Seminārs

“Uzņēmējdarbības infrastruktūras attīstība pārejai uz klimatneitrālu ekonomiku”

Interreg Baltic Sea Region

Co-funded by the European Union

ENERGY TRANSITION GreenIndustrialAreas

Vides administrācijas un reģionālās attīstības ministrija

Kalundborg Symbiosis

Surplus from circular production

Kalundborg
SYMBIOSIS

Mission & Vision

Renew

Strengthening the partnership

Connect

Full resource utilization

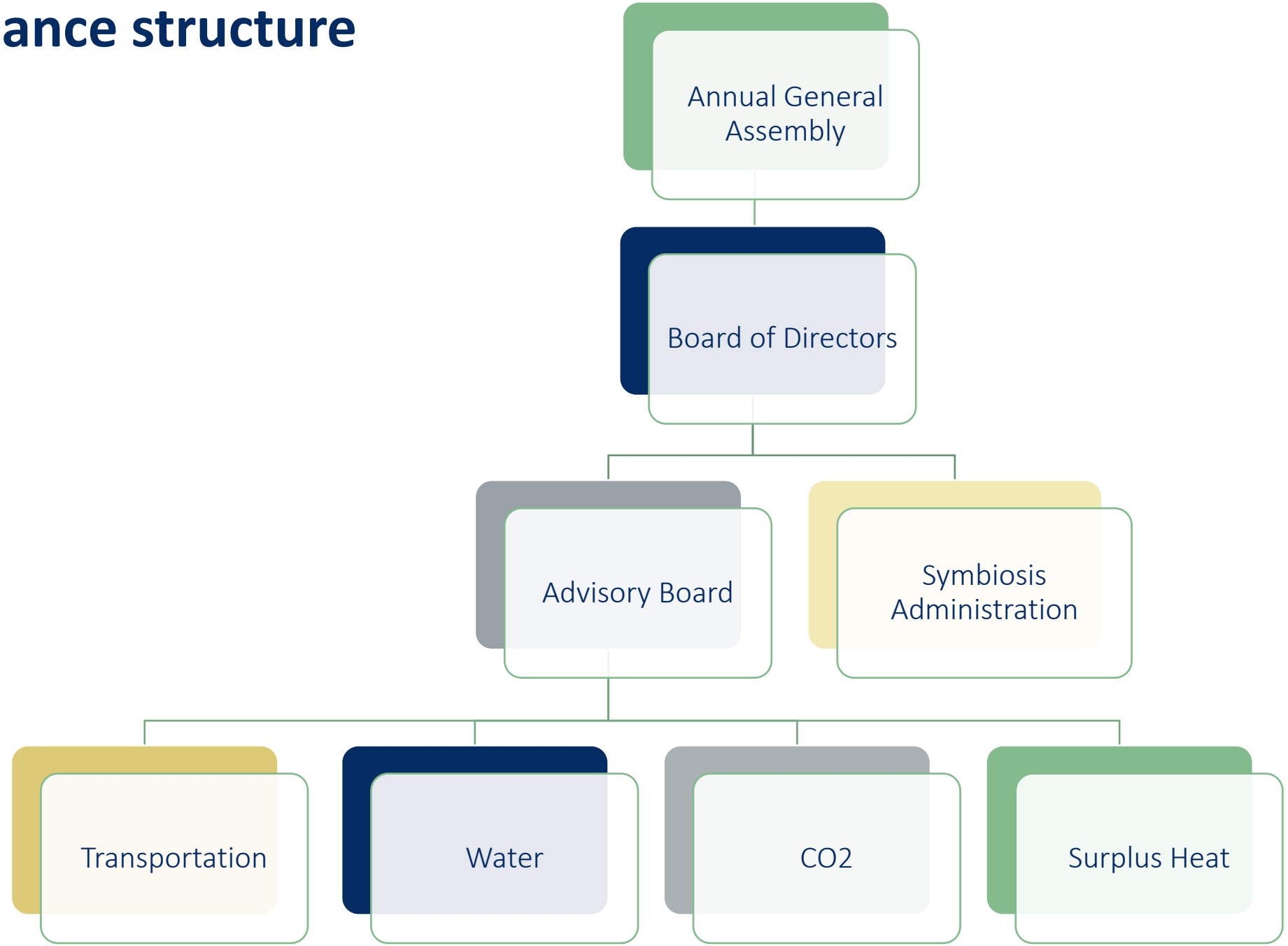
Promote

Sharing the symbiotic mindset

The worlds leading industrial symbiosis with a circular approach to production

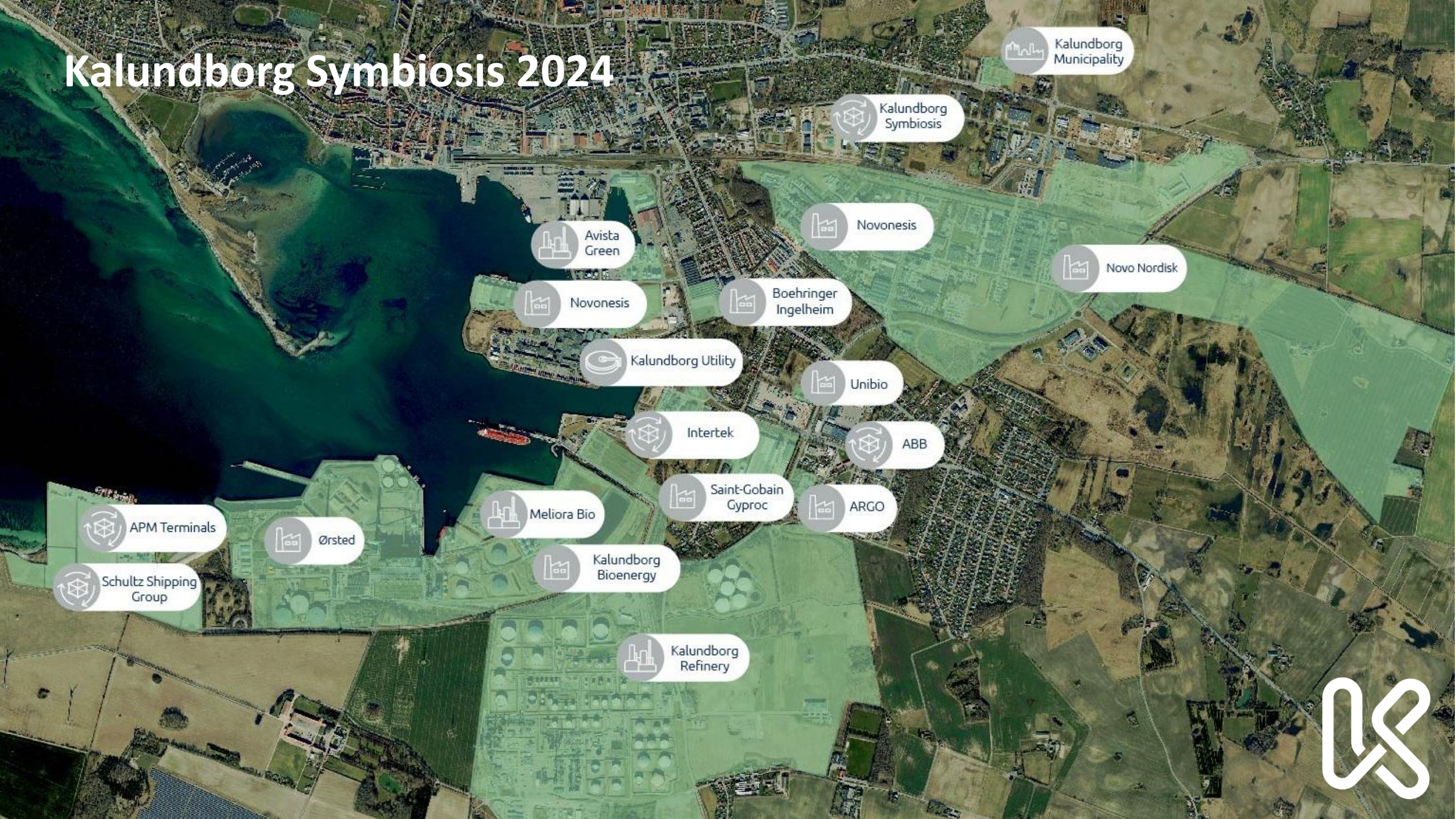
Kalundborg Symbiosis creates sustainable development in our companies through joint projects

