



WP7 WiseCOOP

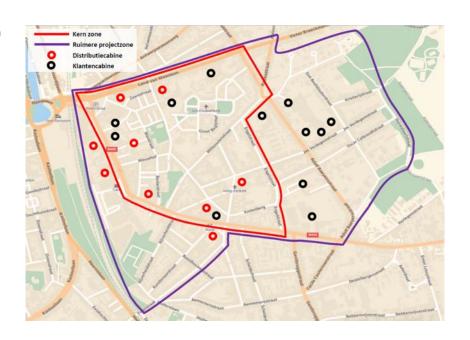


This project has received funding from the European Union's Horizon 2020 research and innovation programme under the grant agreement No 731205.



Flanders pilot site: Ghent - Buurzame Stroom

- Main demonstration site
- Low income neighborhood of Ghent with ca. 2.500 residents.
- WiseGRID collaborates with initiative called 'Buurzame stroom' from the city of Ghent, DSO Eandis and local REScoop Energent
- GOAL
 - Investing together in PV
 - Participation of people in energy market
 - Tackling energy poverty
 - Becoming more independent i.e. balance consumption/production





Partners in Flanders pilot site

















WG Cockpit



WiseHOME



WiseCORP



WG Fast V2G



WiseEVP



WiseCOOP



WG STaaS/VPP



WG RESCO





WiseCOOP – Community building

- Collaboration City of Ghent
 & Buurzame Stroom project
 => increase in PV kWp
 installed
- End user events SMX & WiseHOME users
- End user events EV users
- Energy café's Ecopower











WiseCOOP – Smart meter infrastructure Flanders



Technical installations:

- Integration in WG ecosystem by maximum reuse of SMX of H2020 Nobel Grid: 106 flukso's + smx available
- Not all PV installations could be monitored: partially virtual PV metering
- Nearby production: share of local windturbine
- Oxfam PV 83 kWp + Ampère 36 kWh battery
- DsDS co-housing with 4 Varta batteries
- Jacobs' nest sustainable building with Varta +
 EVSE



Flanders pilot site: Sustainable building Ghent – Jacob's Nest

- Low-energy domestic house (1150 kWh heating / 210 m²)
- RES production PV 4,4 kWp
- EV Renault Zoé with 41 kWh battery (shared with neighbours)
- Smart metering
 - 3-phase electricity metering (offtake + injection)
 - submetering EVSE consumption
 - Submetering PV production
- Additional assets
 - Heatpump Stiebel Eltron LWZ 403 compact heatpump
 - EVSE EVLink2 Wallbox 3 x 16A (230V)
 - <u>Battery</u> storage VARTA Pulse 6kWh





WiseCOOP Basics

- Target users: aggregators of consumers and prosumers energy retailers, local communities and cooperatives
- Objective: helping consumers and prosumers to work together in order to achieve better energy prices and smarter use of available local RES production

• Main Features:

- Individual contracting and metering follow-up
- Collective monitoring of groups: energy exported, energy imported,....
- Map: geographical overview
- Tarrifs: flat vs dynamic, tariff designer, comparison,...
- Analytics: group and individual level
- Market: insight in key market indicators, forecasting, DR,...
- Link to WiseHOME dashboard

