

project newsletter

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AMI@Netfood, an European Strategic Vision

AMI@Netfood is a Specific Support Action under the Information Society priority of the European Commission Sixth Framework Programme.

The objective of AMI@Netfood project is to support the implementation of the Information Society Technologies (IST) Research Priority and Framework Programme, providing a long-term vision on future trends on Scientific and Technology Research oriented to the development and application of Information and Communication Technologies (ICT) to the European agrifood industry and rural development domain.

Six key Challenges for the European Agrifood and rural domain

The actual situation of agrifood and rural sector in terms of markets, development and competitiveness and the specific impact that rural activities have in the society, added to the potential positive impact of new ICT technologies, has arisen new challenges. During the analysis stage, AMI@netfood consortium has selected the most relevant ones, which could be accomplished by means of further implementation of ICTs.

Support the European Agrifood industry, especially SMEs, to be a world wide leader in the supply of high quality and safe food products.

The relevance of agrifood industry is not only related to its importance in European economy but also it is consequence of an increase awareness concerning to the necessity of producing high quality and safe products. The implementation of the new technologies in agrifood domain, enabling adequate combination of traditional products and modern management processes will definitively contribute to produce high quality and safe products.

Increase the level of involvement of consumers in the agrifood value chain by means of the wide adoption of relevant IC Technologies and applications.

The agrifood sector is very much a consumer driven sector. However, in order to realise the full participation of citizens in the whole agri-food supply chain, further developments in ICTs are required. The incorporation of ICT tools will greatly contribute to achieving a deeper integration, communication and information flow between the different stakeholders in the supply chain, from "fork to farm", from farmers to consumers. →



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Increase the areas in which European citizens find collaborative working environments assisted by ICTs by extending them to agri-food industry and rural domain.

The provision of collaboration spaces to support communication among teams in agri-food industry and between wider communities, specifically in the rural domain, may have an enormous impact on productivity, innovation and creativity in the agri-food industry and rural development. The provision of new Collaborative Spaces will improve the quality of life by enabling the inclusion of rural inhabitants in the "technology society".

Open new business opportunities for the European ICT industry through development of new applications and tools to support the European agri-

food and rural sector.

The European rural businesses, and among them the agri-food industry, still have many specific requirements, in terms of both price and functionalities. Both sectors are demanding the development of tailored ICT applications and tools which fulfil those requirements. Rural and agrifood applications can be considered as an enormous market domain and source of revenue for the EU ICT sector.

Contribute to trigger the investment in ICT and telecommunications infrastructure by means of creating new business models in rural areas.

Throughout rural Europe there is still an urgent need to promote investment in ICT infrastructure, which has been presently limited due to the lack of business models that assures the return of such investments. A wide adoption of ICT appli-

cations and tools in rural areas will in the long term generate a source of revenue that will support that payback of ICT investments in those areas.

Making Rural Europe a more attractive place to live, invest and work, promoting knowledge and innovation for growth and creating more and better jobs.

To provide an adequate ICT infrastructure and technology support in European Rural environments is an essential measure in order to develop rural areas by securing the population and providing the same services, in quantity and quality, than in urban areas. Through the promotion of ICT applications and tools, rural areas will offer the possibility of creating new jobs and business opportunities, improving the quality of life of their inhabitants.

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Four key research guidelines supporting agri-food and rural development

For the accomplishment of selected long-term challenges, from the perspective of Information and Communication Technologies (ICT), future European research policies should follow a specific path focused on the performance several Research and Technology Development (RTD) activities. Among a number of potential activities discussed in AMI@Netfood constituency, four specific RTD domains have been selected as the most adequate to be developed in support to the sector.

The selected RTD programmes describe the strategic priorities in ICT which will most likely contribute to the development of the domains in a medium to long term.

ICT applications for the complete traceability of products

and services, by the participation of all agrifood industry stakeholders.

Further research and development of applications and tools that facilitate communication and co-operation between agrifood industry stakeholders. These solutions will make possible new management models of food supply chains/networks, promoting collaboration and knowledge exchange.

Promotion of collaborative activities in agri-food and rural areas.

Innovative ICT tools (so-called Collaborative Environments) are needed to support new ways of collaboration among groups in industry and among the organised industrial groups and wider communities. For agri-food industry, perhaps more than any other industrial sector, it is essential to get synergies between stakeholders through collaboration activities.

New Collaborative Environments are also needed to radically enhance capabilities →

Strategic Research Agenda, a tool supporting long term research policy

AMI@Netfood Project has selected the most relevant research needs in the area of Information Technologies applicable to agri-food industry and rural development. The research needs have been documented in form of a Strategic Research Agenda (SRA) as a key tool to support European Policy Makers in the definition of their long-term strategy.

The Research Agenda takes into consideration the very nature of both sectors, and it has been developed in compliance with actual European Legislative and Governmental guidelines, other related projects and existing Technology Platforms in related areas.

