D1.3 Impact Assessment and Success Story Communication

Proposal full title: **Future Internet Impact Assurance**

Proposal acronym: **FI-IMPACT**

Project number: 632840

Type of Funding Scheme: **Support Action (SA)**

Work programme objective addressed: **FI.ICT-2013.1.9**

Contractors:

Part No.	Participant Organisation Name	Part. Short Name	Country
1(Co)	International Data Corporation Italia	IDC	IT
2	International Data Group UK	IDG	UK
3	Bluegreen Strategy	BGS	IT
4	Sustainable Finance Consulting	SFC	DE
5	IIMC International Information Management Corporation Ltd	IIMC	IRL
6	Jozef Stefan Institute	JSI	SLO

Executive Summary

This deliverable is complementary to D1.2 FI-IMPACT Communication and Dissemination during Reporting Period 2. It focuses primarily on summarising the dissemination undertaken of FI-IMPACT FIWARE Success Stories and Impact Assessment.

FI-IMPACT prepared 73 FIWARE Profiles and 17 FIWARE Case Studies for dissemination to raise awareness of the variety of businesses, innovative products and services that have received support under FI-PPP Phase 3 and the FIWARE Acceleration Programme. The methodology undertaken to select success stories (profiles and case studies) in cooperation with Accelerators is outlined in D3.3.

In terms of impact assessment, FI-IMPACT started from the largest possible group of projects and defined metrics to assess the potential of the sub grantees of the 16 accelerator projects. These were first assessed through a survey approach under the light of innovation, business potential, sustainability and market needs fulfillment. We associate technical suitability data from a review of the FICORE project and a business focus survey from Accelerator mentors lead by FIWARE Press Office. From this we created the analytical models described in Workpackage 2 and provided the first Deliverable D2.3, which described the potential economic fallout of the portfolio, and later Deliverable D2.4 which reassessed the models and added additional impact factors including the occupational fallout and detail scenarios. Furthering this task, we selected a long list of approximately 80 high potential initiatives and later reduced these to a list of 17 case studies 10 of which were chosen through expert analysis and clustering to be promoted as FIWARE Success Stories. This deliverable describes the mechanisms we used to carry out that dissemination.

A range of complementary dissemination channels were leveraged including FI-IMPACT website, social media, nanosites, FIWARE Channels, workshops, webinars, audio conferences and face-to-face meetings to disseminate the results to the intended targets. This deliverable describes the actions taken to disseminate impact analysis and success stories.

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1. Objectives

This deliverable, which is complementary to D1.2, summarizes dissemination and communication activities of the Impact Assessment and the Success Stories.

1.1. Document Organization

The deliverable is divided into three sections. This section provides an overview of the methodology followed and the document structure. Section 2 outlines dissemination of the Impact Assessment. Section three outlines the dissemination mechanisms leveraged for FIWARE success stories. The document also contains the materials disseminated via the FIWARE Nanosite.

1.1. Methodology employed

The approaches used to communicate the success stories and the Impact Assessment, although correlated, target slightly different stakeholders. Dissemination of the Impact Assessment was primarily geared towards the European Commission, policy makers in the EU, the 16 Accelerator projects, the funded sub-grantees and the FI-PPP community. To this extent the single stakeholders were identified and deliverables were sent directly targeting these stakeholders, presentations of findings and infographics were carried out with a direct approach while the Success Stories were intended for a wider audience including the general European external Industry and future research and development communities that might be interested in FIWARE and the initiatives that are successfully using Generic Enablers in real examples of market facing initiatives. To target this wider group, we employed the vast Technet network of the partner IDG using the tried approach of small, embedded information websites know as Nanosites. The success stories (FIWARE Profiles and FIWARE Case Studies) were also actively disseminated via the FI-IMPACT website, social media and FIWARE Channels.

2. Dissemination of Impact Assessment

2.1. Impact Assessment outputs for dissemination

FI-IMPACT undertook Impact Assessment (IA) in four phases across the project life. All outputs were prepared as public deliverables to ensure that they could be widely disseminated both within the FIWARE Community and to interested parties within the wider research and technology communities who are tracking the progress of the FIWARE Programme.

D2.1 (Impact Assessment Handbook)[1] describes the Impact Assessment process, the tools used to achieve the results and the market context FI-IMPACT used to assess Phase 3 of the FI-PPP and forecast potential impact up to 2020. This deliverable was published in December 2014 to provide stakeholders with an insight into the impact assessment methodologies that would be applied.

D2.2 Mapping and initial KPIs[2], which was published in May 2015, shared the initial mapping and analysis of the results of FIWARE Accelerator's First Calls as at 31 March 2015. It provided analysis of the 538 initiatives selected for funding by 13 of the FIWARE Accelerators. It outlined the Key Performance Indicators that will be used to measure and assess Phase 3 of the FI-PPP.

D2.3 Ex Ante Impact Assessment and Forecast[3], which was published in November 2015, provided insights into FI-PPP Phase III funded initiatives from calls 1, 2, and 3, analyzing 725 initiatives selected and funded by 15 Accelerators at August 31st 2015. This analysis based on aggregated results provides interesting insights into the market focus, technology coverage, selection models and activities that the Accelerators support. KPI Measurements were undertaken on 472 funded initiatives up to 03 November 2015 across 5 main areas: Innovation, Market Focus, Feasibility, Business and Consumer Market Needs, with the aim to assess the readiness of the Phase III initiatives and their potential performance. An analysis of the market where these companies are or will be soon operating, including an estimate of their revenues projected to 2020 and a forecasting of their potential user population was provided.

To complement the public deliverable (D2.3) FI-IMPACT also prepared customised reports for each of the 16 Accelerators based on the data submitted by their sub-grantees through the FI-IMPACT Impact Assessment Survey mapping their portfolio by geography, team composition, market type, use of FIWARE and potential market demand as well as providing insights into comparative data across the whole data set from all respondents. These reports were provided to each Accelerator in January 2016

[1] http://www.fi-impact.eu/media/FI-IMPACT_D.2.1_ImpactAssessmentGuidebook_v1.pdf
[2] http://www.fi-impact.eu/media/FI-IMPACT_D2.2_Mapping_InitialKPIMeasurement_v1.pdf
[3] http://www.fi-impact.eu/media/FI-IMPACT_D2.3_ExAnteImpactAssessment_Forecast_v1.pdf

and then updated in May 2016 to reflect analysis of all data submitted via the Impact Assessment Survey.

D2.4 Update of Impact Assessment and Forecast[4], published in June 2016, provides analysis based on 985 FIWARE sub-grantee proposal applications and 648 FI-IMPACT Impact Assessment surveys completed by sub-grantees between July 2015 and May 2016. It provides updated analysis of the market context for the FI-PPP Phase 3 funded initiatives, including the size of the markets and key market trends for the areas where the funded initiatives aim to compete from their entry in the market to 2020. It presents the estimates of the revenues of funded initiatives and the number of users of the funded initiatives, forecasted at 2020. It also provides the macroeconomic impact of the Phase 3 funded initiatives on the EU economic and employment system to 2020, through the estimation of direct, indirect, and induced quantitative impacts on revenues, additional spending and jobs created.

2.2. Intended audiences

The **European Commission** is expected to use this impact analysis both on a macroscopic and detailed level to design better policies and laws facilitating better-informed decision-making in the legislative process and to ensure coherence of Commission policies. Focusing on the benefits and costs of different policy alternatives they generally improve the quality of policy and EU intervention keeping it as simple and effective as possible. However, the commission officials responsible for the FI-PPP program are expected to use the specific information in the analysis to analyse the efficacy of their program according to the specific markets, actors and goals that it has and can achieve. The KPIs are meso-program level and describe real go-to-market uptake potential, from the outlook of a single industrial sector. The FI-IMPACT ex-ante IA provide Program Managers with a new snapshot of potential that may influence their approach in the future as well as concrete talking points for the promotion of this PPP and similar approaches in the technology domains considered.

The Accelerator Projects are using the impact analysis as *ex parte* insight into the potential market demand of the range of initiatives they have selected. It allows them to assess their own selection and assessment process. It allows them to assess the potential of the vertical Industrial Sectors where they are funding initiatives. The impact assessment is a valuable tool for Accelerator project managers to analyse their portfolio of projects in the context of which industrial sectors, and which technologies will contribute to the overall ICT landscape and how important that contribution will be in the near future, is essential to understand how to best advise and guide their SME/Entrepreneurs. The Assessment provides qualitative evidence tied to accurate market purchasing and growth projection and measured KPI performance providing Accelerators with valuable market intelligence to help Accelerators and the projects

[4] http://www.fi-impact.eu/media/FI-IMPACT_D2.4_UpdatedImpactAssessment_Forecast_v1.pdf

they fund to make better-informed decisions. The Impact Assessment is giving Accelerators an additional tool to support internal analysis and keep the Commission Services informed of their activities. It is helping them compare their performance across FI-PPP Phase 3. The Impact Assessment provides a valuable glossary and common yardstick for Accelerator managers to talk about potential and markets of their SME/Entrepreneur initiatives.

