ISNM INTERNATIONAL SCHOOL OF NEW MEDIA
AT THE UNIVERSITY OF LÜBECK

:: PortNet Navigator

:: Planning, Navigating and Planning, again

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Academic Director ISNM

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Founder „noesis“ & Research Fellow ISNM

ISNM
International School of New Media
at the University of Luebeck

ISNM INTERNATIONAL SCHOOL OF NEW MEDIA
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:: Overview

:: Advanced Planning Tools
Introducing New Technologies

:: PortNet Navigator
Introducing PortNet Prototype

:: Planning for Plans
Introducing Questions & Suggestions

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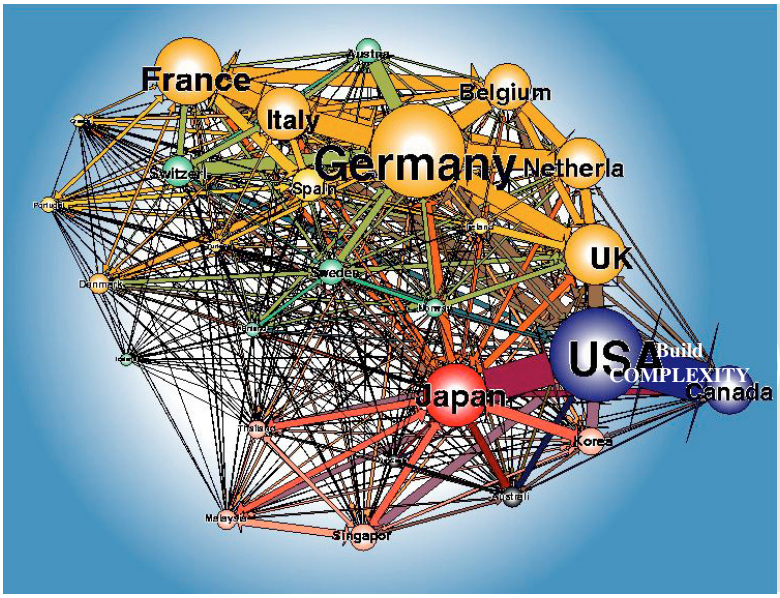

World Trade System

1992

„Connections“

New York Hall of Science

Build COMPLEXITY

http://www.jeffkennedyassociates.com:16080/connections/

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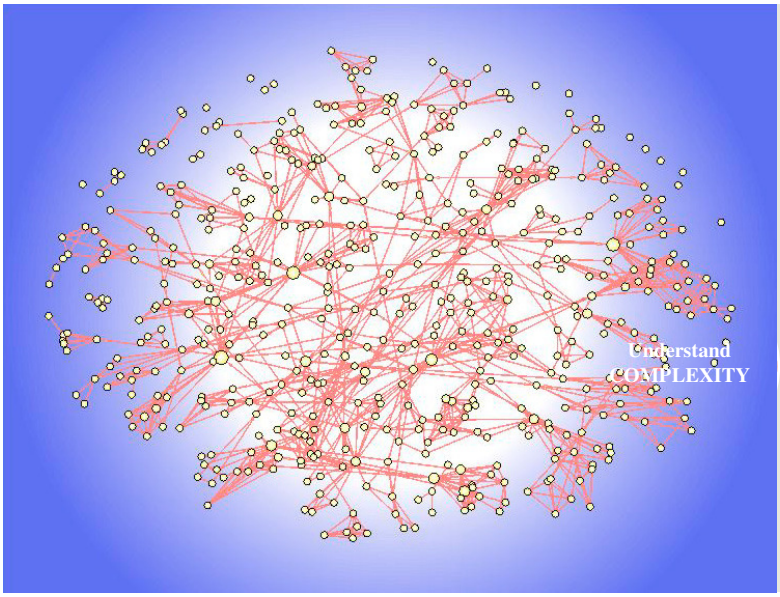

