

# ***THE NEW FOOD & DRINK PROFESSIONAL: the role of TRACK\_FAST project***

Training Requirements and Careers for Knowledge-based Food  
Science and Technology in Europe. **FP7 KBBE 227220**

# Food, Agriculture and Fisheries, and Biotechnology

Knowledge-Based Bio-Economy (KBBE)

↓  
Call FP7-2008-KBBE-2B

↓  
Area 2.2.3  
Food Processing

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

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



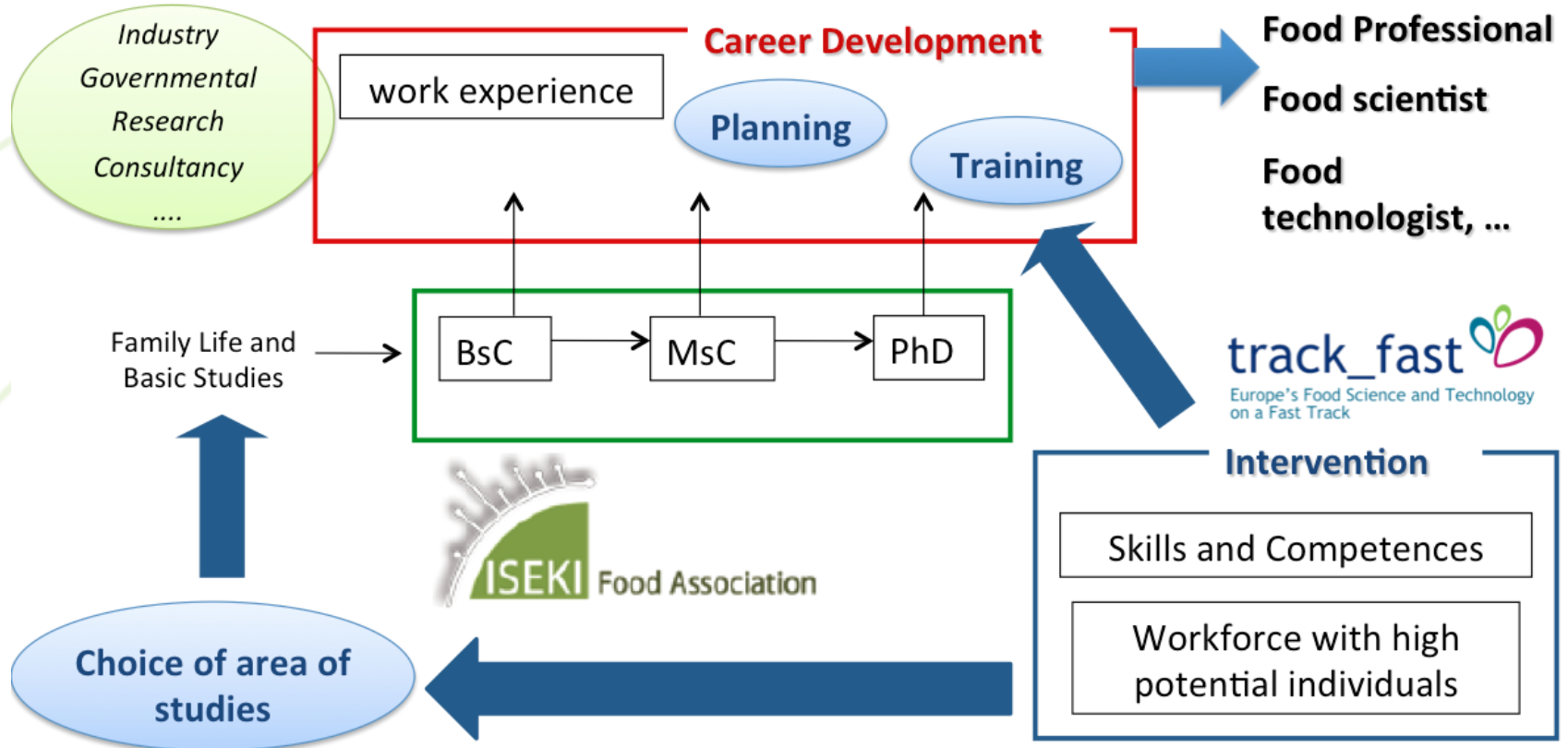
## European Food Sector:

- 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%*



## 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.”*





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.



