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Regional consultation workshops

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REGIONAL WORKSHOPS SUMMARY

Within Euroshell project, 7 regional workshops have been organized in 5 partner countries: 3 in France (Brittany, Poitou-Charentes and Mediterranean), 1 in Italy, 1 in Spain, 1 in Ireland and 1 in the Netherlands. They gathered shellfish farmers, scientists, teachers, public authorities and FLAG (Fisheries Local Action Groups) representatives.

The aim was to discuss on the main issues and needs of the shellfish industry and to set up an extension network.

ISSUES AND NEEDS FOR THE SHELLFISH SECTOR

During the regional forums, participants were asked to discuss the issues of the shellfish industry and to identify key areas to be improved, on the basis of a diagram (see annex), divided into four themes: territory/environment, market, product/production, management and governance.

Here is a summary of the main ideas that were formulated during these forums. The outcomes of the first workshops that were held in France, appear in black, followed by the Italian, Irish, Spanish and Dutch outcomes.

I/ Territory-environment

Generally speaking, research regarding the effects of the environment on the products and the impact of production on the environment should be continued.

1) Water quality

Water quality is the first concern. It is a priority for the shellfish farmers.

- Focus research on the **impact of pollutants on shellfishes' health** (eg pesticides) and the means to eradicate the sources of pollution
- Improve **watershed management**
- A system to improve the classification from B to A class
- Bioremediation and phytoremediation for aquaculture
- Improve water treatment systems
- Special protection for shellfish waters

2) Health monitoring

- Develop **predictive tools** to be able to maximize their farming practices and to respond to crises (closures)

- **Improve environmental monitoring** and information towards professionals, including a better responsiveness of monitoring networks
- **Allow the industry to control water quality by itself**
- Develop **techniques allowing companies to adapt** (innovative equipment, closed loops, water treatment techniques, etc ...)
- **Risk management – biotoxins, disease and microorganisms**

3) Adaptation to environment, climate changes

- Improve our **understanding of these evolutions** in order to better adapt.
- **Disaster planning**

4) Ecosystemic services

- Conduct research on the ecological (or ecosystemic) services and quantify them in order to provide arguments to support the shellfish industry.

5) Territorial planning

- Implement **measures to protect territories**, particularly those where shellfish farming is practiced, while ensuring that these measures do not constitute barriers limiting shellfish farming.
- **Analyse constraints arising from other plans**
- **Identify and classify suitable areas for shellfish farming with appropriate criteria = access to the coast**
- **Spatial planning / site selection**
- **Shellfish cultivation within protected areas**
- **Recover unproductive areas**

6) Relation with other stakeholders of the territory

- Conduct research **with professionals**, so that they can present arguments to defend their work.
- Improve or maintain constant relations with public authorities.

7) Carrying capacity

II/ Market

1) Diversification

- Diversify **markets**, develop **new markets**, including abroad

- Diversify **marketing modes**, while maintaining a significant proportion of direct sales in order to reduce dependence on supermarkets and hypermarkets who impose low prices and prevent any monopoly.
- Diversify **activity** (pescaturism, tasting...) => this is not unanimous, some seeing it as a constraint, others as a capital gain.
- Diversify **product offerings**: new species, new products (including processed products)

2) Better match between production and consumption

- Conduct more **market studies** to match production to demand.
- **Forecasting** (prospective FR)

3) Marketing

- Improve the **distribution, delivery** and **packaging** of products, **optimize their transportation**, etc. *especially considering that it is a living product*
- **Pooling marketing** among several producers and / or distributors (cooperative).
- Promote **local market** of fresh products

4) Communication

- **Communicating on the quality of products.**
- **Strengthen the traceability** with labels, certifications, PGI (Protected Geographical Indication)
- **Improve promotion on other markets**, especially **abroad** to develop export.
- Conduct studies on the **carbon footprint of local shellfish products** compared to non-EU products and to other products (from aquaculture or others)

5) Establishing a "level playing field" within and outside Europe

This objective is obviously desirable, but is considered as a utopia.

Cultural differences make it difficult to work together even within Europe.

