

IO.E 3.0

Nieuwe energiediensten voor consumenten

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We have a dream... build an Internet of Energy that enables the energy transition



The promising aspects of the internet are something we also want to realise with IO.E:

- **Open architecture and principles**
 - No preconceived detailed objectives
 - Allow new solutions to grow organically
 - Question traditional ways of working
 - Actively test new approaches
- Fragmented information easy to find and integrated into a **collective overview**
- Revolutionary **(big) data driven solutions**
- Create a collective awareness (of challenges and possible solutions) “**cross-pollination**”
- Group formation and **co-creation** (no strict supervision/control; no profit intention)
- **Creative** involvement
- **Inclusive & open** - Everyone can participate (regulators, companies & citizens)

Participate in something bigger than yourself

However, we did not yet succeed in actually involving citizens and leveraging benefits for every village street



IO.E V2

- Ideation
- Innovation & research
- Consumer panel optional
- Individual projects
- Closed jury sessions
- Contracts, MOU



IO.E V3

- Energy transition focus
- Inclusive approach
- Citizen's collaboration crucial
- Cross-pollination
- Co-implementation
- Agile governance (scrum-of-scrams)

power pylon to church tower

On the one hand, the energy transition is close...

- Society is already electrifying – and actively investing in residential solutions
- Some citizens are discovering the *"game changing assets"*
- Vehicle electrification is driven by policy shifts

Heat pump (& E heating)

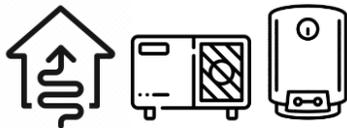
Boiler (& freezer)

EV battery

Residential (& district)
battery installation

Photovoltaic Panels (PV)

?



On the other hand, the energy transition is still a long way off

- Citizens are not yet aware of the importance, potentials and **added value** of actively controlling these *“game changing assets”*
- Citizens are not aware of the **possibilities** to actively steer the new *“game changing assets”*
It is not clear which tools/services citizens can use
- Citizens are not aware of the **financial benefits** of actively managing their consumption

Increase PV efficiency

Smarter management
of assets

Save on Energy price

Earn by providing a
service (to others)

?

IO.E solutions aim to empower the citizens by increasing their benefits and include everyone in the energy transition



Heat pump
(cooling & heating)

Boiler

Electrical Vehicle(s)
(incl. EV battery)

Battery installation

Photovoltaic Panels (PV)

Other?

 **IO.E solutions**

Increase PV efficiency

**Smarter management
of assets**

Save on Energy price

**Earn by providing a
service (to others)**

?

1. CITIZEN CHALLENGE

- **Empower** citizens to optimize their energy-usage & energy-cost
- Solutions touch all layers of society – **inclusive**

2. SYSTEM CHALLENGE

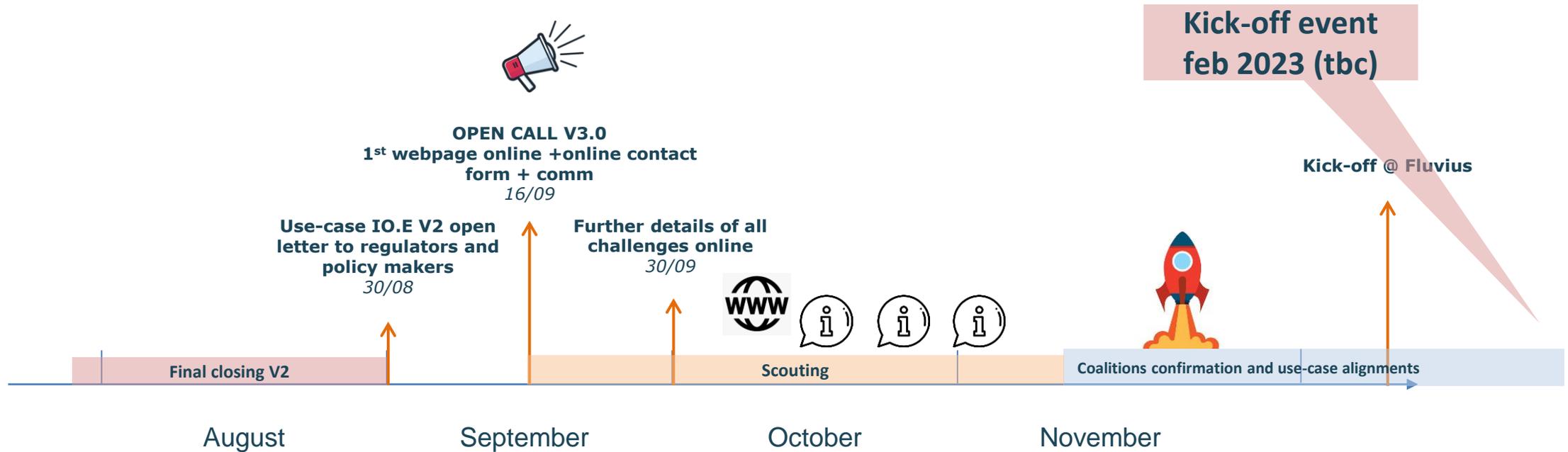
- Propose, design, build and test **solutions** with an impact on the **energy infrastructure system** as a whole
- **Improve interconnection** of assets and nodes of the system (grid); generation, load, distribution, storage, meters, customer owned assets