Governance structure

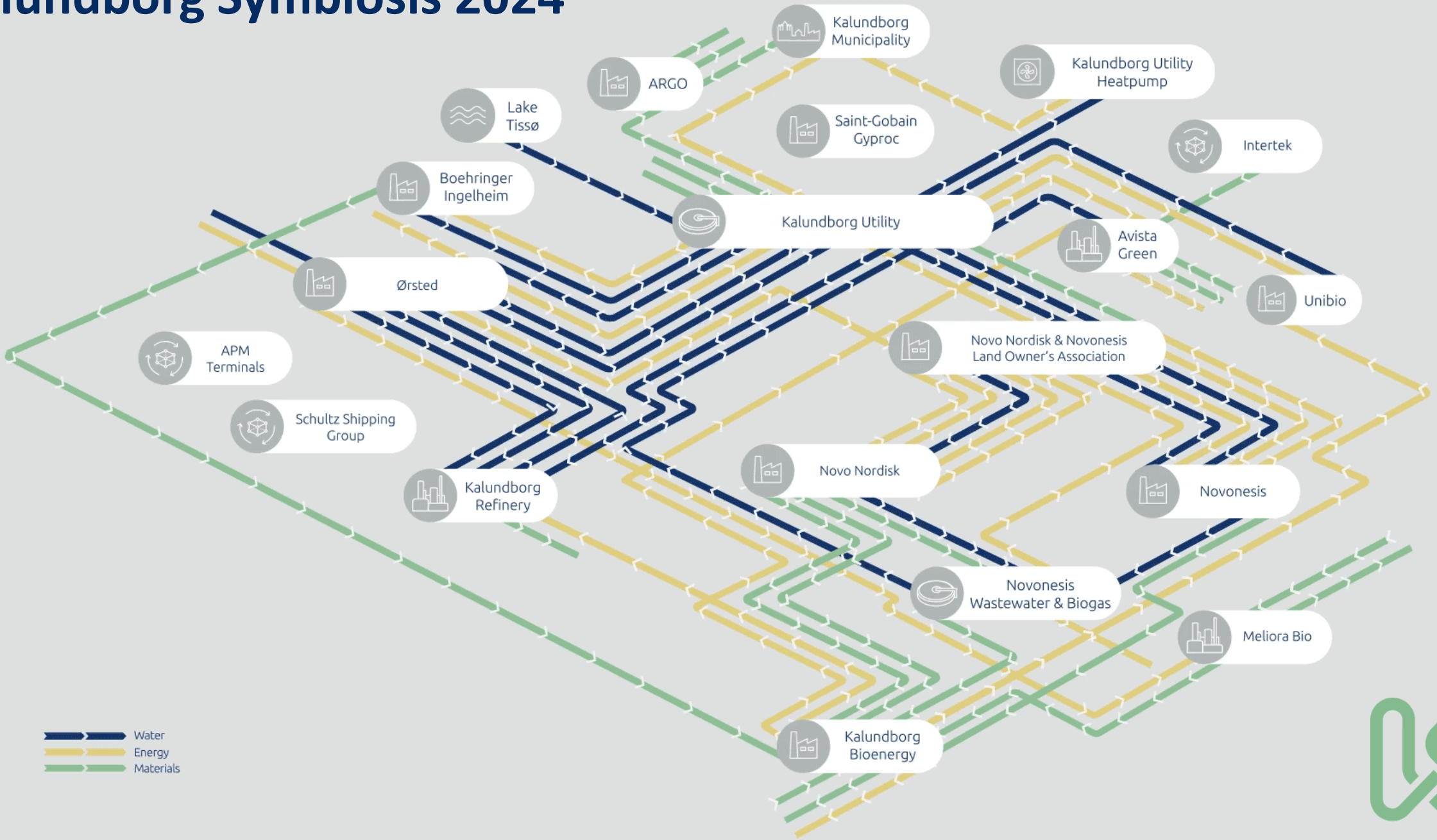


Kalundborg Symbiosis 2025

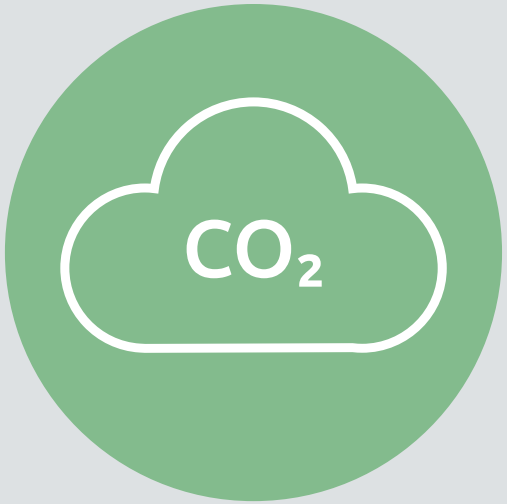
Kalundborg Symbiosis 2024



Kalundborg Symbiosis 2024



Annual savings since 2015



586,000 tons CO_2
The local energy production is now CO_2 neutral

4 million m3
of groundwater

62,000 tons
of residual materials recycled

Examples of local growth

€10 bn
investment

The investments create **1,300+ new, permanent jobs**

12 new educational programs in Kalundborg

How it all started

Cooling water supply from Lake Tissø to the oil refinery

Kalundborg Municipality, Kalundborg Refinery

1961

13-kilometer pipeline established

Excess gas supply from the oil refinery to the gypsum board plant

Kalundborg Refinery, Gyproc

1972

The first symbiosis project!

