



## A new centre promoting material efficiency in Finland

OECD-UNEP Conference on Resource Efficiency 23-25 April 2008

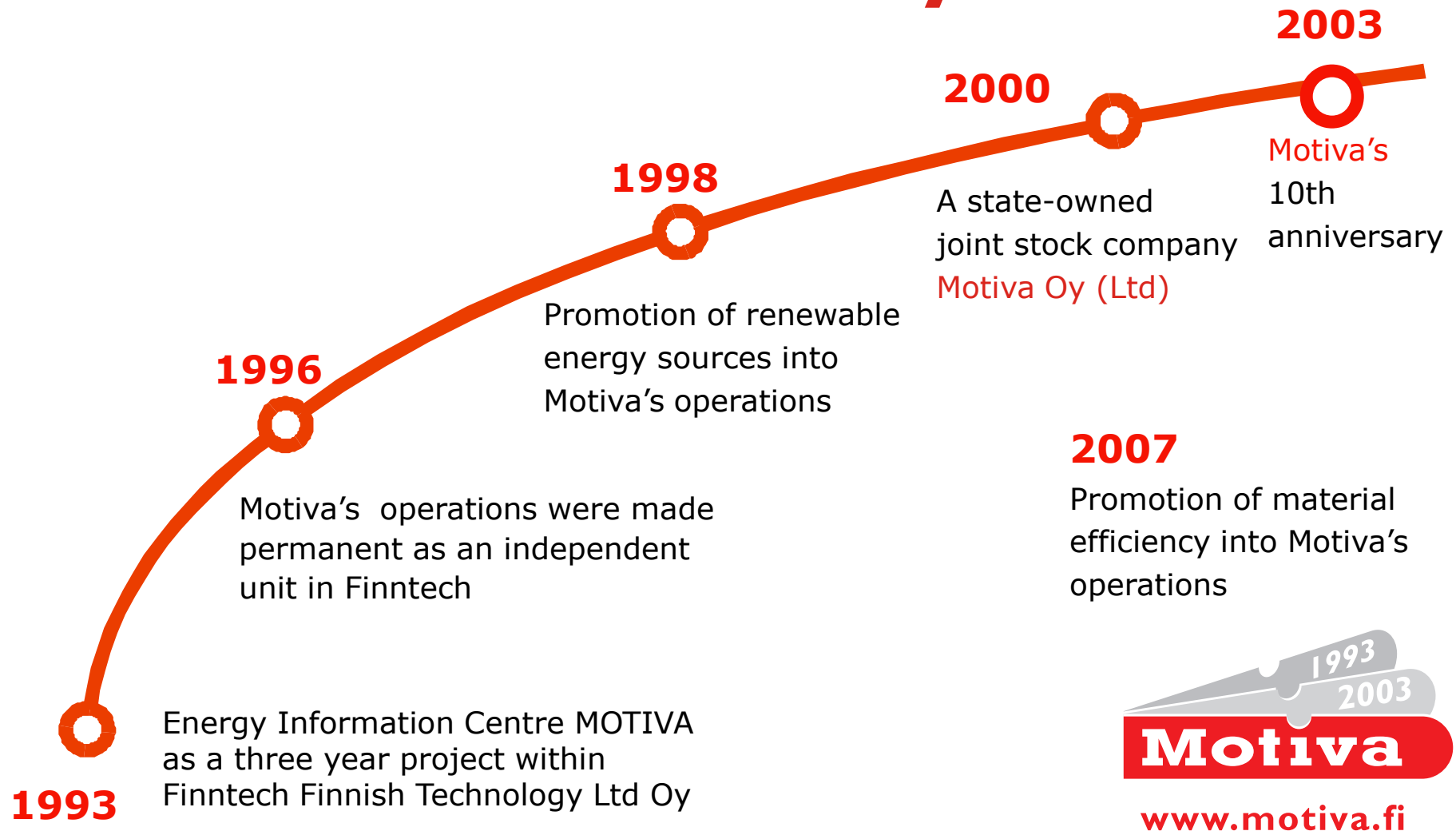
**Henrik Österlund**

Head of Unit, Motiva Oy / Material efficiency

# Motiva's expertise and project services

- to promote energy efficiency
- to promote material efficiency
- to accelerate the uptake of renewable energy sources

# Motiva's history



# Motiva's customer groups

- Government and other public administration
- Government-owned business entities
- Energy industry
- Manufacturing industry
- Public and private services
- Stakeholders of the built environment
- Households and consumers
- Transportation companies and organisations

