



Your first choice for building  
the smart digital future



# PRESS KIT

OCTOBER 2019



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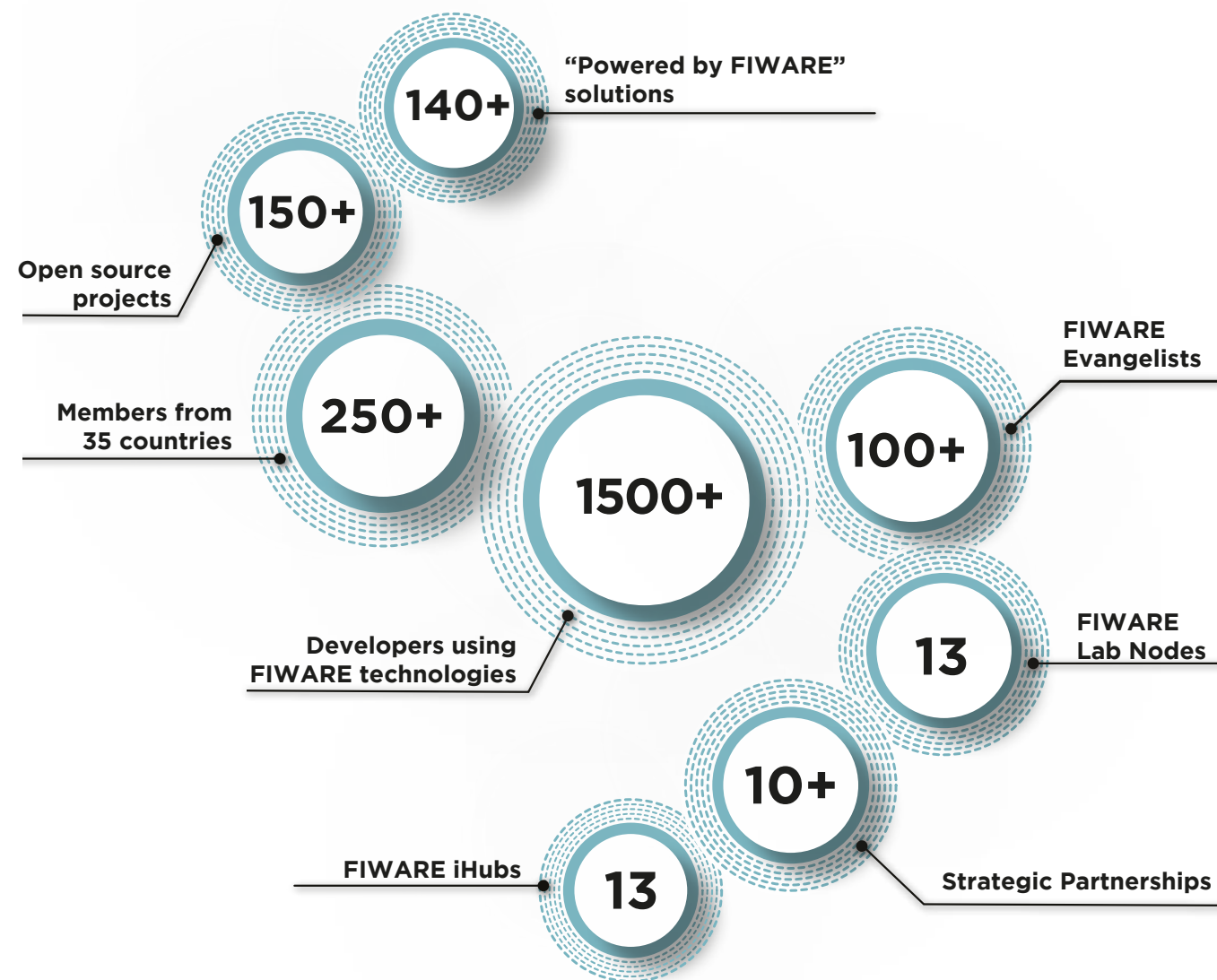
***FIWARE is for free, for all, forever.***





# ABOUT US

Founded in 2016 by **Atos, Engineering, Orange** and **Telefónica**, FIWARE Foundation is a non-profit organization that drives the definition and encourages the adoption of **open standards (implemented using open source technologies)** that ease the development of smart solutions across the fields of Smart City, Smart Energy, Smart Agrifood and Smart Industry, **based on FIWARE technology**.



