



# Pharmine

## **PHARMacy education IN Europe**

PHARMINE Final Report Meeting  
Lisbon, 25<sup>th</sup>. June 2011

Jeffrey ATKINSON

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# Programme

Time	Speaker	
0900-0910	Bart Rombaut	Welcome
0910-0925	Jeff Atkinson	WP7 survey and database
0925-0940	Ian Bates and WP3 members	WP3
0940-0955	Roberto Frontini and WP4 members	WP4
0955-1010	Bart Rombaut and WP5 members	WP5
1010-1025	José Morais and WP6 members	WP6
1025-1040	Jeff Atkinson	PHARMINE-2 & 3
1040-1100	Bart Rombaut moderator	General discussion



# PHARMINE aims & objectives

- Identify, localize & survey EU HEI's
- Produce core competency curricula with later Delphi/tuning for validation
- Produce a new EU curriculum model for pharmacy with later QA (QA-PHAR)
- Apply PHARMINE paradigm to other regions (PHAR-EE for Balkans...)



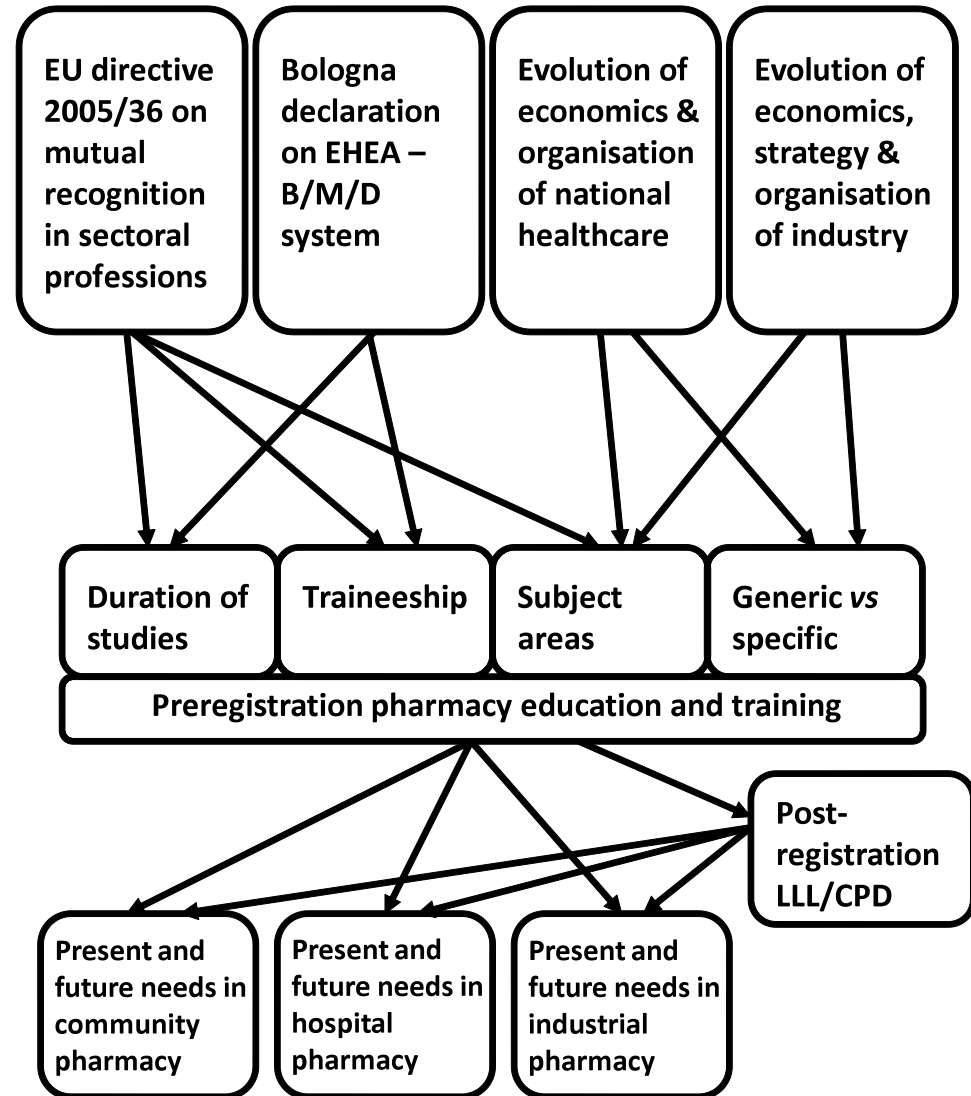
# Why PHARMINE?



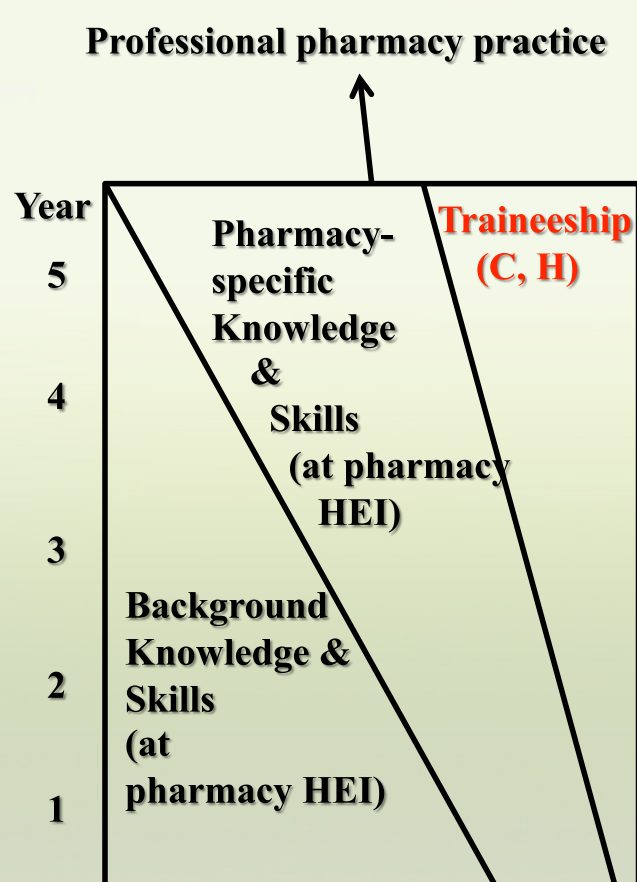


## The PHARMINE paradigm

### DEMAND



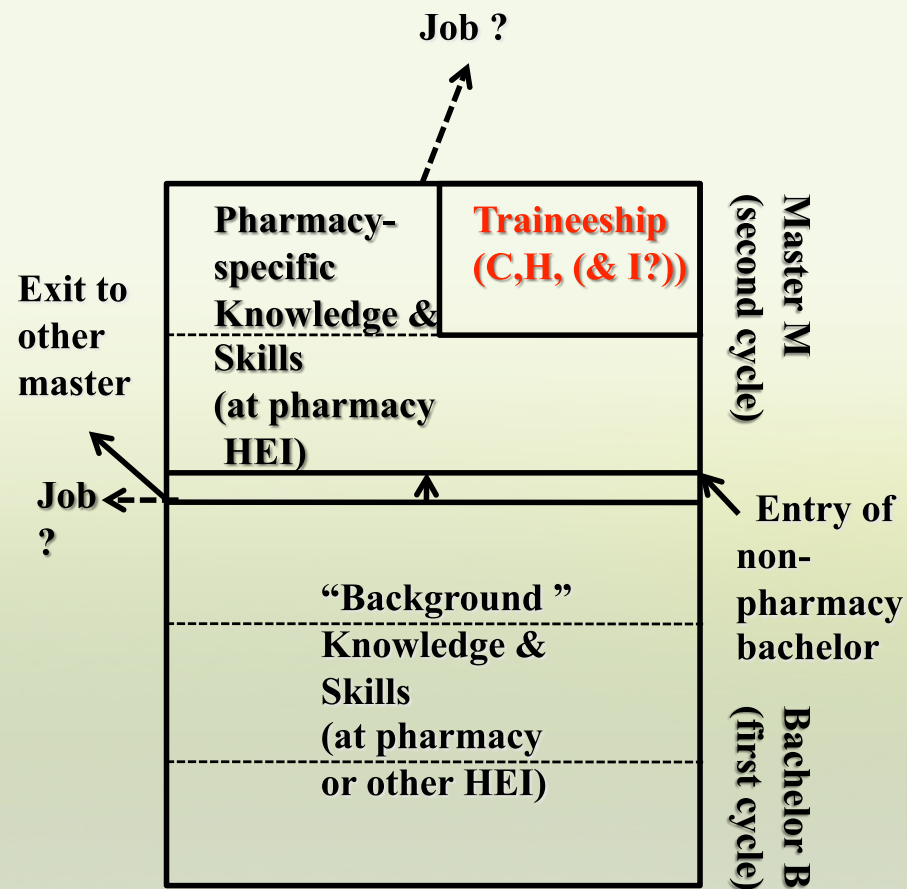
### SUPPLY



## Sectoral profession model (EU law)

Seamless “tunnel” (B and M fused)

