

Technisches Konzept der Forschungsinformationssysteme des EU-Projekts ICT-ENSURE

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Das EU-Projekt ICT-ENSURE

*European Information and **C**ommunication **T**echnologies -
Environmental **S**ustainability **R**esearch*

■ Ziele:

- Aufbau einer europäischen Forschungslandschaft im Bereich ICT für Nachhaltigkeit in der Umwelt
- Studien über ausgewählte Forschungsbereiche und Identifikation nationaler Forschungsprogramme und Projekte im Bereich ICT und Nachhaltigkeit
- Entwicklung eines web-basierten Informationssystems über Forschungsprogramme und -projekte
- Online-Bereitstellung von Literatur in Form eines Literatur-Informationssystems.

Anforderungen an die Informationssysteme

■ Forschungsprogramme-Informationssystem

- Verwaltung von Metadaten über nationale europäische Programme und Projekte im Bereich ICT für Nachhaltigkeit in der Umwelt
- Daten über beteiligte Personen, Organisationen und Angabe der Länder
- Volltextsuche, Suche über Attribute sowie über ausgewählte Länder
- Effiziente Navigation durch den Datenbestand
- Unterschiedliche Benutzerrollen (Web-Benutzer, Autor, Administrator) mit dedizierten Zugriffsrechten
- 3 Komponenten (Präsentations-, Autoren- und Administratorkomponente)
- System flexibel erweiterbar und konfigurierbar
- Freie Software (Open Source oder Freie Lizenzen)

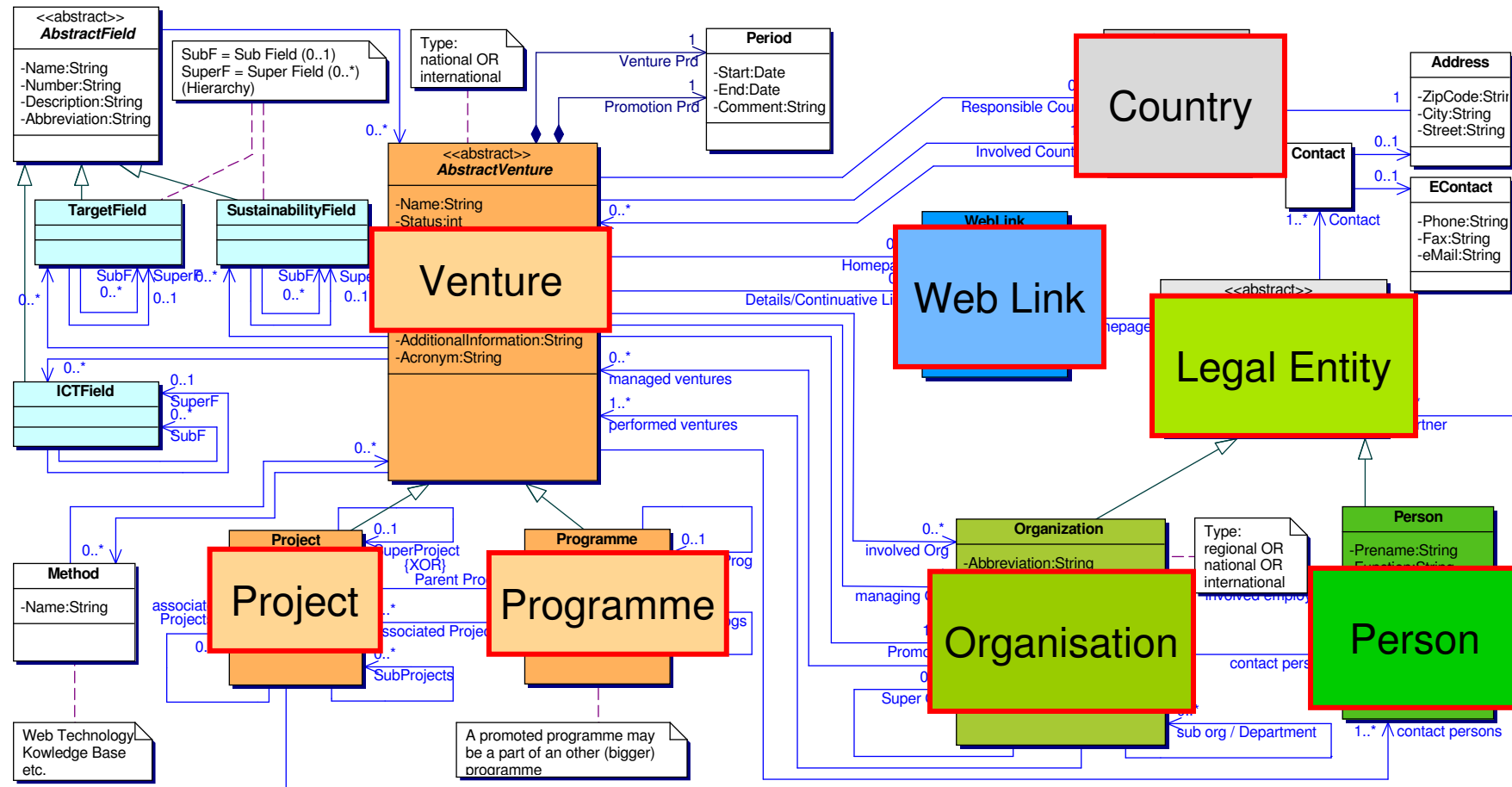
Anforderungen an die Informationssysteme

