Glossary

3G: 3rd Generation mobile communication system, well known connection standards are: HSCSD High Speed Circuit Switched Data, HSDPA High Speed Downlink Packet Access.

Adoption of Technology: The ability of an economy to assimilate new innovations.

Adults’ Learning: The practice of teaching and educating adults and it usually takes place in the workplace.

Agrifood Supply Chain: The term refers to the strict correlation and the functional link existing between the primary (agriculture) and the industrial (transformation industry) sector.

Asynchronous E-Learning: A student-centered teaching method that uses online learning resources to facilitate information sharing outside the constraints of time and place among a network of people.

Augmented Reality: It can be a live, direct or indirect, view of a physical, real-world environment whose elements are augmented by computer-generated sensor input. This input could be sound, video, graphics or GPS data. The technology functions enhancing the user perception of reality.

B2A, B2B, B2C in Rural Areas: E-commerce is one of the revolutionary tools which may help the takeoff of rural development in the coming years. They give the possibility to all the actors in the food chain to participate directly without intermediaries. Although with some delay in relation to urban areas, B2B, B2A, and B2C are changing the way of doing business, bureaucratic, and information activities.

Certification: Assurance of the conformity of the production process with established technical standards. This status of quality might be expressed by means of stamps or certificates of conformity that allow identifying the origin of products, in addition to indicating the accreditation and certification agencies that guarantee the reliability of the system. An audit is an independent, documented, and systematic examination to establish whether the adopted management procedures and its results are in compliance with regulations.

Climate Change: Change of the climate as a result of the raising of the global temperature determined by the inflow in the atmosphere of greenhouse gases. The changes of climate that are affecting our planet, in fact, exceed those that might be expected as a result of natural agents.

Cluster: In data analysis a cluster is a group of entities that are relatively more strongly connected, or are more similar (less distant) than with respect to other entities; clusters are, in particular, sought in (social) networks (insider groups, interest groups etc.); the domain of data analysis, which specializes in finding clusters is cluster analysis; in industrial policy clusters are formations of business entities, which may or do cooperate so as to achieve synergy in terms of business effectiveness; such clusters are usually based on functional and/or technological basis, oftentimes involving innovation as one of the major linking conditions.

Common Agricultural Policies: Financial and administrative instruments at European level, aimed at first at improving agricultural competitiveness, which have shifted in time to promoting a sustainable rural development.

Demand Uncertainty: A stochastic behaviour in the demand of a product.

Diffusion of Innovations: A theory that explains how, why, and at what rate new ideas and technology spread in a given society.

Diffusion of Technology: The dissemination of technological innovations and know-how.
Driver Framework for ICT Analysis: They are indicators to incentive and study the ICT in order to optimize their performance for the welfare of the society.

Economic Convergence: A tendency for different economies to evolve toward a similar point (e.g. per capita income).

Economic Growth: The increase in the amount of the goods and services produced by an economy over time.

E-Governance or E-Administration: Tools and strategies adopted by the government in order to develop and intensify the role and the use of ICT in the civil society, in the entrepreneurial world and at institutional level. These notions encompass the functions, executed by the public bodies of the administration, be it governmental or self-governmental, with the use of the contemporary information technology and communication means, notably the Internet. Hence, we can speak of the advancement of e-administration or e-government, rather than simple absence or presence.

E-Innovation: Innovations related to new ICTs.

E-Learning: E-learning refers to the use of electronic media and Information and Communication Technologies in education.

Environmental Impacts: Generally the term refers to the potential consequences caused by emissions, discharges, or releases to the environment, including impacts on the climate from greenhouse gas emissions, pressures on aquatic ecosystems from chemical emissions, and the availability of natural resources.

Environmental Informatics: The scientific discipline which applies computer based systems for better environmental governance and management resulting in a better and sustainable use of natural resources and the protection of natural environment.

Farm to Fork: The terms refers to the whole supply chain and the related environmental impacts having as starting point the agricultural production and as ending point the consumption of the final product – that is an essential consideration for the life cycle analysis of any bio-originated product.