Co-Author-ship of Max-Planck publications

2000

„Connections“

New York Hall of Science

Understand COMPLEXITY

http://www.jeffkennedyassociates.com:16080/connections/

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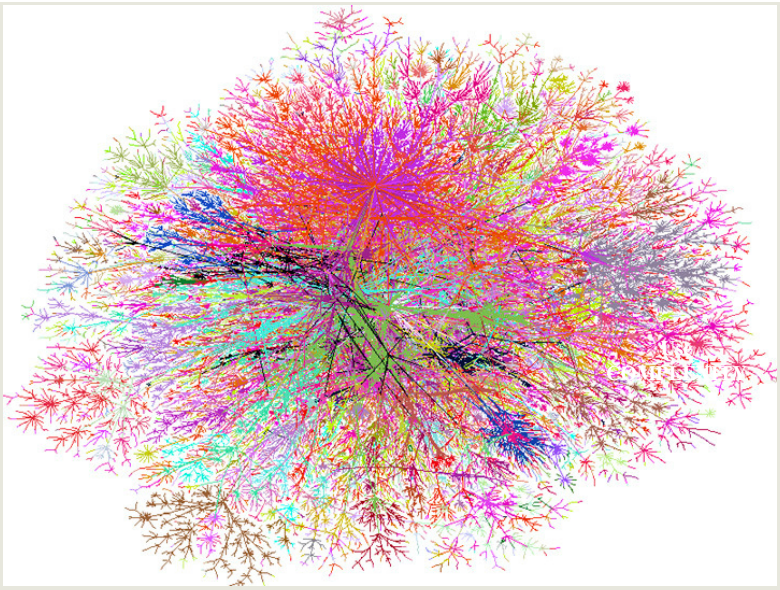

Internet-Topologie nach IP-Adressen

„Connections“

New York Hall of Science

http://www.jeffkennedyassociates.com:16080/connections/

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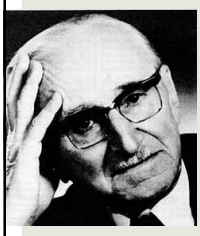

There is only one way
to overcome the limitations
of the individual –
to use the powers
of self organization.

Friedrich von Hayek

Built, understand, and use COMPLEXITY

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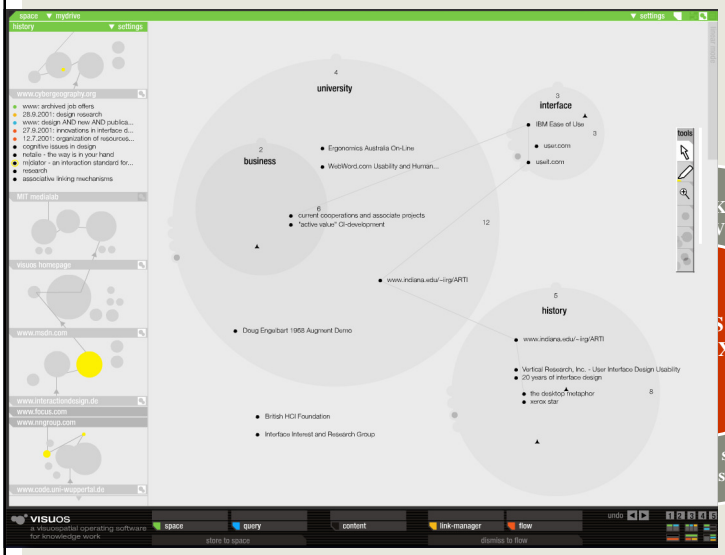

VISUOS: Clemens Lango, 2005; www.visuos.com / www.interactiondesign.de

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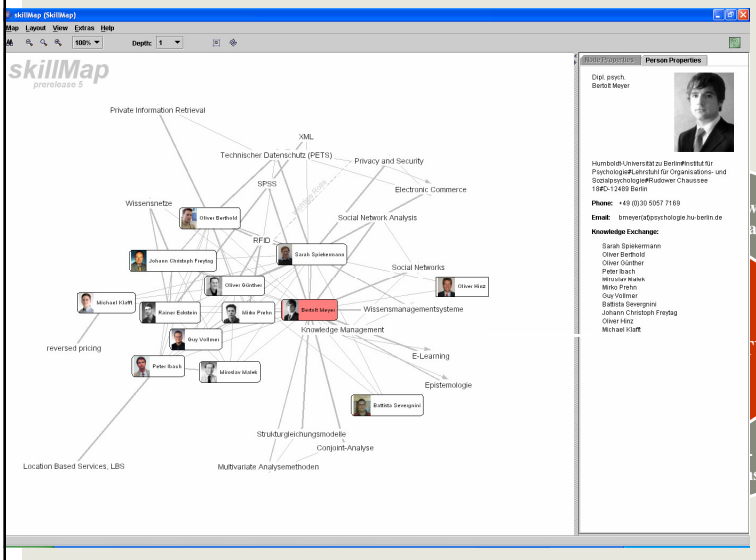

