

EWI Focus

Vlaanderen in de KIC's

Guy Vekemans, EnergyVille-KIC InnoEnergy

10th June 2015

- 1. What is the KIC InnoEnergy?**
- 2. What is the impact of the KIC InnoEnergy?*
- 3. How is Flanders involved in the KIC InnoEnergy?*
- 4. What are the future perspectives?*

KIC InnoEnergy: an energy innovation ecosystem equipped to deliver results

A leading engine for innovation and entrepreneurship
in Sustainable Energy



| Shareholding structure | | | |
|----------------------------|-----------------|----------------------|------------|
| Partnership as of end 2014 | | | |
| | Shareholders | Associated & Project | Total |
| | Formal Partners | Partners | |
| Industry | 9 | 159 | 168 |
| Research Centers | 7 | 8 | 15 |
| University | 10 | 17 | 27 |
| Business School | 2 | 0 | 2 |
| TOTAL | 28 | 184 | 212 |

Towards sustainability

An “Energy Europe” long term micro system

- Partners across all the value chain
- Partners from all energy carriers
- Partners across all the supply chain
- Challengers and incumbents
- 11 country regulations
- 120 Million end customers

KIC InnoEnergy: an energy innovation ecosystem equipped to deliver results



- Owned by 27 leading industries, research centers and universities
- 6 operating centers



KIC InnoEnergy: an energy innovation ecosystem equipped to deliver results



- New participants need to become KIC partner
- Different partnership opportunities

| | Formal Partner | Associate Partner | Project Partner |
|---------------------|---------------------------|-------------------|-----------------|
| Shareholder of | KIC IE SE, Them. Field | | --- |
| Governance rights | KIC IE SE, Them. Field | Colocation | --- |
| Leading projects | yes | yes | no |
| max. grant p.a. | no limit | 400k€ | 100k€ |
| Obligations cash | 100k€ p.a. | 30k€ p.a. | --- |
| Obligations in kind | 900€ p.a. | 270k€ p.a. | --- |

KIC InnoEnergy: an energy innovation ecosystem equipped to deliver results



From roadmaps to priorities by detailed cost effectiveness analysis



Renewable Energies

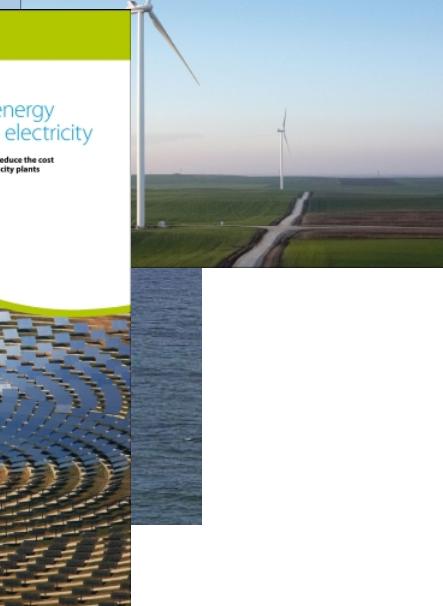
Future renewable energy costs: offshore wind

How technology innovation is anticipated to reduce the cost of energy from European offshore wind farms



Future renewable energy costs: onshore wind

How technology innovation is anticipated to reduce the cost of energy from European onshore wind farms



Future renewable energy costs: solar-thermal electricity

How technology innovation is anticipated to reduce the cost of energy from European solar-thermal electricity plants

Innovation projects - industry

<http://www.kic-innoenergy.com/innovationproject/our-innovation-projects/saga/>

KIC InnoEnergy:

Proven Idea

Transformation

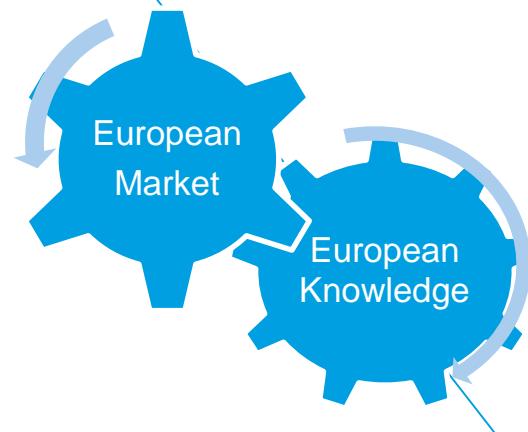
Market

Open Innovation

International
Consortia

Industry and
Science

Integration of
Education



Focus: Commercialization

Fields of Innovation

Coverage of energy value chain

Integration of Competencies

Technology and Market

Result Monitoring

Commercialization within 3-5 years



Creating innovative products and services to keep on top of the market

- New products and services based on sustainable technologies
- Market success through cooperation of relevant market participants from industry and science

Business Creation - entrepreneurs



<http://www.kic-innoenergy.com/venture/enervalis/>

KIC InnoEnergy: Business Idea > Business Creation > Sales

Highway

Boostway

Focus: Sustainable Energy

- › **Integration**
Complementing existing instruments
- › **Network**
Business contacts throughout Europe
- › **First Customer**
Strong commitment



Creating successful companies offering solutions for upcoming challenges

- New ventures or expanding business of existing companies (in particular for SEs)
- Business success through market access and ensured market relevance

Education: Supplying excellence to the energy market

<http://www.kic-innoenergy.com/social-innovation-and-transition-in-energy/>



KIC InnoEnergy

Master School

PhD program

Executive Master

Learning modules

Life-long Learning

Focus: Sustainable Energy

- › **Technological Competence**
driven by Industry demand & Engineering
- › **Entrepreneurial Skills**
transfer technology to business
- › **Soft Management Skills**
sustain success in the ecosystem
- › **Mobility**
develop intercultural competencies



Creating the future game-changers with a different mindset, ready to make an impact in future sustainable energy

- **Entrepreneurial talents matching energy market requirements**
- **Competitive advantage by complementing knowledge with business orientation**

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KIC InnoEnergy: harvest 2011-2014



Early stage focus



Education

**280 Graduates Game changers
populating industry and
93% graduates with job in 6 m.**



Business Creation
**43 start-ups created, post revenue
16,7M€ external investors**



IMPACT



Offshore LiDAR at 2M€,
vs 10M€ current market offer



New factory - 8 new products



41% less NOx emissions



Reducing maintenance
Time and cost by 80%



Drying biomass at
30% lower cost



APD HELIUM FERAKAMEREX
QW-A

REDUCED ENERGY CONSUMPTION
REDUCED EMISSIONS
REDUCED COSTS IN PRODUCTION

Innovation Projects
60 new products and services
59 patents filled
600M€ co-invested

KIC InnoEnergy: A reasonable harvest 2011-2014

... creating structural impact, complementing other EU instruments...



Early stage focus



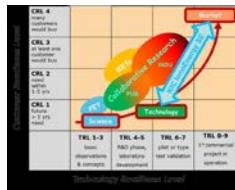
Education

280 Graduates Game changers populating industry and 93% graduates with job in 6 m.



Business Creation
43 start-ups created
16,7M€ external investors

Synergies with EU SET Plan, Insight-E,...

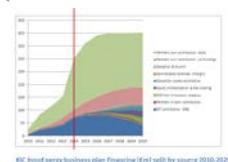


IMPACT



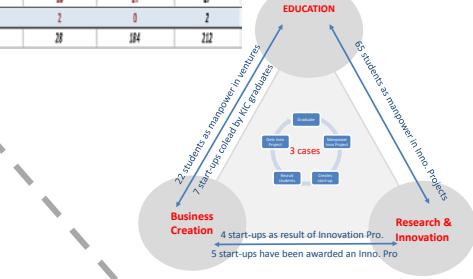
Innovation Projects
60 new products and services
59 patents filled
600M€ co-invested

