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Step-by-step design for a low-temperature network at the Schipperskaai Ghent, Belgium

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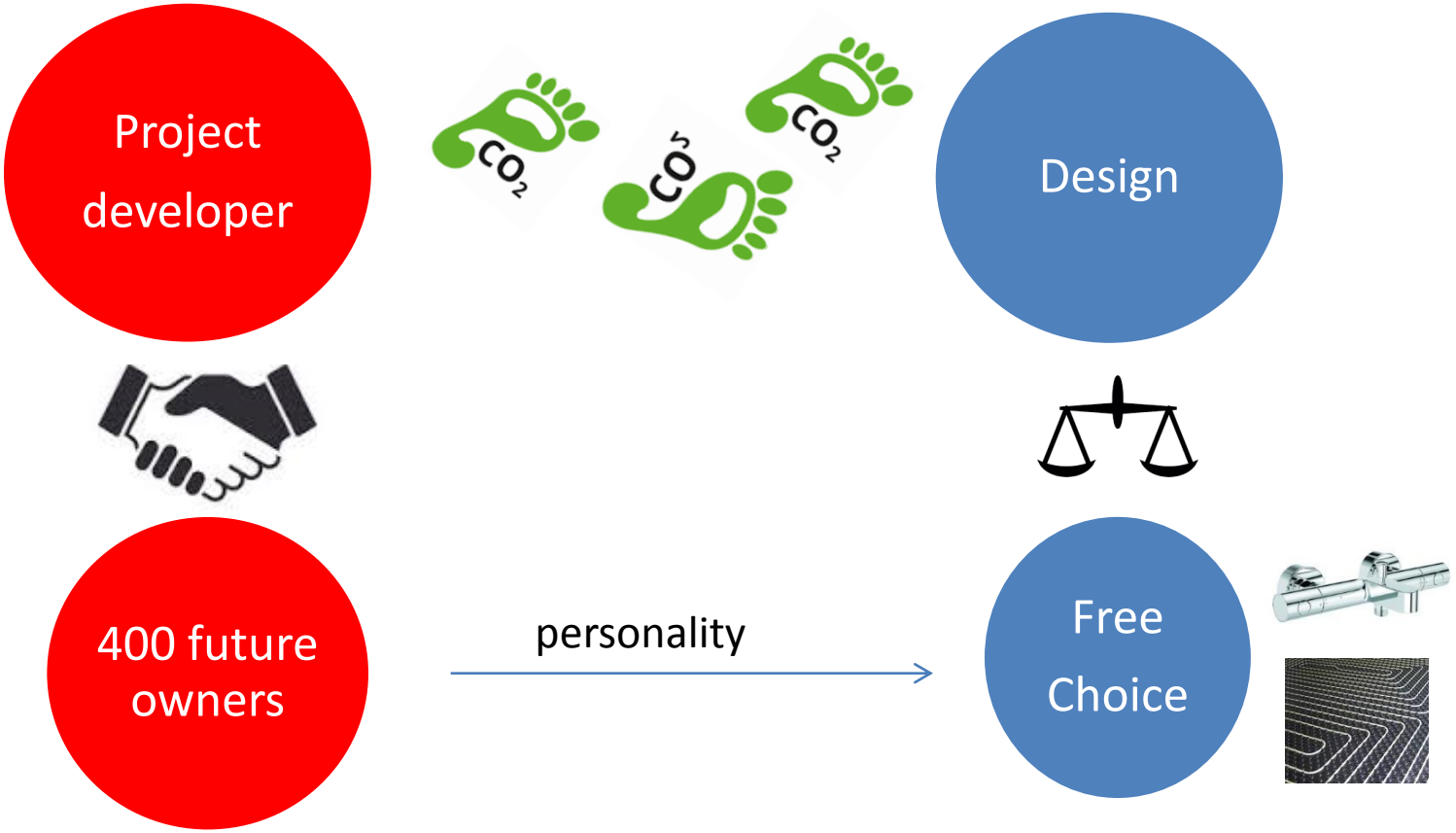
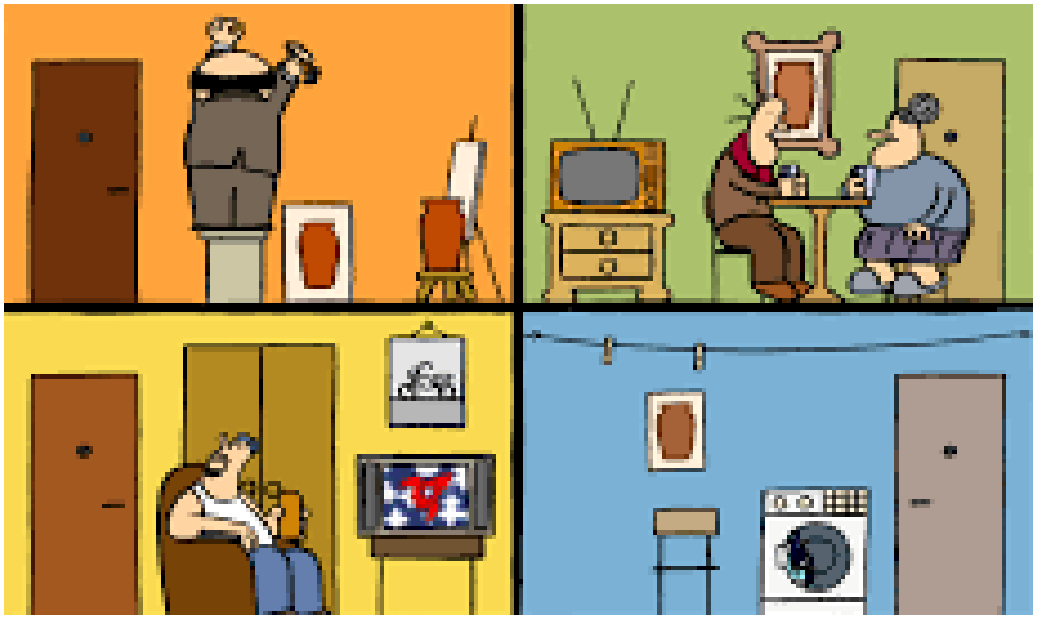
Belgian context



