

CROSS FERTILISATION THROUGH ALIGNMENT, SYNCHRONISATION AND EXCHANGES FOR IoT

H2020 – CREATE-IoT Project

Deliverable 02.07

Workshop on exploitation strategy

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Dissemination level		
PU	Public	X
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

Summary					
No and name	D02.07 Workshop on exploitation strategy				
Status	Released	Due	m30	Date	30-06-2019
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Editor	T. Ramahandry (IDATE)				
DoW	The objective is to identify the commonalities of LSPs' approach in the exploitation of their pilots and to create exchanges between the LSPs on common issues. The work is part of task T02.02 (Validation methodologies, best practices and business models). This document is a summary of the workshop on exploitation. The actual deliverable is the workshop realisation.				
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1. INTRODUCTION

1.1 Purpose and target group

The IoT European Large-Scale Pilots (LSP) Programme Workshops Series provide a Pan European platform to exchange information among projects addressing the fast-growing IoT European ecosystem. The workshops give the opportunity for IoT projects to present their recent work in the field of IoT developments and deployments in the context of LSPs.



Figure 1: Illustrations representing the five LSPs, (ACTIVAGE, AUTOPILOT, IoF2020, MONICA, SYNCHRONICITY)

This workshop is the second activity of CREATE-IoT around IoT LSP sustainability and exploitation. In the continuous process of exchanges with the LSPs, this activity follows a first workshop on sustainability and aims to support the LSPs in their approach of exploitation from pilots' results.

The main target group of the workshop was restricted to the LSPs themselves, especially those responsible of exploitation strategy. Results of the workshop will be shared with the LSPs through AG01 (Activity Group on "IoT focus area sustainability") and will help generate progress in the remaining lifetime of AG01 and the LSPs along the sustainability and exploitation dimensions.

1.2 Contributions of partners

IDATE: Workshop organization, agenda preparation, conceptual design, content design, coordination with U4IoT, speakers' selection, interviews and invitation, coordination with IoT week program, session moderation, reporting.

GRAD: Workshop co-organizer, speakers' interviews, session moderation, reporting.

ATOS: Workshop co-organizer, speakers' interviews, wrap-up, reporting.

ANYSOL: Dissemination, reporting.

SINTEF: Report processing.

1.3 Relations to other activities in the project

This workshop is the second activity of CREATE-IoT around IoT LSP sustainability and exploitation. In the continuous process of exchanges with the LSPs, this activity aims to support the LSPs in their approach of exploitation from pilots' results. This deliverable echoes a first workshop on sustainability (deliverable D02.06) submitted on the 06-03-2019.

The two workshops will be concluded by the next deliverable from CREATE-IoT that will be fed by the outcomes from D02.06 and the present deliverable that will take the form of a report : Business and sustainability models for large scale IoT scenarios (D02.05 due on m36).

Cooperation with U4IoT and relation to AG01:

Although the organization of this workshop is an activity belonging to CREATE-IoT, our project has established a fruitful cooperation and coordination with the sister CSA project U4IoT, which also deals with IoT LSP sustainability. This cooperation with U4IoT stems from the joint work on sustainability being performed within AG01 of the IoT LSP Programme and is expected to continue throughout the remaining lifetime of both projects CREATE-IoT and U4IoT.

Indeed, especially on exploitation activity, U4IoT and CREATE-IoT coordinate altogether their coverage in order to support LSPs in a different way:

- U4IoT will focus on exploitation approach of each LSP individually;
- CREATE-IoT will focus on commonalities between the LSP exploitation approaches.

2. WORKSHOP SUMMARY

2.1 Objectives and format

As mentioned above, this workshop is the second activity of CREATE-IoT around IoT LSP sustainability and exploitation. In the continuous process of exchanges with the LSPs, this activity aims to support the LSPs in their approach of exploitation from pilots' results.

Aiming to be a work meeting to encourage the exchanges between the LSPs, this workshop was implemented in a 2-hour session with invited speakers. It notably targeted the participation of representatives from all the LSPs, especially those responsible of exploitation strategy and also a representative from U4IoT.

2.2 Workshop presentation and agenda

IoT Week is an annual event organized since 2011 with participation of IoT projects funded by EC. This year

The IoT Week was celebrated in Aarhus (Denmark), this conference gathered industry and academia representatives from many countries.

Hundreds of people from large industries, SMEs, developers, research centres, research projects, standards development organizations and policymakers, including the European Commission are participated in this conference.

Current event is a great opportunity to promote international dialogue and cooperation between different stakeholders from industry, research and public administrations.

The workshop schedule of IoT Week 2019 Aarhus website was included in the IoT Week program. See the IoT Week program for more information [1].

