

# **INVESTINFISH**

## **Project Handbook**

## INTRODUCTION

### To overcome the crisis, innovative support for companies in the fishing sector

The Italian economic fabric is characterized by a strong link between those who produce and those who sell; concrete proof of this is the severe crisis affecting the fish sector, due to the Covid-19 emergency and the forced closure of the HORECA channel (Hotels, Restaurants and Catering) and consequently the blockage of fish supplies.

The data from Veneto Agriculture and its Socio-Economic Observatory of Fishing and Aquaculture 2020 show how, for example, the Chioggia fish market, certainly representative of the regional situation and beyond, has recorded a decrease in the value of the local production of almost -50%, while in terms of quantity the decrease was -40%.

Significant numbers if we consider that the production of the fish sector in Veneto covers one of the most important economic activities, especially for the provinces of Venice and Rovigo, with a value of 200 million euros, 7 thousand employees, 4000 companies and almost 700 boats.

The forced stop due to the health emergency was, however, a reason for reflection for the many companies in the sector and a moment of reorganization of their internal structure, in innovative terms.

Some ideas could be given by the new technologies in which some companies are already investing and by the contributions made available to finance innovative projects. The Investinfish project ([www.italy-croatia.eu/web/investinfish](http://www.italy-croatia.eu/web/investinfish)) funded by the **Interreg V A Italia Croatia program is based on these points and more generally on the real need for innovation of businesses. The primary objective of Investinfish is to strengthen the competitiveness of the fishing and aquaculture production system through the promotion of investments for the acquisition of functional services for the development of innovative business programs.**

The program area includes some territories of the Italian and Croatian regions bordering the Adriatic Sea. In particular, the partners involved in the project are six, four Italians (T2i - technology transfer and innovation as project leader, the company Sviluppo Marche srl, the Regional Agri-food District of the Puglia Region and Punto Confindustria srl of Rovigo) and two Croatian partners (Istrian Development Agency and Zadar Country Rural Development Agency).

Each partner has developed through vouchers, innovative projects for companies in their area which involve the involvement of experts from various sectors ranging from the efficiency of services, the enhancement of products, the higher quality of the catch, controls and safety.

In the near future, consumers will most likely pay much more attention to the origin of products and quality as well as request increasingly personalized services: they will tend to turn to the local market rather than to large distribution chains, they will inform themselves about the processes of production, environmental impact and consumer health. Being prepared, now more than ever, is a necessity in the face of an uncertain economic future that will certainly require **digitization, sustainability** and adaptation to new social norms.

Site link Investinfish: <https://www.italy-croatia.eu/web/investinfish>

References: t2i - trasferimento tecnologico e innovazione | [innovazione@t2i.it](mailto:innovazione@t2i.it) | [www.t2i.it](http://www.t2i.it)

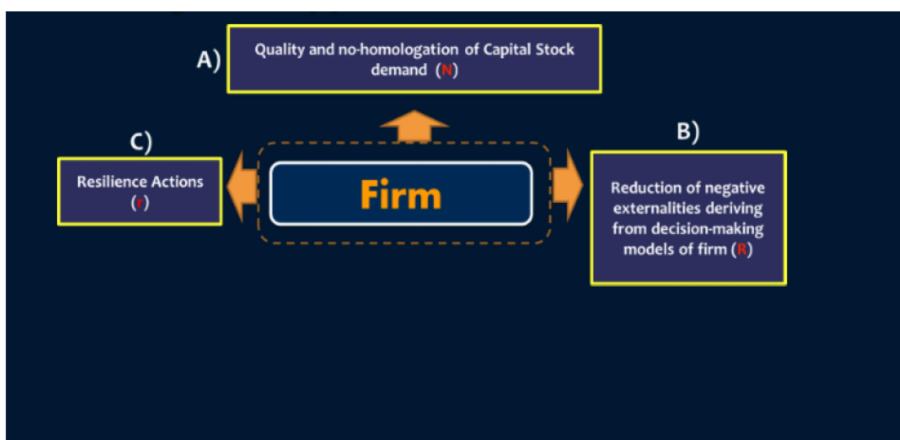
## THE CONCEPTUAL FRAMEWORK

Economic growth, social cohesion and environmental protection constitute the three fundamental conditions (which cannot be separated) for Wellbeing Sustainability in territorial systems.

The increasing awareness of Society of the need in overcome the current "segmented approach to Wellbeing" is pushing global institutions to review the system of market rules, limiting, as much as possible, all forms of economic, social and environmental dumping.

This change in scenario requires the various production sectors to contribute to territorial growth and development through the search for competitive strategies increasingly oriented towards a System Approach to Innovation: Innovation in the choice of production factors, products, production processes, communication and compensation / resilience actions with respect to possible negative externalities generated.

Figure n. 1 - System Approach to Innovation



Source: Simone Cesaretti Foundation

In other words, it is a question of redefining a business economic model capable of improving its market positioning and, at the same time, contributing to satisfying the Society's increasingly strong need to seek a "dynamic balance between territorial capital and its fundamental needs". That is, to contribute to the transition towards Wellbeing Sustainability.

The achievement of this objective rests on a strategy developed at four levels:

1. identification of pilot firms, front runners of the System Approach to Innovation;
2. availability, choice and application of functional innovations to sustainable competitive strategies;
3. Transfer Activity of Innovation to support growth and development of territory;
4. new Training Model for Innovation's Facilitators.

The implementation of the first component of the strategy defined here requires, not only a deep knowledge of the production reality of territory, but, above all, the ability to present to potential pilot firms (front runners) all the market advantages deriving from a social responsibility behaviour.

Responsible firm behavior, favored by the introduction of factor, product, production process, marketing innovations, capable of improving the Competitiveness Index (value perceived by the demand / price), impacting more on the numerator than on the denominator. In other words, firms oriented towards the search for the highest point of balance between economic efficiency, environmental ethics and social cohesion.

The implementation of an economic model of business oriented to the System Approach to Innovation, first of all requires the existence of "Supporting Sectors" (Universities, Research Centers, Schools) capable of carrying out what is defined as their "Third Mission". These "Support Sectors" of business system must, in fact be able to carry out "activities of scientific, technological, cultural transfer and productive transformation of knowledge, through processes of direct interaction with civil society and firms, with the aim of promoting economic and social growth of territory, so that knowledge becomes instrumental for obtaining benefits of a social, cultural and economic nature" (Anvur, DR 19/2012).

Unfortunately, too often, the Knowledge System as a whole has for many years been little attentive to the performance of its essential institutional role. But, an objective analysis of this situation highlights how an important cause must be sought in the production structure of many sectors consisting, in large part, of small and medium-sized enterprises unable (also for economic reasons) to transfer their own requests towards the Support Sectors and to incorporate and implement, in the best possible way, functional

innovations to improve their competitiveness index in the forms indicated above<sup>1</sup>.

However, in order for the System Approach to Innovation, adopted by the front runner firms of the various production sectors, to unfold all its potential positive effects, it is essential to put in place an adequate Transfer Activity of Innovation in favor of as many companies as possible. This is in order to generate a multiplier effect on territorial system and its economic, social and environmental components.

It is therefore necessary that public institutions know how to support this fundamental activity with adequate policies. In fact, an essential condition, for all this to happen, is possibility of supporting business system of various production sectors (both in the "front runner" component and in the one that will have to implement and adopt the new approach), with the "Innovation's facilitators". Professional figures able to educate, advocate and advise firms with respect to the Innovation System Approach described above and capable of carrying out the fundamental function of "connecting link" with the Support Sectors in order to select and adopt best practices.

It is within this conceptual framework that the "Investinfish project" must be framed.

The general objective of the project was to strengthen the contribution of blue economy to income and employment in territories boosting investment in innovation of SMEs along the entire fishery and aquaculture value chain. According to the idea that the key factor for the implementation of this strategy is made up of professionals specialized in the sector of research and innovation of fishery and aquaculture (so called "Innovation's Facilitators"), was chosen the solution of financing pilot project implemented by experts.

