

# Incuba

## Cross-border agrifood incubators

WP5 – SHARING OF CROSS BORDER POLICY  
RECOMMENDATIONS IN ORDER TO STRENGTHEN YOUTH  
ENTREPRENEURSHIP IN AGRO-FOOD SECTOR  
DELIVERABLE 5.2 – CROSS-BORDER POLICY PAPER  
(RECOMMENDATIONS) FOR SUSTAINING START-UP PUBLIC  
POLICIES

Annamaria Fiore

Lead Partner



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*Interreg V-A Greece-Italy Programme is an European Territorial Cooperation Programme that aims to help public institutions and local stakeholders to develop cross-border projects and pilot actions and to create new policy, products and services, with the final goal to improve the citizens' quality of life. Strategically, the programme will enhance innovation in a number of fields such as blue growth, tourism and culture, agro food and cultural and creative industries. Interreg V-A Greece-Italy Programme aims to get maximum return from EUR 123 million financed per 85% by European Regional Development Fund (ERDF) and per 15% by the 2 member states through a national co-financing.*

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The Deliverable 5.2, prepared with all project partners' contribution under the coordination of the Partner Beneficiary 4, ARTI

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Interreg V-A Greece-Italy Programme 2014-2020

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Axis 1: Innovation and Competitiveness

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## PROJECT ACRONYM

IncubA

## PROJECT WEBSITE URL

<https://incubaproject.eu/>

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# Foreword

The Deliverable 5.2, prepared with all project partners' contribution under the coordination of the Partner Beneficiary 4, ARTI, reports on cross border policy recommendations in order to strengthen youth entrepreneurship in agro-food sector, in the context of the implementation of the European project «CROSS BORDER AGRIFOOD INCUBATORS-INCUBA» - Cross-border agri-food incubators (project code MIS: 5003241). This Deliverable ideally follows and completes the work already undertaken by the partners for the first Deliverable within the same Work Package: "International report on policies and measures sustaining youth entrepreneurship".

This project has been financed under the Interreg V-A Greece-Italy Programme, a European Territorial Cooperation Programme that aims to help public institutions and local stakeholders to develop cross-border projects and pilot actions, and to create new policies, products and services, with the final goal to improve the citizens' quality of life. Strategically, the programme will enhance innovation in a number of fields such as blue growth, tourism and culture, agro-food and cultural and creative industries.

In particular, INCUBA project was financed under

the Priority axis 1 "Innovation and competitiveness" with a focus on agro-food sector. It delivered already a new model of incubators and it strengthened the relationships among local and cross-border partners. In this last deliverable, it proposes **recommendations and actions to create more effective public policies for sustaining agro-food start-ups**, and therefore it is addressed particularly to regional policy makers.

The methodological steps undertaken to reach this objective were numerous and differentiated. Some have favoured more analytical aspects, while others have been more participatory.

As a result, we present in this deliverable a road-map for more effective start up support policies useful for policy-makers at regional level. In the last section, we also advance some practical actions to be experimented in the next programming period 2021-2027.

## *They can be summarized as follows:*

- Strengthening the ecosystem;
- Rationalisation and promotion of the various initiatives;
- Ok incubators, but look at the accelerators;
- Tailoring of policies;
- Entrepreneurial culture;
- Reinforce internationalization and linking local products to tourism.

# Πρόλογος

Το Παραδοτέο 5.2, το οποίο προετοιμάστηκε με την συνεισφορά όλων των εταίρων του έργου κάτω από τον συντονισμό του Εταίρου 4, ARTI, αφορά σε προτάσεις πολιτικής σε προτάσεις διασυνοριακών πολιτικών που αποσκοπούν στην ενίσχυση της νεανικής επιχειρηματικότητας στον αγροδιατροφικό τομέα, στο πλαίσιο της υλοποίησης του Ευρωπαϊκού έργου «Διασυνοριακές Αγροδιατροφικές Θερμοκοιτίδες» (CROSS BORDER AGRIFOOD INCUBATORS) – INCUBA (MIS: 5003241). Το παραδοτέο αυτό αποτελεί συνέχεια και ολοκληρώνει την εργασία η οποία έχει ήδη πραγματοποιηθεί από τους εταίρους για το πρώτο παραδοτέο του Πακέτου Εργασίας: “Διεθνής αναφορά σε πολιτικές και μέτρα για την διατήρηση της νεανικής επιχειρηματικότητας”.

Το έργο INCUBA χρηματοδοτείται από το Πρόγραμμα Interreg V-A Ελλάδα - Ιταλία, ένα πρόγραμμα Ευρωπαϊκής Εδαφικής Συνεργασίας, το οποίο έχει ως στόχο να βοηθήσει δημόσιους φορείς και λοιπούς δικαιούχους να υλοποιήσουν διασυνοριακά έργα και πιλοτικές δράσεις, να δημιουργήσουν νέες πολιτικές, προϊόντα και υπηρεσίες, με απώτερο στόχο τη βελτίωση της ποιότητας ζωής των πολιτών. Στρατηγικά, το πρόγραμμα αποσκοπεί στην ενίσχυση της καινοτομίας σε τομείς όπως η γαλαζία ανάπτυξη, ο τουρισμός και ο πολιτισμός, οι πολιτιστικές και δημιουργικές βιομηχανίες και η αγροδιατροφή.

Ειδικότερα, το έργο INCUBA χρηματοδοτείται από τον Άξονα Προτεραιότητας 1 “Καινοτομία και

Ανταγωνιστικότητα” δίνοντας έμφαση στον αγροδιατροφικό τομέα. Έχει παραδώσει ήδη ένα νέο μοντέλο για θερμοκοιτίδες και ενδυνάμωσε τις σχέσεις μεταξύ τοπικών και διασυνοριακών φορέων. Σε αυτό το τελευταίο παραδοτέο, προτείνονται **συστάσεις και δράσεις για τη δημιουργία πιο αποτελεσματικών δημόσιων πολιτικών για την υποστήριξη αγροδιατροφικών νεοφυών επιχειρήσεων**, και για το σκοπό αυτό απευθύνεται κυρίως σε περιφερειακούς φορείς διαμόρφωσης πολιτικών.

Η μεθοδολογία που ακολουθήθηκε για την επίτευξη του σκοπού αυτού αποτελείται από διάφορα βήματα, είτε με ανάλυση δεδομένων είτε μέσω συμμετοχής και διαβούλευσης.

Ως αποτέλεσμα, παρουσιάζεται ένας οδικός χάρτης χάραξης πολιτικών για την αποτελεσματικότερη υποστήριξη των νεοφυών επιχειρήσεων σε περιφερειακό επίπεδο. Στην τελευταία ενότητα, παρουσιάζονται επίσης οι ακόλουθες δράσεις – προτάσεις οι οποίες θα μπορούσαν να υλοποιηθούν δοκιμαστικά στην επόμενη προγραμματική περίοδο, 2021-2027:

- Ενίσχυση του οικοσυστήματος νεοφυών επιχειρήσεων αγροδιατροφής;
- Εξορθολογισμός και προώθηση πρωτοβουλιών;
- Επικέντρωση σε επιταχυντές επιχειρήσεων (business accelerators) εκτός από θερμοκοιτίδες;
- Προσαρμογή πολιτικών;
- Επιχειρηματική κουλτούρα;
- Ενίσχυση της διεθνοποίησης και διασύνδεση των τοπικών προϊόντων με τον τουρισμό.

# Premessa

Il Deliverable 5.2, preparato con il contributo di tutti i partner del progetto sotto il coordinamento del Partner Beneficiario 4, ARTI - Agenzia Regionale per la Tecnologia e l'Innovazione, riporta le raccomandazioni politiche transfrontaliere per rafforzare l'imprenditorialità giovanile nel settore agroalimentare, nel contesto dell'attuazione del progetto europeo «CROSS BORDER AGRIFOOD INCUBATORS-INCUBA» - Incubatori agroalimentari transfrontalieri (codice progetto MIS: 5003241). Questo Deliverable segue idealmente e completa il lavoro già intrapreso dai partner per il primo Deliverable all'interno dello stesso Work Package: «Rapporto internazionale sulle politiche e misure a sostegno dell'imprenditorialità giovanile».

