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Deliverable D3.4

Report on Developed Training Activities

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Disse	Dissemination Level		
PU	Public	Х	
PP	Restricted to other programme participants (including Commission services and projects reviewers)		
со	Confidential, only for members of the consortium (including EACEA and Commission services and projects reviewers)		





Summary

In the frame of the European FooD-STA Training Alliance (EuFooD-STA) a series of training events were designed, planned and realized in order to reach students, teachers and professionals from the food sector. A broad variety of contents were presented with different approaches to teaching and learning.

The formats of knowledge transfer encompassed webinars, workshops, ecourses, and flash presentations/demonstrations. The topics dealt with were related to diverse food aspects such as production and processing, technology and research, legislation, marketing, and business development.

Deliverable 3.3 "Specification of selected training activities" served as a basis for the training event series and contained the list of proposed lectures. The consortium needed to make heavy efforts in order to manage the vast range of input. All partners involved made available a wealth of information, which delayed the finalization of D3.3.

This impacted on the start of the actual training series. The launch of the *webinars* was realized from June 2016 and are still ongoing. The *workshops* started in the first quarter of 2016 and their realization has been ongoing until March 2018. *E-learning courses* were designed in parallel during this time: the contents are established and evaluated. The free format of *flash presentations* was developed independently and published online as foreseen.

During the implementation of the planned training program newly proposed lectures and other events of knowledge transfer were continuously screened and added as appropriate. Thanks to the organizational efforts and diligence in administration, the EuFooD-STA consortium was able to provide the suitable managerial framework for the extension of the program.

The variety of events to be managed and the number of lecturers to be contacted challenged the realization of the task.

Background data was collected from the training events organized by the EuFooD-STA and statistical analysis performed of the obtained data in order to retrieve information about the target group, the impact and the reach of the events.



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1 Webinars

The EuFooD-STA webinars were designed as **online classroom lectures** with Q&A sections at the end of each session. The invited speakers did their respective talk supported by visual presentations in a live setting with attendants following the lecture on GoToWebinar – a virtual platform for online meetings and webinars.

The following table shows the list of webinars held in the frame of EuFooD-STA:

Table 1: Schedule of implemented webinars in the frame of the EuFooD-STA training program

Date	Title	Speaker
31 Jan 2018	EuFooD-STA Webinar "Bio-preservation of foodstuffs: mechanisms and applications"	Marie-Christine Champomier- Vergès
		Research director, INRA, France
24 Oct 2017	EuFooD-STA Webinar "Integrative predictive modeling for food safety and quality – Tools and applications"	Cristina Silva Associate Professor, Centre for Biotechnology and Fine Chemistry, UCP, Portugal
12 Oct 2017	EuFooD-STA Webinar "Nutritional and Health Claims - Regulation (EC) Nº 1924/2006 on nutrition and health claims made on foods"	Ana Oliveira Coordinator of the Regulations and Specifications Team, Frulact, Portugal
10 Oct 2017	EuFooD-STA Webinar "Food Additives - Regulation (EC) Nº 1333/2008 on Food Additives"	Ana Oliveira Coordinator of the Regulations and Specifications Team, Frulact, Portugal
27 Jun 2017	EuFooD-STA Webinar "New Trends for Design of Food Products"	Ana Maria Gomes Assistant Professor, Centre for Biology and Fine Chemistry, UCP, Portugal
14 Jun 2017	EuFooD-STA Webinar "Sym'Previus for beginners" Additional	Florence Postollec ADRIA Food Technology Institute, Quimper, France
13 Jun 2017	EuFooD-STA webinar "EN ISO/IEC 17025 Standard - General requirements for the competence of testing and calibration laboratories. Food Safety Application" Additional	Nuno Ribeiro IPC, Portugal
30 May 2017	EuFooD-STA Webinar "Bacillus cereus from a food industrial perspective" Additional	Florence Postollec ADRIA Food Technology Institute, Quimper, France



24 May 2017	EuFooD-STA Webinar "Marketing strategies - importance of labelling and trust in the supply chain"	Francisco Rocha Consultant SPI, Portugal
	Additional	
23 May 2017	EuFooD-STA Webinar: "Information to Consumers – Focus on Labeling Regulation (EU) Nº 1169/2011 on the provision of food information to consumers"	Ana Oliveira Coordinator of the Regulations and Specifications Team, Frulact, Portugal
18 May 2017	EuFooD-STA Webinar "How to positively communicate by nutrition and health claims in Europe?"	Caroline Rouveyrol CRITTA, France
	Additional	
16 May 2017	EuFooD-STA webinar: "Flavourings – Focus on use of the term "Natural" Regulation (EC) Nº 1334/2008 on flavourings and certain food ingredients with flavouring properties for use in and on foods"	Ana Oliveira Coordinator of the Regulations and Specifications Team, Frulact, Portugal
2 May 2017	EuFooD-STA Webinar "Packaging technology and preservation of foods"	Fatima Pocas School of Biotechnology, UCP, Portugal
25 Apr 2017	EuFooD-STA Webinar: "Food Sector in USA - Main Opportunities and Trends" Additional	Mark Spinoglio and Filipa Pinho Consultants at SPI, Portugal
6 Apr 2017	EuFooD-STA Webinar: "Sporeforming bacteria in food: Detection, identification and means of control"	Paola Teixeira Assistant Professor, School of Biotechnlogy, UCP, Portugal
21 Mar 2017	EuFooD-STA Webinar "Traditional Food Sector and consumption in China - main trends" Additional	Katilin Dong and Jonny Pan SPI China
16 Mar 2017	EuFooD-STA Webinar "Market Assessment – Use of NPD Tools in Traditional Food Products"	Susanna Seabra and Miguel Carnide Consultants at SPI, Portugal
	Additional	
9 Mar 2017	EuFooD-STA Webinar: "Innovation in Traditional Food? – Good Practices" Additional	João Gonçalves Consultant SPI, Portugal
7 Mar 2017	EuFooD-STAWebinar:"SupportofEntrepreneurshipandEnhancingofCompetitiveness in the fish sector"Additional	João Gonçalves Consultant SPI, Portugal





7 Jun 2016	EuFooD-STA Webinar: "Sugarsnot only sweeteners"	Paola PittiaAssociate Professor of FoodTechnology at the Faculty ofBioscience and Technology forFood Agriculture and Environmentat the University of Teramo, Italy
16 Jun 2016	EuFooD-STA Webinar: "RDI Management in food industry – Frulact as a case study"	Maria Ana Marques Frulact, Portugal
21 Jun 2016	EuFooD-STA Webinar: "How can we better evaluate the efficiency of food antimicrobials?"	Florence Dubois-Brissonet Professor of microbiology and food safety at AgroParisTech, France
17 Nov 2016	EuFooD-STAWebinar:"Emergingmicrobiological hazards bring new challengesto food safety"	Florence Dubois-Brissonet Professor of microbiology and food safety at AgroParisTech, France
15 Dec 2016	EuFooD-STA Webinar: "Analysis of chemical trace contaminants in foods: performance and limits"	Valérie Camel Professor of Analytical Chemistry and Food Safety in the Department of Food Science and Technology of AgroParisTech, France
20 Dec 2016	EuFooD-STA Webinar: "Biofilms in food industry : structure, function and control strategies"	Romain Briandet Research director at the French Micalis INRA AgroParisTech joint unit, France
23 Jan 2017	EuFooD-STA Webinar "Modern models and frameworks in entrepreneurship" Additional	Eliya Elon Education and Acceleration Director, StarTau Tel Aviv University Entrepreneurship Center, Israel

In total, from June 2016 until January 2018, 26 webinars were held. Of these, 15 were planned according to the list of planned training activities in D3.3, and 11 were organized additionally on request by presenteters and/or participants.

The following planned webinars were not held due to work restrictions at the partner organisations:

 Table 2: table of non-realised but planned webinars

Title	Speaker
EuFooD-STA webinar: "Control of chemical	Valerie Camel
hazards in food industries"	AgroParisTech, France



1.1 Preparation

Given the list of proposed webinars in D3.3 the partners in charge of the management within the EuFooD-STA consortium started with preparing an **Application Form Template** (see Annex 1), which collected the information on title, date, duration, speaker, contents, target group and anticipated learning outcomes. Later in the run of EuFooD-STA a co-operation with Elsevier was arranged by the coordinator and the template had to be extended to collect additional information regarding publications via Elsevier.

The **schedule** for the EuFooD-STA webinars was proposed via doodle and anticipated speakers were asked to fill in their preferred date for the realization of their online talk. Dates also needed to be coordinated with other programs facilitated by the same GoToWebinar account of BOKU. It had also to be taken into account, that EuFooD-STA webinars were distributed as equally as possible throughout the project period in order to let potential attendees follow the series and not create time constraints. Additional offers for trainings beyond the originally planned program needed to be included as well.

Also, the EuFooD-STA management and organization team had to be provided enough time for **dissemination and advertising**, as well as setting up the technical basics and taking care of the registration of participants. With regard to all this competing and partially conflicting influences, a schedule could be set up, that was satisfying all these requirements and managed also newly designed webinars.