Aim: recognition of Professional qualifications



## Bologna model (EU declaration)

Two cycles/tiers (B and M separate)

Aim: European Higher Education Area (EHEA) – mobility and employment



# PHARMINE (WPs)

Work package number	Work package type	Work package title	Start	End
WP1	MNGT	Management and steering committee	1	24
WP2	DISS	Dissemination of results	12	24
WP3	EXP	Exploitation of results- recommendations on competency curriculum for professional pharmacists	6	24
WP4	EXP	Exploitations of results – recommendations on competency curriculum for pharmacy specialisation (hospital)	6	24
WP5	EXP	Exploitations of results – recommendations on competency curriculum for pharmacy specialisation (industrial)	6	24
WP6	QPLN	Quality assurance	12	24
WP7	DEV	Development – Databank of EU HEIs delivering pharmacy education and training and task force for the survey of competency curricula	1	24



# WP1 Management



# Summary table of partners

Partner/

<u>Country</u>	<u>Legal name</u>	<u>Type</u>
P1 BE	Vrije Universiteit Brussel (Bart Rombaut, administrator)	EDU-UNIV
P2 FR	Nancy University	EDU-UNIV
P3 UK	University of London	EDU-UNIV
P4 PT	University of Lisbon	EDU-UNIV
P5 FR	European Pharmaceutical Students' Association (EPSA)	ASC-STD
P6 BE	Pharmaceutical Group of the European Union (PGEU)	ENT-PROFS
P7 NL	European Association of Hospital Pharmacists (EAHP)	ENT-PROFS
P8 UK	European Industrial Pharmacists Group (EIPG)	ENT-PROFS
P9 FR	Pharmacolor Consultants Nancy (Jeffrey Atkinson, executive director)	SME





## Participating countries

Austria

C. Noe, Vienna

Belgium

B. Rombaut, Brussels

Bulgaria

V. Petkova, Sofia

Czech Republic

M. Polasek, Prague

Denmark

U. Madsen, Copenhagen; M. Brandl, Odense

Estonia

P. Veski, D. Volmer, Tartu

Finland

J. Hirvonen, Helsinki

France

A. Marcincal, Lille

Germany

R. Süß, Freiburg

Greece

M. Rekkas, Athens; K. Poulas, Patras

Hungary

G. Soos, Szeged

Iceland

*T. Kristmundsdottir, Reykjavik*

Ireland

J. Strawbridge, Dublin

Italy

C. Rossi, Perugia

Latvia

R. Muceniece, B. Maurina, Riga

Lithuania

V. Briedis, Kaunas

Malta

L. Azzopardi, Msida





## Participating countries

Norway

*K. M. Ulshagen, Oslo*

Poland

S. Polak, Krakow

Portugal

J. A. G. Morais, Lisbon

Romania

C. Mircioiu, Bucarest

Slovakia

J. Kyselovic, Bratislava

Slovenia

B. Rozic, Ljubljana

Spain

B. Del Castillo-Garcia, Madrid; L. Recalde-Manrique,  
Granada

Sweden

R. Hansson, Uppsala

The Netherlands

T. Schalekamp, Utrecht, H. Haisma, Groningen

Turkey

*F. Hincal, Ankara*

UK

K. A. Wilson, Aston; G.B. Lockwood, Manchester



## WP1 - Management

Monthly managerial -  
secretarial meetings at VUB

VUB (BR) & PCN (JA)

6 or 12 monthly  
consortium  
meetings

Partners and associated partners

Teleconferences

Partners

E-mails

JA/PCN sent out/received:  
4129 emails in 2.5 years = 4.5/day



# WP2

# Dissemination

# Pharmine



## The PHARMINE website

# Pharmine

Pharmacy Education in Europe

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## Pharmine

We are pleased to announce that the PHARMINE project has been funded with support from the European Commission, Lifelong Learning Programme of the European Union:

In the XXI century EU, pharmacists will play an increasingly important role as partners in the efficient use of the health care resources of the EU (community and hospital pharmacists). They will also be major players in the development of the EU pharmaceutical industry (industrial pharmacists). Whilst abiding by the recommendations for the duration and course content for EU pharmacy education and training given in the directive 2005/36/EC on the recognition of professional qualifications, PHARMINE will examine the opportunities for the introduction of the principles of the Bologna declaration into pharmacy education and training with the aim of tuning the latter to the future needs in the three areas of pharmaceutical expertise: community, hospital and industrial pharmacy.

[read more...](#)

# [www.pharmine.org](http://www.pharmine.org)



## Conference participation – 43 meetings and conferences in 2.5 years

- 0110 Brussels
- 0111 Brussels
- 0209 Brussels
- 0209 PGEU
- 0209 Zagreb
- 0210 Brussels Erasmus
- 0211 EACEA Baur
- 0211 EPSA Brussels
- 0309 Barcelona EAHP
- 0310 EAHP Nice
- 0310 EPSA Brussels
- 0310 Lisbon WP6
- 0311 Brussels UBF
- 0409 EIPG Riga
- 0409 teleconference with EIPG Jane Nicholson
- 0411 Madrid EIPG
- 0509 Dutch-Flemish Pharmacy Education Day Utrecht
- 0509 EAHP Brussels
- 0510 MEDINE\_2 Edinburgh
- 0511 Budapest MEDINE2
- 0609 ASME Karolinska Stockholm
- 0609 Nice
- 0609 Oslo
- 0609 Stockholm PGEU
- 0610 Brussels
- 0610 Catania
- 0611 Lisbon EAHP
- 0611 PharmSciFair Vienna 0611
- 0611 Rome AESGP
- 0710 Brussels PGEU
- 0909 AMEE Malaga
- 0909 Brussels
- 0910 AMEE Glasgow
- 0910 Granada
- 0910 New York
- 1008 Brussels
- 1009 Antalya
- 1010 Brussels EUA
- 1108 London PHSS\_ EIPG
- 1109 Brussels PGEU
- 1110 London EAQP
- 1210 Brussels
- 1210 Brussels ACPE



# Pharmine



## The PHARMINE CD

# Pharmine

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[www.pharmine.org](http://www.pharmine.org)



Vrije  
Universiteit  
Brussel

PCN

Pharmacolor  
Consultants  
Nancy



Education and Culture DG  
Lifelong Learning Programme

PHARMINE  
Pharmacy Education  
in Europe

With the support of the Lifelong Learning Programme of the European Union (142078-LLP-1-2008-BE-ERASMUS-ECDSP)





# WP7 - Development

**Objective:  
to gain hard data  
on pharmacy and  
pharmacy education**



# ACCESS databank

290 individual  
organizations

Example for  
VUB, Brussels

PHARMINE EU Pharmacy ET individual	
type:	EDU-UNIV
institution:	Faculteit Geneeskunde en Farmacie
univ - acronym:	Vrije Universiteit Brussel
street:	Laarbeeklaan 103
zip:	1090
city:	Brussels
country:	Belgium
website:	<a href="http://www.vub.ac.be/MICH/">www.vub.ac.be/MICH/</a>
Contact forename:	Bartholomeus
surname:	Rombaut
e-mail:	<a href="mailto:brombaut@vub.ac.be">brombaut@vub.ac.be</a>
teleph:	32 2 477 44 97
mobile:	32 479 956 871
fax:	32 2 477 74 95
function:	
2nd contact forename	Rudy
2nd surname	Verbinnen
2nd e-mail:	<a href="mailto:rverbin@vub.ac.be">rverbin@vub.ac.be</a>