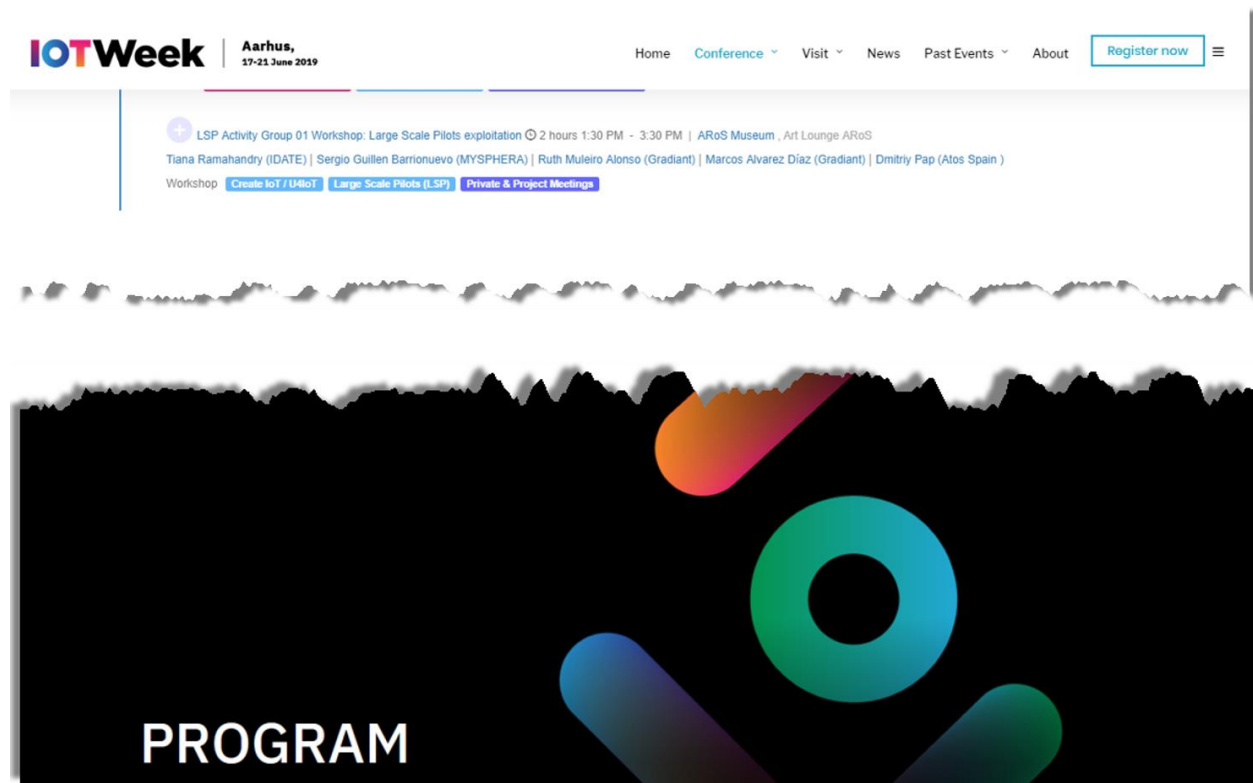


Figure 2: Extract from the IoT Week 2019 program in Aarhus [1]

IoT Week 2019 Aarhus

EVENT INFORMATION • **SCHEDULE** • SPEAKERS • ATTENDEES • PARTNERS • EXHIBITORS

LSP Activity Group 01 Workshop: Large Scale Pilots exploitation

Themes: [Create IoT \(IDATE\)](#) [Large Scale Pilots \(S-3\)](#) [Finance & Project Management](#)

What: Workshop

When: Thursday Jun 20 01:30 PM to 03:30 PM (2 hours)

Where: ARoS Museum - Art Lounge ARoS

Discussion: 9

Like 0 | Comment 0

- Identify LSP commonalities in their exploitation approaches and create exchanges between LSP on common issues.
- Identify commonalities in the exploitation of technological assets (IoT technologies, IoT platforms)
- Identify LSP interests and create exchanges on how to sustain the relationships between experimentation sites created during the project

Speakers:

- Tiana Ramahandry** (IDATE) Senior Consultant
- Sergio Guillén Barriosnuevo** (MYSFERA) Deputy Project Coordinator of ACTIVAGE and Chief Innovation Officer
- Ruth Muleiro Alonso** (GRADIANT) European Project Assistant
- Marcos Alvarez Diaz** (GRADIANT) Head of EU Programmes
- Dmitriy Pap** (ATOS Spain) Business and Marketing Consultant

Figure 3: Presentation of the workshop on the schedule of IoT Week 2019 Aarhus

The agenda of the workshop is given below.

