



DREAM

Design and development of REAListic food Models with well-characterised micro- and macro-structure and composition

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SEVENTH FRAMEWORK PROGRAMME

Priority: Food, Agriculture and Fisheries, Biotechnology

Deliverable D8.3

Training session for industrialists – final report

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Description of the Deliverable 8.3 (D8.3)	3
<i>a. Description of the Task T8.1 – Dissemination to the industry and food authorities</i>	3
<i>b. Description of the Task T8.3 – Training and career development</i>	3
The objectives of the D8.3	4
Deliverable procedure - Planning and organization of the workshop	5
<i>a. 1st part of the deliverable (Venue: Ljubljana, SI)</i>	5
<i>c. 2nd part of the deliverable (Venue: Paris, FR)</i>	5
<i>d. 3rd part of the deliverable (Venue: Budapest, HU)</i>	5
<i>e. 4th part of the deliverable (Venue: Rennes, FR)</i>	5
Deliverable outcomes	6
<i>a. Description of the scientific workshop</i>	6
<i>b. The DREAM project partners at workshop</i>	7
1st part of the deliverable (Venue: Ljubljana, SI).....	7
2nd part of the deliverable (Venue: Paris, FR)	7
3rd part of the deliverable (Venue: Budapest, HU)	8
4th part of the deliverable (Venue: Rennes, FR)	8
<i>c. The DREAM project contribution</i>	9
Contribution at 1 st Sci. Workshop: Joint Worksop: DREAM & TuBeSafe.....	9
Contribution at 2 nd Sci. Workshop: IDEAS for Design, knowledge Engineering Applied to living complex Systems.....	10
Contribution at 3 rd Sci. Workshop: “Modelling tools for evaluation of the impact of microstructure on nutritional and sensory properties of foods” - Stakeholder’s workshop on the results of the DREAM FP7 project.....	10
Contribution at 4 th Sci. Workshop: Presentation of Dream Cheese Models : Hard Cheese/Soft cheese - Workshop for cheese companies and research.....	11
<i>d. Audience data</i>	12
1 st part of the deliverable (Venue: Ljubljana, SI)	12
2 nd part of the deliverable (Venue: Paris, FR).....	12
3 rd part of the deliverable (Venue: Budapest, HU)	12
4 th part of the deliverable (Venue: Rennes, FR)	12
<i>e. The workshop material</i>	13
<i>f. Evaluation</i>	13
<i>g. Visual and other textual material</i>	14
Conclusion	15

Description of the Deliverable 8.3 (D8.3)

The D8.3 – Training session for industrialists combines activities from T8.1 (Dissemination to the industry and food authorities) and T8.3 (Training and career development). This kind of combination of activities enables introduction of novelties to the industry and at the same time offers learning from experience, important especially for young researchers, who are at the beginning of their career development. Due to the delays within the R&D groups this deliverable is set up as a set of four trainings with the duration of 0,5 days.

a. Description of the Task T8.1 – Dissemination to the industry and food authorities

With the purpose to implement new concepts and techniques, such as food modelling, the training sessions for industry (SMEs) and food authorities has been organised.

Training was carried out on national level with the purpose to create awareness; to encourage the first user and to induce a multiplication effect. Language of dissemination is due to specific terminology referring to food modelling bilingual (national and English language). The training enabled dialogue between lecturer and audience.

b. Description of the Task T8.3 – Training and career development

For the efficient technology transfer it is important that young researchers shall understand the needs of the industry, the way how the industry thinks and operates, and the requirements of the daily operation in the industry in terms of process, quality and food safety management, and also the specific priorities, conditions, resources and constrains of the SMEs.

