Q-DNA

PROACTIVE FOOD SAFETY MANAGEMENT IN THE BELGIAN FOOD INDUSTRY

FLANDERS' FOOD

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AGENTSCHAP INNOVEREN & ONDERNEMEN

FLANDERS' FOOD

Samen sterk voor groei

WHY? BE(COME) THE MOST RELIABLE TRADING PARTNER

food.be

Small country. Great food.

Food.be is the brand we use to promote the quality, diversity and innovation of Belgian foods and drinks across the world.

Food safety is a key asset upon which our quality claim is built for Belgian and export markets!

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RATIONALE FOR Q-DNA?

- Governing food safety is a key task for food industries and our Belgian food industry has a long track record on this
- Investment in self-checking and food safety management/quality management system has opened many doors in the period between 2005-2015
- However, in past years, other issues (such as sustainability, product development, nutritional quality, etc.) became more on top of mind in the Belgian food industry
- Food safety needs to shift again to a top priority because:
  - We suffered from some important (microbiological) food crises in last 2 years
  - New technological evolutions as whole genome sequencing are shifting food safety control
  - Customers and markets are high demanding on guaranteeing food safety
  - New evolutions in management systems are popping up

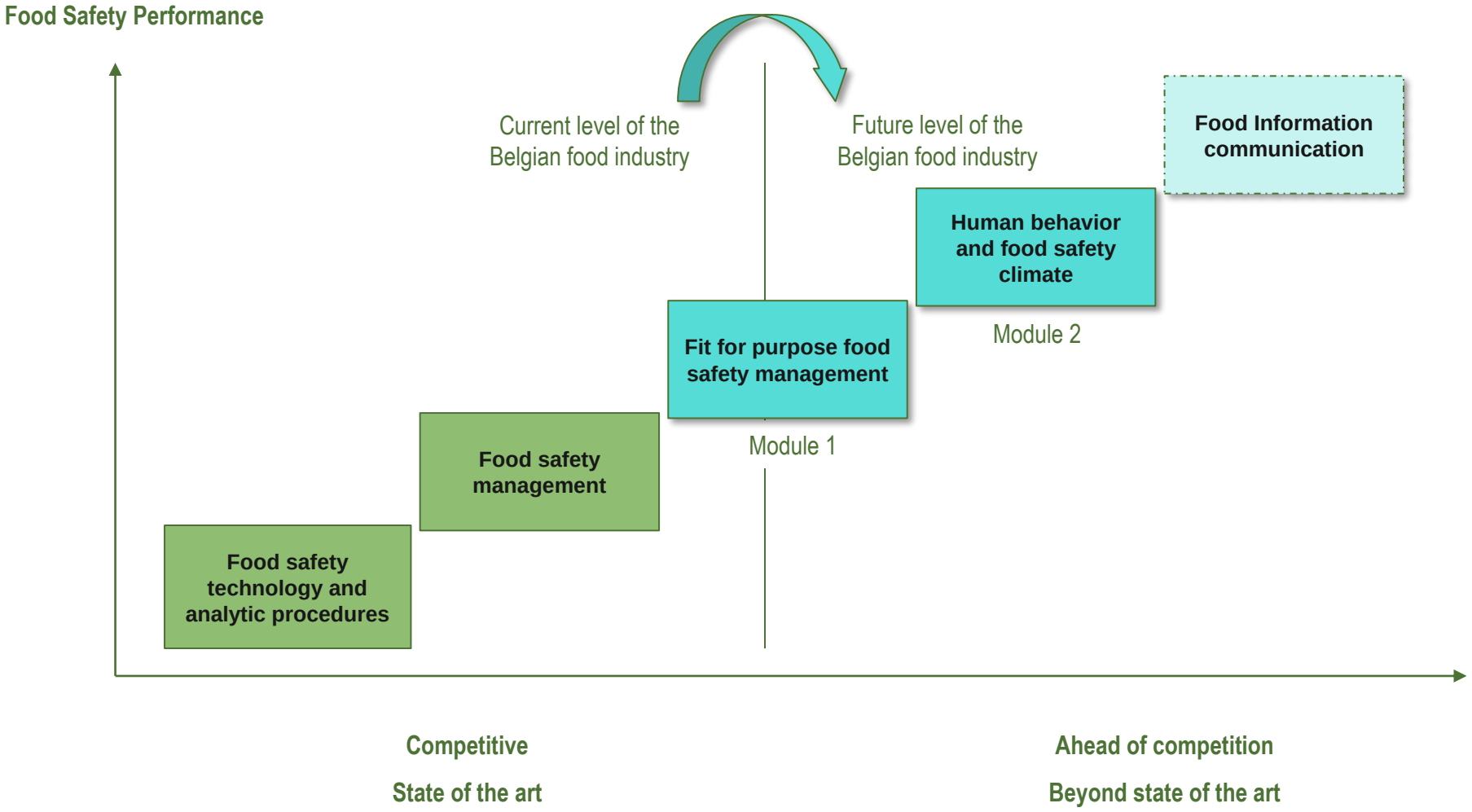
Q-DNA? A 2-PILLAR INNOVATION PROJECT

A proactive attitude towards governing food safety is needed in the Belgian food industry to jump to the next level !

"A well-functioning food safety management system with **validated intervention steps** (module 1) combined with smart sampling and testing strategy embedded in **an overall food safety culture** (module 2) is **the best guarantee to ensure food safety in a proactive way**."

Prof. Mieke Uyttendaele, Prof Liesbeth Jacxsens and Prof. Frank Devlieghere – UGent

Q-DNA? EVOLUTION IN GOVERNING FOOD SAFETY



MODULE 1: CO-OPTIMALIZATION AND VALIDATION OF PRODUCTION PROCESSES

Results: The availability of validation protocols and tools for the Belgian food industry to guarantee sufficient inactivation of vegetative food pathogens with their production apparatus and technological processes.

Why a thorough validation?

- awareness of heterogeneity of e.g. temperature within the production equipment
- increased attention for microbial food safety,
- demanded by (inter)national clients and quality standards

How? Validation tools will be **developed on lab scale** for 3 different types of inactivation processes which will then be **validated on pilot and/or industrial scale in food companies**. (Lead professor Frank Devlieghere; Ghent University)

Belgian food industry may select the inactivation processes via survey

MODULE 2: CHANGE MANAGEMENT TO REACH A POSITIVE FOOD SAFETY CULTURE

Results: the current food safety management systems shift from 'compliance based' systems toward tailored, well validated and 'integration-based' systems. The availability of tools (i) to measure food safety culture/integrity culture and (ii) to increase the maturity of the food safety culture in Belgian food industry is the outcome of this module.

Why a positive food safety culture?

- in several GFSI acknowledged standards as BRC, IFS
- in the Codex Alimentarius 'General Principles on Food Hygiene'
- considered as the way forward in improving the proactive attitude in governing food safety and quality issues by optimizing the human capital in an organization

How? Change management tools will be **developed based on in-depth interviews of 20 organizations and 4 food companies as demonstrator cases.** (Lead professors Liesbeth Jacxsens and Peter Vlerick; Ghent University – faculty of bioscience engineering and faculty of psychology)