



Deliverable D.4.3
Best practices synthesis about how to approach agrifood market



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The TRACK Consortium

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3	CLUST-ER AGROALIMENTARE	Clust-ER	Italy
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1. Aim of the document

WP4 aims at boosting farmers and agrifood industries traceability and big data technologies uptake, through implementation of ICT promising SMEs training and mentoring customized program. This training program will be designed and set up by TRACK's partners and business experts.

D4.3 is strongly related with Task4.2¹. The objective of this task is to design and implement a training programme to the 10 promising ICT SMEs selected during task 4.1². This training aims at making them know commercial and technology specificities of agrifood client's sector.

The technical content of this training program is fed by Consortium expertise/knowledge, and good practices collected from agrifood sector and ICT experimented companies through different sources:

- Through analysis of bottlenecks and challenges in five different regions carried as part of the task 2.2 in WP2. Results are described in the document D2.3³.
- Through a questionnaire designed by FCTA and implemented between TRACK consortium members to collect best practices and success cases of technology uptake in agrifood sector from their cluster and ecosystem
- Through a regional workshop done in Seville by FCTA where agrifood and ICT companies, AgTech providers, innovation advisors, farmers, public organism and technological centres were discussing about how to approach agrifood sector. The global recommendations gathered in this workshop were shared with all TRACK partners during the 2nd Steering Committee (June 14th) and all partners agreed that the conclusions obtained covered the aim of the document and are very similar in all TRACK members regions.

The best practices recollected in the actions mentioned before are synthesised in this document. They will be totally useful to prepare the training programme content that will help to the 10 ICT SMEs selected in Task 4.1 to identify their specific needs to approach agrifood market and to improve their competitiveness.

The Deliverable D.4.3 is expected to provide best practices synthesis about how to approach agrifood market from an ICT SMEs. As agreed with all Track Consortium partners, document describes transversal best practices that will deepen forward thanks to next workshops our other information sources set up by all partners in order to focused them on different value chain, plant system production etc...depending on the targeted market of selected SMEs of the training program.

2. Links with other WPs and tasks

Results from WP2 (Strategy Work Package) where in Task 2.1 and Task 2.2 was prepared a survey for TRACK partners and S3 agrifood stakeholders. It was recollected feedback and information about opportunities and bottlenecks to approach the agrifood sector after interviewing to 75 experts from AgTech, TIC, horticulture, vegetables, arboriculture, market gardening, viticulture, greenhouses, specialized plant companies and universities, technological sectors and suppliers as well, from 5 different countries (Romania, Netherlands, Italy, France and Spain). Also, WP4 is related with Task 2.3 where will be created a virtual community and enhance the living labs approach.

For WP3 (Innovation and Business Facilitation) was done the PIC meeting TRACK workshop in Netherlands aimed to connect both communities' ICT and agrifood.

¹ Task 4.2: Training

² Task 4.1: Selection of 10 Promising ICT SMEs

³ D2.3 will be uploaded in <https://trackgrowingdata.eu> once the document is approved by the Project Officer.

3. Description of methodology

Agrifood sector has a low level of digitalization compared to the other European industrial sectors (13%, as referred in the Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Digitising European Industry Reaping the full benefits of a Digital Single Market, 2016). The European Agtech market keeps on increasing (20% per year) but technology uptake level is not the expected one in agrifood sector, especially in farming sector. Though the European AgTech market offers a wide ICT solution range to farmers, integral solutions that collect data and trace production along the agrifood value chain are not usually implemented in the primary segment production.

It is the reason why the understanding of AgTech market demands linked to its context (organizational farmers scheme, relationships into the value chain, climate and legal requirements etc..) can allow us to identify main directrices to contribute to improve the technology uptake of farmers, especially regarding Big Data and traceability solutions.

This document is a compilation of ideas and suggestion that agrifood, AgTech and ICT customers, from TRACK partner's cluster and ecosystem, consider as a barriers or bottle necks that avoid them to feel interest for new technologies. Each region, each productive system and almost each agricultural farm has its own characteristics and very specific ICT needs, so we propose to contribute in this document the best practices common to all of them in order to be usable by the reader.

In order to collect relevant best practices and success cases of technology uptake in agrifood sector, especially practices that can help ICT companies to approach agrifood market, it was asked to agrifood and ICT companies from different countries and about their current status, needs and opportunities. It paid special attention to the way in which these companies identify their customers/sellers and try to understand their offers/demands. All this information was analysed, and a list of best practices was identified.

Hereinafter, details of these fields and practical examples are presented.

4. How to approach agrifood market

To create value for agrifood customers and a strategic advantage, it is essential to fully understand markets, customers, products and processes in agrifood market.

ICT companies must gather information about the situation of agrifood company's environment, about all the relevant aspects of society, government, economy, technology, etc. that may have an impact on agrifood business. ICT companies must continually pend in the changes in the behaviour of their end users. This is the way to react or anticipate changes more quickly. Lack of trust, mental or cultural barriers, and not valuing the competitive advantages offered by new technologies are the topics most commented on by agrifood customers.

