



# **Enlarged perspectives: National bioenergy R&D in an international context**

**Björn Telenius**

**Swedish Energy Agency**



**BIO-ENERGY  
ENLARGED PERSPECTIVES**

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# Presentation overview

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- Bioenergy R&D characteristics
- National objectives v.s. international R&D cooperation and coordination
- Barriers
- Platforms
- A first step forward

# Bioenergy R&D characteristics

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- Bioenergy is more diverse and covers more options and subtopics than most other energy R&D areas
- Bioenergy covers both mature, commercially available technologies and applications, and future high technology
- Bioenergy R&D has high priority in most national programmes
- National public efforts are substantial, overlapping and not coordinated
- Conditions, i.e., degree of expertise, priority areas and objectives differ widely between countries
- For most bioenergy R&D topics there are several countries with similar objectives and degree of expertise

# National R&D objectives

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- **Meet society's need for new knowledge, new technologies, etc. (i.e. user focus)**
  - Usually the strongest driver for applied R&D
  - From users' point of view the origin of the knowledge is irrelevant
  - Development of complex systems requires specialisation, cooperation and coordination
  - ➔ Strong driver for international R&D coordination and cooperation
- **Acquire, maintain and transfer existing knowledge**
  - Represents the bulk of public R&D expenditures
  - ➔ Strong driver for international cooperation
- **Support academy and higher education**
  - Basic research and academies already work without borders
  - ➔ Strong driver for international cooperation
- **Support national competitiveness and economic growth**
  - Justifies overlaps between competitors and limitations in cooperation
  - ➔ Barrier to cooperation and coordination, but with lots of exceptions

## Conclusion:

Current situation in bioenergy indicate considerable benefits to national objectives if countries' R&D strategies and priorities were more defined in an international context

# Barriers to cooperation and coordination

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- Competition
- Administrative barriers
  - R&D management is the last stage of a long decision making process; Countries are in different phases; Hierarchical levels' mandate differ between countries
- Tradition
  - R&D management structures often has a long history
  - Administrative barriers and tradition are the major barriers

# Pros and cons from a national perspective

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- + More ambitious objectives may be defined
- + Other countries' strengths may be better utilized
- + May support specialisation  $\Rightarrow$  competitiveness
- + Undesired overlaps may be avoided
  
- There is little experience
- Developing new methods will require resources
- Increased dependence on others mean higher risks
- (Compromises?)

# Platforms

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- The Framework Programme
  - FP6 supports both cooperation and coordination; ERA – an R&D political vision, aims for coordination of member states' programmes
  - Instruments: ERA-NET, Technology platforms, ....?, focus on structures defining and implementing R&D programmes
- IEA Bioenergy
  - Supports cooperation between member states' programmes
  - Instruments: Joint work of programmes (Tasks), Special projects, etc., focus on R&D performers
- Bilateral agreements
  - e.g. Nordic Energy Research Programme, or other types of joint activities/programmes



# A first step forward

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- There is not one model, purpose or platform, there are plenty of them
- For coordination: Make it simple, i.e., start small, learn, revise and gain experiences:
  - Join with a limited number of equal partners with similar ambitions
  - Test a deeper coordination on a limited field
  - Be flexible, continuously revise methods according to experiences
  - Restrict efforts strictly to matters of direct value to partners

A small successful first step is better than a too pompous step that is not followed by another step....