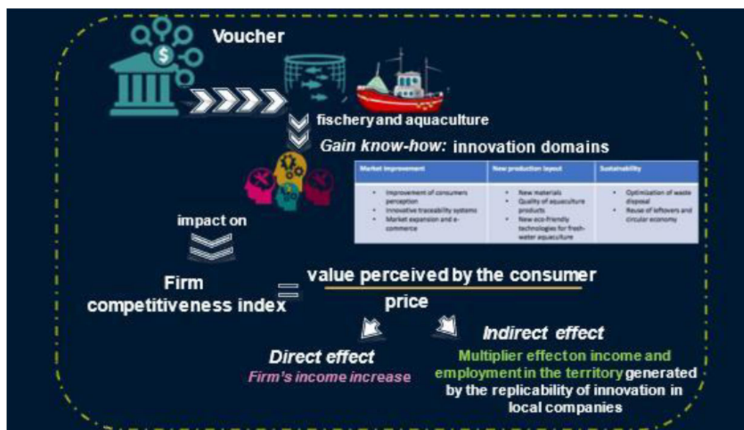
Vouchers were considered as the efficient and effective financial solution to support pilot firms (front runners) to adopt forms of innovation capable of strengthening their market positioning affecting, in particular, the numerator of competitiveness index.

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<sup>1</sup> In most production systems, the prevalence of small and medium-sized enterprises makes it essential to have a public incentive system capable of promoting in the most effective and efficient way the provision of professionals (Innovation's facilitators) who play a role of connection between the Knowledge (Universities, Research and Training Centers) and Companies, as well as innovation catalysts.

Three macro-areas of Innovation Domains (market improvement, new production layout and sustainability) have been identified through which to generate a direct impact on firm's income increase and an indirect one on income and employment in selected territories.

Figure n. 2 – Voucher financing system's impact on fishery and aquaculture sector



Source: Simone Cesaretti Foundation

The objective of this indirect effect was pursued through a Transfer Activity of Innovation operated thanks to a series of "Study Visits", where, best in class firms (see table no. 1), selected on the basis of "monitoring indicators" presented the results achieved.

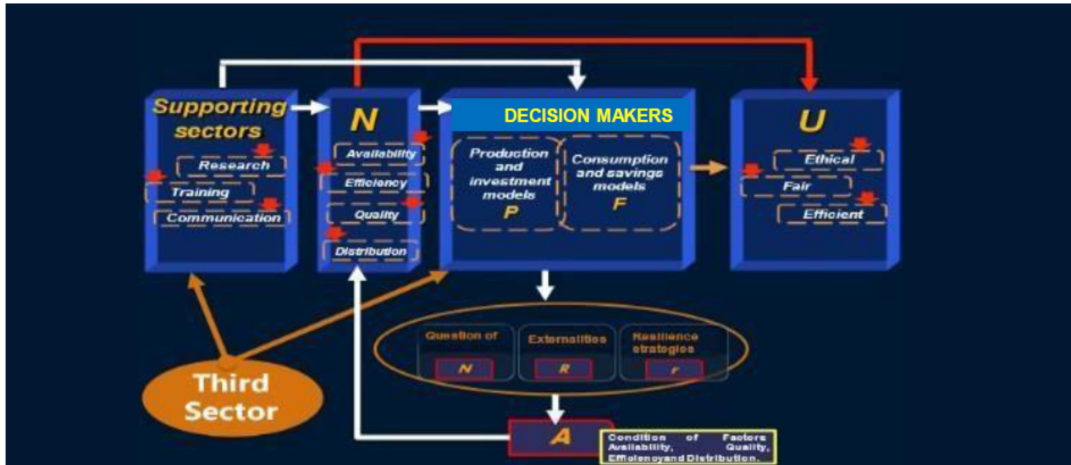
Table n. 1 – Study Visits

STUDY VISITS	
	Invited Firms to Round Table
1 Market espansione	a) Fishing cooperative Istra - IDA - Croatia b) Marikomerc Ltd - AGRRA - Croatia
2 Improvement of consumer perception	a) Kalituna Ltd. - AGRRA - Croatia b) Ittica del Conero - SVIM - Marche
3 Innovative traceability system	a) Alvakultura Ltd. - AGRRA - Croatia b) Rosolina Cooperative - Punto Confindustria - Veneto
4 Product Innovation	a) Bierreti s.r.l. - T2.i - Veneto b) Altagama - SVIM - Marche c) Becompost - Gruppo CML s.r.l. - T2.i - Veneto
5 Process Innovation	a) M/B Anna Nuova, s.n.c. - di D'angelo 68C - SVIM - Marche b) Bonaca - IDA - Croatia c) Cooperativa Pescatori Rosolina - Punto Confindustria - Veneto
6 Sustainability	a) Consorzio Molluschicoltori Veneti et al. - Punto Confindustria - Veneto b) Ferr-Ittica s.r.l. - T2.i - Veneto c) Istrida d.o.o. - IDA - Croatia

The availability of the results for all territorial firms constitutes a fundamental catalyst element of a process of revision of decision-making models, capable of generating new added value in the various partner territories of the Investinfish project (Croatia, AGRRA and IDA, Veneto, Punto Confindustria and T2i; Marche, Svim).

Finally, in the Investinfish project a tutorial activity focused on the concept of Circular Economic Model for Society was carried out.

Figure n. 4 – Circular Economic Model for Society



Source: Simone Cesaretti Foundation

## PILOT CASES: T2i

### T2i- PILOT CASE N.1

#### COMPANY

Name of the company: **BECOMPOST – GRUPPO CML SRL**

Sector: ALTERNATIVE COMPOSTABLE PACKAGING FOR FISH INDUSTRY

Document elaborated by: ING. FABRIZIO GALLIAN

Partner: T2I –Trasferimento Tecnologico e innovazione

Website: <https://becompost.net/>

Application domain: New Production Layout (New materials -ecologic materials for the nets and the bags used)



#### PROBLEM TO SOLVE

The company has understood the need to expand the areas of use of biomaterials as a replacement for single-use plastic packaging. The intense use of plastics is a major problem nowadays and there is the need to replace them with bio-polymers. The problem in this case is therefore to detect the technical and safety characteristics of materials (elasticity, resistance, permeability, heat sealing, etc.), analyse them e then cross them with variables concerning the legislation in force for the products fish, temperature, temperature changes, and the types of liquids used mainly in the production and processing of fish products

#### SOLUTION

The solutions were to carry out research and analysis of the characteristics of the various materials considered, in order to create new containers in which put products, and map the possible suppliers of products for eco-sustainable and environmental-friendly packaging.

#### BENEFITS

The benefits are overall at environmental level, and they are: 1) decrease in the use of single-use plastics, 2) Compostable and biodegradable plastics are materials that can decompose over time in a specific environment. 3) decomposition of these bio-plastics does not lead to the release of toxic substances 4) less environmental impact 5) greater social company responsibility

### T2i- PILOT CASE N. 2

#### COMPANY

Name of the company: **BIERRETI S.R.L.**

Sector: transport of fish products

Document elaborated by: ERIKA FRANCESCON

Partner: T2I –Trasferimento Tecnologico e innovazione

Website: <https://www.bierretitrasporti.it/>

Application domain: sustainability (Logistic management system), New Production Layout (New management system for companies), Market Improvement (Market expansion at national/international level), Digitalization (Industry 4.0)

#### PROBLEM TO SOLVE

The company needs to respect very optimized times on long-distance transport in order to does not have penalizations also on prices, and to maintain the cold chain. This implies a hyper efficient organization and any related economic risks. So, the company needs to systematize an analysis of risks and opportunities and an analysis of the economic instruments currently present or that could be developed in the future and that can help to visualize the activities and projects more clearly.

