



OPEN MARKETPLACES TO SPUR INNOVATIVE ENERGY SERVICES

DG ENER – DG CONNECT and AIOTI workshop

Guillaume Gillet & Pierre Serkine – Brussels – 22.10.2018

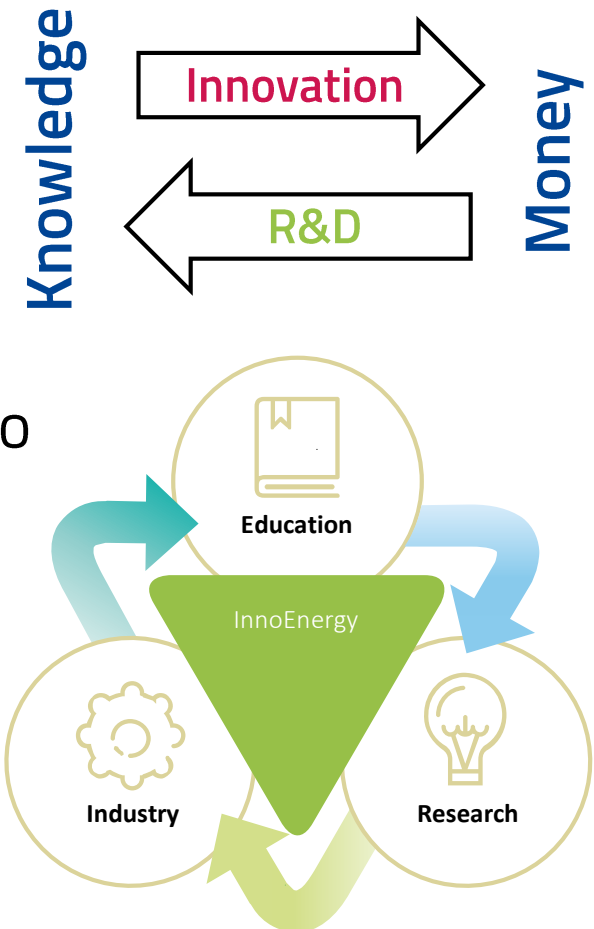
1. What InnoEnergy is
2. Digitalisation: a key piece of the puzzle...
3. ...facing some key challenges...
4. ...that InnoEnergy contributes to take up

WHAT: A Public-Private Partnership aiming for financial sustainability established in 2010 and supported by the EIT. Legally, a private company, for profit but not for dividend.

WHY: to accelerate **innovation** in the energy field in Europe towards sustainable energy.

HOW: By bringing the knowledge triangle to life, fostering synergies and collaborations around 3 pillars of activities:

