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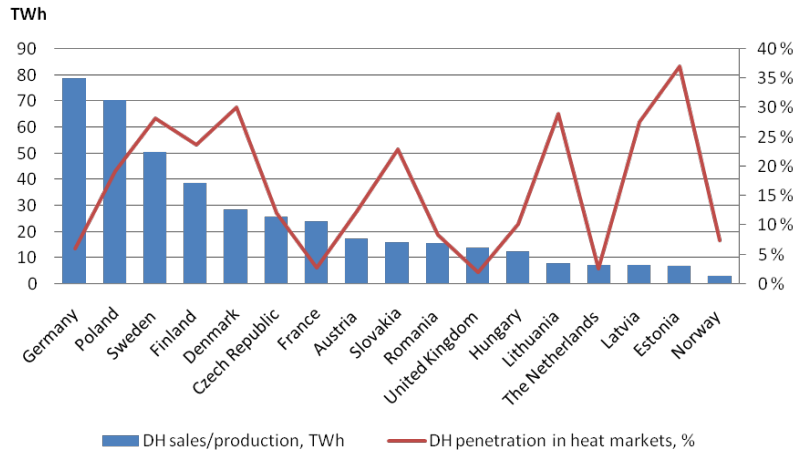
# DHC contribution to sustainable development

Position of Fortum

Monika Kuusela

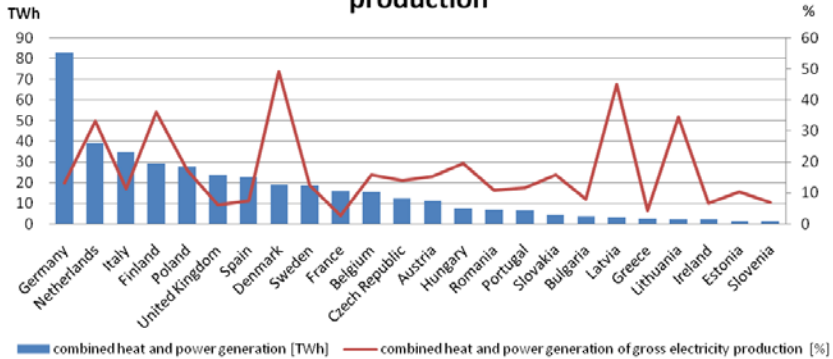
# District heating and CHP in Europe – EU energy policy encouraging further deployment

## DH sales and penetration in heat markets



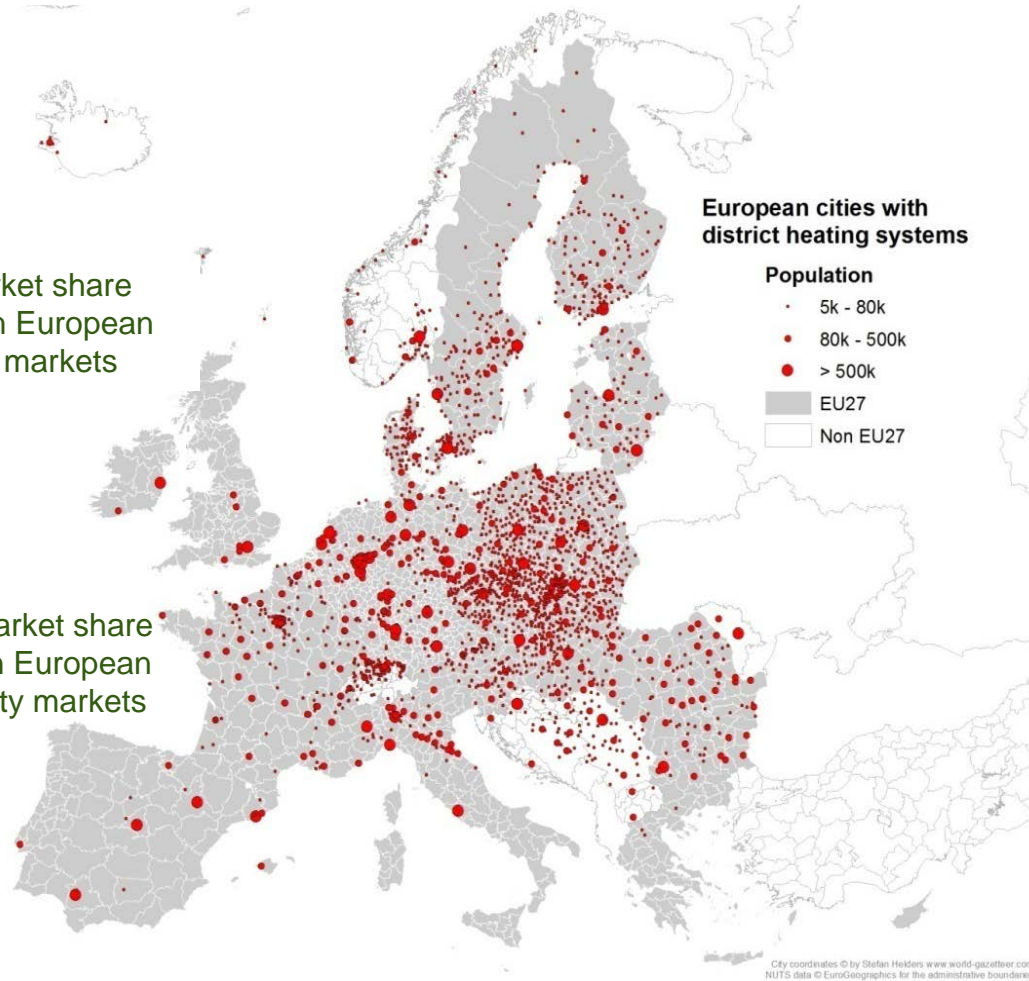
DH market share  
~15% in European  
heating markets

