

IST World

European RTD Information and Service Portal

FP6-2004-IST-3 – 015823

[European RTD Information and Service Portal]

- **Duration:** 30 Months (April 2005 – September 2007)
- **Project Type:** Specific Support Action (SSA)
- **Funding Program:** FP6 – IST (3rd Call)
- **Funding Organization:** European Commission
- **Project Co-ordination:** Prof. Hans Uszkoreit, DFKI GmbH
- **Technical Co-ordination:** Marko Grobelnik, Jozef Stefan Inst.
- **Project Management:** Brigitte Jörg, DFKI GmbH
- **Technology Partners:** DFKI, IJS, Ontotext, CCLRC
- **Project Consortium:** 14 partners from EU MS, NMS and ACC

[European RTD Information and Service Portal]

- Set up a Web portal
- Populate with information on IST research
- Provide information about RTD actors
- Provide innovative, automated services
- Promote RTD competencies in specific fields
- Support partner search for IST proposals and commercial projects

DFKI GmbH

Co-ordinator

**"LT World" Portal
Information Extraction
Semantic Web**

Jozef Stefan Institute

Technical Co-ordinator

**"Project Intelligence"
Data Mining
Social Network Analysis**

Ontotext, Sirma AI

**"KIM Semantic
Annotation Platform"**

CCLRC

**"CERIF" Standard
Data Access**

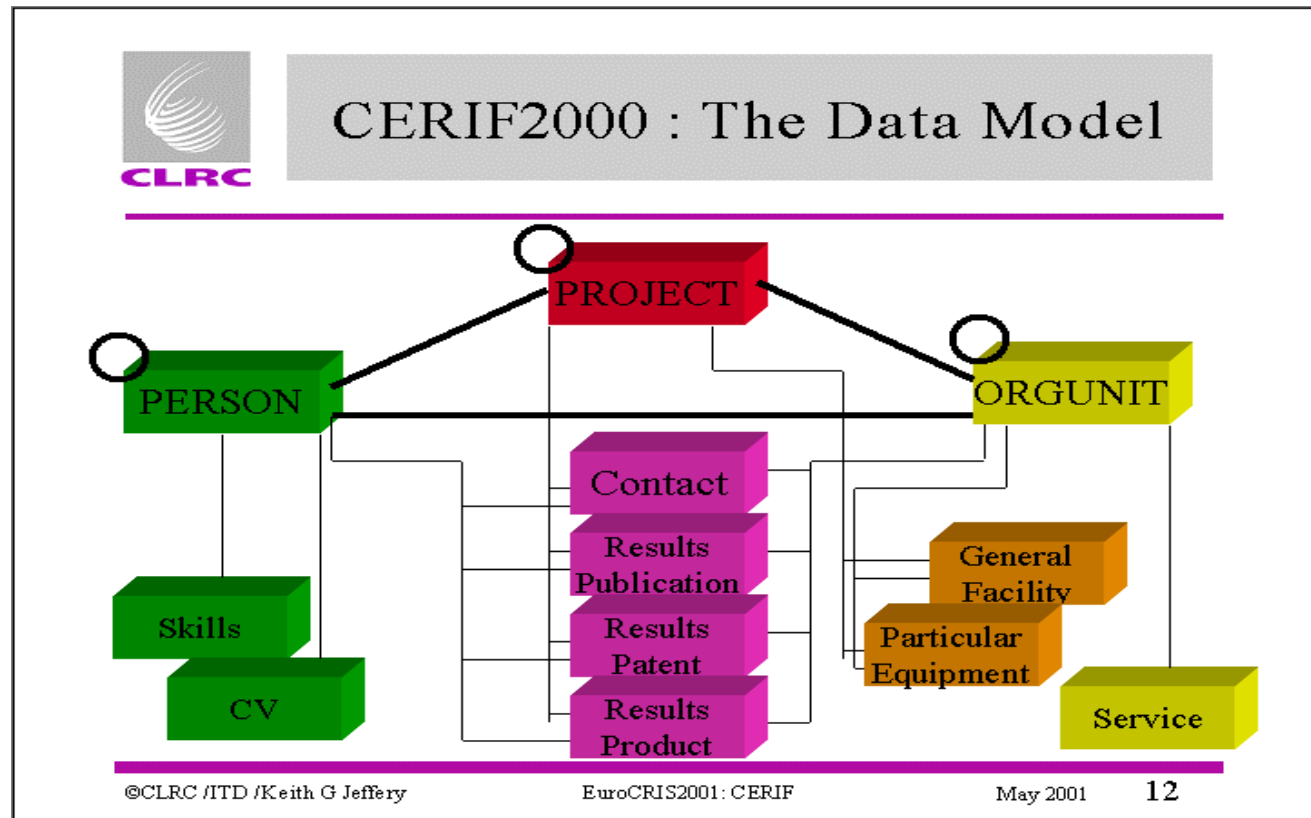
- Deutsches Forschungszentrum. für Künstliche Intelligenz, **Germany**
- Institute Jozef Stefan, **Slovenia**
- Ontotext Lab, Sirma Group, **Bulgaria**
- RTD Talos, **Cyprus**
- Institute of Information Theory and Automation, **Czech Republic**
- Archimedes Foundation, **Estonia**
- Comp. and Autom. Research Inst., Hung. Academy of Sc., **Hungary**
- Institute of Mathematics and Computer Science, University of Latvia, **Latvia**
- Lithuanian Innovation Centre, **Lithuania**
- Projects in Motion, **Malta**
- Technical University of Silesia, **Poland**
- National Institute for R&D in Informatics, **Romania**
- Slovak University of Technology, **Slovakia**
- TUBITAK, **Turkey**
- The Council for the Central Lab. of the Research Councils, **UK**

- **IST World Web Portal**
 - Repository
 - Search / Navigation
 - Topic Taxonomy
 - Analytic Tools
- **Related Systems**
 - LT World
 - Project Intelligence
- **Expected Impact**
- **Next Steps / Long-term Prospects**

IST World concentrates on two out of four major thematic priorities within IST:

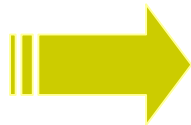
- Knowledge and Interface technologies
- Applied IST research addressing major societal and economic challenges

The CERIF Data Model is the conceptual baseline of the IST World Repository



For the IST World knowledge base we use a **subset of the CERIF 2004 Full Data Model**

- Organizations
 - Experts
- } agents
- Projects
 - Publications
- } context of their cooperation



The IST World Knowledge Base is built on **four main entities**.

