



Project "Energy Visions 2030 for Finland"
Target and Experiences

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VTT TECHNICAL RESEARCH CENTRE OF FINLAND

OUTLINE

1. Energy Visions 2030 for Finland – How we made it in practice ?
2. The Finnish energy system and its major challenges
3. The impacts of Energy Visions 2030 on VTT and on Finnish energy
4. Conclusions

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**1. ENERGY VISIONS 2030 FOR FINLAND –
How we made it in practice ?**

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**THE ENERGY VISIONS 2030 FOR FINLAND:
THE BOOK PROCESS IN PRACTICE**

- Background
 - VTT pursues versatile energy research, from nuclear to renewables
 - The overall volume of academic degree scientists is about 400 person years in the energy field
 - VTT has core competencies in new energy production technologies, energy economy and reduction of emissions
 - VTT is an essential part of Finnish innovation system
- The project team
 - Editorial board: 5 experts from different fields of energy and 1 from marketing communications
 - About 30 additional researchers, who made writing work, gathered back ground information etc.
 - Additional experts from industry, universities, and on Finnish economy and society

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THE TARGET OF THE BOOK

- To serve as a strategy development effort of VTT
- To promote co-operation and facilitate synergies among energy research at VTT
- To be a part of an internal training process
- To promote and participate in national energy policy discussions and decision making process as an independent research organisation

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THE CONTENTS OF THE BOOK


- The book was intended for
 - Experts responsible for energy related issues in industry and in energy companies
 - Energy policy makers
 - Investors in new energy technologies
 - Academic students
- Energy experts at VTT and editorial board determined book contents:
 - The development of the Finnish energy system
 - Global and national challenges for the energy sector
 - Technical developments in energy production and distribution technologies, in industrial and residential energy consumption and in transport
 - Scenario calculations with a new generation energy systems model TIMES, which covers the whole Finnish energy system as well as development of technologies and costs

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FROM THE BEGINNING OF THE PROJECT TO THE PUBLICATION OF THE BOOK

- The project duration was about two years
- The editorial board had meetings every two weeks (over 30 times and several hours/per meeting)
- The book was published in December 2001 in the Energy Visions seminar, which was targeted to energy experts and media
- The book was delivered to the VTT personnel, to the customers of VTT, members of the parliament, central officers in the ministries, and other leading persons in the energy field
- The book is constantly sold by the editor (Edita Plc)