The current draft SRA will have to be validated and refined. This process will be implemented through seminars, workshops and interviews, involving major sectoral stakeholders and AMI@netfood constituency.



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→ of rural inhabitants leading to an improved quality of life, a revalorization of rural settings and an integration of the innovation processes in rural activities, mainly oriented to agrifood production.

ICT applications supporting the management of natural resources and rural development creating value for citizens and businesses.

Addressing a multidisciplinary area including the development of ICT for sectoral specific applications (tourism, marketing, eServices), specific applications to improve quality of life in rural areas, and ICT applications and tools to support detection, observation and management of natural resources.

Innovative ICT applications in rural areas using broadband

infrastructure.

Research and development of inexpensive scalable technologies to support communications, the development of applications supporting rural IT deployment and the performance of Socio economical and politically oriented studies focused on technology implementation in rural areas.



Next steps: Making SRA widely applicable through extensive validation

Once a draft SRA is available, extensive validation process needs to be accomplished in order to make it of wide application throughout the EU. The SRA validation process is going to be carried out in fourteen European countries, in different workshops involving relevant policy, research and industry stakeholders from Agrifood industry and rural development domain.

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RTD Domains in detail 1

ICT applications for the complete traceability of agri-food products and services throughout a networked value chain.

The food industry today has undergone a major shift in response to changing customer life styles. Legislation has increased the focus on ensuring safety and reliability of food products to be delivered where and when needed. The food industry is currently looking for profitable solutions to support this customer driven enterprise by improving traceability of food and networking potentials with other food industries. In response to the shift in markets, research must now focus not only on traditional economical and technological interests but also on supporting a more customer orientated business model environmentally driven processes.

This new business model will be characterised by efficient replenishment, efficient store assortment and efficient promotion and product introduction. This customer driven model will comprise

of an network of organisations that will deliver food products and services to the needs of the end customer.

In order for the business network and supply chain to realise these new practice there must be complete traceability of materials, business indicators and process flows throughout the entire network to allow people to respond quickly and effectively. With a combination of information technology research initiatives and supply chain management strategies, organisations expectations and ways of doing business will radically change to meet this new market. Research will need to focus on:

- The development of interoperable and integrated enterprise applications
- The development of applications and tools to improve network collaboration

- Increasing the effectiveness and efficiency of knowledge sharing
- Improve the customer orientated business model
- The development of applications and tools to support dynamic network management

The overall objective of this research will be to achieve a world class network management solutions that facilitate communication and co-operation between networks of SMEs and Large enterprises in the agri-food domain. These solutions will make possible the management of food supply chains/networks through collaboration and knowledge exchange. Information and knowledge will be used to control, co-ordinate and eventually synchronise the efforts of the network enabling them to create a products cheaper, faster and of higher quality.

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RTD Domains in detail 2

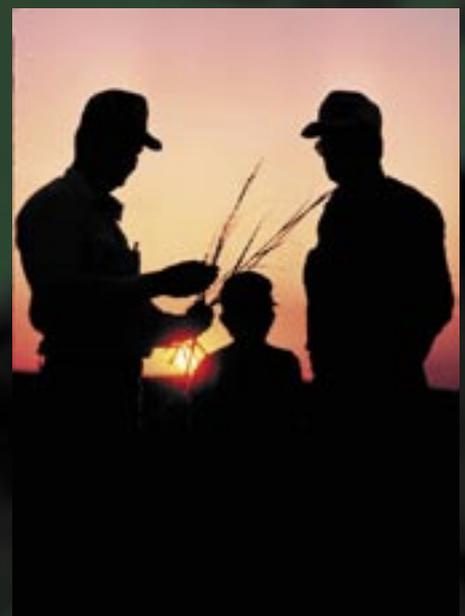
Collaborative environments in agri-food and rural areas.

Innovative ICT tools (so-called Collaborative Environments) are needed to support new ways of collaboration among groups in industry and among the organised industrial groups and wider communities. For agri-food industry, perhaps more than any other industrial sector, it is of a key importance to assure an effective collaboration among different groups and wider communities, including consumers and their suppliers. The most challenging tasks are to provide Collaborative Environments for rural domains, assuring active participation of the people from rural domain in innovation process in agri-food industry (e.g. tools to efficiently provide ideas and knowledge from rural inhabitants to industry and vice versa). The new ways, therefore, are to be explored of how to effectively support collaboration among industrial teams and wider communities (e.g. design teams and their customers, groups in rural domains – rural virtual communities, cross-sectorial design teams

and wider RTD communities, industrial teams and their retired members etc.) on innovation, taking also into account different security, cultural, legislative, IPR and other critical aspects.

New Collaborative Environments are also needed to radically enhance capabilities of rural inhabitants leading to an improved quality of life and a revalorization of rural settings. Such environments will support creation of rural virtual communities and of more collaborative spirit in rural domain (which in turn may have high impact upon the agri-food industry).