- **Base:** Import from CORDIS, from domain-specific portals such as LT World, and from CERIF-conformant national and European Current Research Information Systems (CRISs).
- **Community-based:** Services for community building and maintenance will be offered, in which organizations, groups and experts will register themselves, and their projects and build professional virtual communities.
- **Automated:** Web and text mining techniques will be used to acquire additional data that is not yet present in the database.

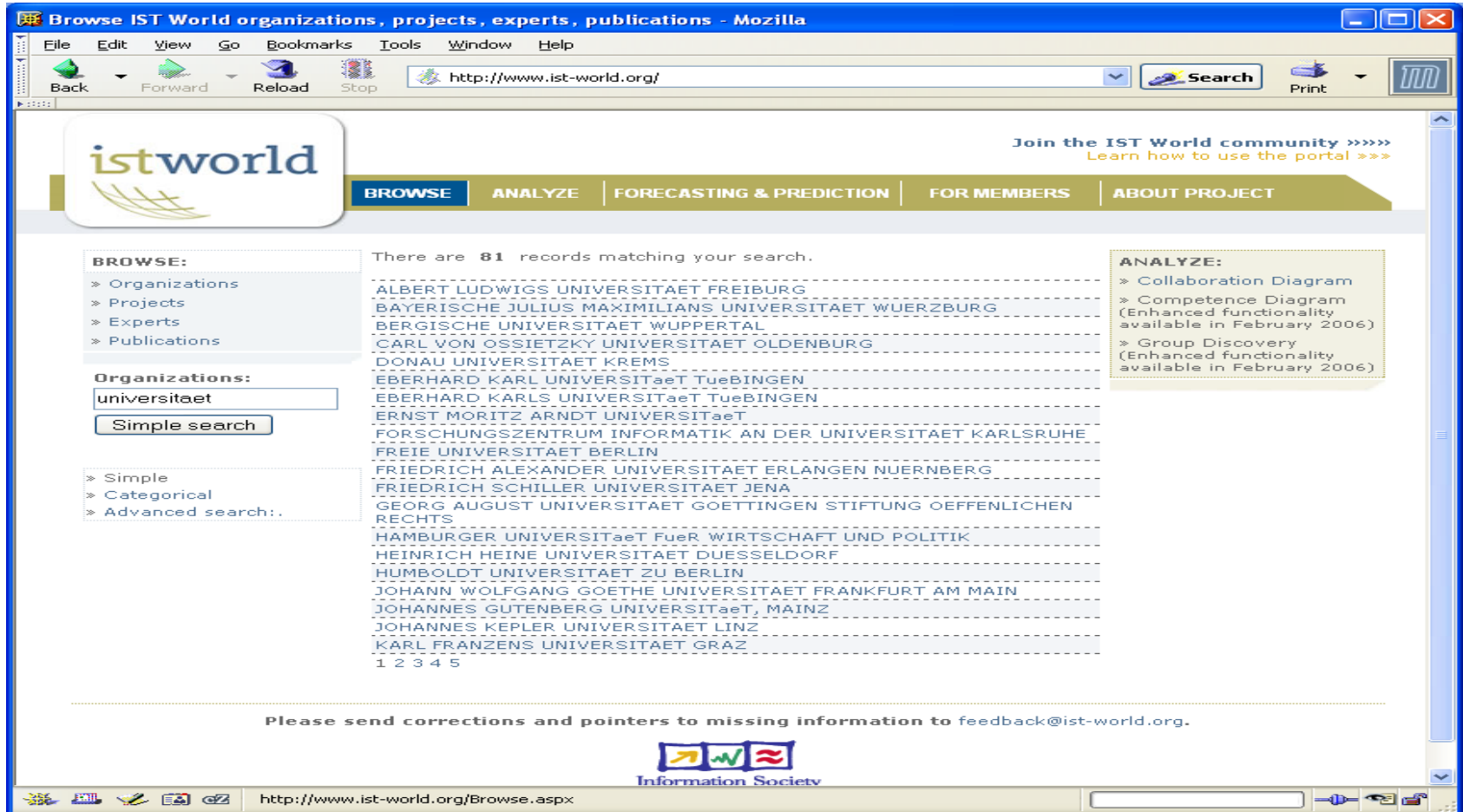
- **Base:**
 - CORDIS (Funded European research projects)
 - SiCRIS (Slovenian research information system)
 - C LT World (Language Technology Portal)
 - Further CERIF-conform datasets (in preparation)
- **Community-based:**
 - Web forms for data provision (in preparation)
 - Community building and maintenance (for final version)
- **Automated [main focus]:**
 - Web and text mining (constantly active)

<http://www.ist-world.org/>



- **Browse / Search / Navigation**
 - Simple full-text Search (active)
 - Advanced full-text Search (active)
 - Categorical Search / Taxonomy Navigation (in preparation)

- **Analytic Tools / Portal Enhancements**
 - Social Network Identification (active)
 - Partner Finding (in preparation)
 - Expertise Identification (limited version in preparation)
 - Multilingual User Interface (in preparation)
 - Forecasting and Prediction (final version)
 - Social Trust Network (final version)



Browse IST World organizations, projects, experts, publications - Mozilla

File Edit View Go Bookmarks Tools Window Help

Back Forward Reload Stop http://www.ist-world.org/ Search Print

istworld

Join the IST World community >>>>
Learn how to use the portal >>>

BROWSE ANALYZE FORECASTING & PREDICTION FOR MEMBERS ABOUT PROJECT

BROWSE:

- > Organizations
- > Projects
- > Experts
- > Publications

Organizations:

universitaet

Simple search

> Simple

> Categorical

> Advanced search:..

There are 81 records matching your search.