The objectives of the D8.3

- Present the novelties in food research and technology transfer
- Provide training for the young food expert's
- Networking

Deliverable procedure - Planning and organization of the workshop

a. 1st part of the deliverable (Venue: Ljubljana, SI)

Key steps in event planning	Project partner
Development of the event concept (purpose of the event, type of the event, audience type, date and venue - first suggestion)	UL-BF
Determination of the feasibility of the event (cost, facilities & equipment)	UL-BF
Event planning (set dates-final, times, deadlines, consultation with project partners for input)	CCHU, UL-BF
Event preparation	UL-BF
Event evaluation	CCHU, UL-BF
Publicity	UL-BF

Table 1 Key steps in workshop planning – scientific workshop 1.

c. 2nd part of the deliverable (Venue: Paris, FR)

Key steps in event planning	Project partner
Development of the event concept (purpose of the event, type of the event, audience type, date and venue - first suggestion)	INRA-CNRS
Determination of the feasibility of the event (cost, facilities & equipment)	INRA-CNRS
Event planning (set dates-final, times, deadlines, consultation with project partners for input)	INRA-CNRS
Event preparation	INRA-CNRS
Publicity	INRA-CNRS

Table 2 Key steps in workshop planning – scientific workshop 2.

d. 3rd part of the deliverable (Venue: Budapest, HU)

Key steps in event planning	Project partner
Development of the event concept (purpose of the event, type of the event, audience type, date and venue - first suggestion)	CCHU
Determination of the feasibility of the event (cost, facilities & equipment)	CCHU
Event planning (set dates-final, times, deadlines, consultation with project partners for input)	CCHU
Event preparation	None
Publicity	UL-BF, CCHU

Table 3 Key steps in workshop planning – scientific workshop 3.

e. 4th part of the deliverable (Venue: Rennes, FR)

Key steps in event planning	Project partner
Development of the event concept (purpose of the event, type of the event, audience type, date and venue - first suggestion)	Actilait
Determination of the feasibility of the event (cost, facilities & equipment)	Actilait
Event planning (set dates-final, times, deadlines, consultation with project partners for input)	Actilait
Event preparation	None
Publicity	UL-BF, Actilait

Table 4 Key steps in workshop planning – scientific workshop 4.

Deliverable outcomes

a. Description of the scientific workshop

Scientific workshops, within the deliverable 8.3, were organized in Slovenia, Hungary and France. The average duration of the workshop was 0,5 days.

The first workshop was organized as a joint workshop of DREAM (EU 7FP) project and the TuBeSafe (ATLANTIS) project at the Biotechnical Faculty, University of Ljubljana on 17th May 2011.

The second workshop was organised by collaboration of following institutes: AgroParisTech, ISCFIP, INRIA, Cemagref, DREAM, UPMC, INRA, CNRS, LIP6, Université Val de Marne at Institut des Systèmes Complexes at the Institut des Systèmes Complexes Paris from 17th – 21st October 2011 in Paris, France.

The third workshop was organised as a joint event with 3rd DREAM project annual meeting held at Hotel Tulip Inn Budapest Millennium in Budapest, Hungary (Table2 and Table3) on 26th April 2012.

The last, fourth scientific workshop carried out under deliverable D8.3 was on 23rd January 2013 at InraStlo Rennes, France.

Detailed information about the scientific workshops venue, impact, date and duration is available in table 5.

Event Type	Venue	Acronym	Country	Date/duration of the event	No./Type of break	Attachment
Scientific Workshop – 1 st part	University of Ljubljana – Biotechnical Faculty, Jamnikarjave 101, 1000 Ljubljana	UL - BF	Slovenia	17th May 2011 / 9:00-13:00 (0.5 day)	Coffee break (cca 20 minutes)	Program: SI ; ENG Invitation: SI ; ENG
Scientific Workshop – 2 st part	Institut des Systèmes Complexes Paris Île-de-France, 57-59 rue Lhomond, F-75005 Paris	INRA	France	17 th – 21 st October 2011 / 9:00-18:00 (Full day)	/	Program: FR Invitation: FR
Scientific Workshop – 3 rd part	Hotel Tulip Inn Budapest Millennium Üllői út 94-98 1089 Budapest	CCHU	Hungary	26 th April 2012 / 9:00-12:00 (0.5 day)	Coffee break (cca 10 minutes)	Program: HUN ; ENG Invitation: HUN ; ENG – announcement on DREAM food models website
Scientific Workshop – 4 th part	Inra Stlo Rennes 65 rue de Saint-Brieuc 35042 Rennes Cedex	Actilait	France	23th January 2013 / 10:00 - 13:00 (0.5 day)	No/type of break	announcement on DREAM food models website