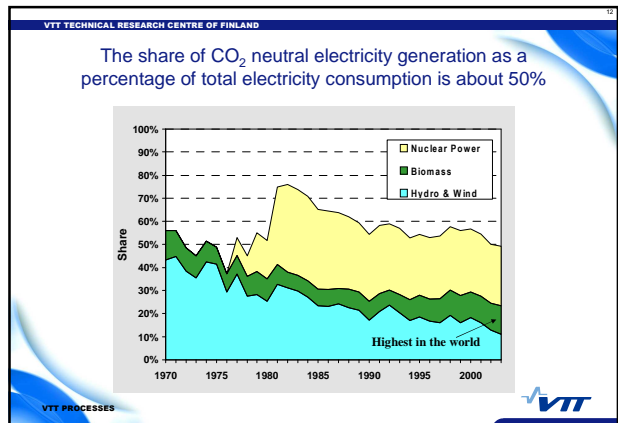
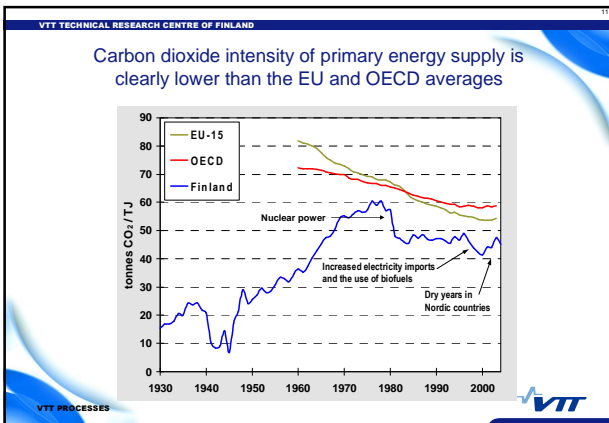
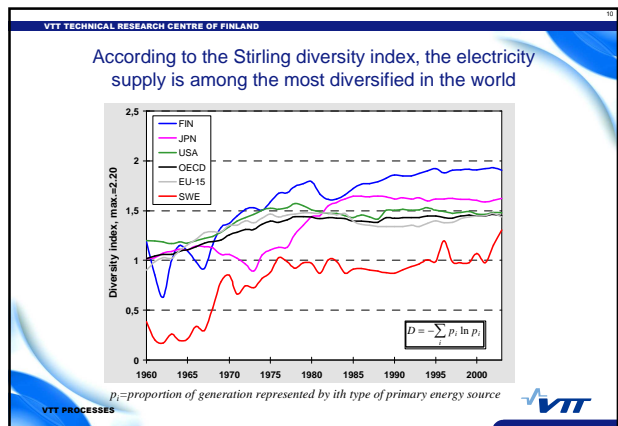
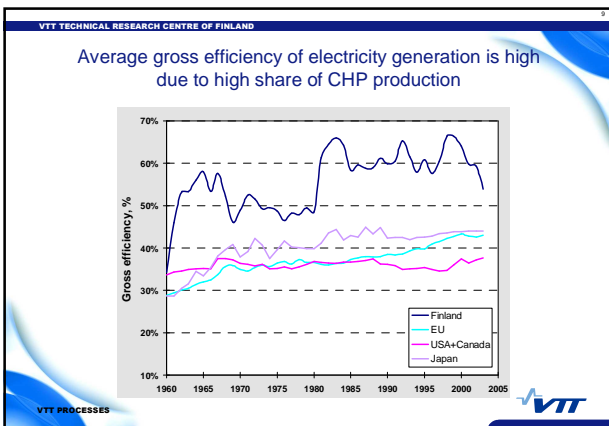
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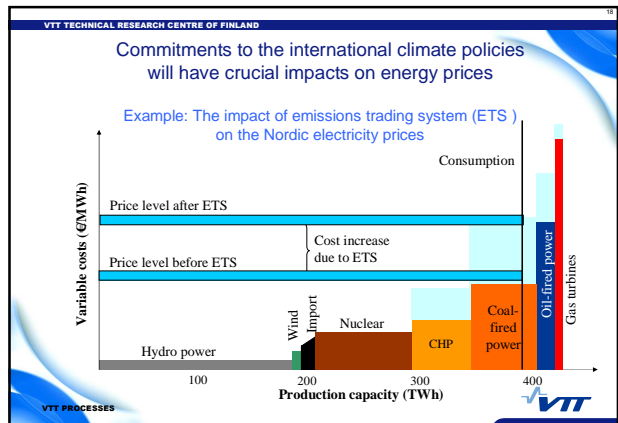
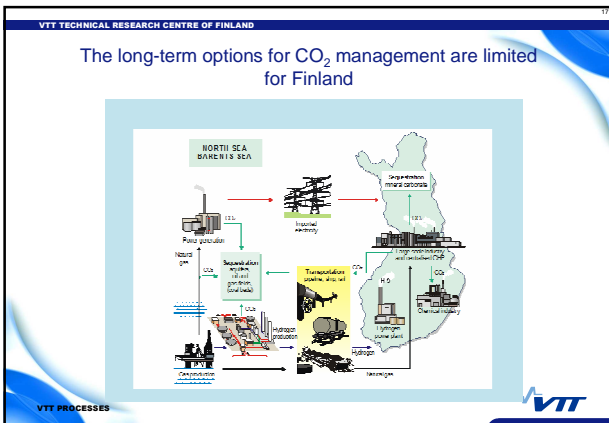
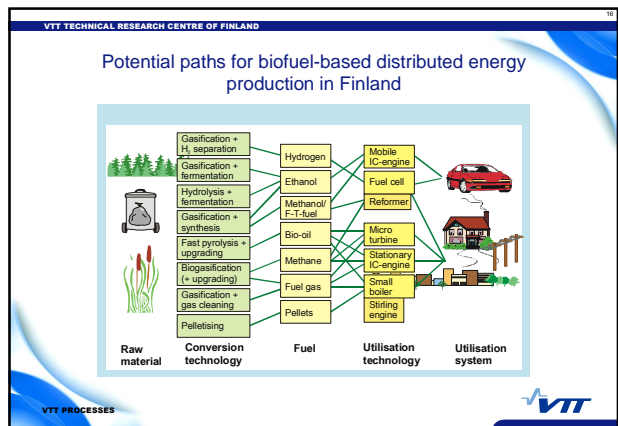
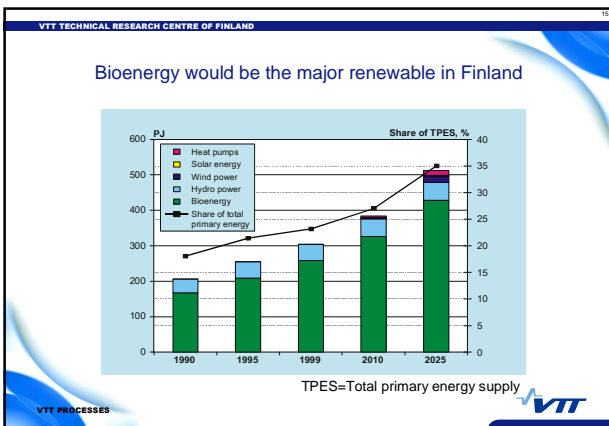
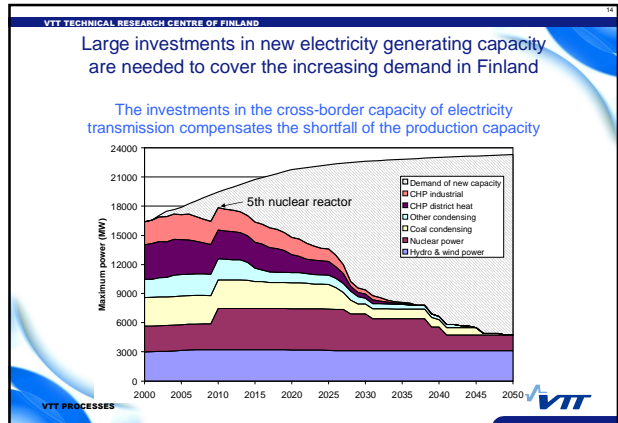
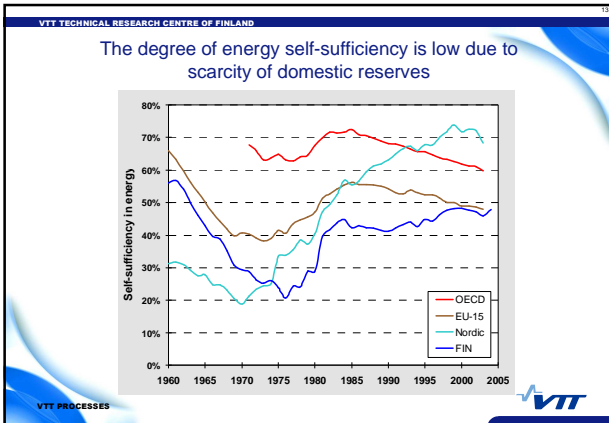


