



INTERPED

On the role of low-temperature waste heat in energy communities

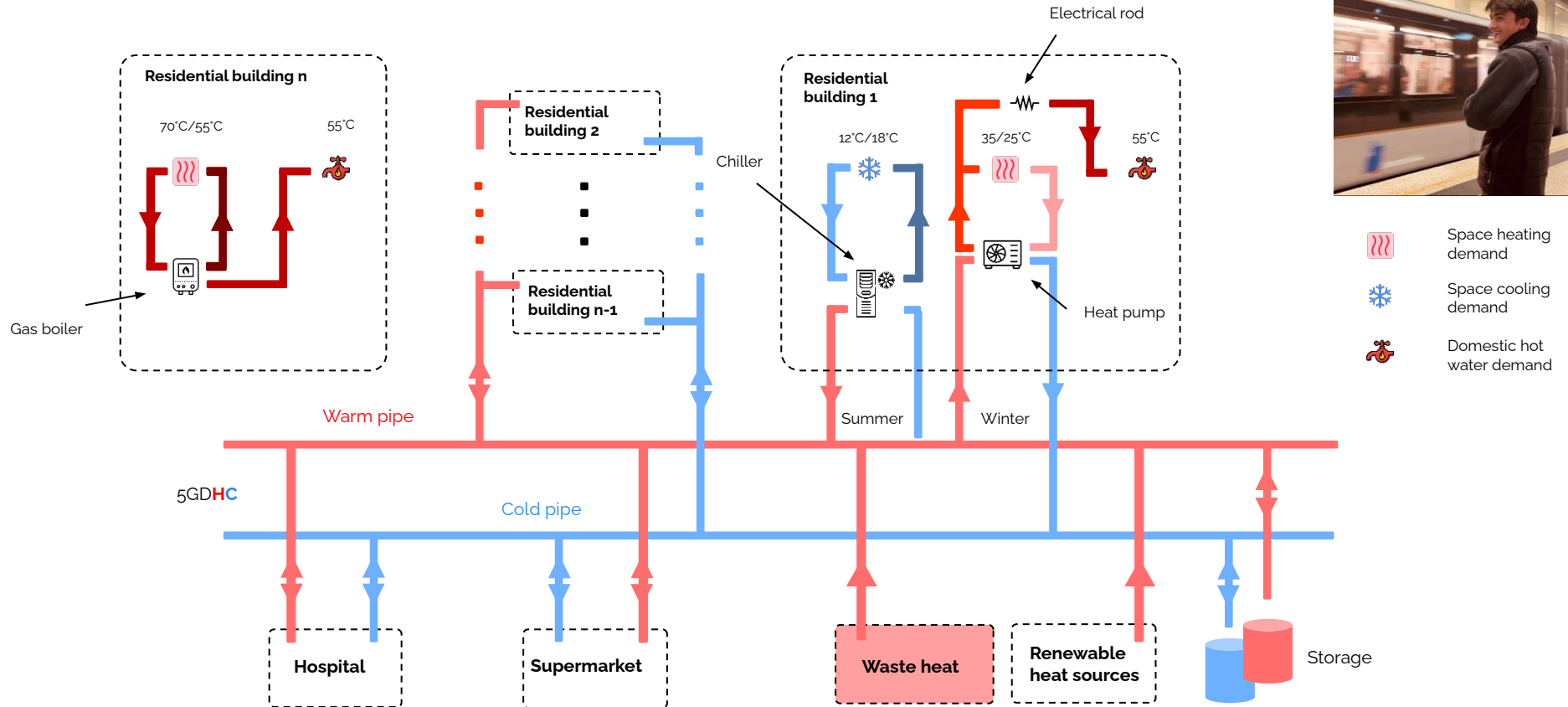
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Under the supervision of Prof. H. Jeanmart and Prof. F. Contino