Table 1: Workshop program 20 June 2019

13.30 – 13.35 : **introduction** – *Tiana Ramahandry (IDATE)*

Keynote sessions : LSPs approach to exploitation: identification of common issues – presented by each *LSP representative*

13.35 – 13.45 : **IoF2020** – *George Beers (Wageningen University)*

13.45 – 13.55 : **ACTIVAGE** – *Sergio Guillén (MySphera)*

13.55 – 14.05 : **MONICA** – *Louise Birch Riley (In-JET)*

14.05 – 14.15 : **SYNCHRONICITY** – *Nuria de Lama (ATOS)*

14.15 – 14.25 : **AUTOPILOT**

14.25 – 14.40: **Round table 1** : Discussion/reflexion about LSPs commonalities – *with LSPs representatives and moderated by Tiana Ramahandry (IDATE)*

- Exploitation approach
- Creation of economic value
- Sustainability of services

14.40 - 14.55 : **IoT Catalogue presentation** – *Bruno Almeida (Unparallel)*

14.55-15.10 : **Round table 2** : Sustainability of the LSP dynamics and relationships developed with pilot sites' partners – *with LSPs representatives and moderated by Marcos Álvarez (GRADIANT)*

- How to sustain the exchanges and relationships between pilots' sites created during the project beyond its completion?
- Future collaboration/projects
- Future business models
- Financing / role of public authority (local? EU level?)

15.10 – 15.20 : **U4IoT perspectives on commonalities** – *Jan Waebe (Smit Research)*

15.20 – 15.30 : **Wrap-up** – *Dmitriy Pap (ATOS)*

2.3 Outcomes of interactions

Welcome and quick round table of presentation of attendees

Table 2: List of attendees

Projects	Attendees
CREATE-IoT	<ul style="list-style-type: none"> Tiana Ramahandry (IDATE) Marcos Álvarez (GRADIANT) Ruth Muleiro (GRADIANT) Dmitriy Pap (ATOS) Pedro Maló (Unparallel) Bruno Almeida (Unparallel) Tiago Teixeira (Unparallel)
U4IoT	<ul style="list-style-type: none"> Jan Waaben (IMEC)
IoF2020	<ul style="list-style-type: none"> George Beers (Wageningen UR)
ACTIVAGE	<ul style="list-style-type: none"> Sergio Guillén (MYSPHERA) Achille Zappa (NUIG)
MONICA	<ul style="list-style-type: none"> Louise Birch-Riley (In-JET)
SYNCHRONICITY	<ul style="list-style-type: none"> Nuria de Lama (ATOS) Francisco Monsanto (Ubiwhere)
AUTOPILOT	<ul style="list-style-type: none"> Mahdi Ben Alaya (Sensinov) Bauer Martin (NEC Labs) Ghada Garbi (Sensinov) Rita Bhandari (ERTICO)

Introduction to the Exploitation Session:

Tiana Ramahandry (IDATE)

- Reminder of the objectives of the workshop:
 - Identification of LSP commonalities in their exploitation approaches.
 - Create exchanges between LSP on common issues.
- Reminder of the difference with U4IoT scope.
- Presentation of the roadmap including the focused interviews, the workshops in order to prepare the deliverable D02.05 by the end of 2019.

