



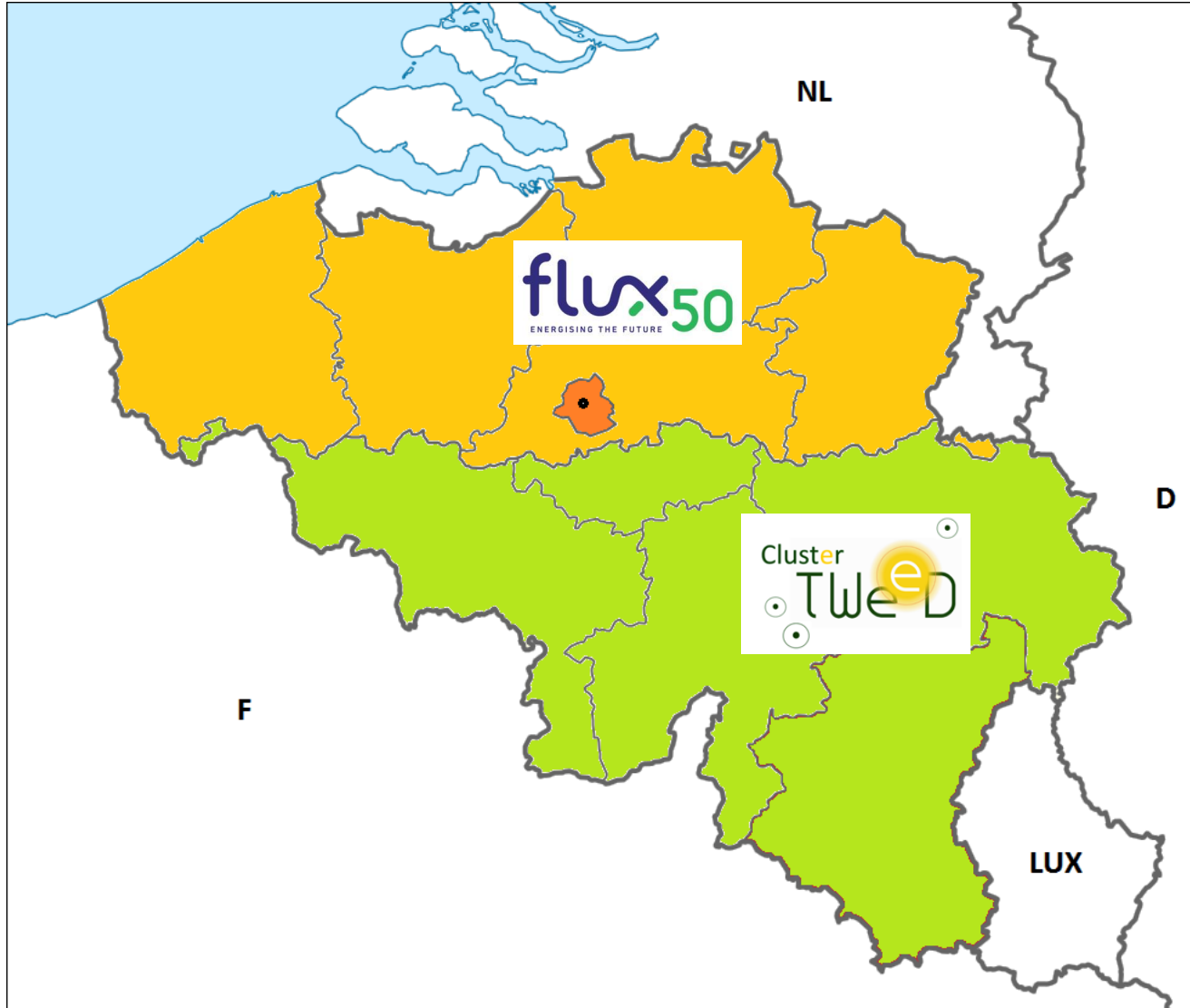
Smart Grids



ETIP SNET

PLAN. INNOVATE. ENGAGE.





