



IO.Energy

State of Play – Plenary Users' Group

06/06/2019

Objective and content of this presentation

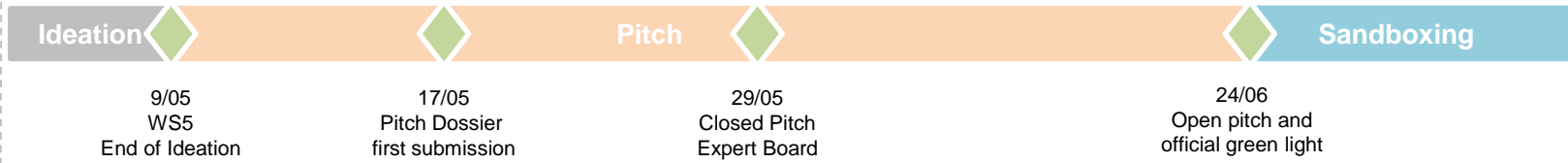


→ Overview of the use cases and their required criteria

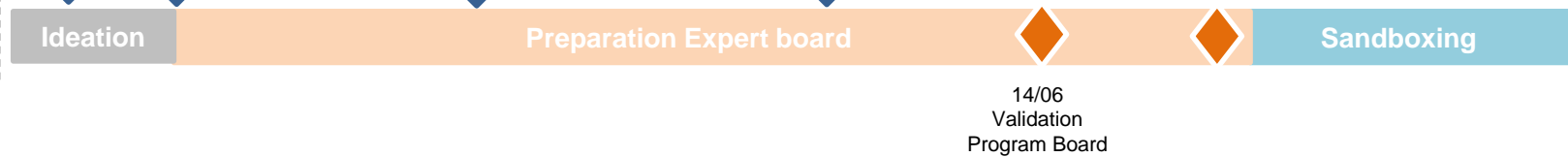
Generating knowledge from the use case



Timeline IO.Ecosystem



Expert & Program Board



A landscape of wind turbines at sunset or sunrise, with a white text box overlaid on the left side. The sky is a mix of deep blue and orange, with wispy clouds. The ground is a flat, orange-brown field. Several wind turbines are visible, with the largest one in the foreground on the right. A white text box is positioned on the left side of the image, containing the text "Overview of some use cases".

Overview of some use cases

The information provided by the group

For information



Business model summary

The form is titled 'io.E Project Summary'. It contains several sections: 'Use Case Name' with 'Unleash Building Impact', 'Who contributed to build this proposition' listing participants like BESIX, DyHublab, Emaze, Prosimus, and ELIA, 'Customer profile' identifying 'Business Owner/Facility Manager', 'Customer pains & journey' listing issues like 'Building user comfort complaints', and 'How might we...' with the goal to 'Help business owners and (facility) managers to increase value and reduce costs through io.E'. The form uses a dotted border to indicate it is a template.

First view of what is the business model they want to create for the consumer

Self Assessment

The form is titled 'io.E Assessment of Business Model'. It includes a preface about design guidelines, a 'General information' section for group and participants, and a 'Design principles' section with a table of questions. The table has columns for 'yes' and 'no' and contains 'x' marks in the 'no' column for several items, including 'Does it rely on the use of the communication platform?', 'IO.E platform plays a central role in exchanging data between the building and the grid/area, and the building and other related parties...', 'Is it diligent towards power systems operation?', and 'We activate the commercial building segment to participate in the energy market and power systems control...'. The form uses a dotted border to indicate it is a template.

Their opinion on why their business model makes sense against different criteria*

Use case Scope

The form is titled 'io.E Scoping of Use Case'. It includes a preface about design guidelines, a 'Use Case Name' section with 'Unleash Building Impact', a 'Partners' section listing BESIX, DyHublab, Emaze, ELIA, and Prosimus, and an 'Assumptions to be tested' section with three numbered assumptions. The form uses a dotted border to indicate it is a template.

The first step the will take to test and validate their business model

Reminder on the Design Principles

The IO.Energy is an initiative aiming at facilitating the co-creation, step by step of “Energy as a services” products and other consumer centric business models. Two key elements are provided to frontrunners to maximise the capability to achieve this objective:

- An ecosystem of partners and services providers with the adequate methodology to support the co-creation of these new business models
- A communication platform enabling the exchange in a secure way of energy data between authenticated parties including the consumer itself

To build upon these two key features and to fasten the co-development towards the objective of the project, any development Business model or related use cases* within this initiative should at minimum:

- **Utilise the communication platform** – Energy Data Exchange from and to the consumer using the communication platform should be a pillar of any use case, service or business model developed.
- **Be based on collaboration** – a use case or business model cannot be delivered by a single company. *A number of 3 minimum is required for each use case.*
- **Be diligent towards power systems operation** – the impact on the systems constraints & how this will be mitigated should be at minimum thought about and described. Business models seeking to contribute to both transport and distribution system operations will be preferred for their potential sustainability & scalability.

