



IDETA

E-CLOUD & ZELDA

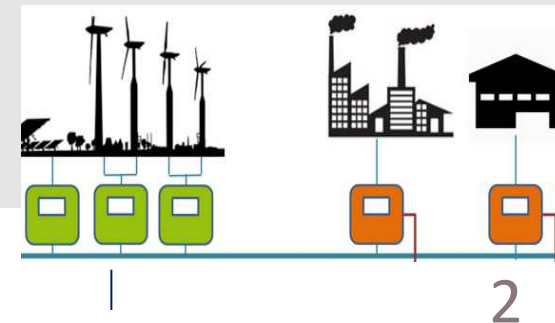
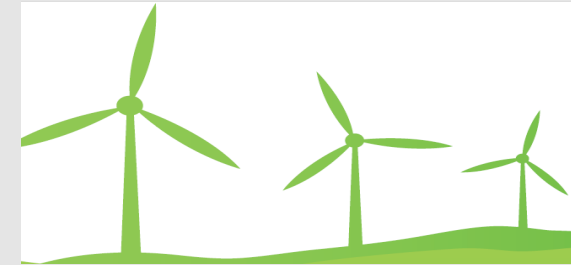
**‘REC’ in the Business
Parks of Wallonia**

IDETA, « RENEWABLE ENERGY & SPECIAL PROJECTS»

IDETA, Regional Development Agency for « Wallonie picarde » (WAPI)

Department “Renewable Energy”:

- **WIND-ENERGY** : IDETA design office 2007-2020 involved in more than 46 active wind turbines in Wallonia
- **SOLAR-ENERGY**- photovoltaic
- **MOBILITY** : Network electrical recharging points in Wapi municipalities
 Network CNG stations => soon *BioCNG*
- **REC*** : pilot projects ZELDA & e-CLOUD



WALLOON DECREE OF 2-MAY-2019 IN RESPONSE TO EU DIRECTIVE 2018/2001 OF 11-DEC-2018

The **2-May-2019 decree** defines **multiple principles**, including:

- **Legal entity** of REC ;
- **Local perimeter** ;
- **No license** to supply electricity ;
- **Delegate** to manage REC ;
- **Distribution System Operator (DSO)** role for readings.

The Walloon government is **currently revising this decree** :

- **End November** : The preliminary draft with the Walloon government ;
- **Spring 2021** : Adoption by Walloon government ;
- **2021-2022** : Submission to the Walloon parliament & definition of government decree.

ZELDA: « ZONING À ENERGIE LOCALE ET DURABLE »

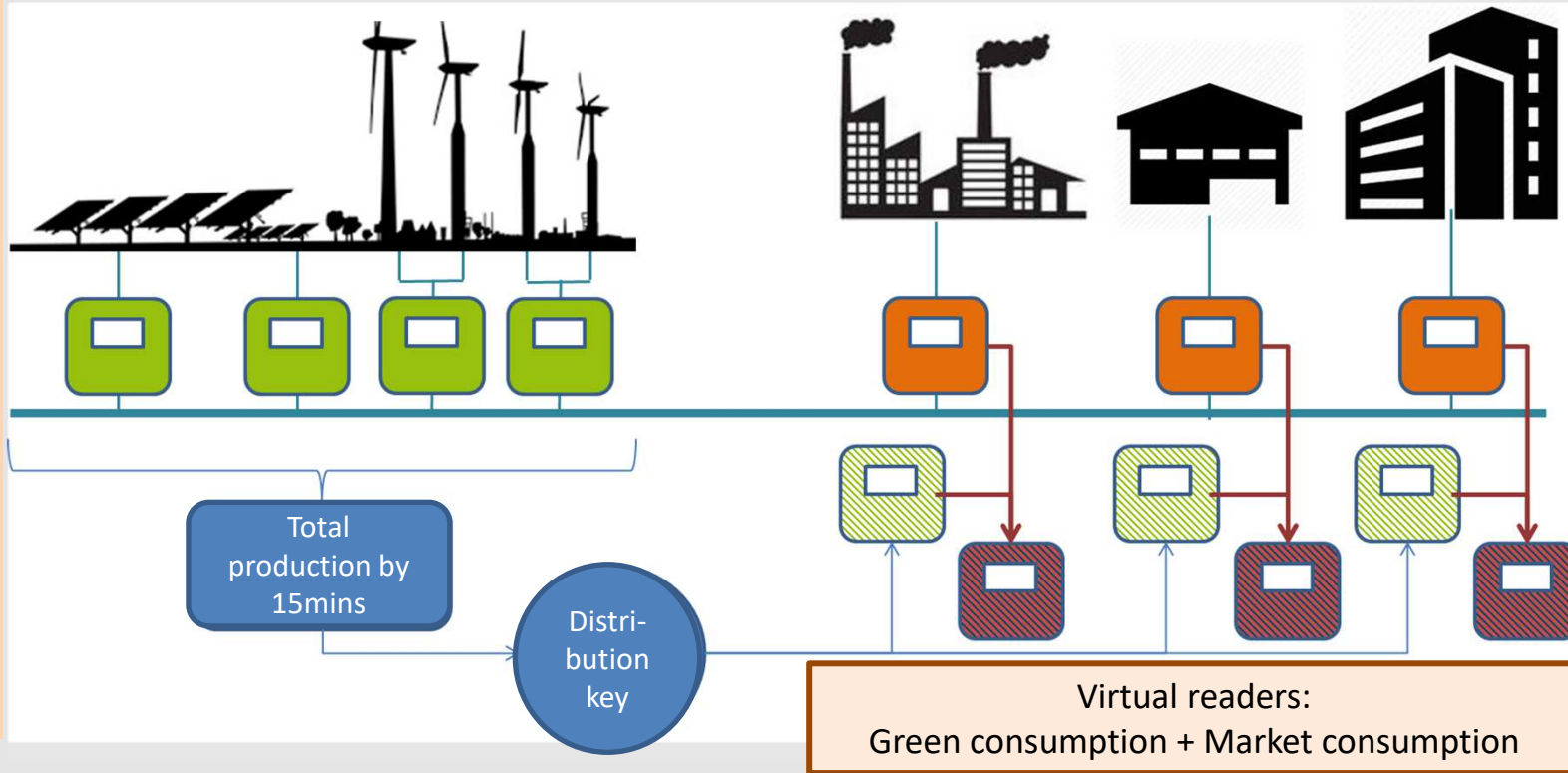
- Study objective: determine the **interest** of shared energy consumption and production in the business parks of the **whole of Wallonia**
- **Period**: Started June 2018, Ending December 2020
- **Common project** to all 8 Regional Development Agencies of Wallonia, the university U-MONS, and the Wallonia DSOs ORES, RESA :
 - Characterization of **72 business parks**
 - Technical simulation of potential gains based on **30 RECs** in these same business parks
 - Potential participation of **200 companies** situated in these RECs
 - Creation of technical tool : MV consumption **profile generator**
 - Sharing **lessons learned** (webinar of September 2020)