#### SOLUTION

The solution is the risks and opportunity analysis through interviews and researches on topics and aspects concerning the logistics sector, the heavy transport sector, regulations and manuals on temperature-controlled food transport. The analysis is focused on more strategic internal and external risks and opportunities for the company, identifying some possible actions for improvement. These actions are: Internal management optimization actions through new enabling technologies, Evaluation of new diversified services that can disengage from typical travel speed rates, Reverse logistics services through shared platforms, Transport services of fish by-products, Actions concerning environmental aspects, sustainability and the circular economy.

#### BENEFITS

The benefits are: a better business efficiency and management, the possibility to increase the number of employees, reduction of environmental impact through CO2 mitigation, the market improvement and expansion.

### T2i- PILOT CASE N. 3

#### COMPANY

Name of the company: **CO.GE.VO. CHIOGGIA**

Sector: harvesting of bivalve molluscs

Document elaborated by: ERIKA FRANCESCON

Partner: t2i-technology transfer and innovation

Website: <http://cogevo.it/>

Application domain: New Production Layout (New materials and packaging)



#### PROBLEM TO SOLVE

For the packaging and transport of bivalve molluscs, nets and bags are used. They have the purpose of keeping the molluscs closed and alive. The current packaging is made of disposable plastic, producing a high environmental pollution. Moreover, the amount of these bags used for packaging shellfish is high.

The need for primary packaging is substantial for the company, so it is important to invest in the research of alternative and innovative materials, in order to create and use environmental-friendly packaging.

#### SOLUTION

The solution is the creation of new packaging that are sustainable and realized with natural or compostable materials. The possible alternatives are: cotton bags (not recommended), linen bags (not recommended), compostable bioplastic bags (recommended).

#### BENEFITS

The benefits are the following: less pollution, reduction of environmental impact and footprint, better visibility and acceptability by costumers, lower energy consumption, relatively low polymer cost.



## T2i- PILOT CASE N. 4

### COMPANY

Name of the company: **CO.GE.VO. VENEZIA**

Sector: harvesting and selling of bivalve molluscs

Document elaborated by: ERIKA FRANCESCON

Partner: T2i-trasferimento tecnologico e innovazione

Website: [cogevo.it](http://cogevo.it)

Application domain: New Production Layout (New materials -ecologic materials for the nets and the bags used), Packaging.



### PROBLEM TO SOLVE

One of the major problems that the company wants to solve is that of sustainability. There is a need to use alternative packaging materials, which do not involve non-recyclable plastics.

### SOLUTION

The possible solutions are: 100% compostable option with compostable tray + film compostable. Elements heat-sealed together with the skin method; 100% compostable option with Compostable tray + film compostable. Elements heat-sealed together with methodology Flowpack or without skin methodology; Multi-material option with Compostable tray + film in monomaterial PP; compostable monomaterial without the use of trays, for example using only compostable film, or compostable bags for vacuum packing.

### BENEFITS

The derived benefits are: less pollution, reduction of environmental impact and footprint, better visibility and acceptability by customers, lower energy consumption, Cost of compostable materials in in line with traditional materials.

## T2i- PILOT CASE N. 5

### COMPANY

Name of the company: **FERR-ITTICA S.R.L.**

Sector: fish processing (cuttlefish)

Document elaborated by: ING. FABRIZIO GALLIAN

Partner: t2i – trasferimento tecnologico e innovazione

Website: /

Application domain: Sustainability (By-products -second raw material/circular economy)

### PROBLEM TO SOLVE

The quantity of the waste produced by the process of cuttlefish processing is quite large. Therefore, disposal costs are also a heavy burden for the company and, moreover, the current management increases the environmental impact of the company.

#### SOLUTION

The identified solutions are: Mechanical system for the extraction of cuttlefish ink (Half vacuum extraction system, Extraction system for mechanical squeezing); the different use of cuttlefish bones: they can be sold to pet food transformation companies.

#### BENEFITS

The derived benefits are: Presence of high value-added components in fish by-products, some by-products have a high market cost (bones and black), Management interest in environmental sustainability, better visibility and acceptability by costumers.

### T2i- PILOT CASE N. 6

#### COMPANY

Name of the company: **ITTICA GESIA srl**

Sector: Fish transformation and elaboration of fish recipes

Document elaborated by: ING. FABRIZIO GALLIAN

Partner: T2i – technology transfer and innovation

Website: [www.itticagesia.it](http://www.itticagesia.it)



Application domain: New Production Layout (New management system for companies)

#### PROBLEM TO SOLVE

The company ITTICA GESIA clearly perceives the need to identify innovative solutions and actions to improve and/or validate their production process and the processes and services that support production. In particular, they want to improve the process efficiency and the quality of products.

#### SOLUTION

The identified solution is an Interface with a series of self-manageable tools capable of ensuring the control of process parameters and consequently the containment of microbial load along the flows, specifically *L. monocytogenes*.

**BENEFITS** : The advantages are the following: better reliability of the company process, lower costs, improved microbiological controls, the ability to offer to customers a safe food product.

### T2i- PILOT CASE N. 7

#### COMPANY

Name of the company: **O.P. BIVALVIA VENETO**

Sector: Food processing e commercializzazione prodotti Ittici

Author: Andrea Rosini (expert)

Partner: t2i – trasferimento tecnologico e innovazione

Website: <http://www.ipescaori.it/>



Application domain: Market Improvement (Improvement of consumer perception and awareness, Market expansion (national/international level), Digitalization (e-commerce, e-marketing)

#### PROBLEM TO SOLVE

They need to expand the market and to make customers aware of product quality. The company wants to implement innovative marketing tools, in particular by focusing on digital marketing. Another thing is the desire to better consolidate and capitalize the brand "O.P. Bivalvia".

#### SOLUTION

To promote more sustainable fishing and consumption, the company chose to create a set of cartoon-style video pills with a simple storytelling, in order to allow an immediate understanding of the message and focusing on the sustainability certifications MSC OP Bivalvia / iPescaOri.

#### BENEFITS

The derived benefits are: high communicative impact, immediate understanding of the message, increased demand, expansion of markets and better visibility and acceptability by customers.

## T2i- PILOT CASE N. 8

#### COMPANY

Name of the company: **PHAROS di Stival Enrico**

Sector: Commercialization of fish products

Author: Andrea Rosini (expert)

Partner: t2i - trasferimento tecnologico e innovazione

Website: [pharos-ve.it](http://pharos-ve.it)

Application domain: Market Improvement (Improvement of consumer perception and awareness, Market expansion (national/international level), Digitalization (e-commerce, e-marketing))



#### PROBLEM TO SOLVE

The company has the necessity to elaborate a new marketing digital strategy in order to find new clients, and so expand their market, and to better communicate and disseminate the company values. They also want to work on brand awareness, particularly online and using social media.

#### SOLUTION

The identified solution is the creation of a new website ITA/EN, optimized for search engines and navigation also from mobile, integrated with company social networks.

**BENEFITS:** The related benefits are the following: high ROI, increased demand, greater visibility, market expansion, the reduction of traditional marketing methods like the production of printed matters that have a negative impact on the environment.

## PILOT CASES: SVIM

### SVIM- PILOT CASE N. 1

#### COMPANY

Name of the company: **Altgamma S.r.l.**

Sector: Agri-food

Document elaborated by: Solve S.r.l.

Website: /

Application domain: not explicit

#### PROBLEM TO SOLVE

The company needs solid information regarding the study of the reference markets in the GDO and HORECA channels, both of a local and international nature, thus offering potential suggestions on the correct investments to be made. Also, in a e-commerce development perspective, it required an analysis of strategies and potential tools on which to invest in order to effectively reach the target market.

#### SOLUTION

The solution is the development of a series of strategies for the improvement in terms of the market. The markets relating to Greece, Albania and Croatia were analysed in a very detailed way. The markets of Bosnia, Kosovo, Macedonia, Montenegro and Serbia were also analysed. In relation to e-commerce, an overview was initially drawn up relating to the current tools and possibilities of approaching these markets, from a global and European perspective.

