15th Annual International Sustainable Development Research Conference
July 5-8, 2009

"Taking up the Global Challenge: Analysing the implementation of innovations and governance for Sustainable Development"

CALL FOR PAPERS

Track nr 4C: *Industrial symbiosis, eco-industrial networking and regional sustainability*

Track chair: D. Lyons (University of Texas, USA), Dr. Pauline Deutz (University of Hull, UK), Sally Randles (University of Manchester, UK), Abhishek Agarwal (Robert Gordon University, UK)

Industrial Symbiosis draws its conceptual foundation from the ecological metaphor of biological symbiosis, where unrelated organisms can find mutual benefit through the exchange of by -products. That is, one organism's waste can be another's resource. Networks of companies engaging in industrial symbiosis can be distributed across a city or region or co -located in an eco-industrial park. Industrial symbiosis offers potential environmental and economic efficiencies that have attracted policy interest across the world, both as economic development and regional sustainability initiatives. Whilst de novo eco -industrial park policy initiatives world -wide have struggled to establish significant by-product exchange networks, self-organized kernels of local and regional networks have been far more successful, leading industrial symbiosis proponents to reflect on the relative merits of planned versus more self -organized approaches.

Given the potential for industrial symbiosis to contribute to regional sustainability, the difficulties in realising that potential are frustrating. The concept is in danger of being dismissed by policy makers and academics as inspired but impractical, and being left to industry to exploit to the extent that it is economically viable. However, if our goal is regional sustainability, then industrial symbiosis in whatever form becomes a means to an end, not the goal in and of itself.

This session aims to critically appraise Industrial Symbiosis as a tool for regional sustainability and to position the concept within ongoing policy developments. For example, given that industrial symbiosis arose as a resource conservation practice, how does the concept relate to policy frameworks increasingly dominated by strategies to reduce carbon emissions. Furthermore, under what circumstances does Industrial Symbiosis have a role to play in regional sustainability, how can the most appropriate form for a given setting be determined, and how pro -active should the state be in promoting Industrial Symbiosis ?

Important questions for further research include:

- Given the potential public good from Industrial Symbiosis what should be the role of the state in its promotion? What form of policies would effectively engage business in Industrial Symbiosis practices, and how would they vary according to the context or particular places?

- Are the lessons from successful self -organized Industrial Symbiosis kernels transferable nationally and/or internationally?

- What is the role of the region in the development of Industrial Symbiosis?

- What are the implications of international commodity flows for regional sustainable development and regional Industrial Symbiosis networks?

- Should the scope of Industrial Symbiosis be broadened to incorporate post - consumer and industrial waste?

- What would be the role for the existing materials recycling and recovery industries within an economy where by -product exchange were increasingly the norm?

- How can the energy cascade component of Industrial Symbiosis be promoted as part of broader policies aimed at carbon emissions reductions?

- Should Industrial Symbiosis focus more on energy cascade exchanges in light of the current attention to carbon emissions?

Please look at the detailed instructions and deadlines for submitting your abstract and paper, using the Submission & guidelines button at the left side.