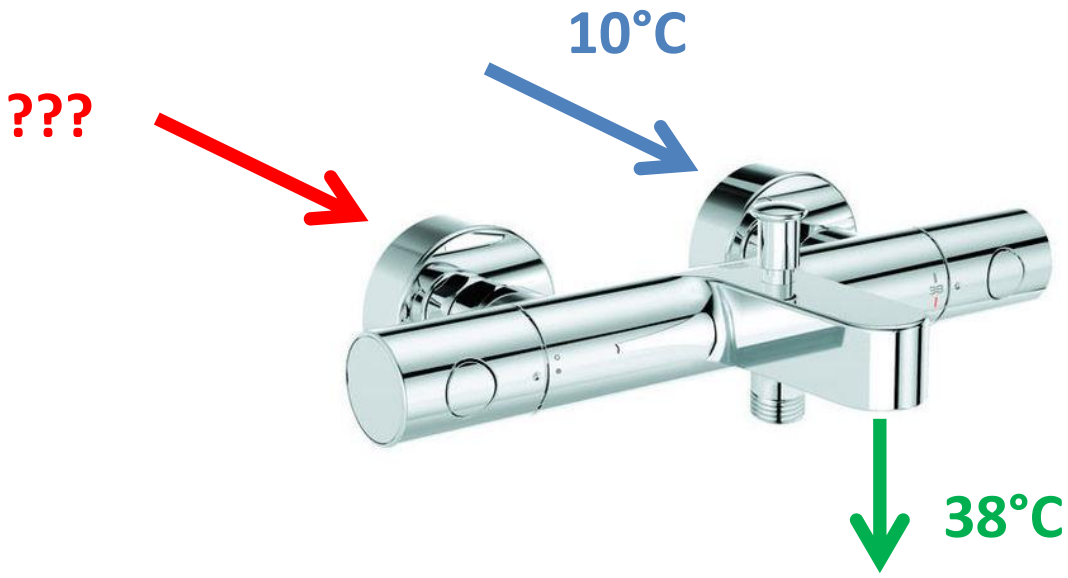
Flat: how low can we go ?