■ Literatur-Informationssystem

- Integration in das Forschungsprogramme-Informationssystem
- Online-Bereitstellung der Metadaten der Beiträge ausgewählter EnviroInfo-Tagungsbände
- Angebot von Volltexten als PDF-Dokumente über Internet-Links
- Artikel durch Volltextsuche auffindbar
- Angebot von Navigationswegen durch den Datenbestand
- Einfacher Import aktualisierter Literaturdaten von der Literaturdatenbank des Kooperationspartners
- Indizierung durch OAI-Harvester (*Open Archive Initiative*), Bereitstellung eines OAI-PMH-Interfaces (*Protocol for Metadata Harvesting*)

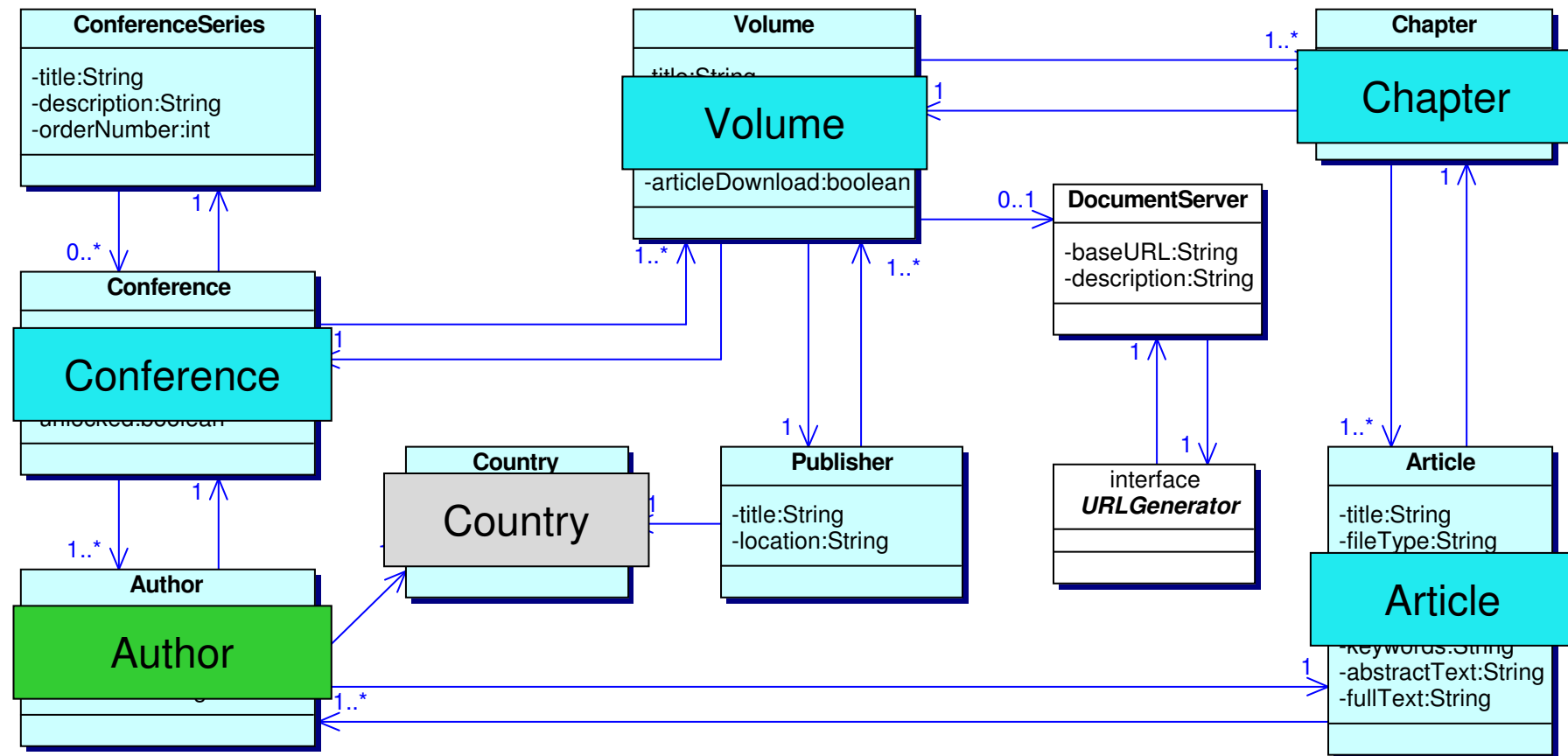
