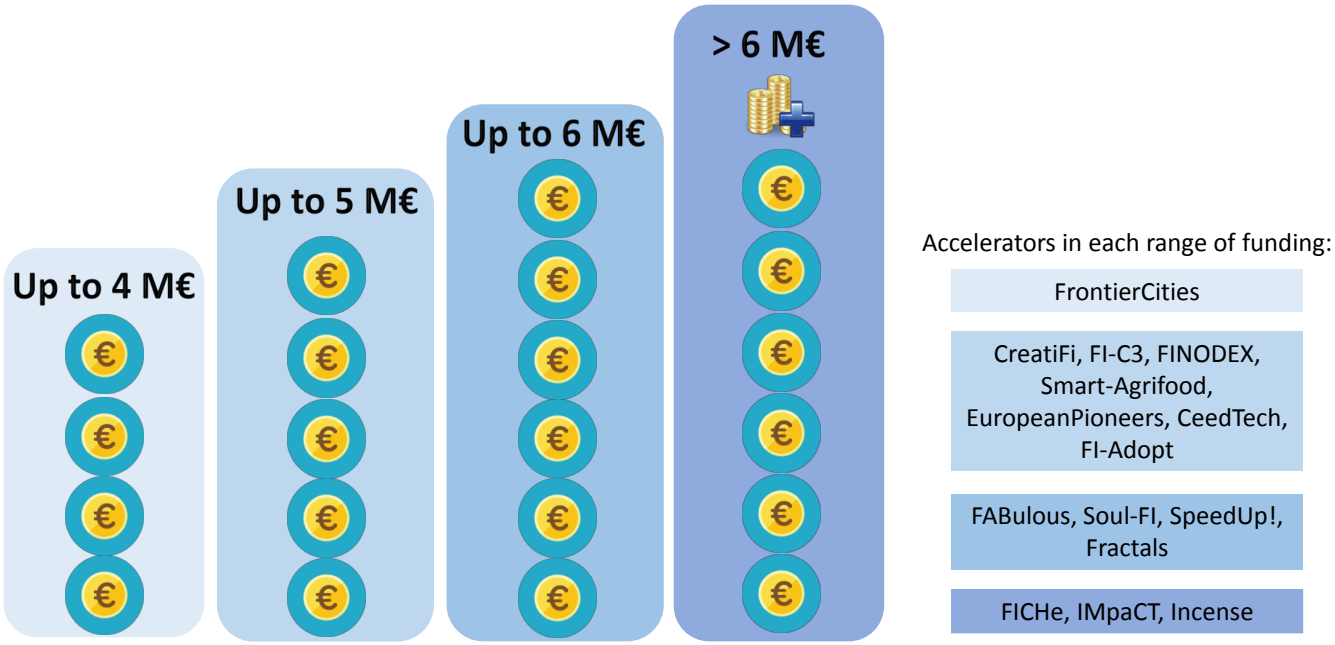
An analysis of the 16 Accelerator projects was undertaken by FI-IMPACT , taking into account:

- their value proposition: goals, expected outputs and benefits, target market, the FIWARE technologies leveraged, geographical coverage, and the total funding
- their call roadmaps: number and timing of calls, selection criteria and steps, number of selected proposals by each step and average funding per proposal

Source: Accelerators

Figure 4 The 16 Accelerator Overview

The European Commission provided the 16 Accelerators €80M in grant funding to be distributed within their acceleration programmes. These Accelerators are consortia of organizations, with on average 5 members each. Each Accelerator received funding that ranged from 3.9M€ to 6.4M€ up to a total of €80M, as outlined in the figure below.



Source FI-IMPACT 2015 based on data provided by 16 Accelerators'

Figure 5 General Overview of funding distribution

Source FI-IMPACT 2015 based on data provided by 16 Accelerators

Figure 6 Funding received by each Accelerator

2.4.1. Accelerator Value Proposition

The FIWARE Accelerator Programme was established with the ultimate goal to boost the creation of a European ecosystem of FIWARE-based digital start-ups to strengthen the competitiveness and added value of the European ICT industry. Each Accelerator has in turn designed a strong value proposition to attract the most promising and highest potential business ideas.

A detailed table about the Accelerators' value proposition is provided in the Annex of this report.

Accelerators Market Focus

The Accelerators may have a specific market focus or address multiple sectors. The figure below maps these by market industries.

Source: FI-IMPACT elaboration of Accelerators' data

Figure 7 Accelerators' market focus

In summary the target markets supported by each Accelerator includes:

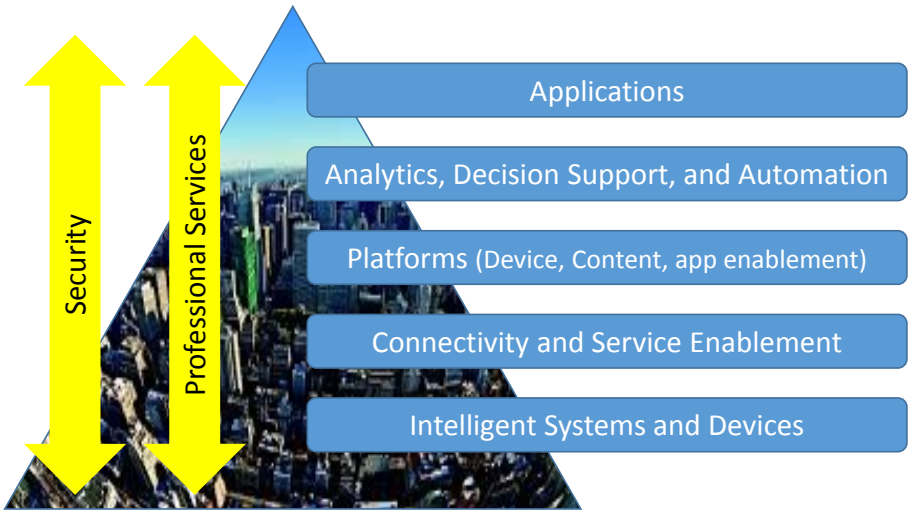
- **CeedTech** focuses on big data, cloud, analytics, transactional technologies, fintech and payments, B2B technologies, location based services and security.
- **CreatiFI** focuses on European creative industries and addresses the domains of media & content and smart cities.
- **EuropeanPioneers** focuses on the field of media in Europe and on the development of software applications enriching the media business landscape and improving media usage for end-customers as well as media suppliers. Teams must have a minimum of two members.
- **FABulous** focuses on 3D printing initiatives in the field of design manufacturing, logistics and content-based services.
- **FI-ADOPT** focuses on corporate and citizen's learning/training, healthy behavior shaping and social integration, that employ rich media, social networking, and mobile apps and gaming principles.
- **FI-C3** focuses on three business domains: smart territories (smart city guides; smart city platforms; smart city services...), media & contents (multimedia augmented reality; transmedia/cross media devices; video games...), and care & well-being (smart home; indoor position; personalized connected media...).

- **FICHe** (Future Internet CHallenge eHealth) focuses on the eHealth domain.
- **Finish** focuses on supporting software applications for supply chains of perishable products such as food or flowers.
- **Finodex** focuses on a wider range of business sectors: environment, health, transport, finance and others. Applications are open to European SMEs, individuals or groups of individuals up to four members.
- **Fractals** focuses on the agricultural domain.
- **Frontier Cities** focuses on the development and deployment of smart mobility solutions for cities.
- **IMPACT** focuses on mobile technologies such as mobile apps or business models based on mobility in the communications areas, social, video, media & advertising; design, education, entertainment, ecommerce, peripheral devices, content, connected TV, infrastructure, security, productivity, finance, smart cities and social networks, among others.
- **INCENse** (INternet Cleantech ENablers Spark) focuses on the European energy sector supporting SMEs and web entrepreneurs developing Internet-based technologies in the Clean Tech sector, within the following categories: Smart Grids, ICT, Automation Solutions, Energy Efficiency, Energy Storage, Electric Mobility, and Renewable Generation.
- **SmartAgrifood** initiatives focus on farmers and agricultural producers. Projects are expected to address one or more of three farming subsectors (Arable Farming - large-scale, Horticulture, Livestock Farming).
- **SOUL-FI** initiatives focuses on real time information, open and crowd-sourced data and on the Internet of Things (IoT) with initiatives addressing the domain of smart cities and sustainable mobility.
- **SpeedUP! Europe** focuses on the areas of agribusiness, smart cities and clean tech.

For the purpose of estimating the market Impacts of the Accelerators' selected proposals FI-IMPACT have further matched the Accelerators' target markets with IDC's vertical market segmentation (see figure below) and identified the Future Internet-related hot areas in these markets to provide insights on the most promising technologies trends in the coming years.

Smart Cities: Smart Cities focus on the goals of economic development, sustainability, innovation, citizen engagement, and building an ecosystem of partners to fundamentally change and improve the quality of life for its residents.

Smart City goals are driving investment in emerging technologies such as Big Data analytics, the Internet of Things, cloud computing, and mobile solutions. Smart City solutions leverage ICT not only to deliver higher-quality citizen services more efficiently but also to effect behavior change in government workers, city businesses, and citizens so that cities can develop more sustainably (source: IDC Gov Insights)



Source: IDC Government Insights 2013, Methods and Practices: IDC GI Worldwide Smart City Taxonomy 2014

Figure 8 The Smart City Technology Component

Health: Future Internet related hot areas include telemedicine, apps, and mobility. Social and Big Data adoption levels are still low in the healthcare sector, even if high investment plans are expected in the future. Social media certainly represents a tool for increasing awareness about the organization, but also several healthcare structures are planning to adopt social solutions for creating a network with other institutions able to facilitate a sharing of knowledge and information among specialists of specific sectors. Big Data, although at an early stage, is revealing strong potential in terms of direct applications in medical research (as well as for patient behaviour and condition analysis).

Transport: in this sector mobility plays a central role in the sector both for internal and external usage. Cloud is rapidly catching on in the sector. Major companies are focusing their investments in the development of private and hybrid cloud networks able to support online ticketing platforms and manage customers' data and fleet information. Transport has been one of the first sectors that understood the importance a social network could play for enhancing customer care and competing with other players. Logistic optimization and intelligent supply-chain management solutions on one-side and customer analytics/marketing tools on the other has lead big transport players to invest in business intelligence and analytics.

Energy & Environment: Intelligent lighting systems and waste management projects represent the main areas where utilities are applying their expertise to compete in the new smart cities market. Smart homes and buildings is another fresh market where utilities are trying to carve their niche. Apps already represent important customers interaction tools for major players in the sector; while e-mobility is still at an early stage but will have a strong Impact on the urban scenario. Finally many mobile applications are rising with the final aim of automate and speed up field service daily tasks of the workforce.

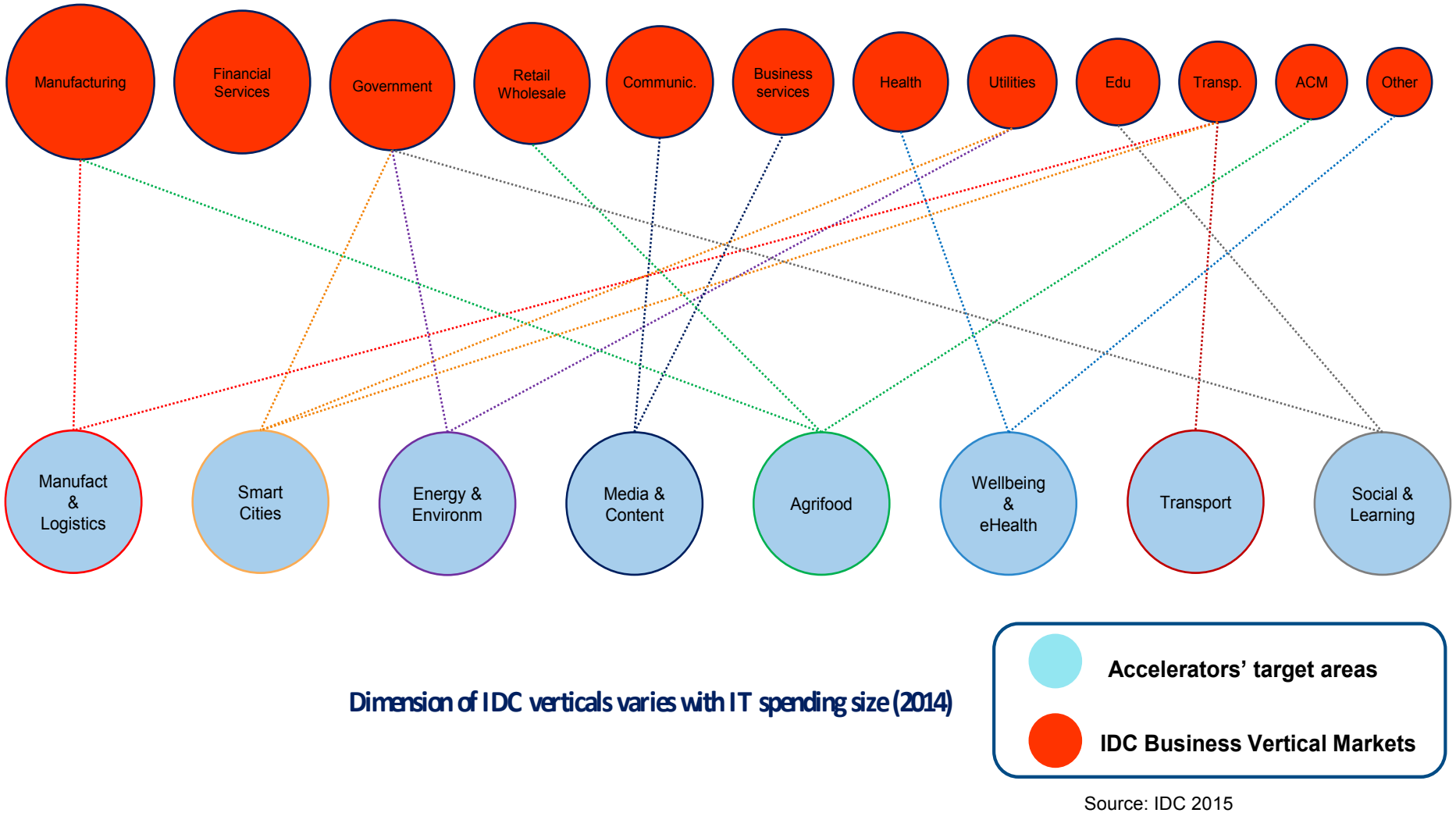
Agrifood: Generally the use of ICT in the agricultural and food sector is twofold. Externally, it helps ensure food safety and quality of the products for consumers, while internally it ensures that the organisation maximizes efficiency and control of the

production process. The agrifood domain is undergoing a smart transformation driven by the Internet of Things (IoT), connected sensors, and smart devices: smart farming (sensors and traceability), smart agri-logistics (real-time virtualization, connectivity, logistics intelligence), and smart food (transparency of data and knowledge representation). Some of the most recent applications, or use cases include: remote irrigation systems and farm animal living condition monitoring, river-level monitoring or well water level monitoring, IoT-based fish farm management system.

Media & Content: the media sector in its entirety is undergoing a digital revolution, with deep changes both in the contents that are produced and in the form in which they are delivered, towards semantic, context-aware content, and ubiquitous, multi-media access to information. The overall sector in Europe put a lot of attention on third platform technologies such as Cloud (Storage, Security, and Customer relationship management (CRM)); Social Media for internal use (to foster employees' collaboration) and external use (to involve the customers); Mobility and apps that can grant readers to access news from any device and from any location, as well as CRM and collaborative apps for internal usage.

Manufacturing & Logistics meet the Future Internet in the areas of: Smart factory (exploiting high-performance computing, robotics, 3D printing, and IoT solutions); Advanced Analytics providing support for process automation and production quality control (Innovative Manufacturing Execution Systems, smart supply-chain, and sales planning solutions). Mobile boosted digitalization of logistics operations, leading to a remarkable reduction of paper-based documents, particularly used in pick-and-delivery activities, as well as to the development of modern schedule and operation management solutions.

Social & Learning: Things in schools and universities are changing, and therefore institutions are moving to adapt and offer an improved learning experience using mobile computing and social tools. Consumerization of devices is increasing students' needs to access the school network from any device, and the wide diffusion of tablets and smartphones is profoundly changing students lives. Social media tools are widely adopted by schools around Europe and are used for a wide range of activities including information and knowledge sharing and improvement of collaboration. Adoption of cloud solutions is increasing in the education sector. Email and collaborative applications are again the first ones to be moved to the cloud while in the medium term we expect investments in public cloud solutions in the areas of unified communications, storage, sync & share and ERP.



Source: IDC 2015

Figure 9 Mapping of Accelerator Target Markets to Vertical market segmentation

Accelerators' Technology Coverage

Based on data collected from Accelerators, FI-IMPACT analysed the overall FIWARE technologies coverage.

It is important to note that an Accelerators' focus may include more than 1 Generic Enablers; while on the other hand they may have a universal focus on the FIWARE Technologies. The FIWARE Generic Enablers covered by the Accelerators' scope are listed below:

- 5 Accelerators (CreatiFi, FICHe, Fractals, FrontierCities, INCENSe) focus on leveraging the Generic Enabler about the Advanced Middleware and **Interfaces to Network and Devices** that defines an enabler space for providing Generic Enablers (GEs) to run an open and standardised network infrastructure.
- 6 Accelerators (CEED Tech, CreatiFi, FICHe, FrontierCities, INCENSe, IMpaCT) focus on the **Security** Architecture of FI-WARE that has the ambition to demonstrate that the Vision of an Internet that is "secure by design" is becoming reality.
- The **Cloud** Chapter offers Generic Enablers that comprise the foundation for designing a modern cloud hosting infrastructure that can be used to develop, deploy and manage Future Internet applications and services. 7 Accelerators (CEED Tech, CreatiFi, FABulous, FICHe, INCENSe, IMpaCT, SOUL-FI) focus on leveraging this enabler.
- 8 Accelerators (CreatiFi, FICHe, FINODEX, Fractals, FrontierCities, INCENSe, SmartAgriFood, SOUL-FI) are active in leveraging the FI-WARE Generic Enablers for **IoT Service Enablement**, enabling things to become citizens of the Internet – available, searchable, accessible, and usable – and FI services to create value from real-world interaction enabled by the ubiquity of heterogeneous and resource-constrained devices.
- 8 Accelerators (CEED Tech, CreatiFi, EuropeanPioneers, FICHe, FrontierCities, INCENSe, IMpaCT, SOUL-FI) specified that their focus is also on the **Data/Context Management** FI-WARE chapter, which aims at easing the development and the provisioning of innovative Applications that require management, processing and exploitation of context information as well as data streams in real-time and at massive scale.
- 8 Accelerators (CreatiFi, EuropeanPioneers, FABulous, FICHe, FRACTALS, FrontierCities, INCENSe, SmartAgriFood) focus on Generic Enablers for the **Apps** Chapter that supports managing services in a business framework across the whole service lifecycle from creation and composition of services to monetization and revenue sharing.

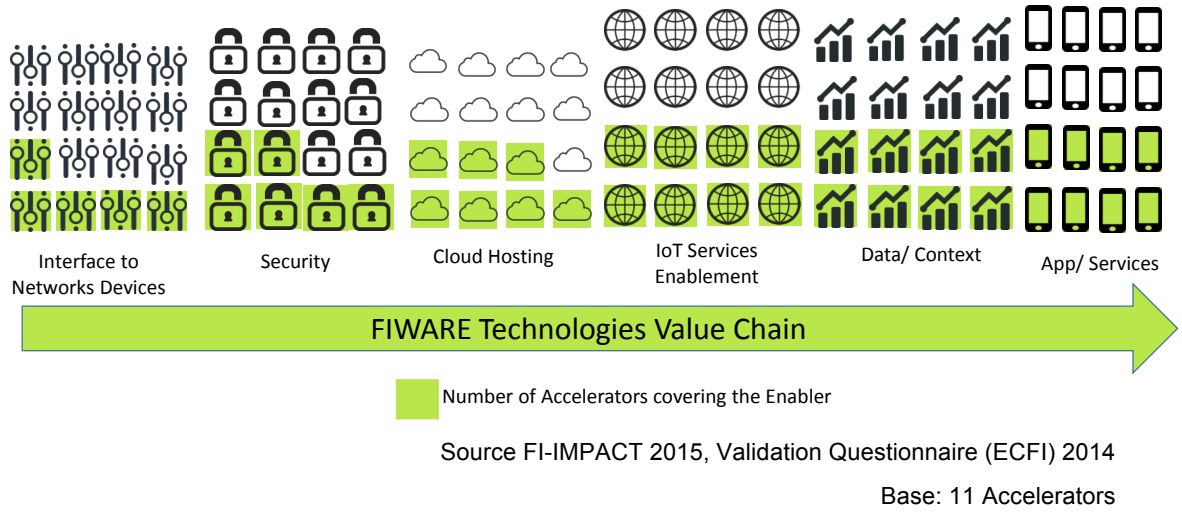


Figure 10 FIWARE Technologies covered by the Accelerators

Accelerators Expected Benefits

The successful completion of the FIWARE Accelerator Programme will create new economic and societal value to European society as a whole. As part of the data collection phase, FI-IMPACT asked the Accelerators to identify the main benefits they expect to reach at European level as a result of the development of application and services by the funded projects. The feedback received from 9 of the Accelerators is outlined below:

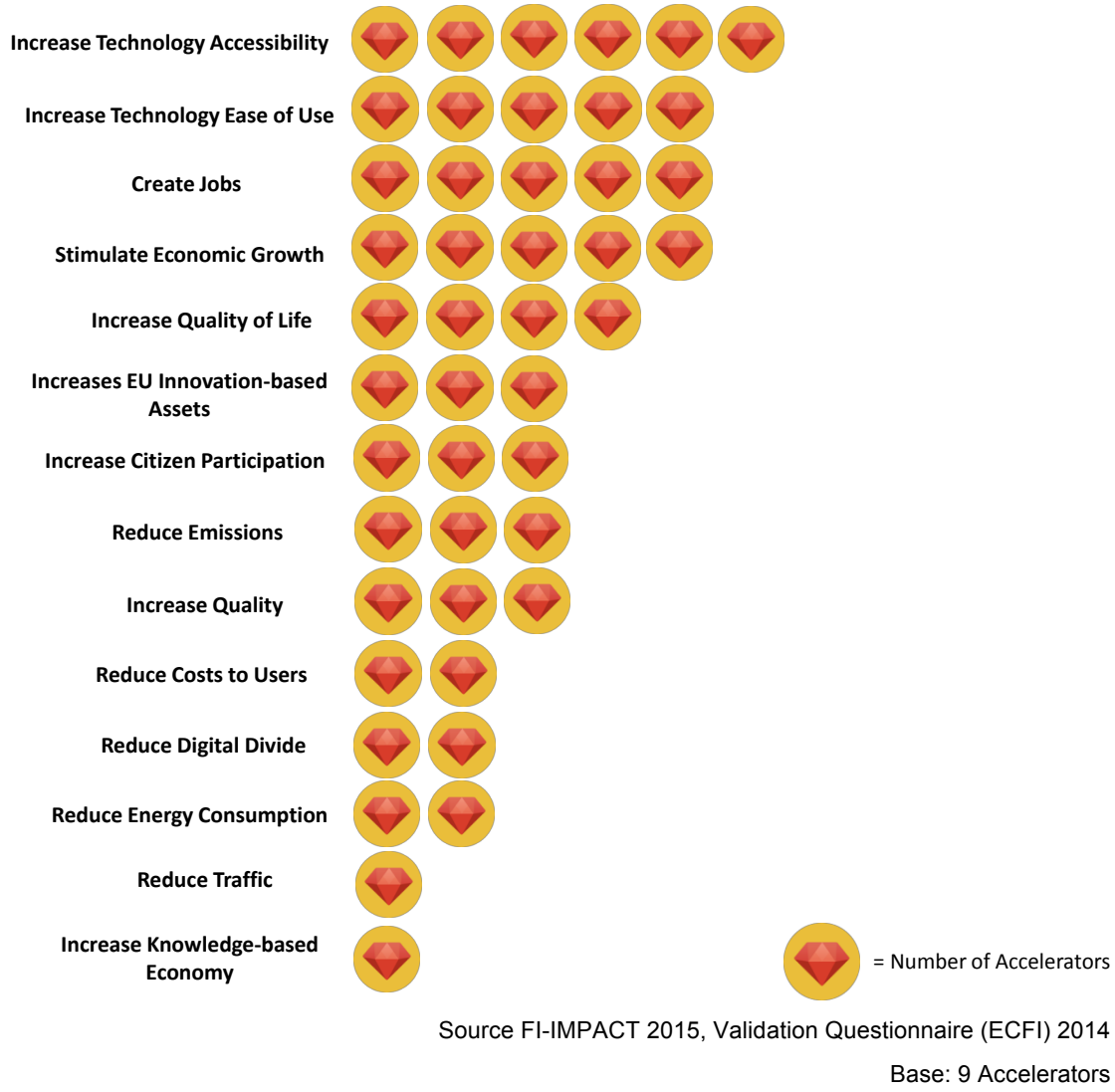
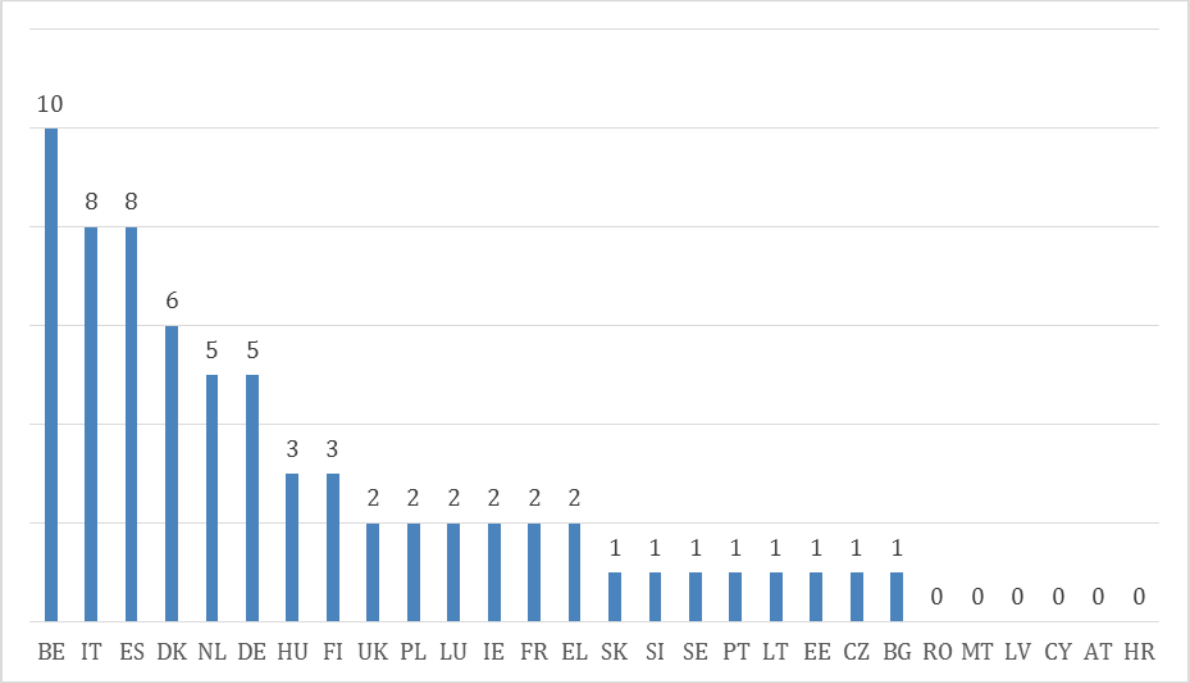


Figure 11 Main benefits expected by the Accelerators

Accelerators Geographical Coverage

It is interesting to review geographic coverage of the consortia members within the 16 Accelerators. This helps us understand potential correlation with the geographical distribution of the proposals submitted under the Accelerator' Open Calls. In case of positive correlation it may mean that the Accelerators' communication and promotion of the FIWARE programme has worked better in the countries where they are based. This analysis is provided in §3.2

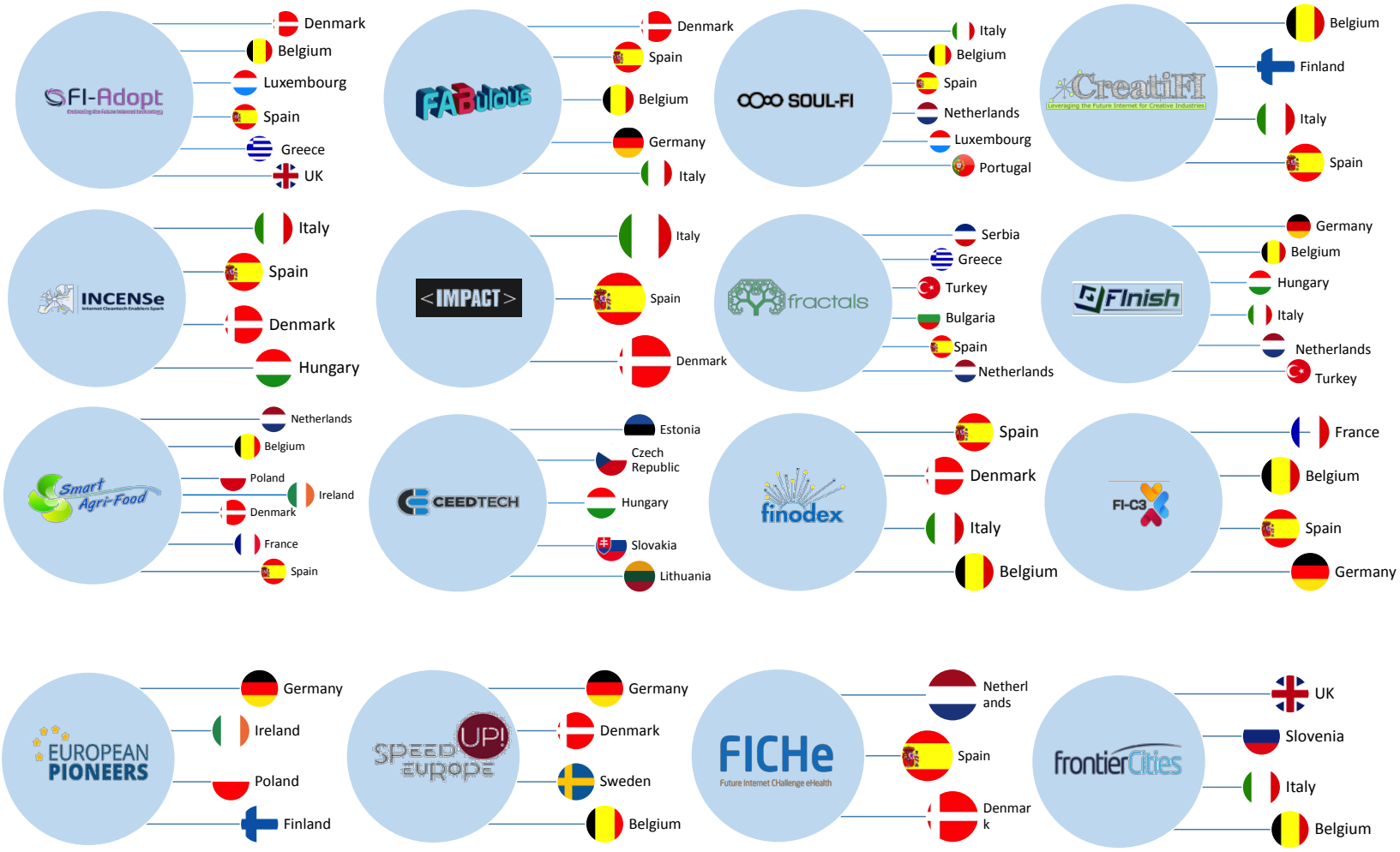


Source: FI-IMPACT 2015 Elaboration of Accelerators Data

Base 16 Accelerators

Figure 12 Accelerators' EU28 Geographical Coverage

The chart above visualises where the accelerators' consortium members are based across the EU28 Member States. As illustrated, there is high concentration in Belgium, Italy, and Spain; while none of the A16 members is based in Romania, Malta, Latvia, Cyprus, Austria, and Croatia.



