Industrial symbiosis as a key driver of green growth in Nordic regions. Lessons learned and further opportunities

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- Established in 1997
- A leading Nordic research institute in the broad field of regional studies
- In-depth studies on Nordic Bioeconomy (2014), Nordic Industrial Symbiosis (2015) and Nordic Green Growth (2016)
- BSR Stars S3 project partner
In-depth Study on Industrial Symbiosis  
(Nordregio 2015)

- An analysis of the Industrial Symbiosis activities and potential in Nordic countries and regions & a selection of Nordic good practice cases

- Industrial symbiosis: Waste for one actor is resource for another actor

- By-product reuse, utility/infrastructure sharing, joint provision of services
Nordregio publications on Industrial Symbiosis

The potential of industrial symbiosis as a key driver of green growth in Nordic regions

Ingrid K G Johnsen (Ed), Anna Berntsen, Gunner Lindberg, Nabil, Mikaela Lise Smed-Olsen and Jukka Terävä

Nordregio Report 2016:1

Industrial Symbiosis
A key driver of Green Growth in Nordic Regions?

Industrial symbiosis (IS) is about saving money and reducing consumption by working together to minimise the value that can be generated from resources. It is one approach to creating a circular economy and achieving green growth. Through symbiotic activities between organisations, IS promotes sustainable development by reusing the same material and simultaneously minimising waste. This policy brief presents 10 case studies from across the Nordic Region followed by a series of policy recommendations based on good practices in Nordic countries.
Nordic industrial symbiosis study: case study regions
1,4 million tonnes of industrial by-products (Kemi-Tornio 2014)
Nordic Industrial symbiosis: Key findings

Why don´t we see even more of Nordic Industrial Symbiosis?

- lack of time and resources of the companies to develop industrial symbiosis
- lack of industrial expertise in the regions
- low awareness of the opportunities provided by industrial symbiosis

Development companies and networks/clusters needed to facilitate and promote Industrial Symbiosis
Industrial Symbiosis and joint Nordic/Baltic Sea Region efforts

- Joint Industrial Symbiosis projects – a role for Nordic Council of Ministers and its institutions
- Nordic co-operation e.g. in co-financing of demonstration plants
- Creating a Nordic network of Industrial Symbiosis actors – Kalundborg Event, May 4 2016, as core group
50 Cases of Nordic Green Growth: actors, status, regional impact (Nordregio 2016)
Industrial symbiosis cases across the Nordics

- Reykjanes Geothermal Resource Park, Iceland
- Kalundborg Industrial Symbiosis, Denmark
- Sotenäs Industrial Symbiosis, Sweden
- An ecosystem of Arctic industries in Kemi–Tornio, Finland
- Händelö Industrial Symbiosis Network, Sweden
- Eyde Cluster, Norway
- Kirkkokallio Industrial Park, Finland