## WHAT WE DO

FIWARE Foundation is driving the development of smart solutions in a faster, easier, interoperable and affordable way that avoids vendor lock-in scenarios, whilst also nourishing FIWARE as a sustainable business model.

And the Foundation does that with the support of a **growing global community** that shares the vision and efforts of making **FIWARE open source technology the best instrument** for industries, governments, universities and associations to reach their full potential and scale up their activities **to enter new markets and grow their businesses**. On that front, **FIWARE open source technology** has been successfully used in the development of IoT platforms - ranging from the Badajoz Council to Uruguay's telecommunications company Antel - to name but a few ways in which FIWARE technologies have been getting cities and regions ready for the smarter future.



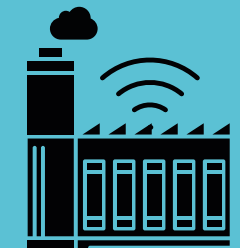
***There is more than  
meets the eye***



We accelerate the emergence of innovative marketplaces of smart portable and interoperable solutions, guiding industries, governments, universities, and civil society to develop their smart vision.



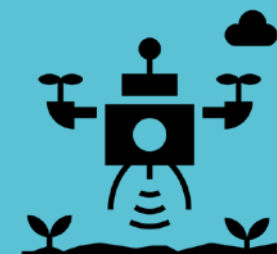
**SMART CITIES**



**SMART INDUSTRY**



**SMART ENERGY**



**SMART AGRIFOOD**

# FIWARE IS ALL OVER THE WORLD

## 13 FIWARE Lab Nodes

Madrid  
Lannion  
Vicenza  
Poznan  
Crete  
Piraeus  
Noida  
Aguascalientes  
São Paulo  
Senegal  
Wolfsburg\*  
Penang\*

\*currently under analysis

Europe

198

Asia

21

Americas

22

Africa 8

● FIWARE Members

● FIWARE iHubs

Macaronesia	Mexico City
Badajoz	Montevideo
Cologne	Perugia
Geneva	Saint-Quentin
La Plata	Seville
Logroño	Uberlandia
Malaga	Amersfoort



Smart Cities



Smart Energy



Smart Industry



Smart AgriFood

For more information on our members and benefits offered, visit <https://www.fiware.org/about-us/join/>





# WHAT DOES IT MEAN TO BE “SMART”?

With the world's **population rising at an unparalleled speed**, increased traffic and pollution, the lack of natural resources, and more automated services are just the tip of the iceberg of issues that public administrations are dealing with. In an attempt to tackle contemporary problems stemming from large crowds living in relatively small spaces, **smart solution providers step in by introducing innovative technology**, such as waste management, intelligent industrial LED lightings, smart irrigation systems, to name but a few, that can be taken up by public service providers to improve everyday lives of citizens.

FIWARE sees **smart environments as an ecosystem** driven by an efficient administration of public services. ICT-based solutions, with technologies such as big data, Internet of Things (IoT), artificial intelligence (AI), and robotics hereby fuse into every single industry and

become the backbone of our social sphere. Moreover, **being smart goes beyond technology**: it requires public administrations to move away from inward, fragmentary-oriented organizational structures towards **highly collaborative frameworks** (that include private businesses, not-for-profit organizations, social enterprises and citizens) in order to deliver seamless public services and, thus, **drive the advancement of an information society forward**.

Each country surely has its own goals and challenges (the word 'smart' itself may mean different things across continents), but by **establishing sustainable structures and offering new approaches** to citizens, authorities, local companies, and other stakeholders to engage within the management of services, public services providers can pave the way for economic development, **ultimately increasing the quality of life** for their citizens and visitors.



# PRODUCT INFORMATION

Future life will gravitate around the management of context data. **Context data** describes what is going on, who is involved, where, when, why. Context is meaningful in farms, describing the state of the crops and soil. In the industry field, it can help plant managers improve efficiency in industrial systems. At energy plants, it can be helpful to describe the status of the plant and the predicted energy demand. Finally, in cities, **data collection generates valuable insights** that help public administrations and businesses to improve the way we live, work and engage with one another.

The processing of context data will **drive smart decisions in the future**. Smart decisions which will ultimately improve daily processes, raising the productivity of people, and businesses. Capturing, managing, processing, analysis and visualization of context data will be at the core of solutions in **Smart Cities, Smart Industry, Smart Energy**, and **Smart Agrifood**.

Context data is a blend of information coming from multiple sources. But the data owners are at the driver's seat when deciding who can access their data, when, how, where and what for. This means that they can exercise full sovereignty over their data, eventually deciding whether they want to monetize their data or not and who will have to pay for it. That's why context information management provides the basis for the **new Data Economy**.

