The present and future of district heating in Poland

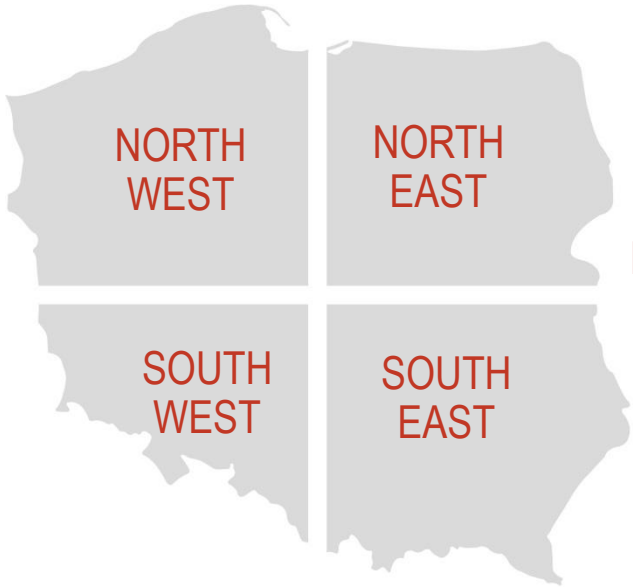
Jacek Szymczak, Tomasz Surma

Chamber of Commerce
Polish District Heating

IGCP as a representative of the sector

Chamber of Commerce Polish District Heating

- Is an organization founded in 1994 that brings together enterpises, whose activities are related to the production, processing, storage, transmission and distribution and marketing of heat.
- The Chamber operates in the country as well as abroad and is a member of Euroheat & Power.
- 245 members of different ownership structure and diversified sales volume of heat from below than 100 thousand GJ to 40 million GJ per year.
- Basic activities of the Chamber are focused on the evaluations of projects and substantive amendments to existing legislations, enabling cooperation between the Chamber in determining the development programs and the modernization of district heating and caring for creating conditions conducive to the development of district heating. The Chamber insists on integrating the environment associated with heat, representing the economic interests of members to state authorities, local governments, social, scientific and economic institutions.
- As part of the activities, the Chamber initiates and participates in the restructuring processes of the entire sector. One of the objectives of the restructuring is to meet current and future emission standards, which allows effective reduction of high emissions as well as effective reduction of the so-called low emission.
- IGCP conducts a very wide educational and training activity (including the pioneering nationwide system heat promotion program)



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Growth and decarbonisation of district heating

By 2040, the heating needs of all households will be covered by district heating and by zero- or low-emission individual sources.