Table 5 Detailed information about the scientific workshops.

b. The DREAM project partners at workshop

1st part of the deliverable (Venue: Ljubljana, SI)

The DREAM project partners that took an active part at the 1st scientific workshop are: ADRIA Développement, UL-BF, Campden BRI, and WUR. Detailed information about the roles and involved people are available in the table 6.

Project Partner at 1st Sci. Workshop: Joint Worksop: DREAM & TuBeSafe	Person	Role of the person
ADRIA Développement	Thuault D	Lecturer
	Debroucker T.	Lecturer
UL-BF	Raspor P.	Lecturer, Organisation
	Baša L.	Organisation
Campden BRI	Seböck A.	Lecturer, Organisation
	Baár CS.	Lecturer
WUR	Kruse I.	Lecturer

Table 6 The DREAM project partners: 1st Sci. Workshop

2nd part of the deliverable (Venue: Paris, FR)

The DREAM project partners that took an active part at the second scientific workshop are stated in the table 7.

Project Partner at 2nd Sci. Workshop: Person of DREAM involved (organization and lecturer): IDEAS for Design, knowledge Engineering Applied to living complex Systems
Pierre-Henri Wuillemin (PHW, LIP6), Sophie Martin (SM, Cemagref-ISC), Isabelle Alvarez (IA, Cemagref), Cédric Baudrit (CB, INRA), Nathalie Perrot (NP, INRA Malices-ISC), Denis Flick (DF, AgroParisTech), Evelyne Lutton (EL, INRIA), Paul Bourguin (PB, ISC, Ecole Polytechnique), Romain Reuillon (RR, ISCPiF), Sébastien Gaucel (SG, INRA Malices), Julie Fouquier (JF, INRA).

Table 7 The DREAM project partners: 2nd Sci. Workshop

3rd part of the deliverable (Venue: Budapest, HU)

The DREAM project partners that took an active part at the 3rd scientific workshop are: INRA, WUR, IRTA, ACTILAIT, and CCRFA. More information about the active participation of the project partners is available in table 8. The local organizer of the workshop was Campden BRI.

Project Partner at 3rd Sci. Workshop: “Modelling tools for evaluation of the impact of microstructure on nutritional and sensory properties of foods” - Stakeholder’s workshop on the results of the DREAM FP7 project	Person	Role of the person
INRA	Axellos M.	Lecturer
WUR	M. Dekker	Lecturer
IRTA	C.Realini, J.D.Daudin	Lecturer
ACTILAIT	J. R. Kerjean	Lecturer
CCFRA	M. Whitworth	Lecturer

Table 8 The DREAM project partners: 3rd Sci. Workshop

4th part of the deliverable (Venue: Rennes, FR)

The DREAM project partners that took an active part at the 4th scientific workshop is ACTILAIT. Detailed information is available in table 9.

Project Partner at 4th Sci. Workshop: Presentation of Dream Cheese Models : Hard Cheese/Soft cheese - Workshop for cheese companies and research	Person	Role of the person
ACTILAIT	J. R. Kerjean	Lecturer, Organisation
ACTILAIT	R. Richoux	Lecturer

Table 9 The DREAM project partners: 4th Sci. Workshop

c. The DREAM project contribution

Contribution of DREAM project partners and project`s promotional material per workshop can be seen in following table:

