interconnect

interoperable solutions connecting smart homes, buildings and grids

WP9 – Sustainability of the InterConnect Project

D9.1

Standards and regulatory bodies impact plan

This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant agreement No 857237

DOCUMENT INFORMATION

DOCUMENT	D9.1 - Standards and regulatory bodies impact plan
TYPE	Report
DISTRIBUTION LEVEL	Public
DUE DELIVERY DATE	31/7/2020
DATE OF DELIVERY	31/7/2020
VERSION	V1.0
DELIVERABLE RESPONSIBLE	WINGS
AUTHOR (S)	Maren Fiege (EEBUS), Andreas Georgakopoulos, Vera Stavroulaki, Aspa Skalidi (WINGS), Laura Daniele, Wilco Wijbrandi (TNO), Manon Martin (ENGIE), José Manuel Terras (EDPD), Antonio Kung, Olivier Genest, Amelie Gyrard (Trialog), Eliana Valles (Sensinov), Milenko Tosic (VLF), Paulo Monteiro (INESC TEC), Amândio Ferreira (Elergone)
OFFICIAL REVIEWER/s	Stefano Fava (Planet Idea), Dragan Boscovic (VLF)

DOCUMENT HISTORY

VERSION	AUTHORS	DATE	CONTENT AND CHANGES
v0.1	WINGS and partners	04/05/2020	First draft
v0.2	WINGS and partners	29/05/2020	Second draft
v0.3	WINGS and partners	26/06/2020	Third draft
v0.4	WINGS and partners	27/07/2020	Final draft
V1.0	INESC TEC	31/07/2020	Final version

ACKNOWLEDGEMENTS

NAME	PARTNER
Aimilia Bantouna	WINGS
Amalia Demou	WINGS
Amândio Ferreira	Elergone
Amelie Gyrard	Trialog
Antonio Kung	Trialog
Eliana Valles	Sensinov
Emmanuel Danis	WINGS
Evangelia Tzifa	WINGS
George Makantasis	WINGS
Iason Bitchavas	WINGS
Ilias Romas	WINGS
Ioannis Stenos	WINGS
Ioannis Stournaras	WINGS
Ioannis Tzanettis	WINGS
José Manuel Terras	EDPD
Kostas Eleftherianos	WINGS
Laura Daniele	TNO
Manon Martin	ENGIE
Maren Fiege	EEBUS
Milenko Tosic	VLF
Nelly Giannopoulou	WINGS
Olivier Genest	Trialog
Paraskevas Bourgos	WINGS
Paulo Monteiro	INESC TEC
Petros Athanasellis	WINGS
Polina Dimiropoulou	WINGS
Stefania Stavropoulou	WINGS
Vassilis Foteinos	WINGS
Wilco Wijbrandi	TNO

DISCLAIMER:

EXECUTIVE SUMMARY

The work package 9 is structured in four tasks, which will be developed and implemented during the whole project (Task 9.1 Standards and regulatory bodies impact; Task 9.2 Go-to-market strategy and business impact; Task 9.3 Societal impact; Task 9.4 InterConnect community and ecosystem building).

Five deliverables will be written and submitted under the scope of this work package. The description of the deliverables and the milestones are included in section 5 of this deliverable.

This document corresponds to the first deliverable that will be submitted within the scope of the WP9 and it presents the standards and regulatory bodies impact plan. This deliverable is divided into the following chapters: introduction, standardization & regulation plan, WP9 plan, deliverables and milestones and conclusion.

Actions toward standardisation and regulatory bodies are of prime importance for InterConnect. As a result, InterConnect has already started to identify relevant standardization bodies, and to align with their roadmap and work programme, so to maximize the potential project impact on their work. Among the goals of this activity, a better understanding of technical challenges relevant to the project objectives and results is expected. This will also help to have a consolidated visibility on the respective timelines of key standardization bodies, another key aspect for a successful impacting strategy. As a matter of fact, InterConnect has identified various standardisation targets since the beginning of the project which are at the heart of the project scope such as relevant IEEE, ETSI standards, CEN/CENELEC and AIOTI where partners of the consortium are key participants. The project is already taking actions in the respective working groups.