Supply -> hot water Return -> heating

Figure : Flatlife, J. Geirnaert

Hot water mixer taps



Thermostatic: 42°C – 45°C –53°C → **IN 45°C**

Non thermostatic: → **OUT 45°C**

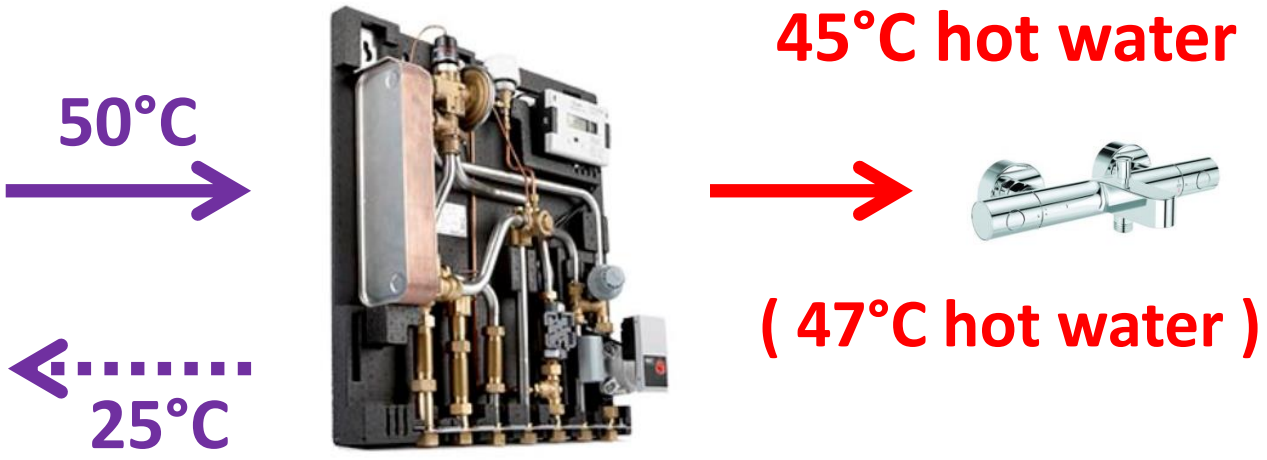
Hot water distribution

no limits

Belgium (Flanders)

- Residential buildings: no legal restrictions
- Good practice (BAT): minimise length and volume