Datenmodelle

■ Forschungsprogramme-Informationssystem

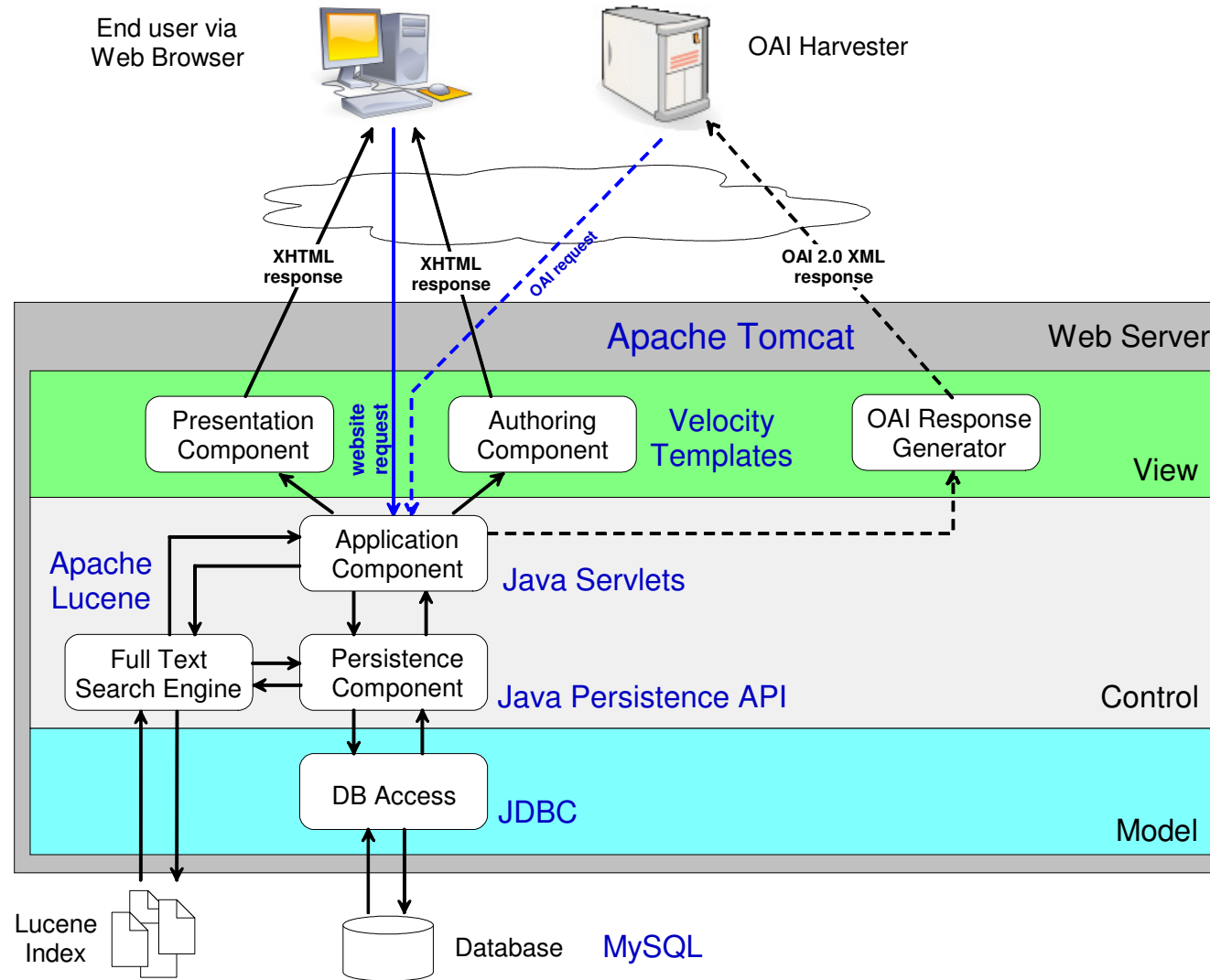


Datenmodelle

Literatur-Informationssystem



Software-Architektur



Features zur Qualitätssicherung und Statistik

■ Forschungsprogramme-Informationssystem

- Excel™-Sheet für Autoren und Administrator
 - Eingetragene Attribute und Referenzen zu Organisationen und Kontaktpersonen von Programmen und Projekten (Vollständigkeit)
- Statistik-Excel™-Sheets für Administrator
 - Auflistung der Programme und Projekte nach ICT- und Nachhaltigkeitsbereichen
 - Auflistung der Programme nach Ländern (Europakarte)