The **Application Form** Template was pre-filled by the EuFooD-STA organization team (with information from D3.3) and sent to the respective speaker requesting to finalize and confirm the contents. The **completed** form needed to be returned to the EuFooD-STA organizing team in due time, at least two weeks before the webinar date. Reminders and follow-ups were done by email and phone calls. Talks, that were provided after drafting D3.3, were handled in the same manner.

In addition to the date of the talk, a date for a **technical check** had to be fixed for all speakers talking the first time. It had to be ensured, that connections and technical equipment was working unhampered during the actual talk. This check encompassed all steps of the later presentation (audio facilities, transmission of screen, tools for answering questions) and served to let speakers get acquainted with the tool and its handling. It was scheduled for the duration of 10 to 20 minutes one to two weeks in advance of each EuFooD-STA webinar.

During the run of the EuFooD-STA project and training program the coordination team reached an agreement with **Elsevier**. Speakers, who had published through Elsevier, were given the opportunity to name 3 of their papers, which were granted open access in the days around the actual webinar. This service was limited to speakers publishing via Elsevier and allowed for open access to papers related to the topic of the lecture. The **cooperation with Elsevier** was a highly appreciated service, adding to the impact of EuFooD-STA webinars and training program. For the following webinars, the authors proposed publications which were granted free access via Elsevier and with access through https://www.food-sta.eu/webinars-view:

- EuFooD-STA Webinar "Packaging technology and preservation of foods"
- EuFooD-STA Webinar "Bacillus cereus from a food industrial perspective"
- EuFooD-STA Webinar "Sym'Previus for beginners"



• EuFooD-STA webinar "Integrative predictive modeling for food safety and quality – Tools and applications"

Webinars were disseminated through various channels, namely through the FooD-STA website as a point of reference for registrations (<u>https://www.food-sta.eu/webinars-view</u>); the ISEKInetwork through e-News; the FooD-STA social media channels (Facebook, LinkedIn, Twitter); and the FooD-STA Newsletter. Moreover, webinars were dissiminated by each partner through their own networks.

1.2 Realization

Each EuFooD-STA webinar was introduced and accompanied by a **moderator**, who started the webinar, gave information on how to use the platform and interacted with attendees if needed during the talk.

Several partners from different institutes performed the moderator task alternately:

Name	Institution
Julian Drausinger	LVA, Austria
Velitchka Gotcheva	University of Food Technologies, Bulgaria
Christine Grabler	LVA, Austria
Gerhard Schleining	BOKU, Austria

Table 3 Moderators of the EuFooD-STA webinars

On the day of the webinar, **the moderator** starts the platform tool 10 to 20 minutes before the beginning of the talk. Minor adjustments or a last trial with the speaker are performed during this time span. He begins the event with welcoming the attendants. Participants are introduced to the handling of the platform tool and the contents of the EuFooD-STA project in a short presentation (see Annex). Then the screen is handed over to the **speaker** of the day, to do his/her talk and show the presentation.

During the talk the moderator takes care for requests from the audience, managing the **technical background** and monitoring the **interaction** possibilities, which are mainly done in written form (chat). Speakers are thus free to focus on the **topic** and contents of their lecture and spared from technically handling the platform tool.

After the lecture the speaker are available for a **Q&A section**, which are facilitated by the moderator. Questions, which were done in written form, are forwarded to the speaker and answered or put back for later reaction by email.

For **finalizing** the EuFooD-STA webinar, the moderator might show the EuFooD-STA website and the location of the material from former and future webinars of the training program. After that the recording is stopped and the webinar closed.



1.3 Reporting

As a direct follow-up the **attendants' list** and the **performance report** were prepared using the tools of the presenting platform. Upon request to the EuFooD-STA management team the speakers could get the lists as feedback to their lecture. Furthermore, upon request from attendees, the management team issued Certificates of Attendance.

The **recording** got downloaded and converted to .mp4 format for further processing. It would include the whole webinar from the introduction to the talk, the Q&A section, as well as the final remarks showing the complete visual and audio information.

All material including the presentations had to be forwarded to the management. The data of the documents was filed and processed for evaluation purposes. The learning material was prepared for publication on the EuFooD-STA website (see also section 1.4 Materials) with a link to the EuFooD-STA YouTube channel where all recorded webinars are saved: https://www.youtube.com/channel/UC-zYsCKACSKx-HfGOfy77YQ/videos

With regard to the predefined features of each webinar the data were analyzed and evaluated. The speakers outlined learning outcomes and target groups in advance as shown below.

Table 4: Learning outcomes and target groups as anticipated for each EuFooD-STA Webinar and defined for extracurricular events

Title		
Learning outcome	Target group	
EuFooD-STA Webinar "Bio-preservation of foodstuffs: mechanisms a	and applications"	
list and explain the different mechanisms involved in	Industrial staff	
biopreservation of foodstuffs,	Students	
 give examples of successful biopreservation strategies in food production 	Teachers	
EuFooD-STA Webinar "Integrative predictive modeling for food safety and quality – Tools and applications"		
Know the main features of predictive microbiology	Teachers	
 Know the tools available to perform predictive microbiology studies 	Students	
studies	Food professionals	
EuFooD-STA Webinar "Nutritional and Health Claims - Regulation (E nutrition and health claims made on foods"	C) Nº 1924/2006 on	
 get introduced into the regulation (EC) Nº 1924/2006 	Research and	
• identify authorized nutrition claims and the conditions applying	Development	
to them	Food professionals	
• identify authorized health claims and the conditions applying to them		



EuFooD-STA Webinar "Food Additives - Regulation (EC) Nº 1333/200	08 on Food Additives"
 get introduced into the regulation (EC) Nº 1333/2008 identify an authorized food additive and its conditions of use in food categories 	Research and Development Food professionals
EuFooD-STA Webinar "New Trends for Design of Food Products"	
 identify the drivers behind the development of new added-value nutritional food products get insight into the new trends like focus on health and wellbeing, nutritional balance, value-added products 	Students Food professionals
*EuFooD-STA Webinar "Sym'Previus for beginners"	
 responsibility of Food Business Operators (FBO) to control microbiological hazards in foods Challenge testing and predictive microbiology to assess microbiological safety Sym'Previus as a decision making tool which adds value to challenge test and enables in silico growth, survival or inactivation prediction of microbial contaminant population in food for relevant conditions of process and storage. various examples of case studies, highlighting industrial applications: Identify microbial hazard & assist product formulation using different applications that quantify the impact of pH, temperature and aw on the growth ability of bacterial contaminants validate/assess food shelf-life and how to add value to challenge test to further predict bacterial growth in food for different shelf life scenarii. quantify process efficiency and determine the impact of bacterial diversity or the impact of cooling on the process efficiency. R&D case study will also be shown to underline the potentiality of the methods to quantify the bacterial destruction after exposure to chlorine, biocide, organic acid or other inactivation processes of interest. 	Ingredient and food industrials Students Food related stakeholders
*EuFooD-STA webinar "EN ISO/IEC 17025 Standard - General requir competence of testing and calibration laboratories. Food Safety App	
established criteria for competence of testing laboratories	Students
 involved in the import and export of foods settled down by EN ISO/IEC 17025 advantages of adopting a quality management system, as EN ISO/IEC 17025 (international recognition, costs savings, waste reducing and access to global market place) 	Technicians, staff, management Stakeholders in the food laboratory area
 general requirements for the competence to carry out tests and/or calibrations, including sampling for standard methods, non-standard methods, and laboratory-developed methods 	



 management and technical requirements the accreditation process under the EN ISO/IEC 17025 	
*EuFooD-STA Webinar "Bacillus cereus from a food industrial perspe	ective"
 properties of endospores (resistance to the most extreme stress conditions such as temperature, pressure, biocides, radiations) Bacillus cereus in food (food poisoning or food spoilage, health impact, economical losses) scenarios of food spoilage various examples of case studies for insight to industrial applications Biodiversity: Which methods are used to address the diversity and distinguish phylogenetic groups? Germination and growth ability: What is the impact of environmental conditions (pre-, per-, post-treatment) on growth ability? Inactivation by processes: What is the biodiversity encountered on process efficiency? 	Ingredient and food industrials Students Food related stakeholders
EuFooD-STA Webinar "Marketing strategies - importance of labeling chain"	and trust in the supply
 Recognize basic concepts of marketing – 7 P's Understand the role of supply chain in final offer to consumers Understand the importance of establishing and nurturing trust among the organizations involved in the supply chain Recognize labeling regulations 	Food business SME Students
EuFooD-STA Webinar: "Information to Consumers – Focus on Labelin 1169/2011 on the provision of food information to consumers"	ng Regulation (EU) №
 get introduced to the regulation Regulation (EU) Nº 1169/2011 make an ingredient list according to Reg. (EU) Nº1169/2011 identify substances or products causing allergies or intolerances make a nutrition declaration EuFooD-STA Webinar "How to positively communicate by nutrition a Europe?" 	Research and Development Food professionals and health claims in
 Understand how nutrition & health labeling is working Communicate on the nutritional and health benefits of their products in accordance with regulations EuFooD-STA webinar: "Flavourings – Focus on use of the term "Natu 1334/2008 on flavourings and certain food ingredients with flavouri and on foods" 	
 get introduced into the regulation (EC) Nº 1334/2008 understand the different terms related to flavouring distinguish the different requirements for use of the term "natural" 	Research and Development Food professionals