ALBERT LUDWIGS UNIVERSITAET FREIBURG
BAYERISCHE JULIUS MAXIMILIANS UNIVERSITAET WUERZBURG
BERGISCHE UNIVERSITAET WUPPERTAL
CARL VON OSSIETZKY UNIVERSITAET OLDENBURG
DONAU UNIVERSITAET KREMS
EBERHARD KARL UNIVERSITAET TueBINGEN
EBERHARD KARLS UNIVERSITAET TueBINGEN
ERNST MORITZ ARNDT UNIVERSITAET
FORSCHUNGSZENTRUM INFORMATIK AN DER UNIVERSITAET KARLSRUHE
FREIE UNIVERSITAET BERLIN
FRIEDRICH ALEXANDER UNIVERSITAET ERLANGEN NUERNBERG
FRIEDRICH SCHILLER UNIVERSITAET JENA
GEORG AUGUST UNIVERSITAET GOETTINGEN STIFTUNG OEFFENLICHEN RECHTS
HAMBURGER UNIVERSITAET Fuer WIRTSCHAFT UND POLITIK
HEINRICH HEINE UNIVERSITAET DUESSELDORF
HUMBOLDT UNIVERSITAET ZU BERLIN
JOHANN WOLFGANG GOETHE UNIVERSITAET FRANKFURT AM MAIN
JOHANNES GUTENBERG UNIVERSITAET, MAINZ
JOHANNES KEPLER UNIVERSITAET LINZ
KARL FRANZENS UNIVERSITAET GRAZ

1 2 3 4 5

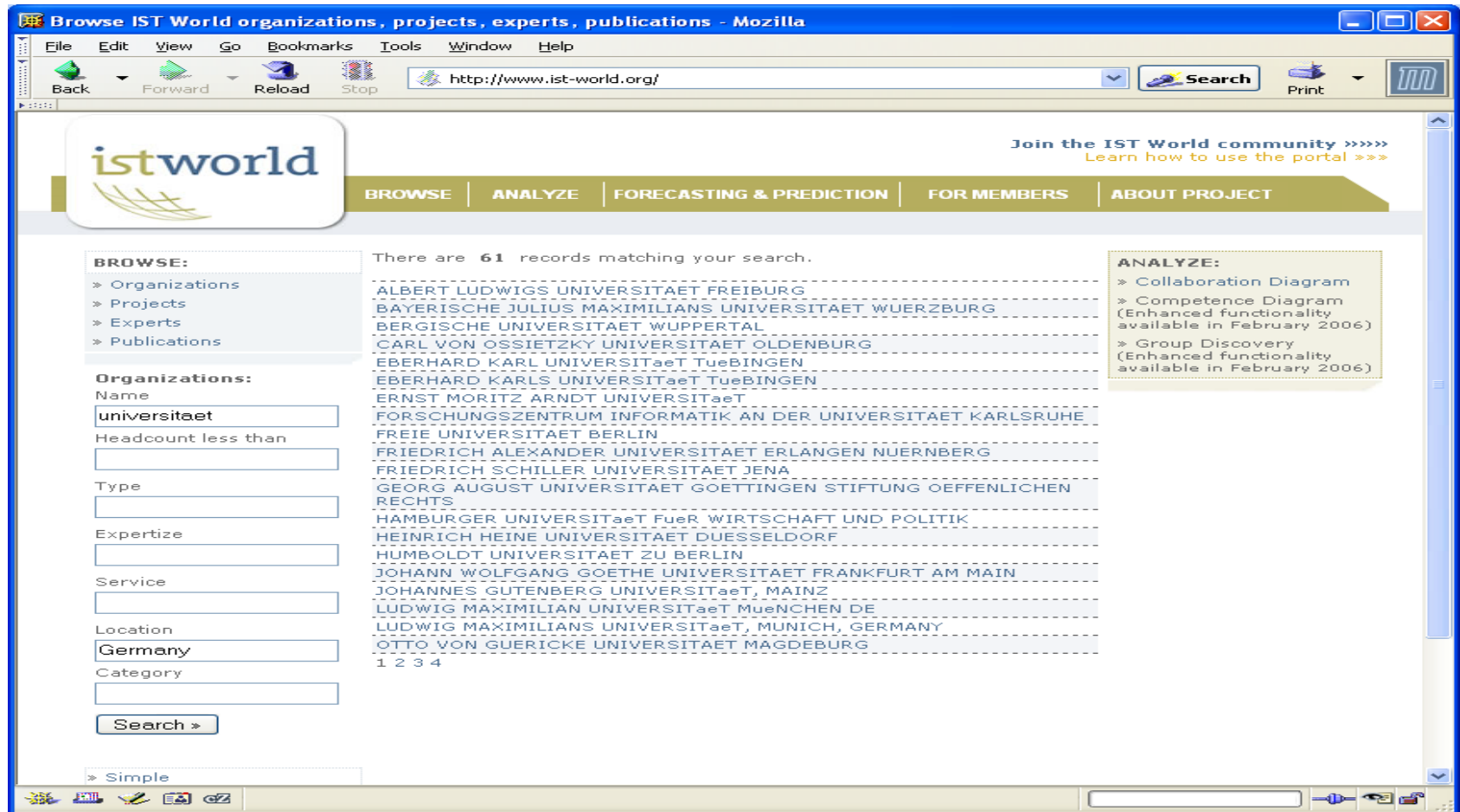
ANALYZE:

- > Collaboration Diagram
- > Competence Diagram (Enhanced functionality available in February 2006)
- > Group Discovery (Enhanced functionality available in February 2006)

Please send corrections and pointers to missing information to feedback@ist-world.org.

Information Society

http://www.ist-world.org/Browse.aspx



Browse IST World organizations, projects, experts, publications - Mozilla

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BROWSE | **ANALYZE** | **FORECASTING & PREDICTION** | **FOR MEMBERS** | **ABOUT PROJECT**

BROWSE:

- > Organizations
- > Projects
- > Experts
- > Publications

Organizations:

Name:

Headcount less than:

Type:

Expertize:

Service:

Location:

Category:

> Simple

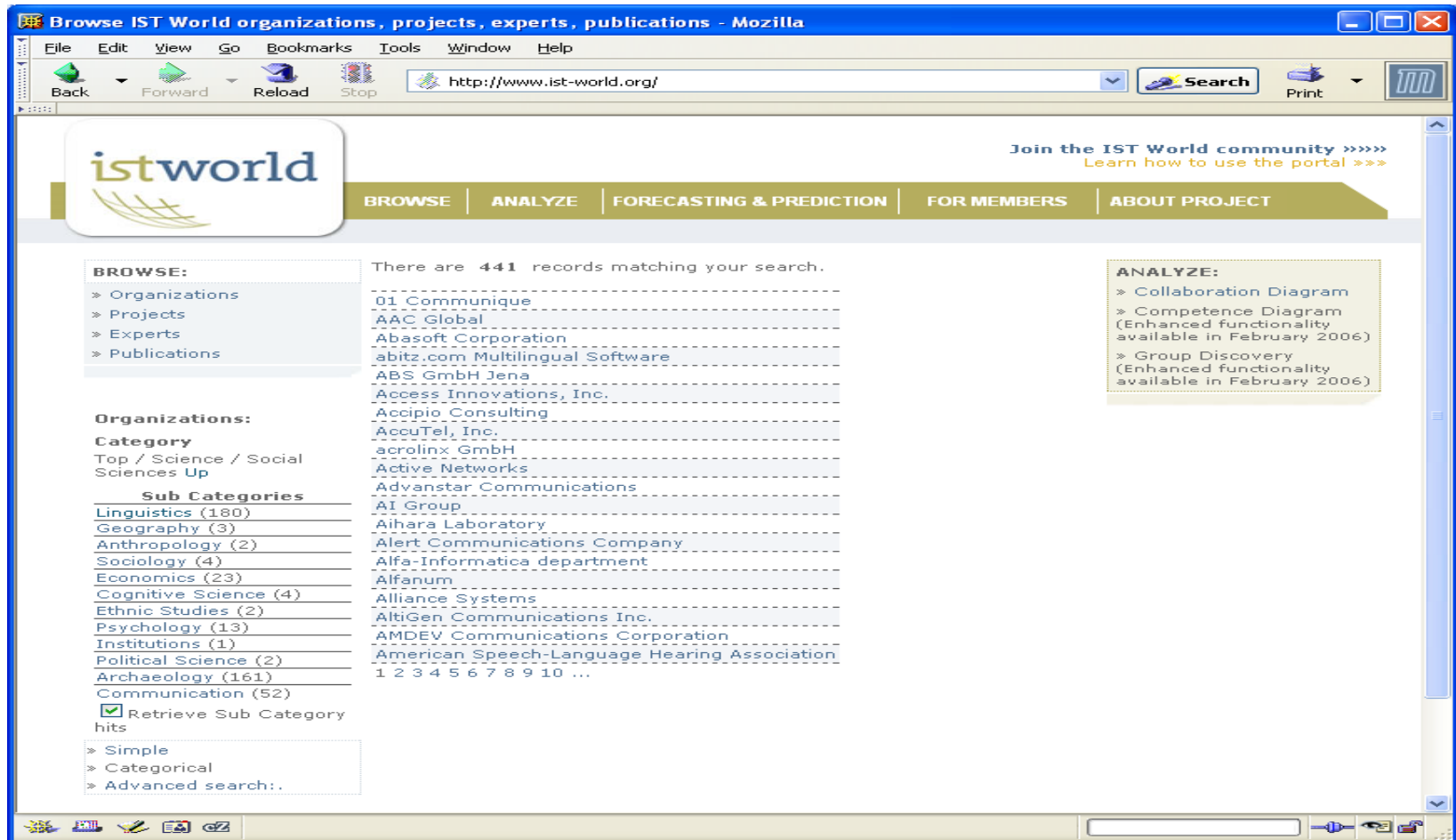
There are **61** records matching your search.

ALBERT LUDWIGS UNIVERSITAET FREIBURG
 BAYERISCHE JULIUS MAXIMILIANS UNIVERSITAET WUERZBURG
 BERGISCHE UNIVERSITAET WUPPERTAL
 CARL VON OSSIETZKY UNIVERSITAET OLDENBURG
 EBERHARD KARL UNIVERSITAET TUEBINGEN
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 JOHANNES GUTENBERG UNIVERSITAET, MAINZ
 LUDWIG MAXIMILIAN UNIVERSITAET MUEENCHEN DE
 LUDWIG MAXIMILIANS UNIVERSITAET, MUNICH, GERMANY
 OTTO VON GUERICKE UNIVERSITAET MAGDEBURG

1 2 3 4

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BROWSE | ANALYZE | FORECASTING & PREDICTION | FOR MEMBERS | ABOUT PROJECT

BROWSE:

- » Organizations
- » Projects
- » Experts
- » Publications

Organizations:

Category
Top / Science / Social Sciences Up

Sub Categories

- Linguistics (180)
- Geography (3)
- Anthropology (2)
- Sociology (4)
- Economics (23)
- Cognitive Science (4)
- Ethnic Studies (2)
- Psychology (13)
- Institutions (1)
- Political Science (2)
- Archaeology (161)
- Communication (52)

☒ Retrieve Sub Category hits

» Simple

» Categorical

» Advanced search: .