The SME and Entrepreneurs are using the Impact Analysis to assess the competitiveness of their products and services and to understand and tailor their target customer base. The assessment provides insights into the market being targeted by SMEs/Entrepreneurs' so they can plan growth in contiguous sectors and markets with good potential. This is particularly important for startups that are in the process of validating their business model on the market, where small changes at an earlier stage can result in dramatically more positive outcomes. The impact analysis provides an independent market and sectorial analysis that can truly serve as an early stage reality check. The FI-PPP is surrounded by a number of actors that go beyond current project participants, Commission Services, Accelerator projects, participating SME and Entrepreneurs. There is a whole community of platform developers, Industrial actors, research communities, public authorities and investors who have in some way contributed to the status of the requirements, technology use cases and implementation platforms. They are all potential benefiters/users of the IA. The Impact Assessment is able to answer their questions as to which FIWARE technologies, which countries, which markets and which channels hold promise as potential success areas. Leveraging the time and investment of the whole Phase 3 communities they can get an idea of real implementation potential of areas they are planning to invest in and assess the potential and outcomes of technologies and markets. They can also look at single KPIs and monitor any given parameter over the course of the project. Investors can single out groups of initiatives to assess investment potential in the SMEs and Entrepreneurs or in the Ideas/sectors that look most promising further promoting the uptake of FIWARE technologies.

2.3. Dissemination activities

As outlined in D1.2, FI-IMPACT leveraged a range of complementary dissemination channels to raise awareness of the impact assessment results: direct engagement with stakeholders, FI-IMPACT website, Twitter, infographics, FIWARE Case Studies, FIWARE Profiles, Basecamp, FI-PPP Newsletters and presentations during FIWARE Coordination Meetings and relevant public events. FI-IMPACT also provided content to the FIWARE Press Office for publication on FIWARE.org.

There was a high level of direct engagement with the Accelerators and their sub-grantees who completed the impact assessment survey from July 2015 - June 2016. All sub-grantees and their Accelerators had real-time online access through the FI-IMPACT website on a password protected basis to individual Impact Assessment Reports, which provide feedback on data provided. It also allows sub-grantees to benchmark themselves against peers who completed the impact assessment survey. This provided sub-grantees and Accelerators with valuable insight into relation to Innovation, Market

Focus, Feasibility, Market Needs and Social Impact of their offerings that could be factored into ongoing and future mentoring needs.

The aggregated anonymised data was analysed in the public deliverables to provide insight across the portfolio of funded respondents. The public deliverables (D2.1, D2.2, D2.3 and D2.4) were disseminated individually to the Accelerators and they were asked to also share with their sub-grantees. D2.2 was also sent directly by email to all respondents who contributed impact assessment surveys up to March 2015 so that they could benefit from the overall analysis of the programme.

Initial results were disseminated through presentations and participation at ECFI II, Munich, 17 - 18 September 2014; FINESCE Open Day, 22 September 2014; eChallenges e2014, 29 - 30 October 2014; WebSummit, 04 - 06 November 2014; Accelerator Coordination Meeting, Coimbra (November 2014); FRACTALS event, Ljubljana, December 2014; NetFutures, Brussels, 26 March 2015 and Accelerator Coordination Meeting, Paris (June 2015). More information on these activities are provided in D1.1.

In addition to direct engagement with Accelerators, sub-grantees and European Commission, and public presentations, all deliverables and other public outputs (inforgraphics, case studies, profiles) were disseminated via the FI-IMPACT website, Twitter, Basecamp, Mobilize and provided to the FIWARE Press Office.

Based on the data collected and analysis undertaken in the context of D2.3 and D2.4 a series of Infostories[5] were prepared and published from November 2015 providing insights into entrepreneurial aspects of the FIWARE Programme, market potential, mapping the FIWARE ecosystem, mapping FIWARE chapters and technological focus, FIWARE AgriFood Achievements, FIWARE Achievements with focus on Energy sector, FIWARE Achievements with a focus on the Healthcare sector and the economic impact of Phase 3 of the FI-PPP. More information on the infostories is provided in D1.2.

Customised Accelerator Reports were prepared and provided directly to each Accelerator in January 2016 and May 2016 to provide them with impact assessment analysis based on the data provided by their sub-grantees with complementary market data and comparison across the FIWARE portfolio.

FI-IMPACT populated data sets in the FIWARE Subgrantee shared excel to ensure that all FIWARE Accelerators and the European Commission had access to the most up to date impact assessment data and Mattermark scores.

Impact Assessment analysis undertaken during Reporting Period 2 were also disseminated through presentations and participation at the FIWARE Communication Meeting, Madrid (07 July 2015), ICT2015, Lisbon, (20 Oct '15); A16 Programme Coordination Meeting, Lisbon (22 - 23 October 2015); ECFI3, Hamburg (04 - 07 Nov '15); eChallenges e2015, Vilnius (26 Nov '15); A16 Programme Coordination meeting, Milan (28 - 29 Jan '16); NetFutures 2016, Brussels (20 - 21 April 2016); INCENSE

[5] http://www.fi-impact.eu/page/infostories/

FIWARE Networking Event, Rome (19 April 2016); Stargate Innovation Day, Vienna (23 May 2016); FINODEX Final Event, Trento (31 May 2016); Research to Business Conference and Exhibition, Bologna (09 June 2016); A16 Programme Coordination Meeting, Tallinn (09 - 10 June 2016); SOUL-FI Final Event, Delft (21 June 2016) as well as regular FI-PPP Phase 3 Steering Committee Meetings. More information on these activities are provided in D1.2.

3. Dissemination of Success Stories

3.1. Success Story identification

Following extensive engagement with the 16 FIWARE Accelerators, a sub-set of funded sub-grantees were selected to be profiled as FIWARE Success Stories. The data collection and the overall assessment results are discussed in detail in D3.3. This section summarises the approach and criteria applied to the selection, as well as the main results from assessment of the High Potential Initiatives.

The first step in the selection process was to collect and analysis of the proposal submissions from the 985[6] sub-grantees. FI-IMPACT classified and harmonized data from each of the proposals. Each of these 985 was invited to carry out the Impact Assessment survey. FI-IMPACT collected and reviewed information measuring of KPI values for each of these.

The ranking score calculated for each sub-grantee on the Impact Assessment KPIs has been the main criterion for the first selection phase. The ranking has been shared in one-to-one meetings with the 16 FIWARE Accelerators and following consultation the top candidates from each Accelerator were agreed.

These sub-grantees were invited to contribute to FIWARE profiles for publication on the FI-IMPACT website. The profiles[7] provide insight into the focus of the project, the organisation involved, sector, target market, business model and website. Over 88 sub-grantees were invited to participate in this exercise, of which 73 completed the process.

A sub-set of 17 sub-grantees completed FIWARE Case studies[8]. Ten of these case studies were selected to also be disseminated through a FIWARE Nanosite via IDG online channels to raise awareness of FIWARE Achievements and a sample of initiatives focused on Agrifood, Energy and eHealth.

The resulting list of 65+ High Potential Initiatives was further analysed, through a dedicated set of questions aimed at assessing the progress the Sub-grantees have made in validating their business model through the acceleration process. The business model assessment questionnaire has been completed and discussed in individual interviews with 59 High Potential Initiatives. The aspects considered are:

- Value Proposition, i.e., to what extent the Sub-grantees have had their value hypothesis confirmed by real customers on the target market.

[6] there were 985 funded sub-grantees at the time of writting this document
[7] http://www.fi-impact.eu/page/profiles/
[8] http://www.fi-impact.eu/page/showcase/

- Revenue Flows, i.e., whether the sub-grantees have validated their capacity to generate sustained revenues from sales on the market, and to what extent these revenues can fund their growth.
- Customer Acquisition, i.e., whether the Sub-grantees have had their hypotheses validated on the market in relation to channels and customer acquisition cost and time.
- Financials, i.e., to what extent the Sub-grantees have secured sufficient funding to sustain their product development and growth plans.

The business model validation assessment has been complemented by other evaluations. In particular, the judgment of the Accelerators themselves and FI-IMPACT experts was taken into account, to identify HPIs of particular relevance for their market disruption potential and innovative use of FIWARE technologies. 10 of the case studies were selected for dissemination via the Nanosite.

3.2. Success Story Dissemination

As outlined in the section above, FI-IMPACT worked with the FIWARE sub-grantees to prepare a range of FIWARE Profiles and FIWARE Case Studies for dissemination to raise awareness of FIWARE achievements across different thematic areas. They collaborated to provide insight into the variety of businesses, innovative products and services that have received support under FI-PPP Phase 3 and the FIWARE Acceleration Programme.

