Technologies content map

Pollution management

Air — prevention and reduction of pollution (including greenhouse gases reduction —> link with forestry for carbon sequestration)

Waste — minimization and disposal

Soil — prevention and remediation of pollution

Water sanitation

Mitigation of **noise** pollution

Resources management

Waste — recycling and processing

Forestry & agriculture (including soil conservation)

Water — sustainable use

Energy savings & renewables:
- Clean coal
- Hydrogen fuel cells
- Photovoltaics
- Others

Integrated

Biotechnologies

Chemicals

Construction

Extractive (mining and quarrying)

Ferrous and non-ferrous metals

Textiles

Transport

Intersectoral (dealing with more than one industrial sector)

Others

Monitoring — measurement devices and analytical equipment

European Environment Agency

Environmental Technologies portal

http://technologies.ewindows.eu.org

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European Environment Agency

Environmental Technologies portal

An entry point to information about cleaner and resource efficient technologies that can decrease material inputs, reduce energy consumption and emissions, recover valuable by-products, minimise waste disposal problems and improve environmental monitoring.

The European Environment Agency has launched a portal showcasing information on technologies suitable to enhance eco-efficiency, support the application of environmental management systems (formal and less formal), and the identification of cleaner production equipment. The site is a first attempt to implement Action 4 of the Environmental technologies action plan (ETAP): Development of existing directories and databases on environmental technologies by offering knowledge development support on environmental technologies and eliciting the exchange of ideas and research results on eco-innovations.

Platform
The portal is a hierarchical structure of folders and of specialised documents for different types of information (files, events, links, meetings). Users can search and access information from various perspectives. Remote information (from other sites) is published in channels listed on the front page or other sections according to their relevance.

Dissemination tools
- XML format for syndication allows other sites to publish most of the portal content. Syndicated content includes news feeds, events listings, new uploads, project updates;
- email notification of new uploads.

Automatic content harvesting
Portal administrators and contributors can use a built-in Google search engine to:
- automatically filter and hide similar results;
- return pages written in a particular language;
- search for specific file formats (.pdf, .ps, .doc, .xls, .ppt, .rtf);
- specify information release time, past 3 months, 6 months, year;
- indicate the terms sought, in the page, title, url, links to the page;
- restrict the search to one or more domains (.com, .edu, .int).

Content management
- no knowledge required of HTML using simple forms;
- external contribution is allowed;
- workflow (basket of approvals);
- easy monitoring of content and contributors.

The EEA has identified, in particular, case studies to illustrate the potential in new environmental monitoring technologies and the different links in the innovation chain.

Case study — Lidar and other optical environmental measurement techniques

Innovation chain	Main applications: Environmental monitoring of air pollutants from diffuse sources. Three-dimensional mapping and pollutants fluxes.
Research	Sune Svanberg, Lund Laser Centre, 30 years of R&D in Lidar, resulting in spin-off applications. Support from national public research bodies, and EU's fifth framework research programme.
Development	Mobile ground-based Lidar system measuring air pollution concentration, and fluxes at industrial plants both for environmental, energy saving and safety concerns. Doas (Differential optical absorption spectroscopy) for urban surveillance of air pollutants.
Market analysis	Lidar in mercury research networks Emecap (www.emecap.com). Quantification of VOC and aromatic emissions (www.spectrasyne.com). Monitoring of industrial plants such as refineries (www.gasoptics.com). Spin-off cancer diagnostics (www.spectracure.com). Doas spin-off company from the Lidar group (www.opsis.se).
P&D	Lidar prototype supported by public national R&D bodies.
Patenting	No patents.
Venture capital	Statoil Innovation AS is a major shareholder of GasOptics. Lund university is a shareholder through LUAB.
Regulations	Compliance with EU regulation and US EPA requirements are important for Opsis. Several Lidar systems in Europe, those in Eastern Europe probably subsidised.
Commerce	Establishment of Lidar start-up company Lighten AB. Opsis AB founded 1985 in Sweden with worldwide sales. GasOptics Sweden AB and Spectracure AB in Lund, Sweden. The British company Spectrasyne.