■ Literatur-Informationssystem

- Import der Literaturdaten mit Vollständigkeits- und Konsistenzprüfungen

Eingesetzte Werkzeuge

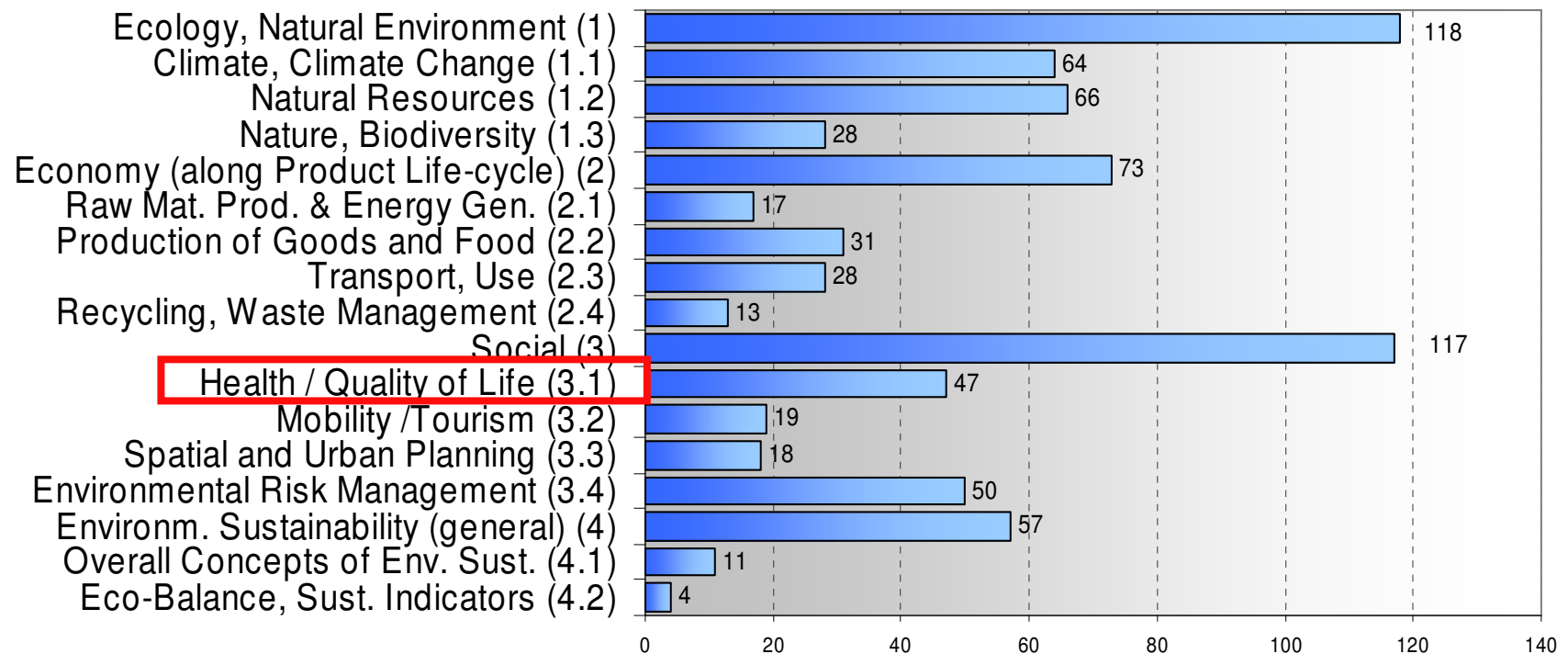
- Editor: *NetBeans IDE*
- View (HTML): *Velocity templates, CSS, FCK-Editor*
- Controller: *Java Servlets*
Java Persistene API:
TopLink Essentials → Hibernate
Full text search engine:
Apache Lucine
- Model (DB-Zugriff): *JDBC*
- PDF-Generierung: *Java-Bibliothek iText*
- Excel-Generierung: *Apache POI*
- Datenbank: *MySQL*

Inhalte der Systeme

- Forschungsprogramme-Informationssystem

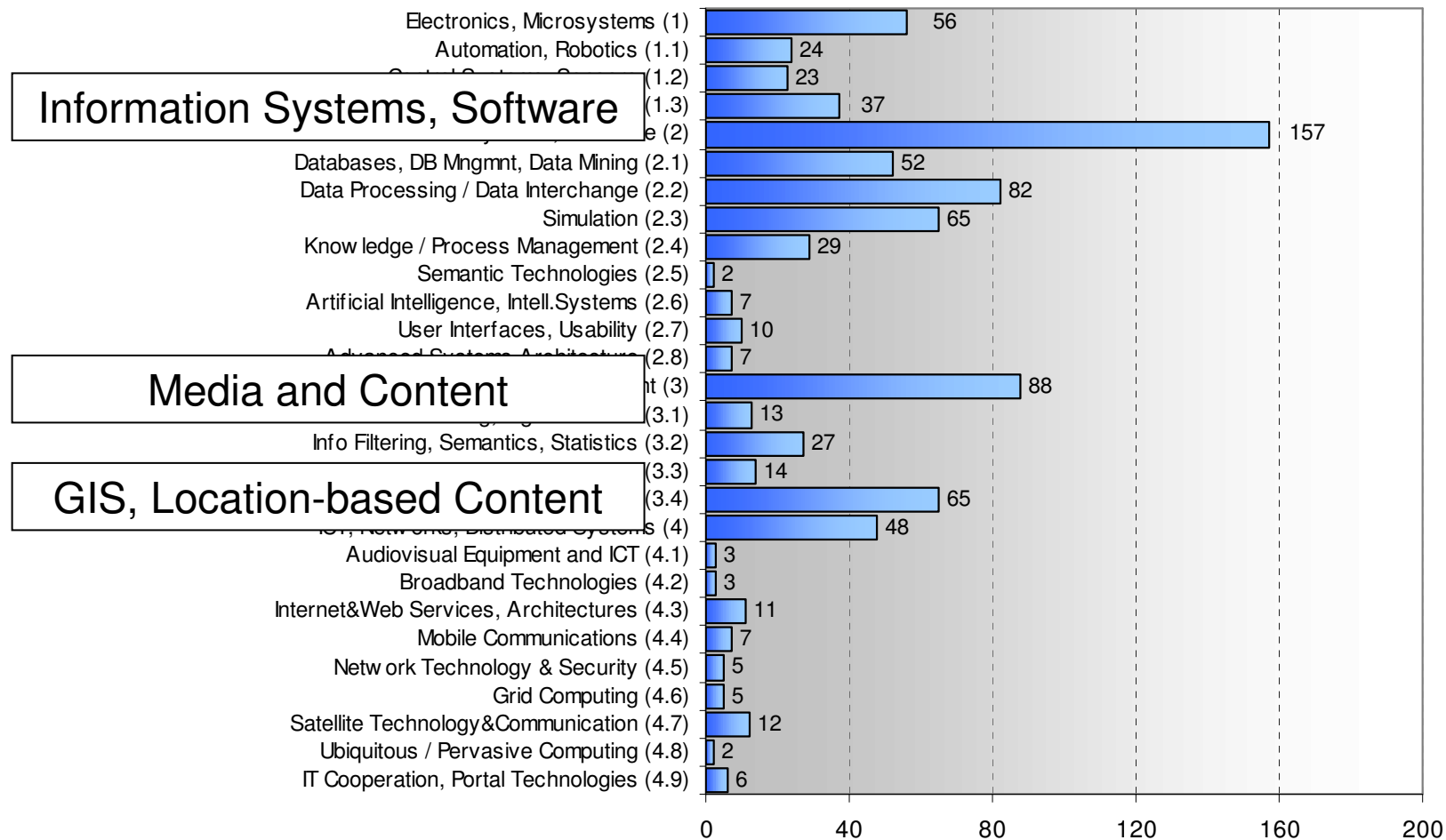
April 2010: ≈ 225 Programme und Projekte; ≈ 450 beteiligte Organisationen