Seventy-three FIWARE Profiles were finalised for publication. This repository of FIWARE profiles[9] provides an insight into the wider variety of businesses, innovative products and services that have received support under FI-PPP Phase 3 and the FIWARE Acceleration Programme. They are grouped into ten thematic areas: 3D Printing[10]; Agrifood[11]; eHealth[12]; Energy[13] Media[14] Other[15]; Security[16] Smart Cities[17]; Social & Learning[18] and Transport[19]. These high potential initiative profiles provide an insight into the focus of the project, the organisation involved, sector, target market, business model and website.

The FIWARE Profiles have been disseminated by FI-IMPACT through the FI-IMPACT website and Twitter. They have been provided directly to the Accelerators and the sub-

[9] http://www.fi-impact.eu/page/profiles/
[10] http://www.fi-impact.eu/page/3d-printing/
[11] http://www.fi-impact.eu/page/agrifood/
[12] http://www.fi-impact.eu/page/ehealth/
[13] http://www.fi-impact.eu/page/energy/
[14] http://www.fi-impact.eu/page/media/
[15] http://www.fi-impact.eu/page/other/
[16] http://www.fi-impact.eu/page/security/
[17] http://www.fi-impact.eu/page/smartcities/
[18] http://www.fi-impact.eu/page/learning/
[19] http://www.fi-impact.eu/page/transport/

grantees who have also disseminated the profiles via their own website and social media channels.

Seventeen FIWARE Case Studies[20] were prepared in cooperation with sub-grantees for publication. They provide insights into the vision and market need, target market and revenue streams, competitive positioning, enabling technology and progress to date for showcased sub-grantees. They were grouped thematically under agrifood, healthcare, energy, security and innovation.

The FIWARE Case Studies have been disseminated by FI-IMPACT through the FI-IMPACT website and Twitter. Accelerators and sub-grantees have also disseminated the profiles via their own website and social media channels.

In addition, 10 of these case studies were selected for dissemination through a FIWARE Nanosite[21] through IDG online publications.

The FIWARE Nano-site was segmented into Energy, eHealth and AgriFood. IDG authored a one-page editorial on each sector. IDG reviewed the FI-IMPACT FIWARE Case studies and authored a one-page editorial for each of the sub-set of case studies (Energy - Beeta, OEEX, TeskaLabs; eHealth - Oviva, 8fit, Findster, Mixeat; Agrifood - QIFresh, SUR+, Agrivi). The Nano site also provided a link to the full case study on the FI-IMPACT website.

Based on content from the FI-IMPACT Impact Assessment survey with sub-grantees, IDG created three info graphics that present FIWARE Achievements with a focus on Energy, eHealth and AgriFood.

The FIWARE Nano site was promoted through a range of IDG online channels to raise general awareness of FIWARE results.

3.3. Intended audiences

The FIWARE Profiles and Case Studies are intended to raise general awareness of FIWARE Achievements and the types of businesses supported. They are intended to be promotional material that can be leveraged by the European Commission, Accelerators, sub-grantees and FIWARE Press Office as evidence of the success of the Programme. They can also be leveraged by the sub-grantees with investors and clients.

The primary audience for the FIWARE Nanosite was Enterprise IT and IT Management as well as IT Decision Makers. IDG targeted these job titles across all verticals but put specific emphasis on the Energy, Healthcare and Agriculture sectors.

[20] http://www.fi-impact.eu/page/showcase/
[21] http://www.idgcreativelab.com/portfolio/fiware-nanosite/

3.4. Success story dissemination via Nanosite

The Nanosite is a high impact, rich media embedded window that is displayed directly on applicable audience websites. It is the perfect solution for driving awareness of the FIWARE program and the startups funded by the initiative. It offers deepening engagement directly within the Nanosite where users can engage with content such as infographics, editorial articles and case studies without having to leave the site. It is completely customisable and can be targeted to a specific and appropriate audience.

Based on the featured listed above, it was selected as a relevant dissemination tool for raising greater awareness of FIWARE achievements.

This custom-designed and built Nanosite contained three tabs, each highlighted one of the selected verticals (Energy, Healthcare and Agriculture). Within each tab IDG-created content was housed, including an editorial article, the success stories and an infographic. The Nanosite contained lightbox functionality, which provided the viewers with an interactive experience and allowed for reading each of these assets right there on the page, without having to click away. Since all the content was housed in this ad unit, it was easily run across the IDG TechNetwork, which is premium publisher network of over 570 sites, with a reach of 120 million technology buyers, in 97 markets. The unit was targeted to the above specified target audience only.

This Nanosite ran on many sites within the TechNetwork, based on the specific targeting detailed in section 3.3. Some of premium sites where this ad unit ran are as follows:

- PCWorld.com
- Newsweek.com
- TechTimes.com
- TheEpochTimes.com (business section)
- Econotimes.com
- FranchiseHerald.com
- IBTimes.com
- Xconomy.com
- eCommerceTimes.com
- TechNewsWorld.com
- BusinessFinanceNews.com
- DigitalTrends.com

These sites were selected for a multitude of reasons, including their audience size and their capability to reach Enterprise IT, IT Management and IT Decision Maker viewers.

3.5. Nanosite Statistics

Program Summary

Total Impressions Delivered	1,800,876
Impression Goal	1,800,000
% Delivered	100%
Average Dwell Time (Seconds)	38
Interaction Rate	7.5%

Table 1 Program Summary

Detailed Nanosite performance:

The Nanosite programme has been very successful with very high engagement rates.

Nanosite delivery

900,327 impressions were served to Enterprise IT, IT Management and IT Decision Makers based in EMEA. And another 900,549 impressions were targeted to Enterprise IT, IT Management and IT Decision Makers in the specified industries (Energy, Healthcare and Agriculture).

In total, 1,800,876 Nanosite impressions were served, exceeding the guarantee of 1,800,000.

Nanosite engagement

The average dwell duration measures the average length of time in which users engage with the Nanosite. This includes actions such as mouse hovering over the unit, scrolling through Nanosite content, clicking and/or interacting with the Nanosite which opens up into a window to show content in full length (called the expandable lightbox). Users spent an average of 38 seconds engaging with the Nanosite ad unit which exceeds the industry standard of 27 seconds.

The interaction rate is a metric that measures the rate at which users interacted with the rich media ad unit. The full table of audience interactives are listed below and includes logo clicks, tab clicks, article clicks, infographic clicks, learn more button clicks and closes.

The interaction rate is calculated by dividing the total number of interactions within the nanosite by the total number of media impressions served. On this nanosite, we saw an interaction rate of 7.5%, which is more than 1.5x higher than the industry standard of 4.8%.

Audience Interaction Summary

Total Interactions by Type	Interaction Type	IDG TechNetwork
Total Logo Clicks	**Clickthrough**	**9,412**
Fiware Logo Clicks	Click	3,909
FI-IMPACT Logo Clicks	Clickthrough	2,850
European Commission Logo Clicks	Clickthrough	2,653
Total Tab Clicks	**Click**	**9,688**
Energy Tab Clicks	Click	3,364
eHealth Tab Clicks	Click	3,241
Agrifood Tab Clicks	Click	3,083
Total Article Clicks	**Click**	**54,509**
Energy Article Clicks	Click	17,221
eHealth Article Clicks	Click	17,542
Agrifood Article Clicks	Click	19,746
Total Success Story Clicks (See Specific Interactions Matrix)	**Click**	**16,037**
Total Clicks to Full Case Studies (See Specific Interactions Matrix)	**Clickthrough**	**78**
Total Infographic Clicks	**Click**	**23,349**
Energy Infographic Clicks	Click	11,641
eHealth Infographic Clicks	Click	7,240
Agrifood Infographic Clicks	Click	4,468
Learn More about FIWARE's Success Stories Button Clicks	**Clickthrough**	**20,991**
Energy CTA Button Clicks	Clickthrough	10,814
eHealth CTA Button Clicks	Clickthrough	6,589
Agrifood CTA Button Clicks	Clickthrough	3,588
Lightbox Closes	**Click**	**887**
Total		**134,951**

Table 2 Audience Interaction Summary

The Nanosite had a total of 134,951 interactions. The three IDG-written articles resonated very well with the audience and achieved a total of 54,509 total clicks. The infographics received 23,349 total clicks and a total of 20,991 clicks were redirected to FIWARE's Success Stories industry pages (button to click on the Nanosite unit)

For a more specific breakdown of the Success Story data, please see the chart below. There were 16,037 total clicks to read the summarized success stories, housed within the Nanosite.