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



## 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?*



- 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.

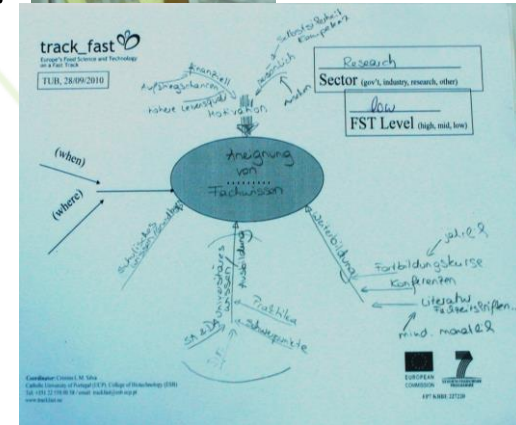
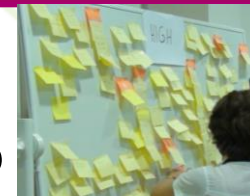
- “Thinking & Solving Problems ” was the no. 2 skill desired by all FST employers
- Problem solving skills should be learned outside of the workplace, essentially before working life begins, while communication skills may have some workplace-specific components which are taught by the employer
- Overall,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

- “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

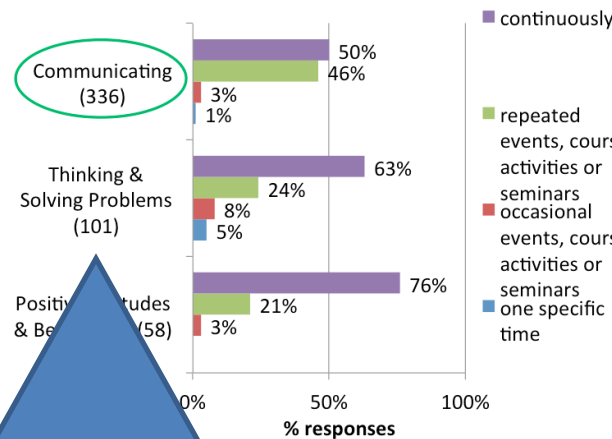
- The comparison with the current situation showed that in general FSTs have the skills that are considered ideal. This is good news!
- However, current FSTs have almost the same competence in soft and food specific skills while, ideally, FSTs should have many more soft skills. The message seems to be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

