Education and Culture DG

Lifelong Learning Programme

Database Technology Professional Extended
DBTech EXT

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This presentation is the result of collaborative work undertaken along the lines of the DBTechNet Consortium. The speakers participate in DBTech EXT, a project partially funded by the EU LLP Transversal Programme (Project Number: 143371-LLP-1-2008-1-FI-KA3-KA3MP

Database Technology Professional Extended

DBTech EXT

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Lifelong Learning Programme

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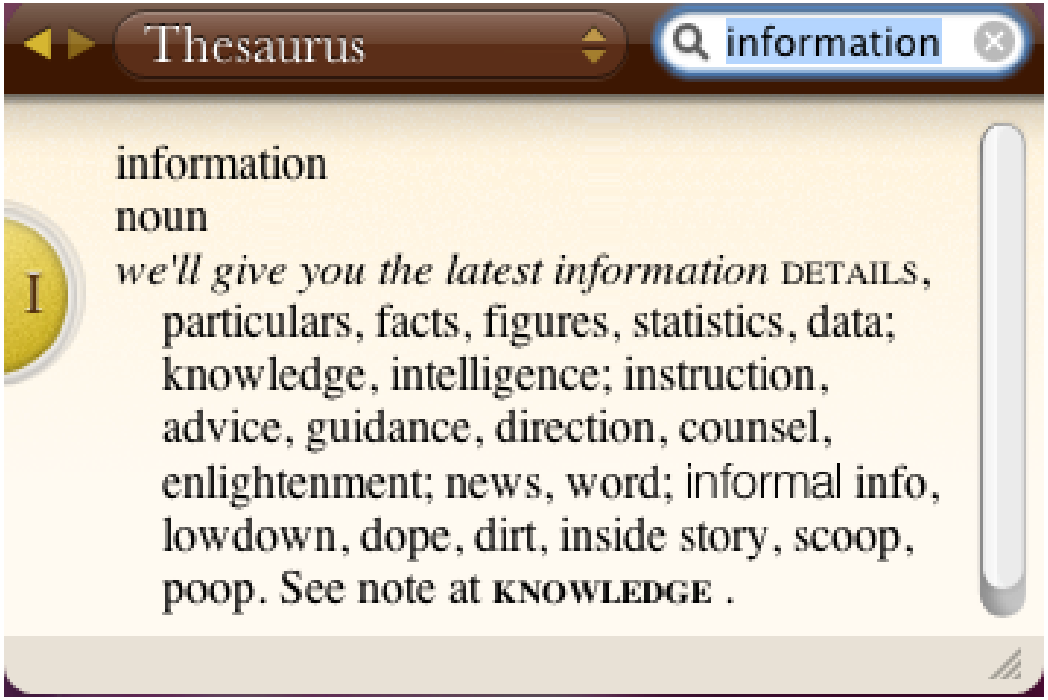
DBTech EXT WP6 (Dissemination) Leader

The Modern DBMS

- Algorithms and data unified by integrating programming code
- Non-procedural operators that manipulate extensible object sets
- Multi-dimensional data organization to facilitate analytical processing
- Data mining and machine algorithms to extract useful information from large volumes of data
- Embedded text, temporal and spatial access methods
- Stream processing, replication, distribution, web services, publish subscribe systems, xQuery access patterns, etc., etc.

- J. Gray, The Revolution in Database Architecture, ACM SIGMOD, June 2004

The Next Quantum Leap is Just Around the Corner



… from data organization and processing to semantic model / ambient intelligence realizations leading to systems that proactively offer 'just-in-time' information in a subtle, non-intrusive way

The Challenge

For Teachers/Trainers:

- **Required to cope with a number of (often: cross-disciplinary) specializations and skills**
- **In the absence of super-human abilities, they need to collaborate / unite forces**

For the DB Professionals:

- **Further education, training, certification**
- **Life Long Learning (utilizing ICT to achieve both effectiveness, as well as flexible learning/studying time scheduling)**

For Education: yet one more reason to **Go Open**:

MIT OpenCourseWare, *OpenCourse*, *iTunes U* (*Universities*)

DBTechNet Mission (SQL) Statement

SELECT U.Academics, I.Professionals, V.Teachers_Trainers

FROM EU_Universities U, EU_Industry I,
EU_VET_Centers V

WHERE (Motivation = High)
AND (Enjoy (Teaching, Training))
AND (European Conscience = High)
AND (NOT (Represent (EU.Brand Name))
AND (Specialize_in_Database_Technology)
AND (Focus_on_Professional_Education_Training)
AND (Rate_High_Pedagogical_Correctness)

GROUP BY Workgroups

HAVING ('Hands-On' Educational/Training/WS&VLW Content, Professional Certification Framework, & more...) **AS** Deliverables

DBTechNet Flashback

- Established in 1997
- DBTech Pro: 12/2002-05/2005

  8 HE institutions, 4 I.T. companies,
  5 E.U. member states,
  E.U. LdV Programme,
  €443,458
  http://dbtech.uom.gr

DBTech EXT in a nutshell

Inner Circle:

- 6 EU member states represented
- 7 HE academic institutions
- 3 VET centers
- 1 I.T. company

