



We disconnect the time power is made, from when it is used

KYOTO Annual Report 2021

April 28, 2022, 10:00

Agenda

- 1. Intro
- 2. Kyoto in brief
- 3. 2021 highlights
- 4. Recent Developments
- 5. Commercial update
- 6. Q&A



Kyoto Group AS

Making green energy available for everyone

7 AFFORDABLE AND
CLEAN ENERGY



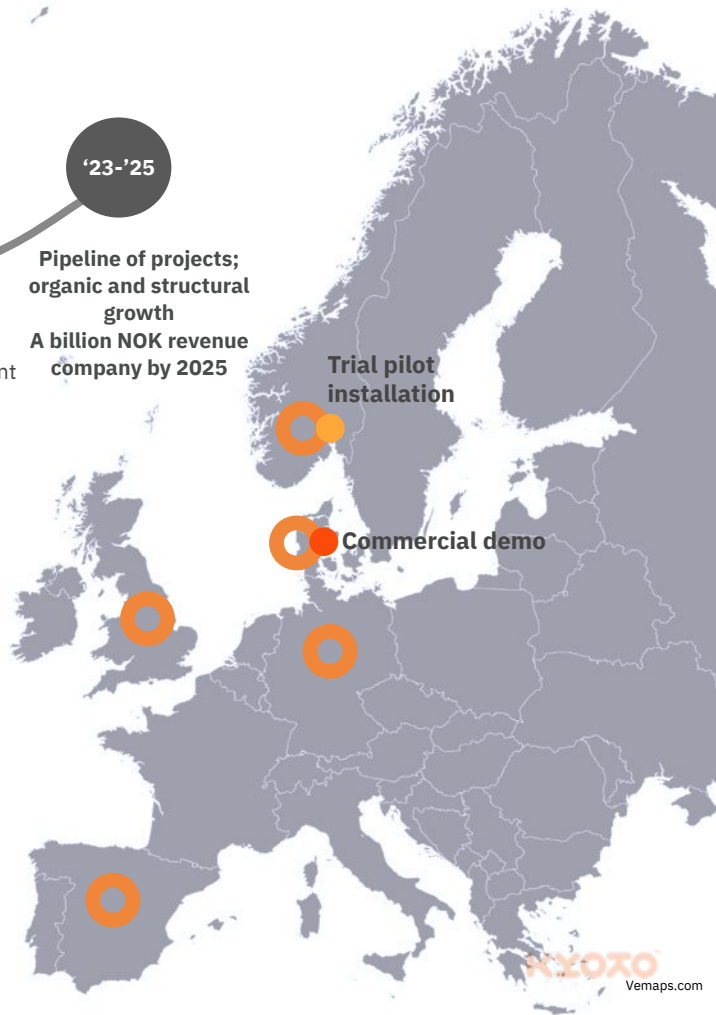
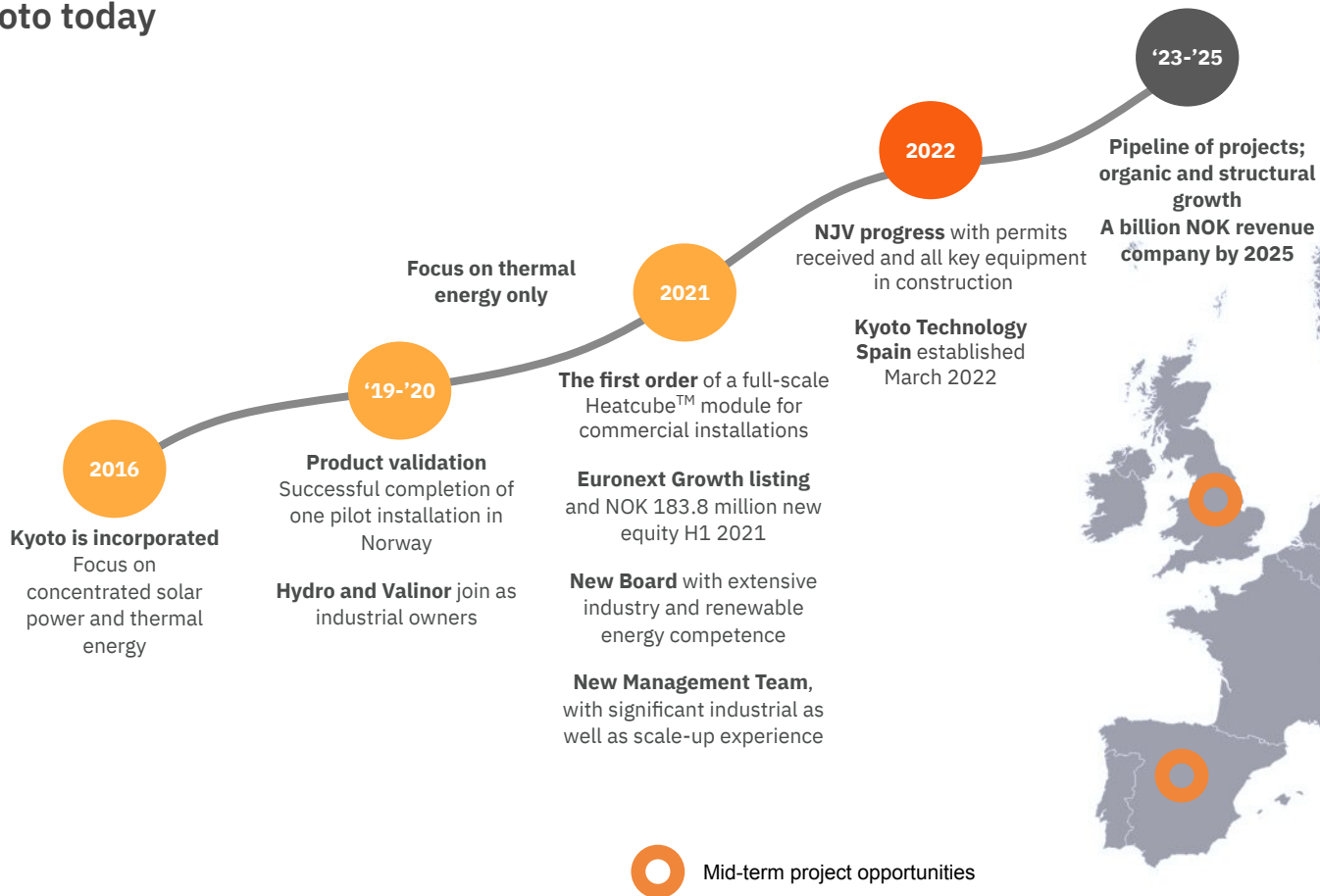
9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE



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From start-up to scale-up

Kyoto today



Kyoto on a page

Founded in

2016

Listed on Euronext
Growth in 2021

Employs



18 full-time
employees, 9
nationalities

Located in



HQ: Lysaker, NO
R&D: Hønefoss, NO
Technology center:
Seville, ESP

Scaling up



Targeting 10 000 MWh
storage capacity
installed by 2025

Board of directors with extensive industry experience



Eivind Reiten
CHAIRMAN



Thorleif Enger
BOARD MEMBER



Arne Erik Kristiansen
BOARD MEMBER



Pål Selboe Valseth
BOARD MEMBER



Ivar Andreas Valstad
BOARD MEMBER



Hans Olav Kvalvaag
BOARD MEMBER

Management team with solid industry & scale-up experience



**Camilla
Nilsson**

CFO &
Interim
CEO



**Bjarke
Buchbjerg**

Chief
Technology
Officer



**Tim
de Haas**

Chief
Commercial
Officer



**Peter
Iversen**

Chief
Manufacturing
Officer



**Susanne
Vinje**

Chief Supply
Chain Officer



**Agnieszka
Sleds**

Chief Project
Officer



**Henrik
Holck-Clausen**

Chief People &
Culture Officer



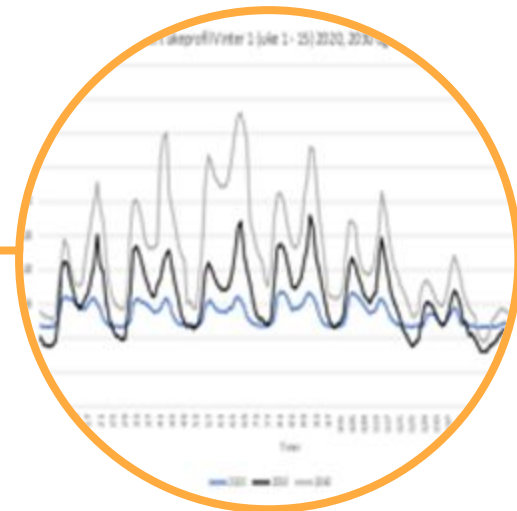
The challenge: Decarbonization of industry through electrification



The world is not on track to limit the rise in global temperature to 1.5° celcius...