- **Table 10:** Joint Worksoop: DREAM & TuBeSafe: 1st Sci. Workshop
- **Table 11:** IDEAS for Design, knowledge Engineering Applied to living complex Systems: 2nd Sci. Workshop
- **Table 12:** Modelling tools for evaluation of the impact of microstructure on nutritional and sensory properties of foods” - Stakeholder’s workshop on the results of the DREAM FP7 project: 3rd Sci. Workshop
- **Table 13:** Presentation of Dream Cheese Models : Hard Cheese/Soft cheese - Workshop for cheese companies and research: 4th Sci. Workshop

Contribution at 1st Sci. Workshop: Joint Worksoop: DREAM & TuBeSafe			
Title	Author(s)	Presentation Type	Attachment
Food safety and food modelling tools knowledge among MSC & PHD students – Screening (based on questionnaire)	Raspor P., Sebök A.	Lecture and knowledge screening	/
Development of a realistic food model describing the fate of glucosinolates during food processing	Kruse I., Dekker M., Verkerk R.	Lecture	WUR1.pdf
Using models for valuation of the shelf-life of foods. Case study: Sym’Prevus Principles of validation of the technical content of modelling tools including 5 minutes contribution	Postollec F., El Jabri M., Sohier D., T De Broucker M., Thuault D.	Lecture	ADRIA1.pdf
Introduction to the operation, needs and requirements of the industry to ensure applicability of the research results	Sebök A.	Lecture	CampdenBRI_HU1.pdf
General principles of validation and verification of practical applications of the modelling tools	Sebök A.	Lecture	CampdenBRI_HU2.pdf
Design and modelling of thermal microbiological safety – sterilisation and pasteurisation	Sebök A.	Lecture	CampdenBRI_HU3.pdf
Case study: TRUEFOOD: A practical procedure for assessing the safety of traditional fermented air dried sausages	Sebök A.	Lecture	CampdenBRI_HU4.pdf
CIAA BSP Food Safety Action Principles of Food Safety Management Systems	Sebök A.	Lecture	CampdenBRI_HU5.pdf
Process management – A HACCP based approach	Sebök A.	Lecture	CampdenBRI_HU7.pdf
Practical food safety, quality and process management in the food industry	Baár CS.	Lecture	CampdenBRI_HU6.pdf
Design and development of REAListic food Models with well-characterised	All WPs	Poster	Available on the DREAM project

DREAM - FP7-222654-2
D8.3 – Training session for industrialists

micro- and macro-structure and composition (DREAM)			website under Media centre – Posters/Flyers/Brochures: see DREAM Poster
Promotional material			
Title	Number	Type	
Design and development of REAListic food Models with well-characterised micro- and macro-structure and composition (DREAM)	54	Flyer	Available on the DREAM project website under Media centre – Posters/Flyers/Brochures: see DREAM Flyer

Table 10 Joint Worksho: DREAM & TuBeSafe: 1st Sci. Workshop

Contribution at 2nd Sci. Workshop: IDEAS for Design, knowledge Engineering Applied to living complex Systems
Based on a demonstration on an application described, extract from the applications treated in DREAM, the attendants had four sessions of formation:
<ul style="list-style-type: none"> 1 dedicated to the building of deterministic models, 2 dedicated to expert handling and formalisation and uncertainty management, 3 dedicated to viability and robustness calculus, 4 dedicated meta heuristics for decision help systems.
Theoretical explanation of the tools followed an exercise on the computer; developments of some parts of these tools were included in the workshop as to have an understanding in depth of the tools manipulated.