Food Safety: Aims at ensuring the innocuousness of food by guaranteeing that it is free from contaminants at the time of consumption. Such contaminants might be biological (pathogenic microorganisms), chemical (mycotoxins, pesticide, and heavy metal residues), or physical (fragments of insects, glass, or foreign materials). The most commonly reported food-related health incidents involve infectious agents (intake of food containing microorganisms) and intoxication (presence of fungal or bacterial toxins in food).

Food Supply Chain: A system of phases, which symbolizes a cycle of economic actions, through which resources, materials and information flow downstream and upstream for manufacture of goods and services for final using by a customer.

Forest Production Management: The field of designing in an optimal way (under environmental, economic criteria) the forest production.

Fuelwood: One of the most important natural resources that is used for energy production, heating etc, and is derived from the forest.

General Purpose Technology: Technologies that can affect an entire economy and also causing societal changes.

Good Management Practices: A set of measures that must be adopted by food industries to ensure the sanitary quality and compliance of food products with technical regulations. Good practices are a prerequisite for the implementation of quality management systems.

Graph and Network: A graph is a mathematical structure, used to reflect a set of entities (nodes or vertices) that are in some way connected (edges.
linking the vertices); thus, a graph is represented by a set of nodes / vertices and a set of edges, the latter defined by the vertices they connect; edges can be of various character: binary (there is a link, there is no link) or valued (measure of intensity of connection), one- and two-way; graph theory is a domain of applied mathematics dealing with properties and applications of graphs; networks are graphs, for which special properties have been defined and are analysed, in particular, this notion is used for the graphs, describing interpersonal relations, communication (e.g. social networks), etc.; thus, these networks are analysed for special reasons and with special aims, like, e.g., finding the vertices (e.g. persons) of special significance for a given network.

**Green Economy:** A sustainable economy and society running on renewable energies which are naturally replenished and enjoys an ecological footprint of one planet.

**Green Informatics/ICTs:** Environmentally sustainable Informatics/ICTs. Green ICT goes into how ICT can be used to lessen other aspects of the environmental impact.

**Green Logistics:** The term refers to all attempts to measure and minimize the ecological impact of logistics activities. This includes all activities of the forward and reverse flows of products, information, and services between the point of origin and the point of consumption.

**Green Technologies:** Technologies that are environmental-friendly. All technology paths, methods, and innovations aiming to global climate stability and environmental sustainability, as well as non-toxic products.

**Growth and Sustainability:** The mode of human development in which resource use aims to meet human needs while preserving the environment for the future generations.

**ICT – Information and Communication Technologies:** All the means of Information and Communication Technologies used for the storage and dissemination of information. ICT is an umbrella term that includes technologies, systems and services for capturing, storing, processing, transmitting analyzing, and presenting data and information electronically. The definitions are often heterogeneous and difficult to compare. Some are sometimes very large and include all the mechanisms used to organize, store, manipulate, submit, post, and find information.

**ICT AND Local Development:** The issue of association between the level of advancement of ICT on a given area (within a community) and the socio-economic development level and dynamics of this community, and the related issue of influence exerted by the ICT on local development, beyond sheer association – the character and direction of influence can be measured with appropriate statistical tools, provided adequate data are available. The difficulty lies not only in the acquisition of relevant data, but primarily in distinction and identification of pertinent indices on both sides of the interdependence hypothesized. Most important are the dynamic aspects of the interdependence and the conditions behind the dynamics.

**ICT House of Quality:** It is the playground where actors of specific sectors (the food system in our case) may analyze the performance of ICT, under the market rules of supply and demand in the sociopolitical framework.

**ICT in Urban Communities:** Urbanization process is increasing and urban and rural communities share common challenges on food supply, environment and limit on natural resources. Therefore is important to establish instruments to facilitate their understanding. Information and Communication Technologies (ICT) may play a key role in this task.

**Industrialisation:** A process characterised mainly large-scale production, specialized machines, standardization of processes, managerial expertise, and a continual evocation of efficiency.
Information Age: A new era of societal development where knowledge-production and information-processing became the primary economic activity in developed countries.

