

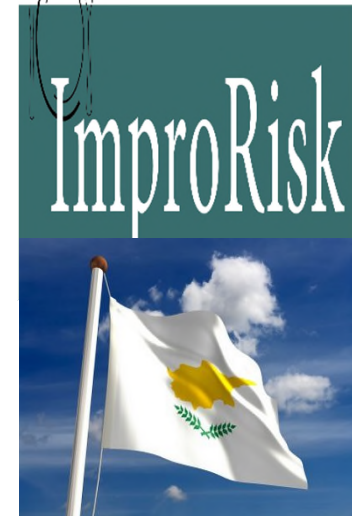


# Feedback on the Training on the Risk Assessment Model “ImproRisk”

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Ministry of Health, Cyprus



28<sup>th</sup> Focal Point Meeting  
15-16 September 2016 - Parma



# Risk Assessment at State General Laboratory

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- ❖ The SGL supports all Competent Authorities of the Food Safety Council (FSC) in Cyprus as it has established a **Risk Assessment Unit** to assist FSC's work to carry out the necessary risk assessment

## Risk Assessment capacity at SGL has been built through :

- EFSA's guest scientist scheme
- Local Training by BfR experts, after signing a MOA with BfR – Germany
- Training in BfR Summer workshop
- BTSF trainings
- Participation in the research project ACROPOLIS (aggregate and cumulative exposure) under FP7 coordinated by RIVM in the Netherlands
- ❖ SGL is now participating in a new research project EUROMIX under Horizon 2020 on new tools on Risk Assessment

Cyprus closely collaborates with EFSA, which is a Driving Force in these efforts and a platform for support.

# Deterministic model- ImproRisk

**SGL proceeded with its own RA model**



- ▶ A RA model developed by IMPROVAST CO. ([www.improvast.com](http://www.improvast.com)) for the State General Laboratory of Cyprus
- ▶ Implemented in MS Excel (Supported by the 2010 version or later)
- ▶ An empirical distribution model using the **deterministic method** of dietary exposure assessment to contaminants
- ▶ The exposure assessment to each contaminant was calculated **at individual level** taking in to account the individuals characteristics - weight & consumption → hence more **refined** exposure assessment
- ▶ ImproRisk was validated at EFSA DATA Unit (during SGL's staff visit in the context of the Guest Scientist scheme) by using SAS software.

# SGL's Databases needed for carrying out exposure assessment

**CHEMICAL OCCURRENCE DATABASE**  
(since 1990)



**FOOD CONSUMPTION DATABASE**

**CHEMICAL OCCURRENCE DATA** Electronic transmission of **harmonized chemical occurrence data from SGL** to EFSA based on Standard Sample Description (SSD1 including FoodEx1)-on a pilot basis SGL sends data according to SSD2 including FoodEx 2)

**FOOD CONSUMPTION DATA** .....Consumption Data from the EFSA Comprehensive Database used

**SGL will have its own Food Consumption Data Base** which is **developed** in a harmonized way within EFSA's EU MENU project in early 2018 in Cyprus (Funded by EFSA).

# Dietary Exposure Assessment of Pb, Cd & inorganic Hg

Average Intake (MB) of Pb, Cd & Hg : Comparison of ImproRisk & EFSA calculations

	Average intake ( %toxicological reference value)		
	Pb μg/Kgbw/day	Cd μg/Kgbw/week	Hg μg/Kgbw/week
Individual-level exposure by IMPRORISK	0.43 ( 68%)	2.03 (81%)	0.54 ( 13%)
EFSA estimations for the Cyprus adolescents	0.34 ( 54%)	1.97( 79%)	0.46 ( 11.5%)
Toxicological reference values	BMDL <sub>10</sub> =0.63	TWI=2.5	TWI=4.0

# Request from MS to be trained on the ImproRisk Model

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- ❑ Training was co funded and co organised by SGL and EFSA in Cyprus
- ❑ **17-18 May 2016**
  - Participation of 18 MS and
  - Participation of 4 Pre-Accession Countries was facilitated financially by DG NEAR
- ❑ Aim: to acquire /increase knowledge of scientific principles and methodology of exposure assessment and provide training on the deterministic assessment model.



