The ISEKI_Food network approach in the PhD studies in FS&T

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IMPORTANCE OF PhD studies

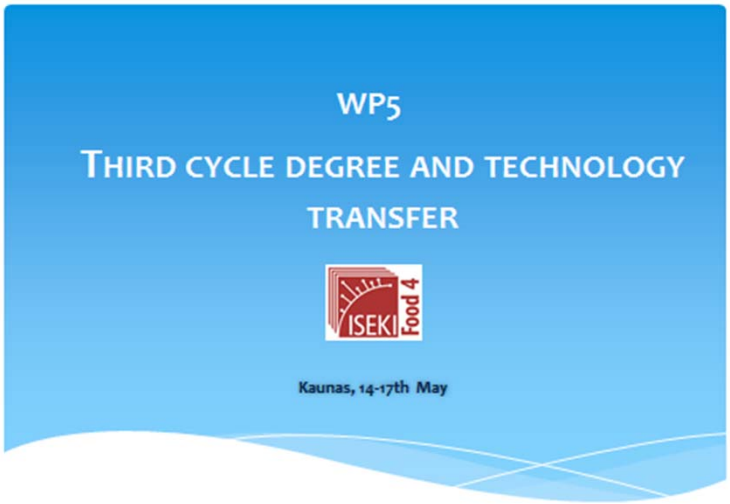
The importance of the PhD studies on the field of Food Science and Technology has been analysed in the European ISEKI_Food 4 project (www.iseki-food4.eu):

Iseki group at the 2nd Overall Meeting held in Kaunas, 2013.

AIM

"to further contribute to the development of the PhD programmes in Food studies, to create an opportunity for young scientists to interact, to exchange and share information, to promote conferences, seminars, webinars and forums of interest of the PhD students and tutor community"

ISEKI 4 Project: WP5



To this aim, several activities have been carried out under the framework of a specific working group (WG5), which were focused on:

- collecting information about :
  - the current state of PhD studies,
  - the future career of the doctoral students,
  - most important competences for PhD students
- development of a PhD virtual platform (https://www.iseki-food.net/phd/)
- annual PhD newsletter