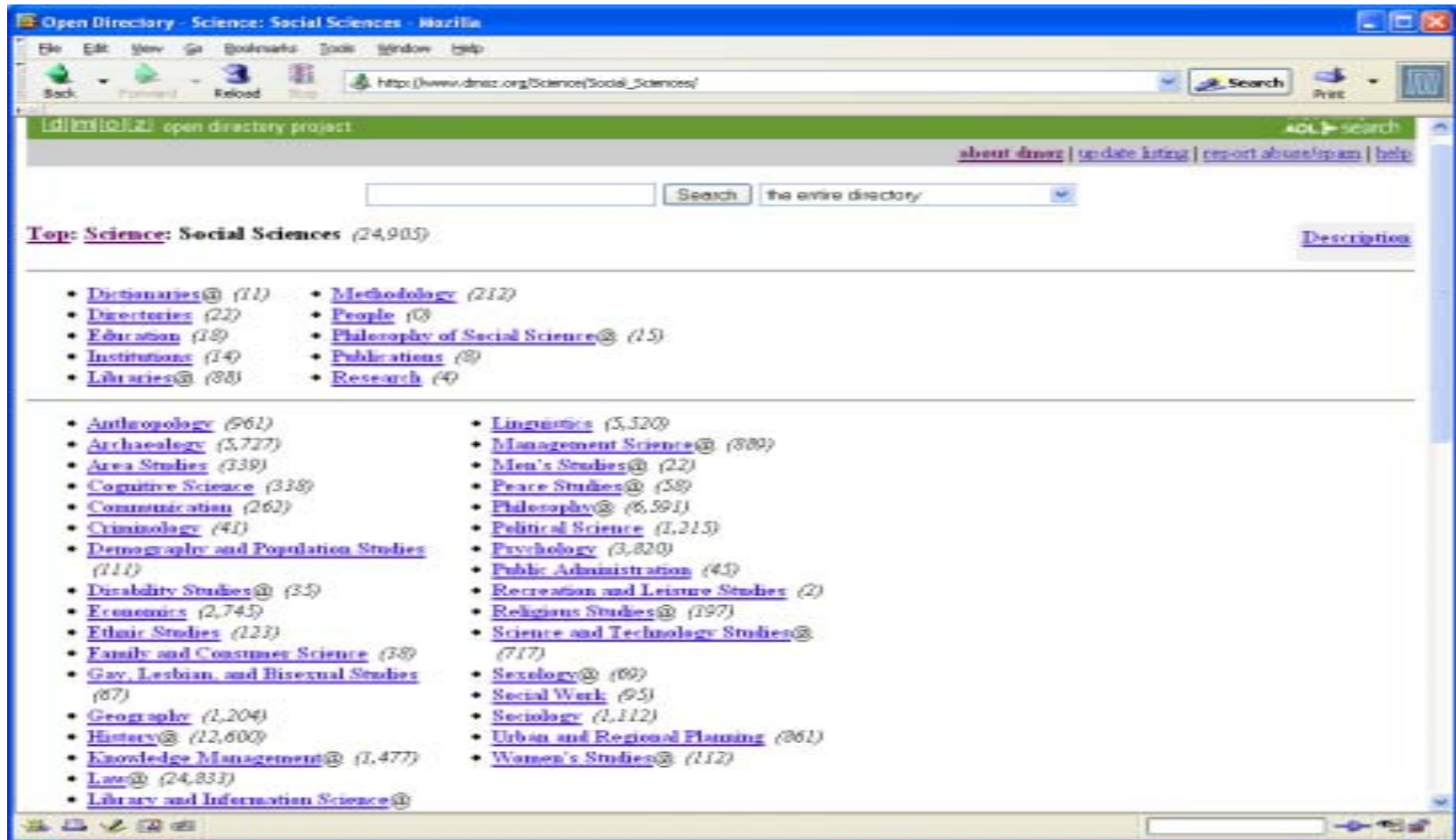
There are **441** records matching your search.

- 01 Communiqué
- AAC Global
- Abasoft Corporation
- abitz.com Multilingual Software
- ABS GmbH Jena
- Access Innovations, Inc.
- Accipio Consulting
- AccuTel, Inc.
- acrolinx GmbH
- Active Networks
- Advanstar Communications
- AI Group
- Aihara Laboratory
- Alert Communications Company
- Alfa-Informatica department
- Alfanum
- Alliance Systems
- AltiGen Communications Inc.
- AMDEV Communications Corporation
- American Speech-Language Hearing Association

1 2 3 4 5 6 7 8 9 10 ...

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- is a human-edited Web directory
- is constructed and maintained by a vast, global community of volunteer editors
- was founded in the spirit of the Open Source movement
- is 100% free with agreement to the free use licence
