Innovation in agriculture – an Italian example

Innovation and R&D (research and development) are extremely important for all branches of industry. Yet the significance of innovation and R&D in agriculture and food manufacturing is sometimes underestimated, despite the role of innovation and R&D helping them become more competitive and energy-efficient. Innovation in production processes and increased exports have in many cases made it possible to overcome the economic crisis.

The European food and drink industry creates employment for over 4 million people and has a positive trade balance of EUR 23 million. The Italian sector is the third largest in the EU (after Germany and France) and the second largest sector in the Italian economy after engineering.

Food production, innovation and the circular economy are the watchwords in re-establishing Italy as a model country and creating a Europe that is more competitive, more democratic and more in touch with the needs of its citizens. This process of awareness dates back about ten years in Italy and is driven by the primary sector, which has the best record worldwide for food safety, quality and biodiversity and sustainable production processes. This legacy goes hand-in-hand with technological, process, product and service innovation.

The sector still faces numerous challenges such as fragmentation, high logistical costs, low export growth in comparison to competitors and the issue of counterfeiting and imitation. According to estimates, counterfeit goods and those imitating “Italian-like” products represent a market of about EUR 60 billion, while total Italian food and drink exports in 2014 amounted to EUR 27 billion.

Innovation is primarily driven by the new generations of farmers who have gone back to working the land because the Italian agri-food industry offers unparalleled career fulfilment and quality of life. The Italian experience may also be useful to young entrepreneurs from other countries. However, the approach requires an organised system that can support their investment and innovation plans.

Numerous aspects of innovation have a particular application in agriculture. The first is process innovation, which concerns the awareness of working with scarce natural resources and a need for better balance in our economic growth (sustainability). According to representatives of Italian agriculture, Italy is performing extremely well in process innovation and could share best practices with other countries. The second is product innovation where the creativity and passion of agricultural entrepreneurs and workers lead to new, unconventional products which are effectively boosting exports. The third is service innovation that takes into account the social implications of agriculture. Agricultural businesses are not only economic players, but also social actors. They contribute to the safeguarding of common goods (such as culture, traditions and good practices).

Innovation in agriculture also requires a significant change in attitudes. Society must understand that this sector, which is still regarded as being old and traditional, can also be innovative and attractive for young people.
The Circular Economy: a must for the future

The concept of a circular economy, as opposed to a linear “take-make-use-dispose” economy, was born of the need to foster sustainable growth, with a view to ensuring that products retain their added value for as long as possible and to maximising the chances of reusing their components productively, thus reducing waste generation and waste disposal and environmental pressures even further.

Circular economy benefits society in many ways. It is a means to utilize natural resources, raw materials, products etc. efficiently and economically. Circular economy helps minimising the strain on environment (waste, emissions). Finally, circular economy offers a way to create sustainable business.

According to the McKinsey report, between 60 and 80% of resources are wasted at the end of the linear take-make-use-dispose process. In a world where three billion consumers are set to join the middle classes, this is no longer sustainable.

The transition to a circular economy requires producers, workers, consumers and citizens to make significant changes to their attitudes towards the use of resources and raw materials, product design, market and business models, and the search for new waste and resource processing methods. This transition is now possible thanks to the use of increasingly accessible technology, digital networks and the internet of things and services.

A green growth model of this type requires not only a wholesale culture shift, with a strong boost for innovation and research, but also significant investment in technology, education, organisation and relevant training for new occupational profiles. Moreover, it demands new funding methods and appropriate policies. Regulatory environment which is supportive of business, innovation and investments is important for promoting circular economy.

The systemic barriers impeding the deployment of circular business models by firms will have to be removed and efficient use made of materials from waste streams and sectoral and cross-sectoral information networks, including at EU level.

Appropriate financial instruments will have to be made available, especially for research and innovation, capacity building and market analysis, through instruments such as H2020, the Structural Funds, the EIB and public-private partnerships (PPPs).

