OASC – Cities of the Future
FIWARE enabling the City Mobility

Brussels, 11th January 2018 Olaf-Gerd Gemein
We need to be smarter, soon, right?
“To build an open sustainable ecosystem around public, royalty-free and implementation-driven software platform standards that will ease the development of Smart Applications in multiple sectors.”

FIWARE Mission
Moving people, not cars

The future of mobility is not about cars with electronics, it is about mobile devices managing mobility, the car will be much less important.
FIWARE today is an evolving eco-system around the globe, based on open standards and bottom-up innovation.
For-purpose-organization

FIWARE:
Engine designed for interoperability, scalability and portability
FIWARE is a „for-purpose-organization“

FIWARE:

... is Team Sport

The value derives from collaboration, cooperation and co-creation
FIWARE is dedicated to Mobility

- Building the technical backbone for Smart Mobility as a service 2018ff.
- Co-create and collaborate to build the eco-system for Future Mobility
- Starting with some funded projects, aiming for 100+ Million in the next 3 years
- Co-Facilitator of a global Mobility Living Lab initiative and conferences
- Multimodal Platform for Integrated Mobility (INTEREG NWE Call), ...

Join, don’t re-invent the wheel, contribute and collaborate on the next steps
Description

4th generation bike sharing system.
A disruptive and innovative project, different from the systems currently commercialized.
Learn more on the [bikeemotion website](#).
MVMANT Smart Mobility on-demand solution

MVMANT Nachhaltige Mobilitätsplattform

Stellen Sie sich und Ihr Startup Unternehmen MVMANT doch kurz vor!
Mein Name ist Blochin Cuius, COO und Co-Founder von MVMANT. Zusammen mit Riccardo D’Angelo, haben wir MVMANT 2014 in Dubai, United Arab Emirates, gegründet. MVMANT ist eine nachhaltige Mobilitätsplattform, die mit geringem Pannen- und Fahrzeitverlust eine nachhaltige Mobilität in der Region bietet.

MVMANT ist eine der führenden nachhaltigen Mobilitätsplattformen in den Vereinigten Arabischen Emiraten (UAE) und bietet nachhaltige Lösungen für die Mobilität der Zukunft. MVMANT bietet eine breite Palette von Mobilitätslösungen und -dienstleistungen für die alltägliche Nutzung.

Die Plattform arbeitet eng mit der Regierung und anderen Partnern zusammen, um die Mobilitätswende in den UAE zu unterstützen. Erweiterte Technologien, wie künstliche Intelligenz und Big Data, werden in die Plattform integriert, um eine effiziente und nachhaltige Mobilität zu ermöglichen.

MVMANT möchte auch auf die Dienste und Produkte im Umfeld der Mobilitätsgesellschaften (mobility hubs) in den UAE hinweisen. MVMANT bietet eine breite Palette von Mobilitätslösungen und -dienstleistungen für die alltägliche Nutzung.

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Future Mobility: With or Without Cars?

25/07/2017 - 09:00  car, mobility

More than a need, car-based mobility is almost an independence statement, an achievement of modernity, as well as the driving force behind the development of local structures. However, that statement has seriously damaged cities workflow and environment across time. According to an MIT research, transportation accounts for 28% of US energy and 34% of US greenhouse gas emissions, the majority coming from light-duty vehicles making personal trips — people commuting to work, driving to social events, and performing errands in cars and light trucks. [1] Continue reading ➔
AN ACTIVE Open Source Community

A key goal of the FIWARE Open Source Community is to maintain and further develop FIWARE technologies. There is a vibrant community rapidly growing around FIWARE where hundreds of developers contribute to the releases of FIWARE components.

One of the aims of the FIWARE Open Source Community is to organise such a community of developers in a way to make it open and efficient and recognised worldwide due to the adoption of best practices. Come and join us on this great journey into the future!
BUILDING
a Digital Single Market for Smart Applications

FIWARE is a key element in making a Digital Single Market for Smart Applications real. FIWARE helps startups and vertical industry to come into market with new services at a faster and cheaper rate, creating new jobs and growth, boosting creativity and innovation.