- Verteilung nach Nachhaltigkeitsthemen



Inhalte der Systeme (Forts.)

■ Forschungsprogramme-Informationssystem: Verteilung nach ICT-Themen



Inhalte der Systeme (Forts.)

- Literatur-Informationssystem

April 2010: \approx 1600 Artikel (\approx 1000 als Volltext herunterladbar)

- EnviroInfo-Tagungsbände von 1997 (Straßburg) bis 2009 (Berlin)

- Beiträge der eEnvironment-Konferenz in Prag (2009)

- Beiträge der Workshops von 2005 bis 2008 des Arbeitskreises „Umweltdatenbanken / Umweltinformationssysteme“ der GI-Fachgruppe „Informatik im Umweltschutz“.

Benutzeroberflächen



The screenshot shows the homepage of the ICT-ENSURE information system. The header features the ICT-ENSURE logo and the text "Research Programmes Information System in the Field of ICT for Environmental Sustainability". Logos for the European Union, KIT, TU Graz, and ISEP are displayed in the top right. A navigation menu includes "Home", "About Us", "Literature", and "Contact".

Search

Full text search

Search by criteria

- Programmes
- Projects
- Organisations

Navigation

- ICT Fields
- Sustainability Fields
- Target Groups
- Focal Topics
- All Countries
- All Programmes
- All Projects
- All Organisations

Welcome to the

*Information System on
Research Programmes
in the Field of
ICT for
Environmental
Sustainability*

WANTED
You are welcome
to add YOUR data!

This information system is under development. If you have data on relevant research programmes or projects in the field of ICT for Environmental Sustainability, please don't hesitate to [contact us](#). We will send you information how you can add research programmes and projects to the system.

Version 1.2 © 2008-2010 ICT-ENSURE consortium.

Benutzeroberflächen



ICT-ENSURE
Research Programmes Information System
in the Field of ICT for Environmental Sustainability






[Home](#) | [About Us](#) | [Literature](#) | [Contact](#)

Search

Full text search (i)

Search by criteria

- Programmes
- Projects
- Organisations

Navigation (i)