Information Literacy: The process of realising lack of information, looking for it, locating and processing it and then using it responsibly.

Infrastructure Conditions: Physical or organizational structures needed for an economy to function.

Innovation Activity: Development of new ideas, products, processes.

Innovation Inputs: These are measures that provide insight into the nature and amount of the factors that are directly or indirectly used by the institutions to carry out their activity. Such indicators gather statistical information on such matters as total spending on innovation, R&D spending, spending on unincorporated technology, spending on innovation training, spending on preparation for production, spending on preparation for marketing and spending on incorporating knowledge in the public domain.

Innovation Outputs: The output indicators measure the results of a service or a program. They collect information on biometrics, patents, and other results of R&D, new processes, new products and sales of technology.

Innovation Paradigm: A technological paradigm defines an idea of ‘progress’ by embodying prescriptions on the directions of technological change to pursue and those to neglect.

Instructional Design: The practice of creating instructional experiences which make the acquisition of knowledge and skill more efficient, effective, and appealing.

Integrated Production (IP): IP was developed in Europe in the 1970s as an offshoot of integrated pest management. IP is based on promotion of the sustainable production, diffusion and transfer of technologies, technological innovation, good agricultural practices, and animal well-being as the basic elements for transforming conventional production into sustainable, certifiable, and traceable production.

Internet Marketing: Also known as Web marketing, online marketing, Webvertising, or e-marketing, Internet marketing is referred to as the marketing of products or services over the Internet. Internet also includes marketing done via e-mail and wireless media. Digital customer data and Electronic Customer Relationship Management (ECRM) systems are also often grouped together under Internet marketing.

ISO 22000:2005 Food Safety Management Systems: ISO 22000 aims at standardising and harmonising food safety at the international level. Standard ISO 22000 specifies requirements for a food safety management system, in which an organisation within the food chain must demonstrate its ability to regulate food safety hazards to ensure that food is safe at the time of human consumption. By means of auditable requirements, ISO 22000 combines the HACCP approach with prerequisite (good practices) programmes specific for each supply chain, with the aim of maintaining an hygienic environment fit for the production, handling, and supply of safe final products.

Key Performance Indicators in Food, Energy, and Environment Evaluation: The evaluation process of the performance evaluation of strategic areas (food, energy and environment) needs a methodology which coordinates researchers, entrepreneurs and administration, in a simple and objective way.

Key Resources: Resources which are characterised by a high importance for an ecological, social and economic system, generally due to their specific value or scarcity.

Linear Programming (LP): Maximizing or minimizing a linear objective function under a linear set of constraints.
Local Identity: Visibility of a territory on the basis of its distinctive natural, cultural, and productive elements.

Lot: The traceable unit, which must be linked to information indicating its provenance and quality.

Mobile Devices: Mainly small size devices, which are easy to carry to everywhere and easy to work with.

Mobile Internet: Access to the Internet from a mobile device, such as a mobile phone or laptop or PDA via integrated devices or Internet access via an independent device (such as a USB modem).

Multiobjective Programming: A mathematical programming methodology applied when more than one objective functions are considered.

Municipality or Commune: The lowest-level administrative unit (NUTS 5 = LAU 2 in the European nomenclature). These units differ across the EU member countries, and, more generally, the European countries. They differ not only as regards their magnitude-related characteristics (most importantly: population numbers), but also as to the scope of competence, degree of autonomy, self-governmental capacities, etc. It is assumed, though, that in order to be reasonably treated as responsible for a range of services, it has to be populated, on the average, by at least a couple of thousand inhabitants. Municipalities, according to the nomenclature here used, for parts of counties as higher-level units.

Natura 2000 Network: European network of protected areas established under the provision of the Habitats (92/43/EEC) and Birds Directive (79/409/EEC), having as main objective the conservation of species and habitats of European interest in an integrated ecological and economic manner.

NFC: Near Field Communication.