Steam supply

Ørsted, Novo Nordisk, Novonesis, Kalundborg Refinery, Kalundborg Municipality

1982

Green pipes established

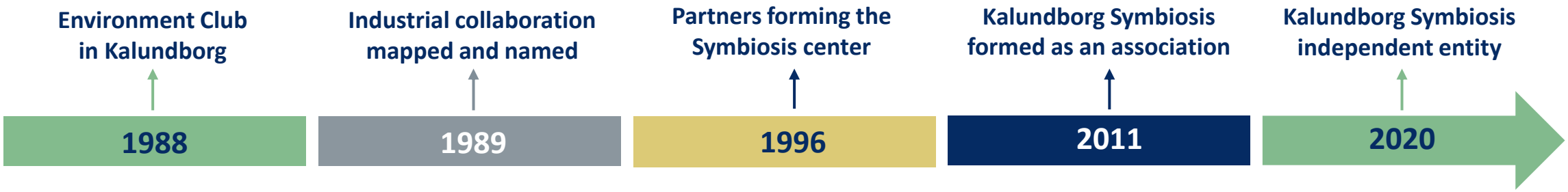
Residual gypsum

Ørsted, Gyproc

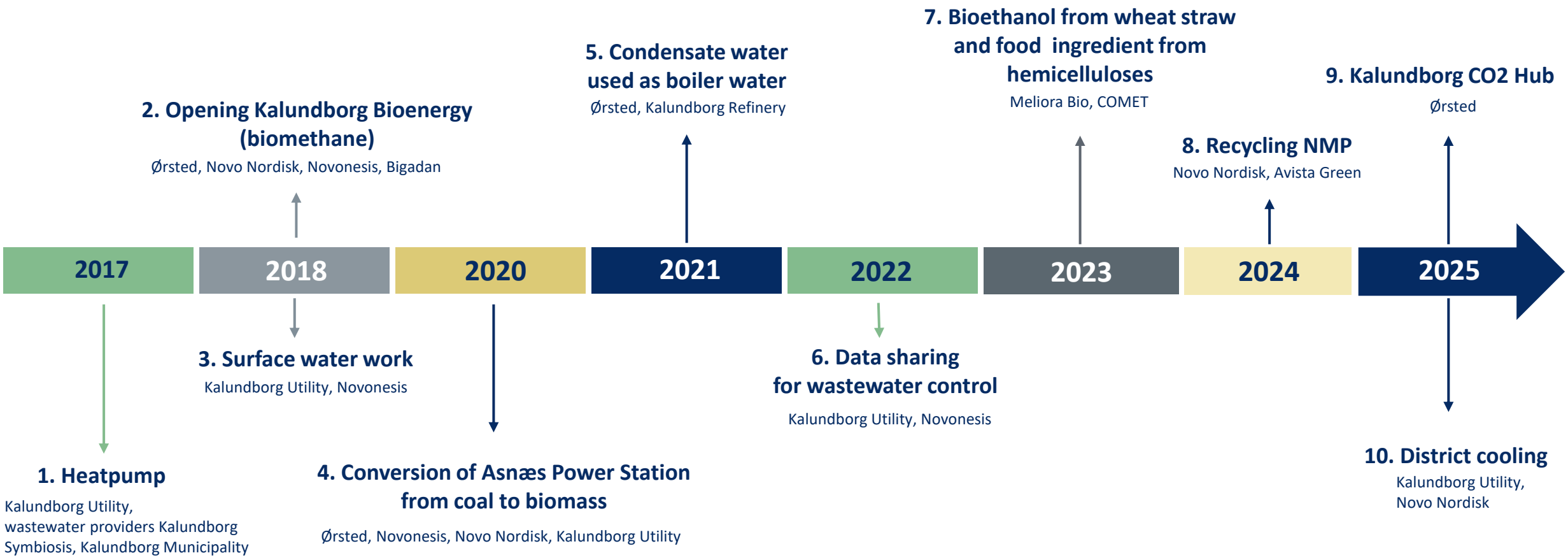
1993

The first material stream

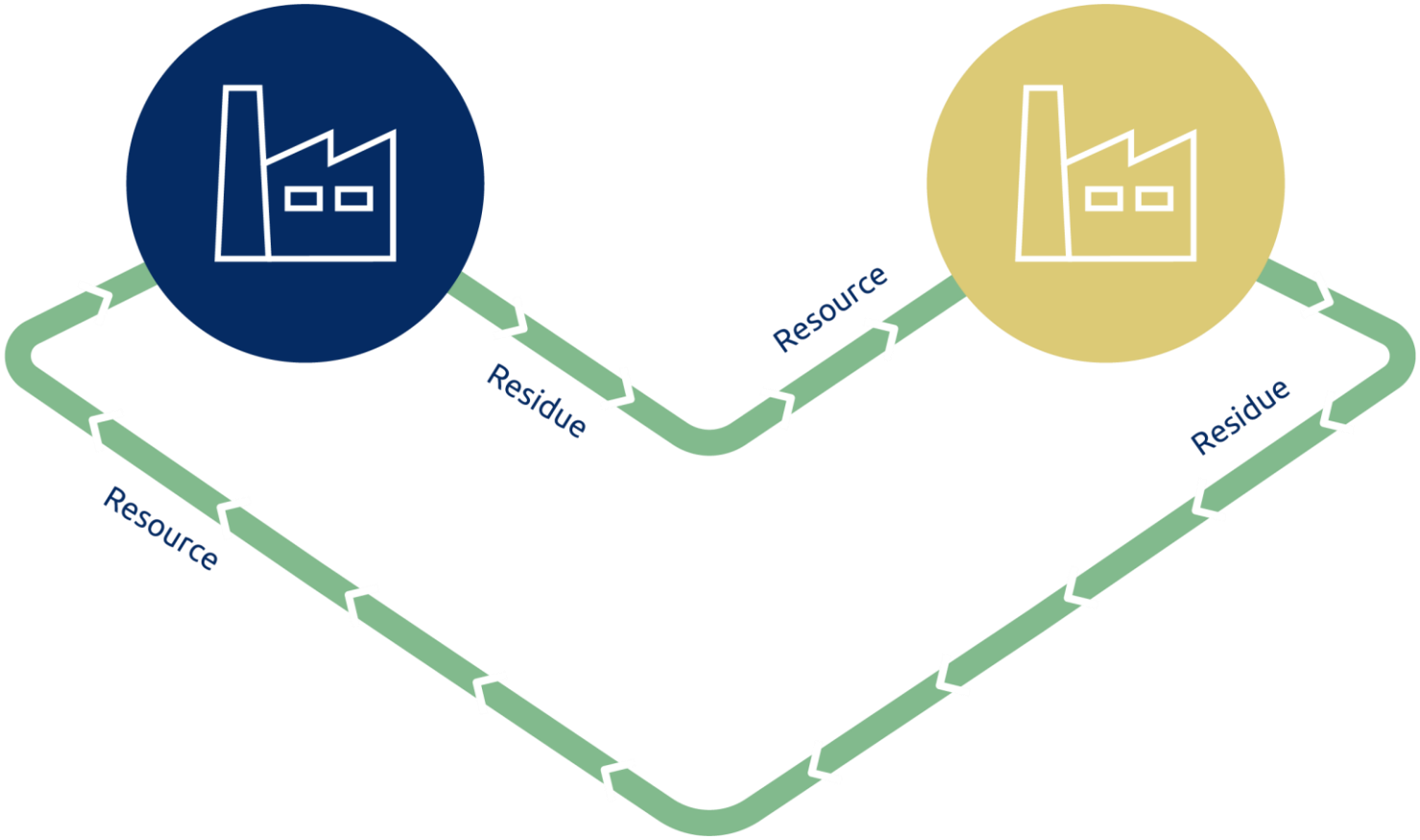
Organizational evolution



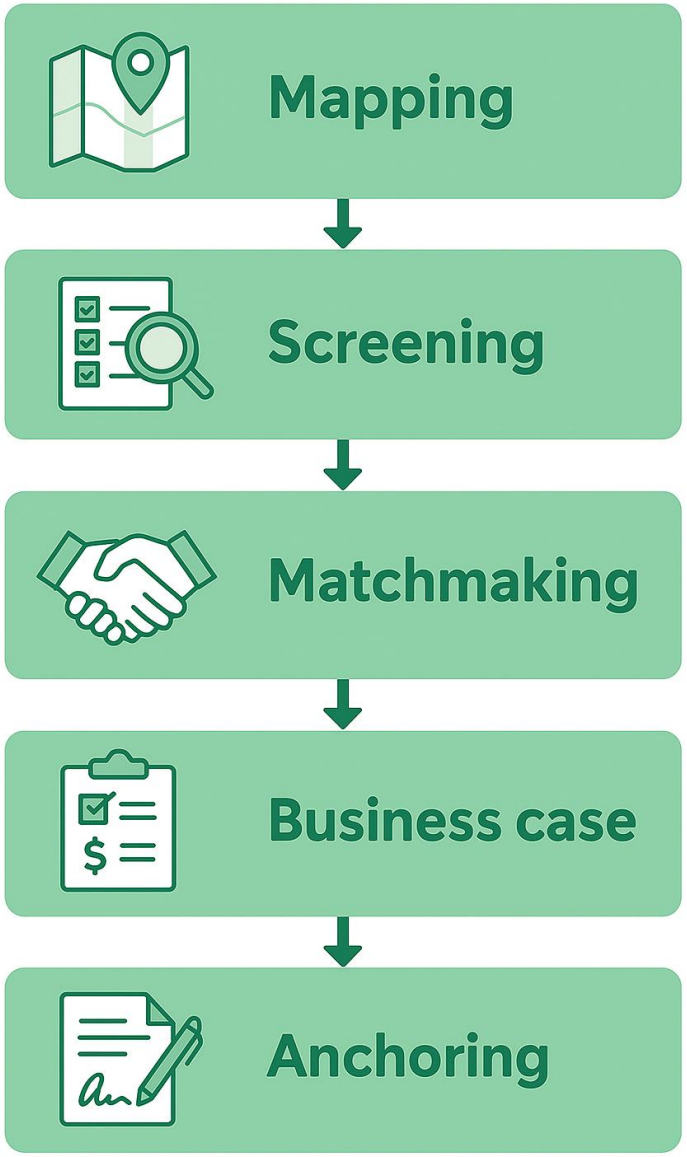
10 new streams by 2025



