

# WHEN DIGITAL TECHNOLOGIES AND THE SHARING ECONOMY HELP REINVENT THE ENERGY SECTOR

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MANAGEMENT**

BUSINESS LAB FOR SOCIETY





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**CREATED IN 1984**  
by the CCI of Grenoble

**A LEADING INTERNATIONAL  
BUSINESS SCHOOL**  
Top 6 in France,  
Top 20 in Europe

**A LEADER**  
in Management, Technology,  
Innovation and Entrepreneurship

# GEM KEY FIGURES



**8**  
research teams

**38**  
reports

**12**  
chairs and institute  
(approximately)

**78**  
case studies over  
the last 5 years

**429**  
publications

**170**  
pHD

**500**  
staff

**7 937**  
students

**€62 M**  
budget



# ENERGY

## MANAGEMENT TEAM

### Our mission

**We provide expertise on a variety subjects such as:**

- *reducing energy supply risks,*
- *controlling costs,*
- *diversifying energy supplies,*
- *reducing energy consumption*
- *improving energy efficiency and evaluating the efficiency of climate and energy policies*

# A UNIQUE AND COMBINED RESEARCH APPROACH TO TREAT YOUR **ENERGY ISSUES**

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## MARKETING

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*Framing energy technologies, products or services according to end-users willingness or acceptability*

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## ECONOMICS

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*Managing innovation and technology diffusion in response to energy policies  
Micro-behaviours related to technology adoption*

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## BUSINESS MODEL

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*Understanding of new ventures around managing energy technology, investing in them and mediating interaction with customers through them*



Economic and econometric analysis  
Survey, census and experimental data

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Interviews and case studies

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# COLLABORATION POSSIBILITIES



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**Scientific publications**

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**European research projects**

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**Research contracts**

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**Master in Energy marketing and management**

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**Chair on Energy Management**

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**GEM Energy Barometer**

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**GEM Innovation Campus and serious games**

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**MOOC New Energy Technologies**

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**Energy Forum (5<sup>th</sup> edition)**

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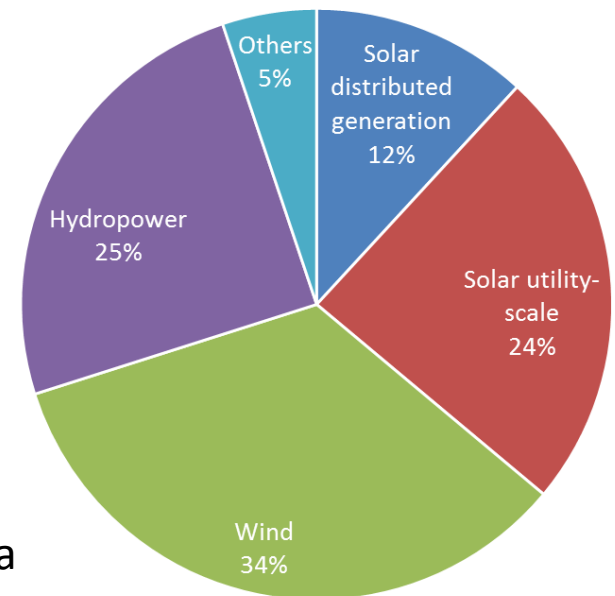


# INTRODUCING THE CONTEXT



# A HYPER-CENTRALISED SECTOR

Cumulative new installed capacity 2010-2017  
(950 GW)



Source: Enerdata



# WHICH WE DON'T UNDERSTAND MUCH

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## WHAT IS A KILOWATT-HOUR?

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# BUT PROFOUND CHANGES ARE EXPECTED

**"by 2020, the largest energy company in the world (by market cap) will not own any network or generation asset"**

(Zarko Sumic, Gartner, 2016)