Open Innovation: This is a term coined by Professor Henry Chesbrough and is a new strategy by means of which firms reach beyond the internal limits of their organization and in which cooperation with external professionals plays a fundamental role. Open Innovation means combining internal and external knowledge to develop strategy and R&D projects. It also means that firms use both external and internal channels to bring their innovative technologies and programs to market.

Perceived Usefulness: The degree to which a person believes that using a particular system would enhance his or her job performance.

Public Authority Website: Permanent Website of any public body, vested with definite authority and competence, which has an official character, and for which this body bears full responsibility in terms of content and functionality. Usually it is the essential instrument of e-administration.

Precision Agriculture: A way of effective farming which using information gathered during field operations, to calibrate the application of inputs and economize on fuel use.

Process Innovation: This refers to the introduction of a new or significantly improved process of production or distribution. This means significant changes to technology, materials and/or software. These innovations could have as their objective the lowering of production or distribution costs, improve quality or to produce or distribute new or significantly improved products. Production methods include the technology, hardware and software used to provide goods or services. Distribution methods are linked to the firm’s logistics and include the equipment, software and technology necessary for the provision of inputs, their distribution within the firm itself and the distribution of the finished product.

Product Innovation: This refers to the introduction of a new good or service or one that is significantly improved in terms of its characteristics or the use to which it is put. This definition includes significant improvement to the technical characteristics of the product, its components and
materials, the information integrated into it as well as its ease of use and other functional characteristics. This type of innovation can employ new knowledge or technologies or be based on new uses or combinations of existing knowledge or technologies.

**Quality Management System:** The main quality management systems for grains involve integrated production; integrated pest management; good practices/HACCP; and ISO 22000 standard of food safety management systems. These systems aim to ensure the availability of safe food by means of identification, monitoring, and adequate management of contaminants at all stages. Such programmes are based on internationally recognised protocols that allow traceability and certification systems to be implemented and thus the trading of quality products that comply with market demands.

**Quality of Life:** All the conditions of well-being of individuals and society determined by the availability of economic goods, by the accessibility to social services, by equal opportunities and respect for the rights of equality and solidarity, by inclusion in participatory processes of society, by access to job and quality of employment, by the use of natural heritage and landscape and overall by their integrity, and other tangible and intangible assets that affect the psychic and bodily well-being.

**Renewable Energy Sources (RES):** Energy sources that are replenished constantly, based on natural phenomena like sunlight, wind, etc.

**Resource Conservation:** Activities and programs with the purpose of preserving, improving or developing the quantity and quality of a certain natural resource.

**Responsible Valorization:** System for the promotion of the activities of an area based on a long-term perspective and shared responsibility of the stakeholder approach.

**RFID:** Radio Frequency Identification.

**Rural Areas:** Formal definitions of rural areas differ among the institutions using them (OECD, European Commission…); generally these areas feature low population density (depending upon the criterion – e.g. below 150 or 120, or even 100 inhabitants per 1 sq. km) and devoid of more important urban centres; an additional criterion could be appropriately high share of persons employed in farming, forestry and fisheries sectors; in the chapter, a purely formal criterion is used – the Polish administrative units considered are formally called “rural,” as opposed to “urban” and “urban-rural.”

**Rural Environment:** Area characterized by a low population density, dominance of agricultural activities, and the presence of traditional architectures and practices.

**Rural Excellences:** Tangible and intangible distinctive assets connected to environment, to the human resources, production, and to the institutional abilities of a territory.

**Rural Vocation:** Cultural and productive propensity of an area characterized by natural and agricultural landscapes.

**Scenarios:** A methodology that is used to model demand uncertainty.

**Scoring Systems:** Systems, developed for assessment of some sort of phenomenon or process, usually in order to grasp the multifaceted nature of the phenomenon or process. These systems have to fulfill several basic requirements: simplicity, possible objectivity, repetitiveness (comparability), comprehensiveness.