FIWARE steps in by **laying out the fundamental context management standards** needed for the creation of interoperable platforms and infrastructures. By enabling the blending of tools for integrating multiple context data sources and helping to process and analyze context management at a large scale, **FIWARE stands out as your first choice for building the smart digital future**.

## Standards are driving the smarter tomorrow

Common open standards are an important element of data infrastructure worldwide. They help technology users and providers publish and use data in ways that can drive new business models, create open ecosystems and help public administrations to implement policy goals to deliver more effective public services and hence, boost citizens welfare. A long-established champion of open standards, FIWARE will always strive to ensure that standards drive the open source technology market, that data is available to the widest range of users, for the widest range of purposes. Anytime. Anyday. Anywhere.

### Some highlights from our work with our long-standing partners:

- In 2016, the **European Commission** published the 2016 Rolling Plan for ICT Standardisation in which **ETSI** was requested to create an ISG (Industry Specification Group) aimed at the definition of a standard Context Information Management (CIM) API with FIWARE NGSI as a candidate. In the beginning of 2017, ETSI created the CIM ISG which was successfully brought to market with the so called ETSI NGSI-LD API specifications in January 2019.
- FIWARE Foundation has participated in technical activities linked to architecture design, support to the definition of information models and their standardization, bringing significant contributions to the standardization activities of **ETSI** (NGSI-LD API specifications), **W3C** (Web of Things), **GSMA** IoT Big Data Ecosystem project and **TM Forum** with the Front-runner Smart Cities program.
- In 2018, FIWARE **Context Broker** was selected as the new **Connecting Europe Facility (CEF) Building Block**, help building the next generation of European digital public services.
- FIWARE has been contributing to the **International Data Spaces Association Reference Architecture Model** and its actual version **RAM 3.0**.

### Here are some of our global strategic partners and collaborators:





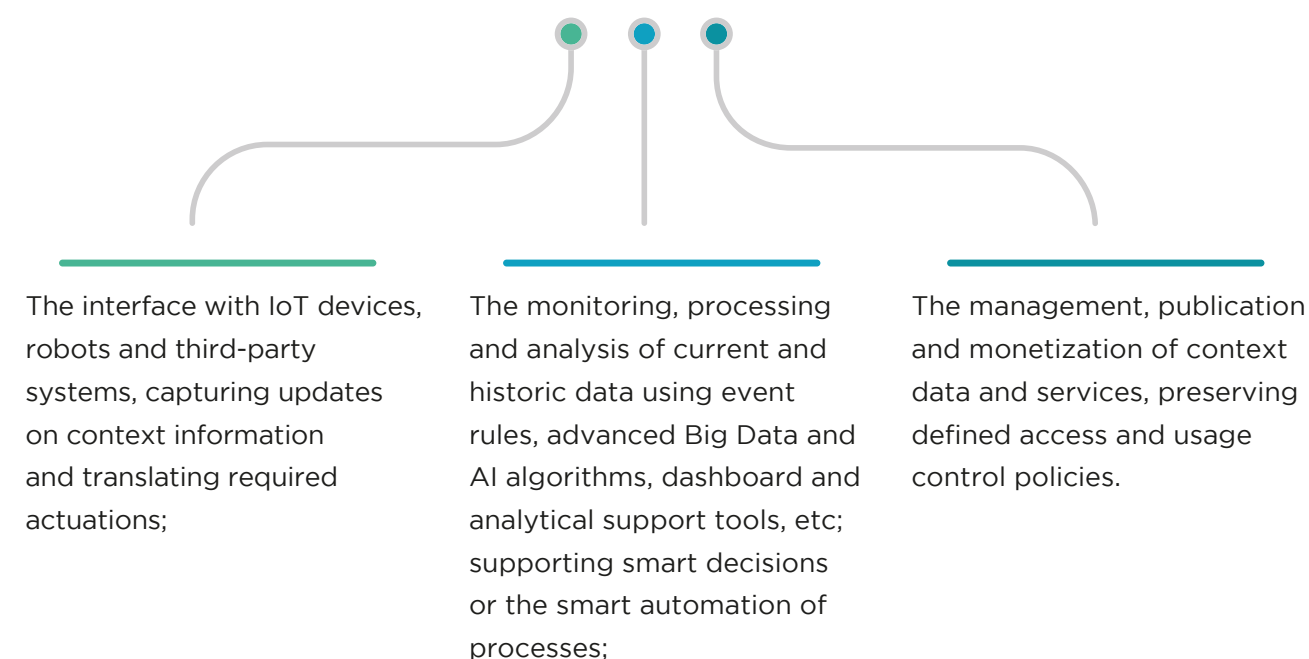
## Developing and integrating smart solutions

FIWARE brings a curated framework of open source software platform components which can be assembled together and with other third-party components to build “Powered by FIWARE” platforms that support the development of smart solutions in a faster, easier and affordable way.

