



Presentation of SPIN's Toolbox for SME's

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WP4: Company Needs

What are the Company Needs:

- Realisation of sustainability
- Introduce to the development process / innovation process
- Application
- Implementation of new technologies



TOOLS



**INNOVATION
HIGHLIGHTS**



Tools:

Financing

- www.startvaekst.dk – finding capital + standard contracts + regulation
- www.vaekstguiden.dk – complete overview of public and EU financing opportunities

Competence

- www.startvaekst.dk – overview of company economy+idea generation+business plan
- www.innovationstjek.dk – if you need input on company development opportunities and innovation potential
- EMAS easy
- SCOR (Supply Chain Operational Reference model)
- QFD (Quality function deployment)

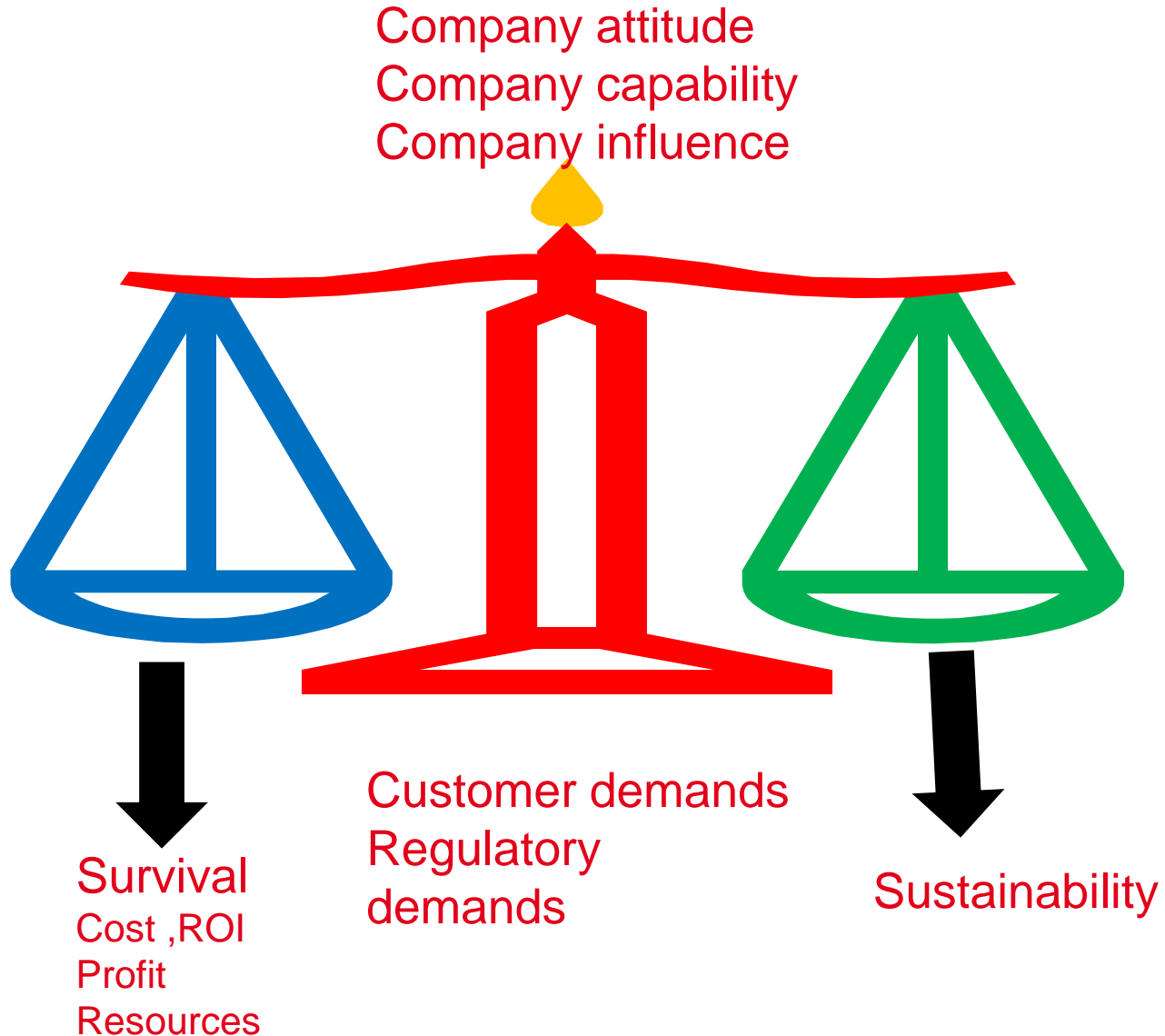


Tools

- EMAS easy
- SCOR (Supply Chain Operational Reference mode)
- QFD (Quality function deployment)



TOOLS





Get EMAS by using "EMAS easy"!