**Segregation:** The grain sector—traditionally characterised as a commodities market—is increasingly oriented towards the differentiation of products and segmentation to ensure access to the market, increase its competitiveness, and better comply with final product and customer specifications. Organic products, non-transgenic products, and products with an indication of origin represent some examples.

**Small and Medium-Sized Enterprises (SMEs):** The backbone of the European economy, providing a potential source for jobs and economic growth. SMEs are defined by the European Commission as having less than 250 persons employed.
They should also have an annual turnover of up to EUR 50 million, or a balance sheet total of no more than EUR 43 million (Commission Recommendation of 6 May 2003).

**Smart Technologies:** They represent interactive technologies, where the inputs are processed and the outputs meet specific needs.

**Social Acceptance Survey:** A survey that determines the percentage of a social sample that is not negative to, or even embraces the object of the survey.

**Social Media:** Web- and mobile-based technologies that support interactive communication between organizations, communities, and individuals. Social media technologies take on many different forms including magazines, Internet forums, Weblogs, social blogs, microblogging, wikis, social networks, podcasts, photographs or pictures, video, rating, and social bookmarking.

**Structural Organization Analysis of ICT:** It is a methodology for a better understanding of ICT in the food value chain. It is focused in the dimension and interaction between structure-conduct-performance paradigm applied to actual problems.

**Supply Chain:** A system of people and other organizations involved, in order to provide the products from the production (start of the chain) to the customer (end of the chain).

**Sustainable Development:** Development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs. It is development able to include social aspects relevant to an assessment of quality of life, such as health, the availability of food, access to education, water quality, the quality of the dwelling, the use of compatible technologies, respect for human rights, and so on. The concept of sustainability, originally referred only to ecological sustainability, is extended to other dimensions of development: economic, social, territorial, and generational ones.

**Sustainability of Wellbeing:** Maintenance over time and space of the welfare conditions not only economic but also social, environmental, and territorial.

**Sustainable Procurement or Green Procurement:** It refers to a spending and investment process typically associated with public policy, although it is equally applicable to the private sector. It is linked to the wider agenda of sustainable development. Organizations practicing sustainable procurement meet their needs for goods, services, utilities and works not on a private cost-benefit analysis, but with a view to maximising net benefits for themselves and the wider world.

**Sustainable Supply Chain Management:** The strategic, transparent integration and achievement of an organization’s social, environmental, and economic goals in the systemic coordination of key inter-organizational business processes for improving the long-term economic performance of the individual company and its supply chains.

**Synchronous E-Learning:** A learning environment in which everyone takes part at the same time.

**Technological Gap:** The level of technological differences across economies.

**Transaction Integration:** It is actually the facility to order and pay the presented products online. The latter means for the producer, reduction in perceived export barriers, especially in small firms, low cost of marketing goods and services globally and implementation of globalization strategies. This transactional function implies however the existence of price list catalogue, implementation of online applications permitting a secure transfer of personal and financial information, as well as the presentation of clear and detailed information about the conditions of sales, the delivery costs and the delivery time.

**Web 2.0:** Websites that use technology beyond the static pages of earlier Websites which may allow users to interact and collaborate with each
other in a social media dialogue as creators of user-generated content in a virtual community, in contrast to Websites where people are limited to the passive viewing of content. Examples of Web 2.0 include social networking sites, blogs, wikis, video sharing sites, hosted services, Web applications, mashups, and folksonomies.

**Web 2.0, Blogs, and Web Pages as Intercommunication Instruments:** They are new ways to connect the stakeholders in modern society, where entrepreneurs, politicians and citizens may interact and discuss current problems in fast and cheap covering all the world.

**WiFi:** Wireless Fidelity, Wireless standard.

**Wine Tourism:** Tourism whose purpose is or includes the tasting, consumption or purchase of wine, often at or near the source. Where other types of tourism are often passive in nature, in wine tourism visitors learn the history of the winery, see how the wine is made, taste the wines, sometimes eat other traditional food products or stay in a small guest house at the winery estate, visit museum or gift shop, enjoy organized tour in the area and local attractions. Most importantly, visitors buy the wines made by the winery on the premises.