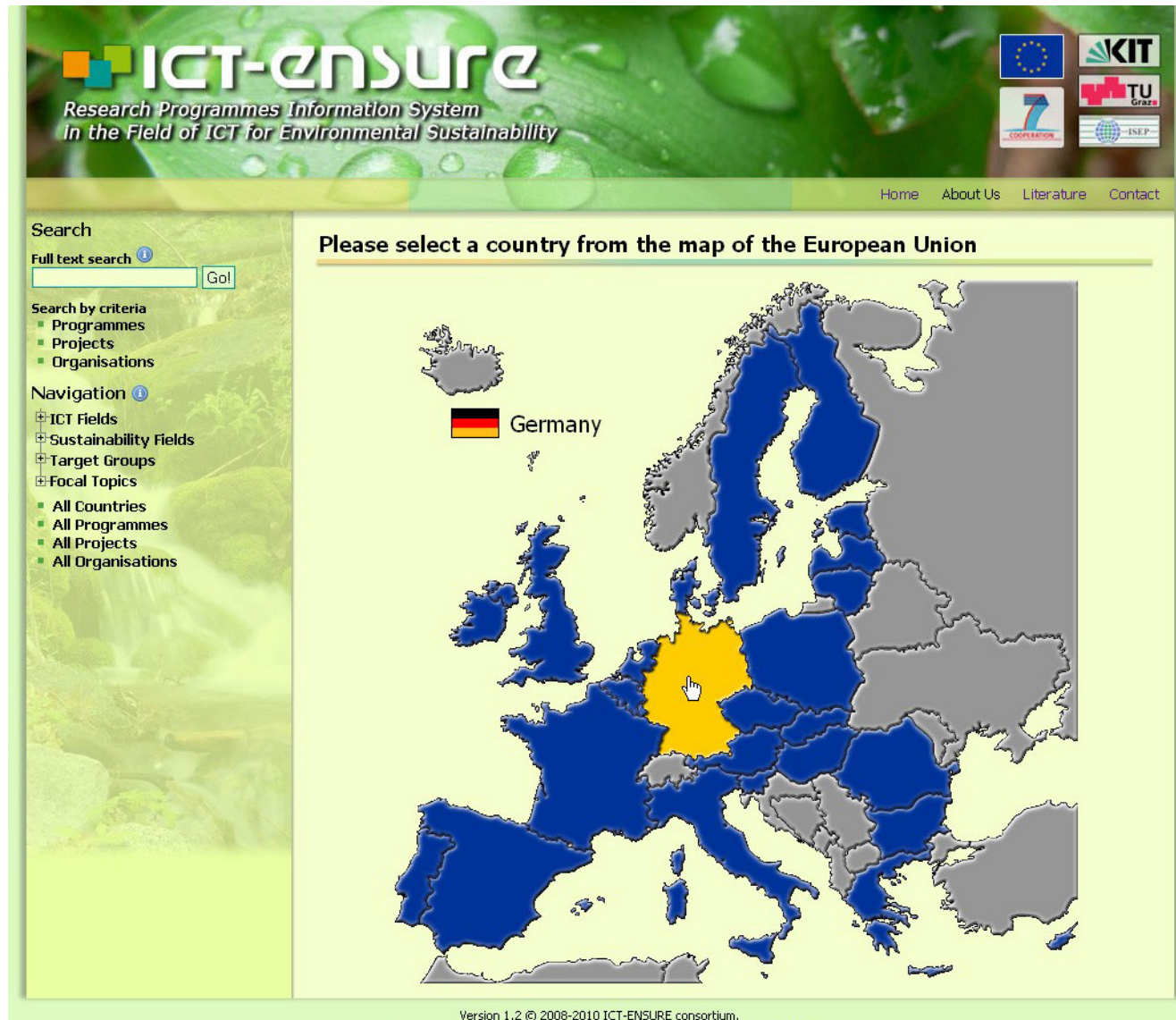
- ICT Fields
- Sustainability Fields
- Target Groups
- Focal Topics
 - Energy Efficiency
 - Climate Change
 - Natural Resources
 - Biodiversity
 - Spatial Information
 - Information Management / Systems
 - Knowledge Management
 - Distributed Information Resources
- All Countries
- All Programmes
- All Projects
- All Organisations

Full text search result

Pattern: soil
Count of result items: 21 (Best matching results first)

MONTABIO	Complex monitoring system for analytical detection and biological evaluation of soil micropollutants for a sustainable environment (Komplex monitoring rendszer összeállítása talaj-mikroszennyezők analitikai kimutatására és biológiai értékelésére a fenntartható környezetért) The objective of this project is to develop a soil contamination monitoring system capable of complex survey of typical soil contaminants using (...)		Details
	Development of the soil monitoring programme The goal is to develop soil monitoring programme as a tool for collecting geo-referenced soil data in a harmonized format. Soil monitoring program (...)		Details
MEPSOM	Multiscale Modeling and Emergent Properties of Microbial degradation of Soil Organic Matter (Modélisation multi-échelles et propriétés émergentes de la dégradation microbienne des matières organiques dans les sols) Multiscale Modeling and Emergent Properties of Microbial degradation of Soil Organic Matter (...)		Details
IMPACT BOREAL	Impact of climate hydrology and methane production in anaerobic soils in boreal regions (Impact of climate hydrology and methane production in anaerobic soils in boreal regions) In this project, we propose a multi-tool approach to quantify the impact of climate change on the continental hydrology in boreal regions and on the (...)		Details
MODECOL	Using mathematical MODELing to improve ECOlogical services of prairial ecosystems (Using mathematical MODELing to improve ECOlogical services of prairial ecosystems) The project MODELCOL is integrated in the framework of the urgent need for solutions for		Details

Benutzeroberflächen



The screenshot shows the ICT-ENSURE web application interface. At the top, there is a header with the ICT-ENSURE logo and the text "Research Programmes Information System In the Field of ICT for Environmental Sustainability". To the right of the header are logos for the European Union, KIT, TU Graz, and ISEP. Below the header is a navigation menu with links for Home, About Us, Literature, and Contact.