EMAS easy:

- Help to implement ISO 14001 and EMAS



EMAS easy
The easy way to improve your environmental and business performance

Ecomapping
ISO 14001 easy
EMAS easy for small SME's
How to implement EMAS in a small SME :

in 10 days
with 10 people
on 10 pages
in 30 steps

This EMAS easy guide is completed by the EMAS toolkit which is available for free on the EMAS website: http://europa.eu.int/comm/environment/emas/index_en.htm

EMAS
Performance, Credibility, Transparency

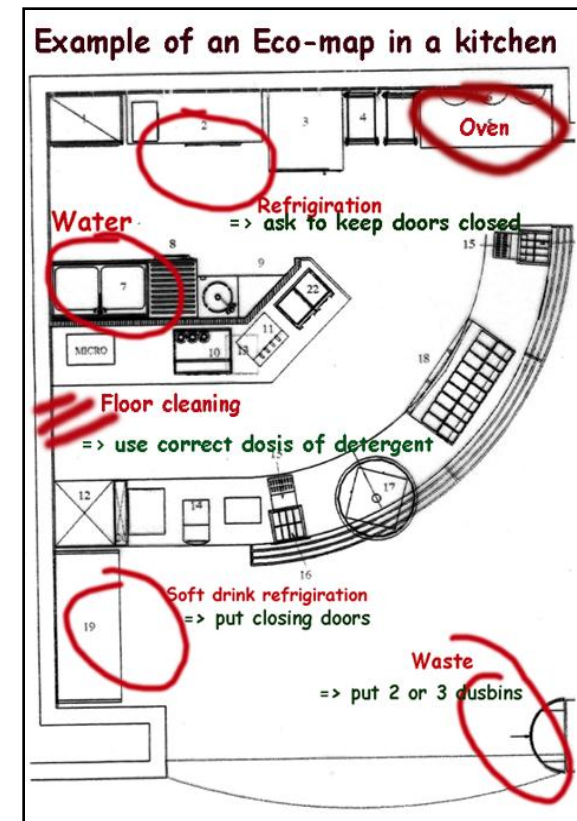


EMAS easy is the starter Kit for EMAS....

A visual and participatory tool to:

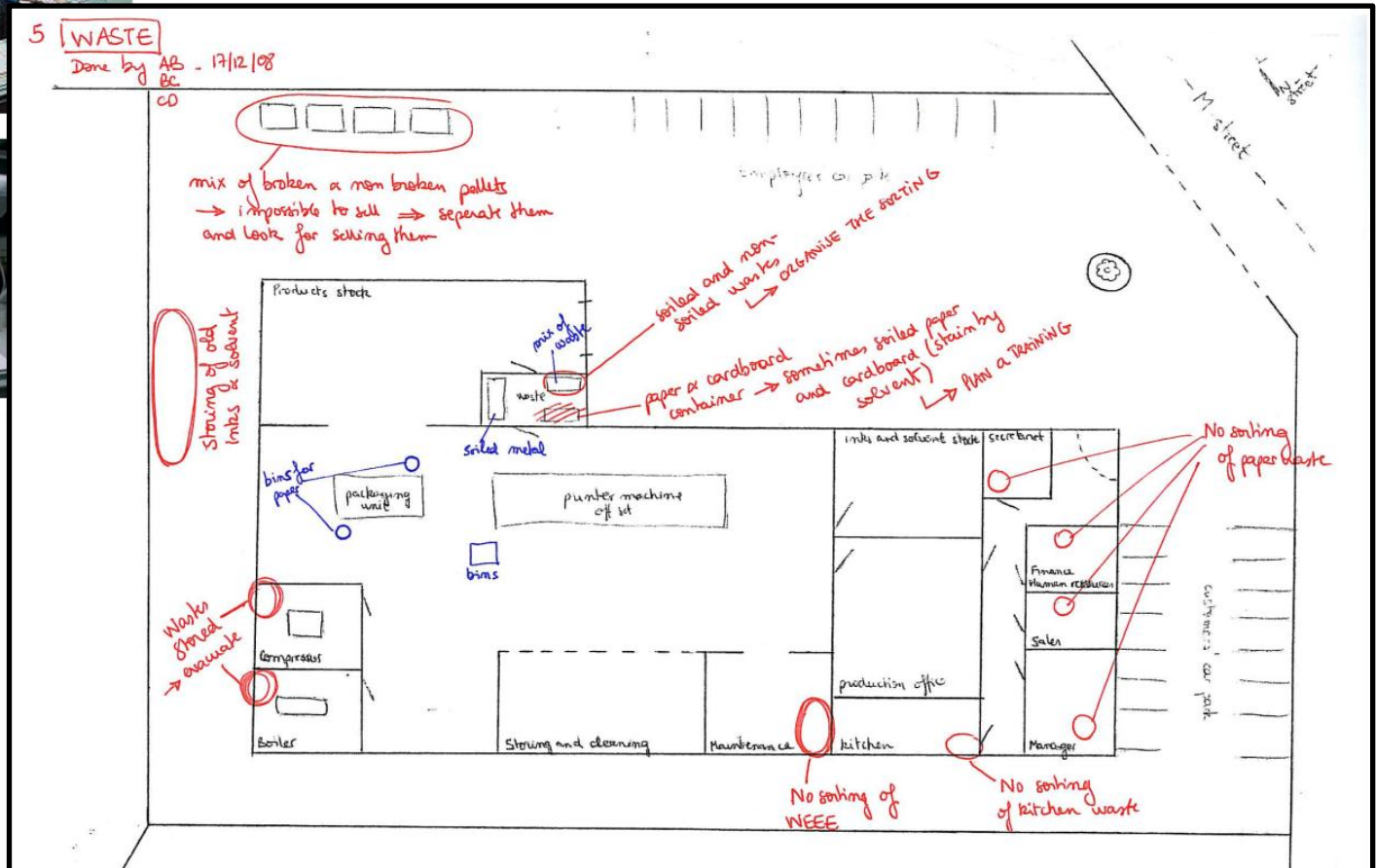
Get an immediate environmental action programme

- Collect and communicate environmental data
- Do-it-yourself & Learning by doing
- Visual and focalised inspection
- Needs no degree but only observation,
- Communication, pen and paper





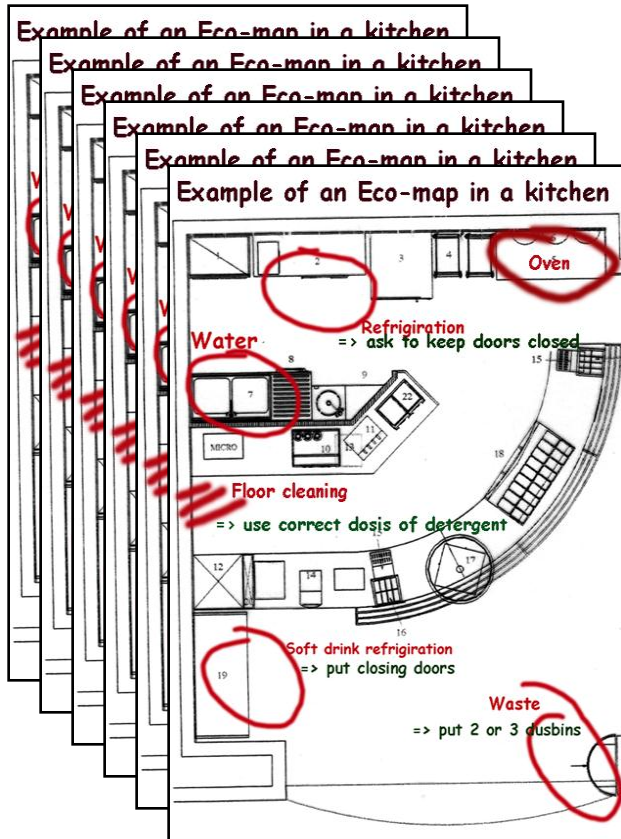
The employees know where the env. impact is !!!