# Content of the Workshop

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- ❑ EFSA's Food Consumption and Chemical Occurrence Database and Harmonization approach
- ❑ Existing Tools for Exposure Assessment
  - Deterministic vs Probabilistic approach in dietary exposure assessment
- ❑ Country presentations from Finland, Italy, Netherlands, Spain, UK
- ❑ **Presentation and hands on training of the ImproRisk RA model with instruction manual.**

# Training Workshop on the IMPRORISK Model, 17-18 May 2016

It was all hard work and an intensive workshop in Larnaca, Cyprus

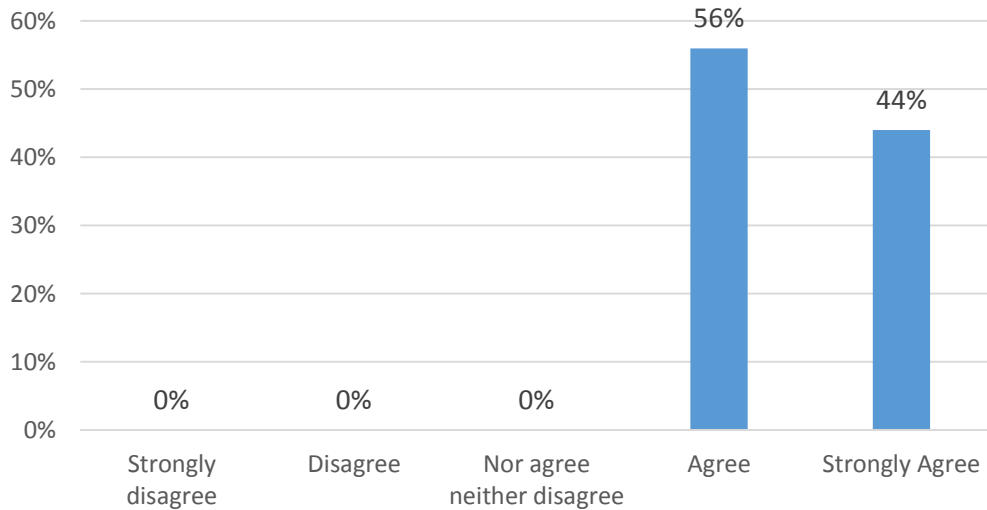


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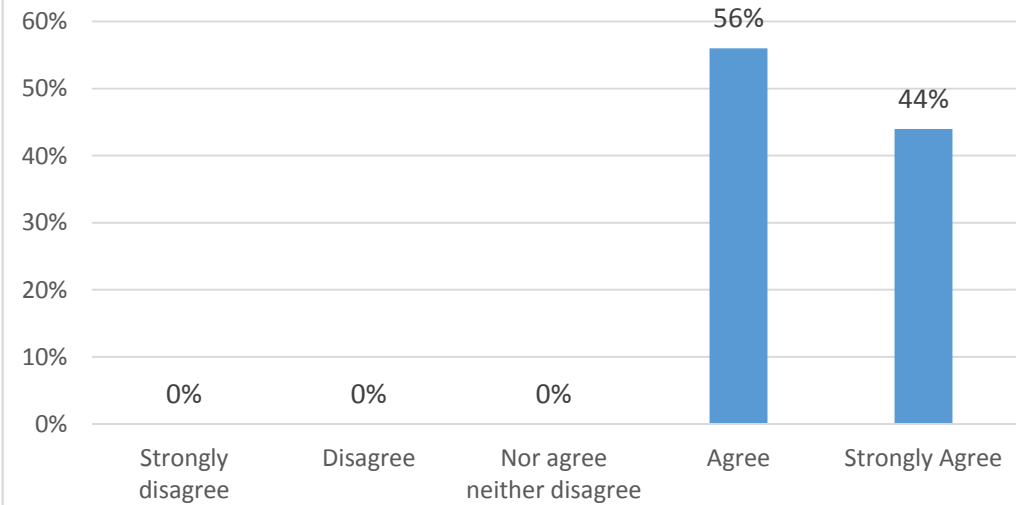