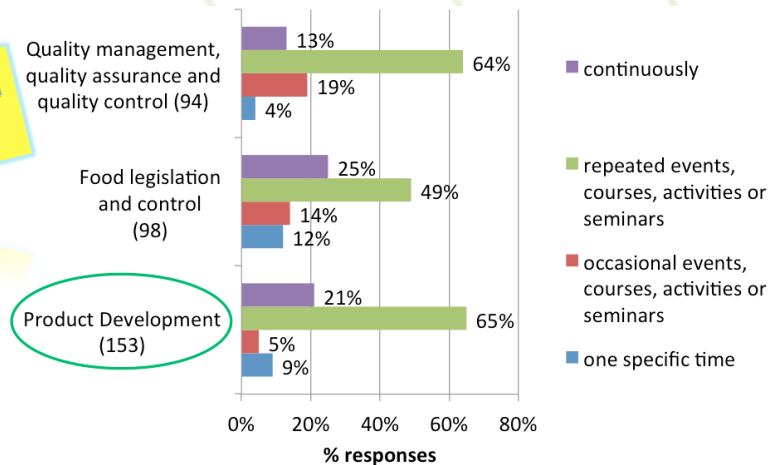


TOP 3 Soft Skills



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

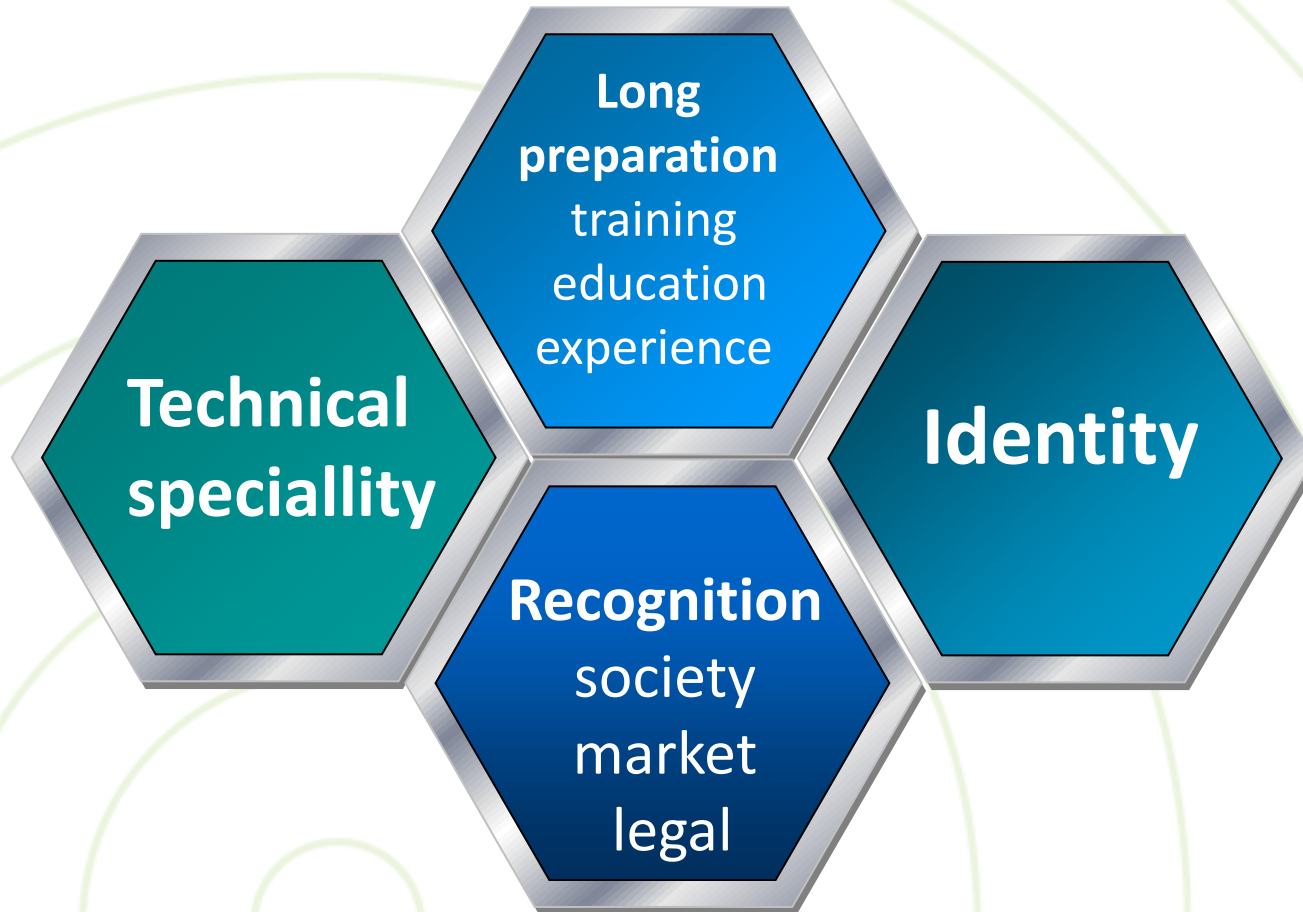


## ISEKI Food Association Workshop Food Professional Regulation in EU

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

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https://www.iseki-food.net/node/2869

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## WEBINAR: 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

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- 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

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~~Regulation of FST  
professions in Europe~~