Tirage



Ecomapping helps to focus



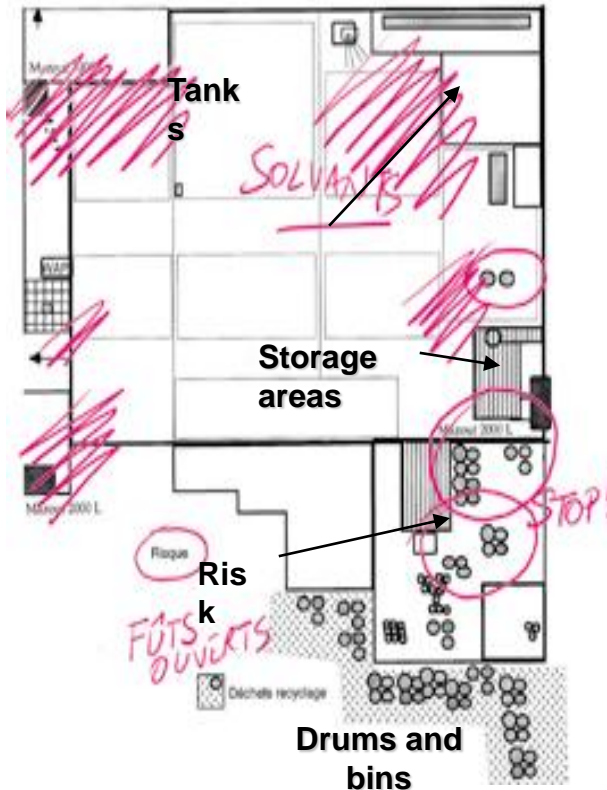
7 Ecomaps:

- Site and organisation map
- Water
- Soil storage
- Energy map
- Air noise smell
- Waste
- Risk





**Environmental Problems in Micros: 50% bad practise and attitudes.
80 % of environmental relevant information is location based**



Threat to groundwater ?

Any old oil tanks ?

Soil pollution ?

In case of accidents ?

Proper storage areas ?

Practice ?