Generation

Transmission

Distribution

Retail

Consumption

# BUT PROFOUND CHANGES ARE EXPECTED

**“The 21st century will mark the  
end of fossil fuels”**

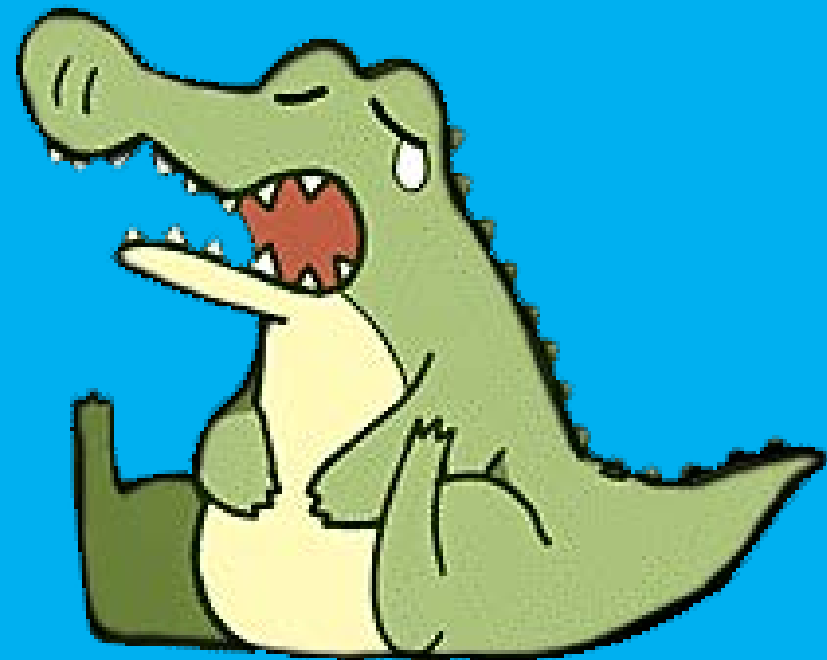
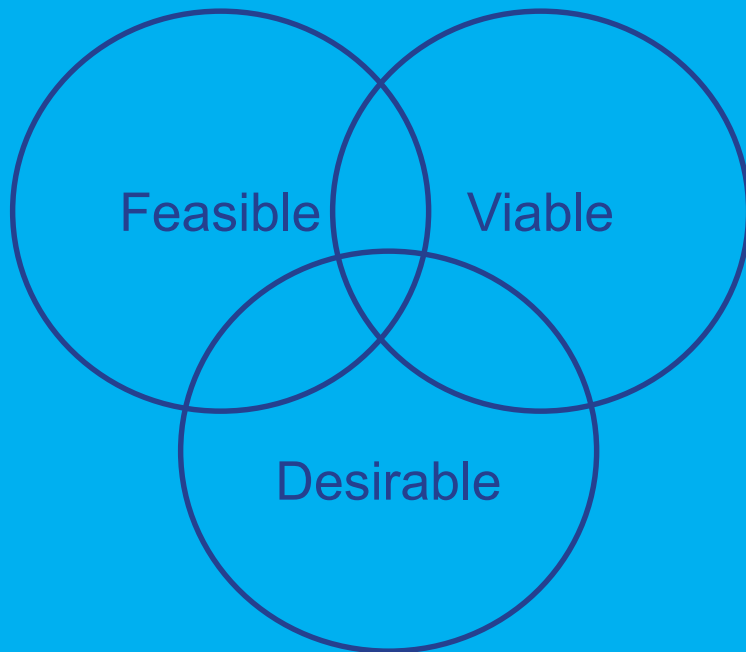


Isabelle Kocher CEO of Engie

# BUT PROFOUND CHANGES ARE EXPECTED

**"It's clear that the old business model is dying. It is not so clear that a new business model is resurfacing"**

(Head of smart energy lab at Eneco, 2017)



# FIVE EXAMPLES OF INNOVATIVE BM

WINDCENTRALE  
VANDEBRON  
POWERPEERS  
BEEGY  
JEDLIX



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# SHARING



 **de Windcentrale**

Word mede-eigenaar van een windmolen!