# ACCESS databank – Country lists



**PHARMINE**  
Pharmacy Education  
in Europe

## *The PHARMINE consortium*

### The European pharmacy education and training database

institution	univ - acronym	street	zip	city	contact forename	surname	teleph	fax	e-mail	website
ALBANIA										
Faculty of Medicine, Dept. of Pharmacy	State University of Tirana	Bul Dëshmorit e Kombit		Tirana	Enver	Mustafaj	355 376 228	355 423 9189	info@unitir.edu.al	
AUSTRIA										
Institut für Pharmazeutische Wissenschaften	Karl-Franzens-Universität	Universitätsplatz 1	8010	Graz	Ernst	Haslinger	43 316 380 5366	43 316 380 9846	ernst.haslinger@kfunigraz.ac.at	www.unigraz.at/pcww
Institut für Pharmazie	Leopold-Franzens-Universität	Innrain 52	A-6020	Innsbruck	Hermann	Stuppner			pharmakognosie@uibk.ac.at	http://www.uibk.ac.at/c/c7/c740/
Pharmaziezentrum	Universität Wien	Althanstr. 14g	1090	Vienna	Christian	Noe	43 1 4277 55103	43 1 4277 9551	christian.noel@univie.ac.at	http://merian.pch.univie.ac.at/pch/index.php
BELARUS										
Pharmaceutical Faculty	Vitebsk State Medical University	Ulitsa Frunze 27	210023	Vitebsk	Natalia Sergeevna	Gurina	375 212 247 884	375 212 247 884	admin@vgmu.vitebsk.by	www.vgmu.vitebsk.by
BELGIUM										
Département Pharmaceutische Wetenschappen	Universiteit Antwerpen	Universiteitsplein 1	B-2610	Antwerpen	Frans	Van Meir	0032 (0)3 265 20 04	0032 (0)3 265 24 40	decanfb@ua.ac.be	http://www.ua.ac.be/main.aspx?cc=PB DE
Orde der Apothekers		Henri Jasparlaan 94	1060	Brussels	Piet Francis	Van Maercke	32 2 537 4267		info@ordredespharmaciens.be	



# ACCESS databank – beta version available

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## Database of universities and related institutions

Filter on city
Filter on lastname

Name	Acronym	Street	Zip	Firstname	Lastname	Webs
	FIP	3 place Jean Marteau	1201	Xuan Hao	Chan	
	National University of Pharmacy	vul. Pushkinskaya 53	61002	Chernykh	Valentin P.	<a href="#">site</a>
<a href="#">Farmaceutski Fakultet</a>	Univerzitet "Sv. Kiril i Metodij" Skopje	Vodnjanska, 17	1000	Svetlana	Kulevanova	
<a href="#">Accreditation Council for Pharmacy Education</a>		20 North Clark Street, Suite 2500		Mike	Rouse	
<a href="#">American Association of Pharmaceutical Scientists</a>				Patrick	DeLuca	
<a href="#">Anadolu University Faculty of Pharmacy</a>	ANA Anadolu Üniversitesi	Yunus Emre Kampusu	26470	Nese	Kirimer	<a href="#">site</a>
<a href="#">Asociación Española de Farmacéuticos de la Industria (</a>	AEFI	Alberto Alcocer, 38 - 4ª dcha.	28016			<a href="#">site</a>
<a href="#">Atatürk University Faculty of Pharmacy</a>	Atatürk Üniversitesi		25240			<a href="#">site</a>
<a href="#">Bradford School of Pharmacy</a>	University of Bradford School of Life Sciences		BD7 1DP	John	Purvis	<a href="#">site</a>

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## The PHARMINE WP7 survey



Education and Culture DG  
Lifelong Learning Programme



PHARMINE  
Pharmacy Education  
in Europe

***The PHARMINE survey of European higher education institutions  
delivering pharmacy education & training***

***V1***

***If you encounter any problems when filling out this form please contact the leader of PHARMINE work program WP7:  
[jeffrey.atkinson@orange.fr](mailto:jeffrey.atkinson@orange.fr)***

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### PHARMINE

Coordinator: Bart Rombaut, School of Pharmacy, Vrije Universiteit Brussel, Brussels, Belgium. [brombaut@vub.ac.be](mailto:brombaut@vub.ac.be)

Executive Director: Jeff Atkinson, Pharmacolor Consultants Nancy, Villers, France. [jeffrey.atkinson@orange.fr](mailto:jeffrey.atkinson@orange.fr)

With the support of the Lifelong Learning Programme of the European Union (142078-LLP-1-2008-BE-ERASMUS-ECDSP).

***Website: [www.pharmine.org](http://www.pharmine.org)***





# The PHARMINE WP7 survey

## Chapter 1. Organization of the activities of pharmacists, professional bodies

The data to be collected in this chapter is on the organization of the activities of pharmacists in your country, and on professional bodies. It represents the background pharmaceutical situation on a national level. You may consider contacting organisations or agencies outside of your HEI for help with this section. If you do so, could you please give references at the end of the chapter?

The PHARMINE survey is interested in the competences and roles of the pharmacist in individual European countries. Before filling in this chapter, you may like to consider the following.

The basic *competences* for a pharmacist are:

1. Conversance with professional aspects of pharmacy
2. Expertise in medicines
  - a. R&D of active & safe medicines
  - b. Use of medicines by patients
  - c. Monitoring effects of treatment
3. Effective communication & management
4. Appreciation of professional & social role of pharmacist

The *roles* of a pharmacist in the healthcare system and elsewhere fall into the following broad categories:

1. Community pharmacy:
  - a. Supplying prescription medicines
  - b. Managing medicines for some ailments
  - c. Giving advice on medicines
  - d. Screening services
  - e. Services to the housebound
  - f. Services to nursing and care homes (medication reviews, advice on storage and administration of medicines)
  - g. Other (please specify)
2. Hospital pharmacy:
  - a. In wards or outpatient clinics
  - b. Consultant in specialised clinical areas such as paediatrics or intensive care
  - c. Part of multidisciplinary patient-care team
  - d. Purchasing of drugs and medical material





# The PHARMINE WP7 survey

## Chapter 2. Pharmacy HEIs, students and courses

In this section we would like to gather information on HEIs, their status (public or private), and their organisation. We would also like to have information on staff and student numbers, entry requirements, and fees.

We would also like you to indicate past and future changes in pharmacy E&T in your country.

We would like information at both a national level and at the level of your particular HEI. We are interested in whether your HEI is typical of those in the country and if not how HEIs differ.

We would like information on both the common curriculum (both basic and advance) and on any specialized courses (community, hospital, industry, other) that you may offer in your HEI.

Under "teaching staff" we would like to provide details on:

- Professors/full professors/chairs
- Associate professors/assistant professors/lecturers
- Demonstrators/assistants/Ph. D. student teachers

Note that "international" in the context of this chapter refers to staff and students who are present at an HEI for more than 6 months. Shorter term exchange programmes will be dealt with in chapter 5.

"Advanced entry" refers to entry into a course that leads to a qualification as a pharmacy graduate, at a stage beyond the beginning of S1 or B1, following secondary school. This excludes Ph.D. and other postgraduate/post-registration courses. Please give the level in the "Sx of Bx" form, e.g. S2 of B2 = beginning the second semester of the second bachelor year.

If "fees per year" vary from one year to another, please indicate this.

Note that "length of course" refers to the number of years between the end of secondary school education and registration as a pharmacist and/or the start of a career as a pharmaceutical professional (e.g. in industry).



# The PHARMINE WP7 survey

## Chapter 3. Teaching and learning methods

In this section we would like to gather information on the student hours in each year for:

1. Each of 4 types of teaching and learning in HEIs
  - a. Lectures
  - b. Tutorials
  - c. Practicals
  - d. Independent project work (including field work)
2. Traineeship
3. Electives
  - a. "choice": teaching unit with a possibility to opt in or out (Y/N choice); choice has no impact on obtention of final diploma
  - b. "optional" choice of subject amongst several

In the boxes for "student hours" you should give the average number of hours a given student will invest. In some cases such as electives the number of hours may be very variable. In this case you may wish to add a range of hours invested.

In your comments could you please state who validates courses, traineeship and electives?



# The PHARMINE WP7 survey

## Chapter 4. Subject areas

In this section we would like you to calculate the total number of hours per year spent in each of the following subject areas.

We have not tried to standardize exact subject titles as these are different in various countries and open to mistakes and misinterpretation in translation. Instead we would like you to calculate the numbers of hours spent studying 7 different subject areas.