Who are we?



- ❑ Created in 2008
- ❑ **TWEED = 120 Walloon companies developing Technologies in the Energy & Environmental sectors to ensure a global Sustainable Development.**
- ❑ **Objective:** to encourage investments in the production and exploitation of sustainable energy by mobilizing active companies and stakeholders in this sector around quality projects of industrial size.

#Energy_efficiency #Industry #Monitoring
#Predictive_maintenance #Heat_recovery
#District_heating_network #Repowering
#Wind_energy #Bioenergy #CHP #Sun_energy
#Hydro_power #Storage #Battery #Hydrogen
#Smart_grids



Who are we?

- ❑ Created in 2017
- ❑ Flux50 = 147 Flemish companies developing Technologies in the Energy & Environmental sectors to ensure a global Sustainable Development.
- ❑ **Objective:** Orchestrate and facilitate the realization of a smart energy region, aiming to create economical value for Flemish companies.
- ❑ Triple helix constellation
 - ❑ 5 universities
 - ❑ Links to
 - ❑ Flemish Energy Agency
 - ❑ Flemish electricity regulator
 - ❑ Flemish Energy department
 - ❑ Flemish Climate department
 - ❑ European Commission



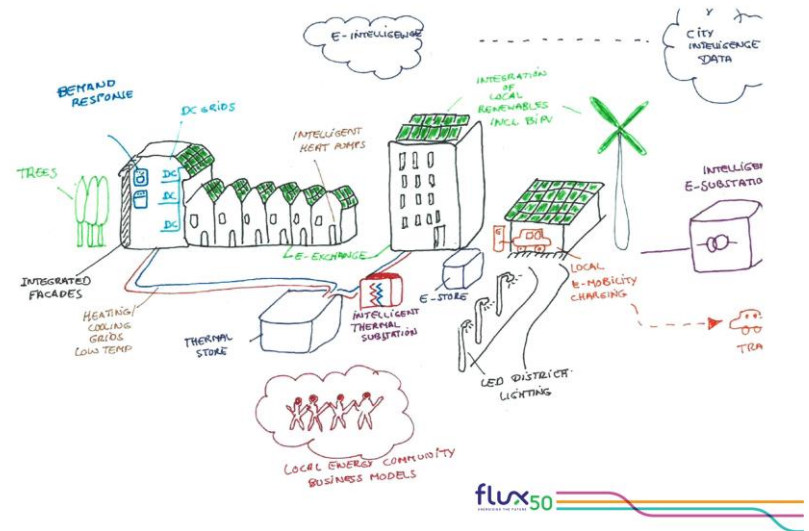
What do we do?

- # Networking
- # Events
- # Projects
- # Studies
- # Promotion
- # Information



What do we do?

- # Networking
- # Events
- # Projects
- # Promotion
- # Information
- # Portal to Flemish energy grants stimulating cooperation



Example: Smart Grids sector

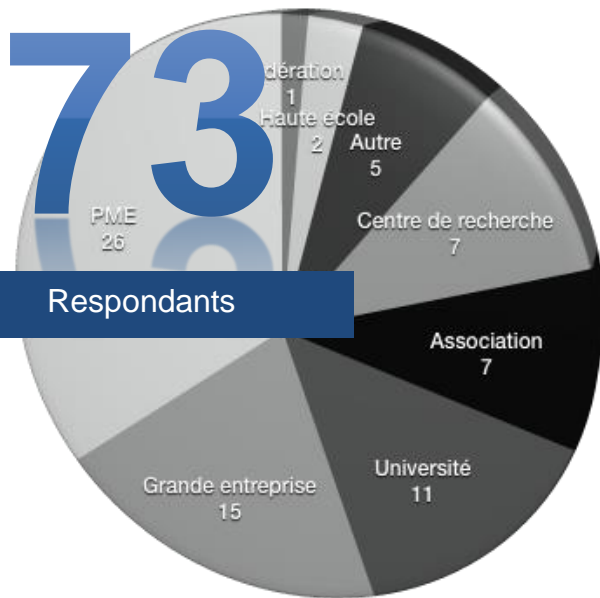
1. **Establish an exhaustive diagnosis of the Smart-Grids sector** by identifying its strengths and weaknesses, its opportunities and threats, its prospects, its needs or its challenges in terms of technological innovation.
2. **Carry out a mapping of Walloon and Brussels stakeholders** (companies, R&D centers, training actors, etc.), whether or not they are already involved in the Smart Grids sector, who have integrable skills in the value chain.
3. **Promote Walloon skills both in Belgium and abroad**, at national and international events via an interactive website and a directory (paper or electronic document) containing the activities of each actor.
4. **Facilitate working groups** to stimulate the implementation of investment and R&D projects.