- Education
- Business Creation Services
- Innovation Projects



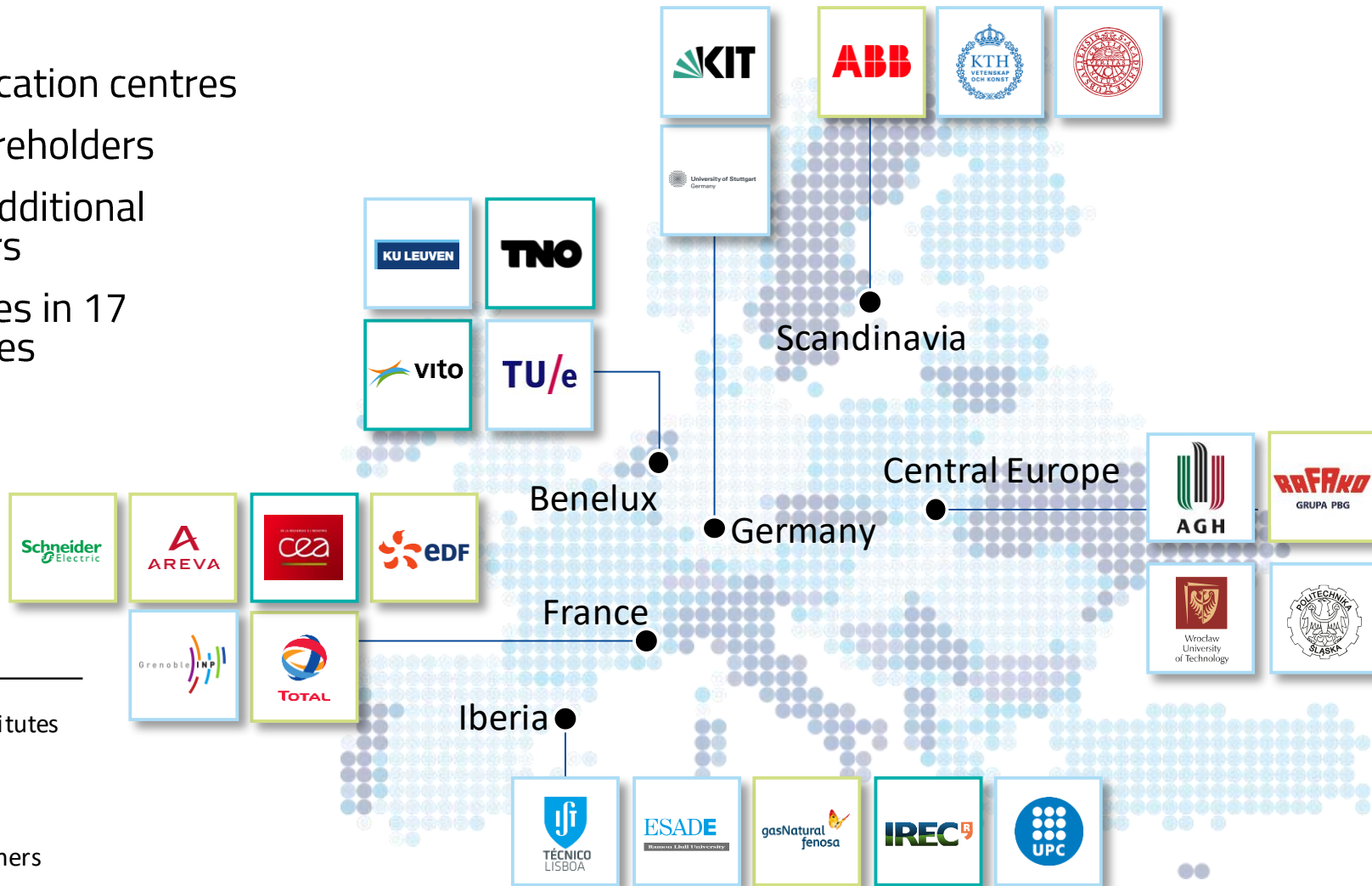
HOW: Making connections: the power of the network

6 co-location centres

24 shareholders

360+ additional partners

Activities in 17 countries



Our Shareholders

Research Institutes

Universities

Industry Partners

Co-location Centres

What InnoEnergy is - some figures (as of June 2018)