Urgent need for energy transition and electrification through renewables

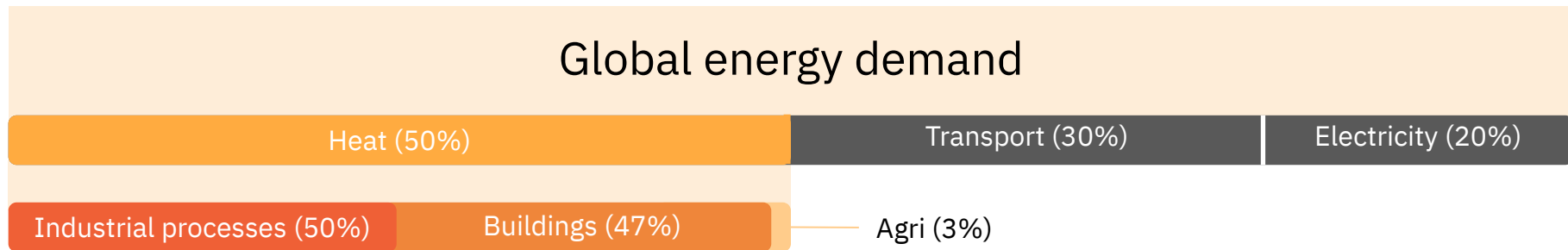


The challenge: increasing volatility

Flexibility can address multiple energy system shortfalls in the transition to Net-Zero

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Heat accounts for half of global energy consumption



89%

of heat produced by fossil and non-renewable
fuel sources make up

40%

of global CO₂ emissions

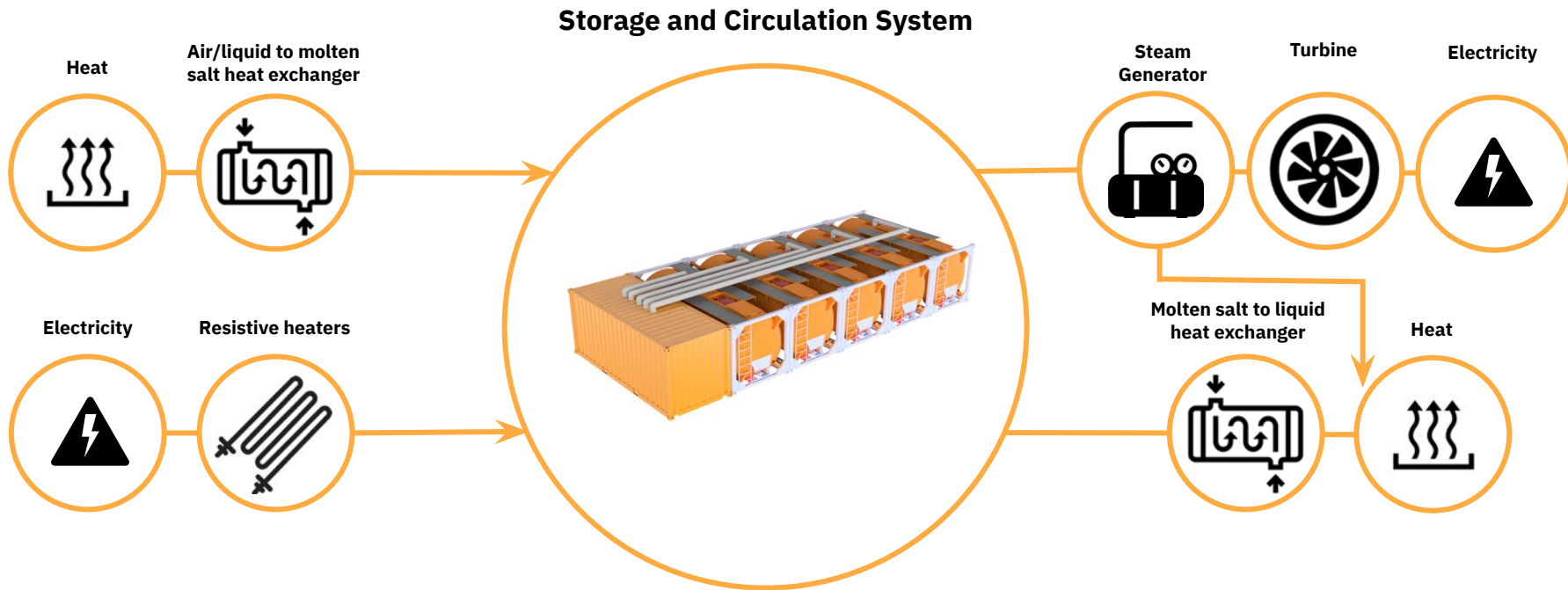
Accelerating the shift to renewable energy through providing reliable thermal energy storage with thermal batteries