Some ideas collected from agrifood customers, focused in how understanding their needs.

a.1. Commercial field:

“Lack of a clear and certified advisory system (this often makes to SMEs more difficult their entrance in new markets).”

“Decision makers in agrifood companies do not usually value the benefit that the ICT solution could bring.”

“Agrifood needs are very different even in the same geographical area or with the same business core.”

“Technical experts are not available to give support to AgTech providers during the agricultural campaign.”

“In addition to the need for training, there is a need to raise awareness among agricultural and agribusiness companies about the importance of addressing digital transformation.”

“Lack of comprehension about international markets.”

a.2. Social & cultural field:

“The culture of immediacy: agricultural companies need a quick return of investment.”

“The inertia of the farmers ‘do what has always been done’, the tradition’s weight.”

“Distrust of the producer sector slows the adoption of technology.”

“The advanced age farmers are a brake on the technology understanding and use.”

“Unknown advantages, agrifood producers feel reticent about AgTech solutions adoption and data sharing.”

a.3. Economic field:

“AgTech solution profitability (inaccurate calculation of the ROI).”

“Intrapreneurship: competitors develop their own systems.”

“Lack of financial resources in general.”

“Lack of regional funding for demonstration projects carried out in the field, under real conditions.”

a.4. Technical field:

"Inadequate technologies in the ICT market, especially for small farms."

"Not enough understanding of agrifood company's in terms of ICT."

"Lack of compatibility technologies."

"Call for projects complexity interoperability."

"Demonstration projects are needed. The demonstration effect is fundamental in the agricultural sector."

"The implementation or adoption of a technological solution must be accompanied by an assistance service, training, tailor made advisory etc. by the company providing the solution."

"Technological surveillance tools are needed that allow agribusinesses to know the state-of-the-art of technologies of possible application to their processes."

"In the agricultural field, it is necessary to be able to carry out and have access to pilot projects carried out in real conditions, so that the results are credible."

a.5. Involve agrifood consumer

On the other hand, it is very important to involve agrifood customers in the design of technological products and services. After interviewing many companies in the agri-food sector (activity carried out in WP2), the need he showed to feel involved in the co-creation activity of the technological products offered by ICT companies was detected. Some ideas recollected from agrifood customers:

"It is difficult to align the technological solution with the priorities of the decision makers of the agricultural companies."

"Lack of clarity in the value provided by the solutions."

"Huge amount of solutions that disperse farmers' attention."

"Lack of comprehension about international markets."

"Lack of trust, farm trust in farmers."

Agrifood customers usually tends to act by imitation of their competition and only trust in their lifelong suppliers, so new ICT companies must gain their trust if they want to offer them their new and innovative technological products or services. For this reason, it is necessary to involve the agrifood customers in the design of the new technology offered by ICT companies, either totally or partially.

This good way of acting means having enough insight to discover the agrifood customer needs and also allow ICT companies to improve their products or services.

Big successful companies like Heineken, Coca-Cola, Mercadona, Bimbo, Estrella Damm, Red Bull, etc. involve their clients to collect all their contributions and proposals for improvement. On the basis of all the information collected, they carry out feasibility studies and build prototypes that allow them to design customized products for their agri-food customers. They do not blindly test the new product against the previous one, discover exactly what agrifood customers need and design it accordingly.

Inviting customers to be linked in the process are the first steps. Many successful ICT companies start with one of their existing products and request feedback from customers about the improvements they would make.

5. Best practices recommendations

Below is a list of 11 best practices that can be extrapolated to any field since each local production system, each value chain by country is different:

1. To do not offer solutions that do not exist and never invent problems that do not exist, since that is not marketing, but rather lack of professional ethics, and has a negative impact on the product and the image of the ICT companies.
2. ICT companies must rethink their traditional way of selling their technologies and transform themselves in integral solutions advisers. These advisers not only are expert product sellers, but they are able to offer advice on the application of the product they offer and to realize the benefits for the agrifood customer.
3. To understand the agrifood prospect's needs, will argue in favour of ICT technologies or services.
4. To explain how ICT technologies or services can help meet needs or solve problems more effectively in agrifood market.
5. The agribusinesses market is full of ICT companies that offer "similar" products or services, for this reason it is necessary for the advisor to awaken the interest of the client through the advantages of the product or service, for example: the value for money, resistance, duration, effectiveness, personalized service, etc.
6. To have financing programs under the radar that support the ICT sector. An agrifood customer can be proposed to be partner and work together on a collaborative project.
7. Market segmentation A segmented market into group of costumers according to their different needs, characteristics and behaviours, allows ICT companies to establish different marketing strategies.
8. To modify the products or services according to what customers request.