Lurood-STA webiliar rackaging technology and preservation of to	003
 understand the requirements for the materials and packages intended to be used in different food processing operations 	Students
 select the packaging materials according to the food processing and expected shelf-life 	Food professionals
EuFooD-STA Webinar: "Food Sector in USA - Main Opportunities an	d Trends"
 Be aware of the import/export trends for USA Have a better knowledge on USA market and its opportunities/barriers for traditional European food products (Freshwater Fish; Grains; Fruits and Olives; Vegetables and Mushrooms) 	Food businesses, SME
EuFooD-STA Webinar: "Spore-forming bacteria in food: Detection, is of control"	dentification and means
Recognize the importance of spore-forming bacteria in	Students
food/food processingPropose methods for the control of spore-forming bacteria in	Teachers
different foods	Food professionals
 EuFooD-STA Webinar "Traditional Food Sector and consumption 	
 Be aware of the import/export trends for China Have a better knowledge on China market and its opportunities/barriers for traditional European food products (Freshwater Fish; Grains; Fruits and Olives; Vegetables and Mushrooms) 	Food businesses SME
EuFooD-STA Webinar "Market Assessment – Use of NPD Tools in Tr	aditional Food Products
 Be aware of the main determinants of success of products Acknowledge of the main NPD methods to evaluate market needs Use some tools /methodologies to collect and process 	Food businesses SME
consumers requirements EuFooD-STA Webinar: "Innovation in Traditional Food? – Good Prac	tices"
 Identify and distinguish different types of innovation 	Food businesses
 Be aware of different possible approaches for innovation in traditional food 	SME
EuFooD-STA Webinar: "Support of Entrepreneurship and Enhancing the fish sector"	of Competitiveness in
 Be aware of some prospective figures for aquaculture Use marketing and NPD (New Product Development) tools to maximize success of aquaculture products (good practices) 	Food businesses SME



*EuFooD-STA Webinar "Modern models and frameworks in entrepr	eneurship"
 What exactly is technology entrepreneurship? overview of the process of creating and growing high potential ventures using several frameworks discussion of common myths regarding entrepreneurs which are harmful for aspiring innovators EuFooD-STA Webinar: "Biofilms in food industry : structure, function 	Not defined
• What is a microbial biofilm and why it is of concern in the food industry	Students
 Why biofilm 3D communities are more tolerant or/and 	Teachers
resistant to antimicrobials than their free cell counterpartsWhat are the perspective for their control in food industries	Industry staff
EuFooD-STA Webinar: "Analysis of chemical trace contaminants in formation in formation in the second	oods: performance and
• to get familiar with the analytical procedure required for the	Students
 analysis of chemical contaminants in foodstuffs able to discuss an analytical result related to contaminants in 	Teachers
food	Industry staff
aware of sources of errors for such analysis	
EuFooD-STA Webinar: "Emerging microbiological hazards bring new safety"	challenges to food
list the different factors of emergence for microbial hazards	Students
and give examplesexplain future challenges for microbial food safety	Teachers
 Overview of emergence factors 	Industry staff
EuFooD-STA Webinar: "How can we better evaluate the efficiency o	f food antimicrobials?"
how to determine precisely MIC/NIC for an antimicrobial compound	Industry staff
how to optimize two-by-two combinations	
 the existence of time-lapse methodology to quickly evaluate the antimicrobial activity in a complex structure (food matrix, biofilm) 	
EuFooD-STA Webinar: "RDI Management in food industry – Frulact	as a case study"
 Strategies for promoting and implementing an R&D and Innovation Management strategy in industry 	Students
Creativity and Idea management tools used and their impact	
Why and how industry promote cooperation with Universities	
Project Portfolio Management tools EuFooD-STA Webinar: "Sugarsnot only sweeteners"	
Understanding of the technological functionality of sugars in	Students
food quality and stability	Teachers
Advanced knowledge for formulation optimization and new	
product design	Food professionals



* Extracurricular webinar (not part of the initially planned webinars listed in D3.3.) In the application form LO was not to be defined by the presenter

In the aftermath of each webinar the number of attendees was recorded and their affiliations surveyed. This review with statistical methods was used to analyze the stratification of the participants and evaluate the impact of each webinar.

Table 5: Overview of data evaluation and stratification of participants.

Title		
Results of data evaluation	Stratification of participa numbers)	ants (tota
EuFooD-STA Webinar "Bio-preservation of foodstu	ffs: mechanisms and application	ons"
This webinar on bio-preservation of foodstuffs	Attendees	79
reached a very high number of attendees, also from non-EU countries such as Columbia,	Registrants	165
Ecuador, Jordan and Kazakhstan, primarily from		
academia (82%).	Affiliations	68
	Academia, Government Food Business	9
	Others	5
EuFooD-STA Webinar "Integrative predictive mode		
applications"		
With nearly 80% from academia, this highly-	Attendees	49
specialized webinar had a very high reach internationally with attendants from Argentina,	Registrants	112
Belarus, Brazil, India, Japan, New Zealand,		
Philippines, Serbia and Ukraine.	Affiliations Academia, Government	39
	Food Business	3
	Others	7
EuFooD-STA Webinar "Nutritional and Health Cla	aims - Regulation (EC) Nº 19	24/2006 or
nutrition and health claims made on foods"		
With nearly 70% of attendees from a food	Attendees	83
production background this webinar on a legal issue that is crucial for food labeling attracted	Registrants	208
mainly participants with company affiliation. The		
issue was focused on a regulative act, specific for	Affiliations	21
the European market, a fact, which was reflected	Academia, Government Food Business	58
in the origin of the attendees from mainly European countries with a strong partition of	Others	4
Ireland, France and Portugal (around 10% of participants each).		`





The webinar thus covered the anticipated target group very well and reached an audience with a direct practical need for the pertaining knowledge.		
EuFooD-STA Webinar "Food Additives - Regulation	(EC) Nº 1333/2008 on Food A	dditives"
This highly specialized webinar on a particular regulation was mainly attended by stakeholders	Attendees Registrants	105 222
in food production (67%). 30% of attendees had academic background or came from public services. The legislative contents being crucial for the production and marketing of food products in the EU was reflected by the nationality distribution of attendees with only 8% of the audience from extra-European countries. A noticeable portion of participants attended the webinar from France (15%).	Affiliations Academia, Government Food Business Others	32 71 2
EuFooD-STA Webinar "New Trends for Design of Fo	ood Products"	
The development of trends being regarded as a	Attendees	34
less hard fact than legal issues, the audience of this webinar was mainly recruited from academia	Registrants	70
and government with more than 67% of the	Affiliations	
attendees from these institutions. Product development issues are obviously hard to	Academia, Government	23
integrate in the day-to-day-business of food	Food Business	8
producers. However, the webinar reached the target group in the food sector as anticipated.	Others	3
* EuFooD-STA Webinar "Sym'Previus for beginners	5"	
The introduction of a particular tool for the	Attendees	12
prediction of microbiological growth and hence	Registrants	39
food spoilage intrigued a likewise specific group		
of participants with a special interest. For learning to handle this tool, the small group of attendees	Affiliations	
was optimal and soliciting direct interaction. The	Academia, Government	11
participants were rather evenly distributed over	Food Business	1
Europe with one exception (from India).	Others	0
* EuFooD-STA webinar "EN ISO/IEC 17025 Sta competence of testing and calibration laboratories		ents for the
The standard requirements for food laboratories	Attendees	29
caused the interest of a particular audience. The	Registrants	67
	Registratits	
fact, that authorities, food manufacturers and		
fact, that authorities, food manufacturers and science are as well engaged in food analysis is	Affiliations	
fact, that authorities, food manufacturers and		18

Deliverable 3.4 – Report on developedtraining activities





* EuFooD-STA Webinar "Bacillus cereus from a food industrial perspective"

The awareness for sporeforming bacteria as a source of food spoilage seems to be less distinct in food business operators, than in the scientific community and the public sector. With nearly 88% of the audience with academic or public background this webinar clearly addressed an issue regarded as mainly scientific. The audience showed a strong European focus except for one participant from Ethiopia.