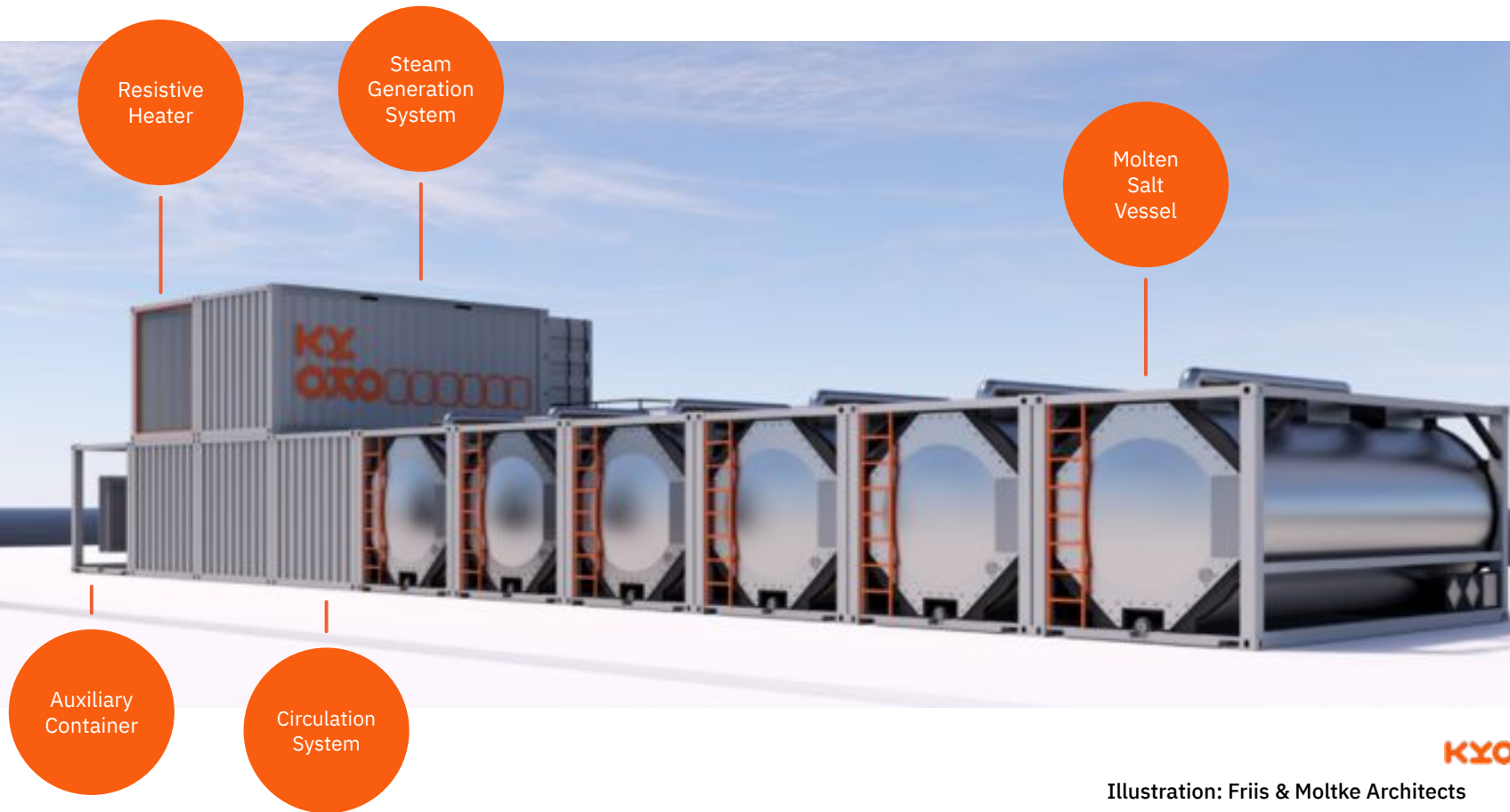
The Heatcube stabilizes renewable energy and makes the energy mix **greener**

