

**A QUALIFICAÇÃO E A FORMAÇÃO PARA O SECTOR
AGROINDUSTRIAL**

Training Requirements And Careers for Knowledge-based Food Science and Technology in Europe

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Training Requirements And Careers for Knowledge-based Food Science and Technology in Europe

TRACK_FAST
FP7 KBBE 227220

Program

Food, **A**griculture and **F**isheries, and **B**iototechnology

K n o w l e d g e - B a s e d B i o - E c o n o m y (K B B E)

Call FP7-2008-KBBE-2B

Area 2.2.3
Food Processing

KBBE-2008-2-3-03
Training and career development
for future food scientists

Objectives

Identification of the training and career requirements of future European food scientists and technologists (FST)

Implementation of a European strategy to recruit the next generation FST leaders

Context



Annual Report 2011

European Food Sector:

- Employs 4,1 million people in 274,000 companies
- *Leading employer in the EU manufacturing sector (14.6%)*
- Fragmented industry, being 99,1% SME's - *48.7% of food and drink turnover; 63.0% of food and drink employment*
- Purchases and processes 70% of EU agricultural production
- Annual turnover of €956,2 billion - *Largest manufacturing sector in the EU (16.0%)*
- Exports €65,3 billion to third countries - *EU market share in global exports 17.8%*