Source FI-IMPACT elaboration of Accelerators Data (DOWs

Figure 13 Geographical Coverage by Accelerator

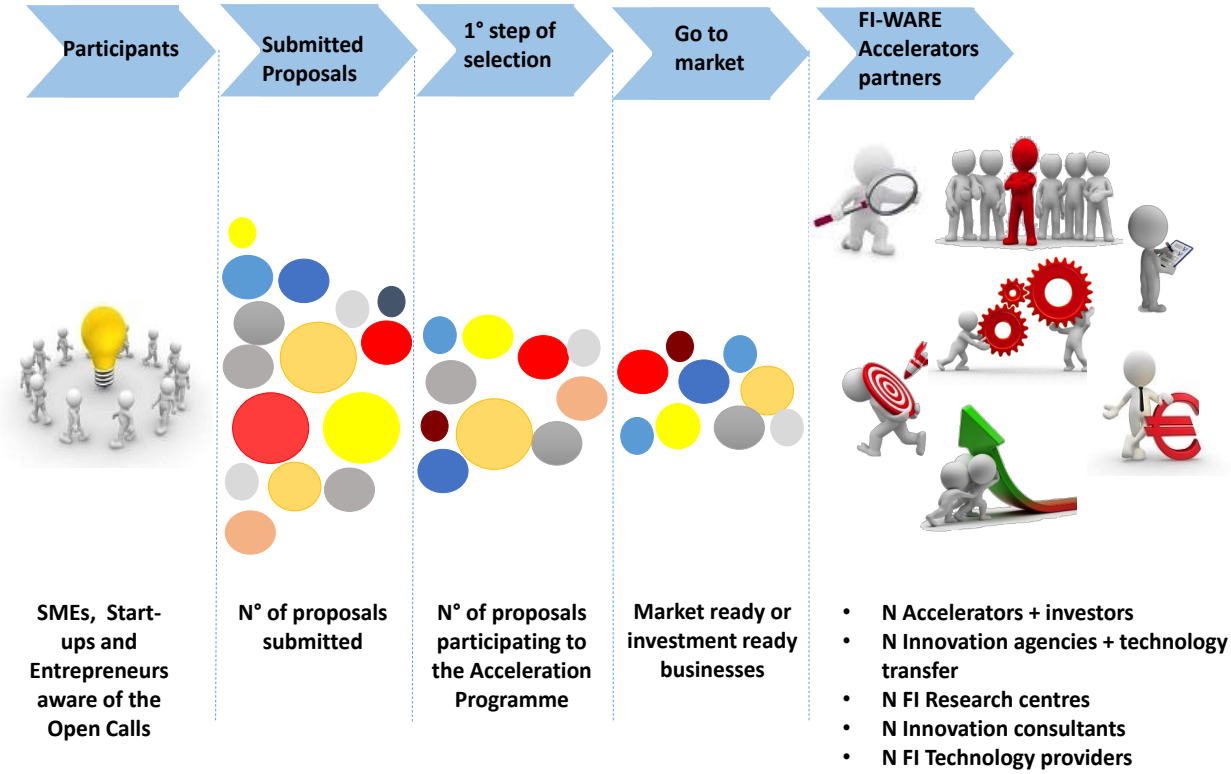
Note: The first country listed is the coordinator's country of origin

2.4.2. Accelerator Programmes

Acceleration Programmes

The FIWARE Acceleration Programme is based on Accelerator projects launching a number of focused Open Calls for Proposals and selecting projects to receive grant funding under each Call. The number of calls for proposals is different from Accelerator to Accelerator:

- 5 Accelerators (Fractals, FrontierCities, SpeedUp Europe, Fiche, and SmartAgrifood) launched a single call for proposals. These calls are now closed and activities have commenced with the selected proposals.
- 7 Accelerators (Finish, CeedTech, Creatifi, Fabulous, Finodex, Incense, and Soul-fi) devised a 2-call approach, with the first calls now closed:
- 4 Accelerators (FI-C3, EuropeanPioneers, Fi-Adopt, and Impact) will carry out three calls for proposal.



Source: FI-IMPACT D3.1 2014

Figure 14 Example of the phases of the FIWARE Acceleration Programme

Overview of the Calls for Proposals

The Accelerators launch their individual calls for proposals via a range of online channels, including their own websites, the F6S platform, and the FundingBox platform, based on the timeline outlined in the table below.

As of April 2015, FI-IMPACT has received data from 14 Accelerators on the results of their first calls, excluding Fabulous and Frontier Cities, and has been able to analyze and elaborate 13 of them. In addition to this, 6 Accelerators have opened their second calls for proposals (European Pioneers, FI-Adopt, Finish, Finodex, Impact, and Soul-fi).

The detailed analysis of the status of the submitted and selected proposals per accelerator is provided in Chapter 3.

	First Call Timing		Second Call Timing		Third Call Timing	
Accelerator						
Fractals	11/2014	02/2015				
FrontierCities	11/2014	02/2015				
SpeedUpEurope	09/2014	12/2014				
FICHe	09/2014	10/2014				
FInish	10/2014	12/2014	03/2015	05/2015		
SmartAgriFood	09/2014	11/2014				
FI-C3	11/2014	11/2014	06/2015	06/2015	01/2016	01/2016
CEED Tech	09/2014	12/2014	07/2015	10/2015		
CREAtiFi	10/2014	11/2014	08/2015	08/2015		
EuropeanPioneers	09/2014	10/2014	03/2015	06/2015	07/2015	09/2015
FABulous	11/2014	12/2014	06/2015	08/2015		
FI-Adopt	09/2014	10/2014	12/2014	01/2015	03/2015	04/2015
FINODEX	10/2014	12/2014	04/2015	06/2015		
INCENSe	10/2014	01/2015	06/2015	09/2015		
IMpaCT	09/2014	11/2014	04/2015	04/2015	09/2015	10/2015
SOUL-FI	09/2014	10/2014 02/2015 06/2015	09/2014	02/2015 06/2015 10/2015		

Table 1 Accelerators Call for Proposals Roadmap

The call process foresees that the participants willing to apply to the calls register on the relevant platform and submit the documentation requested in the Accelerators' Call Documents.

The proposal submission phase is followed by an evaluation phase undertaken by independent expert evaluators based on a list of selection criteria published by each accelerator.

The eligibility of the proposals is subject to different criteria identified by the Accelerators. A list of the most common criteria applied by the accelerators to evaluate the eligibility of the proposals received is outlined below:

- Applicants must be a Start-up, SME[2], or a web entrepreneur
- Applicants must be established in a EU Member State or associated country
- Applicants must use FIWARE technologies in designing mock-ups and prototypes
- Only single legal entities may apply to the call (no consortiums)
- Applicants must be directly responsible for the preparation, management and execution of the plan
- Applicants must be a legal entity
- The same proposal must not be funded for more than one FIWARE Accelerator
- The applications' scope must be in the domain covered by the Accelerator for which the applicants apply

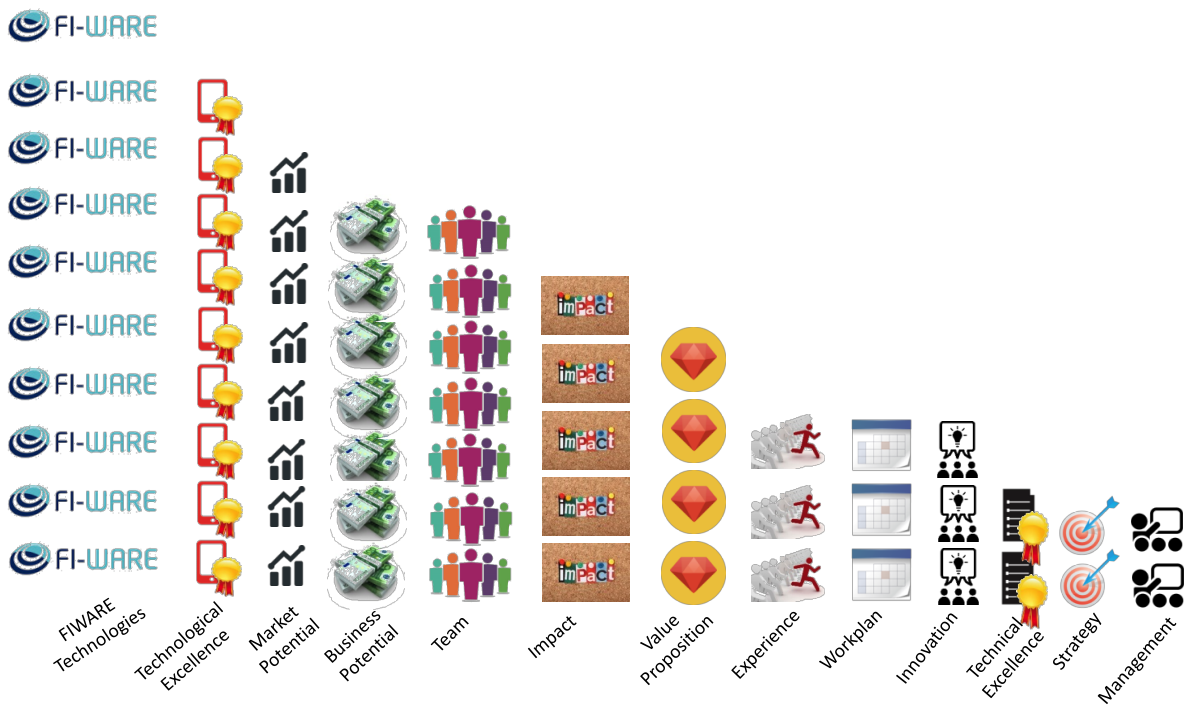
Once the submitted proposals are declared eligible, the next step in the process is the selection of the most promising ones that will be awarded with a contract and with the participation in the acceleration programmes.

The figure below highlights the most frequent criteria applied by the accelerators to select the proposals. It is important to highlight that this data comes from the desk research carried out by FI-IMPACT on the Accelerators' open call documents.

- Make use of FIWARE Technologies: this concerns the use of generic enablers, specific enablers and domain specific platforms (which ones and in which way they are integrated, the expected Impact on the solution, and the contribution to the FIWARE community). This is a general criteria that all the Accelerators take into consideration during the selection process, more or less explicitly. 10 Accelerators have specified this selection criterion in their first call documents.
- Technological excellence: this concerns the quality of the proposed project on a technological level, the ability to implement it, and its innovativeness. 9 Accelerators employed this selection criterion under their first call.
- Market potential: this concerns a set of criteria including market readiness (the ability to reach a viable product throughout the duration of the programme), market implications, target customers, cost structure and revenue model. 8 Accelerators employed this selection criterion under their first call.
- Business potential: this concerns the anticipated market demand, competitive advantage of the proposed projects, its scalability and growth potential, and the business acumen of the team and business plan. 7 Accelerators employed this selection criterion under their first call
- Team: this concerns the quality of the committed team to realize the proposed project. 7 Accelerators employed this selection criterion under their first call.
- Impact: this concerns the social and economic Impacts expected by the development and implementation of the proposed project. 5 Accelerators employed this selection criterion under their first call.
- Value proposition: this concerns the ability to provide significant value to end-users. 4 Accelerators employed this selection criterion under their first call.

[2] According to the European Commission's new SME definition available at http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/sme-definition/index_en.htm

- Experience: this concerns the level of experience and capacity of the applicant. 3 Accelerators employed this selection criterion under their first call.
- Workplan: this concerns the quality of the implementation plan, the complementarity of the team members and commitment, and the coherence and effectiveness of the work plan. 3 Accelerators employed this selection criterion under their first call.
- Innovation: this concerns the level of innovative capacity of the proposed project. 3 Accelerators employed this selection criterion under their first call.
- Technical excellence: this concerns the technical aspects of the product, the current stage of development, clearly defined objectives and quality of the concept. 2 Accelerators employed this selection criterion under their first call.
- Strategy: this concerns the quality and soundness of the commercial and business strategy of the proposed project. 2 Accelerators employed this selection criterion under their first call
- Management: this concerns the quality of the management team, the project plan and the budget. 2 Accelerators employed this selection criterion under their first call.



Source FI-IMPACT 2015 Elaboration of Accelerators' Call Documents

Note: Accelerators apply multiple selection criteria

Figure 15 Overview of the Accelerators' Selection Criteria

To get there, however, the accelerators do not follow the same path. From the submission phase there are 2 different approaches designed by the Accelerators to advance in the process. The figures below provide an overview of the 2 models.

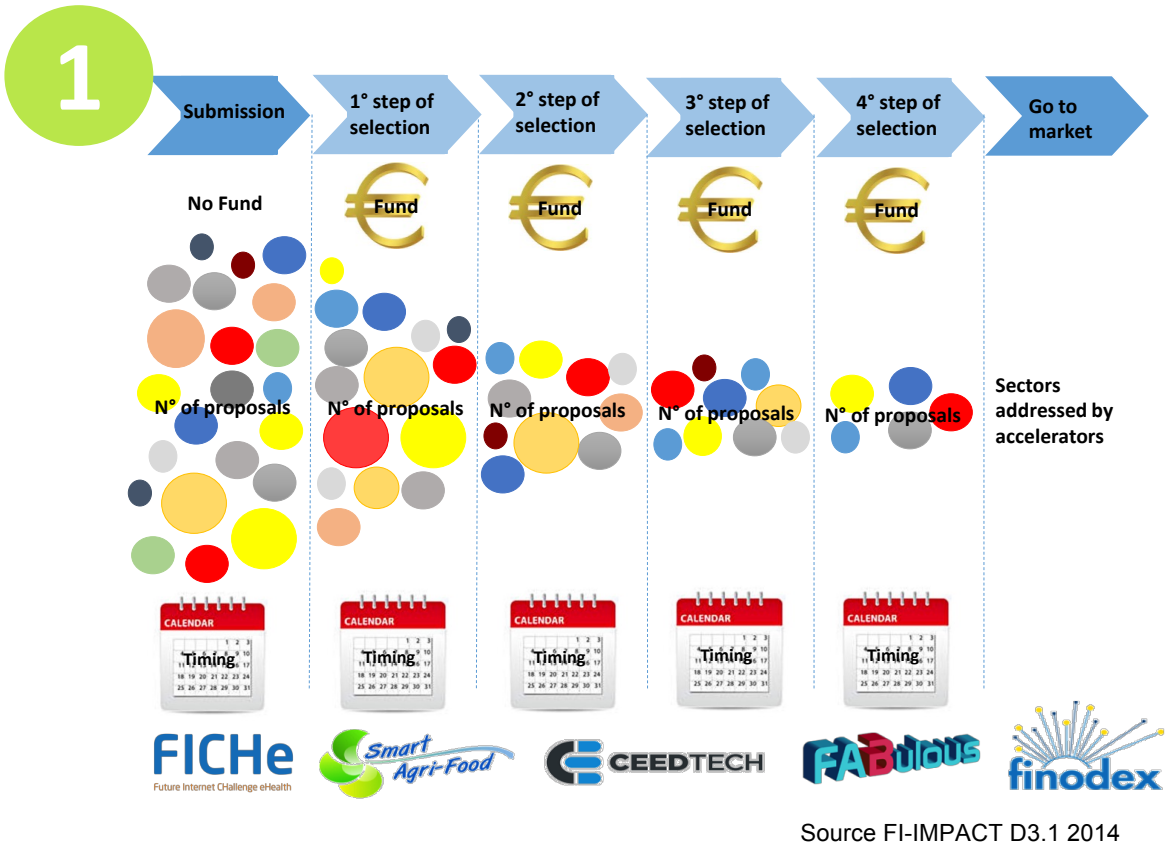
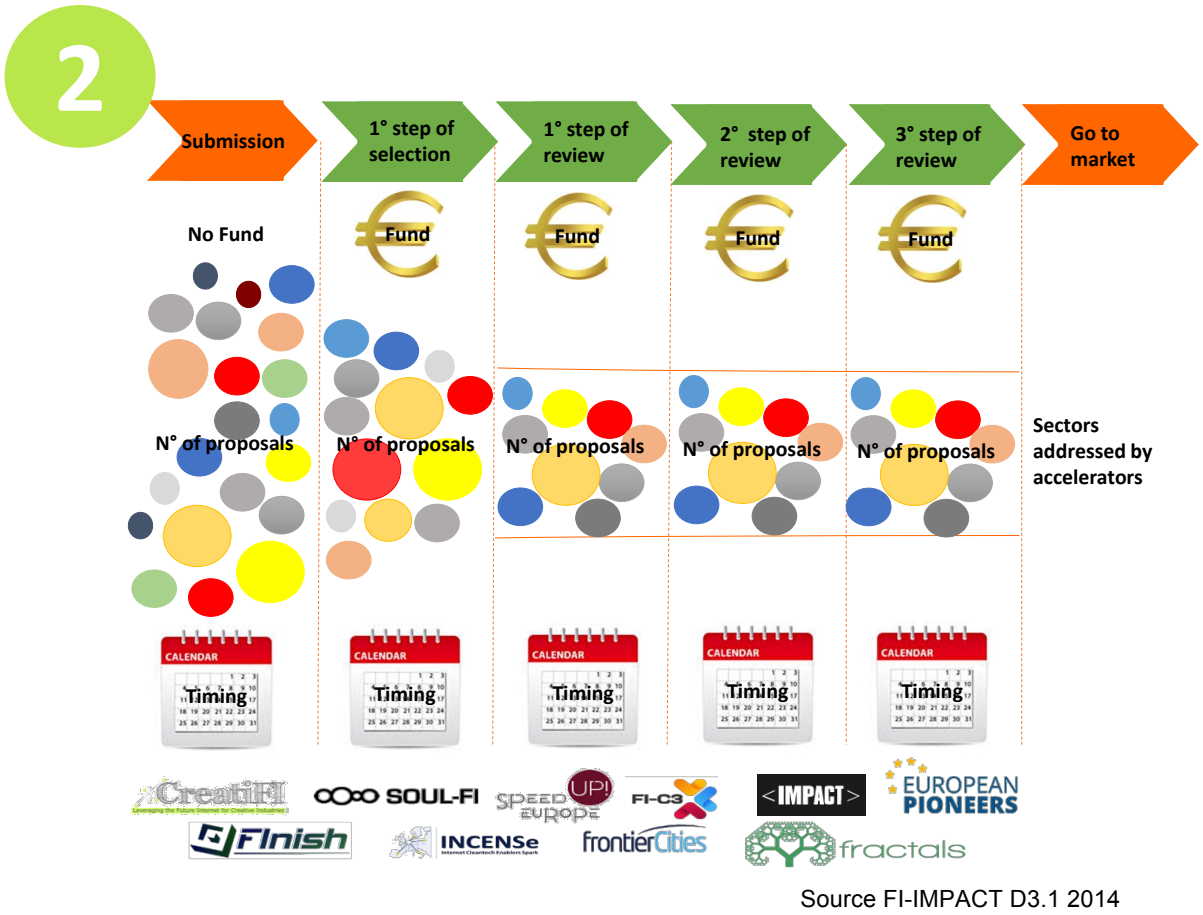


Figure 16 A - Accelerators Selection Process: the Funnel Approach

The selection process implemented by the Accelerators (CEED Tech, FABulous, FICHe, FINODEX and SmartAgriFood) in the figure above is undertaken through multiple selection steps during their acceleration programme whereby at each step the number of projects accepted for funding for the next phase decreases, based on the results of these half-way check points (funnel approach). If the outcome of the check-point is positive the proposers are granted a share of their total funding to continue the development of their projects. The Accelerators' goal is to get to the end of their programme with a limited group of high potential projects.



Source FI-IMPACT D3.1 2014

Figure 17 B - Accelerators Selection Process: the Pipeline approach

The second approach consists of a selection phase followed by multiple reviews and in this case the number of projects involved in the programme is not expected to change (pipeline approach). This model is followed by CREAtiFi, EuropeanPioneers, FI-Adopt, FI-C3, Finish, FRACTALS, frontierCities, INCENSe, Impact, SpeedUp_Europe and SOUL-FI. The funding is spread-out over the project life with a proportion provided at the start, another payment when certain milestones are reached and the remaining payment distributed at the end of program.

Each Accelerator has identified a minimum and a maximum level of funding to be allocated to the selected proposals. These amounts vary across the Accelerators from €10,000 to max. of €260,000. The figure below shows the set amounts per Accelerator.

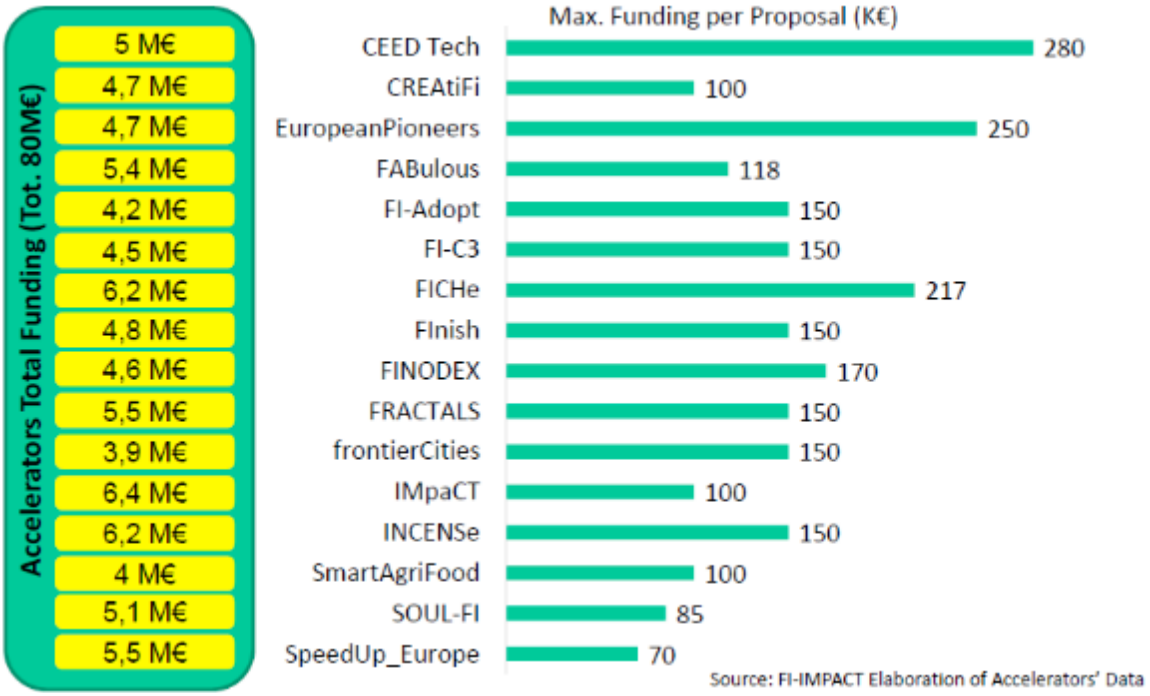


Figure 18 Accelerators' funding chest

Accelerators Activities

The accelerator activities include a range of services aiming at providing support to the selected proposers during the development and implementation of their business ideas.

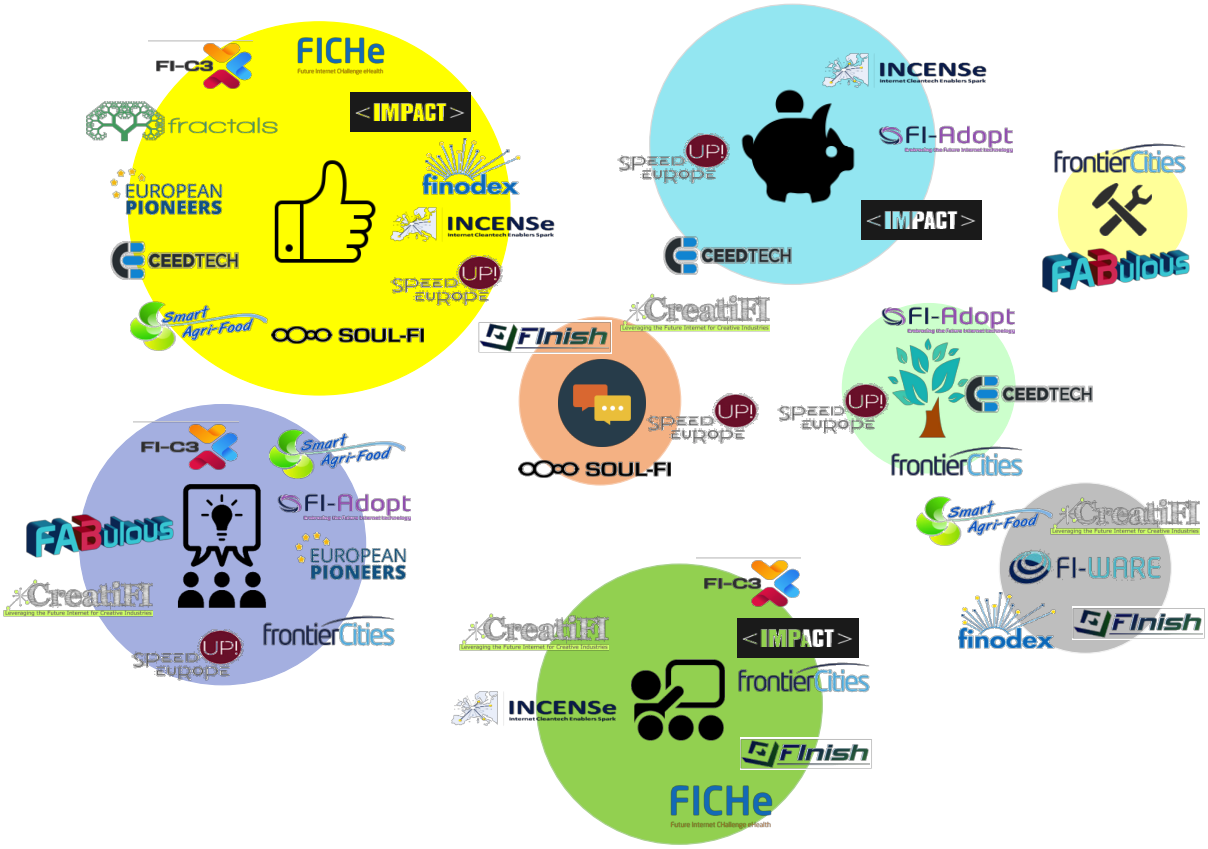
From a general perspective, the accelerators activities can be classified into 3 main typologies:

- Communication and networking activities: welcoming weeks, matchmaking events, workshops, etc.
- Business and funding-oriented activities, including mentoring, coaching, and other activities focused on the financial aspects such as promotion to venture capitalists, crowd-funding, etc.
- Technical/Technological support: living labs, demo days, FIWARE workshops etc.

