Examples of Territorial Energy Planning

The following innovating projects are a testing ground for a true energy transition

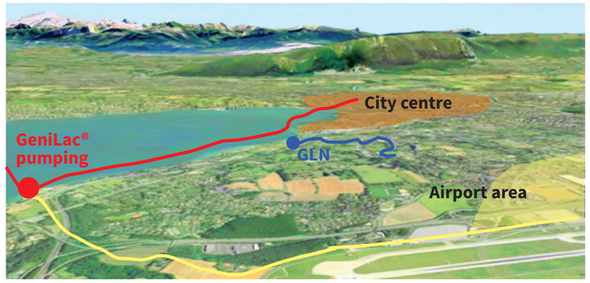
ECTP
CEU TOWN
PLANNING
COMPETITION

①+② GLN - GeniLac®

Project: to develop a broad thermal network (warm and cold) using the water from the Lake Geneva

Background: GeniLac® is an offspring of the Geneva-Lake-Nations project (GLN), a similar, yet smaller network pilot project supported by the European Union

Strong features:
- A previous project has demonstrated the thermal potential of the lake and has been crucial for the launching of a larger scale project
- Successful partnership between energy experts and spatial planners; this scheme integrates three big urban planning projects to the south of the international airport while involving a thermal network, a motorway network and high voltage lines. A dedicated unit was created, including private stakeholders and representatives from the Swiss Confederation, the Canton and the municipalities