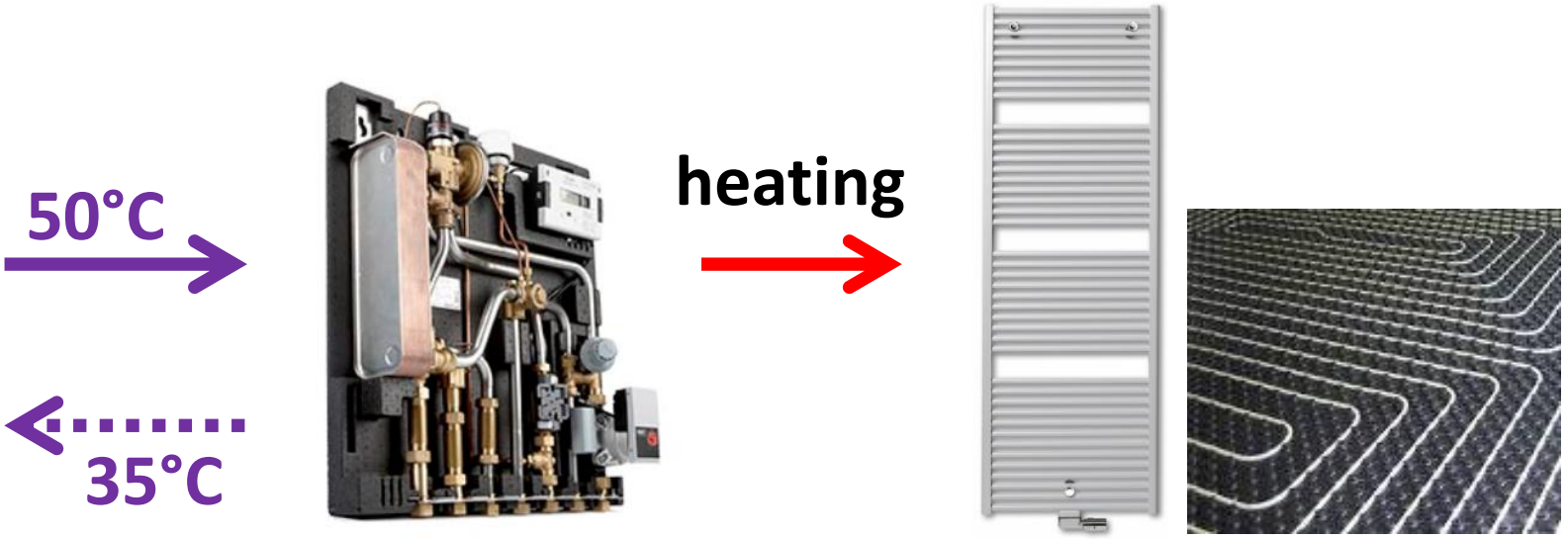
Flat stations and hot water



Comfort: 25 kW -> OK

Luxe: 50 kW -> Less competition

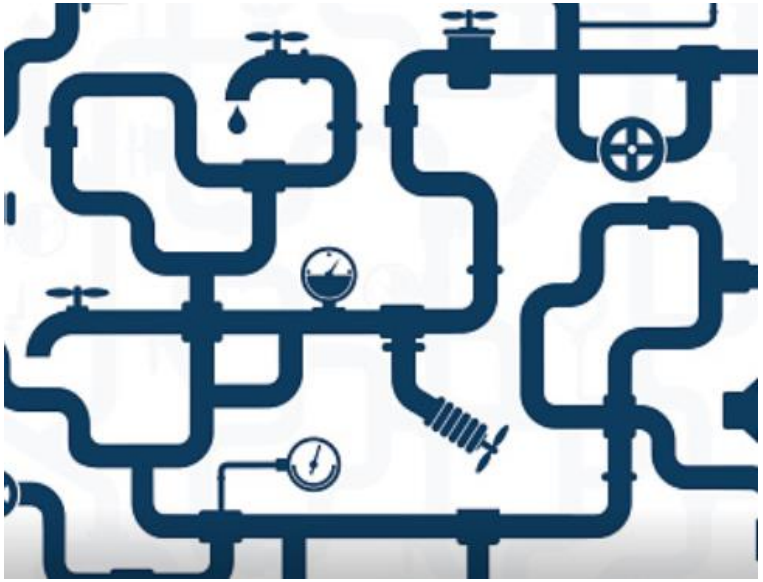
