

# **Current status of the EU-FORA programme at the BfR Feedback on the symposium regarding insects as food**

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# Outline

1. Current status of **EU-FORA** (EUropean FOod Risk Assessment Fellowship Programme) at the BfR  
(Module 2, EFSA's visit at the BfR, scientific projects of the fellows)



55. Wissenschaftlicher Kongress  
der Deutschen Gesellschaft für Ernährung e.V.



2. Feedback on the EFSA Focal Point symposium  
regarding **insects as food and feed** at the  
55<sup>th</sup> Scientific congress of the German Nutrition Society (DGE)

55. Wissenschaftlicher Kongress  
der Deutschen Gesellschaft für Ernährung e.V.

Nachhaltige Entwicklungsziele –  
Ernährungssicherung für die Zukunft

Programm

Wissenschaftliche Leitung

Prof. Dr. Lutz Graeve  
Prof. Dr. Jan Frank  
Institut für Biologische Chemie und  
Ernährungswissenschaft

Prof. Dr. Stephan C. Bischoff  
Institut für Ernährungsmedizin

7.-9. März 2018

Universität Hohenheim

# Background EU-FORA

## Trainings:

Theoretical Induction Training (3 weeks, already completed): Introduction, Chemical Risk Assessment, Microbiological Risk Assessment (already completed)

Followed by 3 weeks of different modules in Vienna, Berlin, Athens:

Module 1 (November 2017), Vienna: Animal Health and Welfare, GMO, Plant Health, Nutrition, Regulated Products, Environmental Risk Assessment (already completed)

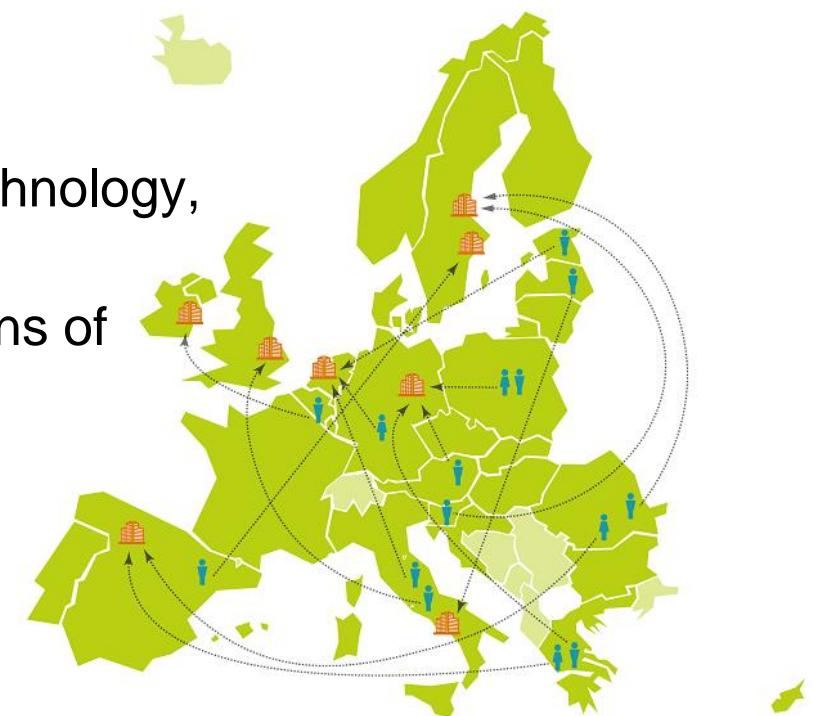
**Module 2 (March 2018), Berlin: Risk communication and crisis response**  
(already completed)

Module 3 (June 2018), Athens: Emerging Risks, Nanotechnology, Risk Ranking, Adverse Outcome Pathway (AOP) and Mode of Action (MoA) and the IATA approach, Applications of OMICs in risk assessments