#### BENEFITS

The new distribution channels will make it possible to limit waste in the production channel. Furthermore, the use of e-commerce policies will bring the Altgamma company ever closer to a just in time production scheme. This solution may have a positive economic impact, both in terms of costs and profits, and for their appearance in terms of the image of the product presented and marketed.

### SVIM- PILOT CASE N. 2

#### COMPANY

Name of the company: **WLADIMIRO CAMPOFILONI**

Sector: FISHING

Document elaborated by: FRANCESCO PETTA

Website: /

Application domain: New Production Layout (New management system for companies), Market Improvement (Market expansion -national/international level) and Digitalization (e-commerce, e-marketing))

#### PROBLEM TO SOLVE

The main problem of the fisheries sector is the lack of multiannual programming in terms of investments. The company hardly invests in new technological solutions and the lack of generational change in terms of human resources does not allow the evolution of the sector which is still linked to centuries-old traditions.

#### SOLUTION

The solution can be the utilization of Adriavongole, that is a management software to carry out online sales auctions for the clam sector. The Adriavongole program is located at the URL <https://www.adriavongole.it> and is hosted on Linux servers. The SSL security certificate has been installed on the site, a guarantee of reliability in an e-commerce site. There are 3 user levels: administrator, vessels and buyer.

#### BENEFITS

The related benefits can be the following: elimination of the all the double packaging processes of the product (the product is packed only once on board the boat), thus reducing the use of plastic materials, polystyrene, nylon. Strongly reduce the human and physical presence inside the auction structure, Traceability of payments and fish products, therefore reduction of the costs of packaging, transport, equipment rental.

### SVIM- PILOT CASE N. 3

#### COMPANY

Name of the company: **Alta Marea srl**

Sector: Market improvement mussel farming

Document elaborated by: Dott. Ugo Pazzi

Website: [www.altamareasrl.com](http://www.altamareasrl.com)

Application domain: market improvement (Improvement of consumer perception and awareness)



#### PROBLEM TO SOLVE

The main need expressed by the company is the improvement of the ability to communicate the type of business and the added value of its product to the local market rather than increasing production. The effort is adding value of its commercial network, making it more stable and above all diversifying it, maintaining the quality of the product and without impacting the environment.

#### SOLUTION

The solution adopted to achieve the aim of the project consists in the realization of a label project with QR code technology. The QR code provides explanations on the production system company and on the qualitative aspects of the final product, mussels. The label talks about the peculiarity of farming, the quality of the product and its intrinsic biology, the mussel farming technique, the production and harvesting.

#### BENEFITS

The choice of digital display of narrative content avoids printing the label on paper material, so no waste occurs. The QR code is applicable on micro-enterprises and at low /decreasing costs, and also allow to an increasing interest in the quality of food products.

## SVIM- PILOT CASE N. 4

### COMPANY

Name of the company: **M/B ANNA NUOVA SNC DI D'ANGELO G.& C**

Sector: Coastal fishery- Small scale fishery

Document elaborated by: Emanuele Troli – Blu Marine Service

Website: /

Application domain: New Production Layout (New eco-friendly technologies for fresh-water aquaculture and marine-culture), improvement of fishing selectivity and attraction.

### PROBLEM TO SOLVE

The main need expressed by the company is maximize the effectiveness of fishing trips, optimizing the operative costs and the fishing period for specific target species. Maximizing the catch in the best period improves the yield in the fishing season. Furthermore, with an increase in the effectiveness of fishing gears, the maximum limit to the number of usable traps is also optimized.

### SOLUTION

The solution is the utilization of underwater led in the traps used by the small scale fishery. Different types of lights were used during the experimentation but the most effective were blue, green and yellow light. The main aims are to assess the effectiveness of different underwater lights, to better understand the attraction of various species to a light especially towards cephalopods.

### BENEFITS

The benefits are: the fact that is an unused technology for SSF and with a low impact on the marine ecosystem. It is easy to use, and it optimizes the operative costs.

## SVIM- PILOT CASE N. 5

### COMPANY

Name of the company: **BASILI MARCO**

Sector: SMALL SCALE FISHERY

Document elaborated by: EMANUELE TROLI - BLUMARINE SERVICE

Website: /

Application domain: Sustainability (By-products (second raw material/circular economy), Logistic management system), New Production Layout (New materials), Market Improvement (Market expansion (national/international level)).

### PROBLEM TO SOLVE

Currently in Italy there are no examples of exploitation of biomolecules and by-products that came from marine organisms. Probably there are 2 main reasons for that: there is a lack of knowledge for the treatment of these marine resources but moreover the lack of connection between the demand and supply of actors of the market. Furthermore, the growing number of Jellyfishes represents a relevant ecological problem because they impact the population of the juvenile stages of resources subjected to professional fishing.

### SOLUTION

The potential exploitation of this resource would mitigate the risk of fluctuations in the company income due to environmental, climatic, overfishing factors. The solution identify is the exploitation of jellyfish for collagen extraction. Collagen is a structural protein widely used in health application, especially in nutricosmetics, food and beverages.

#### BENEFITS

The benefits are the following: Collagens derived from marine sources are recognized more for their beauty benefits; the extraction of collagen from jellyfish allow to decrease the growing number of these marine organisms and so reduce the ecological problems they bring. This solution can increase the market demand of marine collagen and allow the exploitation of resources normally not used. It also allows diversification activity and an increase of profits.

### SVIM- PILOT CASE N. 6

#### COMPANY

Name of the company: **CAGJ SOCIETA' A RESPONSABILITA' LIMITATA SEMPLIFICATA**

Sector: BLUE ECONOMY SECTOR / FISHERIES

Document elaborated by: GIORGIO GUIDI

Website: /

Application domain: market improvement (Market expansion (national/international level), Digitalization (e-commerce, e-marketing), Innovative traceability systems)

#### PROBLEM TO SOLVE

The main need of the company regards the implementation of new innovative distribution channels in Fishery sector as a B2C online sales platform, to manage orders and distribution of fresh, frozen, cooked fish products inside a certified “fishery supply chain”. The realization of an e-commerce platform is necessary to meet the customer’s needs.



#### SOLUTION

The solution is the realization of an e-commerce website in order to exploit the online channel and to expand the market presence. The e-commerce allows the company to sell both cooked and fresh fish also outside the city where the physical stores are located (Ancona). The other identified solution in order to ensure the quality and the origin of the product, is the implementation of a blockchain technology able to trace the path that the product made before arriving to customer’s home. Through the QR code, the customer will be able to see which path the product has taken before being purchased.

#### BENEFITS

The benefits related to the realization of the e-commerce are: 1) the possibility to manage orders and deliveries in an automatic way, involving outsourced couriers 2) The customer, through the website, can make both single orders and subscriptions in order to get the product at home weekly or monthly 3) the clients can discover new recipes (text and video) to make at home 3) customer can book in advance the product and so the activity of fishing can be more selective and no longer massive (and unsustainable) 4) market expansion

For the blockchain solution, the benefits are: 1) ensure the quality and the origin of the product 2) allow a more transparent process because every action is traced 2) consolidating the relationship with customers 3) Involving the consumer in the development of the product

### SVIM- PILOT CASE N. 7

#### COMPANY

Name of the company: **GASPARRI E NICOLINI S.N.C. SOCIETA' AGRICOLA (LA COZZA DEL CONERO)**

Sector: Mussel Acquaculture

Document elaborated by: Andrea Rosini – Differens Srl

Website: [lcozzadelconero.it](http://lcozzadelconero.it)

Application domain: Market Improvement (Improvement of consumer perception and awareness, Market expansion (national/international level), Digitalization (e-commerce, e-marketing))

#### PROBLEM TO SOLVE

The company needs to adopt digital marketing tools for these objectives: achieve new clients and expand their market, automate the business process, increase turnover, increase brand awareness, offer a better service for the clients

#### SOLUTION

The identify solutions are: 1) the realization of a new website with e-commerce, optimized for search engines and navigation also from mobile, integrated with company social networks. 2) the Creation of scripts for scheduling orders (date / quantity) of business customers.