With the support of



Results



Forces

- **Plan européen** pour l'efficacité énergétique
 - Compétitivité de l'Europe
 - Indépendance énergétique
 - Empreinte carbone
 - Création d'emplois
- Gestion dynamique de l'**équilibre**
- **Flexibilisation** de la consommation électrique
- Remplacement des **compteurs à budget** (€)

FAIBLESSES

- **Réseau** : conçu pour des systèmes de production d'énergies centralisés ; organisation des GRD en conséquence.
- **Maturité** : technologies & standards
- **Bénéfice** : avéré pour les gros consommateurs, controversé pour les petits consommateurs

OPPORTUNITÉS

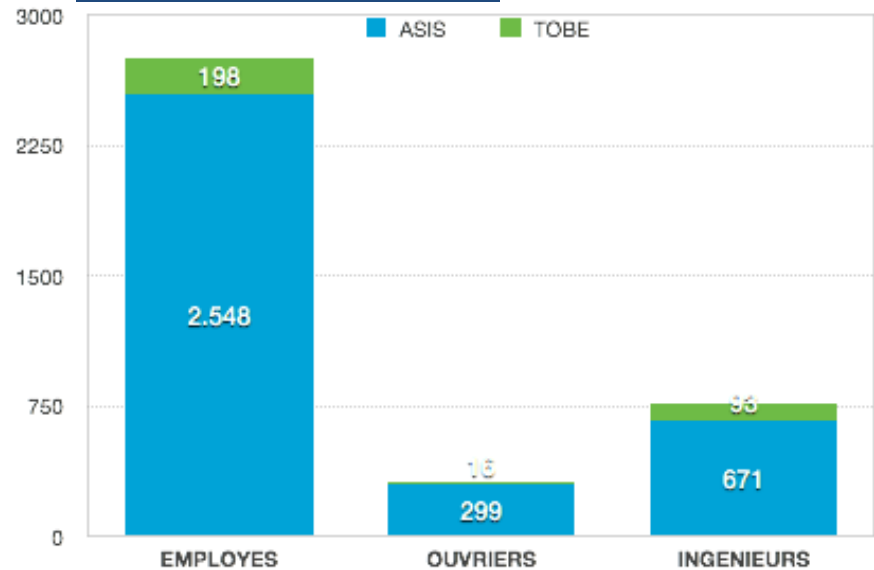
- **Efficacité énergétique** : réduction de la consommation d'électricité de 2 à 10%.
- **Potentiel (marché)** : marché des SG conséquent, sous-exploité et en croissance.
- **Intégration** : NRJ-R & VE sur le réseau.
- **Électricité** : croissance rapide de la demande en électricité, toujours plus volatile par ailleurs, et des pics de consommation.