Within the use cases:

- Discover the added value, benefits of active steering
- Exploring possibilities beyond just installing an asset
- Developing and testing out-of-the box new IO.E solutions (digital tools, new rules, platforms, automation) for the whole society
- Respond to the challenges of IO.E 3.0

The launch of V3.0 is foreseen

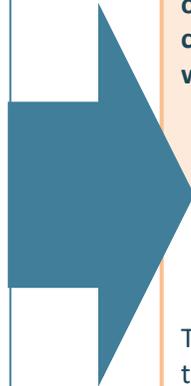


How to join the IO.E Ecosystem?



A strong **vision/idea** should be in place to enter the eco-system.

A consortium of concrete ideas should be present at the start of IO.E 3.0.



ENGAGEMENT LEVEL

The participants must help build and develop the IO.Energy Ecosystem, which means that openness is required during co-creation and development with other-use cases/citizens.

company

Individual team

citizen

IO.E SUPPORT

The support is designed to foster and promote open innovation within the ecosystem

IO.E board

Expert board

Teams

Citizens

USE CASE PARTNERSHIP ARRANGEMENTS

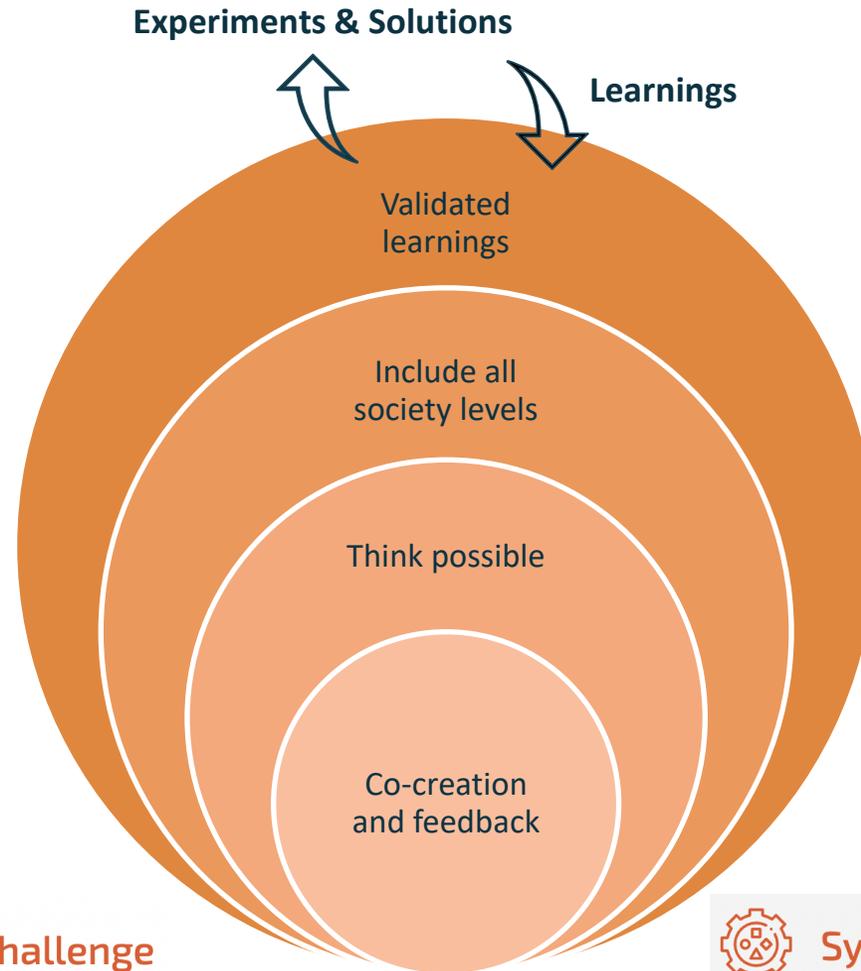
The agreements to be made between the use case participants on the purpose, scope and timing of collaboration, contributions, ownership of intellectual property and exit arrangements, are the responsibility of the use case participants itself. (f.ex. MoU)

