Information Synergy of Industrial Symbiosis Building an Industrial Symbiosis data repository

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Content

- Introduction
 - Who are we
 - What is Industrial Symbiosis
 - Information and communication technology for Industrial Symbiosis
- What have been done
- What are we going to do
- Conclusion



Who are we

- Section Energy and Industry
- Faculty of Technology, Policy & Management
- Delft University of Technology
- Lead by Dr. Gijsbert Korevaar





- PhD project under Climate-KIC started in December 2013
- Develop a central data repository of industrial symbiosis by adopting open data approach



Engaging traditionally separate industries in a collective approach to competitive advantage involving physical exchange of material, energy, water and by-products (Chertow 2000). Industrial Ecology



(Yu, Davis, Dijkma 2013)





Challenge the future 5

Framework of ICT for IS







ISDATA.ORG













Data mining (Modelling) Semantic web Case studies (Wiki)



Data mining - An explorative trial

•http://prtr.ec.europa.e u

•Linked data base of waste transfer

•Receivers and providers all on the same map without the connections

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- Query Google API
- ggplot in R
- Though data completeness is a issue
- It gives a feeling
- Geece ships out more waste than receiving



waste providers

waste receivers



Documenting - wikis http://ie.tudel:

- Tacit knowledge
- Explicit knowledge





- A wiki based web platform can well support the demonstration of explicit information
- While in the meantime, we hope that trust can be built through the use of this platform, creating a knowledgesharing community

Openess, transparency and sharing



Documenting - wikis http://ie.tudelft

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The complete list of EIPs on this Wiki

Davis, C., Making Sense of Open Data - From Raw Data to Actionable Insight, PhD Thesis TU Delft, Delft 2012



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Eco-industrial

Hypothesis, conclusions and contributions

- Open data sets contain sufficient information to support the decision-making of formulation of synergies between traditionally separated organizations.
- The current definition of Industrial Symbiosis in the academia will be challenged and strengthened via large data sets.
- Data base that was not designed to support the research of IS in the beginning, we demonstrate that we can use it for the research of IS research.

Thus creating an information synergy of IS.

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Thank you for your attention

CRITICISM &

Inputs

All Welcome,

especially data provider and collaboration!

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