Me in a metro station in Brussels ... and a graphical abstract

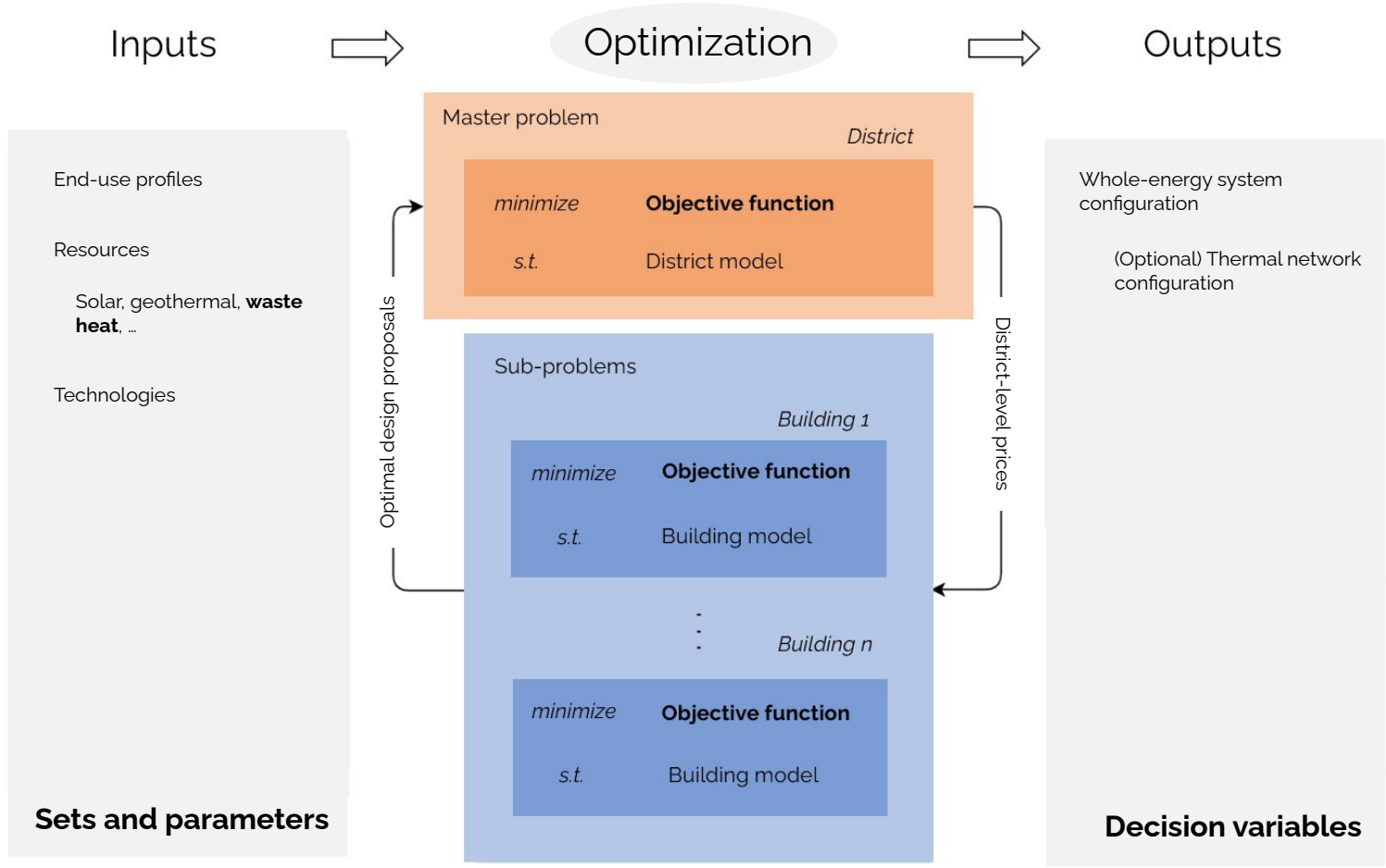
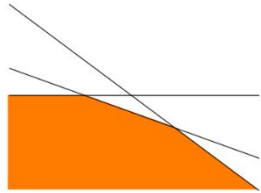


Conceptual configuration of a 5GDHC network with waste heat integration ; overview of a conceptual configuration of two residential heating systems---one connected and the other non-connected to the network. Connected buildings act as consumers and prosumers.

Research methodology

Implement MILP-based formulation for selection of thermal network + sizing and operation of the network (4GDH and 5GDHC)
Implement technologies

Non-linear properties



Adapted from [1]

I'm eager to gain insights regarding ...

The coupling opportunities between district- and national-scale (i.e. EnergyScope) models

Thermal storage implementation in ESOMs¹

and I'd be glad to share the knowledge I have acquired on ...

On district heating modeling approaches in ESOMs

On the modeling of T° dependent components (i.e. DHW², SH³ and SC⁴ demands, technologies such as HPs⁵, HEXs⁶, ...) in ESOMs

On basic knowledge regarding temporal aggregation techniques in ESOMs

On insights regarding a decomposition algorithm, i.e. Dantzig-Wolfe

(researchers aiming to use EnergyScope MC could be interested in implementing the algorithm!)

¹Energy System Optimisation Models

²Domestic Hot Water

³Space Heating

⁴Space Cooling

⁵Heat Pumps

⁶Heat Exchangers