* A use case is an assumption or a set assumptions related to be tested in real life related to a specific business model developed in the frame of IO.E

Evaluation criteria and key questions for self assessment

- Building a business model within the IO.Energy initiative requires iterating towards a certain set of objectives or criteria by validating progressively specific assumptions.
- Assumptions are at the basis of use case
- This is also valid during the ideation phase.
- Different use cases could have, over their development within the ideation phase, different possible contribution or “value” regarding the objective of the initiative.

The key criteria that will be used to iterate, improve and assess business models:

Criteria	Why?	Questions for participants to answer
Customer benefit	It must provide a clear benefit to customers.	<ul style="list-style-type: none"> ➤ How compelling and empowering is the proposition for customers? ➤ What is the specific value to customer? Direct, and indirect benefits (societal benefits including RES integration, efficient system operation, etc.) ➤ How easy is it for consumers to participate? What level of engagement is required from customers – upfront and ongoing?
Genuine innovation	It should be something new, or significantly add to existing activities.	<ul style="list-style-type: none"> ➤ What are the innovative aspects of the proposed business model? ➤ How is this different to other solutions on the market? ➤ What is this most similar to?
Readiness for trial	We want to move quickly – so need ideas that can be tested soon.	<ul style="list-style-type: none"> ➤ Brief description of the idea. How well defined / thought out is the idea? ➤ What assumptions need to be tested / proved? ➤ Are the key learning objectives also properly defined? ➤ Is it feasible to test in a 3-6 month timeframe?
Barriers/treats	We can't address major barriers...	<ul style="list-style-type: none"> ➤ Are there any significant barriers to stop the idea? Yes/no ➤ Does it require a significant breakthrough or upgrade in terms of Technology / Regulation / Market infrastructure/grid infrastructure ? If any, which ones? ➤ Is it triggering locally, or could trigger at scale power system constraints ?
Scalability / sustainability of business model	It should be able to add value in the longer term to several stakeholders.	<ul style="list-style-type: none"> ➤ Can this use case be scaled easily? ➤ Has the technology already been used at scale? ➤ Is it a sustainable business model? Value to the business? ➤ Is it contributing to a more efficient system operation ? ➤ If yes, how ?

Overview of all use cases (1)

Update 27/05



#	Name	Scope
B1	Unleash Building Impact	Test the capabilities of a smart building to be operated by any market actors through a standardized and easy to use interface (API) within the comfort constraints of the user.
B2	Sustainable Building Value indicator	Show the value of energy data (and other) from buildings to create an “dynamic” sustainable building value indicator for the valorization of building (renting, insurance, leasing, ect...)
C1A	Co-sustain!	Demonstrate that end-consumers can be matched with specific communities (based on differentiation factor, specific needs) using historical consumer data and benchmarking capabilities
C1B	Community forecaster	Demonstrate that consumers are interested and willing to get awareness of what is produced locally in a specific region and react by adapting their consumption behavior (passive or steered action).
C2	Sunshare	Validate that a Renewable Energy Community (CEP) can be administrated through tools (ranging from settlement to billing) and solutions (cloud based) used by a community manager
F1A	Soteria	Demonstrate whether any low voltage asset can be aggregated to provide flex without triggering local grid constraints, through a matching algorithm using DSO input

Overview of all use cases (2)

Update 27/05



#	Name	Scope
F1B	CheckMyFlex	Demonstrate that implicit demand response can be developed in a multi price signals environment (several system need to be exposed through different dynamic prices)
F2A	REC Syndic	Validate first features of a services suite to enable a “BRP” creation at the building level for building self-consumption among tenants and valorization of the remaining energy on spot/balancing markets
F2B	Flexity	Demonstration of several approaches of a multi-flex provider environment behind the meter as a first step to enable generic flexibility provision by households
D1	Maka	First demo of a benchmarking tool like strava (for runners) to compare yourselves with peers, organise “competition” or gamification related to the way you consume electricity (can also become a broker of consumer profile for other applications)
H	Virtual Energy Transition Assistant	Tool comparable to an (existing) energy management system. Provision of advice to improve energy efficiency and also option to automatically steer energy management.
M1	Calzone	Capability to charge your car using green or local energy in real time by selecting specific charging poles with reduce grid fees (dynamic)