The activities implemented within their acceleration programmes include the following:

- Mentoring/tutoring and coaching activities: the mentors support the start-ups/proposers with technical and administrative issues, as well as providing advice on business development and management
- Gateways to further funding: the accelerators provide assistance to the start-ups/proposers in improving their value propositions, prospects, business models, business planning, and funding access opportunities beyond the Acceleration Program's funding system (crowd-funding, Venture Capitalists, etc)
- Matchmaking, and dissemination: the aim is to identify potential synergies and promote contacts between the start-ups/proposers and any possible kind of stakeholders for business opportunities.
- Marketing and communication activities, including: go-to-market services, organisation of networking events, awareness raising and community building initiatives

- Living Labs Spaces: the start-ups/proposers will be provided with physical spaces and access to end user communities to test their ideas, business plan and other type of activities.



11	Mentoring, Training, Coaching	4	Matchmaking, Networking
8	Business Innovation Support	4	Business Development
9	Offline/Online Workshop, Bootcamp, Living Labs, Training Voucher, Demo Day, Welcoming Week	4	FIWARE Technology Support
6	Finance Support, Funding, Promoting to VCs	2	Technical Support

Source: FI-IMPACT 2015 Elaboration of Accelerators Data

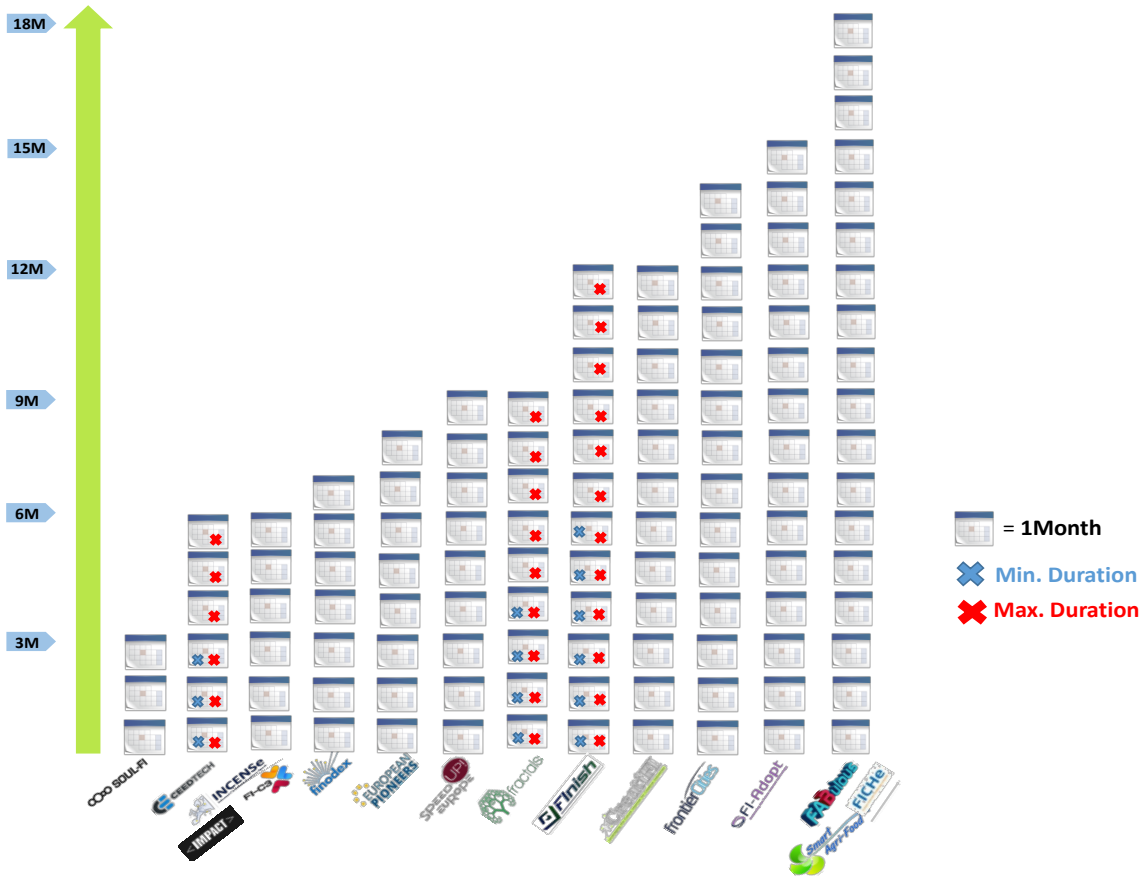
Note: Accelerators carry out multiple activities

Figure 19 Overview of the Accelerators Activities

Acceleration programme durations

The 16 Acceleration projects have a standard duration of 24 months, as defined by their contracts. They commenced activities in mid-2014 and will run until mid-2016. Within the 24 months, they run the acceleration programmes involving the selected proposers awarded grants under their open calls.

Each Accelerator has designed a tailored acceleration programme to meet the needs of their selected proposers; these programmes vary by duration as illustrated in the figure below.



Source FI-IMPACT 2015, Elaboration of Accelerators Data

Figure 20 Overview of Acceleration Programmes Timelines

2.5. Mapping of Applications

The following chart represents an overview of the number of proposals received to date by Accelerator. FI-IMPACT received data in relation to 4,198 submissions from 16 accelerators. As displayed in the graph, 50% of the proposals were submitted to 5 Accelerators: FronterCities, Impact, CEED Tech, CreatiFi, and FICH-e. The top three accelerators in terms of the number of applications received to date are:

- **FrontierCities**, which has received 594 applications, resulting in a 14% share of the total applications received to date;
- **Impact**, which has received submissions from 515 applicants and represents 12% of the total amount of applications;
- **CEED Tech**, which received 396 applications, reaching 9% of the total received proposals.

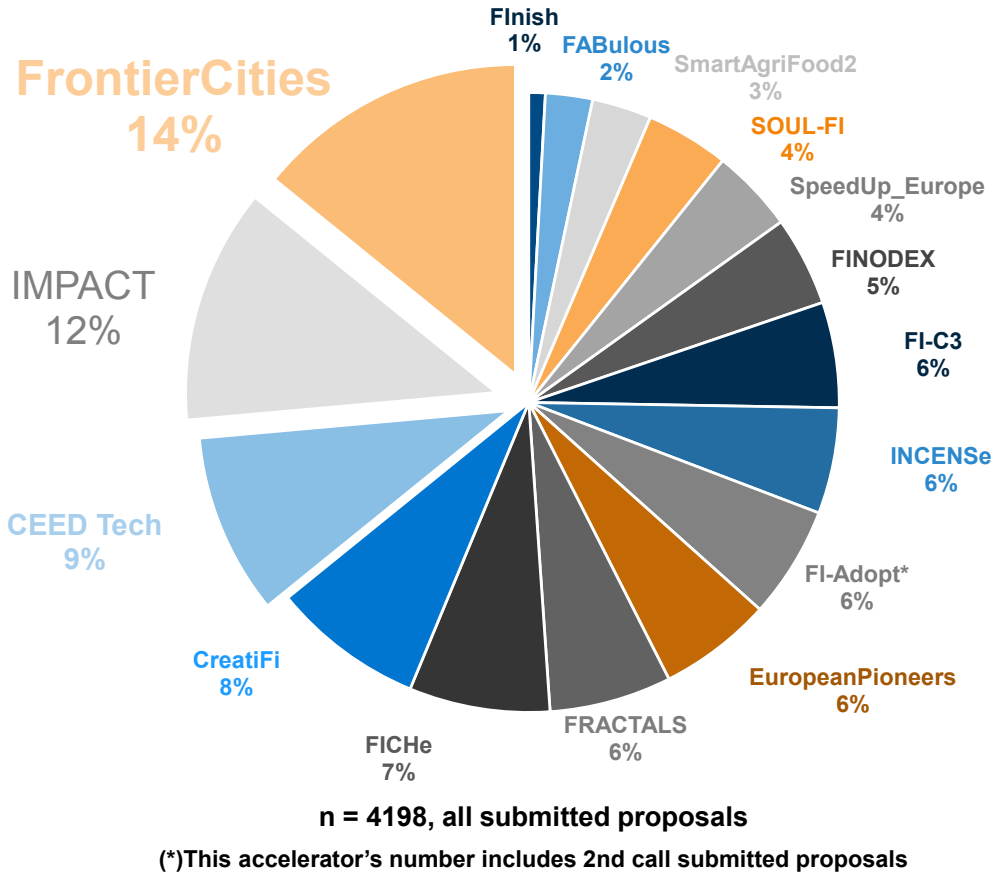


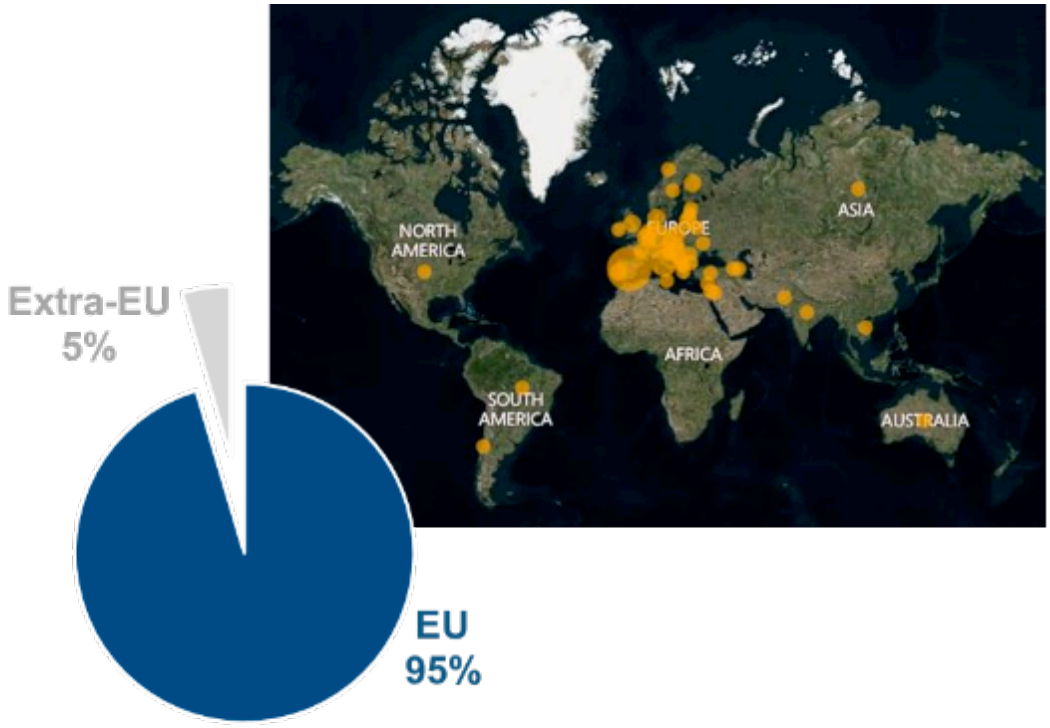
Figure 21 Submitted Proposals, by Accelerator, % (16 Accelerators)

Accelerator	Number of proposals submitted
SpeedUp Europe	183
FICHe	308
CreatiFI	332
FABulous	103
Soul-FI	182
SmartAgriFood2	130
FINODEX	196
INCENse	232
IMPACT	515
FI-Adopt	245
Finish	36
European Pioneers	248
FI-C3	231
CeedTech	396
FRACTALS	267
FrontierCities	594

Source FI-IMPACT 2015 (based on data provided by Accelerators)

Table 2 Numbers of Submitted Proposals by Accelerator (16 Accelerators)

The figure shows countries where submissions were generated on a worldwide scale. The majority of proposals were submitted from a European Union Member State, while 5% of projects' proposals were generated outside the EU territory. This indicates that interest has been generated in relation to leveraging FIWARE both within the EU as well as in other regions of the world. However, based on the requirements of the published call text for most Accelerators, there is a strong focus on providing grant funding to applications from EU countries.



n = 2856, all available submitted proposals which provided country information

Base = 14 accelerators, excluding FRACTALS and FrontierCities

Source FI-IMPACT 2015 (based on data provided by Accelerators)

Figure 22 Applications generated outside the EU territory (14 Accelerators)

FI-IMPACT received country information in relation to 2,856 applicants, of which. 2,725 were applications received from European Union's Member States. The following map illustrates the distribution of proposals from EU countries, showing that most proposals under the first calls were submitted from:

- **Spain**, which originated 746 proposals, accounting for 26% of all applications;
- **Italy**, which originated 306 proposals, accounting for 11% of all applications;
- **Germany,** which generated 290 proposals, accounting for 10% of all applications.

n = 2725, all available submitted proposals from the EU28

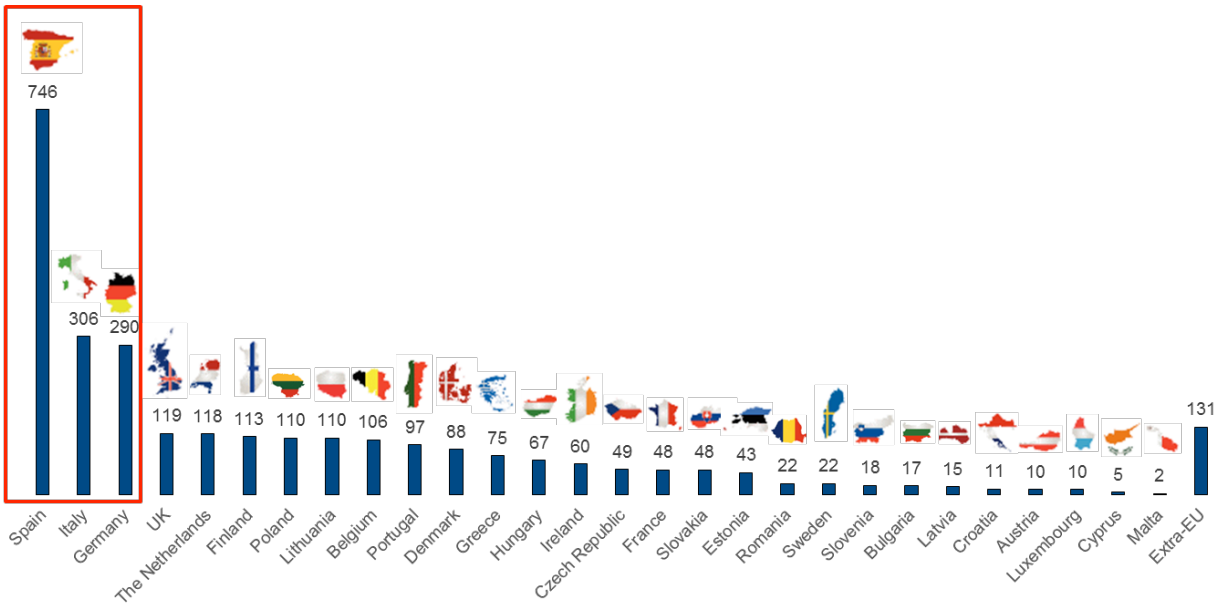
Base = 14 accelerators, excluding FRACTALS and FrontierCities

Source FI-IMPACT 2015 (based on data provided by Accelerators)

Figure 23 Applications from EU Member States (14 Accelerators)

Spain, Italy, and Germany account for almost half the total submissions under the first Calls (47%), in terms of the applicants' country of origin. Spain and Italy represent over a third of total applications received with over 1,052 applicants out of 2,856 coming from these Southern European countries.

The following bar graph provides an insight into the country of origin of received applications.

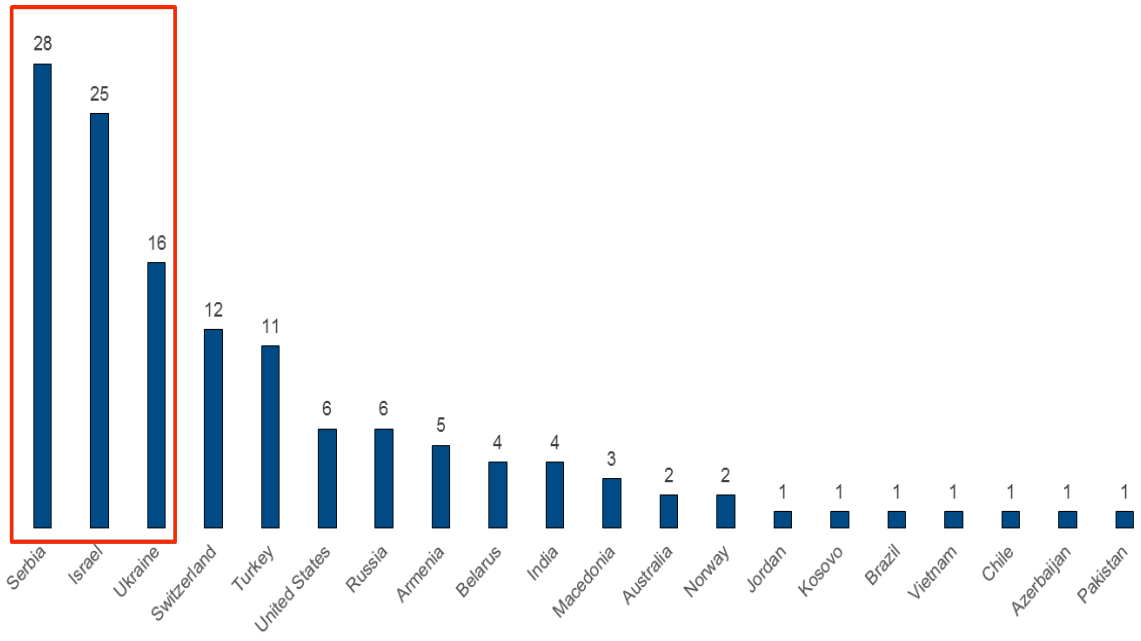


n = 2856, all available submitted proposals which provided country information

Base = 14 accelerators, excluding FRACTALS and FrontierCities

Figure 24 Applications by Country of Origin Source FI-IMPACT 2015 (based on data provided by Accelerators)

Almost one third (30%) of applications come from the UK, The Netherlands, Finland, Poland, Lithuania, Belgium, Portugal, and Denmark. 131 applications were submitted from outside of the European Union, with a greater number of proposals coming from Serbia (28), Israel (25), and Ukraine (16).



n = 131, all available submitted proposals from extra-EU

Base = 14 accelerators, excluding FRACTALS and FrontierCities

Source FI-IMPACT 2015 (based on data provided by Accelerators)

Figure 25 Origin of extra-EU submitted proposals (14 Accelerators)

2.6. Conclusions

From the mapping of submitted proposals under the first calls, FI-IMPACT has identified that:

- There was a 5% higher level of submissions to date than expected (4,198 applicants have submitted compared with expected applications of 3,995[3])
- Applications were also originated from outsideEU-28 Member States, showing that the FIWARE framework is gaining appeal. This needs to be considered when considering the application criteria for future calls.
- European countries with the highest number of applicants to date are Spain, Italy, and Germany followed by UK, Netherlands and Finland. Dynamics might change following the results from the 2nd Calls. Several potential explanations were suggested by the Phase III projects, including a strong presence of national actors in these countries, high involvement by governments in the countries with higher response, and high availability of other funding sources for start-ups in France and the UK, providing an alternative to potential applicants.

[3] Source: FI-IMPACT elaboration of Accelerators' data

3. Mapping of Selected Proposals

3.1. Introduction

This chapter analyses selected proposals based on data made available by Accelerators to FI-IMPACT. The sample of the data includes 538 selected proposals from the 1st call. FI-IMPACT analyzed data provided by 13 accelerators as outlined in the following table. The analysis excludes 3 accelerators (CeedTech, FRACTALs, and FrontierCities), whose data in relation to funded initiatives was not available at the cut-off date of March 31st. Data in this report will be shown taking into account the number of selected projects by accelerator, starting from accelerators with the highest numbers of funded projects to the ones with the lowest amount of selected proposals.

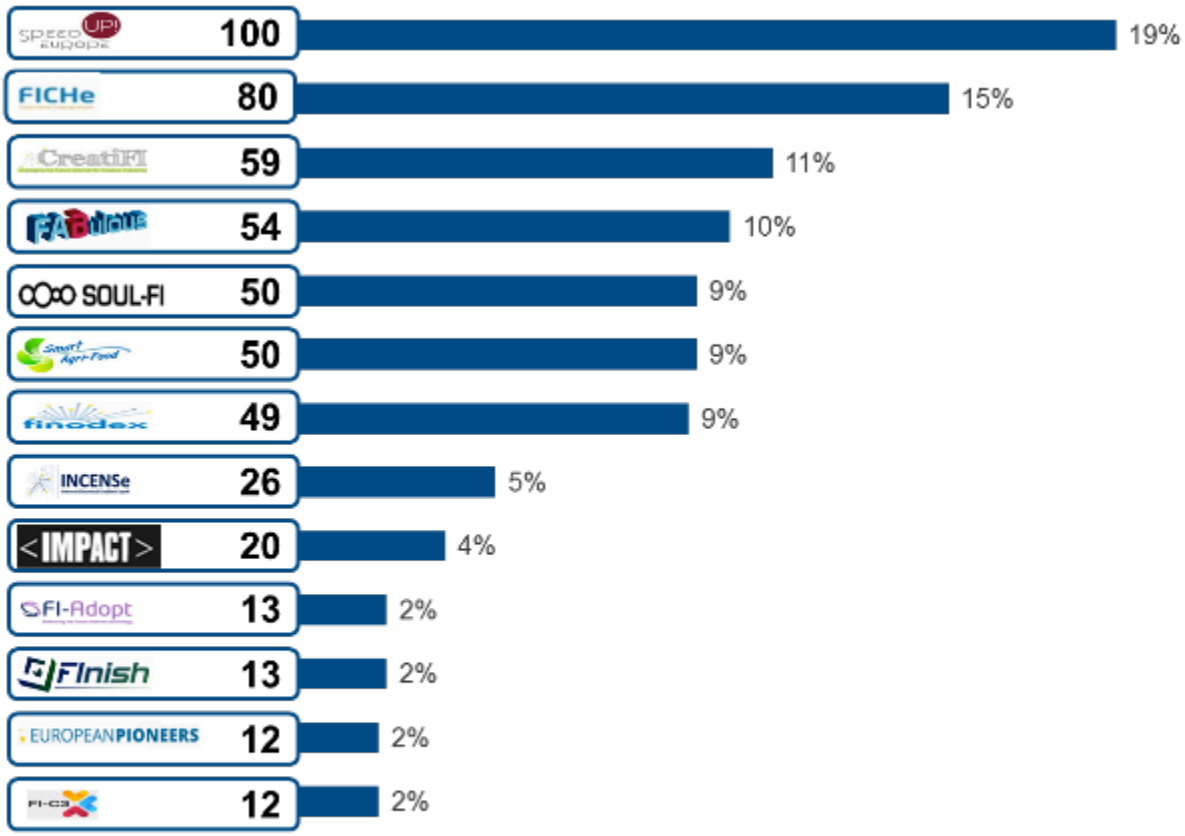
Selected proposals	Base*	Accelerators	Selected proposals	Call
538	**13**	SpeedUp Europe	100	1st
		FICHe	80	1st
		CreatiFI	59	1st
		FABulous	54	1st
		Soul-FI	50	1st
		SmartAgrifood	50	1st
		FINODEX	49	1st
		INCENse	26	1st
		IMPACT	20	1st
		FI-Adopt	13	1st
		Finish	13	1st
		European Pioneers	12	1st
		FI-C3	12	1st
Data as of March 31, 2015				

Note * = Accelerators that provided the information

Source FI-IMPACT 2015 (based on data provided by Accelerators)

Table 3 Selected Proposals, by Accelerator (13 Accelerators)

Each accelerator established its own focus areas and selected proposals according to its own criteria, which are published for each call. (See section 2.4 for more details)

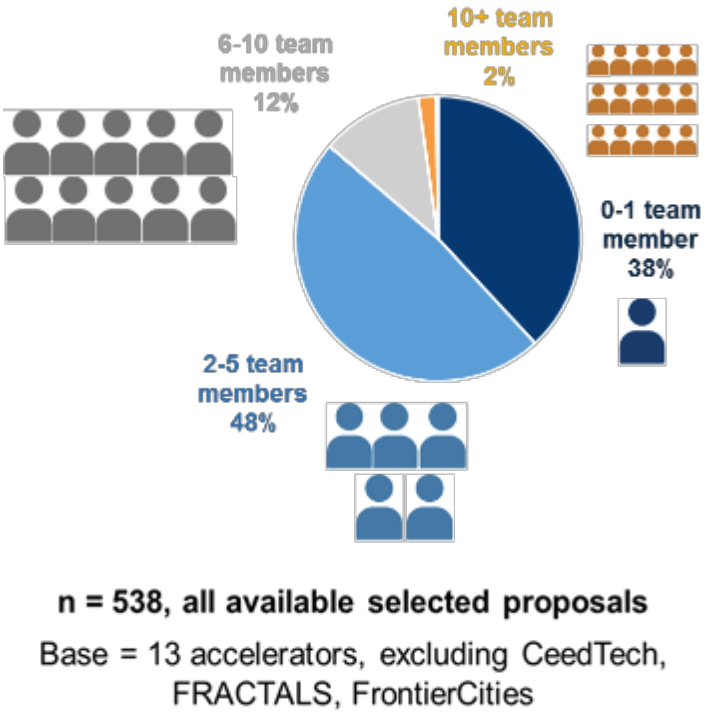


Source FI-IMPACT 2015 (based on data provided by Accelerators)

Figure 26 Selected Proposals, by Accelerator (13 Accelerators)

In relation to the team dimension of funded proposals, FI-IMPACT found that most of the selected proposals (48%) have between 2 and 5 team members. There were also quite a number of projects with just 1 individual (38%). This reflects that the Programme is successful in achieving its target to support innovative start-ups and young SMEs.

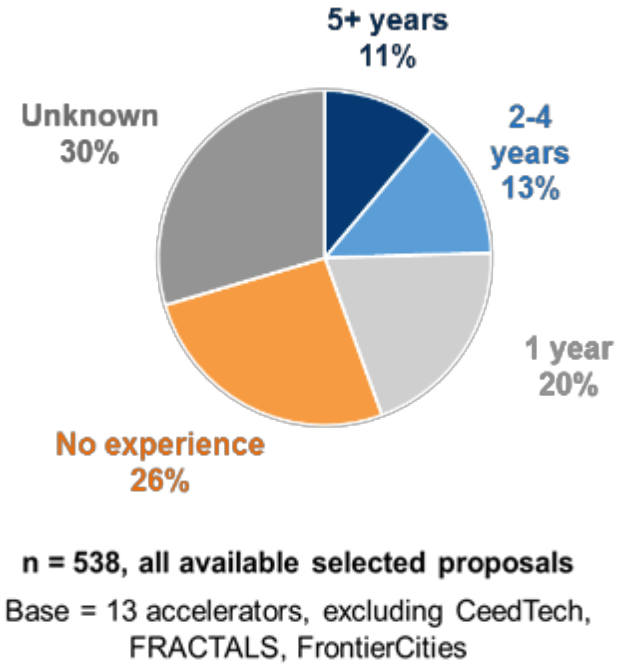
Only 2% of projects selected under the first Call are run by a large team with more than 10 members.