Table 11: IDEAS for Design, knowledge Engineering Applied to living complex Systems: 2nd Sci. Workshop

Contribution at 3rd Sci. Workshop: “Modelling tools for evaluation of the impact of microstructure on nutritional and sensory properties of foods” - Stakeholder’s workshop on the results of the DREAM FP7 project			
Title	Author(s)	Presentation Type	Attachment
Introduction of the DREAM project	M. Axelos	Lecture	INRA1.pdf
PhytoVeg: a model for predicting the phytochemical content of vegetables	M. Dekker	Lecture	WUR1.pdf
Two animal tissue models to test the impact of heating on sensory and nutritional quality	C.Realini, J.D.Daudin	Lecture	IRTA1.pdf
Usefulness of the Actilait Cheese Models (Soft, Semi-Hard & Hard Cheese) for experimental platforms of Dairy Companies: reduction of the number of experiments due to the high reproducibility of cheese parameters	J. R. Kerjean	Lecture	ACTILAIT1.pdf
Models for baked products with added fibre	M. Whitworth	Lecture	CCFRA1.pdf

Table 12 Modelling tools for evaluation of the impact of microstructure on nutritional and sensory properties of foods” - Stakeholder’s workshop on the results of the DREAM FP7 project: 3rd Sci. Workshop

Contribution at 4th Sci. Workshop: Presentation of Dream Cheese Models: Hard Cheese/Soft cheese - Workshop for cheese companies and research		
Title	Author(s)	Presentation Type
What is modelling for cheese experiments : constraints, how to answer to the discussions	J.R. Kerjean	Lecture
Presentation of the cheese models and applications to probiotics.	R. Richoux	Lecture

Table 13 Presentation of Dream Cheese Models: Hard Cheese/Soft cheese - Workshop for cheese companies and research: 4th Sci. Workshop

d. Audience data

1st part of the deliverable (Venue: Ljubljana, SI)

First scientific workshop was attended by 47 participants coming from industry, food authority institutes and universities. Majority of participants were from Slovenia (Table 14).

No.	Countries addressed	Training attended	Dissemination level
47	Slovenia, China	Industry representatives, Food authorities, Food scientists, Students	Dissemination to the industry and food authorities Dissemination to the scientific community

Table 14 Audience data: 1st Sci. Workshop

2nd part of the deliverable (Venue: Paris, FR)

Second part of the scientific workshop IDEAS for Design, knowledge Engineering Applied to living complex Systems was attended by 25 participants manly coming from industry and universities. The participants were from France.

No.	Countries addressed	Training attended	Dissemination level
25	France	Food scientists, Students	Dissemination to the industry and food authorities Dissemination to the scientific community

Table 15 Audience data: 2nd Sci. Workshop

3rd part of the deliverable (Venue: Budapest, HU)

Third scientific workshop was attended by 32 participants. 20 out of 32 participants were the DREAM project partners. The rest of 12 participants were external participants (not DREAM partners) coming from industry, institutes and universities from Hungary.

No.	Countries addressed	Training attended	Dissemination level
32	Hungary	Industry representatives, Food authorities, Food scientists, Students	Dissemination to the industry and food authorities Dissemination to the scientific community

Table 16 Audience data: 3rd Sci. Workshop

4th part of the deliverable (Venue: Rennes, FR)

Fourth scientific workshop was attended by 15 participants coming from French dairy industry (Lactalis, Eurial, Laïta, 3A, Entremont, Sodiaal) and dairy platforms (Inra Stlo Rennes, Enil Saint-Lô, Lycée de la Lande du Breil).

No.	Countries addressed	Training attended	Dissemination level
15	France	Dairy industry	Dissemination to the industry

Table 17 Audience data: 4th Sci. Workshop

e. The workshop material

Each participant received:

- Folder with hand-outs of the lectures
- Badge.
- OR a USB key with workshop material.