Leveraging Knowledge Triangle
100+ KT transactions
From 27 partners to 220



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Sustainable Equity in 43 start-ups
57 ROI term sheets signed
Operational excellence program



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EU thematic cluster for intelligent and efficient cities and buildings



EU thematic center for intelligent and efficient cities and buildings

- Founding partner
- Strategy Intelligent and energy efficient cities and buildings
- Innovation highway for entrepreneurs
- Co-operation projects with industry to bring knowledge to market
- Young potentials
- Review of SET-plan



EnergyVille growing cluster of EU living labs



Glasgow, Göteborg, Riga, Gent



Amsterdam, Grenoble



Leuven, Glasgow



Antwerp, Aberdeen, Malmö,
Hamburg, Zaanstad, A'dam



Antwerp, Stockholm, Valencia,
Rotterdam, Warsaw



Leuven, Freiburg, Houthaven,
Bergamo, Dalian (China)



Hasselt, Savona (I)
Ebbw Vale (Wales)

Flanders involvement in KIC InnoEnergy

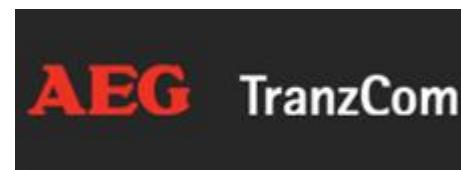


Innovation

- Flemish companies and institutes active in 10 of over 60 innovation projects
- Especially in smart grids and intelligent cities and buildings, so room for expansion

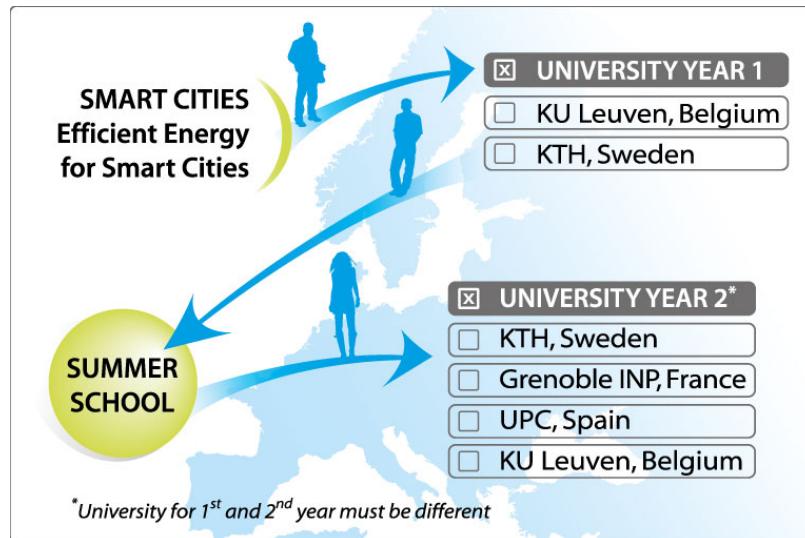
Business creation

- 14 entrepreneurial companies launched in Benelux



E-street





Learning module



Name: Joeri Siborgs

Age: 25

Nationality: Belgian

Programme: MSc Energy for Smart Cities

Year of graduation: 2013

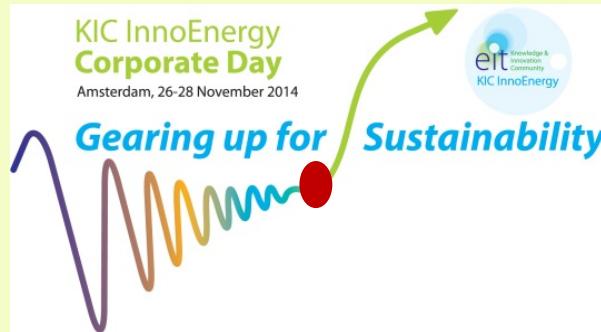
Position: R&D Project Engineer at Elia,

“Versatility, entrepreneurship and international experience”

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Operational sustainability

Financial sustainability

Strategic sustainability