## CHP production and share of gross electricity production



CHP market share  
~11% in European  
electricity markets

Sources: Euroheat & Power, KPMG benchmarking, Fortum analysis.

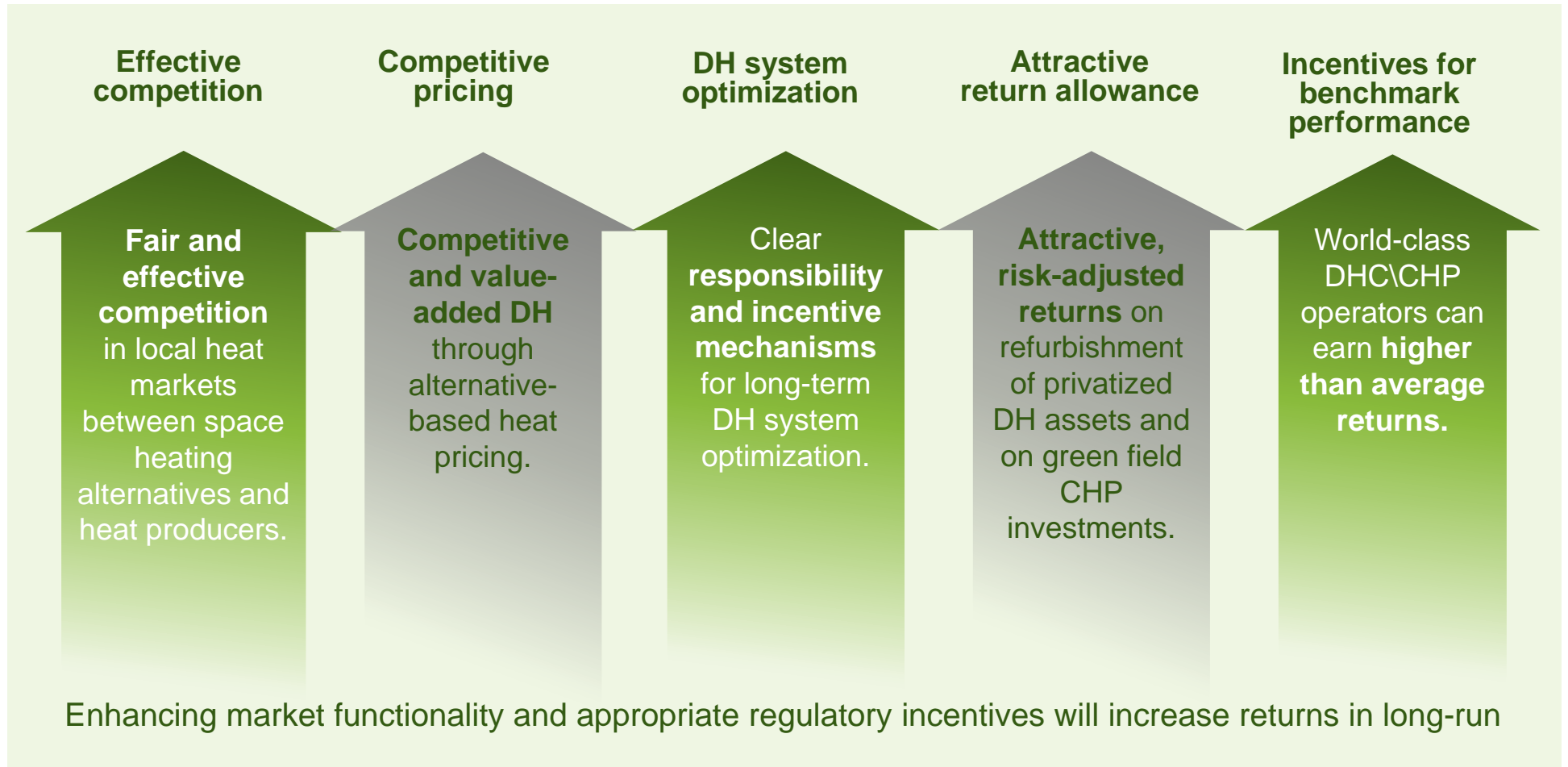


European cities with district heating systems

- Population
- 5k - 80k
  - 80k - 500k
  - > 500k
- EU27  
Non EU27

City coordinates © by Stefan Heiders www.world-gazetteer.com  
NUTS data © EuroGeographics for the administrative boundaries

# Towards competitive heat markets and pricing



# Position on District Heating and Cooling- a Bullet Summary

## CONTRIBUTION TO SUSTAINABLE DEVELOPMENT

- **Renewable and efficient District Heating and Cooling are vital contributors for Europe's targets for combating climate change and resource efficiency**
- **DHC are most simple, safe and sustainable ways of providing heating and cooling**
- **Combined heat and power (CHP) is most energy efficient way of producing heat and electricity**
- **Utilization of waste heat sources - as an energy otherwise lost - should be highly promoted**

## LIBERALIZED HEAT MARKETS

- **Local heating market where DHC competes with alternative solutions should be deemed as 'relevant market'.**
- **Effective competition is the most functional platform to develop the heat market, for customers, suppliers and society**
- **Customers should have the freedom of choice between different alternatives in heat market**
- **DHC should be treated as normal, profit making business**
- **Main steering mechanisms (energy taxation, ETS) should drive behavior towards resource efficiency and combating climate change i.e. sustainable developments**
- **Competing heat sources such as waste heat should enter heat market on commercial merits**