These are the same subject areas as defined in the first EAFP/Boulioux survey (1994) with two exceptions. "Medicinal" - rather than "medicine" as in the Bourlioux document - is used for subject area 5. "Medicinal" refers to: *tending or used to cure disease or relieve pain*. It thus goes beyond "drugs" to therapy in a wider sense of the word. The other difference with the first survey is the inclusion in this PHARMINE survey of a chapter on generic subjects.

1. Subject area I: Chemical sciences "CHEMSCI"

- a. General, organic & inorganic chemistry
- b. Analytical chemistry
- c. Pharmaceutical chemistry / pharmacopeial analysis
- d. Medicinal physicochemistry / SAR / drug design

2. Subject area II: Physical and Mathematical Sciences "PHYSMATH"

- a. Physics
- b. Mathematics, pharmaceutical calculations
- c. Information technology, information technology applied to community pharmacy, information technology applied to national health-care
- d. Statistics
- e. Experimental design & analysis

3. Subject area III: Biological Sciences "BIOLSCI"

- a. Foundation biology
- b. Cell biology
- c. Botany
- d. Mycology
- e. Zoology
- f. Biochemistry
- g. Molecular biology
- h. Genetics



# The PHARMINE WP7 survey

## Chapter 5. Impact of the Bologna principles

In this section we would like to know whether and how the principles outlined in the Bologna declaration (<http://www.ond.vlaanderen.be/hogeronderwijs/bologna/about/>) affect pharmacy E&T in your HEI:

1. Do you have easily readable and comparable degrees? Do you issue a Diploma Supplement?
2. Are courses divided into two main cycles: 3 year undergraduate (B) and graduate (M & D)? Please note that in the language of the Bologna declaration, "graduate" refers to a person who successfully finishes a B degree. We would like to know whether the degree awarded after such a bachelor, first cycle is relevant to the (European) labour market, *i.e.* whether there are job opportunities in the healthcare system of your country, or in any other area, for persons with a bachelor (B) degree obtained after 3 years of E&T. We would also like to know whether persons with a 3-year bachelor (B) degree from an HEI other than pharmacy (natural sciences, chemistry...) possibly in another country can enrol into the master (M) program and then go on to become registered pharmacists or pharmacy professionals.
3. Do you use the European system of credits (ECTS)? How are they used to promote student mobility? Does your HEI fully validate ECTSs obtained in another HEI in another European country? Can ECTS be acquired in a non-HEI context (traineeships...)? Are ECTS used in a global scheme (*i.e.* one including lifelong learning)?
4. Are efforts made to identify and remove obstacles to student and staff mobility (with language courses, additional resources (staff and finances))? Please add numbers for short-term (less than 6 months) "ERASMUS" exchange staff and students.
5. Is your HEI involved in any European co-operative program in quality assurance with attempts to develop comparable criteria and methodologies?
6. In your HEI what are the European dimensions in higher education regarding curriculum development, general inter-institutional co-operation and integrated programmes of study, training and research?



## The PHARMINE WP7 survey

### Chapter 6. Impact of EC directive 2005/36/EC

In this section we would like to know how EC directive 2005/36/EC (<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2005:255:0022:0142:EN:PDF>) has affected/affects pharmacy E&T in your HEI.

We would like information on the impact of 3 main elements of directive 2005/36/EC on:

- Course length
- Course content
- Traineeship

We would also like you to consider the subjects given in annex V.6. Does this list have any impact on what is taught? Do you think that this list is useful? Do you think that this list should be modified?





## The PHARMINE WP7 survey

### Chapter 7. Quality assurance.

This part of the questionnaire is based upon the US Accreditation Council for Pharmacy Education (ACPE) 2007 standards and is aimed at obtaining information on the self perception that each Faculty has of its own Quality Assurance System whether non-existing or existing and the extent of its implementation.

If a QA system is in place, please attach supporting documentation for each of the questions referencing under comments the part (page/chapter) of the documentation pertaining to each of the questions.

Further questions should be addressed to Prof. J. Morais, Lisbon ([jagmorais@ff.ul.pt](mailto:jagmorais@ff.ul.pt)) with a copy to J. Atkinson.





## The 700 page PHARMINE WP7 survey



[http://www.pharmine.org/losse\\_paginas/Country\\_Profiles/](http://www.pharmine.org/losse_paginas/Country_Profiles/)



# **PHARMINE WP7**

**Preliminary analysis of data**

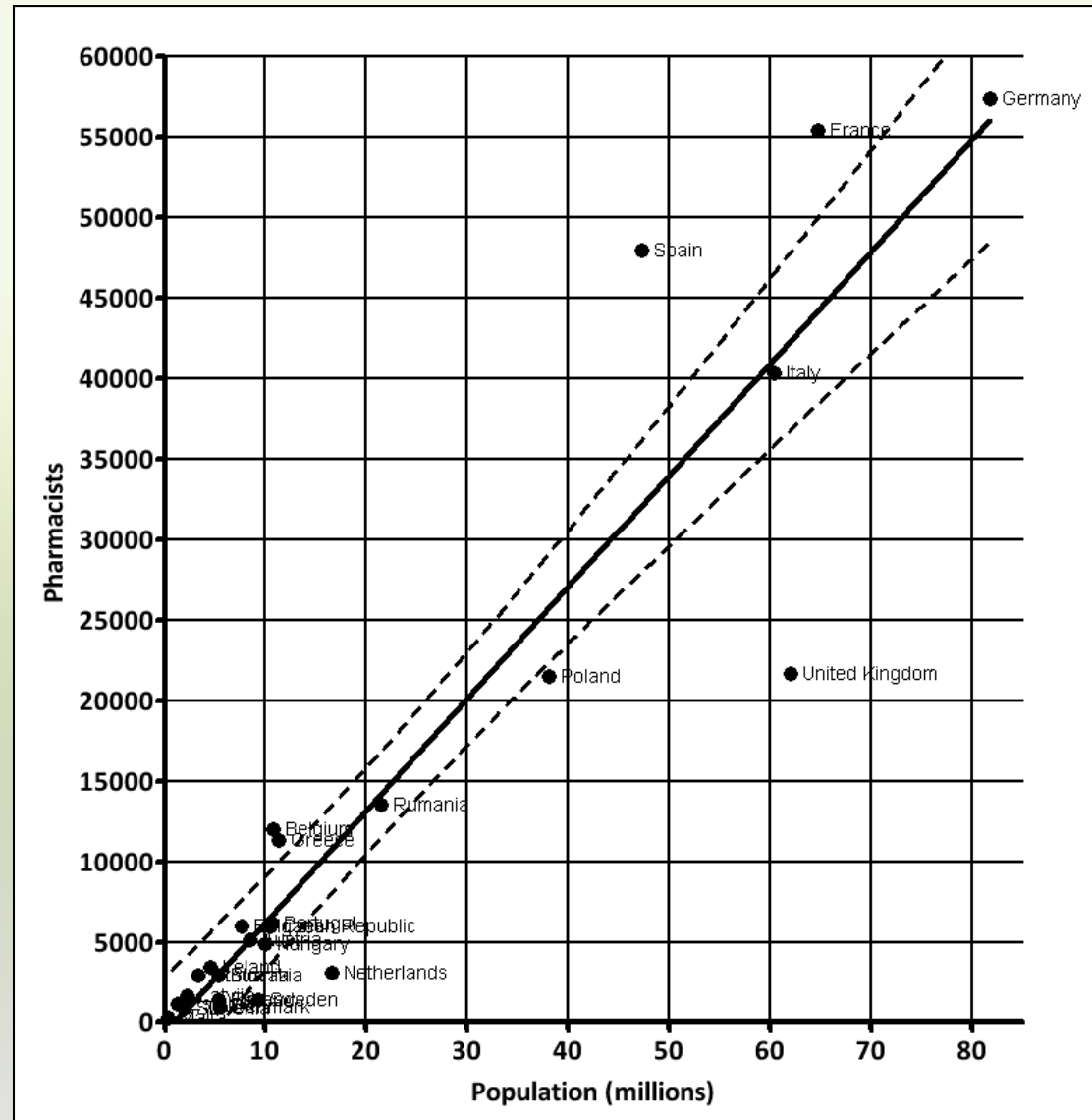
**27 member states of the EU  
(except Luxembourg and Cyprus, n = 25)**