Attendees	24
Registrants	63
Affiliations	
Academia, Government	21
Food Business	3
Others	0

EuFooD-STA Webinar "Marketing strategies - importance of labeling and trust in the supply chain"

This webinar was targeted versus food industries
and students and this audience was reached, even
in only a small headcount. It is striking, that the
average rate of attendance, which ranges around
45% of registrants actually attending, only
reaches 26% in case of this webinar. The low
number of attendants may be due to the date of
the webinar (holidays at the end of may).Atten
Regis
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Code

Attendees	8	
Registrants	30	
Affiliations		
Academia, Government	3	
Food Business	5	
Others	0	

EuFooD-STA Webinar: "Information to Consumers – Focus on Labeling Regulation (EU) № 1169/2011 on the provision of food information to consumers"

With the finding that legislative aspects are of	Attendees
great interest and mainly food businesses	Registrants
interested in the issue, this webinar does not	
comply. It may be explained with the date of the event in late may, where holidays and the beginning exams at universities create time constraints for potential attendees. The audience was evenly partitioned between universities and	Affiliations Academia, Government Food Business Others
food manufacturers.	

EuFooD-STA Webinar "How to positively communicate by nutrition and health claims in Europe?"

Nutrition and Health Claims are crucial in the communication with consumers and form a main	Attendees Registrants	33 82
part in the labeling of food products. Still, the	hegistrants	
majority of attendants had university and governmental background (60%). The audience was well distributed all over Europe, which reflected the focus of both the regulation and the lecture.	Affiliations Academia, Government Food Business Others	20 9 4

18 46

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EuFooD-STA webinar: "Flavourings – Focus on use of the term "Natural" Regulation (EC) № 1334/2008 on flavourings and certain food ingredients with flavouring properties for use in and on foods"

60% of participants had university affiliations or	Attendees	23
public services background in this webinar	Registrants	58
concerning flavouring food ingredients. The		
validity of the regulation for the European Union and its market may be the reason for the audience	Affiliations	
being mainly located in Europe (13% non-	Academia, Government	14
European attendants).	Food Business	7
	Others	2

EuFooD-STA Webinar "Packaging technology and preservation of foods"

The target group addressed by this webinar	Attendees	20
encompassed food students and professionals as	Registrants	49
well. The biggest interest was triggered in the		
scientific community and the public sector with	Affiliations	
75% of the participants having the respective	Affiliations	
affiliations. The talk was heard by an audience	Academia, Government	15
spread all over Europe with special interest in Italy	Food Business	2
and the UK (25% and 20% of participants	Others	3
respectively).		

EuFooD-STA Webinar: "Food Sector in USA - Main Opportunities and Trends"

The recent and anticipated drivers of the food	Attendees	15
markets in the USA found an interested audience	Registrants	26
in academia and profession as well. 53% of the		
participants came from universities and official	Affiliations	
institutions, 27% from food business operators. It		0
is worth noting, that this webinar got awareness	Academia, Government	ð
also in Brazil, Thailand, Taiwan and the US apart	Food Business	4
from European countries.	Others	3

EuFooD-STA Webinar: "Spore-forming bacteria in food: Detection, identification and means of control"

Food spoilage by spore-forming bacteria is an	Attendees	57
issue to be addressed with much diligence and in	Registrants	125
responsibility for consumer protection. The high		
relevance of the topic was reflected in the interest it triggered. Participants from academia and	Affiliations	
government attended to a partition of 61%; 35%	Academia, Government	35
came from food business. The audience was	Food Business	20
international including attendees from Europe	Others	2
and Asia as well as America (Brazil, China, India, Kazakhstan, US).		



EuFooD-STA Webinar "Traditional Food Sector and	consumption in China - main	trends"
The emerging markets of China affect the food sector as well and lead to the development of main trends. The audience interested in the food	Attendees Registrants	13 25
consumption in China came to a percentage of 69% from universities and government. 15% of the participants had food manufacturing background. The webinar found an international audience going beyond European countries.	Affiliations Academia, Government Food Business Others	9 2 2
EuFooD-STA Webinar "Market Assessment – Use o	f NPD Tools in Traditional Foo	d Products"
The market assessment tools (e.g. New Product Development, NPD) were mainly directed versus a target group in food business operation.	Attendees Registrants	22 53
However, the audience was composed mainly of members from universities and public bodies (68%). The share of food professionals attending amounted to 18%. The webinar reached an international audience, which was located in Europe, South America, and Asia.	Affiliations Academia, Government Food Business Others	15 4 3
EuFooD-STA Webinar: "Innovation in Traditional Fo	ood? – Good Practices"	
Good practices for innovation projects were found to be interesting for a worldwide audience with 23% of the attendees coming from non-	Attendees Registrants	39 98
European countries. The percentage of participants from universities and government summed up to 72%. 13% of the attendees had food business affiliations.	Affiliations Academia, Government Food Business Others	28 5 6
EuFooD-STA Webinar: "Support of Entrepreneurshi fish sector"	p and Enhancing of Competitiv	eness in the
Entrepreneurship is much demanded from food students and universities strive to include according lectures in the respective curricula. This	Attendees Registrants	14 35
may explain the high share of university affiliations (71%) among the participants of this particular webinar. The audience was composed of participants from all over Europe including Belarus and also found resonance in Brazil.	Affiliations Academia, Government Food Business Others	10 2 2
* EuFooD-STA Webinar "Modern models and fram	eworks in entrepreneurship"	
The capability of academic graduates to adapt to an environment driven by economical factors shall be supported and developed. The high response of participants from universities and	Attendees Registrants Affiliations	43 100