Questo progetto è stato finanziato nell'ambito del Programma Interreg V-A Grecia-Italia, un programma di cooperazione territoriale europea che mira ad aiutare le istituzioni pubbliche e gli stakeholder locali a sviluppare progetti transfrontalieri e azioni pilota e a creare nuove politiche, prodotti e servizi, con l'obiettivo finale di migliorare la qualità della vita dei cittadini. Strategicamente, il programma promuoverà l'innovazione in diversi campi come la crescita blu, il turismo e la cultura, l'agroalimentare e le industrie culturali e creative.

In particolare, il progetto INCUBA è stato finanziato

nell'ambito dell'asse prioritario 1 «Innovazione e competitività» con un focus sul settore agroalimentare. Ha già fornito un nuovo modello di incubatori e ha rafforzato le relazioni tra partner locali e transfrontalieri. In quest'ultimo rapporto, propone raccomandazioni e azioni per creare politiche pubbliche più efficaci per sostenere le start-up agro-alimentari, e quindi si rivolge in particolare ai decisori politici regionali.

I passi metodologici intrapresi per raggiungere questo obiettivo sono stati numerosi e differenziati. Alcuni hanno privilegiato aspetti più analitici, mentre altri sono stati più partecipativi.

Di conseguenza, presentiamo in questo deliverable una road-map per una più efficace politica di supporto alle start up, utile per i decisori politici a livello regionale. Nell'ultima sezione, inoltre, vengono avanzate alcune azioni pratiche da sperimentare nel prossimo periodo di programmazione 2021-2027.

## ***Esse possono essere riassunte come segue:***

- Rafforzare l'ecosistema;
- Razionalizzazione e promozione delle varie iniziative;
- Ok incubatori, ma guardare agli acceleratori;
- Adeguamento delle politiche;
- Cultura imprenditoriale;
- Rafforzare l'internazionalizzazione e collegare i prodotti locali al turismo.

# Introduction

Already in 2014, the **European Council highlighted the crucial role of young people for the sustainability and long-term competitiveness of European agriculture. In fact, young entrepreneurs are seen as protagonists of the transfer of innovation in the agricultural sector, more interested in the introduction of sustainable practices, diversification of production and multifunctionality of the enterprises.** More recently, in Horizon Europe, the new EU's Research and Innovation Framework Programme for the programming period 2021-2027, one of the main novelties is the establishment of a single point of reference to bring the most promising and revolutionary technological innovations from the laboratory to the market, in order to support start-ups and the most advanced SMEs in the development of their ideas. **The new European Innovation Council (EIC) will help to identify and finance high-risk, rapidly evolving innovations with high market potential.**

For this reason, it is necessary to invest in rethinking policies to support youth entrepreneurship in agriculture in order to make them more responsive to real needs and therefore more effective.

## The start-up ecosystem in Europe

Despite a growing attention towards innovation and business creation process, changes in development of SMEs in Europe do not show any significant variation, finally resulting into a very low impact on associated employment level: unemployment rates in many European countries demonstrate that evolution strategies for many companies continue to be based on labour costs reduction. In this scenario, start-ups are not exception. To a certain extent, for some practitioners, often they seem to be more “unstructured moments of individual creativity”, rather than effective business projects (Citelli, 2018).

Usually, the main reason identified for the European “Death Valley” is the lack of structured private investment funds: participation by business angels and venture capitalists in the start-ups' equity (Figure 1). This absence of private investors leads European public policies to «force» the development of business creation, through financial support and grants. Now without a relevant success: the result of this effort is a huge pushing of youth creativity, but often with no real experience in execution, no competence in company and risk management.

Figure 1. Start-ups' different sources of finance

Equity	Debt	Grant (Gift)
<ul style="list-style-type: none"> <li>• Owners' capital</li> <li>• Family &amp; Friends</li> <li>• Crowdfunding</li> <li>• Business Angels</li> <li>• Venture Capital</li> </ul>	<ul style="list-style-type: none"> <li>• Family &amp; Friends</li> <li>• Loan / Line of credit</li> <li>• Supplier credit</li> <li>• Crowdfunding</li> </ul>	<ul style="list-style-type: none"> <li>• Crowdfunding (gift)</li> <li>• Government grants</li> </ul>

Source: ARTI's adaptation from Giustacchini (2014)

A recent on-line article published in McKinsey & Company's "Our Insights" highlights how the European start-up ecosystem, despite its acceleration, still it shows weaknesses<sup>1</sup>, especially in achieving successful late-stage outcomes. In fact, their analysis proves that with respect to USA, Europe's start-ups are still fewer in number, raise less money, and have a 30% lower likelihood of success (defined as the percentage of start-ups that reach Series C funding, go public, or are acquired). Moreover, adjusted for population and GDP, the number of European seed-stage start-ups is only 40 percent of that in USA. Anyway, even if European start-ups progress from one funding rounds to another one less rapidly, this does not mean that they face bankruptcy more frequently.

## Despite this accelerated activity, European start-ups still lag in achieving successful late-stage outcomes when compared with other start-up ecosystems

*The same article lists also the five main challenges European start-ups have to face.*

**1 Europe is not a single market.** Customers' behaviour and preferences vary considerably across countries and this has a quite huge impact for business focus, marketing adaptation, and market size. Still, many differences survive in regulatory framework.

**2 Lower supply of late-stage capital.** This difference with respect to USA market is often attributed to higher European investors' risk aversion and to differences in funding sources: the biggest funders of European VCs tend to be governments and corporate investors, whereas in USA the bigger investors are large retirement and pension funds. Differences reflect on interests and goals.

<sup>1</sup> Europe's start-up ecosystem: Heating up, but still facing challenges: <https://www.mckinsey.com/industries/technology-media-and-telecommunications/our-insights/europes-start-up-ecosystem-heating-up-but-still-facing-challenges?cid=other-eml-alt-mip-mck&hdpid=6147244d-472b-4ad6-bf48-3ae7e86a9d18&hctky=10105207&hlkid=037df2b129ce4b829cbab8ee04afc401> (last checked on October 19, 2020).

- ③ **Lack of pervasive business culture in Europe.** This leads to differences in how a failure is experienced and perceived socially and to more conservative approach and less unscrupulousness.
- ④ **More difficulties in attracting talents.** This is attributable to unfavourable equity and stock-option rules and a low number of experienced executives and other talents.
- ⑤ **Low concentration in terms of capital, knowledge, and talent in the innovation “super-hubs”.** Not only innovation super-hubs in Europe have not reached a concentration level comparable to the one attained in the USA, but also relocating in Europe is far more difficult due to different cultures (see point 1).

***Finally, the article advances some proposals to overcome these challenges:***

- *Legal harmonization across Europe and active policy making;*
- *Leveraging European public sector and its relative strength in the B2B arena;*
- *Supporting the culture and capital needed to further grow European start-up ecosystem.*

We keep in mind these conclusions in making our own recommendations for sustaining start-up public regional policies for the agro-food sector.

Anyway, as the same article reports, the European start-up ecosystem has developed considerably over the last five years, also thanks to governments’ support in promoting entrepreneurship.

## Main characteristics of the Greek Start-Up Ecosystem

Greek start-up ecosystem became a ‘visible’ phenomenon during the 2007-2008 financial crisis. In fact, in the years following the Greek crisis, entrepreneurship in Greece has emerged as a driver for growth restoration and job creation, and it furtherly reinforced in the last years, in which the system is experiencing a phase of consolidation with new successes and a lot of balancing out. Nevertheless, the size of Greek start-up system is not easily measurable. It is estimated around 2000 start-ups in total. In particular, the city of Athens is witnessing a concentration of start-ups. Most of the Greek start-ups operate on the Industrial

Technology / Production Hardware category (17.1%), and their business model is mainly B2B with some B2C (20%). They present a high degree of internationalization. Among the start-ups that are already having some revenue, the most part of them (about 70%) are earning up to 50 thousand euros, holding the lowest position among European countries overall<sup>2</sup>.