<https://www.efsa.europa.eu/en/engage/fellowship>

Lea Herges, 18<sup>th</sup> - 19<sup>th</sup> April 2018, 35<sup>th</sup> EFSA Focal Point meeting, Oslo



# Current status of EU-FOR A: Module 2 at the BfR (5<sup>th</sup> – 9<sup>th</sup> March 2018, Berlin, 1 week) on risk communication and crisis response

- Introduction and practical exercises in risk communication and risk perception
- Variety of speakers from DIALOGIK - Non-Profit Institute for Communication and Cooperation Research (DE), Institute of Technology Assessment (ITA, AT) , Max Planck Institute for Human Development (MPIB, DE), University of Stavanger (UIS, NO), Friedrich Schiller University Jena (DE), BfR, EFSA
- “Take home messages”
  - Differences between risk assessment (scientific) and risk perception (society)
  - Using the right tools any message can be simplified without loss of information (communication strategies)
- Highlights from the fellows’ point of view: media training
  - Writing of a press release
  - Practical experiences with journalists and in front of the camera
- Social events in the evening for networking
- Positive feedback



The training module 2 of EU-FOR A fellowship programme started today at the BfR premises in Berlin. Focus of the intensive one week course: [#riskcommunication](#) and [#crisiscommunication](#). [@EFSA\\_EU](#)



# Visit of EU-FORA project manager at the BfR on 12-13 March 2018

- Discussion with the EU-FORA project manager (EFSA) and all fellows at the BfR
- Exchange with the EU-FORA project manager, each fellow and supervisor regarding the project and logistical/technical aspects
  - positive feedback from all fellows and supervisors
- Information from EFSA on future of EU-FORA e.g. participation of the fellows in the EFSA conference 2018, final reports

## **Georgios Marakis, Greece**

Hellenic Food Safety Authority

**BfR Unit Nutritional Risks,  
Allergies and Novel Foods**

Risk Assessment of substances used in food supplements and fortified foods

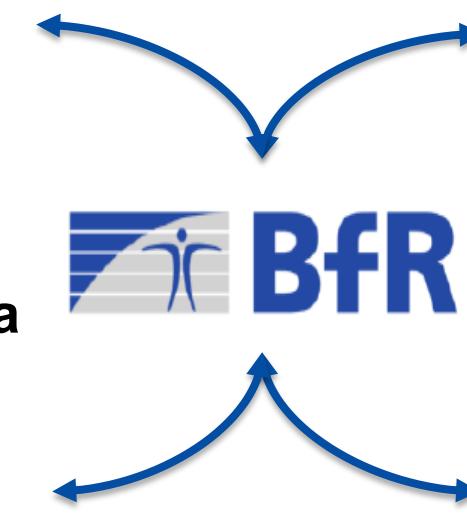
## **Josef Rasinger, Norway/Austria**

National Institute of Nutrition and Seafood Research, Bergen

**BfR Unit Effect-based Analytics and Toxicogenomics**

Identification and evaluation of potentially mutagenic and carcinogenic heat related contaminants in food

## 1<sup>st</sup> Cohort 2017/2018 at the BfR



## **Ewa Matyjaszczyk, Poland**

Institute of Plant Protection – National Research Institute)

**BfR Unit Food Toxicology**

Risk Assessment of plants and plant preparations in food

## **Michal Czyz, Poland**

Institute of Plant Protection - National Research Institute

**BfR Unit Food Technologies, Supply Chains & Food Defense**

Application of data science in Risk Assessment and Early Warning



## Impressions: International event on October 4<sup>th</sup>, 2017



# Feedback on the EFSA Focal Point symposium

- EFSA Focal Point symposium at the 55<sup>th</sup> Congress of the German Nutrition Society (DGE) (German Article 36 organisation)
- March 7<sup>th</sup> – 9<sup>th</sup> 2018 at the University of Hohenheim
- about 600 participants
- Topic of the Congress:  
„Sustainable development goals - food security for the future“



## Symposium EFSA Focal Point

Insects as food and feed – food of the future?