Modular applications of the Heatcube

Same product, multiple configurations drive flexibility and reduce cost



The Heatcube



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Illustration: Friis & Moltke Architects



2021 highlights

Key highlights

Key financial highlights

NOK 179m

New equity
raised in 2021

NOK -34m

Cash
flow from operational
activities

NOK 27m

Invested in
technology
development

NOK 117m

Cash position
31.12.21

Key operational highlights

- Pilot test finalized and converted to R&D center
- New board and leadership established
- Scaling organization with 14 additional FTEs, adding the competencies required
- First full-scale Heatcube ordered for commercial installation at NJV
- Maturing multiple industrial prospects for commercial Heatcube projects in Europe together with partners



Recent developments

Nordjyllandsværket Heatcube project progress

First commercial heatcube contract for BaaS

2020: Dialogue on design concept and configuration



2022: All main equipment ordered and in production



2021: Kyoto and engineering partners begin construction



2022: Building permits received for Heatcube construction at NJV



Nov 2021: Signing ceremony at Nordjyllandsværket



2022: Next step: Heatcube shipment to site in Denmark



Nordyllandsværket Heatcube project progress

Tanks factory acceptance test (FAT) this week



Establishing Kyoto Spain

Kyoto Technology Spain S.L established March 2022



Serving increasing demand for thermal energy storage in Europe

- Acquisition Mercury Energy enables successful establishment of new business unit in Spain
- Expansion of Kyoto's geographic footprint close to key markets in Europe for rollout of and after-market services of Heatcube



Strengthening capacity and expertise

- Mercury Energy brings significant IPR for molten salt thermal energy
- Addition of several molten salt experts to our growing team



Developing next generation Heatcube



Pilot

- Technology verification
- Transformed to test site for R&D



Generation 1.0 (NJV)

- First full scale proof of technology
- First commercial product


Generation 1.1


- Cost optimized 1.0
- Released for sales Q2 2022
- 5-10 Heatcubes



Generation 2.0

- Released for sales Q2 2023
- Serial production

 Released for marketing

 Released for sales

1.0

1.0

1.1

1.1

2.0

2.0

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2020

2021

2022

2023

2023

Kyoto joins Long Duration Energy Storage Council (LDES)

Technology providers



Anchor members



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Commercial update

Last night, process heat was cheap.
Charge your Heatcube and use it now!

Stepping up with the commercialization

1

Quantify the potential for the Heatcube

2

Illustrate the Heatcube's benefits and offering

3

Increase awareness of the Heatcube

Focus

4

Outline industry specific value propositions

Focus



Based on market potential and market environments, key markets have been prioritized



- **98 TWh** yearly industrial heat demand
- Significant and increasing price volatility
- Speedy expansion of renewables
- Attractive electricity prices
- Supportive regulatory framework



- **100 TWh** yearly industrial heat demand
- Strong strategic partnerships established
- Access to relevant world-class expertise
- Significant & increasing price volatility
- Speedy expansion of renewables
- Attractive electricity prices
- Supportive regulatory framework