Outer Circle:

- 9 EU member states represented
- 13 HE academic institutions
- 5+ VET center(s)
- 8 I.T. companies/DBMS vendors

Project duration: Nov 2008 – Dec 2010

Funding: LLP Transversal Programme (€508,391)

DBTech EXT on the map

HAGGA-HELIA (co-ord.)
Tieto Public Industry
Finnish Business College
Omnia

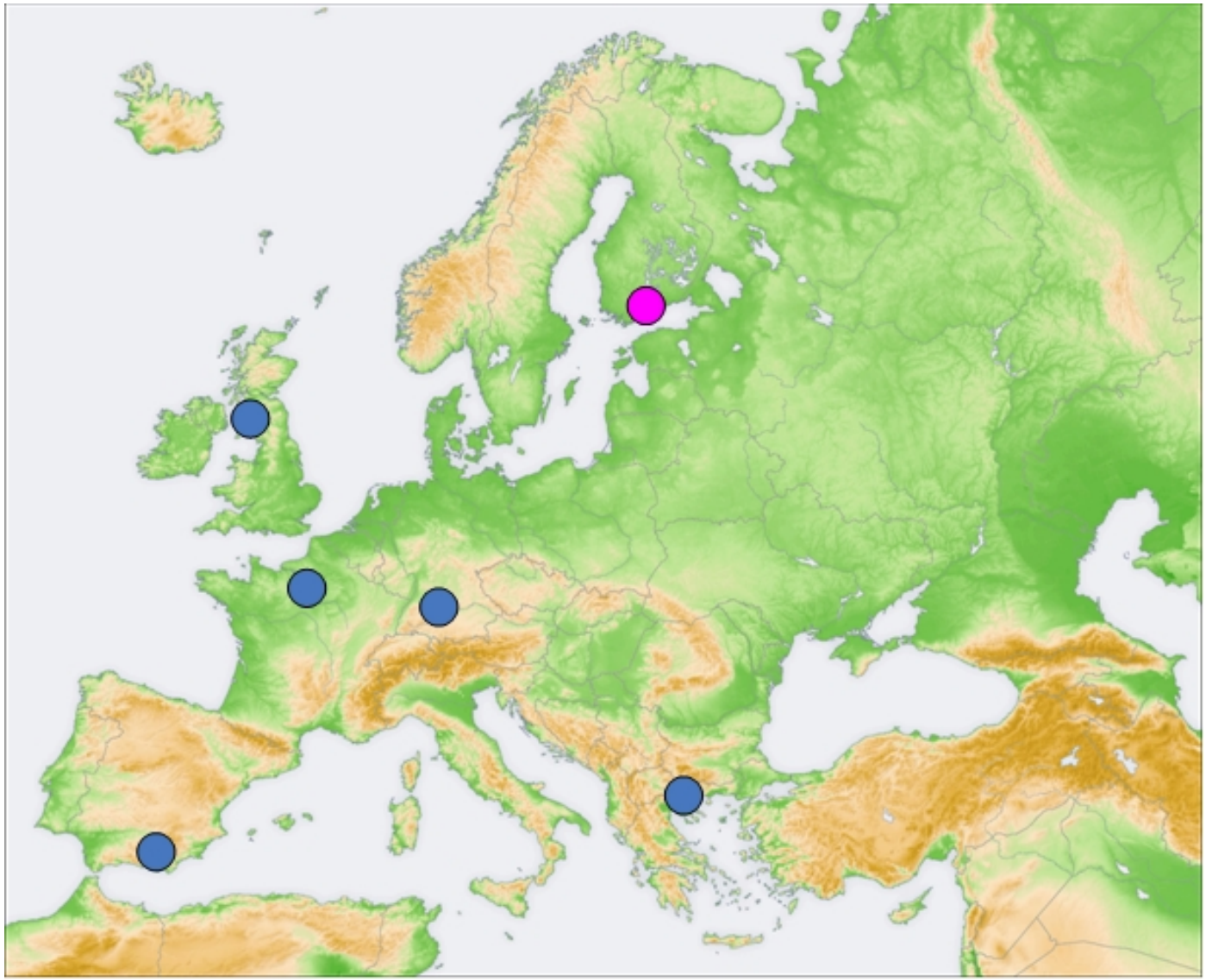
Univ. West of Scotland

Univ. of Malaga
IES Politecnico Jesus Marin

Groupe ISAIP-ESAIP

Univ. of Reutlingen

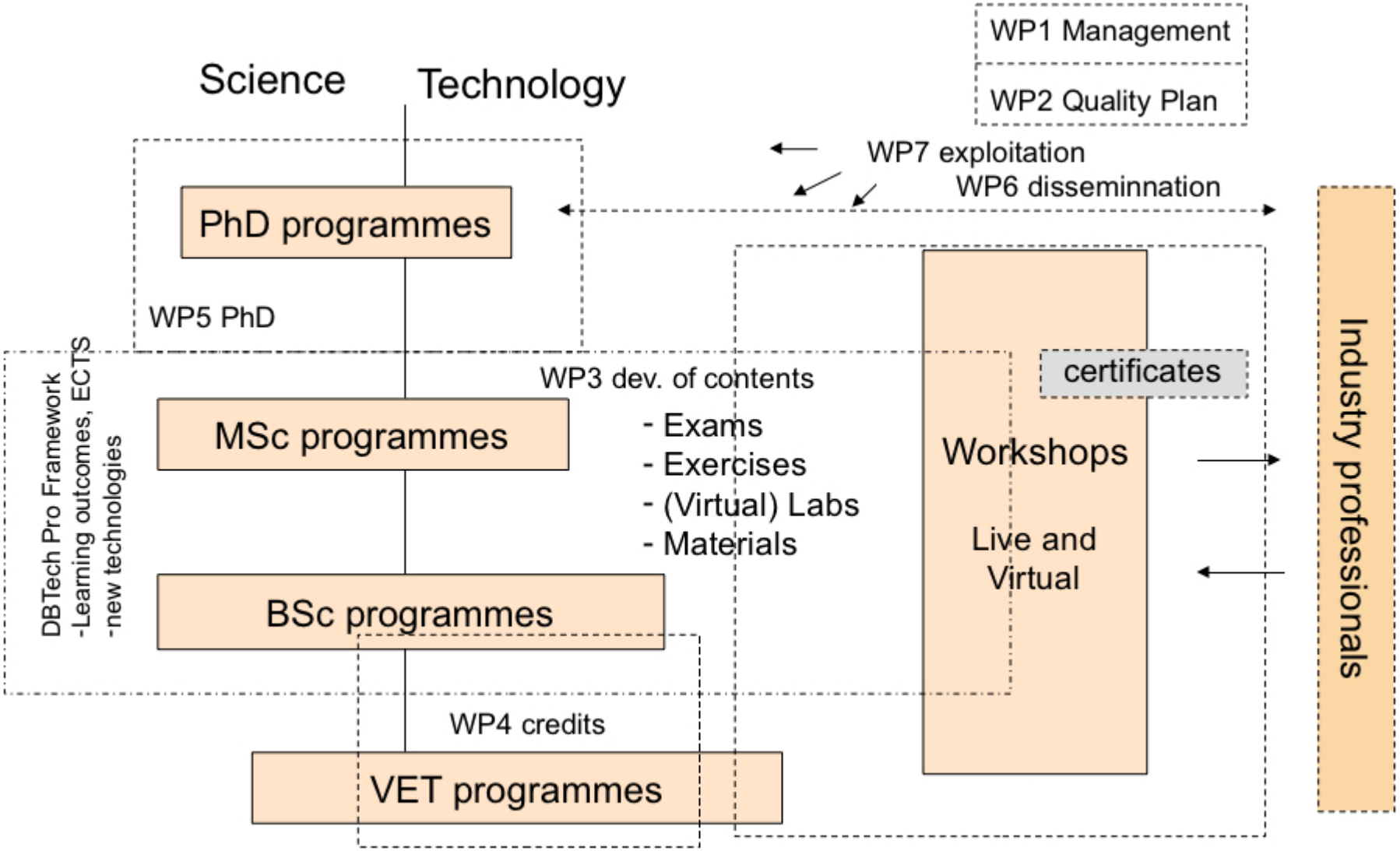
Alexander TEI
Univ. of Macedonia



DBTech EXT WorkPackages (WP)

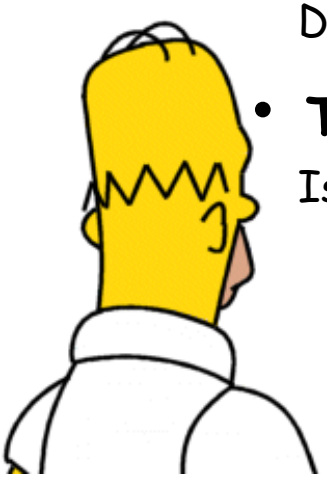
WP1 (HH) : Project co-ordination and Management
WP2 (ATEI): Pedagogy and Quality Assurance
WP3 (HRT) : Framework of Courses, Learning Outcomes (EQF/ECTS), Workshops
WP4 (SLK) : The VET Dimension of the DBTech (HE) Framework
WP5 (UMA): MSc/PhD Professional Degrees in Database Technologies
WP6 (ATEI): Project Deliverables, Dissemination of
WP7 (UoM): Project Results, Exploitation of

DBTech EXT WorkPackage Interrelationships



Coming Up Next

- **DBTech EXT Workshops and Virtual Labs**
  Fritz Laux, Reutlingen University
- **Concurrency Control & Recovery VLW**
  Martti Laiho & Kari Silpiö, HAAGA-HELIA Univ. of Applied Sciences, Helsinki
- **Distributed, Mobile & Embedded DBs VLW**
  Antonio César Gómez Lora, University of Malaga
- **BI & Knowledge Discovery from Databases VLW**
  Dimitris A. Dervos, Alexander TEI, Thessaloniki
- **Towards Professional MSc/PhD degrees in DB Technologies**
  Ismael Navas Delgado, University of Malaga



Happy
DBTech-ing!