SenterNovem

Energy Research Strategy (EOS)

programme

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Manager EOS programme

Energy Research Strategy (EOS)

In Dutch, Energy Research Strategy translates as Energie Onderzoeks Strategie (EOS).
In Greek mythology EOS is the goddess of dawn.

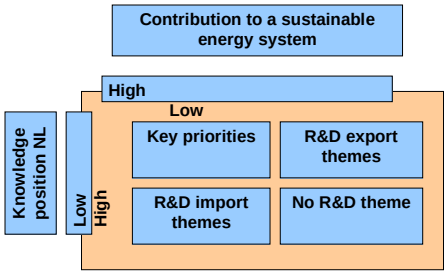
Netherlands Energy Research Strategy EOS: *objectives*

- Focussing publicly funded energy research on a limited number of areas
- More efficient use of resources available
- Strengthening international co-operation

Priority setting criteria

- Contribution to a sustainable energy supply in 2030
- Existing knowledge levels in the Netherlands

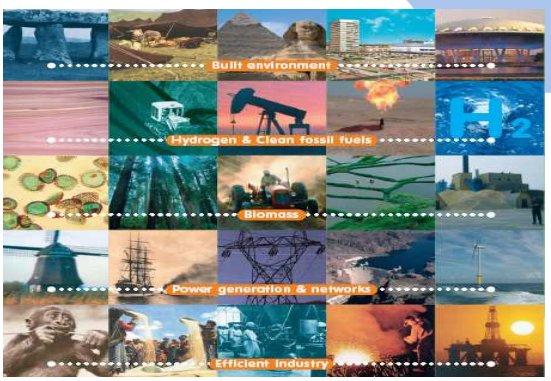
The EOS matrix



Priority setting process

- All research areas (of certain volume in NL) evaluated by relevant players (government, industry, R&D institutes, universities)
- R&D-portfolio: 18 focal points and 8 import of knowledge topics selected and grouped in 5 research areas
- Research programs by Program Committees (experts from industry, R&D, consultancies)
- New Energy Research Subsidy programme

The 5 EOS Research Areas



1. Research Area Built Environment

- Focal points:
  - ⇨System approach and local energy generation
  - ⇨Multi-crystalline silicon photo-voltaic technology
  - ⇨Thin film photo-voltaic technology
- Import knowledge topic:
  - ⇨Use of ground and air heat through heat pumps

2. Research Area Hydrogen/Clean fossil fuels

- Focal points:
  - ⇨CO_2 underground storage
  - ⇨CO_2 separation technologies
  - ⇨Fuel Cells (SOFC, PEMFC)
  - ⇨Reforming hydrocarbons in to H_2
  - ⇨Advanced Coal conversion with CO_2 separation
- Import knowledge topic:
  - ⇨Natural gas conversion, gas-turbine technology

3. Research Area Biomass

- Focal points:
  - ⇨Bio-refining
  - ⇨Gas cleaning and conditioning (syngas production)
  - ⇨Co- and auxiliary incineration in energy plants
- Import knowledge topic:
  - ⇨Pre-treatment and feeding
  - ⇨Application of Biofuels in transport

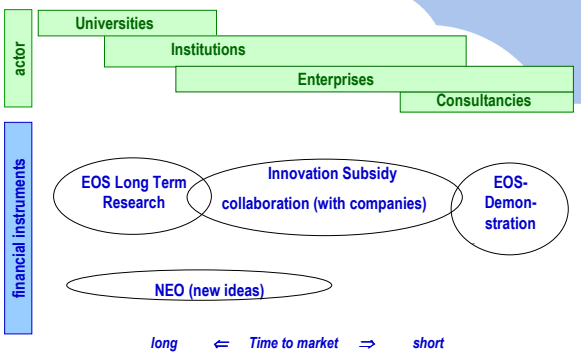
4. Research Area Power Generation and Networks

- Focal points:
  - ⇨Wind conversion off-shore
  - ⇨Electricity transport, security, integration, power electronics
  - ⇨Electricity conversion, power quality, converters
- Import knowledge topic:
  - ⇨Small scale electricity storage and system applications

5. Research Area Efficient Industry and Agriculture

- Focal points:
  - ⇨Thermal treatment processes
  - ⇨Inorganic membrane technology
  - ⇨Heat management in industry and agriculture
  - ⇨System approach in glass horticulture
- Import knowledge topics:
  - ⇨System approach in industry
  - ⇨Multifunctional reactors
  - ⇨Cooling techniques

EOS R&D-instruments



Support Programmes in 2005

- EOS NEO (small projects, testing ideas)
  - 1.8 M€ in 2005
- EOS Long Term Research
  - 30 M€ in 2005, 3 tenders,
- Innovation Subsidy (100 M€/year)
  - incl. 2 international tenders (Eureka)
- EOS Demonstration
  - 16 M€ in 2005

International co-operation

- Positive criteria for tendering within focal points
- Necessary for project proposals within knowledge import topics
- Import of knowledge by:
  - co-operation with institutes/companies abroad
  - buying foreign rights/licensees
  - hire personal from other countries
  - etc.

International co-operation

- 10% extra subsidy when partner (university, institute or industry) from other EC country is involved in the project
- However: subsidy must be spent in the Netherlands and foreign partners must pay their own activities