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Deliverable D5.2 EUFOOD-STA E-LEARNING PLATFORM

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Dissemination Level		
PU	Public X	
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:

The document describes the structure, functionalities, tools and features of the EuFooD-STA e-learning platform, implemented at the EuFooD-STA website (www.food-sta.eu) to support educational activities of the FooD-STA centre and its members for HE (higher education) and CPD (continuous professional development).

The FooD-STA e-learning platform consists of **3 components**:

- 1. A Learning and Content Management System (LCMS) to support online courses
- 2. An online conference tool to support webinars and online meetings
- 3. A **digital library** to support easy access to existing electronic teaching materials like YouTube videos, pictures, diagrams, presentations, serious games, simulation tools, research articles, etc. to be used by teachers and learners

With these components and tools, content will be developed and provided in key areas for European Food Industry to support HE and CPD and to transfer knowledge especially to the European SMEs.





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Project Coordinator:

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1 Introduction

The FooD-STA e-learning platform supports educational activities of the FooD-STA centre and its members for HE and CPD. The activities can be used stand alone or in blended learning (online phases + face to face phases).

The FooD-STA e-learning platform allows to deliver:

- a) online courses
- b) webinars and online meetings
- c) other electronic teaching materials

to the following target groups:

HE:

- university teachers
- students

CPD:

- trainers of food professionals (people working in the food sector)
- food professionals
- · any other people interested in the food sector

The FooD-STA e-learning platform consists of **3 components**:

- 1. A Learning and Content Management System (LCMS) to support online courses
- 2. An online conference system to support webinars and online meetings
- 3. A **digital library** to support easy access to existing electronic teaching materials like YouTube videos, pictures, diagrams, presentations, serious games, simulation tools, research articles, etc. to be used by teachers and learners

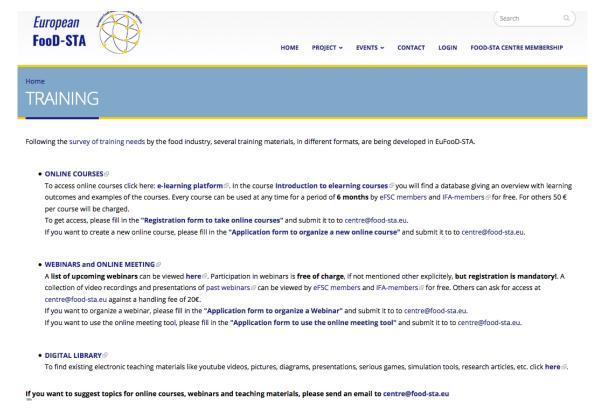


2 General Technical Implementation

The FooD-STA e-learning platform is accessible via the FooD-STA web site https://www.food-sta.eu/training):



Clicking on the "TRAINING" button a public accessible page is linked describing the use of and the link to the different components:





3 Learning and Content Management System (LCMS)

3.1 Features of the LCMS

The platform for FooD-STA online courses is integrated as **new category "European FooD-Study&Training Alliance"** in an existing e-learning platform (https://moodle.iseki-food.net/) of the associated partner ISEKI-Food Association (IFA, https://www.iseki-food.net/). This platform will also maintain the output of this project after the project life time.