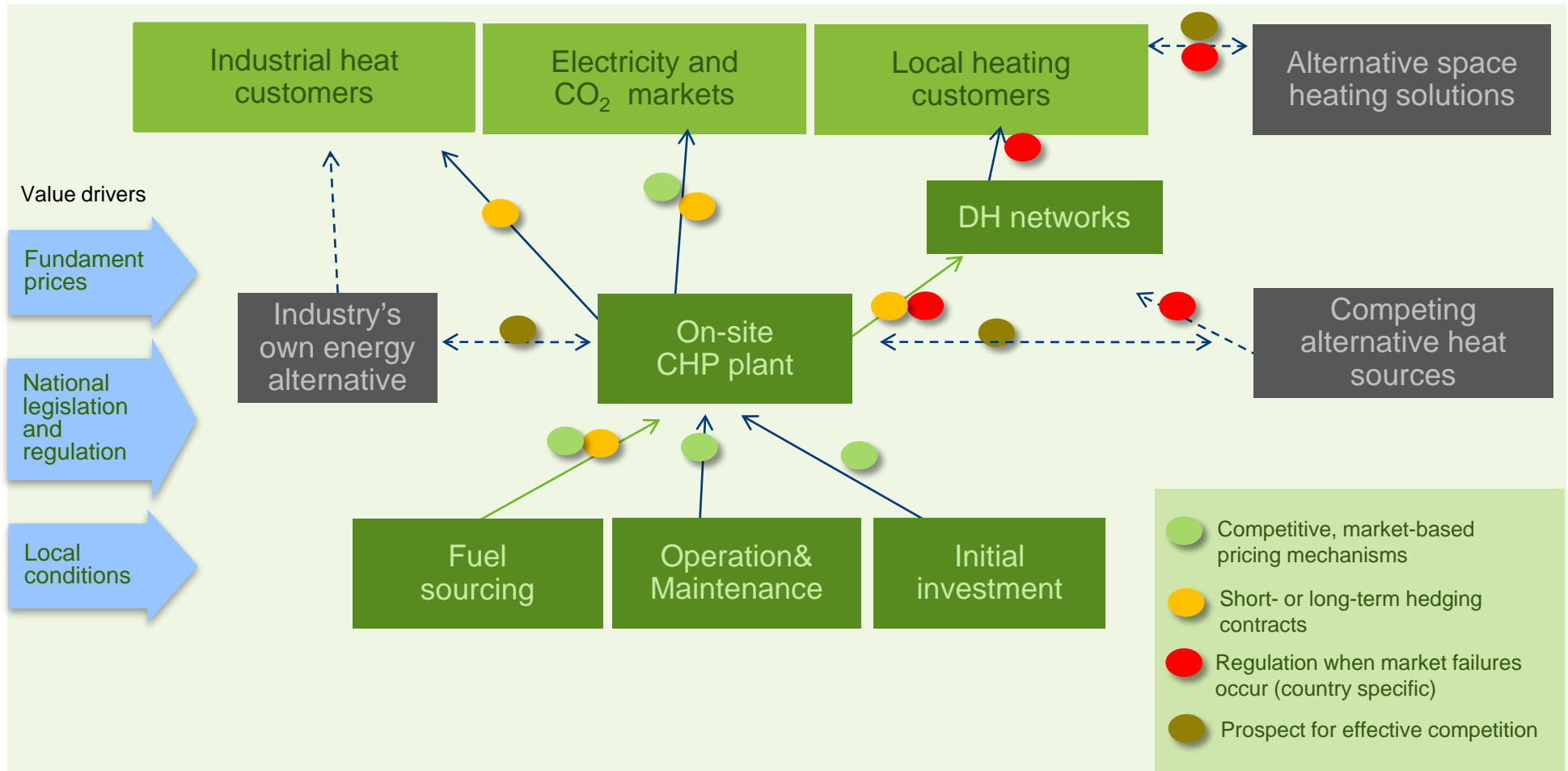
## COMPETITIVE PRICING FOR CUSTOMERS

- **DHC pricing should be value-added**
  - **Competitive towards alternatives**
  - **Non-discriminating; equal customers to be treated equally**
  - **Transparent**
- **Price comparisons of all heating alternatives should reflect full operational and capital costs to give effective and correct signals for customers, suppliers and relevant public stakeholders**
  - **Price comparisons should be transparent, traceable and easily accessible**
- **When DH prices are being ex-ante approved by regulators or ex-post reviewed by competition authorities, prices should also reflect effectively incurred costs and risk-adjusted return on capital employed so that high efficiency will be incentivized**

**FORTUM'S POSITION ON DHC IS FULLY ALIGNED WITH EU'S ENERGY POLICY**

# Competitive CHP

## Hedging and system optimization is critical



# Gaining stakeholder commitment for stepwise liberalization of heat markets

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- Identifying **key barriers** for transition and understanding potential **societal influences**.
- **Legal review** of such conditions that do not enhance effective competition.
- Taking care of **vulnerable customers** by social policy measures and not by DH pricing.
- Demonstrating **benefits from liberalized heat markets** in Nordic countries and Western Europe: energy efficiency and sustainability.
- Lifting liberalization into **agenda of DH industry and customer organizations**.

# Transition into ex-post price control regime

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## Key rationale

- Sufficient pressure keeping DH prices competitive with alternatives
- Giving DH companies more responsibility for price setting and more incentives for cost efficiency and investments
- Re-prioritizing regulatory focus and resources onto energy efficiency, benchmarking and highest prices
- Reducing burdensome and intrusive regulatory processes

### Ex-post control with ex-ante rules

- Regulator specifies the guidelines(after consultations with the industry representatives) for setting prices and assessing returns at the beginning of the regulatory period and then allows DH companies to determine prices with this framework
- At end of period, regulator would examine whether prices and returns were reasonable
- **Examples: Electricity distribution in Finland and Sweden, DH in Germany, under consideration in several jurisdictions**

### Threshold price regulation

- Regulator sets a price threshold (reference price) below which the companies could set prices freely
- When a DH price is set above threshold, ex-ante regulatory approval process would be provided. For example, in respect to major new investments.
- **Examples: Reference heat price from CHP in Poland, reference heat price in Czech Republic**

- Both approaches have a considerable ex-ante component
- Implementation issues in terms of cost definitions and asset valuation are similar in both approaches
- Companies would anyway remain under threat of re-regulation
- Ex-post regulation would have the ability to be more light-touch than traditional ex-ante

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# Thank you!