skillMap: Meyer & Spiekermann, 2006; http://ioe-skillmap.hu-berlin.de

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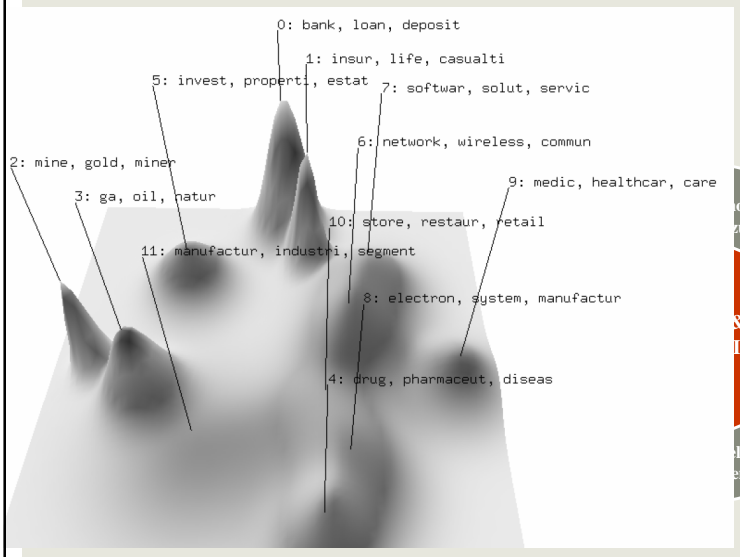

Automatic clustering of Yahoo business data: Plisson et al., 2005 (Josef Stefan Institute, Ljubljana)

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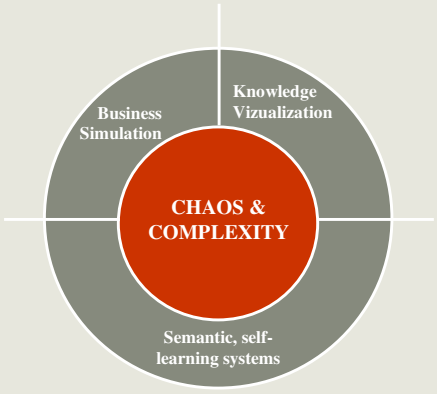
Act in a way that more opportunities are created.

Heinz von Förster



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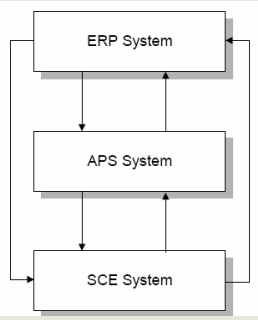
:: Advanced Planning



: Enterprise Resource **Planning** (not just: Administration)

: Advanced Planning System (APS)
- Mathematical Modeling
- Simulation
- Heuristics

: Suppy Chain Execution
- Computer Integrated Supply Chains
- Optimization on the fly

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:: Advanced Planning

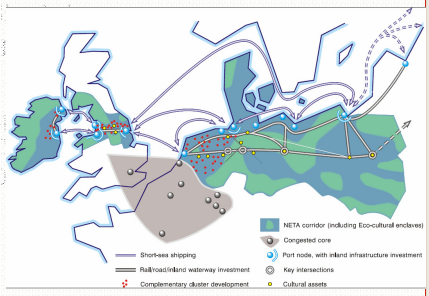
: Enterprise Resource **Planning** (not just: Administration)

:: North Europe Trade Axis

(www.netaproject.org.uk/)

:: In Search for Synergies

: Short / Long Range Traffic
: Infrastructure Investment
: Cluster Development
: Cultural Assets
: Ecological Sustainability



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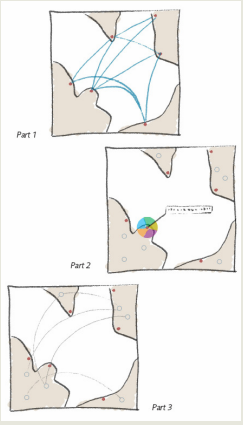
:: Knowledge Detection & Vizualization