#### BENEFITS

The related advantages are the following: the market expansion with the achievement of new potential clients, the reduction of environmental impact, the possibility to order the products online, an increase in sales

## SVIM- PILOT CASE N. 8

#### COMPANY

Name of the company: **Ittica del Conero**

Sector: Marketing of fish products

Document elaborated by: Andrea Rosini

Website: [www.itticadelconero.it](http://www.itticadelconero.it)

Application domain: Market Improvement (Improvement of consumer perception and awareness, Market expansion (national/international level), Digitalization (e-commerce, e-marketing))

#### PROBLEM TO SOLVE

The need to adopt effective digital marketing tools in order to: expand the market, automate the commercial process, increase turnover, improve brand awareness, create awareness on the wide range of fish products.

#### SOLUTION

The proposed solutions are: 1) the creation of a new company website with e-commerce predisposition optimized for search engines and navigation also from mobile, integrated with company social networks 2) the realization of a product online portfolio 3) the possibility to Request form for information and specific prices for individual products or groups of products to be included in a personal "wishlist"

#### BENEFITS

The related advantages are the following: the market expansion with the achievement of new potential clients, the reduction of environmental impact, the possibility to order the products online, an increase in sales.





## PILOT CASES: DAREPUGLIA

### DAREPUGLIA- PILOT CASE N. 1

#### **VALORISING MILLING DISCARDS AND WASTE: circular economy, THE SECRET OF MARE GIOIOSO**

**COMPANY:** Mare Gioioso SRL di Sebastiano

##### Abstract

It processes and markets fresh fish from over 60 fishing vessels - respecting the fishing effort and contributing to traceability - with in-plant processing techniques and voluntary quality certifications adopted by the company. Hence the choice of a circular economy project to recover waste and discards.

##### Objective

By-product valorisation - circular economy - both with regard to processing waste and to help supplying vessels avoid prohibited discards - quality certification 14001 - seeking more virtuous and profitable ways of disposing of Category III animal by-products.

##### Achieved results

Innovation from a good practice (FARNET-DG Mare), project implemented by FLAG HUELVA (Spain): "Fish meal from fish waste". Objective, to ensure the reduction of disposal costs and valorisation of by-products (circular economy). Environmental information to consumers brings additional commercial advantages for the company.

##### **Brief comment of the project partner on the whole project and the achieved results.**

The processing phases of the fresh product follow a strict environmental/sanitary protocol, which is why the waste is classified as Category III Animal By-products (a cost for the company). They become a resource as food for aquaculture, enriched with scraps from bread, pasta and flour (circular economy), and with discards from fishing boats, suppliers of the fresh product. A new business idea, thanks to the advice of Investinfish.

### DAREPUGLIA- PILOT CASE N. 2

#### **GARGANO MILLING: protection of production and environmental resources**

**COMPANY :** Cooperativa Varano la Fenice

Recent difficulties in mussel production, product marketing and valorisation, marine litter management, emerged in meetings with researchers and lecturers from the University of Foggia, comparison with other good practices, certification and traceability companies. Offering operators various innovative proposals.

### Objective

Adopting solutions to limit the environmental impacts of production cycles, enhancing the value of the product and innovative management of facilities, preventing widespread shellfish mortality, improving knowledge of the various pressures on environmental matrices, production capacities and the state of health of the marine environment: water column and seabed.

### Achieved results

Specialist technical services needed to retrain the work, field laboratories to analyse - with the support of experts and researchers - the main limiting environmental factors (nutrients and dissolved oxygen in the water column, sediments, catabolites, temperature, alien species, algal blooms and phytotoxins).

### Brief comment of the project partner on the whole project and the achieved results.

The input received from the Investinfish consultants facilitated the coordination between the economic operators of the sector and the public decision-makers, which was necessary to solve common problems (waste management, environmental/ecological aspects - good environmental status and AZA (aquaculture zoning). The next step is to create their own brand, to make the product more competitive with consumers by highlighting the area of origin, traceability and quality.

## DAREPUGLIA- PILOT CASE N. 3

### **COLTIMAR: water quality monitoring and control.**

#### COMPANY : COLTIMAR

#### Abstract

A need identified by the Cooperative relates to marine water analysis in Mytiliculture. For the activity of mussel farming, it is requested the possibility to receive, following specific analysis of the cultivation waters, specific support to remedy the biological pollution and anoxia from which the areas suffer. Also useful for COLTIMAR is the identification of a system of control and monitoring of the state of water quality of the mussel-farming activity with the aim of intervening with actions of bio-mediation (algae, micro-organisms, filters, etc.) in case of identification of biological pollution.

#### Objective

The innovation project created according to the needs of the company aims to:

- Identify a system of control and continuous monitoring of certain analytical parameters to counteract the biological pollution and anoxia from which the areas suffer.
- To act with bio-mediation (algae, micro-organisms, filters, etc.) in case of identification of biological pollution.

#### Achieved results

To define the actions that will allow the achievement of the above objectives, the following activities were carried out:

- 1) Research of analytical parameters to be used to monitor and counteract biological pollution and anoxia suffered by the areas;
- 2) Identification of sustainable bioremediation actions that allow to obtain an effective and natural bioremediation.

Brief comment of the project partner on the whole project and the achieved results.

To contrast the biological pollution and the anoxia from which the mussel breeding areas suffer, it is advisable to intervene in a preventive way by periodically carrying out a series of chemicalphysical and microbiological analyses that allow to control both the water matrices and the biota for the life of the mollusks.

## DAREPUGLIA- PILOT CASE N. 4

### **CONSORZIO SEMI: Blockchain for a controlled supply chain**

**COMPANY: CONSORZIO SEMI**

#### Abstract

As previously mentioned, one of the objectives of the SEMI Consortium is to protect, enhance and market the products of its member cooperatives. The innovation of production processes is an excellent way to achieve the objectives set, an example is the creation of an aquaculture plant in cages, with an innovative platform for feeding, fishing and surveillance that the Consortium is implementing thanks to the EMFF project.

#### Objective

The innovation project created according to the needs of the SEMI Consortium aims to:

- 1) Develop an integral production process of traceability.
- 2) Identify an automated control system capable of constantly monitoring in real time the state of water quality in the activity of fish farming and mussel farming, in particular.

#### Achieved results

In order to define the actions that will allow the achievement of the above objectives, the following activities were implemented:

- 1) Identification of tracking technologies such as Blockchain technology that give the ability to tell the end user every step of the supply chain, to ensure quality.
- 2) Collection of technical information on water monitoring systems that use measurement technologies connected to digital devices (cloud, mobile devices) to monitor environmental conditions continuously.

#### Brief comment of the project partner on the whole project and the achieved results.

Traceability of the fish supply chain 'from water to plate' is a guarantee for consumers and can be decisive in the purchase of the product. Blockchain technology in the service of fish traceability and the blue economy can be a key solution to significantly transform the behaviour of stakeholders throughout the supply chain. Blockchain technology for seafood, with its inherent characteristics of immutability, security and decentralisation, together with its smart contract feature, has the potential to improve efficiency and accountability in seafood value chains.

Innovation through information and communication technologies is a key factor in transforming food systems and has great potential to achieve the Sustainable Development Goals.

## DAREPUGLIA- PILOT CASE N. 5

### A NEW START FOR THE MOLFETTA NAVY

**COMPANY:** MARINERIA DI MOLFETTA

#### Abstract

The Molfetta navy will inevitably have to restart, making the most of its strengths that have made it a significant and important navy in the productive context of our country for centuries. The focus of this pilot case is on two main issues: production processes and the impact of covid on production activity.

#### Objective

- New organizational model for companies with the establishment of aggregative forms such as producers' organizations;
- Start actions of profound transformation of trade routes, ensuring the presence of the productive segment in the markets

#### Achieved results

Implementation of the training process and bottom-up approach to the new local development and investment strategy of the maritime affairs fisheries and aquaculture fund.