Promotion of FST to  
attract students

- 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

### 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

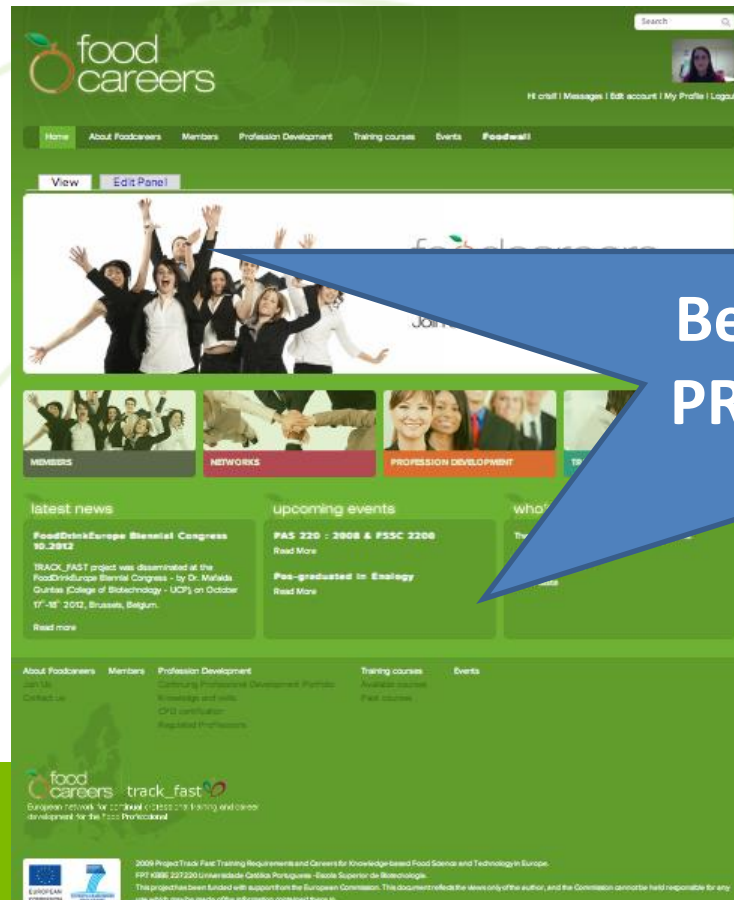
Where and when (frequency)  
the skills have to be acquired.



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](http://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**)

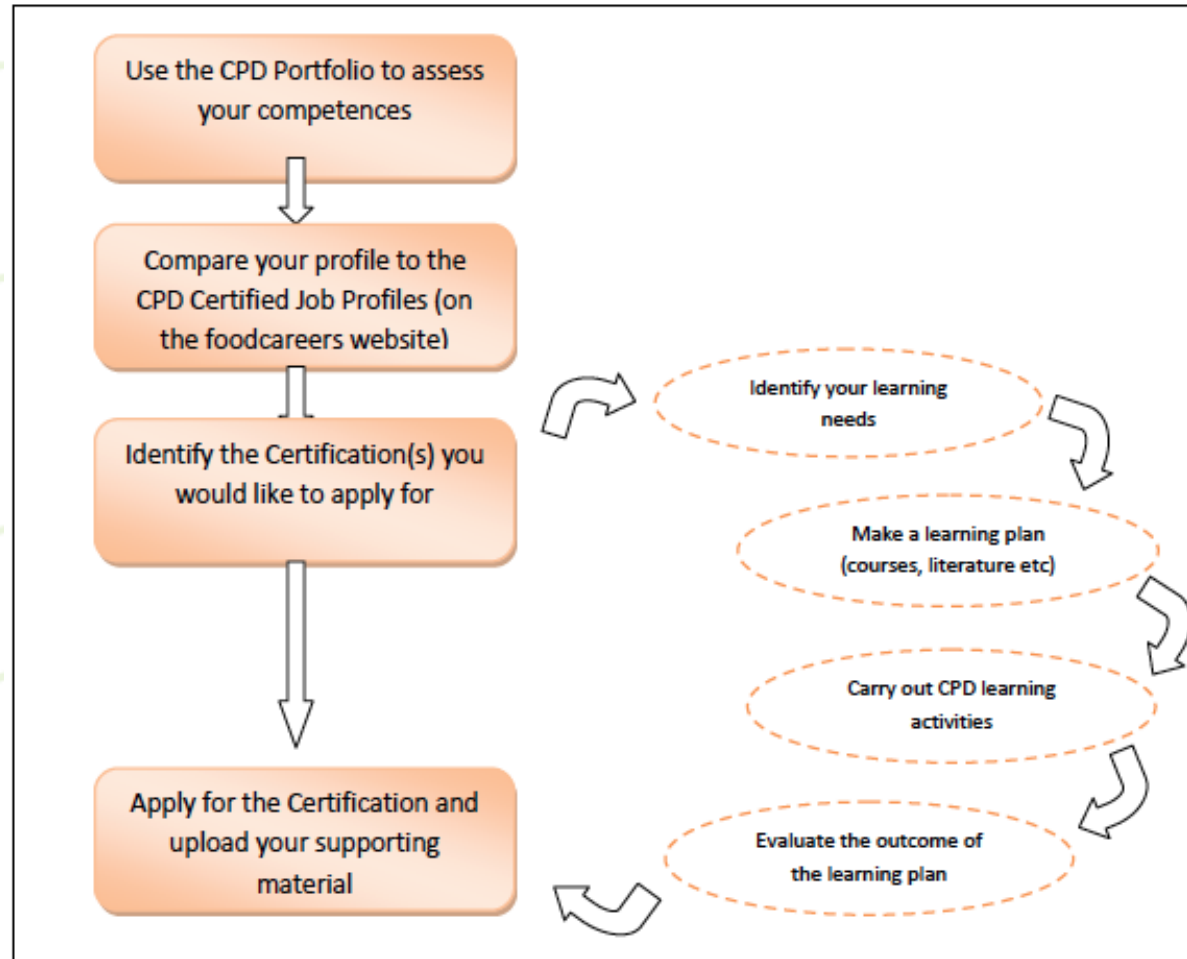
social networking and providing the guidance and tools for creating and maintaining a **continual professional development portfolio**