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2. THE FINNISH ENERGY SYSTEM AND ITS MAJOR CHALLENGES


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3. THE IMPACTS OF ENERGY VISIONS 2030 FOR FINLAND

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IMPACTS ON VTT


- Energy futures of Finland were created by several researchers at VTT and it was a valuable training process for the personnel
- The book served as a strategy development effort within VTT
- The commitment on strategies and targets were increased by increased understanding
- The book was largely reviewed by media and in public
 - VTT received a lot of publicity at national level and also at international level
- The pictures and tables of the book are constantly updated and they are used in VTT's presentations. The pictures also requested by media and various instances making studies on Finnish energy.

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IMPACTS ON FINNISH ENERGY INDUSTRY AND FINNISH ENERGY POLICIES

- The development of relevant energy production, consumption, transportation and distribution technologies in Finland were comprehensively covered in the book
 - Supports the targeting of Finnish R&D efforts
- The book was largely used in energy political discussions as a background material and VTT experts were asked for parliament sessions for dozens of times
 - The decision making of the 5th nuclear plant was underway in the parliament

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CONCLUSIONS

- Development of technologies is vital in the tackling of climate change and it is also socio-economically reasonable
 - The further improvement of biotechnologies has a crucial role in Finland
- Nuclear power will have an important role in the energy portfolio in Finland
 - Finland is one of the leading countries in implementing all aspects of nuclear waste management
- In the future, the techno-economical understanding of energy system will be essential due to deregulation of the markets and emission permits trading

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