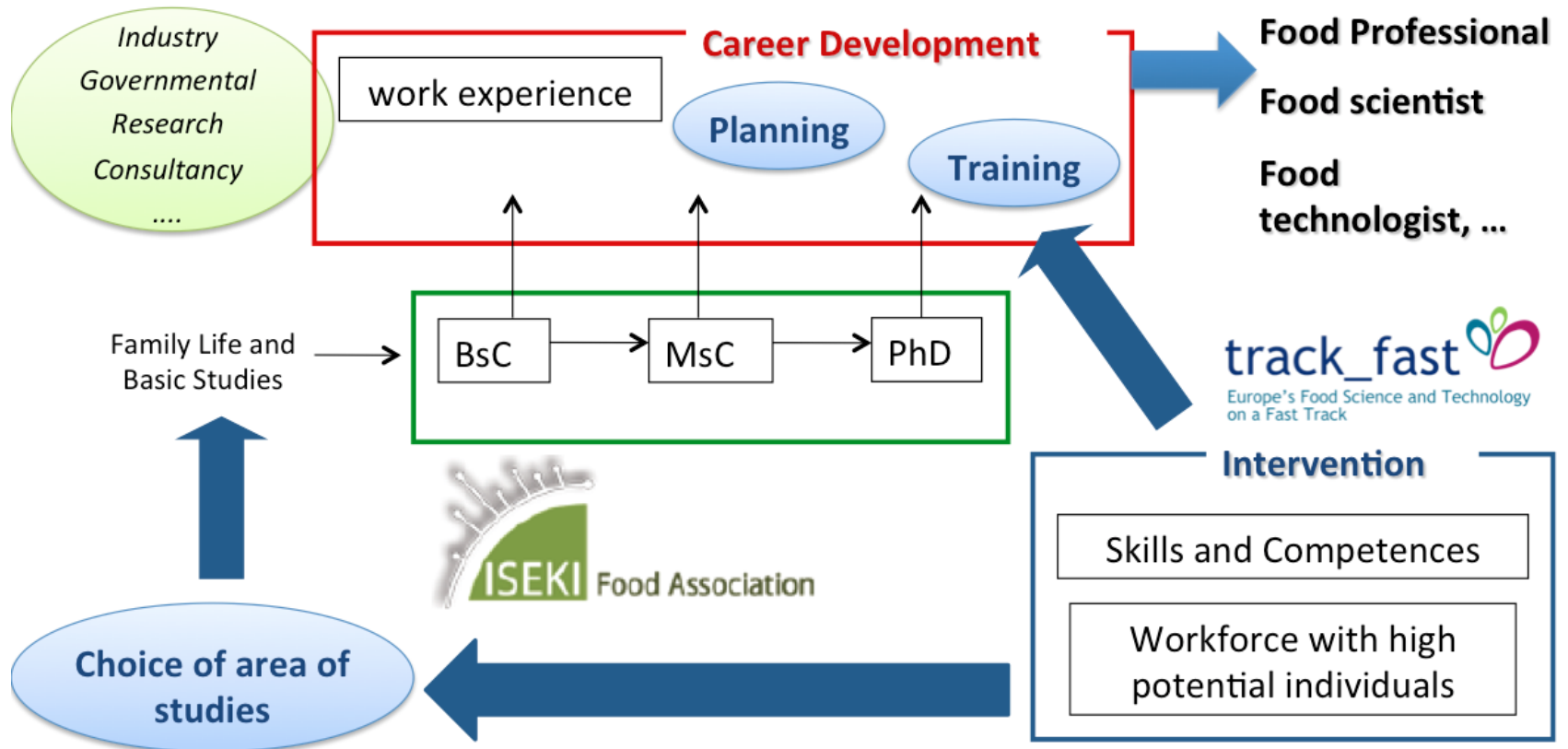
Context



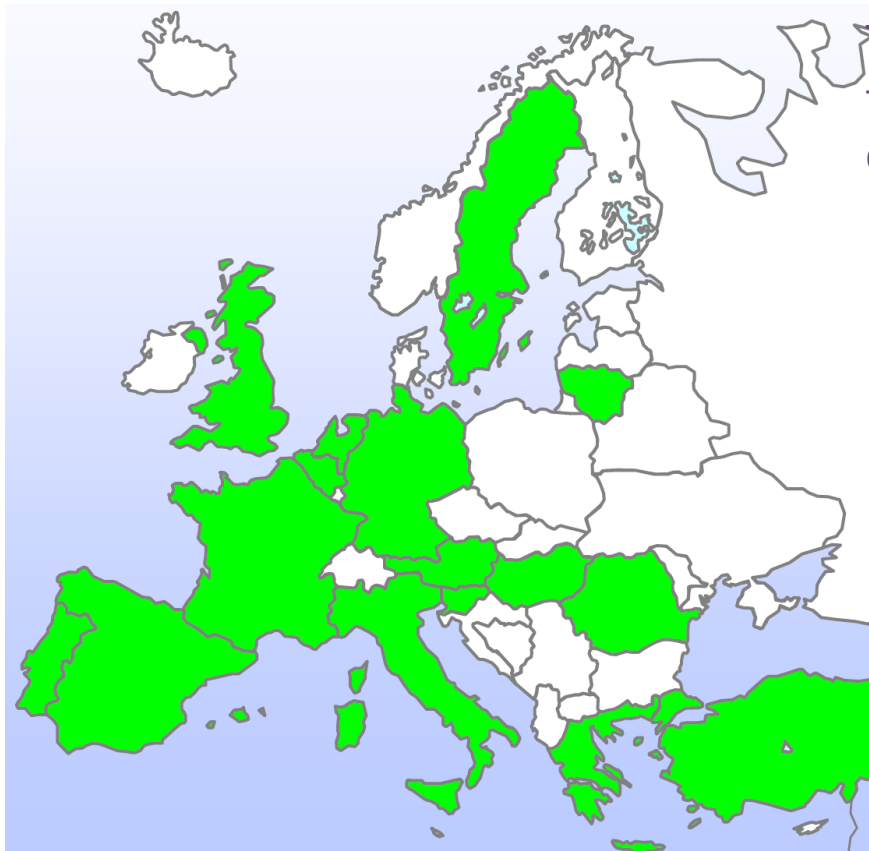
HOWEVER:

“Students tend to believe that a career in F&D is not an attractive choice, and the best and brightest science students choose other career paths.”

Context



Consortium



TRACK_FAST provides main stakeholders with a forum within which their main needs are considered

- ❖ representatives of European and national professional organisations,
- ❖ research centres,
- ❖ academic bodies,
- ❖ multinational companies,
- ❖ SME associations,
- ❖ associations specialized in training members for the food industry,
- ❖ quality assurance experts.

Consortium



Logical Framework

Update education/training based on actual and future food job market needs

Establishment of a framework for continual professional training and career development for the FST professionals

Regulation of FST professions in Europe

Promotion of FST to attract students



>>> **Outcomes**

>>> Identification and definition of personal skills
requirements in food job market

OBJECTIVES

- 1) *Which competencies should a FST have to be competitive in the job market and to provide the skills needed by employers?*
- 2) *What profile would be most desirable - that is what skills, knowledge and competencies are found in the “ideal FST”*
- 3) *How and when should these competencies be acquired?*



Highlights

- Employers of food scientists & technologists (FSTs) told us which skills they desire
- “Communicating” was the no. 1 skill desired by all FST employers
- Training in communication skills should primarily take place in school, before and during university, but the suggested frequency of such training was close to “continuous”, indicating that education during work life is also important for this skill.