Flat stations and heating



Floor heating, low temperature radiators, …

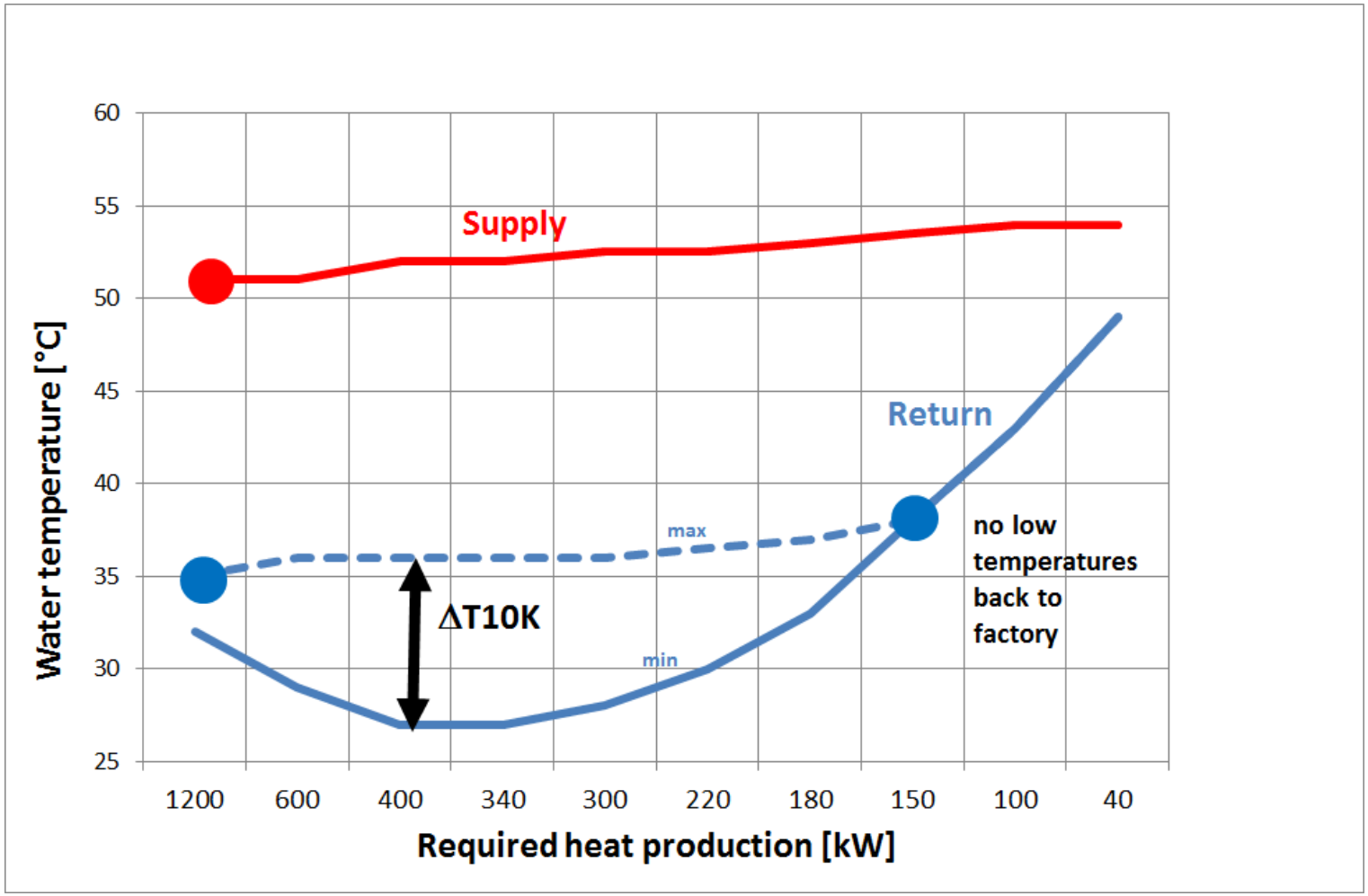
Max. 45 / 35°C -> OK