- powers the core directory services for the Web's largest and most popular search engines and portals, including Netscape Search, AOL Search, Google, Lycos, HotBot, DirectHit, and others.
- gives the opportunity for everyone to contribute

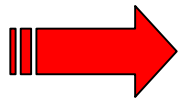
**The IST World project has a very pragmatic point of view.
It is not realistic to develop a new taxonomy:**

- DMOZ is free
- DMOZ grows with time
- DMOZ has good coverage
- DMOZ is manually populated
- Institute Jozef Stefan and Ontotext Lab already developed automatic procedures for learning and automatic classification of documents into the DMOZ taxonomy

We need to

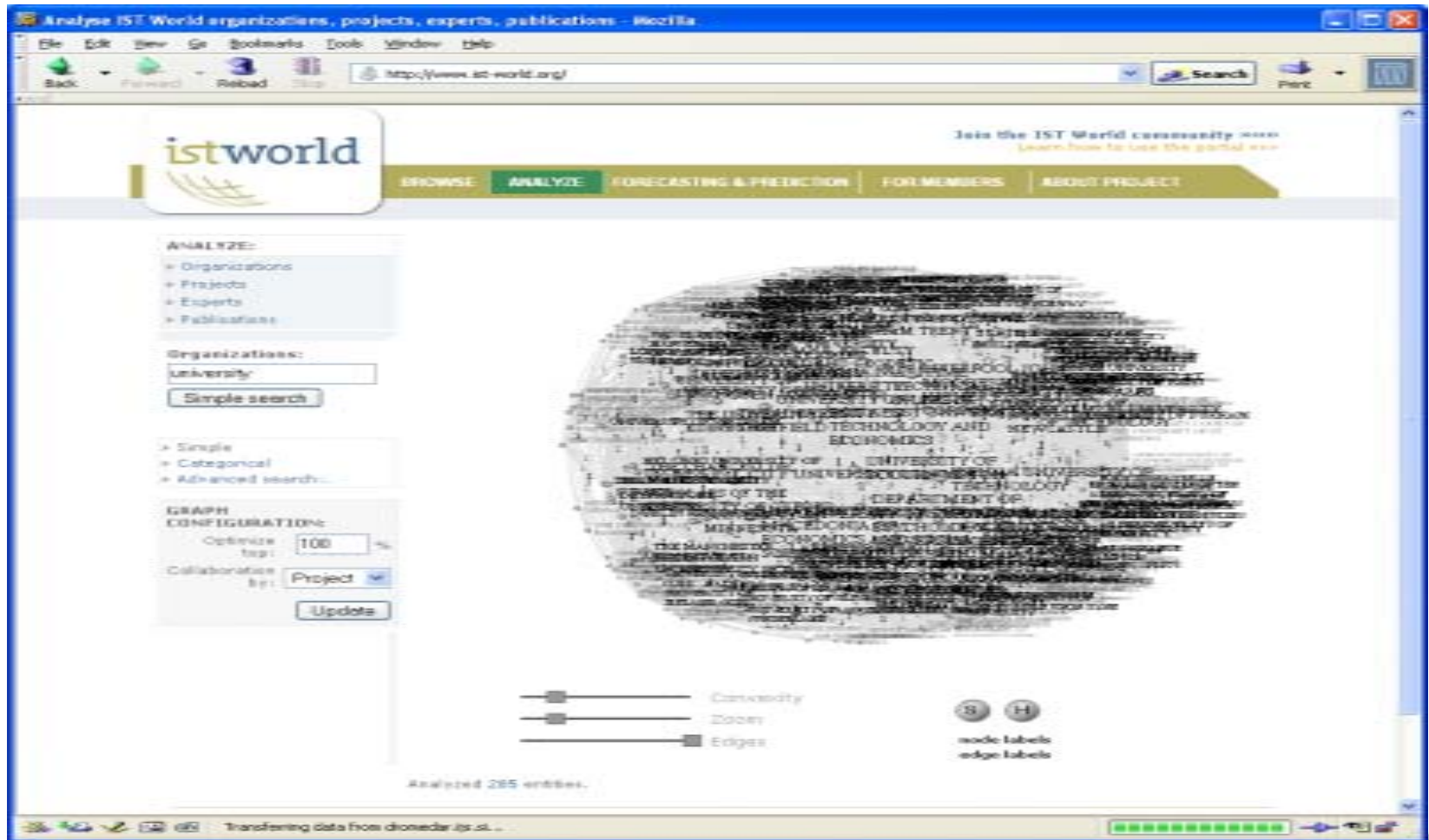
- reuse and adapt existing taxonomic schemas developed somewhere else
- learn the classification model with machine learning techniques
- have detailed coverage of scientific topics to a level which allows the recognition of individual scientific communities
- not have just general areas

