



Specific Support to Romania **Start-ups, Scale-ups and Entrepreneurship in Romania**

Horizon 2020 Policy Support Facility



Research and
Innovation

Specific Support to Romania – Starts-ups, Scale-ups and Entrepreneurship in Romania

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Directorate-General for Research and Innovation
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Specific Support

Start-ups, Scale-ups and Entrepreneurship in Romania

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List of acronyms

AeRO	Alternative exchange in Romania - the equities market segment of the Bucharest Stock Exchange Alternative Trading System
ATS	Bucharest Stock Exchange Alternative Trading System
BAN	Business Angel Network
BVB	Bucharest Stock Exchange
DESI	Digital Economy and Society Index
DG CONNECT	Directorate-General Communications Networks, Content and Technology
DG RTD	Directorate-General for Research and Innovation of the European Commission
DNA CASCAIS	Cascais Entrepreneurship Agency (PT)
EAF	European Angel Fund
EBAN	The European Trade Association for Business Angels, Seed Funds and Early Stage Market Players
EBN	European Business Network Association
EC	European Commission
EDCI	European Digital City Index
EDF	The European Digital Forum
EIF	European Investment Fund
ERA	European Research Area
ERDF	European Regional Development Fund
ESF	European Social Fund
ESIL	Early Stage Investing Launchpad pilot project
EU	European Union
EVCA	European Venture Capital Association
FDI	Foreign Direct Investment
FRC	Romanian Counter-Guarantee Fund
FNGCIMM	National Counter-Guarantee Fund for SMEs
FP7	EU Seventh Framework Programme for Research
GBER	General Block Exemption Regulation
GDP	Gross Domestic Product
GEM	Global Entrepreneurship Monitor
H2020	Horizon 2020 Framework Programme for Research and Innovation funding

HEI	Higher education institutes
HGIE	High-growth innovative enterprises
ICT / IT	Information and communication technology
IV	Investment Vehicle
KPI	Key Performance Indicators
MEN	Ministry of National Education
MVP	Minimum Viable Product
NACE	Statistical Classification of Economic Activities in the European Community
NDA	Non-Disclosure Agreement
NGO	Non-governmental Organisation
NID	Notional Interest Deduction
NS	National strategy
NSDA	National Strategy on the Digital Agenda for Romania 2020
OP	Operational Programme for Structural Funds
PE	Private equity
PSF	Horizon 2020 Policy Support Facility
R&D	Research and development
RDA	Regional Development Agency
RDI	Research, development and innovation
REA	Romanian Entrepreneurship Agency
RIO	European Commission Research and Innovation Observatory
RIS3	Regional Innovation Strategies for Smart Specialisation
RON	Romanian New Leu currency
SBA	Small Business Act
SME	Small and Medium-sized Enterprises
STEM	Science, technology, engineering and mathematics
TTO	Technology transfer office
UEFISCDI	Executive Agency for Funding Higher Education, Research, Development and Innovation
VC	Venture capital

The PSF Specific Support to Romania

Horizon 2020 Policy Support Facility (PSF)

To support countries in reforming their research and innovation (R&I) systems, the Directorate-General for Research and Innovation (DG RTD) of the European Commission (EC) set up a Policy Support Facility (PSF) under Horizon 2020, aimed at "improving the design, implementation and evaluation of R&I policies". The PSF provides best practice, leading expertise and guidance to Member States and Associated Countries (on a voluntary basis) through a broad range of services to address their specific needs.

The Romanian government's request for specific support

The Romanian authorities expressed their interest for support under the Horizon 2020 PSF in a letter dated 23 December 2015 from Mr Adrian Curaj, then Minister of National Education and Scientific Research to Mr Roberto Viola, Director-General of EC Directorate-General Communications Networks, Content and Technology (DG CONNECT), and to Mr Robert Jan Smits, Director-General of DG RTD.

In line with this request, the aim of the PSF support is to provide external and independent advice and operational recommendations to the Romanian government on possible reform to stimulate innovative entrepreneurship and to create an environment conducive to the growth of technological start-ups. The objectives of the PSF support are:

- To assess the Romanian innovative entrepreneurship, start-up and scale-up ecosystem;
- To identify and recommend measures, including legislative ones, and specific instruments to further develop and strengthen the innovative entrepreneurship ecosystem in order to improve its efficiency and foster the growth of Romanian start-ups.

Specific support for Romania under the Horizon 2020 PSF

Specific support under Horizon 2020 is a problem-based in-depth assessment of a country's specific R&I policy issues, designed as a practical and operational advisory function.

The main expected outcome is a report, including a set of key policy messages highlighted upfront, supported by concrete operational recommendations, based on evidence gathering and analysis. The recommendations should be backed by evidence, best practice and analyses of similar approaches and reforms introduced in other countries. and it should be feasible to implement them (actionable) in the national context. For this purpose, the policy support process was undertaken by a PSF panel of experts, comprising four independent experts from Finland, France, Poland and Portugal.

The work of the PSF expert panel has been overseen by Ana Cristina Moise, Statistical Assistant, Country Desk for Romania at DG RTD, Unit Analysis and monitoring of national research and innovation policies, and Felicia Liliana Cutas, Policy Officer at DG CONNECT, Unit Startups and Innovation.

The implementation of the specific support has been facilitated by Agis Evrigenis and Laura Roman from the PSF contractor (Technopolis Group).

PSF panel's working method

The PSF expert panel along with EC representatives visited Romania twice. The first country visit took place between 3-6 October 2016. Several Romanian authorities involved in R&I policies as well as a wide range of institutions and relevant stakeholders in the entrepreneurial ecosystem were invited to participate for discussions. The PSF panel developed the structure, main messages and draft recommendations of the PSF report and presented the preliminary findings to Romanian stakeholders during a second field visit in Bucharest between 1-3 February 2017. Based on the various documents received and analysed, as well as in-depth discussions with experts and the comments received during the field visit meetings, the PSF panel prepared this report on the PSF Specific Support to Romania. The report and the recommendations will be presented to the Romanian R&I and entrepreneurial community in 2018.

Disclaimer

The information used in this report were collected by the panel between July 2016 and May 2017. Any subsequent changes in the policy landscape and evolution of the Romanian entrepreneurial ecosystem have not been taken into account.

The PSF panel of experts

Paulo Andrez, Chair (Portugal)

Innovation expert helping governments to design and implement entrepreneurship policies. He chaired the PSF expert panel in Slovakia which was related to incubation, acceleration, business angels and venture capital policies. Founder and board member of DNA Cascais Incubator Centre; President Emeritus of the European Trade Association for Business Angels (EBAN) and founder member of the Portuguese Business Angel Federation (FNABA). He is also a business angel investor in several companies and a serial entrepreneur.

Daria Tataj, Rapporteur (Poland)

Innovation expert helping companies and governments design growth strategies; founder and CEO of Tataj Innovation, a consultancy company, and a member of High-level Expert Group (RISE) to Carlos Moedas, EU Commissioner for Research and Innovation. Previously, she was a member of the founding Governing Board and Executive Committee of the European Institute of Innovation and Technology (EIT).

Jean-Michel Dalle, Expert (France)

Director of Agoranov, France's leading science-based incubator, since 2003. He was formerly Managing Director of Oséo, now BPI France, France's public innovation bank, in charge of innovation (2008-2009). Previously (1995-2002), he created and headed a private subsidiary of Ecole Normale Supérieure de Cachan dedicated to technology transfer.

Jari Romanainen, Expert (Finland)

Executive policy advisor for the Finnish Funding Agency for Innovation (Tekes) and for the Ministry of Employment and Economy in Finland, and a senior consultant at Technopolis Group Baltics. Over the last 20 years Jari has been responsible for designing, implementing and evaluating science, technology and innovation policies and related policy measures in Finland.

Acknowledgements

The authors would like to thank the Romanian Executive Agency for Funding Higher Education, Research, Development and Innovation (UEFISCDI) which supported this study by facilitating the organisation of country visits and sharing their valuable insights: Adrian Curaj, Marius Mitroi, Elena Simion and Raluca Saftescu.

We would also like to thank the Romanian stakeholders who have shared their views with the panel of experts. Over 50 stakeholders have participated in the interviews and consultations with the panel during the two country visits, sending valuable feedback. These include stakeholders from all areas of the Romanian entrepreneurial ecosystem, such as policymakers, entrepreneurs, university professors and representatives of research institutes and technology transfer offices, as well as representatives of banks, incubators and accelerators, clusters, chambers of commerce and business associations. A list of the stakeholders who have participated in the consultations with the panel during the country visits is attached in Appendix IX.

Finally, we would like to thank the European Commission staff and the Technopolis Group experts who followed the development of the study, provided their input and advice, and shared their experience of similar studies and endeavours.