#### Brief comment of the project partner on the whole project and the achieved results

Community policies governing fishing impose increasingly stringent and drastic reductions in the fishing effort, so operators must necessarily find different but adequate ways to ensure profitability of the activity, no longer focusing on the quantities produced but on the virtuous processes of exploiting the catch.

## PILOT CASES: PUNTO CONFINDUSTRIA Srl

### PUNTO CONFINDUSTRIA- PILOT CASE N. 1

**COMPANIES:** Consorzio Molluschicoltori Veneti o.p, Adriatica del delta soc. Agricola, Consorzio delta nord, Cooperativa ittica del delta soc. Cooperativa, Delta mar societa' agricola, Terra nostra cooperativa sociale, Viva societa' cooperativa

Sector: bivalve aquaculture

Document elaborated by: Borghesan Fabio, Pessa Giuseppe, Innimpresa

Partner: Punto Confindustria

Website: /

Application domain: Sustainability (Waste and waste disposal, Logistic management system), New Production Layout (New eco-friendly technologies for fresh- water aquaculture and marine-culture, New management system for companies), Market Improvement (Improvement of consumer perception and Awareness, Market expansion at national/international level)

### PROBLEM TO SOLVE

Due to the high production of bivalve molluscs, farming activities directly produce a waste of about 10% of the biomass collected, with values that are around 1500 tons/year for the Veneto Po Delta area. This involves the need to collect the shells of dead animals and remove them from the breeding areas. At present these shells represent an expense for the companies that have to collect and dispose of them. Another problem is the fact that the company supports the need of a certification, otherwise the company will lose the competitive advantage and the market position.

### SOLUTION

The solution is to identify administrative and technical paths to allow the reuse of these shells, made up of calcium carbonate, in industrial applications that concern the construction sector, furniture and innovative products in the health sector or in environmental engineering interventions. In the construction sector the shells can be used for the production of cement or by inserting them into concrete blocks. The second solution is their use as improvers for the breeding grounds. The third solution is the use of shell residues directly without transformations or with simple processes with the insertion of the shells into natural fiber mesh bags. The last solution is their use in the milling of various products and the creation of new materials. Instead, for certification, the solution identify is the collective mark.

### BENEFITS

Thank to this solution, several environmental/social benefits can be identified: the amount of carbon stored in the shell can be recycled and stored, the reduction of quarry material in cement production, improvement of the hydraulic circulation in the breeding areas, the improvement of the environmental conditions of the breeding/lagoon areas, it generates a culture of circular economy, the amount of plastic polymers used in composites is reduced.

The benefits of the collective mark are: the possibility of protecting and promoting different products, fast registration procedures, limited costs, protection for the consumers.

## PUNTO CONFINDUSTRIA- PILOT CASE N.2

**COMPANY** Consorzio Cooperative Pescatori del Polesine Organizzazione Produttori

Sector: aquaculture

Document elaborated by: InnImpresa

Website: [www.scardovari.org](http://www.scardovari.org)

Application domain: feedstock availability

#### PROBLEM TO SOLVE

in recent years the main problem derives from an ecological and a production point of view: the shellfish production, especially clams, has suffered a sharp decrease. This decline seems to be due to the significant reduction in the availability of wild juveniles. This reduction is connected with: Climate change, Reduction of water trophy, Loss of fecundity, Reduction of the phytoplanktonic population, Parasites, Lack of a policy of sustainable exploitation of the resource involving seed management.



#### SOLUTION

Monitoring the environment and the impact on the production through scientific studies and researches in order to identify factors implicated in the clam growth and their settlement, and to define Molecular-genetic profile of clam species.

#### BENEFITS

This solution will have a positive impact from an environmental point of view because it will be possible to reconstruct the habitat in which they live and to intervene on the environment to solve any problems detected. Moreover, this approach could increase the production and to make new commerce strategies.

## PUNTO CONFINDUSTRIA- PILOT CASE N. 3

#### COMPANY: Rosolina Cooperative

Sector: aquaculture

Document elaborated by: Inn.Impresa, Maurizio Scabbia, Nicola Tiozzo

Partner: Punto Confindustria

Website: /

Application domain: sustainability (Pollution and Logistic management system), New Production Layout (New eco-friendly technologies for fresh-water aquaculture and marine-culture; New process organization), market improvement (Market expansion (national/international level) and digitalization (Industry 4.0)).

#### PROBLEM TO SOLVE

The company needs the implementation of a real environmental management system that will be developed for each phase of the production chain. If environmental penalties are imposed and no certification is available, the company will be more exposed to risks.

## SOLUTION

The solution is obtaining the certificate in order to demonstrate that the company has developed a management system adequate to monitor the environmental consequences of its activities and to look for its improvement in a sustainable way. The main certifications are ISO 14001 and EMAS. The proposed solution involves the creation of a trademark for product enhancement and the signing of new commercial agreements for product sales. To save energy, the other proposed solution is to install an inverter over 2 out of 5 pumps, in order to achieve a better energy efficiency, and a better usage of the installed pumps.

## BENEFITS

The benefits are: a positive effect on the company's image, trademark solution will bring more profit for the partner companies and also it will contribute to a general valorisation and preservation of the local territory. It also increases clients' sensitivity to quality and sustainability, and the second solution allow to save and optimize energy.

## PILOT CASES: IDA L.t.d. – Istrian Development Agency

### IDA- PILOT CASE N. 1

#### COMPANY

Name of the company: **Istrida d.o.o.**

Sector: Aquaculture

Document elaborated by: SENSUM d.o.o.

Website: [Istrida d.o.o.](http://Istrida.d.o.o.)

*Application domain: Sustainability (pollution: engines consumption/efficiency, renewable sources of energy, plastic in the sea)*

#### PROBLEM TO SOLVE

The company Istrida d.o.o. deals with sorting, cleaning, packaging, labeling, and marketing of live bivalve molluscs. They desire to improve their market, their production, introduce new production layout, starting new activities and optimize waste disposal, in a sustainability perspective.



storage  
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#### SOLUTION

The solution is to invest in the purchase of a new hybrid ship that is much more environmentally friendly than classic diesel ships.

#### BENEFITS

There are a number of advantages to electric motor propulsion, including quieter, more efficient navigation at lower speeds and significantly less pollution. It is also expected to reduce total maintenance costs by reducing or eliminating the need to change oil and transmission fluid, replace filters and rotors, and drive problems. Unlike diesel or gas engines, electric motors currently provide full torque.

## IDA- PILOT CASE N. 2

### COMPANY

Name of the company: **Levan**

Sector: Aquaculture

Document elaborated by: SENSUM d.o.o.

Website: /

Application domain: Sustainability (Logistic management system), New Production Layout (Packaging), Market Improvement (Market expansion (national/international level))

### PROBLEM TO SOLVE

Produce large quantities of canned food, but with a brand emphasis and certification that would place it in significant markets for luxury products such as Switzerland and specialized product chains for value added products, reducing catches and with better quality fish and canning by compensating income disparities and a shift towards sustainable fisheries. They have the necessity to improve their market.

### SOLUTION

The development of Hook & Cook brand, launching larger production of canned sardines, product certification and marketing activities. The vision of the business is in the direction of producing larger quantities of cans, reducing the catch of the ship and with better quality fish and making and selling cans to compensate for the difference in income and turn to sustainable fishing. The major goals are: market expansion and e-commerce, the improvement of consumers' perception.

### BENEFITS

The principal advantages are the following: higher number of orders, market expansion, increase the revenue of the company and also increase the number of users reached.

## IDA- PILOT CASE N. 3

### COMPANY

Name of the company: **Bonaca**

Sector: Aquaculture

Document elaborated by: SENSUM d.o.o.

Website: /

Application domain: Sustainability (Logistic management system), New Production Layout (New eco-friendly technologies for fresh-water aquaculture and marine-culture), Market Improvement (Market expansion (national/international level)).

### PROBLEM TO SOLVE

The company need to stay at sea for longer, catch in more distant destinations, have the possibility to use a larger number of nets that take up significant space. Moreover, there is an interest in increasing the catches of fish and also in an increase of the number of workers.