- 9<sup>th</sup> March 2018 09:00 - 10:30
- 5 speakers
- around 120 participants

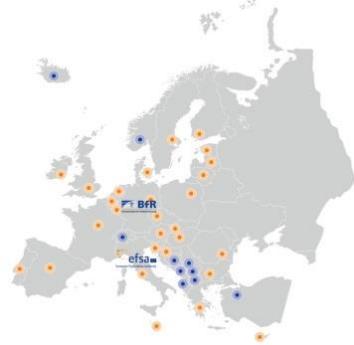
## Objectives

- Promotion of awareness of EFSA
- Presentation of the role of the BfR as EFSA Focal Point
- Showing of the different tasks and division of responsibilities
- Discussion on insects as food and feed and trigger interest



# Symposium EFSA Focal Point - Programme

1. „Role of EFSA Focal Point“, Dr Lea Herges



2. “The significance of edible insects as food and feed for world nutrition”  
Professor Dr Arnold van Huis



3. “Safety assessment of insects as novel foods”, Dr Wolfgang Gelbmann



4. “Allergenic potential of edible insect as foods”, Dr Thomas Holzhauser, Paul-Ehrlich-Institut (PEI)



5. “Insects as food and feed: perception of the population and representation in the media”, Dr Mark Lohmann



Nachrichten | heute - in Europa  
Insektenbrot aus Finnland  
Auf den ersten Blick sieht es wie ein ganz normales Brot aus, doch es hat eine ungewöhnlichen Zutat: Ein finnischer Lebensmittelkonzern hat das sogenannte „Sirkkaleipa“ - übersetzt „Grillen-Brot“ auf den Markt gebracht. In Finnland ist der Verkauf von ...  
2 min | 29.12.2017  
aus: heute in Europa vom 29. Dezember 2017  
Video verfügbar bis 29.12.2018, 16:00

# Significance of edible insects for world nutrition

## EFSA's role in the risk assessment of insects as novel foods

- Importance of insects for human nutrition (protein content: 40-60%, essential amino acids (~ beef, soy), fat content: 10-30%, high iron and zinc content)
- Insects as feed for food-producing animals (poultry, pigs or fish) or pets
- Relevance of insects in pharmacy: anti-inflammatory, antimicrobial and antioxidant peptides delivered by insects
- Breeding of insects ("from harvesting to rearing/farming")
- Current market situation: Novel Food regulation (EU) 2015/2283 – 1<sup>st</sup> Jan 2018: a food that was not consumed to a significant degree by humans in the EU prior to 15 May 1997