Highlights

- “Thinking & Solving Problems ” was the no. 2 skill desired by all FST employers
- Problem solving skills should be learned outside of the workplace, essentially before working life begins, while communication skills may have some workplace-specific components which are taught by the employer
- Overall, “soft” skills are more in demand than food sector specific skills

Highlights

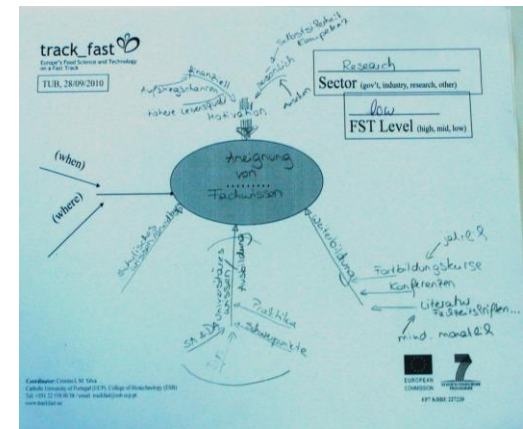
- “Product Development” was the no. 1 food sector specific skill
- This skill should primarily be learned in the workplace, but preceded by university training
- Desired skills varied by geographical region, FST level and employment area
- All employers in all areas mentioned soft skills much more than food sector skills. This may reflect a general satisfaction with the food sector-specific skills found in current FSTs

Highlights

- The comparison with the current situation showed that in general FSTs have the skills that are considered ideal. This is good news!
- However, current FSTs have almost the same competence in soft and food specific skills while, ideally, FSTs should have many more soft skills. The message seems to be that we need more soft skills and more varied soft skills

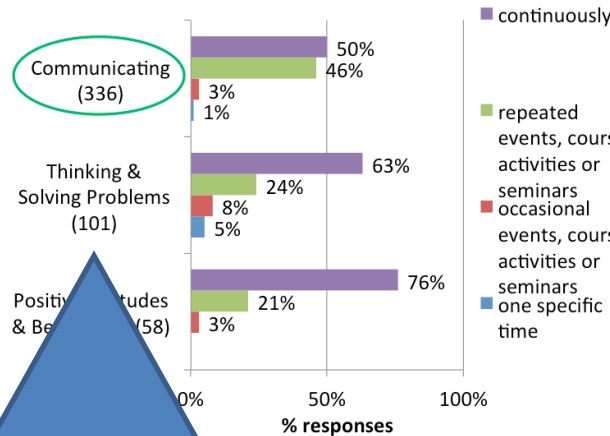
Source: D1.3: **FST Market Needs Report**

→ Which competences ?



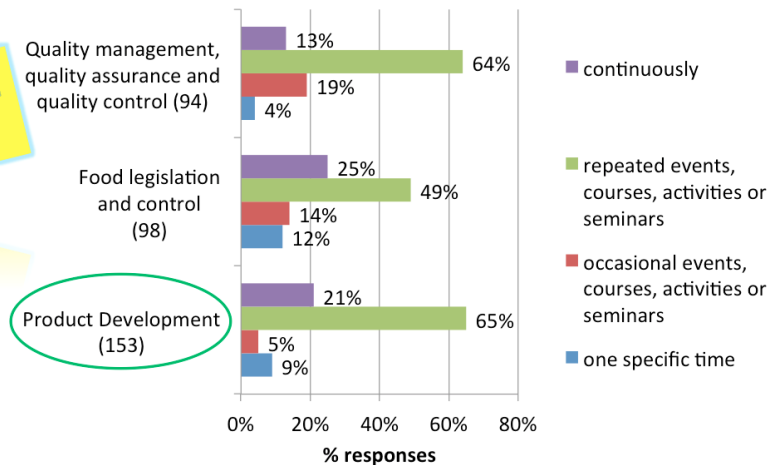
→ Where, when, how, how often?

