

TECHSPIN: A EUROPEAN NETWORK OF TECHNOLOGY SPINNERS FOR SUSTAINABLE INNOVATION

Antonio Laganà, Department of Chemistry, University of Perugia, Perugia, Italy

EXECUTIVE SUMMARY

By building on a specific training initiative and on a nucleus of academic spinoffs, a sustainable network of SMEs strongly linked to Higher education Institutions will be assembled to the end of acting as cultural mediators between University research and the innovation market (i.e. a network of spinners of application oriented research in University laboratories context and of providers of innovative solutions in the market context).

PREAMBLE

In a previous project, ended in September 2012, the possibility for Higher Education (HE) Institutions of the homonymous European Chemistry and Chemical Engineering Education Network (EC2E2N) to develop activities providing chemistry and chemical engineering students with training in entrepreneurial skills was investigated.

Goals of such EC2E2N investigation were:

- an analysis of chemistry curricula of some HE Institutions aimed at pointing out possible entries for providing students at the end of their master studies with entrepreneurial skills and a solid background for innovative self-employment;
- the collection of some success cases providing best practice examples useful to design suitable roadmaps to the establishing of entrepreneurial activities in the field of research and innovation transfer to the market;
- an evaluation of the possibility of establishing a European umbrella organization for such entrepreneurial activities.

The conclusions of the EC2E2N investigation, although largely incomplete, were positive for all the three goals and originated a workpackage (WP3) of the new thematic network project EC2E2N 2.

WP3: SUSTAINABLE ENTREPRENEURSHIP

The purpose of the workpackage is to leverage on the conclusions of the previous investigation

to establish educational activities suited to train younger generations of chemists to exploit their chemical knowledges to become entrepreneurs and be self-employed;

to open new ways of channelling chemistry research and innovation into the production market;

to offer to chemistry spinoffs and start-ups (to start with those sprouted out of the HE Institutions member of the Thematic Network) an umbrella infrastructure helping them to become sustainable and to efficiently target the related market by taking as reference the new EU Framework Programme Horizon 2020. The three start-up companies partner in the project will represent the test ground for these activities.

In this perspective:

The first task of the WP will consist in planning and carrying out an Employment Survey for European Chemists that will be conducted in collaboration with EUCHEMS and its national

Virt&I-Comm.2.2012.1

branches in order to provide a quantitative basis for developing actions in favour of young chemists and in particular a training course and an umbrella organization for spinoffs

The second task of the WP will consist in the design of a post-master professional school combining skills directed to the mastering of chemical products most exposed to market and to financial and economic activities. It will be composed of courses able to provide a background for entrepreneurship and self-employment and at the same time targeted to single out the chemical knowledge best suited to foster innovation in production to market.

The third task of the WP will consist in gathering together of some existing spinoffs of academic origin in order to constitute the nucleus of a network of highly innovative (strictly linked with a scientific structure of a partner institution in the first instance) start-ups.

The fourth task of the WP will aim at building around such a network a cooperative infrastructure based on grid technologies able to provide support for training activities, for logistic and commercial needs, and for ambitious innovative projects.

MILESTONES

M1 - The employment survey and the design of a training initiative

M2 - The definition of the umbrella organization

M3 - The design of a spinoff/start-up initial cluster

M4 - The assemblage of a spinoff/start-up initial cluster

M5 - The design of an embryo support infrastructure

M6 - The assemblage of an embryo support infrastructure

DELIVERABLES

D8 Entrepreneurship training A training initiative (Public, Service, Event)

A training initiative will be assembled made of courses able to provide a background for entrepreneurship and self-employment and at the same time the chemical knowledge best suited to foster innovation in production to market (coordination Prof. Reiner Salzer, Dresden, DE).

D9 The formalization of a spinoff/start-up initial cluster A network of spinoff companies (Public, Service)

Using the start-up companies that are partners in this project and other companies created from staff at chemistry/chemical engineering departments in partner institutions as a basis, a network of such companies will be created that will provide mutual benefits to all partners. Such a network will be able to represent and lobby for these companies and provide support and a source of information for embryo companies (coordination Dr Noelia Faginas Lago, Perugia, IT).

D10 The assemblage of an embryo support infrastructure Spinoff company network support (Public, service)

A support infrastructure will be developed for the network created in the deliverable above, in order, amongst other things, to help spinoff companies apply for EU and other research and education grants, and assisting them in the administration of such grants (coordination Prof. Antonio Laganà, Perugia, IT).

Virt&I-Comm.2.2012.1

PARTNERS INVOLVED

Perugia (20 days) Lead and coordinate the working group. Report to the management committee; organise group meetings; prepare and present the progress and final reports of the work package; ensure the deliverables are achieved.

Provide input for a training initiative, the formalisation of a cluster and its support infrastructure.

Astyle (10 days) Provide input for a training initiative, the formalisation of a cluster and its support infrastructure.

TU Vienna (10 days) Provide input for a training initiative, the formalisation of a cluster and its support infrastructure.

Krebs Inc. (10 days) Provide input for a training initiative, the formalisation of a cluster and its support infrastructure.

ECTN (5 days) Provide input for the formalisation of a cluster and its support infrastructure.

CEFIC (5 days) Provide input for a training initiative.

EUCHEMS (5 days) Provide input for a training initiative.

BIOSENSORES (10 days) Provide input for a training initiative, the formalisation of a cluster and its support infrastructure.

MASTER-UP (10 days) Provide input for a training initiative, the formalisation of a cluster and its support infrastructure.

EXPLANATION OF WORKPACKAGE EXPENDITURE

Travel and subsistence funding will be required for a meeting of the work package group in Perugia, IT to set the guidelines for the training course and to discuss the creation of the network.

The group will meet at the first annual meeting of the network to establish the network.

The group will meet at the second annual meeting of the network to discuss the development of the support infrastructure for the network.

WORKPLAN

FIRST YEAR 2012-13

A meeting will be organized mainly with the purpose of better focusing the organization of the employment survey, working out of the data on the occupational situation of young chemist the curricular components needed for fostering entrepreneurship skills. At the same time contacts among the partner spinoffs will be activated to the end of defining a MoU to establish a common action plan.

SECOND YEAR 2013-14

A proposal for the curricular components for entrepreneurship will be worked out and the related document discussed during the general assembly of the project. In the same year a WP meeting will be organized to write a proposal for a special school (or a short post master teaching activity) and to define the roadmap for implementing the MoU defined the previous year.

THIRD YEAR 2014-15

Virt&I-Comm.2.2012.1

A special school or a post-master training initiative will be implemented for the curricular components of entrepreneurship. In the same year an embryo umbrella organization for academic spinoff will be implemented.