Another 78 clicks were made to go to the FI-IMPACT's website and read the longer version case study. This number is expected to be low as most users engage with the content within the Nanosite. Success stories were summarized in a one page document. Additionally there was no click through link submitted for the Agrivi case study.

Specific Interactions

Success Story Interactions	Interaction Type	IDG TechNetwork
Energy Tab		
Beeta/Tera	Click	2,594
Full Case Study Clicks	Clickthough	19
OEEX	Click	1,864
Full Case Study Clicks	Clickthough	10
TeskaLabs	Click	1,689
Full Case Study Clicks	Clickthough	9
eHealth Tab		
Oviva	Click	1,637
Full Case Study Clicks	Clickthough	6
8fit	Click	999
Full Case Study Clicks	Clickthough	7
Findster	Click	1,001
Full Case Study Clicks	Clickthough	8
Mixeat	Click	988
Full Case Study Clicks	Clickthough	6
Argifood Tab		
Agrostis/QIFreash	Click	1,213
Full Case Study Clicks	Clickthough	5
SUR+	Click	1,111
Full Case Study Clicks	Clickthough	8
Agrivi	Click	2,941
Full Case Study Clicks	Clickthough	0
Total		**16,115**

Table 3 Interactions

Annex I Nanosite pages

The homepage of the Nanosite provided an overview on FIWARE programme and the involvement of the European Commission. It allowed viewers to click on the individual sector pages as well as click on the FI-IMPACT and European Commission logos, which directed viewers to the websites respectively.

Figure 1 Nano Site Homepage artwork

The Energy tab Nanosite page includes an introduction on the top, followed by the IDG-written article, three energy-specific case studies and an infographic focused on energy. Below is a screenshot of the tab and what the assets look like once opened within the lightbox funcationality.

Figure 3 Energy Tab

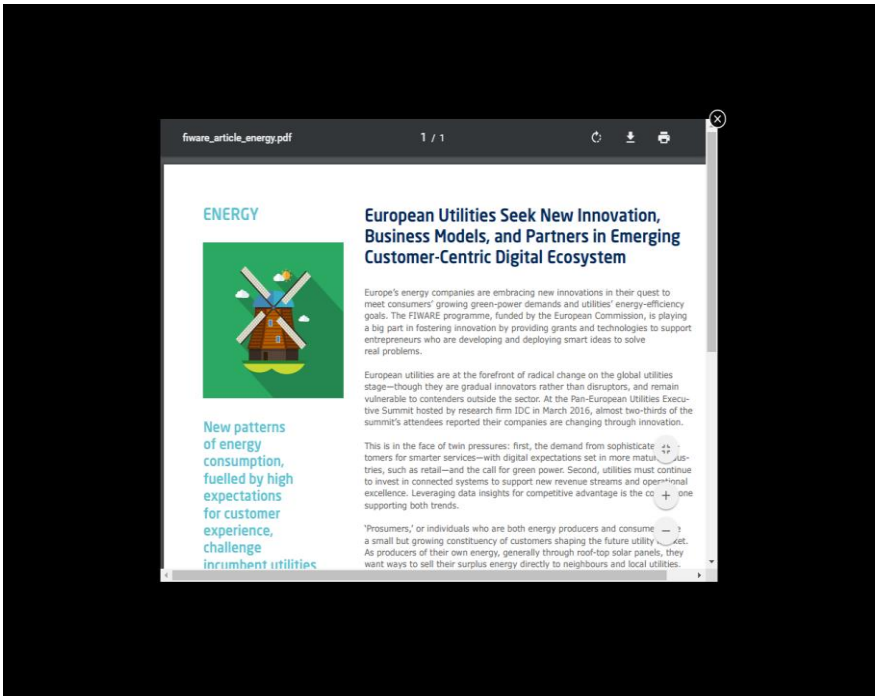


Figure 2 Energy Sector Overview

The next tab was focused on eHealth. This tab again includes a brief introductory text, the editorial IDG articles, four case studies and an infographic. Screenshot below.

Figure 4 Health and Wellbeing Tab

The final tab, Agrifood, features an article around digital innovations within this industry, highlights three success stories and includes an agrifood-focused infographic.

Figure 5 AgriFood Tab

Annex II Nano Site Success Stories

The Energy success stories featured within the nanosite included Beeta, OEEX and TeskaLabs.

tera

COMPANY
Tera

SECTOR
Energy

OPPORTUNITY
Change the energy consumption patterns of households and lower utility bills by offering a smart, trusted advisor on energy efficiency

DIGITAL SERVICE
Building Energy Efficiency Trusted Advisor (Beeta) combines a mobile app, cloud-based data analytics, and a hardware device

FIWARE FUNDING
€150,000

CASE STUDY

Smart Energy Advisor Changes Householders' Energy Usage and Lowers Electric Bills

What if technology could change the energy consumption patterns of households and lower utility bills by offering a smart, trusted advisor on energy efficiency? That's the goal of a joint collaboration between FIWARE and Tera, a small Italian enterprise in the renewable sector.

Tera sees three opportunities with its new service, called Building Energy Efficiency Trusted Advisor (Beeta):

- Help prosumers improve the performance of Photovoltaics, or rooftop solar panels that create direct current electricity
- Help consumers improve the return on their investment (ROI) on the plant (which includes 18 solar panels) by lowering production costs through remote monitoring
- Help all homeowners become more efficient and cut their electric bills by changing habits and lowering power consumption.

FIWARE technologies and funding, coupled with cloud infrastructure and mobile technology, is generating data insights that will bring these new opportunities to life.

Beeta provides users with personalised indexes detailing energy consumption and suggestions for reducing their power usage. Beeta will initially be offered to prosumers as an app plus smart hardware that is remotely upgradable. In the fully automated version of the service, the system can remotely monitor and control the 18-solar panel rooftop plant.

The cloud-based data analytics component of Beeta's software platform scales easily and quickly, enabling Tera to roll out the smart energy advisor to a mass market of eco-aware consumers with minimal effort.

Tera selected the FIWARE platform for its flexibility and interoperability with other platforms. The open source FIWARE technology eases the integration of disparate tools and eliminates the problem of vendor-lock-in; in a utilities market characterised by multiple players and proprietary platforms, this type of plug n' play capability is paramount.

Tera's Software-as-a-Service (SaaS) model offers a great deal of flexibility: while it was designed for the electricity market, it can be adopted to manage efficiency in multiple utilities, including gas and water meters, and it is interoperable with off-the-shelf devices.

Beeta launches into the Home Energy Management Market at the end of 2016. The innovative service promises consumers cost savings (by using energy more efficiently), reduced CO_2 emissions and, for the owners of Photovoltaic plant with power <100kWp, low production costs and improve ROI. Tera estimates that buildings with a photovoltaic system in place can experience savings up to €400 annually. What's more, the appetite for such services is only expected to sharpen across Europe in the wake of government-mandated deployment of smart meters into homes and businesses.

FIWARE

FI-IMPACT

CASE STUDY

Prosumers and Utilities Benefit from SaaS-Based Green Energy Exchange and Smart Billing Services

COMPANY
OEEX

SECTOR
Energy

OPPORTUNITY
First energy platform to enable prosumers and consumers to buy and sell energy generated in local, private plants and to stabilise energy grids by matching power demand with supply of green energy

DIGITAL SERVICE
OEEX app shows and arbitrages green power available in the vicinity, and a smart plug enables household appliances to consume green energy and automates billing services

FIWARE FUNDING
EU75,000 seed funding

Prosumers and consumers of green energy can now trade service directly with each other using a software-as-a-service (SaaS) energy exchange built using FIWARE technology. An accompanying smart plug from German company Open Energy Exchange (OEEX) both powers household devices and appliances using green energy from the exchange, and serves as a smart billing device. The result: cheaper energy and reduced carbon emissions.

At the same time, utilities and local grid operators also benefit from OEEX's new technology innovations. By trading over the OEEX platform, utilities can reduce customer retention costs, and new data analysis offers sharper insights into customer behaviour and lets the utilities fine-tune future services to reflect anticipated demand. Local grid operators, meanwhile, benefit from the diversity and flexibility of local demand and production, which guarantees greater grid stability.

While all energy stakeholders in the supply chain can participate in the OEEX, the innovative program was conceived to encourage the trade of local, green power. On average, prosumers consume only 20% of the energy generated by their own plants in real time, but they want to consume more and make their power available in their neighbourhood.

Research by OEEX found that consumers prefer green energy—not only because it's cheaper but also because it cuts their household carbon emissions. The existing energy market also has another shortcoming (validated by the OEEX research): uneven supply and demand. The new free OEEX app provides a mechanism to stabilise energy grids.

The OEEX smart plug also serves as smart billing device, gathering consumer usage data for a device-to-device billing service. The SaaS transmits data to and from the smart plugs, while the exchange and smart plugs communicate using micro-services.

