

Grant Agreement No.: 723174 Call: H2020-ICT-2016-2017

Topic: ICT-38-2016 - MEXICO: Collaboration on ICT

Type of action: RIA



# D4.1: Dissemination, Training and Exploitation Plan

Revision: v.1.0

Work package	WP 4
Task	Task 4.1, 4.2 and 4.3
Due date	30/11/2016
Submission date	31/12/2016
Deliverable lead	ITESM
Version	1.0
Authors	Federico M. Facca (MARTEL), Hugo Estrada (INFOTEC), Monique Calisti (Martel), Miguel Gonzalez (ITESM)
Reviewers	Hugo Estrada (INFOTEC), Tomas Aliaga (MARTEL)

Abstract	This deliverable defines and describes the dissemination, training and exploitation strategy and set of activities that will be pursued by the SmartSDK partners so as to guarantee broad and effective visibility, promotion and up-take of the project's work and outcomes.
Keywords	Dissemination, trainings, exploitation, promotion, communication, events, strategy



# **Document Revision History**

Version	Date	Description of change	List of contributor(s)
V0.1	24/10/2016	Table of Contents and proposed assignments	Federico Facca (MARTEL)
V0.2	13/11/2016	Additional contributions	Hugo Estrada (INFOTEC), Federico Facca (MARTEL)
V0.3	19/11/2016	Additional contributions and checks	Monique Calisti (Martel)
V0.4	27/11/2016	Additional contributions and checks	Miguel Gonzalez (ITESM)
V0.5	29/11/2016	Added missing content, approval of changes and language checks	Tomas Aliaga (MARTEL)
V0.6	15/12/2016	Added missing contributions	Miguel Gonzalez (ITESM)
V1.0	31/12/2016	Final version including reviewers comments	Miguel Gonzalez (ITESM), Federico M. Facca (MARTEL)

#### **Disclaimer**

The information, documentation and figures available in this deliverable, is written by the SmartSDK (A FIWARE-based Software Development Kit for Smart Applications for the needs of Europe and Mexico) – project consortium under EC grant agreement 723174 and does not necessarily reflect the views of the European Commission. The European Commission is not liable for any use that may be made of the information contained herein.

# Copyright notice

© 2016 - 2018 SmartSDK Consortium

Project co-funded by the European Commission in the H2020 Programme			
	Nature of the deliverable:	R	
Dissemination Level			
PU	Public, fully open, e.g. web		
CI	CI Classified, information as referred to in Commission Decision 2001/844/EC		
CO	Confidential to SmartSDK project and Co	mmission Services	<b>√</b>

\* R: Document, report (excluding the periodic and final reports)

DEM: Demonstrator, pilot, prototype, plan designs

DEC: Websites, patents filing, press & media actions, videos, etc.

OTHER: Software, technical diagram, etc.





# **EXECUTIVE SUMMARY**

The SmartSDK Work Package 4 (WP4), is dedicated to "Dissemination, Training and Exploitation" and aims at defining, maintaining and coordinating the appropriate mechanisms and tools ensuring broad visibility and impact of the project's work and results. The main objective is to promote the developed project's concepts and technologies for broad uptake both in the Mexican and European ICT landscape. This will contribute also to the overall adoption of FIWARE on a broad scale perspective, by contributing to create impact both at the European and international level.

This document describes how SmartSDK is following a comprehensive and effective approach to dissemination and promotion activities to support project partners in their daily activities, by firstly elaborating on what are our main dissemination and promotion objectives. In this respect, this deliverable presents the foundation of the dissemination and promotion plan, which has been defined in the perspective of aligning the project's activities with the overall FIWARE vision and programmelevel community building and marketing activities led by the FIWARE Press Office.

Finally, the SmartSDK exploitation and innovation is intended to explore sustainability models for the main project outcomes, as well as to recommend actions and possible ways towards continuity and outreach beyond the project phase. The SmartSDK consortium is fully committed with the exploitation of the project results, and thus going beyond awareness generation to engage with the target groups, which will allow to use the project outcomes or to build upon activities started or carried on during the project phases.

This document, which will evolve in line with the development of the overall project work and activities in close collaboration with all work packages, is written primarily as a guide for SmartSDK project partners and for key stakeholders in the FIWARE context to have a clearer understanding of the intended dissemination, training and exploitation activities.





# **TABLE OF CONTENTS**

EXEC	UTIVE SUMMARY	3
TABL	E OF CONTENTS	4
LIST (	OF FIGURES	6
LIST (	OF TABLES	7
ABBR	EVIATIONS	8
1	INTRODUCTION	9
1.1	Objectives of the dissemination, training and exploitation activities	9
1.2	Measuring the impact of SmartSDK	10
1.3	Stakeholders map	10
2	DISSEMINATION AND COMMUNICATION	12
2.1	Branding and Communication Material	12
2.1.1	Leaflet	13
2.2	Communication Channels	14
2.2.1	Liaison with FIWARE Press Office	14
2.2.2	Liaison with other Projects	14
2.3	Achievements up to M3	15
2.3.1	FIWARE Mexico Workshop	15
2.3.2	Other events	15
2.3.3	SmartSDK web site	16
2.3.4	#1 FIWARE in Mexico Newsletter	19
2.4	Dissemination and Communication plan (M12)	19
2.4.1	Startup Weekend Mexico	21
2.4.2	Global City Teams Challenge	22
2.4.3	FIWARE Hack	22
2.4.4	FIWARE Talks	22
TRAI	NING	23
2.5	Training Courses	23
2.5.1	"How to become a FIWARE Startup" Syllabus	24
2.5.2	"Developing Smart Application with FIWARE 101 (beginner course)" Syllabus	24
2.5.3	"Developing Smart Application with FIWARE (advanced course)" Syllabus	25
2.5.4	"Contributing to the FIWARE Open Community" Syllabus	25
2.6	Planned Trainings (M12)	26
3	EXPLOITATION AND INNOVATION	27
3.1	Innovation activities plan	27





3.1.1	Start-up and acceleration programme.	27
3.1.2	Cities engagement	27
3.1.3	Contributions to Open Source Communities and Standards	27
3.2	Up-to-date exploitation plans by partners	27
3.2.1	MARTEL	27
3.2.2	TID	28
3.2.3	HOPU	28
3.2.4	UBI	28
3.2.5	CREATE-NET	29
3.2.6	INFOTEC	29
3.2.7	CICESE	30
3.2.8	ITESM	30
3.2.9	CENIDET	30
3.2.10	INAOE	30
1	CONCLUSIONS	31