TABLE OF CONTENTS

EXECUTIVE SUMMARY 4
LIST OF FIGURES 6
LIST OF TABLES 7
ABBREVIATIONS AND ACRONYMS 8
1. INTRODUCTION 9
2. STANDARDIZATION & REGULATION PLAN 10
2.1 TARGETED BODIES 10
2.1.1 ETSI ISG CIM 10
2.1.2 ETSI ONEM2M 11
2.1.3 ETSI SMARTM2M: SAREF EXTENSIONS AND EVOLUTION ASPECTS 12
2.1.4 CLC TC 59X WG 07 - PERFORMANCE OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES 13
2.1.5 CLC TC 205 – WG19 - ADHOC GROUP ON ENERGY MANAGEMENT ONTOLOGY 14
2.1.6 CLC TC 205 – WG18 – SMART GRIDS 14
2.1.7 AIOTI 15
2.1.8 ISO 17
2.1.9 BDVA - TF1.SG7 - GROUP ON DATA SHARING SPACES 18
2.1.10 REGULATORY BODIES 18
2.2 SUMMARY AND MAIN FOCUS 20
3. WP9 PLAN 21
4. DELIVERABLES AND MILESTONES 22
5. CONCLUSION 23
REFERENCES 24

LIST OF FIGURES

FIGURE 1 – WP9 PLAN _____ 21

LIST OF TABLES

TABLE 1 – INTERCONNECT SUMMARY AND MAIN FOCUS 20
TABLE 2 – WP9 DELIVERABLES 22

ABBREVIATIONS AND ACRONYMS

AIOTI	Alliance for the Internet of Things Innovation
CIM	Context Information Management
DIH	Digital Innovation Hubs
DSO	Distribution System Operator
EC	European Commission
ESCOs	Energy Service Companies
ESO	European Standards Organisation
EU	European Union
IoT	Internet of Things
KPI	Key Performance Indicators
MS	Milestones
RES	Renewable Energy Sources
SAREF	Smart Appliances REFerence
SDO	Standards Developing Organization
WP	Work Package

1. INTRODUCTION

The InterConnect project aims at contributing to the democratization of efficient energy management, through a flexible and interoperable ecosystem through which the demand side participation can be actively supported with effective benefits to end-users. The project will be implemented based on a 48-month work plan, structured in eleven work-packages (WP).

The main objective of the WP9 is to ensure initial adoption and sustainability of the InterConnect results/solutions, throughout and after the end of the project. More specifically, this WP will target the:

- Technological relevance: sustain the InterConnect SAREF-compliant interoperability solutions through interactions with standardization and regulatory bodies and other associations (in T9.1).
- Business and market sustainability: provide tools and service/app enablers for smart energy communities stakeholders to ensure sustainability of their business with recommendations for innovative go-to-market strategies. Evolve existing and/or propose new recommendations and measures to policymakers in order to foster the creation of a marketplace for decentralised energy in homes and buildings (in T9.2).
- Societal impact: identify societal-wide impact based on the project results and provide tools and recommendations to foster decentralised energy market and RES use (in T9.3).
- InterConnect ecosystem formation: Initiate, organise and grow an ecosystem around the project to disseminate the project results to energy and the home/building domain (in T9.4).

This document consists of a Standardization and Regulation Plan. The plan outlined in this document focuses on the period that goes from the beginning of the project (M1) until its end (M48).

