

RAKİP

Risk Assessment Modelling and Knowledge Integration Platform

RAKIP

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A dense, abstract collage of mathematical symbols and formulas, including integrals, summations, and various Greek letters, rendered in a variety of colors (purple, yellow, red, blue, green) on a white background.

RAKIP

risk assessment modelling & knowledge integration platform



- Initiative of ANSES, BfR and DTU Food
- Background:
 - Many risk assessment models and model components are developed and remain unused in the global community
 - Usage is hampered by heterogeneity in tools, lack of harmonisation in model annotation and lack of suitable information exchange formats
- Objective:
 - Facilitate re-use of food safety risk assessment models
 - Facilitate efficient generation of new high quality risk assessments

Achievements (January 2017 – December 2018)

RAKIP Web Portal:

<https://foodrisklabs.bfr.bund.de/rakip-web-portal/>

- ***harmonized controlled vocabulary*** for terms and concepts relevant for risk assessment modelling

Allows an understanding of each others models, and exchange between models

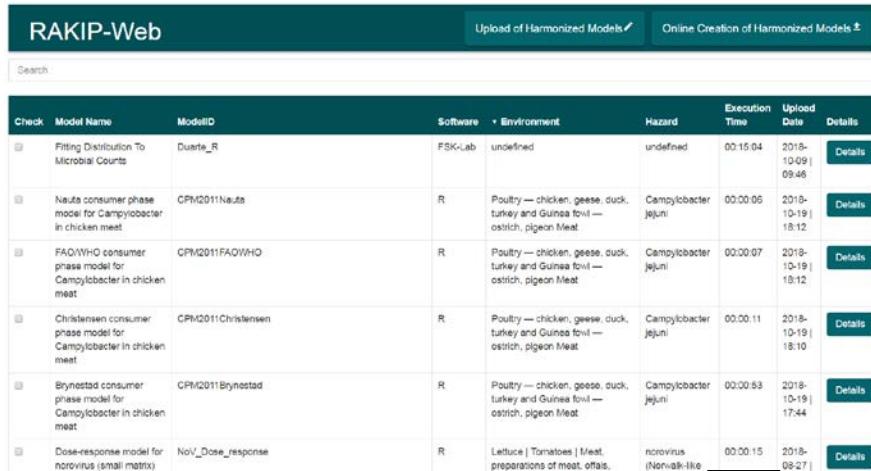
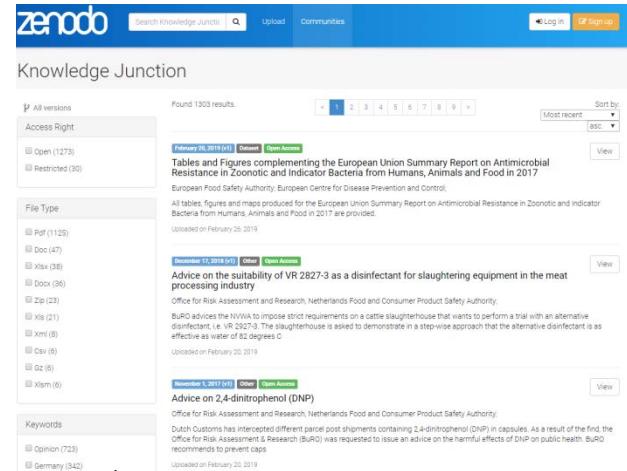
- model (and data) annotation with the ***open information exchange format FSK-ML***

The “English” of risk assessment model codes

- ***open source software tools*** supporting FSK-ML
- a first ***RAKIP model repository*** demonstrator

Allows sharing, finding and execution of models

RAKIP vs EFSA's Knowledge Junction

- **FAIR Model Repository**
- **Quality controlled**
- **Services:**
 - **model execution / simulation**
 - **export to EFSA's KJ**
 - **online generation or upload of FSK-ML model files**
 - **combining models**



- **Data Repository**
- **No model interoperability**
- **No computational services**

What does RAKIP add to other tools and model libraries?

- Share, combine and execute models
 - Provide full transparency and reproducability of model-based simulations, as models can be executed online and on local computer with different free software tools, all simulation results and simulation settings stored with model
- Promote quality control through
 - Standardized information exchange format (and its annotation rules)
 - Applicability to different scripting languages
 - Open source software code

Plans and ambitions

- Setting up the “RAKIP Initiative” => enabling other agencies to join
- Develop, maintain and expand the RAKIP Web Portal, e.g. support other risk assessment modelling domains (CRA, AMR, RBA etc.)
- Increase community contributions and adoption
 - Promote the usage of models that are available
 - Increase computational resources to run simulations
 - Support modellers that are willing to share their models
 - Provide support for additional model languages / tools (@Risk, R, Matlab)

Activities 2019

- Pre-conference workshop at ICPMF11, 17 September 2019, Braganca, Portugal
- Development of new features for open source software tools (R, FSK-Lab)
- New models in RAKIP model repository
- RAKIP model repository goes into „production“ (i.e. solving remaining legal and technical issues)

RAKIP invites other institutions to join the project

- The RAKIP group would like to extend the collaboration to involve other MS institutions.
- If interested, please contact
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