FIWARE application interfaces (APIs) merge the different services and support end-to-end data streams. In particular, Orion Context Broker distributes data to different services; POI Data Provider holds and distributes Point of Interest (POI) data; and KeyRock secures the app and services. An artificial intelligence system running in the background reports the projected use and availability of green power based on real-time data gathered from consumer and prosumers.

Unlike its competitors, OEEX does not position itself as a utility, so the SaaS helps energy companies who are struggling with increasing customer retention costs. What's more, the OEEX's unique, first-of-its kind consumer-to-consumer-to-business energy platform is set to increase the production and consumption of local green power.

TESKALABS

CASE STUDY

TeskaLabs' Digital Innovation Helps Secure Mobile Apps and Data Gleaned from Sensors & Devices

COMPANY
TeskaLabs

SECTOR
Utilities, financial services, transportation

OPPORTUNITY
Protect vulnerable mobile apps, especially those accessed over public networks, and secure data generated by the Internet of Things (IoT) sensors and devices

DIGITAL SERVICE
Software-as-a-service (SaaS) solution enables customers to build and operate secure apps over mobile devices and the Internet, and protects data collected from 'smart' sensors

FIWARE FUNDING
€110,000

As more and more consumers interact with energy suppliers from their mobile devices, the issue of security has raised new concerns. But TeskaLabs, a Czech startup supported by FIWARE funding and its open source technology platform, is working to solve the issue of security breaches with a Software-as-a-Solution (SaaS) solution that protects the mobile application layer.

Mobile business may be booming, but the reality is two-thirds of Fortune 500 companies have experienced security breaches via mobile apps. What's more, a recent report from CapGemini indicates that 80% of breaches occur at the application layer. As a result, the demand for application-layer protection is strong and growing, as most existing security solutions only focus on defending the device.

Any security risk at the application layer also threatens the growing number of intelligent devices and sensors transmitting data to power new smart services for energy suppliers. With this in mind, TeskaLabs created a plug n' play solution for mobile apps for the utility, transportation, and financial services sectors.

TeskaLab's immediate goal is to make existing mobile and Internet of Things (IoT) applications compliant with FIPS 140-2, the de facto computer security standard for cryptographic modules. Additonally, and in contrast to the 'app-wrapper' techniques used by its competitors, TeskaLabs tailors its solution to individual customer needs.

The cloud-based SaaS offering combines integrated, relevant Application Program Interfaces (APIs) from FIWARE's catalogue with existing best practices found in the SeaCat software developer kit. Any applications protected by TeskaLab's SaaS consume identity-management services from the cloud during transmission, and combat cyber attacks in real time.

In particular, the single sign-on security feature and integration of User Management and Access Control to extend the scope of the SeaCat software developer kit have added valuable functionality for TeskaLabs' customers.

This innovative, intelligent combination of FIWARE's open APIs, and integration with scalable, public clouds such as Microsoft Azure and Amazon, has created enterprise-grade protection for mobile-transmitted data. With its new smart advancement in cyber securty, TeskaLab is addressing an urgent need in the digital mobile economy and tackling a serious impediment to the emerging use of IoT data for the future.

FIWARE FI-IMPACT

The eHealth portion of the nanosite highlighted the Oviva, 8fit, Findster and Mixeat success stories.

OVIVA

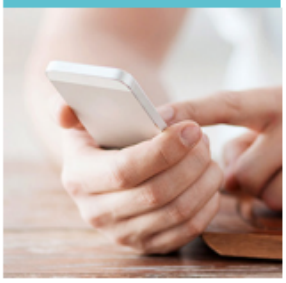
COMPANY
Oviva

SECTOR
eHealth

OPPORTUNITY
Create a new model for helping consumers improve health and wellness

DIGITAL SERVICE
My Personal Dietitian, an event-based recommendation engine for mobile health management

FIWARE FUNDING
€217,000



CASE STUDY

Oviva's App Combines the Power of Digital Innovation with Traditional Nutritional Counselling to Empower Patients

Oviva's slogan, found on its website, is simple: Improve your health with a dietician in your pocket. And the company's goal is equally simple and important: aid consumers in their quest to eat more healthily and prevent such diseases as heart disease, diabetes, cancer, and high blood pressure. Oviva, with funding from FIWARE, is hoping to solve both challenges with an app that combines the power of digital innovation with the traditional approach of nutritional counselling.

Oviva's My Personal Dietician app lets users and/or patients receiving a therapy for an eating-related medical condition to communicate directly with their dietitian, enabling more frequent, faster, and more specific interaction and feedback between face-to-face sessions. This type of interaction and accountability, which includes such activities as logging food with photos and tracking physical activity, has been proven to improve treatment outcomes, according to Oviva.

The Swiss and UK-based company was founded in September 2013 as a digital therapeutics startup and develops software for remote nutritional therapy. Oviva's mobile apps and web software help patients improve their health by empowering them to understand and manage their condition using advice and guidance from a personal certified dietitian. Oviva's dietitians provide evidence-based information, including facts about nutrients, food labels, how to tailor recipes, and behaviour modification techniques.

Although Oviva's competitors offer a range of products and services that address different segments, such as weight loss or food intolerances, Oviva's dietitians offer depth of medical proficiency and breadth of treatments unlike those found in alternative mobile apps.

Oviva participated in the FIWARE program to advance its beta-stage technology to the next level, using specific components of the FIWARE toolset. The company had several goals in mind: to incorporate technologies for reminders, expert systems, and gamification, in turn improving versatility for the professional user and customer/user experience for the patient.

In particular, Oviva used the FIWARE 'IoT Data Edge Consolidation,' a generic enabler, and a Complex Event Processor. The Complex Event Processor allows Oviva to detect certain conditions in a complex series of events, derive insights, and feed insights back to the therapists or directly to patients.

Oviva, which has received multiple awards for its work, including the CTI Label in Switzerland, 2 UK NHS Testbed Programmes, and several grants from national governments, is doing its best to change eating habits and reduce lifestyle-related diseases by linking digitally-enabled patients and their therapists, one click at a time.

FIWARE FI-IMPACT

8fit

CASE STUDY

8fit Mobile App Guides & Motivates Consumers on the Path to Better Health and Wellness

COMPANY
8fit

SECTOR
eHealth

OPPORTUNITY
Improve health & wellness with a combination personal trainer/meal planner app supported by a virtual team of fitness coaches and nutrition experts

DIGITAL SERVICE
Mobile app that serves as a personal trainer and meal planner

FIWARE FUNDING
€100,000

Helping people improve their health & wellness is always a worthy cause, and digital innovations that motivate and guide anyone seeking a healthier lifestyle is always in fashion. 8fit's new mobile app, funded in part by FIWARE, does just that.

Launched in 2014, the 8fit app leads users through monthly programmes offering a range of health- and wellness-related benefits, including:

- Online fitness community with more than 2 million users for virtual support and advice
- Custom workout plans with high-intensity exercises designed to burn fat
- High-protein diet/meal plans designed to improve energy levels and boost weight and fat loss
- Progress tracking tools to track food and activity and keep users motivated
- One-on-one virtual fitness coaching with personal trainers
- Resources such as blog posts

Contrary to existing similar apps, 8fit offers basic workouts anyone can do anywhere, and the app's fitness programmes offer interactive videos featuring accredited coaches and trainers. According to 8fit, the success rate for people who stick to their plan is over 90%, regardless of their starting physical level. The 8fit app offers a weight tracker with visual graphs and stats that allows users to quickly monitor their training progress for visualizing their success against their goals. In addition to the mobile app, 8fit's website includes a blog with articles and advice for all users.

8fit operates on a subscription-business model, and generates revenue by offering premium programmes and meal plans. Customers can take advantage of the app for free, or get the pro plan, with prices ranging from €14.99 for one month to €59.99 for an annual package.

In addition to FIWARE funding, 8fit received a $2.5 million seed investment from VitaminaK, a Spanish venture capital fund, and is 85% co-funded by the European Regional Development Fund from the Canary Islands 2007-13 ERDF Operational Programme.

Smart, digital tools such as 8fit's mobile app and accompanying website are improving global health and wellness one workout, and one meal, at a time.

FIWARE FI-IMPACT

FINDSTER
Closer to you

CASE STUDY

Findster App Uses Real-time Monitoring and Digital Technologies to Locate Missing People and Pets

COMPANY
Findster

SECTOR
eHealth

OPPORTUNITY
Help parents and pet owners keep track of children and pets in real time

DIGITAL SERVICE
Two apps:
Findster Pets
(for pet owners)
and Findster Kids
(for parents)

FIWARE FUNDING
€75,000

Most parents are concerned with their children's safety. It's human nature, after all, reinforced by the fact that 90% of families experience losing a child in a public place. In the U.S. alone a child is reported missing every 40 seconds. At the same time, 1 in 3 pets get lost at least once in their lifetime, and 90% of them are never found or returned.