<sup>2</sup> [https://www.enterprisegreece.gov.gr/files/pdf/startup2019/5-The-Greek-Startup-Scene\\_2019.pdf](https://www.enterprisegreece.gov.gr/files/pdf/startup2019/5-The-Greek-Startup-Scene_2019.pdf)

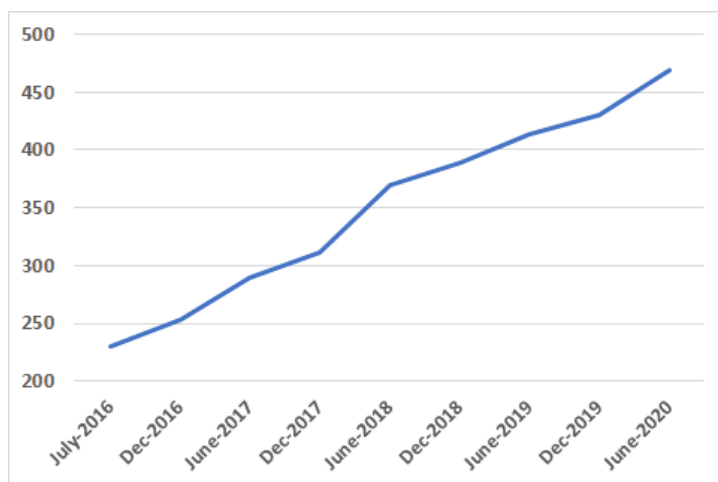
## Main characteristics of the Italian Innovative Start-Up Ecosystem

Starting from 2012, with the so-called «Growth 2.0 Decree», in Italy a series of legislative provisions have been introduced the «innovative start-ups» in the national normative system. They are beneficiaries of specific tax benefits and are entered in a special section of the Register of Companies provided that they meet at least one of the three requirements of innovation provided for by the legislation, relating to:

- *R&D*: R&D expenditures are at least 15% of the total production value (or costs, if higher) of the innovative start-up;
- *human capital*: 2/3 of the team is made up of staff with a master's degree; or 1/3 is made up of PhD students, PhDs graduates with 3 years of experience in certified research activities;
- *intellectual property*: owner or holder or licensee of at least one industrial property right (relating to an industrial or biotechnological invention, a semiconductor product topography or a new plant variety) or holder of the rights relating to an original computer program.

The special section of the Register is updated on a biweekly basis and contains a series of useful information to get to know this reality more closely. According to data updated in July 2010, in Italy there are 11.533 innovative start-ups. As it is logical for most companies, in Italy there is also a strong concentration of start-ups near the most important urban centres of the country, such as Milan and Rome. This is due also to the historical presence of venture capital money in the North.

Figure 2. Innovative start-ups in Puglia. July-2016/June 2020 (six-monthly data)



Source: ARTI's elaboration on InfoCamere data

Among the emerging Italian start-ups, the «standard profile» of the company is characterised by a workforce of up to four people (about 30% out of total), a turnover estimated to be within one hundred thousand euros, with capital ranging between five and ten thousand euros (about 40% out of total). There are also realities that have taken on a decidedly more structured character, but they represent a rather small percentage of the entire Italian innovative start-ups.

The majority of the companies surveyed operate in the service sector (about three quarters of the total) within which almost half orbit around software production. Only the 0.60% of Italian innovative start-ups are active in agro-food and fishery sector and only in the 9% of the cases there is an exclusive youth prevalence.

Encouragingly, there is a growing trend in the number of registrations to the Register (from 2013 to date) and the increase in the number of companies with high technological value in recent times<sup>3</sup>.

Puglia follows the national trend of constant growth in the number of innovative start-ups registered and with the majority operating in the service sector and ICT in particular.

3 <https://www.infodata.ilssole24ore.com/2019/08/12/38945/>

# 1. Methodological approaches

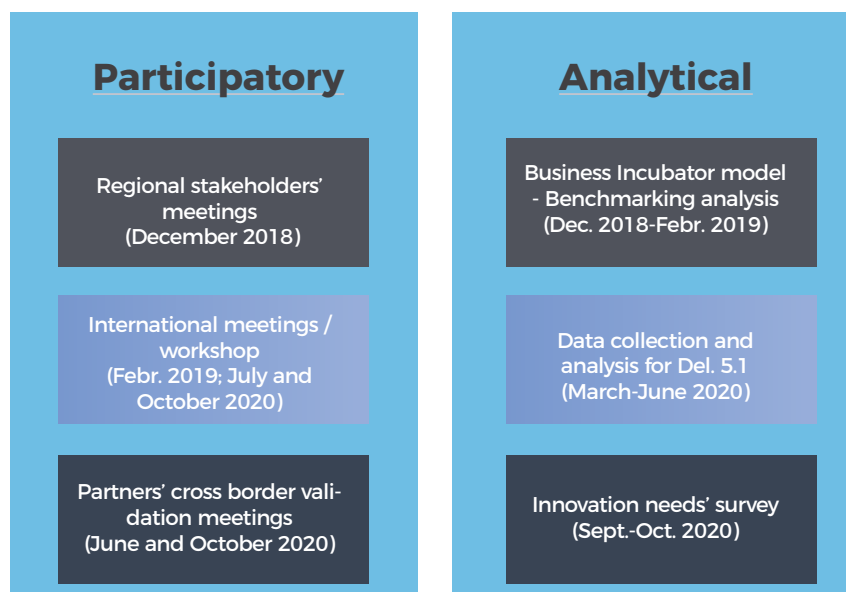
This deliverable is the last one to be produced among those foreseen by the project and in its final phase. It is natural that it draws on all the data, information, and suggestions collected throughout the project. Indeed, all along the INCUBA project (operationally started on July 2018), partners organised several activities to collect comments and insights from relevant local and international stakeholders.

## ***Two are the main methodological approaches used:***

- ***Participatory: in these activities, priority was given to open discussion between partners and between these and the relevant stakeholders, properly animating the debate with ideas drawn from the analyses gradually conducted and through the collection of qualitative data;***
- ***Analytical: in these activities have been extensive used quantitative analysis methods, through the provision of questionnaires and surveys or the collection of data from official sources and subsequent statistical analysis of such data.***

In the figure below the main activities, distinguished according one of the two approaches used, are listed.

Figure 3. Methodological approaches and activities implemented towards policy recommendations in INCUBA project



The information gathered in this way is complementary and therefore results achieved can be considered robust and complete.

## 2. Agrofood in RWG and Puglia: Data collection and SWOT Analysis

For both the Regions involved in the INTERREG Greece-Italy Programme area, Region of Western Greece and Puglia Region, **agriculture and agro-food production are of particular importance in their economies**, so much so that they are included in their Smart Specialization Strategy (S3) official documents, «Smart Specialization Strategy for the Region of Western Greece» (2015) and “Smart Puglia 2020” (2014-2015).

Companies with a significant economic presence in the two regions have activities related to the production, processing and trade of agricultural products, which will demonstrate significant performance in terms of both domestic consumption and export orientation.

Their strategicity is confirmed by the data we collected for the first Deliverable planned in the same Work Package, “International report on policies and measures sustaining youth entrepreneurship”.

In this Deliverable we used data about demographics, education, economic accounts, business demography, labour market statistics, and manufacture of food products statistics we collected previously to advance a SWOT Analysis in its first part (Strengths and Weaknesses).