ZELDA AND E-CLOUD EXCHANGE MODEL

Essential role of the DSO to ensure the reading and transmission of valid data to the REC delegate and surplus suppliers.

DSO calculation:

Market consumption = real reader - Green consumption



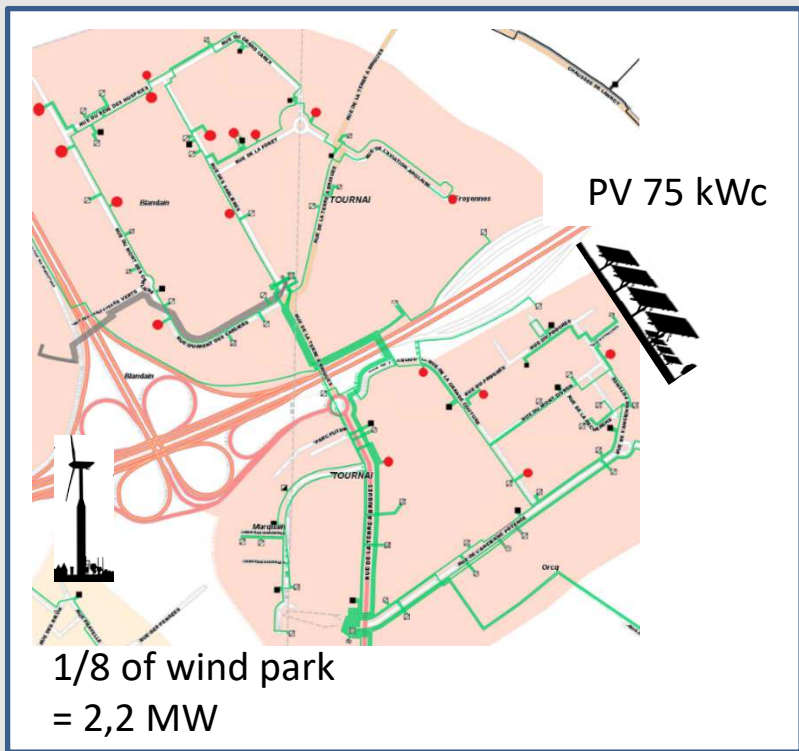
Physical links,
with real readers

Data links,
with virtual readers

Virtual readers:
Green consumption + Market consumption

- Pilot project objective: **real-live test** of shared energy consumption and production in a business park (Tournai West)
- Planning: started August **2017**, ending August **2020**
- REC operational: July **2019** – June **2020** (**12 months effectively tested**)
- Partners: IDETA, Entreprendre.wapi, SPI, UMons, Liège Uni, N-Side, Luminus, Nethys, ORES, RESA
- Participants: **12 customers** / 18 sites , including 6 PV prosumers
= 30% of MT consumers of the business Park