Deliverable 3.4 – Report on developed training activities





eflects the demand for entrepreneurship know-	Academia, Government	30
now. The topic is of interest on a worldwide level	Food Business	10
is is documented by the location of the	Others	3
participants from the Americas to Asia, Africa and		
urope and even reaching New Zealand.		
uFooD-STA Webinar: "Biofilms in food industry : s	tructure, function and contro	l strategies
Biofilms are an emerging topic in cleaning and	Attendees	79
lisinfection with a high demand for research. The	Registrants	230
participants of the webinar had accordingly		
nostly scientific background with a share of nearly 75% coming from universities and public	Affiliations	
ector. Food producers were involved at a	Academia, Government	59
percentage of approx. 19%. The topic was	Food Business	15
presented to an international audience with	Others	5
participants from European countries as well as	L	
Bangladesh, Brazil, Canada, China, Costa Rica,		
Russia, Thailand, Turkey, the US and Vietnam. The		
ate of attendance was rather low with 34% and		
nay be explained with the scheduling. EuFooD-STA Webinar: "Analysis of chemical trace	contaminants in foods: perfo	rmance ar
nay be explained with the scheduling. EuFooD-STA Webinar: "Analysis of chemical trace imits" aboratory analysis in the highly specialized field	contaminants in foods: perfo Attendees	rmance ar 29
nay be explained with the scheduling. EuFooD-STA Webinar: "Analysis of chemical trace imits" aboratory analysis in the highly specialized field of trace contaminants was attended by		1
nay be explained with the scheduling. EuFooD-STA Webinar: "Analysis of chemical trace imits" aboratory analysis in the highly specialized field of trace contaminants was attended by participants with a focused interest in	Attendees Registrants	29
nay be explained with the scheduling. EuFooD-STA Webinar: "Analysis of chemical trace imits" aboratory analysis in the highly specialized field of trace contaminants was attended by participants with a focused interest in nethodology and protocols. The attractiveness of	Attendees	29
nay be explained with the scheduling. auFooD-STA Webinar: "Analysis of chemical trace imits" aboratory analysis in the highly specialized field of trace contaminants was attended by participants with a focused interest in nethodology and protocols. The attractiveness of he topic was significantly higher in academia and	Attendees Registrants	29
nay be explained with the scheduling. EuFooD-STA Webinar: "Analysis of chemical trace imits" aboratory analysis in the highly specialized field of trace contaminants was attended by participants with a focused interest in nethodology and protocols. The attractiveness of	Attendees Registrants Affiliations	29 84
nay be explained with the scheduling. EuFooD-STA Webinar: "Analysis of chemical trace imits" aboratory analysis in the highly specialized field of trace contaminants was attended by participants with a focused interest in nethodology and protocols. The attractiveness of he topic was significantly higher in academia and government (79% of participants) than in food	Attendees Registrants Affiliations Academia, Government	29 84 23
nay be explained with the scheduling. EuFooD-STA Webinar: "Analysis of chemical trace imits" aboratory analysis in the highly specialized field of trace contaminants was attended by participants with a focused interest in nethodology and protocols. The attractiveness of he topic was significantly higher in academia and government (79% of participants) than in food production (7%). However, the lecture reached participants on an international level spanning rom Asia to the Americas with an emphasis on	Attendees Registrants Affiliations Academia, Government Food Business	29 84 23 2
nay be explained with the scheduling. auFooD-STA Webinar: "Analysis of chemical trace imits" aboratory analysis in the highly specialized field of trace contaminants was attended by participants with a focused interest in nethodology and protocols. The attractiveness of he topic was significantly higher in academia and government (79% of participants) than in food production (7%). However, the lecture reached participants on an international level spanning	Attendees Registrants Affiliations Academia, Government Food Business	29 84 23 2
nay be explained with the scheduling. EuFooD-STA Webinar: "Analysis of chemical trace imits" aboratory analysis in the highly specialized field of trace contaminants was attended by participants with a focused interest in nethodology and protocols. The attractiveness of he topic was significantly higher in academia and government (79% of participants) than in food production (7%). However, the lecture reached participants on an international level spanning rom Asia to the Americas with an emphasis on	Attendees Registrants Affiliations Academia, Government Food Business Others	29 84 23 2 4
nay be explained with the scheduling. a FooD-STA Webinar: "Analysis of chemical trace imits" aboratory analysis in the highly specialized field of trace contaminants was attended by participants with a focused interest in nethodology and protocols. The attractiveness of he topic was significantly higher in academia and government (79% of participants) than in food production (7%). However, the lecture reached participants on an international level spanning rom Asia to the Americas with an emphasis on suropean countries.	Attendees Registrants Affiliations Academia, Government Food Business Others	29 84 23 2 4
nay be explained with the scheduling. WFooD-STA Webinar: "Analysis of chemical trace imits" aboratory analysis in the highly specialized field of trace contaminants was attended by participants with a focused interest in nethodology and protocols. The attractiveness of he topic was significantly higher in academia and government (79% of participants) than in food production (7%). However, the lecture reached participants on an international level spanning rom Asia to the Americas with an emphasis on uropean countries. WFooD-STA Webinar: "Emerging microbiological afety" Food producers are responsible for the safety of	Attendees Registrants Affiliations Academia, Government Food Business Others	29 84 23 2 4
nay be explained with the scheduling. WFOOD-STA Webinar: "Analysis of chemical trace imits" aboratory analysis in the highly specialized field of trace contaminants was attended by participants with a focused interest in nethodology and protocols. The attractiveness of he topic was significantly higher in academia and government (79% of participants) than in food production (7%). However, the lecture reached participants on an international level spanning rom Asia to the Americas with an emphasis on European countries. SuFooD-STA Webinar: "Emerging microbiological afety" Food producers are responsible for the safety of he products put on the market and thus have a	Attendees Registrants Affiliations Academia, Government Food Business Others hazards bring new challeng	29 84 23 2 4 ges to foc
nay be explained with the scheduling. aboratory analysis in the highly specialized field of trace contaminants was attended by participants with a focused interest in nethodology and protocols. The attractiveness of he topic was significantly higher in academia and government (79% of participants) than in food production (7%). However, the lecture reached participants on an international level spanning rom Asia to the Americas with an emphasis on European countries. EurooD-STA Webinar: "Emerging microbiological afety" Food producers are responsible for the safety of he products put on the market and thus have a vital interest in monitoring emerging hazards. The	Attendees Registrants Affiliations Academia, Government Food Business Others hazards bring new challeng Attendees	29 84 23 2 4 ges to foc
nay be explained with the scheduling. uFooD-STA Webinar: "Analysis of chemical trace imits" aboratory analysis in the highly specialized field of trace contaminants was attended by participants with a focused interest in nethodology and protocols. The attractiveness of he topic was significantly higher in academia and government (79% of participants) than in food production (7%). However, the lecture reached participants on an international level spanning rom Asia to the Americas with an emphasis on suropean countries. EuFooD-STA Webinar: "Emerging microbiological afety" food producers are responsible for the safety of he products put on the market and thus have a rital interest in monitoring emerging hazards. The vebinar found participants from academia (78%)	Attendees Registrants Affiliations Academia, Government Food Business Others hazards bring new challeng Attendees	29 84 23 2 4 ges to foc
nay be explained with the scheduling. WFooD-STA Webinar: "Analysis of chemical trace imits" aboratory analysis in the highly specialized field of trace contaminants was attended by participants with a focused interest in nethodology and protocols. The attractiveness of he topic was significantly higher in academia and government (79% of participants) than in food production (7%). However, the lecture reached participants on an international level spanning rom Asia to the Americas with an emphasis on European countries. EuFooD-STA Webinar: "Emerging microbiological afety" Food producers are responsible for the safety of he products put on the market and thus have a rital interest in monitoring emerging hazards. The vebinar found participants from academia (78%) as well as food production (13.5%). The challenge	Attendees Registrants Affiliations Academia, Government Food Business Others hazards bring new challenge Attendees Registrants Affiliations	29 84 23 2 4 ges to foc
nay be explained with the scheduling. WFOOD-STA Webinar: "Analysis of chemical trace imits" aboratory analysis in the highly specialized field of trace contaminants was attended by participants with a focused interest in nethodology and protocols. The attractiveness of he topic was significantly higher in academia and government (79% of participants) than in food production (7%). However, the lecture reached participants on an international level spanning rom Asia to the Americas with an emphasis on European countries. EuFooD-STA Webinar: "Emerging microbiological afety" Food producers are responsible for the safety of he products put on the market and thus have a rital interest in monitoring emerging hazards. The vebinar found participants from academia (78%) as well as food production (13.5%). The challenge or food safety is not limited to Europe, which was	Attendees Registrants Affiliations Academia, Government Food Business Others hazards bring new challenge Attendees Registrants	29 84 23 2 4 ges to foc 74 155
nay be explained with the scheduling. WFooD-STA Webinar: "Analysis of chemical trace imits" aboratory analysis in the highly specialized field of trace contaminants was attended by participants with a focused interest in nethodology and protocols. The attractiveness of he topic was significantly higher in academia and government (79% of participants) than in food production (7%). However, the lecture reached participants on an international level spanning rom Asia to the Americas with an emphasis on European countries. EuFooD-STA Webinar: "Emerging microbiological afety" Food producers are responsible for the safety of he products put on the market and thus have a rital interest in monitoring emerging hazards. The vebinar found participants from academia (78%) as well as food production (13.5%). The challenge	Attendees Registrants Affiliations Academia, Government Food Business Others hazards bring new challent Attendees Registrants Affiliations Academia, Government	29 84 23 2 4 ges to foc 74 155 58

	,	
The efficiency of food antimicrobials is one of the	Attendees	8
aspects of food safety. The webinar addressed	Registrants	17





students interested in production practice and reached mainly members of universities and governmental institutions. The international provenance of the participants showed the significance of the topic. Attendance may have been poor due to the scheduled date at the end of the academic year.	Affiliations Academia, Government Food Business Others	7 1 0
EuFooD-STA Webinar: "RDI Management in food in	ndustry – Frulact as a case stu	dy"
At the beginning of the training program	Attendees	5
awareness building was an issue and the webinars	Registrants	14
still needed to be introduced to the students. This		
may explain the low numbers of participants. Still, the best presentation of best practice was	Affiliations	
appreciated by academia and food producers	Academia, Government	2
alike. Case studies allow for an immediate insight	Food Business	3
into daily practice and are deemed useful	Others	0
especially for students about to graduate.		
EuFooD-STA Webinar: "Sugarsnot only sweetene	rs"	
The series started with a topic that provided	Attendees	13
general knowledge on a food category as well as	Registrants	29
insight on chemical detail. This approach was		
accepted mainly by participants with university and government background, who made up 69%	Affiliations	
of the audience. 23% of the attendees were	Academia, Government	9
affiliated to food businesses. The international	Food Business	3
composition of the audience reflected the general	Others	1
interest in the topic of the webinar.		

* Extracurricular webinar (not part of the initially planned webinars listed in D3.3.)

In the application form LO was not to be defined by the presenter

In total **1067 participations** were counted during the EuFooD-STA webinar series. In relation to the 2567 registrations received by the management team, this is a realization rate of more than 40%.

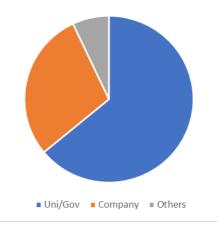
In sum the training program was attended by 682 participants from the academia and the public sector (approx. 63% of the total participant number). 313 of the attendees who followed the lectures had food production or processing background (nearly 30%).

Regarding the **nationalities** of the attendees, a worldwide distribution can be found. More than 40 participations were recorded each for Brazil, Greece, Ireland, Italy, Portugal, Romania, Spain and the UK. The figure below shows the number of attendees per country.

Along with data about the affiliation and provenance of the audience the **interest rating** was documented by the webinar system. It is a measure for the attentiveness and was deducted from the analysis of the screens of the attendees. The active watching of the lecture by the participants ranged from 61.2% to 79% of the total broadcasting time with an average value of 70.5%.

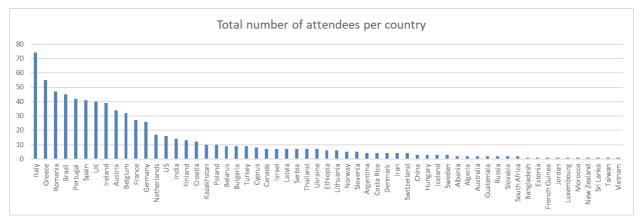


Affiliation webinars



These values suggest that participants are not solely following the lecture, but are occupied with parallel activities. The format of the webinar allows for partially drawing the attention from it in order to engage in multitasking.

Figure 2: Number of total attendees per country



1.4 Materials

The EuFooD-STA training program will continue under the lead of the ISEKI-Food Association and the material produced shall therefore be made available for students, teachers and professionals beyond the planned project duration. The vast majority of webinars were recorded and published in online media.