# Evaluation from Participants of the training (N=25)

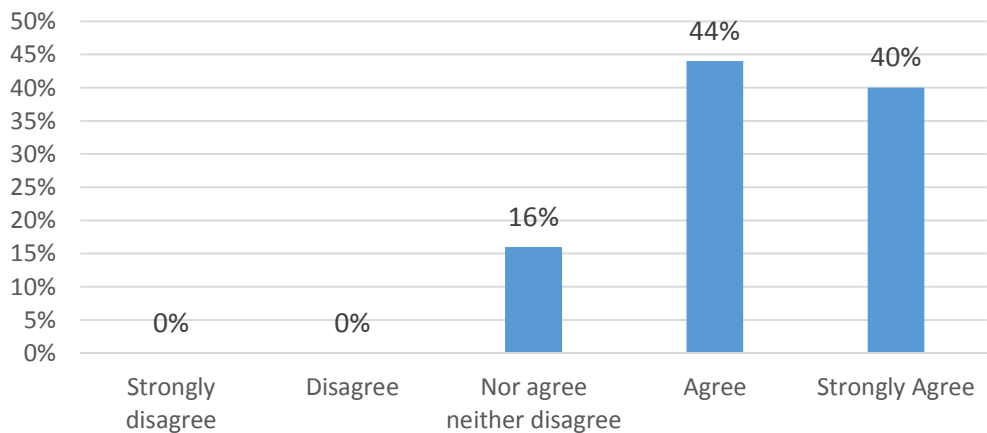
The training met my expectations.



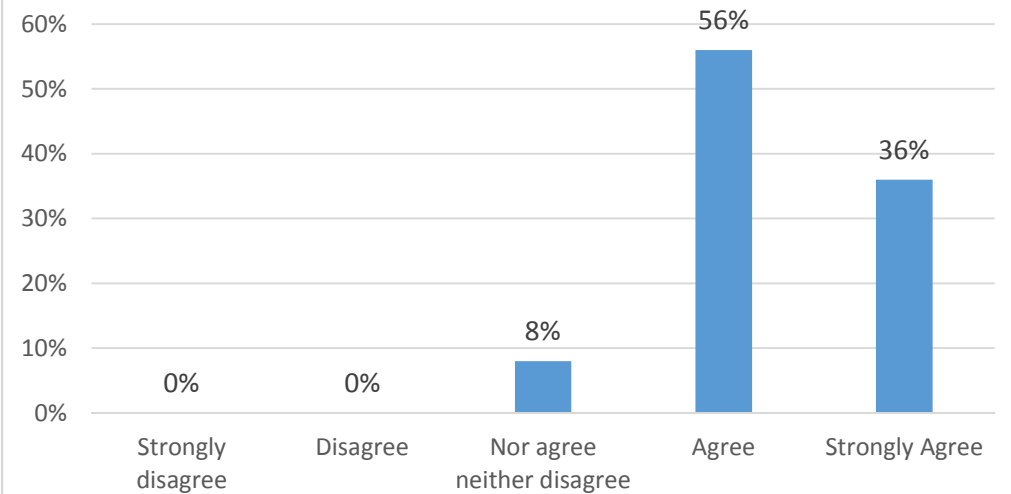
The content was helpful.



The training was well paced within the allotted time.

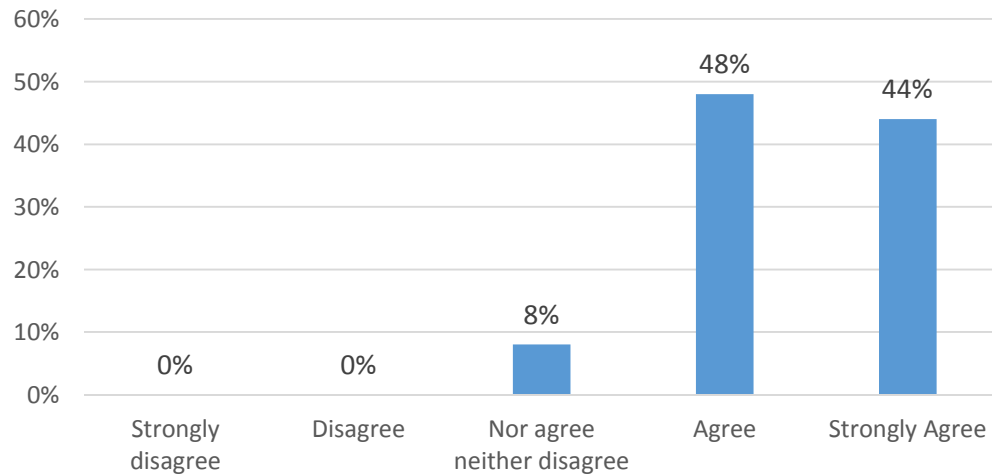


The level of the training was appropriate.