MENACES

- **Modèle** : manque de clarté quant au modèle de marché (normes, législation, gouvernance, ...).
- **Capacités** : capacités des GRD à gérer un grand nombre d'acteurs et un modèle différent (le client devient en même temps fournisseur).
- **Concurrence** : marché concurrentiel et international. Avance technologique aux USA (4.5 milliards \$ budgétés par les autorités), en Suède, en Italie, en France ([Linky](#))...
- **Cybercriminalité & irrespect de la vie privée**

SWOT analysis

Jobs previsions



& most wanted profiles

- actuaire
- commercial régulation chauffage
- data Analytics
- électromécanique
- électronique
- responsable énergie
- **informatique** / IT / ICT
- **Ingénieur** : développement durable, électricien, industriel, ...
- master en environnement
- **mathématiques** appliquées
- modélisation : risk modeling - financial modeling
- **web designer**

R&D	ETUDES & CONCEPTION	FINANCEMENT	FABRICATION / PRODUCTION	TRANSPORT	DISTRIBUTION & INSTALLATION	COMMERCIALISATION & FOURNITURE	OPÉRATIONS & MAINTENANCE	CONSOMMATION	DÉMANTÈLEMENT & RECYCLAGE	FORMATION & CERTIFICATION	EDUCATION, PROMOTION & SENSIBILISATION
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HORIZONTAL CHAIN - JOBS

A grid of logos for various organizations and companies, including:

- 3E
- actility
- Ampacimon
- ANODE Energie
- ANSYS
- APERE
- belpex
- campus automobile
- Confédération Construction Wallonne
- CEUT POWER
- CECOTEPE
- Province de Liège
- Cenaero
- CENERGIE
- CENURBE
- cetic
- CM-TECH
- e-watch
- Les Compagnons d'Eole
- CORETEC
- cstc.be
- DAPESCO
- DE CUBE CONSULT
- ECV
- edf luminus
- ENBOSCO
- ENERCON
- ENERGYPONICS
- ENERSOL
- ENGIE
- ENGIE Fabricom
- GOLY
- FlexibleSTREAM
- FRS
- GE Industrial Solutions
- H2Net
- HARMEILING
- ICEDD
- INFOPOLE
- Itron
- KESSLER
- kiwa
- LABORELEC
- Lampiris
- meterbuy
- MPI
- Multitel
- NEXT
- NRB
- N-SIDE
- OPTIWAT
- ORES
- Parker
- passeurs d'énergie
- resa
- REstore
- Schneider Electric
- siapartners
- SIEMENS
- SmartNodes
- Syreg
- TECNOLEC
- CORE
- LOUVAIN School of Management
- ICTEAM Institute
- UCL
- ARCHITECTURE ET CLIMAT
- ULB IGEAT
- ULG
- BEMS
- Greenmat
- hece
- Montefiore
- UMONS
- UNIWAN
- VINCOTTE
- WattElse

SYSTEMES DE PILOTAGE

SYSTEMES DE CONTROLE ET DE DETECTION

OUTILS DE MESURE

INFRASTRUCTURE ENERGETIQUE

INFRASTRUCTURE DE COMMUNICATION





LES CARTOGRAPHIES



BIOMASSE-ÉNERGIE



CHALEUR VERTE



ÉOLIEN



PHOTOVOLTAÏQUE



SMART GRIDS



STOCKAGE

Devenir membre de
ReWallonia et bénéficier de
nos services

REWALLONIA



en savoir plus
**A PROPOS DE
TWEED**

Technologies
Wallonnes pour
l'Énergie,
l'Environnement et le
Développement
durable

Le Cluster TWEED
(Technologie Wallonne
Énergie - Environnement et
Développement durable)
est une organisation
wallonne rassemblant plus
d'une centaine
d'entreprises actives dans le
secteur de l'énergie
durable.

ACTUALITÉS



LUNDI 20 AOÛT 2018
**Approbation du
Plan Wallonie
Énergie Climat
2030**

Ce jeudi 19 juillet, le
Gouvernement
wallon a approuvé le
Plan Wallon Énergie
Climat 2030. Ce...

LIRE LA NEWS



Famous Walloon SG projects (1/2)

GREDOR

The GREDOR project addresses challenges in the management of distribution systems raised by the integration of renewable energy sources and new consumption practices, from investment decisions to real-time control. It also aims at proposing and analyzing interaction models for organizing exchanges of flexibility between stakeholders.



