

# Resource efficiency improvement and cost reduction potentiality in the food industry

Reduction of energy, water, raw and packaging material usage, and of labour-power expenditure - waste utilisation

## What we offer

### Reduction of technological energy usage

- **Optimization of technologies** in food industry - without significant modification of food safety requirements of the technology and sensorial attributes of the product
  - Validation of heat treatment (cooking, baking, sterilization, pasteurization)
  - Reduction of energy used for freezing, cleaning, drying or other technologies with high energy demand
- **Optimization of refrigeration systems** in food industry – in particular in frozen, dairy, meat processing and beverage industries

### Reduction of water consumption in fresh-cut food industries, beverage manufacturing and other sectors with high water usage

- Identification of „Hot-spots”, building-up of measurement systems
- Optimization of cleaning and disinfection technologies and processes
- Review / screening of the cleaning system

### Efficient use of raw and packaging materials

- **Reduction of losses**
  - Possible applications of loss reducing methods for connecting non-food industries
- **Reduction of waste generated**
- **Optimization of technologies**
  - Food processing, cleaning and disinfection technologies
  - Use of new and modern sensor systems and IT solutions

## Valorisation, treatment, recycling and alternative use of food processing by-products and wastes

- Reuse of food processing wastes as raw material in product development
- **Conversion of food processing by-products** into products and resources with high added value
  - animal feed, packaging material, products in pharma and cosmetic industries etc.
- **Production of biodegradable packaging materials**
- **„Energy from waste”** - renewable energy resources from recycling
  - bioconversion of organic wastes, combustion energy recovery, biogas production
  - combined heat and power production (cogeneration), refrigerants production (trigeneration)

## How can we support you?

- **Audits of plants** by food industry experts having high experiences of technology, hygiene and engineering design
- **Identification of reduction facilities** by applying unique methods and „**LEAN manufacturing**” techniques adapted to food industry
- Assistance and contribution in product development
- Application of **innovative solutions**, modern technologies and methods by so-called border-line cooperation
- Assistance and contribution in implementation of measuring and data collecting
- Adaptation of methods applied effectively by other industries (automotive, ICT etc.)
- Training, courses, guidelines for presenting how to apply methods and techniques in food industry
- Consultancy in identification and development of related projects

## Why do you need Campden BRI Hungary?

- **Unique tailor made services**
- More decades' **industrial experience of food technology, product development, food safety and food hygiene or auditing**
- **Food safety and sustainability** always are main aspects into consideration
- **A wide range of experience in international projects**, references are:
  - IMS Food, FoodManufuture, Cool-Save, NAMASTE, EcoBioCap, SUSCLEAN, SmartAgriFood

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