1 EXECUTIVE SUMMARY

This report has been prepared at the request of the Romanian government within the framework of the Policy Support Facility (PSF), a funding scheme for policy advice launched by the European Commission under Horizon 2020. PSF is managed by the EC's Directorate-General for Research and Innovation and provides governments in the Member States and Associated Countries with a targeted analysis and policy guidelines tailored to their specific needs. This support is not normative and aims to offer advice, expertise and to share relevant good practices to improve the design, implementation, monitoring, evaluation and readjustment of national research and innovation policies and systems under the current framework of Horizon 2020 and in the longer term.

Following the specific request from the Romanian Ministry of Education and Scientific Research in a letter dated 23 December 2015 to DG RTD and DG CONNECT, this report offers advice and policy recommendations on how to address the following challenges:

- Assess the Romanian innovative entrepreneurship, start-up and scale-up ecosystem;
- Identify and recommend measures, including legislative ones, and specific instruments to further develop and strengthen the innovative entrepreneurship ecosystem, in order to improve its efficiency and foster the growth of Romanian start-ups.

The Romanian entrepreneurial ecosystem is in the budding stage. While the country has a lot of potential, the dynamics of change towards a more innovative economy and digital society are poor. Our expert assessment of the current state of the entrepreneurial ecosystem, which is presented in detail in this report, shows that the biggest barriers hindering its development are the lack of trust, predictability and transparency, as well as access to finance and the limited capacity of higher education institutions to play an active role as a stakeholder in the entrepreneurial ecosystem. In addition, inadequate communication among ecosystem stakeholders and poor coordination among government policymakers are slowing down the ecosystem's evolution process. Undoubtedly, there are islands of excellence, and access to a well-educated talent pool is one of Romania's greatest assets. However, brain drain, insufficient funding opportunities, and the low entrepreneurial culture at universities require radical policy actions if the current state of affairs is to change faster.

This report is structured into eight chapters followed by ten annexes which touch upon key areas for improvement in order to accelerate or initiate change within the entrepreneurial ecosystem. Giving different levels of detailed directions, they refer to the following areas:

- Chapter 1 includes this summary and presents a list of recommendations;
- Chapter 2 maps the ecosystem and identifies key gaps in its institutional setting and weaknesses in linkages between actors. It also proposes actions

on how to facilitate the internationalisation of Romanian start-ups and the country's start-up ecosystem;

- Chapter 3 focuses on the business environment and lists potential improvements to facilitate doing business, including in the legal, administrative, tax and institutional areas. It also proposes a rationale for establishing a new funding agency dedicated to innovation and entrepreneurship;
- Chapter 4 suggests how to enhance the start and growth of new companies taking into account the specific conditions in Romania, starting with improving entrepreneurship education and access to talent, non-financial support to entrepreneurs and public funding;
- Chapter 5 strategises on the role of universities, research institutions, incubators and accelerators in transforming the entrepreneurial ecosystem and the higher education institutions;
- Chapter 6 offers guidelines on how to develop diverse forms of finance relevant to starting and scaling up innovative companies, ranging from seed funding, loans for SMEs, business angels and venture capital investors, as well measures to boost the Bucharest Stock Exchange activities as the final loop in the access to finance;
- Chapter 7 focuses on the monitoring process and presents arguments on how and why the government should adopt an open-data approach to measure and monitor performance at the ecosystem level;
- Chapter 8 concludes the report by pointing to Romania's potential to become an important innovation hub in Central and Eastern Europe and encouraging the government to empower bottom-up forces with top-down policies;
- Annex I presents a table prioritising the importance of the recommendations and offering a 12-month timeline for implementation;
- Annexes II-VIII give detailed guidelines for actions towards mobilising business angels investment activity in Romania.

The report includes specific **recommendations for** measures and instruments to strengthen the Romanian entrepreneurship ecosystem and accelerate growth of its innovative start-ups.

While these recommendations – listed below – constitute a coherent policy mix and as such they are all considered important, we would like to present the key policy messages to which – in our opinion – the Romanian government should pay special attention. The **core 'take-aways'** from our analytical exercise, based on European and global perspectives and synthesised in this report, are:

1. Access to talent: empower established and future Romanian entrepreneurs by instilling more predictability and trust in government policies, the legal framework and business conditions.

2. Access to markets: help companies go global through dedicated funding schemes, non-financial support programmes and by fostering links with the Romanian diaspora.

3. Access to funding: mobilise business angels and their networks, attract venture capital investors and help Romanian start-ups become scale-ups by strengthening the AeRO market¹ at the Bucharest Stock Exchange.

4. Catalyse change: establish a Romanian Entrepreneurship Agency dedicated to and responsible for funding innovation and entrepreneurship and empowered to induce entrepreneurial culture at the ecosystem level.

5. Open government data: develop an IT system that can automatically retrieve data from ecosystem stakeholders and make this data open to the public in a comprehensible way in order to foster transparency, accountability and competition across the ecosystem.

The panel of experts recognised that in practice it is not possible to implement all recommendations at the same time. Therefore, we have **prioritised them in the timeline which is presented in Annex I**. We have divided the implementation phase into trimesters over years 2018 and 2019 and have categorised the recommendations into three categories:

- Priority 1 – these recommendations must be implemented as a matter of key importance and urgency;
- Priority 2 – these are recommendations which should be implemented either as a follow-up to the first set of recommendations, or as items of secondary importance;
- Priority 3 – these are expert suggestions of policies and actions which will speed up desired change but should only be taken up by the government if there is sufficient manpower and other resources.

While this report gives clear directions for new policies and instruments, its value depends solely on how successfully the Romanian government implements the experts' advice. The PSF panel will undertake a short country visit five months after the dissemination of this report to assess the Romanian government's progress on implementing the recommendations. This evaluation should lead to a follow-up report presenting possible adjustments to the policy mix depending on how successful and how fast the implementation process is.

¹ See AeRO market, Romanian Stock Exchange website <http://www.bvb.ro/ForCompanies/AeroForShares/About>

This report has been prepared by a PSF expert panel and facilitated by the Technopolis Group consultancy. It includes four senior policy advisors from Portugal, France, Finland and Poland who engaged in this exercise in their personal capacity. They worked on the report from July 2016 to December 2017. The methodology applied here is based on the review of data, information, existing policies and policy instruments, as well as two country visits and interaction with key stakeholders from government, business, academia, public sector and civil society.

The report has been framed by several documents, including: a background report prepared by Technopolis Group on 'The Romanian Entrepreneurial Ecosystem' (2017), the mapping study 'The Romanian Entrepreneurship Ecosystem. An Exploratory Study' (UEFISCDI, 2015), the Start-up Manifesto, the European Early Stage Investors Manifesto, the 2016 Start-up Nations Scoreboard, the World Bank's doing business report on Romania, the European Semester Report on Romania, and other legislation and policy documents which were translated into English.

In the following chapters we present an assessment of the current situation followed by recommendations and the rationale for the policies and instruments we propose to accelerate the development of Romania's entrepreneurial ecosystem. A snapshot of the recommendations is presented below, supported by a full list in the following section.

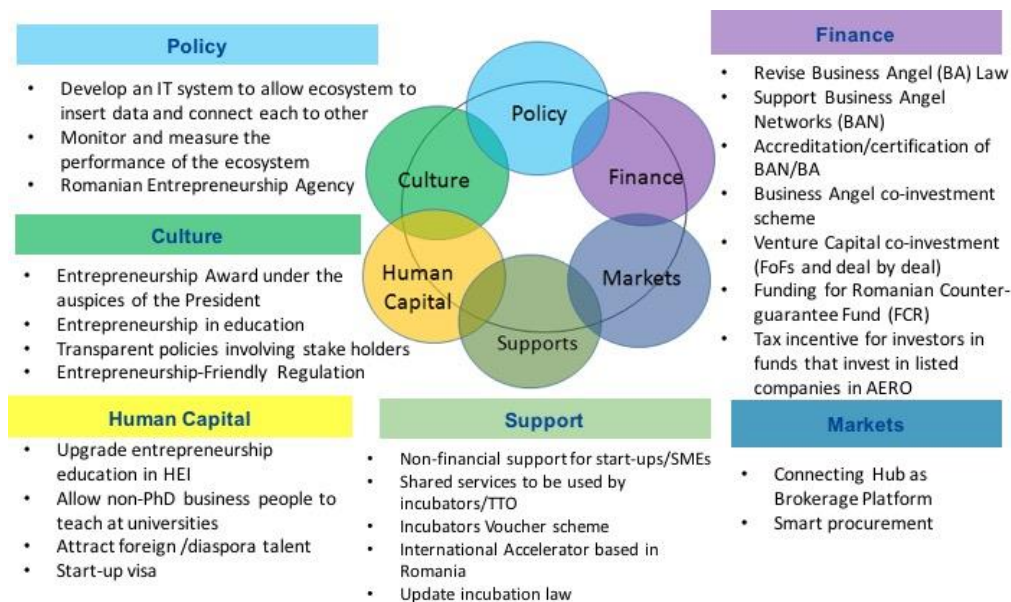


Figure 1: Snapshot of the PSF Panel recommendations for the entrepreneurship ecosystem in Romania
 Source : PSF Panel

List of recommendations

This is a list of recommendations presented in the order of the chapters in which they appear.