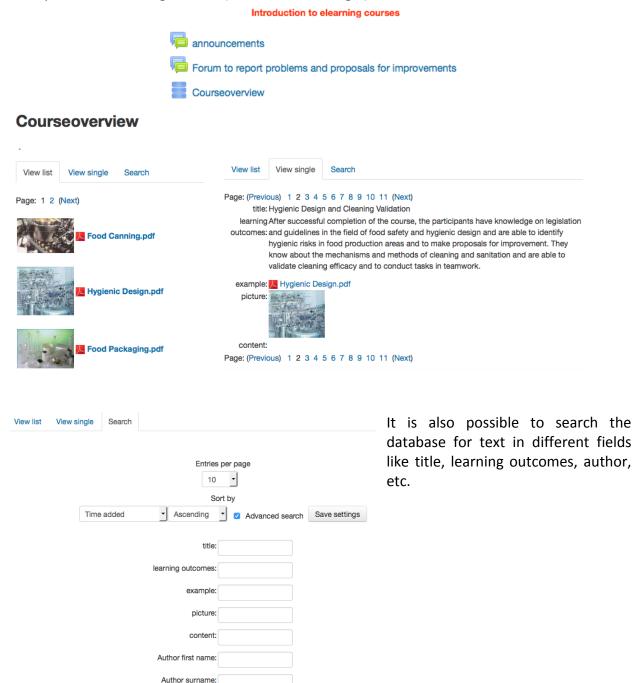


The platform is based on the open source product **moodle** (https://moodle.org/). Moodle is a free learning platform that helps you create effective online teaching and learning experiences in a collaborative, private environment. Different languages can be selected by the user for the interface.





For the new category "European FooD-Study&Training Alliance" a free accessible course "Introduction to elearning courses" (https://moodle.iseki-food.net/course/view.php?id=15) was developed, which contains a database giving an overview on learning outcomes and examples of the existing courses (View list, View single).





The category "European FooD-Study&Training Alliance" will host the online courses, which will be developed during the project, but also online courses, developed in previous projects or by partners will be adapted and made available for EU-FooD-STA members.

During the project:

- authors needs to be contacted, if they agree to make the courses available for the EU-FooD-STA members
- experts need to review/adapt the content

in terms of sustainability:

- instructors must be assigned
- conditions for the use must be defined

The platform hosts also a **category "Connect4Actions"** with courses for Industry Professionals and for Young Academics of the EU project "Connect4Actions", which are also interesting for the target groups of the project and which will also made available for EU-FooD-STA members.



3.2 How to use the LCMS

For the use of the system an **application forms** have been developed, all of them are available online (https://www.food-sta.eu/training) and in the annex.

For teachers a **template of a course** with a basic structure has been developed. The basic structure contains standard forums and feedback forms for quality assurance.

As **instructions** for teachers and participants an e-learning course "**How to moodle**" (https://moodle.iseki-food.net/course/view.php?id=9) has been developed.



How to "moodle" Training course on "ONLINE-COOPERATION"

After this course you should be able:

- as user: to use the main activities (chat, forum, wiki: chapter 3,5,6,7)
- as teacher: to edit a course content (chapter 1,2,4,7)
 insert a text with links
 place a link to file or web site
 setup a forum

The procedure for **PARTICIPANTS** is specified as follows:

- 1. an **application form** (to be downloaded online) has to be filled in and submitted to the Food-STA centre (centre@food-sta.eu)
- 2. the *administrator* will:
 - issue an invoice
 - register the participant after payment at the platform
 - assign the participant to the course for a period of 6 months
 - notify the teacher(s) of the course
 - issue a certificate after successful completion of the course
- 3. the **teacher(s)** will be available during this period to coach the participant by answering questions, assess assignments etc. and notify the administrator after successful completion of the course

The platform can also be used by registered teachers to develop new courses. The procedure for **TEACHERS** is specified as follows:

- 1. an **application form** (to be downloaded online) has to be filled in and submitted to the Food-STA centre (centre@food-sta.eu)
- 2. the *administrator* will:
 - optional: issue an invoice
 - register the teacher(s) and participants (after payment) at the platform
 - setup a course by restoring the template course to a new course
 - assign the the teacher(s) and participants to the course
 - support the trainer(s) during the development and execution of the course
 - issue a certificate after successful completion of the course



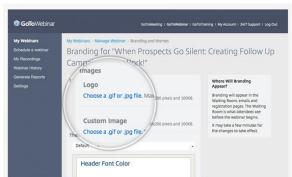
4 Online Conference System

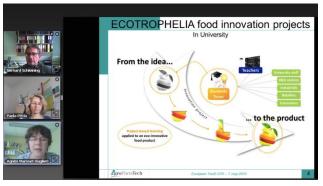
The webinar system uses a license of the associated partner ISEKI-Food Association (IFA, https://www.iseki-food.net/), which will also maintain this output after the project life time, for GoToWebinar and GoToMeeting.