:: Project „PortNet Navigator“



: Bringing together Data Warehousing & Integration
: Bringing together Semantic Search & Ontologies
: Bringing together Geographic & Knowledge Visualization

: ISNM Project Team
: Uli Schmidts, M.Sc. (Germany)
Wendy Ann Mansilla, M.Sc. (Philipines)
Bashar al-Takouri (Palestine)
Michal Janizcewski (Poland)

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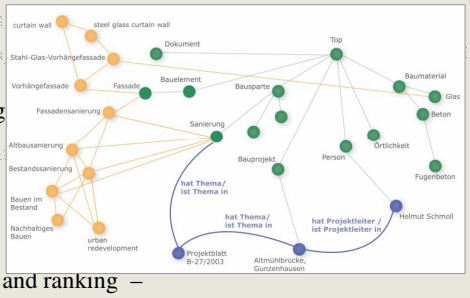
:: Knowledge Detection & Vizualization

:: Related Work

:: ConWeaver

: Semantic Search
plus machine learning
: www.conweaver.de
Project of FhG
IPSI



: „semantic“ overview and ranking –
But: How to regard your own corporate data?

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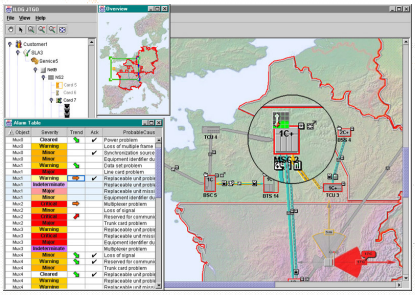
:: Knowledge Detection & Vizualization

:: Related Work

:: Potential Solution

:: Process Simulation

: Simulation of scenarios based on corporate data.
: All solution are internally, only with no Web access
: cf. Giaglis et al., 2005.
: Example: www.ilog.com



:: Knowledge Detection & Vizualization

:: Related Work II

:: Business Analytics

: Evaluation of corporate relation-ship and corporate data (e.g. stocks)
: GIS-like display
: Source: Tomsky & Ebert, SAP Design Guild, 2005.

: Industries and regions can be compared –
But: How to integrate rating and tagging from users?

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:: Knowledge Detection & Vizualization

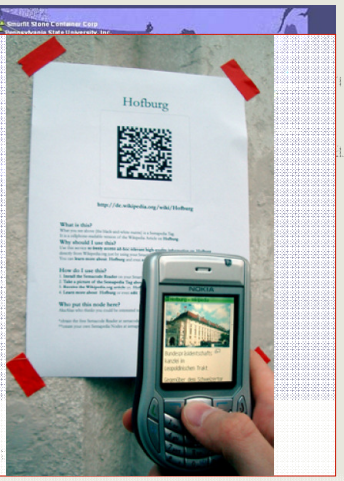
:: Related Work II

:: Solution

:: Folksonomy

: Users enter their own keywords and valuations („social tagging“).
: No taxonomie is defined but will derived from social tagging (folksonomy)
: Tools to built up folksonomies have been published
(Source: Randeau & Wiechers, 2005)

: Example: www.semapedia.org



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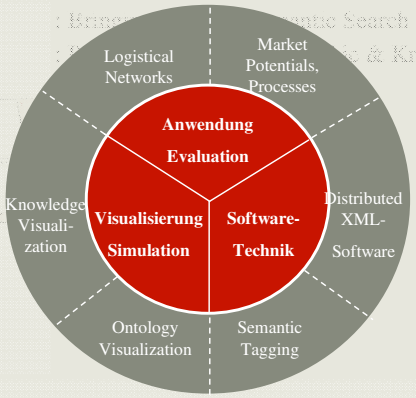
:: Knowledge Detection & Vizualization