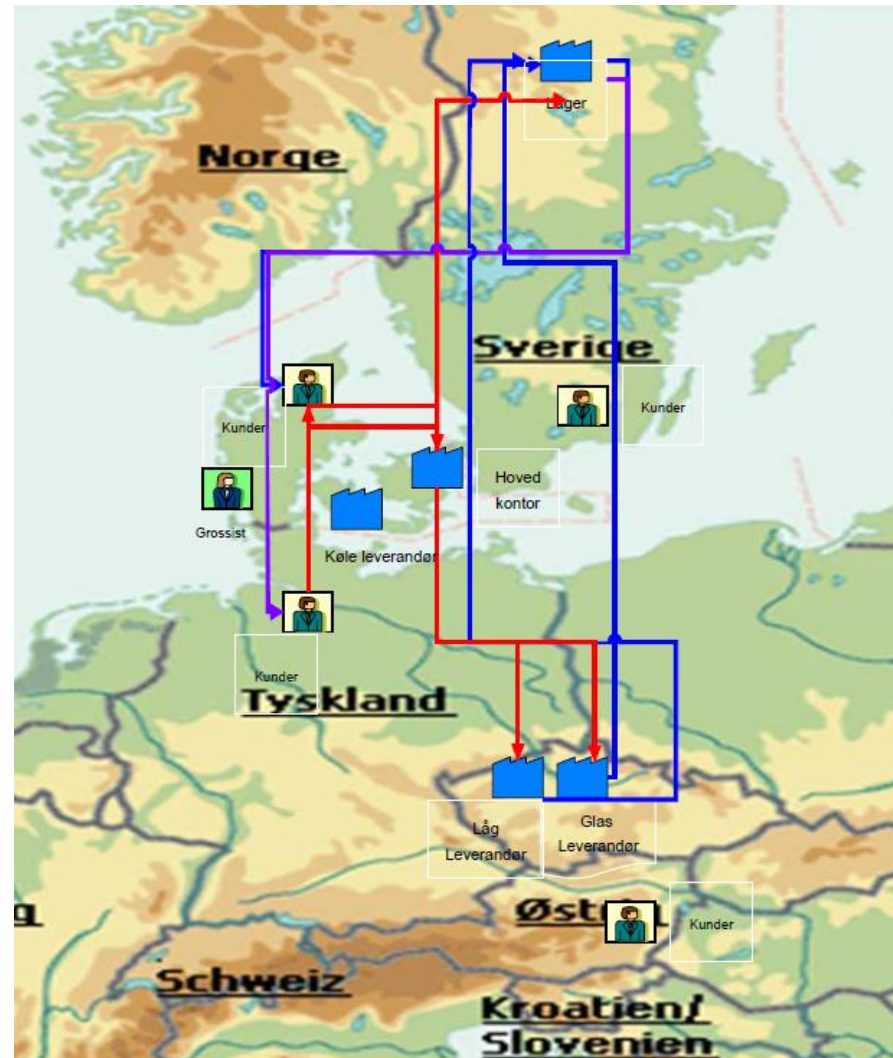
Volumes ? Retention

Legal obligations

Good house keeping



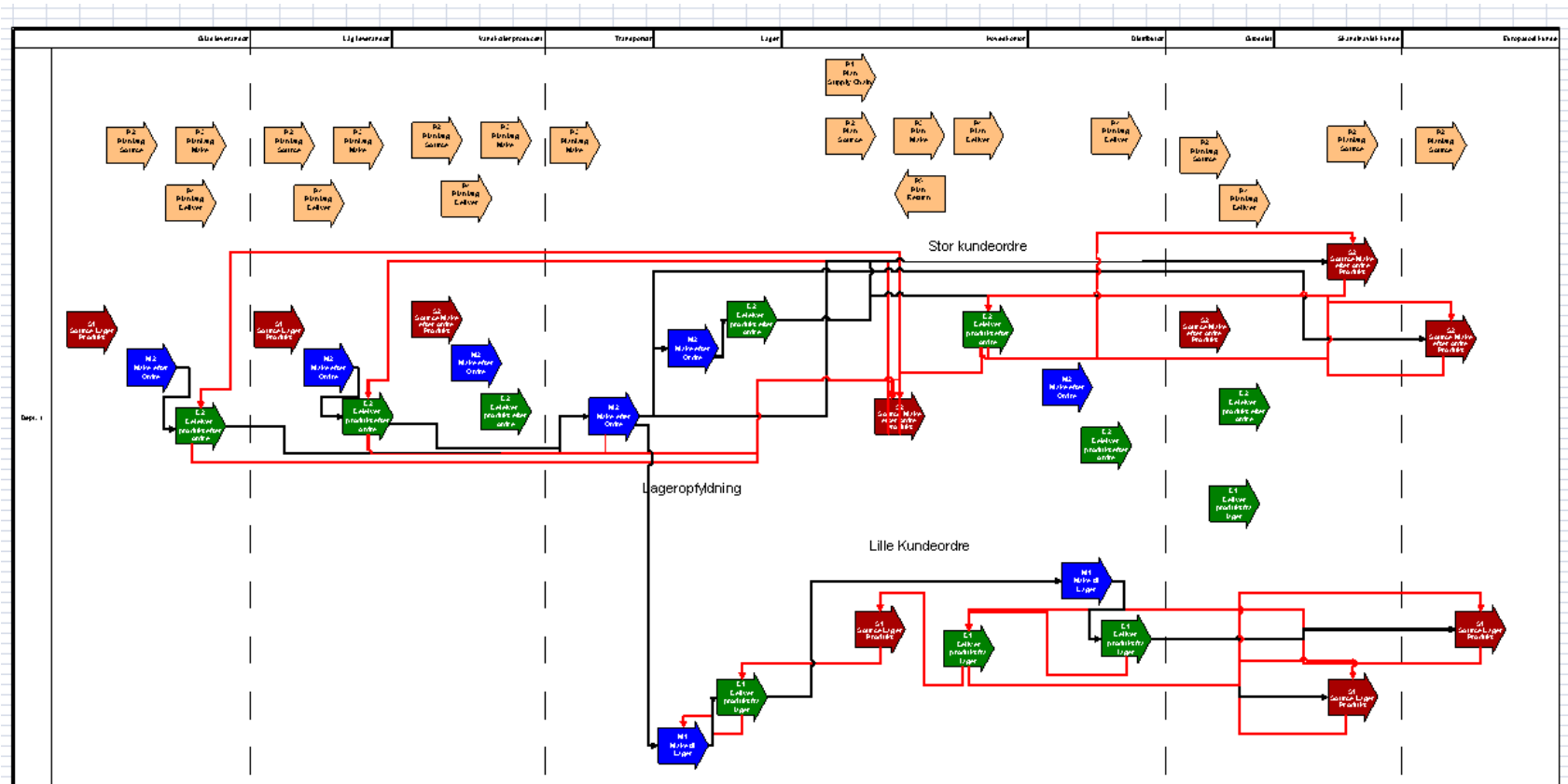
Tool: SCOR Geographical mapping of the supply chain