4.1 Features of the GoToWebinar System

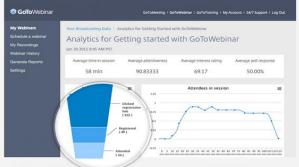
The current license of GoToWebinar (http://www.gotomeeting.com/webinar) allows:

- to schedule webinars with customized branding
- to manage the registration for up to 100 participants, to create custom email invitations, confirmations and reminders using templates, handled automatically by the system
- to share the full screen or application (e.g. powerpoint) of the presenters
- to join via web or phone
- to make votings or asking questions by sending polls during or after the presentation
- to manage webcams and microphones of the participants
- to record the whole session and make it available in mp4 or wmv format
- to create reports for registration and activities (attention, asked questions, etc.), etc.









4.2 How to use the GoToWebinar System

To use the system an application form and instructions for organizers and participants have been developed, all of them are available online (https://www.food-sta.eu/training) and in the annex:

The procedure is specified as follows:

1. an **application form** (to be downloaded online) has to be filled in by the *presenter* with title, proposed time, description of the presenter and the content



- the administrator will schedule the webinar and insert information from the application form and send out an automatic created email to possible participants. IFA will support the advertisement by sending the invitation to more than 9000 subscribers of their enews
- 3. a *moderator* will arrange a date with the presenter(s) for a **technical check**
- 4. at the scheduled time the moderator will start the meeting, explain the use of the control panel, introduce the speaker(s), moderate discussions and manage screensharing, microphones, webcams, chat and polls

During and after the project a series of webinars will be organised and recorded for later viewing. They can be used for courses in HE and CPD training, e.g. to present and discuss new technologies, accessible also by SMEs.

Webinars organized by the associated partner ISEKI-Food Association (IFA, https://www.iseki-food.net/) will also be available for EU-FooD-STA members.

Past Webinars Title (click for full info) \blacksquare 2016-03-15 Round table COST Positive FA1403 with ISEKI-Food Association about bioactives Manuela Pintado et al 2016-02-11 Online Book Presentation: "Food Waste Recovery: Processing Technology and Industrial Techniques" Charis M. Galanakis 2015-05-07 University-Industry educational and training initiatives various 2015-02-18 Nanotechnology in Food and in Agriculture B Victor Acha Reutilization of food wastes (16): Separation of isoflavones from okara – a case study towards more sustainable process Lena Jankowiak

Clicking on the title of a webinar, information about the presenter and the content will be public available:



▼ Presenter

Presenter name: Victor Acha

Presenter institution: Institut Polytechnique LaSalle Beauvais Presenter website: http://www.lasalle-beauvais.fr ₪

→ Details -

Description:

A large proportion of people living in developing countries face daily food shortages as a result of environmental impact or political instability, while in the developed world there is a food surplus. For developing countries the drive is to develop drought and pest resistant crops, which also maximize yield. In developed countries, the food industry is driven by consumer demand which is currently for fresher and healthier foodstuffs. Nanotechnology is the manipulation or self-assembly of individual atoms, or molecules into structures to create materials and devices with enhanced properties such as better physical strength, chemical reactivity, electrical conductance, and optical effects. Nanotechnology has the potential to revolutionize the agricultural and food industry with new tools for the molecular treatment of diseases, rapid disease detection, enhancing for instance the ability of plants to absorb nutrients. Smart sensors and delivery systems will increase the efficiency of pesticides and herbicides, allowing lower doses to be used. Several companies have gone public research programs about the development of new applications including smart packaging, on demand preservatives, and interactive foods. The prediction is that nanotechnology will transform the entire food industry, changing the way food is produced, processed, packaged, transported, and consumed. This presentation will review the key aspect of theses transformations, highlighting current applications in the agrifood industry and what future impacts these may have.