# **LIST OF FIGURES**

Figure 1. SmartSDK's pillars for impact maximization.
---





# **LIST OF TABLES**

Table 1. SmartSDK KPIs for Impact Measures	10
Table 2. Event in which the consortium had presented SmartSDK M1-M3	
Table 3. Implemented Dissemination activities	20
Table 2. Planned events participation	20
Table 3. Planned events by SmartSDK.	21





# **ABBREVIATIONS**

IP Internet Protocol

TCP Transmission Control Protocol





# 1 INTRODUCTION

All the activities that SmartSDK plans to take as part of the dissemination strategy are organized around three pillars:

- **Dissemination and communication activities** to promote SmartSDK results within the FIWARE Community and in the more general community of developers and providers of Smart Services;
- Training activities to support the development of a solid FIWARE ecosystem in Mexico and to translate the results validated in the Mexican FIWARE ecosystem to European FIWARE ecosystem; Best practices of FIWARE Lab training in the European Context will be used as a base to design a specific training to Mexico. Moreover, the new training programs will be enhanced with content from the technical contributions that SmartSDK will bring to the FIWARE ecosystem.
- Exploitation and innovation activities to ensure the impact of SmartSDK to the relevant standardization bodies and Open Source communities in alignment with the FIWARE Open Community overall goals, to support the injection of other actors in the FIWARE ecosystem (mainly cities and businesses) and to plan the commercialization of outcomes by industrial partners in Mexico and Europe.



Figure 1. SmartSDK's pillars for impact maximization.

SmartSDK will work in cooperation with the FIWARE Press Office to maximize the impact of the different initiatives run within the project and contribute to FIWARE international visibility in a harmonized way. In addition, close interaction will also be endured with the dissemination and communication activities run by the FIWARE MEXICO Coordination and Support Action.

# 1.1 Objectives of the dissemination, training and exploitation activities

This deliverable supports the planning of SmartSDK towards the achievement of the following objectives:

→ Define and implement a FIWARE training programme to support effective adoption and use of the FIWARE platform and its components;





- → Support the access to FIWARE information related to Smart services development both in the European and Mexican market;
- → Broadly disseminate the results of the project to the relevant stakeholders in the Smart City, Smart Healthcare and Smart Security industries;
- → Ensure the alignment of communication activities with FIWARE Press Office;
- → Support the growth of a vibrant FIWARE community in Mexico;
- → Support the bi-lateral transfer of knowledge between European and Mexican FIWARE actors;
- → Facilitate the contribution of FIWARE relevant results to Standardization for aand Open Source communities;
- → Promote exploitation of the project's outcomes for both the project's partners and the target stakeholders both in Europe and Mexico.

# 1.2 Measuring the impact of SmartSDK

In order to measure its progresses toward the successful implementation of its dissemination, training and exploitation activities, SmartSDK defined a set of KPIs. The KPIs are reported in Table 1.

Activity Type	Key Performance Indicator	Measure Year 1	Measure Year 2	Total
Dissemination	Participation to relevant events	15	15	30
Dissemination	Presentation or demonstrations of SmartSDK	10	10	20
Dissemination	Number of yearly unique visits on SmartSDK web pages hosted within the FIWARE Portal	3000	5000	8000
Dissemination	Number of scientific publications	3	4	7
Dissemination	Number of organized events (including FIWARE Talks)	6	8	14
Training	Number of trained start-ups and researchers in Europe and Mexico	50	100	150
Training	Number of downloads of bi-lingual training material	100	150	250
Exploitation	Number of contributions to the international standardization activities	1	1	2
Exploitation	Number accepted contributions to Open Source communities	2	3	5
Exploitation	Number of new cities entering OASC	1	2	3

Table 1. SmartSDK KPIs for Impact Measures.

# 1.3 Stakeholders map

The SmartSDK concept is meant to significantly impact the development of Smart services in the FIWARE community and beyond contributing to the growth of the FIWARE community itself in Europe and Mexico, and more in general worldwide.





A first step to build an effective plan of dissemination and exploitation activities, consists in the identification of relevant stakeholders. As regard to SmartSDK, we identified the following preliminary list of stakeholders:

- → FIWARE Open Community. FIWARE has now a community with more than 3000 users, including a group of active contributors (more than 100+). The aim of the project is to make their life simpler by providing reference data models and architecture for the creation of their context-aware applications. Interaction with the FIWARE Open Community will be coordinated through the FIWARE Press Office.
- → **Developers.** To support the growth of the FIWARE Open Community it is important to engage relevant actors such as SMEs, web-entrepreneurs, researchers, and any innovative industrial players interested in using FIWARE technologies, both in Mexico and Europe. The training activities and the participation to developer's community will be key to engage new developers.
- → Hardware integrators and hardware developers. Provide support to the Mexican innovation community to be an active member of FIWARE encouraging them to enable new hardware and devices into the FIWARE-ready program, evolve and contribute to the specific code-bases via the Open Source community and even propose new Enablers to the incubation program from FIWARE.
- ➤ Startups. FIWARE Accelerator programme engaged more than 700 startups and innovative SMEs in building business based on FIWARE ecosystem. Following the growth of FIWARE engagement in Mexico, it is now time to engage Mexican startups. Organization of events dedicated to Mexican entrepreneurs and the participation to key LatAm events for startups will be the main instruments to support the establishment of a Mexican ecosystem of startups.
- → Smart Service industry. SmartSDK will focus on the empowerment and simplification of development of Smart services based on data-intensive and IoT-based services. Thus, it is very important for the project to engage with relevant industry domains such as Healthcare, Security, Transport and so on. Engagement will occur by participating to relevant events in Europe and Mexico, and by interacting with relevant industry groups, such as the ones taking part to the Mexican Technology Platform (MTP) and ETPs.
- → Cities. Cities are one of the primary end-user of SmartSDK results. The aim is to support them to become Smart Cities and joining the Open and Agile Smart Cities (OASC) initiative. Focused communication and participation to key events will be defined in collaboration with FIWARE Press office, including demonstration of SmartSDK relevant applications.
- → Other End users. Beyond Cities, SmartSDK's results are relevant for users in the sector of Transport, Energy, Security. These stakeholders will be reached by taking part to reference events for the European and Mexican market.
- → Policymakers. Policymakers have a key role in influencing strategic choices for ICT investments. SmartSDK will engage with the relevant actors taking part to the EU Mexico dialog to support the establishment of a long-term collaboration on the policy side between Europe and Mexico. Actors will be reached by supporting European Commission in its activities and leveraging on contacts with CONACYT and other relevant Mexican bodies.
- ➤ Standardization bodies. FIWARE is collaborating with a number of standardization bodies (e.g. TMForum, NIST and ETSI) on the definition of standards that contribute to the development of Smart Solutions. SmartSDK will provide key contributions for some of these initiatives.
- → General Public. The general audience will be reached through a micro website part of the FIWARE domain and Social Network channels including Twitter and Facebook in coordination with the FIWARE Press Office.