EDUCATION

670+

Graduates from the
InnoEnergy Master's School

13.000+

Applicants to the InnoEnergy
Master's School

9/10

find a job within
six months of graduating

11

Start-ups created

250+

PhD candidates supported

16

Digital learning courses

12%

Graduates start their business

BUSINESS CREATION

200

Early start-ups
supported

121

Start-ups selling

117 M€

of external
investment raised

2796

Applications received

INNOVATION PROJECTS

400+

Project partners
across Europe

77

Patents filed

94

Products and services
supported

3

Manufacturing
facilities constructed

190 M€

of InnoEnergy
investment

1.4 B€

in project costs

3 B€

in forecasted sale

TRENDS

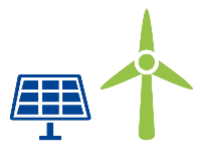
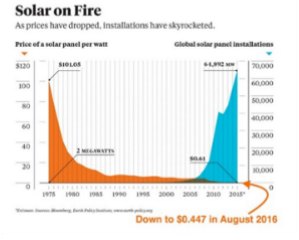
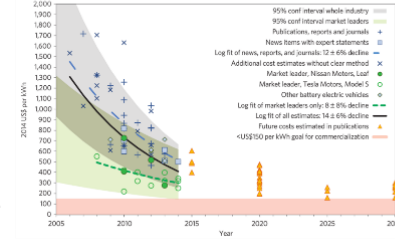
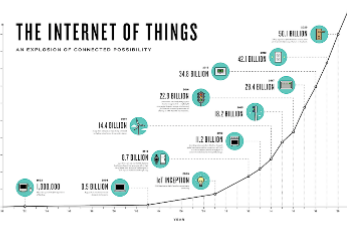
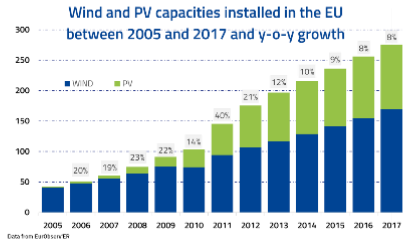
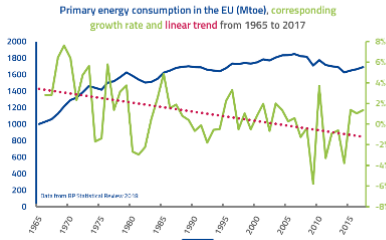
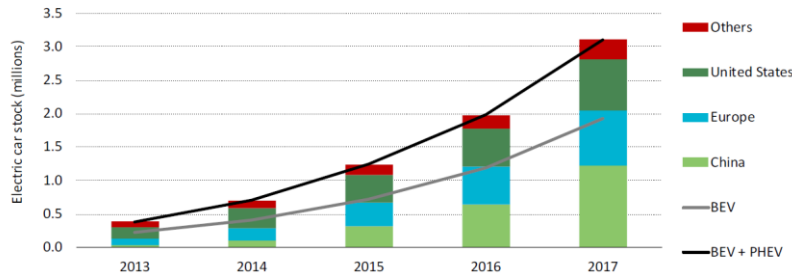
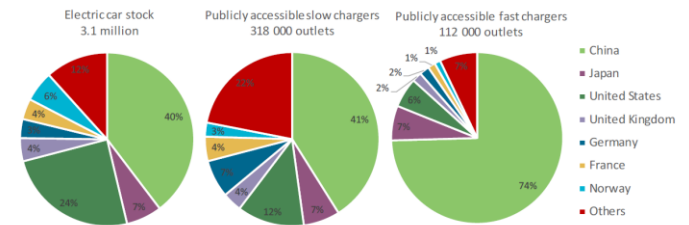