Network: impact on temperatures

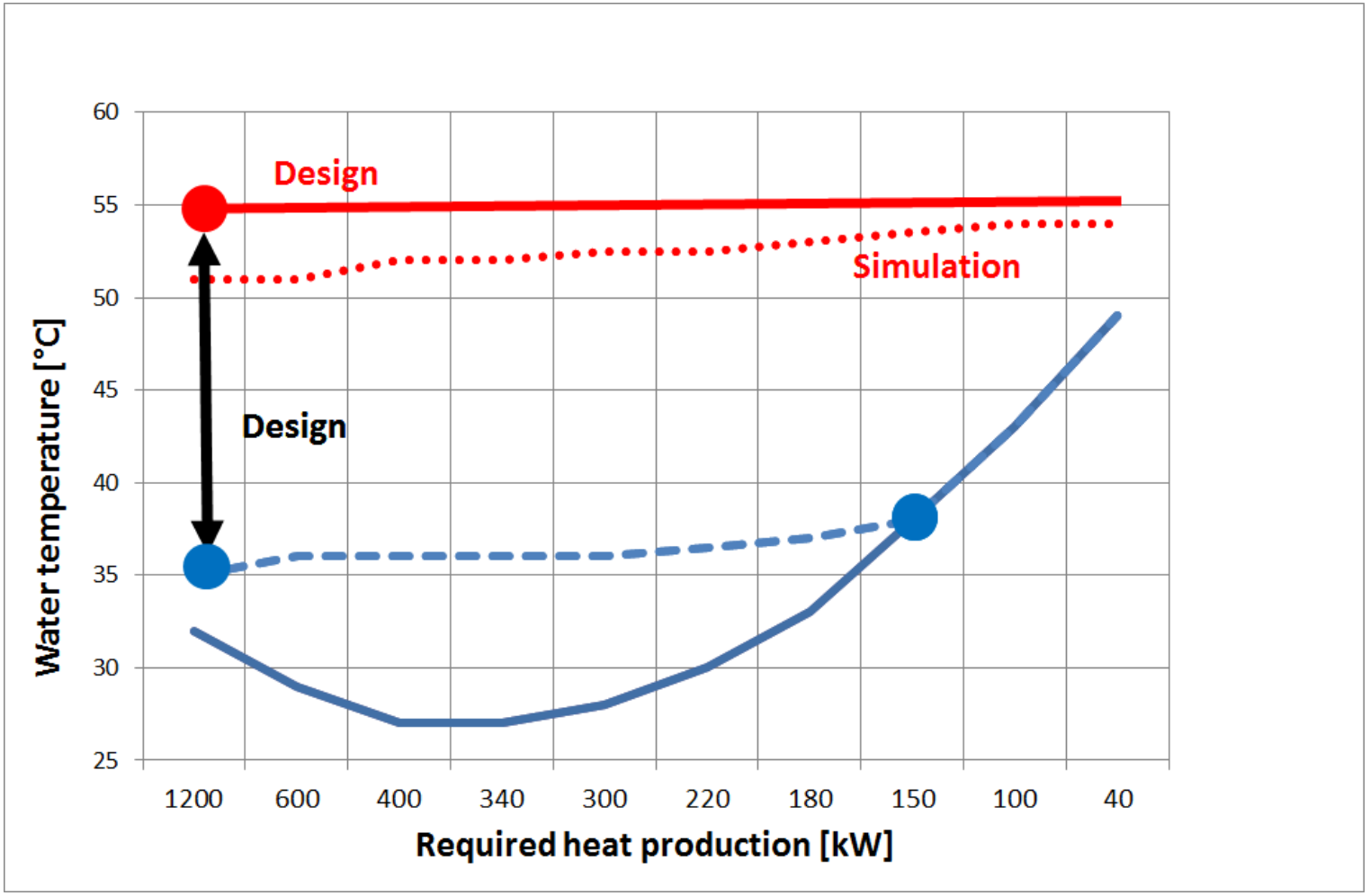


Design temperature on flat level is different
from design temperature on production level !

