Driving a green transition in big bio clusters: the culture that we seek, and how global investments meets local ownership, knowledge and resources with an impact
Relations & Culture, GreenLab

Transition – Innovation - Impact

Expertise in delivering innovative change and lasting impact.

Strong experience in building trust based business environments bridging the gaps between commercial, R&D and skills to accelerate the transition to a sustainable and circular economy.

My path

• **GreenLab Skive, [www.greenlab.dk](http://www.greenlab.dk)**
  Continuously working with GreenLab Skive and the ecosystem in correlation to the business park both on a local and global scale.

• **Skive Municipality [www.skive.dk](http://www.skive.dk)**
  Working with the development of the business park GreenLab Skive.

• **Skive Business Center, [www.skiveet.dk](http://www.skiveet.dk)**
  Working with cluster development in a local perspective engaging local sme’s and establishing a strong focus on circular economy, competitiveness and driving business opportunities.

My foundation

• **Process consultant**
  Facilitating change processes, leading dynamic and unpredictable processes. Based on systemic theory and complexity thinking.

• **Master in comparative literature, Aarhus University**
  Analysing complexity and setting a context for the understanding. Developing abilities to nuance and work with ambiguity, to comprehend and negotiate new realities.
My key beliefs

Culture eats strategy for breakfast

Business secures viability

The situation calls for action

It takes a human
GreenLab - a unique green business park

GreenLab Skive is a unique park for businesses working actively with integrated renewable energy, energy storage and resource efficiency.

GreenLab Skive is located at the nexus of the national gas and electricity infrastructure. The business park utilizes this location to establish a symbiotic network of grids that connects companies in the business park both as a consumer and supplier of locally produced renewable energy and resources.

The symbiosesnet is designed and implemented as a fully integrated infrastructure for electricity, gas, fuel, thermal and data distribution. The integrated infrastructure enables a full scale symbiotic industrial network between the entities in GreenLab.

This allows for the optimization of energy, resource and information transfer on site. This enables an efficient and more economical transfer between demand and supply as well as user and producer.
Symbiosenet

- A total area of 60 ha. Equals 85 football fields

Present at the area:
- 40 bar gas grid
- 4 bar distribution net
- 150 kV grid
- Raw biogas
- Landfill gas
- Planned central heating
- Oxygen, Hydrogen, CO2

Symbiosenet
Development of an internal grid for the exchange of surplus currents and energy-streams between the entries.
A commercial community
Our partners
GreenLab Skive

5 MW Alkaline Electrolysis

- Biomass [kW]
- Synthetic Natural Gas [kW]
- Electricity [kW]
- Heat [kW]
- LT Heat [kW]
- Bio Gas [kW]
- BioMass [kW]
- Diesel [kW]
- Plastic [kW]
- Natural Gas [kW]
- HT Heat [kW]
- Hydrogen [kW]

Diagram shows a flow of energy and resources, including:
- Biomass
- Water
- Danish Marine Protein
- DEIF (CHP)
- Boiler
- Heat Pump
- Praxair Electrolysis
- Methanation
- E.ON Biogas Plant
- E.ON Biogas Upgrading
- Nomi 4S
- Quantufuel
- Buildings
- Market

Energy sources include:
- Natural Gas
- Electricity (Wind)
- Biomass

Processes include:
- Praxair Electrolysis
- Methanation
- E.ON Biogas Plant
- E.ON Biogas Upgrading

Additional information:
- Water flows through the system, indicating a central role in the process.
Danish Marine Protein

How global investments meet local ownership, knowledge and resources
The GreenLab Principles

• Positive community effect
  local growth, global view, trust

• Competitive Advantage
  attract resourceful partners

• Symbiosis to synergy
  paradigm shift prognosis to products

• Mutual incentives
  long term engagement

• Sustainable
  accelerate the circular economy

• Continuous learning and development
  R&D to commercial

• Global frontrunner
  show it, don’t tell it
GreenLab Skive today

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tbody>
<tr>
<td>2018</td>
<td>Groundbreaking</td>
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<td>2019</td>
<td>4 sites operational</td>
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<tr>
<td>2020</td>
<td>Full operations</td>
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<td>2021</td>
<td>Expansion</td>
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How do we drive the *transition*?
From vision to construction
Trust based culture vs contractual culture a dialog between global investments and local ownership, knowledge, resources
The culture that we seek

It takes a human
Driving a green transition in big bio clusters: the culture that we seek, and how global investments meets local ownership, knowledge and resources with an impact.