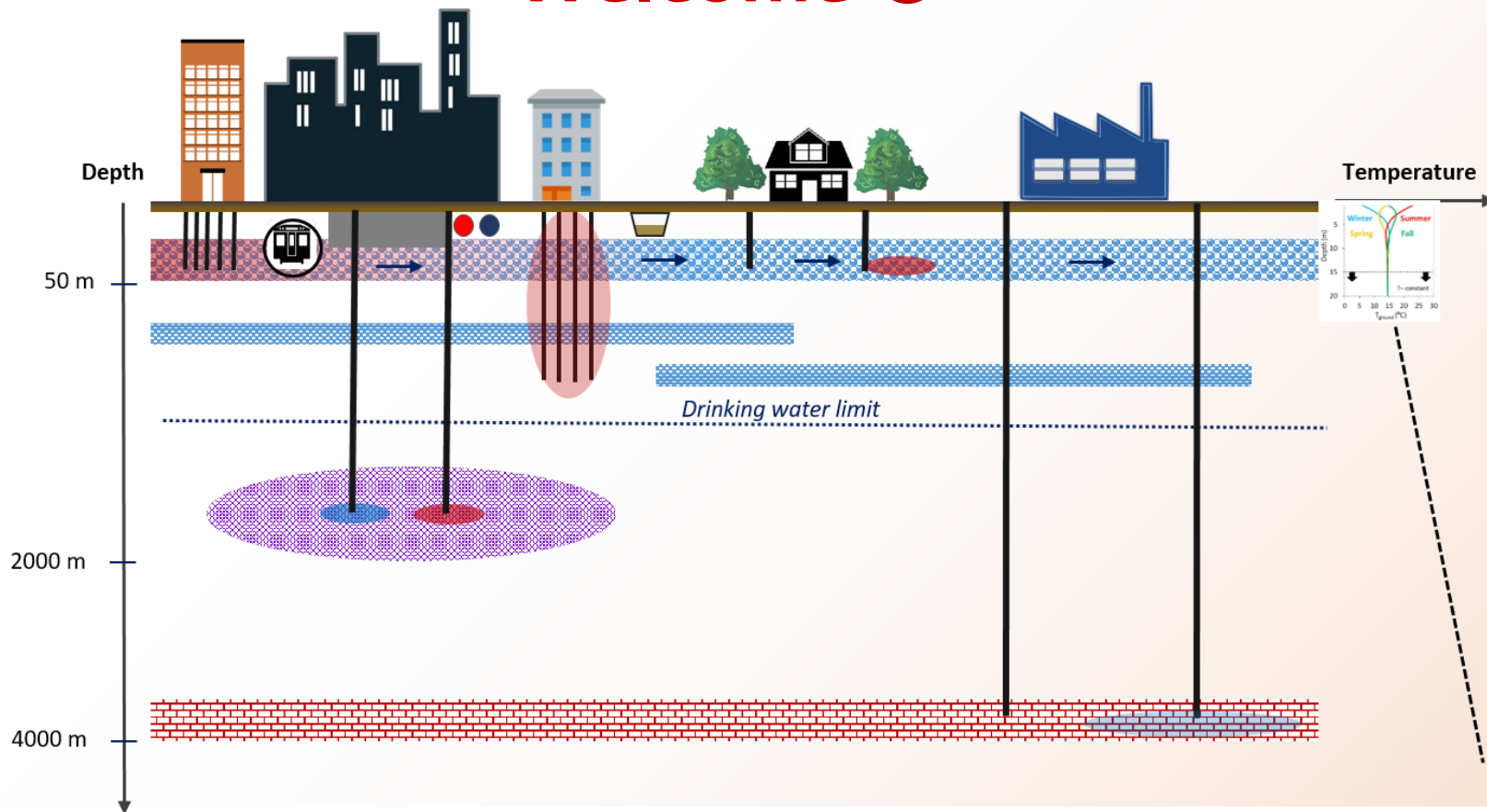


Geothermal heat – sustainable energy below our feet!

Welcome 😊



Why choosing geothermal?



HEATING



COOLING



ELECTRICITY



HEAT STORAGE

- *The only multitasker among renewables*
- *Climate and environmental friendly*
- *Available everywhere*
- *Stable and reliable*
- *Invisible on the surface*
- *A huge portfolio available*

Geothermal Fact Box - Europe

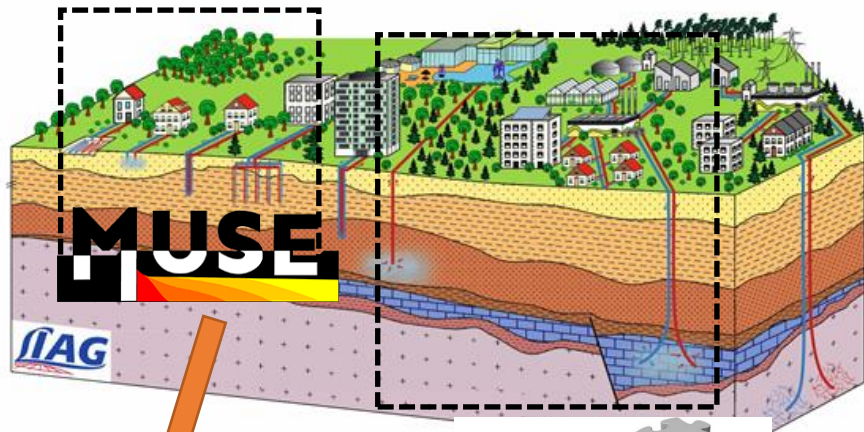
- More than 2 mio. ground source heat pumps
- More than 300 direct uses in heating networks
- Overall share inside H&C market less than 3%
- Successfully applied for heating since almost 700 ys

Challenges and barriers

- *Uncertainties and risks of being successful*
- *Lack of attention*
- *Limited access to knowledge and information*
- *Higher complexity in deployment*

The geothermal portfolio

The difference between shallow and deep geothermal



Characteristic	Shallow Geothermal	Deep Geothermal
Depth range	No permission for drilling, standard drilling range up to around 150 meters	Permission for drilling required, drilling depths >150 meters to 5.000 meters
Temperature level	0°C to <30°C	30°C to 200°C
Thermal capacities	<10 kW to <5 MW	1 MW to >50 MW
Electricity production	No electricity production possible	Binary circle: 90°C – 200°C Direct use: >200°C
Cooling	Free cooling	Forced cooling (adsorption, absorption)
Heat supply	Individual buildings 5G heating and cooling networks	Industrial heat 2G to 4G heating networks

Urban focus



HotLime
GeoERA
GEO-ENERGY

Geological focus



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