TOP 3 Soft Skills



there is a need to promote the acquisition of soft skills

TOP 3 Food Skills



>>> Developments for the regulation of food science
and technology professions in Europe



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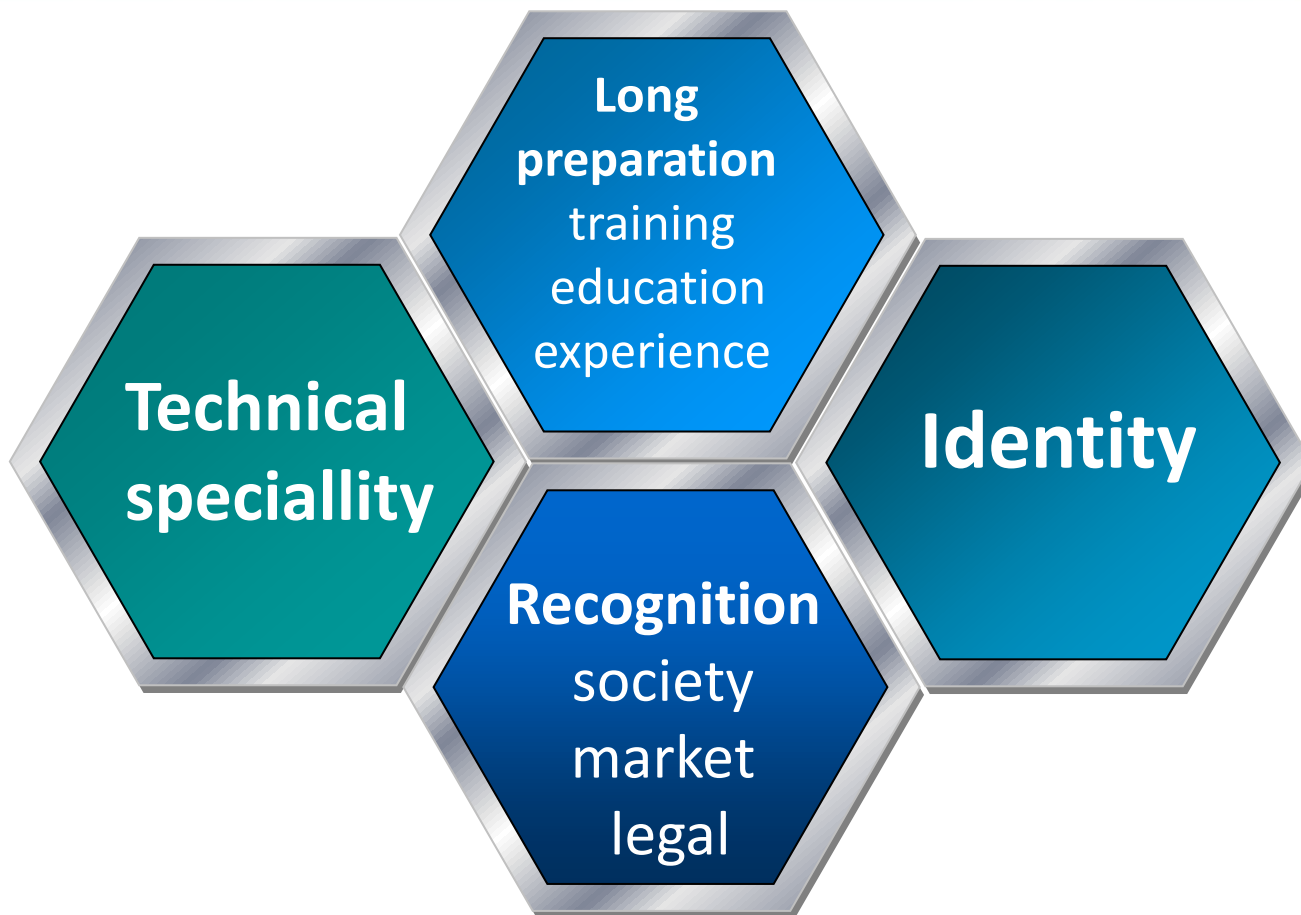


ISEKI Food Association Workshop Food Professional Regulation in EU

Wednesday 31st August 2011
Great Hall of the University of Milan,
via Festa del Perdono 7, Milan, Italy

Sponsored by





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Regulation of the food professions in Europe

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Food professions are not attractive. That is claimed by the food and drink industry and in general by the European higher education that has been unable to attract the best students to food science and technology programmes. To understand this problem and to propose solutions, the current status of the food professions in Europe was analysed. Few countries were found to have completely regulated professions, some others possess the regulation of the title of the profession only and the rest has no such requirement for designation of professions but usually have professional associations. The heterogeneous picture in Europe is an indicator of the difficulty to characterize the identity of the food professional, that can also be explained due to the fact that, depending on the country, the same jobs, the same functions, are frequently performed by graduates from