1. Role of public agencies and entities

List of Recommendations	
Recommendation 2.1	Establish a governance mechanism for a new Romanian Innovation and Entrepreneurship Council based on private-sector best practices. The Council should comprise respected individuals from research, education and business elected in their personal capacity to serve as an impartial, non-political voice of the entrepreneurial ecosystem.

2. Integration and promotion of the Romanian entrepreneurial ecosystem

List of Recommendations	
Recommendation 2.2.1	Establish a Connecting Hub as a facilitating platform for integrating and promoting the Romanian entrepreneurial ecosystem, its start-ups and scale-ups.
Recommendation 2.2.2	Develop a web portal in which relevant information for start-ups and on start-ups is made transparent.
Recommendation 2.2.3	Establish an Entrepreneurship Award under the auspices of Romania's president to promote successful ventures which have originated and operate out of the Romanian ecosystem and to celebrate entrepreneurships and recognise leading entrepreneurs.

3. Open-data approach

List of Recommendations	
Recommendation 2.3.2	Make aggregated monitoring data openly available to all ecosystem actors.
Recommendation 2.3.3	Appoint an international expert team to review the ecosystem on a regular basis and present its recommendations to government.

4. Fighting bureaucracy, red tape and corruption

List of Recommendations	
Recommendation 3.1	Create a 'one-stop-shop' as a digital service centre for entrepreneurs offering integrated e-Government services.

5. Smart procurement

List of Recommendations	
Recommendation 3.2	The National Authority for Public Procurement should undertake 'a sandbox approach' to experiment with pre-commercial procurement and procurement of innovation engaging start-ups and scale-ups.

6. Legal framework for start-ups and scale-ups

List of Recommendations	
Recommendation 3.3	Develop an 'Entrepreneurship-friendly regulation agenda' with 'entrepreneurship principle' as a guiding standard for cross-ministerial consultation and collaboration at the ecosystem level.

7. Tax incentives for start-ups and scale-ups

List of Recommendations	
Recommendation 3.4	Continue to monitor and adjust the tax and labour law systems to encourage equity investments, dividend reinvestments, and stock option schemes to stimulate the entrepreneurial ecosystem. Extend tax exemptions to incentivise local investment in start-ups and attract foreign capital. Streamline tax and labour law procedures to fit the specific needs of innovative SMEs.

8. Catalysing change: Romanian Entrepreneurship Agency

List of Recommendations	
Recommendation 3.5	Establish a Romanian Entrepreneurship Agency (REA) as a funding agency dedicated to innovation and entrepreneurship.

9. Entrepreneurship education in Romania

List of Recommendations	
Recommendation 4.1.1	Make earmarked funding available for primary and secondary schools for organising entrepreneurial projects and activities, including entrepreneurial clubs, business plan competitions and societies.
Recommendation 4.1.2	Invite schools, entrepreneurs, students and teachers (through their appropriate associations or representatives) to join an open discussion on how to change the overall educational approach to better support entrepreneurship.

10. Access to talent

List of Recommendations	
Recommendation 4.2.1	Establish a specific promotion programme to attract foreign and expatriate (diaspora) entrepreneurial talent. Mapping diaspora talent will be key to implementing this project successfully.
Recommendation 4.2.2	Establish a start-up visa to attract foreign entrepreneurs to launch their new businesses in Romania.

11. Non-financial support schemes in Romania

List of Recommendations	
Recommendation 4.4	Launch a programme offering non-financial support for start-ups and SMEs seeking growth in international markets.

12. Financial schemes for entrepreneurs in Romania

List of Recommendations	
Recommendation 4.6.1	Introduce comprehensive integrated funding schemes for start-ups (and selected SMEs).
Recommendation 4.6.2	Establish common procedures for managing funding programmes, including IT systems and electronic management of applications and monitoring of projects and programmes across all agencies.

13. Demand-driven policy measures and other initiatives

List of Recommendations	
Recommendation 4.7	Design and launch a scheme to organise challenge competitions (that is a open competitions to gather novel ideas) to address selected societal challenges, which combine national needs with high international market potential.

14. Transforming universities, incubators and accelerators in Romania

List of Recommendations	
Recommendation 5.2.1	Revise the Incubator Law to benefit from international experience and to be compatible with international standards. Promote the international accreditation of leading Romanian incubators and accelerators.
Recommendation 5.2.2	Select and support further development and expansion of the most promising incubation and acceleration services in Romania to consolidate and create critical mass.
Recommendation 5.2.3	Launch a national acceleration programme for start-ups.
Recommendation 5.2.4	Give Romanian companies accepted in international acceleration programmes a grant of EUR 15 000 to subsidise their travel and subsistence expenses.
Recommendation 5.2.5	Develop a specific support scheme to involve academics in entrepreneurial activities.

Recommendation 5.2.6	Set up an Intellectual Property Law for Romanian universities to regulate the transfer of IP, define criteria for the evaluation of university entrepreneurship activities, establish a common technology transfer office (TTO) structure for all universities and provide international training and coaching for TTO personnel.
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15. Banking sector funding

List of Recommendations	
Recommendation 6.2.1	Fund FRC (Romanian Counter-guarantee Fund) with enough money to enable the National Counter-Guarantee Fund for SMEs (FNGCIMM) to issue guarantees to banks to fund SMEs.

16. Creation and support of business angel networks in Romania

List of Recommendations	
Recommendation 6.3.1	Speed up the development of a business angel culture by supporting the creation of business angel networks, help set up a national federation of business angels networks and sponsor a road show to popularise the idea.

17. Business angels co-investment scheme

List of Recommendations	
Recommendation 6.3.2a	Create a business angels co-investment scheme for Romania.
Recommendation 6.3.2b	Create a certification of business angels for a co-investment fund.

18. Implementation of tax incentives for early-stage investors and the Business Angel Law

List of Recommendations	
Recommendation 6.3.3	Amend the Business Angel Law but implement it only if other measures do not perform.

19. Venture capital

List of Recommendations	
Recommendation 6.4	Create an innovative policy regarding venture capital funds.

20. Romania's stock market

List of Recommendations	
Recommendation 6.5.1	In 2018, launch a national programme 'Innovative SMEs are in the AeRO market'.
Recommendation 6.5.2	Bucharest Stock Exchange should be more ambitious in developing AeRO.
Recommendation 6.5.3	Create a new set of incentives for investors who invest in the 'Innovative AeRO' market.
Recommendation 6.5.4	Remove artificial barriers to institutional and regulated funds that prevent them from investing in early-stage companies.
Recommendation 6.5.5	Introduce fiscal incentive that would allow qualifying the cost of listing on AeRO as a deductible expense

21. Monitoring the performance of the entrepreneurial ecosystem

List of Recommendations	
Recommendation 7.1	<p>The government (or an independent public organisation) should develop an IT system that can automatically receive data from the ecosystem stakeholders.</p> <p>Every three years, produce a study on the Romanian entrepreneurial ecosystem, based on real data collected from the ecosystem.</p>

2 OVERVIEW OF THE CURRENT SITUATION IN ROMANIA ON ENTREPRENEURSHIP, START-UPS AND INNOVATION: AN ECOSYSTEM PERSPECTIVE

Romania became a member of the European Union (EU) in 2007. Over this last decade, the country has made significant efforts to adjust its policies to the Single Market, create better framework conditions for starting and growing new businesses, and provide them with access to talent and capital. Economic growth and social development, marked by the highest GDP per capita in the country's recent history, have undoubtedly been driven by its small and medium-sized enterprises (SMEs), a key element in the Romanian free-market economy².

As of 2015, there were over 450 000 SMEs in Romania, constituting 99.7 % of all companies. The structure of the SME sector was slightly different to the EU average: the share of micro enterprises is 5.1 % lower than the EU average, while shares of small and medium-sized ones are above by 4.2 % and 0.8 %, respectively. Romania's SME sector provided about 67.5 % of employment in the private sector, slightly above the EU average in 2015. It accounted for half of the value added, although this contribution was over seven percentage points below the EU average in 2015³.

