An overview of the
“Chemistry Is All Around Network” Project
The Transnational Report

M.M.Carnasciali and L.Ricco
Department of Chemistry and Industrial Chemistry
University of Genoa
ITALY
An overview of the project

The aims

The Chemistry Is All Around Network project aims at stimulating the interest of students towards the study of chemistry. It is based on the collaboration of school teachers, scientific experts and university researchers and each year foresees different activities within a specific area of interest:

1. students’ motivation
2. teachers’ training
3. successful experiences and good practices

www.chemistryisnetwork.eu
An overview of the project
The International Network

13 Partners from 11 European Countries are working hard and in a good way to reach the aim

- University of Genova (IT)
- Inforef (BE)
- Technical University of Gabrovo (BG)
- Institute Of Chemical Technology Prague (CZ)
- Technological Educational Institute (T.E.I.) of Ionian Islands (EL)
- Limerick Institute of Technology (IE)
- CECE - Spanish Confederation of Education and Training Centres (ES)
- Connectis (IT)
- Pixel Associazione (IT)
- WSINF - Health Promotion Chair WSINF’s Pedagogy-Rehabilitation Faculty (PL)
- Instituto Politécnico de Bragança (PT)
- TRANSFER Slovensko (SK)
- Kirikkale University Education Faculty (TR)
An overview of the project

The National Networks

During the first months of work, each country selected at least ten teachers (from schools of different grade and level) and five experts in chemistry and/or education, in order to create a national network able to discuss and work on the subjects foreseen for each year.

During the second year of project, associated partners and associated schools were added to each national network in order to support project aims and activities.
An overview of the project. The National Networks

<table>
<thead>
<tr>
<th>Countries</th>
<th>Experts</th>
<th>Schools/ Teachers (79/163)</th>
<th>Associated Schools (31)</th>
<th>Associated Partners (48)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>7</td>
<td>11/37</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>5</td>
<td>5/10</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>5</td>
<td>6/11</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Greece</td>
<td>7</td>
<td>10/12</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Ireland</td>
<td>5</td>
<td>8/11</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Italy</td>
<td>6</td>
<td>6/10</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Poland</td>
<td>7</td>
<td>8/14</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Portugal</td>
<td>6</td>
<td>7/18</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Slovak Republic</td>
<td>7</td>
<td>5/10</td>
<td>in progress</td>
<td>3</td>
</tr>
<tr>
<td>Spain</td>
<td>10</td>
<td>6/14</td>
<td>in progress</td>
<td>3</td>
</tr>
<tr>
<td>Turkey</td>
<td>6</td>
<td>7/16</td>
<td>in progress</td>
<td>4</td>
</tr>
</tbody>
</table>
Focus on Chemistry Teacher Training in Europe

The project activities

The second year of work, almost completed, was dedicated to analyse the training of teachers in the different countries, with a special focus on science/chemistry teachers.

The main activities of each partner were:

- select and review 5 significant publications about national teacher training
- write 2 papers about national teacher training, to be presented at the international conferences held in Gabrovo (Bulgaria) and Limerick
- write 1 national report on chemistry/science teacher training
- organize 1 national workshop
- participate in the two international meetings and conferences organized within the project
Focus on Chemistry Teacher Training in Europe

The Transnational Report

The transnational report summarizes all the national reports and is divided into sections, as follows:

1. National Situation on Teacher Training
2. Assessment of the National Training of Science Teachers
3. The Impact of the Project on Teacher Training (on the basis of dissemination results, involvement of associated partners and schools, national workshops and international conferences)
4. Conclusions
A brief description of the situation on teacher training is given for each project partner, with special attention to the training of science/chemistry teachers.

Each paragraph is composed by two sections: initial (pre-service) training and in-service (continuous) training.

Now I try to show you the main aspects in a short time, but the detailed description can be found on the project portal.

www.chemistryisnetwork.eu
The Transnational Report
Assessment of the National Training of Science Teachers

The assessment was made by considering:

- national publications

- teachers’ opinion, collected during the national workshops and, in some cases, interviewing teachers not involved in the project.

The national situations are quite different from each other, but a common necessity of improvement emerges from the reports.
I think that the project is making a valuable contribution to the training of teachers because it allows the experts to deal with the international reality and increase their knowledge in the field of training and discuss with teachers of all levels and degree, establishing a solid contact with school, its problems and its needs;

it also allows the teachers involved to have people to refer for improving their teaching methodology

and all users of the portal to update on teaching chemistry in Europe and find ideas for new teaching methodologies
The Transnational Report
The Impact of the Project on Teacher Training

Then:

- it encourages the creation of new collaborations, not only among people involved in the project, but also with colleagues and teachers reached by dissemination activities.

- it makes aware people involved in the field of education to the need of improving teachers training to have students better prepared and motivated.
The National Workshops

The most important opportunity to meet at national level is during the annual workshop.

It is a fundamental part of the project because it allows to:

- share and integrate the work that experts and teachers make for the project
- discuss and compare problems and experiences in order to improve everyone skills
The National Workshop on teacher training was held in May 2013, following six issues:

1) Methodologies to teach a specific topic: analysis and comparison between positive and negative experiences

2) Consequences of lack of opportunities to experiment different approaches and methods for teaching and learning chemistry

3) Importance of training science teacher keeping them updated with the continuous progress of the research

4) Use of simulations: pros and cons

5) Identification of recommendations, guidelines for teachers

6) Discussion about international papers and publications
Training on ICTs

Many teachers found interesting and very useful the attention paid by the project to the use of ICTs as resources to implement the teaching of chemistry/science.

Teachers’ skills about digital tools are poor, so they feel to be not adequate to use them or to make them effective for learning.

So, it was important to offer training, not only to teachers involved in the project, but also to portal users, by providing suitable suggestions to use few selected ICTs.
The Transnational Report

Conclusions

In order to make more efficacious the impact of the project, many efforts will be dedicated to enlarge the network of people involved or using material uploaded on the portal.

In order to reach this objective, the quality of the material dedicated to successful experiences will be fundamental, as well as the dissemination cared by schools and associated partners involved in the project.

We hope that the political influence of associated partners will give a contribute in order to make aware the government bodies to address more attention to the teaching of chemistry at school and to the training of teachers.
Thank you for the attention