In general, we can affirm that the primary sector seems to confirm itself as a sector with good employment opportunities, also in terms of qualifications required: both in terms of contribution to employment growth and localisation, the agro-food manufacturing sector confirms a role of primary importance in the regional economies of RWG and Puglia.

Table 1. Region of Western Greece: Strengths and Weaknesses

S – STRENGTHS	W – WEAKNESSES
<ul style="list-style-type: none"> <li>• high participation rates in tertiary education (13.9%)</li> <li>• high employment rate in agriculture (21.2%)</li> <li>• high technology and knowledge-intensive occupations concentrated in agriculture sectors (27.4%)</li> </ul>	<ul style="list-style-type: none"> <li>• NEET (23.7%)</li> <li>• modest contribution to national GDP</li> <li>• low employment rate (50.1%)</li> <li>• high long-term unemployment (17.5%)</li> </ul>

In many cases, strengths and weaknesses for Puglia are the same as for RWG. Anyway, some relevant differences can be traced as well.

Table 2. Puglia: Strengths and Weaknesses

S – STRENGTHS	W – WEAKNESSES
<ul style="list-style-type: none"> <li>• high share of agricultural services offered on the total agricultural output (11%)</li> <li>• high birth rate of enterprises and of relative survival rate (after 3 yrs.)</li> <li>• good growth rate of employment in manufacture of food products sector (3.3%)</li> </ul>	<ul style="list-style-type: none"> <li>• low participation rates in tertiary education (2.2%)</li> <li>• NEET (33.4%)</li> <li>• modest contribution to national GDP</li> <li>• low employment rate (45.5%)</li> </ul>

As regards opportunities and threats, we treat them in a more general way and can summarize them as follows:

Table 3. RWG and Puglia: Opportunities and Threats

O – OPPORTUNITIES	T – THREATS
<ul style="list-style-type: none"> <li>• the new European Innovation Council (EIC) support in identifying and financing high-risk, rapidly evolving innovations with high market potential</li> <li>• the initiative ‘Youth Employment Support’ launched by European Commission</li> <li>• growing awareness about environmentally conscious products and sustainability considered as a business opportunity especially in the agro-food sector</li> <li>• greater importance in the markets attached to high quality of the raw material/final products and to the close relationship between food, tourism and its territory</li> <li>• increased use of ICT and of the precision agriculture in the production and processing phases</li> <li>• the coronavirus crisis has given innovative entrepreneurs the chance to seek bigger and new market share while implementing the resilience concepts necessary to face any future crises</li> </ul>	<ul style="list-style-type: none"> <li>• impact of the ongoing coronavirus crisis on Europe’s start-up and innovation ecosystem, particularly in terms of liquidity, the reduced investment capacity of business angels and the need to make often drastic adjustments to adapt to the new reality</li> <li>• some agro-food supply chains damaged during the pandemic emergency</li> <li>• low capacity to intercept global markets</li> <li>• decreasing trend in food consumption</li> <li>• low investments in R&amp;D / difficult R&amp;D collaboration</li> </ul>

Source: ARTI’s adaptation from McKinsey (2020), SEERC (2020), Fiore, Stasis and Pellegrini (2018)

### 3. Start-uppers' innovation needs

At the end of September 2020, ARTI launched an on-line survey about start-uppers' innovation needs via Google Forms. This output corresponds to the Deliverable 4.4.5 of the INCUBA project. The on-line mode was selected due to current pandemic restrictions.

The survey (in Italian) is available at this [\[link\]](#).

#### ***The questionnaire contained 6 questions:***

- ① Description of core-business (some categories identified)
- ② Relative importance of 19 different innovation needs (on a 1-5 Likert scale)
- ③ Specific innovation needs for agro-food start-ups
- ④ Most effective modalities to meet the innovation needs (some categories identified)
- ⑤ Proposals to strengthen regional policies in support of youth entrepreneurship
- ⑥ Start-up denomination (optional)

The invitation to take part at the survey was send by ARTI via e-mail to all the 10 start-ups accompanied as part of the INCUBA project, but also to other start-uppers' teams beneficiaries of the measure Pugliesi Innovativi – PIN of the Puglia Region operating in the agro-food sector.

At the end of the survey (established on October 5, 2020), ARTI received 12 single answers in total.

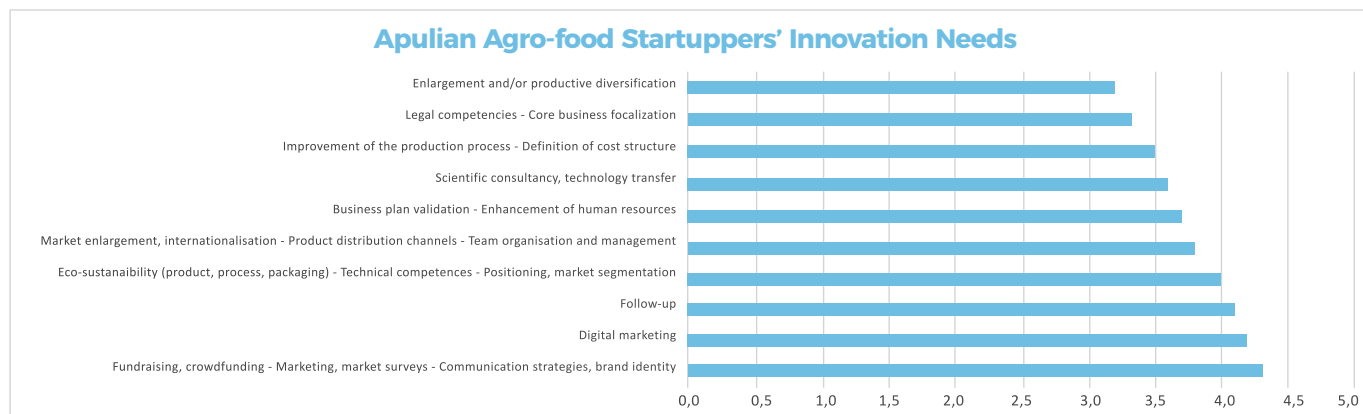
Apulian start-uppers that took part in this survey are mainly active in the Valorisation of typical crops (22.2% out of total) and in the Food-related training / didactic activities (16.7%). Relatively important are also Innovative / enhanced foods; Reuse of food waste, and Wine and gastronomic valorisation (all of them with a share of 11.1%). More detached, instead, for relative importance, Nutraceuticals and Precision agriculture (both of them with a share of 5.6%). In three cases start-uppers inserted other categories. No one of them is active in Innovative packaging.

#### ***In the survey, start-uppers were required to evaluate their innovation needs according a Likert scale as follows:***

- ① Not relevant
- ② Not very relevant
- ③ Averagely relevant
- ④ Definitely relevant
- ⑤ Highly relevant

The complete quantitative analysis of the innovation needs is showed in the Figure 4. For each item, the average value of the ratings received has been calculated.

Figure 4. Survey about innovation needs for Apulian agro-food start-ups carried out by ARTI in September - October 2020. Average evaluation  
 (Likert scale 1-not relevant/5-highly relevant)



Even if there are not great differences in the ratings assigned to different innovation needs (the average evaluation, actually, varies from a minimum of 3.2 to a maximum of 4.3), notwithstanding this it is evident how **financial aids and marketing are the most relevant innovation needs for start-uppers** surveyed.

In addition, if we aggregate the innovation needs per macro-area, we can note, again, that marketing needs are the most relevant (4.27), financial constraints follow (4.25), then needs connected to the follow-up (4.08), production process (3.8) and human resources (3.75). For more details, see Table 4.