Speaker: Victor Acha got his B.Sc. in Chemical Engineering at the San Francisco Xavier University, Sucre (Bolivia), his MSc in Food Engineering and his Ph.D. in Bioengineering at the Catholic University of Louvain, Belgium. He worked at the Mexican Institute of Oil (Mexico) in the treatment of oil effluents, at the Colorado State University (USA) in the development of biosensors for environmental applications, and at the University of Texas Health Science Center at San Antonio (USA) in the development of biosensors for (bio)medical applications. His current research interests lie on the treatment of polluted waters by ozonation, bioprocess modeling, model-based estimations (software sensors and adaptive control), and also in the development of simple, fast and low cost methods for measuring biomolecules, ideal for real-time monitoring, such as (bio)sensors for environmental, biomedical, and food safety applications. He is permanent member of the labellized Research Unit HydriSE (Hydrogeochemistry and Soil water interaction at LaSalle Beauvais.

The full presentation and the recording of the session can only be accessed by IFA-members. Non IFA-members can ask for access against a small handling fee of 30 € at office@iseki-food.net⊠

→ Attachments

Abstract:

Abstract Nanotechnology in Food and in Agriculture.pdf

For logged in users also the full content of the presentation and the recording is available:

→ Attachments

Abstract

Abstract Nanotechnology in Food and in Agriculture.pdf

Presentation:

■ Nanotechnology_V Acha webinar Feb 18 2015.pdf

Nanoscale Materials

Bionanomaterials

Synthetic nanomaterials utilized in biomedical applications
- Polymers, porous silicon

Bone cell on porous silicon

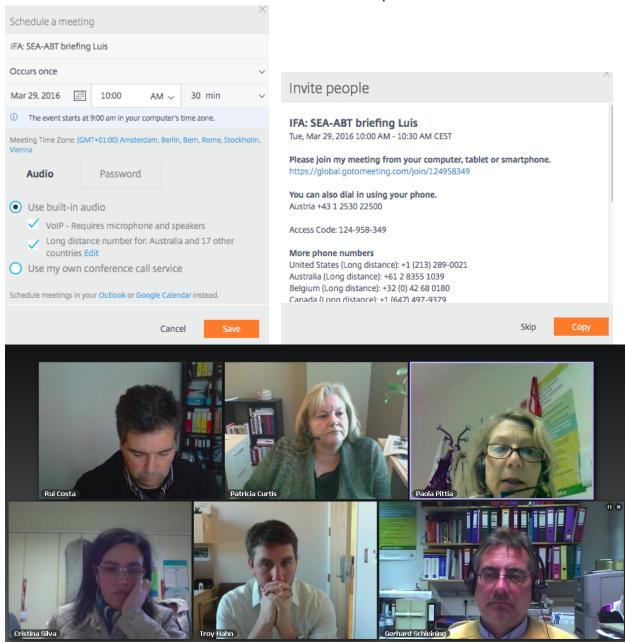
Bone cell on porous silicon



4.3 Features of the GoToMeeting System

The current license of **GoToMeeting** (http://www.gotomeeting.com/) allows:

- to schedule online meetings with customized branding
- to manage the participants up to 20, to create custom email invitations, confirmations and reminders using templates, handled automatically by the system
- to share the full screen or application (e.g. powerpoint) of the presenters
- to share keyboard and mouse in order to work together on the same document
- to join via web or phone
- to manage webcams and microphones of the participants
- to record the whole session and make it available in mp4 or wmv format





4.4 How to use the GoToMeeting System

To use the system an application form and instructions for organizers and participants have been developed, all of them are available online (https://www.food-sta.eu/training) and in the annex:

The procedure is specified as follows:

- 1. an **application form** (to be downloaded online) has to be filled in by the **applicant** with title, proposed time, etc.
- the administrator will schedule the meeting and send an automatic created email to the organizer.
- 3. at the scheduled time the administrator will start the meeting, explain the use of the control panel, and make the applicant an organizer. If wished the administrator may stay participating for technical support.