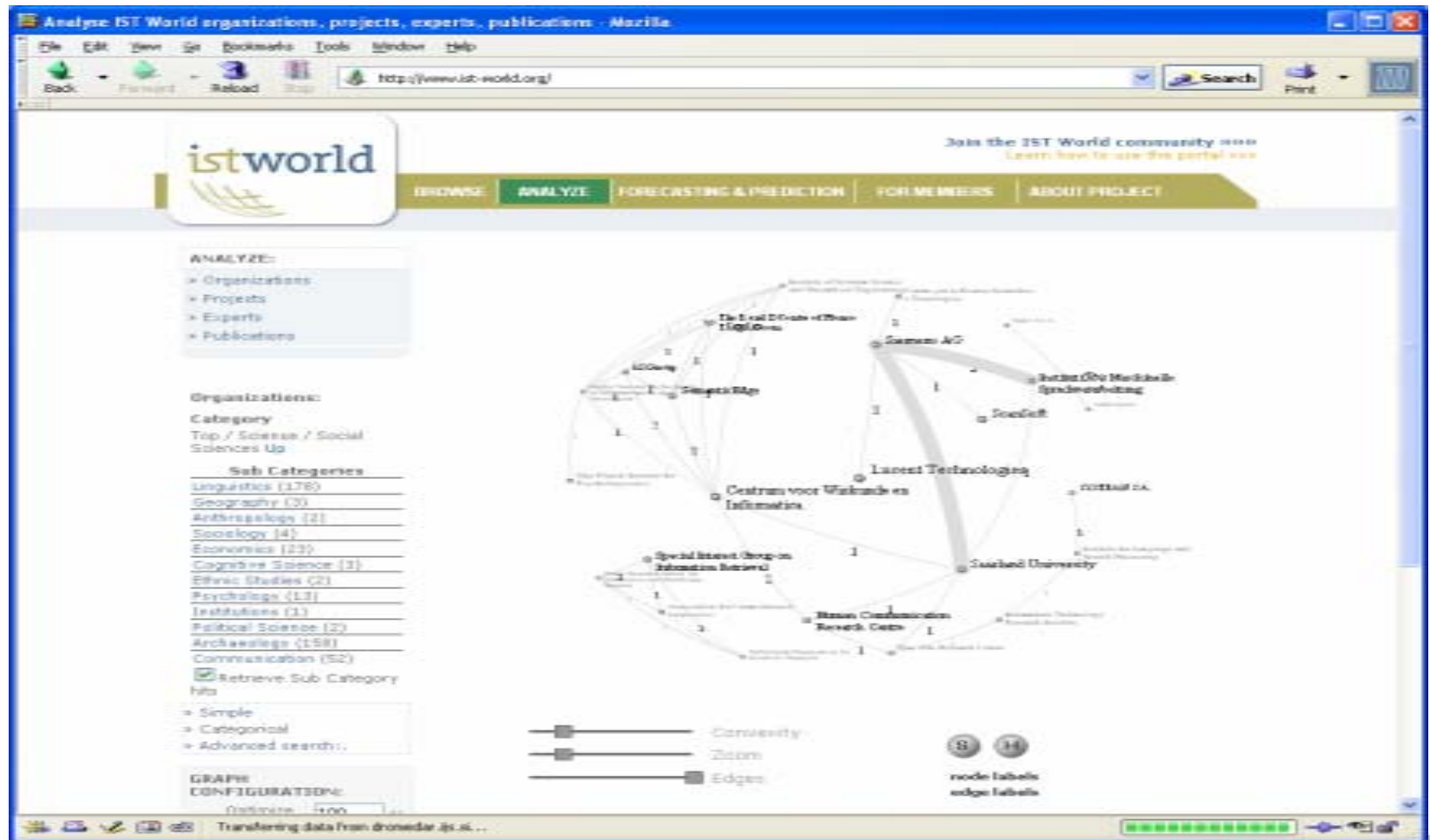
Science is changing

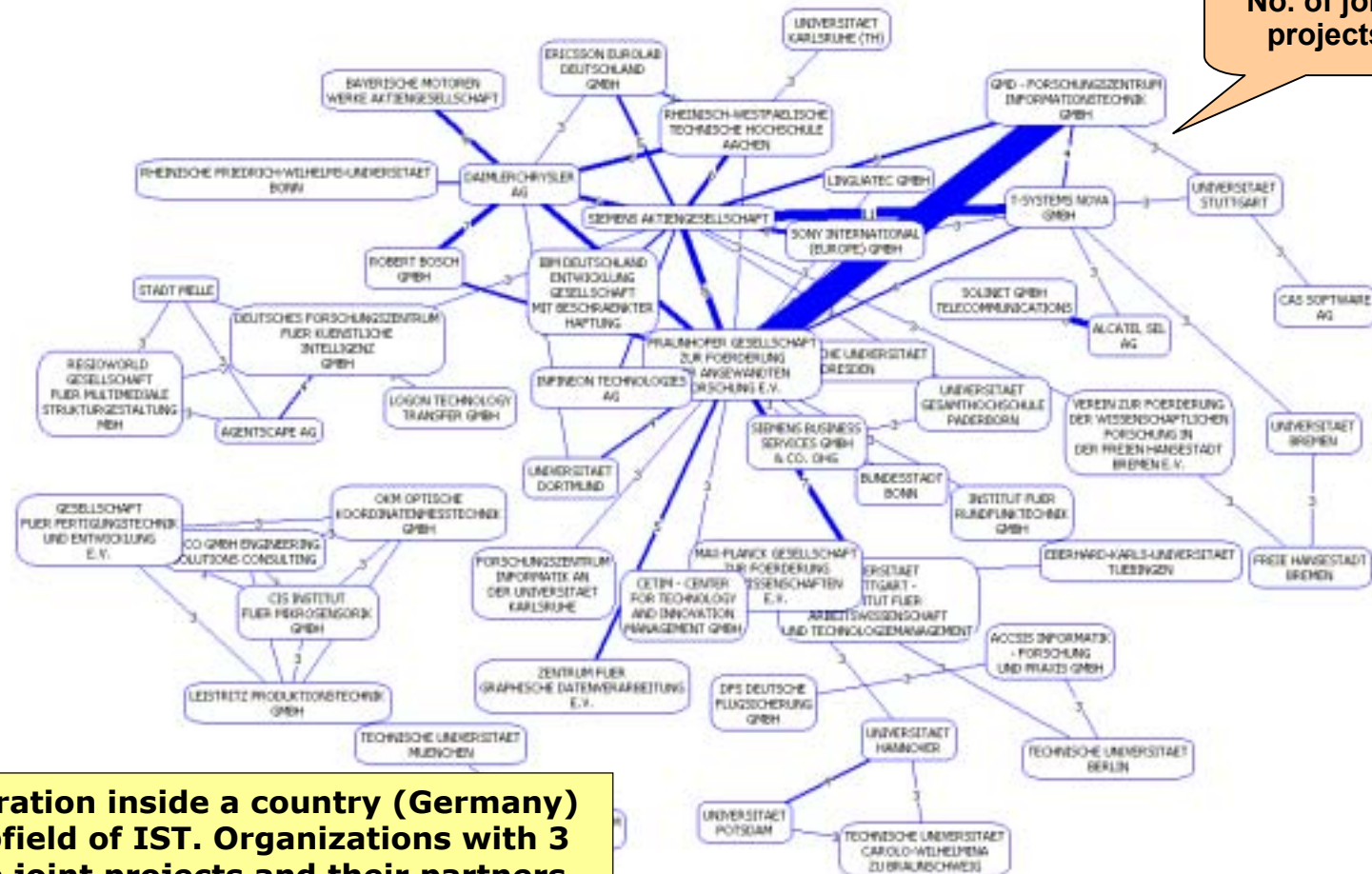


We need to have access to taxonomies which will be constantly updated

- **Social Network Identification:** analysis of the present research activities, actors, social networks and results visualized by different techniques.
- **Partner Finding Tool:** predicting the optimum consortia of partners based on their competences, experiences and trust.
- **Expertise Identification:** summarising and presenting different aspects of a person's expertise profile based on extraction of information from a potentially huge number of web search.
- **Forecasting / Prediction:** forecasting of RTD trends based on monitoring of current research initiatives, projects and achievements, and predicting possible future research themes based on automatically detected trends.