## 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

## CPD System

Describes different Job Profiles with corresponding competences



### External Assessment: Certification

CPD Certification of Status for the particular Profile lines as outlined in the CPD Portfolio.

Requires: Definition of Criteria and procedures, a Commission that makes the certification decision, etc



### Self-Assessment: Continuing Education

CPD Portfolio - Detect missing competences for a particular job, actively pursue further education

## 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



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**

**MORE  
PROFESSIONALS**

→ [www.foodgalaxy.org](http://www.foodgalaxy.org)

## Food Science is a real science with real challenges










- **The taste of life** (Sensorial, Colours)
- **To eat or not to eat** (Allergies, E-numbers, GMOs, Toxins)
- **Once upon a time** (History of Food Processing)
- **I eat therefore I am** (Nutrition)
- **I am the king of the kitchen!** (Gastronomy, House Experiments)
- **Brave new food** (Emerging Technologies, Innovative Food)
- **A small product for the consumer – a giant process for the producer**

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

**House Experiments**

		
Bouncy Ball made of Egg	Fountain made of Cola Light	Fruity 'Coking' of Fish
		
Magic Red Cabbage Juice	Multi Colour Juice	

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



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





The screenshot shows the FoodGalaxy website homepage. At the top, there is a navigation bar with links for 'SUBSCRIBE OUR NEWSLETTER', 'BOOKMARK THIS SITE', 'TELL A FRIEND', and 'ABOUT US'. A search bar is also present. The main content area features a large, stylized image of a galaxy with various food items and icons scattered throughout. Text overlays on the image include 'The Taste of Life', 'I eat therefore I am', 'Once upon a time...', 'Mission Possible', 'I am the king of the kitchen', 'Brave new food', and 'A small product for the consumer - a giant process for the producer'. A 'Highlights' section on the right lists 'Ozone' with a date of 'Tue, 25 Sep 2012' and a brief description: 'Ozone as a powerful antimicrobial agent can be used for decontamination of water, produce, equipment, food contact surfaces, and...'. At the bottom, there are logos for the European Commission and the 7th Framework Programme, along with a small text block about the 2009 Project Track Fast.

The screenshot shows the Facebook page for FoodGalaxy. The page header includes the Facebook logo, a search bar, and the user's name 'Cristina Silva'. The main content area features the FoodGalaxy logo and a large image of the galaxy theme. Below the image, there is a 'Gostei' button and a 'Mensagem' button. The page also shows a 'Like' count of 113 and a 'Fotos' section. The page description reads: '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.'