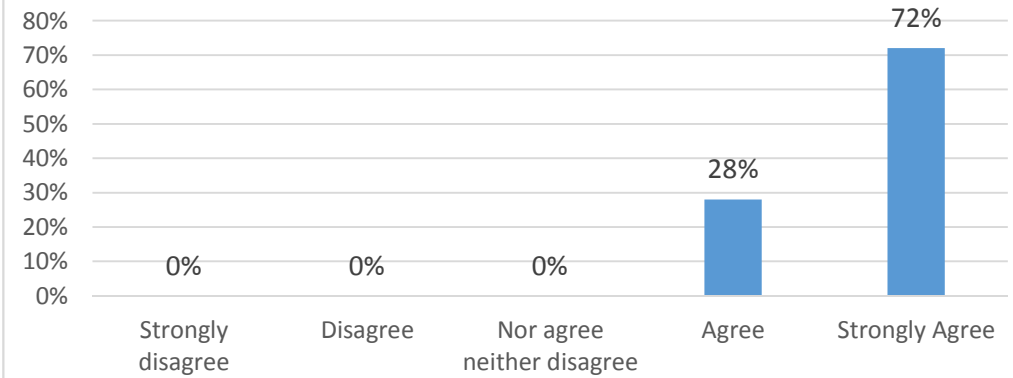


# Evaluation of the training (2)

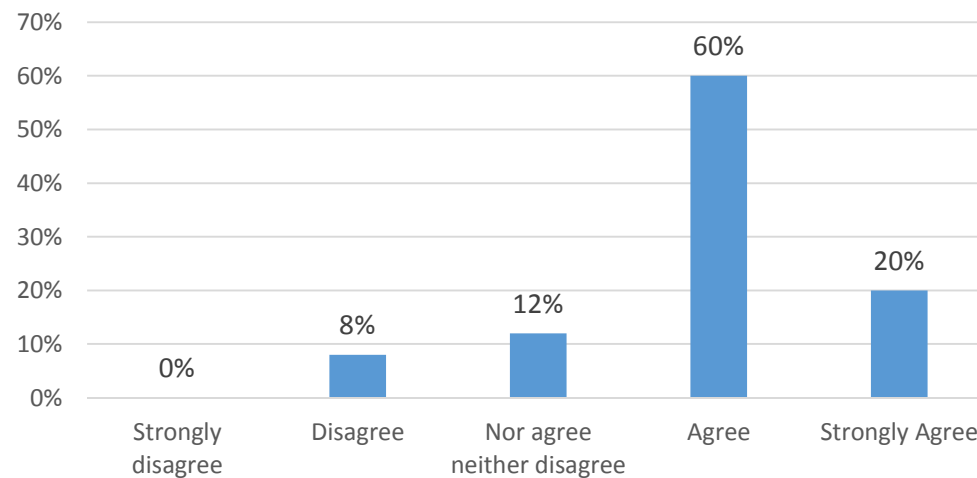
The handouts were helpful.



I would be interested in attending a follow-up, more, advanced workshop on the ImproRisk model and its capabilities.