- University of Liege
- ORES
- Tractebel Engineering SA
- Elia System Operator S.A.
- EDF Luminus
- Tecteo RESA
- University of Mons

E-Cloud

Innovative and technological, the E-Cloud project targets SMEs and companies located in zonings. It proposes the pooling of production units for a community of companies. "It is an electrical system where a production unit aims to optimize the energy produced by a storage unit, without the need to disconnect from the distribution network. It is therefore a kind of open "micro-network".



- ORES
- University of Liege
- Tecteo RESA
- University of Mons
- IDETA
- SPI
- N-Side
- Eoly
- Nethys

Famous Walloon SG projects (2/2)

MeryGrid

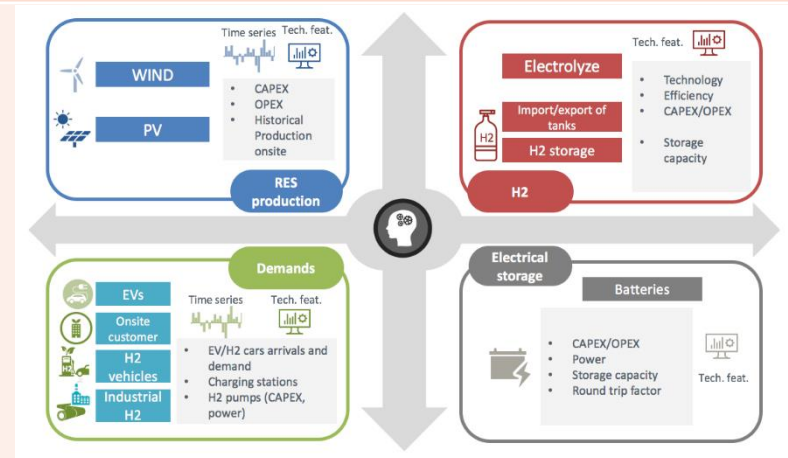
This Walloon pilot project has entered the operational phase. The aim is to test the benefits of local self-consumption at the zoning scale, bringing together electricity-consuming companies, renewable (solar and hydro) production and a storage unit. The energy management system (EMS) that manages the optimization of the micro-network should allow a saving of 15% on the energy bill.