The country was hit hard by the economic crisis which spread across Europe in 2008. The private sector played a vital role in fuelling recovery. By 2011, the Romanian economy had returned to a path of growth, but despite reaching a promising dynamic with 4.8 % GDP growth in 2016, the country has yet to recover fully from the crisis (Eurostat). From 2010-2015, the SME value added increased by 29 %, and employment rose by 6 %. While forecasts predict that Romanian SME value added will continue to grow by 8 % annually, employment in this sector is estimated to grow by only 2 %⁴.

² European Commission, (2016): SME Performance Review, Country Fact Sheet, Romania, <http://ec.europa.eu/DocsRoom/documents/22382>

³ [2016 Small Business Act Fact Sheet Romania](#)

⁴ Ibid.

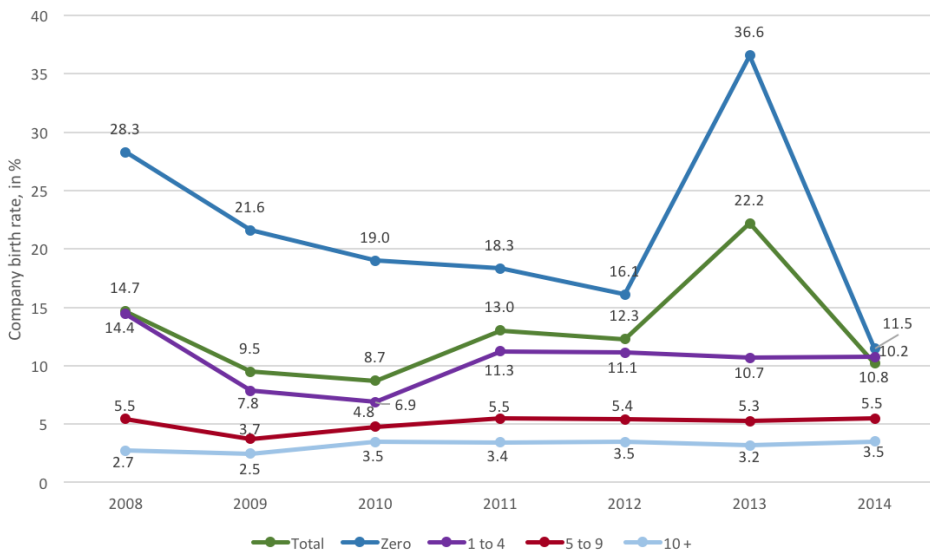


Figure 2: Company birth rate by size (# of employees) in %
Source: Eurostat

A detailed overview of the situation of entrepreneurship, start-ups and scale-ups in Romania is provided in 'The Romanian Entrepreneurial Ecosystem - Background Report', which was prepared as a complementary document to this report⁵. The key messages in the Background Report show that, overall, Romania's weaknesses are:

- First, Romania has a low volume of new firm creation. The 'birth rate' of new firms has remained flat since 2011 in the employers sector. It has only increased significantly in the individual entrepreneurs (self-employment) segment where the birth rate jumped from 16.1 % in 2012 to 36.57 % in 2013 then dropped to 11.47 % in 2014⁶.
- Secondly, Romanian start-ups in the employers category face a low survival rate beyond the five- year period, which is often referred to as the 'death valley'. Over the period 2009-2014, the survival rate among companies in this segment dropped from around 60 % to around 40 % on average. Survival rates have only increased in the individual entrepreneurs sector from below 40 % to over 80 %.

⁵ Radauer, A., Roman, L. - Technopolis Group, The Romanian Entrepreneurial Ecosystem - [Background Report, Horizon 2020 Policy Support Facility, Directorate-General for Research and Innovation, Brussels, 2016.](#)

⁶ This hype was a consequence of a one-off administration reform which resulted in former employees undertaking self-employment. It remains to be seen whether this growth actually occurred or whether there was a change in methodology when compiling the statistics. Q&A session with Marius Mitroi, meeting on 28 July 28 2016, Brussels.

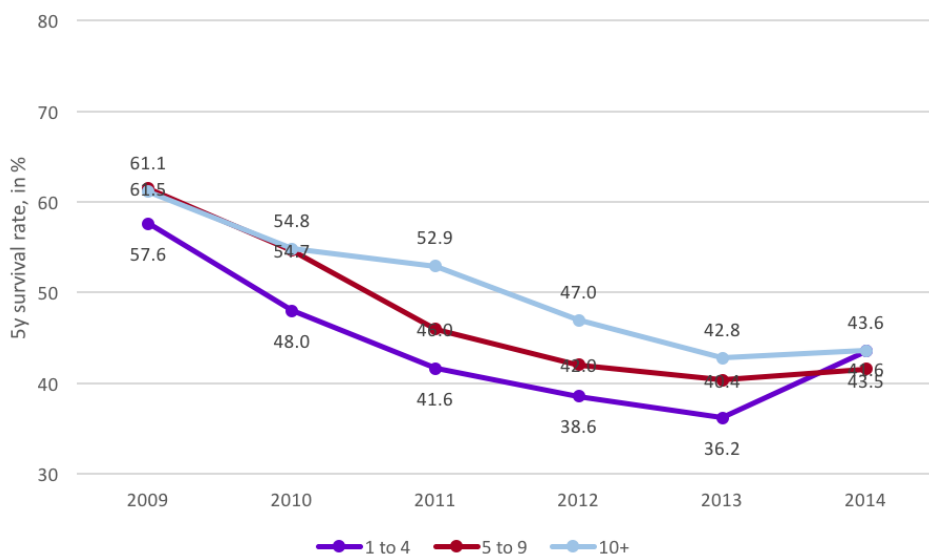


Figure 3: Companies' five-year survival rate by size (# of employees), in %
Source: Eurostat

- Thirdly, Romanian SMEs lag behind the European average in terms of innovation. According to the European Innovation Scoreboard⁷, Romania is ranked as a Modest Innovator, and since 2008, innovation performance across the entire country deteriorated from 50 % of the EU average to 34.4 % in 2015. The European Innovation Scoreboard 2016 exposes the country's weaknesses which are key barriers to the success of innovation-driven start-ups and scale-ups. Key indicators are significantly behind the EU average: venture capital investment (-23 % vs EU average), sales share of new product innovations (-21 %), non-R&D innovation expenditure (-17 %), SMEs' product/process innovations (-17 %), and innovative SMEs collaborating with others (-12 %)⁸.
- Fourth, in the category of high-growth innovative enterprises, Romania also lags behind the EU average, which in itself has a low level of potential gazelles – i.e. companies valued at over EUR 1 billion. The most recent data show that in 2014, the employment in high-growth innovative enterprises (HGIEs) represented only 2.8% of total employment in Romania (EU average: 4.8%): Romania ranks 24th among EU Member States on this indicator.

As presented in the Background Report, it should be acknowledged that Romania as a country and its SME sector also have some important strengths

⁷ European Commission (2016), European Innovation Scoreboard 2016, <http://ec.europa.eu/DocsRoom/documents/17853>

⁸ ibid (European Innovation Scoreboard)

and there are signs of positive change⁹. According to the European Innovation Scoreboard, these strengths include youth with upper-secondary-level education, exports in medium- and high-tech products, and employment in fast-growing firms in innovative sectors. According to the World Economic Forum Global Competitiveness Report, which ranked the country in 53rd position and classified it in the efficiency-driven economy category, its strengths include education at all levels, macroeconomic environment and market size, and technological readiness¹⁰. The World Bank Doing Business ranking showed positive change in the ranking between 2015 and 2016 in two categories: starting a business and protecting minority investors. However, the World Bank Doing Business report 2017 shows that the progress has been reversed, as Romania made starting a business more difficult by increasing the time to register for Value Added Tax¹¹. The 2016 Start-up Nation Scoreboard, which reflects the level of adoption of the EU's Start-up Manifesto principles, places Romania first for skills and education, second for institutional framework, and fifth for access to talent.

Overall, evidence of progress in terms of entrepreneurship, start-ups and scale-ups shows a limited impact of the reforms and measures undertaken by the Romanian authorities to date. The reasons for this situation are complex. They are surely rooted in the local factors discussed above as well as global ones, such as increasing competitiveness, digitalisation, and the mobility of knowledge, funding and talent. In this context, the Romanian government has a vital task to continue previous reforms. It should revise those existing policies which are hindering the growth of SMEs and put forward new SME-friendly policies and instruments. It should carefully nurture a sub-sector of innovation-driven SMEs and the segment of high-growth innovative SMEs within that group operating in industry sectors.

