From Tradition to Innovation.
Skill Needs in the Agri-Food Sector

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Purpose

- To review future skill needs in the agri-food sector in/for EU member states
Design/methodology/approach

- Secondary analysis of European labour market data
- Literature analysis on developments in the agri-food
- Consultation of ten international key experts
- Review of drivers for change
- Formulation of consequences for skill needs
- Interactive expert workshop
- Report
Experts from

- EU level employers’ organisations
- EU level employee organisations
- DG Agriculture and Rural Development of the European Commission
- Industry
- Agricultural and food education
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<th>Expertise in</th>
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<td>Rural development</td>
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<td>Austria - Qualification barometer</td>
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<td>Finland - ‘Anticipating the Quantitative Educational Needs in Vocational Education and Training’ - National Board of Education</td>
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<td>Ireland - Expert Group on Future Skills Needs</td>
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<td>The Netherlands - sectoral knowledge centers</td>
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<td>The UK - sector skills councils</td>
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<td>Czech Republic - The National Observatory of Employment and Training</td>
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<td>Germany - The FreQueNz Network on ‘Early identification of skills needs’</td>
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<td>France - The Observatoires prospectifs des métiers et des qualifications</td>
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<td>Norway – Fafo + project Qualification, competence, and continuing - and vocational education</td>
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Agri-food sector: diversity

- The agri-food complex comprises primary sector, trade, industry and services, including government
- Subsectors within agriculture and food manufacturing: NACE
- Occupations: ISCO-08
- Variation across EU member states
- Training levels
Employment in the food industry EU27 in 1999 and 2004

EU member states
Sectoral qualification structures 2005, EU 27

Employed persons aged 25-64 years; without ‘no answer’.

Source: Eurostat (LFS data)

Employed persons aged 25-64 years; (b) without ‘no answer’.
Skill level in the Manufacture of food products and beverages sector
NACE 15, EU27, 2005

- High: 31.6%
- Medium: 55.1%
- Low: 13.1%
Skilled agricultural and fishery workers by level of education (2006)
Major developments – future forces

- Stronger regulation
- Sustainability
- Globalisation
- Competition
- Climate change
- Dealing with the public
- Chains and networks
- Technological innovation
- Ageing workforce
Implementing new business models; entrepreneurship; trustful co-operation in competitive areas; administration resulting from new regulations; implementing sustainable forms of energy use; realising provisions for rural leisure facilities; preserving the cultural countryside heritage and (eco-) tourism; country-side living; creating and maintaining health care services in refurbished farms; producing regional food specialties; realising nature conservation; using persuasive communication; creating rural hospitality services; realising product innovation; creating service businesses in rural areas; dealing with internal organisation and human resources management; dealing with international marketing; getting to know new and current ways of financing the enterprise; working with advanced systems of logistics; implementing strategic systems of finance and control; getting to know and handle asset management, including skills with dealing with the construction and property consultancy sector
Generic and transversal skill needs - 2

Acquiring knowledge about international law and regulations, such as trade tariffs and barriers, trade regulations regarding quantities and quality control; dealing with importing and exporting organisations; creating foreign establishments; communicating with foreign authorities and market organisations, such as export associations; intercultural communication with local managers and employees; effectively working on national, regional and local labour relations; dealing with the issues regarding backward supply-chain integration; creating and implementing process innovation; in-cluster co-operation and knowledge sharing; interdisciplinary understanding; searching for collective cost reduction and quality improvement in alliances and innovation projects, political sensitivity; corporate social responsibility and integrity; Hazard Analysis and Critical Control Points; implementation, operating and maintenance of new production and harvesting devices; knowledge-sharing and together with that, knowledge-protection against hostile competition; and ensuring intellectual property
Findings - 1

- The labour market in the agri-food market is decreasing, but the complexity of the work is increasing.
- Transversal developments in the sectors are related to stronger regulation, sustainability, globalisation, competition, climate change, dealing with various publics, working in chains and networks, technological innovation and the ageing workforce.
Examples of skills found are:

- the ability to learn from conflict, to realise innovation in networks, to think out-of-the-box, to creatively find and use opportunities, having international market knowledge, the ability to deal with national and international trading systems, logistics, and intercultural communication, and many others.

The skills needs described vary significantly by business model.
Furthermore: skill needs in …

- Entrepreneurship
  - (Lans, Biemans, Verstegen & Mulder, 2007; Mulder, Lans, Verstegen, Biemans & Meijer, 2007),
- Agricultural consultancy
  - (Shim, 2006)
- Open innovation teams
  - (Du Chatenier, Biemans, Verstegen & Mulder, 2007)
- Dealing with various expectations of the public
  - (Mulder & Eernstman, op cit).
Educational institutions, but also organisations in the agri-food sector themselves, can use the overview of new skill needs to create new training and development programs.
Further research

- Further empirical research is needed by using primary data collection regarding the skill needs by using a stratified sampling technique.
- This will yield more specific information from certain sectors:
  - in certain local, regional, national or supra-national circumstances,
  - for more specific job categories and
  - educational fields and education levels.
- Such research requires a long-term perspective to be able to assess gradual and revolutionary changes in skill needs.
Towards new agronomic trainings in Europe (FANCAM project) www.beleuropea.be/fancam.html
Experiences with the EQF in the Agricultural Sector

a LEONARDO da VINCI Transfer of Innovation