# 2 DISSEMINATION AND COMMUNICATION

SmartSDK's dissemination and communications activities have been designed to support the project development, raise awareness of the project outcomes and outreach the relevant stakeholders. In particular, dissemination and communication activities include:

- → Publication of scientific, industrial and general marketing material;
- Organization of promotional and engagement events in Europe and Mexico;
- → Participation to worldwide events relevant for the presentation of SmartSDK results.
- → Relevant outcomes to be disseminated, will include among the others:
- → Success stories of new startups, cities and businesses born in Mexico leveraging on FIWARE;
- Novel solutions supported by demonstrators in the field of data-intensive and IoT-based applications;
- → Data models developed to support the interoperability with NGSI of solutions in the Smart City, Smart Healthcare and Smart Security sector;
- → Demonstrative applications in the Smart City, Smart Healthcare and Smart Security sector;
- Results of the trial conducted in the Smart City, Smart Healthcare and Smart Security sectors;
- → Contributions to relevant standardization bodies, industry forums, and providing reference software implementations;
- → Contributions to open source projects;
- → Roadmap of the SmartSDK contributions to the FIWARE Open Community.

In the following sections, we present the different aspects related to the communication and dissemination activities, starting from the plans for branding and communication material, the planned communication channels, the summary of initial achievements up to Month 3 (November 2016), and the plans for the remaining months up to M12 (August 2017)

# 2.1 Branding and Communication Material

In support of the dissemination activities, SmartSDK will provide the following marketing toolkit:

- → **Logo and Branding guidelines** aligned with FIWARE branding; we foresee SmartSDK to become a FIWARE Product published part of FIWARE Catalogue.
- → A bi-lingual leaflet presenting SmartSDK and its potential in the Smart services market, which will be updated in accordance to the project's outcomes at project run-time;
- **Powerpoint template** based on FIWARE Presentation template.
- → A bi-lingual slideset presenting SmartSDK. The slide set will be kept up-to-date and a revised release will be available every 3 months.
- → White paper template to disseminate specific outcomes of the project.
- → Bi-lingual white papers released every 12 Months presenting the Smart applications transferred between Europe and Mexico and the benefit measured within Trials;
- → Bi-lingual videos presenting the Smart applications developed in the City, Healthcare and Security domains.

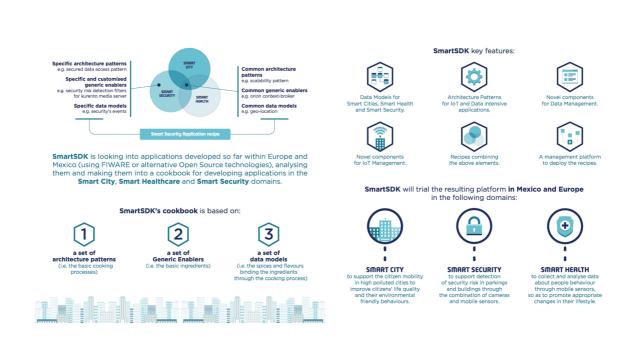




# 2.1.1 Leaflet

A draft of the leaflet is ready at this stage of the project and will be completed in time for the FIWARE Summit (13<sup>th</sup>-15<sup>th</sup> December 2016). As of the time of writing, its latest version is shown in the figures below.









# 2.2 Communication Channels

Communication channel	Description
FIWARE web site	The FIWARE web site will be the main channel to advertised SmartSDK outcomes. In collaboration with the FIWARE Press Office, SmartSDK will publish events, news, press releases, training material and blogs articles related to SmartSDK outcomes and application trials in Mexico and Europe.
SmartSDK micro web site	A marketing oriented web site dedicated to the SmartSDK outcomes: example applications, code snippets, marketing material and more. The web site will be linked from FIWARE.org and the FIWARE Catalogue.
FIWARE in Mexico newsletter	In collaboration with FIWARE Mexico project, SmartSDK will deliver a bimonthly newsletter presenting the ongoing activities related to FIWARE in Mexico.
FIWARE Academy	Training material developed by SmartSDK will be available in the FIWARE Academy.
FIWARE Twitter and Facebook Channel	SmartSDK news and announcements will be disseminated over its own Twitter account and through FIWARE Facebook pages.
FIWARE Youtube Channel	FIWARE Youtube channel will host recordings of FIWARE Talks and other relevant videos produced by SmartSDK
FIWARE Slideshare Channel	Presentation by SmartSDK will contribute to populate the FIWARE Slideshare channel.
FIWARE Mobilize	This tool is used as internal dissemination and communication channel in the FIWARE Community.
FIWARE entrepreneurs mailing list	This tool will be used to engage interested FIWARE startups with the activity of SmartSDK. Including the EU-Mexico VIP Programme intended to support the expansion of European startup in Mexico and vice versa.
#myfiwarestory micro web site	#myfiwarestory campaign is part of the FIWARE VIP Programme for startups that are in the top quadrant in term of business and technology readiness. SmartSDK will contribute populating the campaign with success stories related to the European and Mexican collaboration on FIWARE.

# 2.2.1 Liaison with FIWARE Press Office

In order to guarantee cohesive actions and broad reach beyond the EU-Mexico context, SmartSDK has established as of the very beginning of the project close liaisons with the FIWARE Press Office. Regular interactions are taking place via the dedicated communication channels (mobilize, mailing lists, dedicated conf. calls) especially to guarantee alignment and coordination of overall dissemination and communication activities. This includes synchronisation also on the organisation of events and/or presence of SmartSDK representatives at FIWARE-focused events.