#### SOLUTION

The identified solution is to buy a boat and new equipment, in order to increase the volume of catches as well as the placement of caught fish, and to increase the efficiency and quality.

#### BENEFITS

The benefits the benefits derived from the purchase are: market expansion, sales increase, the increase in retail sales and the improvement of the technological procedures for catching small pelagic fish.

### IDA- PILOT CASE N. 4

#### COMPANY

Name of the company: **Milena d.o.o.**

Sector: Aquaculture

Document elaborated by: SENSUM d.o.o

Website:

Application domain: Sustainability (Logistic management system), New Production Layout (New materials (ecologic materials for the nets and the bags used), New management system for companies), Market Improvement (Market expansion (national/international level)).

#### PROBLEM TO SOLVE

The current business space does not fully meet all the needs for business development, especially when it comes to production. Given that there is room in the market to increase production and introduce a new product range, current capacity often proves to be a bottleneck in realizing such efforts. With the new and larger production plant, the company will be able to continue and expand its business in a better way without any difficulties and with greater security, covering the needs of its customers.

#### SOLUTION

The construction and equipping of a new center in Bačva, Municipality of Višnjan, which would consist of production space, storage space, office and other ancillary facilities and shops. With the construction of the new plant, the company's business and activity will remain unchanged in every respect, except that the new business – production.

#### BENEFITS

The following effect will be: Increasing the volume of production as well as their placement, introduction of a new range of products, and opening of new markets, increasing efficiency and quality, Increased storage capacity that will match the volume of business, new sales capacities.

### IDA- PILOT CASE N. 5

#### COMPANY

Name of the company : **OLI MARE d.o.o.**

Sector: Aquaculture

Document elaborated by: SENSUM d.o.o.

Website:

Application domain: New production layout (New materials (ecologic materials for the nets and the bags used), New management system for companies), Market Improvement (Improvement of accessibility and connectivity, Improvement of consumer perception and awareness, Market expansion (national/international level)).

#### PROBLEM TO SOLVE

The company wants to position itself in the domestic tourism market. Promotion of catches and products in direct consumption provide additional opportunities for brand development, achieve very favourable economic effects by offering a new service on the market, diversification of activities, reduction of risk and increase of income. The aim of the project is to expand the current catch activity in synergy with tourism.

#### SOLUTION

The solution is the construction and equipping of a gastro-tasting fish market. The promotion of products in direct consumption at the fish market provides additional opportunities for the development of the OLI MARE brand, and at the same time a wider experience in new markets.

#### BENEFITS

The benefits could be: opening an additional quality market for primary producers, improving overall marketing performance through tasting promotion, production of production of ready meals ready for consumption immediately or after a short heat treatment, facilitating competition in the internal market by introducing new technologies and innovations, Opening up new market opportunities for fishery products.

### IDA- PILOT CASE N. 6

#### COMPANY

Name of the company : **Fishing cooperative Istra (Ribarska zadruga Istra)**

Sector: Aquaculture

Document elaborated by: SENSUM d.o.o.

Website:

Application domain: market improvement (Improvement of accessibility and connectivity, Improvement of consumer perception and awareness, Market expansion (national/international level), Digitalization (Industry 4.0), Digitalization (e-commerce, e-marketing)).

#### PROBLEM TO SOLVE

The company aims to the further development of production, development of new products and opening new market. After many years of successful business, they want to develop the cooperative. The main goal of this project is to launch a new modern line for the production of burgers as a category of high value-added products or fishery products ready for consumption in the category of semi-finished dishes.

#### SOLUTION

The solution is the construction of fish processing and confectioning plants. Moreover, the implementation of the HACCP system, modern technology, while respecting the unbroken chain of cold, guarantee freshness and safety.

#### BENEFITS

The advantage of this processing production is in creating an additional assortment list of several products, which greatly reduces the risk of saturation of the market with one type of product. In addition, it is very difficult

to lack a raw material base because the entire production can be reoriented to another type of raw material base. The market advantages instead are: opening an additional quality market for primary producers, improving overall marketing performance through tasting promotion, production of production of ready meals ready for consumption immediately or after a short heat treatment, facilitating competition in the internal market by introducing new technologies and innovations, Opening up new market opportunities for fishery products.

## IDA- PILOT CASE N.7

### COMPANY

Name of the company : **Ruža**

Sector: Aquaculture

Document elaborated by: SENSUM d.o.o.

Website: /

Application domain: New Production Layout (New materials (ecologic materials for the nets and the bags used), New eco-friendly technologies for fresh-water aquaculture and marine-culture).

### PROBLEM TO SOLVE

After many years of successful business, the company needs to take a step forward in the development of crafts. In particular, for two reasons: further reduction of catches and introduction of business diversification; increase product sales, market presence and brand visibility. Moreover, their target is the use of new materials for product packaging, in order to be more environmental-friendly.

### SOLUTION

they launched 6,000 cans of sardines from their own catch. It is a pilot project that was a test to start the production of larger quantities of cans, but with brand emphasis and certification that would place it in significant markets for luxury products. The products are value added products, reducing catches and with better quality fish and canning by compensating for the difference in income and turning to sustainable fishing.

### BENEFITS

The benefits are the following: increasing placements, introducing a new catering facility, and opening new markets; increasing efficiency and quality; increased capacity to match the volume of business and new sales capacities.

## IDA- PILOT CASE N. 8

## COMPANY

Name of the company : **S.I.C. d.o.o.**

Sector: Aquaculture

Document elaborated by: SENSUM d.o.o.

Website: [lavorazione del pesce - S.I.C. d.o.o. | lavorazione del pesce \(sic.hr\)](http://lavorazione-del-pesce-S.I.C.d.o.o.lavorazione-del-pesce.sic.hr)



Application domain: sustainability (Quality of aquaculture products (virus resistance, water oxygenation, etc.); New Production Layout (packaging) and market improvement (Market expansion (national/international level)).

## PROBLEM TO SOLVE

The company after many innovations and investments, aims to become a regional leader in fish processing. The goal is to become an economic entity that will be recognized in the EU market and beyond, and to produce healthy and tasty products from the sea to the satisfaction of all end consumers. To achieve this goal, the company require from suppliers only high-quality raw materials.

## SOLUTION

The identified solution is the construction of a storage facility for fish processing and confection and analysis. The facility, with a capacity of 1500 tons of frozen and 60 tons of fresh fish, is equipped with the most modern technology, thanks to which the freshness of the raw material and the top quality of the product can be preserved. To ensure that the final product that reaches customers is of the highest quality, logistics and distribution are included in the business.

## BENEFITS

The benefits can be: the expansion of the market, the increase of quality and the expansion of production. Moreover, the project focus on a more sustainable and eco-friendly process, paying more attention toward environment.

## PILOT CASES: AGRRA- Agency for rural development of Zadar County

### AGRRA- PILOT CASE N. 1

## COMPANY

Name of the company: **KALI TUNA Ltd.**

Sector: Marine aquaculture

Document elaborated by: Vet vision Ltd.

Website: [Kali Tuna Croatia \(kali-tuna.hr\)](http://Kali-Tuna-Croatia(kali-tuna.hr))

Application domain : *Market Improvement (Improvement of consumer Awareness, Market expansion (national/international level)) and the innovative and sustainable practices (bio predation)*



*perception and  
Introduction of*

#### PROBLEM TO SOLVE

Seagulls are a big problem for tuna farms because they eat tuna food, which is approximately 150 to 200 thousand euros of food in one production year. This fact represents high costs and also losses for the company.

#### SOLUTION

The proposed solution is the introduction of bio-predation technique in moving seagulls away from the big blue fish (tuna) farm, and also to facilitate tuna production. The innovation consists in the procurement of hawks for the purpose of repelling seagulls, but not in order to kill them.