For this means the project website was designed with a section presenting the webinar calendar as well as the learning material from each executed webinar. This content can be found on https://www.food-sta.eu/webinars-view and is also uploaded in the Digital Library (https://db.iseki-food.net/digital-library/output).

A EuFooD-STA YouTube channel was installed <u>https://www.youtube.com/channel/UC-</u> <u>zYsCKACSKx-HfGOfy77YQ/videos</u> and the material uploaded for public use.

Online views of the recordings were determined by Google Analytics. The status quo is given in the table below.

Only rarely the permission for recording and publication was not given by the presenters.



A summary of all EuFooD-STA webinars and the links to the respective recording and training material is given in the following table.

Table 6: Learning material and online activities to date (Dec 6 2017)

Title	
Links to material provided	Number of online views
EuFooD-STA Webinar "Bio-preservation of foodstuffs: mechanise	ms and applications"
https://www.food-sta.eu/node/1378	N/A
EuFooD-STA Webinar "Integrative predictive modeling for food sa applications"	afety and quality – Tools and
https://www.food-sta.eu/node/1311	37
EuFooD-STA Webinar "Nutritional and Health Claims - Regula nutrition and health claims made on foods"	tion (EC) Nº 1924/2006 on
https://www.food-sta.eu/node/1305	53
EuFooD-STA Webinar "Food Additives - Regulation (EC) Nº 1333,	2008 on Food Additives"
https://www.food-sta.eu/node/1304	104
EuFooD-STA Webinar "New Trends for Design of Food Products"	
https://www.food-sta.eu/node/1250	75
EuFooD-STA Webinar "Sym'Previus for beginners"	
https://www.food-sta.eu/node/1220	46
EuFooD-STA webinar "EN ISO/IEC 17025 Standard - Gene competence of testing and calibration laboratories. Food Safety	
https://www.food-sta.eu/node/1233	136
EuFooD-STA Webinar "Bacillus cereus from a food industrial per	spective"
https://www.food-sta.eu/node/1219	29
EuFooD-STA Webinar "Marketing strategies - importance of lab chain"	eling and trust in the supply
https://www.food-sta.eu/node/1213	26
EuFooD-STA Webinar: "Information to Consumers – Focus on 1169/2011 on the provision of food information to consumers"	Labeling Regulation (EU) Nº
https://www.food-sta.eu/node/1228	35
EuFooD-STA Webinar "How to positively communicate by nut Europe?"	trition and health claims in
https://www.food-sta.eu/node/1212	21
EuFooD-STA webinar: "Flavourings – Focus on use of the term "1334/2008 on flavourings and certain food ingredients with flav and on foods"	



https://www.food-sta.eu/node/1227	47
EuFooD-STA Webinar "Packaging technology and preservation of f	oods"
https://www.food-sta.eu/node/1210	89
EuFooD-STA Webinar: "Food Sector in USA - Main Opportunities a	nd Trends"
https://www.food-sta.eu/node/1209	22
EuFooD-STA Webinar: "Spore-forming bacteria in food: Detection of control"	, identification and means
https://www.food-sta.eu/node/1208	25
EuFooD-STA Webinar "Traditional Food Sector and consumption in	n China - main trends"
https://www.food-sta.eu/node/1206	26
EuFooD-STA Webinar "Market Assessment – Use of NPD Tools in T	raditional Food Products"
https://www.food-sta.eu/node/1207	28
EuFooD-STA Webinar: "Innovation in Traditional Food? – Good Pra	actices"
https://www.food-sta.eu/node/1198	46
EuFooD-STA Webinar: "Support of Entrepreneurship and Enhancing fish sector"	g of Competitiveness in the
https://www.food-sta.eu/node/1197	12
EuFooD-STA Webinar "Modern models and frameworks in entrepr	reneurship"
https://www.food-sta.eu/entrepreneurship	10
EuFooD-STA Webinar: "Biofilms in food industry : structure, function	on and control strategies"
https://www.food-sta.eu/node/1048	151
EuFooD-STA Webinar: "Analysis of chemical trace contaminants i limits"	n foods: performance and
https://www.food-sta.eu/node/1081	18
EuFooD-STA Webinar: "Emerging microbiological hazards bring safety"	new challenges to food
https://www.food-sta.eu/2016-11-17-Microbiological_Hazards	90
EuFooD-STA Webinar: "How can we better evaluate the efficiency	of food antimicrobials?"
https://www.food-sta.eu/node/155	18
EuFooD-STA Webinar: "RDI Management in food industry – Frulac	t as a case study"
Not approved for publication	n.a.
EuFooD-STA Webinar: "Sugarsnot only sweeteners"	
https://www.food-sta.eu/node/156	54



2 Workshops

Workshops in the frame of the EuFooD-STA activities were organized locally as face-to-face events. The design and realization of the workshops was supported by the EuFooD-STA coordinating team offering organizational and managerial services such as announcement of the workshops *via* the communication channels of the project, organizing of feedback and collection of attendants' data.

In total, nine workshops were held over the course of the project duration. The topics of the workshops covered all of the main topic areas that were identified in the needs analysis; and all target groups were reached. Table 1 below details each workshop with regard to the topic area and the target group reached.

The workshops developed and implemented within the training program of the EuFooD-STA project are given in the table below:

Date	Title	Host/location	
30 March 2016	Characterizing antimicrobial activity quicker and more efficiently in foods or	Florence Dubois-Brissonnet, AgroParisTech, France	
	food environments Note: The title of this workshop was changed from "Evaluation and optimization of antimicrobial efficiency" (see D3.3).	Frulact, Rua do Outeiro 589 4475-150 Gemunde; Maia – Portugal	
1 April 2016	R&D and Innovation Management in Food Industry – Frulact as an Example	Maria Ana Marques, Frulact, Spain	
		Frulact, Rua do Outeiro 589 4475-150 Gemunde; Maia – Portugal	
5 July 2016	Fostering Entrepreneurship Dedicated to	Laura Lecci, EBN, Belgium	
	Food Researchers	Susana Seabra, SPI, Portugal	
		University of Natural Resources and Life Sciences, Vienna (BOKU) Muthgasse 18 A-1190 Vienna	
26 April + 03, 17,	Business Model Generation	Sara Proença, ESAC, Portugal	
24, 31 May 2017		INOPOL - Entrepreneurship Academy of Polytechnic Institute of Coimbra, Portugal	
14 – 21 July	Business Model Generation and	Eduardo Cardoso, SPI,	
2017	Validation	Portugal	
		ESB-UCP, Asprela Porto	
4 July 2017	Commercial Negotiation Process Between Food Companies and Retail	Françoise Gorga, ANIA, France	
	rood companies and Netall	ANIA	

Table 7: Workshops re	alized during the	EuFooD-STA tra	ining program
rable // workshops re	anzea aaring the		





		9 boulevard Malesherbes - 75008 Paris M° Madeleine
20-22 November 2017	Hands-on training on baking technology Extracurricular	Gerhard Schleining, BOKU, Vienna BOKU – University of Natural Resources and Life Sciences, Vienna, Austria STAMAG 1220 Wien, Smolagasse 1
28 February	Basics of Expiration Dating of Food Products	Rui Manuel Machado da Costa Escola Superior Agrária de Coimbra
1 March 2018	Modelling of Expiration Dating of Food Products Cancelled due to no registrations	Rui Manuel Machado da Costa Escola Superior Agrária de Coimbra
13 March 2018	Beer labelling: Presentation of the labelling rules for beers, based on the French sectorial regulation, with a reference to the general European food information to consumers regulation The title of this workshop was changed from "European rules on labelling"	Françoise Gorga ANIA
	FoodMicrobiologyforNon-microbiologistsCancelled due to work restrictions	Paula Teixeira
	Lean Business Plan Development The title of this workshop was renamed to "Foodintegritystudio Entrepreneurship priME CUP" Cancelled due to too few registrations	Rainer Svacinka BOKU

In total, eleven workshops were planned according to D3.3. Of these ten, three had to be cancelled:

- The workshop "Modelling of expiration dating of food products" was cancelled due to no registrations.
- The workshop entitled in D3.3 "Lean Business Plan Development" was renamed to "Foodintegritystudio Entrepreneurship priME CUP" had to be cancelled due to low number of registrant.
- The workshop entitled "Food microbiology for non-microbiologists" was cancelled due to internal staff restrictions at UCP which made its realization difficult.



The remaining eight workshops were realized, and one was extracurricular.

2.1 Preparation

The EuFooD-STA Workshops were also planned in the list of training events given in D3.3 and their management was also based on collecting all pertaining data in an Application Form (Template see Annex). The information on title, date, duration, speaker, contents, target group and anticipated learning outcomes was used to structure the contents, focus dissemination activities and support the actual carrying out of the events.

The lecturers took care for scheduling their respective workshops taking into account actual availability of location and personnel. Dates also needed to be coordinated within institutions and with regard to needs and requirements of the academic year. It had also to be taken into account, that EuFooD-STA workshops were conveniently accessible to students in terms of time and localization. These factors created circumstances that made the organizational frame much tighter for EuFooD-STA workshops than for EuFooD-STA webinars.