The core component of any “Powered by FIWARE” platform is the so-called Context Broker, which supports the FIWARE NGSI API, a simple yet powerful API for solving a basic need in any smart solution: how to gather, manage and provide access to context information. The FIWARE NGSI API, enables the integration of FIWARE platform components, the interoperability of smart solutions/services running on top of “Powered by FIWARE” platforms as well as their portability (replicability) across different “Powered by FIWARE” platforms.

The FIWARE NGSI API has evolved over time, following inputs from the global community of developers that have long been supporting the technology. The NGSIv2 version has been widely used in multiple scenarios and has served as the basis for the NGSI-LD API specifications, recently published by the European Telecommunications Standards Institute (ETSI). The Orion Context Broker provides an open source reference implementation of the NGSIv2 API specifications and will soon also provide a reference implementation of the ETSI NGSI-LD API specifications.

Building around the FIWARE Context Broker, a rich suite of complementary FIWARE components facilitate (among other things):



The FIWARE Context Broker technology can easily be integrated with blockchain technologies to provide a trustworthy and immutable tracing of certain updates on context.



### FIWARE Context Broker technology: a building block for connecting Europe

The European Commission (EC) has formally adopted FIWARE Context Broker technology as CEF Building Block within their Digital CEF (Connecting Europe Facility) Building Blocks program, part of the CEF Telecom program. This means that the EC officially recommends public administrations as well as industrial players within the European Union (EU) member states to adopt this technology in order to foster the development of digital services, which can be replicated (ported) across the EU.

### FIWARE Marketplace

The *FIWARE marketplace* is a global one-stop shop that gives access to a wide range of “Powered by FIWARE” solutions and platforms, FIWARE-ready technologies and solutions, as well as related training, coaching, consultancy, integration and support services. The “Powered by FIWARE” and “FIWARE-ready” labels help entrepreneurs to gain visibility and credibility, essential to building partnerships and gaining market traction. Check out which solutions are in our Marketplace:

<https://marketplace.fiware.org>.

