



Food, **A**griculture and **F**isheries, and **B**iotchnology
K n o w l e d g e - B a s e d B i o - E c o n o m y (K B B E)

**“Vision for a Bright Green Economy and the
Role of FP7”**

DAFF IRELAND 29 April 2010

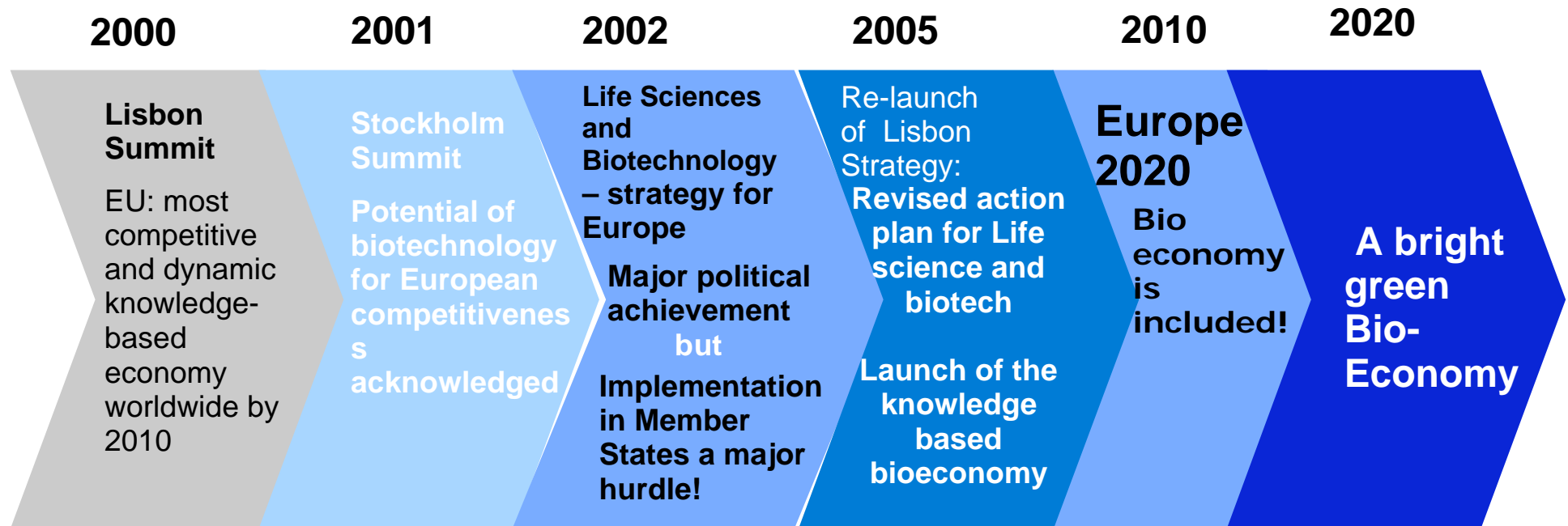
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European Bioeconomy 2000-2020



EUROPE 2020

Communication on the European
Council, (3 March 2010):

**Europe 2020 – a European strategy for smart,
sustainable and inclusive growth**

3 main priorities:

- **Smart growth**: developing an economy based on knowledge and innovation
- **Sustainable growth**: promoting a more resource efficient, greener and more competitive economy
- **Inclusive growth**: fostering a high employment economy delivering social and territorial cohesion

EUROPE 2020 (cont'd)

Seven flagship initiatives



-  « Youth on the move »
-  « A digital agenda for Europe »
-  « Resource efficient Europe »
-  « An industrial policy for a globalisation era »
-  « An agenda for new skills and jobs »
-  « European platform against poverty »

Flagship Initiative : "Innovation Union"

Aim:

Policy on the challenges of climate change, energy and resource efficiency, health and demographic change.

Actions proposed at EU and MS levels

One of these actions involves:

- Launching of **'European Innovation Partnerships'** between the EU and national levels. The first will include:
 - 'building the bio-economy by 2020'
 - 'the key enabling technologies to shape Europe's industrial future' and 'technologies to allow older people to live independently and be active in society'

BIOECONOMY

What is at stake?

- **Providing food security to Europe and globally while adapting to a changing climate**
 - Population growth to around 9 billion => Increase of demand for food by 50%
 - Retention of fish stocks => 30% fish population outside safe biological limits
- **Reducing the environmental impact of agriculture and Fisheries**
 - 9% CO2 emissions in Europe and 14% globally
 - Deforestation
 - Soil quality
 - Sustainable aquaculture

BIOECONOMY

What is at stake? (cont'd)



renewable biological raw materials and bio-processes

- New markets for farmers and forest owners
- ...

➤ **Providing healthy food**

Sustainable and safe food production chains

Sustainable fisheries and aquaculture

...While increasing dietary and nutrition standards and understanding dietary related disease.