# 2.2.2 Liaison with other Projects

In order to maximize the impact of the SmartSDK work in a broad perspective, embracing both the European and Mexican ICT landscape, close synergies are being established with several related projects with specific focus on the FIWARE MEXICO CSA that is running in parallel to SmartSDK and with FI-GLOBAL that is an Innovation Action following up on the FIWARE MUNDUS activities. Close synergies will guarantee a broader reach and impact of the project's work.





# 2.3 Achievements up to M3

# 2.3.1 FIWARE Mexico Workshop

Together with the FIWARE Mexico project, SmartSDK contributed to organize the first workshop in Mexico City on 7th September 2016 gathering more than 80 participants, among which there were Developers, Researchers, Entrepreneurs, Technology Transfer officers, Policy makers, Investors, Regulators, Academics, International representatives interested in cooperation between Mexico and Europe on Research and Innovation in ICT.

The agenda of this workshop consisted of the following talks.

15:00-15:20	Welcome remarks Jessica Urueta (International Cooperation, CONACYT) Yolanda Ursa (INMARK, Coordinator of FIWARE Mexico) Federico M. Facca (Martel Innovate, Coordinator of SmartSDK)
15:20-16:00	Mexico – European Union cooperation  Jessica Urueta (International Cooperation, CONACYT)
16:00-16:40	FIWARE: Open APIs for Open Cities Federico M. Facca (Martel Innovate)
16:40-17:00	Coffee Break
17:00-17:30	Ongoing & future FIWARE activities in Mexico Yolanda Ursa (INMARK) Monique Calisti (Martel Innovate) Miguel González Mendoza (ITESM) Hugo Estrada (INFOTEC)
17:30-18:00	Example FIWARE Applications Karen Nájera (INFOTEC) Antonio Jara (Hop Ubiquitous) Rui A. Costa (UbiWhere) Miguel González Mendoza (ITESM)
18:00-18:15	Questions & Answers
18:15-20:00	Cocktail & Networking

# 2.3.2 Other events

In addition, SmartSDK will participate in third party events (e.g. events organised by the European Commission, CONACYT, conferences, congresses, meetings) to present the project and to spread opportunities within FIWARE. The following table shows some events held within this first three months.

Table 2. Event in which the consortium had presented SmartSDK M1-M3.

Event name	Date	Location	URL
2° Congreso Nacional Multidisciplinario de Educación, Ciencia y Tecnología	18-21/10/2016	Pachuca, Mexico	http://www.itpachuca.edu.mx/ CONAMTEC/
15 <sup>th</sup> Mexican International Conference on Artificial Intelligence	24-28/11/2016	Cancun, Mexico	http://www.micai.org/2016/





Semana de la Ingeniería ITAM 18/11/2016 Mexico City, http://eventos.itam.mx/es/fiware-Mexico el-futuro-del-internet

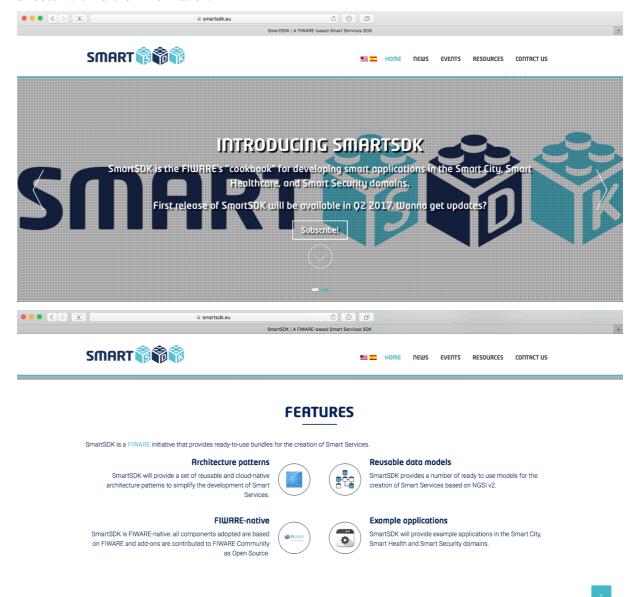
#### 2.3.3 SmartSDK web site

The first version of the website was published online in August 2016, before the start of the project to advertise the FIWARE Mexico workshop. The web site was developed in two languages, namely English and Spanish and can be reached at <a href="http://www.smartsdk.eu">http://www.smartsdk.eu</a>.

The site, as of the time of writing (November 2016) is structured into 5 sections as shown below.

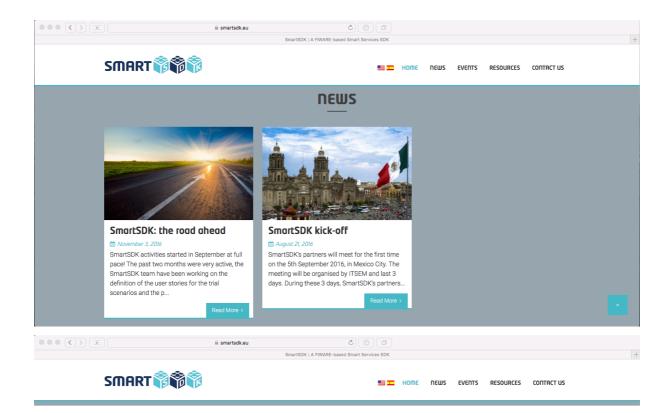
#### Home

The home is the welcoming page for new visitors and it present the most relevant pieces of information of the site. As shown below, the home itself consists of 5 subsections: a dynamic header, an overview of smartsdk features, links to the most recent news, a highlight of the project partners and a footer with further information.









# **PARTNERS**

SmartSDK is supported by:



















## **Martel Innovate**

Based in Switzerland, Martel Innovate has more than 20 years of experience in collaborative international European funded projects. We provide consulting and training for identifying the most appropriate R&D grants opportunities and managing the successful implementation of your projects.