2. STANDARDIZATION & REGULATION PLAN

This document focuses mainly on the Standards and regulatory bodies impact plan. As a result, is to monitor, assess and, if deemed appropriate, engage all the relevant SDO and regulatory agencies. Project results will influence standards, whereas engagement with regulatory bodies will ensure that the proposals of the project are aligned with the different regulatory frameworks that are used in the main European countries. Major SDOs, associations and fora will be considered by the project (e.g., CEN/CENELEC, ETSI, AIOTI, ISO/IEC). In in this context, the activities include: a) identification and analysis of standards and SDO that can increase project's impact; b) development of an appropriate strategy for maximizing the impact to such bodies; c) engaging regulatory and standardization bodies for wider acceptance of the InterConnect outputs.

2.1 TARGETED BODIES

2.1.1 ETSI ISG CIM

Single-purpose solutions work well within a known context but are not suitable for multi-system interoperability. The group's mission is to make it easier for end-users, city databases, Internet of Things and 3rd-party applications to exchange information. Cross-cutting Context Information Management is the exchange of information, with proper formal definitions, between vertical applications, so that these applications get the original meaning. The main aim is to enable interoperable software implementations for Context Information Management. It is about bridging the gap between abstract standards and concrete implementations, especially for use cases related to Smart Cities, but also to be extended later to Smart Agrifood and Smart Manufacturing.

Anticipated impact/ contributions on behalf of InterConnect project:

ETSI is the leading ESO (European Standards Organisation) focusing on Information Communication Technology (ICT) standards. Among its working groups, ETSI's Industry Specification Group (ISG) Cross-Cutting Context Information Management (CIM) aims to facilitate the exchange of contextual information between vertical applications. Applications

using the NGSI-LD API can discover, access, update, publish, and manage data, including contextual information [1]. InterConnect can provide essential input to the ETSI ISG CIM working group in the following areas:

- Support for SAREF extensions contributed by InterConnect, and mainly contributions expected in the building and energy domain by providing an updated version of SAREF4BLDG and SAREF4ENER, including a more extensive stakeholder ecosystem.
- Provide essential contributions to the cross-platform interoperability framework and approach for the home, building, and energy domains.

2.1.2 ETSI ONEM2M

oneM2M is the global standards initiative that covers requirements, architecture, API specifications, security solutions and interoperability for Machine-to-Machine and IoT technologies. oneM2M specifications provide a framework to support applications and services such as the smart grid, connected car, home automation, public safety, and health. It actively encourages industry associations and forums with specific application requirements to participate, to ensure that the solutions developed support their specific needs.

Anticipated impact/ contributions on behalf of InterConnect project:

oneM2M specifies a Common Service Layer (CSL) for the Internet of Things. The CSL sits between applications and the network and exposes APIs to access functions commonly needed by IoT applications [2]. oneM2M has a base ontology that has been aligned to a large extent with SAREF. The work carried by InterConnect can provide essential input to oneM2M in the following areas:

- Extensions to oneM2M base ontology to align it with SAREF extensions contributed by InterConnect, and mainly contributions expected in the building and energy domain by providing an updated version of SAREF4BLDG and SAREF4ENER.
- Contribute to the cross-platform interoperability framework and approach for the home, building, and energy domains.
- Energy efficiency application requirements can drive extensions to oneM2M's APIs (Mca interface).

2.1.3 ETSI SMARTM2M: SAREF EXTENSIONS AND EVOLUTION ASPECTS

The Committee is developing standards to enable M2M services and applications and certain aspects of the Internet of Things (IoT). The Committee is a partner in oneM2M and helps to produce the specifications to enable users to build platforms by which devices and services can be connected, regardless of the underlying technology used. It enables connected devices to exchange information through SAREF, our smart applications reference ontology that runs with oneM2M-compliant communication platforms. With SAREF, SmartM2M is promoting oneM2M Base Ontology with extensions in many IoT domains.