Temperatures at production (1)

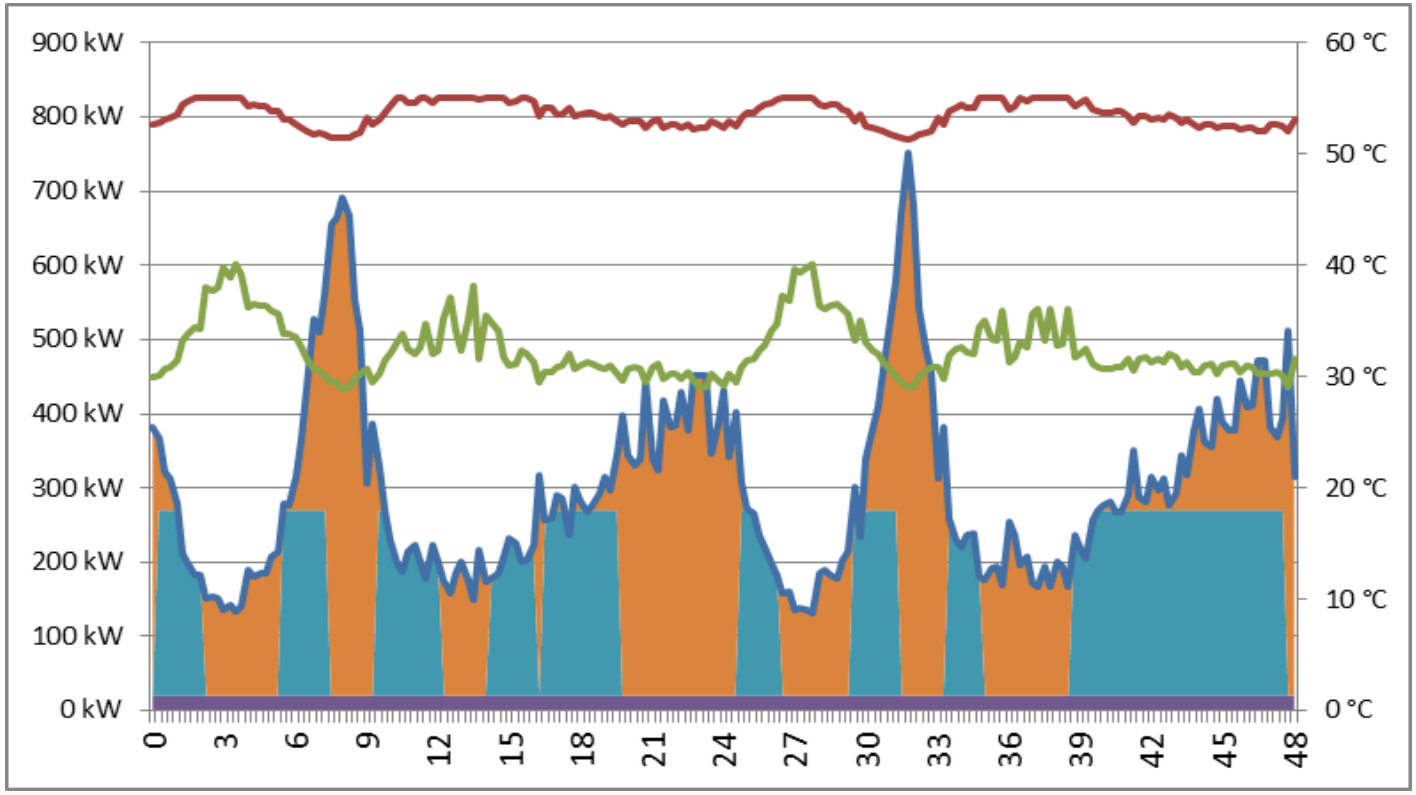


Temperatures at production (2)



Production

Tests running at the nearby soap factory 2017



Impact of temperature buffer
Stability of production
Simplicity of control

Thank you

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