ISEKI_FOOD: ROLE IN EUROPEAN FOOD TECHNOLOGY DEVELOPMENT

ISEKI_FOOD: ULOGA U RAZVOJU EVROPSKIH PREHRAMBENIH TEHNOLOGIJA

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SUMMARY

ISEKI Food (Integrating Safety and Environment Knowledge In Food towards European Sustainable Development) (https://www.iseki-food.eu/) was designed as a network of University and Research Institutions, Professional Associations, Industrial partners and Students Associations to foster collaboration on a variety of joint interest projects. Several European and 6 global academic networks projects received funding between 1998 and 2011 from the European Commission.

To ensure the sustainability of the network activities the ISEKI Food Association (https://www.iseki-food.net/) was founded in 2005 to be a leading network for all stakeholders in the food supply chain with regard to education, legislation and communication.

The main objectives of the network are to contribute to the European Higher Education Area (EHEA) in the field of Food Studies by internationalization and enhancement of quality. The workplan is fostering innovative developments, enhancement of food studies quality, and improvement of European higher education international attractiveness.

More specific objectives are: 1) Creation of a Virtual Networking Environment (VNE) for International Cooperation and Mobility; 2) The European Quality Assurance System for Food Study Programmes (EQAS_Food); 3) Facilitating/Promoting/Fostering Lifelong Learning in Higher Education (APEL); 4) Innovation in Food Study materials; 5) Development of a Platform for the International Cooperation and Mobility in the field of Food (PICAM_Food); and 6) Exploitation of research results especially to small and medium enterprises (SME’s).

Key words: Food Studies, Higher Education Area, Internationalization, Quality Assurance.

THE ISEKI_FOOD NETWORK

An exciting development that has been taken place over the past 10 years and that demonstrates clearly that the international aspects of food sciences are becoming increasingly important to governments, industry and academia is the foundation and expansion of a variety of networks funded by the European Union that focus specifically on issues surrounding education research and industrial and governmental subjects in the food sciences and related fields. Initially started 10 years ago, ISEKI Food (Integrating Safety and Environment Knowledge In Food towards European Sustainable Development) was designed as a network of University and Research Institutions, Professional Associations and Industrial partners to foster collaboration on a variety of joint interest projects. Under this premise three networks were founded that included the initial FOODNET (1998-2001) and its follow up networks, ISEKI Food 1 and 2 (2001-2008). While the networks initially had only European members, a new initiative (ISEKI Mundus) was started in 2007 to bring in members from around the globe to discuss issues surrounding food sciences (Fig. 1).

ISEKI Food 1 and 2 (http://www.esb.ucp.pt/iseki/) received funding from the European Commission through the Socrates Erasmus and Lifelong Learning Programmes. ISEKI Food 2 included a total of 113 institutions (74 universities, 37 industrial and research partners and 2 Associations), with 93 coming from the EU, and 20 from non-European countries. The project was structured into 5 working groups (WG) and a horizontal activities group, each having several coordinators coming from different universities. The project was coordinated by a Steering Committee. Annual meetings were held to get to know each other better, share the different cultural and political experiences and to develop joint activities. As a result of ISEKI_Food, guidelines for quality assurance of food studies, workshops, web databases, teaching and training resources including books, e-learning courses and a training network, and a “virtual” community of players in the field of Food Sciences have been developed.

With ISEKI Mundus project (http://www.esb.ucp.pt/iseki/_mundus), ISEKI Food 2 was expanded to include new members from countries all around the globe including the US, Canada, New Zealand and others. The main objectives of ISEKI Mundus are to foster the internationalization and enhance the quality of food science education and research. As a consequence, more than 35 partners in over 23 countries meet on a regular basis to discuss needs that currently revolve in particular around the education of future food scientists.

ISEKI - Integrating Food Science and Engineering Knowledge Into the Food Chain - Historical Timeline

FOODNET 1998 - 2001 58 partners 27 countries
ISEKI_Food 1 & 2 2001 - 2008 113 partners 25 countries (EU+)
ISEKI_Mundus 2007 - 2008 >35 partners +23 countries (6 continents)
ISEKI_Food 3

Fig. 1. Timeline of the establishment and growth of networks under the ISEKI_Food initiative.

Sl. 1. Vremenski period osnivanja i razvoja mreže na osnovu inicijate ISEKI_Food asocijacije

To ensure the continuation of the globalization and internationalization efforts even beyond the time limit of funding received from the European Union, members founded in 2005 (Fig. 2) the ISEKI Food Association (https://www.iseki-food.net/). The organization currently has 111 individual and 18 company members from 45 countries, and focuses on promoting synergy between research, education/teaching and industry with

PTEP 13(2009) 1 13
respect to Food Sciences and Food Technology, promote global food quality assurance, development of a virtual community of experts in the field of food, with communication to the general public, establish a framework of agreements among partners, fostering the mobility of students and staff, and create internal bodies that promote the integration of science and engineering knowledge into the food chain and to recognize outstanding achievements in food sciences through the ISEKI Academy.

Today the ISEKI Food Network is one of the most successful EU Networks, that is managing to achieve a great impact through its internationalization and communication to the rest of the world.

THE ROLE OF THE ISEKI_FOOD NETWORK

The food and beverage industry is the largest European manufacturing sector in terms of turnover, value-added and employment. However, it is fragmented in SMEs / microenterprises (99.1% businesses – generating 48.1% of food and beverage turnover and employing 61.6% of the sectoral workforce) and multinational companies (0.9% business – 51.6% turnover, 53.5% added value and 38.4% of the employment). Labour productivity and percentage of higher-level skilled and better paid staff is considerably lower than in most other industry sectors. Moreover, in terms of innovation performance ranking, investment in research and export/import Europe has been loosing position, compared with other regions of the world.

