

BE-Basic Flagship 9 Societal Embedding of a BBE

National program: Economy, Policy and Sustainability for
Biobased Economy

Patricia Osseweijer, 13 June 2013

6/13/2013



Flagship 9 BE-Basic

9.1 Identifying, qualifying and quantifying sustainability

- Sustainability modelling, *Prof. Andre Faaij*
- Development in socio-economic studies, *Dr. Hans van Meijl*
- New measuring tools for sustainability, *Prof. Ramon Hanssen*
- Sustainability perceptions and values, *Dr. Robin Pierce*

9.2 Education for a biobased society

- *Preproject* to start in 2013 with inventory of needs and collaboration with other (inter)national education programs covering all levels of education system, *Prof. Isabel Arends*

9.3 Communication and societal valorisation of biobased products and processes

- Stakeholder interaction, *Prof. Jacqueline Broerse*
- Scientific input for policy making, *Dr. Robin Pierce*

In addition:

- ✓ 2 joint projects with Brazil
- ✓ Macro-economic study
- ✓ Biobased Economy serious game



Program 9.1 PI: Prof. Andre Faaij

9.1 Identifying, qualifying and quantifying sustainability

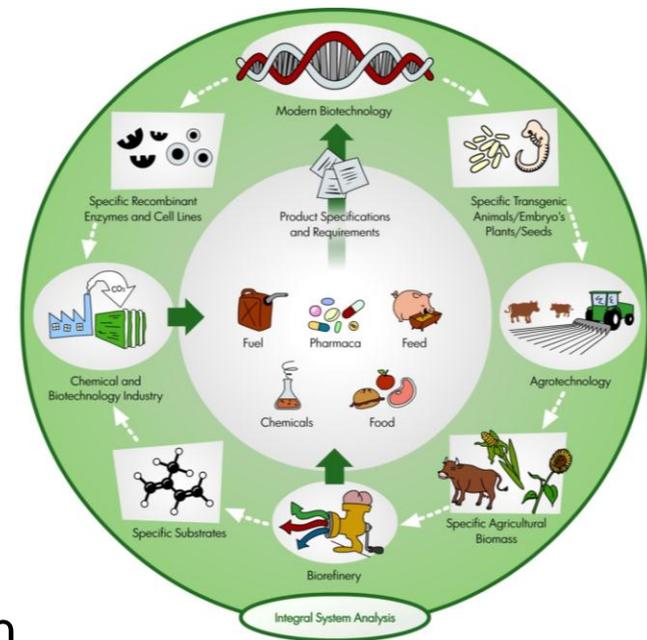
- *Start of data collection case study Brazil, Mozambique*
 - *Land use changes*
 - *GHG – other emissions*
 - *Biodiversity – water usage*
 - *Joint project in BIOEN collaboration*
- *Model integration for macro-economic study*
 - *Choices on focus: rural development and food security*
 - *Joint project in BIOEN collaboration*
- *Start of project measurement development Land use changes and soil quality (satellite and radar)*
 - *Project with BIOEN submitted*
- *Public visions on sustainable development mainly concern environmental issues*
 - *Data collection Brazil started in February 2013*
 - *Interviews with industry*
 - *Public questionnaire*



Program 9.2 PI: Prof. Isabel Arends

Education for a biobased society

- Inventory existing modules and needs
- Joint international development
- Using novel methods
- Including topics: entrepreneurship; ethics; perceptions; soil sustainability & nutrient recycling, etc
- Addressing all levels
 - Evaluation serious Game BBE
 - Implementation Imagine school competition



project submission: June 2013

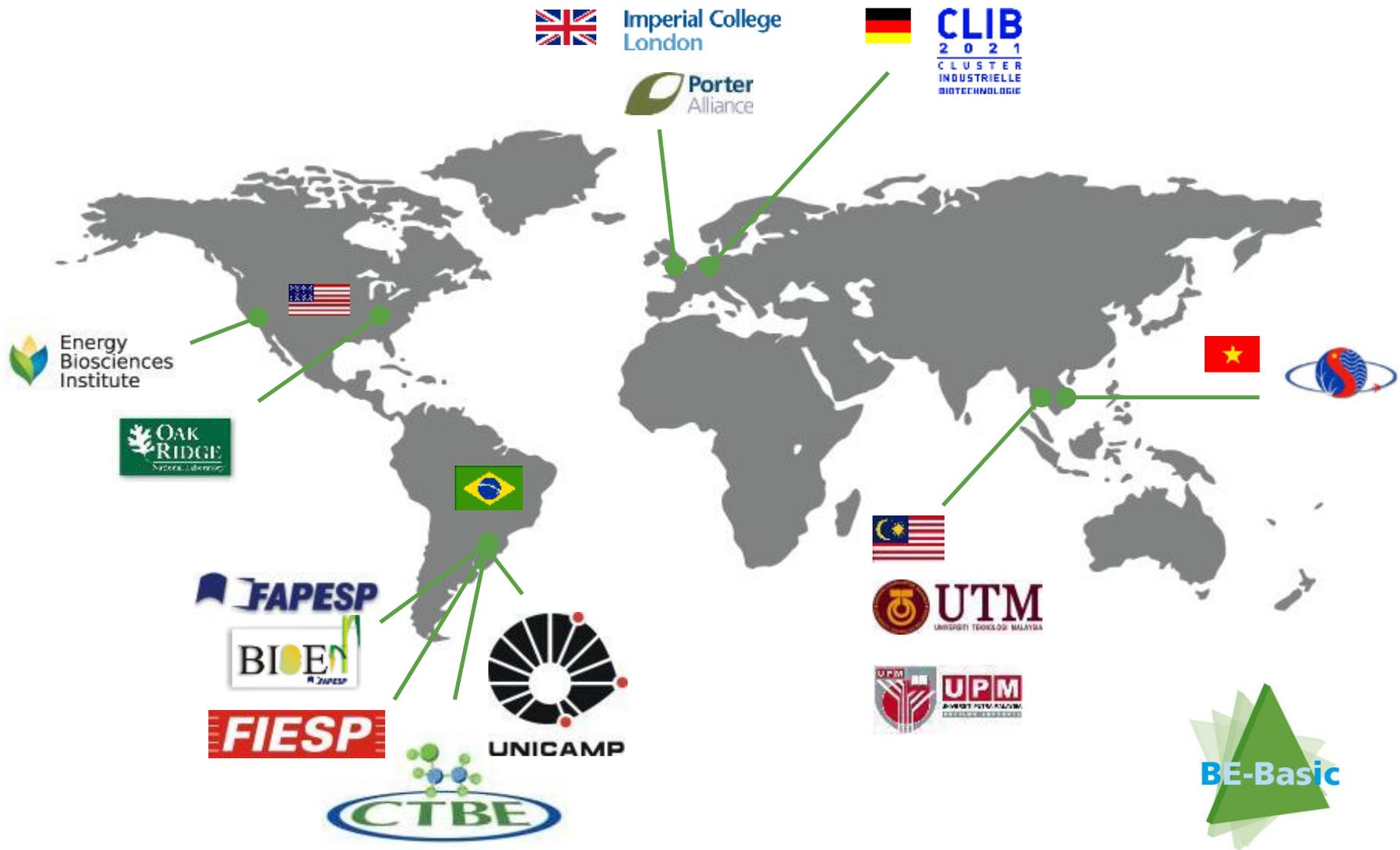
evaluation; expected start September 2013