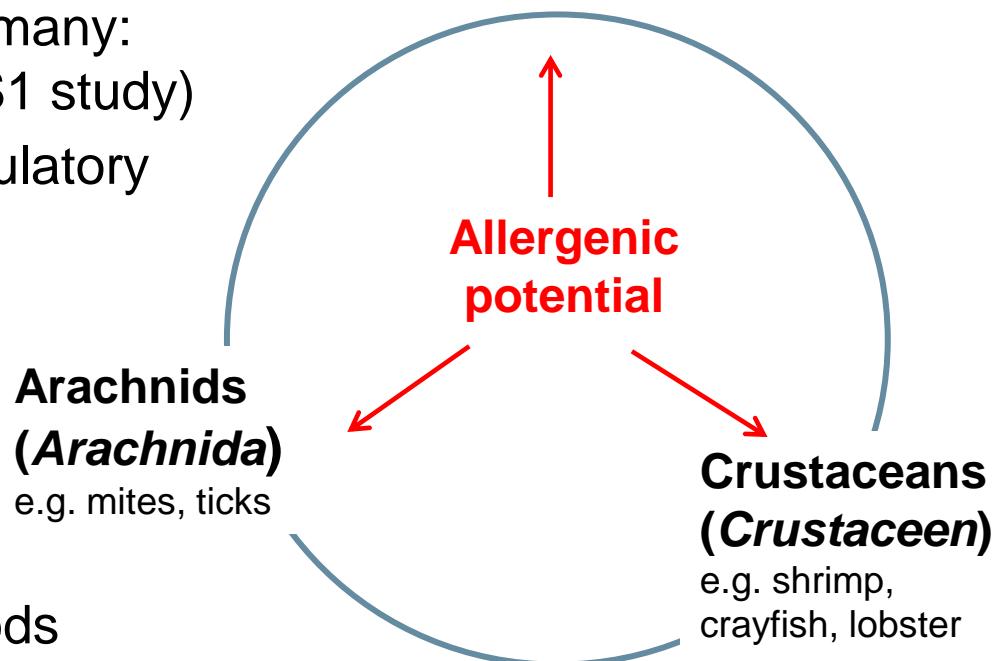


- Traditional foods from third countries: Notifications, MS and EFSA in parallel (4 months), duly reasoned safety objections or accepted
- All other novel food: Application to EC, evaluation by EFSA (no MS) (9 months)
- EFSA opinion on risk profile of insects, published in 2015 (biological, chemical, environmental hazards)
- EFSA expects about ten applications in the near future regarding insects, as the products already on the market have to be authorised and included to the Union list of novel foods

# Allergenic potential of edible insects as foods

- Allergy lifetime prevalence in adults in Germany:  
total 30% allergy, 4.7% food allergy (DEGS1 study)
- Insects contain allergens and immunomodulatory substances
- Basically sensitization potential of arthropods
- 256 identified allergens in arthropods (06.03.2018),  
approximately 50% of insect entries
- Due to possible cross reactions allergic persons with unexpected allergic reactions can be expected in arthropods ("hidden allergens")
- Thermal treatment as the sole method is expected to reduce but not eliminate allergenicity
- Discussion on food labelling of insect containing products, this is of particular importance for persons allergic to crustaceans, in whom partial immunoglobulin E (IgE)-mediated, severe anaphylactic reactions occur

**Insects  
(Insecta)**  
e.g. beetles, grasshoppers, flies



# Insects as food and feed: perception of the population and representation in the media

- Studies of the BfR on the media presence and perception of insects as food and feed in the population (2015)
- Majority of Germans have heard that insects can be used as food or feed
- Only 14 % of the respondents said they had already eaten insects themselves
- 47 % rate the consumption of insects as healthy or rather healthy
- Reasons for eating insects: high protein content, nutrient and vitamin richness, contribution to solve the world food problem
- Main sources against eating insects: disgust and strangeness, followed by concerns about hygiene and tolerability
- The willingness to eat insects can be increased by two factors: information on their processing and safety as well as the "defacing" in the form of processed products
  
- Presence in the media: number of reports more than doubled from 2014 to 2015
- Media presentation primarily addresses the potential benefits, rather reports on the consumption of whole animals than about processed products
- Insects in the media: forward-looking foods, benefits outweigh potential risks
  
- BfR envisages similar studies for the year 2019

# Symposium EFSA Focal Point – Conclusion

- Positive feedback from persons involved
- Many interested participants, short time for discussion
- Mixture of different aspects with regards to insects as food and feed
- Input from an EFSA representative is very much appreciated
- High interest for EFSA's brochures and BfR publications
- Further national meetings should be taken into consideration



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# Discussion with EFSA Focal Points



- How is the presence of the EFSA Focal Point on national events in your country?
- Which topics are of interest in your countries with respect to the exchange with Article 36 organisations?
- How do you stimulate the awareness of EFSA in your country?