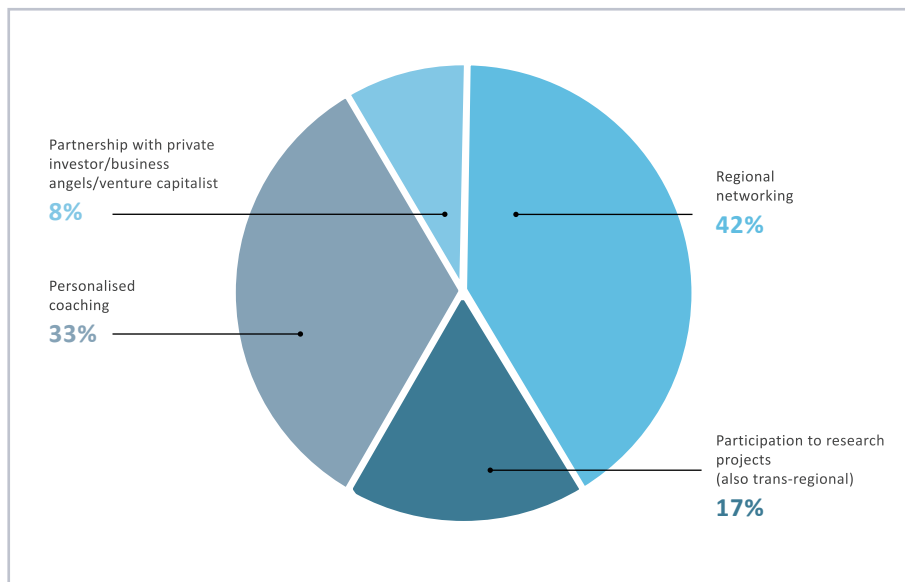
Table 4. Average evaluation for macro-area of innovation needs

Macro-area of needs	Sub-categories	Average evaluation
<b>Marketing</b>	Marketing, market surveys Communication strategies, brand identity Digital marketing	4.27
<b>Finance</b>	Fundraising, crowdfunding	4.25
<b>Follow up</b>	-	4.08
<b>Productive process</b>	Improvement of the production process Eco-sustainability (product, process, packaging)	3.80
<b>Human resources</b>	Team organisation and management Enhancement of human resources	3.75
<b>Product and market</b>	Positioning, market segmentation Market enlargement, internationalisation Product distribution channels Enlargement and/or productive diversification	3.70
<b>Specialised expertise</b>	Technical competences Scientific consultancy, technology transfer Legal competencies	3.63
<b>Business idea and start-up structuring</b>	Core business focalization Definition of cost structure Business plan validation	3.5

Source: ARTI

As far as modalities to overcome these obstacles are concerned, answers are depicted in the Figure below:

Figure 5. Modalities considered most effective by Apulian start-ups to address innovation needs



Source: ARTI

Interestingly to note, none of the Apulian start-upper participating in the survey selected the category “Seminars and workshop”, even if it was available.

The survey also made it possible to identify the specific needs felt by start-ups in the agro-food sector. In particular, they reveal the necessity to activate and be part of territorial networks and to reinforce relationships with other similar start-ups (for the 30% of surveyed start-ups); to receive institutional support for certification and promotion of typical productions; to have concession of agricultural land (public) for experimental activities.

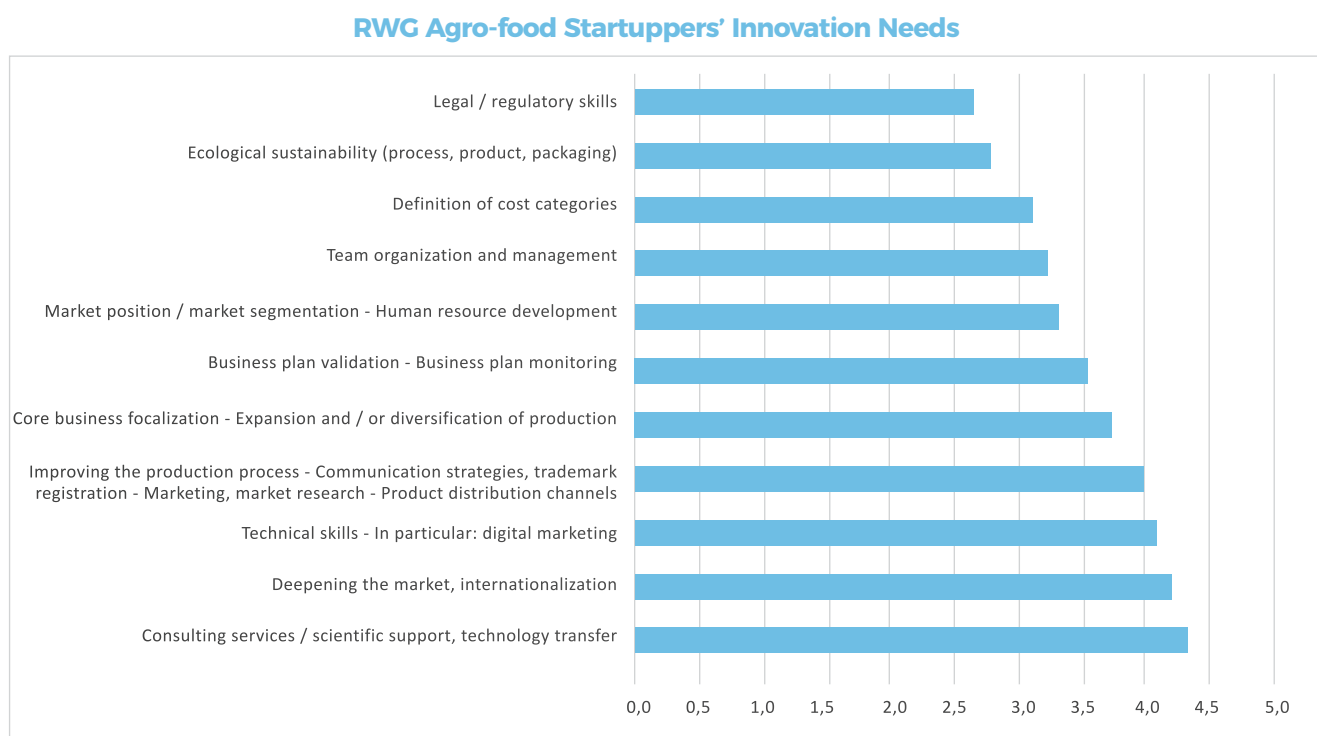
### Finally, survey itself also collected some policy recommendations:

- *Finance aid (non-refundable microseeds for young people; specific measures for development aid; combination between public resources and private investment; award systems; subsidies for hiring new staff, etc.);*
- *Educational pillar – entrepreneurial culture (mentoring; accompanying paths; ad-hoc paths for different levels of start-up; acceleration paths and strengthening skills, etc.);*
- *Networks (connect the south of the region with the center; regional start-up database; creation of territorial networks and support for settlement in new markets, etc.);*
- *Increasing and strengthening policies for the development and financing of new technologies in agriculture;*
- *Support projects that survive the time of the call with specific funding;*
- *Support to revise business model in view of digital transformation (pandemic emergency).*

A similar survey was launched by INCUBA Greek partners some weeks later, slightly adapting the one launched by ARTI. In total, 9 start-ups took part in this survey. For the most part, they are active in Enhancing local farming and in Innovative/Enhanced food-products (20% each). Other fields where these start-ups are operating are: Nutraceuticals; Reuse of food waste; Precision farming; and Innovation in packaging (all of them at 13.3%). Finally, one is involved in Gastronomy enhancement. None in Educational / teaching activities related to food.

In the figure below, the evaluation of innovation needs by RWG start-ups':

Figure 6. Survey about innovation needs for RWG agro-food start-ups carried out by INCUBA Greek partnersa in October 2020.  
 Average evaluation  
 (Likert scale 1-not relevant/5-highly relevant)



On a Likert scale from 1 to 5, the average ratings of innovation needs by RWG and Apulian start-ups appear to be aligned in terms of needs for Specialised expertise and Business idea and start-up structuring (average about 3.5 on average).