2.1 Role of public agencies and entities

Governments, public agencies and other entities can be involved both indirectly and directly in the emergence of an entrepreneurial ecosystem. The indirect involvement is demonstrated by setting up entrepreneurship and innovation-friendly framework conditions, investing in research, education, facilitating access to finance, providing transport infrastructure and access to utilities, fostering transparency, cooperation and learning at the ecosystem level. Less obvious, albeit a critical element, is the direct involvement of the public sector as an ecosystem stakeholder. Through pre-commercial procurement,

⁹ Technopolis Group, 2016: The Romanian Entrepreneurial Ecosystem. [Background Report, Horizon 2020 Policy Support Facility, Directorate General for Research and Innovation, Brussels, 2016.](#)

¹⁰ Schwab, K. (ed.). [The Global Competitiveness Report 2016-2017, World Economic Forum, Geneva, 2016.](#)

¹¹ See World Bank Doing Business Report 2017, <http://www.doingbusiness.org/data/exploreeconomies/romania>

governments can create internal demand for innovation and accelerate the absorption rate of new technologies¹².

To exercise these roles, the Romanian government needs a broad, integrated strategic vision, strong institutions and good, transparent governance. It must also achieve a more efficient public administration by improving operational capabilities and implementation skills for new policies. Without strong inter-ministerial cooperation and coordination, the impact of new policies and instruments will remain limited.

The Ministry of National Education coordinates education policies, including the higher education sector, while the Romanian Ministry of Research and Innovation is the coordinator for research, development and innovation policies. It has set up the National Council for Science, Technology and Innovation Policy as a special consultative body comprising selected ministers. This body's main mandate was to coordinate and correlate intra-governmental policies on research, development and innovation ; however, it has not been in operation for years. There should be more effort and leadership from the government to make these councils work.

In November 2016, the government set up another body – the National Council for Innovation and Entrepreneurship (NIAC). The NIAC 's mission is to "support the National Authority for Scientific Research in the exercise of its powers in implementing the National Strategy for RDI 2014-2020 and to ensure the consultation and consensualisation to stimulate the absorption of innovation, technological harmonisation by identifying and promoting synergies and complementarities in funding technological development and innovation"¹³. This consultative body comprised 19 members, more than 50 % of whom come from the business sector. However, following parliamentary elections at the end of 2016, the newly elected government abolished the NIAC early in 2017.

The new government also set up four new consultative councils in 2017. These were established in April under the Ministry of Research and Innovation for a period of four years. All previously appointed councils have been abolished through these new consultative councils. The Ministry provides the councils with secretariat functions and the necessary resources, and they cover the following roles:

- National Council for Technological Transfer and Innovation;
- National Council for Ethics of Scientific Research, Technological Development and Innovation to advise on issues related to ethical concerns arising from research activities;

¹² Mariana Mazzucato shows that every technology behind iPhone was developed through public research funding. Mazzucato, M., (2015): The Entrepreneurial State, Debunking Public vs. Private Sector Myths, Anthem Press, 2015.

¹³ Translated from the Romanian Startup Café website: <http://www.startupcafe.ro/stiri-startupcafe-21435714-importanti-antreprenori-inclusi-guvern-intr-consiliu-pentru-inovare-antreprenoriat.htm>

- Consultative College for RDI, which advises the Ministry of Research and Innovation on issues related to the national RDI system. It is organised across different sectoral committees, according to the sectoral priorities of the national RDI strategy;
- National Council of Scientific Research supports the Ministry of Research and Innovation in coordinating, financing, monitoring and evaluating scientific activities in Romania (e.g. establishes quality criteria for RDI in the research units, audits scientific research activities, etc.).

Furthermore, two consultative councils were announced in 2017 under the Ministry for Business Environment: one for entrepreneurship and another for export. The first addresses issues related to bureaucracy and red tape, and the second one focuses on competitiveness.

We recommend that the government establishes a new, single body composed both of ministers and stakeholder representatives, under the working name Romanian Innovation and Entrepreneurship Council, which should be under the control of the prime minister and should cover both innovation and entrepreneurship issues.

Recommendation 2.1

Establish a governance mechanism of a new Romanian Innovation and Entrepreneurship Council based on private-sector best practices. The Council should be composed of respected individuals from research, education and business elected in their personal capacity to serve as an impartial, non-political voice of the entrepreneurial ecosystem.

Councils are consultative in nature, and their role is to recommend, not decide on policies or measures. The Ministerial Council should be supported by a strong expert secretariat which can prepare analysis and draft tentative recommendations for Council discussions. The secretariat should play a vital role in ensuring that evidence used in policymaking is sound, balanced and of high quality. In addition, it should assist in 'sense-making', i.e. understanding what the evidence means and which policies and policy measures would most likely be possible, appropriate, effective and fit into the overall policy mix. The secretariat can also be assigned a role in the monitoring and evaluation of policies, or at least coordination of these activities across ministries and agencies. Ideally, the secretariat could be located in the prime minister's office as a separate entity, or housed at an appropriate agency.

Romania has a strong academic tradition and strong scientific institutions. Building on these assets is an important way of strengthening the entrepreneurial ecosystem. However, the forces and growth drivers of the ecosystem should be more diverse and polyvalent as this is the nature of innovation today – more open, more collaborative and focused on business model innovation, service economy and disruption.

A number of countries have established high-level 'councils' to help policymakers deal with the increasing uncertainty. A reference point for Romania could be Finland, Denmark, the Netherlands or Singapore.

In the case of Romania, we recommend that the Council has the following dual role:

- as an **advisory body** contributing to a strategic vision and the coordination of growth and jobs policies at the highest level;
- as an **endorsement mechanism** for experimentation and a 'learn-by-doing' approach to policymaking at the ecosystem level.

The Romanian Innovation and Entrepreneurship Council should comprise a maximum of 12 people. It should be chaired by the prime minister and include two to four key ministers with portfolio and budgets for research, education, innovation, entrepreneurship, and selected strategic sectoral policies. It should also have members from industry and academia. The Council should appoint permanent experts representing key government funding agencies and possibly representatives of employer organisations, too. Its term should be linked to that of the government.

With a secretariat and administrative support situated in the prime minister's office, its operational processes and work streams should strive to overcome the silo approach in policymaking. They should focus on:

1. Developing a strategic growth agenda for Romania, taking into consideration the increasing complexity in the global economy, disruption and discontinuities in a number of strategic industry sectors, and the challenges facing Romanian society;
2. Becoming a support mechanism for decision-making by providing impact assessment and opinions on new policies and governmental initiatives with respect to innovation, and in horizontal policies;
3. Working proactively by endorsing, incubating, and possibly seeding with grant funding new policy experiments to strengthen – from top-down – the bottom-up initiatives driven by the entrepreneurial ecosystem stakeholders.
4. Monitoring and analysis (sense-making) of how policies should be changed ought to be another Council role¹⁴.

¹⁴ While the Council should collect and analyse monitoring data concerning policies and their implementation, any evaluations of policy impact should be done independently to ensure sufficient credibility. Otherwise, the same body would design (recommend) policy, monitor its implementation, and evaluate its impact, i.e. the Council would in practice evaluate its own activities, which is not the intention. We emphasise that impact evaluation must be independent.

Building on international experiences, key success drivers of a consultative body supporting a government in improving the area of innovation and entrepreneurship policies include:

- Strategic positioning by placing the Council's secretariat under the prime minister's office and involving the prime minister in chairing it;
- Inclusion of sectoral ministries into the Council's activities to strengthen the horizontal coordination, cooperation and synergies;
- Focus on strategic growth and jobs policies and activities that draw systematically on foresight, evidence-based policymaking, and impact assessments;
- Inclusion of experts and ecosystem stakeholders in the Council's agenda, work programme and activities;
- Working groups focused on cross-cutting, thematic areas linked to the major challenges faced by Romanian society, especially its young generation;
- Transparent governance and decision-making processes;
- Vocal communication of the Council opinions and open interaction with the entire ecosystem.

In the context of the above key success drivers, the activities of the future Romanian Innovation and Entrepreneurship Council should become powerful driving forces of institutional changes and leadership, inducing a more innovative culture in the public sector. Coordination of emerging directions and alignment of the overall vision and growth model proposed by the government could speed up the learning curve, support more transparent, more cohesive policymaking, and more synergistic policy implementation. The Council should also focus in particular on key elements for the future, e.g. through stronger integration of education policy, and should encourage, legitimise and assume the political risk of experimentation in policymaking to unleash creativity, empower leaders of Romania's entrepreneurial ecosystem, and introduce new governance models and new types of public-private partnerships.