Industrial Symbiosis



The process of creating an industrial symbiosis



When establishing a new industrial symbiosis, potential members and partners first need to be identified and mapped

The screening identifies both the technical development potential of a company and its motivation and readiness to enter a symbiosis partnership

Successful symbiosis depends on trust, communication, and collaboration between companies, making initial facilitation crucial.

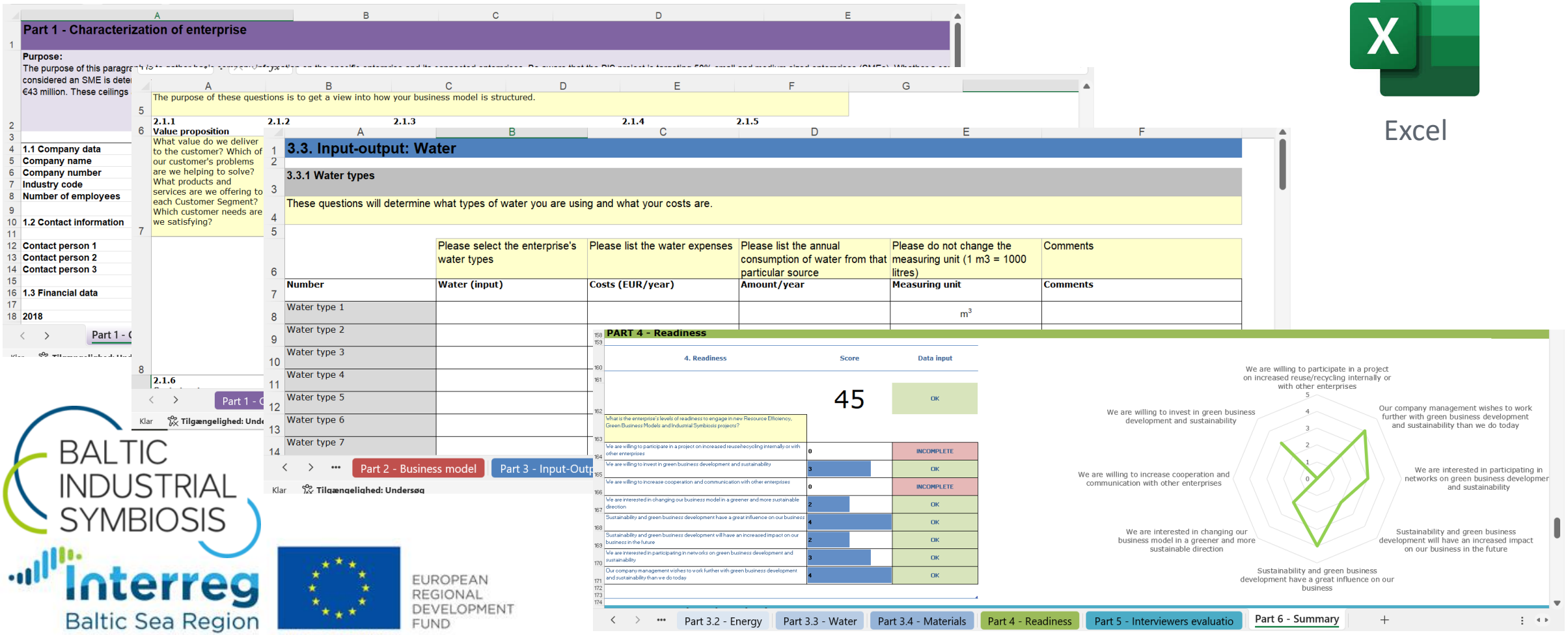
A symbiosis should be assessed like any investment, with a business case covering technical steps, legal aspects, and benefits for energy security, sales, and marketing.

Anchoring a symbiosis requires solid agreements and, for larger networks, planning and organization around a shared vision.