Localization and language of realization reduced the range of possible attendees, while at the same time lead to a greater involvement of local students. As opposed to the virtual EuFooD-STA webinars the EuFooD-STA workshops turned out to be more challenging to implement. The EuFooD-STA management and organization team adapted in its support and assisted in registration and reporting issues.

The **Application Form Template** (Annex 2) was the basis for organizing the events in close cooperation between the EuFooD-STA management team and the local organizer of the workshop. The completed form needed to be returned to the EuFooD-STA organizing team in due time and data were collected for further reference and follow-up communication.

As most of the workshops were oriented to a national audience, dissemination material about the workshops (leaflets, programs, registration etc.) was published on the local hubs to reach a local audience (<u>https://www.food-sta.eu/efsc_centre_hub</u>)

2.2 Realization

Each EuFooD-STA workshop was realized autonomously by the respective hosts. The format of workshops easily fits into the conventional teaching techniques of the academic curriculum and could thus be realized on the basis of usual facilities.

The following table lists details of the EuFooD-STA workshops realized during the training program.

Title	
venue	Link to program and/or further information
Characterizing antimicrobial activity environments	quicker and more efficiently in foods or food
Frulact, Rua do Outeiro 589 4475-150 Gemunde, Maia - Portugal	This workshop was certified according to the EQAS Food Award, program in the annex Program: <u>https://www.food-sta.eu/node/129</u>

Table 8: Detail information regarding the performed EuFooD-STA workshops



R&D and Innovation Management in Fo	od Industry – Frulact as an Example		
Frulact, Rua do Outeiro 589 4475-150 Gemunde, Maia - Portugal			
Fostering Entrepreneurship Dedicated to	o Food Researchers		
University of Natural Resources and Life Sciences (BOKU), Muthgasse 18, 1180 Vienna, Austria	Program: <u>https://www.food-sta.eu/event_2016-7-</u> 05_enterpreneurship		
Business Model Generation			
INOPOL - Entrepreneurship Academy of Polytechnic Institute of Coimbra, Portugal	Program: <u>https://www.food-</u> <u>sta.eu/localhub/portugal/news</u>		
Business Model Generation and Validati	on		
ESB-UCP, Asprela, Porto, Portugal	Program in the annex		
Commercial Negotiation Process Between Food Companies and Retail			
ANIA, 9 boulevard Malesherbes, 75008 Paris, France	Program: <u>https://www.food-sta.eu/node/1257</u>		
Hands-on training on baking technology			
University of Natural Resources and Life Sciences (BOKU), Muthgasse 18, 1180 Vienna, Austria and Stadlauer Malzfabrik (STAMAG), Smolagasse 1, 1220 Vienna, Austria	Program: https://www.food-sta.eu/bakingtechnology Extracurricular webinar (not part of the initially planned workshops listed in D3.3.)This workshop was certified according to the EQASFood Award		
Basics of expiration dating of food produ	ucts		
Escola Superior Agrária de Coimbra , Portugal	Program: <u>https://www.food-sta.eu/node/1577</u>		
Beer labelling: Presentation of the labelling rules for beers, based on the French sectorial regulation, with a reference to the general european food information to consumers regulation			
ANIA 9 boulevard Malesherbes 75008 PARIS, FRANCE	Program: <u>https://www.food-sta.eu/node/1505</u>		

2.3 Reporting

As a basis for reporting any generated material and documents were forwarded to the EuFooD-STA management and organization team. The data of the documents was filed and processed for evaluation purposes. The learning material was prepared for publication on the website (see also section 2.4 Materials).

The hosts of the workshops elaborated expected learning outcomes and targeted attendees' groups in advance as shown below.



Table 9: anticipated features of the realized EuFooD-STA workshops

Title		
Learnin	g outcome	Target group/number of participants
Charact	erizing antimicrobial activity quicker and more efficiently in foods or food	
-	how to determine precisely MIC/NIC for an antimicrobial compound	Food professionals
-	how to optimize two-by-two combinations	24 participants
-	the existence of time-lapse CLSM methodology to quickly evaluate the antimicrobial activity in a complex structure (food matrix, biofilm)	
R&D an	d Innovation Management in Food Industry – Frulact as an Example	
-	Strategies for promoting and implementing an R&D and Innovation Management strategy in industry	Food professionals; HE
-	Creativity and Idea management tools used and their impact	teachers
-	Why and how industry promote cooperation with Universities	21 participants
-	Project Portfolio Management tools	
Fosterir	ng Entrepreneurship Dedicated to Food Researchers	
-	Entrepreneurship	Food researchers
-	Business plan	23 participants
-	Technology transfer	
-	IPR protection	
Busines	s Model Generation	<u> </u>
-	Understand what a business model is.	entrepreneurs,
-	Ideate, describe, evaluate and discuss a business model using the Business Model Canvas tool.	startup managers, students
-	Map out your business using the Business Model Canvas.	18 participants
Busines	s Model Generation and Validation	
-	understand the key knowledge areas to think about a business	Entrepreneurs: for
-	transform a business idea on a business model	start-ups or from companies
-	validate business models against potential customers	9 participants
Comme	ercial Negotiation Process Between Food Companies and Retail	1
-	Know the legislative and jurisprudential changes impacting trade negotiations and assess their risks and challenges.	Students, food professionals
-	Improve its methodology for carrying out a review and preparing trade negotiations.	18 participants
-	Integrate the constraints and opportunities of the law into its business strategy.	
-	Master the risks of sanctions and manage controls.	

Deliverable 3.4 – Report on developed training activities



Hands-on training on baking technology	
 raise the awareness of university lecturers on what is practically happening in the industry in order to teach the students the right things. 	university teachers, food professionals, master/PhD students 14 participants
Basics of expiration dating of food products	
- Know the main regulations that apply to food expiration dates	General public,
 Know the mechanisms of deterioration and control of deterioration of foods 	journalists, industry professionals
- Know the general principles and structure of shelf life tests	27 participants
Beer labelling: Presentation of the labelling rules for beers, based on the French with a reference to the general european food information to consumers regular	_
- Determine a label for their food product complying with the European	Industrial staff
regulation	14 participants

From the nine workshops that were held over the course of the project duration, the table below shows very well that the topics of the workshops covered all of the main topic areas that were identified in the needs analysis; and all target groups were reached with an average number of participants of 16 participants.

An outline of all the workshops held with links can be found at <u>https://www.food-sta.eu/workshops</u>



Table 10: Workshops detailed according to training topic and target groups reached

Training activity topics identified in D3.3	Workshops	Target groups		
	-	Students	HE teachers	Food professionals
1 - Manufacturing & food processing				
1.1 – Promote innovation in working methods and/or optimize production	Hands-on training on baking technology	V	V	V
2 – Food safety, food quality, certification				
2.1 – Food safety management, food hygiene& food safety control	Characterizing antimicrobial activity quicker and more efficiently in foods or food environments		V	V
2.3 – Check compliance with current legislation	European Rules on Beer Labelling			V
2.4 - Monitor product quality	Basics of Expiration Dating of Food Products	V		V
3 – Marketing area				
3.1 – Develop and launch new services or products	Commercial Negotiation Process Between Food Companies and Retail	V		٧
	R&D and innovation management in food industry – Frulact as an example		V	
4 – Management and administration				
4.1 - Organization ability	Fostering Entrepreneurship Dedicated to Food Researchers		√	
4.2 - Planning skills	Business Model Generation and Validation	v		V
	Business Model Generation	V		V



3 E-learning courses

The concept of E-learning provides learning material independent of location and time in the virtual setting of a training platform. Teachers design teaching material for the knowledge transfer and accompany the learning progress via online interaction with the attendees. In Annex 3, the application form for online courses can be found.

The following table shows the topics, which were processed into e-learning material.

Title	Presenter	Learning Outcomes
Businessmodelgenerationandvalidation	Eduardo Cardoso	 Understanding the key concepts of Business Model Generation and Customer Development
		 Learning how to develop and apply those methodologies to the early stages of Business Projects
		 Using techniques for the market perception of a Business Idea
Entrepreneurship in the Food Industry	Sarah Underwood	 Appreciate the commercial drivers for innovation and product development within the food industry
		 Understand how to identify, contextualise and communicate opportunities
		 Analyse their own entrepreneurial skills and appreciate how to further develop these as part of their ongoing personal development
Food Safety in the Catering Sector	Gerhard Schleining	 knowledge of hazards, Hygienic Design (including zoning) of building and equipment used in the Catering Sector
		 Hygiene Management including GMP, HACCP & sanitation as well as of legal requirements in the European Union.
		 evaluate building and equipment, to use GMPs and cleaning & sampling procedures and suggest improvements
Open Innovation	Fotini Salta	• Gained knowledge on the importance of open innovation and collaboration in supply chains

Table 11: Overview of realized E-learning Courses







 Gained knowledge on how to identify opportunities for innovation
 Gained knowledge on how to develop opportunities into business cases
 Gained insights into the key strengths and weaknesses of own organization in relation to innovation
• Gained competences on how to apply above knowledge in practice

The materials for the e-learning course "Open Innovation" were developed under the OPENNEWFOOD project (LLP Project).