9. To listen agrifood customers and involve them directly in the creation and improvement of the technological products and service from ICT company's technology producers. This means having enough insight to discover the needs of customers.
10. To establish as many lines of communication as possible, both within the company and between the representatives and its clients.
11. Each time the competition increases in the agribusiness sector, which causes it to acquire a greater degree of complexity, which also requires the commercial and technical representatives of the ICT companies to be better prepared.

6. Success case examples

These cases were chosen because they were already applied in the market and are adapted to the recommendations mentioned in the previous section. Some of these cases do not come from companies in the agri-food sector but the way they acted can be replicable because the objective is the same.

- **Corning Incorporated:** company known as a fibre optic provider, has developed a process to better understand its customers and markets. One of them is the elaboration of process maps, through which he manages to better understand the political and other events, prevent and plan how to participate in them. It helps them to focus on the specific needs that customers may have will have in the future and anticipate market trends. Link with best practise number 2.
- **Dickens Data System, Inc:** major high-tech centre and one of IBM's main partners, increased its sales from US \$ 25 million to more than US \$ 300 million after establishing a quarterly survey system in 1994. It is estimated that 20% of the increase is directly attributed to the survey, the president of the company responds to all customers who return to the survey with a personally signed letter and a gift of recognition. Link with best practises number 8 and 9.
- **MO.RE.FARMING:** aimed to set up a system of collection and organization of data, from satellite, drones, meteo-soil sensors, in order to provide a complete advisory system and information to farmers. The involved partners were: Agronica, ONIT and Aerodron (ICT) CRPV and its members (agrifood), plus Bologna and Piacenza Universities together with Citimap (research). Link with best practise number 4 and 5.
- **Weenat:** develops IoT, real time mobile application and DSS. Scientific partnerships to better adapt solutions to technical needs. Involved in the Ferme Digitale Agro-ICT start-ups ecosystem. First development phase based on conception of equipment (sensors) in order to be accessible economically (done already), then, implementation of complementary services based on the sensors. Link with best practise number 4.
- **Applifarm:** livestock farming data sharing, valuation and traceability platform. In commercial developing phase. The SME succeed to gather all representative stakeholders at national level in livestock sector. Link with best practise number 1 and 9.
- **Hispattec (Frutasol - facial Recognition in Agriculture):** thanks to the Facial Recognition with Artificial Intelligence, it allows real-time and error-free identification of all field workers who attend work by simply taking a picture. It is a success story of a Spanish ICT implemented in Chile that shows how these good practices can be carried out beyond the European Union. Link with best practise number 10.

7. Conclusions

In summary, to approach markets and customers from agrifood sector, it is necessary take in mind the following ideas:

Top 5 priorities (must-do):

1. **Be updated on trends in the agrifood sector:** the market is much more than customer. It is important consider all the aspects related with agrifood market and their ecosystem (commercial, social and cultural, technical, and economic fields).
2. **Have a new agrifood customers under the radar:** ICT companies should be constantly looking for new agrifood customers frequently and systematically, it is very likely that more and more entrepreneurs are interested in the digital transformation of the agri-food sector. ICT entrepreneurs can take advantage of this opportunity to find new customers and be the first to offer their products or services.
3. **Involve the customer:** ICT companies should involve the agrifood customer in the co-creation of their technological products or services offered to build trust and loyalty.
4. **Close contact:** generate a constant bond of trust and complicity with the agrifood customer (have it at the centre of decision making).
5. **Offer technical support and training:** create demonstration projects or sites that are visual and easy to understand. agrifood customers need to know deeply how to use new technologies. What is not known is not understood, and what is not understood is not purchased.

The 5 mistakes to avoid:

1. **Disappoint expectations:** agrifood customers are people who have a hard time trusting in new technologies, if one ICT company promises something concrete and then fails to comply, it will be very difficult to regain their trust back.
2. **Offer an out of market price:** it is true that to remain competitive it is not always necessary to cut prices, since these have to continue covering expenses and giving a margin of benefits to ICT companies, but it is necessary to adjust them with the quality offered to the agri-food customer and offer them an extra (added value) that justifies the price. In the agri-food sector it is very important to have a short-term return on investment.
3. **To do not study the competition:** believing yourself the best in the market and not seeing what competitors are doing doesn't help you grow. Even world leaders are always very aware of what moves around them, not with the intention of copying it, but of overcoming it.
4. **Do not readjust the product to the specific needs of the agri-food sector:** the ICT world is changing rapidly and more and more companies are offering new technological solutions, therefore, it is necessary to review and update the characteristics and functionalities of current products and adapt them according to customer needs and what ICT companies the competition offers.
5. **Ignore customers limitations:** it is well known that sometimes not even the client knows how to use the new technology products or services offered. Therefore, it is important to have direct contact with them to offer them training and explain how to use them, and offer assistance for a short-medium time.

All these recommendations will be also part of the training for the 10 SMEs selected in Task 4.1, to adapt the recommendation to their products and services.