12:45
06/05/2012

Highlights

- From the whole work performed it was concluded that the issue about regulated professions in the field of food science and technology in Europe is important and it needs an improvement. However, it is evident also that this is a complex task
- At the same time there is also a debate about the possibility to deregulate the professions, with the idea that this will decrease the costs of regulation, remove the informational barriers and complex formal procedures and thus increase competition that will generate quality and liberate transfer on the international job market

Logical Framework

Update education/training based on actual and future food job market needs

Establishment of a framework for continual professional training and career development for the FST professionals

~~Regulation of FST professions in Europe~~

Promotion of FST to attract students

Highlights

- Europe presents a profile of apparently heterogeneous education at the level of comprehensive training related to the field of food processing. In most countries diplomas in food technology are offered, while in other countries the training offer is essentially in food engineering.
- The TRACKFAST consortium advocates a common professional identification for food science and technology education in Europe for further clarification of the labor market, increasing international mobility professionals and creating structures that enhance the quality and attractiveness of these professionals

Comparison of actual with recommended career paths

Survey

Actual career path

Basic background data

Selected parameters for career path characterization

Education and training through the career path



Low Responsibility Level (LR)

Responsible for a scope of activities under the direction of others

Medium Responsibility Level (MR)

In charge of leading a group of persons

High Responsibility Level (HR)

In charge of leading the company

Workshops/Survey

Recommended career path

Top skills and top food skills demanded by the employers

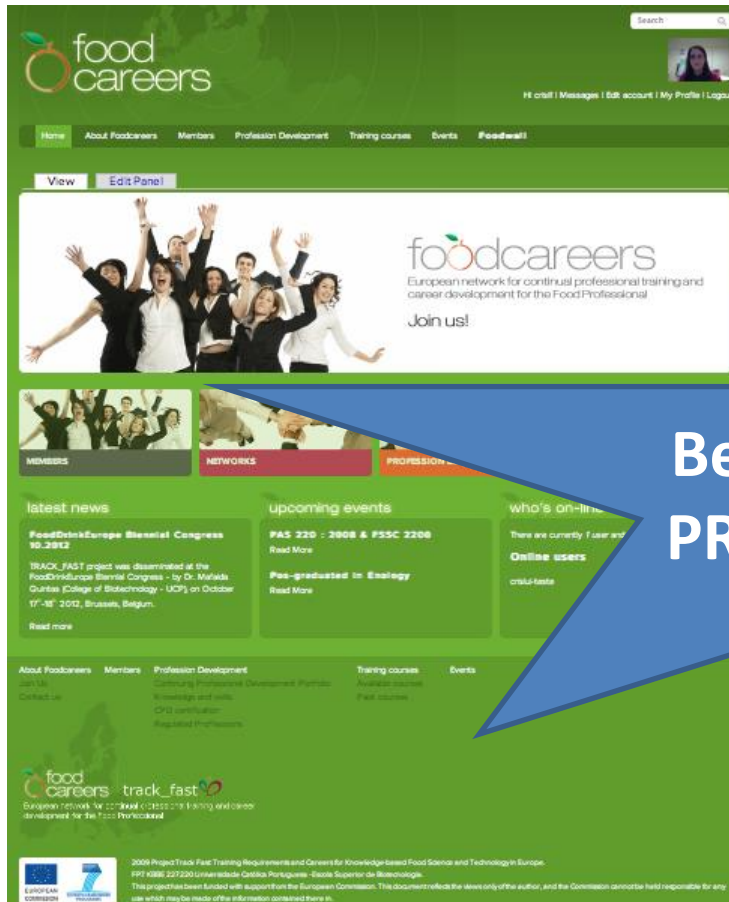
Where and when (frequency) the skills have to be acquired.