Tool: SCOR

Mapping procedures between partners in the supply chain for assessing and managing supply chain risks



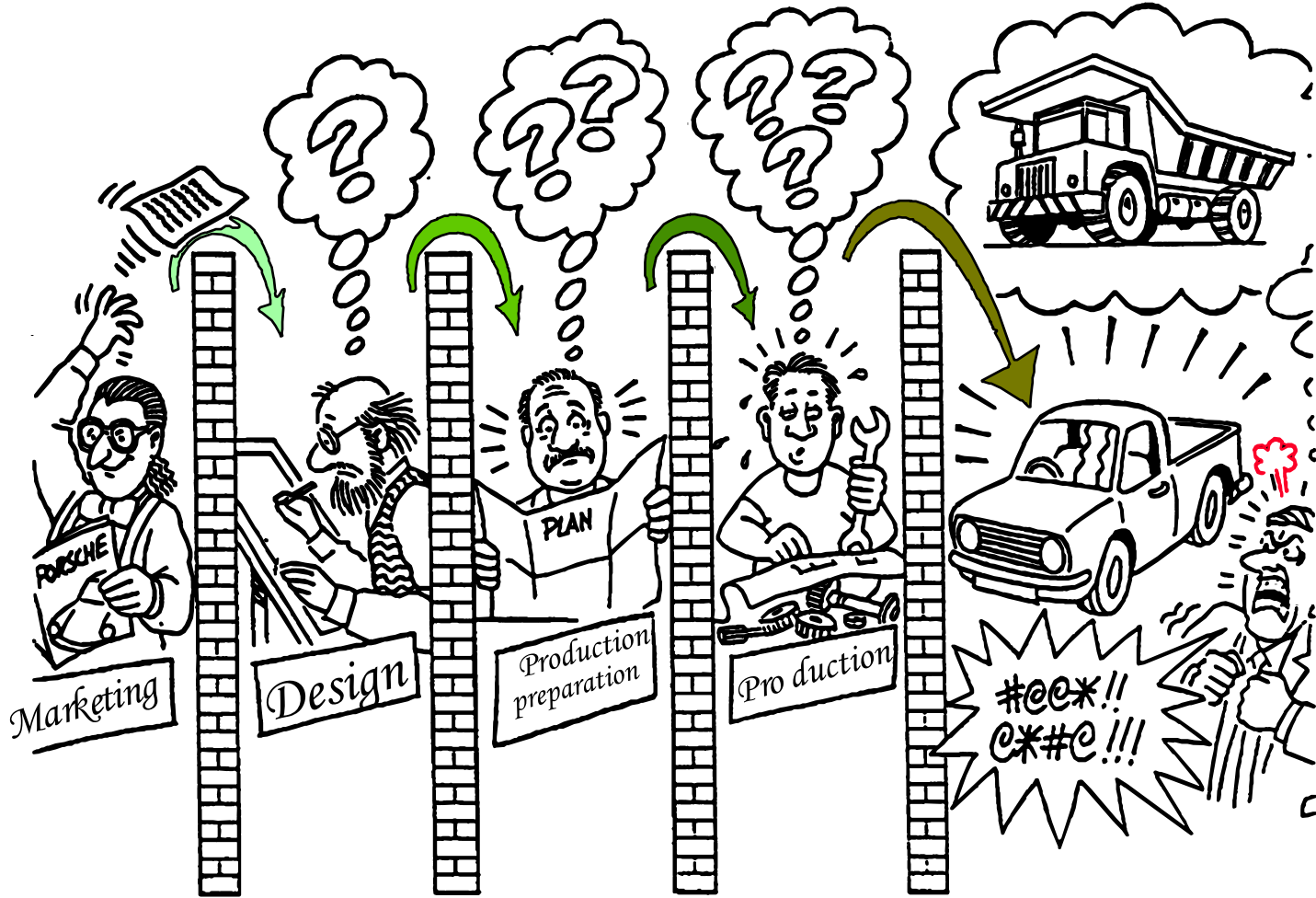


QFD (Quality function deployment):