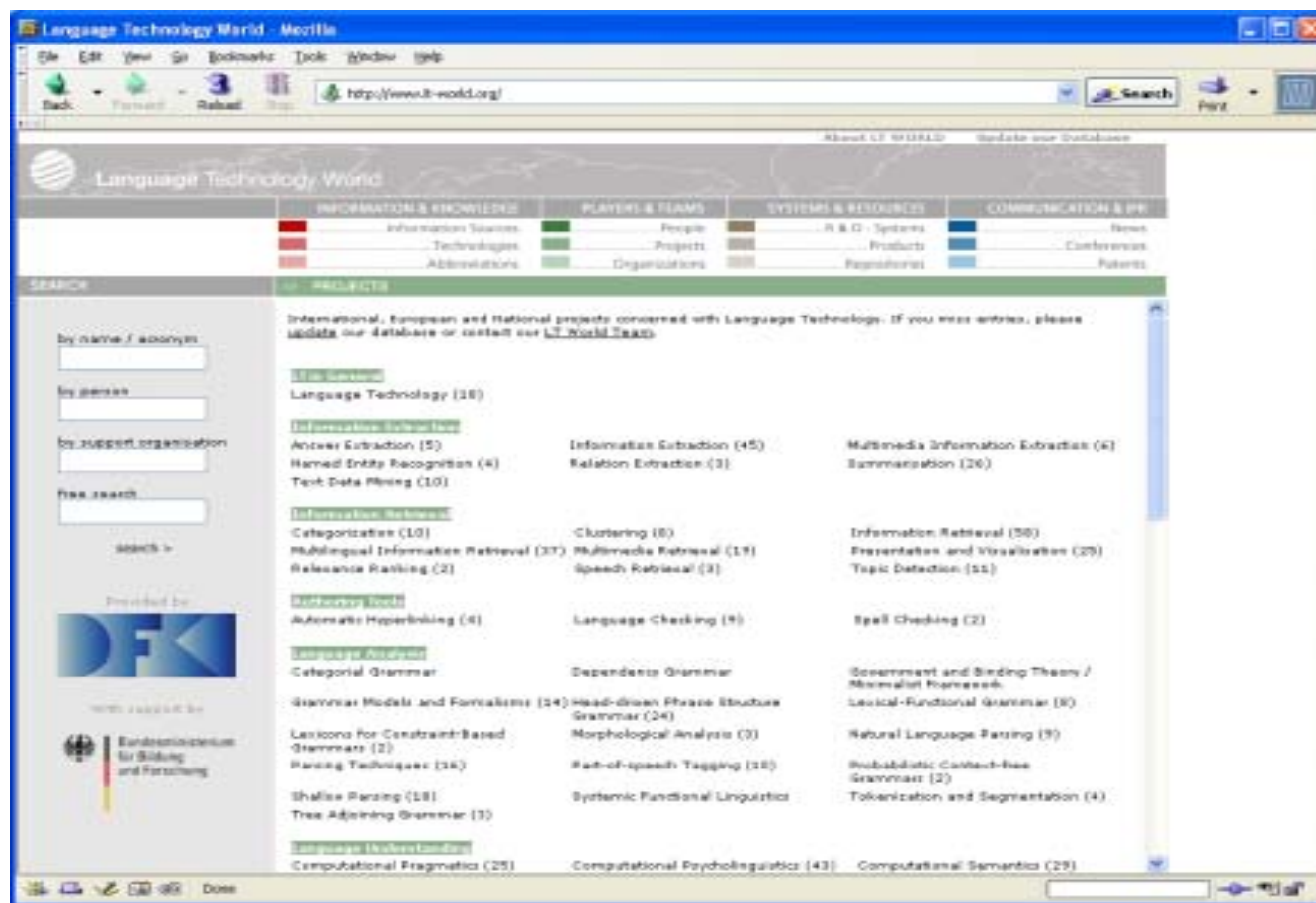




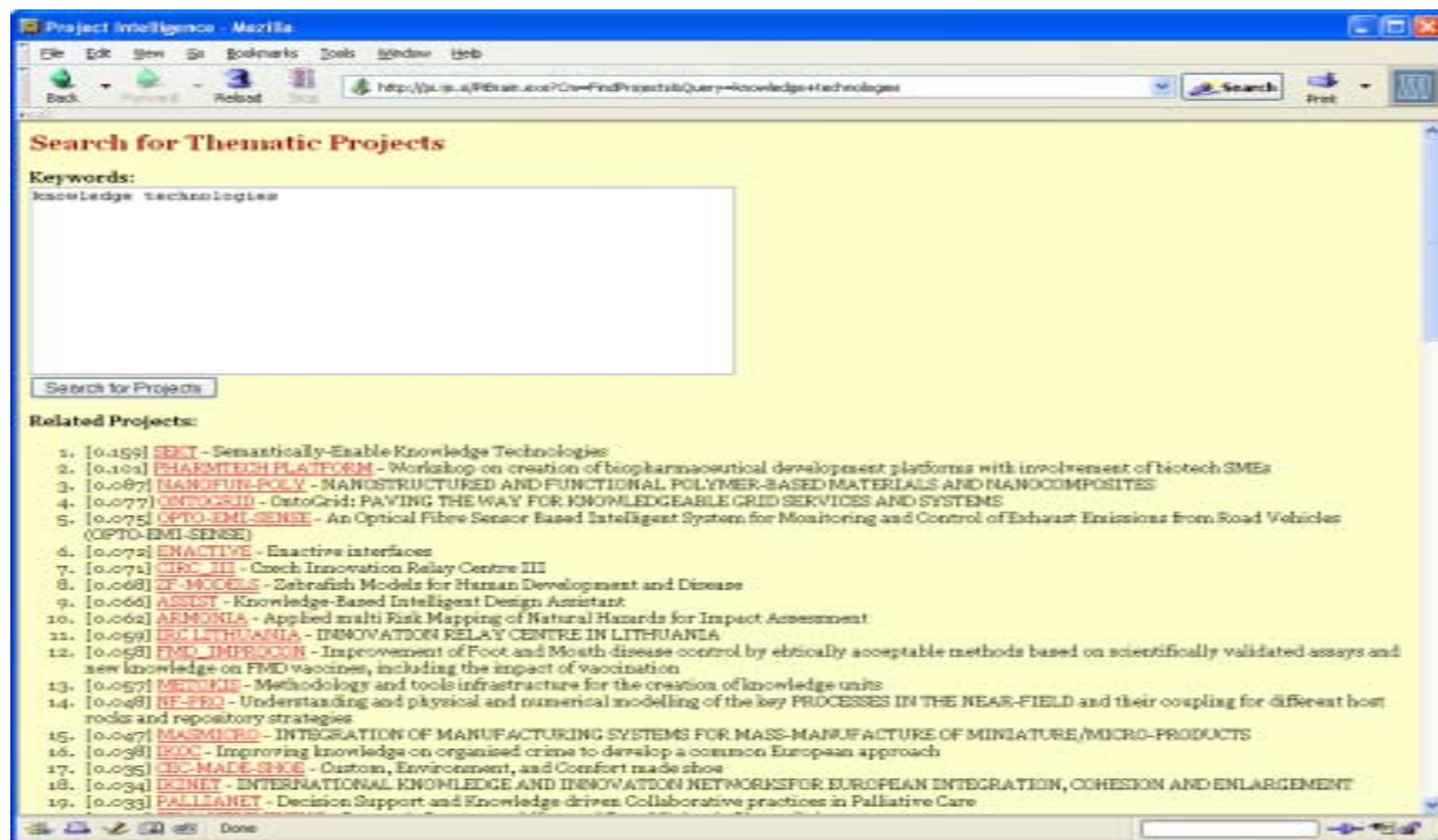
Collaboration inside a country (Germany) in a subfield of IST. Organizations with 3 or more joint projects and their partners

© Marko Grobelnik & Dunja Mladenic, JSI Ljubljana, Slovenia

Ontology-driven Knowledge portal in the field of Language Technology



„Project Intelligence“ Search Interface for CORDIS project database



- **Organizations from all countries looking for specific RTD competencies**
- **Organizations and service providers from NMS/ACC wishing to promote their own competencies**

- **Contribution to the construction of the European Research Area, which functions as a “common market” for RTD services, technologies, and experts.**
- **Make market activities more efficient by providing high-quality information that enables an improved matching of demand with supply.**

- **Provision of a map of research competencies in Europe and the NMS/ACC in particular, revealing local strengths and clusters of innovative organizations, as well as gaps and weaknesses in particular areas.**
- **Data mining and visualization technologies will allow the detection and analysis of patterns in the data, and will be of use for partner search, investors and policy-makers**

- **Month 5**
First version of the portal with basic functionality
- **Month 11**
Enhanced version of the portal with added functionality (visualization, data mining for relationships)
- **Month 18**
Second version of the portal with full functionality
- **Month 24**
Improved version of the portal,

Next Steps

- Continue with further data imports
- Data consolidation
- Improvement of performance of analytic tools
- Web forms for community contribution
- Limited version of knowledge map
- Improvement of the classification model

Long-term Prospects

- Top-down approach (Ontology) with semantic annotation of content for improved navigation and search functionalities
- Transfer of analytic tools to other CERIF-based systems