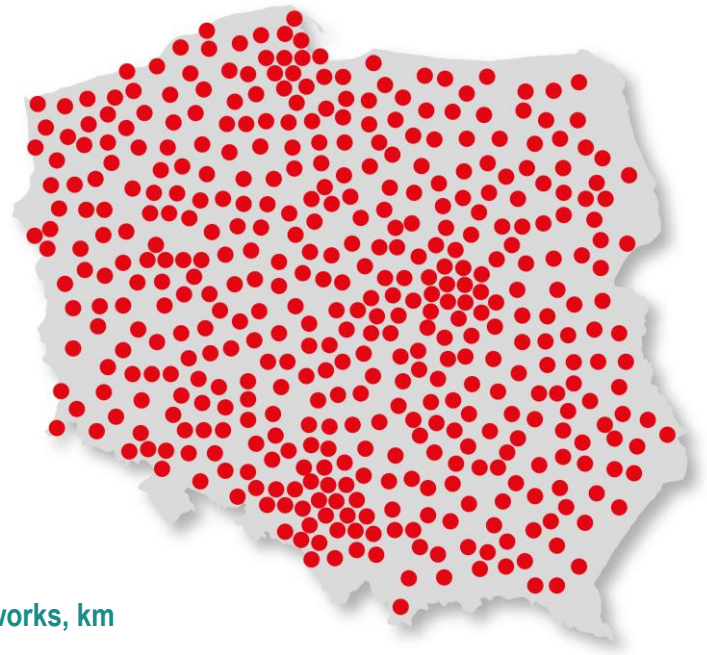
Polish Energy Policy until 2040

Chamber of Commerce
Polish District Heating

Priorities of the DHC 2030/2050 Perspective

Polish point of view

The potential of District Heating in Poland



Number of licensed Heating companies
392

Installed heating capacity, MW
53 000

Heating power ordered by customers, MW
35 000

Length of heating networks, km
22 500

Total heat sales,TJ
358

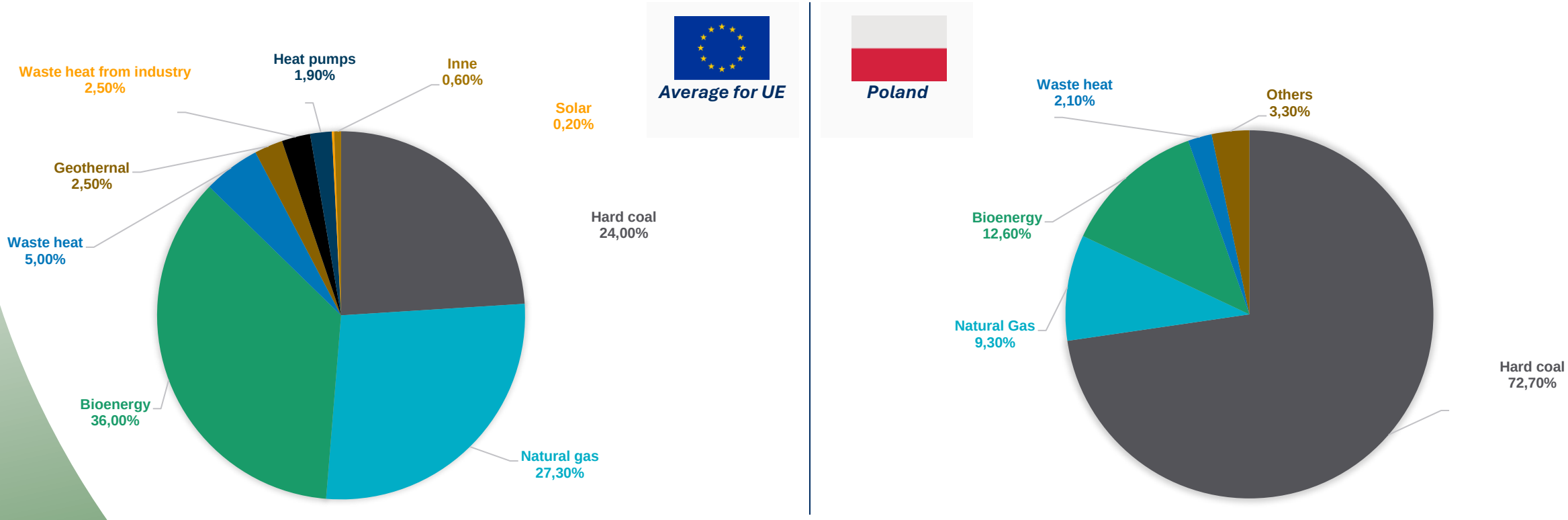
Share of heat from CHP, %
62

Source: Energy Regulatory Office – Heat energy in numbers - 2022

Priorities

- Transformation of the heating sector, i.e. primarily decarbonisation while maintaining the competitiveness of system heat
- Improving the economic condition of companies, because without meeting this condition, investments will not be possible
- Creating conditions for healthy competition on the heat market
- Energy security, which shows that although heating companies have a diverse ownership structure, everyone pays attention to overriding issues - also important from the national point of view

District heating is in transformation stage



Source: Euroheat&Power, Urząd Regulacji Energetyki (URE)

Over the past 20 years, the share of RES in the Polish heating sector has more than quadrupled. However, it is still much lower than the EU average. Coal dominates among the fuels used, although it may lose its leading position as early as within the next decade.

Pillars of transformation on the road to clean heat

LEGISLATION

20 STOPNI

USERS' HABITS

GENERATION AND TRANSMISSION TECHNOLOGIES

In order for the production technology to change, district heating needs legislative support, enabling faster transformation. Consent is also needed on the part of consumers who will learn to use heat again during changes in the technology of its production. The scale and complexity of this process, as well as the high costs of the necessary investments, require time and considerable outlays. Although the measures taken by district heating companies are the most important pillar of the transformation, the industry encourages the cooperation of all the parties involved in this process, because only the cooperation of district heating companies, heat users and the creation of favourable legislative conditions can improve the transformation process.