Use cases should appoint a responsible to guide the team on a scrum-of-scrum

CODE OF CONDUCT

All participants are expected to behave in an honest and ethical manner in accordance with all applicable legal and regulatory requirements. Code of Conduct to establish basic interaction principles.

IO.E v3 wants to boost energy transition in the village street



Citizen Challenge

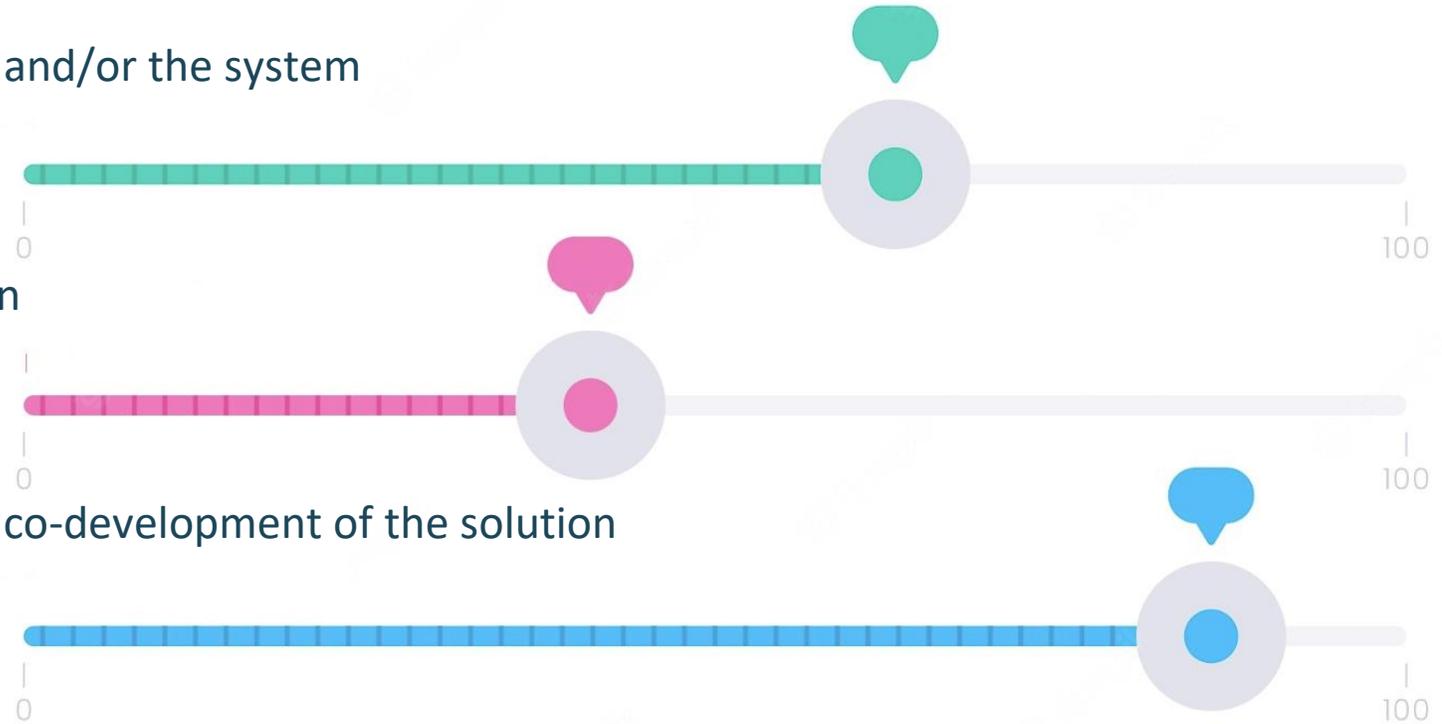