Figure ES 1 • Evolution of the global electric car stock, 2013-17



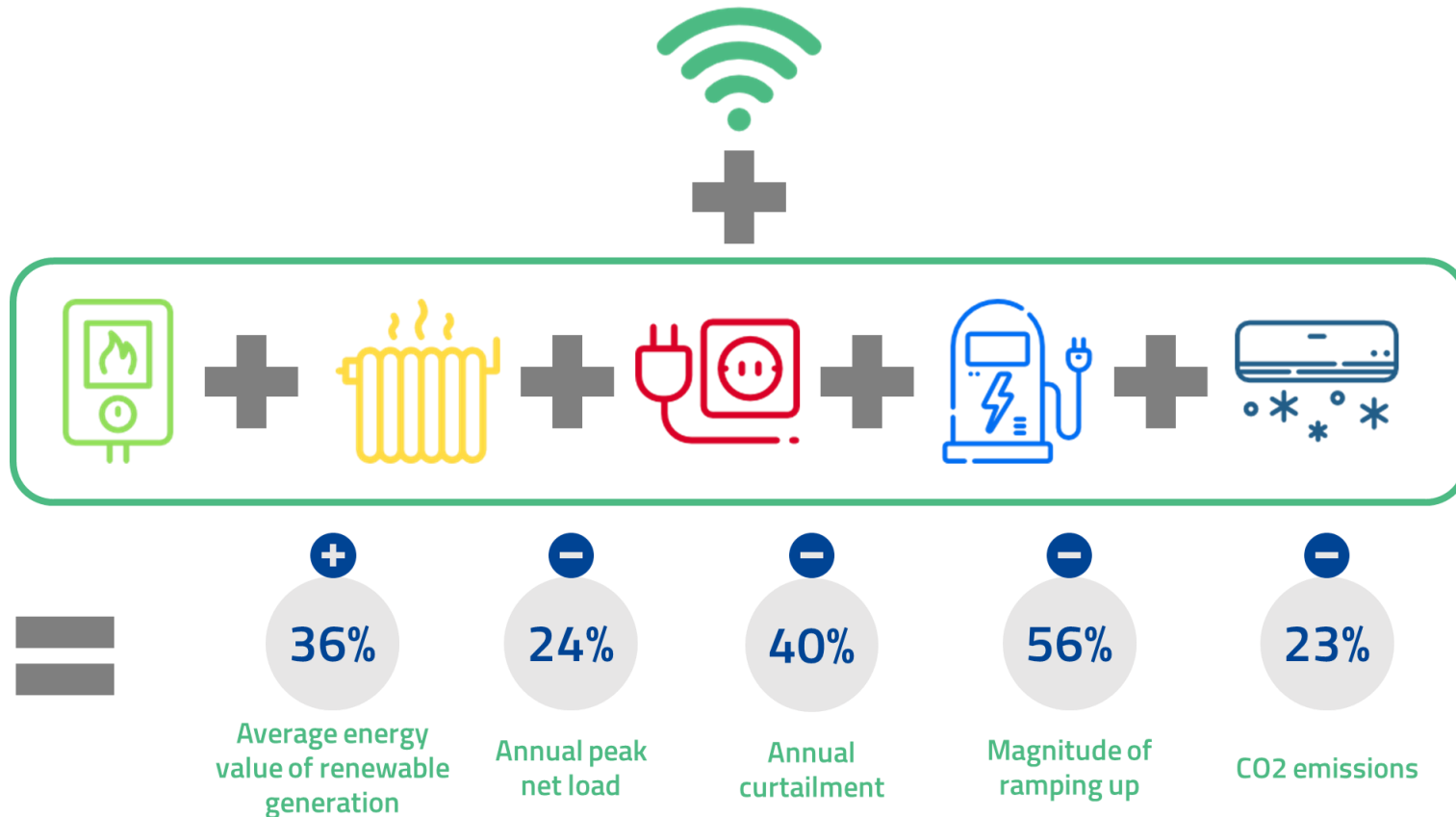
Global EV outlook 2018, IEA

Figure 3.2 • Electric car stock and publicly accessible charging outlets by type and country, 2017



Sources: IEA analysis based on EVI country submissions, complemented by EAFO, 2018b.

Utility death spiral and market uptake of microgrid, Virtual Power Plants and Distributed Energy Resource Management System solutions: **The perfect storm powering digitalisation.**



Demand Flexibility The Key To Enabling A Low-cost, Low-carbon Grid, RMI, February 2018

According to a [recent study](#) from Rocky Mountain Institute, a utility that can **control 8 major** residential and commercial **end-use loads** can **save households 10 to 40%** on their bills, while helping the **system** at the same time.

...facing some key challenges...

Digitalisation is the new and crucial **glue** of the future energy system

Electricity Markets



Favourable environment



Incumbents' behaviour

- **The risk of death spiral**
 - Valorisation of flexibility
 - Promotion of dynamic pricing
 - Integration of new assets (EV, RE, storage)
 - Further liberalisation of retail markets
 - A need to engage consumers
- A strong political commitment
 - A vibrant ecosystem of ventures
 - A growing number of accelerators
 - A broad deployment of smart meters (+R&D funds in SG)
 - An appetite from VCs
- Digitalisation as a strategic pillar
 - Customer acquisition & retention as priorities
 - A growing interest in start-ups (e.g. CVC activities)

And at the same time

- A need of **cultural transformation** in companies (for e.g. from techno- to customer-focused mindset)
- A **lack of appetite for energy matters** (B2C segment)
- New challenges (e.g. **jobs and skills** to develop) and new threats (e.g. **cybersecurity** and **ethics**)
- Europe as a **Digital colony**: in Digital at large, Europe is clearly lagging behind (no GAFAM or BATX)

Is data really the new oil?

In the end, digital transformation is a profound **cultural** transformation, enabled (or induced) by technological capabilities. There are notably issues of skills and of adaptability.