# Thanks to ...



EFSA Focal Point

Dr Nicole Gollnick, Dipl.-Ing. Susanne Kaus

Special thanks to

Antje Gahl and the team of the DGE



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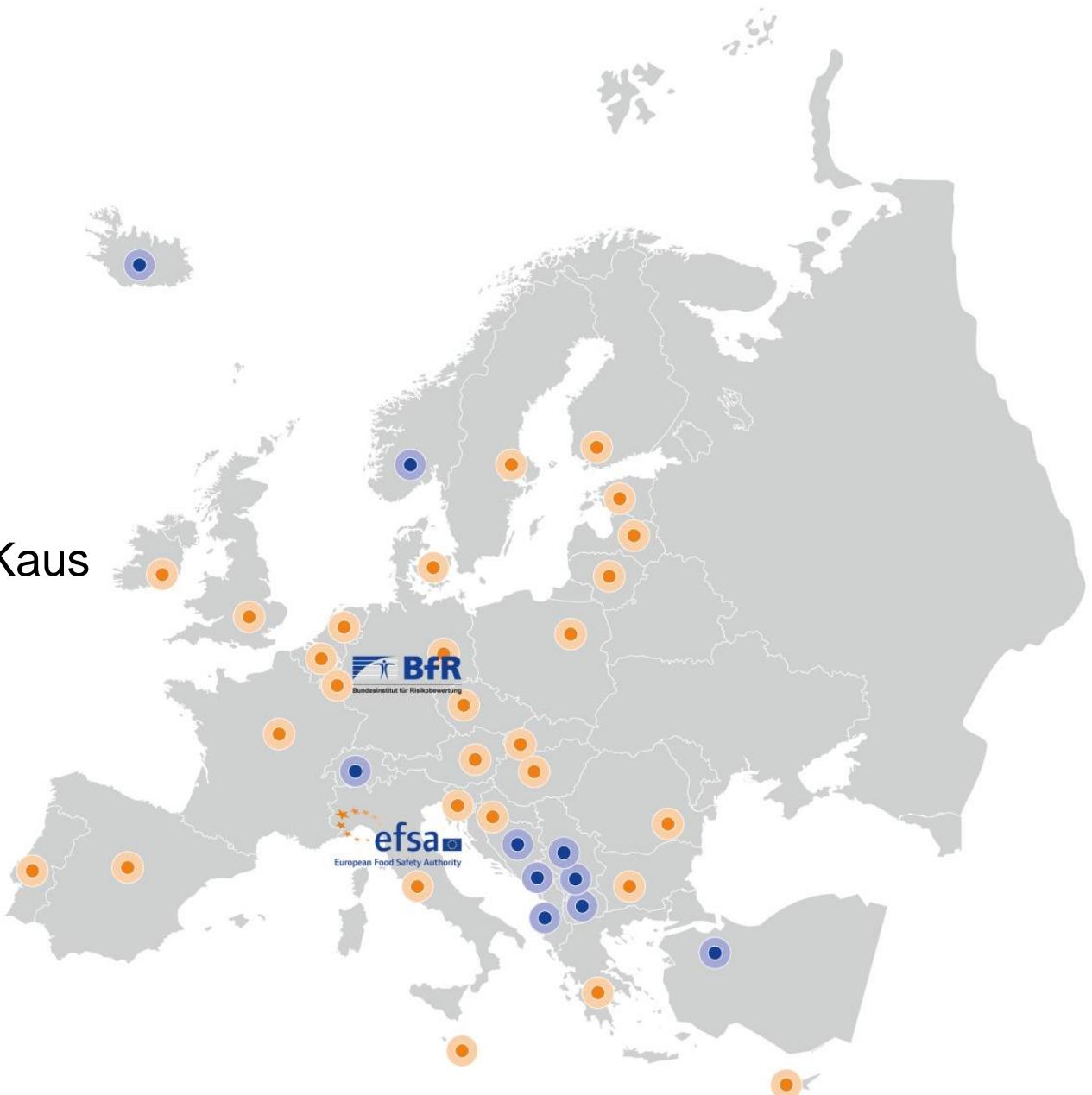
Der Wissenschaft verpflichtet – Ihr Partner für Essen und Trinken

Professor Dr Arnold van Huis

Dr Wolfgang Gelbmann

Dr Thomas Holzhauser

Dr Mark Lohmann





# **Thank you for your attention**

Dr Lea Herges

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