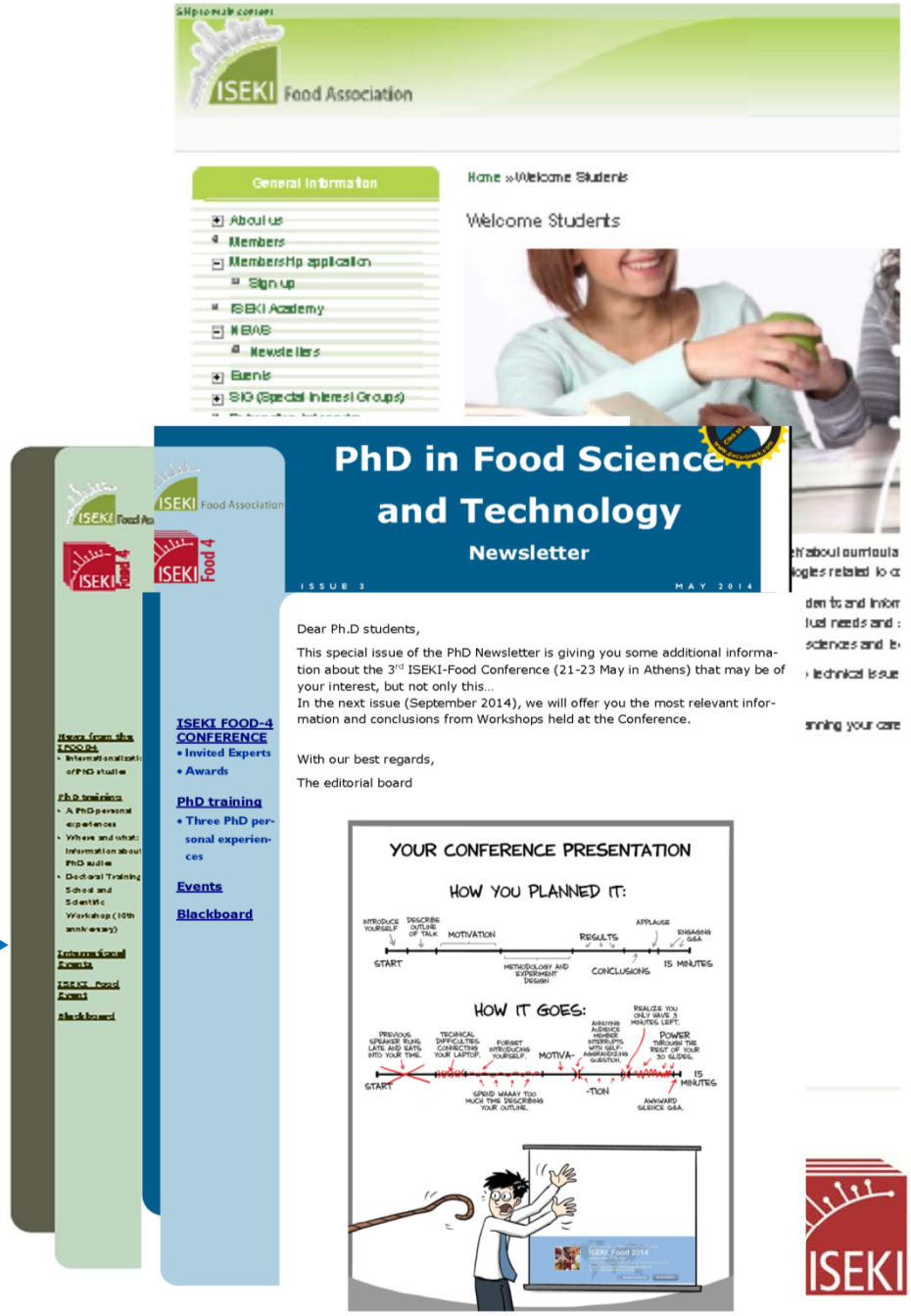
IFOOD4_PhDnet

Virtual platform:

[IFA web page: https://www.iseki-food.net/](https://www.iseki-food.net/)

PhD platform

- About us
- Objectives
- Training material
- Relevant PhD articles
- News for members
- PhD Newsletters
- Upcoming events
- Contact



Objective

To present the most relevant activities and results obtained in the project related with PhD studies

Methodology

Different surveys = f(objective)
Surveys for academia
Survey for industry partners

Results

Based on around 200 answers from 35 countries.

Importance /Role of PhD studies

Survey respondents agreed that the attainment of a PhD degree …

ACADEMIA

INDUSTRY

- increases the job opportunities of graduates.. in Academic sector (77%) and in Research Centers (15%)
- **Provides a better paid job/salary** (54%)
- **Provides a well-trained future workers for**
  - Academia (92%)
  - Research Centers (90%),
  - Industry sector (58%).
  - Business sector (21%).

NO

- **Increases the job opportunities** in the following order:
  Academia > Research Center > Research sector > Industry > SME.
- **Provides a better paid job/salary** (46%)
- **Provide a well-trained future workers for**
  - Academia (96%)
  - Research Centers (98%)
  - Industry sector (32%).
  - Business sector (28%)

Identifying needs and skills for the future

93% survey respondents also agree that PhD students **will need new skills** to face the future labour market prospects.

What are the most valuable skills???

Top 3 most relevant competences

ACADEMIA

INDUSTRY

GENERIC

To demostrate flexibility an open-mindedness, when working with different environments and people

To show ability to handle difficulties in research in an appropiate manner.

To show ability to react quickly and effectively to unpredictable situations.

To write reports fluently and efficiently

To show ability to communicate effectively to a broad framework of audiences.

SPECIFIC

To demonstrate original, independent and creative thinking.

To formulate and apply solutions to research problems and effectively interpret research results.