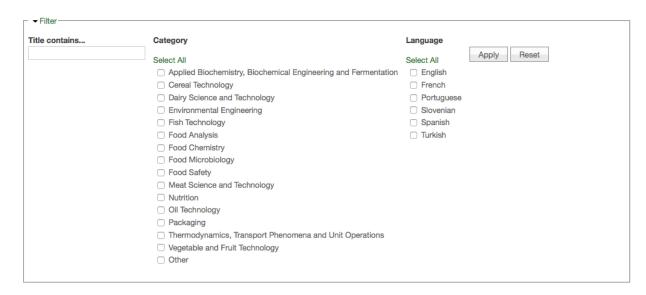
5 Digital Library

5.1 Features of the Digital Library

The digital library will support easy access to existing electronic teaching materials like YouTube videos, pictures, diagrams, presentations, serious games, simulation tools, research articles, etc. to be used by teachers and learners.

The basic structure was developed in the ISEKI-Food 3 project. During the FooD-STA project the structure was modified and the data were transferred to the FooD-STA web site https://www.food-sta.eu/. Here more input can be organized, including also the webinars organized during and after the project life time.

The data can be filtered according to keyword in title, category and language:



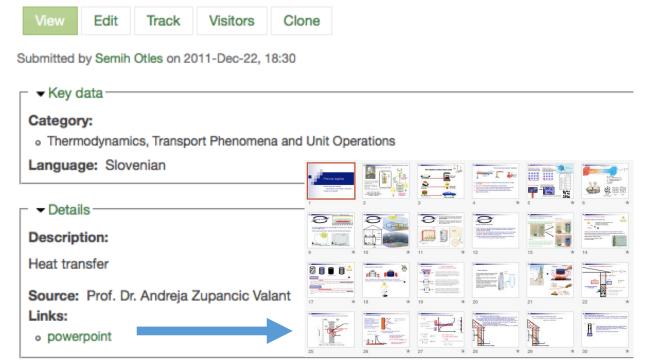


The results are displayed as a list:

ID —	Title (click for full info)	Category	Language
4260	AGRI-FOOD INTERFACE CENTRE SPECIFICATION 1999	o Other	o French
4259	SENSORY EVALUATION GUIDE OF GOOD PRACTICE 1999	o Food Analysis	o English o French
4258	ACTIA, 10 YEARS OF RESEARCH & DEVELOPMENT, 1990-2000 2000	Environmental Engineering Food Analysis Food Microbiology Food Safety Nutrition Packaging Other	o French
4257	MEDITERRANEAN DIET A PRACTICAL GUIDE FOR USE BY MANUFACTURERS 2003	o Nutrition	o French

Clicking on a title all the details are displayed:

Heat Transfer



From the link the material can be downloaded directly or it refers to another website.

5.2 How to use the Digital Library

The digital library is public accessible. Only details of some entries maybe restricted to eFSC members.

A form will be available online to be filled in and submitted to <u>centre@food-sta.eu</u> for further input. The input into the database will be done by the administrator after checking the IPR rights.



6 Annex

6.1 Application form for organizing a new online course



Application form for organising an ON-LINE COURSE



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.				
and a second of section of the second of section of sec				
Book to the contract of the following of the contract of				
Participants requirement profile (please specify target group)				
Content:				
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



6.2 Registration form for online courses



Rgistration form for ONLINE COURSES



Please complete the information in the boxes below:

Titles of courses • Food Packaging you want to attend

Contact details

First Gerhard Family Schleining
Name

Email Gerhard.Schleining@boku.ac.at phone +43-1-47654-6294

Optional remarks

Please send this form with a copy of the bank transfer or the filled in details of the credit card by email to <u>centre@food-sta.eu</u> or fax +43-1-47654-6293

After payment you will receive an email with your login, which is valid for 6 months



6.3 Application form for webinars



Application form for WEBINARS



Please complete the information in the boxes below:

Title (max 128 char)

Impact of processing and matrix interaction in bioacessibility and bioavailability of phytochemicals: case study strawberry and peach

Date

Jan 15, 2016 time 5:30 pm GMT+1 (Vienna)

Duration

Date for technical check

Jan 14, 2016 time 4 pm GMT+1 (Vienna), duration 15 min

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

From nutritional and functional point of view is important to understand the consequences of processing in food composition in order to select the best technological conditions required for the preservation of fruit health benefits.