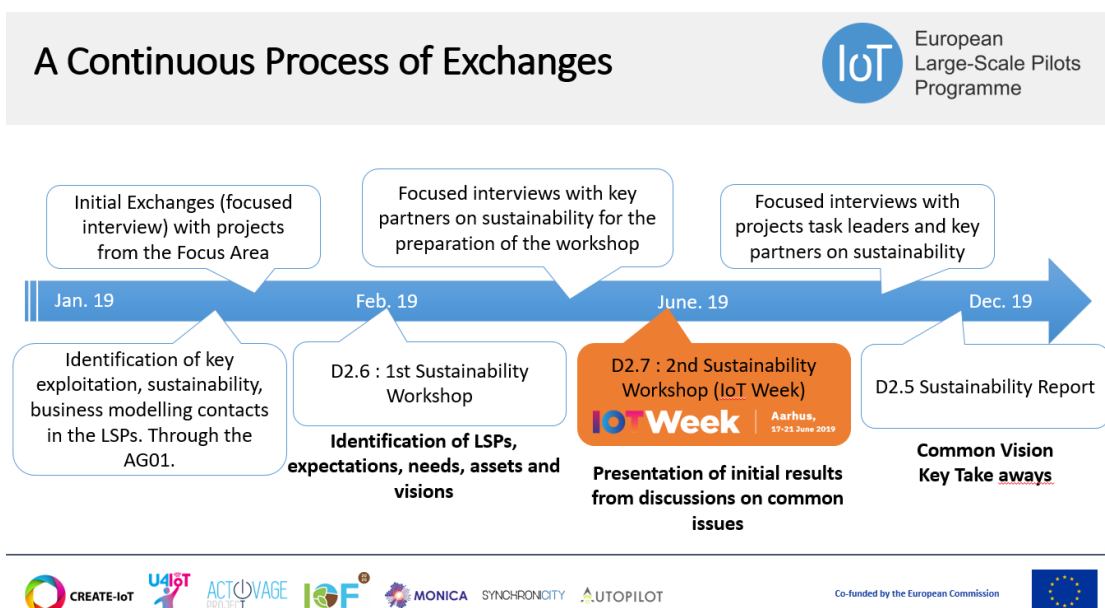


Figure 4: Presentation of the process of exchanges

Keynote session: LSPs approach to Exploitation: identification of common issues – presented by each LSP representative:

IoF2020 - George Beers (Wageningen UR)

- The project Internet of Food and Farm 2020 (IoF2020) explores the potential of IoT technologies for EU food and farming industry, (31 use cases).
- From the supply side, the project contributes to securing Europe's leading position in the global IoT industry by fostering a symbiotic ecosystem of technology providers and players from the agri-food sector, as well as promotes innovative/disruptive business models.
- From the demand side, the project helps accelerating the virtuous cycle of adoption and maturation of IoT technologies in the agri-food sector to guarantee safe and adequate food for upcoming generations of European citizens.
- Four years program ending December 2020.
- Sustainability not top of their heads. For sustainability, all use cases follow an MVP (Minimum Viable Product) program as each use case has its characteristics. Several iterative cycles during the project (refinement of the MVP after feedbacks, acceptability studies, etc.).
- Objective is to make all use cases sustainable by finding business models in order to be attractive for farmers.
- Pushing the value of data at the moment: current focus on technology and business through the necessity of demonstrating the results from prototypes.
- First actions on sustainability:
 - Creation of SmartAgriHubs with the aim of developing the digital innovation hubs to support farmers to develop new solutions. Also support the new cases at a very local level. Considering as the continuity of IoF2020.
 - IoT Catalogue to disseminate the results of the project.

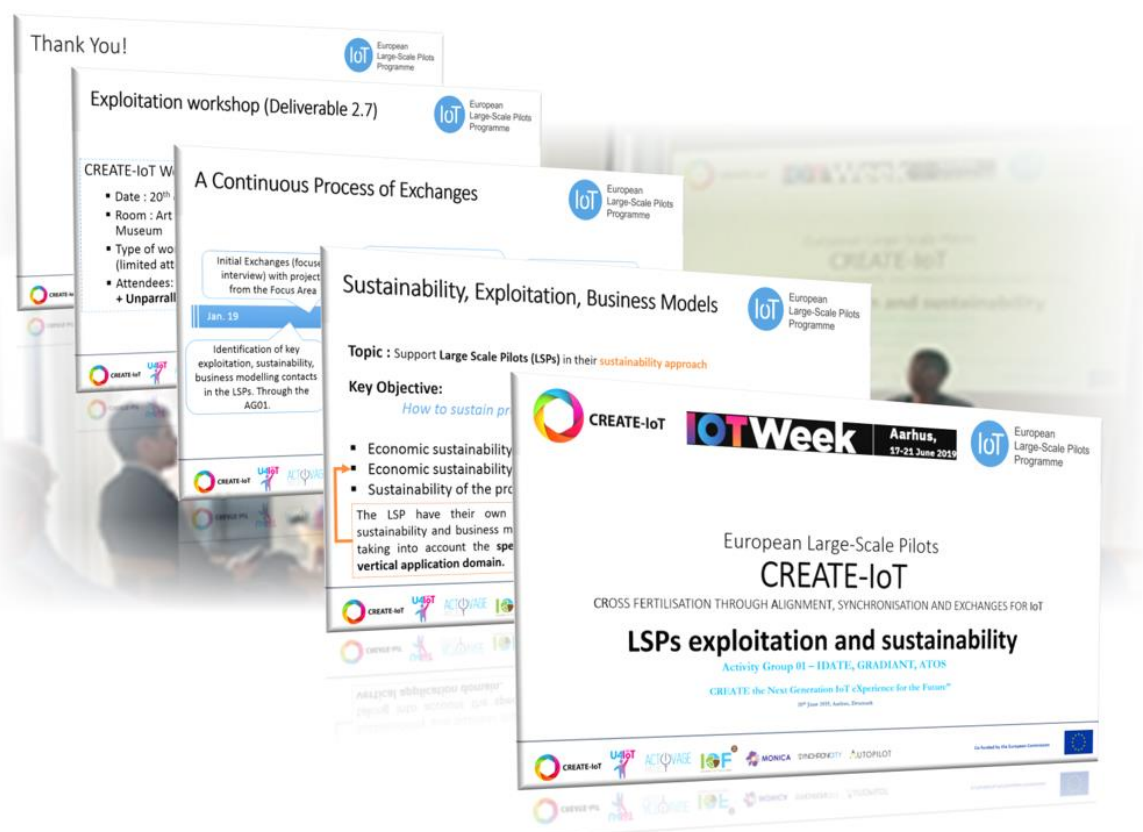


Figure 4: Presentation of CREATE-IoT LSP exploitation and sustainability, (limited excerpt)