- Mechanisms which enable small producers to **compete on markets**

III/ Product – Production

1) Development of new technologies

- Develop new technologies for product **packaging** and **processing**
- **Diversify products and species** (find alternatives to *Crassostrea gigas*), *favouring indigenous species*

- Develop **offshore production techniques** to minimize land use conflicts. Studying the hardship, cost, profitability, predation of seabream, etc.
- Understand the causes of the **mortality crisis** and find solutions to them
- Develop new **zootechnical practices** / cultivation
- Find solutions to fight against **predators** / competitors / **invasive species**
- Develop by-products (eg waste shells)

Is emphasized the **importance of platforms, technical centers** to experiment and innovate with adequate infrastructure (ponds...) that could also provide spat and follow up.

2) Shellfish quality, consumption and human health

- Strengthen **traceability**, labeling of products and control of the quality,
- **Improve knowledge on shellfish health**
- Develop predictive tools to **detect rapidly pathologies outbreaks**
- Determine the different **sources of risks due to the introduction of pathogens**
- Risk assessment: Viral/E. coli/ Norovirus/ biotoxins/ algal blooms
- Disease resistance

3) Spat supply

- **Improve the management of natural wild deposits** to allow better natural collection with stronger individuals, to ensure the good condition of wildlife and the preservation of biodiversity, and to guarantee a certain independence of producers for their spat supply.
- At the same time, **develop hatcheries** to diversify supply.

4) Lifecycle and biology of cultivated species

- **Trophic capacity** : conduct studies on shellfish nutrition sources (plankton)
- Conduct studies on the **lifecycle and its variation in different natural production areas**
- **Integrated Multi-Trophic Aquaculture (IMTA)** Waste recovery : alternative uses for 25% waste protein.

+ management of wild shellfish stocks

IV/ Management and governance

1) Simplification and consistency of regulations and administrative procedures

flexibility in governmental policy

2) Assistance for companies

- Develop a **financial and administrative support**
- **Develop a « one-stop shop »** to help the establishment of young producers
- Offer trainings to **improve fund raising capabilities and access to European programs.**
- **Grant interest-free loans** for agriculture (eg Thau Initiative)
- **Licensing**
- **Compensation for disease** (as in agriculture)

3) Representation of the industry to decision-makers (lobbying)

- Develop a **clear and common message** of the industry
- Increase the **empowerment** of producers
- Reinforce **confidence, cooperation and pooling** between producers

4) Socio-economic data

- Conduct more **comprehensive and reliable studies** on the profession, other than those relating to the production, to better understand the sector: market conditions, economic importance of the sector, sociological knowledge, business needs, economic sustainability of businesses, etc..
- Make these **data available** to the professionals themselves.
- Promote the **social and territorial implantation** of the shellfish sector: it creates jobs and is related to other activities. It cannot be relocated.

5) Promotion and development of human capital

- Develop **alternance training**
- Develop **ad hoc training courses** to get shellfish farming qualifications
- Promote the profession of **oyster-opener**, which gives value to products
- Better **train agents** of the shellfish sector and **strengthen communication** among them

6) Communication

- Improve the **image of the sector**: dirty banks, ugly infrastructure ... can give a bad image and harm the interests of the sector.
- Promote the image of shellfish as a **symbol of the territorial identity**
- **Strengthen communication in general**, not only on the benefits of shellfish.
- Develop **education programs to promote the quality of the product.**
- **Public and scientific communication**
- Develop a **common communication strategy**

7) Knowledge management

- Ensure the availability and **effective use of research infrastructure** in aquaculture across all boundaries to benefit the production.
- **Disseminate knowledge** to different audiences (consumers, school, public ...).

- Support **public funding research**
 - Encourage **applied research**
 - Improve the **accessibility to data resulting from monitoring and control activities**
 - Create a national information repository (for example under the Ministry of Public Health) to overcome the fragmentation of data of interest for the sector (product data, environmental data)
 - Annual showcase of current research
 - Facilitating access of industry to participate in research
 - Better coordination between scientists and professionals to pool research efforts
- ⇒ Most ideas are shared by all countries. However some are more important for some countries than for others (ex : in Ireland => licensing ; in the Netherlands: access to space)

EXTENSION NETWORK

Participants, who were divided into groups to facilitate speaking, were asked to answer several questions on extension, in order to initiate a discussion:

- What does “extension” mean to you?
- What are the structures that you know, that transfer knowledge? Towards general public? Towards producers?
- What other structures could play the role of transferring knowledge?
- Why is there not a single extension network in the shellfish sector? What are the constraints?
- How to create one and to make it work?
- What resources (human, financial, technical...)? Who, where, how...?
- What are the needs of producers and researchers in terms of extension?
- What are the advantages? Difficulties?
- If you were to implement this extension network, how would you do?
- Etc.