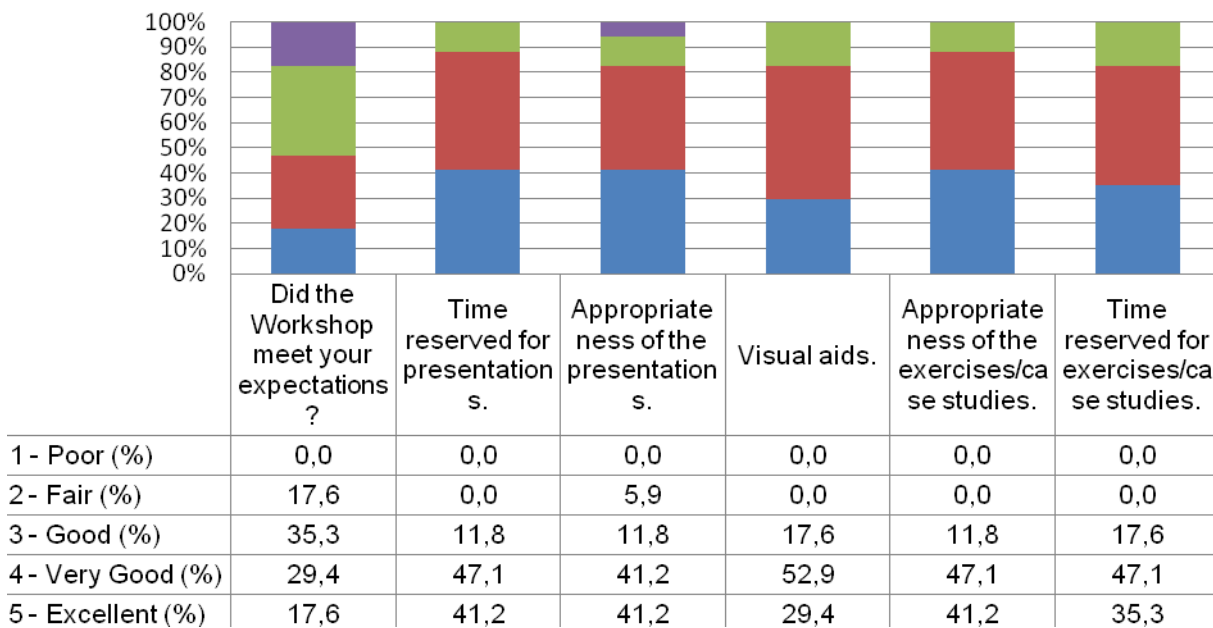
f. Evaluation

Evaluation of the scientific Workshop has been done in Slovenia.

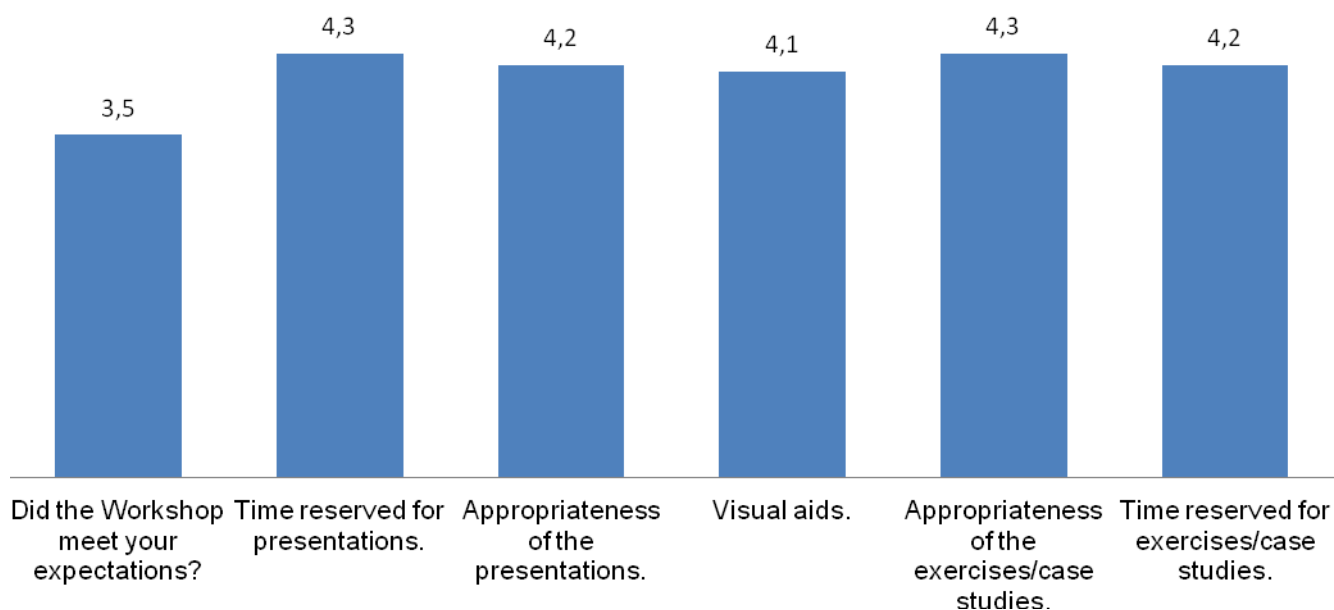
For evaluation of the workshop it has been used the “Participant`s Evaluation” questioner provided by CCHU (**Attachment:** Evaluation Q).