#### BENEFITS

The major advantages obtainable from this innovation are the following: reduction of production costs, facilitation of production, expansion and development of business, increasing revenues, possibility of employment

## AGRR- PILOT CASE N. 2

#### COMPANY

Name of the company: **MARIKOMERC Ltd.**

Sector: Marine aquaculture

Document elaborated by: NOACK Ltd.

Website: [www.marikomerc.hr](http://www.marikomerc.hr)

*Application domain: Market Improvement (Market expansion -national/international level)*



#### PROBLEM TO SOLVE

Food safety is very important for not only human being and wellbeing, but also for business itself. Food safety, in particular, is critical in 2 steps: food production and food processing. Food safety is conditio sine qua non for market actors who has to implement ever more innovative solutions to satisfy market demand for healthy and safe food. Under this aspect, technology will help reduce or eliminate food safety incidents and outbreaks in the future

#### SOLUTION

The implementation of new, innovative software and devices for analysing food safety and health. New hygiene monitoring system was identified in 3M™ Clean-Trace™ Hygiene Monitoring and Management System which implies the introduction of the device (3M Clean-Trace Luminometer) and software (3M™ Clean-Trace™ Hygiene Management Software) which reads the results of the samples taken.

#### BENEFITS

The major goal is the improvement of the food safety level and the hygiene processes. The advantages obtainable from this technology are the following: prevention of loss funds, quickly pinpoint where a sanitation problem occurred and address it or it could monitor where problems could occur to take preventive action, save time, save money, save on cleaning products.

## AGRR- PILOT CASE N. 3

### COMPANY

Name of the company: **PIDOĆA, trade for a bivalves farming**

Sector: Marine aquaculture

Document elaborated by: University of Zadar

Website:

Application domain: Market Improvement (Market expansion (national/international level))

### PROBLEM TO SOLVE

In Croatia, bivalve production is deficient and the technology for farming and marketing of shellfish is outdated. However, the production potential is high, primarily due to the increased demand on the domestic and EU market. The company produces only mussels through the traditional technology, but this method requires high costs due to a large amount of human labour, and so it cannot compete in price with the mussels produced by modern farming technologies. Moreover because of selling mussels in just a few summer months, the acquisition of income is limited to only a small part of the year. Another problem is the fact that in the Adriatic Sea there is an increasing growth of pathogens that cause various bivalve diseases.

### SOLUTION

The identify solution is the diversification of production by introducing the cultivation of scallops in order to have a more stable business and better positioning in the market.

### BENEFITS

The major goal is increase production by introducing new product. The advantages obtainable from this innovation are the following: increasing production, increasing competitiveness, expansion of domestic market ant to foreign markets, increasing revenues (because the introduction into the production of new species that can be placed on the market even in the period when mussels are not sold would allow it better cash flow and better resistance to various market disturbances), business stability by relying on other product and the reduction of business shocks caused by mussel disease.

## AGRR- PILOT CASE N. 4

### COMPANY

Name of the company: **SEASUN, trade for marine aquaculture**

Sector: Marine aquaculture

Document elaborated by: FUSIO Ltd

Website:

Application domain: Market Improvement (Market expansion (national/international level))

### PROBLEM TO SOLVE

In the seafood sector, many changes were made in the last 50 years, and these are visible in almost every phase, from farming shellfish, through processing to selling and delivering. Season recognizes the need for innovation in the selling process, especially during the covid-19 period. The major need is the expansion of the market, not only on local level, but also on a regional and national level.

### SOLUTION

The solution proposed is the acquisition of a mobile shellfish store. The mobile store contains all the equipment necessary to maintain the products' safety and quality from the final moment of production until the moment of sale. Food safety indeed is of the utmost importance in the mind of the consumer. The proposed layout of the mobile shellfish store includes: Three stainless steel work, Stainless steel waste bin, Refrigerated storage cabinet, Refrigerated display case for the shellfish exposition, All the necessary items for the sale of shellfish.

### BENEFITS

The advantages are the following: lower business costs, simpler administration, constant availability and greater sales reach, as the main features of the mobile shellfish store is its mobility. In addition, the introduction of a mobile shellfish store has both environmental and social impact. Indeed, Using a mobile shellfish store without the use of accompanying paperwork, contributes to the protection of the environment and nature.

## AGRR- PILOT CASE N. 5

### COMPANY

Name of the company: **ŠKRAPA, MARINE AQUACULTURE**

Sector: Marine aquaculture

Document elaborated by: University of Zadar

Website:

Application domain: Market Improvement (Market expansion (national/international level)), New Production Layout (New eco-friendly technologies for aquaculture and marine-culture).

### PROBLEM TO SOLVE

The mussels' production is done in a traditional way of farming: they are grown inside the plastic nets (called pergolari) hanged on the long lines. The production of mussels is a common activity in most of the shellfish farm along the Croatian coast and their main problem is a traditional way of production. The traditional way of production implies intensive human labour and small productivity compared to the unit or body of water since there is a lack of production technology used in other countries well known for bivalve production. The main goal so is: Raise the level of production.

### SOLUTION

Škrapa's intention is to introduce a new, innovative method of mussels farming, which would replace traditional ways of mussels farming, proven to be ineffective, costly and labor intensive. The proposed solution is the implementation of new production technologies, in particular, Škrapa company has planned a combination of two technologies: continuous line production and raft production.

### BENEFITS

The advantages are the following: increasing production; decreasing the production costs, increasing competitiveness, expansion to foreign markets, waste reduction, reduction of marine pollution. According to the last point, indeed the traditional mussel farming uses plastic ropes instead of ropes with natural materials (cotton). Plastic is one of the biggest polluters of the earth, especially the sea, but with the introduction of this method the pollution can be reduced.

## AGRR- PILOT CASE N. 6

### COMPANY

Name of the company: **Vele Mare Ltd.**

Sector: Marine aquaculture

Document elaborated by: Unicitas Ltd; Siniša Bujan

Website: /

Application domain: Market Improvement (Digitalization (e-commerce, e-marketing))

### PROBLEM TO SOLVE

The necessity to optimize the whole business process and to facilitate the customer service. As in today's business environment buying and selling goods and services on Internet is a regular occurrence for businesses and consumers, having both an online and offline presence is essential for all businesses. Moreover, the global COVID 19 pandemic showed that businesses with e-commerce recorded higher sells in comparison to those that do not offer an online purchase possibility.

### SOLUTION

The solution is the introduction of a higher degree of digitalization in the company. In particular, a web shop which will among all, allow faster communication with clients, constant presence on the market and reduction of human resources. The experts designed firstly the website and subsequently implemented a web shop solution.

### BENEFITS

The introduction of a web shop means lower business costs, reduced human resources, simpler administration, constant market availability, greater sales reach and the possibility of measurable results, fundamental to obtain information that can be used to perfected marketing communication and make smart business decisions. This solution also allows the market expansion.

## AGRR- PILOT CASE N. 7

### COMPANY

Name of the company: **Akvakultura Ltd.**

Sector: Marine aquaculture

Document elaborated by: IND4T ltd.

Website:

Application domain : Market Improvement (Digitalization (Industry 4.0))

### PROBLEM TO SOLVE

The problem recognized by AKVAKULTURA is food loss during feeding. It was estimated that only 60% of the food is actually consumed in the process of farming white sea fish. The total loss of 40% of food during the farming of white sea fish represents a significant loss realised on an annual basis.



#### SOLUTION

The problem could be solved through the digitalization and AI (artificial intelligence) of white sea fish farming. The proposed solution consists of automatic/machine fish feeding and creation of software to monitor fish development, from juvenile fish to the moment of removal from the cage. The program is named "FishView". The objective is to develop a program (application) for feeding farmed sea fish through digital monitoring of fish growth and feeding with an appropriate type of food.

#### BENEFITS

The benefits obtainable, using this system, are the following: higher yields in white sea fish farming, optimization of fish nutrition, more efficient food consumption for white sea fish, decreased environmental impact of marine fish farming. Indeed, the cultivation of marine fish in cages has a negative impact on the environment. So, the implementation of the FishView application would significantly affect this problem by minimising unconsumed fish food in cages.