Potential Application of the Future Internet in the Agrifood-chain (WP700)

Author: András Sebők   a.sebok@campdenkht.com
               CBHU   tel: +36 1 433 1470; fax: +36 1 433 1480
                                  1096 Budapest, Haller u. 2. Hungary

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Aims and background

Within the Users' Community building task of the SmartAgriFood Project users' expectations were collected to indentify potential new services, which provide solutions for the food chain members through exploiting the envisaged function of the Future Internet. Ideas about possible applicability complementing the use cases scenarios developed in the Smart Farming, Smart Agri-Logistics and Smart Food Awareness were collected through interviews in 6 countries. The applicability of these ideas was evaluated through group discussions in 5 countries. Participants were asked about the applicability of the ideas

Results and applications

The ideas and expectations in the different sub-use case areas were evaluated by applicability as follow (first is the most applicable; last is the least applicable by the opinion of the participants of the focus groups):

Smart Farming:
1. System for selecting the cultivated plants based on a database
2. Monitoring environment for farms and plants – Advisory system
3. Barcode/RFID system -Traceability system facilities
4. Improvement of the daily work of the farmer/breeder
5. Shared infrastructure
6. Yield information system
7. Monitoring environment for animal welfare, sensors in barn/stable
8. Risk assessment
9. System for extraneous and foreign bodies' identification

Smart Agri-logistics:
1. Road monitoring application
2. Dock reservation system
3. Integrated freight and fleet management for vending machines and small retail outlets
4. Secure banking system
5. Flexible parking system for delivery to shops
6. Smart household storage
7. Service-halls" in the basement of apartment buildings

8. Small depots for personalized supply of perishable foods

Smart Food Awareness:
1. Monitoring of food quality
2. Improved awareness information system based on traceability
3. Communication of product-related information towards the consumer
4. Exchange of product-related information between agri-food enterprises
5. Informed decisions of consumers based on tailor made information selected according to their criteria
6. Profile specific newsletters and dissemination of information
7. Virtual shops and virtual visits
8. Connected automatic systems
9. Improved diet and health through personalised nutrition
10. Foreign material identification

Significance and benefits

The findings of the interviews and focus groups **showed a large level of consistency among** the surveys carried out in **different countries** – in relation to the functions of the Future Internet, the expectations and ideas or even the current limitations. In general one of the main requirements of the users is that **the Future Internet should be accessible for anybody, anywhere and anytime.**

Technical limitations
For achieving the availability of the future internet we should ensure:
• the **compatibility of the different applied devices, programs and systems** or the integration of systems instead of different connected applications;
• **longer range** in data exchange/transfer and in communication

Expensive development and the applications
Lower costs for implementing the new or advanced applications is **a priority,** particularly for smaller businesses.

Lack of experience and knowledge about the applications
A very **important pre-requisite and requirement for the wider application is the training of the users**, as most of them do not have appropriate understanding and experience about the use of the Internet.

In general, according to the view of the respondents, that in the future, **those applications, functions or systems can be viable and will be implemented, which provide significant benefit for the users**, and/or **which** have already been applied even in some less advanced form (manual or non-automatic), therefore their further development can be made at lower risks or in a cheaper way.

For introducing more **radical, breakthrough innovations** significantly **more efforts** have to be paid on **exploration of the hidden needs of the users** and on **explaining** the consequences of the **new capabilities** of the Future Internet for **potential applications**.