



Green Business Norway

Environmental technology and renewable energy solutions



Introduction

About Green Business Norway

- Established in 2003
- A private and independent member based organisation
- Comprises 45 member businesses from all over Norway, offering competence, technology and solutions for the environmental- and renewable energy sector
- Currently the largest member based Cleantech network in Norway
- 75% of member businesses operate in the export market

Resource bank for individual member businesses in respect of innovation, early-stage business development and internationalization

Project development in partnership with groups of member businesses on product development and internationalization

Innovation management: enhancing member businesses' innovation capacity through joint skills development programs

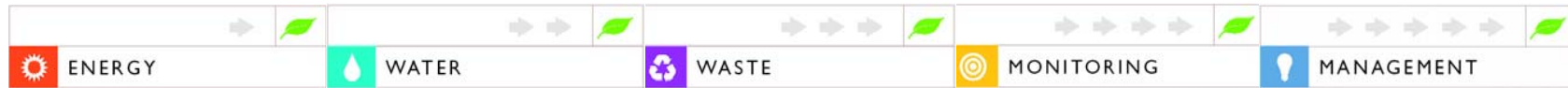
Internationalization: introducing and expanding new export markets in partnership with member businesses



International activities

- **China**
 - Market introduction
 - Project development
- **Central Eastern Europe**
 - Market introduction
 - Project development
 - Marketing drive
- **France**
 - Market introduction
 - Project development
- **Nordic countries**
 - Involved in pan-Nordic cooperation funded by Nordic Council





BI programme Poland 2009 - 2012

Results, first year in operation

- Most comprehensive presence ever at Poleko Exhibition 2009.
- Innovation Norway received Acanthus Aureus award for best pavilion at Poleko
- Increased critical mass of businesses performing market development activities in Poland
- Comprehensive cooperation activities with polish counterparts established

BI programme Poland 2009 – 2012 is a 4 year plan to develop the Polish market, together with Norwegian businesses operating in the environmental- and renewable energy technology sector.

The programme consist of the following 4 key elements; **Market surveillance, Market development, Promotion & marketing and public relations**

BI programme Poland 2009 -2012 is operated by Green Business Norway, in close cooperation with Innovation Norway Poland



Environmental technologies and solutions

offered by Green Business Norway member businesses



Water management solutions

Fields of expertise

- Water, waste water & sludge management (*water and sludge management planning, inter municipal cooperation etc*).
- Treatment solutions and technologies for Water and Waste water plants (*pre-treatment, material and energy recovery from sludge etc*).
- Optimization and operation of treatment plants (*management systems, technical operations etc*).
- Monitoring management systems and surveillance (*on-line, real time monitoring technologies and management*).





Waste management solutions

Fields of expertise

- Waste management (*waste management planning, inter municipal cooperation etc*).
- Treatment solutions and technologies for waste (*pre-treatment, material and energy recovery from waste etc*).
- Optimization and operation of treatment plants (*management systems, technical operations etc*).
- Monitoring management systems and surveillance (*on-line, real time monitoring technologies and management*).

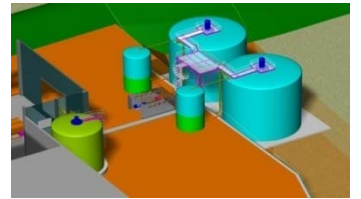




Energy solutions

Fields of expertise

- Geoenergy solutions (utilisation of energy from the bedrock for heating and cooling)
- Energy from bio waste (biogas production from organic waste and sludge for heat, power and hydrogen production).
- Energy efficiency (management systems and devices for energy efficiency in buildings)