## PHARMINE WP7

### Chapter 1

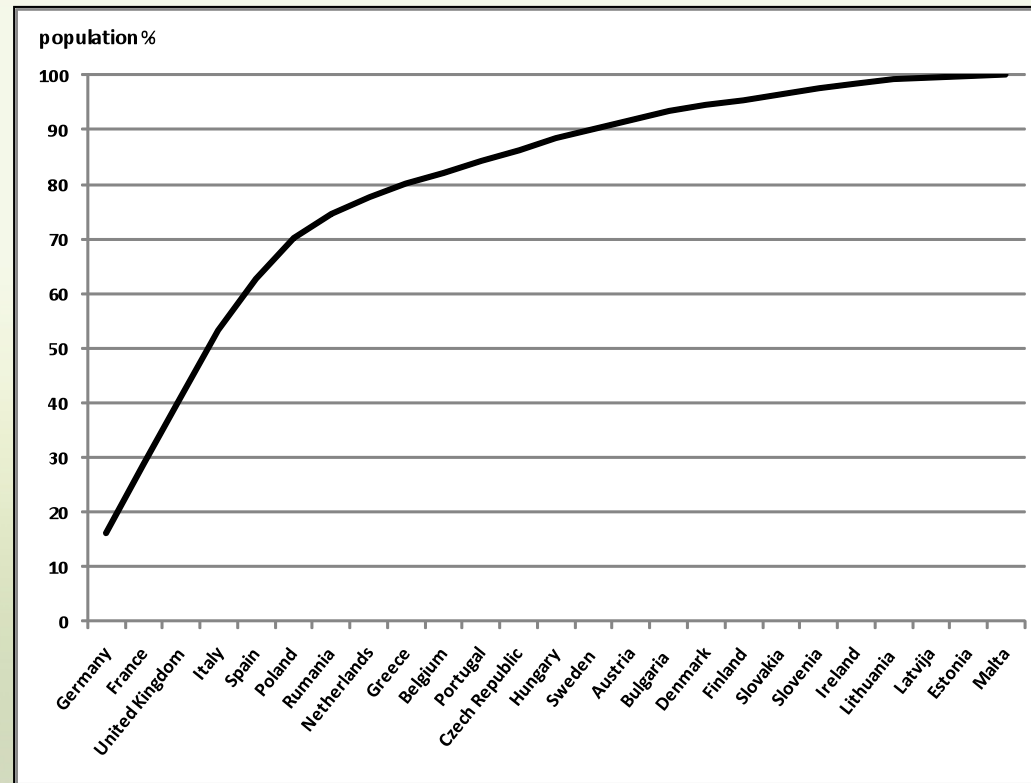
### Pharmacists *versus* population





**EU population:  
80% live in 8  
countries**

Difference  
between “large”  
and “small”  
countries?



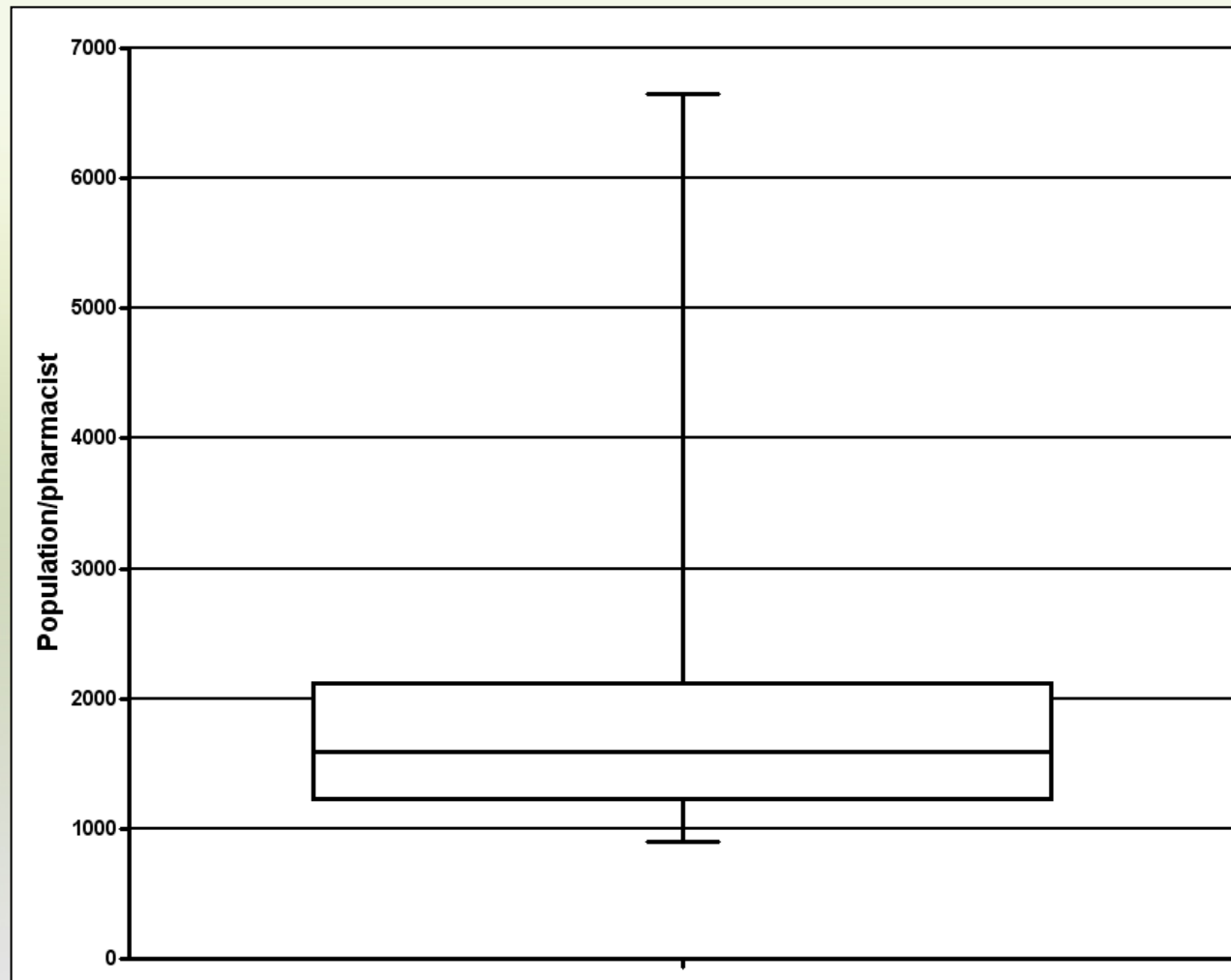
**Linear regression: pharmacists *versus* population**

- Arbitrary cut-off after The Netherlands (16.6 M)
- Slopes  $758 \pm 202$  and  $728 \pm 155$  ( $P > 0.05$ ) for “large” and “small” countries



# PHARMINE WP7 - pharmacists / population

(box plot, Kolmogorov–Smirnov:  $P < 0.001$ )