# *Future Challenges*

- 1. The right skills and career planning: a tool for innovation in the European Food and Drink Industry*
- 2. The European Food and Drink Industry Professional: building an identity*
- 3. Society's view of the Food Industry*
- 4. The role of Education and Training Institutions*

## *The right skills and career planning: a tool for innovation in the European Food and Drink Industry*

- Improving skills in F&D sector employees may be a part of the formula for breaking the decline in innovation and the decreased global importance of the European food industry
- Soft skills
  - are critical for knowledge diffusion and likely related to successful entre and intrapreneurship
- The professional development of Food Industry personnel
  - Beneficial for the professionals – who reported difficulties in finding favourable jobs - but also for the industry - who may operate more efficiently in a **flexible labour market**
- Also, we should incentive Mobility – geographical and across employment area
  - Contributes to innovation: new ideas, new places
  - Improves the job market: more flexible for employers and employees
  - Develops soft skills

## *The right skills and career planning: a tool for innovation in the European Food and Drink Industry*

- **Tools for continual professional development must be**
  - **constantly updated**, aiming at responding to the needs of an ever evolving industry
  - Allowing not only a regular **update of skills by the professionals, but also the planning of their careers**
  - Giving information on career paths and forecasts on job market needs at an EU level
- **Other pros for such tools**
  - In times of unemployment in Europe, especially among youth, it is crucial that young graduates (and also the not so young!) **are supported in their career planning**
  - Recognition of training (skills) across Europe **will be facilitated**
  - **Potentially** increasing the mobility of qualified personnel Europe and hence be a key to future sourcing of labour
  - Moreover, such tool should envisage clear guidelines and incentives for promoting cross sector career pathways

## *The European Food and Drink Industry Professional: building an identity*

- The weak social recognition of the role of a “Food Industry Professional” is a threat to the industry that faces problems in attracting a highly qualified workforce.
  - One good example is the non-existence of food related job titles for professionals by the International Standard Classification of Occupations.
- Increasing the social recognition of food professionals will also improve public opinion of the food industry and of the food products. In the long run, this will be achieved by a **continuous promotion of food science and technology as a core activity for societal development**.
  - This must be done in close partnership with current professionals, educational organizations, industry and policy makers.
- Actions like the **adoption and dissemination of a food professional code of conduct** or the **recognition of job titles for food industry professionals** by the International Organizations will be key parts for building a professional identity.
  - Moreover, such actions will contribute to a more efficient labour market, thus improving the attractiveness of the profession.

## *Society's view of the Food Industry*

- In a more and more health conscious society, the Food Industry is often vilified by the public as businessmen caring about profit and putting the well-being of consumers a distant second
- **It is urgent to communicate to the public the essential role of the food industry and its professionals in their daily life**
  - in times of seriously rising unemployment in the EU, is able to maintain jobs
  - The current world demographics - 7000 million people , 50% living in urban areas - are only possible because of the food industry, which provides safe and nutritious foods to urban populations all year long
- This general and wide communication to the public is also **key for attracting more students to a career in the food industry and related sectors**
- Two main messages are evident:
  - i) the **food security and nutritional issues** we are facing can only be tackled **using real science and technology** in food, and
  - ii) the food industry is a **job creator and an industry for the future**

The professionals are the natural ambassadors for the cause and should be involved in this task.

## *The role of Education and Training Institutions*

- TRACK\_FAST identified those skills that F&D employers mostly want: Soft skills were the number one “desired” skills
- There is a need for **integrated policies that span educational life**, from basic to higher education and beyond, in which development of soft skills in professionals (not only in food) is the focus. This means that, at the EU level, there is need to carry the **necessary groundwork for such policy change**
- The rich and diversified educational background of food science and technology professionals is an important strength. However, it is important to assure these professionals have the right (soft and food-specific) skills for the job
- The training of professionals with different educational backgrounds in the **skills needed by the industry is an opportunity for higher education and training institutions**. Also, a **continuous effort** for identifying such needs is critical

## Recommendations for Future Actions

### A continuous and cooperative effort in

- training food sector professionals
- improving the image of the food industry
- contributing to an efficient labour market.