The internet and digital technologies are transforming our world. However, existing barriers online mean that citizens miss out on goods and services, internet companies and startups have their horizons limited and businesses and governments cannot fully benefit from digital tools.

FIWARE is the way to develop the open smart IT solutions you will love!

FIWARE Foundation will guarantee the trademark “Open APIs for Open Minds”.

Open APIs for Open Minds
Envisioned Smart City Architecture

New applications derived from local development
- Public Transport
- Smart Parking
- Citizen engagement

Smart City Lab Dashboard (PoC Goa / Panaji, Hubali)
- Advanced Data Maps
- Operation Dashboards
- Multimodal services marketplace

Proton CEP
- Cosmos BigData
- Knowledge BI
- Advanced Web UI
- City GIS
- Wirecloud Mashup
- Extended CKAN
- Biz API framework

City Context Information Management layer (Orion Context Broker)
- eGovernment
  - licence
  - Ownership
  - public services
- Open Data
  - Geospatial info
  - statistics
  - Points of interest
- Infrastructure
  - Buildings
  - water grid
  - energy grid
- Sharing economy
  - vehicles
  - ownership
- Street/Park
  - location
  - traffic
  - pollution

BHUVAN Agent
- MQTT Agent
- Sigfox Agent
- OpenMTC Agent
- LoRaWan Agent

... IDAS Agent Framework

Existing vertical solutions
- Public Administration
- Infrastructure
- Security
- Security Monitoring
- Smart Mobility
- Air Quality

Deployed IoT networks

PoC Goa component platform

FIWARE Open Source Component platform

Keyrock/Wilma IdM & Access

Linked-Data w/ Security - Policy

FIWARE
Open Source
Component platform
New applications derived from local development

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- Smart Parking
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Frontend / Backend

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FIWARE
Open Source Component platform

PoC Goa component platform

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Debundling city/ region / state / country

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MQTT Agent
Sigfox Agent
OpenMTC Agent
LoRaWan Agent
IDAS Agent Framework
NGSI IoT Agent
OneM2M IoT Agent

Keyrock/Wilma
IdM & Access
Not reinvent the wheel – learn from best practices globally
Envisioned Smart MaaS Architecture

Flexible realtime pricing and incentive management service

Multimodal and intermodal mobility management service

- CEP rules & actions
- Big Data Algorithms
- KPIs monitoring
- Advanced Data Maps
- Operation Dashboards
- Multimodal and intermodal services marketplace

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- Bus
  - location
  - route
  - time next stop
- Bicycle park
  - location
  - no. bicycles
  - available slots
- Parking space
  - location
  - no. slots
- Shared car
  - location
  - status
- Street
  - location
  - traffic
  - pollution

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... IDAS Agent Framework

NGSI IoT Agent
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Public Transport
Car sharing
Bicycle sharing
Traffic Control
Smart Parking
Air Quality

Existing vertical solutions

Deployed IoT networks

Keyrock/Wilma
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IdM & Access

Linked-Data
Security-Policy
Smart collaboration for Cities new mobility ICT infrastructure

Open Source cloud infrastructure

Open Source components, testbed, charitable foundation (NGO)

Implementation, innovation, customization
Thank you!

http://fiware.org
Follow @FIWARE on Twitter

Olaf-Gerd Gemein
M.Sc. in Business Administration
Business Architect
Chair of the FIWARE Smart Cities Commission
Member the Board of Directors FIWARE Foundation / Berlin
CEO Smart Cities Lab / Mumbai, London, Berlin, Montreal
www.fiware.in

olaf-gerd.gemein@fiware.in
Annex
Technical Architecture / Topologie / Use Cases
This document presents how the FIWARE technology is used in the VM9 SmarTech Platform. The solution was designed and realized with a FIWARE based reasoning, based in the award-winning FI-GUARDIAN1 and is being evolved since 2014.