QFD helps highlight
where engineering effort
should be expanded,

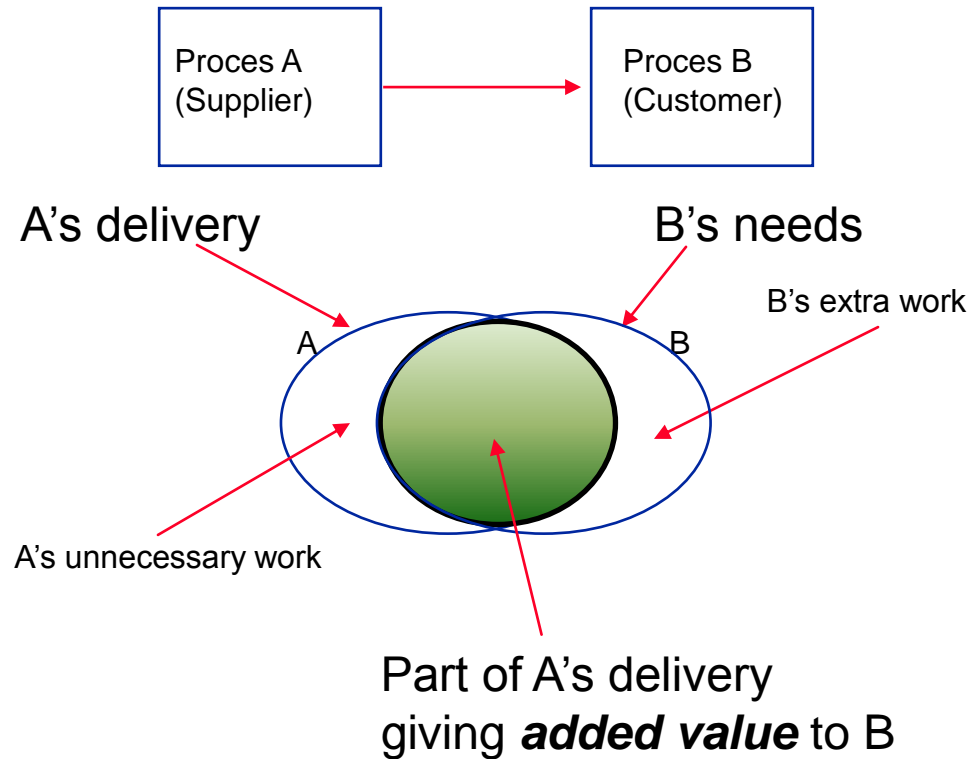
and where not to invest
time and money.







ill-matched processes





Not just the battle ...



*"Don't bother me now –
can't you see I'm busy trying to win this battle"*

The above situation we want to avoid.

So companies need to become aware of new opportunities when problem-solving, doing product development, etc. Sustainability present such an opportunity!!!



Does Everyone Share the Same Vision?

**Competitive
strategy?**

Performance Attribute	Performance against Competitors		
	Our Product	Competitors prod.	Customer view
Delivery Reliability	●	●	●
Responsiveness	○	●	○
Packaging materials	●	●	●
Use of Green materials	○	○	●
Energy consumption	○	●	●

Estimate based on the company's competitive position:
How well the products must perform within the performance requirements to achieve customer satisfaction.

● Leading
○ Advantage
○ Equal



Opportunity to present new sustainable products to customers on the SPIN homepage:


Upload your product info on the SPIN database for sustainable products.

Go to www.spin-project.eu and contact your national contact point.



ARBOFORM® – liquid wood

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Abstract
In Ilsfeld-Auenstein (Baden-Württemberg) produces and markets thermoplastic granule composed of lignin, a compound of every wood plant, and natural fibres (e.g. flax and hemp), which is processed at raised temperatures just like an synthetic thermoplastic material. The production involves extrusion, calendaring, deep drawing or pressing. Thus, the material has a great potential to replace plastic in many applications, e.g. for car interior, television or mobile phone cases. The biggest fraction being made of the compound so far are products like laminated wood or MDF. The material is disposed in professional plants since 2002 which was previously not possible.

Innovation provider
TECNARO GmbH

Contact
Dipl.-Ing. Helmut Nägele

Thermal insulation with renewable materials

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Abstract
Roswag & Jankowski Architekten, Berlin, have energetically restored a detached house built in 1965 by eliminating thermal bridges and reinforcing heat insulation with the renewable materials wood and cellulose which have been added to the front. Windows were exchanged by triple vitrified wood windows. Gas heating and radiators were replaced by a ground source heat pump equipped with a geothermal probe and underfloor heating. Fresh air supply is achieved with a central ventilation system with heat recovery that preheats supply air in addition to the ground heat exchanger. In total, implemented measures resulted in a considerable decrease of energy demand from 234.3 kWh/m²a down to 37.5 kWh/m²a. This equals a reduction in energy demand of 84%.