9.3 Communication and societal valorisation of biobased products and processes (VU and TUD)

- Combined development of social development and innovation: how to organise collaboration between new stakeholders (farmers/energy industries/etc)
- Overview of researcher involvement in policy making: lessons of involvement for policy making

International collaborations



Overview milestones 2012

- Economy, Policy and Sustainability in Topsector program developed with 45 % industry and NGO involvement
- Start Education program with links to HCA and international program
- Further development of international collaboration:
 - *BE-Basic Brazil Office:*
 - *Development of international courses*
 - *Joint projects with Fapesp and others*



New national program: Economy, Policy & Sustainability

Patricia Osseweijer

Hans van Meijl

Roeland Bosch

Gijs van der Starre

Majority of research presently on environmental Sustainability!

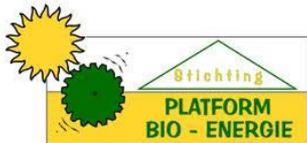
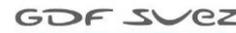
While social factors are show stoppers or indeed Opportunities!



Economy, Policy and Sustainability is part of large new program: Foundation TKI-BBE

1. Topsector Policy organizes applied R&D scene in NL towards demand (industry & society) driven consortia (TKI – Topconsortium voor Kennis en Innovatie)
2. BBE is cross sectoral TKI from “*plant to product*” incl **strong societal program**
3. Annual planning (update) in Innovation Contracts (submitted nov 2011)
4. to be organised in **Stichting TKI-BBE** (foundation) under Topsector Chemistry with funding from various topsectors (Chemistry, Energy, Agro-Food, others)
5. total new funding ‘12-’13: M€ 150 (for *Biorenewables**) + M€ 30 (for rest)
6. Build/extend existing PPS’s (like BE-Basic) and pilot facilities (like BPF)
7. Pipe line to new NL initiatives
8. Dedicated internationalisation agenda: Brazil, SE Asia, Europe (SPIRE , Biobased Industries PPP, EIT)
9. Board of Directors (“Bestuur”) and Supervisory Board (“RvT”) appointed per 11/6
10. Main tasks: Implement 2012/13 plan and prepare for 2013/15 plan

Partners in Economy, Policy and Sustainability



Universiteit Utrecht



vrije Universiteit amsterdam



rijksuniversiteit
 groningen



Themes

- **Economy & Market studies**
Siemen van Berkum, LEI-WUR
- **Optimalisation sustainability**
Andre Faaij, UU Copernicus
- **Social responsible innovation**
Robin Pierce, TUD
- **Communication & Education**
Jacqueline Broerse, VU



Program 2012-2013, 3 MEuro

Innovation & Societal roadmap

Macro-economic study

Sustainability in wood use for energy

Public knowledge & perceptions: Microsociety2030

International agenda

- IEA, Committee Corbey & other Cie's participation

* LEI-WUR, Copernicus UU, TUD, VU, SNM, DSM, PURAC, ENECO, Essent, Ion, Nuon, Gdf Suez, IMI, Tertium, CSG, PBE, Akzo, Agentschap



Results: Microsociety 2030: a public qualitative study (NL)

4 Public meetings with lay panel (2012-2013)*

Biobased = unknown to public

++ association; but coloured by (partial) influences

Bioresources: ++; Bioenergy: - -

– People do not believe in limited oil

Circular economy: ++; 'rent-society: divided

– Recycling is ok; Not 'hiring' of resources

Own contribution? scepticism

– 'far away'; does it matter?

– Government/industry is put in lead



* Van der Veen et al., My2030s, Burgers over de Biobased Economy, 2013

Collaboration in Socio-economics

- We need common framework to study societal footprint
- Societal barriers and opportunities: regional studies **to show examples!**
- What can we learn from
 - National policies(Biodiesel)?
 - International policies?
- Public perceptions: do they matter?
- Integrated Societal Roadmap?



Collaboration in Socio-economics

We very much like to develop this agenda together and share our results!

Please contact me...

Thank you,
Patricia Osseweijer

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