# PHARMINE WP7 Chapter 2

## European pharmacy faculty

**(total number = 195 faculties in 25 EU MSs)**

Average number of students 817±385

Average number of staff 78±47

Average student/staff ratio 10.5±4.5

## Mobility (% total enrolment)

Student 3.5±3.3

Staff 0.4±0.4





Is **student mobility** linked to

**Size of faculty** (total enrolment)

$$r^2 = 0.063, P = 0.259$$

**Student / staff ratio**

$$r^2 = 0.069, P = 0.237$$

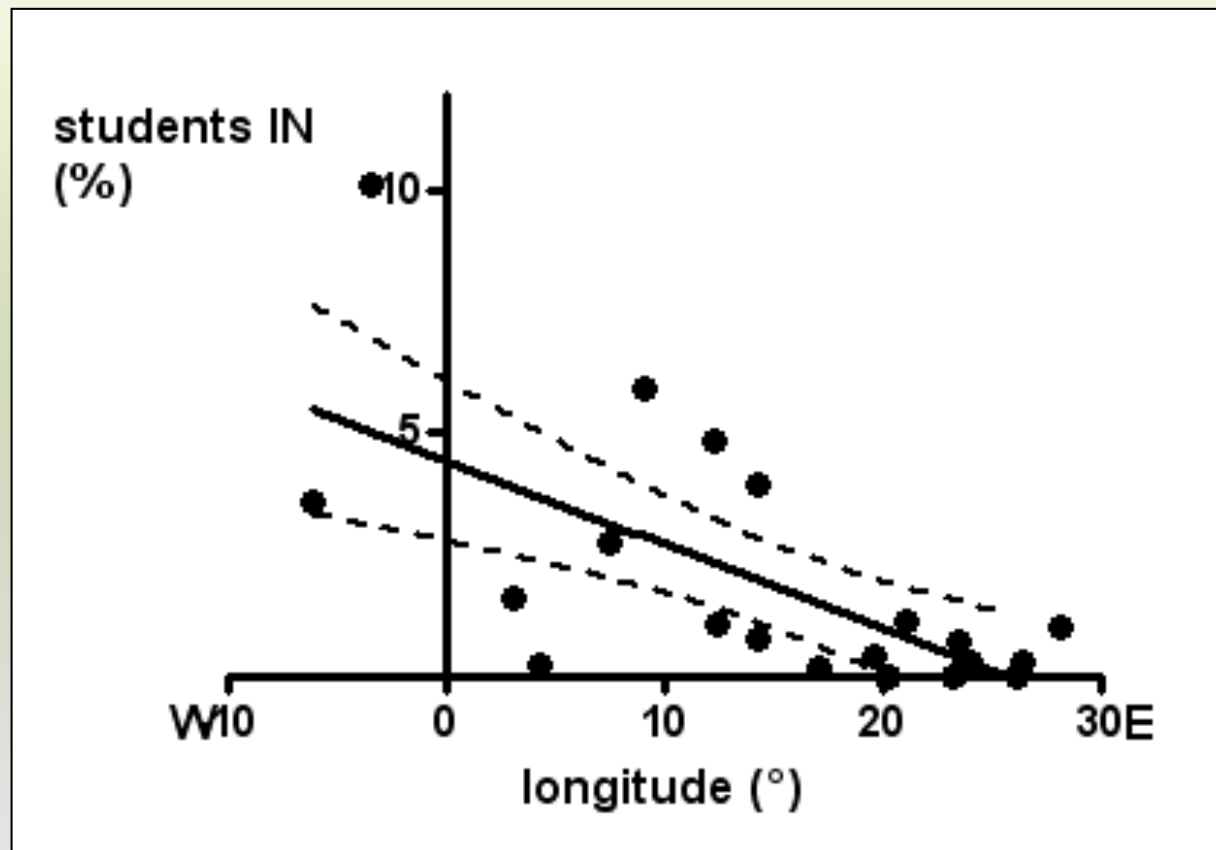
**Date of accession to EU**

$$r^2 = 0.007, P = 0.717$$



# Incoming student mobility is linked to longitude

Correlation coefficient  $r^2=0.43$ ,  $P<0.01$





# **PHARMINE WP7**

## **Chapter 4**

### **Subject areas**

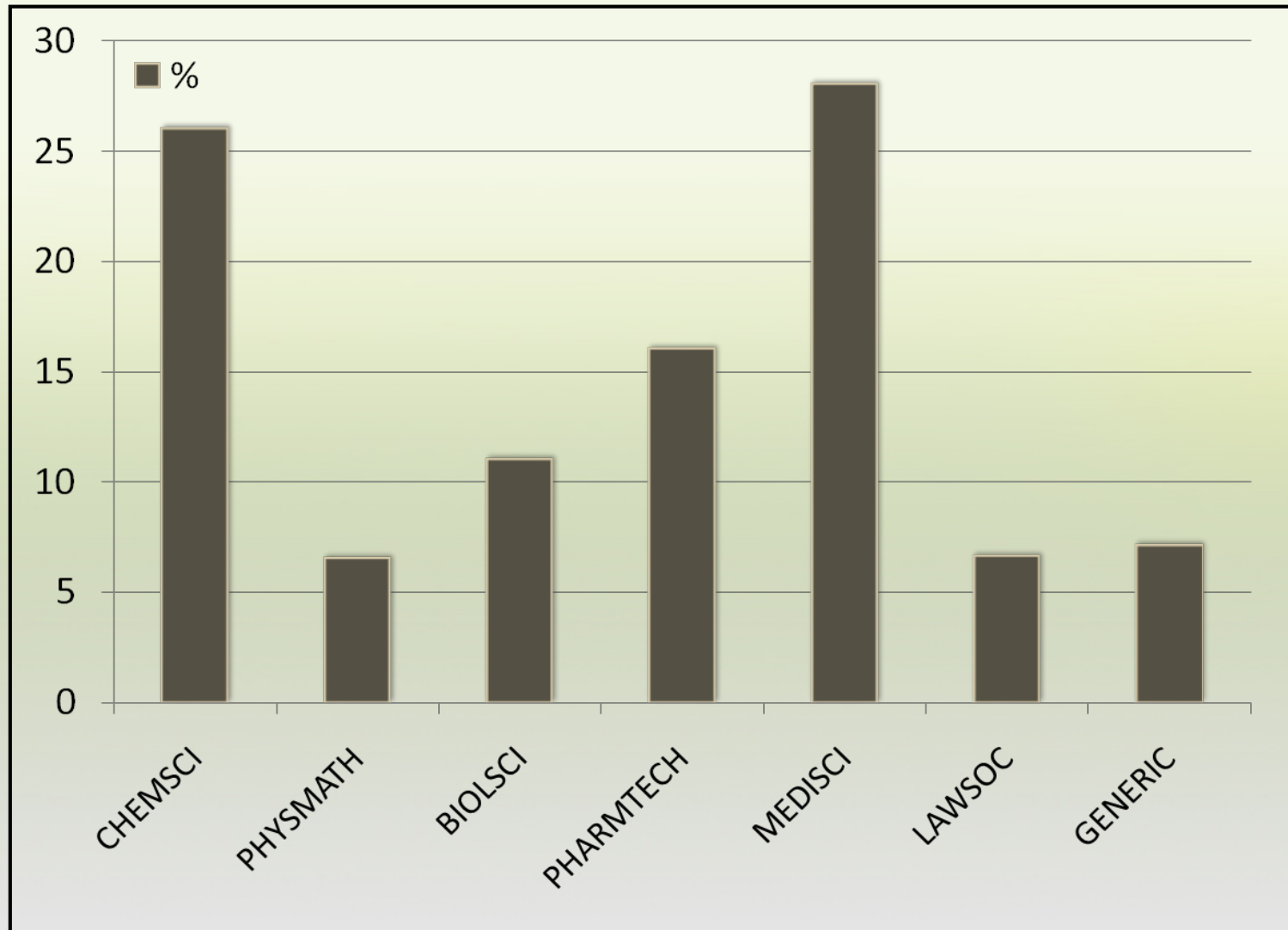


# The average EU pharmacy course

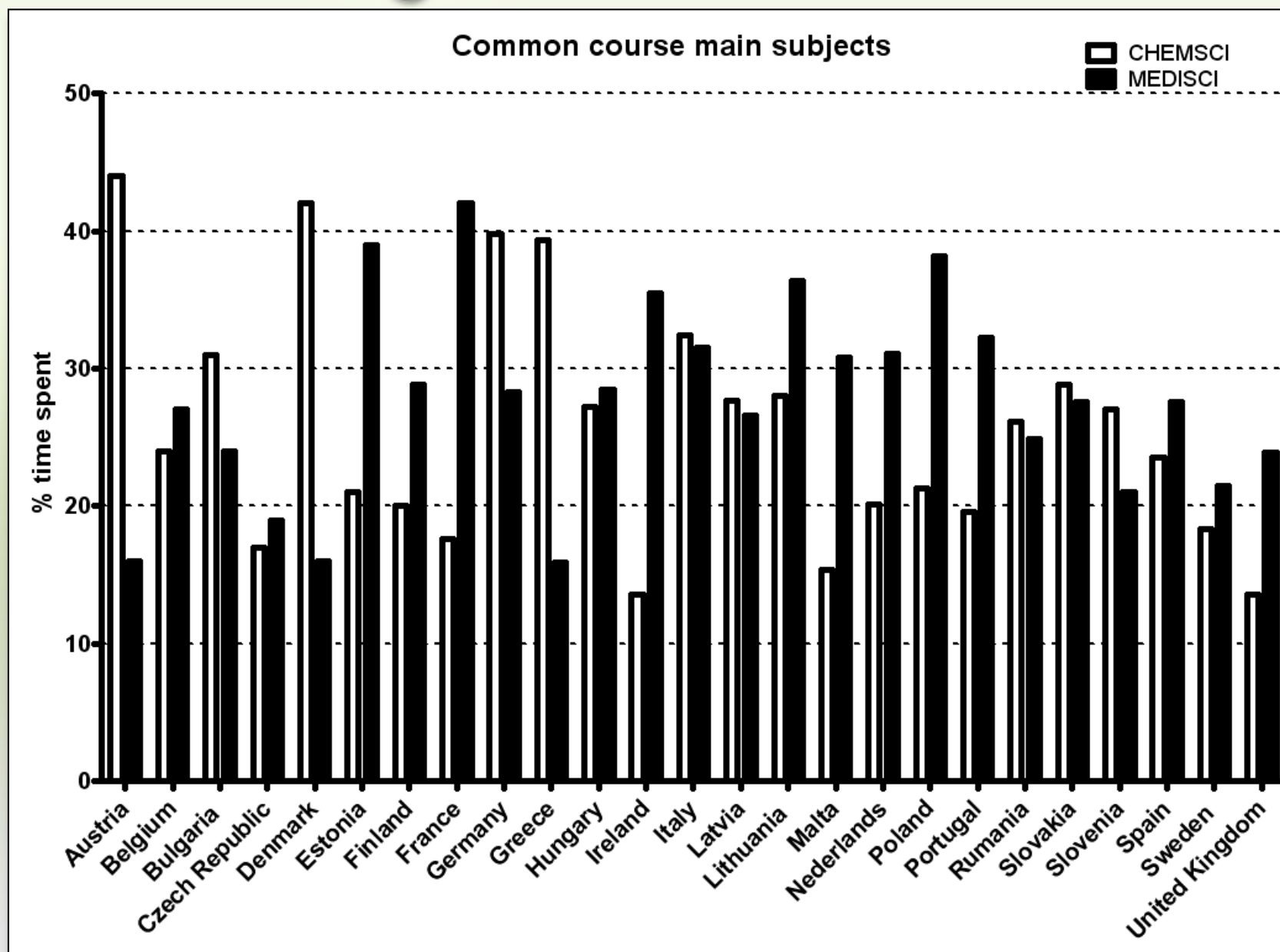
Col. stats	A	B	C	D	E	F	G
	CHEMSCI	PHYSMATH	BIOLSCI	PHARMTECH	MEDISCI	LAWSOC	GENERIC
	Y	Y	Y	Y	Y	Y	Y
Number of values	25	25	25	25	25	25	25
Minimum	14	2.0	2.0	5.9	16	0.60	1.0
25% Percentile	19	4.8	7.6	13	23	3.4	4.3
Median	24	6.4	11	15	28	6.2	6.4
75% Percentile	30	8.6	14	20	32	9.4	8.9
Maximum	44	11	24	23	42	16	16
Mean	26	6.5	11	16	28	6.6	7.1
Std. Deviation	8.7	2.4	5.5	4.6	7.2	4.0	4.2
Std. Error	1.7	0.48	1.1	0.91	1.4	0.79	0.85
Lower 95% CI of mean	22	5.5	9.1	14	25	5.0	5.3
Upper 95% CI of mean	29	7.5	14	18	31	8.2	8.8
KS normality test							
KS distance	0.13	0.11	0.13	0.11	0.081	0.15	0.22
P value	> 0.10	> 0.10	> 0.10	> 0.10	> 0.10	> 0.10	0.0040
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes	Yes	No
P value summary	ns	ns	ns	ns	ns	ns	**