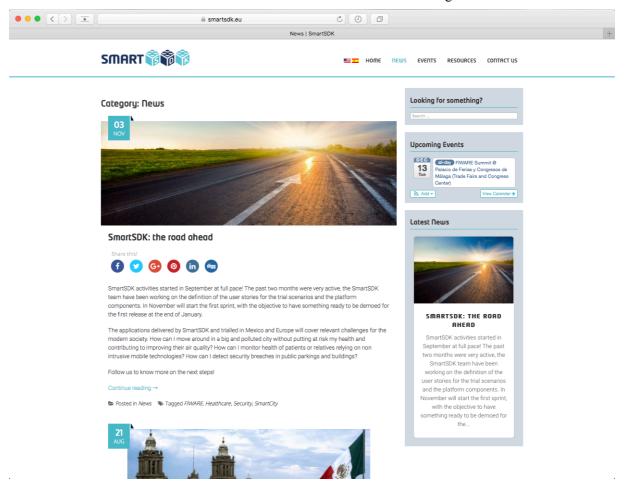






#### News

This section contains a list of all the news and announcements in chronological order.

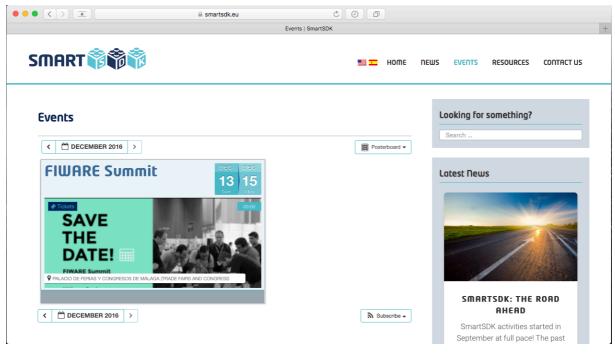


#### **Events**

This section has a calendar showing the next event relevant for the project and offers visitors the possibility to be notified via RSS of new events.







#### Resources

This section will contain links to downloadable resources and further documentation pages.

#### Contact-us

This section contains a form that gives visitors an easy way to get in contact with project coordinators.

#### 2.3.4 #1 FIWARE in Mexico Newsletter

The first issue of the FIWARE in Mexico Newsletter was issued in early November 2016. The issue covers:

- Initial outcomes of SmartSDK
- Initial outcomes of FIWRE in Mexico
- Outcomes from the FIWARE Mexico Workshop
- FIWARE Summit
- Cloudino the FIWARE-ready Arduino based framework.
- Establishment of the FIWARE Foundation.

# 2.4 Dissemination and Communication plan (M12)

In this section, we shortly present the plans for the project dissemination and communication activities planned for the first twelve months.

The activity of WP4, and specifically of T4.1, T4.2, and T4.3, starts from the beginning of the project until its end. Therefore, it is necessary to define when each dissemination and communication channel will be used in order to have a better control of the Dissemination Plan's timeline and implementation.

It is foreseen to maintain continuous communication over the website and social networks in order to keep these channels updated. There are other dissemination channels such as events,





collaboration and network opportunities that are accessible at different times in the year, therefore partners' participation depends on availability and relevance. Finally, the dissemination support materials are available at any time through SmartSDK's website and press releases will be published to coincide with events organized by the project.

Table 3. Implemented Dissemination activities.

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
X							
X							
X							
X							
X	X	X	X	X	X	X	X
X							
	X	X	X	X	X	X	X
X							
		X					
	X	X					
X							
	X						
		X					
		X					
	X X X X X	X X X X X X X X X X X X X X X X X X X	X	X	X	X	X

SmartSDK fosters the participation to a number of international events related to FIWARE and other relevant communities. Table 4 summarise the most relevant events we target to participate.

Table 4. Planned events participation.

Event name	Date and Location	Plans for participation
<b>FIWARE Summit</b>	13 <sup>th</sup> -15 <sup>th</sup> December	Present initial outcomes to the wider FIWARE
	2016, Malaga	Community; learn about latest developments in
		FIWARE; Support FIWARE Mundus track.
FIWARE Open	7 <sup>th</sup> March 2017,	Present outcomes to the wider FIWARE Community;
Day	Brussels	Support FIWARE Mundus track.
FIWARE Summit	June / May 2017	

As described in the description of action, SmartSDK plans a number of (virtual and physical) events in Mexico and Europe. The different types of events are summarised in Table 5, while the plans are discussed in the next paragraphs.





Table 5. Planned events by SmartSDK.

Event name	Description	Target stakeholders
Startup Weekend Mexico	SmartSDK will organize yearly with the support of the Incubators and Accelerators of ITESM, INFOTEC and TID (Wayra) a Startup Weekend in Mexico. The Startup Weekend Mexico will aim at gathering entrepreneurs and startuppers of the Mexican scene with the aim of innovative promoting FIWARE-based businesses.	Startups, Developers
Europe-Mexico Smart Challenge	Once per year, during a major event (e.g. Mexico Campus party), SmartSDK will organize a Challenge dealing with the development of Smart Applications. The Challenge will be open to European and Mexican teams and deals with relevant sustainability challenges in Mexico and Europe.	Startups, Developers, Service providers
Global City Teams Challenge <sup>1</sup>	SmartSDK will take active part to the Challenge by supporting the organization and the participation of FIWARE European-Mexican teams to the challenge presenting Smart applications for their Cities or Communities.	Startups, Developer
FIWARE Hack	SmartSDK will organize every year two hackathons to gather the FIWARE Community and provide latest insights on FIWARE developments. The FIWARE Hacks will be organized contemporary in Europe and Mexico, fostering when possible the creation of cross-Atlantic teams.	Developers
FIWARE Talks	SmartSDK will organize a series of invited talks (at least 12 during the duration of the project).  Speakers will be selected among Innovation influencers in Europe and Mexico. The talks will cover different themes: FIWARE Technology, FIWARE Ecosystem, FIWARE Success stories, Open and Agile Smart Cities, etc. Talks will be recorded and made available online.	Developers, Cities, Service providers, Policy Makers
EU-Mexico VIP Programme	Every year 3 startups from Mexico will be selected to take part to meetings in Europe with investors and funds to support their expansion in the European market. Likewise, every year 3 startups will be selected from Europe will be engaged in meeting to foster business opportunities in Mexico.	Startups, Investors, Policy Makers

# 2.4.1 Startup Weekend Mexico

UP Mexico City is part of the UP Global movement, a place for innovators, leaders, entrepreneurs, etc., working to make everything easier for entrepreneurs and part of that is getting all the information in one place: Techstars.com. In there, UP programs (called Startup Programs) offer the opportunity to organize three types ok events: Startup Weekend, Startup Next, Startup Digest.