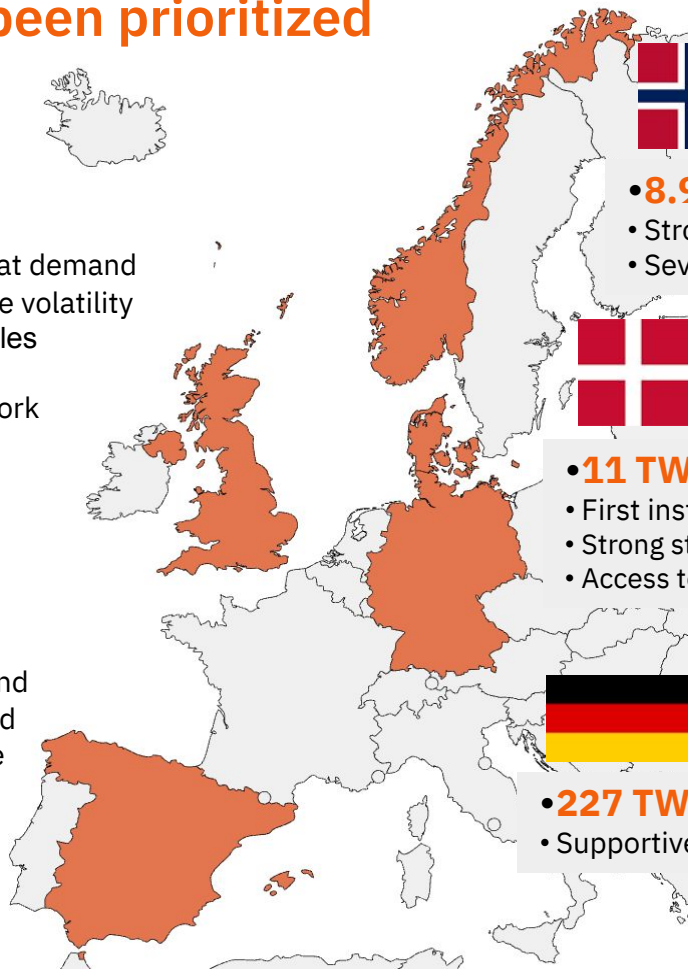
- **8.9 TWh** yearly waste heat available
- Strong strategic partnerships established
- Several projects under evaluation



- **11 TWh** yearly industrial heat demand
- First installation under construction
- Strong strategic partnerships established
- Access to attractive electricity prices



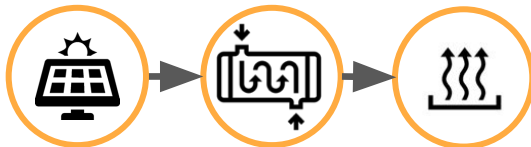
- **227 TWh** yearly industrial heat demand
- Supportive regulatory framework



Kyoto's Heatcube enables industrial partners to benefit from off-peak electricity prices and to utilize excess heat

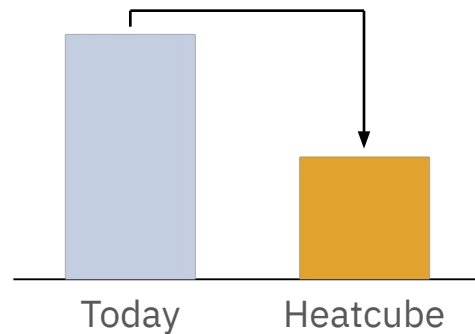
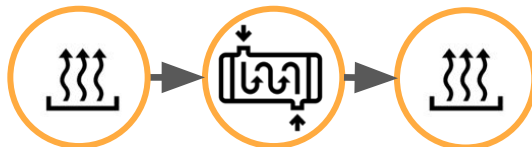
A

High price volatility during a day



B

Access heat from other industrial processes



Kyoto Group offers the Heatcube with two commercial models

A

Heat as a Product (HaaP)

Traditional Product Sale

- EPC or direct sales
- Support and service agreements with customers
- One-time payments

B

Heat as a Service (HaaS)