# The average EU pharmacy course

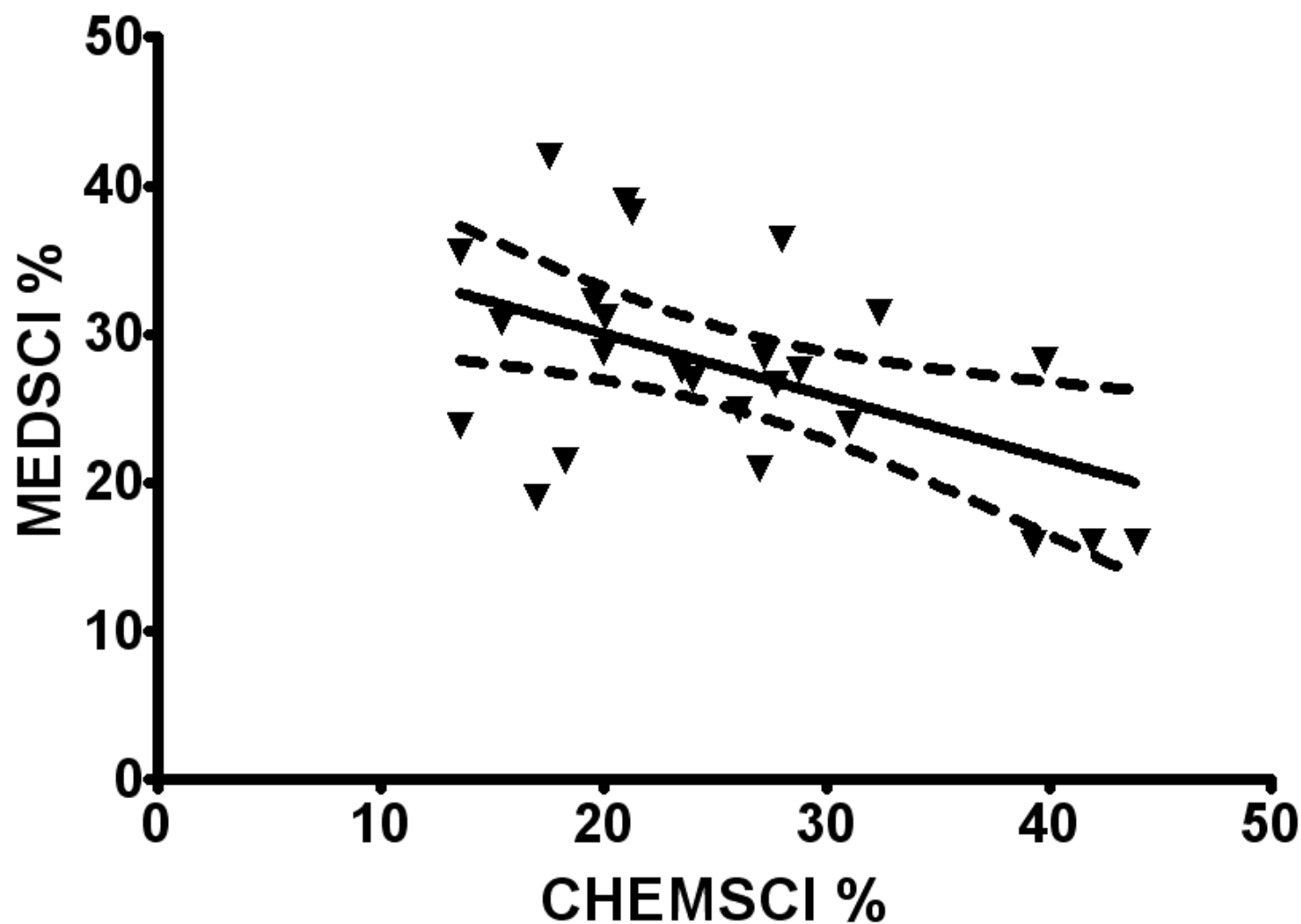






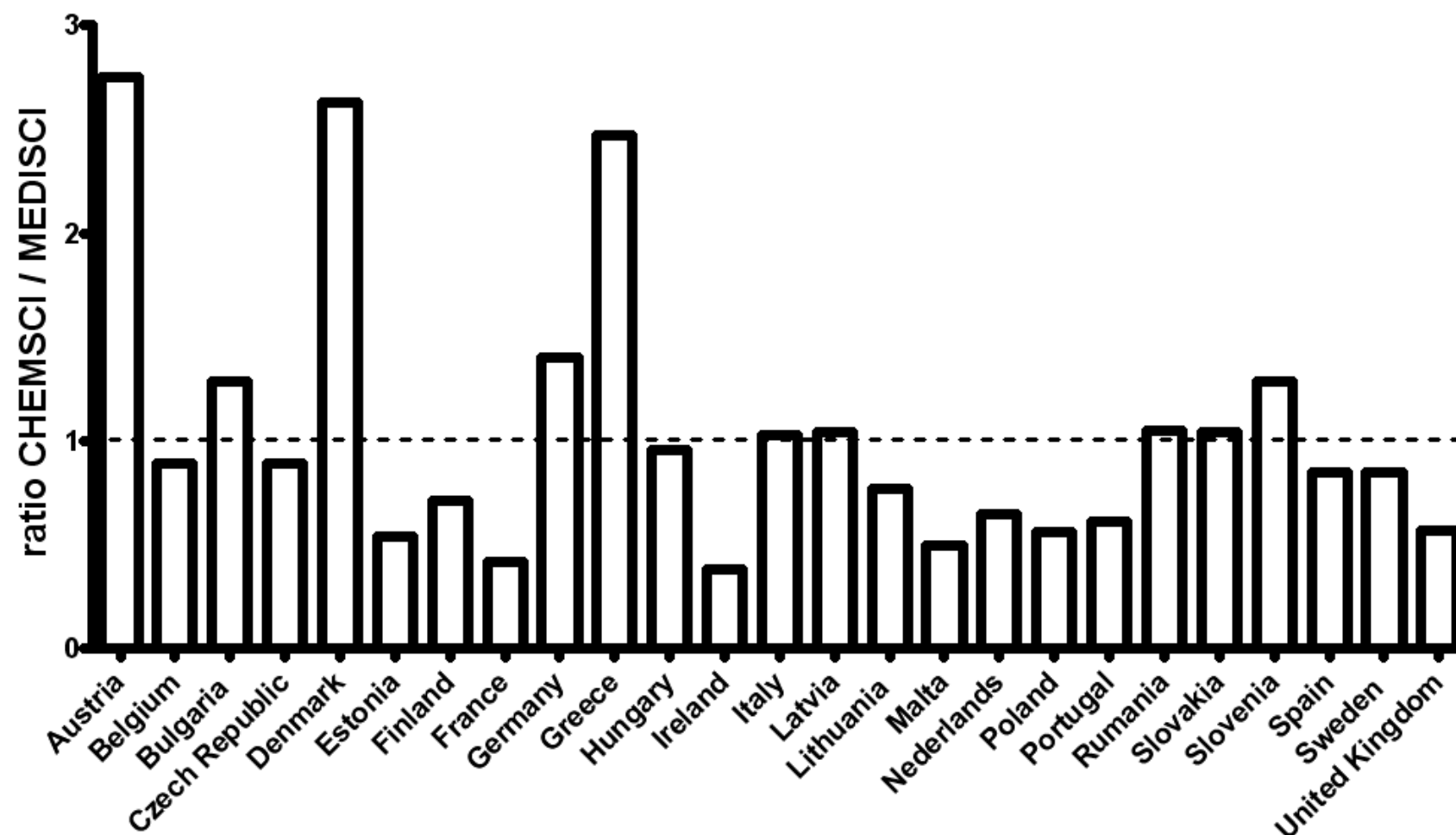


## Correlation CHEMSCI with MEDSCI





## Ratio of chemical to medical sciences





# WP7 Data analysis- to be done

- Complete analysis for chapters: 1, 2 and 4
- Analyse: chapters 3, 5 and 6
- Enlarge to other European countries
- Produce some individual country profile papers (e.g. Spain, France)
- Comparison with
  - MEDINE2 (joint publication)
  - the Americas, Indo-Asia, *etc.*
- Publish
  - Editorial board



# WP3

## Competency curriculum for professional pharmacists





# WP4

## Competency curriculum for professional hospital pharmacists



# WP5

Competency curriculum  
for professional  
industrial pharmacists



# WP6

## Quality assurance

- The PHARMINE consortium
- EU pharmacy faculties



# The future PHARMINE-2 & 3



# PHARMINE-2 (2011-2)

- **PHAR-EE / TEMPUS I**
  - Pharmacy education and training (PET) in Eastern Europe
    - Extending PHARMINE paradigm to Eastern Europe
    - **PHARMINE-2/PHAR-EE: Balkans**
- **QA-PHAR / LLL KA4**
  - **Quality Assurance** in European Pharmacy Education and Training
    - Consolidating PHARMINE in the EU
    - The European network for QA in PET





## PHAR-EE programme.

PHAR-EE using the PHARMINE paradigm will look at:

1. EU directive 2005/36
2. Bologna declarations
3. Evolution
  - a. economics, strategy and organization of national healthcare systems
  - b. drug industry

PHAR-EE will look at supply: how pharmacy education and training in these countries can react to the four demands.

The consortium will produce courses backed up QA.

PHAR-EE will profit from the experience of new EU members.



# QA-PHAR

## – the European network in QA for PET

### Organisation of MNGT for QA-PHAR

Administrator: B. Rombaut, VUB, Executive Director: J. Atkinson, PCN  
 General Secretaries: A. Cavaco, Lisbon, D. Rekkas, Athens, D. Volmer,, Tartu

<u>"Northern"</u>	<u>"Central"</u>	<u>"Eastern"</u>	<u>"Western"</u>	<u>"Southern"</u>
Regional directors D. Volmer - Estonia J. Hirvonen – Finland	Regional directors B. Bozic - Slovenia S. Polak - Poland	Regional directors V. Petkova - Bulgaria C. Rais, Romania	Regional directors B. Thys - Belgium H. J. Haisma – The Netherlands	Regional director A. Cavaco - Portugal D. Rekkas - Greece
Members: Estonia Finland Latvia Lithuania Sweden <i>Iceland</i> <i>Norway</i>	Members: Slovenia Poland Czech Republic Slovakia Hungary Austria	Members: Bulgaria Romania <i>Albania</i> <i>Bosnia</i> <i>Croatia</i> <i>FYROM</i> <i>Kosovo</i> <i>Moldova</i> <i>Montenegro</i> <i>Serbia</i> <i>Ukraine</i>	Members: Belgium The Netherlands Ireland UK Germany <i>Switzerland</i>	Members: Portugal Spain France Italy Greece Malta <i>Turkey</i>