E-CLOUD PROJECT & RESULTS

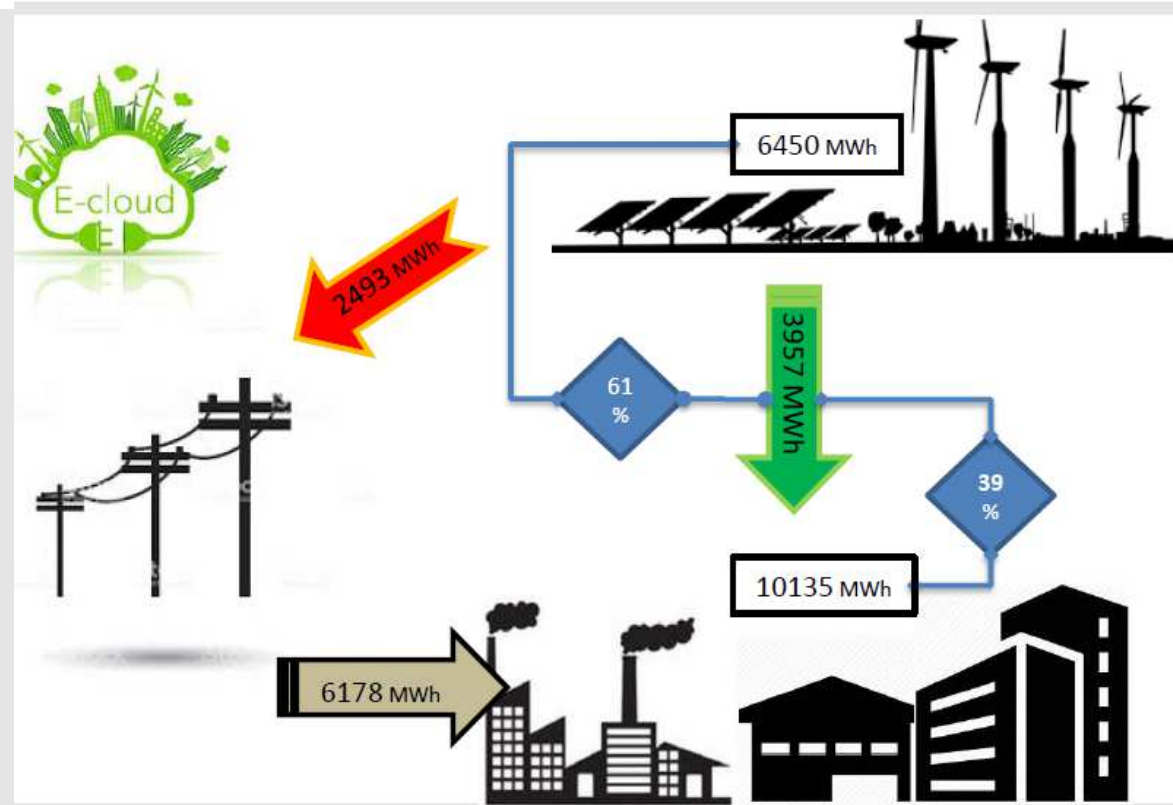


Clients	Consumption benchmark
C1	1.100.000,00
C2	1.300.000,00
C3	2.300.000,00
C4 – plant 1	
C4 – plant 2	1.500.000,00
C4 – plant 3	
C5	1.400.000,00
C6 ☀️	250.000,00
C7	170.000,00
C8 -plant 1 ☀️	
C8 -plant 2 ☀️	280.000,00
C9 ☀️	140.000,00
C10 -plant 1 ☀️	
C10 -plant 2	730.000,00
C10 -plant 3 ☀️	0
C10 -plant 4	
C11	350.000,00
C12	30.000,00

☀️ = Prosumers / at disposal

E-CLOUD PROJECT & RESULTS

- 12 months production - consumption experience
- 1 WT 2,2MW + PV 75KWp = **2,5 MW**
- Total invoice reduction for the community : **45k€**
- **3,9 GWh** self-consumption on a total of **10 GWh**
 = **39% COVER RATE**
- **3,9 GWh** self-consumed on a total of **6,4 GWh**
 produced = **61% AUTO-CONSUMPTION RATE**



Self-Consumption Rate

/!\ Tendency to reduce the renewable energy device at disposal of the community

$$\frac{\sum \text{energy self consumed}}{\sum \text{energy put @ disposal}}$$

Self-Cover Rate

/!\ tendency to increase the renewable energy device at disposal of the community

$$\frac{\sum \text{energy self consumed}}{\sum \text{energy consumed}}$$

Balance required !

An aerial photograph of an industrial park. The park is filled with numerous large, rectangular industrial buildings with grey roofs. There are several parking lots with cars and trucks. The park is surrounded by green fields and a residential area in the background. A purple rectangular overlay is positioned on the left side of the image, containing the text "Thanks!".

Thanks !