Findster is hoping to change all of this with a pair of new apps, developed in collaboration with funding and an open technology platform from FIWARE. Findster's solution includes two apps: Findster Pets connects pet owners directly with their pets and with their favourite pet brands, and Findster Kids gives parents of kids without smartphones (typically up to 10 years old) peace of mind. Buyers from more than 50 countries have already bought the app through an Indiegogo crowdfunding campaign launched to test the product.

Findster's solution is unique in its ability to monitor pets and children in real-time. Both Findster Pets and Findster Kids offers a variety of features, ncluding:

- Live GPS monitoring: Use the Findster app to locate loved ones on an iOS or Android device
- Geo-fencing: Receive alerts if children leave a customized safe area
- Interconnectivity: Monitor multiple children and share access to their Findsters with family and friends
- History: Revisit past locations

Findster works differently than cellular trackers equipped with SIM cards. Most of these solutions require a 1-2 year contract and $10-$40 monthly fees. Findster, on the other hand, has an initial cost of $149.99 and no contract or monthly fees.

In addition, cellular trackers depend on the coverage of the mobile operator networks, which can create country limitations and/or poor performance in areas with a low network coverage, such as rural settings. In contrast, Findster's proprietary protocol and communications technology lets the Findster app work independently of mobile operator network coverage, providing better performance worldwide and in remote areas without restrictions.

Findster opted for FIWARE's open technology platform in order to deploy their solution faster (and, as a consequence, save time and money). Specifically, Findster's developers used IoT Broker, Object Storage GE, Protocol Adapter as Generic Enablers, and Protocol Adapter AMM (Sensor2AMI **) as an Energy Specific Enabler.

In March 2016 Findster Kids and Findster Pets obtained CE and FCC certification, meaning both apps meet every legal standard, and can be sold in all European countries as well as the U.S. For anyone who's ever lost a child or a pet, Findster combines innovative thinking and digital technologies to increase peace of mind—and reconnect people with their loved ones.

FIWARE

FI-IMPACT

MIXEAT

CASE STUDY

Mixeat's 3D Printing Nutritional Tool and Dynam'eat Community Designed to Improve Health & Wellness

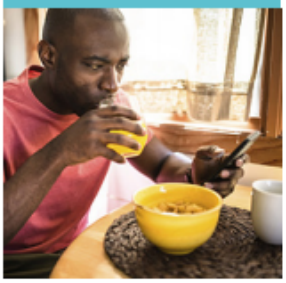
COMPANY
Mixeat

SECTOR
eHealth

OPPORTUNITY
Help consumers improve health and wellness using innovative ideas and cutting-edge technology

DIGITAL SERVICE
Mixeat 3D printed set of containers for measuring food & Dynam'eat virtual and physical community

FIWARE FUNDING
€78,000



Mixeat's digital innovation solves two health- and wellness-related challenges at once: helping consumers track food intake in order to lose weight or eat more healthily, and helping consumers receive support and encouragement via an active support community.

Using funding and the open technology platform from FIWARE, Mixeat developed a 3D printed nutritional tool for measuring food and Dynam'eat, a virtual and physical community of like-minded, healthy people who enjoy social networks.

The Mixeat kit, developed by dieticians and based on worlwide-certified nutritional methods, employs cutting-edge 3D technology to produce a set of 7-9 containers for measuring 5 meals/day. The system is based on the 'por intercambios' method; the logarithm developed by Mixeat's dieticians determines the nutritional and energy needs of each user and translates those requirements into the ideal amount of food for that user. The personalised 3D printing approach is proving a competitive advantage and a differentiating factor for the company. The Mixeat kit can also be customized according to the customer's preference color, collection, and so on. Access to online dieticians (and possibly coaches in the future) is also available for an additional cost.

The accompanying Dynam'eat community offers lifestyle support through the following: social and virtual network of users; physical events such as meetings, workshops, conferences, and functional fitness training meetups; and perks such as recipes adapted for specific containers. Some of these services will be free, and others will only be available at a cost. As a launch package, the sale price of the Mixeat kit and yearly membership subscription to Dynam'eat community should be around 100€, expected to grow to 150-200€ as the community expands.

Mixeat's initial target market was Spanish men and women between the ages of 35 and 45, but the startup also found a lucrative opportunity in men and women ages 45-65 with either a university degree or formal training who are interested in in organic food, physical or social meets ups, sharing their interests, and learning from other people's experiences.

FIWARE's open technology platform forms the backbone of the Mixeat platform; as such, it has helped structure the entire project and its dependencies in one place, making it easier and faster to develop and deploy.

Although similar tools exist in the US, Mixeat does not appear to have any direct competitors in Europe, giving it a full-blown opportunity to improve health and wellness one meal, and one person, at a time.

FIWARE FI-IMPACT

The agrifood sector presented high level summaries of the QIFresh, SUR+ and Agrivi case studies.

agrostis AGRICULTURAL INFORMATION SYSTEMS

COMPANY
Agrostis

SECTOR
Agrifood

OPPORTUNITY
Streamline and modernize the Quality Inspection (QI) process among retailers, quality inspectors, and vendors/ suppliers to ensure fresh fruit and vegetable shipments meet EU Directives

DIGITAL SERVICE
QIFresh app

FIWARE FUNDING
€124,000

CASE STUDY

Mobile App Streamlines and Updates Quality Inspection Process for Meeting EU Directives

Europeans like the stringent quality standards imposed by regulation on the fresh produce reaching their tables, but farmers who must guarantee the minimum marketability requirements dictated by the EU Directives do not have a simple task. Concerning fruit and vegetable shipments, inspection is currently done manually or via proprietary systems by retailers, quality inspectors, and vendors/suppliers. This is particularly true in countries like Greece, where farms are small and have little capital for investments in advanced ERP systems which might help.

A promising solution is offered by QIFresh, a new mobile app which defines a workflow for the Quality Inspection (QI) process, and allows retailers, inspectors, and vendors to share inspection duties and to report findings and requirements, in turn streamlining and modernizing the QI process. The QIFresh mobile app was developed by Agrostis, a small Greek IT company focused on the agrifood sector, on the Fiware open technology platform, with funding from the Fiware Accelerator Programme. The app was validated through market research with farmers and businesses active in this area, in collaboration with Novacert, an agricultural consulting company.

Here's how it works: the easy-to-use mobile app facilitates the capturing and recording of QI data on the spot. Retailers enter shipment information and define the QI templates, or requirements. The quality inspector plans and executes an inspection and creates the report. The supplier can then view the report and the QI results. All parties get notified through the platform of any change/update in the process.

The result: fast and efficient quality inspection, based on standardized reporting, automated communication, and efficient collaboration with all three partners. In addition to these benefits, QIFresh allows businesses to locate and connect to new partners, suppliers, and customers as part of the QIFresh Community.

The QIFresh app's additional benefits include:

- Provides an overview of the full process, from loading plans to quality inspection reports
- Improves communication & collaboration, and reduces time & effort needed for inspections and producing subsequent reports
- Minimizes errors during inspection and/or transferring data from paper reports
- Eliminates paperwork and e-mail exchanges
- Provides more accurate inspection reporting as well as useful on-going data & statistics
- Offers instant access to previous Quality Inspection reports

The QIFresh app targets quality inspectors and large retailers of fresh fruit and vegetables (e.g. multiple supermarket chains); In the EU alone there are more than 3 million such shipments per year.

The QIFresh app is currently in beta testing, with additional goals to improve the user interface, add the ability to generate custom QI reports, and create a pre-defined database of fruit and vegetable categories and QI templates. Digital innovations such as QIFresh are streamlining, modernizing, and improving the efficiency of the fruits & vegetable supply chain—improvements that benefit everyone, from the farmer to the consumer.

FIWARE FI-IMPACT

SUR+

CASE STUDY

Farmers, Foodbanks, and FIWARE Collaborate to Reduce Food Poverty in the Netherlands

COMPANY
SUR+

SECTOR
Agrifood

OPPORTUNITY
Redistribute surplus food to food banks and help alleviate hunger among 1.3 million Dutch living below the poverty line

DIGITAL SERVICE
SUR+ app connects food producers with food banks, reports surpluses, and encourages food donation

FIWARE FUNDING
€130,000

Farmers and foodbanks in the Netherlands are working together to reduce food poverty by donating and using surplus fresh produce, thanks to a pair of apps launched in collaboration with FIWARE funding and its open technology platform. What's more, data aggregated by the cloud-based app, called SUR+, has the potential for creating long-term improvements to the agri-food lifecycle of optimised food processing and waste management.