Innovation provider
Roswag Architekten GmbH

Cefibra - high performing bio composite

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Abstract
Cefibra develops bio composites that meet the increasing demand of price stability, low environmental impact and higher performance parameters. A new method enables new plastic composites which until now has not been possible to produce at large scale. The materials are based on thermoplastic resins reinforced with bio fibers. Cefibra offers a beneficial alternative to existing materials for a wide range of product applications. Biofibers of high strength enables less consumption of plastic and enhanced properties such as creep resistance, shorter cycle times in production, less wear of manufacturing equipment and a green profile on the end-product. The innovation has its background from Chalmers University of Technology and constitutes technologies developed at the department of polymeric materials by Professor Antal Boldizar. Cefibra was founded in collaboration between Boldizar and CSE Incubation AB and has its origin from Chalmers School of Entrepreneurship.


Innovation provider
CSE Bioplastics AB

Industry sectors
Chemical

Keywords
biocomposite

Paint removal from steel and aluminium

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Abstract
The HERO Oberflächentechnik GmbH in Detmold, North-Rhine-Westfalia, has implemented the measures which were suggested by the results of a @PIUS-Check in order to make the paint removal process more efficient. After implementation, the use of chemicals could be reduced by 40 % or, in absolute numbers, by 36 tons. Thus, the company could save about 85 000 € annually.

Industry sectors
Chemical, Cleanup Technology, Metal, Surface Engineering

Innovation provider
HERO Oberflächentechnik GmbH

Next Generation Thermoelectric (TE) Chip

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Abstract
Beakon Technologies developed a highly efficient thermoelectric chip that is designed with maximum flexibility to become adjustable for multiple applications. The technology can convert waste heat, wherever it occurs, back into useful electric energy. This can be used for cooling and heating, replacing conventional systems with that the Beakon technology is 15 times higher energy efficiency than today's systems.

Innovation provider
Beakon Technologies AB

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Adsorption chiller ACS 08/15 for solar and thermal cooling in private houses and commercial application

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Abstract
The adsorption chiller developed by SorTech AG is solar or waste heat for cooling of buildings. The consumption of electrical energy is much lower compared to standard room air conditioning techniques. Instead of hydrofluorocarbon (HFC) with a high global warming potential, the system applies pure water as refrigerant. It runs with an operation temperature as low as 55°C. In addition, the device can be operated as a heat pump to support the heating during winter times.

Industry sectors
Mechanical Engineering

Keywords
water, refrigeration

Innovation provider
SorTech AG

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Integrated facility for hydrofluorocarbon (HFC) refrigerants

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Abstract
Futron has developed an integrated facility which allows the safe and efficient indoor heating of the craft needs to be installed, as a result, for considerable cost savings (up to 290) with a negligible environmental impact of hydrofluorocarbon (HFC) refrigerants.

Innovation provider
FUTRON GmbH

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The innovation highlights will help SME's as a direct technical solution, and

The tools will help SME's in directing *attention, integration* and *implementation* of environmental management and ECO-innovations.





Added value and Sustainable production context

- *Added value:*
 - *Easier access to evaluated tools*
 - *Facilitating Innovations in SME*
- *Sustainable production context:*
 - *SME sustainable production supported*
 - *Large potential in/from SME*
 - *Innovation is crucial for sustainable production*
- *Can you use the SPIN tools, or do you have other needs?*



Identified needs that can be satisfied by tools

- Raise awareness among SME (possible benefits)
- Time for SME (optimization)
- Better use of material resources
- Better use of energy resources
- Improve supply chain ...
- Better financing opportunities
- Help to business start-up
- New knowledge
- New technologies of producing, packaging or delivering
- Support
- Market information
- Guide to intellectual property rights
- Networks and mentors



SPIN want to enable SMEs to apply sustainable innovations (eco-innovations) in their productions process and products.

- What needs do your company have – to realise this?

1. What are the obstacles for your company?
2. Where do the company need help? (Knowledge, Financing etc.)
3. What can SPIN do, to help your company?



Thank you for your attention.

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Centre for Production

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