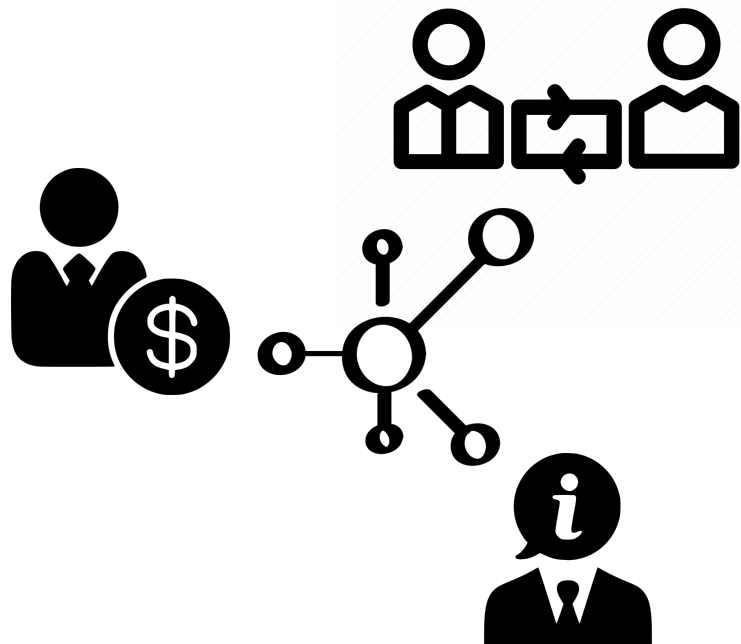
Heat Sales to Customers

- Heat purchase agreements (HPA)
- Operated by Kyoto
- Recurring stable, long-term revenues

3

Increase awareness of the Heatcube

Utilizing targeted industry associations, European accelerator programs and LDES to explain the Heatcube to customers and partners

McKinsey
& Company

Net-Zero Heat

Heat decarbonization
perspective and the role of
thermal flexibility
Initial insights & panel discussion

May 4th, 2022

9-10:30AM CET

5-6:30PM CET

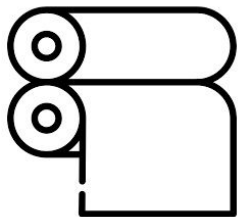
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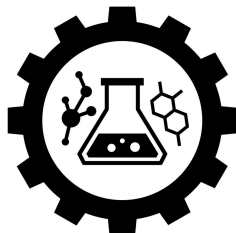
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The Heatcube can support the decarbonization in very different industries

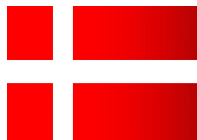
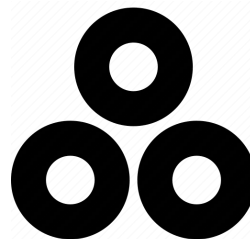
Pulp and Paper



Chemical

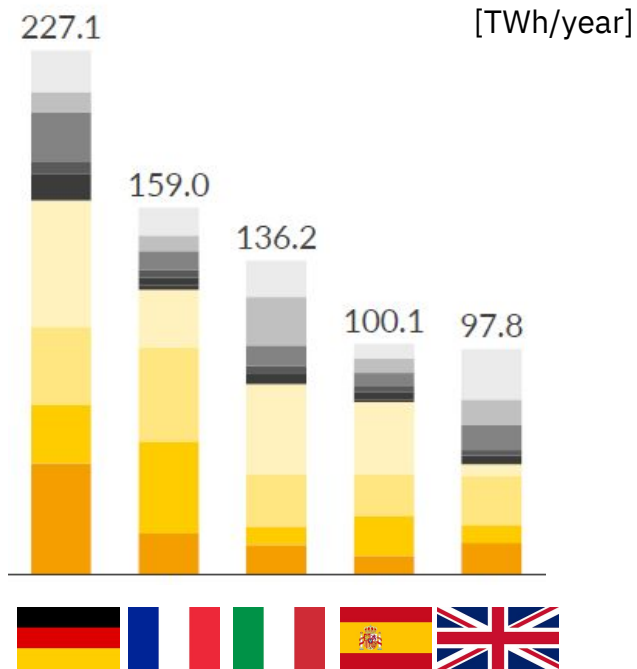


Iron and aluminum



To increase the awareness and knowledge about the potential of electrification of industrial process, the report is accessible here:

Industrial heat demand in....





We disconnect the time power is made, from when it is used



Q&A

Q&A Questions

- What types of industries and processes are most suitable for the temperatures provided by the Heatcube?
- Are you experiencing interest from industry customers, or is it mostly the commercial team that reaches out to customers proactively?
- There are a few different thermal energy storage solutions based on other technologies currently being developed. How does the Heatcube compare?
- Is it Kyoto engineers that are building the Nordjyllandsværket Heatcube?
- How is the quality assurance for the building process?
- Is the current geopolitical situation affecting the pricing and access to critical components?