➤ **Closing the waste loop-** reducing and/or creating added value from food production and consumption waste, and its optimisation in biorefinery and new bioprocess development

➤ **Retaining the European lead in bio-sciences and technologies**

Biotechnology today EU and worldwide

- **Strong competition from “traditional” sources**
 - EU still invests less in research than US and Japan
 - GERD 2006: EU 1.8%; US 2.6%; Japan 3.4%
- **Increasing competition from “new” sources**
 - China GERD increasing 18% annually (EU: 2.3%)
 - Brazil, China, Russia – 90,000 PhDs in 2004 (while 30 OECD countries: 180,000 PhDs in 2004)

Biotechnology today EU and worldwide (cont'd)

Our old and new competitors are moving forward:

...faster (and generate 6
times more revenues) than EU companies

USA: biotech market value \$46.5bn (2008); life sciences R&D spending 9% of total research

China: expected \$8.8bn investments in biotech in 2010

India: revenues from biotech were \$2.56bn (2007-08), 56% from export

Brazil: to invest \$150m in biotech start ups

Japan: to invest \$500m into biotech over 10 years; life science R&D spending 9% of total research

Actions within the Framework Programme driving the bioeconomy - today



- Education
 - Research
 - Innovation
- Freedom of movement of knowledge (the “fifth” freedom)

FP7 Theme 2: ~2 billion EUR for DIRECT COLLABORATIVE RESEARCH

Networking mechanisms: ERA-nets, SCAR, KBBE-NET

New Joint Programme Initiatives: (Agriculture, Food security and Climate change; Food and health)

9 ETPs: Farm Livestock, Fish, Plants, Food, Biofuels, ...

International cooperation initiatives: SICAs, Dedicated Partnerships ...

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The Bioeconomy interfaces with a number of Relevant policies

- EU2020 strategy
- New Commissioner's main priorities (Finalisation of ERA; Simplification of the FP; Focus on innovation and knowledge transfer, Increase the involvement of SMEs in research projects)
- CAP, health check of CAP, Organic Farming Action Plan; Forestry Action Plan
- The Maritime policy e.g. Communication on A European Strategy for Marine and Maritime Research; Aquaculture Strategy
- Public health e.g. "A strategy for Europe on nutrition, overweight and obesity related health issues"; Food safety legislation, health claims and food labelling

The Bioeconomy interfaces with a number of Relevant policies (continued)

- **Energy policy** e.g. Energy Union and Energy Technology Plan
- **Environment policy** e.g. Green paper on adaptation to climate change; ETAP; Water Initiative; Industrial Emissions Directive; EU Biodiversity Strategy
- **Industrial competitiveness** e.g. Mid-term review of the EU Biotechnology Strategy; Lead Market in Bio-based products
- **Community Animal Health Policy and Animal Welfare Plan**
- **Development policy** e.g. Renewed Sustainable Development Strategy; EU-Africa Strategic Partnership
- **Recovery plan**

A Way Forward

is now an intrinsic

- **Bio-economy should become a priority in EU Member States**
 - ⇒ **Building wide political support**
 - ⇒ **Mobilising all stakeholders and the civil society**
 - ⇒ **Creating an “Innovation Union” (Innovation Partnerships)**
 - ⇒ **Linking education, research and innovation in the Bio-economy**
 - ⇒ **Building stronger links to CAP, CFP, Climate change, Public Health, Industrial competitiveness, etc.**
 - ⇒ **Make innovation a concern for all government departments not just research policy**

New Developments

Related to the policy push for a BIOECONOMY are a number of other related actions.

These include the work programme for 2011 and upcoming European events and strategies.

KBBE Work Programme 2011

5 Main Challenges for topics to address

- **Primary production mitigating and adapting to climate change**
- **Greening of industry**
- **Food security for Europe and Beyond**
- **Social inclusive and healthy Europe**
- **Oceans for the Future**

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KBBE Work Programme 2011

OTHER SPECIFICATIONS INCLUDE:

- **Broadening the ERA dimension. Specific actions on enlarged Europe and ERANETS**
- **Increasing SME relevant research through topics with mandatory SME participation**
- **Continued broad level International Cooperation especially with BRICS, Latin America, Caribbean**
- **Cross Thematic approaches through « Ocean of Tomorrow »**
- **Broadening socio economic issues, gender dimension, and more effective communication and dissemination.**

KBBE Work Programme 2011

Aspects to consider for successful applications:

- enlarged EU and third
- On average a proposal is competing with another 3 to 4 proposals within a topic for funding. Competition is tough and the distinction between the top proposals is often fractional.
- A high degree of innovation and clarity of the text is a big advantage. Many proposals are innovative but fail to convince evaluators due to oversights in the description.
- Detailed financial information is not required in FP7 but it is useful to clearly explain how the money will be spent and not to allocate inaccurate lump sums to badly described tasks.
- Do not confuse impact with the actual execution of the project. Impact implies you know what the effect of your research will be.

Driving the policy framework

"Food for the 21st century:

How EU Research impacts on
Food Quality and Safety"

8th July 2010

European Parliament Brussels

*One day conference presenting results of an
impact study of the FP6 Food and Safety
Programme (2002-2006)*

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Driving the policy framework



Belgian presidency

July - Dec 2010

A Belgian EU Presidency
high-level conference

“The Knowledge Based Bio
Economy 2020: Turning
challenges into
opportunities”

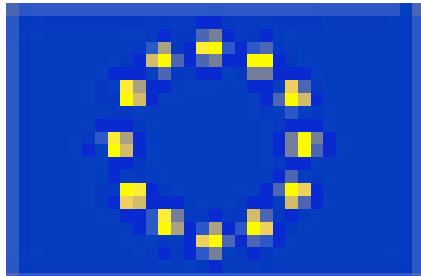
14th September 2010, Brussels

www.KBBE2010.be

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NEXT STEP in 2011



Launch a new vision and action plan
between the EU and Member
States to build

A BRIGHT GREEN

BIO-ECONOMY

by 2020

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THANK YOU FOR YOUR ATTENTION

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