Thi study was performed involving the study of pasteurization, matrix pH modification, modified atmosphere, long term storage after freezing and pasteurization of frozen fruit at different points of storage. It was possible to observe that strawberry polyphenols were more susceptible to degradation by pasteurization than peach phytochemicals, mainly due to anthocyanins. Storage under low conditions of pH (2.5) allowed to obtain higher stability of strawberries anthocyanins, while intermediate pH of about 3.0 and 3.5 were the best conditions for peach carotenoids stability and higher pH values of 4.5 led to higher content of neochlorogenic and chlorogenic acid on peach. In general, the low content of oxygen was the best condition for phytochemicals preservation, mainly 100 kPa N2 for anthocyanins and carotenoids. Long storage periods (90 d) showed a decrease on the content of all phytochemicals, at higher rate when temperatures where higher as expected. Fruit used in processing can be stored under frozen conditions, reaching periods of 360 d. This process permited easier extractability for some phytochemicals increasing them, but became more susceptible to degradation by the followed process of pasteurization.

The final step of processing encompasses the incorporation of fruit preparates in dairy matrices. Fruit polyphenols when incorporated in lactic matrices like yoghurt interacted with milk proteins namely β -lactoglobulin (β -LG) and with polysaccharides typically added to fruit formulations as stabilisers. Model mixtures pure polyphenol-protein-polyssacharide proved that pectin have a detrimental impact by decreasing significantly the phenolic content and consequently its antioxidant activity. When the model mixtures and fruit yoghurt where subjected to simulated gastrointestinal system, polyphenols revealed a higher bioaccessibility once in the presence of protein and polyssacharide. This means that food components may form complexes with polyphenols that allow protection from degradation through the digestive process making them more bioavailable.

Participants requirement profile (please specify target group)

Food technologists/scientists/engineerings working/studying in food processing area.



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

foto 100x100px, 100kb

Maria Manuela Estevez Pintado, Ph.D.
Professor of Food Engineering
College of Biotechnology- CBQF (Chemistry and
Biotechnology Centre)
Portuguese Catholic University
Rua Dr. António Bernardino de Almeida
4200-072 Porto, PORTUGAL
mpintado@porto.ucp.pt



Manuela Pintado received her Ph.D. in 1999 at the Portuguese Catholic University. After her postdoctoral work at the College of Biotechnology Industry Association (AESBUC) on Force of Dairy Products, Manuela, in 2005, she joined the the College of Biotechnology of the Portuguese Catholic University where she has been teaching courses on topics in food engineering, biotechnology and biochemistry - carry out research in a range of key technologies for the production, characterization, and preservation of industrially/traditionally processed products. She is author and coauthor of several papers (currently ca. 230 papers) in refereed international journals and authored 30 chapters in handbooks on these topics and creator of 9 patents. She has participated in several professional meetings and international symposia and congresses presenting about 80 invited oral communications and 60 selected oral communications and about 400 posters in National and International conferences. She supervises(ed) or cosupervises(ed) 35 MsC, 26 PhD theses and 14 Pos-doc and 18 International Sandwich PhD and 6 International Sandwich Masters. She coordinated or co-coordinated 60 externally funded (national and international funds) research and development projects including 5 EU projects from last FP7 programme.