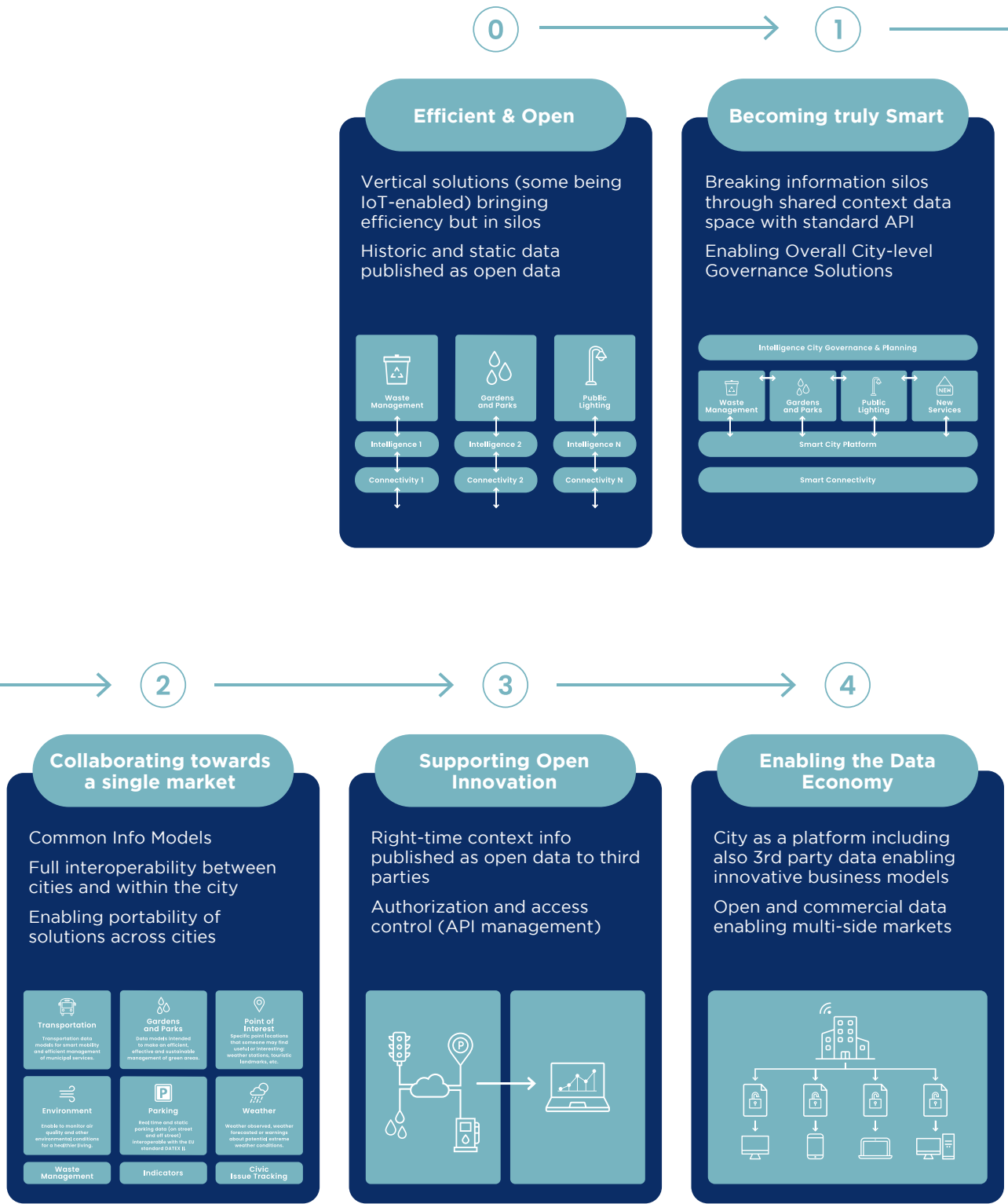
### FIWARE - Paving the way

In the future digital sphere, context data must be pervasive and accessible in right-time. It creates a digital continuum, blurring the frontiers between application domains. FIWARE is bringing the standards of reference at every step to be taken by organizations in their transformation journey towards:

- Becoming truly smart, breaking the silos;
- Collaborating with other organizations towards a sustainable market;
- Fostering open innovation;
- Enabling the Data Economy.



A TRANSFORMATION JOURNEY



HOT THEMES - AUTUMN 2019  
TESTBED



In collaboration with the **International Data Spaces Association (IDSA)**, **PROSTEP AG**, **prostep IVIP**, **Innovalia**, and several other **key Industrial partners**, FIWARE Foundation has contributed to the creation of the testbed **“Trusted digital twins data connection across the product life cycle”** which has been selected as one of the 10 testbeds to be presented at the **IoT Solutions World Congress 2019** (in Barcelona) that demonstrates how data sovereignty, blockchain, and open source technologies can be jointly used to break information silos,

whilst also providing a seamless and controlled exchange of data across digital twins.

The testbed shows and allows access to the benefits of digital twin adoption. Moreover, the feasibility of the cost effective implementation of digital threads based on open international standards, data sovereignty, and digital platform interoperability could be demonstrated on a meaningful complex product, involving comprehensive (big) data-driven advanced engineering /production IoT processes.



# HOT THEMES - AUTUMN 2019

## FIWARE WOLD LEGO CITY 2.0

With more than **20 billion connected devices all around the world**, sensor networks being deployed in growing numbers in cities worldwide, the main concern is: how to provide the community with safe and efficient tools to store and rearrange data collected by these sensors and how to combine them with data from other sources. **Open source technology** is one efficient way to do so.

**The FIWARE World Lego City 2.0** (in partnership with the **Smart MaaS project, StoneOne AG** and **LuxActive KG**) shows, on a practical level, the potential of open source technology in **Smart City, Smart Industry, Smart AgriFood** and **Smart Energy**. **The city was initially divided into 6 sectors**, showcasing how **FIWARE is powering up Smart Cities with connected mobility**, highlighting various domains and their interactions. The project is growing and 6 more modules are currently being created to better highlight how FIWARE is making a difference in such fields. With the new modules in, the **FIWARE World Lego City 2.0 is the biggest ever smart Lego installation** being showcased at the FIWARE Global Summit, the IoT Solutions World Congress and the Smart City Expo World Congress in late 2019.

### City Hall

The sector represents the city hall of Aarhus. Aarhus today is among the smartest and most innovative cities in Europe. It has been awarded the accolade of the city of culture and innovation on several occasions.