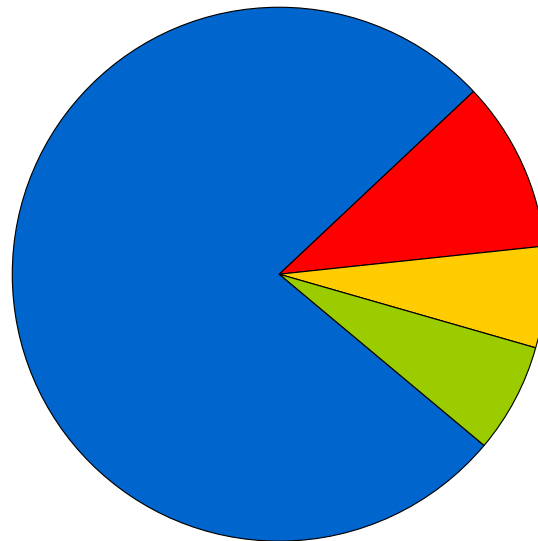
# Motiva's key figures

2007

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|           |        |
|-----------|--------|
| Turnover  | 4,4 M€ |
| Personnel | 29     |

## Invoicing according to customer group



|                                |      |
|--------------------------------|------|
| Ministry of trade and Industry | 69 % |
| Other public administrations   | 12 % |
| Domestic enterprises           | 10 % |
| International clients          | 9 %  |

# Forms of operation

- to prepare, support and monitor national **energy efficiency action plan** for industry, energy production, municipalities, transportation and building sector
- to develop and market **energy and material audits and analyses**, together with other methods of energy and material saving
- to accelerate the **introduction of advanced energy-saving technologies**
- **influence people's attitudes** in favour of energy conservation and permanently change their habits of using energy
- to provide **project management services**

# Motiva Ltd

## Material Efficiency Centre

- Startup funding was provided by Finnish Ministry of Trade and Industry and Ministry of the Environment
- Concrete planning of the centre started on 21.5.2007
- First activities included writing of a business plan and forming relationships with interest groups and co-operators
- The centre was officially started as the material efficiency unit within Motiva Ltd on 25.2.2008

## **The definition of material efficiency that steers our operation**

Material efficiency means that competitive products and services are produced using less material inputs while harmful impacts are minimized during the life cycle

**Material  
efficiency**

Audit tools,  
business models,  
contract models,  
communication

Renewable energy,  
biofuels

Climate change  
prevention

Sustainable use of  
natural resources

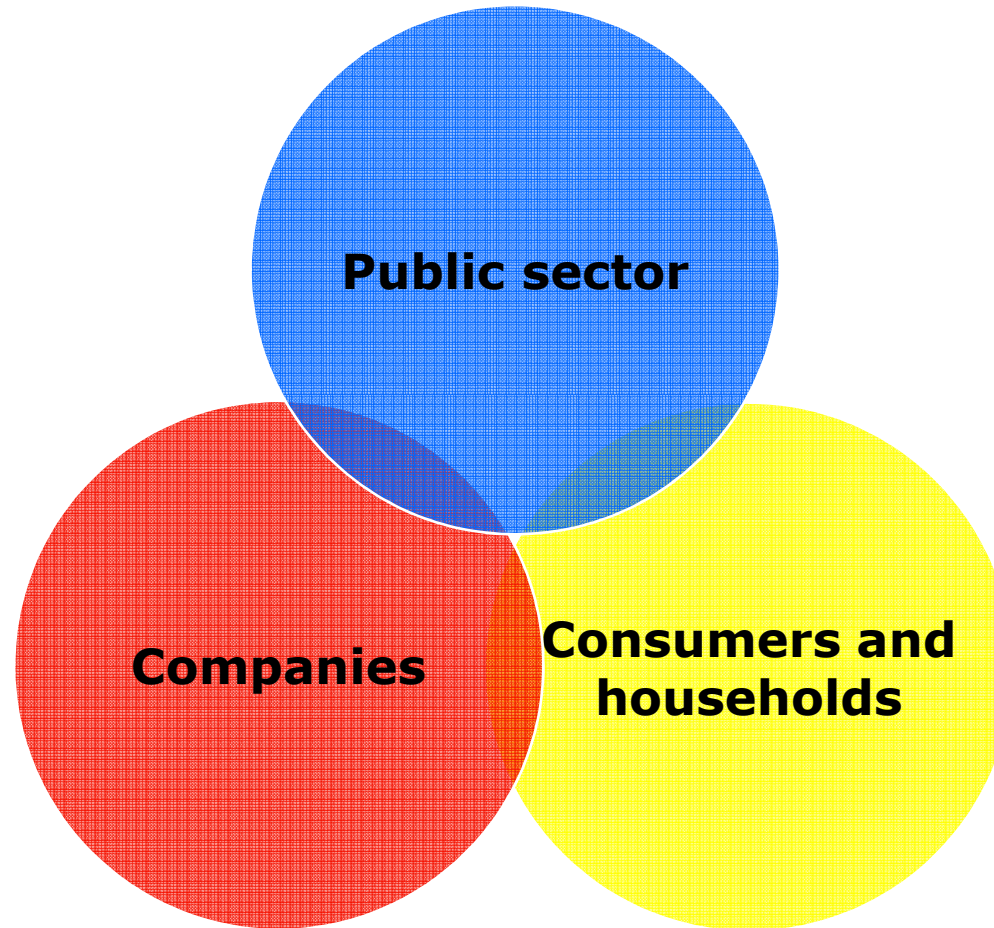
Industrial ecology,  
process integration