On the left side, there is a search section with a "Full text search" input field and a "Go!" button. Below this are "Search by criteria" options: Programmes, Projects, and Organisations. A "Navigation" section follows with expandable menus for ICT Fields, Sustainability Fields, Target Groups, and Focal Topics. At the bottom of the navigation section are checkboxes for "All Countries", "All Programmes", "All Projects", and "All Organisations".


The main content area features a map of the European Union with the title "Please select a country from the map of the European Union". The map shows Germany highlighted in yellow, with a mouse cursor hovering over it. A legend to the left of the map shows the German flag and the label "Germany".

At the bottom of the page, there is a small text string: "Version 1.2 © 2008-2010 ICT-ENSURE consortium."



[Home](#) [About Us](#) [Literature](#) [Contact](#)

Search

Full text search 

Search by criteria

- Programmes
- Projects
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- ICT Fields
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 - Natural Resources
 - Biodiversity
 - Spatial Information
 - Information Management / Systems
 - Knowledge Management
 - Distributed Information Resources
- All Countries

LUPO - Federal State Environmental Portals of Baden-Württemberg, Sachsen-Anhalt and Thüringen

[Back](#)



Landesumweltportale der Länder Baden-Württemberg, Sachsen-Anhalt und Thüringen



Environmental portals shall better open up the distributed environmentally relevant web offers of authorities according to the Environmental Information Act. The user shall be granted comfortable access from a central point to the web offers mentioned.

Editors centrally compile all metadata on all information offers and administrate them. This database is the starting point for the operation of this portal. It is aimed at minimizing the expenditure of both the editors and the administrators of the information offers.



[Show all](#)

Portals are developed, which grant central access to registered environmentally relevant information offers of authorities. The major components are a central metadata store (metadata on the registered information offers), a web-based search interface, an administration component (maintenance of the metadata), and a full-text search machine.

Metadata are stored using the WebGenesis content management system. The metadata are used to generate the search interface. Various access options (text structure, list of providers, news, full-text search) grant access to the information offers via the search interface. Full-text search uses the Google Search Appliance (GSA) to indicate the contents of the registered information offers. Search words are automatically extended to include

- All Countries
- All Programmes
- All Projects
- All Organisations

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-  [LUPO Baden-Württemberg](#)
-  [LUBW - Regional Office for Environment, Measurements and Nature Conservation Baden-Württemberg](#)
-  [UVM BW - Ministry for Environment, Nature Conservation and Transport, Baden-Württemberg](#)




UVM BW - Ministry for Environment, Nature Conservation and Transport, Baden-Württemberg


Kernerplatz 9 70182 Stuttgart Germany	Phone: 0711/126-0 Fax: 0711/126-2881 E-Mail:
Homepage:	http://www.uvm.baden-wuerttemberg.de
Additional Information:	The former name of UVM "Umweltministerium Baden-Württemberg" was changed in 2010 to "Ministerium für Umwelt, Naturschutz und Verkehr Baden-Württemberg"

4.3 - Internet Services, Web Services, Service Architectures

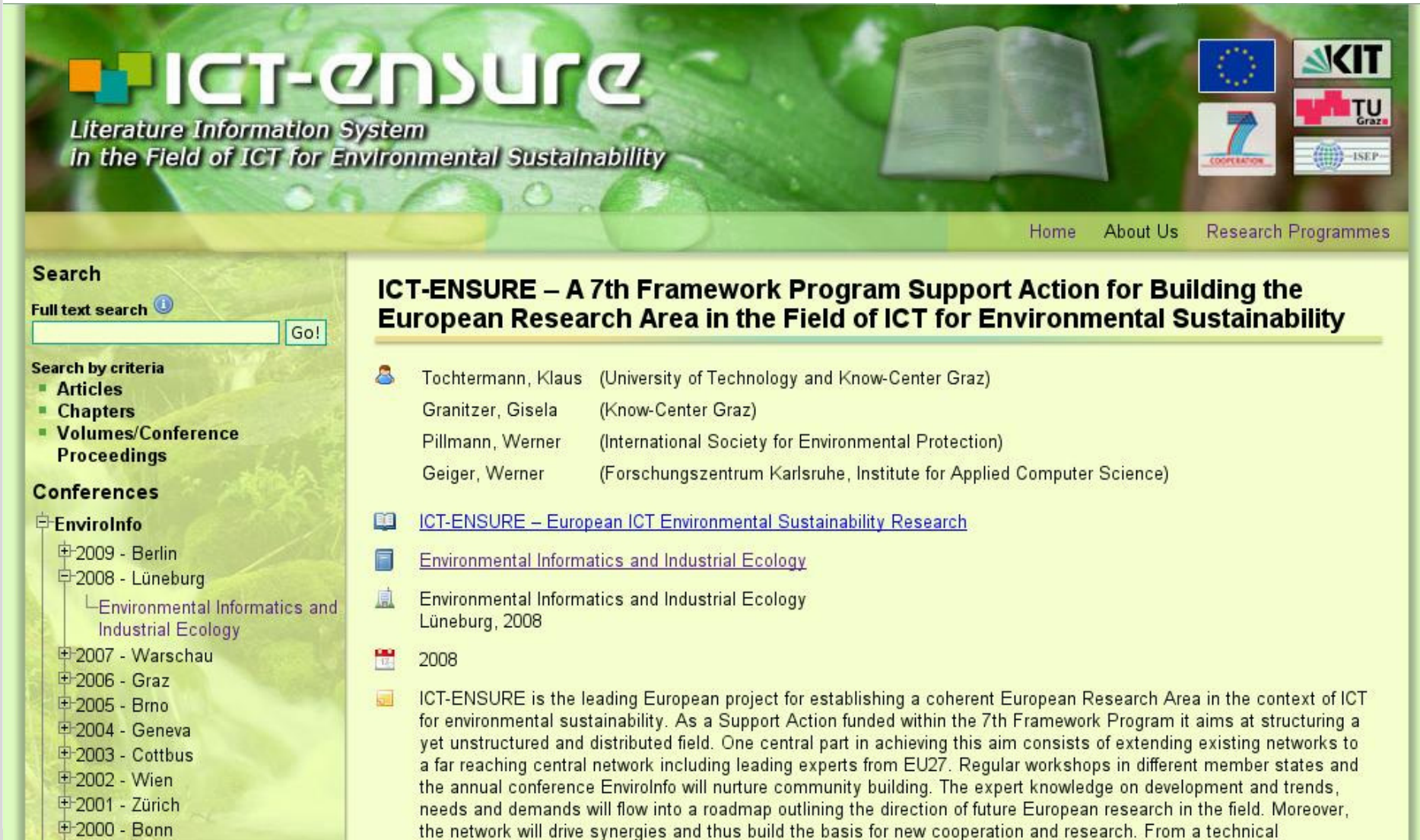
-  [1 - Ecology, Natural Environment](#)
-  [2 - Public Administration](#)
- [3 - Business, Economic Sector](#)
- [4 - Research, Science](#)
- [5 - Education, Learning](#)
- [6 - General Public](#)