Source FI-IMPACT 2015 (based on data provided by Accelerators)

Figure 27 Selected Proposals, by Number of Team Members (13 Accelerators)

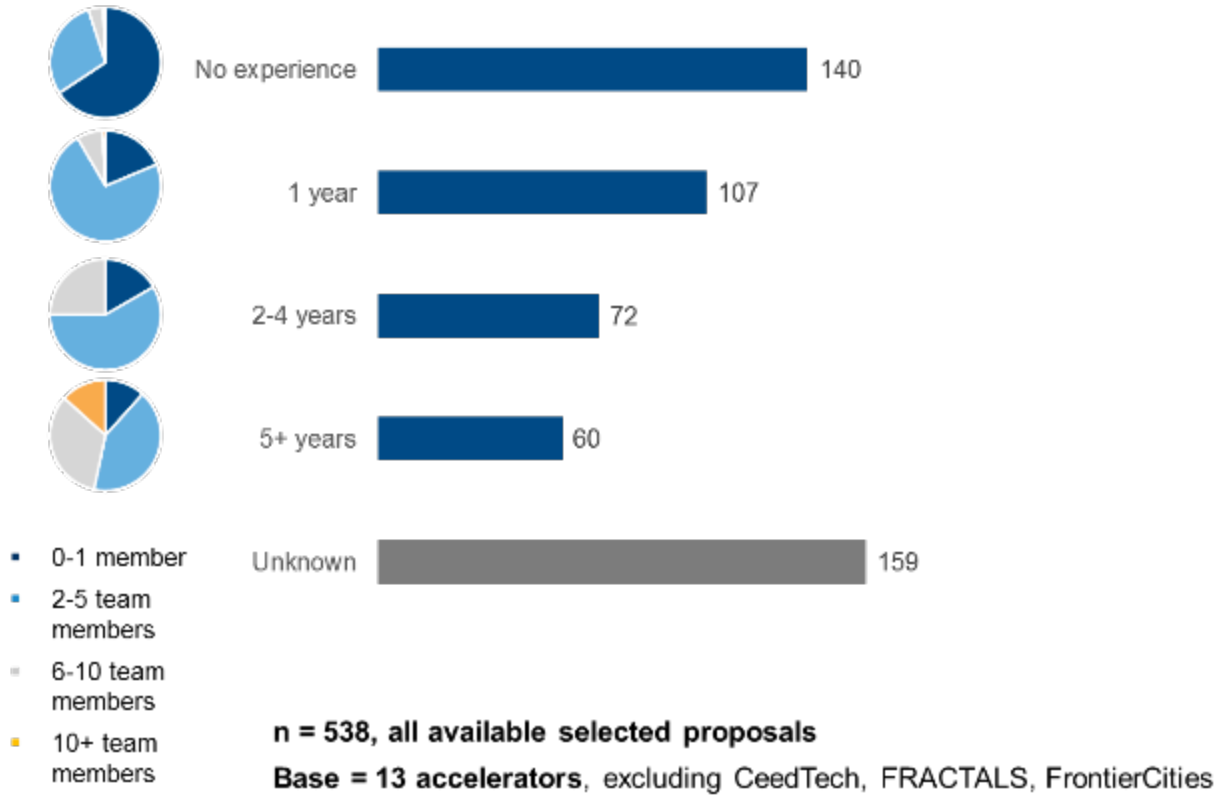
An analysis of the experience of participants selected for funding found that 26% of participants have no previous experience running a company, 20% have 1 year of experience, 13% have between 2 and 4 years of experience, and 11% have an over 5 years experience. The remaining 30% of selected proposals did not provide this level of detail.



Source FI-IMPACT 2015 (based on data provided by Accelerators)

Figure 28 Selected Proposals, by Years of Experience of the Team (13 Accelerators)

FI-IMPACT found that based on this data set there is a correlation between team dimension and members' years of experience. In particular, projects with a single member are those whose participants have no previous experience. In contrast, projects with large teams are those whose participants have extensive work experience. This indicates that there is a strong trend towards entrepreneurship from young applicants, who are trying to launch their own business initiatives. On the other side, more experienced participants prefer to work in teams and share knowledge, skills, and network to create consolidated business models.



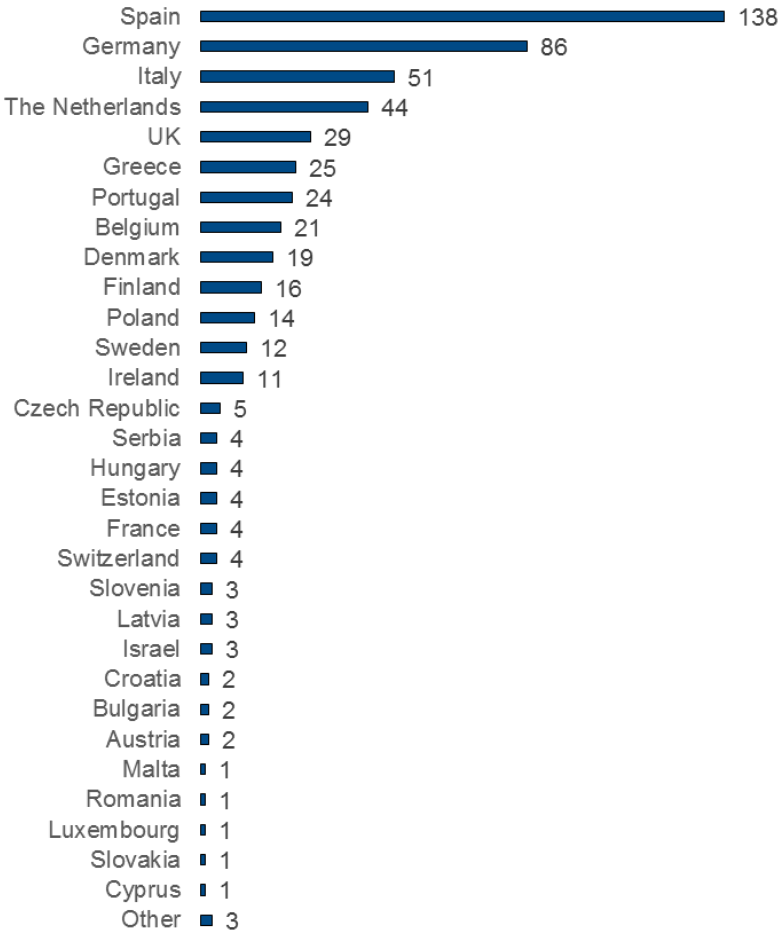
Source FI-IMPACT 2015 (based on data provided by Accelerators)

Figure 29 Selected Proposals, Years of Experience of Team Members with regards to the Number of Team Members (13 Accelerators)

3.2. Comparative Analysis of the Selected Proposals: by Country

Overall, 97% of funded initiatives are based in Europe, with the remaining 3% based outside EU-28 Member States.

Spain and Germany had by far the greatest number of successful applications with 138 and 86 funded initiatives respectively. They are followed by Italy (51) and the Netherlands (44).



n = 538, all available selected proposals

Base = 13 accelerators, excluding CeedTech, FRACTALS, FrontierCities

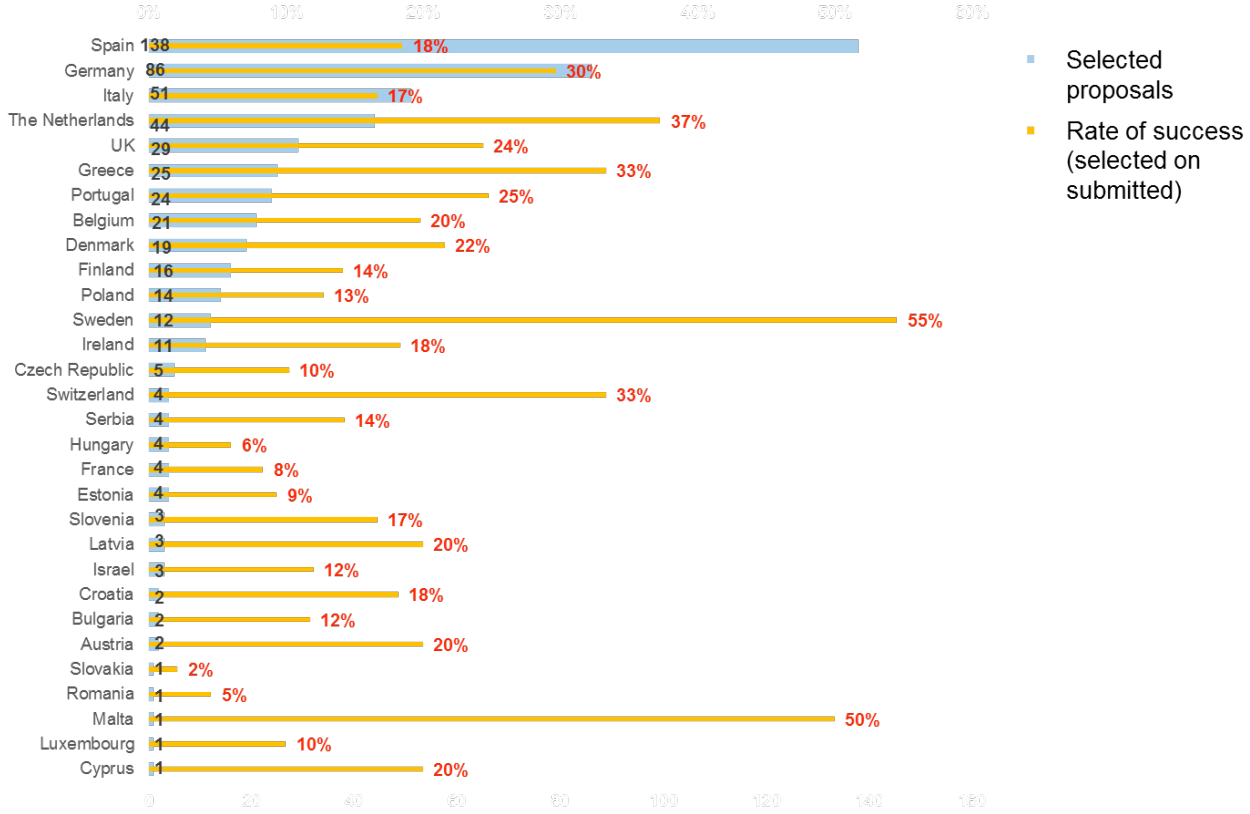
Source FI-IMPACT 2015 (based on data provided by Accelerators)

Figure 30 Selected Proposals, by Country (13 Accelerators)

FI-IMPACT found a correlation between the country of origin of the coordinator of the accelerator and the majority of the applications received. This suggests that communication efforts and word-of-mouth were more impactful in the specific country where each accelerator is physically present.

The success rate of selected proposals compared to submitted proposals varies significantly in each country. This can be seen in the figure below, which visualizes the selected proposals as a percentage of submitted proposals. This figure shows the success rate of proposals on submission, split by country (taking into account EU and extra-EU countries). Highest success rates were reached by applicants from Sweden (55%), the Netherlands (37%), Switzerland and Greece (33%). These countries have generated a greater number of successful proposals on submission compared to other states. It is important to note that the Accelerators did not use country provenance as a

criteria of selection, and all of them received and selected applications from multiple countries (as illustrated in Figure 36). The Figure below is a confirmation that the selection process was always rigorous, with lower selection rates in countries with a higher number of proposals, as it is logical. It is clear that the fact that there are more funded proposals from some countries (Spain for example) simply reflects the number and quality of applications received by country in the first place.



n = 535, selected proposals which provided country information

n = 2680, submitted proposals from all countries who have been selected and provided country data

Base = 13 accelerators, excluding CeedTech, FRACTALS, FrontierCities

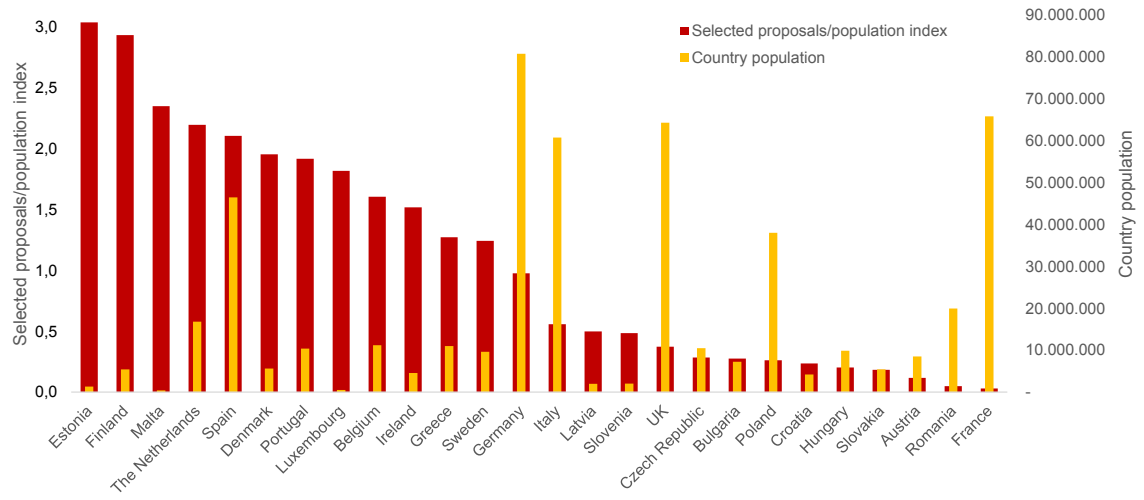
Source FI-IMPACT 2015 (based on data provided by Accelerators)

Figure 31 Selected Proposals as a Percentage of Submitted Proposals, by Country (13 Accelerators)

However, looking only at the absolute number of funded proposals by country is not sufficient, since large countries (such as Germany) will always generate more successful applications than smaller countries. To provide an objective benchmark of the relative performance of each country in the sample of selected proposals, we have calculated the ratio of successful proposals compared to the size of each country's population, including all EU Member States (MS). A higher ratio means that the country generated more successful applications than it would have been expected, based on the size of the population: this means that the country is over-represented in the sample of funded proposals. A lower ratio means the opposite.

The figure below illustrates the results. On the left-hand side are the MS with a high ratio of successful proposals compared to the population: Estonia, Finland, Malta, the

Netherlands, Spain, Denmark, Portugal, Luxembourg, Belgium, Ireland, Greece, Sweden, Latvia, Slovenia and Croatia. This shows that Phase III so far has been able to reach out to most MS, even those with a smaller population. It also shows that Spain has a good success rate, but not out of proportion with its size and its population.



n = 535, selected proposals which provided country information

Base = 13 accelerators, excluding CeedTech, FRACTALS, FrontierCities

Note: The index (3 to 0) ranks the ratio of funded proposals on country population from largest to smallest

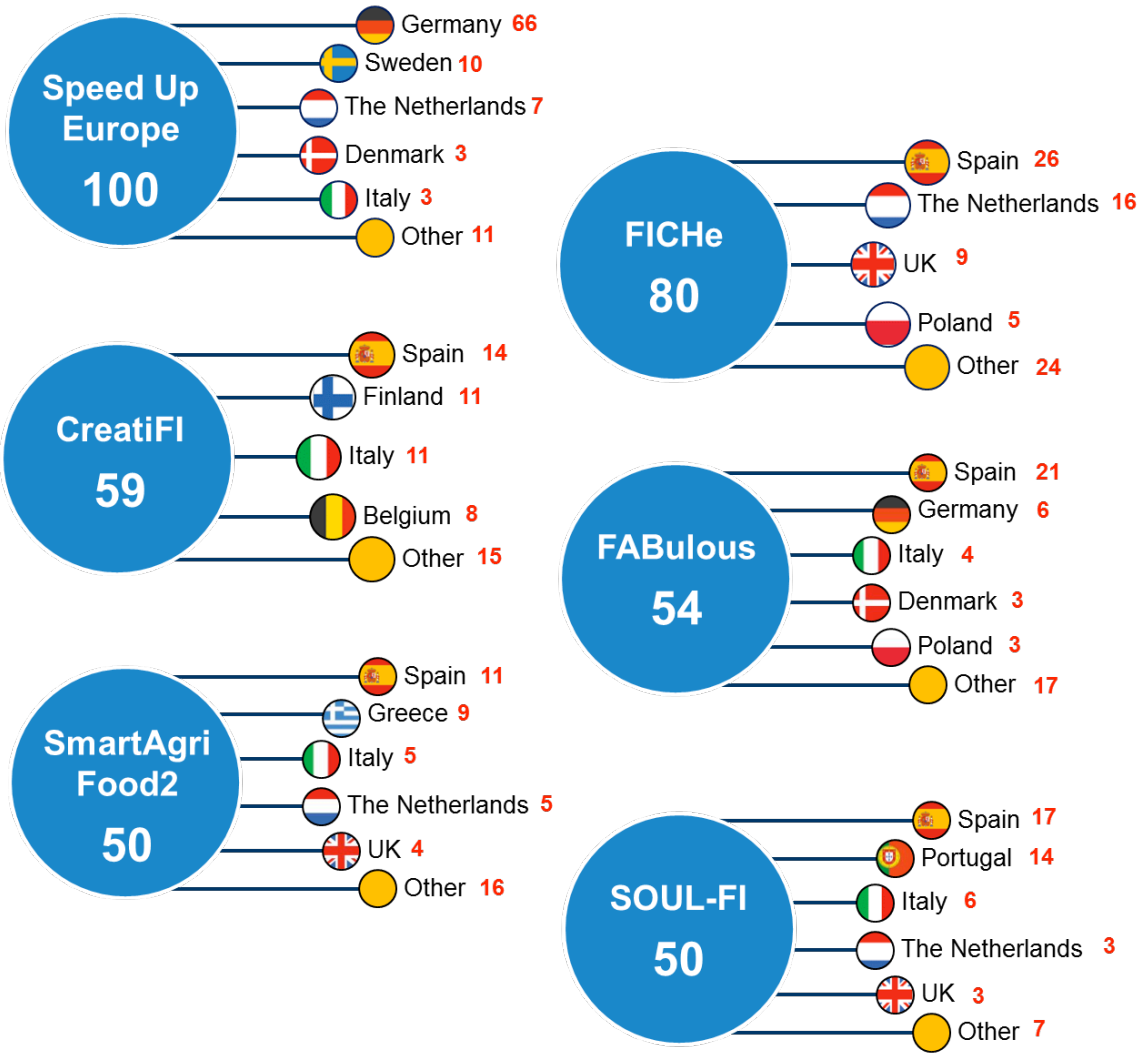
Source FI-IMPACT 2015 (based on data provided by Accelerators)

Figure 32 Selected Proposals with regards to their respective country population (13 Accelerators)

Other large MS present a lower ratio than it might have been expected, even Germany and Italy who do have a portfolio of successful funded projects, followed by the UK and Poland. In the case of France, there is the largest gap between successful proposals and population, followed by Romania. Also Austria and Hungary appear to be under-represented in the current sample of funded proposals. However, this situation may change based on the response to the next Calls,.

It is important to note that a balanced geographical coverage of proposals' origin is not a primary objective of the Phase 3 selection process: actually it could be argued that the Programme is providing alternative sources of seed-funding and go-to-market expertise in the countries where it is most needed. For example, France has recently launched a rich programme of funding and incentives for innovative start-ups, La Nouvelle France Industrielle, which was mentioned by local actors as one of the main reason for the lack of interest in the FI-PPP Programme. Still, this figure highlights the geographical areas where further communication and promotion efforts by the Accelerators could be useful, to make sure that all potential innovators are reached and their energies are mobilized across Europe.

Figures below illustrate the countries of origin of selected proposals per accelerator.


Speed Up Europe
100
Germany 66
Sweden 10
The Netherlands 7
Denmark 3
Italy 3
Other 11
FICHe
80
Spain 26
The Netherlands 16
UK 9
Poland 5
Other 24
CreatiFI
59
Spain 14
Finland 11
Italy 11
Belgium 8
Other 15
FABulous
54
Spain 21
Germany 6
Italy 4
Denmark 3
Poland 3
Other 17
SmartAgri Food2
50
Spain 11
Greece 9
Italy 5
The Netherlands 5
UK 4
Other 16
SOUL-FI
50
Spain 17
Portugal 14
Italy 6
The Netherlands 3
UK 3
Other 7

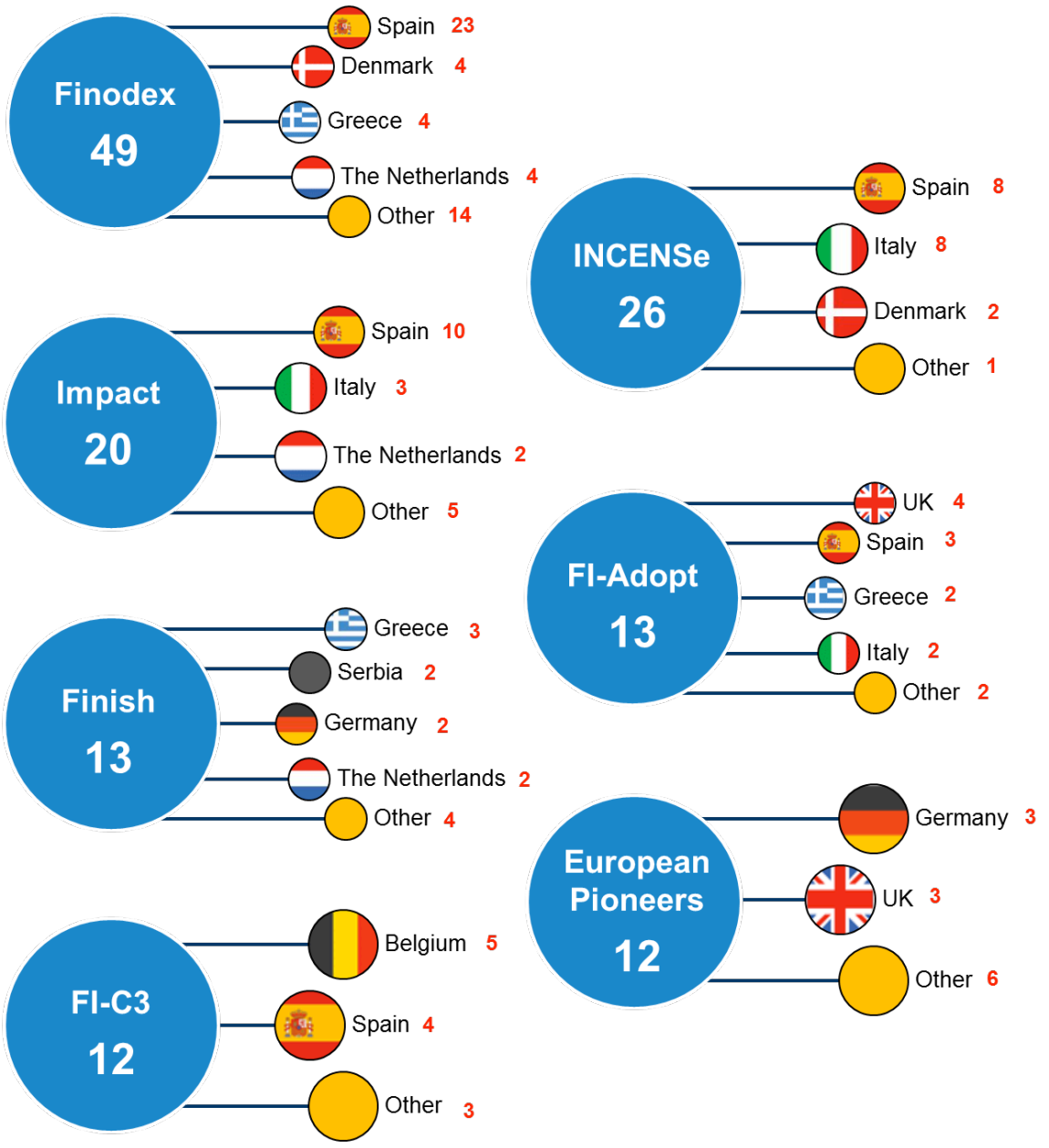


Figure 36 Selected Proposals, by Accelerator and Country (13 Accelerators)

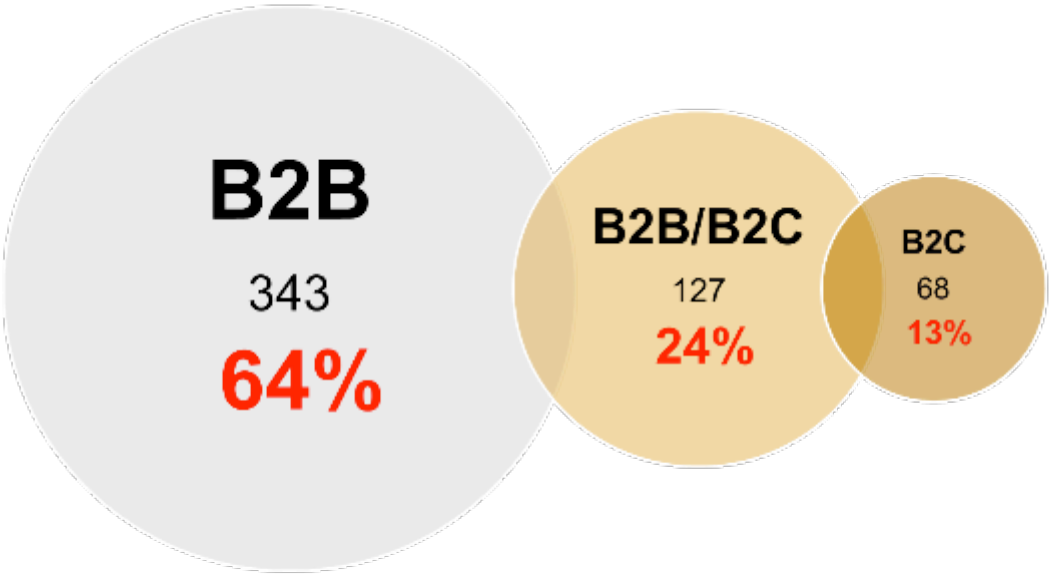
3.3. Comparative analysis of the Selected Proposals: Market focus

As a starting point of our analysis we have classified the selected proposals by customer type and industry sector targeted. The customer targeted is relevant to assess the

business model and understand the size of the potential users' population. We have identified 3 main typologies of customer orientation:

- "pure" B2C, business to consumer.
- "pure" B2B, business to business.
- Both B2B and B2C. This includes several cases of projects developing tools, technologies or services which could be used both by SMEs or consumers, or in alternative which should be used by a large organization to give a service to consumers (typically, a service for hospitals to deliver to patients).

As shown in the figure below, almost two thirds (64%) of the funded projects are business oriented, 24% proposals target both businesses and consumers, and the remaining 13% targets only the consumer market.



Source FI-IMPACT 2015 (based on data provided by Accelerators)

Figure 37 Selected Proposals, by BtoB versus BtoC Target Markets (13 Accelerators)

3.3.1. Comparative analysis of the B2B Selected Proposals

This section focused on the selected proposals with an exclusive focus on B2B plus those addressing both B2B and B2C. Among the initiatives that address businesses (including those addressing exclusively businesses and those targeting both businesses and consumers), we identified:

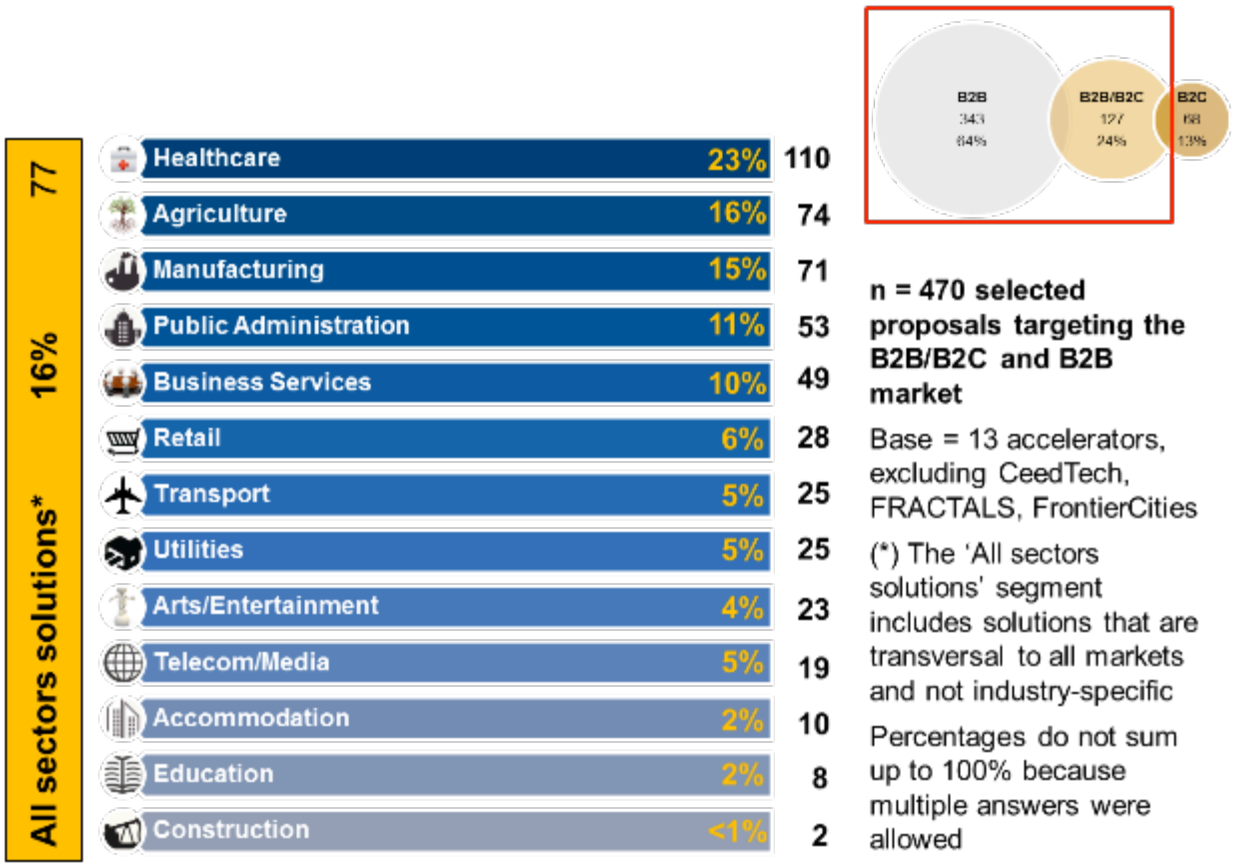
- **Healthcare (110)**. Healthcare is the most targeted industry sector with 110 initiatives addressing this market space. This is partially due to the vertical market focus of some accelerators such as Fiche and Finodex. In the wake of the explosion of teleconsultation samples and health trackers, the apps world is buzzing. Tools facilitating a self-health data check for patients and

interaction with doctors together with information exchange in the medical community represent a new market opportunity for apps developers. Also, due to the highly mobile nature of healthcare, strategic investments in mobility solutions are essential to meet the growing demand for more efficient and appropriate care.