Box 1.1: Research and Innovation Council, Finland¹⁵

The Finnish Research and Innovation Council advises the government and its ministries on important matters concerning research, technology, innovation and their utilisation and evaluation. Appointed for the duration of a government term, it is responsible for the strategic development and coordination of Finnish science and technology policy and the national innovation system as a whole. In 2014, it published a report 'Reformative Finland: Research and innovation policy review 2015-2020' in which it brought forward a vision of how to 'enhance the quality and impact of Finnish education,

¹⁵ Finnish Research and Innovation Council webpage: <http://valtioneuvosto.fi/en/research-and-innovation-council/>

research and innovation with the aim of improving competitiveness, citizens' well-being and the status of the environment¹⁶. The review recommended, among other things, changing the Council's operational model, putting emphasis on a radical reform of the higher education system, promoting the exploitation and impact of the R&I results, and strengthening new sources of growth, intellectual capital and entrepreneurship. Building on the review, the new Research and Innovation Council was set up in 2016. It is chaired by the prime minister and comprises eight appointed members and five permanent experts. It is responsible for the strategic development and coordination of Finnish science and technology policy as well as of the national innovation system as a whole. Its key tasks are:

- To direct science and technology policy;
- To make science and technology policy compatible at a national level;
- To prepare relevant plans and proposals for the Council of State;
- To deal with the overall development of scientific research and education;
- To prepare relevant plans and reviews for the Council of State;
- To follow up on the development and needs of research in various fields.

2.2 Consolidation and promotion of Romania's entrepreneurial ecosystem

An entrepreneurial ecosystem can develop and grow in a sustainable way over time in countries with a lower level of innovation capacity, only if it can continuously interact with other innovation hubs and attract international talent and investors. All countries promoting entrepreneurship aspire to find their place in the global entrepreneurial scene and to be acknowledged among the most attractive locations. Success feeds success, but only if it is recognised.

In the global context, promotion of the ecosystem relies on two main elements: networks between entrepreneurial communities, and physical and virtual platforms such as web-based resources offering a comprehensive view into the ecosystem, and various types of events. Entrepreneurial communities are important in creating a critical mass of new entrepreneurs, experienced entrepreneurs, private investors and providers of knowledge, competences and services needed by entrepreneurs. Platforms play an important role in promotion if they can provide a sufficiently comprehensive view of the entrepreneurial ecosystem.

In recent years, the Romanian ecosystem has been evolving organically at its own pace. The perception of how attractive Romania is in terms of entrepreneurial opportunities seems to be biased, partly due to the lack of the

¹⁶See Research and Innovation Council Finland, (2014): Reformative Finland: research and innovation policy review 2015-2020 <https://rio.jrc.ec.europa.eu/en/library/regenerating-finland-research-and-innovation-policy-direction-2015-2020-0/>

reliable data and partly to the insufficient impact of the country's promotion programmes.

There are web-based platforms (e.g. Start-up Romania) as well as physical ones (e.g. events and hackathons) in the Romanian entrepreneurial ecosystem. However, these give a limited and therefore slightly biased view of the ecosystem. Media focus on start-ups and entrepreneurship, while very important in communicating the success stories, further bias the overview, since only recent news is reported with a limited impact on the Romanian language audience. The most well-known website promoting entrepreneurship – Start-up.ro – is planning to launch an English language version soon¹⁷.

The Romanian entrepreneurial community is still young and emerging. Some start-ups launched in Romania are looking for opportunities elsewhere. Poland seems to be perceived as an attractive destination for raising investment and getting interconnected to the international entrepreneurial community. Many start-ups aspire to be accepted to such prestigious programmes as hub:raum in Kraków, an incubator and accelerator sponsored by Deutsche Telecom. On the one hand, these opportunities provide an entry point into global innovation networks, while on the other hand, the lack of comparable local opportunities (despite certain recent initiatives like www.Riskybusiness.ro) is creating a brain drain of talented people and ventures which means the ecosystem structure remains relatively weak and fragile as a whole.

Despite the emergent and fragile state, the Romanian entrepreneurial and more specifically start-up ecosystem has already gained some international recognition. However, international interest will eventually weaken if the ecosystem cannot produce enough visible success stories soon. Furthermore, the strengthening of the ecosystem must show in the volumes and quality of attracted talent and private funding.

It is possible that diverse activities to strengthen the perception of the Romanian entrepreneurial ecosystem and increase the level and quality of networking, partnerships and collaborations could be part of the new Romanian Entrepreneurship Agency's work plan described in Section 3.5, responsible for coordination and strategic alignment.

Recommendation 2.2.1

Establish a Connecting Hub as a facilitating platform for the integration and promotion of the Romanian entrepreneurial ecosystem, its start-ups and scale-ups.

Like all emerging systems, the Romanian start-up ecosystem suffers from fragmentation. Several bottom-up activities have been launched by various actors and groups at different times with varying success. These bottom-up activities reflect the various motivations of the actors who launch them, and are seldom coordinated among one another. At the same time, the government has

¹⁷ See <https://start-up.ro/>

introduced a number of support measures targeting selected actors with limited understanding or coordination with the bottom-up activities. The result is a fragmented collection of private and public activities lacking a shared vision or strategy, and coordination.

To overcome fragmentation in the entrepreneurial ecosystem, the Connecting Hub will provide a shared platform for organising joint activities, collecting and communicating ecosystem-relevant information and thereby making the system more visible both nationally and internationally.

The hub should be set up by a small team operating as a connector between other innovation hubs in the country. A team of five or so people could run the organisation with the main aim of strengthening the ecosystem from within by using existing stakeholders and developing an action-oriented approach in which all stakeholders play active and leading roles. The organisation should act as an honest broker between the hubs and should be neutral with respect to the parties involved. The director of the Connecting Hub should have a sufficient understanding of both the public and private sectors.

It should focus on facilitating, stimulating and engaging stakeholders in networking. The hub could operate as a network of regional and local hubs to link the innovation communities across the country and help to reach out beyond local, regional and even national ecosystems. It could also act as the connector, bringing representatives of Romanian regional entrepreneurial communities together on a regular basis. The mutual goal would be to open networks, activity agendas and expertise which can benefit everyone. The hub could also facilitate the development of a shared agenda on a national level which outlines the necessary systemic changes for the country. Hub representatives should have excellent contacts with the start-ups in their hub, know the investors and have good access to academia, incubators, corporates and the regional public sector.

The staff should actively involve the power and networks of other hubs' stakeholders by facilitating the development of initiatives with them which relate to their specific qualities – for instance, a corporate programme on how they can work with start-ups in a sustainable way which benefits both the start-up and the corporate.

Multinational corporations should be involved in building and strengthening the start-up ecosystem. Start-ups bring in new ideas and practices while the experience of established players helps to scale the inventions and innovations. This is one reason why cooperation between start-ups and established companies is often fruitful. Corporates can also be involved via a corporate 'launchpad' where start-ups pitch in front of corporates on certain themes.

Corporates can learn from each other by sharing their best and worst practices on how to work with start-ups. Together with the hubs, they can develop a filter to target those start-ups which fit their scope and vision. A key element here is that corporates should put start-ups on their agenda at board level and define when the cooperation is likely to be a success. Corporates can either organise this themselves or together with a university business faculty. Another example

concerns supporting mentoring and involving mentors from all the hubs or organising international events.

The Connecting Hub should be set up jointly by those actors assigned also with the task of providing the relevant ecosystem support services. These services/actors include: connecting national and international entrepreneurs with incubators and other stakeholders, connecting the different stake holders to strengthen their cooperation, a broker to help start-ups access international accelerators, the incubators association and the 'entrepreneurs in residence' network.

The hub should develop a communication strategy on the competitive advantage of the Romanian start-up ecosystem to make people proud to be part of the ecosystem. It should provide clear answers to such questions as: What are the role models and success stories from Romania? What are the facts and figures? Why should founders, investors, corporates, etc. come to or stay in Romania? The hub's staff should engage with embassies and consulates to promote the Romanian ecosystem in their networks and work closely with Invest in Romania. Attracting international talent to Romania should also be closely linked to this hub.

Its ambition should be to link up with international start-up hubs in Europe and globally. For this reason, there should be an English version of the website. Its staff should develop a strategic reflection to identify complementary hubs which can enrich the network of the Romanian ecosystem. These could be 'close by', such as the Danube region, the Visegrad Group, specific countries like Poland or France, or transatlantic. In this way, Romania could attract inspirational leaders, mentors, investors, and founders – for example, the global incubation network in Austria (<http://www.gin-austria.com/>).

Public support should be considered during the hub's build-up stage. However, it should strive to become self-sufficient after no more than two years, basing its business model on membership fees, paid events and corporate sponsorships. This private sector bias should ensure client-orientation, value added and impact rather than building yet another public, free-of-charge service.

Given the tasks outlined above, the Connecting Hub has a pivotal role to play in the ecosystem (see Figure 4) connecting institutions and fostering the ability of this system to deliver the 'services' necessary to stimulate the entrepreneurial spirit in Romania.