**Energy  
efficiency**

# Goals of the material efficiency centre

- To promote material efficiency in Finland
- To be a well known and independent national coordinator, information source and network former in material efficiency matters
- The centre has active co-operation relationships with related international organisations

# Target groups



# Operational activities

- development, demonstration, spreading and embedding of material efficiency **audit- and analysis tools**
- GPP (Green Public Procurement) services for large environmental technology investments
- spreading and embedding of **business models** related to material efficiency (e.g. MASCO-model)
- **databases** related to material efficiency tools, methods, projects and practitioners
- spreading **information** to companies, consumers and public sector according to the communication plan
- interactive **networking and co-operation** with material efficiency professionals

# Ways to promote material efficiency

- planning is in key role (pro-activity, early adaptation)
- dematerialization, transfer to immaterial products and services
- determining and removing barriers of material efficiency
- substitutive technologies, radical innovations
- reducing raw material use through optimization
- transfer towards using less harmful materials
- re-use, recycling

# Forms of operation in promoting material efficiency

- material efficiency is seen as an extensive concept which can be promoted by diverse activities and approaches
- emphasis will be in creating possibilities for material efficiency by influencing proactively at early stages
  - influencing through planning, promoting Design for Environment, etc.
  - establish interactive networks between material efficiency professionals and act as a data and knowledge hub
- attention will also be put on barriers of material efficiency
  - e.g. matters that relate to the definition of waste

# Development needs related to material efficiency

- Methodology framework for material efficiency audits and analyses
- Indicators for material efficiency and resource use...
  - on a global level
  - on a national level
  - of companies and public organisations
  - of consumers and households
- Methods that link the use of natural resources to other environmental impacts > kg:s not enough!
- International network of organisations promoting material efficiency

# Finnish projects and programmes related to material efficiency

- ENVIMAT, Environmental impacts of material flows caused by the Finnish economy (SYKE, Thule-institute, MTT, VTT)
- TMRFIN, Statistical compilation system of the Finnish natural resource use. (Thule-institute, Oulu University)
- VALTSU, The National Waste plan to the year 2016
- MASCO2, New business models for material efficiency (HSE and others)
- KeHa, Sustainable purchasing –working group
- Functional Materials –programme 2007-2013 (TEKES)
- KETJU, Sustainable production and products research program 2006-2010 (Academy of Finland)
- UUMA, New material technologies in infrastructure (Thule-institute and others)

# The significance of material flows is growing

- Prices of natural resources have increased heavily in recent years because of market forces. This sets already big challenges for our material intensive export industry. (Confederation of Finnish Industries, EK 372/2007)
- Material efficiency promotes competitiveness and cuts down harmful environmental impacts

# Resent Finnish Activities



Tekes, the Finnish Funding Agency for Technology and Innovation. 2008. Priorities for the future.

- new focus areas include scarce resources.



Confederation of Finnish industries, EK. 2008. Material efficiency saves nature and money.

- a guide to material efficiency for companies.

# Motiva

[www.motiva.fi/en/](http://www.motiva.fi/en/)

**Henrik Österlund**, M.Sc. (tech.), works at Motiva Ltd as head of the material efficiency unit. Motiva Ltd is a state owned non-partial expert organisation promoting efficient and sustainable use of energy and materials in Finland. The material efficiency unit provides tools and services which help companies to improve their material efficiency. Prior to his present position Henrik Österlund worked ten years as an environmental consultant and helped companies to manage their environmental issues. His strongest expertise fields are material efficiency, product oriented environmental management, life cycle thinking and environmental performance indicators. To contact Henrik Österlund, please visit Motiva's website at <http://www.motiva.fi/en/>