Dashboard



Dashboard

Meters ▼

Мар

Tariffs ▼

Analytics ▼

Market ▼

□ Contracts

Help ▼

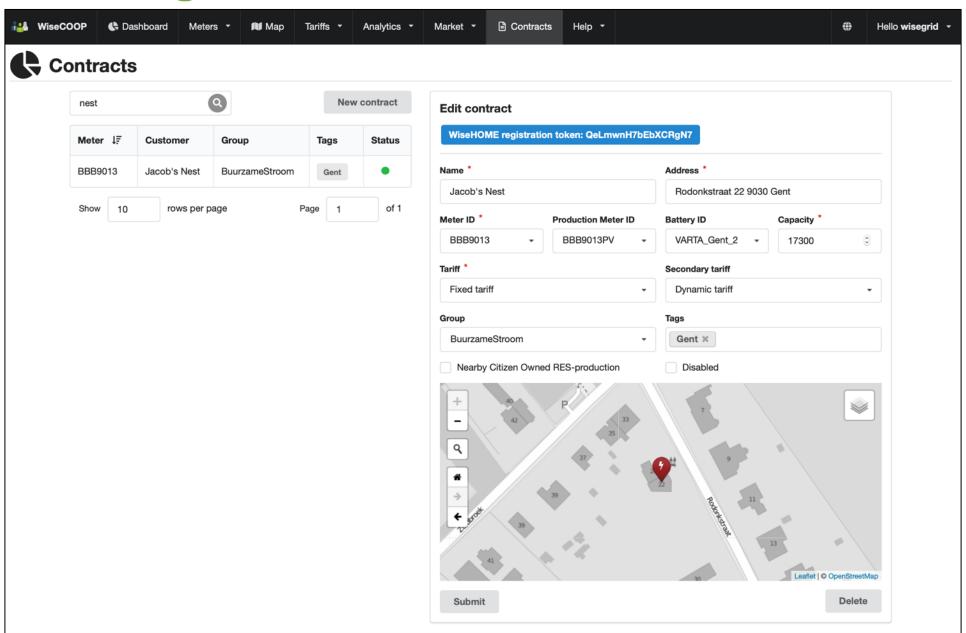
Hello wisegrid ▼



Demand and production



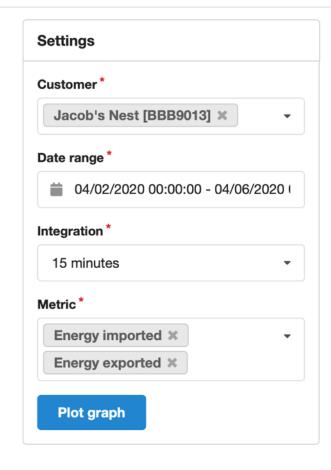
Contract management

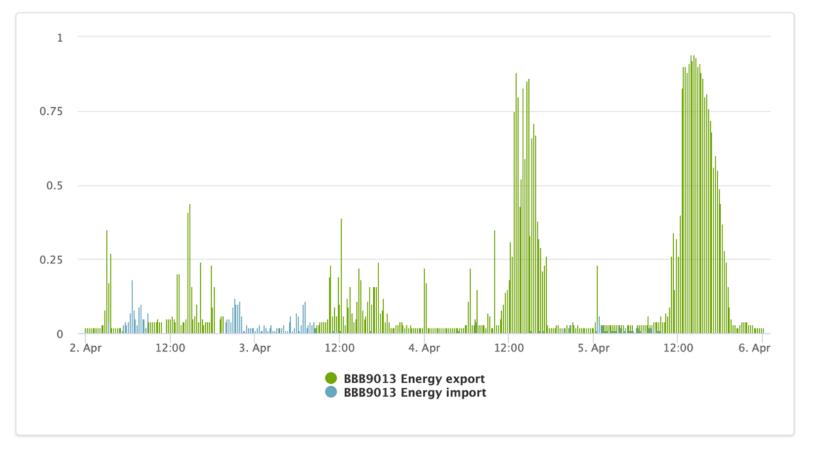


Monitoring individual member



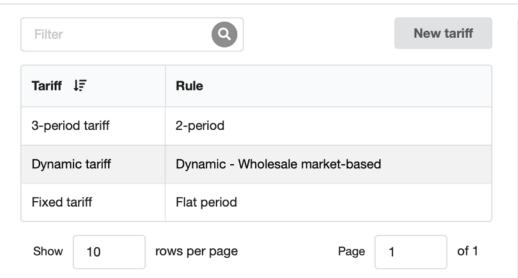
Monitoring





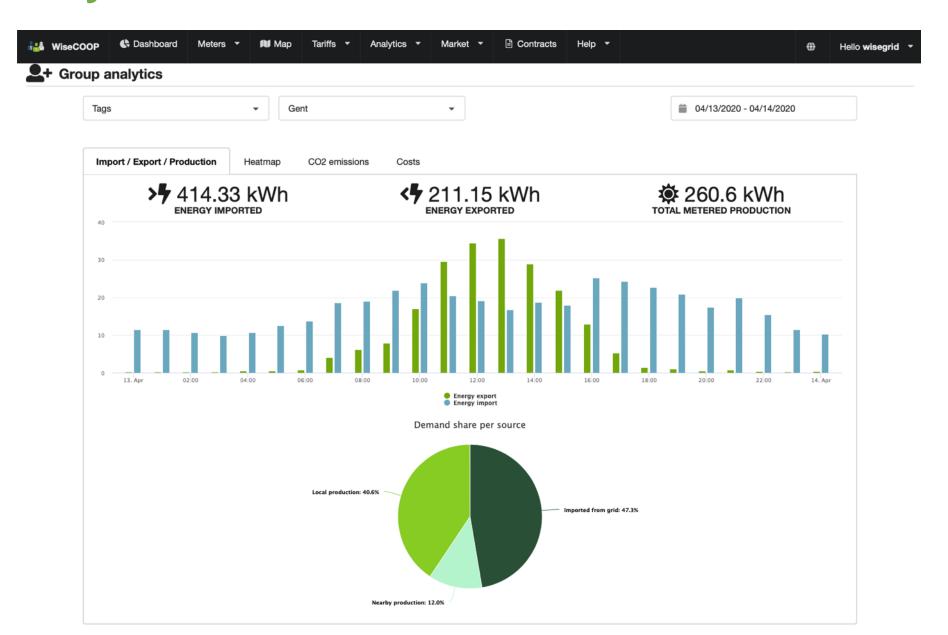
Tariffs designer

€ Tariffs

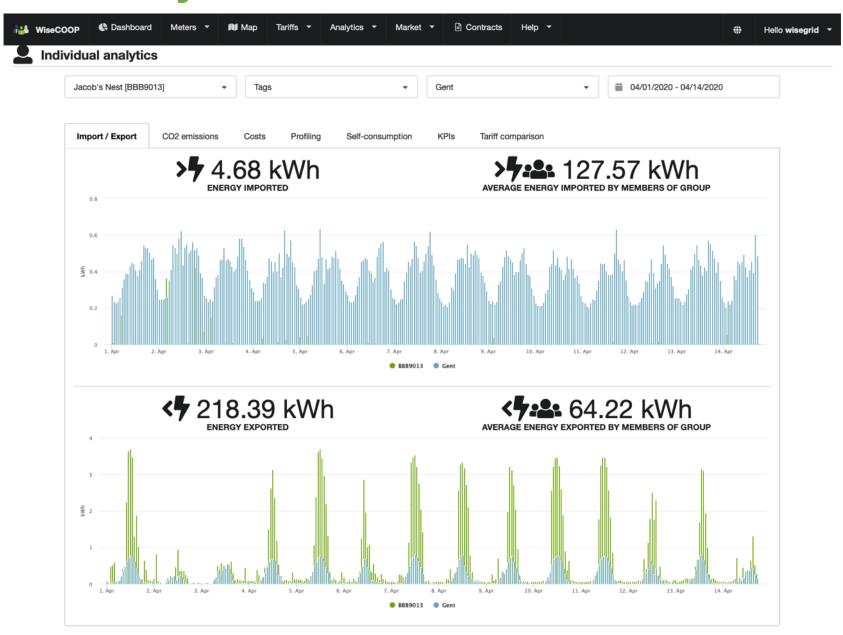