<sup>&</sup>lt;sup>1</sup> https://www.us-ignite.org/globalcityteams/







To organize the Startup Weekend, SmartSDK partners must attend a Startup Weekend before organizing. Then, we can manage the SmartSDK event for FIWARE developers, around the challenges in the three use cases: Smart Cities, Smarth Healthcare and Smart Security applications.

# 2.4.2 Global City Teams Challenge

In the current phase, GCTC under the guidance of NIST, is clustering the different teams to create critical mass around specific topics: Emergency Preparedness, Disaster Recovery, and Resilience; Energy, Utilities, Water and Micro-grids; Environment & Healthcare; Municipal Dashboards; and Transportation.

The transportation and healthcare clusters are very relevant to SmartSDK scenarios, thus, even though the partners didn't take part to the previous activities launched before the start of the project, the coordinator of SmartSDK is investigating with the help of FIWARE Mundus team the possibility to take part to the current activities without waiting the launch for the new iteration of GCTC activities.

#### 2.4.3 FIWARE Hack

The first two hackathons will be organised co-located with trainings and FIWARE Summits

#### 2.4.4 FIWARE Talks

FIWARE Talks programme will start in December 2016 / January 2017 with the participation to FIWARE Summit and the launch of online webinars about different achievements of the SmartSDK project.





# **TRAINING**

Training has a crucial role in SmartSDK for supporting the growth of a FIWARE ecosystem in Mexico and to create the conditions that enable the Mexican institutions to contribute in the evolution of FIWARE pillars.

These activities will focus on three key aspects:

- → Raise awareness and motivate Mexican entrepreneurs, start-ups, SMEs and general makers and developers to be part of the FIWARE community. This motivation should rise from the discovery of the opportunity to develop smart services in a fast, scalable and cost-affordable way.
- → Teach via success stories about the opportunities that FIWARE enables and how it can be carried out in Mexico, explaining and providing the material such as hands on tutorials for the different Enablers and reference applications, FIWARE-ready devices kits (Internet of Things), and finally interactive webinars and physical workshops.
- → Provide support to the Mexican innovation community to be an active member of FIWARE via enabling new hardware and devices into the FIWARE-ready program, be able to evolve and contribute to the specific and s via the Open Source community and even propose new Enablers to the incubation program from FIWARE.

As such, training activities, beyond providing hands-on material for FIWRE developers, will target a diverse range of beneficiaries, focusing on startups, entrepreneurs and SMEs interested in exploring and adopting FIWARE technology and in becoming part of FIWARE ecosystem.

# 2.5 Training Courses

SmartSDK plans to deliver the following courses:

- → How to become a FIWARE startup. This course targets startups interested to learn about the benefit of being a FIWARE startup. The course will overview the FIWARE ecosystem and present a number of FIWARE success stories. Delivered during Year 1.
- Developing Smart Application with FIWARE 101 (beginner course). This course targets developers interested to approach for the first time FIWARE technologies to build Smart Applications. The content of the course will build up on the Smart Healthcare, Smart City and Smart Security applications deployed by the project. The course overviews the main Generic Enablers part of IoT Management and Data/Context Management Chapter and teaches how to create and use NGSI-based data models. Delivered during Year 1.
- → Developing Smart Application with FIWARE 201 (advanced course). This course targets developers that have already experience with FIWARE context-aware architectures. The content of the course will build up on the Smart Healthcare, Smart City and Smart Security applications deployed by the project. This course extends the previous one with in depth technical insights on how to integrate additional devices or data-sources following the principles of the FIWARE reference architecture for data-intensive and IoT based applications. Delivered during Year 2.
- Contributing to the FIWARE Open Community 101. This course targets developers interested into contributing to an existing GE or developing a new one. The course will provide the overview of the best practises of the FIWARE Open Community and of the tools adopted to develop, test and document FIWARE GEs. The course will also cover the submission and review process that new Enablers are subject to and how to submit blueprints for existing Enablers. Delivered during Year 1.





The related material will be available in English and Spanish and will be used to organize at least 4 (2 virtual and 2 on-site) training sessions per year in Europe and Mexico.

# 2.5.1 "How to become a FIWARE Startup" Syllabus

Duration: 5 hours

Audience: This is a first broader audience course of developers, integrators, decision makers, SMEs, web-entrepreneurs, researchers, and any innovative industrial players interested in using FIWARE technologies. No previous knowledge about FIWARE is needed for this session.

Planned release date: June 2017.

# 2.5.1.1 Agenda

FIWARE Ecosystem Overview: 1 hour Successful histories of FIWARE: 1 hour

FIWARE as a Platform for smart Cities: 1 hour

The FIWARE Marketplace: 1 hour Intro to the FIWARE Lab: 1 hour

#### 2.5.1.2 Material

Telefonica and INFOTEC will produce all the needed materials (in English and Spanish) for this first course.

# 2.5.2 "Developing Smart Application with FIWARE 101 (beginner course)" Syllabus

Duration: 11 hours

Audience: This course is oriented to programmers and developers with following previous knowledge: linux systems, cloud containers, virtualization, network connectivity, ROA, REST, SSH and microservices.

Planned release date: July 2017

## 2.5.2.1 Agenda

The basis of FIWARE cloud capabilities: 2 hours

FIWARE NGSI: Managing Context Information at large scale: 2 hours

Connecting to the Internet of Things (IoT): 2 hours

Adding Identity Management and Access Control to your app: 2 hours

Real-time Media stream processing using Kurento: 2 hours

Creating context history metrics using Cygnus: 1 hour

# 2.5.2.2 Material

Telefonica and INFOTEC will produce all the needed materials (in English and Spanish) for this course.





# 2.5.3 "Developing Smart Application with FIWARE (advanced course)" Syllabus

Duration: 17 hours

Audience: This course is oriented to programmers and developers with following previous knowledge: linux systems, cloud containers, virtualization, ROA, REST, SSH, network connectivity, microservices, Hadoop and OpenStack.

Planned release date: August 2017

# 2.5.3.1 Agenda

Supporting an advanced user experience using FIWARE: 1 hour

Publishing context information as Open Data and supporting an Economy of Data: 2 hours

Building application dashboards using WireCloud: 2 hours

Big Data with Cosmos: 3 hours

Creating context historic data using Cygnus: 2 hour

Interfacing Cosmos APIs: WebHDFS and Tidoop: 3 hours

How I can connect an Arduino?: 2 hour

A complete IoT backend infrastructure in FIWARE: 2 hour

#### 2.5.3.2 Material

Telefonica and INFOTEC will produce all the needed materials (in English and Spanish) for this course.