- **Horizontal (77)**. There is a relatively large number of solutions that are not targeting a specific industry sector, which we called 'all sectors' or 'horizontal' solutions. These solutions are suitable for any type of business and range from marketing applications, to big data/analytic solutions, to content management and back-office applications.

- **Manufacturing (71)**. Initiatives targeting this industry sector are related to a variety of manufacturing sub-sectors such as automotive, aeronautics, white goods, furniture, textile/clothing or plastic. Projects in innovative areas may include 3D printing factories or IoT projects related to improving the efficiency of supply chain and logistics, intelligent transport items, and innovative internet based feature in equipment and machines.

- **Public administration (53)**. Some initiatives targeting government institutions are smart cities related. Despite economic and political instability in the EU, politicians, citizens, and other stakeholders remain interested in implementing Smart City pilots. The EU and national funding will be the main funding source for Smart City initiatives. These will mainly target the energy and transportation sectors as these represent the main focus areas both at EU and national level. This will further progress across Europe but will limit the development of other areas, such as social services or education. Groundwork in ICT infrastructure is being also laid as the foundation for future Smart City projects via EU funding. A city governance model that mixes the political clout of visionary mayors and city leaders, the practical experience of city managers, and the flexibility of private sector contribution is needed to generate effective solutions.



Source FI-IMPACT 2015 (based on data provided by Accelerators)

Figure 38 Selected Proposals, by Target Industry Sector (13 Accelerators)

3.3.2. Comparative analysis of the B2C Selected Proposals

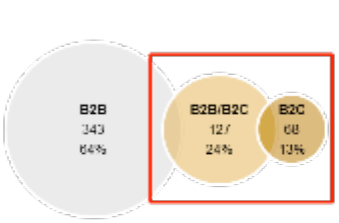
This section analyses selected proposals with a pure B2C target plus a mixed B2C and B2B target. Overall B2C initiatives are quite numerous (195) and cover a wide range of projects. They target the following consumer-oriented categories:

- **Health and wellness**: This category is related to those solutions that have the purpose of improving health and wellbeing. They range from solutions for assisting blind and visually impaired people to those to support diets and sport activities.
- **Leisure and gaming**: This category includes consumer gaming applications as well as all those solutions related to entertainment (e.g. app to find concerts, app to book cinemas, among others)
- **DIY/Design**: This category relates to supporting Do It Yourself activities and most projects in this segment refer to 3Dprinting (e.g. re-manufacturing of existing objects through 3D scanning and printing, capturing of reality in 3D through smartphones, etc.)
- **Transport and logistics**: These projects are related to the mobility of people and objects and can therefore be related to applications for parking facilities, for real time traffic information, or for taxi requests among others.

- **Education and culture**: Education and culture projects are related to many areas such as for example applications to learn a new language by connecting with native people around the globe, to solutions for remote coaching over the Internet on different topics including unconventional musical instruments, to mobile apps to guide visitors in 3D around heritage centers, just to mention a few examples.
- **Shopping**: This category includes consumer solutions related to improving the shopping experience. They can vary from an app for managing and sharing shopping lists among the members of a family to mCommerce platforms where people can find products, information and services.
- **Energy and home automation**: These are energy and home automation related projects such as a virtual social network that enable people to run their home appliances when there is green energy production close to their homes or to automatically lock or unlock all the doors in a building.
- **Citizens' engagement**: Citizens' engagement projects refer in most cases to systems for government-citizen interaction.
- **Environment and nature**: These projects can be related to gathering information and data on pollution (air pollution, water pollution etcetera), or to collect and receive information for wildfire prevention among others

Health and wellness is the largest targeted market, follow by Leisure and gaming. Together they represent 44% of the sample. They are followed by DIY and Design, which represents 16% of successful applications. Together these 3 groups represent 60% of the sample: the rest is rather fragmented in the other targeted areas.

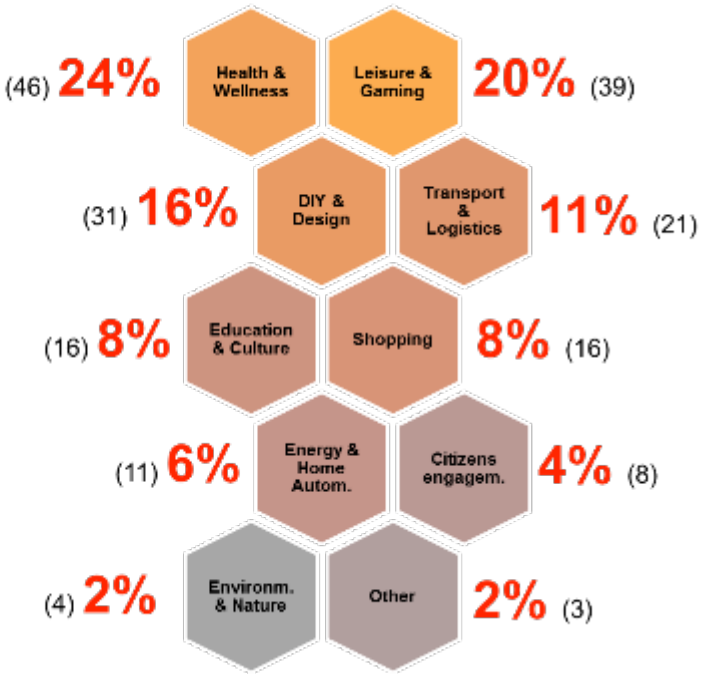
68 of all funded initiatives are pure B2C, exclusively addressing consumers. The majority target both the consumer and the business market (as shown in the figure below).



n = 195 selected proposals targeting the B2B/B2C and B2C market

Base = 13 accelerators, excluding CeedTech, FRACTALS, FrontierCities

Percentages do not sum up to 100% due to rounding



Source FI-IMPACT 2015 (based on data provided by Accelerators)

Figure 39 Selected Proposals by Target Consumer Segments (13 Accelerators)

Selected proposals targeting consumers are often apps or games but they can also be marketplaces or platforms where people are offered a product or a service.

3.3.3. Proposals related to the Smart City ecosystem

Smart city is a wide concept that includes all technological city-life related solutions (primarily focused on big data, mobile technologies, cloud computing, social media, and Internet of Things) that aim to change and improve the quality of life for citizens. Thereby, we cannot classify "smart city" as a particular vertical market or a subset of the public administration segment.

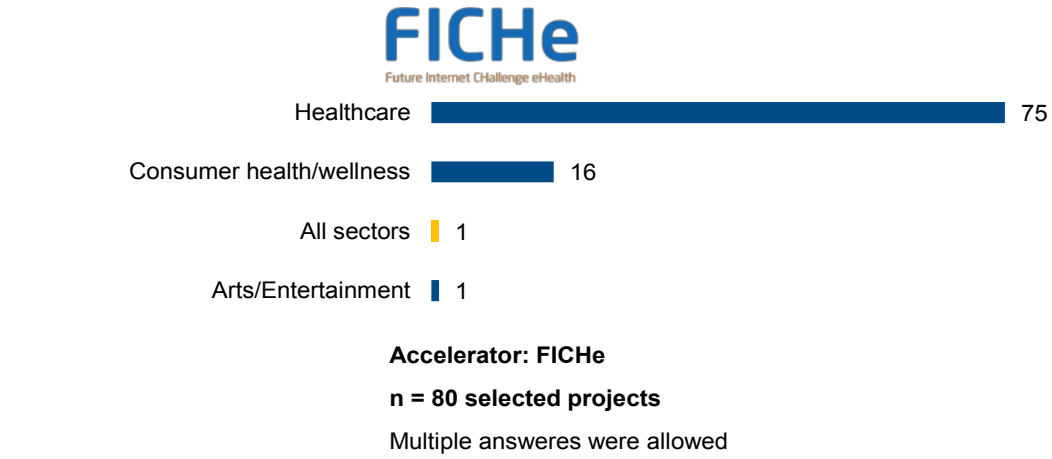
Looking at the above-mentioned markets categories, proposals related to the smart city ecosystem come primarily from the **public administration** (e.g. open data initiatives, city planning and development tools, citizen services including government portals, defense and public safety solutions, land use and environmental management tools, but also citizen movement and traffic monitoring systems), **transport** (e.g. traveller information systems, public transportation systems, parking management services, transport sharing systems), **utilities** (e.g. smart water management systems, smart energy and gas grids, waste collection activities), **healthcare** (e.g. emergency calls coordination projects, assistance to elderly people at a city level) and the **consumer citizens engagement** sectors (e.g. citizens' participation to city-life platforms).

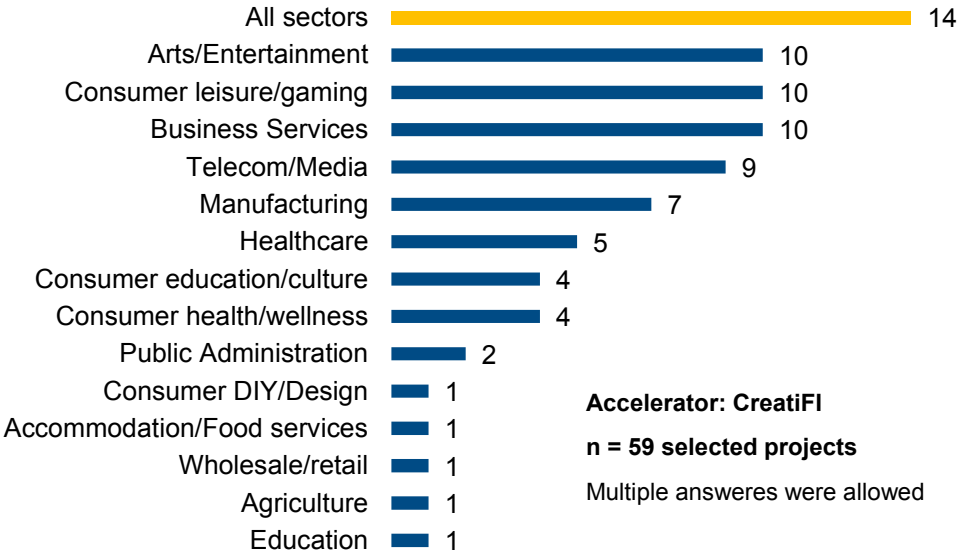
We determined that **108 out of the 538** selected proposals (corresponding to 20% of selected proposals) are smart city-related. This highlights the remarkable Impact and the role that FIWARE could play in the Smart City revolution that is developing across Europe.

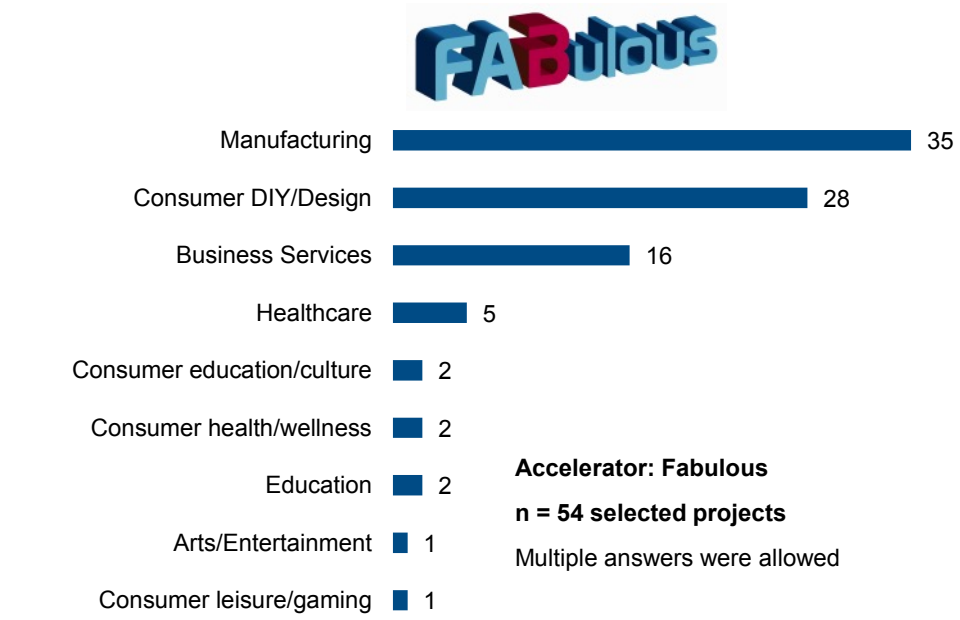
3.3.4. Comparative analysis of the Selected Proposals: By Accelerator and Industry Sector

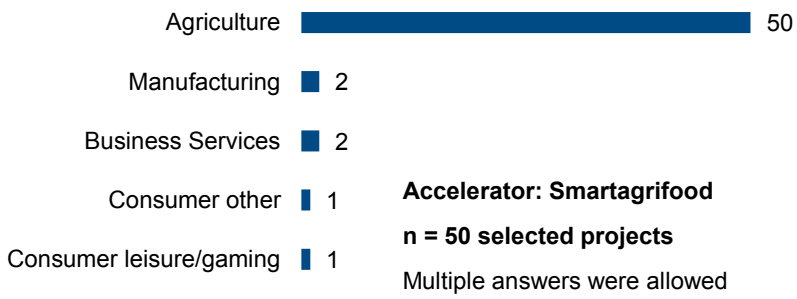
The following graphs provide details on the target industry sector of the funded initiatives by Accelerator.

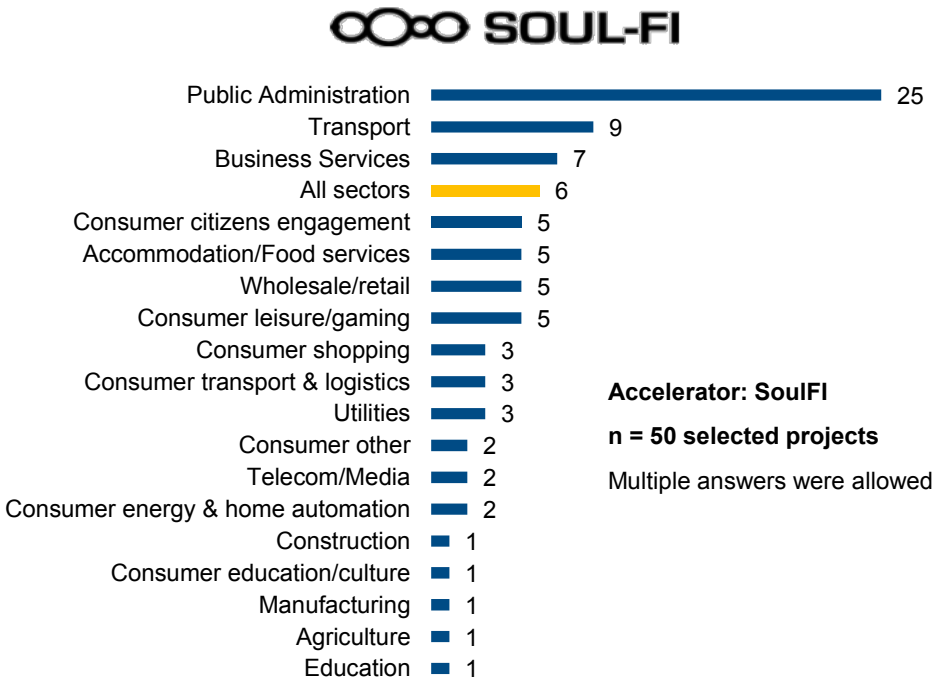

All sectors 23
Public Administration 14
Agriculture 12
Consumer leisure/gaming 11
Consumer transport & logistics 9
Consumer shopping 8
Consumer health/wellness 8
Wholesale/retail 7
Transport 7
Utilities 7
Arts/Entertainment 6
Business Services 5
Healthcare 5
Manufacturing 5
Consumer energy & home automation 4
Consumer education/culture 4
Consumer citizens engagement 3
Accommodation/Food services 3
Education 2
Consumer environment & nature 2
Telecom/Media 1
Construction 1
Accelerator: Speed Up
n = 100 selected projects
Multiple answers were allowed

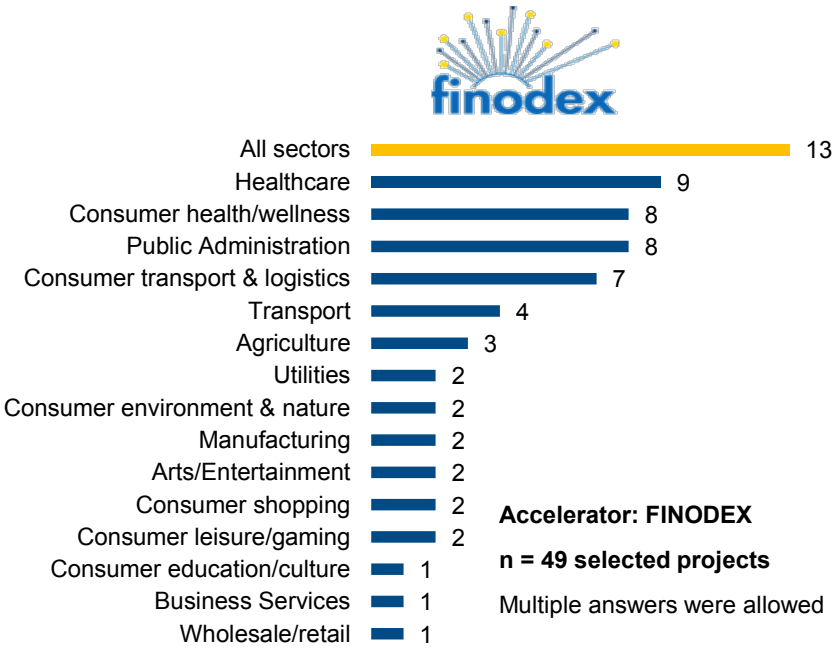

Healthcare 75
Consumer health/wellness 16
All sectors 1
Arts/Entertainment 1
Accelerator: FICHe
n = 80 selected projects
Multiple answeres were allowed

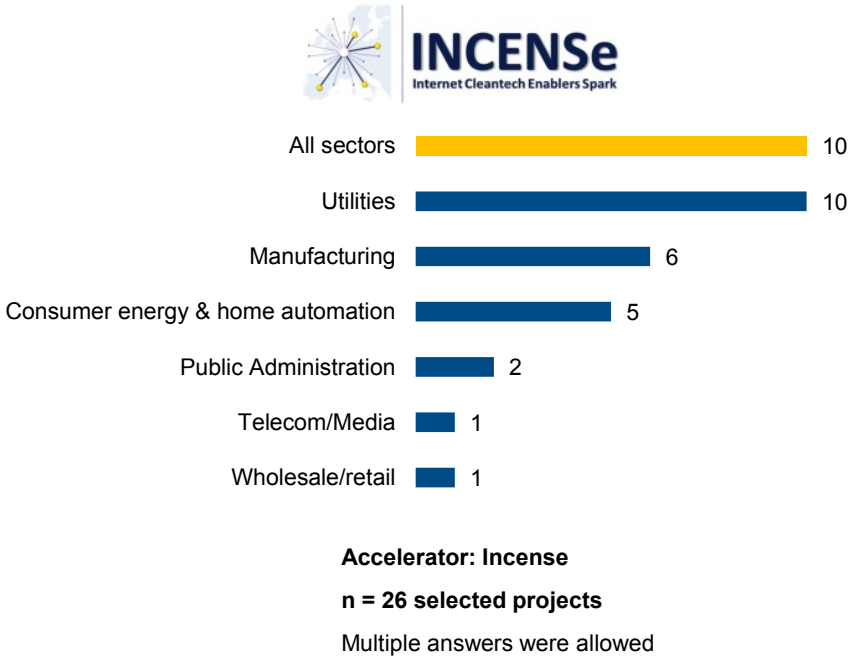

All sectors 14
Arts/Entertainment 10
Consumer leisure/gaming 10
Business Services 10
Telecom/Media 9
Manufacturing 7
Healthcare 5
Consumer education/culture 4
Consumer health/wellness 4
Public Administration 2
Consumer DIY/Design 1
Accommodation/Food services 1
Wholesale/retail 1
Agriculture 1
Education 1
Accelerator: CreatiFI
n = 59 selected projects
Multiple answeres were allowed

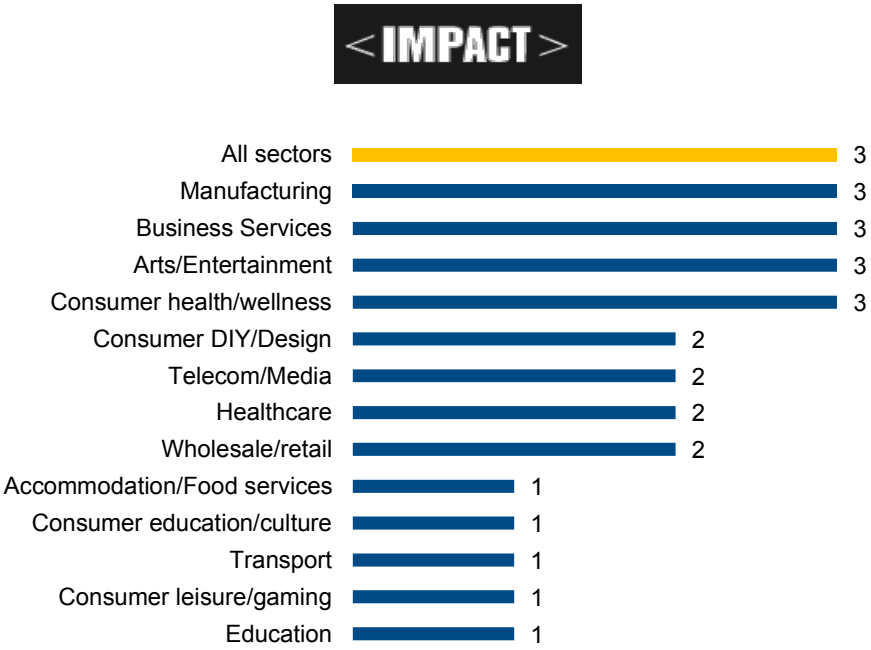

Manufacturing 35
Consumer DIY/Design 28
Business Services 16
Healthcare 5
Consumer education/culture 2
Consumer health/wellness 2
Education 2
Arts/Entertainment 1
Consumer leisure/gaming 1
Accelerator: Fabulous
n = 54 selected projects
Multiple answers were allowed


Agriculture 50
Manufacturing 2
Business Services 2
Consumer other 1
Consumer leisure/gaming 1
Accelerator: Smartagrifood
n = 50 selected projects
Multiple answers were allowed


Public Administration 25
Transport 9
Business Services 7
All sectors 6
Consumer citizens engagement 5
Accommodation/Food services 5
Wholesale/retail 5
Consumer leisure/gaming 5
Consumer shopping 3
Consumer transport & logistics 3
Utilities 3
Consumer other 2
Telecom/Media 2
Consumer energy & home automation 2
Construction 1
Consumer education/culture 1
Manufacturing 1
Agriculture 1
Education 1
Accelerator: SoulFI
n = 50 selected projects
Multiple answers were allowed


All sectors 13
Healthcare 9
Consumer health/wellness 8
Public Administration 8
Consumer transport & logistics 7
Transport 4
Agriculture 3
Utilities 2
Consumer environment & nature 2
Manufacturing 2
Arts/Entertainment 2
Consumer shopping 2
Consumer leisure/gaming 2
Consumer education/culture 1
Business Services 1
Wholesale/retail 1
Accelerator: FINODEX
n = 49 selected projects
Multiple answers were allowed

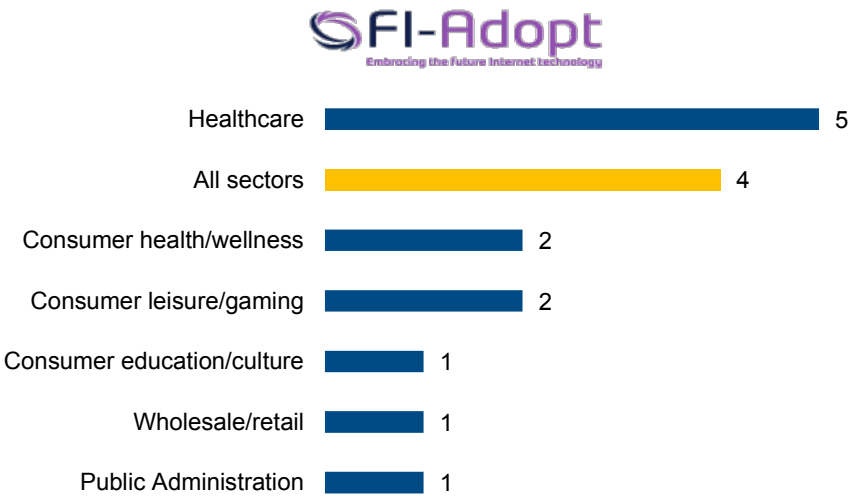

All sectors 10
Utilities 10
Manufacturing 6
Consumer energy & home automation 5
Public Administration 2
Telecom/Media 1
Wholesale/retail 1
Accelerator: Incense
n = 26 selected projects
Multiple answers were allowed



Accelerator: IMPACT

n = 20 selected projects

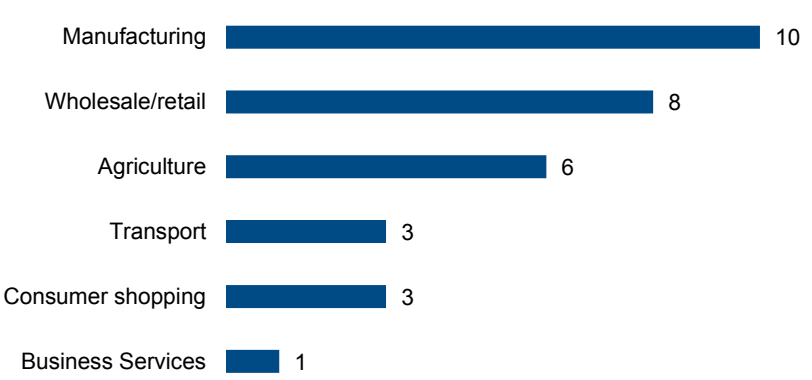
Multiple answers were allowed



Accelerator: Fi-Adopt

n = 13 selected projects

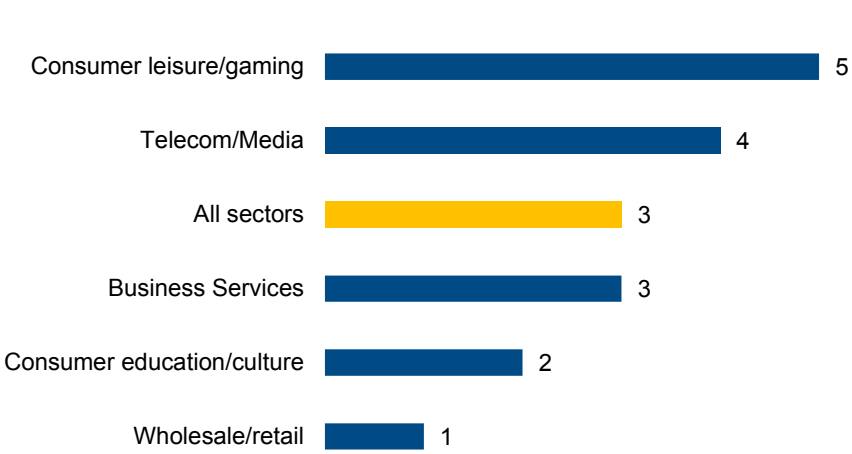
Multiple answers were allowed



Accelerator: Finish

n = 13 selected projects

Multiple answers were allowed



Accelerator: European Pioneers

n = 12 selected projects

Multiple answers were allowed

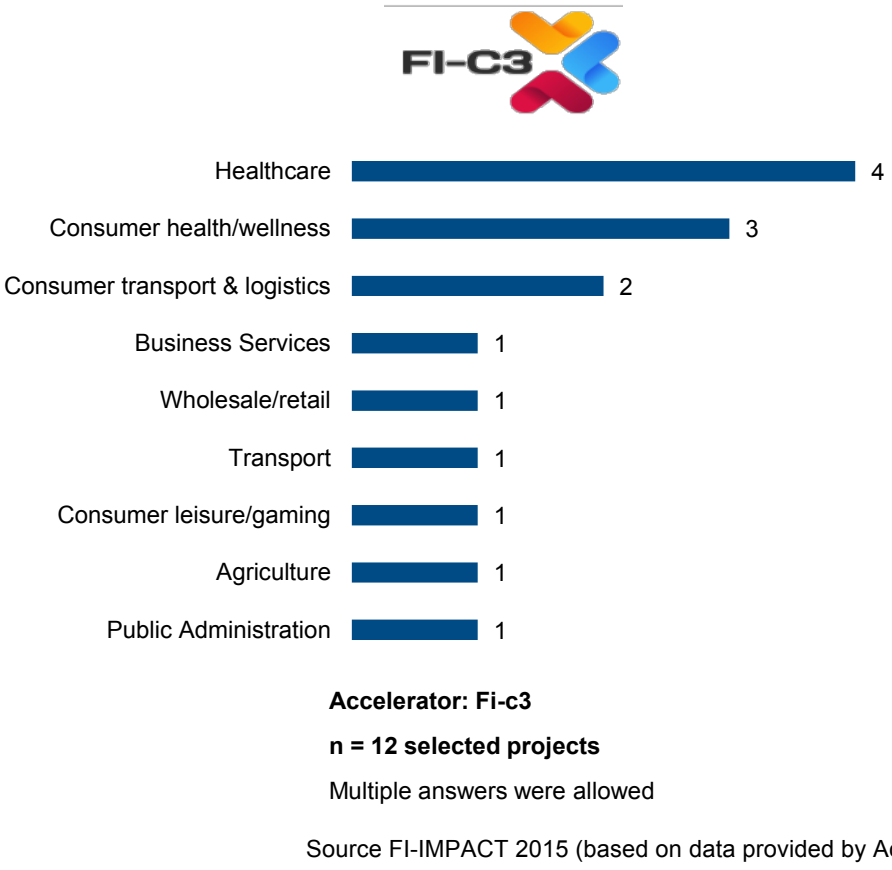
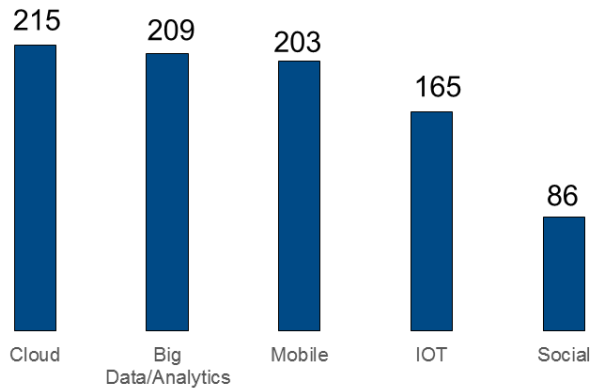


Figure 40 Selected Proposals, by Accelerator and Target Industry Sector (13 Accelerators)

3.4. Comparative analysis of the Selected Proposals by Innovative ICT Tools: Mobility, Cloud, Big data, Social and IoT

IDC mapped funded initiatives according to their deployment in five key innovative ICT areas: mobility, cloud, big data, IoT, and social media.