Through the previous projects, the network has been mainly working on: the tuning of curricula and agreement on food studies minimum requirements; curricula design based on learning outcomes and competences; alignment between teaching, learning and evaluation; compilation of quality monitoring systems for university teaching in Europe and comparison with other non-European systems and proposal for a common European method; teaching materials and methods; relation between education, research and industry; among others.

There is a need to continuously develop most of the mentioned working topics, and start working on new aspects, in order to achieve the Lifelong Learning objectives and the Lisbon goal – make Europe the most competitive and “knowledge-based” economy in the world.

FUTURE PLANS FOR ISEKI_FOOD NETWORK

The ISEKI_Food network received EU funding to continue its activities from 2008 till 2011. There are two main network projects: ISEKI_Food 3 (funded by the LLP programme) and its extension ISEKI_Mundus 2 (funded by the Erasmus Mundus – action 4 programme).

ISEKI_Food 3 Project

The two main objectives of the ISEKI Food 3 academic network (142822-LLP-1-2008-1-PT-ERASMUS-ENW – agreement nr. 2008-3833/001-001) project are: 1) to continue to contribute to the realisation of the European Higher Education Area in the field of Food Studies, and 2) to work towards the network sustainability. The work plan is fostering innovative developments, enhancement of food studies quality, and improvement of European higher education international attractiveness.

More specific objectives are: 1) Creation of a Virtual Networking Environment (VNE); 2) The European Quality Assurance System for Food Study Programmes (EQAS_Food); 3) Facilitating / Promoting / Fostering Lifelong Learning in Higher Education: Employability Aligned Curricula and Accreditation of Prior Experiential Learning (APEL); 4) Innovation in Food Study materials; and 5) The exploitation of network results through the ISEKI_Food Association (IFA).

The main expected outcomes will be a VNE for the network, the EQAS_Food, reports related with the employability of food studies students, APEL and PhD studies, innovative teaching materials and two books on advanced food studies topics, and a series of deliverables related with the project dissemination and exploitation. A final International Conference will be a major event on the presentation and world dissemination of project results.

This project includes 96 partners from 30 European countries. Through the network partners, the ISEKI Food Association (IFA), world network (ISEKI_Mundus 2), workshops, virtual network environment (VNE) and final international conference, the different deliverables will reach a large audience of stakeholders, including education scientists, students, researchers, technologists, governmental agencies representatives, industry representatives, trainers and consumers.

ISEKI_Mundus 2 Project

The two main objectives of the ISEKI_Mundus 2 project are to: 1) continue to contribute for the internationalization and enhancement of the quality of the European higher education in Food Studies, and 2) work towards the network sustainability, by extending the developments undergoing through the Erasmus Academic Network ISEKI Food 3 to other countries, and developing new activities towards the promotion of good communication and understanding between European countries and the rest of the world.
More specific objectives are: 1) Viability study on a worldwide implementation of an European Quality Assurance System for Food Study Programmes (EQAS_Food); 2) Facilitating Global Lifelong Long Learning in Higher Education in the field of Food Studies; 3) Development of a Platform for the International Cooperation and Mobility in the field of Food (PI-CAM_Food); 4) Development of Innovative Food Study Materials; 5) Sustainability work on ISEKI_Mundus Network; 6) Project dissemination and final conference.

Further to these objectives, the ISEKI_Mundus 2 project will stimulate the development of further related projects between partners (under several programmes, Tempus, Mundus, FP7, EU-Canada, EU-USA, ICI ECP, and others), and promote the involvement of all partners on the activities undergoing in the ISEKI Food 3 Academic Network.

The achievements of this project are mainly directed to the academic world and also to the other public (enterprises and public in general).

This project is coordinated by the ISEKI_Food 3 (with 96 partners, from 28 European countries) and includes a total of 53 institutions, from 30 Non-EU countries.

The main expected outputs of this project are: implementation of EQAS_Food, web platforms, web databases, critical analysis reports, guides, teaching materials and methods (including books, e-learning courses) and a series of deliverables related with the project dissemination and exploitation. The final International Conference will be a major event on the presentation and world dissemination of project results.

CONCLUSION

The ISEKI Food 3 and ISEKI Mundus 2 projects include workpackages on dissemination and exploitation of results, willing to strength and consolidate the ISEKI Food Association (IFA). IFA will be developing activities in the field of the consortium work, such as an E-journal, and workshops, that will contribute for its sustainability beyond the Socrates/Erasmus financing. This will allow the network to continue its work towards the internationalization and quality enhancement of the European Higher Education Food Studies. Moreover, the maintenance of this network will contribute for the prestige and attractiveness of the European Higher Education Food Studies and to attract IFA members from all over the world.

A final two days conclusion conference will be organized to present and disseminate the final projects (ISEKI_Mundus 2 and ISEKI Food 3) outputs and conclusions. This conference will be organized in June 2011, in Milan-Italy, following the final conclusion meetings of the ISEKI_MUNDUS 2 project and the ISEKI Food 3 Academic Network. This conference will be open to any higher education institution, and will be announced worldwide. The main speakers will be partners of both projects (ISEKI_Food network) and other invited speaker.

The contents of this conference will cover the topics of the two projects. The detailed agenda will be finalised in the 2nd overall project meeting (May 2010). Please visit http://www.esb.ucp.pt/isekiconference2008/ to see the contents of the 1st ISEKI_Food Conference.

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REFERENCES