Such efforts should build on the many on-going projects in the field of food sector development, minimizing costs and maximizing results:

*Several organizations already excel in these activities. But a better coordination is needed*

## Recommendations for Future Actions

Such coordination should focus on **building a long lasting forum for professionals, academia and industry**, aiming to:

- Establish a permanent academia-industry dialogue on the skills needed at each moment, and the forecasting of future needs
- Act as a resource centre for careers within the food industry
- Promote the societal role of the food industry and the professionals
- Liaise with policy makers and relevant national and international organizations
- Lobbying for the recognition of food professional occupations at an international level
- Assuring that the professional development needs of food industry professionals are considered in policy making



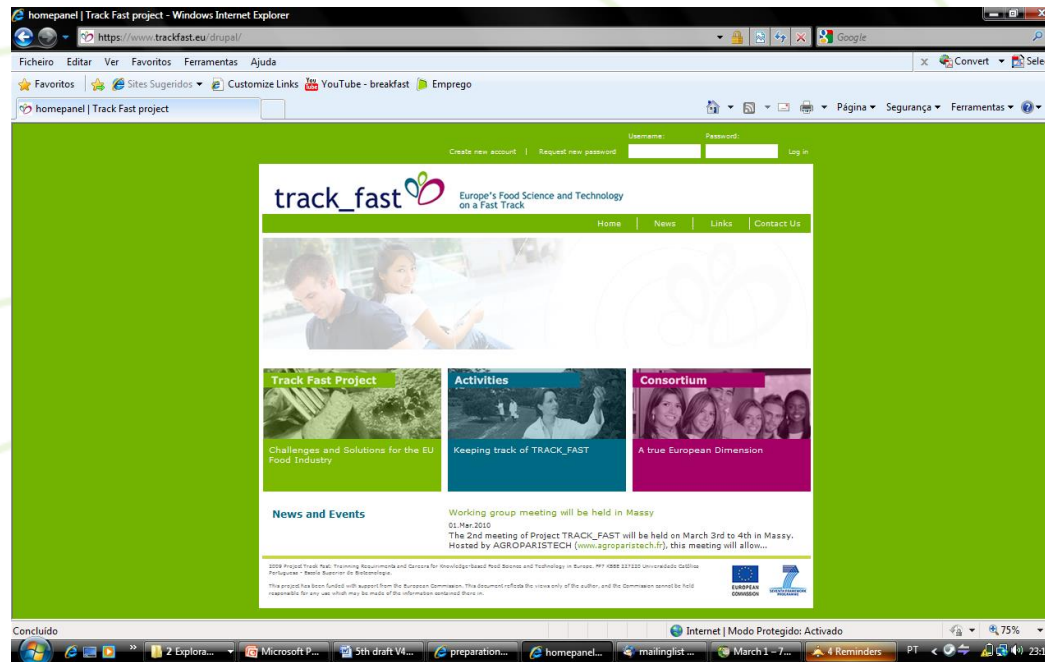
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**[www.foodgalaxy.org/](http://www.foodgalaxy.org/)**

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Track Fast Project

Activities

Consortium

## List of deliverables

This page has links for each deliverable, some are public and others are private:

Del. n.	Deliverable name	WP	Lead beneficiary	Nature	Dissemination level	Actual/ Forecast delivery date	Download deliverable document
D0.1	Project Dissemination	0	UCAPOR	D	PU	31-01-2010	<a href="#">Click here</a>
D0.2	Short Report with project activities	0	UCAPOR	R	PP	20-03-2010	<a href="#">Month 6</a> <a href="#">Month 36</a>
D0.3	Open Symposium	0	UCAPOR	O	PU	28-02-2013	<a href="#">Click here</a>
DOB.1	Guide on ethical issues on surveying healthy adults: privacy, data protection and informed consent – Internal Publication	0B	UG	R	RE	01-12-2009	<a href="#">Click here</a>

→ emails:

[trackfast@porto.ucp.pt](mailto:trackfast@porto.ucp.pt)

[clsilva@porto.ucp.pt](mailto:clsilva@porto.ucp.pt)

→ Phone:

**+ 351 22 5580058**



Thank you !!