>>> Establishment of a framework for continual professional training and career development for the FST professional

→ Continual professional training and career development (CPD)

www.foodcareers.eu



Better prepared
PROFESSIONALS

AIMS:

bringing together graduates and professionals working in the food sector, both in industry and academia (**social networking**)

creation of an online network for continual professional training and career development for Food Scientists and Technologists in Europe (**information on training**)

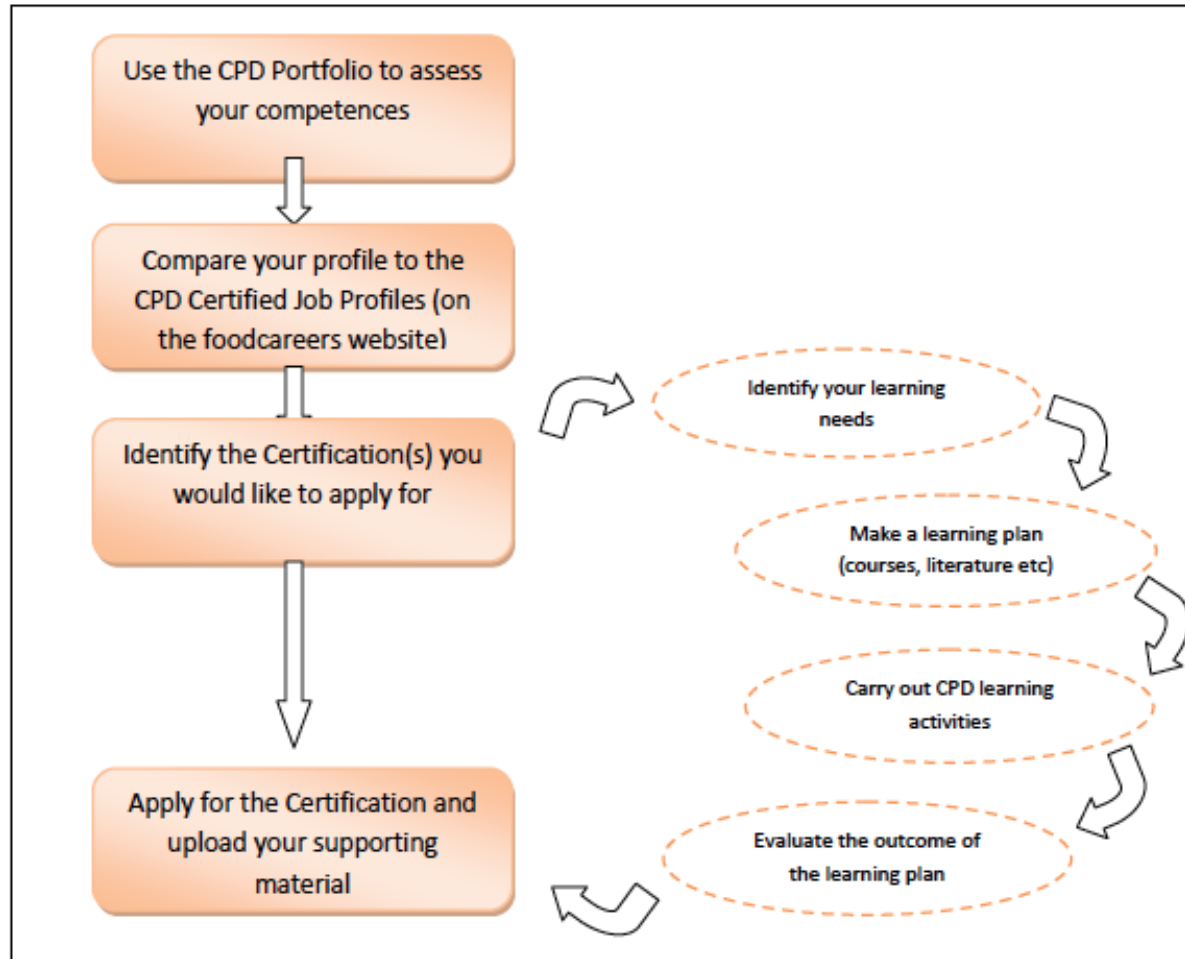
social networking and providing the guidance and tools for creating and maintaining a **continual professional development portfolio**

How does it help the food professional?