- Nethys
- University of Liege
- CE+T Energrid
- Sirris
- SPI
- La Wallonie

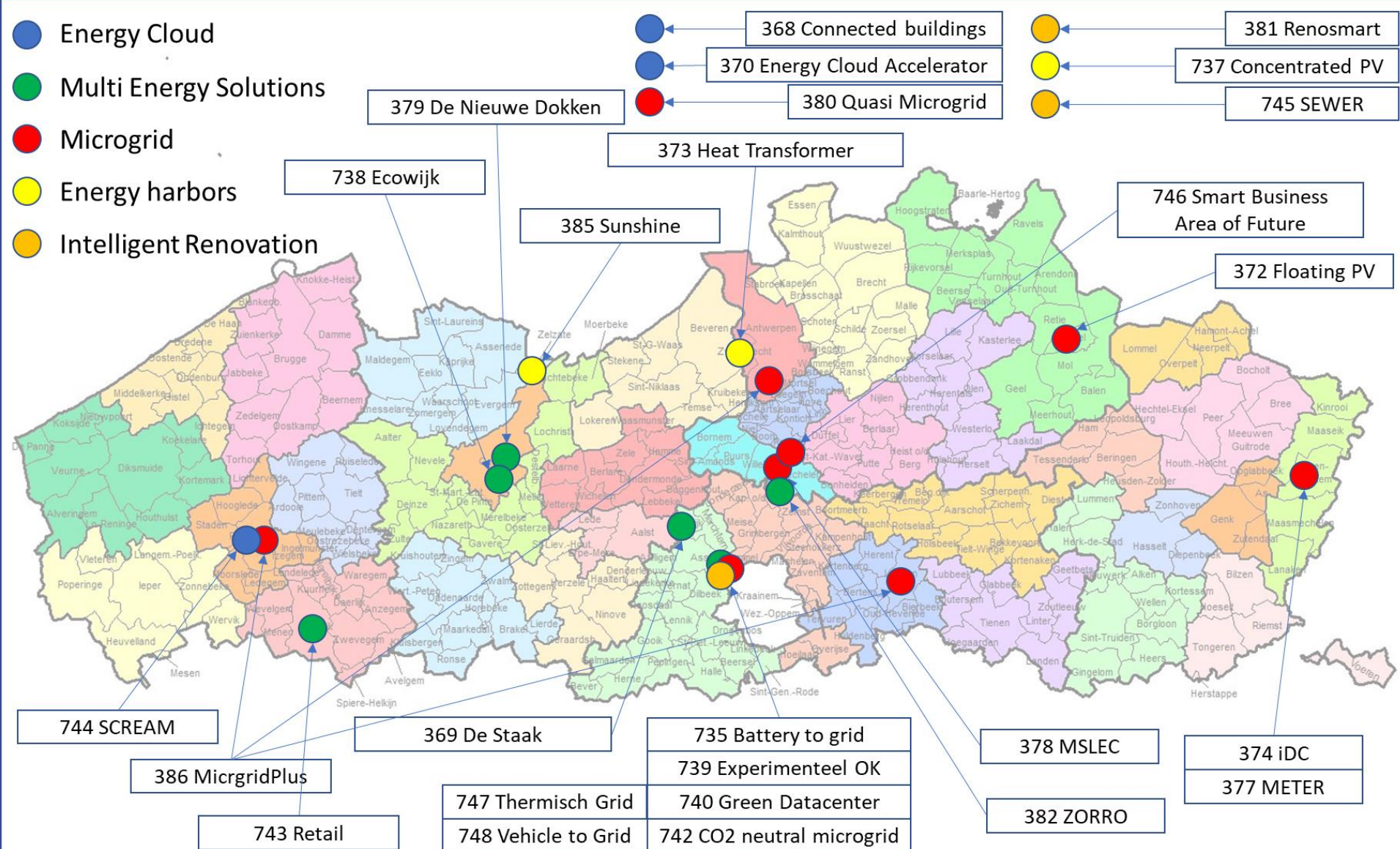
INTERESTS

INTERESTS aims the creation of an optimization tool allowing the definition, the sizing and the management of "integrated stations" of production, storage and consumption (refuelling) of renewable energy (electricity / hydrogen) at the local level. The scenarios developed must be reproducible and economically viable.



- ATM-Pro
- Certech
- N-Side
- TWEED
- UCL-INMA

Project facilitator



Local Energy Communities



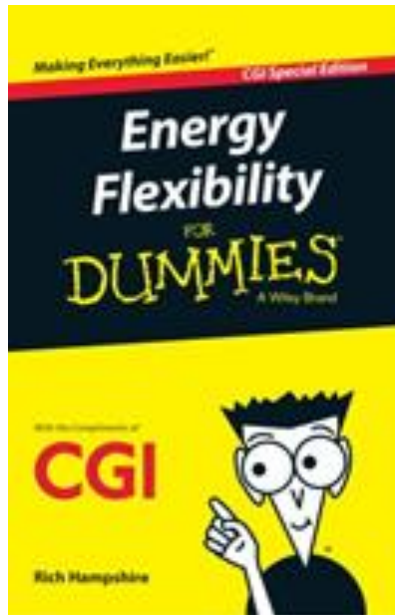
De Vlaamse Staak Opwijk



De POM ontwikkelt in samenwerking met de gemeente Opwijk en de intercommunale Haviland een lokale bedrijvenzone van 5 ha.



Transversal working groups



VII WORLD FORUM ON ENERGY REGULATION

REGULATING IN A TIME OF INNOVATION

EMPOWERED CONSUMERS, DYNAMIC MARKETS,
AND SUSTAINABLE INFRASTRUCTURE



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