→ **Fostering collaborations between start-ups and corporates to facilitate this transformation**

...that InnoEnergy contributes to take up

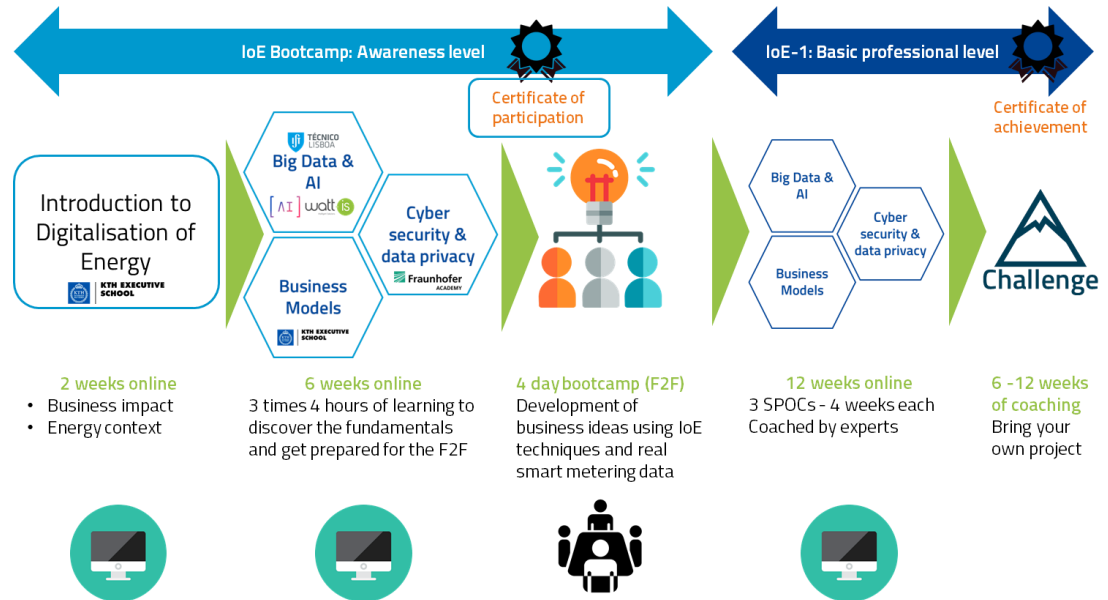
Vous êtes une **start-up innovante** dans le secteur de l'**énergie durable**, au stade d'amorçage ou d'accélération ?

Rejoignez l'investisseur et accélérateur européen InnoEnergy, pour un futur digital et durable.

Dépôt de candidature avant le 30 juin 2018



EIT InnoEnergy's Digital ventures



€20,000 PRIZE POOL

Hack the Wind® 2018

Innovate for a greener globe

25-27 September, Hamburg

ORGANISED BY: Wind EUROPE, eit InnoEnergy Knowledge Innovation Community, edp renewables

SPONSORED BY: SIEMENS Gamesa RENEWABLE ENERGY

EnergyXL

rockstart. we love startups

eit InnoEnergy Knowledge Innovation Community

YES! DELFT

Principle



To develop ideas into **proof of concepts** around a theme in **48 hours**. Projects are developed based on ideas expressed on day one by participants.



Objectives

IMPACT

Generate high value **brand positioning** and **innovative content**.

CREATIVITY

Foster **creativity** to solve current wind energy challenges.

COLLABORATION

Promote **networking** and animate the **wind energy ecosystem**.

SUPPORT

Provide **reward** and **support** to the best innovative **concepts** and most promising **talent**.

Challenges



Wind Turbine Fault Reduction

Data from the sensors of the wind turbines and a list of detected damages provided to **train and create models**. Finally, models evaluated based on the detections found on other period of time.



Wind Speed Forecast

Using **Blockchain technology in Microgrid environment** in the Hamburg Harbour area, with Wind Turbines, Industrial Customers and the Electro Thermal Energy Storage facility to overcome the increasing complexity of trading, balancing & settlement .

Key figures

238
registrants

72
attendees

12
mentors

17
ideas

13
projects

6
prizes

20 k€
Prize pool

5
winners

Thank you



www.innoenergy.com



InnoEnergy is supported by the EIT,
a body of the European Union