Green Datacenter Conference

The datacenter as part of the energy grid

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Microsoft datacenter. De stroom wordt geleverd door het windmolenpark Wieringermeer van Vattenfall. *© Br Lang / Hollandse Hoogte*

10 APRIL 2021 · 12 MIN

‘Groene’ restwarmte datacenters is vooral kille PR

Audience check

1. Datacenter industry
2. Public sector
3. Other

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Who already is involved in a district heating system?

Agenda

01 Introduction

02 Background and context

03 Challenges and Issues

04 Result today

05 Improvement tomorrow

06 The next best thing

07 Q and A

01 Zentrys introduction

Since 10 years:
- **Design**
- **Build**
- **Operate**
- **Datacenters**

Zentrys and innovation

Since 2012 we earmarked our innovation by challenging our supplychain and customers by writing in our mission statement as one of our ideals:

close the cycle of energy

City of Groningen

- 240.000 citizens
- 138.000 households
= 138.000 potential customers

Warmtestad

Joint Venture between the city of Groningen and the water company of Groningen (Waterbedrijf Groningen).
Mission: deliver affordable heat to households in or nearby the city of Groningen

QTS GRO1 Datacenter

QTS is a mega scale colocation provider serving blue chip customers
Current datacenter 7,2 MW

Fact & figures

100% CO_2 Reductie	2014 Opgericht	€50 miljoen Investeringen tot 2022 (totaal ca. 110mil)
2035	137 TJ Warmtelevering in 2021	50% CO_2 Reductie in 2022

2023	8.000 Klanten	8 km Warmtenet Totaal 16 km
	4 WKO projecten	80 Medewerkers

02 Background and context

- Construction of public infrastructure for the district heating network in the city of Groningen.
- Sustainable heating with innovative sources.
- Public heating company (municipality and water company) with customers.

02 Background and context

- Datacenter 4,8 MW IT capacity
- Close proximity to to the Warmtestad WarmteCentrale
- Free heat source)
- 24/7
- Reliable and sustainable
- Support from stakeholders
- Existing partnerships
- 16 KM of piping

03 Challenges and issues

01 Compatibility

02 Technology

03 Financing

Van Energieverbruiker **naar** Warmteleverancier

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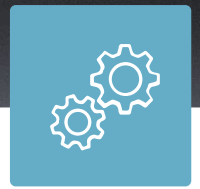
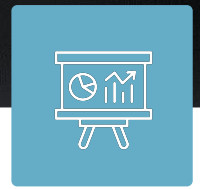
WarmteStad

05 Improvement tomorrow



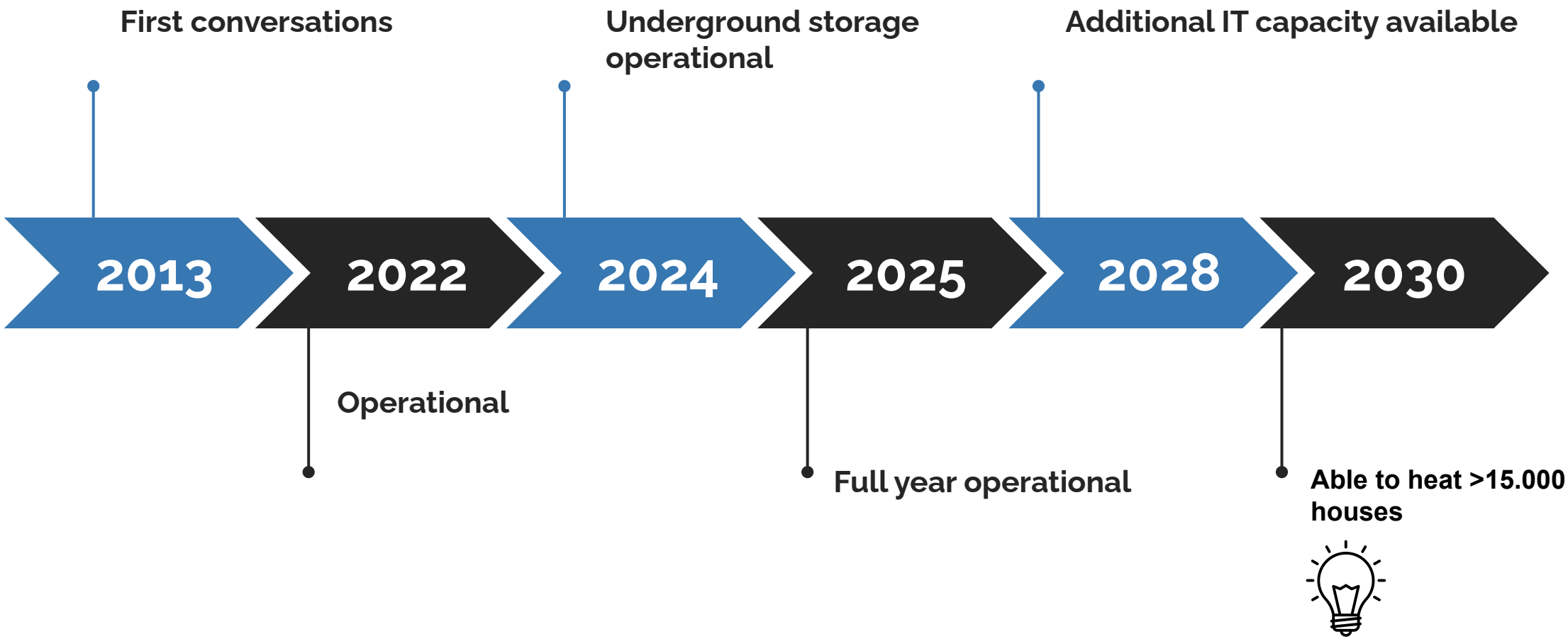
More households connected

More underground storage



Test and improve

06 The next big thing



06 The next best thing...

- Fully integrate datacenters in energy infrastructures
- Improve water and energy usage
- Stimulate datacenters in urban areas

Q and A discussion:

What can we do as a city to accommodate waste heat of datacenters?

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Q and A discussion:

What can we do as a datacenter to contribute in a district heating system?

Q and A discussion:

What is the impact of AI and how can we use this trend for district heating?

Q and A discussion:

Do you see are role for datacenters in energy balancing?

Let us help each other

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Thanks for your attention!

End of Presentation

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