More than 40 percent of all food in the Netherlands goes to waste, and at present only a tiny 0.5% of this food reaches the 162 members of the Food Bank Association (Voedselbanken Nederland). SUR+ hopes to increase food bank donations with its SUR+ app, which connects growers, farmers, and food producers to donate any surpluses. This in turn helps alleviate hunger among the the approximately 1.3 million people living below the poverty line in the Netherlands.

Initiated as a result of a hackathon, SUR+ includes one app for fruit and vegetable producers, and a second for food banks; together the two apps let both groups deal directly with each other. Farmers use the "I own surplus" app to report their surpluses, type of produce, and other details. Local and regional food banks in turn use their "I want surplus" app to post their profile and needs, and to accept or reject donations.

In addition to the €130,000 grant funding, FIWARE provided access to technology and business support, which helped speed up development of the app. In particular, technology components include Keyrock for user management on the SUR+ platform; the SpagoBI data mining tool, which supports insights into long-term donation trends; and the open source data portal CKAN, which makes donation data available publicly, in turn promoting the primary participants and the new programme.

Unlike other food redistribution platforms, SUR+ focuses specifically on surplus at the farm level. This means SUR+ users can focus on food waste as early as possible in the cycle. In addition, the app's focus on fruit and vegetables lets charities provide their constituents with healthy choices, rather than processed food. The app meets an important need of food banks, whose greatest difficulty is to collect fresh fruits and vegetables.

In addition to its immediate impact, over time SUR+ data will provide insights into the relationship between sold and surplus food. This aggregated data will be valuable to organisations such as The Southern Agriculture and Horticulture Organization (ZLTO), the Dutch horticulture organisation that represents 'green' entrepreneurs. This may represent an additional source of revenues: the company aims to reach sustainability through a combination of grants and sponsorship funding.

SUR+ has the potential to spur new innovations in the field of food processing and a more systemic approach to food waste management, not only in the Netherlands but across Europe (another pilot has already been launched in Germany). In the Netherlands, this innovative digital initiative has a dynamic part to play in co-ordinating local responses to alleviating hunger.

FIWARE

FI-IMPACT

agrivi

CASE STUDY

Agrivi's Innovative Data-Driven Software Helps Farmers Go Digital

COMPANY
Agrivi

SECTOR
Agrifood

OPPORTUNITY
Improve efficiency and sustainability of farm activities using real-time benchmarking

DIGITAL SERVICE
Agrivi data-driven smart farming software

FIWARE FUNDING
€115,000

Agrivi, winner of the 'World's Best Startup in 2014,' has developed an innovative data-driven decision support tool for farmers that benchmarks agricultural practices and improves output, thanks to funding and an open technology platform from FIWARE.

The new tool integrates a knowledge base, data analytics, and reporting tools into smart farming software designed to support every facet of farming activity, from crop rotation to management reporting. Agrivi, a Croatian agri-tech startup founded in 2013, offers its Agrivi software via the cloud, making it both accessible and affordable for European farmers; the software combines proprietary cloud-based technology as well as open source technology from FIWARE.

As a cloud service provder, Agrivi offers the flexibility of insights and tools 'on tap' while eliminating the need for farmers to make up-front capital investments. The European Commission's Future Internet programme's goals include improving the intelligence, efficiency, and sustainabiiity of farming service infrastructure and business processes as well as increasing farmer involvement and data sharing.

Linearcampo, a small food producer in Portugal, has used Agrivi since September 2015 to benchmark field usage practices and optimise crop management—in real time. In addition to aggregating field-usage data, the Agrivi knowledge-base tool includes a broad spectrum of helpful external data sources, including weather, pest, and plant disease alarms.

For certified producers, the tool also addresses product traceability and transparency, both crucial requirements of the current European agricultural and food markets. Agrivi's data management capabilities also help Linearcampo comply with strict regulations and ensure quality assurance, both growing areas of consumer concern.

On a macro scale, Agrivi's knowledge base disseminates best practices across a broad range of farming activities, and empirical evidence from Agrivi demonstrates that standardisation has positive impacts on productivity and profits:

- Smart water management: efficient practices can increase crop yields up to 50%
- Plant variety selection, such as heat-tolerant varieties, could increase crop yields by up to 23%
- Conservation tillage saves time, fuel, and machinery wear and tear, resulting in profit increases up to approximately €90 per hectare
- Smart fertilisation (including the efficient use of nitrogen) can increase crop yields by 22%

The power and the intelligence of the Agrivi software—drawing from data, analytics, and reporting capabilties—derives, in part, from the diverse skills and background found in Agrivi's multidisciplinary team, including computer science, economics, and agronomics.

The FIWARE platform, and its set of open APIs, supports and helps launch digital innovations such as the Agrivi sofware. This, in turn, assists the European agriculture sector as it evolves from a traditional industry, focused on the sector-specific knowledge, to a more multi-disciplined, digital, and business-oriented sector.

FIWARE FI-IMPACT

Annex III Sector descriptions from the Nanosite

ENERGY

European Utilities Seek New Innovation, Business Models, and Partners in Emerging Customer-Centric Digital Ecosystem

New patterns of energy consumption, fuelled by high expectations for customer experience, challenge incumbent utilities to use digital technology to solve its challenges.

Europe's energy companies are embracing new innovations in their quest to meet consumers' growing green-power demands and utilities' energy-efficiency goals. The FIWARE programme, funded by the European Commission, is playing a big part in fostering innovation by providing grants and technologies to support entrepreneurs who are developing and deploying smart ideas to solve real problems.

European utilities are at the forefront of radical change on the global utilities stage—though they are gradual innovators rather than disruptors, and remain vulnerable to contenders outside the sector. At the Pan-European Utilities Executive Summit hosted by research firm IDC in March 2016, almost two-thirds of the summit's attendees reported their companies are changing through innovation.

This is in the face of twin pressures: first, the demand from sophisticated customers for smarter services—with digital expectations set in more mature industries, such as retail—and the call for green power. Second, utilities must continue to invest in connected systems to support new revenue streams and operational excellence. Leveraging data insights for competitive advantage is the cornerstone supporting both trends.

'Prosumers,' or individuals who are both energy producers and consumers, are a small but growing constituency of customers shaping the future utility market. As producers of their own energy, generally through roof-top solar panels, they want ways to sell their surplus energy directly to neighbours and local utilities. The prosumers' desire for modern energy options is shared by a mass population of consumers who are keen to reduce carbon emissions and their energy bills.

One FIWARE-backed innovation, the Open Energy Exchange (OEEX) and its mobile app, enables the purchase and sale of energy generated in local, private plants, and stabilises energy grids by matching power demand with supply of green energy. Another FIWARE initiative, the Building Energy Efficiency Trusted Advisor (Beeta), has developed a mobile app to help consumers change energy consumption habits.

Recognizing the changing nature of the industry, European regulatory bodies and associations are rethinking industry structure and market operations—and are ahead of other global regions in their efforts. Europe is testing new market models, for example, including flexible local markets (a means of alleviating local distribution constraints) and flexible contracts with aggregators.

Many utilities are pressured to innovate by sophisticated consumers and prosumers – and are also driven by the green agenda of governments and regulators. But utilities are also spurred into action by the realization that future rivals like the Amazons and Googles and other nonutilities are just outside their door.

A survey conducted by IDC with European utility executives in 2015 reveals that two out of three European utility executives see nonutility companies as the most serious threats to their business model. These digitally mature outsiders have stronger consumer appeal, are experienced with extracting value from data, and have deeper relationships with customers.

In the midst of this seismic change, FIWARE's funding, innovative ideas, and technology resources are helping use data to transform customer experience and operating models. As digital apps and services become embedded in the fabric of the new energy ecosystem, FIWARE is committed to creating a greener, more sustainable, and energy efficient future.

eHEALTH

FIWARE Digital Innovators Help Move European Healthcare Towards the Wellness Model and Reduce Costs

But digital innovation is not just for wellness: New FIWARE initiatives have also spurred a wide array of innovation, like the use of real-time location monitoring for pets and children.

Europe's healthcare sector faces a number of sobering challenges, among them an increasingly overweight and inactive population. But the availability of intensive-care-level data generated by wearable technology, shared digital platforms, digital telemedicine, and nutrition-oriented innovation is providing a cure for this and other sector woes. As digital innovation moves healthcare to a new wellness model—and reduces costs overall—FIWARE, funded by the European Commission, is at the forefront of bringing smart ideas to life.

According to statistics from the World Health Organization (WHO), in Europe over 50% of people are overweight or obese. Excess weight increases a person's risk of developing cardiovascular disease, cancer, and diabetes, among other problems. At the same time, the WHO estimates that more than one-third of adults in Europe are insufficiently active, citing increasingly car-friendly societies as a reason for the "growing geographical separation of living, working, shopping, and leisure activities."