Here are some suggestions to improve knowledge transfer and establish an extension network. Again, the outcomes of the first workshops that were held in France, appear in black, followed by the **Italian**, **Irish**, **Spanish** and **Dutch** outcomes.

In general, participants felt that the professional have little scientific knowledge and that information transfer is insufficient.

- A matter of will and attitude

To strengthen cooperation between scientists and producers, the most important is to want it.

Professionals must become **more involved**: in governance, decision-making regarding the industry and its organization, the demand for information and its dissemination between all stakeholders of

the sector, including among professionals themselves, in collective actions (cooperative ...) ... and not just in times of crisis!

The profession must continue to organize to have a **common vision / direction**, to formulate a **clear message** to decision-making bodies.

This common vision must be assorted to clear objectives to be communicated to scientists so that science can be oriented towards the search for solutions to the problems that the sector encounters.

One of the main values of extension and knowledge transfer is **confidence**. If confident links are established, the information will circulate naturally.

- Encourage direct dialogue

Public meetings should be organized more regularly. For example, three meetings per year, and that, regardless of the current situation, regardless of the progress of projects.

Annual conferences can also be organized where short presentations are made, followed by open floor discussions.

These meetings can be organized by the national or regional organizations representing producers or by research centers or technical centers, or jointly. It is important to have physical meetings to discuss projects that are completed, ongoing and future, to discuss about progress and difficulties, in a transparent manner.

Each party must understand the work of the other. Professionals must understand that **researchers cannot provide immediate nor generalizable solutions**. The study results are sometimes only valid at a given time and place.

Scientists must, for their part, understand that **professionals need practical and immediately applicable solutions**. They must therefore explain their approach, hazards, setbacks, etc.

But most of all, **professionals should be involved in studies**, from their formulation to their results. There is a strong need for consultation. These studies must be punctuated with steps during which stakeholders meet to report on the progress of the project, agree on the solutions and on any adjustments.

The industry must **formulate its needs** and scientists should **conduct research to answer them**.

Meetings in the form of **farm visits, lab visits, forums** bringing stakeholders together, **workshops**, exchanges between professionals and scientists should be held regularly.

Of course, **informal meetings** can also take place ad hoc.

Discussion groups could be set up either by producers, or by local organizations, but the will/decision has to come from local producers. A group of about 10 producers can decide to work together. They organize regular meetings where they discuss about specific problems and try to find solutions together by experimentations. They can invite specialist, scientists, to bring some advice.

The links thus established between scientists and producers must be **constant**.

- Develop communication tools

Without multiplying letters, emails, and other messages, information must circulate more. For example, it is important to send **newsletters** regularly, from CRC to professionals and scientists, as well as from scientific and technical centers to professionals.

Scientists or technical centers should write **data sheets or synthetic information to be disseminated** towards professionals. Again, it is important that the transmission of information is regular.

A **website** to exchange information, views, suggestions from various stakeholders can be implemented => Euroshell project website.

Social media can be used to disseminate information.

Short messages services (SMS) can also be used for urgent and important information.

Funfilled and attractive professional magazines may be edited.

It is important to diversify communication tools. Some producers do not have access to the Internet so it is necessary to send them information by mail-post.

- Popularize knowledge

Popularize means to **transmit knowledge in a pedagogical manner**. This involves adapting the speech to the public, using **clear and understandable language**. **Scientific language has to be translated into plain language**.

The information to be transmitted should be **simplified without being altered**.

Its **context** must be well explained as it may not be transferred from one place to another, from one period to another. **The words must not be generalized**.

Extension must be done in **different directions**, not only from scientists to professionals, but also from professionals to scientists. Fore knowledge and skills that are developed by those who are on the field are as important as those provided by research. Scientists need this empirical knowledge. **This empirical knowledge should be centralized in order to make it available for the technico-scientific world**.

Scientific knowledge and empirical knowledge are complementary.

In addition, **knowledge is co-constructed**, everyone can contribute with expertise, discovery, criticism, etc. underpinning knowledge. There is not on one side those who know and on the other side those who know nothing.

Demonstration by giving examples is a good way to popularize. It is generally easier to understand a phenomenon when observed oneself, even better, when experienced. Experiments are essential not only to advance the research, but also to understand various phenomena.

More opportunities for training and courses should be set up.