:: New Approach to APS

:: „Folksonomy“ for Distributed Business Analytics



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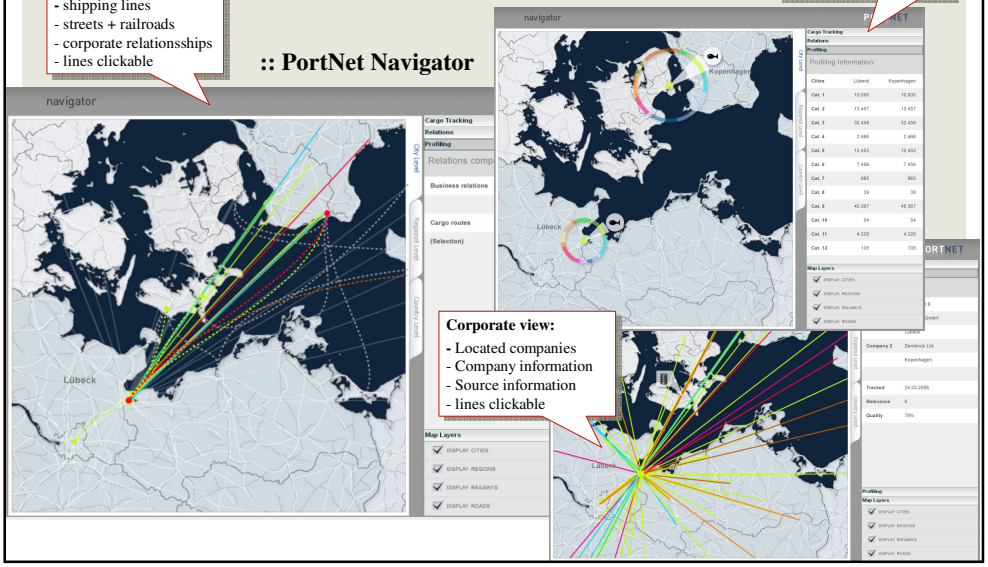
:: Knowledge Detection & Visualization

:: PortNet Navigator

Comparison view:
- shipping lines
- streets + railroads
- corporate relationsships
- lines clickable

Profile view:
- Ports + regions
- Trading profile
- Info on product groups
- profiles clickable

Corporate view:
- Located companies
- Company information
- Source information
- lines clickable



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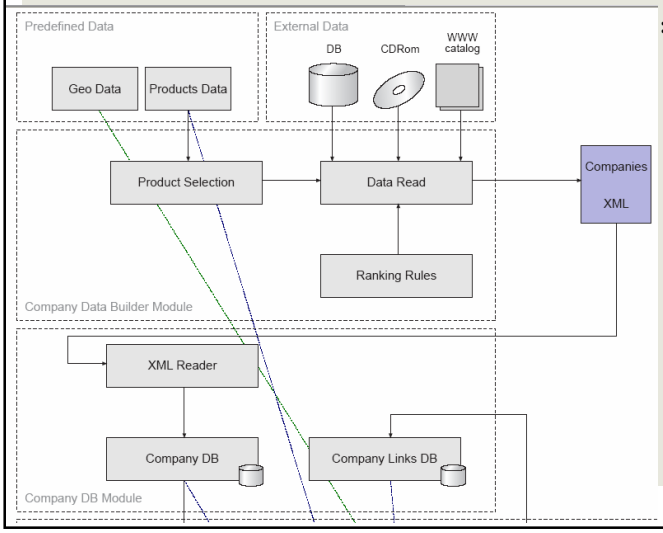
:: Knowledge Detection & Visualization



:: PortNet Navigator

: Validated data input (e.g. corporate data bases, CD-ROM with official statistics)

: Available are geographic vector data (regions, streets, railroads) and data on locations of cities and bridges

: Available are data from listings („Who is Who“), official databases (customs; national statistics agencies, associations / chambers)

: Validated data are used to process invalid data sources in the Internet and calculating GPS positions from textual address information.

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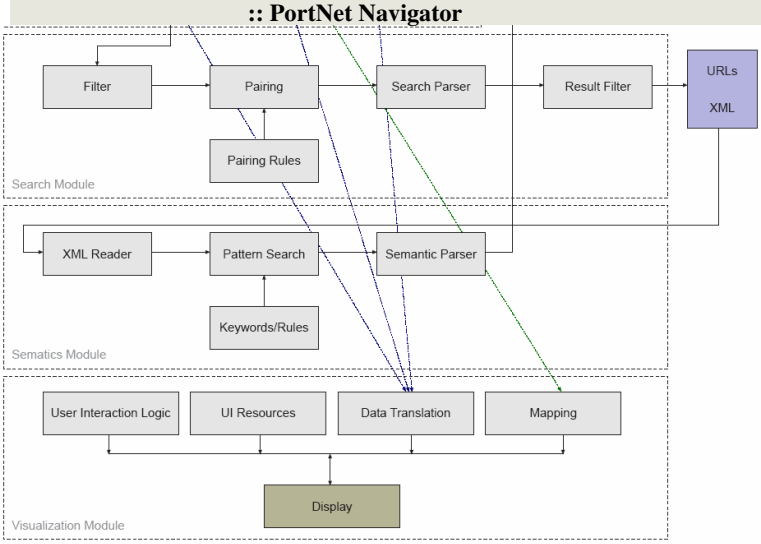
:: Knowledge Detection & Visualization