- The on-line Continuing Professional Development Portfolio
- Information on training
- Social Networking



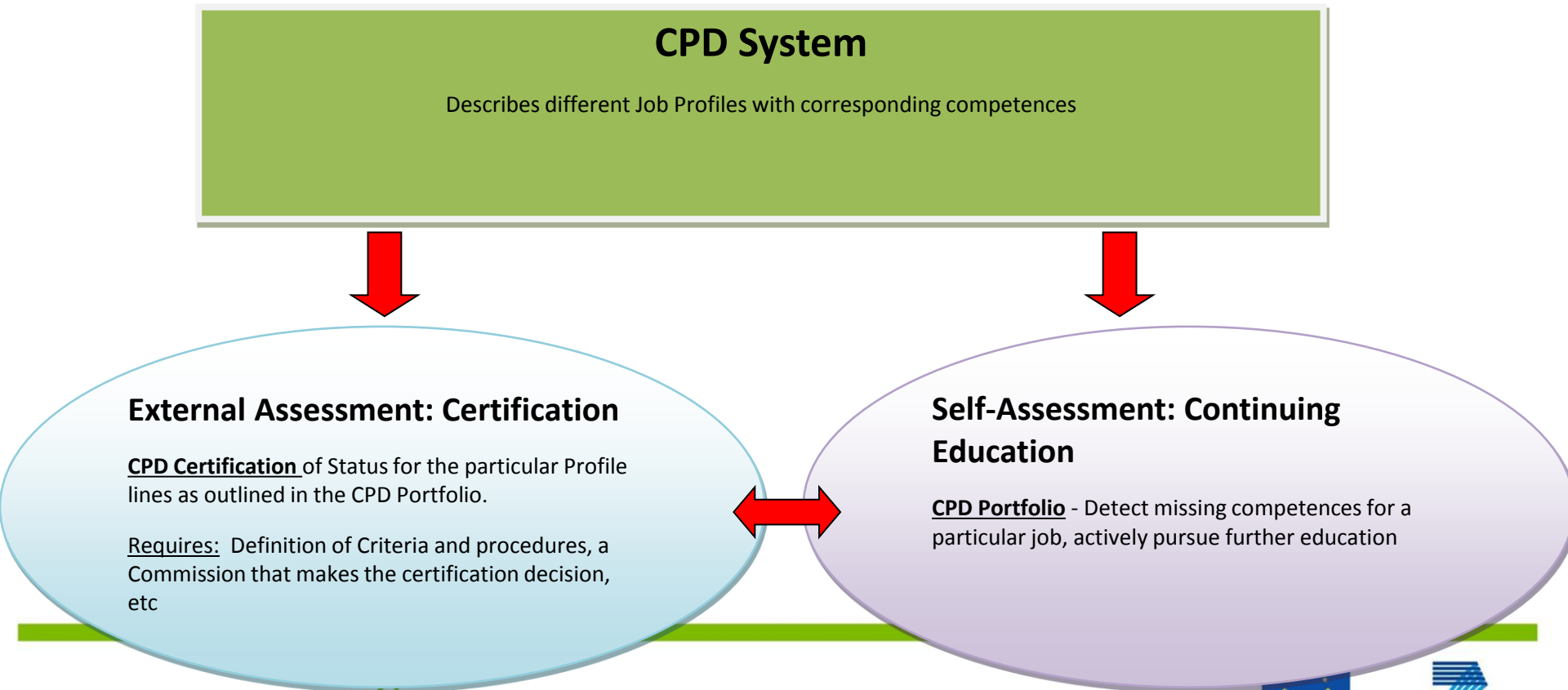
→ Development of a certification scheme for Continual Professional Development programmes



- Development of a certification scheme for Continual Professional Development programmes

“As a food professional, you may want more than just creating a CPD portfolio which can help you in your next job. You want a certificate which proves that you have the required skills and competences for a particular job anywhere in Europe. One of our aims is to implement a **European certification scheme** for food careers. The assessment of your CPD portfolio will form part of the process for certification.” (<https://www.foodcareers.eu/cpd-certification>)

- Development of a certification scheme for Continual Professional Development programmes



Draft standards for the Certification of Continual Professional Development (CPD) for the Food Professional

- two important sectors: Food Quality & Food Safety, Research & Development
- each divided into three levels of responsibility: 1-low, 2-medium, 3-high

A total of 6 “Job Profiles” under the CPD Certification Scheme

Each “Job Profile”: associated with a set of qualifications that a candidate must have

Job Profiles

- **Food Quality and Safety Professional**
 - The Certified Food Quality Technologist
 - The Certified Senior Food Quality Technologist
 - The Certified Food Quality and Safety Manager
- **Food Product Development Professional**
 - The Certified Food Product Development Technologist
 - The Certified Senior Food Product Development Technologist
 - The Certified Food Product Development Manager

>>>

Motivation of young people to enter and pursue of a
career in food science and technology in Europe