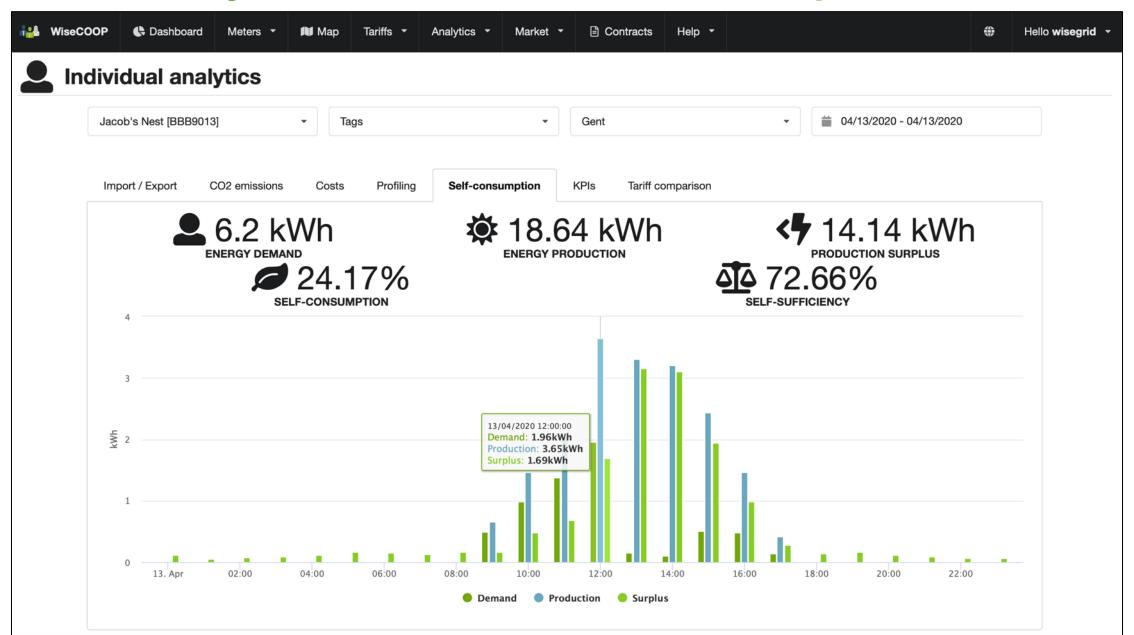
Group analytics: Gent cluster



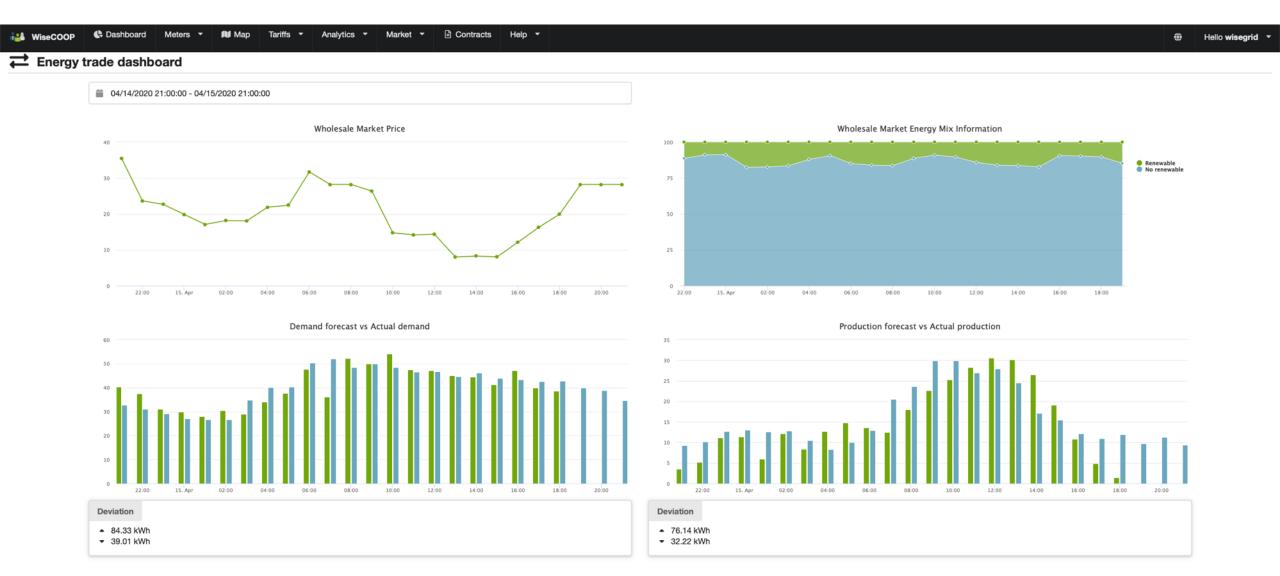
Individual analytics: Jacob's nest vs cluster Gent



Individual analytics: Jacob's nest Self-consumption KPI's

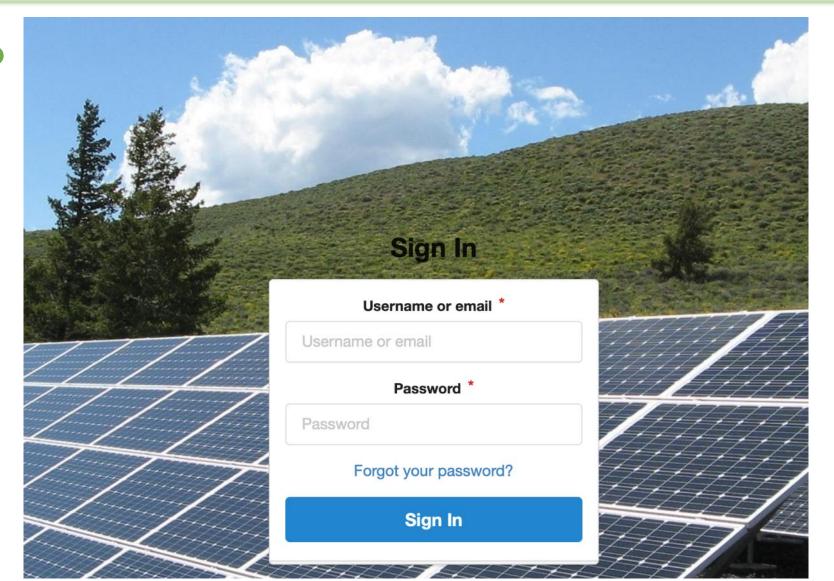


Group analytics: Energy trade dashboard





Live Demo





WiseCOOP Conclusions

- Nice tool for communities and retailers to aggregate data and get customer insights.
 Future towards flexible communities.
- Bumps in the road:
 - Difficult to keep SMX online with private person's internet connection
 - PV monitoring not in all cases feasible at low cost
 - Initial bugs
- Future: P1 interface of digital meter great enabler: clear advantage of SMX concept
- Dynamic pricing is future, but advantage different for different users, and home automation key for maximal results.
- Still largely virtual as the market in Flanders is not ready yet



Thank you!

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