Anticipated impact/ contributions on behalf of InterConnect project:

The SmartM2M Technical Committee and ETSI support the ongoing development and evolution of SAREF and its extensions in different domains. Currently, the SAREF framework consists of a general core ontology (SAREF v3) and 10 extensions in various domains (SAREF for Energy, Buildings, Environment, Cities, Industry&Manufacturing, AgriFood, and the upcoming Automotive, Water, Wearable and e-Health/Aging-well (https://saref.etsi.org/, accessed Jul-20). These extensions have been originally created by experts in the context of Specialists Tasks Forces (STFs) funded by ETSI and/or the EC. It is expected that these extensions will be further evolved with direct input of the stakeholders in these domains and, more in general, the SAREF community of users. To that aim, ETSI is currently supporting an STF for the development of the Community SAREF Portal for user engagement (https://portal.etsi.org/STF/STFs/STF-HomePages/STF578, accessed Jul-20) to make the business community able to provide their input and evolve SAREF (extensions) without having to set up dedicated STFs. It is expected that Interconnect will provide an essential input for the development and evolution of the SAREF framework, especially in the following areas:

- new version of SAREF for Energy (current version of SAREF4ENER was created in 2017 in collaboration with the EEBUS and Energy@Home associations, but InterConnect can now contribute with an updated version with the input of a broader ecosystem of stakeholders)
- improvements and suggestions for the SAREF core ontology, now at version 3, (https://www.etsi.org/deliver/etsi_ts/103400_103499/10341001/01.01.01_60/ts_10341001v010101p.pdf, accessed Jul-20) as new contributions are periodically processed and embedded in new releases by SmartM2M

- feedback, improvements and suggestions on any other relevant extension used in InterConnect, especially SAREF for Buildings and SAREF for Cities
- submission of new extensions eventually developed in InterConnect, if needed.
- feedback, improvements and suggestions on the SAREF community portal, the forge used for the development of SAREF (extensions) and the pipeline specifically developed by ETSI to check and validate the submitted ontologies.

2.1.4 CLC TC 59X WG 07 - PERFORMANCE OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES

To prepare International Standards on methods of measurement of characteristics which are of importance to determine the performance of electrical appliances for household use or of electrical appliances for commercial use and that are of interest for the user. This may include associated aspects related to the use of the appliances and aspects such as the classification, accessibility and usability of appliances, ergonomic characteristics and conditions for the information provided at the point of sale. Appliances for household use designates equipment intended for housekeeping functions such as washing, cleaning, heating, cooling, cooking, etc. and appliances intended for use in the home environment such as shavers, hair care appliances, food preparation appliances, etc.

Anticipated impact/ contributions on behalf of InterConnect project:

TC59x WG07 is planning to create a new revision of the **EN50631** series with a focus on interoperability. The results from the InterConnect project will make an important contribution as they will provide real-life experience with white goods in an energy management context. A mapping to energy and appliance-related ontologies developed as part of InterConnect can also be provided as a document in the EN50631 series. According to the procedures of the group a Working Item (WI) proposal will be submitted as soon as possible. Then, around 12 months are needed for preparing a working draft followed by a 3 month review approximately (which are the usual timings for such standards). So, overall 15 months will be needed for having a contribution influenced by InterConnect.

2.1.5 CLC TC 205 – WG19 - ADHOC GROUP ON ENERGY MANAGEMENT ONTOLOGY

The preliminary scope of TC 205 - WG19 is to create an ad-hoc group which aims to develop a common standard ontology starting from the existing data models (CEN, CENELEC, ISO and IEC).

Anticipated impact/ contributions on behalf of InterConnect project:

TC 205 WG 19 is going to work on an energy management ontology. The results of WP 2.4 can be brought into WG19 to become part of the new standard ontology. Main scope will be “Decentralized energy resources". Detailed timeline was not discussed yet within the group.