→ www.foodgalaxy.org



Food Science is a **real science with real challenges**



Food Science is a **fun – targeting a “younger” audience**

A career in Food Science is a **challenging and rewarding**



→ www.foodgalaxy.org



The screenshot shows the homepage of the FoodGalaxy website. At the top, there is a navigation bar with links for "SUBSCRIBE OUR NEWSLETTER", "BOOKMARK THIS SITE", "TELL A FRIEND", and "ABOUT US". Below this is a search bar and a "Sign In" link. The main content area features a central image of a galaxy with various food items and kitchen tools scattered throughout. Text overlays on the image include "The Taste of Life", "Eat therefore I am", "To eat or not to eat", "I am the king of the kitchen", "Brave new food", "A small product for the consumer - a giant process for the producer", and "MY FOOD CAREER". On the left side, there are sections for "Food science, engineering and techno" and "Food career Nano technology". A "Highlights" section on the right features an article titled "Ozone as a powerful antimicrobial agent can be used for decontamination of water, produce, equipment, food contacts surfaces, and" dated "Tue, 25 Sep 2012". At the bottom, there are logos for the European Commission and the project "2009 Project Track Fast: Training Requirements and Careers for Knowledge-based Food Science and Technology in Europe".

The screenshot shows the Facebook page for FoodGalaxy. The page header includes the Facebook logo, a search bar, and the name "Cristina Silva". Below the header, there is a navigation bar with "Foodgalaxy", "Cronologia", and "Agora" tabs, along with a "Painel de Administração" button. The main content area features a large image of the FoodGalaxy logo and the same galaxy-themed image seen in the website screenshot. Below the image, there is a profile picture of a planet with a rocket, the name "Foodgalaxy", and the text "113 gostos - 100 falam sobre isto". There are buttons for "Gostei" and "Mensagem". A section titled "Site" contains the text: "Our aim is to increase the awareness to students in the EU and also worldwide for taking up a study in food science and technology and in the end choosing a career in the food industry." At the bottom, there are sections for "Sobre", "Fotos", and "Gostos".

track_fast



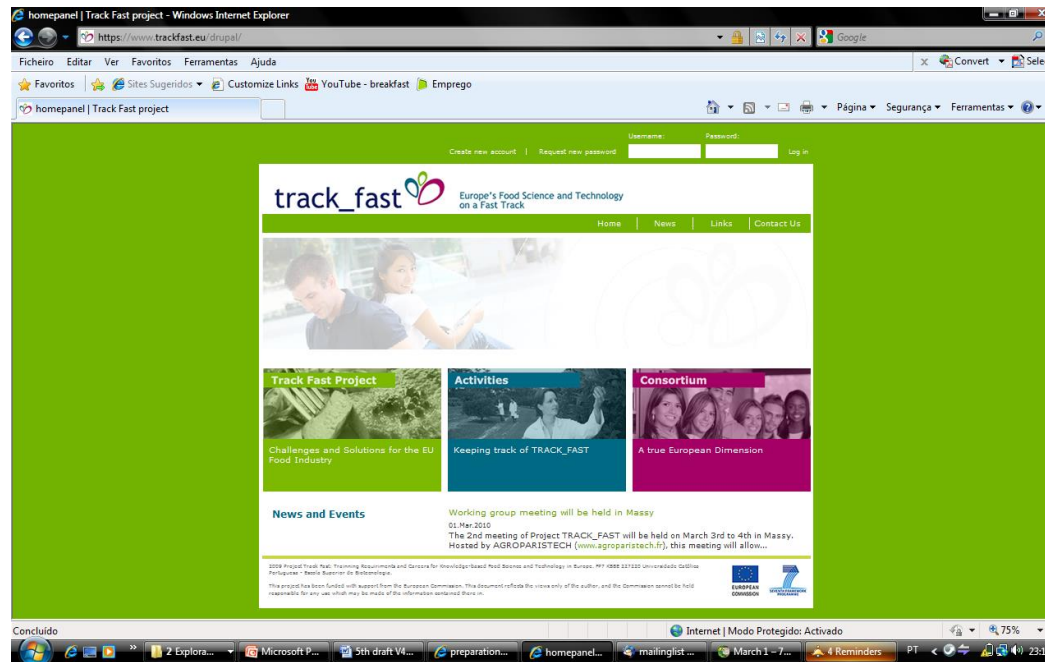
Europe's Food Science and Technology
on a Fast Track



be a part of it !

Website

www.trackfast.eu/



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Thank you !!