Technical centers are of major importance to provide technical-scientific assistance to producers. They could play a strong role as **knowledge transfer platforms**. This role cannot be carried out by research agencies that have other purposes and various constraints (including the problem of the scientific production and publications).

It might be appropriate to set up a national research center for each of the key species and converge on the center of the funds available.

A good extension requires **time** and **patience**.

Knowledge transfer should become part of each research project. It should be evaluated and become a condition for the final payment.

- Rely on competent "extension workers"

Disseminate knowledge requires special skills. First, the extension worker must have strong knowledge on the area, **enjoy teaching**, be a **pedagogue**, and have interpersonal skills. He/she may be neither scientific nor professional, which also allows him/her to be neutral. He/she must **establish trust** with his/her interlocutors and maintain a **balanced relationship**.

Positions of aquaculture consultants or advisers could be created, as agricultural advisors. They could ensure a **scientific and administrative watch** to collect, sort, verify, gather, cross-check, synthesize and disseminate information. They could play a role of **matchmaker between scientists and professionals**.

Without intermediary, if scientists want and can transmit information directly, it is essential that they have the qualities mentioned above. Scientific or the person that has knowledge should be **humble**, should not behave like the only one who knows in front of an ignorant audience. He must explain the difficulties encountered, why it takes time, why it does not work. Meanwhile, the audience or those receiving the information must be **indulgent, patient** and **respectful** with regard to the person who gives its knowledge.

The person transferring knowledge must be able to **translate the information from scientific language to plain language**.

- Establish an extension network

It is not always easy to find the appropriate interlocutor. Networking enables to **share and disseminate knowledge**, it facilitates contacts and helps to find the good person (either interested or competent people). However it is necessary that the network is **well organized** and that the links are effective and constant. Each member of the network must have **clearly defined functions and competences** to avoid confusion, duplication and gaps.

If positions of aquaculture consultants are created, it is necessary that these advisers are networked.

Efficient coordination is the key. Researchers must better coordinate in order to avoid duplication of work. Producers can also benefit from a good coordination, helping them to solve problems in their companies (production, administration, etc.). And of course, science and industry must coordinate their action so that they can work together efficiently.

The network should extend **from the local level**, closer to the producers who work in the field, **to the European or International level**, where studies can be of interest for a shellfish stakeholder (scientific, producers, extension worker, etc.) from one place to another.

Thus **EMPA** for example, should relay information to national structures. Each national or regional structure where there is no national structure, then relays the information to more local structures, for example via a national officer whose role would be to circulate information between structures. Because it is also necessary that the **structures of the same geographical level communicate with each other.**

Vice versa, local structures must also raise issues to the national level.

Regarding France, CNC, member of the EMPA, would be better able to transmit information from Europe to the local authorities. But it must also, through regional structures such as the CRC, bring producers' requests, concerns, and suggestions at European level. **The CRC should communicate more with each other**, and **transmit information through local structures** that are related to the industry: **discussion groups**, shellfish unions (who should take a greater role in the transfer of information), producers' organizations, CPIE (Centers for Environment), FLAGs, schools, etc. Each region may determine the structure(s) that is/are best able to relay information.

To allow such network to function, it is essential that **producers' organizations are reinforced**, with the support of local administrations. They must have **technical staff** which helps them to define the problems and to require that research and concrete actions are conducted to solve these structural problems. In addition, **research centers must approach professionals**, and their projects must be adapted to the sector's requests.

Strengthening of FLAGs could promote the sector. They should be structured with their own staff personnel and their decisions should be determinant at national level in defining the criteria of quality, sizes and all other decisions relevant to the industry.

Different organizations of the network can be prefigured:

- one national reference center + regional centers;
- some national reference centers with different skills;
- no national center but a "database" of institutions and research facilities able to answer from time to time to the need of production.

The main need is to find a stable source of funding, which allows the network to last. The only solution seems to be a structure supported also by the production itself.

In Italy, the strengthening of the unitary representation of the sector at national level seems to be a prerequisite for the Italian context. A national committee for the shellfish sector could be created, with regional representations, like in France.

The FLAGs could be used to launch a network of this type, to organize a dedicated structure that would be involved from the start in the initiatives launched at a European level.

They can help **to improve the information channels** and to **make the link** between stakeholders.

Discussion Groups could be on the basis of the network. Directly linked to the field, they know better than anybody what problems have to be solved first.