:: PortNet Navigator



:: PortNet Navigator

: Pattern search results are validated by semantic parsing

: Automatically validated data is stored and localized (turning city names into GPS positions)

: Data is mapped, translated and is displayed according to pre-defined inter-face styles and display rules.

: PortNet Navigator is a toolbox rather than a GIS!

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:: Questions

:: What will be modeled?

COMPARISON OF DIFFERENT SCHEDULING APPROACHES

Attribute	Math Programming	Simulation	Heuristic
Hold Time		X	X
Queue Time		X	X
Customer Service		X	
Forecast Bias		X	
Set-up Cost	X		X
Holding Cost	X		X
Overtime Cost	X		X
Capacity	X		X
Production Lot Size	X		X
Production Sequence	X		X
Customer Due Date	X	X	X
Family Structure	X		

X = Functional

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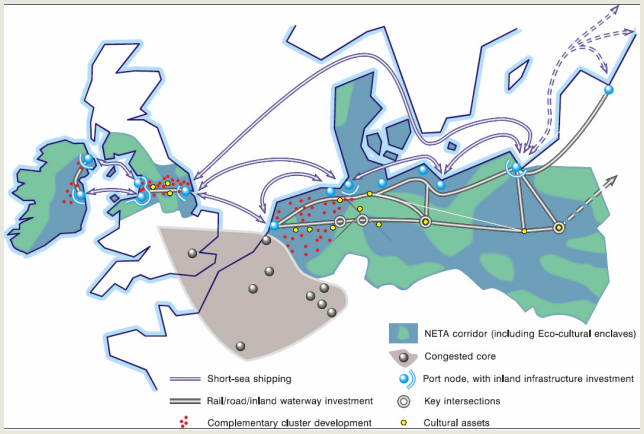
:: Questions

:: What is the scope?



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:: Questions

:: What is the outcome?

1. Historical actual sales per item, per week.
2. Historical sales forecast per week.
3. Forecast at time the lot sizing decision was made
4. Customer Service level (actual sales compared the lot-size)
5. Salvage (amount remaining, if any)
6. Some estimate of the cost of ordering the lot
7. Weighted Average Cost of Capital (Inventory Carrying Cost)
8. Cost of a Lost Sales
9. Price Breaks on Lot-Size
10. Transportation method/cost

…

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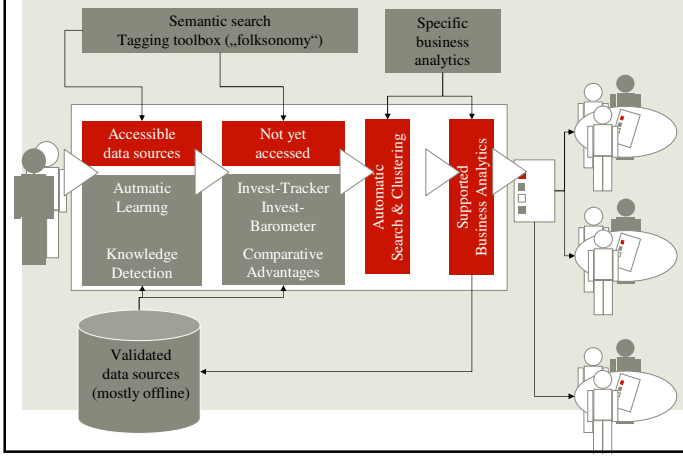
:: Suggestions

:: How to proceed?

1. What data do you maintain and deliver?
2. What shared services do you want to create?
3. What budgeting and funding can be created?



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:: Contact

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