EPEC

Detailed Assessment of the Market Potential, and Demand for, an EU ETV Scheme

Brussels 24/05/11

Jonathan Lonsdale & Mark Peacock (GHK)

EPEC

Objectives

Aim: ***ex-ante evaluation*** of the EU ETV scheme

Objective: to assess the ***market potential*** of the EU ETV scheme, to include:

1) a detailed assessment of ***likely demand*** from vendors and users of environmental technologies;
2) a ***cost-effectiveness*** analysis of the scheme for technology developers; and,
3) an identification of technology areas with the highest ***value added*** and benefits.

EPEC

Scope

Technology Area	Technology Groups / Subsectors
Water treatment and monitoring	Monitoring of water quality Treatment of drinking water, wastewater and desalination
Soil and groundwater monitoring and remediation	Soil and groundwater monitoring Soil pollution remediation and de-pollution
Cleaner production and processes	Savings of material resources Energy efficiency in industry and buildings Prevention and reduction of pollution and waste
Materials, waste and resources	Recycling of industrial by-products and construction waste Separation of solid waste Recycling of batteries, accumulators and chemicals Reduction of mercury contamination Bio-based products
Environmental technologies in agriculture	Reduction of air contamination and odour Recycling of nutrients and organic carbon Reduction of pesticide use and contamination
Air pollution monitoring and abatement	Air emissions monitoring Abatement of pollution from stationary sources
Energy technologies	Production of heat and power from renewable sources Reuse of energy from waste Conversion of biomaterials to energy Energy efficiency technologies

EPEC

Approach

Literature Review

(market, studies
industry literature,
pre-programme, existing certification /
verification schemes & EC studies)

Consultation with Stakeholders

(technology developers, users & test bodies)

Analysis of Market & Structural Characteristics

(size and growth potential of the domestic and export market for the technology, variety of competing/alternative technological options, rate of innovation, horizontal and vertical industry organisation, technology readiness,…)

TA1 (t1 t2 ti) TA2 (t1 t2 ti) TA3 (t1 t2 ti) TA4 (t1 t2 ti) TA5 (t1 t2 ti) TA6 (t1 t2 ti) TA7 (t1 t2 ti)

25 Technologies

Identification of Business Cases

Screening based on demand and supply characteristics

TA1 1 TA2 2 TA3 3 TA4 4 TA5 5 TA6 6 TA7 7

7 Business Cases

Cost of ETV

(cost of development ,
certification, testing…)

Demand for ETV

(importance of information ,
expected benefits ,…)

Assessment of the Market Potential of EU ETV

(Potential uptake, willingness to pay, need for public financial support, …)

EPEC

Business Cases

1) Low carbon building materials - **Insulation**
2) Materials, waste & resources - **Biobased products**
3) Land remediation - **Site investigation tools**
4) Water monitoring - **In-line water monitors**
5) Energy efficiency - **Micro CHP**
6) Renewable energy - **Solar hybrid technologies**
7) Water treatment – **Anaerobic digestion**

***Key features*: high EU market potential; varying degrees of market maturity; large scope for innovation; strong SME supply base; high environmental impact potential.**

EPEC

Rationale for ETV (1)

ETV most beneficial where:

Standards/certification

- No product standards currently exist.
- Certification/standards are unharmonised across EU.

Products

- Products are discrete and innovation is fast paced.
- Products are more expensive than incumbents, but can offer superior environmental performance.

Testing

- Technology is typically laboratory tested.
- Testing environmental performance is complex.

EPEC

Rationale for ETV (2)

ETV most beneficial where:

Markets

- Markets are populated by relatively homogeneous technologies.
- Developers are SMEs (often with limited reputation, track record and facing strong incumbent competition).

End users

- Risk averse customers prefer to buy market proven techniques.
- The relationship between buyer and seller is underdeveloped especially in nascent markets.

EPEC

Value added from ETV

	Insulation	Biobased Products	Site Characterisation Tools	In-line Water Monitoring	Micro CHP	Solar Hybrids	Anaerobic Digestion
Facilitates entry into home market			✓	✓			
Facilitates entry into EU27 markets	✓		✓	✓	✓	✓	✓
Facilitates entry into non-EU			✓	✓			
Allows product to compete against rivals				✓			✓
Increases speed to reach market	✓		✓				
Increases market acceptance by customers	✓				✓	✓	
Provides insights on environmental impacts							✓
Environmental regulator approval			✓				
Limited benefit from ETV		✓					

EPEC

Cost and willingness to pay for ETV amongst developers

- **Testing: €10-25,000**

  (Complexity, highest costs amongst discrete products)
- **Verification/Certification: €10-50,000**

  (Highest costs for integrated technologies)
- **Administration in firms: ~ €16,000 average**
- **Willingness to Pay fee: ~ €10,000 average**

  (SMEs value ETV the most)

***Conclusion:* Support is needed for developers of certain technologies**

EPEC

Potential ETV Market Size

	Insulation	Biobased Products	Site Characterisation Tools	In-line Water Monitoring	Micro CHP	Solar Hybrids	Anaerobic Digestion
Size of EU Market	€12bn	€17bn	€1bn	€35-50m	€2.5bn *Potential*	~€25m	€1-2bn
Firms in the EU	100-200	1000	100	50-75	20-30	10	50-75
Demand for ETV	Low	Very low	Very high	Very high	Medium	High	Very high
Developers likely to use ETV in next 1-2 yrs	10-20	<10	20+	15-30	3-5	5-10	20-25
Potential for self-financing of ETV	✗	✗	✓	✓	✓	✗	✗
Maximum allowable timescale for developer	<2 mths	12 mths	<12 mths	6-12 mths	<6 mths	<6 mths	6-12 mths

EPEC

Making a success of ETV

- **Marketing the ETV programme and brand**
  - Added value of ETV compared to other certifications/labels
  - Expected benefits for SMEs
  - Market ETV brand to developers and end users
  - Establish a dedicated and independent EU ETV website

- **Communicating the operational requirements of ETV**
  - Simple and transparent procedures
  - Clear indication of entry point for ETV in development cycle
  - Robust ‘questions and answers’ for developers

- **Complementarity with existing certifications**

- **Institutional buy-in from environmental regulators**

EPEC

Making a success of ETV (2)

- **Number and location of verification bodies**
  - Concentrated expertise in a few bodies is likely to be more efficient that geographic spread
  - Minimum of 3 verification bodies in large markets (to cater to demand from different EU regions)

- **Funding options for ETV**
  - Fee proportional to turnover of applicant
  - Fee deferred until company is selling verified product
  - Contribution from users (joint development) or industry sponsorship

- **Possible funding support mechanisms**
  - FP7/FP8; EU SET Plan; CIP; LIFE+
  - National R&D funding mechanisms – although State aid limitations of support for verification

EPEC

Thank you

jonathan.lonsdale@ghkint.com