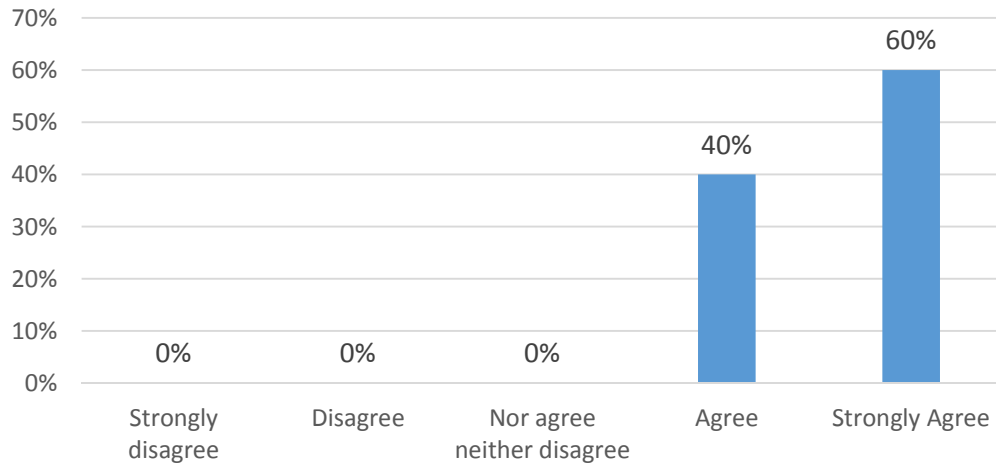


The length of the training was appropriate.

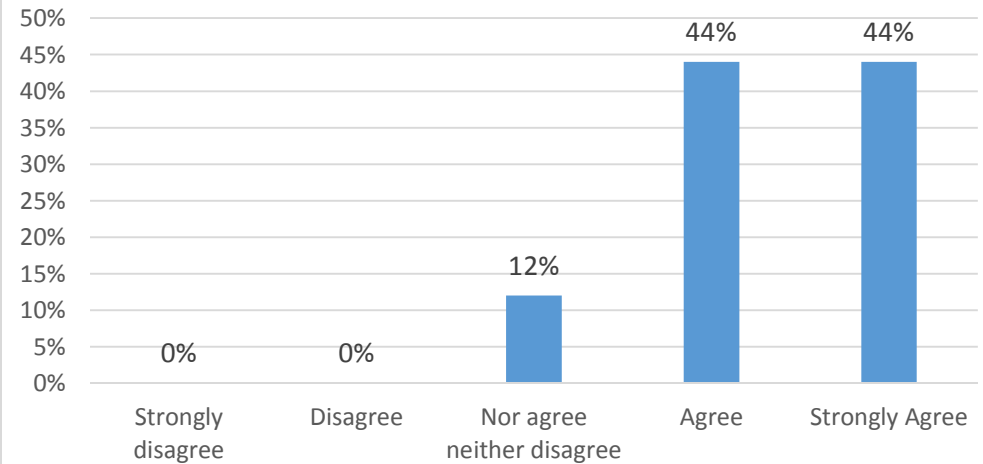


# Evaluation of the trainer

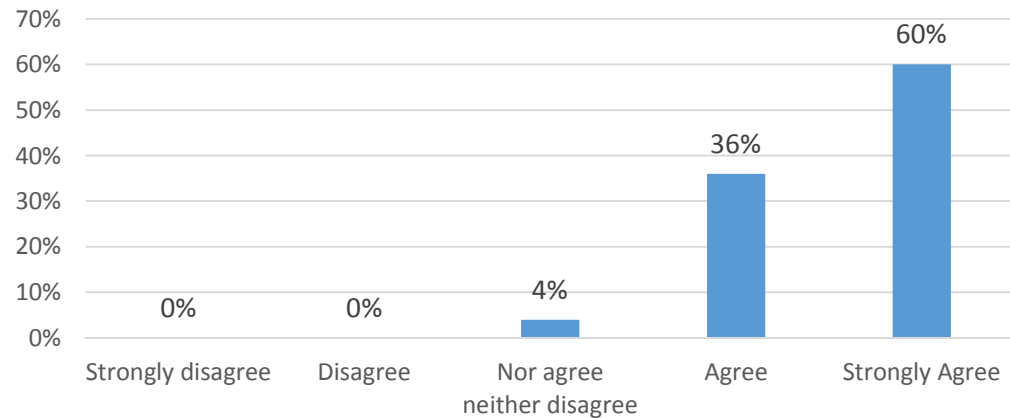
The trainer was knowledgeable about the relevant topics.



The trainer presented relevant topics in a clear manner.