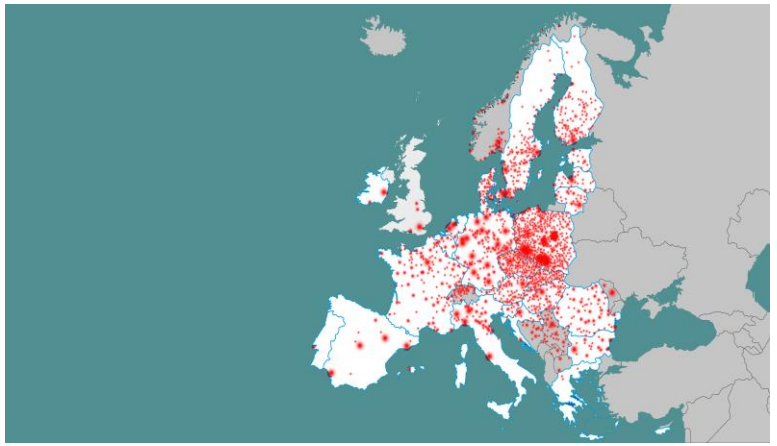
Key legislation for DHC
2030/2050 Perspective UE and PL

European Green Deal
December 2019

Fit for 55
July 2021

REPowerEU
May 2022

- Revision of the Directive about RES
- Revision of the Directive on energy efficiency
- Revision of the ETS Directive
- Revision of the Directive on the energy performance of buildings
- Taxonomy Regulation
  Financing sources
  Permissible state support



National Energy and Climate Plan

PEP 2040

Strategy for District Heating

- improving profitability
- improvement of financial liquidity indicators
- providing external, supporting sources of financing
- solution supporting the improvement of energy efficiency
- solutions protecting heat consumers and educating them

EDUCATION

According to architects, designers and doctors 20°C is the optimum indoor temperature

20-degree educational campaign

Saving energy and resources is not only an economic necessity, but also a wise choice and lifestyle.

> As Chamber of Commerce Polish District Heating, [...] you set trends. Your [20-degree] educational campaign promoting sensible use of heat [is an example of this]. Keep going!
>
> Jerzy Buzek

DEGREES FOR THE PLANET

As calculated by researchers at the Warsaw University of Technology, if we lower temperature in all flats and houses heated with district heating to 20°C, we will burn 900,000 tons of coal less per year, and carbon dioxide emissions will drop by 2 million tons. 30 million trees are needed to absorb this amount of carbon dioxide.

District heating specialists at the "Lessons about Heat"

District heating suppliers teach the youngest children not to waste heat energy and save resources.

> For more than a decade, we have been explaining to children the importance of ecology and clean, green energy sources.

"Lessons about Heat" is a nationwide educational and environmental project for kindergarten children and children in grades 1–3 and 4–5 of elementary school, implemented since 2013 by district heating suppliers, usually with the support of local authorities.