2.1.6 CLC TC 205 – WG18 – SMART GRIDS

The EN50491 standard consists of 11 documents that provide requirements for Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) regarding general requirements, eEnvironmental conditions, electrical safety, general functional safety for products intended to be integrated in Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS), EMC requirements, HBES installations and Smart Metering. The EN 50491 series of standards is entitled “General requirements for Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS)” and contains requirements for HBES devices including environmental performance, safety, functional safety, EMC, and design, planning and installation. The EN 50491 series is in the process of replacing the existing EN 50090 series of standards entitled “Home and Building Electronic Systems (HBES)” covering the areas system overview, aspects of application, media independent layers, media and media dependent layers, interfaces, system management, conformity assessment of products and installation requirements.

Anticipated impact/ contributions on behalf of InterConnect project:

It is anticipated that the results of InterConnect will provide valuable input for EN50491-12-2 (General requirements for Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) - Part 12: Smart grid - Application specification - Interface and framework for customer - Part 2: Interface between the Home/Building CEM and Resource manager(s) – Data model and messaging) and the data model for the S2

interface described therein, as well as for any upcoming standardization activities regarding other interfaces. Detailed timeline is not available yet.

2.1.7 AIOTI

Various working groups of AIOTI can be influenced by InterConnect work. Specifically, partners of the project are particularly active in:

- AIOTI WG02: Innovation ecosystems

This working group works on recommendations to stimulate the development of Open Innovation eco-systems for Internet of Things (IoT) innovation in the EC. The IoT ecosystem will flourish only when many stakeholders work collaboratively together with open standards, platforms, and interfaces and when data flows. AIOTI WG02 IoT Innovation Ecosystems is coordinating the work of the IoT Digital Innovation Hub (DIH) Network which is important also for visibility of Interconnect.

- AIOTI WG03: Standardisation

The vision for WG03 is to be recognized as a major contributor to the worldwide interoperability, security, privacy, and safety of IoT systems and applications, and particularly for the development of the market in Europe.
Scope: (1) Maintaining an IoT standards framework landscape, (2) Consolidation of architectural frameworks, reference, architectures, and architectural styles in the IoT space, (3) HLA / High Level Architecture, (4) IoT identifiers, (5) IoT relation and impact on 5G, (6) (Semantic) Interoperability, (7) Personal data protection/privacy to the various categories of stakeholders, in the IoT space (with WG04 IoT Policy), (8) IoT Security (with WG04 IoT Policy)

- AIOTI WG08: Smart Cities

According to the successful Smart City Large Scale Pilot will tackle the demand side real needs and problems (citizens and cities) and will build on supply side technologies and challenges. It will demonstrate scalability and replicability through interoperability at the data layer, sustainability from economic and social perspectives, and will boost local digital life and economy in European cities.

- AIOTI WG09: Smart Mobility

This AIOTI group has prepared a report on smart mobility. The report defines the scope and focus of the WG and in particular considers applications of the Internet of Things to the mobility domain (Internet of Vehicles) as next step for future smart transportation and mobility applications with short-termed European wide economic potential and applicability. Partners of Interconnect are participating in this group and aspects of charging vehicles may brought into scope if relevant topics will be discussed.

- AIOTI WG12: Smart energy

The topic for this Working Group refers to IoT solutions deployed by various companies along the value chain (i.e. IoT technology providers, energy companies (in generation, supply, grid and market participants, traders, aggregators, etc.) to allow the performance optimisation of their energy asset portfolios (Renewables plants, Grid Substations, Control Rooms, Prosumer Demand Responsive Loads and EV Charging infrastructures). Such aspects are very relevant to Interconnect and will be closely monitored.

- AIOTI WG13: Smart buildings

The topic of this Working Group is the IoT technologies and solutions deployed in buildings and districts of buildings to improve life of the occupant by addressing and optimizing elements such as comfort, light, temperature, air quality, water, nourishment, fitness, and energy usage.