The Connecting Hub's features should include, at least:

- References and access to relevant news sites
- Access to directories/databases of entrepreneurs, business angels, VC investor and support service providers (including incubators, accelerators)
- Romanian success stories

- Access to relevant contextual data, such as company, labour market, etc. legislation, and available support measures
- Knowledge of relevant events and locations
- Targeted promotion materials, networks and events for international visibility
- Connections to different ecosystem stakeholders.

More advanced features may include:

- Matching services to find members for entrepreneurial teams, investors, partners, etc. based on expressions of interest (i.e. looking for investors, looking for companies to invest in or work at, looking for a mentor/board member, etc.) connected to a profile. This functionality could start as a national service but should aim to become international
- Connecting innovative and scalable companies with international accelerators
- Web-based tendering for companies to select service providers
- Entrepreneurs-in-residence-type services offered electronically via the hub to incubators, accelerators and other actors providing support for entrepreneurs
- Offer virtual workspaces for geographically distributed entrepreneurial teams, and interaction with investors and/or mentors situated far away
- Regular events, competitions and other shared entrepreneurial activities

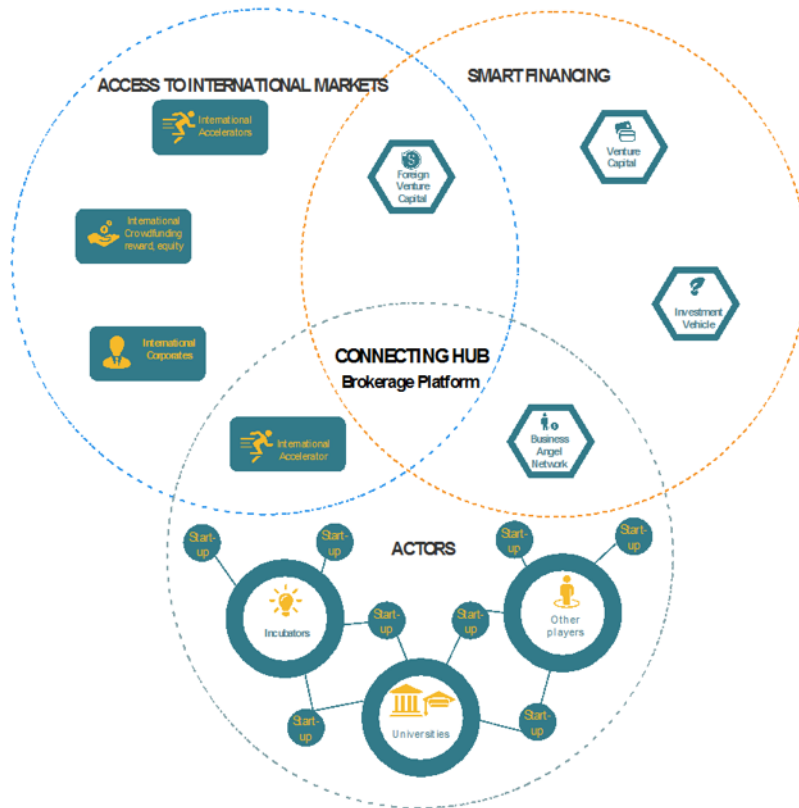


Figure 4: Connecting Hub as a brokerage platform
 Source: Technopolis Group and PSF expert panel

Box 1.2: StartupDelta¹⁸

The StartupDelta initiative comprises a dedicated team with excellent connections in enterprise, government, research and all aspects of the start-up community. Team members are assigned to tackle challenges that hinder start-ups' growth.

StartupDelta is the Dutch start-up ecosystem in which start-ups, investors, launching customers, governments and knowledge institutions work together to boost the start-up ecosystem and connect it to other international start-up hubs. The amount of capital in Netherlands, among potential angel investors and with institutional investors, is staggering and StartupDelta is actively pursuing putting this money to work.

It ranks 4th in the EU and 19th in the Global Startup Ecosystem Ranking. **StartupDelta is Europe's 3rd fastest-growing ecosystem**, behind Berlin and London, and ranks 5th highest in the Growth Index of the global top 20¹⁹.

¹⁸ <https://www.startupdelta.org>

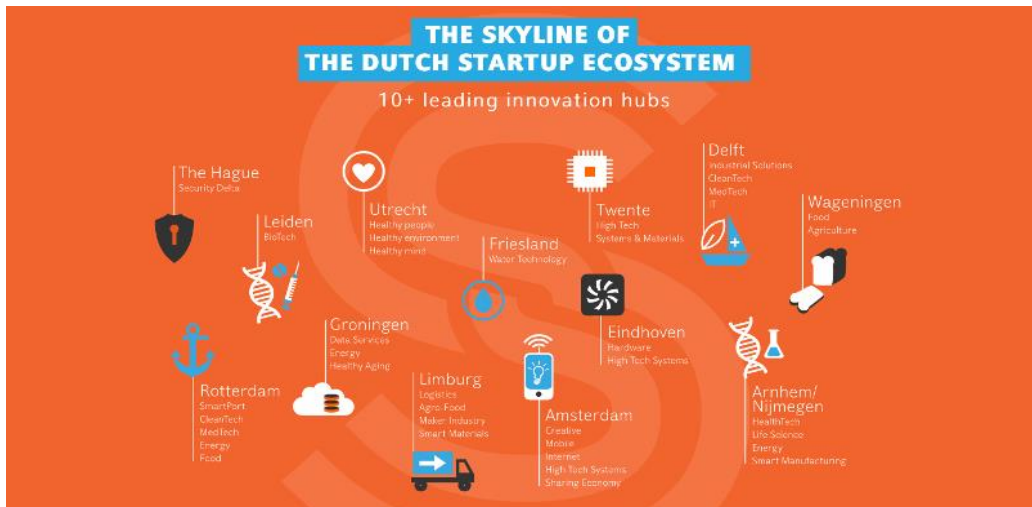


Figure 5: The Skyline of the Dutch Startup Ecosystem and Action Plan

Recommendation 2.2.2

Develop a web portal on which relevant information for start-ups and on start-ups is made transparent.

The web portal makes it possible for hubs, start-ups, investors, corporates and government to access and share information concerning activities, events, investment rounds, public instruments, etc. It can use social media to provide the latest information, success stories and can be user-driven.

The web portal can be developed separately from the Connecting Hub or integrated into the Hub as one of its activities.

If the web portal is developed separately, it can be a public-private initiative, whereby both the government and sponsors provide the funding for the first few years. This will cost between EUR 500 000 and EUR 1 million in cash or in kind. It will then become self-sustainable as users should pay a small fee in relation to the turnover or type of their organisation. They could also receive revenues for advertising, as is the case for the Dutch-based network facilitator StartupDelta mentioned above.

Box 1.3: Case studies of entrepreneurial success stories

Vector Watch

A potential game-changer in the wearables industry, Vector Watch has created a 30-day battery life smartwatch. It is a stylish piece of technology that values simplicity. It is meant to help make time “what truly matters” rather than

¹⁹ 2015 Global Startup Ecosystem Ranking published by Compass, <https://startup-ecosystem.compass.co/ser2015/>

crowding your life with unnecessary apps and widgets. Manufactured from stainless steel for a premium look, Vector has two collections, Luna and Meridian.

In 2015, Vector launched in the US, UK, Switzerland and Romania. In 2016, they planned to focus on further developing the product and on growing the business across Europe, the USA, Asia and Australia. The start-up has offices in London, Silicon Valley, Hong Kong and Bucharest. The engineering team is based in Romania, while marketing, sales and management are located abroad.

In November 2015, Vector Watch raised USD 5 million (approx. EUR 4.45 million), led by Bucharest-based GECAD Group. It was acquired by Fitbit in January 2017²⁰.

Green Group

Romania has the lowest recycling rate in the EU. Only 5 % of the waste produced is recycled versus the EU average of 29 % and a target of 50 % by 2020 for the Member States. Green Group operates within the circular economy business model. It helps change behavioural patterns, raise economic returns on waste collection and recycling, and lower landfill to preserve the country's picturesque landscapes.

Green Group is one of Romania's major entrepreneurial success stories. The company was started in 2007 by a Taiwanese entrepreneur who decided to settle and build a waste-recycling business in Romania. By 2016, Green had become the largest waste-recycling company in South-East Europe with 60 % share of PET and 50 % share of electrical and electronic equipment waste recycling markets in Romania. The company has a turnover of EUR 90 million, employs 2000 people in its four recycling facilities, and is ranked as the 4th largest polyester-fibre producer in Europe.

In 2016, Abris-Capital, one of the major private equity funds in the CEE region, invested over EUR 40 million to roll out SIGUREC, the company's integrated recycling infrastructure developed with a grant from the Norway Innovation Fund. Abris believes that it will help this local champion scale-up its operations, increase its throughput capacity by 42 % to 75 000 tonnes per year, and become the second-largest PSF producer in Europe by the end of 2018.