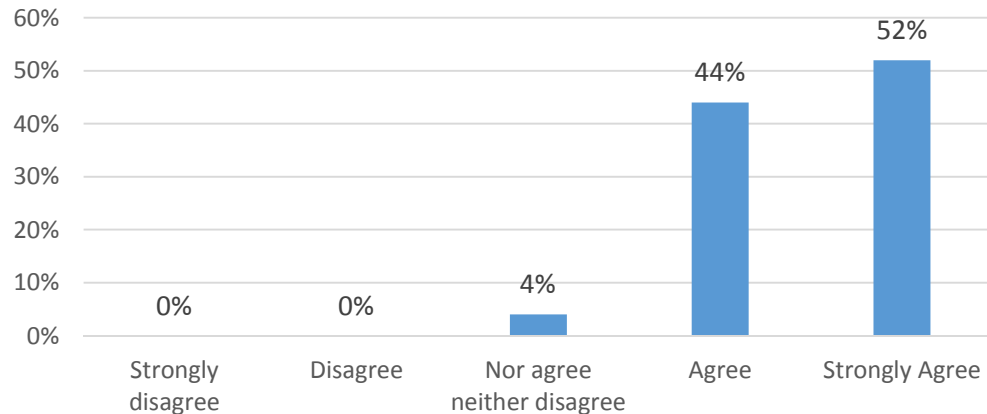


The trainer presented with interest and enthusiasm.

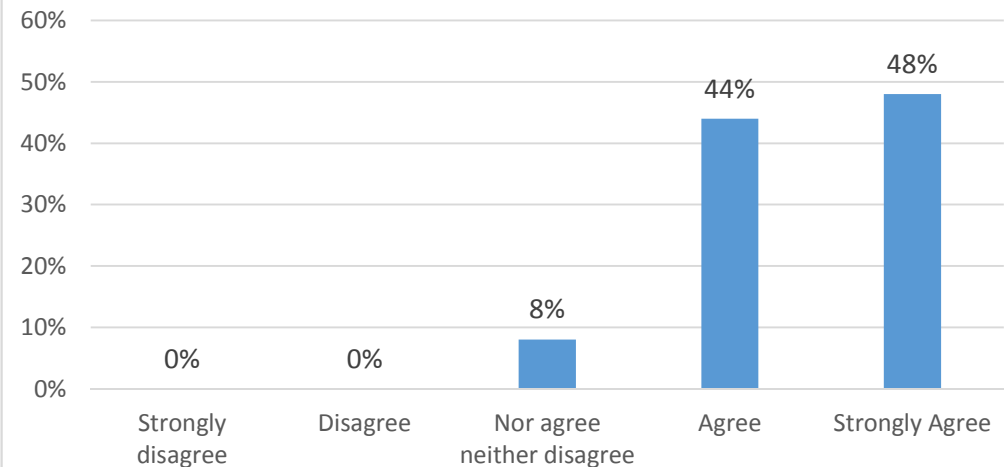


# Evaluation of the ImproRisk model

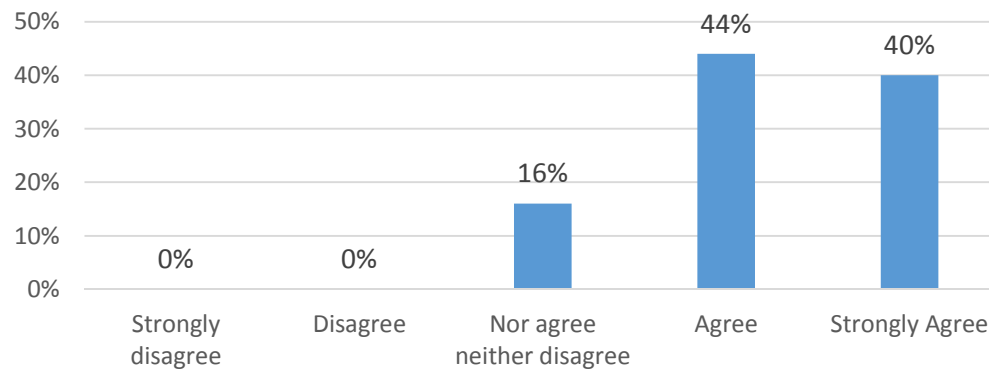
ImproRisk provides helpful reporting (i.e. tables, graphs).



ImproRisk is a user friendly model.



ImproRisk will provide significant value in exposure assessments performed by EU member states.



