Expected results of the DOCUMAP project

At the end of the project, a **dense network of European and Asian partner universities and the relevant industry** will have been established for the applied and problem-oriented education in supply chain management and post harvest technology for vegetables and fruit, which will be easily expanded to other agricultural and food disciplines. **New ties between universities** will have been tied as well as existing cooperation intensified and expanded to educational activities. Staff at the partner universities will have gained **insight into curriculum design and teaching methods** at the other partner universities.

This will be the foundation for joint research and education activities in food supply chain management and post harvest technology, for which key issues will have been identified at the end of the project, both regarding the general concepts as well as with regard to the specific conditions in the countries and regions concerned.

Furthermore, the **exchange of experiences**, of relevant know-how and of research outputs between partners will be **institutionalised** and supported with MOODLE and the internet platform. **MOODLE** will explicitly support interactive e-learning of students from partner universities.

Through participation in summer schools and in study projects in the Asian partner countries, **European students and young scientists** will have gained insights into food supply chains in the Asian partner countries, thereby increasing their job qualifications and opening up possibilities for economic ties between Asian and European enterprises in the sector.

After participation in summer schools and the sandwich programme, **teaching staff and prospective teachers at the Asian partner universities** will have gained theoretical and practical know-how in using and supervising problem-based learning and multidisciplinary student research. They will also be experienced in using these approaches in teaching the new curriculum elements on supply chain management and post harvest technology, in the supervision of study projects and other joint activities with enterprises of the sector, which will be an integral element of the curricula in the future.

This is possible because **networks between partner universities and the agri/horticultural industry** will have been established and institutionalised: The Asian partner universities will have **coordination desks and trained human resources** whose task is the maintenance and expansion of this university-industry network. These institutions will also facilitate knowledge transfer between universities and industry. **Actors in industry**, on the other hand, will be actively involved in the finding of research and education topics relevant to their needs.

Students at the Asian partner universities will attend four new modules covering food supply chain management and post harvest technology, internships at enterprises of the sector as well as conduct their own applied and multidisciplinary research in which they learn to analyse and solve complex problems in multidisciplinary teams. Furthermore, they will be advised in planning their career through university alumni in a mentoring programme. Their problem-based learning will be supported by the interactive and virtual learning environment of MOODLE.

A **system for regular curriculum evaluation** and improvement will have been developed and institutionalised. Finally, **project participants** will have gained experience in curriculum development and are able to convey the new approaches used to colleagues from other faculties and universities.

List of project results

Leading to Objective 1 of the project:

- 1.1 cooperation between 4 European and 3 Asian universities has been established / intensified
- 1.2 teaching staff at the partner universities has gained insight into educational structure, curriculum design and teaching methods at the other partner universities
- 1.3 teaching staff at the partner universities have identified key issues for further research and education in FSCM and post harvest technology which are specific for the respective countries and regions
- 1.4 exchange of experiences, of relevant know-how and of research outputs between partners is institutionalised

- 1.5 European students and young scientists gain insights into food supply chains in the Asian partner countries
- 1.6 Networks between partner universities and the agri/horticultural industry have been established, institutionalised and are used for joint activities
- 1.7 Actors in industry are involved in the finding of research and education topics relevant to their needs



<u>Specific Objective 1:</u> Dense linking-up of European and Asian partner universities and industry for the applied and problem-oriented education in supply chain management and post-harvest technology in horticulture

Leading to Objective 2 of the project:

- 2.1 Prospective teachers at Asian partner universities have gained know-how in using and supervising problem-based learning and multidisciplinary student research
- 2.2 Know-how of teaching staff from Asian partner universities in the fields of FSCM and PBL upgraded
- 2.3 Staff members at Asian partner universities use the problem-based learning approach in their teaching activities and support it with MOODLE (e-learning methods)
- 2.4 New modules (covering FSCM and post harvest issues) incorporated into horticultural curriculum and taught to students at Asian partner universities
- 2.5 Asian students of horticulture conduct applied and multidisciplinary research (problem-based learning) and practical training through university-industry networks in the Asian partner countries
- 2.6 Asian students are advised in planning their career through university alumni in a mentoring programe
- 2.7 Regular curriculum evaluation and improvement institutionalised
- 2.8 Modern interactive study and teaching facilities (via MOODLE) incorporated
- 2.9 Knowledge transfer between universities and industry facilitated
- 2.10 Project participants have gained experience in curriculum development and are able to convey the approaches used to colleagues from other faculties and universities



<u>Specific Objective 2:</u> Equipment of teaching staff and students at the Asian partner universities with the theoretical, social and practical know-how necessary

- for sustainable and quality-oriented food supply chain management,
 - for analysing and solving complex problems thereof as well as
 - for transferring knowledge to actors in these supply chains.