ACTIVAGE - Sergio Guillen (MYSPHERA)

- EU multi centric LSP on Smart Living Environments with the main objective of building the first European IoT ecosystem across 9 cities in 7 EU countries.
- One year left to finalise the project.
- Exploitation is fundamental part in their contracts. Necessary to have a very concrete operational infrastructure for the development of the project.
- Remaining 1 year for the project (June 2020).
- Structure of the exploitation strategy.
 - ACTIVAGE ASSETS: Including technology assets (like AIOTES : ACTIVAGE IoT Ecosystem Suite), knowledge assets (know-how, experience, results being captured in reusable format as best practices and other formats) and applications (33 applications like daily monitoring activities, detection risk or social connection available in a catalogue transferable for the deployment of other use cases thanks to the support of infrastructure). Knowledge is relevant since technology is evolving fast, so packaging allows to distribute the work in a common transferable format by anyone to others. The best practice comes from the experience: setting technology, recruiting people, training people... all this information must be packaged.
 - BUSINESS MODEL: Including model of organization, members and roles. ACTIVAGE ASSETS is the basis of defining business models. They are starting to work on it. Need to identify who is going to exploit the assets.
 - ACTIVAGE.ORG: Possible entity like an exploitation hub (maybe a foundation) in which the members would be the participants in the deployment sites (research centres, SMEs, etc.). No details for the moment. Necessity to have this ready by the end of the project.
 - BUSINESS PLAN: Key for the go to market.
- Open Calls are part of the plan in the exploitation strategy and the global exploitation is mandatory.
- Allowing to deploy other sites.
- Allowing to test the replicability of the assets produced to other use cases, to test the model of implementations based on their needs.
- Question from SYNCHRONICITY: Methodology for the best practice.
 - No methodology. ACTIVAGE is working on transferring all this knowledge in documents and sharing the experience to keep learning.

MONICA – Louise Birch-Riley (In-Jet)

- Differentiation between sustainability and exploitation definitions:
 - Exploitation activity is to exploit the results and facilitate the replicability
 - Sustainability is more related to the cities.
- 6 pilot sites to demonstrate the technology solutions at concerts, festivals, sporting events and city happenings, which attract millions of people. The wristband is able to take measure from crowds, for security and safety purposes, that can attract events or festivals.
- Exploitation roadmap done mainly at individual level rather project level in 4 steps:
 - Step 1: Identification of the assets. 22 initial exploitable technical assets identified. Many technical partners are in charge of this. Replicability of the demonstrations is a focus. Frameworks to be provided by MONICA to facilitate individual exploitation using the results generated by the pilot sites. Replicability will be about trying the framework, deciding new use cases and developing what cities need. Asking for guidance on IPR resolution process.
 - Step 2: Market Analysis. Limited resources. Probable area where CREATE-IoT can provide support to MONICA.

- Step 3: Business Modelling. Currently at this stage moving from step 2 to step 3. Focus on the ability of partners to exploit the results. Also determining the technologies to keep. Cities need to do the sustainability plan. Aims to develop dynamic business models.
- Step 4: Strategy and individual business plans. SWOT analysis already done.
- End of the project: December 2019.

SYNCHRONICITY – Nuria de Lama (ATOS)