System Challenge

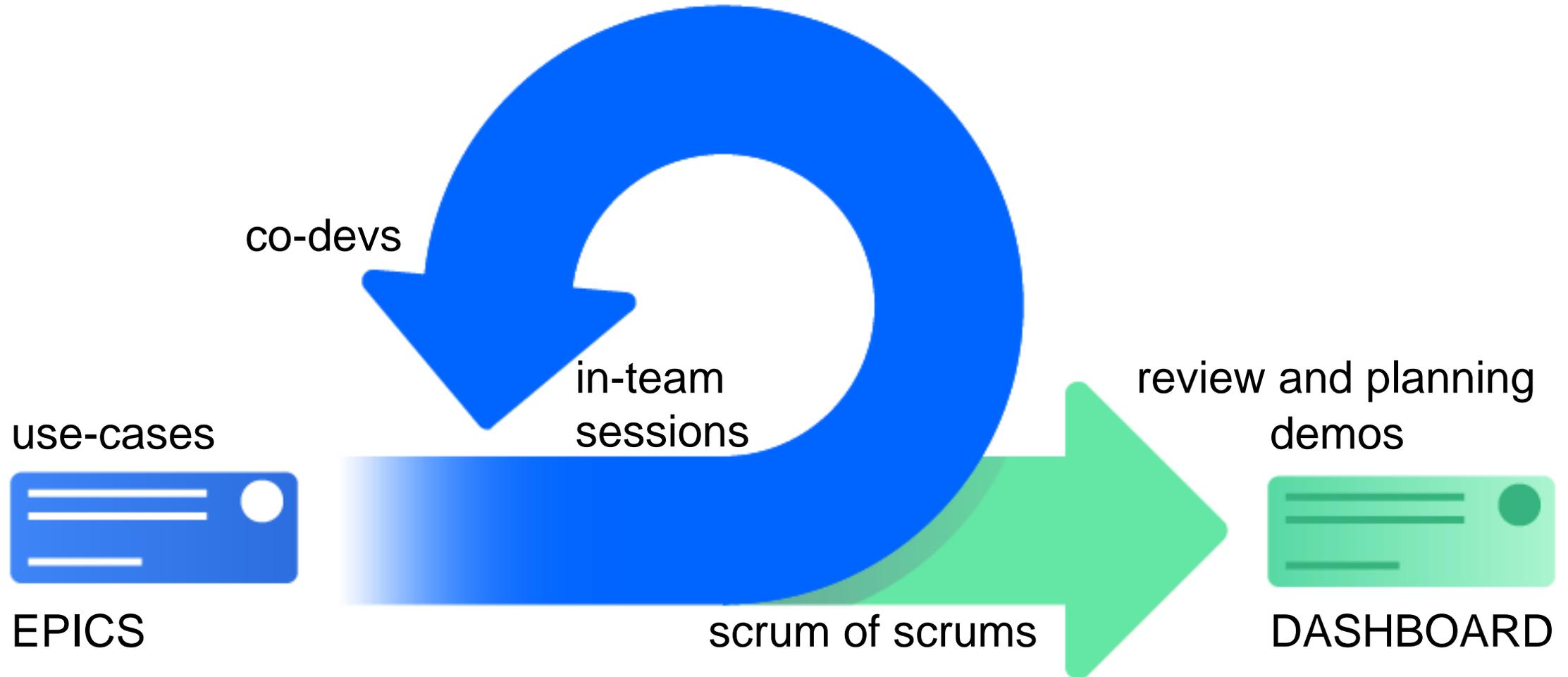
How IO.E will select use-cases

A company or consortium will be evaluated with the help of trade-off sliders:

- The degree of impact on the citizen and/or the system
- The maturity of the product/solution
- The added value of co-creation and co-development of the solution



Governance – How is IO.E structured





THANK YOU