# 2.5.4 "Contributing to the FIWARE Open Community" Syllabus

Duration: 9 hours

Audience: This course is oriented to programmers and developers with following previous knowledge: linux systems, cloud containers, virtualization, ROA, REST, SSH, network connectivity, microservices, Hadoop and OpenStack.

Planned release date: November 2017

#### 2.5.4.1 Agenda

FIWARE Data Models: 1 hour

Extending and proposing new data models: 1 hour General architecture of a Generic Enabler: 2: hours

Docker as an applications container: 2 hours.

Tools for developing FIWARE Open Source applications: 3 hours

# 2.5.4.2 **Material**

Telefonica and INFOTEC will produce all the needed materials (in English and Spanish) for this course





# 2.6 Planned Trainings (M12)

The schedule of the different trainings for the first year.

V I	Planned date of delivery	Location	Expected attendees
Developing Smart Application with FIWARE (beginner course)	July 2017	Mexico City	40
Developing Smart Application with FIWARE (advanced course)	August 2017	Mexico City	20





# 3 EXPLOITATION AND INNOVATION

This section presents an overview of exploitation and innovations plans. These activities will have a major focus in the second year of the project, nevertheless, for completeness we briefly introduce initial plans herein.

# 3.1 Innovation activities plan

SmartSDK aims at promoting innovation in the Mexican and European ecosystem by supporting startups in the adoption of FIWARE technology, promoting FIWARE and OASC to Cities, and contribution to Open Source communities.

# 3.1.1 Start-up and acceleration programme

One of the relevant activities to spread FIWARE in Mexico is the creation of an acceleration program that will take the best practice of the European FIWARE Accelerator Program to incentive, and to give financial support to accelerators, venture capitalists, and entrepreneurs to create smart applications using FIWARE technologies.

The Mexican Accelerator program will share the objectives of European program to boost new and promising FIWARE ideas, products or services, developed by entrepreneurs, Startups or SMEs, through funding, mentoring, training and networking.

The Mexican Acceleration program will give direct funding to entities selected through open calls where 5-6 projects will be selected to receive the financial support. The most promising opportunity for the creation of the accelerator program is extending the FINNOVA program of Mexican Economy Ministry.

The creation of the Acceleration program will create the needed conditions to enable Mexican entities to solve relevant national problems with FIWARE technologies

The estimated date for launching the accelerator programme is at the end of first year of the SmartSDK project.

# 3.1.2 Cities engagement

The engagement of Mexican Cities to FIWARE is one of the priorities of the project. Currently only two cites have been included in the OASC initiative.

# 3.1.3 Contributions to Open Source Communities and Standards

Major focus in the first year will be in the support to the FIWARE Data Models initiative. Following the release of the first version of the platform, the inclusion process into FIWARE community of the components judged relevant will be performed.

# 3.2 Up-to-date exploitation plans by partners

In this section, we report the initial exploitation plans of each project partner.

# **3.2.1 MARTEL**

Martel recently established Martel Lab, a department within Martel that aims at driving the development of service and product offers in the fields of Smart Applications leveraging on Cloud Native Applications' principles. The involvement in SmartSDK is foreseen as a key initial step to experiment the adoption of FIWARE technologies to support the above process. In particular,





MARTEL plans to leverage on SmartSDK results to:

- Build extensive knowledge on the FIWARE and Cloud Native Architectures to support the R&D consultancy activities;
- Evaluate the creation of related professional training offers;
- Develop a demonstrator in the context of IoT-based SmartCities to be demonstrated to potential customers within Switzerland and Europe;

Moreover, the participation to SmartSDK and the role as leader of the project, will ensure to Martel visibility of the new R&D activities covered by the Martel Lab and promote new Martel's products and services beyond the European borders.

# 3.2.2 TID

Telefónica Investigación y Desarrollo mission is to contribute to the competitiveness of Telefónica group companies by supporting the development of innovative solutions and business opportunities. TID interest in SmartSDK is therefore twofold.

On the one hand, it will provide Telefónica México, the business unit operating in Mexico under the Movistar brand with a set of valuable assets: an enriched Smart City SDK that is adequate and publicly known in the Mexican context, an increased network of city representative contacts that is FIWARE aware and has produced valuable feedback, and a group of Mexican startups and accelerators that are using FIWARE and can evangelise in favour of FIWARE adoption and the setup of additional FIWARE nodes.

On the other side, TID will also put the know-how, software and network of startups and contacts from municipalities in play into the Smart Cities initiatives in the whole Telefónica group footprint (currently comprising 21 countries, most of them in Latin America).

Additional opportunities might also arise in the exploitation of Mexican startups, leveraging on Telefónica entrepreneur programmes.

#### 3.2.3 **HOPU**

HOPU, as a beneficiary SME from the FIWARE acceleration program (FIWARE VIP program), has a full commercial solution based on FIWARE technologies, providing nowadays solutions into the market of Smart Cities based on FIWARE-ready hardware such as Bluetooth Low Energy sensors compatible with OMA LwM2M for use-cases such as tourism (https://vimeo.com/131875612), ambient monitoring (noise, gases) and interactive infotainment. HOPU expects with the SmartSDK to extend the number of success stories, use-cases and pilots based on FIWARE technology that can make use of HOPU FIWARE-ready hardware, support other communities and establish future partnerships for the development of FIWARE-based solutions. Finally, SmartSDK will enable to HOPU the opportunity to extend our current market into Mexico using the language (Spanish) and FIWARE technology as drivers for a common understanding.

### 3.2.4 UBI

As an industrial partner and an SME, Ubiwhere will use the results of the project in its Smart Cities and Quality of Service / Quality of Experience Monitoring products. It is our intention to incorporate these outcomes directly into our solutions and improve our offerings to Telcos, Regulators, Smart City Operators and service providers. This strategy enables us to expand our target markets and product offering, making us more capable of competing in the global markets. In particular, for our Smart City Solutions, the ability to adapt to the needs of specific verticals or applications on M2M, M2H or H2H applications, is an asset that can't be ignored from the connectivity providers' perspective. The ability for SMEs to leverage those capabilities and provide better services, applications and products, is an





advantage and an asset of enormous proportions.

