

# EChemTest®: the standard EU Chemistry tests

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#### SUMMARY

- 1) THE ECTN MISSION
- 2) EUROLABELS VERSUS ECHEM-TEST
- 3) ECHEMTEST DEMO
- 4) ACADEMIC USE OF THE ECHEM-TEST LIBRARIES
- 5) THE ECHEMTEST INFRASTRUC-TURE
- 6) THE AGENCY MODEL FOR INDIVIDUAL CERTIFICATES

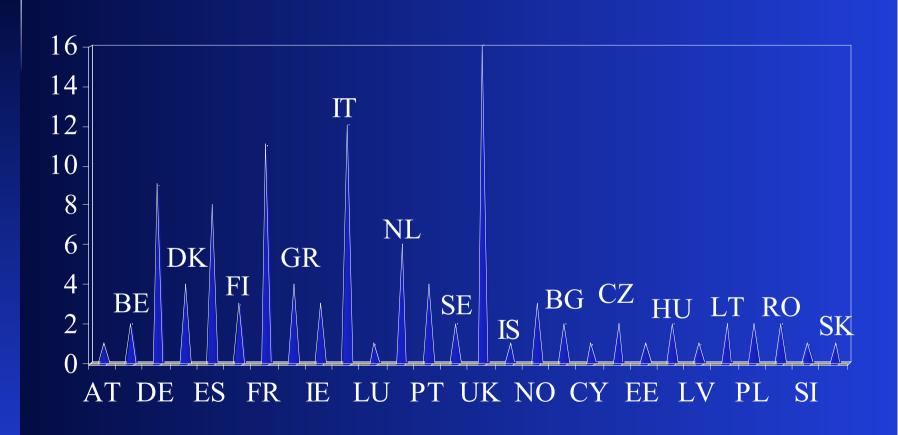
### 2) EUROLABELS vs ECHEMTEST

- A. EUROLABELS®: harmonization of Higher Education chemistry studies A1. quality labels in EU education A2. certification for University quality
- B. ECHEMTEST®: e-tools in learning and teaching
- B1. e-assessment of chemistry knowledge
- B2. academic service (marks and ECTS)
- B3. certification for individuals

## 1) ECTN MISSION: 20 YEARS AFTER FOUNDATION

- 1996 ECTN (European Chemistry Thematic Network) project launched within the SOCRATES/ERASMUS Programme
- The project starts as a follow up of EU PIC Erasmus mobility programme
- ECTN leverages on the concerted action of 3
   British people teaching outside England: A.K.
   Smith (France), T. Mitchell (Germany), R.
   Whewell (Scotland) plus .....

## Membership of ECTN by country



## EUROLABELS (2003) THE IMPLEMENTATION ROADMAP

- TARGET: TUNING & BOLOGNA PROCESS
- OPERATIONAL MODEL: DIRECT or FRANCHISING
- PRODUCT: QUALITY CERTIFICATION OF A EU FRAMEWORK OF CHEMISTRY CYCLES
- TRADEMARKS: Eurobachelor®, Euromaster®, Eurodoctorate®



#### **EChemTest®**

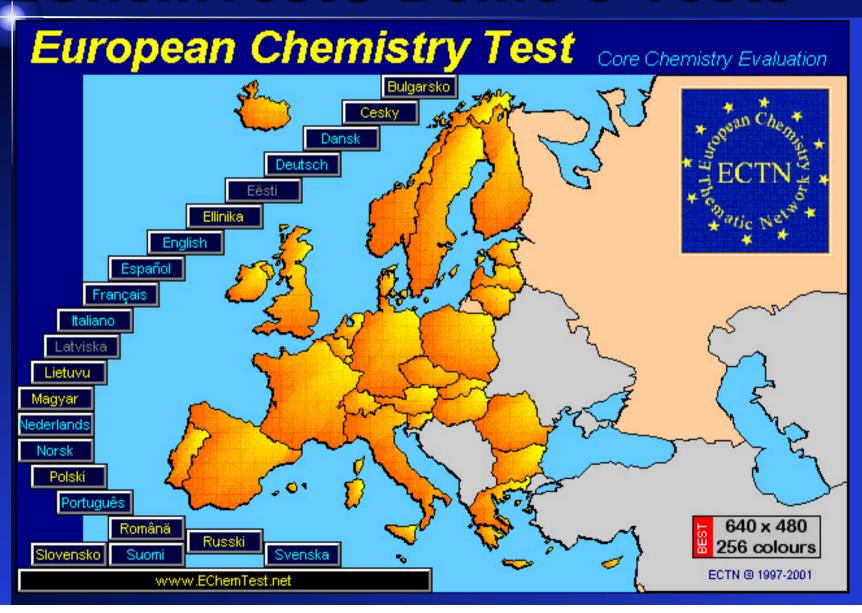
A SET OF ELECTRONIC TESTS IN CHEMISTRY OF VARIOUS LEVELS OF COMPLEXITY TO BE USED TO ASSESS THE EXTENT OF KNOWLEDGE IN THE FIELD

## 3) Demo sessions

- 6 Sample tests generated from the whole database
- Translated into many languages
- Training tool for the certification test
- Free access of the Demo-Tests on the Internet (upon registration)

http://www.EChemTest.net

# WEB EChemTest® Demo e-Tests



## 4) ACADEMIC USE

#### To evaluate

- chemistry knowledge deficits before taking courses
- most suitable thesis research area for the student
- chemistry understanding in a foreign language

