



Energy cluster

Why, What, How

Huge international market in energy flexibility

Nearly \$3 trillion has been invested globally in grid modernization efforts since 2000. According to the International Energy Agency, another \$8 trillion will be

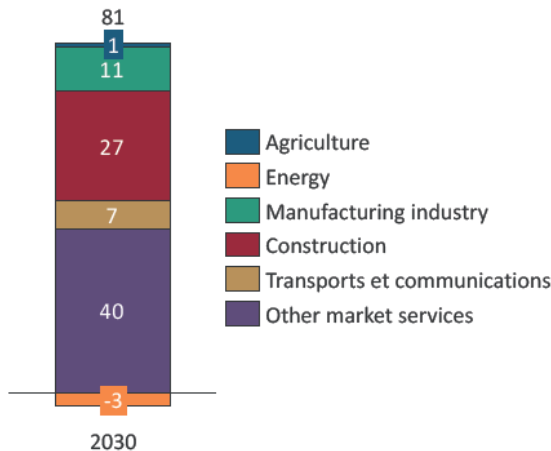
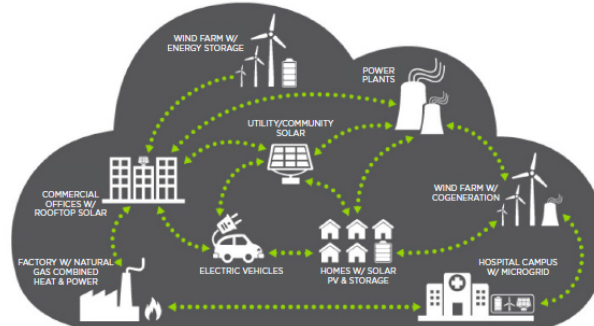
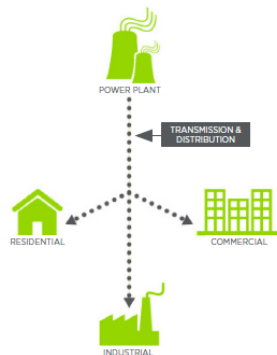


Figure 4.
Job creation by sector
in 2030 in Belgium,
thousands of jobs,
CORE LOW CARBON wrt
REFERENCE scenario,
HERMES

With an estimated \$1.3 trillion in new annual industry revenue available globally by 2030, new entrants—manufacturers; technology companies (from startups to global powerhouses like Apple, Amazon, and Google); telecommunications and other data, content, and network providers; and even some oil & gas companies (like Total)—have the rare opportunity to disrupt a status quo nearly 150 years in the making.

TODAY: ONE-WAY POWER SYSTEM EMERGING: THE ENERGY CLOUD



The energy cluster

- . 10-year program to turn Energy into spearhead of the economy
Mobilizing 10 million/year
- . Precommercial collaboration
Industry/Innovation/Public sector
- . Generate commercial breakthroughs in flexible and sustainable energy solutions
- . International potential
- . Systemic solutions
- . Collaboration across the entire value chain