3.1 Preparation

As described in D3.3 the preparation of the E-learning courses followed a strict routine, which was developed in the forefront.

workload	min 50 h (equivalent to 2 ECTS)		
learning outcomes	>2		
agenda	general description, timing/sequence of study materials, e-tivities, assessment		
content	a) Study materials: series of PPT presentation + audio or video; written material		
	 E-tivities (compulsory): individual or group (forums, assignments, chat, wikis/google docs, can be used for assessments) 		
criteria & registration	 Courses can be open always (individual participants) or within a certain time period (allows group work) Registration through online application form, lists will be provided to the trainers 		
costs	Free for the project, associated and network, partners and IFA members		
	• other participants can be asked for a fee collected by IFA via credit card before getting the password		
	Ideas for Sustainability: Sponsoring		
assessment	Examples: final grade: 40% etivities and 60% final exam		
	Online and off-line (elaboration, laboratory exercise) assignment for each chapter		
	• quizzes: pool of questions/answers; used for randomized quizz for self evaluation without rating and for		
	assessment tests within a restricted time		
	the trainer has to provide questions, right and wrong answers,		
	the multiple choice will be implemented by IT experts,		
	the evaluation will be done by the system		
evaluation by participants	An online questionnaire, provided by the eFSC has to be filled in before getting the certificate of attendance,		
	evaluation will be sent to trainer		

3.2 Reporting and materials

As part of the test run of the e-learning courses, registration was opened for the four developed courses as described above. In the period from 1st to 28th February, registration was open and the following number of participants signed up:

Title	Links to material provided	Number registered participants
-------	----------------------------	-----------------------------------



Open Innovation	https://moodle.iseki- food.net/course/view.php?id=54	14
Food Safety the Catering Sector	https://moodle.iseki- food.net/course/view.php?id=49	25
Entrepreneurship in the Food Industry	https://moodle.iseki- food.net/course/view.php?id=52	23
Businessmodelgenerationandvalidation	https://moodle.iseki- food.net/course/view.php?id=50	10

An overview of all online courses can be found at <u>https://www.food-sta.eu/e-learning-courses</u>



4 Flash presentations/demonstrations

As a means of instant teaching and an easy tool to facilitate knowledge transfer flash presentations were developed. These videos convey concise learning units in easy to grab lessons. The issues dealt with in the flash presentations are given in the table below:

Table 14:	Overview	on realized	flash	presentations

Title	Learning Outcomes
Safe defrosting of foods	 Are aware of the importance of the safe defrosting of foods Know methods to defrost foods Are aware of the unsafe practices that they should avoid
Food Safety in the Catering Sector The title was changed from "Awareness and importance of food safety in the catering sector"	 are aware of the importance of food safety in the catering sector are aware of the most frequent microorganisms that might be present in the food and represent a potential hazard for food safety are aware of the damages that an incident of food safety in the catering sector can lead to know the basic safe practices regarding to the safe temperature of foods are able to apply the knowledge acquired
Safe use of gloves	 Know and understand the importance of the safe use of gloves when handling, preparing and cooking foods Understand and are aware of the associated risks of unsafe use of gloves when handling, preparing and cooking foods Are able to apply the knowledge acquired when using gloves for handling, preparing and cooking foods
Safe use of sanitizers for caterers	 Know and understand the active ingredient of sanitizers Are aware of how to correctly use the sanitizers in order to ensure food safety Are aware of safety measures to take when using sanitizers
Staff illness as a food safety hazard	 Are aware of the potential hazard of staff illness to food safety Know how to act when staff illness occur
Waste management for caterers Please note that the title of this was changed from "Safe handling of garbage for the ensure of food safety "	 Are aware of the potential hazard of garbage to food safety Are motivated to put in practice the safe practices
Product delivery safety control checks for caterers	 Are aware of the importance of the safety control checks for product delivery Know the safety control check they should run when product delivery
Safe use of wipes	 Are aware of the measures to take when using clothes/wipes for cleaning and sanitizing



Please note that this was changed from "Safe use of clothes/wipes for cleaning and sanitizing" and the content spilt into to	-	Are aware of the different types of clothes/wipes available for the cleaning and sanitizating
presentations		

The flash presentation "Documentation and record keepting basics for caterers" as listed in D3.3 was not developed, but the following was developed extracurricular:

• Avoiding cross contamination

4.1 Preparation

The preparation of flash presentation was carried out after a set of strictly defined requirements based on the findings of D3.3. The responsible for each flash presentation elaborated their result according to these requirements.

Table 15: Flash presentations routine

workload	5 min, max 10 min		
learning outcomes	One LO: to understand better a term, method, etc		
agenda	10 min pre-recorded presentation		
content	ppt, video		
criteria &	trainer and content will be certified		
registration	• participants get certificate of attendance, when filled in the evaluation		
	• will be free available in the digital library after registration		
costs	Free to the public, reference for eFSC		
	Support with Gotowebinar system will be provided by eFSC		
	Sustainability: Sponsoring		
assessment	No		
evaluation by	A standard questionnaire will open after viewing, evaluation will be made available to		
participants	trainer		



4.2 Reporting and materials

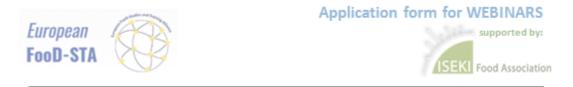
In total ten flash presentations were developed during course of the project. Links to all the materials can be found on <u>https://www.food-sta.eu/flashpresentations</u>

European FooD-STA HOME PROJECT ~ EVENTS ~ SURVEYS CONTACT	Search Q
Flash presentations	
View Edit	
Title	Links to material provided
Safe defrosting of foods	
Temperature requirements of food	
Safe use of gloves when handling, preparing and cooking foods	HE H
Safe use of sanitizers for caterers	- 10 MIN
Staff illness as a food safety hazard	
Waste management for caterers	



Annex 1: Webinar application form template





Please complete the information in the boxes below:

Title (max 128 char)		
Date	time	
Duration		
Date for technical check	time	

Abstract: (aim and content of the webinar,) max. 2048 characters

Participants requirement profile (please specify target group)

Speaker 1: information and foto to be sent out for announcement, max 200 words

foto 100x100px, 100kb

Speaker 2: (optional)

Publications in Elsevier Journals:

Elsevier shows interest in your webinars and would like to support knowledge transfer activities by promoting one or two papers, you may have published in Elsevier Journals. Please name papers that are relevant to the topic of your webinar below. Elsevier will then promote them and make them freely available around the date of the webinar.

I agree that the presentation will be recorded

Yes 🛛 🛛 No 🗖

Please correct/add polls to be sent out during or after the presentation

- Please rate the degree of interest of the topic *)
- Please rate the audio quality of the presentation
- Please rate the overall quality of the presentation
- Other (also questions and multiple answers can be asked):

⁹1.... very interesting/good, 5.....not interesting/bad Comments (here you can post special comments, information, etc.)

Contact details of the person in charge for organising

Please send this form with the picture to centre@food-sta.eu

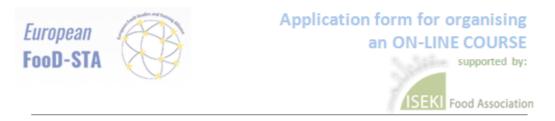


Annex 2: Workshop application form template

European FooD-STA	Application form for WORKSHOPS supported by: ISEKI Food Association		
Please complete the information in the boxes be	low:		
Title (max 128 char)			
Date Duration/workload			
Location			
Language Abstract: (aim, content and learning outcomes of	the workshop) max 2048 characters		
Participant requirement profile (please specify ta	rget group)		
Pre-knowledge expected of participants			
CV Trainer 1 incl. photo (photo 100x100 px, 100k	b) (max 200 words)		
Materials to be handed out to participants during/after workshop			
PPT Presentation Hand-out Evaluation sheet Test/Multiple choice test Certificate of attendance Other materials:			
Materials to be made available to the public after	r the workshop		
Presentation(s) as pdf Video of the workshop/or parts of it Other materials:			
Please attach the following to your application fo	rm		
✓ Programme (pdf)			
✓ Link to registration form/email address/web	site:		
Please submit the following to <u>centre@food-sta.e</u>	eu after the workshop		
✓ List of participants			
Comments (here you can add special comments, i	nformation, etc.)		
Contact details of the person in charge for organising			
**			
Please send this form with the picture to <u>centre@food-sta.eu</u>			



Annex 3: Online course application template



Please complete the information in the boxes below:

Course Title: Organising Institution: Teacher name: Teacer email: Proposed Date:

Learning Outcomes:

Learning outcomes are statements of what a learner is expected to know, understand and/or be able to demonstrate (almost immediately) at the end of a period of learning.

Participants requirement profile (please specify target group)

Content:

Others (This field allows the organiser to post special comments, information, etc.)

Contact details of the person in charge for organising the e-learning course

Please send this form to centre@food-sta.eu