### Urban Mediaspace

The building is part of an effort to reshape former industrial areas of the Port of Aarhus into residential and commercial areas. It includes future-ready public housing, a library, culture center with an underground parking facility and a station and light rail system with trains running through and under the building.



### Smart House

The Smart House is supported by the IoT sensor hub, which combines and evaluates various data sources and environmental sensors. This model shows that air pollution measured on the ground changes road usage in urban areas.



### Tourist City – Mountain Area

The sector illustrates Werfenweng, a small community in Upper Austria, as a part of the “Samo” initiative – Soft Mobility. This is an example of fully integrated green and sustainable mobility – a role model for smart mobility of the future.



### Mobility Hub

The sector demonstrates how various intelligent transport concepts are interlinked. FIWARE members across the world provide feasible and smart solutions for these types of implementation.



### Energy

The sector represents the concept of a funded project in North Germany, showing how the energy sector can support future green mobility. The gas is produced from the sun and wind, then stored and provided to the gas fuel station to support a local bus, running between the cities of Niebüll and Husum in Northern Germany.





# HOT THEMES - AUTUMN 2019

## FIWARE is committed to Sustainable Development Goals (SDGs)

As more and more people are moving into urban areas, a thoroughly management of urban growth needs to be in place in order for global issues to be tackled and sustainable development fully achieved. To this end, **B20**, the private sector's voice of the G20 community, **addresses the global challenges and priorities** defined by the G20 countries, by building solid consensus amongst business leaders, international organizations and civil society regarding how they should be approached.

A recent recommendation from the B20 has been towards **smart cities** being the main focus of the G20's efforts to implement **Society 5.0** (Japan's smart vision of the future) for SDGs, as time has come for city leaders to better understand (and fully embrace) the new type of infrastructure required to accomplish such a vision. In line with this commitment by public administrations and private business towards the SDGs, **FIWARE has been guiding cities and industries** to deliver their digital vision, with the active involvement of all the actors involved.

With initiatives such as the **Front-runner Smart Cities Program** - jointly launched with **TM Forum** with the aim of defining a **Common Reference Architecture and Data Models for Smart Cities** - FIWARE Foundation is part of a global smart city coalition that promotes transparency, openness and interoperability and encourage cities to share experiences and best practices as they go about upgrading their infrastructure, with the adoption of common guiding principles that include respect for privacy and security, for instance.

The need for **appropriate regulatory frameworks** in data sharing lies at the heart of FIWARE's mission. This way, cities can move away from inward, fragmentary-oriented organizational structures to highly collaborative frameworks (that include private businesses, not-for-profit organizations, social enterprises and citizens) in order to deliver seamless public services and, thus, **drive the advancement of an information society**.

The outcome can only be a win-win scenario. The cornerstone of **sustainable and inclusive cities, digital technologies** can foster high quality, **user-centric digital public services** for citizens and continuous cross-border public services for entrepreneurs. In turn, the management of public services can be better handled, boosting accountability, trust and economic development.

## City CIOs/CDOs and representatives at the 7th FIWARE Global Summit



When inefficient government departments or agencies deliver poor value for taxpayers' money, citizens and watchdog entities tend to not look the other way. Hence, improving efficiency and responsiveness is of utmost importance. On that front, workflow automation is just one of the ways currently available for public administrations to fundamentally transform the way they deliver services.

Aiming to address how public administrations can deliver such vision with a helping hand from the private sector, the **7th FIWARE Global Summit** (October 23 and 24), will gather city CIOs and representatives from across Europe on October 24 for the **Smart City Track**. Under the umbrella of riveting keynotes, engaging round-tables and unparalleled networking, the participants will address the challenges, opportunities and strategies overcome in their digital transformation journey.

As the world gets increasingly further populated by the minute and citizens have higher expectations than ever, city Mayors and CIOs are faced with a wider-ranging challenges: from predicting what is going to happen next in terms of technology advancements (and how to use them) to create competitive marketplace conditions, they must manage scenarios not only for the present, but for years into the future. The track will demonstrate how city CIOs and representatives can deliver their vision of strengthened competition and citizen welfare, by learning from best practices in the private sector and smart cities worldwide.