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Appendix

	2021	2020
OPERATING INCOME AND OPERATING EXPENSES		
Public grants	-1 461 651	3 266 093
Total income	-1 461 651	3 266 093
Personnel expenses	17 215 902	6 798 929
Write-down	109 530	871 019
Other operating expenses	24 378 481	7 860 583
Total expenses	41 703 914	15 530 530
Operating profit	-43 165 565	-12 264 437
FINANCIAL INCOME AND EXPENSES		
Other interest income	7 913	0
Other financial income	263 467	18 426
Write-down of long-term investments	0	30 000
Other interest expenses	0	29 254
Other financial expenses	223 734	122 142
Net financial items	47 647	-162 970
Net result before tax	-43 117 918	-12 427 407
Income tax expense	5 162 830	-2 692 140
Net result after tax	-48 280 749	-9 735 267
Net result	-48 280 749	-9 735 267
ATTRIBUTABLE TO		
Loss brought forward	48 280 749	9 735 267
Total	-48 280 749	-9 735 267

Balance sheet

	2021	2020
ASSETS		
Non-current assets		
Intangible assets		
Research and development	31 772 810	5 124 036
Deferred tax assets	0	5 162 830
Total intangible assets	31 772 810	10 286 867
Property, plant and equipment		
Equipment	85 216	85 216
Total property, plant and equipment	85 216	85 216
Non-current financial assets		
Other long-term receivables	479 040	0
Total non-current financial assets	479 040	0
Total non-current assets	32 337 067	10 372 083
Current assets		
Debtors		
Other short-term receivables	5 153 104	2 834 602
Total receivables	5 153 104	2 834 602
Cash and cash equivalents	117 596 065	42 846 288
Total current assets	122 749 170	45 680 890
Total assets	155 086 236	56 052 973

	2021	2020
EQUITY AND LIABILITIES		
Equity		
Paid-in capital		
Share capital	252 617	113 617
Share premium reserve	131 568 112	5 972 861
Other paid-in equity	7 119 753	5 509 175
Total paid-in equity	138 940 482	11 595 653
Total equity	138 940 482	11 595 653
LIABILITIES		
Other non-current liabilities		
Other non-current liabilities	2 400 000	2 400 000
Total non-current liabilities	2 400 000	2 400 000
CURRENT LIABILITIES		
Convertible debt	0	250 000
Trade payables	7 310 122	734 972
Public duties payable	884 179	565 448
Other current liabilities	5 551 463	40 506 900
Total current liabilities	13 745 754	42 057 320
Total liabilities	16 145 754	44 457 320
Total equity and liabilities	155 086 236	56 052 973

Cash flow

	2021	2020
CASH FLOWS FROM OPERATING ACTIVITIES		
Profit/loss before tax	-43 117 918	-12 427 407
Write down and depreciation	109 530	901 019
Change in accounts payable	6 575 140	-2 573 471
Change in other accrual items	1 986 577	-1 502 449
Net cash flows from operating activities	-34 446 671	-15 602 308
CASH FLOWS FROM INVESTMENT ACTIVITIES		
Capitalized research and development expenses	26 758 305	1 865 060
Net cash flows from investment activities	-26 758 305	-1 865 060
CASH FLOWS FROM FINANCING ACTIVITIES		
Proceeds from the issuance of new long-term liabilities	0	2 400 000
Proceeds from the issuance of new current liabilities	0	39 420 825
Repayment of borrowings	-39 670 825	0
Proceeds from equity	175 625 578	17 788 240
Net cash flows from financing activities	135 954 753	59 609 065
Net change in cash and cash equivalents	74 749 777	42 141 697
Cash and cash equivalents at the start of the period	42 846 288	704 591
Cash and cash equivalents at the end of the period	117 596 065	42 846 288

Key developments towards 2025 targets

2021

- Pilot test finalized and converted to R&D center
- First commercial order signed
- IPO
- Doubling of organization
- 2022 pipeline maturing

2022

- First commercial installation
- Signing of several commercial orders, with large industrial companies
- Doubling of organization
- Explore M&A opportunities and financing

2023 - 2024

- Strong foothold in all strategic markets established
- Accelerating industrialization of the Heatcube
- Developed next generation Heatcube Designed for Manufacturing and Assembly
- Continued growth and expansion of the organization
- Increasing focus on profitability, approaching break even

2025

- Several hundred batteries installed
- >GW and several GWh available
- Solid profitability
- LCoS < 20 EUR/MWh
- CapEx < 40 EUR/kWh
- A billion NOK revenue company