Our analysis found that 215 of selected proposals focus on cloud, 209 on big data, 203 on mobile, 165 on IoT, and 86 on social media (see figure below).



n = 538, all available selected proposals

Base = 13 accelerators, excluding CeedTech, FRACTALS, FrontierCities

Multiple answers were allowed

Source FI-IMPACT 2015 (based on data provided by Accelerators)

Figure 41 Selected Proposals, by IDC Pillars (13 Accelerators)

3.4.1. Cloud

Cloud is a space that is getting a lot of attention so it is not surprising that many initiatives focus on this pillar (215 funded initiatives).

The cloud market is growing rapidly. By the end of 2015, the key dynamics within the market will include increased adoption, consolidated competition, new disrupters, developer migration, solution expansion, new technology battlefronts, and "strange bedfellow" partnerships. In particular, public IT cloud services is forecast to drive massive growth, reaching almost $70 billion in 2015, and $126 billion in 2018. Moreover, over 70 % of public cloud spending will be allocated to software solutions as a service (SaaS).

According to IDC's *European Vertical Markets Survey 2014*:

- Cloud is growing rapidly but remains a relatively immature market. It is a fairly small component of the overall software spending. In this context, growth rates will continue to be strong especially in certain vertical markets and solution areas.
- Vertical markets show different adoption rates and development plans. Finance, healthcare, and telecom are the vertical markets with the highest percentage of companies already adopting at least one cloud solutions.
- New adopters will be more frequent in the utilities/oil and gas, discrete manufacturing, and government/education sectors.

Business managers are playing an increasingly important role in IT decisions. The wide availability of cloud solutions is speeding up this trend and connects business logics to IT investments more than it used to in the past.

3.4.2. Big data

In 2015, it is expected that the overall big data and analytics market will reach $125 billion worldwide in software, hardware, and services. The big data point solutions deployed in the past three to five years will become more complex (integrating more data sources, impacting more users, affecting more applications). This will increase the professional services–to-technology ratio by 25% over the next five years.

Big Data technologies are still developing within European companies, but adoption is growing fast. Current usage of Big Data is concentrated in larger enterprises and in vertical markets such as telecom/media, banking, and oil and gas.

A gap between early and late adopters as well as between large enterprises and SMEs will endure. Telecom/media and financial services will still lead in 2015, but adoption will undergo significant growth also in other verticals, such as retail/wholesale. New adopters will include SMEs, while penetration in telecom/media will settle and government will continue to lag.

Big Data solutions are most frequently employed within the organization's own premises, particularly among large companies, and in the sectors where adoption is wider. Cloud solutions are also largely employed or planned, particularly among smaller organizations, while managed service deployment is definitely less diffuse and concentrated in larger organizations and in a more limited number of verticals.

There were 209 Big data related initiatives identified.

3.4.3. Mobility

As previously outlined, attention towards mobility and mobility enablement is significant. This is due to the strong focus that Accelerators such as Impact and FrontierCities have put on this area. Nonetheless, our analysis found that initiatives in the mobility space are well spread across all Accelerators. Mobility related initiatives are 38% of the 538 analyzed initiatives.

IDC believes that mobile devices and apps — the radically expanding edge of the 3rd Platform and unquestionably the front edge of innovation — will continue to shake up the IT industry in 2015. This pillar will drive much of the industry's growth and will continue to rapidly morph form factors, bringing in key players from the massively mobilized Chinese market, and redefining the way organizations engage with their marketplaces. According to IDC:

- Smartphone and tablet spending will hit $484 billion, generating 40% of all IT growth (excluding telecom services).
- Mobile app downloads will hit 150 billion, up 18%, and China's role will rise. While 18% growth will be a sharp decline from the 61% growth witnessed in 2014, the numbers are still undeniably massive. In 2015, over 3.5 million applications will be available across app stores worldwide. IDC predicts that Google and Apple, combined, will continue to dominate distribution, with their stores accounting for almost 80% of apps downloaded. An incredibly diverse number of Chinese independent app stores will account for 18% of download volumes (going up from 10% in 2012) as this market continues to tempt

developers with its size and appetite but challenges them with inadequate distribution options.

- Enterprise mobile app development will more than double. Enterprise development and deployment of custom mobile apps will explode in 2015, as mobile apps become businesses' primary engagement point with the marketplace. A majority of Western companies will have developed and mobilized more than six custom mobile applications by the second half of 2015. If this number sounds unremarkable, it's because it is. IDC's 2014 Mobile Enterprise Software Survey showed shockingly low adoption of custom mobile applications, with 60% of large company respondents indicating they had mobilized three or fewer apps (40% had two or fewer).

3.4.4. IoT

IDC has identified the Internet of Things — a massive expansion of the edge, to "smart" cars, buildings, homes, industrial equipment, wearables, and more — as one of the most important innovation accelerators for the growth and expansion of IT-based value in the 3rd Platform era. The invention of more and more intelligent and connected "things" will drive the development of thousands of new 3rd Platform solutions — ones that range from providing simple consumer conveniences to those that transform entire industries (sometimes both!). Here are just a few of IDC's IoT predictions for the upcoming year.

In 2015 IoT will be driven by nearly 15 billion Internet-connected, autonomously communicating devices. By 2020, this will rise to 30 billion devices. In 2015, one-third of IoT spending will be around intelligent/embedded devices outside of the IT and telecom industries, including intelligent and embedded automotive systems, retail systems, energy systems, healthcare, and consumer electronics.

There were 165 IoT related funded initiatives identified.

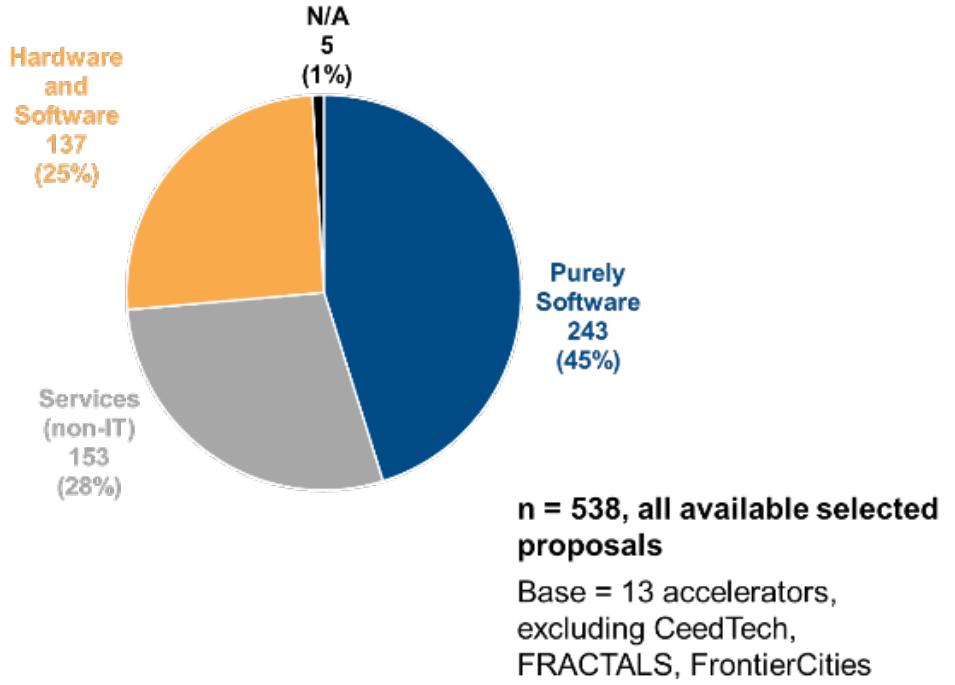
3.4.5. Social media

Social media has dramatically changed the way consumers and businesses interact with one another. Companies have accepted social media as a tool that needs to be integrated into their business. In fact, social channels represents a strategic mean and a valuable resource to gather and share information with customers. This results in enhanced quality of service, constructive feedback, improved consumers' loyalty, and positive word-of-mouth, all of which have an influence on performance and revenues. As a result there has been a significant shift towards social media adoption in the past few years. The IDC's *European Vertical Markets Survey 2014* finds that 39% of companies are currently using social media for business purposes and have implemented it to both improve internal procedures and the way they interact to users. The adoption rate of social media will increase in 2015 to 65%. Nonetheless, a large chunk of this percentage is represented by telecommunication and media companies, for which social media is more related to their core business. Equally, other vertical markets will adopt social media strategies in the future, but will implement them at a slower rate.

There were 86 Social media related initiatives identified.

3.5. Comparative analysis of the Selected Proposals by Type of Technology

Many selected proposals (153) do not focus on producing technology, but instead use technology to provide something else, such as a marketplace for the exchange of products. The remaining selected proposals can be split between projects that bundle a hardware and a software (137) and purely software solutions (243 proposals) as it illustrated in the figure below.

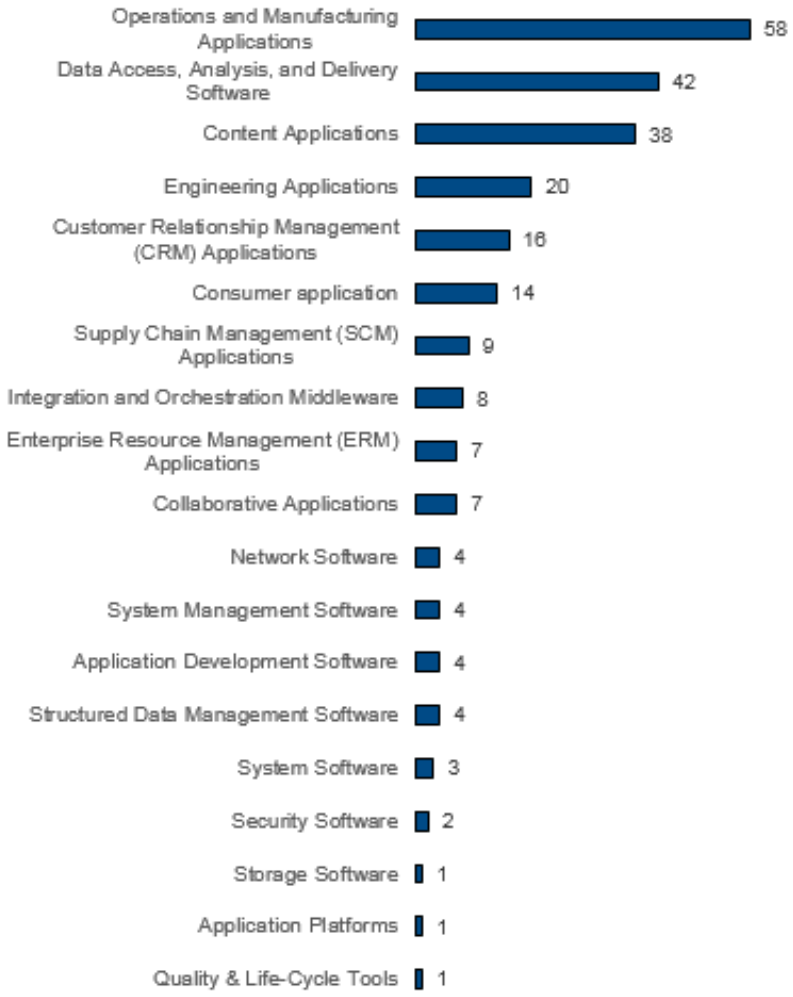


Source FI-IMPACT 2015 (based on data provided by Accelerators)

Figure 42 Selected Proposals, by Type of Offering (13 Accelerators)

IDC analyzed the pure software solutions in more detail and found that the most recurrent category is industry specific applications (operations and manufacturing applications). This is not surprising as most accelerators asked applicants to focus on specific segments which implied a strong focus in their specific needs.

The second most represented category is the Data Access, Analysis, and Delivery Software where IDC classifies analytic tools. This is coherent with the previously mentioned strong focus on big data. Applications in the area of content are also well-spread and the need to have IT tools for better usage of unstructured data and information is becoming increasingly important.



Source FI-IMPACT 2015 (based on data provided by Accelerators)

Figure 43 Selected Proposals, by Software Market Category (13 Accelerators)

3.6. Grouping of Proposals by Industry Sector and Technology

Once concluded the mapping phase, IDC started to develop an initial approach to group homogeneous selected proposals. This analysis is still in a very preliminary phase, therefore both the methodology used and the numbers outlined below are provisional and subject to change.

A first set of groups of homogeneous proposals was extracted by interlocking the dimension of the target industry sector with the type of proposal. IDC started to analyze subsets of selected solutions in the top industry sectors, such as:

1. The first analyzed subset of selected proposals is the one referred to **non IT related** initiatives (such as marketplaces etc.), by top industry sector.

2. The second analyzed subset of selected proposals refers to solutions that include **hardware and software**. They have also been split by top industry sectors**.**
3. The following 5 subsets of selected proposals refer to **pure software solutions** and are related to the top 5 software categories (Operations and Manufacturing Applications, Data Access, Analysis, and Delivery Software, Content Applications, Engineering Applications and CRM Applications), by top industry sector.

The following charts provide a provisional overview of these groups of proposals.

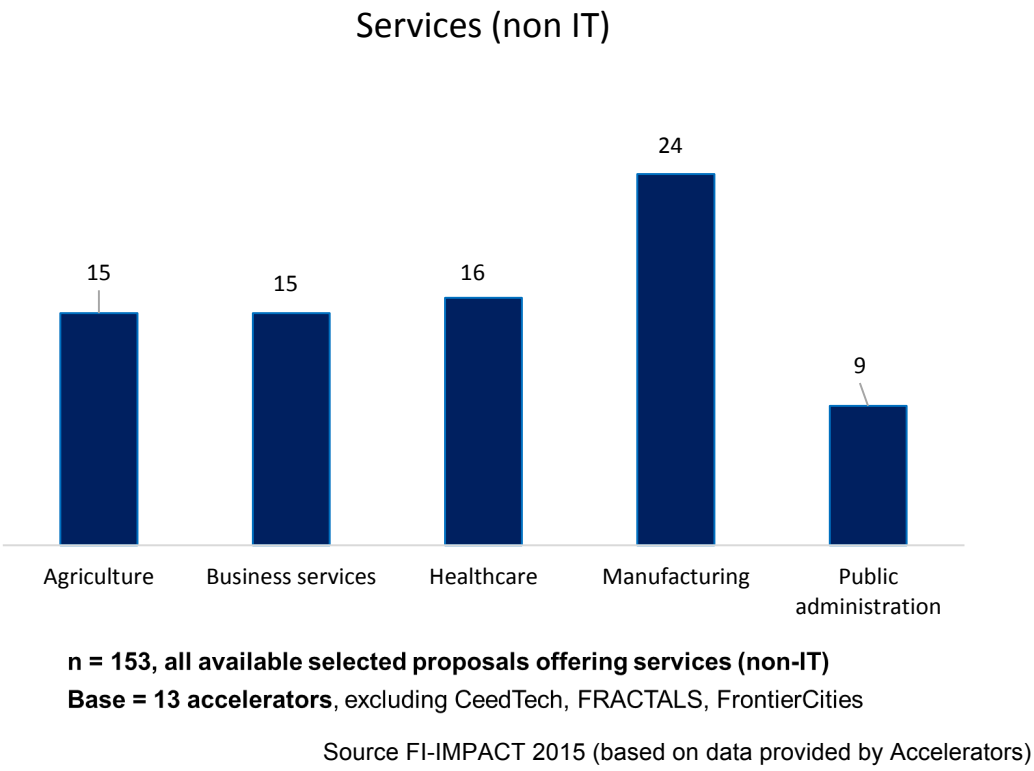
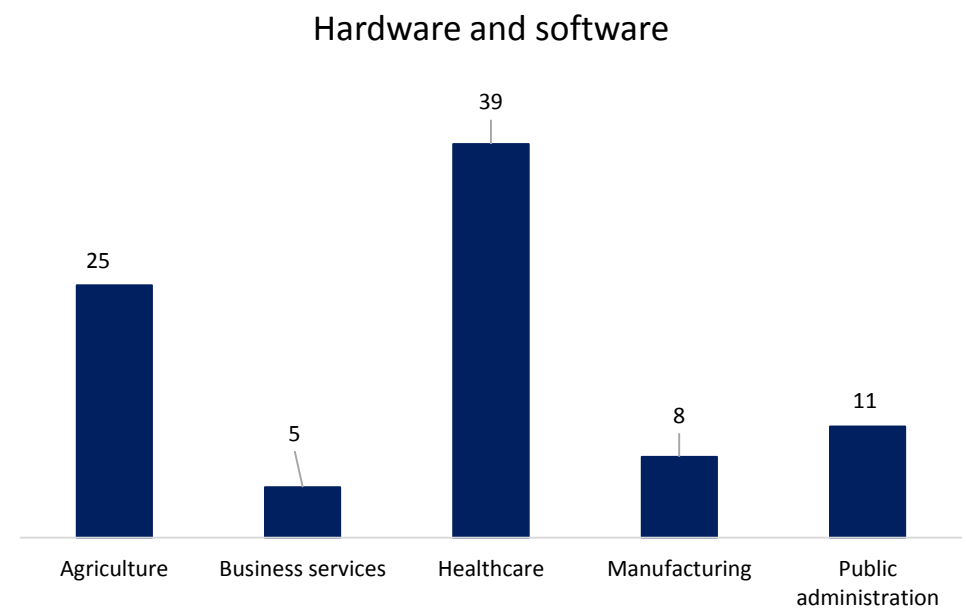


Figure 44 Number of selected proposals that refer to Services (non IT) by top Industry Sectors – Preliminary overview

As it can be seen from the figure above, selected proposals offering a service are quite homogenously spread across the top industry sectors. Between 15 and 24 selected proposals are in all the top sectors with the only exception of Public administration. Also many services are targeting the consumer market (not included in the chart).



n = 137, all available selected proposals offering hardware and software solutions
Base = 13 accelerators, excluding CeedTech, FRACTALS, FrontierCities

Source FI-IMPACT 2015 (based on data provided by Accelerators)

Figure 45 Number of selected proposals that refer to Hardware and Software Solutions by top Industry Sectors – Preliminary overview

As the above figure shows, solutions that include a hardware component are much more likely to address the healthcare or the agriculture sectors. The vast majority of those are IoT solutions that include some sort of sensor of small hardware developed for monitoring purposes.

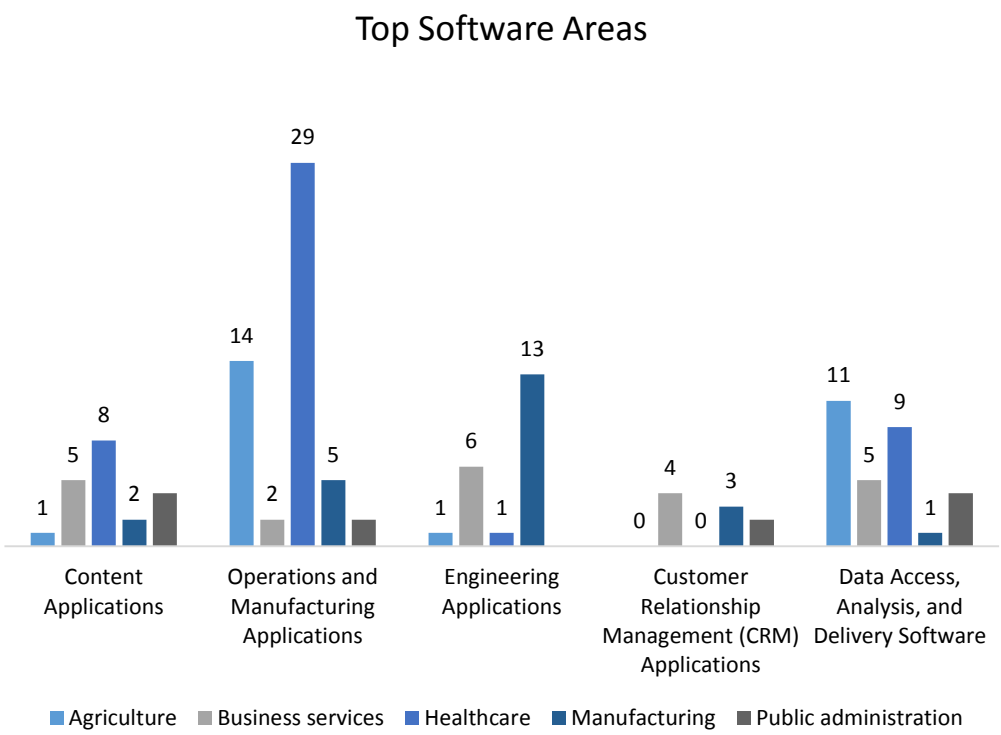


Figure 46 Number of selected proposals that refer to the Top Pure Software Solutions by top Industry Sectors – Preliminary overview

Taking a look at the **top 5 pure software solution areas**, we identified the following (see figure above):

- **Content applications** (or solutions that help companies to deal also with unstructured data and information) are not surprisingly more widespread in the healthcare and business services sectors, which are very data intensive.
- **Operations and manufacturing applications** (or industry specific applications) are more widespread in the healthcare and agriculture industry sectors where the specificities of the business might require them to offer tailor made solutions.
- **Engineering applications** are more widespread in the manufacturing and business services industry sectors. These segments are, according to IDC, the ones using engineering applications the most as they include CAD, CAE and CAM applications.
- **CRM applications** are more common in the business services and healthcare sectors whose main focus is on customer/patient care enhancement.
- **Data Access, Analysis, and Delivery Software** (that include BI applications) are very widespread in the 2 data intensive verticals (business services and healthcare) but also in agriculture as a result of the attention that SmartAgrifood has put on this vertical industry.

3.7. Mapping Preliminary Conclusions and Open Issues

The first batch of proposals is composed of 4,198 initiatives, of which 538 were selected for funding. The following considerations are based on the data provided by 13 Accelerators on these selected projects.

The analysis on the selected projects found that:

- SpeedUP!, FICHe and CreatiFI are the accelerators with the greatest number of selected proposals as of March 31, 2015, counting over 50 funded projects per accelerator and representing 45% of the total. However, this analysis does not include 2 Accelerators who received a very high number of applications, namely Ceed-Tech and FrontierCities.
- The largest number of selected proposals come from Spain, Germany, and then Italy, the Netherlands, UK, Greece and Portugal. There is a positive correlation between the number of proposals and the geographical location of Accelerator's coordinators or partners. It could also be argued that the Programme is offering alternative sources of seed-funding and go-to-market expertise in the countries where it is most needed.
- Comparing the absolute number of proposals with the size of country population, in order to provide an objective benchmark of the relative performance of each country in the sample of selected proposals, we found that Phase III so far has been able to reach out to most MS, even those with a smaller population. It also shows that Spain has a good success ratio, but not out of proportion with its size and population. On the other hand, the large MS, especially France, have generated a lower number of selected proposals than might have been expected. A balanced geographical coverage based on the origin of proposals was not an objective of Phase III. However, this analysis points out the geographical areas where further communication and promotion efforts by the Accelerators could be useful, to make sure that all potential innovators are reached and their energies are mobilized across Europe.
- Selected proposals were classified according to the market segment they target. IDC made a first distinction between B2B and B2C initiatives and found that 64% of funded initiatives are B2B, 13% are B2C and 24% target both consumers and businesses. IDC analyzed target sectors in more detail and found that:
    - The industry sector that has been targeted the most is healthcare (110 proposals);
    - A large set of proposals are purely horizontal, i.e. they do not target a specific industry sector (77 proposals);
    - Agriculture is another sector that is widely targeted with 74 selected proposals. This is driven by the focus on this area by some Accelerators such as SpeedUP! Europe and SmartAgrifood;
    - Public Administration is the next most targeted sector with 53 selected proposals, many of which fall in the smart city space;
    - Most of the proposals targeting the consumer space address needs in the healthcare/wellness field (24%) or the leisure/gaming universe (20%).
- Proposals often involve one or more of the current leading innovative technologies key technologies (Mobility, Cloud, Big data, IoT and Social media). 215 of the selected proposals are related to the area of cloud, 209 Big

data/analytics projects, mobility is also widespread with 203 selected proposals, 165 proposals focused on IoT and finally 86 projects focused on social media.

- Most of the selected proposals (48%) have between 2 and 5 team members, with 38% have one individual. This demonstrates that the first call of Phase III is achieving its goal to support innovative start-ups and new enterprises.

From the analysis of the proposals' abstracts and information, it appears that there are some open issues where FI-IMPACT needs more data to support future Impact Assessment:

- The level of innovation (brand new idea, replacement of an existing solution or add-on/upgrade of an existing solution) is sometimes unclear, both in terms of the business idea and technology. This is a problem for our assessment of their potential market and chances of success.
- Quite a high number of initiatives (153) do not proposed to develop a solution that competes in the IT space but instead relies on technology to offer services or other typologies of products (such as for example a marketplace for meeting demand and supply of products or services). They tend to be new or emerging markets. This makes it more of a challenge to identify and size up their addressable markets.
- All funded solutions are required to leverage FIWARE technologies, but it is still unclear for many of them which FIWARE chapters/enablers they are actually going to use.
- The market entry year and the geographical targets of their business strategies are also two important open questions. Understanding if a solution is already on the market or if it still needs time to be ready and detecting in which country or region a solution will be initially proposed are two essential inputs for the coming market model.
- It is necessary for Accelerators to provide information on the selected proposals' business models, in particular their market strategy (which market channel selected proposers will follow to sell and spread their solutions) and revenue model (e.g. selected proposals offered via a subscription model or revenue coming from advertisement just to name a few examples).
- Finally, it is also important to understand how and if selected proposals will be able to answer needs and overcome barriers that IDC research highlights for each targeted vertical market.

4. Measurement of KPIs

4.1. Scope and cyclical measurement approach

As outlined in D.2.1 Impact Assessment Guidebook, FI_IMPACT has identified 4 main assessment areas corresponding to the 4 main groups of factors affecting the likely implementation and performance of the funded projects as outlined below:

- **Innovation Focus**: level of innovation and positioning in the go-to-market process of the suggested solution.
- **Market Focus**: describing in detail the type of customers, markets and geographies targeted by each project, as well as type of revenue and business models.
- **Feasibility**: level of development of the business and financial plan of the funded proposals.
- **Potential benefits and Impacts**: this is divided into two subgroups:
    - Main user benefits by target customer and market: identification of the most important potential benefits that the funded project plans to provide to the target user.
    - Main social Impacts: identification of the main type of social Impacts potentially achieved by the funded projects.

There is another measurement area complementing the KPIs:

- **Profile** of the funded projects**,** including a set of basic descriptive indicators of the funded projects, based on the mapping templates of the proponents and their organizations. This set of indicators does not aim at measuring the performance of the projects, but rather they will be used to position them in the ecosystem.