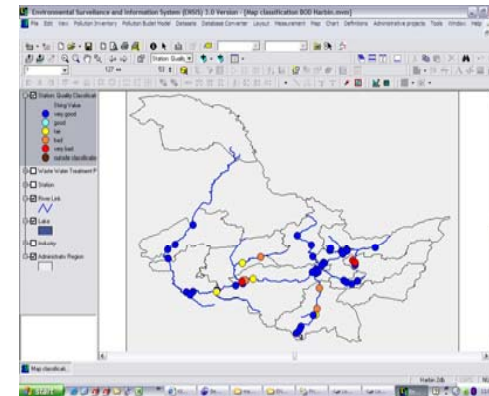
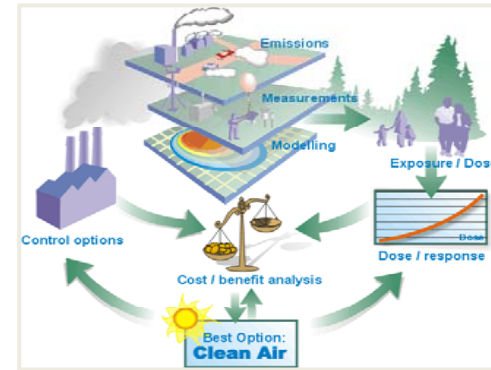
Bio - fertilizer "Green" energy production Dry soil improver



Environmental monitoring and surveillance

Fields of expertise

- Methods of monitoring, management, forecasting and warning system of air pollution.
- Water pollution monitoring, modelling and management
- Early warning management systems for pollution in rivers
 - Equipment measuring stations
 - System of early warning based on river watch



CSR in Context

The Nordic Welfare Model

The Norwegian approach to CSR has to be seen in the context of the Nordic welfare model where some key elements are:

- Egalitarian values
- Equal distribution of incomes
- Low poverty
- Income maintenance
- Services within health, care and education



Priority issues

- **The Climate Challenge**
- **Norwegian Enterprises and Human Rights**
- **Challenges in the Supply Chain (sub-contractors)**
- **Operations in Fragile States.**

The Government's expectations of Norwegian companies

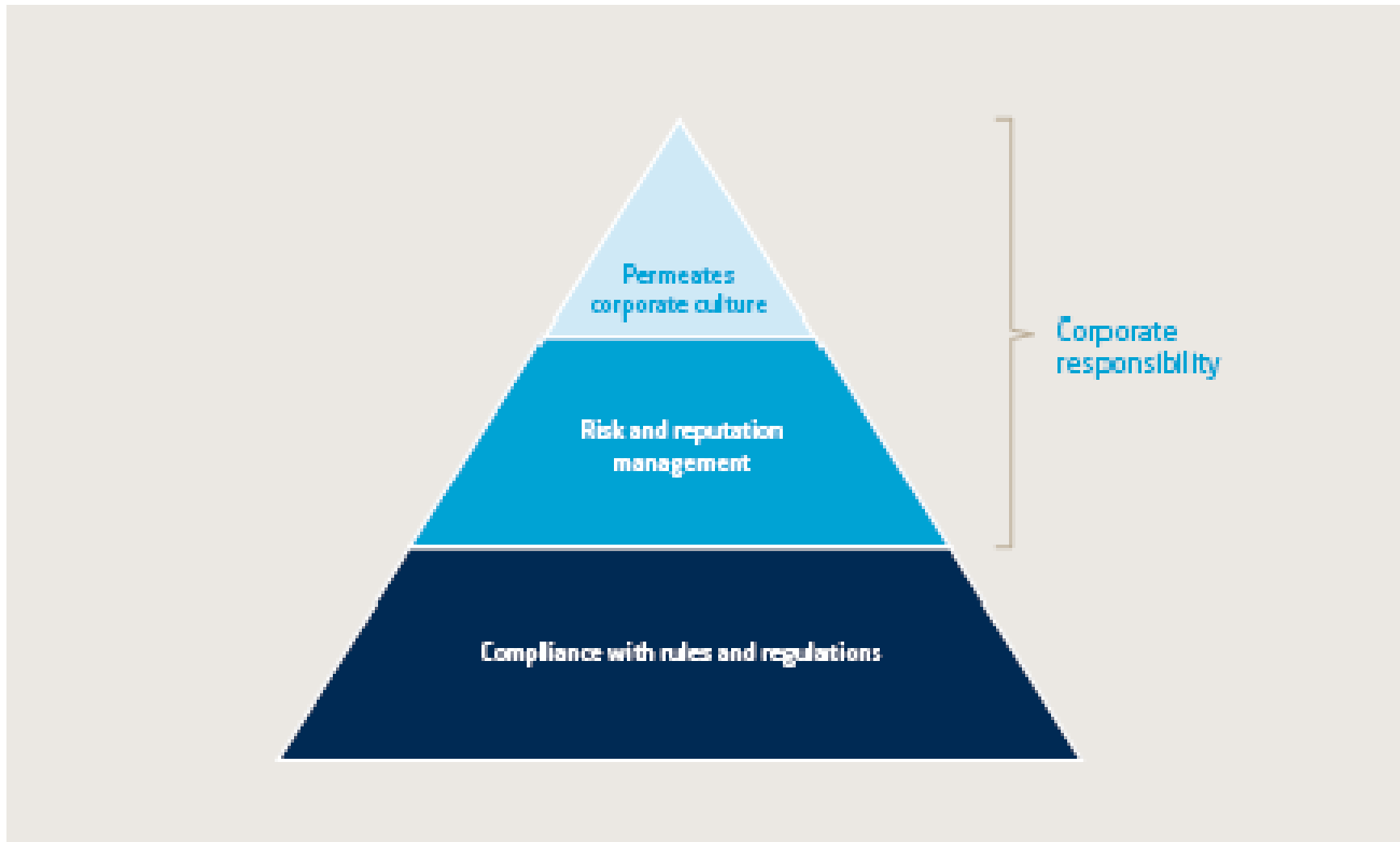
- Respect human rights in all operations
- Respect the rights of employees
- **Protect the environment and climate**
- Engagement in anti-corruption
- **Increased transparency**