The participants have been asked to fill in the questioner at the end of the workshop.

Percentage of responds per question/statement.
 "Participant`s evaluation - Joint workshop 17th May 2011 Ljubljana"



Average (\bar{x}) of responds per question/statement.
"Participant`s evaluation - Joint Workshop 17th May 2011 Ljubljana"



g. Visual and other textual material

Visual material

Photographs of the Joint Workshop are available on the official DREAM project website under "Media Centre – Copyright-free photographs":
<http://dream.aaeuropae.org/MediaCentre/CopyrightfreePhotographs/JointWorkshopDREAMTUBESAFEATLANTIS/tabid/407/Default.aspx>

Photographs of the "Modelling tools for evaluation of the impact of microstructure on nutritional and sensory properties of foods" - Stakeholder's workshop on the results of the DREAM EU FP7 project, Budapest, Hungary (26 April 2012) are available on the official DREAM project website under "Media Centre – Copyright-free photographs":
<http://dream.aaeuropae.org/tabid/614/Default.aspx>

Textual material

Description of the Joint workshop is available on the DREAM project website under Events – Past Events:
<http://dream.aaeuropae.org/Events/UpcomingEvents/JointWorkshopDREAMATLANTIS/tabid/380/Default.aspx>

Description of the "Modelling tools for evaluation of the impact of microstructure on nutritional and sensory properties of foods" - Stakeholder's workshop on the results of the DREAM EU FP7 project is available on the DREAM project website under Events – Past Events:
<http://dream.aaeuropae.org/Events/PastEvents/StakeholdersWorkshop/tabid/603/Default.aspx>

Description of “Presentation of Dream Cheese Models: Hard Cheese/Soft cheese - Workshop for cheese companies and research” is available on DREAM project website under Events – Past Events: <http://dream.aaeuropae.org/Events/PastEvents/PresentationofDreamCheeseModels/tabid/659/Default.aspx>

Conclusion

Training session for industrialists was carried out as set of four events.

- First event was carried out as joint event with Tu_Be_Safe project (ATLANTIS) on 17th May, 2011 in Ljubljana, Slovenia at Biotechnical Faculty, University of Ljubljana.
- The second event was carried out as a one week workshop “IDEAS for Design, knowledge Engineering Applied to living complex Systems” held from 17th until 21st October 2011 in Paris, France.
- The third event was carried out as Stakeholder’s workshop on the results of the DREAM FP7 project held on 26th April 2012 in Budapest, Hungary.
- Fourth event was carried out as a scientific workshop where cheese models (soft cheese, hard cheese, generic cheese) developed within DREAM project was presented on 23rd January 2013 in Rennes, France.

The lecturers at events provided participants with examples of methodological approaches based on experiences within the DREAM project and also related examples of good practices derived from other activities of the DREAM project partners.

The DREAM project scientific workshop was organised in collaboration with other projects and by that assured networking among different audience type (representatives from industry, science, food authorities and students – young experts). The information about the DREAM project is disseminated to the consortium of the collaborating projects. To conclude, the set of events has met its planned objectives.