Screening Tool for Symbiosis Partnerships – Version 1

The dialogue-based screening tool assesses both a company's technical development potential and its motivation and readiness to engage in a symbiosis partnership. It was developed within the framework of the Interreg BSR project BIS.

Excel



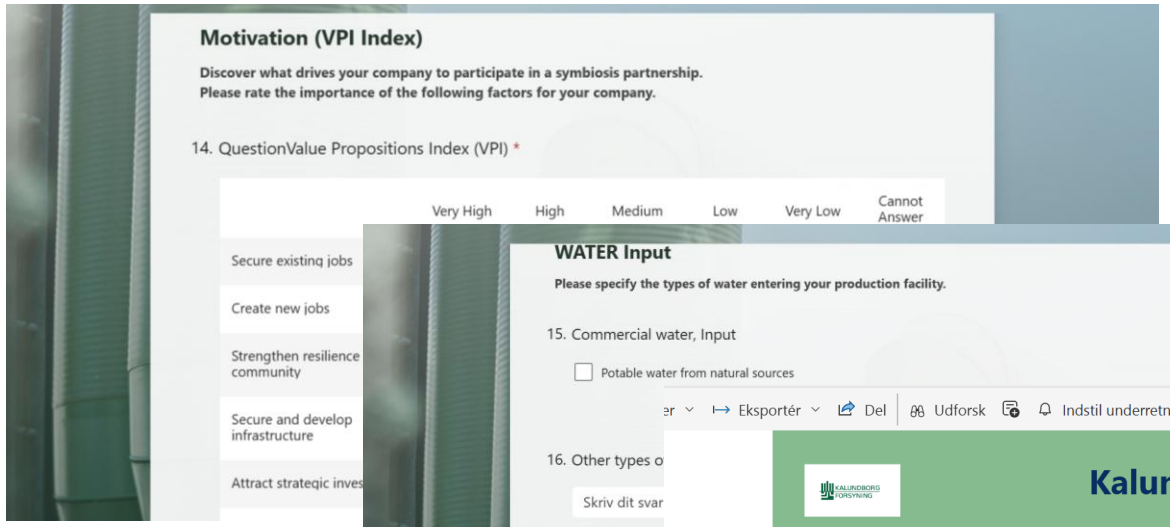
BALTIC INDUSTRIAL SYMBIOSIS

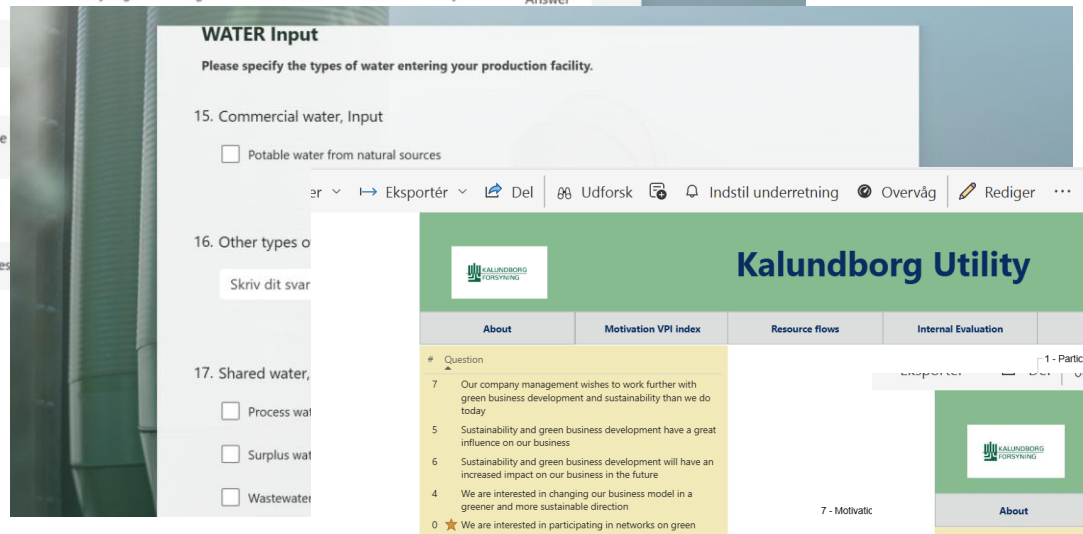
Interreg Baltic Sea Region

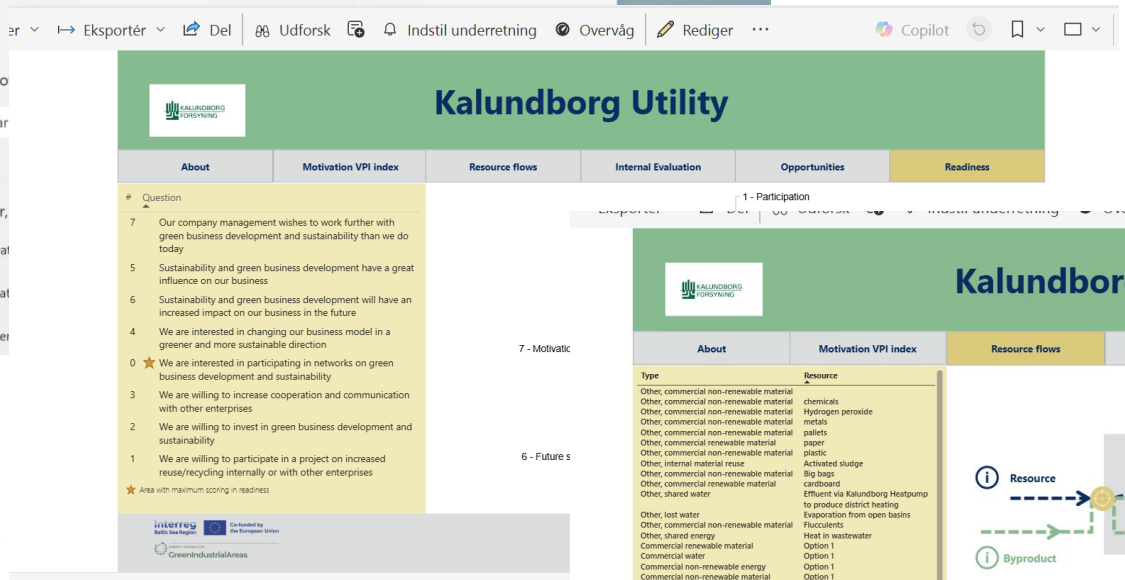
EUROPEAN UNION

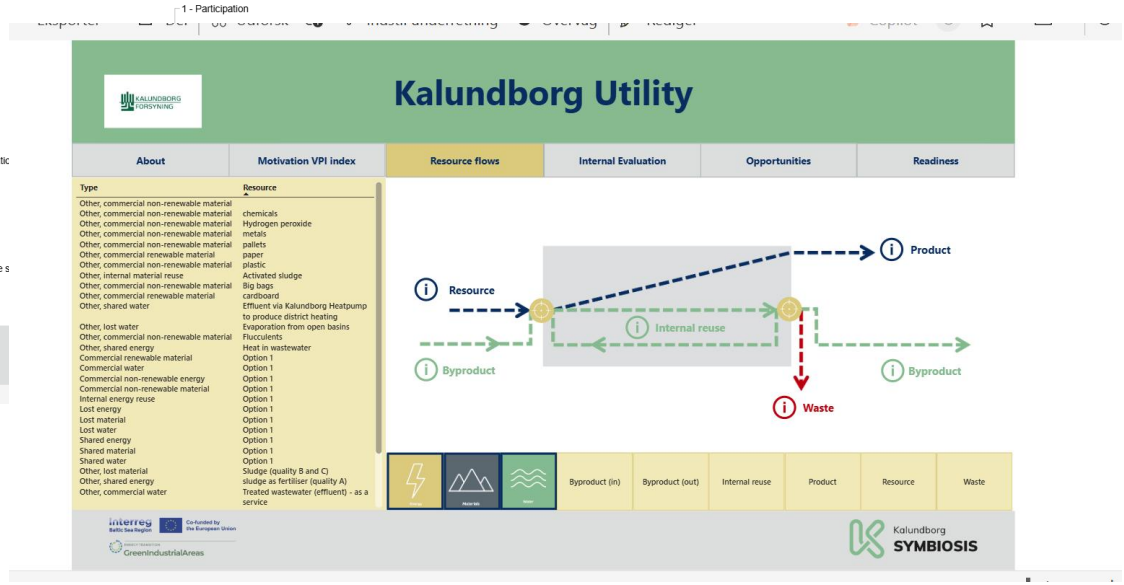
EUROPEAN REGIONAL DEVELOPMENT FUND

Digital screening tool for Symbiosis Partnerships – Version 2









Forms & Power BI

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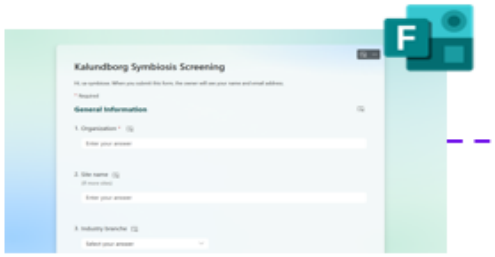
Digital screening tool - Report distribution



Forms link is sent out to intended respondents

Responses with timestamps are stored in the SharePoint/ excel database

After report refresh the responses can be selected in the BI front-end and presented

The report can be exported to PDF format and forwarded to respondents

Kalundborg Symbiosis

Surplus from circular production

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