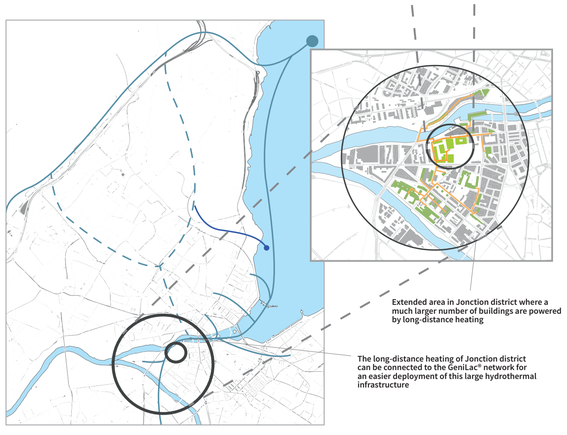


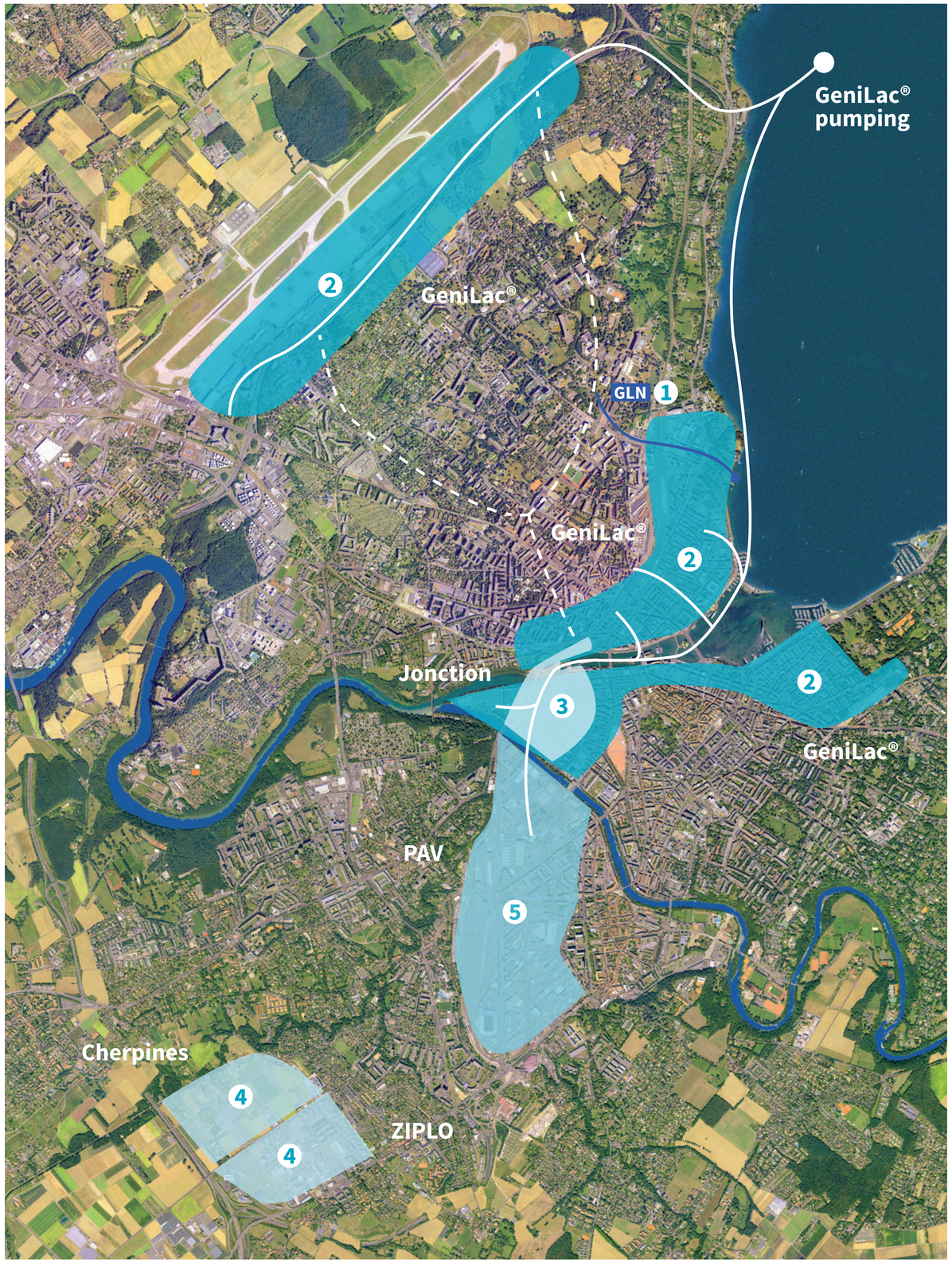
②+③ Jonction - GeniLac®

Project: long-distance heating network in the Jonction district, using the water from the Rhone

Background: a 100% sustainable supply was considered on the restricted area. Eventually, the selected alternative provides for a mixed supply, yet extended to existing buildings. This option rests on 10% of fossil energy as a supplementing source of energy

Strong features:
- Integrating this spatial planning project into an extended area will make a larger portion of the territory move to sustainability
- This project is meant to evolve - in time, the network will be connected to the GeniLac® network that will replace the water from the Rhone with the water from the lake and further strengthen the efficiency of the heat pump. It provides more stability to the system



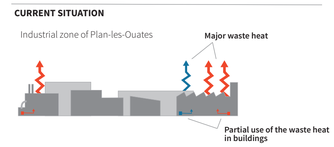


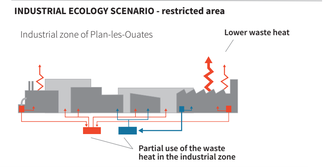
④ Industrial zone of Plan-les-Ouates and district of Les Cherpines

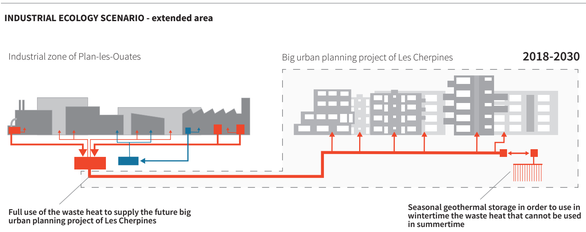
Project: The waste heat of some of the companies of the industrial zone will cover a substantial part of the heating needs of the buildings located in the zone, but also of those located in the future housing area of Les Cherpines

Background: An industrial ecology solution restricted to the industrial zone of Plan-les-Ouates (ZIPLO) would be easier to implement, for the stakeholders are identified and the buildings are already there. In an extended area, the challenge is to coordinate many private and institutional stakeholders

Strong feature:
- Rational use of the energy and effort to find a balance in two interdependent territories - one with strong waste heat and the other one with substantial needs





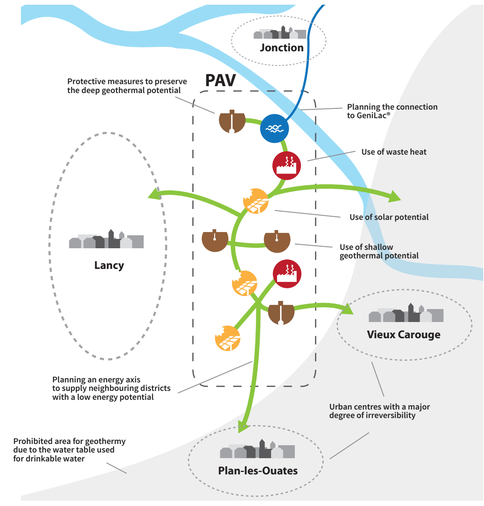


⑤ Praille-Acacias-Vernets (PAV)

Project: Use of the energy potential - waste heat, shallow geothermy, solar energy, possible connection to GeniLac® - of the extended area included in the PAV Great Urban Planning Project

Background: This central territory in the Canton of Geneva is going to be significantly transformed in the next years (230 hectares)

Strong feature:
Integration of long-term energy strategies in spatial planning procedures:
- elaborating the local master plan together with the energy concept enables to provide for spaces that are dedicated to deep geothermy
- energy opportunities are encouraged, as well as the connection to neighbouring areas with lower energy resources



REPUBLIQUE ET CANTON DE GENEVE