Confirmed city representatives:

- **Kenji Hiramoto** (Chief Strategist (IT), Cabinet Secretariat, Government of Japan)
- **Dr. Sascha Hemmen** (Head of Digital and Business Division, City of Wolfsburg, Germany)
- **David Bueno** (CTO, City of Malaga, Spain)
- **Pierre Golz** (CD0, City of Herne, Germany)



# HOT THEMES - AUTUMN 2019

**FIWARE connects Startups with Universities, the European Commission, Business Leaders**



Another novelty at the 7th **FIWARE Global Summit in Berlin** is the Startup Day on October 24. The event will provide startups with the opportunity to learn the “ins and outs” of accessing funding opportunities, hear tips and tricks from renowned venture capitalists as well as meeting and networking with international top speakers who are experts in smart solutions investment. Participants will also learn how to build up a profitable business using FIWARE technologies.

As part of the **Startup day**, FIWARE has run a Hackathon in which the participants were able to show off their innovative ideas in developing new services/applications in the sector of Smart Cities, Smart Manufacturing, Open Data, and Smart Agrifood. The winners will take home prizes worth up to 10K euros, fully paid attendance at the Smart City Expo World Congress (Barcelona) and present their solution exclusively during the Grand Closing of the 7th FIWARE Global Summit in Berlin.

For further information on how FIWARE is driving Startups into the smarter future, contact **Tonia Sapia** via [tonia.sapia@fiware.org](mailto:tonia.sapia@fiware.org).





# IT'S A SUCCESS

**Our members are leading players in connecting the world to the future.** A future in which people can meet, work, and live in a more enjoyable, resilient and efficient way. An exciting digital future where new business opportunities can flourish. **The use of FIWARE open source technology and its focus on standards** have been bringing forward multiple **awesome solutions and appealing success stories worldwide.**



Xapix is an API and data orchestration platform built for the specifics of the automotive sector. As Xapix is focused on the greater connected car and smart city sphere, there is a clear use case given for Xapix to embrace FIWARE technology: Xapix was built to unlock the full value of the enterprise data and help businesses take advantage of aligned standards through NGSI adapters. Xapix users can easily publish and consume contextual data in the NGSI API standard.

Wisetown is a whole ecosystem that offers analytics and management functionalities that can support future urban planning and the ease of handling real-time events and contingencies. Thanks to FIWARE, WiseTown was able to adapt this model to acquire different data sources and to collect them in one single data model. WiseTown orchestrator can connect the platform with the CKAN-based open data by using FIWARE Orion Context Broker, connect IoT sensors feeds with NGSI and feed the APIs exposed for the integration with other software using Orion notifications.



Bettair® is a powerful, innovative and unique urban air monitoring system that is truly able to map air pollution in cities on a scale previously unimaginable. With the addition of FIWARE, Bettair® designed the new platform using a micro-service architecture. In this architecture, some components are out-of-the-box FIWARE Generic Enablers and, crucially, because each service is absolutely independent of the others, they can be deployed independently.

For more success stories, visit: [https://www.fiware.org/success\\_stories](https://www.fiware.org/success_stories)



# FIWARE PRESENCE AT 20+ GLOBAL EVENTS

As part of our global growth strategy, twice a year, we host the FIWARE Global Summit, a first-class event gathering founders and CEOs of technology companies, developers, inspiring startups, policymakers and heads of state under the same roof to discuss the latest challenges and opportunities within smart innovative technologies.

We also provide our members with the opportunity to join FIWARE (both as partners at FIWARE's booth or as keynote speakers) at some of the world's leading events (**20+ events in 2019 alone**) such as the Smart City Expo World Congress and IoT Solutions World Congress (Spain); the Smart, and Secure Cities and Communities Challenge Expo (USA); the Smart City Expo (Japan), to name but a few, as well as our very own **FIWARE Day**.

A full-day gathering in which FIWARE users can exchange experiences and ideas, gain joint expertise around FIWARE technologies and promote project cooperation in the areas of Smart Cities, Smart Agri-food, Smart Energy and Smart Industry, the FIWARE Day will soon be happening from South America to Asia.





# FIWARE IN THE SPOTLIGHT

**NIKKEI**

“Open source FIWARE technology is used in over 110 cities, mainly in Europe. It is highly versatile, not only for ensuring safety but also for adding administrative services, in areas such as traffic and disaster prevention.”

**Nikkei (Japan)**

“NEC Corporation and NEC Technologies India (NECTI) have introduced a FIWARE Lab Node in India with the aim of encouraging application developers, solution providers, government bodies and academia to develop solutions for smart cities... The NEC Group aims to achieve revenues of more than \$150m from India and other parts of SouthEast Asia by 2020, through FIWARE-based solutions aided by the new Node.”