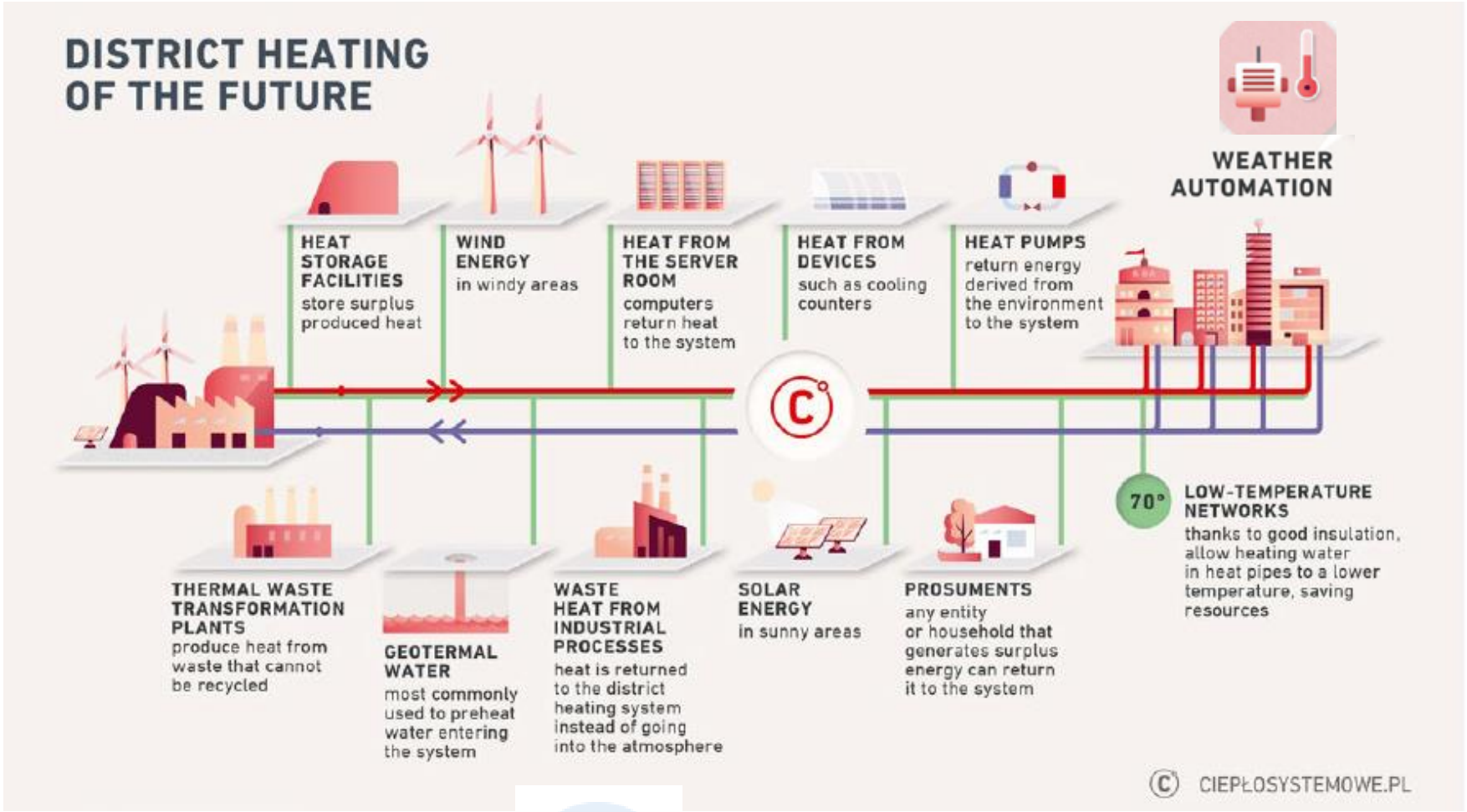
500,000

schoolchildren were covered by the "Lessons about Heat" educational project.

Schoolchildren learn how to reduce energy consumption and use heat in their flats rationally. They also learn about modern ways of generating energy, about what smog is, about why district heating prevents low emissions and smog, and about how we can take care of the planet.

The programme was developed by Chamber of Commerce Polish District Heating in response to the growing demand among district heating suppliers for materials for children that would not only be visually attractive, but also written in language understandable to the youngest children and above all

SUSTAINABLE ENERGY WEEK
AWARD FINALIST
#EUSEW19



The development of green district heating is fostered by the use of new technologies for the implementation of innovative investments towards competitiveness and low-emission (and ultimately zero-emission) heat.

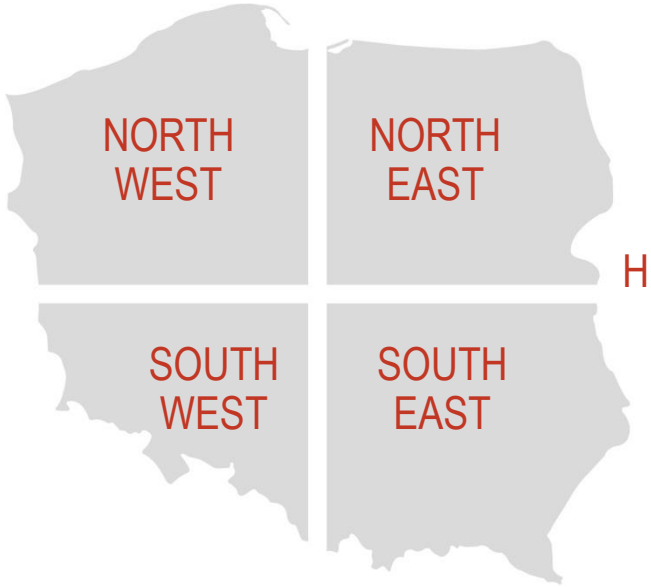
IMPROVING THE ENERGY EFFICIENCY OF DISTRICT HEATING SYSTEMS

Fuel of the future: biomethane and hydrogen

DHC electrification: electrode boilers

COGENERATION AND TRIGENERATION
production of heat and current (cogeneration) and cooling (trigeneration) in a single technological process

Thank you for your attention



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