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#### « Detailed project

Design and development of REAlistic food Models with well-characterised micro- and macro-structure and composition (DREAM)

Status: [ongoing](#) (5/01/2009 - 30/04/2013)

Project area: Food Quality and Manufacturing

**Objectives:** Dream project objectives are set toward minimizing food complexity that arises from its structure and composition. To minimize this complexity DREAM will develop food models that will enhance knowledge on process-structure-property relationships from molecular to macroscopic level and facilitate creation of generic food matrices with functional and nutritional properties based on tailored micro-structure. By that it is important mathematical approach, whose objective is to realise a complete dynamic description of food processing using an innovative strategy exploiting most recent advances in cognitive and complex system sciences to allow the generalised methodologies to be extended to other food products. For this purpose four generic structure categories will be used representing plant-based foods; meat; dairy and bakery products. The most relevant types of products will be selected using criteria including structural characteristics and industrial and societal needs, ensuring that benefits/risks, economic importance and sustainability are taken into consideration as well. For each of these categories, three types of models will be developed: Basic Knowledge Models (BKMs), Integrated Knowledge Models (IKMs) and Generic Model Foods (GMFs). All models developed within DREAM project will be made available to the stakeholders on a free basis: BKMs as descriptions and guidelines, IKMs as Software packages and GMFs as standard of operating procedures. It is also important to note that these models development will be conducted in close collaboration with food manufacturers through a specification-based approach. Above described models developed within DREAM will be disseminated via existing channels and national platforms, federations, regulatory bodies. Among other DREAM project offers its young members an opportunity to develop skills necessary for carer development within ERA.

To sum up DREAM as a trans-disciplinary partnership involving two multinationals and nine countries that will develop realistic, physical and mathematical, food models for use as tools of common approaches to risk/benefit assessment and nutritional quality in field of food research and industry.

**Achievements:** To find out more about DREAM activities & achievements & news visit our website where you can also subscribe to DREAM E-newsletter: <http://dream.aaeuropae.org>

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