-   [Germany](#)
-   [Germany](#)

-  07/2008 - 06/2010
-  07/2008 - 06/2010
-  ?

 **KEWA IV:** [Cooperative Development of Economical Applications for Environment and Transport in New Administrative Structures \(Phase 4\)](#)


Benutzeroberflächen (Literatur-Informationssystem)



The screenshot shows the homepage of the ICT-ENSURE Literature Information System. The header features the ICT-ENSURE logo and the tagline "Literature Information System in the Field of ICT for Environmental Sustainability". Navigation links for Home, About Us, and Research Programmes are present. A search bar is located on the left, with a "Go!" button. Below the search bar, there are options to search by criteria (Articles, Chapters, Volumes/Conference Proceedings) and a list of conferences from 2000 to 2009. The main content area displays the title "ICT-ENSURE – A 7th Framework Program Support Action for Building the European Research Area in the Field of ICT for Environmental Sustainability" and lists several authors and their affiliations. A section titled "ICT-ENSURE – European ICT Environmental Sustainability Research" provides a brief overview of the project's goals and activities.

ICT-ENSURE – A 7th Framework Program Support Action for Building the European Research Area in the Field of ICT for Environmental Sustainability

Home About Us Research Programmes

Search
Full text search 


Search by criteria


- Articles
- Chapters
- Volumes/Conference Proceedings


Conferences


- EnviroInfo
 - 2009 - Berlin
 - 2008 - Lüneburg
 - Environmental Informatics and Industrial Ecology
 - 2007 - Warschau
 - 2006 - Graz
 - 2005 - Brno
 - 2004 - Geneva
 - 2003 - Cottbus
 - 2002 - Wien
 - 2001 - Zürich
 - 2000 - Bonn


ICT-ENSURE – A 7th Framework Program Support Action for Building the European Research Area in the Field of ICT for Environmental Sustainability


-  Tochtermann, Klaus (University of Technology and Know-Center Graz)
- Granitzer, Gisela (Know-Center Graz)
- Pillmann, Werner (International Society for Environmental Protection)
- Geiger, Werner (Forschungszentrum Karlsruhe, Institute for Applied Computer Science)

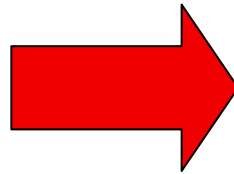
 [ICT-ENSURE – European ICT Environmental Sustainability Research](#)

 [Environmental Informatics and Industrial Ecology](#)

 Environmental Informatics and Industrial Ecology
Lüneburg, 2008

 2008

 ICT-ENSURE is the leading European project for establishing a coherent European Research Area in the context of ICT for environmental sustainability. As a Support Action funded within the 7th Framework Program it aims at structuring a yet unstructured and distributed field. One central part in achieving this aim consists of extending existing networks to a far reaching central network including leading experts from EU27. Regular workshops in different member states and the annual conference EnviroInfo will nurture community building. The expert knowledge on development and trends, needs and demands will flow into a roadmap outlining the direction of future European research in the field. Moreover, the network will drive synergies and thus build the basis for new cooperation and research. From a technical



<http://is.ict-ensure.eu>

<http://lit.ict-ensure.eu>

Vielen Dank für Ihre Aufmerksamkeit!

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