CSR in a business perspective

- Investors are emphasising on high CSR-standards in companies
- Media shines a critical spotlight on how companies follow up their suppliers and foreign subsidiaries
- Employees and job-seekers are asking for companies' attitudes to CSR.

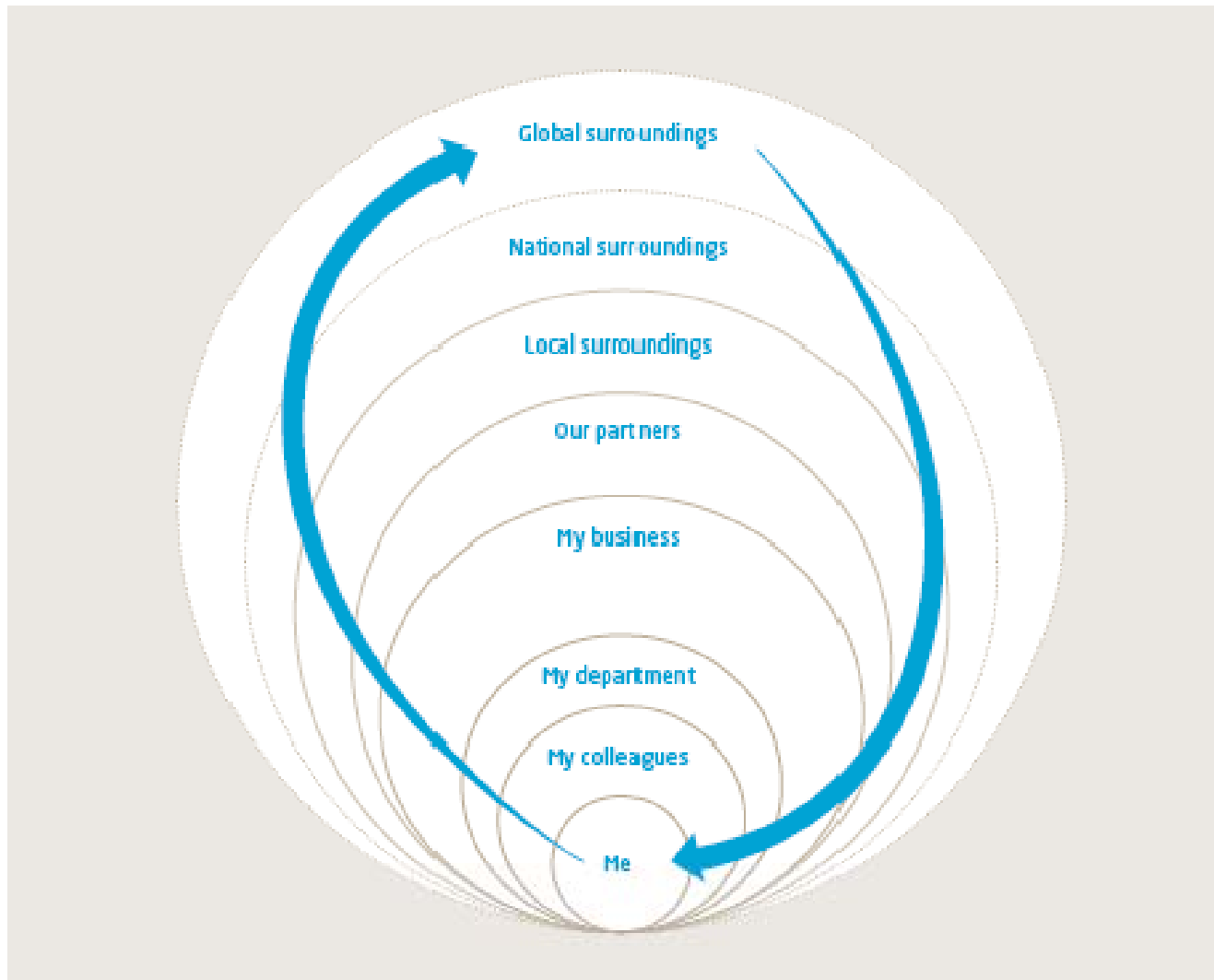
CSR – Different levels of understanding

Source: Norwegian Confederation of Industries

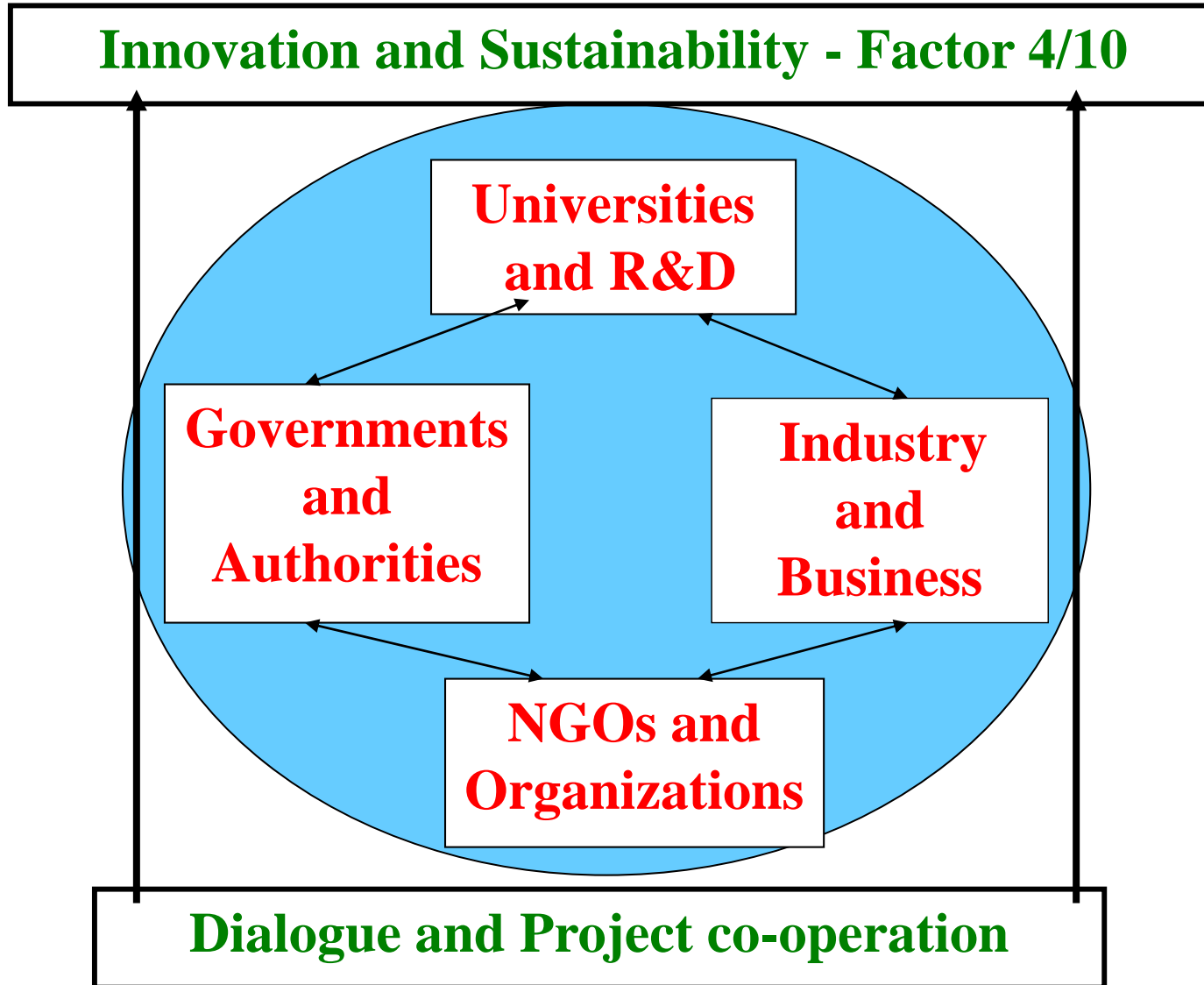


Values in interaction

Source: Norwegian Confederation of Industries



Philosophy on co-operation



Norwegian University of Science and Technology

Research activities at IndEcol (Industrial Ecology)

- **The research activities are initiated and organised in order to support a research based education in MSc in Industrial Ecology.**
- **High priority is given to research projects at the PhD and Post-doctoral level**
- **A significant part of the overall activities within IndEcol are related to the development of the LCA-laboratory.**
- **Current Projects:**
 - **Climate policy**
 - **Sustainable consumption**
 - **Sustainable infrastructure**

Cities of the Future

(network of 14 norwegian cities)

Cities of the Future is a collaboration between the Government and the 13 largest cities in Norway to reduce greenhouse gas emissions and make the cities better places to live.

Today, cities are home to half of the world's population. Cities are already the biggest consumer of energy and are responsible for 80% of the world's greenhouse gas emissions.

Compact and Good Cities

- **Cities of the Future are densely built. This means we can walk and cycle instead of using cars, reducing pollution. Parks will also help absorb the increasing rainfall expected in the future.**

We have to cooperate to build the cities of the future, with:

- **the business sector making green products commonplace.**
- **the Government avoiding building workplaces where there is no tram or bus.**
- **the inhabitants, building cities where people want to live.**

Cities of the Future

- 1. Land use and transport**
- 2. Consumption and waste**
- 3. Energy and buildings**
- 4. Climate change adaption**

The toolbox

- Planning instruments at local level
 - Second generation GHG emissions plans
- GHG calculators for emissions from political decisions
 - Transport
 - Procurement
 - Waste
 - Buildings
- GHG accounting for Cities