Anticipated impact/ contributions on behalf of InterConnect project:

An important contribution is expected in the context of “AIOTI WG03: Standardisation “, especially in the Semantic Interoperability group, where several of the Interconnect experts are active (e.g., Laura Daniele - TNO is the group co-leader, Antonio Kung and Amelie Gierard - Trialog are active members and contributors of the group). It is expected that Interconnect will provide input in the following activities:

– Ontology landscape for AIOTI and more in general industry stakeholders (https://docs.google.com/document/d/1F_goomoktBT4TGmCKL100WSirmvZnMJChGRQC5r0R6M/edit?usp=sharing, ongoing document). Interconnect can contribute to the landscape by providing information on the existing ontologies in Smart Energy and Smart Grids.
– Online Self-Learning Tutorial Semantic Interoperability “Make me do it and I will learn” (https://docs.google.com/document/d/1mh9xomwrxp4qjplK3NEfAXfAswF7ONymK0Ri

BaUlVzU/edit#heading=h.79pci7mv2dvo, ongoing document). There are several modules of the tutorial, but some modules can be realized by Interconnect partners, especially to showcase the use case on smart home and energy flexibility. Moreover, the Interconnect partners can be used as audience to test the tutorial in its early stages and provide early feedback to AIOTI WG3

– European Data Strategy/Data Spaces focus on semantic interoperability. This activity is still in its early stages, so it is to be defined in a later moment how we could contribute. As an initial idea, there is a link between the International Data Space (IDS) reference architecture and the Interconnect reference architecture that should be further investigated. Moreover, the IDS ontology on policy and contracts for data sovereignty could be used together with SAREF and other domain ontologies that we use in Interconnect.

2.1.8 ISO

Various working groups of ISO can be influenced by InterConnect work. Specifically, partners of the project are particularly active in:

- ISO/IEC 23751 Data sharing agreement (DSA) framework
- ISO/IEC 23491 IoT security and privacy - Guidelines for IoT domotics (number will change to 27403)
- ISO/IEC 27402 IoT security and privacy - Device baseline requirements
- ISO/IEC 27556 User-centric framework for the handling of personally identifiable information (PII) based on privacy preferences
- ISO 3170 Privacy-by-design for consumer goods and services

Anticipated impact/ contributions on behalf of InterConnect project:

Partners participate in a study on IoT SPT (security privacy trust) interoperability where contributions from InterConnect can be provided. It can lead to a future standard (21823-5). Also, partners are member of the JWG3 (smart energy roadmap) between IEC TC65 and ISO/IEC SC41.

2.1.9 BDVA - TF1.SG7 - GROUP ON DATA SHARING SPACES

Major activities planned for TF1.SG7 include:

- Further engaging the broad BDVA data sharing stakeholder community (producers, intermediaries and consumers along data value chains) to identify opportunities, challenges, and possible solutions for facilitating cross-sectoral data sharing and exchange practices;
- Supporting the EC with mobilizing initiatives seeking to realise an adequate European data sharing space for all kinds of stakeholders;
- Liaising with key initiatives such as IDSA, InnoPay, MyData, Datapace.io and other success stories in data sharing spaces or marketplaces;
- Engaging this broader community by producing white papers with an overview of the state-of-the-art (initiatives, projects and solutions), and a vision for how a safe, fair and ethical data sharing space can be achieved at EU-level.

Anticipated impact/ contributions on behalf of InterConnect project:
Partners will follow activities and contribute accordingly to related discussions and potential material (e.g. white papers) which may be produced in that context.

2.1.10 REGULATORY BODIES

The main regulatory body in France for the energy market is the French Energy Regulatory Commission (**CRE** - Commission de Régulation de l'Energie), its missions consists in:

- participating in the construction of the internal European market in energy
- contributing to the smooth functioning of the electricity and natural gas markets, for the benefit of end consumers
- regulating the networks for gas and electricity, which are monopolies: setting tariffs and ensuring they do not give any user an undue advantage
- ensuring that consumers are properly informed
- implementing certain mechanisms to support renewable energies, by organising tender processes

The French authority in data protection is the **CNIL** (Commission Nationale Informatique et Libertés). Beyond raising awareness and sharing information on data protection culture, the CNIL has an advisory power, an onsite and offsite investigatory power as well as an

administrative sanctioning power. It has established and coordinates the network of Data Protection Officers (also known as the "Correspondants Informatiques et Libertés"). The CNIL analyses the consequences of new technologies on citizens' private life. Finally, it collaborates closely with its European and international counterparts.