Specifically, the new Collaborative Environments should support collaboration between inhabitants in rural domain (and SMEs) with the **regional authorities** on different aspects (e.g. legislation aspects, health issues etc.). This means provision of specific collaborative eGovernment and eHealth services for rural domain.



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RTD Domains in detail 3

ICT applications supporting the management of natural resources and rural development creating value for citizens and businesses

If we want to invert the desertification of the rural areas, fix population and even promote the migration from urban areas, it is crucial to improve quality of life in rural areas. Among other aspects, to achieve that purpose it is very important the increase of local services offered in those areas. The goal is to have the same services than in metropolitan areas, but they should be provided in an efficient way. Considering the demographic aspects and the fact that most of the rural areas are located in isolated areas, the support of Information and Communication Technologies (ICT) is essential in order to provide services such as eHealth, eGovernment, eCommerce or eLearning.

However more and better services are not enough. Di-

versify the rural economy, complement the traditional agrifood activities and promote new business models is also needed. One of the activities with more potential is the agro-tourism, which involves a lot of areas (bookings, promotion, marketing, etc.) that should be supported by ICT.

Thus, the development of ICT for sectoral specific applications (tourism, marketing, eServices), which support the incorporation of innovative production processes to rural activities is also an important issue.

On the other hand, the development of rural areas cannot be separated from natural resources preservation. In this aspect, ICT applications and tools are critical to support detection, observation and management of

natural resources. New tools to support land and whether observation and related prediction models should be developed. An example where the ICT support is essential to improve communication between the different agents involved are the natural disasters (floodings, large forest fires, etc.), where relevant authorities need to collect and manage information in real time and need to support decision making.

In conclusion, the promotion of ICT and electronic-based services in rural areas will have an important impact on the quality of life of rural areas inhabitants, in the promotion of new business activities to diversify the rural economy and to achieve a sustainable development.



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RTD Domains in detail 4

Innovative ICT applications in rural areas using broadband infrastructure

The creation of rural digital communities oriented to increase the quality of life of the rural inhabitants, improve the productivity of the rural businesses, facilitate the economic development, provide public services with more quality and superior efficiency and give access to a first class education and entertainment to the rural population, are objectives that can be achieved through an appropriate use of the information and communication technologies. A primary driver could be the roll out of videoconferencing for schools, businesses and residents, the delivery of an e-Government municipal application to increase public productivity, the roll out of an e-Health service to offer remote assistance to the rural users, etc.

Rural communities need eyes and ears attentive to their emerging, most cost-effective E-business opportunities if they are to be able to adapt quickly enough to avoid unnecessary economic hardship as old retail models become obsolete. A very small rural town may not have a large enough population to provide a trainable workforce

to attract larger companies, even if they have high bandwidth. However, the lifestyle offerings for very small home-based businesses to relocate are still viable, which can increase tax revenues, but may not necessarily provide more jobs for locals. Many communities who have attracted telemarketing call centers have enjoyed a rapid surge of employment with minimal training. Studies have shown that rural telecommuters have less turnover, less absenteeism, and a stronger work ethic, than workers in urban areas. This creates a real incentive for businesses to consider employing rural citizens

Normally people living in isolated rural areas or small rural villages do not have fast access to advanced medical assistance. In the best case they will have access to dispensaries or secondary hospitals. Deployment of eHealth systems in the rural areas can offer an alternative or complement to centralised urban-based institutional care. eHealth type services are seen as important both in the context of rural healthcare delivery and in the justification for rural broadband.

Rural areas are disadvantaged, educated rural inhabitants are moving out for employment (brain drain). As a result of CAP reform rural areas need knowledge intensive employment to replace primary agricultural based employment. Good communications (broadband) are required to enable the localisation of knowledge of intensive industries and also to ensure that the new knowledge economy based workers are suitably educated. In the wider context of life-long learning – people have to keep re-learning. The effects of the new entertainment services and application on life in rural communities are not yet fully comprehended. However, with young people increasingly having the purchasing power when it comes to ICT in the home, it is likely that having access to those services will dictate the type of broadband offerings their parents subscribe to.

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Your collaboration is essential

To succeed in the validation process, AMI@Netfood consortium would appreciate your participation in the different validation activities which are going to take place in the fourteen Project Partners Countries.

If you are interested to assist to any of the workshop which will be celebrated in any of the fourteen Project Partners Countries, please contact with the appropriate

Country Project Partner or send an email to the address info@ami-netfood.com

In case you are not able to assist to the workshop, AMI@Netfood consortium would appreciate your contribution to the SRA validation process through the filling of validation questionnaire in the web: www.ami-netfood.com

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Related links

For more information:

www.cordis.lu

www.cistrana.org

www.ami-netfood.com

www.aforo.net

www.a-bard.org

www.brainbridges.info