Our objective is twofold:

- To apply a factor analysis or similar statistical techniques to elaborate the basic indicators and identify clusters of projects with similar value propositions, target markets, business models.
- To elaborate a synthetic indicator of performance for each of the 4 assessment areas, based on a semantic scale (high, medium, low) calculated through the aggregation of the basic indicators per area. This indicator can be measured for individual projects, for project clusters and for the entire group of Phase III funded projects.

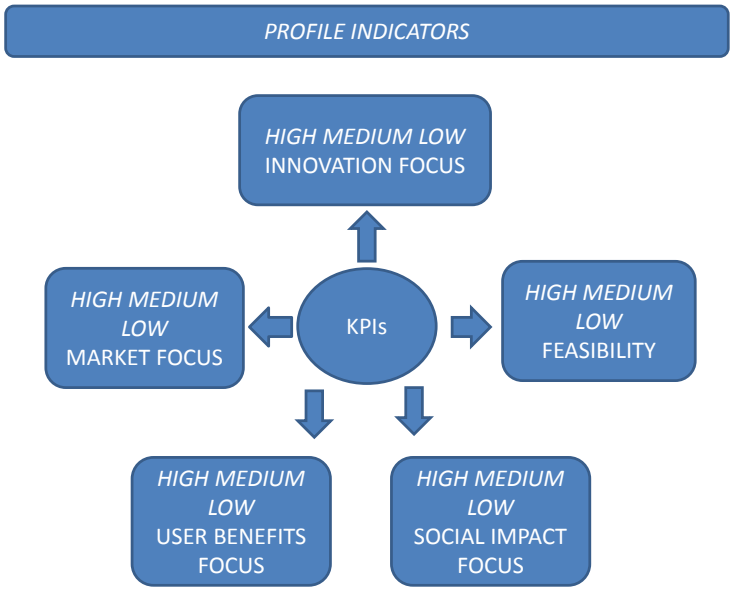
The following table presents a summary overview of the results of the KPIs measurement process outputs.

The KPIs will be measured through the self-assessment tool, as described in the following section. Each of the KPI areas is based on a separate section of the self-assessment questionnaire. The results will be calculated automatically by the tool and presented immediately to the project respondent.

KPIs	Reference Data	Basic Indicators	Synthetic Indicator
Innovation Focus	6 Questions on the key factors affecting the type of innovation of the business idea	3 Indicators measured with a numerical score 3 indicators measured as multipliers (weighting factors)	**Innovation Focus**: aggregation of basic indicators on a scale of 1 to 5 from Low (1) to Very High (5)
Market Focus	6 Questions on the key factors affecting the market approach of the business idea	1 Customer Development Indicator (aggregation of answers) 1 Market Attractiveness Indicator (Aggregation of answers)	**Market Focus**: weighted average of basic indicators on a scale of 1 to 5 from Low (1) to Very High (5)
Feasibility	4 Questions on the key factors affecting the feasibility of the business idea	1 Capital Requirements Indicator (aggregation of answers) 1 Scalability indicator (aggregation of answers)	**Feasibility focus**: weighted average of basic indicators on a scale of 1 to 5 from Low (1) to Very High (5)
Potential User Benefits	1 Question on the list of benefits to be provided by the business idea (Different list per each market targeted - Business/Government or Consumer)	Indicator on main benefits for business/government by targeted market (Score 1 to 6) Indicator on main benefits for consumers by targeted market (score 1 to 6)	**User benefits focus**: level of coherence between the respondent answers and the benchmark on a scale from 1 (Low) to 10 (high)
Potential Social Impacts	Selection of potential Impacts area out of a list of 9 areas Selection of potential social group as user target out of a list	Indicator of presence of social Impact for each selected area (on a scale from 0 = low to 1 = high) Indicator of presence of social group as user (on a scale from 0 = low to 1 = high)	**Social Impacts Focus**: weighted aggregation of indicators

Source: FI-IMPACT 2014

Table 4 Summary of KPIs measurements outputs -



Source: FI-IMPACT 2014

Figure 47 Overview of Key Performance Indicators

4.2. Definition and approach: Profile Indicators

4.2.1. Description

The main goal of these indicator is to provide a quali-quantitative description of the profile of the projects selected and funded by the Accelerators. For the sake of completeness of the analysis, we have included these questions in our measurement approach as they are complementary to the KPIs.

Originally, these questions were designed and used to collect data for the mapping analysis of the proposals, and now they have been fine-tuned for the self-assessment tool.

In the self-assessment tool, these questions will be displayed to the user at the beginning of the process as an introduction to the other areas of measurement. The user will be asked to provide general information on the projects and the organization, as shown in the table below.

Question	Description of the available answers
Which Accelerator is funding you?	Pick from the list of Accelerators
In which country is your organization headquartered?	Pick from the list of countries
What is the name of your organization?	Free text
What is the name of your proposal?	Free text
What is the mailing address of your organization?	Free text
Type of organization	Pick from SME/ Large Enterprise/ Web Entrepreneur

How many people are in the project team?	Integer
How many people are in the organization overall?	Integer
What was the organization's annual turnover in your last fiscal year?	Integer
What is your project's role In the FIWARE value chain?	Pick from: Providing IT solution or tool, Sell or provide a service (non IT) to end user
Which enablers are being used or planned to be used in the project?	Pick from the list of Enablers
How much funding has been received from the accelerator?	Euro value
How much total funding may eventually be received from the accelerator?	Euro value
What is the name of the coordinator of this project?	Provide Name, Surname
Please provide up to 300 word abstract of your project?	Free text
How many years has your organization been active?	Integer

Source: FI-IMPACT 2014

Table 5 Overview of the Profile Indicators

4.2.1. Measurement approach

As explained earlier in this section, the aim is to provide a description of the funded projects rather than measuring their performance and potential success rate, as the other KPIs do.

These indicators will profile and position the respondent and his/her own project among the ecosystem of all the selected proposals.

4.2.2. Outputs

The information collected in the profile section will be aggregated and displayed to the respondent at the end of the self-assessment process in the form of a descriptive text. It will introduce the KPIs sections showing the scores achieved for each area of evaluation.

4.3. Definition and approach: Innovation Focus KPIs

The Innovation indicator expresses the level of originality, maturity and suitability of the product or service as an idea or concept. The single measures are used to create an innovation indicator but are also singularly used in the calculation of Market Attractiveness and Feasibility Indicators.

4.3.1. Description

Alone the level of innovation in a product or service is neither essential nor irrelevant. When contextualised in a specific market adopting a specific business model the value of innovation can be significantly important. For example in a vertical market such as desktop operating systems where the market is very mature, there are few market players and there is very little yearly change in market share from one player to another, substantial innovation in terms of either technology or value proposition will be

required. In a market like geo-based apps for logistics with a large number of actors and substantial yearly change among operators the suitability of the idea to existing customer needs and the identification of potential customers may outweigh the need for it to be considerably innovative. An innovative product or service can make a significant Impact in the market if you are ready to implement it, but can conceal substantial engineering, business planning, development, testing and marketing effort if the product or service is still in the "back of napkin phase"[4]. Additionally new product and service concepts can be concrete and realistic or conversely can be unrealistic. A lot of innovative product and service ideas are simply too far from customer's expressed or potential needs. If the ideas being developed are shared among several colleagues and perhaps potential clients the possibility of being "farfetched" and inapplicable to real market contexts is reduced. Innovation is quite healthy in organisations if it is realistic and part of a shared strategy but can be quite resource consuming. When planned and part of a larger strategy innovation can bring long-term rejuvenation to the organisation.

4.3.2. Measurement approach

This section measures the applicability and innovation of the concept via six simple questions:

I. Does your idea provide an Incremental Improvement or radically change existing products or services?
II. Does this idea exist in the marketplace as a product or service
III. How near is your idea to being commercially exploitable?
IV. Did a single person or multiple persons develop the idea?
V. Is the Idea a standalone development or is it part of a larger organisational strategy?
VI. Have you validated the idea with potential Investors or Customers?

Each question has at least two possible answers. When answered each response will contribute to provide an Overall Innovation Score for the concept being assessed. The score will be compared the corpus of projects in the database and to benchmarks from literature and provide the user with his/her comparison to the average and the benchmark. The user will see his specific Innovation indicator expressed on a continuum from low to high, which is actually a visual representation on a 5 point scale.

Figure 48 Low to High Innovation Indicator results

[4] Harvard Business Review, Steve Blank, May 2013

4.3.3. Calculation

The questions will each provide a numerical (integer) score or a multiplicative factor (coefficient) and when all answers are completed a total score will be calculated. The total score is a sum of the values assigned to a response as opposed to another in each of the questions.

4.3.4. Example Scoring

Answer 1 = +4

Answer 2 = *0,7

Answer 3 = *1,5

Answer 4 = +2,5

Answer 5 = *0,7

Answer 6 = +2

$$Score = (4 + 2,5 + 2) * 0,7 * 1,5$$

$$Score = 8,925$$

All scores will be normalised to a one to five scale. A score of 1 will be mapped to “Low”, 2 will be mapped to “Medium-Low” and so on.

The first question “Does your concept or idea provide an Incremental Improvement or radically change existing products or services?” provides three possible solutions. The first is no foreseen improvement (as it is not necessarily required to improve existing solutions, many will be “me too” solutions simply replicating existing solutions, the majority are expected to provide an incremental innovation, improving existing products and services, while the final group will expect a radical change. The answer to this question multiplies the total innovation index. If the choice A. is selected the response is neutral and the multiplier is simply 1.0, while if the second choice is provided the proposal receives 2 points and the total score is multiplied by 1.3 and the final Choice C. will receive 2 points provide an innovation multiplier of 1.5.

The following question is closely correlated and question II investigates whether this concept exists in the marketplace as a product or a service. The answer is A. (YES) or B. (NO) and either describes a situation where clear innovation is achieved (YES) and multiplies the total by 1,5 or the fact that the product or service already exists (NO) shows that the innovation must be in the value proposition, the intended market, or customer base. Thus the overall indicator is reduced by the multiplier of 0,8%. This answer is also used in the Market Attractiveness and Feasibility Indicators described below.

The third readiness question is straightforward. The level of preparedness represented in the answer corresponds directly to one point for each level, considering that each step greatly increases realistically achievable innovation.

The following question IV. “Was the initial concept conceived by a single person? or by two or more people?” is based on the idea that if the larger the group of collaborators in the conceptual phase the more likely that this is a useful needed solution as the Pygmalion effect will tend to lone inventors to overlook defects, while a group is always more objective. This Question will either count 1.0 for an individual development or 3 points for a group innovation.

Question V is very similar and judges the value of a standalone development versus and organisational strategy. Answer A. Standalone Strategy will add risk that the innovation will be in contrast to a larger organisational scheme and whether successful or not will not receive required resources in market deployment phases. Where A. is chosen, the total is multiplied by 0,7. Contrarily where the innovation is part of a larger or organisational strategy we can assume it has more support and will be able to compete for organisational resources required in the deployment phases. If B. is chosen, the innovation total will be multiplied by 1,5.

The final question VI "Have you validated the idea with potential Investors or Customers?" has three possible answers and multiple selections are possible including A. "No", B. "Potential Investors", C. "Potential Clients". This question identifies to what degree the concept is realistic being already described to stakeholders and ensures that the process is not self-prophesising. Where A. is chosen, the total will be multiplied by 0,8 as the concept could be completely astray from market needs. Where B. is chosen 2 points will be added to the total as a preparation to investors requires business plans and an idea of market deployment and is a clear indication of maturity. Where C. is chosen the respondent has a clear idea also of the potential market and has already identified both channels and a clear value proposition for the users/clients in the identified market. Where C. is chosen 3 points will be added to the total. Combinations of B. and C. are possible and will add 4 points if both are selected.

4.3.5. Example Calculations

I. Does your idea provide an Incremental Improvement or radically change existing products or services?

Possible Answers

Chose one:

A. Yes

B. No

Score

= If A. = *0,7; If B. = *1,5

II. Does this idea exist in the marketplace as a product or service?

Possible Answers

Chose one:

A. Yes

B. No

Score

= If A. = *0,7; If B. = *1,5

III. How near is your idea to being commercially exploitable?
To be finished

Possible Answers

Chose one:

A. No foreseen improvement

B. Incremental

C Disruptive

Score

= + 1 for each level achieved

IV. Was the initial concept conceived by a single person? or by two or more people?

Possible Answers

Chose one:

A. Single

B. Multiple

Score

If A. =+1; If B. =+2,5

V. Is the Idea a standalone development or is it part of a larger organisational strategy?

Possible Answers

Chose one:

A: Standalone

B: Strategy

Score

If A. = *0,7; If B. = *1,5

VI. Have you validated the idea with potential Investors or Customers?

Possible Answers

Select all appropriate

A. None,

B. Potential Investors,

C. Potential Clients

Score

If A. = *0,7; If B. = +2; If C. = +3; If B. and C. = +4

4.3.6. Outputs

Results will be displayed to the user as simple five point categories which go from low, to medium low, to medium, to medium high, to high.

The tool will simply plot the result and generate one of the following images:

The results will be feed back to the tool as the calculation of the Innovation Suitability KPI. The answers to Questions II, V and VI will also be used in the Market and Feasibility KPI.

4.4. Definition and Approach: Market focus KPIs

The Market Focus indicator assesses to what extent:

- the company has developed knowledge of customers in the target market;
- the company has a strategy and plan to reach the target market;
- the target market represents a valid opportunity.

4.4.1. Description

The market focus is expressed as weighted average of two indicators: Customer Development and Market Attractiveness:

Market Focus indicator = w_1 * Customer Development + w_2 * Market Attractiveness

The weights are determined by the Market type indicator. This identifies the target market as a New Market, a Starting Market or a Consolidated Market, according to a popular classification found in "lean startup" literature[5]. The same source defines "Customer Development" as the process to be used by startups to build knowledge of the customers and of the target market, before putting in place a conventional marketing and sales strategy.

In FI-IMPACT the Market type is identified by combining answers on the Level of innovation (QIII of the Innovation indicator) and on the Level of competition (QI), as follows

- New Market: Disruptive level of innovation + No competition
- Starting Market: Disruptive/incremental level of innovation + Medium competition
- Consolidated Market: Incremental level of innovation + High competition

The weight factors w_1 and w_2 are so determined for each type of market:

Market Type	New Market	Starting	Consolidated
w_1	High (2)	Medium (1)	Medium (0,8)
w_2	very low (0)	Medium (1)	High (1,2)

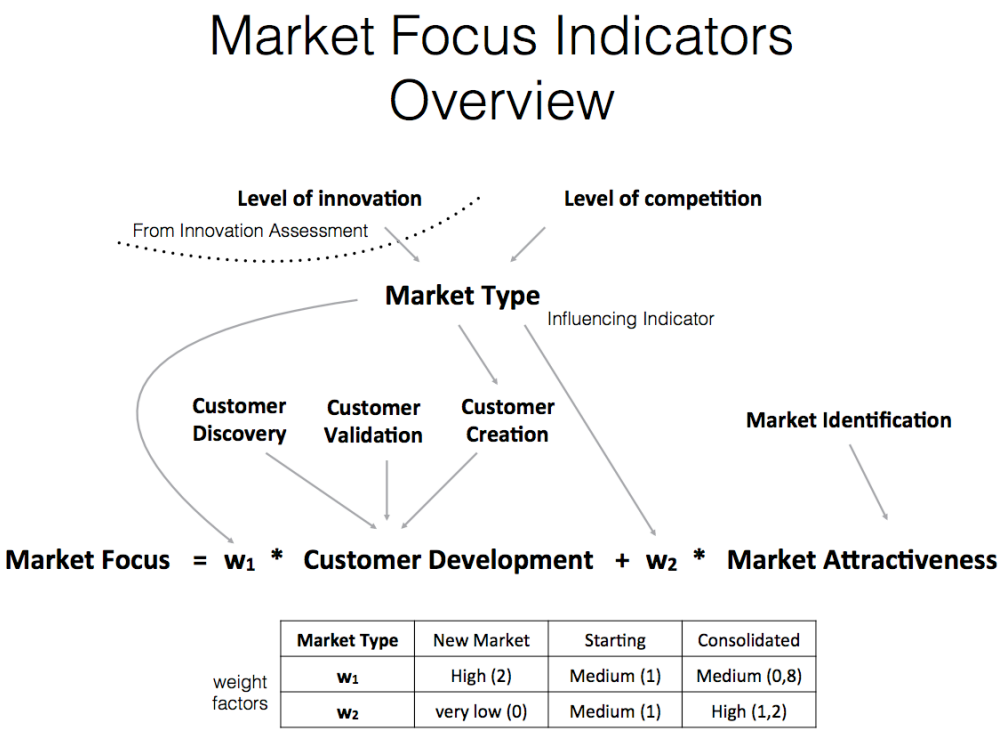
[5] Steve Blank, "The four steps to Epiphany", 2013.

These weights are based on the following considerations:

- In a New Market, i.e., an entirely new product not yet available to customers, customer development is extremely important and it will probably require a significant time before a conventional sales & marketing strategy can be applied. Conversely, there are not enough marked data to estimate market attractiveness.
- In a starting market, customer development is important but it is equally important to analyse the attractiveness of the market, where some players are already present and trends are starting to emerge.
- In a consolidated market, attractiveness must be carefully considered before entering, and customer development is less important due to the fact that the customers are already "educated" and can immediately recognise and judge products in that market.

The Customer Development indicators is the result of the sum of Customer Discovery (QII), Customer Validation (QIII) and Customer Creation (QIVa, QIVb or QIVc depending on the Market type).

The Market Attractiveness is influenced by Market identification (QV, QVI).



	Market Type	New Market	Starting	Consolidated
weight factors	w_1	High (2)	Medium (1)	Medium (0,8)
	w_2	very low (0)	Medium (1)	High (1,2)

Source FI-IMPACT 2015

Figure 49 Overview of the market focus indicators

4.4.2. Measurement approach

This section measures the applicability of the concept via these simple questions:

QI: What is the level of competition in your target market?

QII: Have you verified your value proposition with the target customers?

QIII: Have you verified the channels and means you will acquire customers on the market?

QIV:

a: Have you defined a strategy and plan to create demand on the new market defined by your product?

b: Have you defined a strategy and plan to position your company on the market where no dominant player has emerged yet?

c: Have you defined a strategy and plan to differentiate and acquire shares from incumbent competitors?

QV: In which market sector(s) do you plan to sell your product or service?

QVI: In which geographical area you would like to sell your product or service?

4.4.3. Example Calculations

QI: What is the level of competition in your target market?

Possible Answers

Chose one:

A. No competition
B. Medium competition
C. High competition

Score: No score, this answer is used to identify the Market Type.

QII: Have you verified your value proposition with the target customers?

Possible Answers

Chose one:

A. No, value proposition based on vision and internal discussion
B. Value proposition validated through surveys and market studies
C. Value proposition validated through interviews and meetings with customers

Score If A: +1; If B: +3; If C:+5

QIII: Have you verified the channels and means you will acquire customers on the market?

Possible Answers

Chose one:

A. Preparing sales materials and channels
B. Sales materials available and channels activated
C. First customers acquired through established channels

Score If A: +1; If B: +3; If C:+5

QIVa: Have you defined a strategy and plan to create demand on the new market defined by your product?

Possible Answers

Chose one:

A. Defining an innovation strategy
B. Started promoting the vision
C. Early adopter customers acquired

Score If A: +1; If B: +3; If C:+5

QIVb: Have you defined a strategy and plan to position your company on the market where no dominant player has emerged yet?

Possible Answers

Chose one:

A. Defining the position on the market
B. Company positioned and sales strategy defined
C. Executing sales strategy to gain market share

Score If A: +1; If B: +3; If C:+5

QIVc: Have you defined a strategy and plan to differentiate and acquire shares from incumbent competitors?

Possible Answers

Chose one:

A. Defining a differentiation strategy
B. Differentiation and sales strategy defined
C. Executing sales strategy to gain market share

Score If A: +1; If B: +3; If C:+5

QV: In which market sector(s) do you plan to sell your product or service?

Possible Answers

Multiple choice from IDC Nace categories.

QVI: In which geographical area you would like to sell your product/service?

Possible Answers

Multiple choice from list (Local, Regional, National etc)

The answer of the respondents to questions QV and QVI will be compared with IDC's Market Research data to provide an indication of the attractiveness for market so identified.

4.4.4. Example Scoring

Level of innovation: Incremental innovation

Answer 1: Level of competition, B - Medium competition

Market type = Incremental innovation * Medium competition= Starting market

The w_1 and w_2 for starting market have both medium weight equal to 1.

Answer 2: A - No, value proposition based on vision and internal discussion (+1)

Answer 3: B - Sales materials available and channels activated (+3)

Answer 4b: C - Executing sales strategy to gain market share (+5)

Answer 5: Manufacturing

Answer 6: Spain

Market Focus indicator = w_1 * Customer Development + w_2 * Market Attractiveness

Market Focus indicator = {1 * [(1 + 3 + 5) / 3] + 1 * 3 } /2 = 3 MEDIUM SCORE

4.4.5. Outputs

Results will be displayed to the user as simple five point categories which go from low, to medium low, to medium, to medium high, to high.

The tool will simply plot the result and generate one of the following images:

4.5. Definition and Approach: Feasibility KPIS

The Feasibility indicator assesses to what extent the company business model is:

- economically viable: after an initial investment the company can fund its own growth;
- scalable: sales can be increased by scaling-up the organization.

4.5.1. Description

The feasibility focus is expressed as weighted average of two indicators: Capital Requirements and Scalability:

Feasibility = w_3 * Capital Requirements + w_4 * Scalability

The weight factors w_3 and w_4 are determined by the Market type indicator, as defined above in the "Market Focus" part.

The weight factors w_3 and w_4 are so determined for each type of market:

Market Type	New Market	Starting	Consolidated
w_3	High (2)	High (1,2)	High (1)
w_4	Very low (0)	Medium (0,8)	High (1)

These weights are based on the following considerations:

- To create a New Market capital requirements have to be carefully assessed, since it has to be expected that the business will not become self-sustainable soon. Therefore funding has to be secured to support product and customer development activities. Conversely, scaling-up through marketing and sales should not be the company's primary target.
- In a starting market, capital requirements for product and customer development are still the main focus, but gaining visibility and growing the company presence on the market is also important.
- To compete in a consolidated market requires a sufficient company size, hence significant capital requirements. As important is to set up a strong sales & marketing organization to rapidly acquire significant market shares.

The Capital Requirements indicator corresponds to a single question (QI) aimed at assessing the company's grasp on its funding requirements.

The Scalability indicator is the sum of Growth Rate (QII, influenced by Market Identification), Customer Acquisition (QIII) and Scale-up Plan (QIV).

4.5.2. Measurement approach

This section measures the business idea feasibility, in economic terms, via these simple questions:

- QI: Have you estimated and provided for the capital investments required until revenues can sustain your business?
- QII: Have you estimated how much your sales will grow on a yearly basis?
- QIII: Have you estimated the cost and time required to acquire a new customer in your target market?
- QIV: Have you planned for expanding your sales force and marketing activities to match the expected growth rate?

4.5.3. Example Calculations

QI: Have you estimated and provided for the capital investments required until revenues can sustain your business?

Possible Answers

Chose one:

A. In the process of estimating the investment required
B. Capital requirements estimated and investors contacted
C. Capital requirements covered until self-sustainable

Score If A: +1; If B: +3; If C:+5

QII: Have you estimated how much your sales will grow on a yearly basis?

Possible Answers

Chose one:

A. Evaluating what the potential growth rate could be
B. Committed to a growth rate in the business plan
C. Validated growth rate with sales and market data

Score If A: +1; If B: +3; If C:+5

QIII: Have you estimated the cost and time required to acquire a new customer in your target market?

Possible Answers

Chose one:

A. Not yet analyzed the customer acquisition process
B. Estimated customer acquisition cost and time
C. Verified customer acquisition cost and time through real sales

Score If A: +1; If B: +3; If C:+5

QIV: Have you planned for expanding your sales force and marketing activities to match the expected growth rate?

Possible Answers

Chose one:

A. No plans for sales force hiring and increased marketing activities
B. Scale-up plans defined but not yet launched
C. Scale-up plans launched or set to start at a definite date, including hiring plan for salespeople

Score If A: +1; If B: +3; If C:+5

4.5.4. Example Scoring

Level of innovation: Incremental innovation

Answer 1: Level of competition - Medium competition

Market type = Incremental innovation * Medium competition= Starting market

The w_3 and w_4 for starting market have respectively high and medium weight equal to 1,2 and 0,8.

Answer 1: A - In the process of estimating the investment required (+1)

Answer 2: B - Committed to a growth rate in the business plan (+3)

Answer 3: A - Not yet analyzed the customer acquisition process (+1)

Answer 4: B - Scale-up plans defined but not yet launched (+3)

Feasibiliy = w_3 * Capital Requirements + w_4 * Scalability

Feasibility indicator = {1,2 * 1 + 0,8 * [(3+1+3)/3] }/2 = 1,53 LOW SCORE

4.5.5. Outputs

Results will be displayed to the user as simple five point categories which go from low, to medium low, to medium, to medium high, to high.

The tool will simply plot the result and generate one of the following images:

4.6. Definition and Approach: Potential Users Benefits KPIs

4.6.1. Description

This section describes the process by which we will identify what the main benefits organizations expect their projects will deliver and how this will affect their expected target markets. We will describe how leveraging IDC market research we determine if these benefits are aligned with market needs and barriers.

The following question will be asked to investigate alignment of benefits with market needs and barriers:

"Which are the main expected benefits your solution will provide in your target market(s)?"

The respondent will be allocated given six points (stars), which he or she will be asked to distribute across a series of suggested benefits

As market needs differ from the business and government sectors (B2B and B2G) and the consumer market (B2C), there are two different lists of benefits, one for B2B and B2G proposals and one for B2C solutions:

4.6.2. Business and Public sector (B2B/B2G) benefits:

- Reducing operational costs
- Improving sales performance
- Improving marketing effectiveness
- Enhancing customer (citizen for public sector, patient for healthcare) care
- Innovating the product/service companies sell/provide
- Strengthening multi-channel delivery strategy
- Simplifying regulatory tasks and complying with regulations
- Improving data protection
- Increasing use and distribution of open data and transparency

- Improving scalability of existing tools
- Improving operational efficiency

4.6.3. Consumer (B2C solutions) benefits:

- Answering communication/collaboration needs
- Providing better entertainment
- Improving life quality
- Simplifying daily tasks
- Reducing/saving time
- Having easier and faster access to information/services
- Saving money

4.6.4. Measurement approach

So questions should appear as:

A1. (JUST FOR PROPOSALS ADDRESSING THE BUSINESS OR PUBLIC SECTOR MARKET).

Which are the main expected benefits your solution will provide in your target market(s)? When answering this question you should completely distribute a total of exactly 6 points (stars) across the following proposed benefits:

- Reducing operational costs (including energy efficiency)
- Improving sales performance
- Improving marketing effectiveness
- Enhancing customer (citizen for public sector, patient for healthcare) care
- Innovating the product/service companies sell/provide
- Strengthening multi-channel delivery strategy
- Simplifying regulatory tasks/compliance
- Improving data protection
- Increasing use and distribution of open data
- Improving scalability of existing tools

A2. (JUST FOR PROPOSALS ADDRESSING THE CONSUMER MARKET)

Which are the main expected benefits your solution will provide in your target market(s)? When answering this question you should completely distribute a total of exactly 6 points (stars) across the following proposed benefits:

- Answering communication/collaboration needs
- Entertainment
- Improving life quality
- Simplifying daily tasks
- Reducing/saving time
- Having easier and faster access to information/services
- Saving money

4.7. Instructions

When answering the question, each respondent should distribute exactly 6 "stars" across the different listed benefits. For example, a specific agriculture solution that has the unique objective of simplifying regulatory compliance tasks will put **all** the available 6 stars in "simplifying regulatory tasks/compliance", while a solution for a retail shop that aims at attracting more customers but also simplifying billing activities could put 3 stars in "Improving marketing effectiveness" and the other 3 in "improving operational efficiency". This method obliges respondents to declare (with different weights) just the main benefits that their solutions will bring to the market. Respondents are not given the possibility to score each of the listed benefits, to avoid the possibility they will give the maximum score to all benefits.

Figure 33 Example of how to distribute points (stars)

For those solutions that are targeting more than one vertical market, respondents will have the possibility to answer the "benefits question" for each of the market they are addressing. For example, if a solution targets both the manufacturing sector and the retail sector, the respondent should allocate the points (stars) twice, once for the manufacturing sector and once for the retail sector. The same is true for proposals that are addressing both businesses (B2B) and the consumers B2C). In this case, respondents will answer question A1 for all their target business markets and also question A2 for the consumer sector. The same respondent could distribute points (stars) in a different way when answering questions A1/A2 for different target sectors.

4.7.1. Outputs

In order to understand how proposals expected benefits match the target market's needs, we will compare the answers the respondents expressed with IDC's Market Research data. Sources for this will be the IDC Vertical Markets Survey[6] and other IDC

[6] IDC Vertical Markets Survey 2014 is a landmark study of IT solutions, investment priorities, and emerging technologies in over 70% of the European economy. In 2014, IDC European Industry Solutions carried out a survey of 1,588 organizations with more than 10 employees in the top 5 Western European countries. The results of the survey were analyzed by vertical market and company size. This survey is fully projectable across countries, industries, and size classes, and it offers an unprecedented view of solutions and emerging technologies adoption and issues around Europe. Themes include horizontal

sources for A1 – B2B/B2G (in IDC survey there is a dedicated section on business priorities that investigate companies business needs) and the Consumer Google Survey[7] for the Consumer benefits (for A2 – B2C).