# 3.2.5 CREATE-NET

In the last few years CREATE-NET has been involved in the FI-PPP initiative and, in particular, in designing and building the FIWARE Lab. Currently one of its main interest is in distributed and federated Clouds and in the architectures and patterns for cloud-native applications. CREATE-NET is also an active contributor of the OpenStack and CNCF Community and an official training partner of Mirantis. As such, CREATE-NET is offering training and consultancy services to many Italian companies. Last but not least, CREATE-NET is deeply involved in the research and development of eHealth applications. Examples of this includes the coordination of FP7 project MONARCA on mobile monitoring for treatment and management of bipolar disorder and NYMPHA-MD PCP, among others.

CREATE-NET plans to exploit the results of the SmartSDK projects in different ways:

- Increase the knowledge on cloud-native architectures exploring the deployment, orchestration and monitoring of complex applications in order to make a step ahead in the understanding and in the definition of new patterns and standards for the design and management of such applications;
- Enhancing its visibility as expert and evangelist of FIWARE technologies;
- Positioning as an expert in containerization and orchestration technologies, leveraging and showcasing the simplification of the development of FIWARE based smart applications thanks to those technologies.
- Take advantage of identifying the main requirements needed to store sensitive data related to
  the envisioned scenarios, in particular the health-care-related, in cloud infrastructures
  considering the legal framework and regulatory constraints and directives in the target
  locations of the project pilots in order to achieve relevant knowledge allowing further
  exploitation of data sensing and storage into healthcare contexts;
- Increase adaptation of FIWARE technologies by exploiting FIWARE knowledge to support other health-related studies and experimental setups. Reinforce collaboration with Mexico in health-related areas.

# **3.2.6 INFOTEC**

INFOTEC has been devoted to promote the use of the internet and its applications in the Mexican context: at infrastructure level (clusters and communications) and at application level (semantic web applications, cloud computing, Big Data, etc.). In this context, as a strategic alliance, we promote the association with the FI-PPP program with the objective of using the FIWARE Platform to capture new opportunities derived from Future Internet technology trends.

INFOTEC plans to exploit the results of the SmartSDK projects in different ways.

As a research centre active in the Future Internet field:

- The know-how to the development of application for monitoring traffic and pollution.
- To contribute to the development of "Hardware Generic Enabler" for Smart City Scenario.
- The experimentation with technologies of Future Internet such as Big Data, Cloud Computing and Internet of Things.

As a knowledge transfer centre:

• To promote the adoption of FIWARE among academic, business, and governments not only in Mexico, including Latin America;





- To promote the use of the Mexican FIWARE Lab Node to develop applications on several fields (security, healthcare and smart cities) in Mexico and Europe;
- To develop capabilities among experts for internal evangelization.

### 3.2.7 **CICESE**

The Mobile and Ubiquitous Laboratory of the Computer Science Department at CICESE has focused since 2001 on the design and evaluation of ambient computing environments for healthcare. Thanks to the research done in SmartSDK, CICESE will gain better insight on how FIWARE technology can support the use of pervasive computing technology in healthcare environments. In recent years, most of Labs efforts have focused on assisting older adults and their caregivers through ubiquitous computing technologies.

The work done in SmartSDK will reinforce CICESE collaboration with the Instituto Nacional de Geriatría in Mexico on Aging and Health and contribute to the development of a geriatric-technological observatory on aging to include behaviour information gathered from wearable and mobile devices.

# 3.2.8 **ITESM**

One of the priorities of ITESM as University is to develop students and professors' skills for high innovation products & services in society. In this way, ITESM would like to focus on the design, evaluation and implementation of new and innovative smart services in its 31 campus.

SmartSDK results will be exploited in research activities to:

- Increase ITESM researchers' activity around FIWARE to increase Knowledge and better understand and contribute in Future Internet related Technologies;
- Form BSc, MSc and PhD students within FIWARE high level interaction for its use and contribution.

Also in technological transfer activities to:

- Develop capabilities among experts for internal evangelization
- Engage experts and key users for external evangelization (industry and government)
- Support the development of new FIWARE-based businesses.

#### **3.2.9 CENIDET**

CENIDET, as National Center for Research and Development, focuses on developing skills and educational programmes for forming Mexican engineers.

Through the participation to SmartSDK, CENIDET will be able to:

- Introduce FIWARE technology in it software engineering graduated courses;
- Support FIWARE technology transfer to Mexican ICT businesses;
- Exploit Smart Security scenario developments for the collaboration with the city of Cuernavaca.

# 3.2.10 INAOE

Regarding the security applications, INAOE's plans are to transfer technology throughout our local technology transfer office, which relies on ally companies we have worked with in the past. Specifically, video surveillance applications can be transferred via ProBayes Americas, a tech





company with vast experience in commercializing security technology. ProBayes has a large list of clients that includes the state and local government.

In terms of smart cities, we are planning to collaborate with the local government to deploy the development in the city of Puebla. We have already established some initial contacts with very good perspectives. We also plan on linking the results obtained in this project with an energy project leaded by INAOE that involves CFE and SENER.

In the health application, we have been developing, for several years, serious games for rehabilitation purposes of stroke patients. We will include body sensors for continuous monitoring of patients aiming to deploy integrated systems which can also monitor patients outside rehabilitation sessions.

Lastly, we will tighten our links with Intel Labs Mexico to explore different possibilities to deploy our FIWARE results in real scenarios and possible commercialization schemes. We expect to integrate these developments into the Gesture Therapy platform which is to be commercialized by a start-up company.





# 4 CONCLUSIONS

The first version of this document presents the SmartSDK dissemination and promotion plan and describes a number of key activities that the project's partners are focusing on, and will follow up throughout the lifespan of the project, in order to guarantee broad visibility of the project.

From the very beginning of the project, the SmartSDK partners have already been active in several ways and pursued various promotional activities, including:

- The launch of the First SmartSDK Workshop celebrated in September 2016 in the city of Mexico.
- Creation of the visual logo and brand identity.
- Set up of the SmartSDK webpage and Twitter account.
- O Planning on the required resources to prepare the training offers mentioned in previous sections.
- O Planned participation at various events, including the upcoming FIWARE Summit in December 2016 in Málaga.

The work of WP4 is far from being finished and this document has presented some of the activities which are planned on the roadmap for the upcoming months. All these results will be presented in the following deliverable of this document, planned for August 2017.