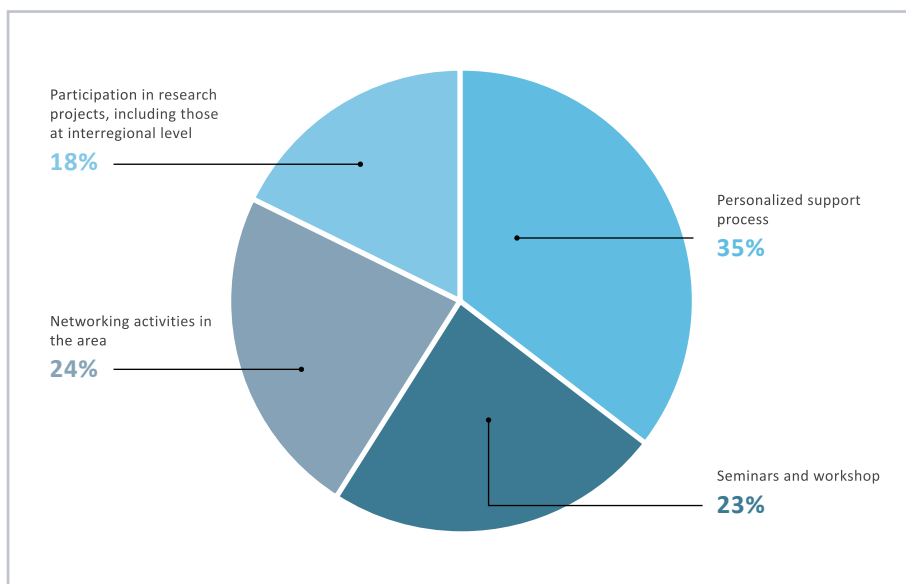
***RWG start-ups compared to Apulian ones evaluate less relevant the aspects related to:***

- Human resources (3.3 vs. 3.8)
- Marketing (3.8 vs. 4.3)
- Productive process (3.4 vs. 3.8)
- Finance (4.0 vs. 4.3)

On the other hand, they consider more relevant aspects related to Product and market (4.0 vs. 3.7).

Finally, the results concerning modalities considered most effective by RWG start-ups to address innovation needs are showed in the Figure below:

Figure 7. Modalities considered most effective by RWG start-ups to address innovation needs



Apart a slight prevalence of Personalized support process (about a third out of total responses), other modalities are considered more or less equally effective (between 18% and 24% out of total responses).

## 4. Open discussion with stakeholders and experts

During INCUBA project (started operationally in July 2018), partners have organized several occasions to discuss and debate about agro-food incubators, accelerators, and innovative start-ups ecosystem with local stakeholders and experts, both in RWG and in Puglia.

The points for discussion have always sparked debate, testifying to how these issues are considered of vital importance for the territories concerned.



### ***Some of the issues that emerged and were discussed during the meetings with local stakeholders were:***

- ***strengthening of the ecosystem***, understood as structured connections among stakeholders, also a wider involvement of private financiers and mature enterprises (also as bearers of innovation needs in the system). Stakeholders generally consider systemic networking as positive and enlarging it to involve the overall ecosystem as crucial;
- ***developing a recognised system of skills*** also for those who offer the accompanying services and can really allow to assist start-ups. Create a well-structured value chain supporting start-up system;
- ***proof of concept***: i.e. reaching a prototype and carrying out market evaluation tests and technological assessment;
- ***creating opportunities for synergies and networking***, including those among ongoing projects;
- ***better coordination*** among youth-employment initiatives and ***stronger collaboration with the employers*** are crucial elements to increase the effectiveness of any measures on the local and national level;
- ***balancing between internationalization and local context***. Programmes are highly effective when adjusted to the local context and implemented flexibly with a degree of local autonomy;
- ***renewed importance attached to agro-food***, especially in pandemic situation;
- ***capitalization of projects, initiatives, and results*** through a strengthened collaboration also among other European Territorial Cooperation projects;
- ***guarantying financial sustainability over time*** to start-ups.

## 5. Principles to which more effective start-up support policies should be inspired

From an economic point of view, policies to support youth entrepreneurship can be justified given the high rates of unemployment among the younger age groups in the two regions under consideration: 44.7% in RWG and 43.6% in Puglia, about three times the rate of youth unemployment in the 15-24 age group recorded at EU28 level, 15.2% (EUROSTAT, data updated to 2018). We would then be faced with a **market failure**, in which the labour market alone is unable to allocate the labour supply from younger people.

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**Policies to support youth entrepreneurship are justified since in the South Europe we observe a market failure: labour market alone is unable to allocate the labour supply from younger people.**

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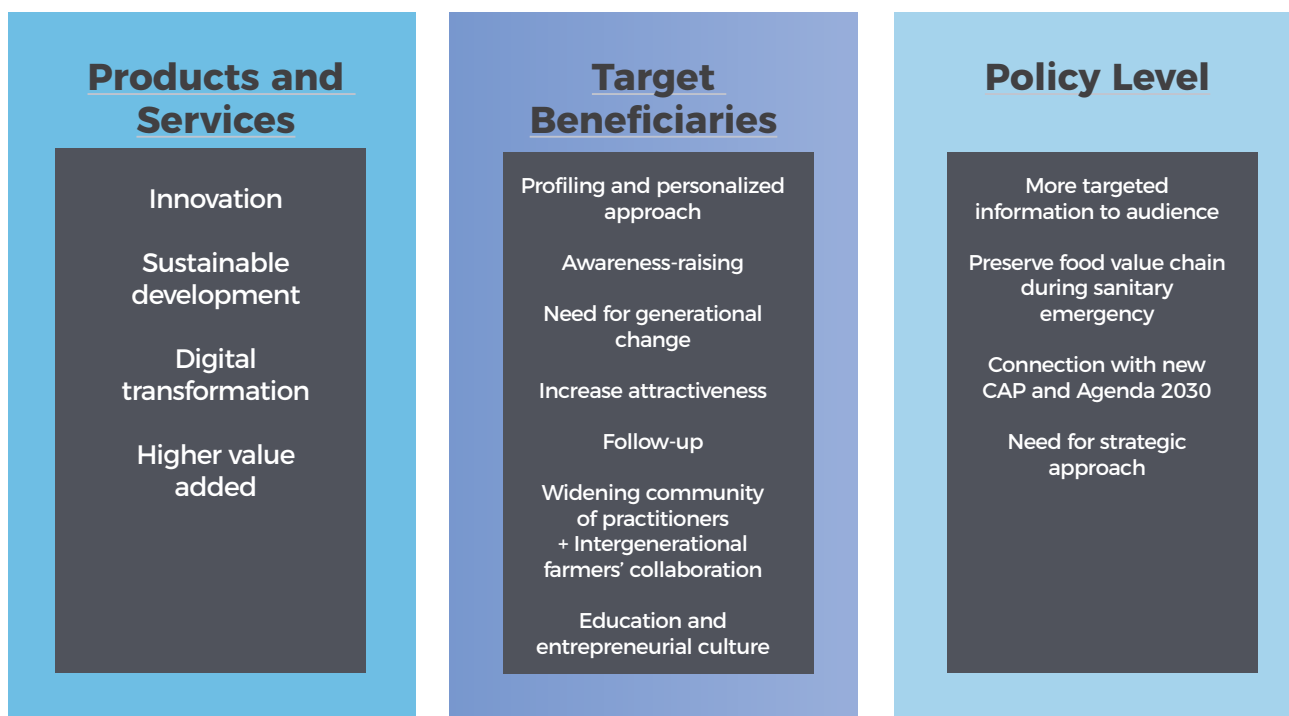
In the last decades, also in the two regions under consideration there has been a flourishing of measures dedicated to the “conception” of new business, as we presented in the first Deliverable of this Work Package, often neglecting to strengthen them at a more advanced stage. For example, these measures often lack longer-term follow-up measures. Given the particular competitive advantage that agriculture and agri-food production have in the territories involved in the Interreg Greece-Italy Programme area, it is of paramount importance develop and adopt measures for supporting young entrepreneurship specifically conceived for this sector.