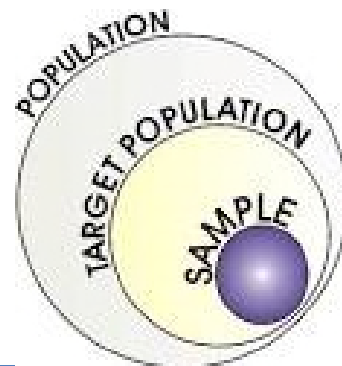
# Benefits of the ImproRisk model

- ▶ **Fills the gap** between simple deterministic and probabilistic and is compatible to the **approach applied by EFSA** for exposure assessment in **many of its opinions** (semi-deterministic)
- ▶ The significance of the model is enhanced as it fills a gap in the field of exposure assessment for **Contaminants**, since at an EU/EC Level exist only the Food Additives Intake Model **FAIM** or Additives and the **PRIMo** – Pesticide Residue Intake Model for Pesticides
- ▶ **Is relatively simple** (implemented in MS Excel) validated and not expensive
- ▶ Combines **mean Occurrence data** with **Food Consumption data** of a population (coded with FoodEx system ) **at individual level** and calculates the exposure rates for the population
- ▶ Takes into account the **individual's body weight** so that the proper exposure is calculated.



# Benefits of the ImproRisk model (2)

- ▶ Derives **probability & cumulative distributions** of exposures
- ▶ Outputs can be derived for **LB, MB, and UB scenarios** of the occurrence data and the exposure is calculated at the FoodEx level 2, but also can be at lower level (in the future according to FoodEx version 2)
- ▶ **Not a closed box model**. All the calculations (in excel) are visible and there to inspect. Formulas and all the methodology is **transparent** so the model results **can be validated easily**
- ▶ Quite straightforward and **user friendly model**.



# Acquisition of the ImproRisk model

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- The Focal Point of one's country designates a competent person for using the model
- Designated persons should meet the following criteria:
  - ✓ Member State or pre-accession country
  - ✓ Art. 36 Organisation
- The designated person completes a registration form in the dedicated website, <http://www.improrisk.com>
- Notification of registration in personal mailbox
- Request subject to approval by SGL staff
- Upon approval the ImproRisk model with all the accompanied files are sent to the provided email address.

# Impact and status of the ImproRisk model

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- Access to ImproRisk was initially granted to 18 MS and 4 pre-accession countries during the Workshop on ImproRisk
- Total registrations in the ImproRisk's website: **52**
  - ✓ Workshop participants: **22**
  - ✓ New registrations: **30** (from Spain, Belgium, the Netherlands, Germany, Ireland, Austria, Switzerland, France, Ukraine)
- Based on feedback from the participants, an updated version of the model (ImproRisk 1.3.3) was prepared and sent to **45** registered persons (those who met the criteria) on **29/08/2016**
- Training in Belgium on the use of the ImproRisk model (**05/09/2016**).



# Training in Montenegro :Basic concepts and methodology of Food Safety Risk assessment

Meeting date: 30<sup>th</sup> May – 1<sup>st</sup> June 2016  
Meeting venue: Montenegro, Podgorica

- This training was organised under the EFSA Pre-Accession Programme 2015-2017 (Programme), financed by the European Commission (EC). The overall objective of the Programme was to:
  - promote the understanding of EFSA's work, share expertise and create information exchange mechanisms to
  - get a knowledge of the scientific principles and methodology of Food Safety Risk Assessment (RA) and the differences between various RA topics (chemical, microbiological) and
  - understand the importance and role of Risk Communication in Risk Analysis
- ImproRisk model was presented in quite a detail

**Invited:** 30 participants from Albania, Bosnia and Herzegovina, FYR of Macedonia, Montenegro, Serbia, Kosovo and Turkey.

**small country**



**but trying to find economically feasible solutions  
like the RA model with a positive IMPACT  
at EU level**

**in Food Safety and Risk Assessment**



# Acknowledgements



- Dr. Eleni Ioannou-Kakouri, ex-Head of RA Unit of SGL
- Mr. Lefkios Paikousis, Senior Data Analyst at Improvast co.
- EFSA for capacity building, empowering and supporting SGL



***Thank you for your attention!***

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