



*6th Annual Industrial Symbiosis Research Symposium 2009*

**INDUSTRIAL SYMBIOSIS –  
CONTRIBUTING TO CO<sub>2</sub> REDUCTION AND SUSTAINABILITY**

**Kalundborg, Denmark, June 18 – 20, 2009**



Researchers from all over the world will discuss and exchange experiences on the contribution of industrial symbiosis to the reduction of greenhouse gases and other sustainability issues. Industrial Symbiosis refers to clusters of companies exchanging resources across firm boundaries, especially water, energy, and materials. The term Industrial Symbiosis was created in Kalundborg, home of the most famous example of industrial symbiosis in the world. The Symposium will begin in the afternoon of June 18, and will end before lunch on June 20. The Symposium is organized in cooperation with the Center for Industrial Ecology at Yale University's, School of Forestry and Environmental Studies and the International Society of Industrial Ecology - Section on IS/EIDC. The International Society for Industrial Ecology holds its 2009 Conference "Transitions toward Sustainability" immediately after the Symposium, June 21-24 in Lisbon, Portugal.

**Agenda (tentative):**

**Thursday 18 June 2009**

- 14:00 – 15:00 Arrival and registration. Check In at Roesnæs Conference Centre
- 15:00 – 15:30 Welcome remarks and opening speeches.
- 15:30 – 18:00 Around the world. Experience exchange and update on global symbiosis initiatives  
Round table discussion
- 19.00 - Get together dinner

**Friday 19 June 2009**

- 08:30 – 10:30 Energy and CO<sub>2</sub> reduction, challenges of CO<sub>2</sub> reduction for Industrial Symbiosis today, and other topics will be discussed in three presentations
- 10:30 – 11:00 Coffee break
- 11:00 – Sustainable Development
  - 12:00 Plenary discussion
- 12:00 – 12:30 The Kalundborg Industrial Symbiosis today.
- 12:30 – 14:00 Lunch



14:00 – 17:00 Excursion to the Kalundborg Industrial Symbiosis area.

18:30 – 19:00 Panel debate with Kalundborg IS veterans  
(managers from the 1980's who are still around)

19:00 - Symposium Dinner

### Saturday 20 June 2009

08:30 Check out from Conference centre. Bus transfer to the Industrial Symbiosis Institute

09:00 – Workshops on selected issues

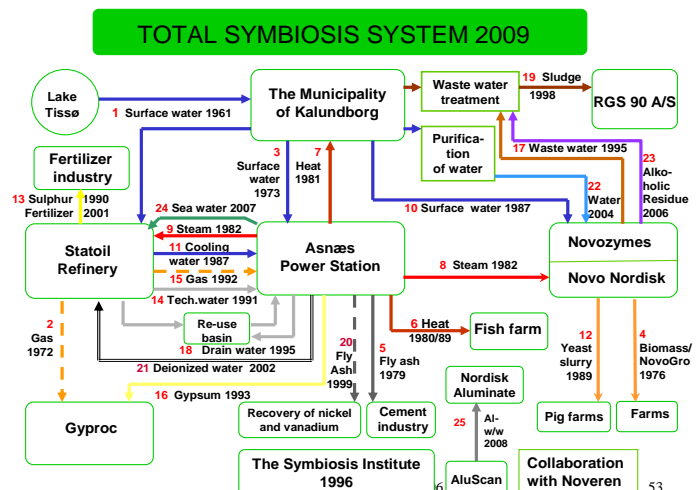
When is IS, IS?

More IS – challenges and necessary steps to be taken.

The role of international research on IS

– 11:00 Closing remarks – on the way to 7<sup>th</sup> symposium

11:15 Departure (Direct bus to the airport for participants of the ISIE Conference in Lisbon)



## The Industrial Symbiosis

The Industrial Symbiosis in Kalundborg is a network of 25 industries and the utilities supply department of the municipality. This symbiosis has developed over more than thirty years and consists of some 25 bilateral, commercial agreements in which water, energy and waste is exchanged.

## The Industrial Symbiosis Institute

The Industrial Symbiosis Institute in Kalundborg is a cooperation among 8 partners, financed by the partners. The fields of responsibilities of the Industrial Symbiosis Institute are:

- Collection of information about the Industrial Symbiosis and other examples of industrial ecology
- Communication of experience from the Symbiosis project
- Organization of visits and study tours about the Symbiosis
- Co-ordination of studies about the Industrial Symbiosis
- Consultation about new symbiosis projects
- Contributions to forming new symbiosis projects





## Kalundborg

Kalundborg is a modern, thriving and bustling provincial town, situated right in the middle of Denmark. There are 49.000 inhabitants in the municipality and 20.000 in the town itself. The biggest employers in Kalundborg are Novo Nordisk A/S, Novozymes A/S, Gyproc, StatoilHydro A/S, and The Asnaes Power Station (Dong Energy). Kalundborg Harbour is one of the biggest and deepest ports in Denmark, and is very international. Kalundborg is also famous for its old mediaeval town with the five towered church from around 1200. Roesnaes is a beautiful peninsula with its hills and view to North Funen, Samsøe, and Mols.

## The Venue

The symposium takes place at the Roesnaes Conference Centre, 5 km from the centre of Kalundborg. This hotel and conference centre is situated on the South side of the peninsula of Roesnaes and has a panoramic view over the water. The beautiful main building is only 50 meters from the water and is surrounded by green fields and a nice garden in old English style.



## Transportation

From Copenhagen, Kalundborg can be reached by car or train.

**By car**, it is a 100 km drive on route 21 and 23.

The conference centre is located about 5 km West of Kalundborg, on the peninsula of Roesnaes.

**By train.**

Arriving at the airport, you can take the train to Copenhagen Central Station (København H).

Airport trains depart for the Central Station on average every 10 minutes.

From Copenhagen Central Station, trains to Kalundborg normally go every hour. The train ride takes 1 hour 25 minutes. Departing times from Copenhagen Central Station to Kalundborg on 18 June 2009 are: 08:53, 09:53, 10:53, 11:53, 12:53, 13:53 (list only includes the period 08:00 – 14:00).

Pick-up at the Kalundborg Station is arranged for the participants who indicate their arrival time.

After the symposium, a direct bus to the airport is arranged, with arrival at the airport around 12:45.

## The Organizing Committee of the Symposium is:

John Kryger, Chair and Director, Industrial Symbiosis Institute, Kalundborg, Denmark

Prof. Marian Chertow, Yale University, USA

Jørgen Christensen, JC consult and Industrial Symbiosis Institute, Kalundborg, Denmark

Prof. Ray Coté, Dalhousie University, Canada,

Symposium Chair 2007

Gabriel Grant, Yale University, USA

Peter Laybourn, National Industrial Symbiosis Programme, UK,

Symposium Chair 2006

Peter Lowitt, Devens Enterprise Commission, USA,

Symposium Chair 2008

Melanie Quigley, Yale University, USA

Jane Hansen, Coordinator, Industrial Symbiosis Institute,  
Kalundborg, Denmark



For more information please contact Jane Hansen at [info@symbiosis.dk](mailto:info@symbiosis.dk)