In Portugal, **ERSE's**, the Energy Services Regulatory Authority, purpose is to regulate, throughout the Portuguese territory, the electricity, natural gas, liquefied petroleum gas (LPG) in all categories, petroleum-derived fuels and bio-fuels sectors, and the operations management of the electric mobility network. Its vision is to create value for society through an independent, transparent and sustainable regulation of the energy sector, by promoting the efficiency of the markets and by strengthening consumer confidence.

DGEG, Directorate General for Energy and Geology, aims to contribute to the conception, promotion and assessment of policies related to energy and geological resources in Portugal, promoting a sustainable development and ensuring security of supply. DGEG is also keen on raising awareness of the citizens to the importance of those policies within a sustainable economic and social development framework, sharing information on available instruments to the execution of the political decision making and disclosing the impact and results of its implementation.

Any recommendations and guidelines from InterConnect (for example on applicability of the developed ontologies / protocols / standards, pilot conclusions, exploitation and replicability plans, etc.) will need to comply with both institutions vision and mission.

In Greece, the Regulatory Authority for Energy (**RAE**) is an independent administrative authority, which enjoys, by the provisions of the law establishing it, financial and administrative independence. The main duties and responsibilities assigned to RAE relate to the following subjects: (i) Monitoring the operation of all sectors of the energy market (Electricity, Natural Gas, Oil Products, Renewable Energy Sources, Cogeneration of Electricity and Heat etc.); (ii) Collection and processing of information from companies in the energy sector while respecting the principles of confidentiality; (iii) Cooperation with Regulatory Authorities of other countries, international Organisations and the European Commission; (iv) Advice under the form of a simple opinion, with respect to the terms and conditions for access to the transmission and distribution networks. Approval of the methodologies for the access tariffs to electricity transmission and distribution networks and various other aspects.

2.2 SUMMARY AND MAIN FOCUS

The following table wraps-up the identified SDOs and provides planned activities and main focus during the duration of the project. In other bodies and initiatives, InterConnect partners are participating mainly as observers.

SDOs/Activity		Audience
ETSI	ISG CIM	12 months are needed for preparing a working draft followed by a 3-month review approximately (usual timings for such standardization bodies)
	oneM2M	
	SmartM2M (**primary focus** - once done, the input should be forwarded to CLC TC205 WG19 as a proposal for inclusion)	
CLC	TC 59x WG 07 **(primary focus)**	12 months are needed for preparing a working draft followed by a 3-month review approximately
	TC 205 – WG19 **(primary focus)**	
	TC 205 – WG18 **(primary focus)**	
AIOTI	WG02 – Innovation Ecosystems	Depending on discussed topics and WGs. White papers can also be targeted.
	WG03 – IoT Standardization	
	WG08 – Smart Cities	
	WG09 – Smart Mobility	
	WG12 – Smart Energy	
	WG13 – Smart Buildings and Architecture	
ISO/IEC	• ISO/IEC 23751 data sharing agreement (DSA) framework • ISO/IEC 23491 IoT security and privacy - Guidelines for IoT domotics • ISO/IEC 27402 IoT security and privacy - Device baseline requirements • ISO/IEC 27556 User-centric framework for the handling of personally identifiable information (PII) based on privacy preferences ISO 3170 Privacy-by-design for consumer goods and services	Approximately one year is needed for preparing a working draft followed by a 3-month review approximately
BDVA	TF1.SG7	Depending on discussed topics and WGs. White papers can also be targeted.