# COLORING



**Uitgelicht**

**Windenergie van windpark A4, Weteringbrug**

599 Beschikbaar Bespaar € 106,40 per jaar \* € 119,55 per mnd

**Uitgelicht**

**Zonne-energie van Harrie en Marielle van Wijk, Lelystad**

1 Beschikbaar Bespaar € 88,98 per jaar \* € 121,01 per mnd

**Windenergie van Roosendaalsche Vliet, Roosendaal**

296 Beschikbaar Bespaar € 106,23 per jaar \* € 119,57 per mnd

**Bio-energie van IJsbeer Energie Steenwijk, Steenwijk**

7 Beschikbaar Bespaar € 99,33 per jaar \* € 120,14 per mnd

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**Bio-energie van Orgaworld Amsterdam, Amsterdam**

1 Beschikbaar Bespaar € 99,33 per jaar \* € 120,14 per mnd

**Bio-energie van Orgaworld Lelystad, Lelystad**

6 Beschikbaar Bespaar € 99,33 per jaar \* € 120,14 per mnd



**vandebron**



# EXCHANGING



LIVE



Energie van elkaar



**powerpeers**  
share your energy



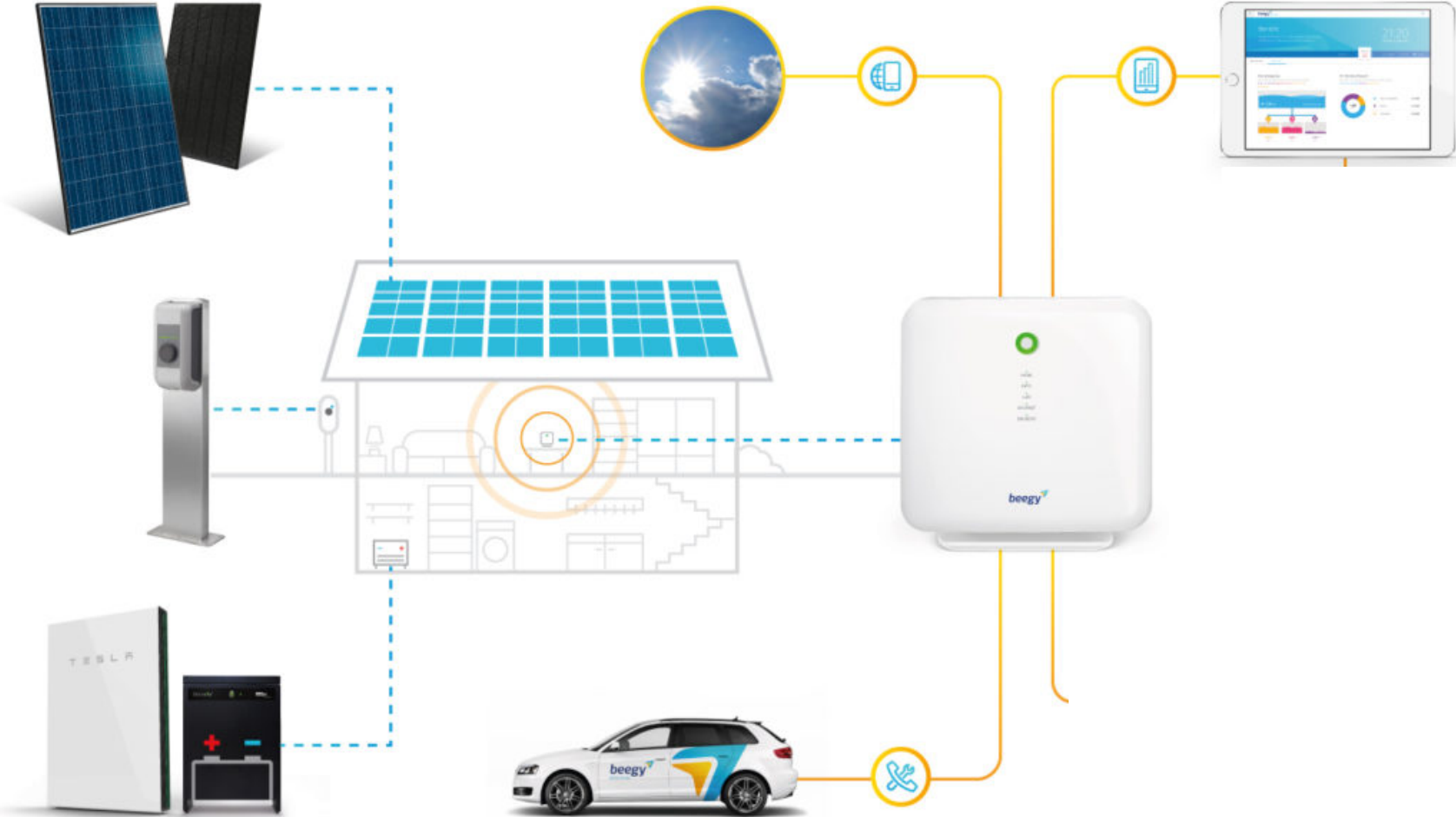
**powerpeers**  
share your energy



Stap nu over en ontvang €100,- korting

5.000 zonnepanelen

# BEING AUTONOMOUS



**beegy**  better energy

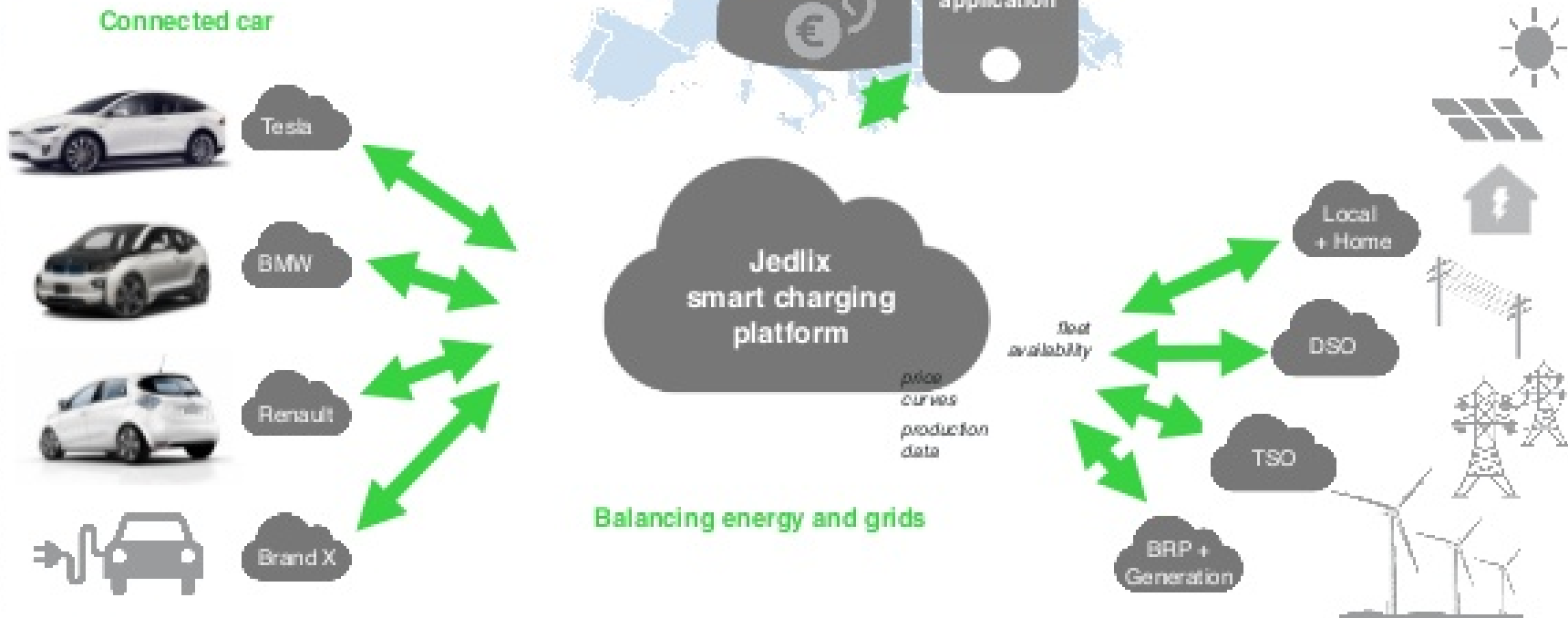
# VALORISING OUR FLEXIBILITY



# JEDLIX

## User-friendly, car centric & hardware lean

Jedlix #ichargesmart



# CONCLUSIONS

- **Sharing economy is changing the way people relate to electricity**
- **Will any of the business model presented will become the new recipe for the industry?**
- **Firms who will control customer relation will corner the market**



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# Want to learn more about us?

Information about the research team:

<https://research.grenoble-em.com/energy-management>

## CONTACTS

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