#### To monitor

- progress in student exchange programs
- student's career progression
- life long learning process in adult education

### Progress in EChemTest® levels

- 1. School level
  - General Chemistry 1
- 2. University access to Chemistry related degrees
  - General Chemistry 2
- 3. Bachelor level in Chemistry
  - Analytical Chemistry 3
  - Biological Chemistry 3
  - Inorganic Chemistry 3
  - Organic Chemistry 3
  - Physical Chemistry 3
- 4. Master level
  - Synthetic Chemistry 4
  - Computational Chemistry 4
  - Cultural Heritage 4

#### SELF-EVALUATION SESSION

- Passed in Accredited Test Sides (ATS)s under controlled conditions
- One hour long test
- 30 questions randomly selected from the proper database
- The database is made by over 3000 certified questions of different typologies
- Reports produced by the ATS must be validated by the National Test Centre (NTC) and communicated to the VEC SC for general statistics

## 5) INFRASTRUCTURE

updated: 27-07-2015 01:12

Test Centres Designation  Monitored activities	
Austria - Vienna University of Technology  Austria: Mainland (GÖCh); Germany: Hochshule Fresenius, Idstein;	.TCA.Vienna@echemtest.euwww.echemtest.eu/tc/AT_TUVienna.htm.
Finland - University of Helsinki Finland: U. Lappeenranta U. of Technology; U. Oulu;	.TCA.Helsinki@echemtest.euwww.echemtest.eu/tc/FI_UHelsinki.htm.
France - CPE Lyon  Morocco: U. Sidi Mohamed ben Abdellah, Fès;	.TCA.Lyon@echemtest.euwww.echemtest.eu/tc/FR_CPELyon.htm.
Greece - Aristotle University of Thessaloniki Greece: U. Ioannina; Bulgaria: U.C.T.M., Sofia;	.TCA.Thessaloniki@echemtest.eu .www.echemtest.eu/tc/GR_AUThessaloniki.htm.
Hungary - Étvös Lörand University of Budapest	. <u>TCA.Budapest@echemtest.eu</u> <u>www.echemtest.eu/tc/HU_ELUBudapest.htm</u> .
Italy - University of Perugia Italy: University of Genoa; University of Milano as Associated Test sites;	.TCA.Perugia@echemtest.eu .www.echemtest.eu/tc/IT_UPerugia.htm.
■ Netherlands - University of Amsterdam  South-Africa: TUT	.TCA.Amsterdam@echemtest.euwww.echemtest.eu/tc/NL_UAmsterdam.htm.
Poland - Jagiellonian University of Technology	. <u>TCA.Krakow@echemtest.eu</u> www.echemtest.eu/tc/PL_JUKrakow.htm.
Slovenia - University of Ljubljana	.TCA.Ljublijana@echemtest.euwww.echemtest.eu/tc/SI_ULjubljana.htm.
Spain - University Complutense of Madrid	.TCA.Madrid@echemtest.euwww.echemtest.eu/tc/ES_UCMadrid.htm.

# Extensions of EChemTest® usage

- Links with Open and Distance Teaching University activities
- Open Science repository
- Virtual reality Laboratories
- Links with schools
- Newly appointed university teaching staff

## Links with some member chemical societies

- EUCHEMS
- Royal Society of Chemistry
- Gesellschaft Deutscher Chemiker
- Società di Chimica Italiana
- Czech Chemical Society
- Slovak Chemical Society
- Lithuanian Society of Chemists
- Société Chimique de France

#### **VEC Media**

- specific websites
- electronic newsletter edited quarterly (ISSN)
- education section of the biannual e-magazine VIRT&L-COMM (ISSN, OJS, DOI)
- disseminated to over 50 Countries worldwide
- Involving over 300 Universities, Networks and National bodies
- See more www.EChemTest.net/news/

#### **VEC TASKS: DETAIL**

- discuss the conditions of the service
- pay the fees (presently QM for PERCEPTION)
- manage the EChemTest central server (service)
- maintain libraries (correctness and adaptation to evolving standards)
- extend English libraries (through discipline groups)
- coordinate maintenance of translations (through NTCs)
- generate self-evaluation sessions (through NTCs)
- define general metrics, produce general statistics
- take care of general dissemination and advertisement
- run training events
- provide (in three years time) incomes for its costs

#### NTC TASKS: DETAIL

- discuss with VEC the conditions of the service
- manage the EChemTest national server (service)
- maintain translated libraries and propose extensions
- generate self-evaluation sessions (through NTCs)
- define national metrics and produce national statistics
- take care of national dissemination and advertisement
- provide (in three years time) incomes for its costs

#### **ATS TASKS: DETAIL**

- manage self-evaluation sessions (SES),
- generate SES reports
- define local metrics and generate local statistics
- take care of local dissemination and advertisement
- provide (in three years time) incomes for its costs

## ECHEMTEST STANDING COMMITTEE (SC) MODEL

LC STAND. COMM.

VEC STAND. COMM.

## ECTN ASSOCIATION THE LC AGENCY MODEL

- DIRECT OPERATIONS when requested and outside EU (Fee and cost paid to LC (ECTN)).
- FRANCHISING: (LC Agencies paying a per accreditation fee) in important national communities. Universities pay fees and costs to the agencies
- AGENCIES: ASIIN (Germany), SCI (Italy), RSC (United Kingdom), UKA (Poland), ANECA (Spain) Governmental agency.

#### LABEL SC STRUCTURE