In an effort to battle these unhealthy trends, the European healthcare sector is working to provide more personalized and better-quality patient care. To this point, FIWARE funding and resources for startups focus on: improving citizens' health, wellness, and quality of life; creating faster and easier access to information, services, and support; facilitating real-time collaboration and communication between providers and patients; and developing tools that reduce costs.

Seventeen percent of FIWARE's hardware & software initiatives address the healthcare sector, and most (78%) of these involve the Internet of Things (IoT). The IoT connects smart sensors and devices, enabling the collection and analysis of patient and clinical data to develop useful, personalized services. Research firm IDC estimates that the EU 28 IoT market will grow to € 244 billion by 2019. With the advent of connected personal wellness devices and wearables, the consumers sector will represent the largest area in terms of 2019 IoT spending (19%).

For one digital innovator, Mixeat, FIWARE's support has helped launch a pair of digital innovations designed to solve two wellness-related challenges at once. Mixeat's 3D printed, food-measurement nutritional tool helps citizens track food intake, and DynamYeat, a virtual and physical community of wellness-oriented citizens, helps patients receive encouragement and advice.

Smart innovator Bfit's new mobile app, funded in part by FIWARE, is also helping citizens improve their health using digital innovation; the Bfit app links an online fitness community with customized workouts, personalized meal plans, and one-on-one virtual fitness coaching.

To aid patients in eating more healthily and preventing such diseases as heart disease and high blood pressure, innovator Ovivia developed My Personal Dietician, a mobile app that combines the power of digital with traditional nutritional counselling.

Digital innovation is not just for improving wellness: Startup Findster's pair of apps help consumers locate their loved ones: Findster Pets and Findster Kids use live GPS monitoring (vs. cellular trackers) to monitor pets and children in real-time.

FIWARE's funding, open technology platform, and resources are helping introduce a new digital dynamic to the European healthcare sector through innovative solutions that offer better health and peace of mind, one click at a time.

AGRIFOOD

Agriculture Transforms Practices and Outcomes Using FIWARE Technology Innovations and Real-Time Data

Precision agriculture harnesses real-time data to transform farming, distribute food more efficiently, mitigate climate change, and improve crop yields.

Farmers and food producers across Europe are facing a perfect storm of very real and immediate challenges: rising demand for food and agricultural production, slow-down of field productivity, and climate change. The European Commission's FIWARE programme is playing a powerful part in answering these challenges through digital innovation (vs. traditional methods and practices) in order to help transform Europe's farming methods and food distribution.

Precision farming, or the use of data-based decision support based on real-time field data to manage farming practices, promises to answer or mitigate many of the agrifood sector's current problems. Many benefits have already been gleaned, including cost savings through reduced fertilizer usage; increased crop yields; and improved sustainability. For this reason, precision farming lies at the heart of FIWARE's support for the agricultural sector. And many believe that this relatively new phenomenon represents a fresh opportunity for business innovators—and real solutions.

Inexpensive and easily accessible cloud-based software services—coupled with the no-brainer of farmers sharing their data—has several FIWARE-backed precision farming initiatives already making an impact. One example: Agrivi, a smart farming tool that lets farmers pool their data and gain insights in order to optimise field usage and rotate crops. An early user, a Portugese food producer, has increased crop yields significantly since deploying the Agrivi tool several months ago.

At the other end of the food supply chain, many citizens in EU nations do not have enough to eat—even while their own countries throw out over one-third of food supplies. But [NAME OF PROJECT in Bold], a FIWARE-supported innovation from the Netherlands, is alleviating hunger among the country's population by connecting farmers and foodbanks through a simple yet smart mobile app.

Sharing data with food banks or other food producers is a natural next step for farmers empowered by an in-the-pocket app and backed by the powerful computing resource of the cloud. What's more, digitally enabled precision farming is even more attractive when financial and reporting software capabilities are integrated, transforming farming into a more organised, standardized activity—and one that benefits the planet.

IDC Research cites several quantifiable benefits for farming operators using precision agriculture solutions, including:

- Cost savings of at least 25% due to a reduction in the use of fertilizers;
- 5% productivity improvements gained by rice producers in terms of crop increase;
- Adoption of good practices results in yield increase (e.g. smart water vmanagement can increase yield by 50%, and smart fertilization by 22%);
- Time savings by employing drones for yield-mapping (one hectare in 10 minutes vs. 90 minutes with traditional farm machines).

The agriculture sector, which has traditionally seen low levels of tech investment and usage, is undergoing a transformation, and success depends on attracting new skillsets, selecting the right partners, and proper oversight of financial and technological resources. But the future of the agrifood sector looks both dynamic and lucrative, with Europe maintaining its position as the world's No. 1 exporter in 2014, with agri-food exports representing more than 7% of all goods exported and with a net surplus of €18 billion. The role of small startups, funded and supported by FIWARE, will prove crucial to progress.

Annex IV Nanosite Infographics

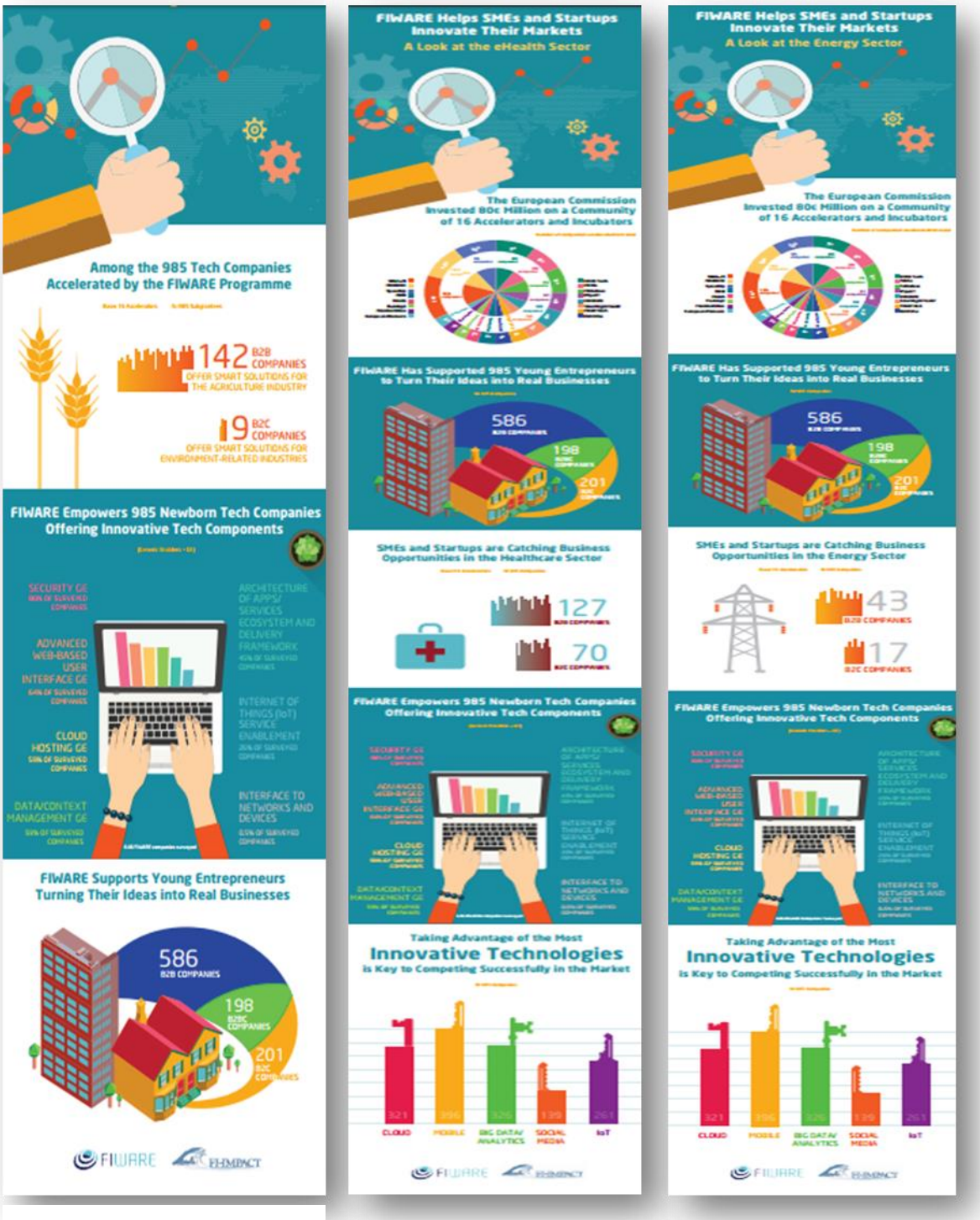


Figure 6 NanoSite Infographics

Annex V live Nanosite Screenshots

Figure 7 Screen Capture Live Campaign