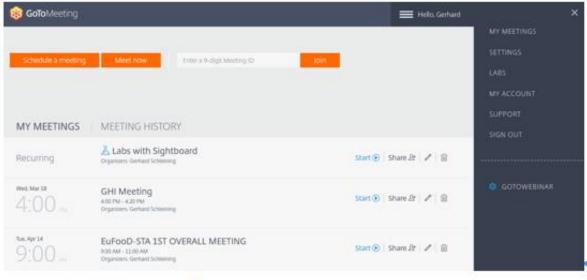
Speaker 2: (optional)				
••				
I agree that the presentation will be recorded Yes No No				
Please correct/add polls to be sent out during or after the presentation				
Please rate the degree of interest of the topic *				
Please rate the audio quality of the presentation				
Please rate the overall quality of the presentation				
Other (also questions and multiple answers can be asked):				
*) 1 very interesting/good, 5not interesting/bad				
Comments (here you can post special comments, information, etc.)				
Contact details of the person in charge for organising				
Manuela Pintado				
mpintado@porto.ucp.pt				

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

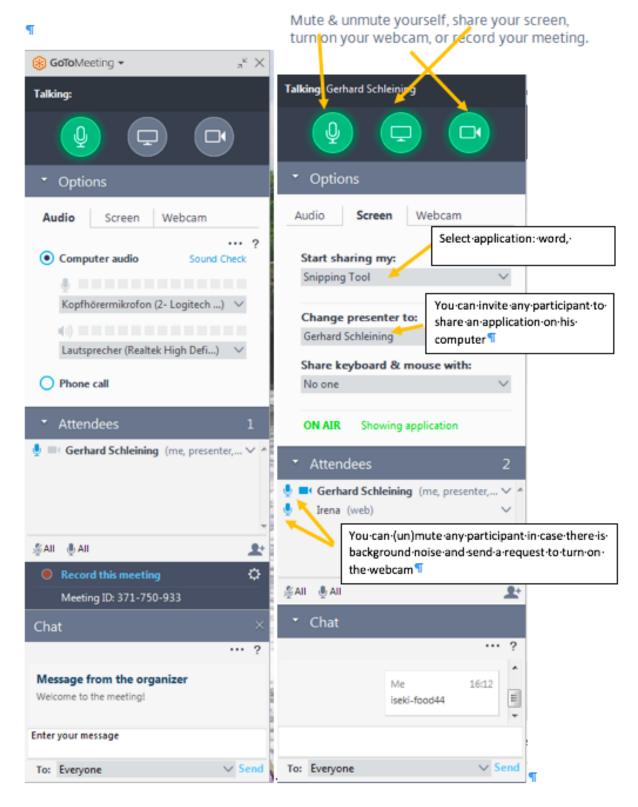


6.4 Instructions for organizers of webinars











6.5 Instructions for participants of webinars

Instructions for participants of GotoWebinar

If possible use a headset (to avoid background noise) and set the audio to microphone (in the audio box of the control panel on the right of the screen) File Options View Help Ŋ X Here you can switch on/off your microphone Screen Sharing Please mute your microphone, when you are not speaking, in order to avoid background noise Here you can switch on/off your Give Show My Change Stop webcam Showing & Mouse Start Recording 158.3 GB remaining - Attendee List (7 | Max 26) When you have been made presenter you could share **⊉** 🖫 🖦 NAMES - BY ARRIVAL TIME any application which running on your computer ₫. Huub Lelieveld (document, website, etc.) by clicking here and selecting Mark Shamtsyan # Alina-loana Gostin from the drop down menu Bernd van der Meulen sangsuk oh Invite Others Very important at the beginning: O Telephone Edit 🕶 • Mic & Speakers Settings Make sure that you have selected Mic & Speakers \$0000000000 4)000000000 Talking: Huub Lelieveld + Webcam When you open the chat box, you + Chat can type in messages to all or **GHI Meeting**

selected participants

Meeting D: 112-248-630 GoToMeeting



6.6 Application form for online meetings



Application form for ONLINE MEETINGS



Please complete the information in the boxes below:

Title Discussion of Structure of Website

Date Januar 13, 2016 Time 2 pm GMT+1 (Vienna)

Duration 2 h

Contact details of the person in charge for organising

Name Gerhard Schleining

Email Gerhard.Schleining@boku.ac.at phone +43-1-47654-6294

Others (This field allows the organiser to 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