**Smart Cities World Net (UK)**

**SmartCitiesWorld**  
Infrastructure intelligence in one place

**EL PAIS**

“In the wake of challenges in the digital economy, Antel (Uruguay's telecommunications company) has certified its IoT platform, which is based on FIWARE technologies. The certification will allow Antel - supported by its partner Arnaldo C. Castro S.A. - to boost the digital interconnection of IoT and deliver added value to its customers. It will also allow other Latin American companies to develop digital solutions, through an open and sustainable ecosystem.”

**El País (Uruguay)**

“With “open source”, one involuntarily thinks of Linux. But, when we talk about the development of IoT applications, there is also an open source solution available, FIWARE. Ulrich Ahle, the CEO of FIWARE Foundation will introduce the benefits and opportunities of FIWARE Generic Enablers and software building blocks for commercial smart solutions, in a conversation with Industry of Things.”

**Industry of Things (Germany)**

**INDUSTRY  
of THINGS**

# WHAT A YEAR!

**Oct 2018**

The first FIWARE's IoT workshop in Latin America takes place in Argentina and Uruguay to enlarge the global FIWARE ecosystem and is attended by hundreds of participants

**Nov 2018**

Launch of the Front-runner Smart Cities program during the Smart City Expo World Congress

**Nov 2018**

Official launch of the Context Broker as a CEF Digital Building Block, recommended by the European Union to be reused across domains

**May 2019**

FIWARE gives a warm welcome to 10 new members at the FIWARE Foundation headquarters in Berlin

**Jun 2019**

The first showcase of the FIWARE World Lego City 2.0 at IoT Week in Aarhus

**July 2019**

The testbed “Trusted Digital Twins Data Connection Across the Product Life Cycle” is selected for the IoT Solutions World Congress 2019

**Sep 2019**

FIWARE joins the Digitale Woche Kiel, presenting CEF Digital Building Blocks, FIWARE technology and the Lego World City 2.0, including Kiel's harbour management.

**Aug 2019**

FIWARE Foundation signs membership exchange and strategic cooperation with the World Smart Sustainable Cities Organization (WeGO)

**Oct 2019**

FIWARE Foundation signs a collaboration agreement (MoU) with IOTA Foundation, aiming to build the technology foundation for the smart solutions of the future

**Oct 2019**

FIWARE members' Engineering, Zabala and Funding Box announce 16 open calls during the Startup day - FIWARE Global Summit in Berlin



# MEET OUR BOARD OF OFFICERS

## ULRICH AHLE - CEO



Following his extensive experience in the industrial sector (including Vice President and leader of Manufacturing, Retail & Transportation Consulting & Systems Integration at Atos Germany), helping clients to digitize their business, Ulrich joined the Foundation in September 2016. He is on the Board of the International Data Spaces Association and was also on the Board of prostep ivip Association for 16 years, before becoming an Honorary Member in 2019.

## STEFANO DE PANFILIS - COO

Stefano joined Engineering Ingegneria Informatica S.p.A in 1984 and went from Director of R&D Laboratories Department (overseeing 100+ researchers in Europe and beyond) to Chief Innovation Officer of the Engineering Group in 2011. He joined FIWARE Foundation in 2017. Besides his role as COO, he is responsible for FIWARE Lab Nodes and is a member of the FIWARE Technical Steering Committee.



## JUANJO HIERRO - CTO

After a thriving trajectory at Telefónica Spain's R&D Labs (including Industrial IoT Unit's CTO), Juanjo joined the Foundation in 2017. His involvement with FIWARE dates back to 2011, when he was already coordinating activities related to the FIWARE platform. He has been heavily involved in the launch of the OASC initiative, contributing to the definition of technical mechanisms adopted by cities joining the initiative.



## CRISTINA BRANDSTETTER - CMO

With a strong track record of success over her 20+ years international career in Operations, Change Management, Strategy, M&A, Marketing & PR, Product Management, Consulting, build-up organisations of industry/vertical teams and diversified go-to-market channels (among many other areas), Cristina joined the Foundation in June 2019 to lead the organization's Marketing and PR activities, with a strong focus on the portfolio and partner activities.



# PRESS CONTACT

For further information about us or for interview requests, please contact:

**Val De Oliveira**

press.office@fiware.org.

Need further media resources? Please access our Press releases, branding guidelines, download our Press kit, high resolution pictures of our Board of Officers in our Press Area:

<https://www.fiware.org/press-area>

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MINDSPACE

## Media Partners