A collaborative approach involving Member States’ governments, businesses, scientific community and consumers is important for the development of circular economy. An active role will have to be developed for the social partners and civil society in the design, application and monitoring of national sustainable development policies and in the transition to an environmentally sustainable circular economy with strong potential for creating green jobs. An integrated policy approach is essential in order to exploit job creation potential, based on new occupational profiles, and to manage the challenges inherent in the transition to a non-linear economy.

New occupational profiles will have to be developed for staff responsible for managing these processes since education and training aimed at creating greener jobs relies on sound basic training supported by lifelong learning and should incorporate training geared to raising environmental awareness.

A culture of dialogue and cooperation in the workplace must be fostered in order to encourage a more rational use of resources, to cut waste, adopt clean and risk-free technologies and working methods and improve the quality of employment.
The role of international trade in the reindustrialisation of Europe

The European Union is the top trading partner for 80 countries; around 31 million jobs in Europe are dependent on sales in countries outside the EU. On average, a billion euro in new exports generates 15 000 new jobs in the EU. In Europe, there are over 600 000 export SMEs, handling a third of all European exports and employing over six million people. These figures clearly show the share and impact of trade for the European economy.

The emphasis in the global economy is shifting to the East. In 15 years’ time, 90% of global demand will be generated outside Europe. The importance of international trade for Europe will thus increase in coming years.

Free trade agreements are key tools for the development of international trade and the growth of the global economy. The aim of the future European strategy must be fluid, simple, predictable free trade. In a globalised economy, the opening-up of the markets and predictable trade policy are crucial in order to encourage competitiveness and job creation in Europe. It is essential that barriers to market access be further reduced, releasing trade in goods and services in both directions in order to promote economic prosperity for both European and third-country businesses.

To be able to realise its full economic potential, the European Union needs a stable multilateral framework for global trade, into which it can integrate effective bilateral and multilateral trade agreements, thus providing further opportunities for trade, growth and job creation.
Industry 4.0 – Towards a Sustainable Industrial Policy in the EU

The digitisation of industry offers huge potential, for example, in terms of automatisation, processing technologies, increased productivity and flexibility, as well as greater competitiveness. Digitisation offers industry savings in energy and in the cost of raw materials. The Employers’ Group is convinced that fully harnessing the potential of the Internet of Things provides a unique opportunity for the EU to forge ahead in terms of global competitiveness.

Industry 4.0 is an advanced manufacturing model that addresses the market’s needs to produce tailor-made products and components while being able to achieve benefits of scale regarding costs. Industry 4.0 has to be supported by a sound investment policy, the right industrial infrastructure, and R&D. One example of this is the Italian Smart Factory Cluster. This cluster applies a bottom up approach to provide smart, industrial solutions, focusing on four main projects: sustainable manufacturing, adaptive manufacturing, smart manufacturing 2020 and high performance manufacturing. The Cluster also works closely together with the academic world.

Science parks that promote radical innovation and product innovation with a view to attracting increasing numbers of hi-tech businesses is another example of private investment in innovation and R&D. The purpose is the multi-sector integration of knowledge and expertise in order to capitalise on the results of the R&D work. Companies that compete with each other on the market join forces for research, which reduces costs, speeds up the process and leads to successful solutions.

This document is a summary of the two-day seminar organised on 26 and 27 October 2015 by the Employers’ Group and its partners: Coldiretti, Confindustria, Confindustria and AICE (Italian Association of Foreign Trade). The first day of discussion was devoted to the role of international trade in the Reindustrialisation of Europe. On the second day, the participants focused on food manufacturing, innovation and the circular economy.

About the Employers’ Group

The Employers’ Group brings together entrepreneurs and representatives of entrepreneur associations working in industry, commerce, services and agriculture in the 28 Member States of the European Union. Its members are genuinely committed to putting their experience to good use in order to further the European project. The European Economic and Social Committee is the only European institution that brings together entrepreneurs and people fully involved in the economic and social life of their home country.