## QA-PHAR potential associated partners / stakeholders.

- Professional pharmacist organisations

- a. EU

1. PGEU <http://www.pgeu.eu/>
2. EAHP <http://www.eahp.eu/>
3. EIPG <http://www.eipg.eu/>
4. EPSA <http://epsa-online.org/content/index.php>
5. EUFEPS <http://www.eufeps.org/>

- b. International

1. FIP <http://www.fip.org/www/>

- QA agencies

- a. EU – ENIC-NARIC <http://www.enic-naric.net/>

- b. ACPE <http://www.acpe-accredit.org/>

- MEDINE2 <http://medine2.com/> - joint external evaluators and joint publication

- National professional bodies

- a. Orders

1. GPhC <http://www.pharmacyregulation.org/>
2. *Ordre des pharmaciens* <http://www.ordre.pharmacien.fr/>
3. Others

- b. Societies and associations



# PHARMINE-3 (2012-3)

- PHAR-EE / TEMPUS II: Ukraine, Russia, Turkey...?
- PHARM-IND / PHARM-HOSP
  - Competences & outcomes for pharmacy
  - Importance of Delphi/Tuning for validation



# Potential **validation** of **PHARMINE** recommendations.

**By professional pharmacist/pharmacy organisations**

1.EU

- a. EIPG, EAHP, PGEU
- b. EUFEPS

2.International

- a. FIP

3.National

4.Societies and associations





## Potential **validation** by Delphi/Tuning

The screenshot shows the homepage of the Tuning Educational Structures in Europe website. The header features the Tuning logo and the European Union flag. The main navigation bar includes links for Home, Competences, Workload & ECTS, Teaching, Learning & Assessment, Quality Enhancement, and Map. The central content area is titled 'Tuning Educational Structures in Europe' and displays four book covers. A sidebar on the left lists various resources like 'What is Tuning?', 'Background', 'Aims and objectives', 'Organizational structure', 'Tuning Methodology', 'Subject Areas', 'Competences', 'Documents', 'Presentations', 'Publications', and 'Newsletter'. A 'News' section on the right mentions the 'New!!! Tuning Sectoral Framework for Social Sciences Final Report' and a 'Management Committee Meeting' in Brussels on 18th February 2005.

The screenshot shows the homepage of the Medical Education IN 2 Europe website. The header features the logo and a background image of medical students. The main navigation bar includes links for Home, About, Work Packages, Contact, Meetings, Resources, Partners, and RSS News. The central content area is titled 'Work Packages' and lists three packages: '01 MEDINELingua', '02 Mobility Toolkit', and 'Work Package 03: Tuning Process for Medical Education'.