During preliminary activities prodromal to the preparation of this Deliverable, INCUBA partners collected a series of principles that should inspire policies for sustaining agro-food start-up and entrepreneurship in the next programming period.

***For clarity’s sake, we listed them into three broad categories:***

- *recommendations considering the ‘content’ of the entrepreneurial idea, i.e., the product or service to be developed and launched on the market;*
- *recommendations related to the target beneficiaries, the young agro-food start-uppers;*
- *finally, recommendations to a more general level, that we classified as at policy level.*

Figure 8. The three categories of principles that should inspire policies for sustaining agro-food start-up and entrepreneurship in the next programming period



*Whenever considered of particular relevance, we further detailed these principles in the lines underneath:*

#### ■ Sustainable development

Young entrepreneurs are protagonists of the transfer of innovation in the agricultural sector, more interested in the introduction of sustainable practices, diversification of production and multifunctionality of the enterprise.

#### ■ Need for generational change

Generational change in agriculture represents one of the greatest needs and challenges and is recognised as a priority on the EU's political agenda.

Already in 2014, the **European Council highlighted the crucial role of young people for the sustainability and long-term competitiveness of European agriculture.**

The European Commission's Communication of 29 November 2017, in setting out guidelines for European agricultural policy post-2020, identifies generational change as a priority within a new strategic framework. The document assigns to the CAP the task of reducing risks in the first years following the start-up of an agricultural enterprise by offering a system of support for the first establishment combined with appropriate incentives to encourage the exit of older generations and the transfer of knowledge between generations as well as to increase land mobility and facilitate succession planning e.g. through the use of advisory services, mentoring and preparation of «succession plans for farms». However, despite

a well-established tradition of public interventions in this sense, the establishment of the new generations in agriculture does not yet appear to be stimulated in a way that can be considered effective and incisive.

### ■ Intergenerational farmers' collaboration

Some simple match-making mechanisms, easily replicable even at local level, should be put in place between older and younger farmers.

### ■ Education and entrepreneurial culture

A decisive role is to be given to the “cultural” pillar, strictly connected to education and training: it is important to instil, especially in the younger generations, the attitude to entrepreneurship that includes creativity, innovation, risk taking, ability to plan and manage projects in order to achieve objectives. Education policies and measures can be considered “systemic” actions, the effect of which is longer lasting and more pervasive than financial measures, which instead have an immediate but more circumscribed effect.

In recent years, at various levels (European, national, regional), the actions characterised by a more cultural than financial approach have been expanded.

### ■ More targeted information to audience

This is justified since there is usually a poor participation in agriculture/agro-food sector in the general measures.



## 6. Recommendations and suggestions: some practical actions to be implemented

Before proposing any recommendation for sustaining agro-food youth start-ups, it is convenient to remember and try to understand how many transformations the sector has already gone through and, with the **fundamental contribution of innovation and creativity**, what contaminations it has already usefully experienced and how many collateral sectors it is open to. Anyway, **agro-food in general, but agricultural production in particular, is a riskier economic activity** than other ones and this characteristic should be considered in policy setting.

*Without claiming to be exhaustive, the following business activities can also be traced back to the enlarged agro-food sector:*

- *Valorisation of typical crops;*
- *Food-related training / didactic activities;*
- *Innovative / enhanced foods;*
- *Reuse of food waste;*
- *Wine and gastronomic valorisation;*
- *Nutraceuticals;*
- *Precision agriculture;*
- *Innovative packaging.*

In the next future, it should be important or rather **vital and essential connecting more and more agro-food with social innovation, digital and green revolution.**

Keeping these transformations in mind, we organized our recommendations around six main themes. As it will be evident, there are strong connections among the different themes, even if they have been distinguished only for greater expositive clarity. Whenever it has been possible, we have also reported some good practices.

## ■ STRENGTHENING OF THE ECOSYSTEM

In the two regions involved in the Interreg Greece-Italy Programme area, it is still evident a weakness of the ecosystem, understood as structured connections between subjects. It is important to intervene to **minimize networking costs** and to establish greater capacity building among senior enterprises, start-ups, research organizations, etc. In this sense, the INCUBA project itself has set the goal of setting an ‘Agreement for collaboration among businesses incubators and entrepreneurship creation organizations in the agri-food sector’.

Moreover, it is important to **create critical mass** (among start-uppers, private funders, etc.) and the opportunities for **contamination effects at different levels**: among start-ups at different technological level, among competencies and skills within the same team, among older and younger farmers, and so on. A way should be registering and tracking start-ups: this has the potential to highlight new start-ups, create synergies with each other and with other businesses, attract investors’ interest, and showcase the region’s potential in specific areas.

From the point of view of public funding Managing Authorities, it is also important **to ensure spill-overs between different projects** funded by the same Programme.

### **Good practice identified: POS4work – Innovation and Entrepreneurship Hub, Patras, Greece**

*Through actions aiming on the creation of an innovative ecosystem, POS4work has developed a wide collaborative network consisting of academic institutions, embassies, large organizations and companies, as well as a dynamic community of start-up companies and talented students. In 2018, POS4work in collaboration with the University of Patras, has created the RE-STARTUP Patras incubator from which 40 teams have graduated. In collaboration with the US Embassy and the NGO Intermediakt, POS4work has created the Social Bus Programme in order to support Social Entrepreneurship. In parallel, it co-organizes high-acceptance actions such as “Patras Codecamp” and “Startups Online”. Its aim is to contribute to the evolution of the city of Patras and Greece in general, into a creative and technological center.*

More info at: <https://www.pos4work.gr/>

## Good practice identified: MEDITERRANEAN INNOVATION HUB

*The Mediterranean Innovation Hub is an international centre of excellence for innovation and business creation, combining training, internationalisation and open innovation. The centre relies on a Public-Private agreement since it is made up of CIHEAM Bari, University of Bari Aldo Moro, Almacube srl - UniBo, Confindustria Puglia, Confcooperative Puglia and Legacoop Puglia.*

*The aim of the Hub is to promote youth employment and economic development in the Mediterranean area, through innovation in enterprises and the creation of start-ups, the collaboration between research and work, the education of the new generations to an entrepreneurial approach oriented, in particular, to the achievement of the Sustainable Development Goals (SDGs).*

More info at: [C\\_S\\_Mediterranean\\_Innovation\\_/1324/https://www.iamb.it/uploads/attachments/Hub.pdf](https://www.iamb.it/uploads/attachments/Hub.pdf)

## Good practice identified: NEOSHOP

*Neoshop facilitates networking between start-ups: it has been a platform (not only virtual) for the launching of innovative products. Established in September 2013, Neoshop presented two main features:*

- *it was both a shop, which commercialises new products launched by start-ups;*
- *it also served as a mentor for start-ups.*

*Indeed, while selling manufactured items to consumers, Neoshop also helped to:*

- *Test the earliest sales;*
- *Meet customers faster;*
- *Strengthen marketing-mix enabling interactions with clients;*
- *Bridge with distributors.*

More info at <https://ebn.eu/index>

## ■ RATIONALISATION AND PROMOTION OF THE VARIOUS INITIATIVES

As also demonstrated by the ‘International report on policies and measures sustaining youth entrepreneurship’ carried out in the previous deliverable within the same Work Package, in recent years there has been a particular flourishing of interventions aimed at supporting start-ups, even in European countries not traditionally close to this type of policies.

Therefore, a rationalisation of the interventions themselves is now considered useful to understand if the whole value chain of support is really complete: in other words, a **well-structured value chain supporting start-up** system should be created, since some links in the chain are neglected, in others there is overproduction of interventions. In addition, it is of paramount importance that **all information about support measures and policies is aggregated** and that it is able to reach the real target audience effectively and the wider audience possible as well as stronger complementarities.