- SYNCHRONICITY is delivering a global market for Europe and beyond, where cities and businesses develop IoT- and AI-enabled urban services to improve the lives of citizens and to grow local economies.
- Exploitation already in mind at the beginning of the project. Another technical project is not the continuity expecting if a real value comes up.
- Objective: Deliver a market for IoT urban services for Europe and beyond. Need to convince the cities. Based on a model for standards-based innovation and procurement of IoT-enabled services across domains. A solution that can be transferable to other cities. Focus is on the market.
- Internal use cases: city agronomic, replicable, easy deployment, human centric traffic management, multimodal, community policy suite.
- Also have Open Calls to bring additional stakeholders and also was extended to other cities. One Open Call at the moment.
 - For other cities, important that an experimentation is interoperable not an experimentation only for the city. A group of mentors has been created to accompany the experimenters during the execution of the project.
- Also working on interoperability with the participation of the cities. The Context Management API is the most important part, followed by shared data models and ecosystem transaction management and security API.
- Also have legacy systems (like ACTIVAGE) in order to help the cities to understand all the levels of the project and the interoperability:
 - Implementing context management API.
 - Supporting SYNCHRONICITY Data Models.
 - Integrating with the marketplace.
 - Full market Integration.
- Investment in their own validators through the creation of ATOMIC SERVICES which is an opportunity to test the SYNCHRONICITY framework and OASC principles. Really easy for replication. One of the results of the project.
- Reflexion about 2 marketplaces comes from the importance for the public services and cities to share the data:
 - For data: IoT Data (IoT Data Market Place or Open data trading platform). IoT Data is a platform in UK to obtain information from different cities, it's a kind of federation:
 - Providing a natural incentive to share data through monetizing
 - Data management with common APIs
 - FIWARE and TM Forum Business APIs
 - For IoT products: IoT EDGE for IoT Devices and Solutions (IoT Product Market Place). IoT EDGE directly connected with smart city services. IoT Product Marketplace is quite similar to the IoT Catalogue.
 - Helping SMSs in IoT market.
 - Connecting stakeholders together.
 - User-created market ensuring sustainability.
 - E-commerce platform.

- Interest and ongoing work to adapt part of IoT Product Marketplace with IoT Catalogue.
 - Following a discussion as part of H2020, a Swiss partner works on the IoT Catalogue.
- Ecosystem expansion and sustainability in the 10-20-130 ambitions.
 - The idea is to expand the market from the very beginning. First cities: Porto, Milan, Leon, Portland, etc. Now 20 cities and communities involved in the project and finally 130 cities.
- Compliance with standards is key for interoperability. Involvement of standardization bodies too.
- Mission: to create a global smart city market based on the needs of cities and communities, passing from 10 cities to 20.
- Mission: to create a global network of national networks.
 - Demand-side: 129 cities and 26 countries (Europe, Asia, South America).
- OASC seen as key for continuity.
 - Taking over responsibility for part of the results of SYNCHRONICITY.
 - Generating a critical mass (compliance, minimum interoperability mechanisms in smart city solutions).
 - Currently OASC does not have the necessary resources yet to implement.
 - Discussion with companies in order to elaborate a portfolio that can provide the support needed by cities willing to comply with OASC interoperability. It's a legal entity to make possible their commercialization. At the end of the project, it's must be a clear result to convince the cities that the interoperability will be reality.



Figure 7: Presentation of SYNCHRONICITY by Nuria de Lama

AUTOPILOT – represented by Tiana Ramahandry (IDATE)

- Presentation by Tiana Ramahandry, Romina Quaranta in charge of exploitation not able to come to Aarhus
- Exploitation preliminary report delivered (with inputs from April 2019). End of project December 2019.
- The exploitation will follow a three-step methodology as follows:
- Three step methodology.
 - Evaluation per pilot site. Specificity of each site and pilot site analysed. Technical evaluation will be followed with interviews with pilot sites partners. Business impact assessment to be due on September 2019. Preliminary business impact (not covering all pilot sites yet).
 - Business exploitation.

- Exploitation plan and roadmap per scenario for a large-scale deployment, TTM, identification of new market and customers. Business exploitation of scenarios derived from use cases at the pilot sites.
- Develop and evaluate business cases (P&L and benefits).
- Exploitation of the direct benefits. Lessons learned to be done through a questionnaire with clusters of partners.
- Exploitation evaluated on 5 upscaled scenarios.

EXPLOITATION OVERVIEW

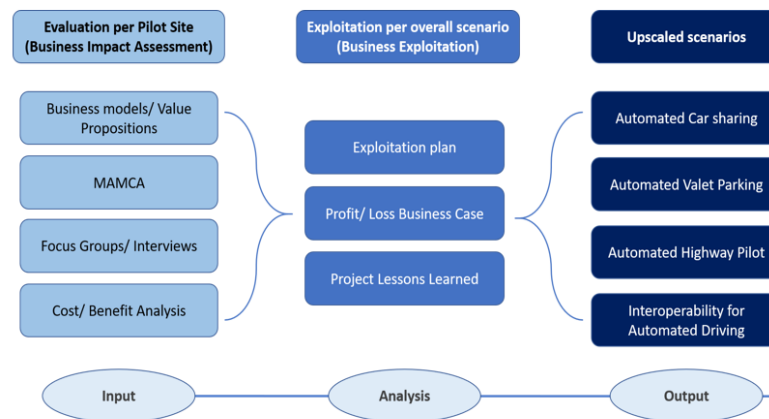


Figure 5: Presentation of the AUTOPILOT exploitation approach

- Replicability by design.
 - Same data models, same methodologies.
 - Same basic/reference architecture in all sites based on OneM2M and any platform (Huawei, FIWARE, ...) on the top.
 - The same application must run smoothly in all pilots.
- Potential of interoperability work between SYNCHRONICITY + AUTOPILOT (in Bordeaux).