For each individual market we will provide a weight for all the listed benefits depending on IDC survey results for the business/public sectors need and Consumer Google Survey for the consumer market, as can be seen in the following figure.

Manufacturing		Retail	
• Reducing operational costs	4.3	• Reducing operational costs	2.9
• Improving sales performance	3.8	• Improving sales performance	3.7
• Improving marketing effectiveness	2.5	• Improving marketing effectiveness	4.2
• Enhancing customer care	3.9	• Enhancing customer care	3.8
• Innovating the product/service companies sell/provide	4.2	• Innovating the product/service companies sell/provide	2.2
• Strengthening multi-channel delivery strategy	2	• Strengthening multi-channel delivery strategy	3
• Simplifying regulatory tasks/complying with regulations	3.1	• Simplifying regulatory tasks/complying with regulations	3.8
• Improving data protection	3.3	• Improving data protection	4.8
• Increasing use/distribution of open data/transparency	4	• Increasing use/distribution of open data/transparency	4.3
• Improving scalability of existing tools	4.8	• Improving scalability of existing tools	3.6
• Improving operational efficiency	3.6	• Improving operational efficiency	4.7

Figure 34 Example business market needs input table

In the example above for Manufacturing "reducing operational costs" and "improving scalability of existing tools" are very important sector needs, as they have a weight of 4.3 and 4.8, respectively. While strengthening multi-channel delivery strategy and improving marketing effectiveness are not as important in terms of needs (having weights of just 2 and 2.5, respectively). Analogously from the retail table we can see how business needs could strongly differ by vertical.

We will provide similar tables (called ***Input tables***) with weights for all vertical targets as listed here below:

- Healthcare
- Agriculture
- Manufacturing
- Public administration
- Business services
- Transport
- Retail
- Arts/entertainment
- Telecom/media
- Utilities
- Education
- Accommodation
- Construction

We will provide a similar input table also for the consumer benefits.

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solutions, security, mobile solutions, cloud, social media, Big Data, and M2M communications or Internet-of-Things (IoT) solutions.

[7] http://www.google.com/insights/consumersurveys/home

Consumer

- Answering communication/collaboration needs 3.6
- Providing better entertainment 2.5
- Improving life quality 4.1
- Simplifying daily tasks 3.5
- Reducing/saving time 4.3
- Having easier and faster access to information/services 2.9
- Saving money 3.3

Figure 35 Example consumer market needs input table

Using these tables we will score each proposer replies to question A1/A2. The scoring method will work as follows.

Let's suppose that a respondent is proposing a solution addressing the Manufacturing sector and that he/she has replied as follows:

Respondent reply (for Manufacturing)

- Reducing operational costs 
- Improving sales performance 
- Improving marketing effectiveness 
- Enhancing customer care 
- Innovating the product/service companies sell/provide 
- Strengthening multi-channel delivery strategy 
- Simplifying regulatory tasks/complying with regulations 
- Improving data protection 
- Increasing use/distribution of open data/transparency 
- Improving scalability of existing tools 
- Improving operational efficiency 

Figure 36 Example response for manufacturing benefits

For each of the distributed "stars" we will apply the weights coming from the Input tables and we will make the sum of them. In this case for example:

- The respondent gave 1 star to "reducing operational costs", 3 stars to "improving marketing effectiveness", 1 star to "innovating the product/service companies sell/provide", and 1 star to "strengthening multi-channel delivery strategy".

- The input table says that "reducing operational costs" weighs 4.3, "improving marketing effectiveness" 2.5, "innovating the product/service companies sell/provide" 4.2, and "strengthening multi-channel delivery strategy" 2.

- Applying each weights to the distributed stars, we get: 4.3x1 + 2.5x3 + 4.2x1 +2x1 = 18.

The final sum that we get will be normalized in order to get a final score in a **range that goes from 1 to 10**. The minimum possible sum (i.e. all 6 stars given to "strengthening multi-channel delivery strategy" which is the least important business need in Manufacturing and weighs just 2) that is 12 (i.e. 6x2) will correspond to 1, while the maximum possible sum (i.e. all 6 stars given to "improving scalability of existing tools",

which is the most important business need in Manufacturing and weighs 4.8), that is 28.8 (i.e. 6x4.8), will correspond to 10.

All respondents will be divided in 3 score bands:

- low score band : from 1 to 4.

- medium score band: from 4 to 7.5.

- high score band: from 7.5 to 10.

This final score will give an indication on how and if the proposal is addressing target market needs and help companies overcoming their barriers.

If a respondent has a solution addressing more vertical markets, he/she will get a score for each of the target market.

4.8. Final output

Respondents will receive an assessment for each of the vertical markets their proposal is targeting made up of:

- The original reply to question A1/A2

- Their score

- A table showing the top 5 Needs that vertical sectors are has

Let's suppose a respondent has a proposal targeting both manufacturing and retail, so he replied twice to question A1 (once for manufacturing and once for retail), at the end he/she will get two final outputs as follows.

Figure 37 Result of Assessment I

Figure 38 Potential User Benefits - Result of Assessment II

This method, without presuming if a solution can be accepted by a particular market, tries to analyze in if respondents answer or not needs expressed by industry recorded in IDC vertical markets studies and market research.

4.9. Definition and Approach: Potential Social Impacts

4.9.1. Description

This section describes the definition and approach towards identifying and measuring potential social Impacts which arise through the implementation of the FI-PPP Phase III accelerator programme.

A potential social Impact is hereby defined as (based upon the most common viewpoints on social Impact found in an extensive literature review):

> "The effect of an activity on the social fabric of the public and well-being of the individuals and community groups."

The indicators for the social Impact are derived from the main focus areas within the FI-PPP programme. For FI-PPP Phase II we analysed the described use cases, which were used to test the developed technologies in real world scenarios. For FI-PPP Phase III we – based upon the data available at the time of writing of this deliverable -

a) collected, analysed, and evaluated the thematic topics for which the accelerators are awarding funding (i.e. focus areas such as Smart Cities, Agriculture, etc. in their work programmes)
b) aligned the indicators based upon an extensive investigation of the FI-IMPACT's database of submitted project proposals to the accelerators. This resulted in the analysis of over 400 project abstracts in order to find similarities in the targeted social groups and benefits.

In addition, the potential social Impacts are compared and aligned with the Horizon 2020 Societal Challenges[8]:

[8] https://ec.europa.eu/programmes/horizon2020/en/h2020-section/societal-challenges

- Health, demographic change and wellbeing
- Food security, sustainable agriculture and forestry, marine and maritime and inland water research, and the Bioeconomy
- Secure, clean and efficient energy
- Smart, green and integrated transport
- Climate action, environment, resource efficiency and raw materials
- Europe in a changing world - inclusive, innovative and reflective societies
- Secure societies - protecting freedom and security of Europe and its citizens

As a result the potential social Impacts of FI-PPP Phase III are classified into the following qualitative groups:

- Citizens involvement in Open Government
- Demand and use of green, sustainable people transportation solutions
- Improvement of quality of life via contextualisation and live information
- Acceptance and use of E-Learning, innovative learning methodologies and platforms for quality and higher education
- Perceived security of communities, neighbourhoods, and housing
- Perceived quality of life in urban areas
- Overall fitness of the European citizen
- Social inclusion of minorities
- Social inclusion of the elderly
- Overall healthiness of the European citizen
- Impact on families (from Quality of life to single-parent households)

In addition, we defined three quantitative indicators:

- Number of public community groups addressed
    - The public community groups might consist of Elderly, Children, Families, Minorities, Disabled people, Mentally ill people, Ill people, Commuters, Students / Pupils, or Other.
- Number of private community groups addressed
    - The private community groups might consist of NGOs, Industry, SMEs, Service providers, or Other.
- Number of national social challenges (i.e. on a policy level) addressed

This includes the enquiry which national policies dealing with societal challenges are addressed in addition to any EU guidelines, policies, or similar.

4.9.2. Measurement approach

The measurement approach for the possible social Impact consists of three phases. Firstly, we measure whether a funded project is dealing with a specific topic considered as possible social Impact. Practically, this means that any person answering FI-IMPACT's questionnaires is presented with the option to select the qualitative social Impact groups (presented in the previous chapter), with which their project / accelerator is dealing. The selection of the groups is a YES / NO question. Then, if the person selects yes, an additional set of questions is opened.

All the social Impact groups have two measurements in common:

- Selection whether a social Impact group is the main focus of the project (i.e. a specific topic is sole background and field of activity)
- Selection whether a project is dealing partially with the social Impact group (i.e. it is one of many focus topics addressed by the project)

Finally, for specific social Impact groups we introduced further measurements. These measurements are as follows:

- *Demand and use of green, sustainable people transportation solutions*
  - Differentiation of the measurements based upon people vs. goods transportation, and use of sustainable, green technologies, or both
- *Improvement of quality of life via contextualisation and live information*
  - Differentiation between the improvement of quality of live and other purposes (e.g. marketing, info-screens, or similar), or both
- *Acceptance and use of E-Learning, innovative learning methodologies and platforms for quality and higher education*
  - Differentiation between E-Learning, innovative learning methods, and improvement of quality and higher education, or both
- *Perceived security of communities, neighbourhoods, and housing*
  - Differentiation between improvement of security in communities and neighbourhoods, and housing, or both
- *Perceived quality of life in urban areas*
  - Enquiry on direct Impacts on citizens (vs. e.g. infrastructure measurements or similar)
- *Overall fitness of the European citizen*
  - Differentiation between fitness as leisure activity, and as an activity to improve health, or both
- *Overall healthiness of the European citizen*
  - Differentiation between medical approaches, and ways of changing the life-style of the European citizens, or both
- *Impact on families (from Quality of life to single-parent households)*
  - Enquiry whether a project targets single-parents (e.g. childcare, crèches, etc.)

The quantitative indicators are measured as integers, therefore counting public community groups, private community groups, and national societal challenges. The national societal challenges are also listed as free text.

4.9.3. Outputs

The data retrieved with the measurements will be aggregated into a high – medium – low – none (H-M-L-N) scoring, indicating the potential Impact for a specific social Impacts group and the overall performance over all groups. As a visual element we use a speedometer (similar to the visualisation of the innovation KPIs, see below) to show how a project / accelerator is performing.

Source FI-IMPACT 2015

Figure 53: Speedometer to visualise the H-M-L-N scoring (similar to the visualisation of the innovation KPIs)

The aggregation is based upon the feedback given to the question of the social Impact groups, normalised to a value between 0 and 1, whereas 0 means no Impact, a value below 0.3 is a low Impact, a value below 0.7 is a medium Impact, and values above 0.7 indicate a high Impact. The normalised value is calculated by adding the weighted YES/NO answers. The weights depend on the amount of sub-question for each group.

An exemplary calculation for the social Impacts group "*Demand and use of green, sustainable people transportation solutions*" is given in the figure below. The sub-questions in the example are shown if a project answers the question "*Does your project deal with people transportation solutions?*" with YES. The example shows the result for a high Impact in the given field since the final is 0.75 and thus above 0.7.

Sub-Question	**Answer**	**Value**
Please specify whether your project has people transportation as its sole background?	Y	0.5 * 1
Please specify whether your project partially deals with people transportation?	N	0.3 * 0
Please specify whether your project has people transportation as its sole background	N	0.25 * 0
Please specify whether your project is dealing with green and sustainable technologies?	Y	0.25 * 1
Total (Sum)		**0.75**

Source FI-IMPACT 2015

Figure 39 Exemplary calculation for the group "*Demand and use of green, sustainable people transportation solutions*"

The measurement of potential social Impacts is designed so that it primarily delivers results regarding the achievements of the whole FI-PPP Phase III programme. This becomes necessary as it is nearly impossible to measure the Impact of one single funded project. The feedback of projects is valuable input for holistically measuring any potential social Impacts delivered by funded projects.

Nevertheless, feedback about potential social Impacts will be given in FI-IMPACT's self-assessment tool. The feedback is part of the tool's report, listing the fields in which a project might generate potential social Impact, to what extent, and how much in line it is with the current societal challenges within Europe. The position within the Horizon 2020 Societal Challenges, the overall alignment within the FI-PPP realm, and the general indication about key societal drivers will give projects a way to see how their business plans and ideas fit into the bigger picture. The feedback about potential social Impact is shown in the self-assessment report as speedometers as described in the previous chapters, accompanied by documentation explaining why a particular score was awarded and what this can mean for the future of a project, business, or company.

5. Conclusions

Phase III of the FIWARE programme is nine months into its course at the time of writing. Market ready results are just around the corner. To date most of the Accelerators have successfully completed their first round of selection and initial funding of projects has already been carried out. Training and development events are taking place and the community of SMEs is beginning to coalesce. The original performance objectives set by the European Commission for the programme are largely being met or exceeded.

5.1. Key Findings

This deliverable is based on the data available at March 31st 2015 and has analyzed 538 proposals selected by 13 Accelerators, as data was not available from the three remaining Accelerators at the cut off point. . We expect roughly 650 selected projects when the dust of the first call settles. FI-IMPACT has reviewed each of the proposals and this deliverable has taken the sum of these initiatives and mapped the entire Phase III ecosystem. It has shown the logical progression from Phase II to Phase III. And described it refined the methodological framework originally hypothesized in deliverable D2.1.

The FIWARE community can be very proud of the results highlighted in this report:

SME Involvement
Phase III of the FI-PPP programme was intended to promote the involvement of SMEs and these 538 initiatives are almost entirely made up of SMEs with a whopping 38 per cent being made up of a single entrepreneur and an additional 48 per cent having between 2 and 5 employees, which is reminiscent of how Europe's economy works as a whole.

New Actor Involvement
Phase III was planned to attract newcomers to the FIWARE community. We find that these initiatives are made up of young organizations. 46 percent of those organizations receiving funding have less than 2 years professional experience and almost 60 percent have 4 or less years of experience. These companies are truly new to the European CNECT domain brining new contributions, outlook and energy.

Pertinent use of FIWARE in the economy
This deliverable has pointed out that that many of the funded initiatives are providing very concrete tools that are pertinent in today's economy. The largest category of initiatives (almost a quarter of the projects) are providing FIWARE enabled applications for use in production environments. We painted a picture of initiatives that are proving applications and services that directly follow Europe's key industries. Healthcare (23% of all applications), Agriculture (16%) and Manufacturing (15%) are leading the way with more than 50 per cent of the total initiatives.

It's all coming together and FI-IMPACT and this deliverable are offering empirical evidence of a well-planned successful Public Private Initiative. This deliverable has mapped these initiatives and can be freely used by all stakeholders to attest to achievements, identify geographic and economic areas that could be targeted and compare results. We would like to thank the Accelerators who contributed data for analysis.

The second objective of this deliverable was to describe the methodological framework and the calculation methods for the Key Performance Indicators (KPIs) that we are using to measure and assess the performance of the projects funded by the Accelerators as well as for the Self-Assessment Tool. The measurement approach to collect empirical evidence of the success described above and the potential Impact which will be calculated in the ensuing phases of the project has five sections including: a General Profile section; An Innovation Focus section; a Market Focus section; a Feasibility section; An User Benefits focus section; and a Social Impacts Focus section. This deliverable explains exactly what the logic of indicators and the single questions that make them up. It describes how the metrics are weighed and scored and how they will compete to create Key Performance Indicators for the various dimensions. These metrics and the relative Performance indicators are the key tools in our Impact assessment and can be used by a number of different actors for a number of different scopes.

Primarily the questions at the base of the KPIs provide the empirical evidence that is used to instantiate our market model and are used to create the Impact Assessment in month 15 as well as the market forecast provided at the same time as described in the chapters above. However the KPIs described in this document are directly used by workpackages 3 and 4 in the period immediately following the release of this document. Workpackage 3 will create the process for collecting the empirical evidence needed in all phases of the project providing templates and instructions for the project partners and Workpackage 4 will create the Self-assessment tool, which will use the questions as the mechanism for interacting and evaluating projects who are interested in assessing their own potential.

This is a public deliverable and the methodologies and the KPIs can also be used by the public to support Impact Assessment of ongoing or future initiatives. For example the methodologies and tools can be used by representatives in the European Commission to assess the participation and success of this programme or can use the tools and methods to adopt assessment approaches for other initiatives. They can be used as a learning Tool for SMEs and Entrepreneurs to determine the strengths and weaknesses through assessing their initiatives on the key Impact parameters and learn about ways to improve and increase their Impact. Furthermore, the tools and methodologies can be used as a monitoring Tool for the General FI-PPP/FIWARE Community. Stakeholders can use the analysis contained in this report and in the correlated Infographics or can create or propose custom queries to generate insights into strengths and weaknesses of Future Internet Public Private Partnership to detect which aspects of the FIWARE offering offer the highest potential and how initiatives are configured to exploit them.

The work is proceeding according to plan and this report is testimony to the collaboration of almost all of the Accelerator projects in deploying this methodology. It is clear that there are 16 different time plans for the Accelerators. As a result two of the Accelerators had not concluded their first calls and selected projects for funding at the time of writing this report so it was not possible to include their data in this first round of analysis. They will, however be asked to complete the survey using the tools we provide and we expect these projects to be included in future analysis. We have discussed the approach with most Accelerators and have provided implementation data periodically during the initial months of Phase III. The consortium has used the

methodologies and the results described in this deliverable to respond to a series of inquiries from various stakeholders from both within and beyond the FI-PPP and have had very positive comments and sustained interest in the work we are carrying out.

Annex I Funding

Accelerator	Total Funding Received	Funding Granted Per Proposal
CEED Tech	5 M€	10,000 to 280,000 € (+10% investor co to financing)
FABulous	5,44 M€	18,000 to 118,000 € (Call 1), 18,000 to 78,000 € (Call 2)
FICHe	6,24 M€	15,000 to 217,000 €
FINODEX	4,64 M€	10,000 to 170,000 €
SmartAgriFood	4 M€	40,000 to 100,000 €
CREAtiFi	4,72 M€	10,000 to 50,000 € (Call 1), 20,000 to 100,000 € (Call 2)
EuropeanPioneers	4,7 M€	50,000 to 250,000 €
FI-Adopt	4,24 M€	50,000 to 150,000 €
FI-C3	4,56 M€	75,000 to 150,000 € (SMEs), 25,000 to 50,000 € (Web,Entr)
FInish	4,88 M€	50,000 to 150,000 €
FRACTALS	5,5 M€	50,000 to 150,000 €
frontierCities	3,92 M€	50,000 to 150,000 €
INCENSe	6,265 M€	50,000 to 150,000 €
Impact	6,4 M€	25,000 to 100,000 €
SOUL-FI	5,1 M€	10,000 to 85,000 €
SpeedUp_Europe	5,5 M€	50,000 to 70,000 €

Table 6 Detailed overview of funding by Accelerator

Source: FI-IMPACT Elaboration of Accelerators Data

Base 16 Accelerators

Annex II Accelerator Value Propositions

Accelerator	Value Proposition
CeedTech	Our strategic objective is to increase the effectiveness of business processes and infrastructure and innovative business models that strengthen the competitive position of European industry. Our focus verticals are big data, cloud, analytics, transactional technologies, fintech and payments, B2B technologies, location based services and security. Our acceleration programmes are executed from Estonia, Lithuania, Slovak Republic, Czech Republic and Hungary. The acceleration process has been carefully designed by following the best practices around the world: we offer private investors backed seed financing, involvement of top tier mentors throughout the 3-stage programme (shape, build, sell).
CreatiFI	CreatiFI aims to be a catalyst in resolving the existing paradox in the relationship between European Creative Industries and ICT, characterised by their dependency on ICT for sustainability on the one hand, and by a significant current gap in ICT-readiness on the other. CreatiFI aims to introduce FIWARE technologies to all corners of the Creative Industries, by supporting and accelerating between 60 and 90 entrepreneurs into developing innovative tools and services for the Creative Industries, and by creating at least 18 viable new players in this area, which have an innovative, FIWARE based tool for the Cultural Industries in a mature state of development, a sound business plan for commercial deployment and access to the resources required for sustained growth. Finally, besides this direct Impact, CreatiFI will also actively promote the further diffusion of FIWARE based ICT into Creative Industries by offering these together in established, sector specific marketplaces.
EuropeanPioneers	EuropeanPioneers aims to boost the development of digital SMEs and web entrepreneurs in Europe's media sector. The accelerator pursues this goal by providing EU funding to promising businesses and helping them take advantage of state-of-the-art open-source Future Internet technology developed in the FI-PPP. The adoption by SMEs and web entrepreneurs of these technologies developed by FI-WARE and FI-CONTENT is a key objective of European Pioneers. The programme also provides participants with coaching and mentoring in cutting-edge business methodologies and access to strong venture capital and

	business networks.
FABulous	- Incubate and accelerate new start-ups, web entrepreneurs, and SMEs to capitalize on specific FI assets, in particular existing and forthcoming technology foundation to leverage the reference European digital ecosystem in 3D printing. - Connect FABulous ecosystem with EIT ICT Labs to capitalize on the training and business innovation assets that are made available there. - Connect FABulous ecosystem with high-quality European networks of Venture Capital investors and micro financing with the support of the European Investor Gate project. - Strengthen Regional Smart Specialization Strategies in Future Internet, Content, Manufacturing and Logistics, augmenting existing innovation, investment and entrepreneurship programmes run by Regional Development Agencies with specific European Open Calls for services/applications with clear innovation in manufacturing capabilities and with societal and economic value.
FI-Adopt	FI-ADOPT will accelerate Future Internet technology in Europe, by supporting innovative ideas from SMEs and web entrepreneurs, through a set of concrete steps: launching and executing three open calls for selecting projects from SMEs and Web Entrepreneurs in the application areas of learning (on different subjects and levels) and training (including technical training and crisis management), improving health and well-being (through healthy behavior shaping and promotion), social integration focusing on immigrants and other minorities.
FI-C3	The goal of FI-C3 is to implement an incubator for projects proposed by SMEs and individual entrepreneurs. Those projects will address innovative products/services in 3 business domains: Smart Territories (smart city guides; smart city platforms; smart city services; personalized location based services and apps; infotainment; in-real-time connecting moving people and place and events; use of open data…), Media & Contents (multimedia augmented reality; transmedia—cross all media devices--; video games; cinema ; TV; internet video; eLearning; on-line editing and postproduction; web software needed to support/publish/produce this content Care & Well-being (smart home; indoor position; personalized connected media; quantified self-ambient assisted living; secure home; location based services).

FICHe	The value proposition of FICHe is to provide SMEs and startups with a structured program containing direct funding, technical training and business coaching and co-creation with end users, with the aim to produce high quality deliverables, including: Access to 3 regional ecosystems for development and trial purposes, Access to regional business centers for business coaching, training and advice, Access to end-users to be involved in the development process, Access to a set of innovative technologies developed by leading developers, bundled, documented and tested in the FIWARE, Exposure in over 15 member states , A structured program containing support, training, coaching and funding, Opportunities to meet potential investors and venture capitalists, SMEs will produce high quality deliverables with the help of training and coaching
Finish	FInish will support ecosystems of agri-food and supply chains/networks, aiming to bring together business needs of technology end-user communities represented by actors like farmers, traders, retail and supply chain service providers with creative ideas & technological opportunities of software SMEs and web-entrepreneurs.
FINODEX	FINODEX will be focused in adding value to the European ICT industry by building new business opportunities in different business sectors (environment, health, transport and finance mainly) making use of FI-PPP technologies and open data; generating business ecosystems around FI-WARE and open data offering a set of free services to SMEs and WEs to assure success business driven projects. The services will be addressed to finance project, training in FI-PPP technologies and open data, training in business models and plans, support to access to private funding and networking with other FI-PPP stakeholders. Finally, to create a wider community of investors interested in FI-WARE and open data thanks to the organisation of different events and the services above mentioned. Their interest will be provided from design to the market.
FRACTALS	FRACTALS aims to introduce the FI-PPP initiative in “white-spot” regions, such as Bulgaria and Serbia but also to further strengthen the visibility and usage of the initiative in regions with very limited, comparing to their potential, exposure to FI-PPP benefits, such as Greece and Turkey. Other countries of Western Balkans, which fall in the category of “White Spots” will also be reached as a result of geographical proximity, common language and socio-economic background, and the strong ties and synergies that ICT communities of Western Balkan countries have developed during previous years on the basis of various regional initiatives.

	FRACTALS aims to fund 50-60 sub-projects, for the development of applications with great market potential, thus beneficiaries have a clear motive to validate their applications through a User's Community and receive feedback, since this process will increase the marketability of the applications. The consortium will provide this service through PA4ALL, a Living Lab focused on ICTs for Agriculture. A group of 300 Lead Users, covering all links of the value chain (farmers, agronomists, agrochemicals vendors), will be selected to take part in testing and validation assignments, both in terms of a formal process (with pre-defined metrics) but also through open interaction sessions.
FrontierCities	a. Identifying higher-potential usage cases (cities) for smart mobility applications. b. Identifying higher-potential SME, start-ups and web developers. c. Providing an online and offline support to help ensure that target SMEs and web-developers are aware of cities interest and needs and can develop a grant application that is linked to a real need or testing possibility in a city environment. d. Providing a demanding but supportive full-scale programme of assistance to successful grantee projects during the frontierCities grant cycle, including technology advice and support, acceleration support to speed up applications development and user testing. e. Providing a full-scale market uptake and commercialization support programme, where we will work intensively with SME and web developer grantees to ensure market uptake and/or commercialization of their smart mobility application or service.
IMPACT	IMPACT will contribute to the rapidly deployment across Europe of FIWARE Technology related with Internet Mobile Content facilitating to SMEs and Start-ups access to global markets, enabling worldwide connections with Global Corporations and access to global investors specialized. IMPACT aims to: Select a portfolio of at least 64 world-class Digital-Entrepreneurs, Startups or SMEs, within the field of Internet Mobile Contents and making use of FIWARE Technologies.; Provide world-class acceleration services including mentoring, education, coaching, funding, brokerage with investors & markets, networking with other FI-PPP stakeholders and to facilitate a sustainable path for each final beneficiary, beyond the EC support, through an Extended Investments Phase, as fast track access to the Project Partners investment programs; To generate business ecosystems around FIWARE Technology offering a set of free services to Start-ups and SMEs to assure success business driven projects, and properly exploit the know-how generated during the project implementation, establishing a network of private and public stakeholders which will allow a cooperative approach to identify

	and disseminate good practices and success cases.
INCENse	INCENSe will support SMEs and WEs in the best exploitation of FI-WARE enablers, to create innovative products and services able to create a strong business and social value. • Empower SMEs and WEs to turn their ideas in concrete products or services • Implement and validate FI-WARE technologies, collaborating with the other FI-PPP actors • Support the Start ups in the first phase of their development • Take advantage of Consortium members' network to accelerate the best Cleantech innovations • Modify paradigms of energy sector through the development of disruptive technologies • Support European open innovation INCENSe aims to enhance also a social value through an improvement of smart services and energy efficiency.
SmartAgrifood	Online services over the Internet are already widely used by agricultural ICT providers. The FIspace platform offers a novel and more efficient way of continuing and extending such facilities with FIware technologies. The FIspace platform and the FIware technologies thus provide a feasible solution for an efficient collaboration amongst independent online services. A particular and important aspect is that this opens for an international market for agricultural ICT. A knowledge-based decision support system developed in one country can be adjusted to linguistic, climatic and biological conditions in second country by a collaborative service delivering these adjustments. The FIspace platform is maintained by the FIspace project until the project's completion by end of April 2015. It is a part of the project's work program to secure a permanent maintenance of the platform thereafter.
Soul-FI	Focus on the creation of new businesses and applications on the theme of smart cities and communities and sustainable transport, all based on FI-WARE solutions. A direct and specialize acceleration program to enable ground-breaking developers, capable of creating innovative FI-WARE based solutions with a high degree of social and business Impact, to be successful in the global market. The applicants will have the opportunity to increase their solutions value through the experience of SOUL-FI team, stakeholders and network. The pilot cities are strongly involved in the acceleration programme. SOUL-FI has been active actor in the development of smart-cities

	communities/ innovation clusters. SOUL-FI will offer oriented support to ICT developers in developing solutions strongly oriented to smart cities and sustainable mobility, framed within smart specialization strategies and when/if possible with a high social Impact.
SpeedUp Europe	The Grants offer an opportunity to make a trial. Education is a standalone value-highly recommended in those times. Pan-European Collaboration is an outstanding opportunity – the eco-system will foster the success and all Participants are natural born in a fresh and hype movement. The FI-Ware technology could be a key factor to enable the most viable part of the digital era. We accept but asking for the utmost efforts to make success happen. SpeedUp allows entrepreneurs to test applications with real data, run trials, and become visible to potential clients and partners and increased credibility. The easy interfacing of similar apps by several end-users or the combination of different apps by single or multiple end-users opens a new dimension of solution development. App developers can focus on their strengths and team up with other developers to maximize the value of their features. FIWARE provides interoperability of applications – successful business cases could easily be replicated in other geographies and scaled