To develop new research projects

To apply effectively project management

Recommendations

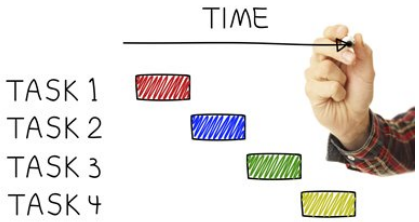
How to integrate these valuable skills into the curricula of PhD students?

- To enhance the mobility of students to different labs, countries: international PhD, collaborations between university, university-industry

- To promote the preparation and defense of the thesis by collection of research papers and critical reviews.

- To enhance the oral participation of students into national and international conferences, workshops, seminars, etc.
- To promote the oral participation of students into non-scientific audiences: public workshops, fair, schools, television, radio..

- To favor students participation in the management procedures of current research projects and preparation and submissions of new proposals.
- To involve them actively into the coordination of master thesis projects or similar (final projects of undergraduate students).



Is important to have International degree/collaboration at PhD level?

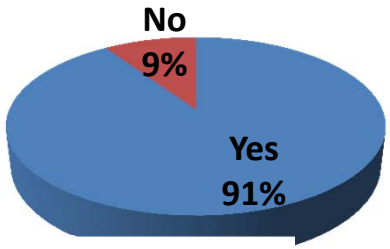


Figure 1. Word-cloud generated by using the text of the responses obtained when asking about the importance of the establishment of an International degree/collaboration.

Figure 2. Word-cloud generated by using responses when asking about the main barriers encountered to implement such International degree/collaboration.

REPORT CONCLUSIONS

Emerging changes in the organization of doctoral training are being witnessed by the development of new doctoral schools in many European countries.

RETHINKING PHDS!

Fix it, overhaul it or skip it completely — institutions and individuals are taking innovative approaches to postgraduate science training.

BY ALISON MCCOOK

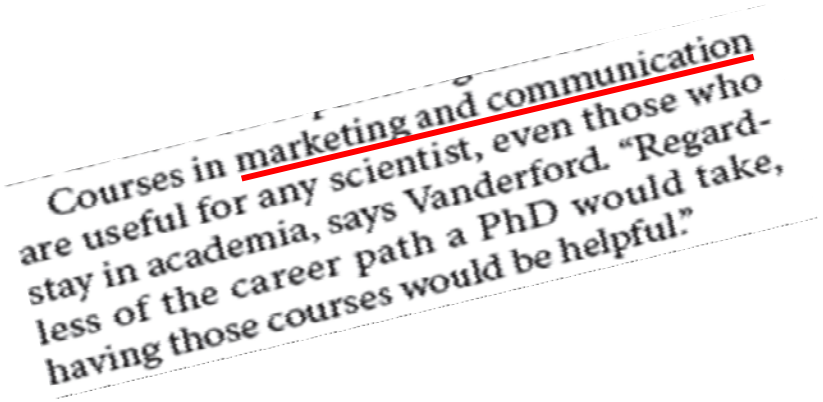
280 | NATURE | VOL 472 | 21 APRIL 2011

CONCLUSIONS

Competences related with **personal effectiveness, communication skills,** research skills and techniques and research **management** are considered to be the most valuable skills to be acquired by our PhD students to face the future needs of the labour market.

CONCLUSIONS

Non-conventional structured programmes of activities are needed, ranging from advanced seminars and courses in research topics to training in transferable skills to face the changes in the labour market prospect of doctoral graduates and act as a 'quality label' in enhancing the career opportunities of PhD' graduates.


Courses in marketing and communication are useful for any scientist, even those who stay in academia, says Vanderford. "Regardless of the career path a PhD would take, having those courses would be helpful."

project management

business basic

public policy

Focused seminars in areas as **communication** would go a long way towards strengthening the capabilities of PhD students and improving their career prospects (Fiske, 2011).

Future of PhD studies

Expanding the PhD experience and preparing holders of scientific doctorates to be successful **in a range of careers** should be our main goal.

THANKS FOR YOUR ATTENTION!!!!!!!!

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