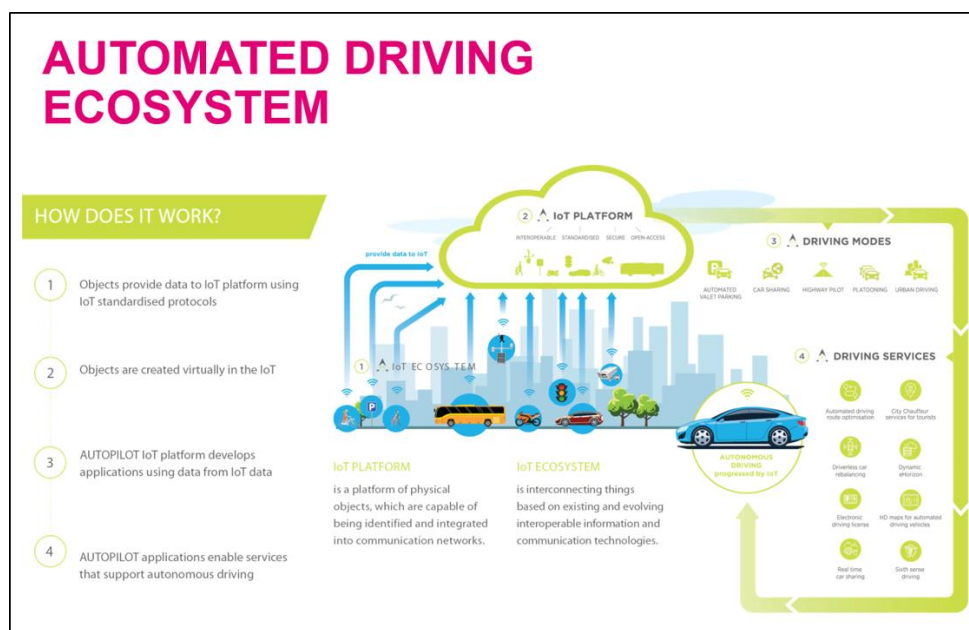


Figure 8: Automated Driving Ecosystem, (from the AUTOPILOT presentation by Tiana Ramahandry)

Round table 1: Discussion/reflexion about LSPs commonalities – with LSPs representatives and moderated by Tiana Ramahandry (IDATE)

- Preliminary results from interviews
 - A Two-way approach in exploitation
 - Per asset/result
 - Per use case/scenario
 - Commonly to all LSPs: Interest in share know-how/knowledge and best practices.
- IDATE: Economic sustainability for your project?
 - IoF2020:
 - From beginning of the project, use cases have been pushed to work for sustainability by following KPIs for multi objective issues including business and environment (reducing chemicals, water consumption, ...)
 - We have to provide high tech to farmers, so we have detected that they have to outsource some services.
 - Business model: cost-benefit analysis
 - All the use cases have to come up with benefits, not only for the solution itself. Concerns for some use cases with no clear profitability. Need to monetize data. Need for "data marketplaces" allowing additional returns.
 - Business-to-Business (B2B) in another issue
 - Other issue: small farmers cannot pay for large investments
 - Necessity to provide farmers high tech but also services. Providers need to move from selling devices to service provision (servicization)
 - SYNCHRONICITY
 - Strong geographical issue: "It's hard depending to the city"
 - Data could be provided by cities suppliers
 - Open data can be monetized via intermediators.
 - Role of SYNCHRONICITY: create an ecosystem and put people in contact.
 - ACTIVAGE:
 - If data is the common point, impossible for ACTIVAGE to create such an open data portal. Data monetization is not in general feasible for the project. Most data are personal data, so it is not easy to trade with it.
 - MONICA:
 - Data monetization has been discussed internally, but it does not seem an easy endeavour from the project's point of view. Need to see a model.
 - AUTOPILOT
 - Similarities with SYNCHRONICITY
- IDATE: IPR and replicability?
 - SYNCRHONICITY: The pilots keep the IPR
 - IoF2020: Replicability at component level, (in order to avoid thinking about each local case). Sought by the project: reusable components.

IoT Catalogue presentation

UNPARALLEL – Bruno Almeida

- The purpose of the tool is to represent the connections of all the components and all the products from the different use cases.
- Presentation of the use cases with many categories: by location, by place (relevant, by team (contact and entity, people look at the solution for the people who is behind it), by characterization (which is related with the domain), by solutions....

- Included is a gallery of photos and products (which are categorized).
- Another relevant point is that the aggregation of KPIs to show the success. They are also thinking about stars ranking.
- There is no plan yet to include APIs.
- The IoT Catalogue started for another Africa project, then IoF2020 was a challenge, it's a product of UNPARALLEL but the idea is to create a different brand. Need to work on business plan to make it more sustainable and monetize on it.