### *At this aim, two different aspects have to be taken into consideration:*

- **Outreach:** it’s important to define actions to stimulate young people to delve into entrepreneurship. To enhance the outreach phase, specific motivational and participatory techniques should be used in order to pave the grounds for ideas to be generated and teams to be formed. This activity is mainly relevant especially in “peripheral area”, but not only, to guarantee a widespread activation and participation of the local actors within the design and development of the activities that will take place to stimulate the younger generation to become more entrepreneurial. Currently, awareness-raising activities for new generations and related support activities for the creation of start-ups are too tied to a few organizations that are often far, not only geographically, from the development areas;
- **Start-ups value chain:** the problem is that there is a large offer of initiatives to support the pre-start up and launch phase and few for the growth phase of start-ups. In particular, for this last phase there is no support service for the development and technical validation of innovative solutions, services to access national and international markets, and a financial system within the reach of start-ups.

For example, what was very striking about the analysis of the innovation needs of Puglia’s start-uppers is that there is a demand for public land on which to carry out demonstration and testing activities for innovative products. Since 2014 (with Regional Law no. 26), the Apulia Region has aimed to encourage the recovery of uncultivated or abandoned agricultural land and contain environmental degradation, precisely by facilitating the allocation of the same to young farmers.

## ■ OK INCUBATORS, BUT LOOK AT THE ACCELERATORS

Another issue that has often been discussed during stakeholder meetings is that incubators are naturally central, but it is also good to consider the function of accelerators to complete the value chain in the regional ecosystem dedicated to start-ups.

Even if the terms «accelerator» and «incubator» are often assumed to represent the same concept, there are some key distinctive features among them. Incubators «incubate» disruptive ideas with the hope of building out a business model and company, while accelerators «accelerate» growth of an existing company. Consequently, incubators are often more focused on innovation, whereas accelerators focus on scaling a business<sup>4</sup>.

In addition, both incubators and accelerators, depending on the different development phase supported, should be endowed itself with equipment that can facilitate prototype testing of business ideas: taking charge of the **technological evaluation and validation of new business ideas**, which should be anticipated as much as possible and strengthened, made more targeted to better support start-ups also financially. The technological evaluation of entrepreneurial projects is also important for the meeting with investors.

***The idea is to start from proof of concept to intellectual property. For this reason, the following are also of particular importance:***

- the theme of **laboratory equipments** provided by incubators and accelerators;
- the **skills of mentors and coaches**: in other words, «train the trainers».

In addition, there is a problem of adequately equipped common areas and spaces where start-ups can be hosted for limited periods of time (from 6 months to maximum 1 year) to favour the consolidation of their activities before positioning themselves on the market in total autonomy. In other words, it is important to create HUBs where young people in different stages of development of their business live together and meet.

From a policy point of view, another issue to consider in supporting incubators, accelerators and HUBs is their sectoral specialization (agri-food; digital; creative ideas; etc.).

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<sup>4</sup> [www.techrepublic.com/article/accelerators-vs-incubators-what-startups-need-to-know](http://www.techrepublic.com/article/accelerators-vs-incubators-what-startups-need-to-know)

## ■ TAILORING OF POLICIES

Another aspect to work on in the next programming of measures aimed at young agro-food start-uppers is to ensure a greater customization of the same policies: a tailoring of the same public intervention together with differentiated funding strategies.

The **same policies already implemented should be carefully evaluated**: both to understand where the value chain supporting start-ups is possibly missing, and to select the interventions that are really effective, systematizing the results obtained so far.

Finally, a **higher degree of beneficiaries' involvement** and a **sustainable follow-up** and capitalization of the initiatives should be ensured, also from a financial sustainability point of view.

### **Good practice identified: FACTORIES IN PUGLIA**

*With a first public call of April 2018, the Factories were selected, groups of public and private entities that will transfer skills and know-how to the Teams, according to the best standards of business acceleration.*

*With a second public call "Teams' Selection", on a continuous basis, informal groups of at least three people sharing an innovative business idea, are invited to apply to receive the accompanying services and tutorship provided by the Factories.*

*The measure provides for the funding of 400 personalised pathways for as many informal groups of wouldbe entrepreneurs.*

More info at: <https://estrazionedetailenti.arti.puglia.it/>

## ■ ENTREPRENEURIAL CULTURE

It is not possible to orient youth employment only towards the “conception” of new businesses: it is very important to give a **strong training in risk management and a global entrepreneurial education**; a major issue, in consideration that the “subjective individual entrepreneurship” is a strong feature whatever the role hired in an organization. Coherently, the incubation programs for young potential entrepreneurs should have a strong priority in giving “execution competences”, basic to whichever entry in the working world.

Entrepreneurial culture and entrepreneurship should rightly be part of university curricula, but also regarded as a competence in life-long learning paths. Moreover, it is important to invest in the **development of new professional profiles, such as innovation managers, innovation brokers, innovation coaches, specifically trained to support ecosystems.**

### **Good practice identified: 1st level Master course in OPEN INNOVATION AND YOUTH ENTREPRENEURSHIP IN THE MEDITERRANEAN AGRIFOOD SECTOR**

*The Master course in OPEN INNOVATION AND YOUTH ENTREPRENEURSHIP IN THE MEDITERRANEAN AGRIFOOD SECTOR is intended to train a new generation of innovation managers, enabling them to build new start-ups and improve competitiveness of businesses through developing and managing innovative solutions. The Master course includes face-to-face lectures and two project works (the first one on “lean start-up”, and the second one on “open innovation-thinking”), in collaboration with businesses.*

*An internship period in the most innovative Italian businesses is planned after the project work. Businesses will be involved in all phases of the Master course so as to build continuous student-business interaction. The major subjects covered are: Open innovation, Start-up & Business management, Agri-food innovation, Social innovation in agribusiness, Marketing and Communication.*

More info at: <https://www.uniba.it/didattica/master-universitari/master-i-livello/2020-2021/Open-Innovation-and-youth-entrepreneurship-in-the-mediterranean-Agrifood-Sector>

## ■ REINFORCE INTERNATIONALIZATION AND LINKING LOCAL PRODUCTS TO TOURISM

In the policies supporting agro-food youth entrepreneurship, a vigorous focus is to be given on the production of local products, PDOs (Protected Designation of Origin) and PGIs (Protected Geographic Indication), which will further highlight RWG and Apulian branding, enhance product identity and origin, and continually improve quality and demand.

In other words, public authorities should promote **joint actions to encourage Mediterranean nutrition**, namely Greek and Italian cuisine and products that are part of or related to Mediterranean nutrition and are the subject of joint business relationships and exchanges.

Linking agri-food products with the region of production is an effective method of reaching out to consumers abroad, especially in countries where traceability and food production play a key role in consumer decisions (USA, Canada, Western Europe).

## Conclusions

Already in 2014, the European Council highlighted the crucial role of young people for the sustainability and long-term competitiveness of European agriculture. In fact, **young entrepreneurs are seen as protagonists of the transfer of innovation in the agricultural sector**, more interested in the introduction of sustainable practices, diversification of production and multifunctionality of the enterprises.

The development of the agri-food sector, through cross-border policies to foster start-up entrepreneurship, must follow new modern productive patterns, focusing in particular on internationalisation and streamlining the value chain of the sector, as well as on the integration of increasingly emerging technologies and new business models.

Therefore, a framework for the establishment and operation of cross-border agri-food incubators will effectively facilitate organizational and operational innovation, internationalization, access to financial and human resources and, of course, the development of innovative ideas.

What all the results obtained in the course of the project seem to focus on is contributing to the **construction of a virtuous ecosystem**. Governments could further this through more risk-willing capital, and considering allocating more semi-public funds toward growing the ecosystem, as well as fostering collaboration between ventures, academia, and industry. It could also prove beneficial to improve conditions for capital and funding—for example, by leveraging European and global partnerships with aligned incentives to allow them to scale faster.

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