5 focal areas for Flanders

Energy Harbours



Micro-grids



Multi-energy in districts



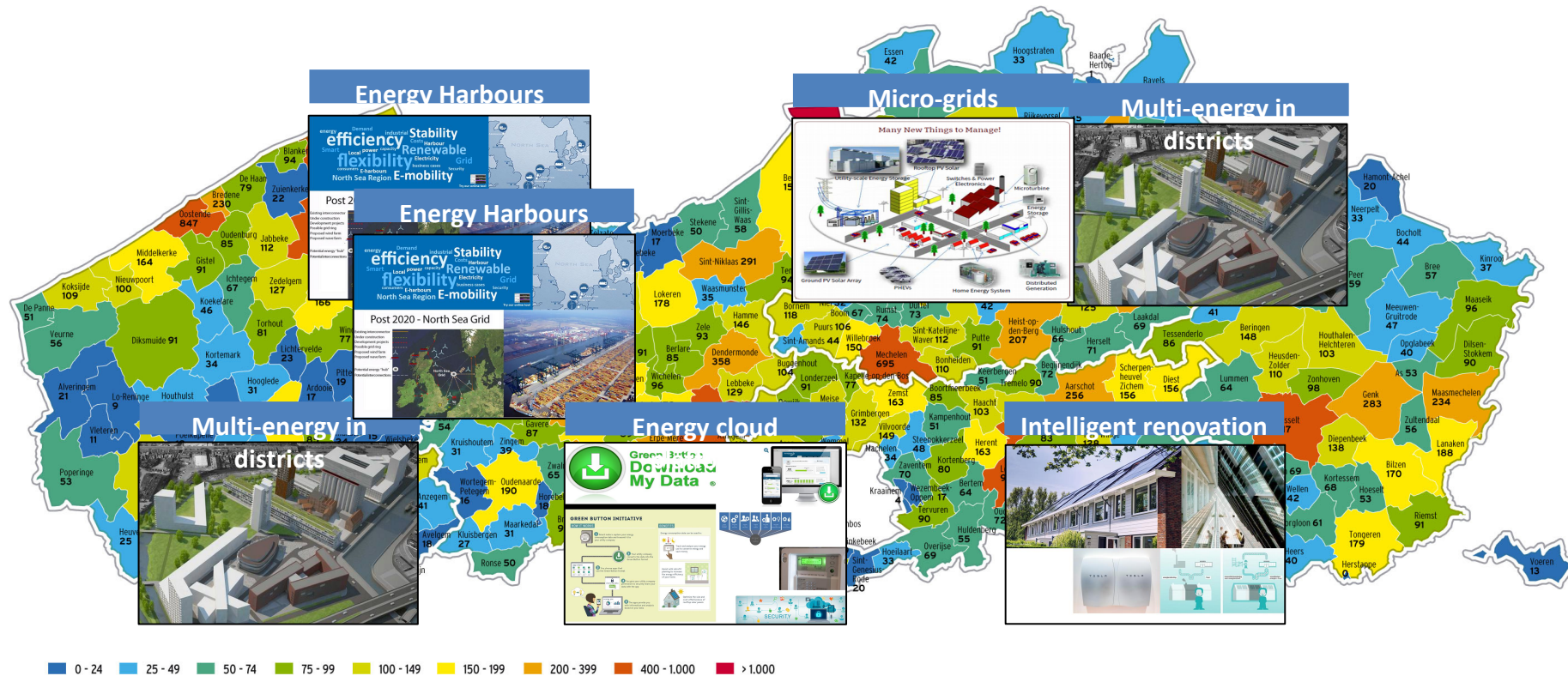
Energy cloud platforms



Intelligent renovation



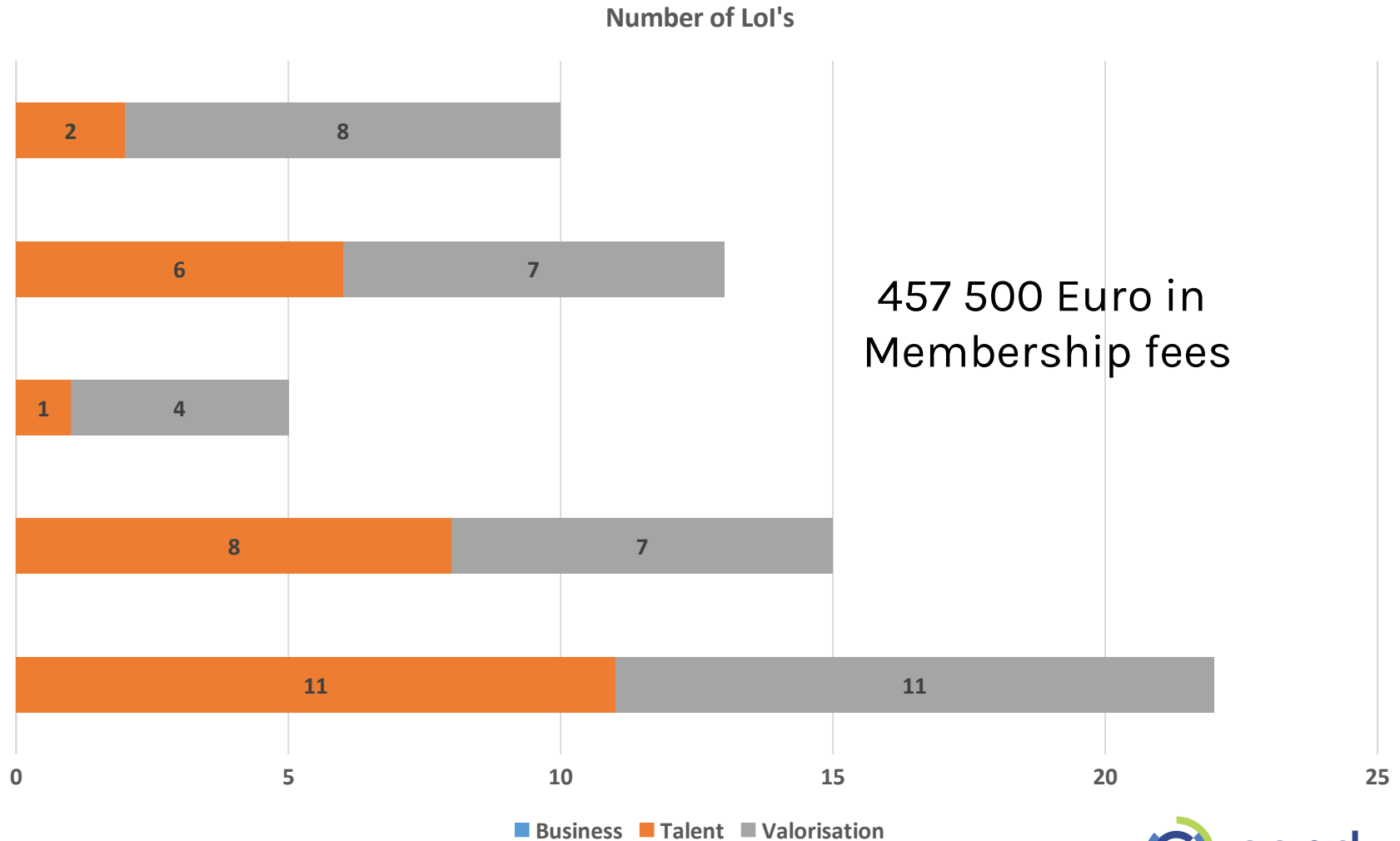
Flanders: a living urban energy lab



Growth based on dedicated projects and new business models

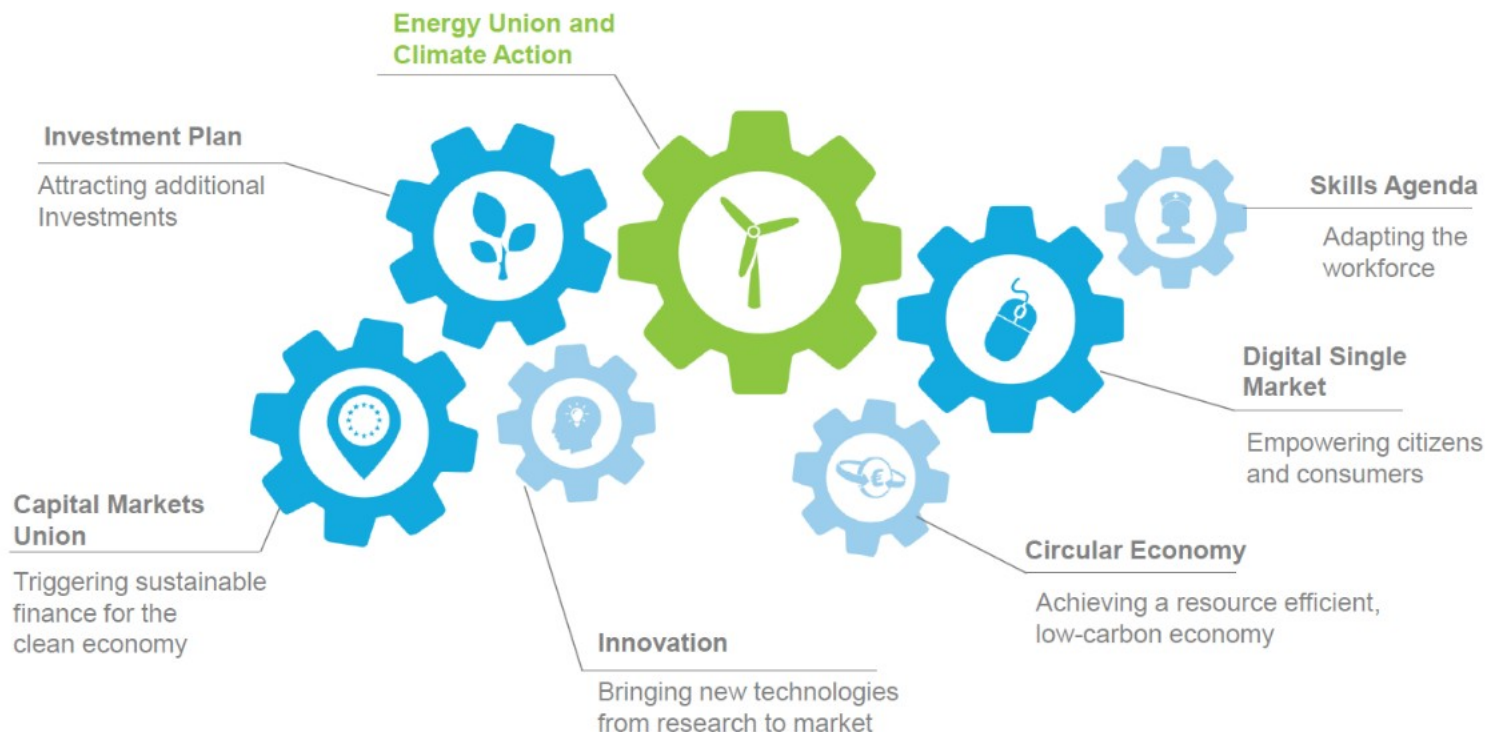
- To create a broad and diverse platform of organizations
 - 50 members cooperating in the innovator zones
 - 150 members in total in the cluster
- Realizing integrated energy systems with valorisation and replication potential
 - All innovator zones leading to at least one market introduction
- In an international context
 - 5 international partnerships at cluster level
 - 5 international projects with cluster members
- Mobilizing additional financing mechanisms
 - Mobilizing yearly 10 Meuro in investments for cluster projects

How? 61+ innovative Flemish companies along the value chain



Link to the winter package

Energy is a fundamental driver of tomorrow's economy



Link to the winter package

Energy efficiency

- Focus on sustainable and flexible energy system
- Buildings and neighbourhoods – within context
- Industry and enabling infrastructure

Leadership in renewable energies

- Focus on integrated, exportable solutions
- Market-based mechanisms, built around flexibility
- Low-regulation areas

Fair deal for consumers

- Empowered/active consumers key
- Transversal role to energy cloud/information

Link to the winter package

Conclusion

Winter package provides important basis
Market-based, industry-led, transparency

Cluster initiative goes beyond the ambitions

Making it happen