Figure 9: Presentation of the IoT Catalogue by Bruno Almeida

Round table 2: Sustainability of the LSP dynamics and relationships developed with pilot sites' partners – with LSPs representatives and moderated by Marcos Álvarez (GRADIANT)

- IoF2020: Sustainability of the ecosystem through SmartAgriHubs.
- SYNCHRONICITY: Sustainability under the umbrella of OASC because it is a legal company. Currently defining a plan where OASC can cover different areas. Also, sustainability of relations with cities (If a city wants to go ahead with this plan, like the IoT Catalogue they will work on it.).
- ACTIVAGE: Current discussion is to decide the option for the kind of foundation (ACTIVAGE.org) to maintain the partners, the knowhow, the assets etc...but also connecting the provider, the consultancy and the expertise. Also keeping providing the maintenance per pilot is key.
- MONICA: Mix of sustainability with suppliers, and the pilot cities (public authorities) in order to most know each other. Important to comply with the rules/noise level for public events. Universities want to follow up the project with new development.
- AUTOPILOT: Sustainability is complex due to the multitude of stakeholders. Need to go with the development of the network infrastructure 5G, the regulation and so on

U4IoT perspectives on commonalities

Jan Waebe (Smit Research)

- Summary of common activities planned with U4IoT.

Wrap-up

Dmitriy Pap (ATOS)

- Next steps: focused interviews.
- Deliverable D02.05 by December 2019.

2.4 Key takeaways

- The workshop has created many exchanges between the 5 LSPs on sustainability and exploitation for 2½ hours. The LSPs are looking for the next steps especially the insights that will be produced by CREATE-IoT on common topics.
- The LSPs recognized some differences in the road to sustainability.
 - Not the same level of priority/urgency depending on the remaining time for the project (end of December 2019 for some, end of December 2020 for others).
 - For some projects, sustainability already considered at the beginning.
- But also identified common issues during the workshop.
 - Current focus for most LSPs on the form that would take the continuity of the project.
 - Two approaches in the analysis of exploitation: per asset or per use case.
 - Globally all LSPs agreed on the need to share know-how/knowledge and best practices.
 - Strong interest on IoT Catalogue.
 - Open data and data monetization are key (except ACTIVAGE).
 - Defining business models is required.
- Common project between LSPs already occurs.
 - Collaboration between AUTOPILOT and SYNCHRONICITY on an experimentation highlighting cross domain information sharing. See also "AUTOPILOT at the IoT week - it has been a pleasure" [2].

AUTOPILOT participated to the LSP Activity Group 01 Workshop, sharing its exploitation plan with the other LSPs. Partners explored the possibility of a cross-sector exploitation, for instance developing a set of services in the Smart Cities context from mobility (in-vehicle) data, etc. In the context of testing and evaluating the AUTOPILOT results, an experiment together with the SynchroniCity LSP is planned to test how IoT enables cross-domain information sharing. This will highlight how additional relevant information from other domains can be made available, increasing the value and relevance of IoT.

The IoT catalogue raised great attention during the IoT week, also thanks to the presentation carried by Unparallel and Create-IoT team (two other LSPs) about the Internet of Food & Farm 2020. AUTOPILOT and Unparallel are already working on developing an AUTOPILOT use case catalogue.

Figure 10: Cross-domain exploitation (AUTOPILOT screen shot) [2]

3. CONCLUSIONS

The IoT European Large-Scale Pilots Programme Workshops Series provide a Pan European platform to exchange information among projects addressing the fast-growing IoT European ecosystem.

The workshops are providing the framework for support and coordination for the IoT FA in order to foster the take up of IoT in Europe and to enable the emergence of IoT ecosystems supported by open technologies and platforms and through the coordination of complementary activities structured around LSPs.

The workshop on exploitation strategy has identified the commonalities of LSPs' approach in the exploitation of their pilots and has created the open platform for exchanging the best practices between the LSPs representatives on common issues.

The presentations related to the deployments in different LSPs allowed for open discussions and for the transfer knowledge of business/sustainability models to additional domains in terms of IoT testbeds sustainability. This will further be supported to align on sustainability of the pilots and future economic development.

The workshop allowed the participants to debate about sustainability, exploitation and replicability of their pilots and the ecosystem they have created and discussed about the next steps in the development of their projects.

4. REFERENCES

- [1] IoT Week 2019 program. Online at: <https://iotweek.org/program-2019/>
- [2] AUTOPILOT at the IoT Week: it has been a pleasure. Online at: <https://autopilot-project.eu/autopilot-at-the-iot-week-it-has-been-a-pleasure/>