TABLE 1 – INTERCONNECT SUMMARY AND MAIN FOCUS

3. WP9 PLAN

Work Package (WP) 9 is structure in four tasks, which will be developed and implemented during the all project. The tasks, duration of each one is presented in the figure below.

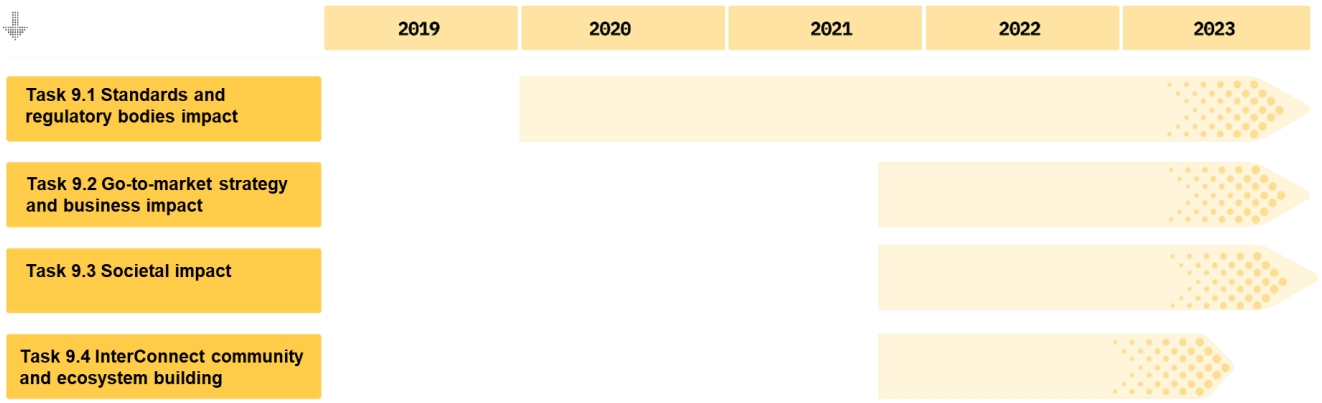

FIGURE 1 – WP9 PLAN

4. DELIVERABLES AND MILESTONES

Five deliverables will be written and submitted under the scope of WP9. The table below gives details about the number, title and due date of those deliverables.

Deliverable	Name
D9.1	Standards and regulatory bodies impact plan (M10)
D9.2	Canvas for multi-stakeholder-multi-value business models (M36)
D9.3	Building smart energy communities for the benefit of all (M48)
D9.4	Final standards and regulation report (M48)
D9.5	Policy recommendations on fostering decentralised energy marketplace (M48)

TABLE 2 – WP9 DELIVERABLES

Under the scope of WP9, two milestones (MS) have been defined:

- ✓ MS13-InterConnect community launched-Month 24 (with at least 15 members)
- ✓ MS14-Impact assessment concluded and recommendations available-Month 48 (in which D9.3, D9.4 and D9.5 are approved)

5. CONCLUSION

This deliverable aimed at defining a standards and regulatory bodies impact plan for the InterConnect project. Other deliverables will be submitted under the scope of this WP during the 48 month of the project and some strategies depend on the results of other WPs. Nevertheless, the plan and objectives have been defined, the target bodies have been identified as well as some of the activities that will be developed and have been described. Potential risks include the time needed for publication of related standardization activities to have meaningful impact during and after the project's lifetime, as part of the InterConnect sustainability. This deliverable also included the division of the WP9 in four tasks and the five deliverables of this WP.

REFERENCES

EXTERNAL DOCUMENTS

[1] ETSI – CIM. https://www.etsi.org/committee/cim

[2] oneM2M. https://www.onem2m.org/

INTERCONNECT DOCUMENTS

[3] InterConnect Grant Agreement number 857237.