

Towards a Portuguese database of food microbiological occurrence

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1 Introduction

The integration of food data from research, microbiological monitoring, epidemiological investigation and disease surveillance is crucial to manage foodborne risk. Consequently, INSA launched the Portuguese Food Information Resource Programme (PortFIR) in a partnership with GS1 Portugal to create national food chain expert networks and sustainable databases on food composition, consumption and chemical and microbiological contamination. The PortFIR data model is currently being designed and will be unique for all networks to allow not only to compile chemical and microbiological information but also to match food analytical results with food consumption information facilitating benefit-risk assessment and management see Poster "Creation of a unique data model for chemical and microbiological food information Claudia Machado *et al.*).

3 Methods

PortFIR data model specific needs regarding microbiological information were identified by the Food Microbiological Information Network - RPIMA (Figure 1) in two different moments:

- Global Network meeting - October 2010
- Brainstorming expert meeting – January 2011, with key representatives of RPIMA Users and Stakeholders

2 Aims

To identify PortFIR data model specific needs regarding microbiological information.

4 Results

• In October 2010 meeting RPIMA and PortFIR data model the following major goals were identified:

- to collect food microbiological information produced in different contexts,
- to standardize and
- to analyse it and
- to make it available to national and international users and stakeholders

• In January 2011 meeting two vital activity areas were identified:

- data collection topics
- rules and requirements for the data model

The principal objectives and rules/requirements that currently guide the building of the Portuguese Database of Food Microbiological Occurrence are summarized in Figure 2.

Figure 1. Portuguese Food Microbiological Information Network

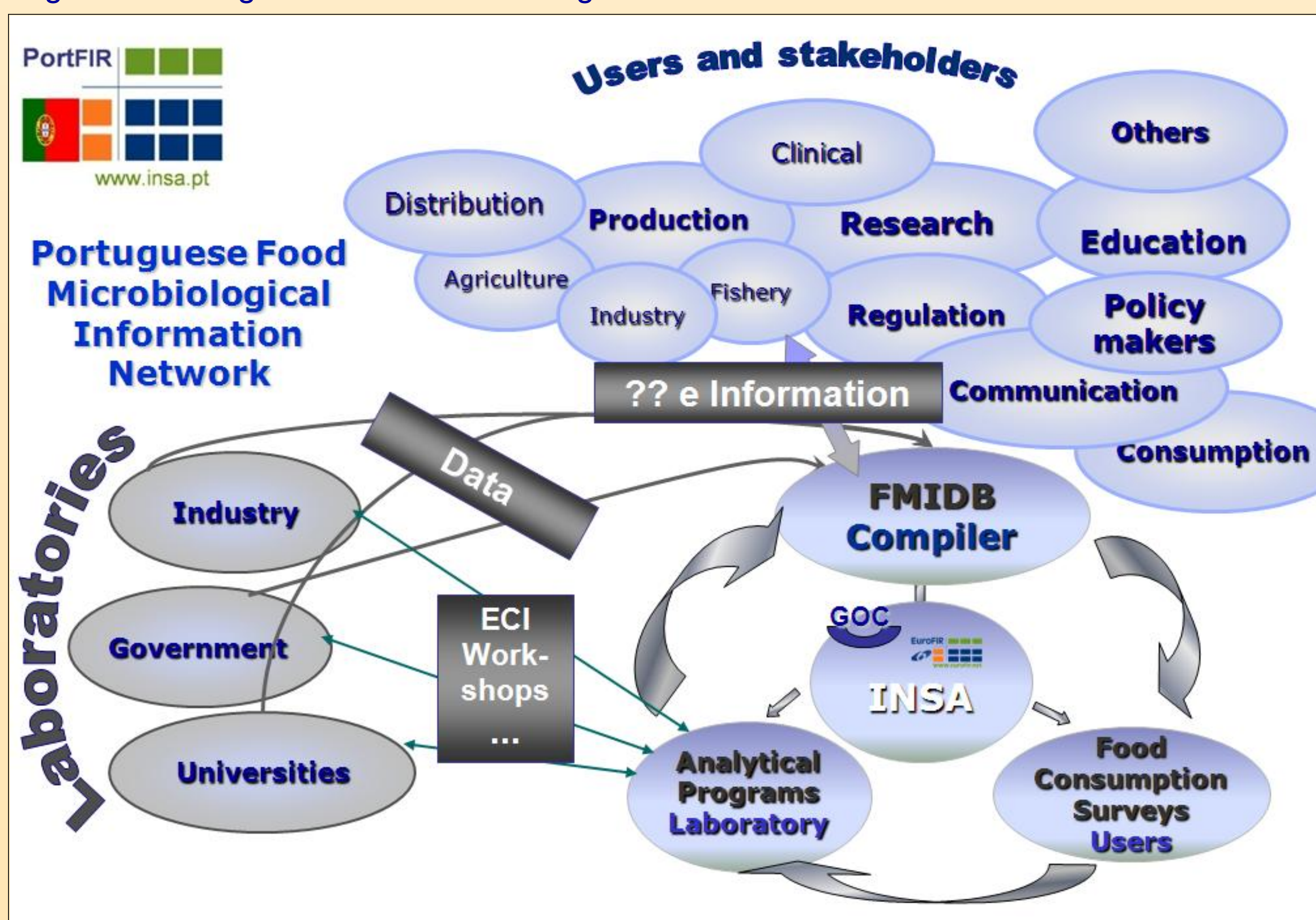


Figure 2. Guidelines towards building the Portuguese Database of Food Microbiological Occurrence

Information Purpose	
Microbiological occurrence in all food chain steps	
Topics for data collection: <ul style="list-style-type: none"> • Foodborne outbreaks • Catering • Food occurrence • Environment / food handlers • Food-producing animal's infections • Animal feed 	Rules and requirements to be defined: <ul style="list-style-type: none"> • Data providers • Data information • Data transfer • Data access levels • Data quality management system • Compatibility/harmonization with other databases • Data quality classification • Food classification/characterization • Microorganisms' identification/characterization • Controlled terminology <i>versus</i> not controlled • Mandatory data <i>versus</i> optional

Significance

The principal objective of this database is to obtain global information, for the first time at national level, about identification, level, frequency, distribution and characterization of pathogens occurrence throughout the food chain and to contribute to the identification and monitoring of potential vehicles of human infections and to the optimization of food safety metrics to quantify the impact of risk management decisions.