Recommendation 2.2.3

Establish an Entrepreneurship Award under the auspices of Romania's president to promote successful ventures which have originated in the Romanian ecosystem and to celebrate entrepreneurs and recognise leading entrepreneurs.

Entrepreneurship awards are an excellent way to put the spotlight on successful entrepreneurs and help to spread entrepreneurial culture. Recognised by the

²⁰ See Techcrunch, 2017: <https://techcrunch.com/2017/01/10/vector-smart-watch-startup-acquired-by-fitbit-as-wearable-giant-expands-its-team/>

state, entrepreneurs become role models and an important inspiration for young people and entrepreneurs-to-be.

The purpose of an Entrepreneurship Award in Romania would be to promote successful ventures which have originated and operate out of the Romanian ecosystem, while recognising leading entrepreneurs for their contribution to the economy and society. Setting up such an award under the auspices of Romania's president would valorise the social status of entrepreneurs and innovators in the country and beyond. Organisation of the award ceremony could be linked to the Global Entrepreneurship Week which it is celebrated in more than 160 countries worldwide, making it both nationally and internationally visible.

Box 1.4: Celebrating entrepreneurship in Estonia²¹

Inspiration for setting up an entrepreneurship award in Romania might be an example from Estonia. The Entrepreneurship Award is the oldest entrepreneurship competition in Estonia, dating back to 1996 when Estonia's President Lennar Meri initiated the competition to award the prize 'Foreign Investor 1995'. In 2000, the name was changed to 'Entrepreneurship Award'. The selection and recognition of the best companies is organised by Enterprise Estonia, a government funding agency. The award competition is the state's highest recognition of outstanding companies.

Traditionally, Enterprise Estonia, along with entrepreneurship and consultancy centres all over Estonia, organises an entrepreneurship week during the second week of October. The week culminates in an entrepreneurship gala to recognise and celebrate entrepreneurial achievements. The week aims to raise awareness and help develop small and medium-sized businesses. The topic in 2015 was 'Think Big!' and included more than 200 workshops, seminars and company visits across Estonia.

Another potential good practice is Startup Estonia (<http://www.startupestonia.ee/en>) which operates, for example, a crowd-sourced investment database, openly available (Excel) in English on its website: <http://www.startupestonia.ee/startups/investments>.

2.3 Open-data approach

Open government data is an excellent resource that is usually largely untapped. Many organisations, including public ones, collect different types of data in order to perform their tasks. In each country – and Romania is no exception – some data are made public by law and, as such, could be made open and available for others to use.

²¹ <http://www.eas.ee/ettevotlusnadal/> (in Estonian)

Romania is performing quite well in open data, ranking 13 out of 122 countries in the open-data index²². This experience in open data should also be used to benefit the entrepreneurial ecosystem.

The government should make aggregated data from the ecosystem permanently available via the Connecting Hub's web portal. The IT system (see chapter 7) is the basis for permanent, almost real-time monitoring of the ecosystem.

Recommendation 2.3.1

Make the aggregated monitoring data openly available to all ecosystem actors.

This open database should be aligned with existing reporting on the start-up ecosystem to increase visibility and benchmarking. The global and European rankings for start-up ecosystems are becoming more sophisticated, meaningful and impactful. To develop a framework to measure and evaluate, it is not only important to define clear national objectives and indicators, like Compass or the Policy Tracker, but also to try to synchronise them with the indicators in these reports. The European Digital Forum (EDF) has the start-up manifesto Policy Tracker which provides a framework, including recommendations for Member States. The EDF focuses on digital start-ups and also develops the European Digital City Index. Despite its digital focus, the recommendations are useful for developing a start-up ecosystem in general. On the one hand, it is useful for practical reasons: collecting data is time consuming and often difficult, so it is better to include the indicators used in these reports and in the monitoring exercise. On the other hand, it is easy to become part of these rankings and to claim a rightfully owned position.

Recommendation 2.3.2

Apply Start-up Manifesto and Scale-up Manifesto as policy tracker digital tools to monitor and review the evolution of the Romanian ecosystem. Appoint an international expert team to validate the review of the ecosystem on a regular basis and make recommendations to government.

The Romanian entrepreneurial ecosystem is in an emergent stage. Entrepreneurial policies are still limited and relatively weak. Developing the ecosystem and respective policies could significantly benefit from international experience.

Several countries lead the monitoring process – for instance, the United Kingdom follows the methodical approach of the Scale up Institute, Nesta and Coadec. These organisations could be involved in giving advice in setting up the Romanian monitoring system. The Organisation for Economic Co-operation and Development (OECD) carries out studies and compares OECD countries, as

²² https://www.europeandataportal.eu/sites/default/files/country-factsheet_romania.pdf

described earlier. Romania is not part of this exercise yet but it would make sense to consider this opportunity. Although the OECD study does not cover the entire EU, the website <http://www.startuphubs.eu> provides a useful example of indicators which can be used when mapping the national ecosystem, such as the number of start-ups, the number of employees or the level of investment.

Another program that can give useful insights in terms of benchmarking with other ecosystems is the Startup Genome²³.

We recommend that the Romanian government takes advantage of the Start-up Manifesto and the Scale-up Manifesto²⁴. These documents were written jointly by startups and scaleup stakeholders around Europe. They outline targeted recommendations ('checks and balances') to policymakers at EU level and in the Member States, and also for startups themselves for creating a vibrant, nurturing ecosystem. Both are linked by a Policy Tracker, which is an online tool monitoring progress on how the Start-up Manifesto and Scale-up Manifesto are being implemented in the 28 Member States.

Another tool is ranking cities as seedbeds for innovation and entrepreneurship. 'The European Digital City Index'²⁵ and its user-friendly interface allows users to browse through and rank 60 European cities based on key criteria such as access to finance and talent, quality of life, etc. As of 2017, only Bucharest features in the European Digital City Index. It would be helpful for investors as well as companies if more cities in Romania featured on this interactive map as hubs for innovation and entrepreneurship. As mentioned at the beginning of this chapter, access to high-quality open-access data on the ecosystem is a necessary precondition.

²³ <https://startupgenome.com>

²⁴ See Start-up Manifesto, <http://startupmanifesto.eu/> and Scale-up Manifesto, <http://scaleupeuropemanifesto.eu/>

²⁵ See Digital City Index website: <https://digitalcityindex.eu/>

3 IMPROVE THE BUSINESS ENVIRONMENT

Like many other countries in Europe, Romania has been struggling with how to boost its entrepreneurial ecosystem in the challenging post-crisis environment. Setting up better framework conditions, ensuring law enforcement, digitalisation, cutting red tape and fighting corruption have been on the Romanian government's policy agenda. The authorities have brought in new legislature, new strategies, new operational programmes and new initiatives to embrace the Europe 2020 Strategy. Some key documents were adopted in 2015 – for example, the National Strategy for Competitiveness 2015-2020, the National Research-Development-Innovation Plan III 2015-2020, and the National Strategy on the Digital Agenda for Romania 2020. To what extent this legislation is improving the business environment at the ecosystem level remains to be seen²⁶.

The European Commission's 2016 assessment of Romania's SME policy, and specifically the implementation of the Small Business Act for Europe, shows a mixed picture regarding the country's progress. The EC defines the following priorities Romania needs to address more diligently to improve its entrepreneurial performance:

- simplify administrative procedures for businesses;
- increase the transparency and efficiency of public administration;
- reform the public procurement system and implement the national public procurement strategy;
- implement the civil service strategy and reforms to strengthen inter-ministerial cooperation;
- streamline the process for the resolution of insolvency to provide better conditions for second-chance entrepreneurs;
- put in place policy initiatives to improve the innovation potential of SMEs²⁷.

Based on these recommendations, which were discussed and validated with entrepreneurial ecosystem stakeholders during the country visits, the panel of experts proposes a set of recommendations on how to improve the business environment for start-ups and scale-ups.

3.1 Fighting bureaucracy, red tape and corruption

This is a major challenge in Romania. Diverse stakeholders within the Romanian entrepreneurial ecosystem consider oversized administration, excessive levels of red tape, high corruption, and low level of trust, especially towards public servants, as key obstacles to improving the business environment. Entrepreneurs interviewed during the country visits were rather pessimistic about their government's ability to deal with the problem. Based on international experience, this panel of experts believes that opening up

²⁶ For more information, see Technopolis Group, 2016.

²⁷ [European Commission, \(2016b\)](#): Romania - SBA Fact Sheet 2016.

government data would expose the weakest performing public agencies and other government entities, thereby creating social pressure at the ecosystem level (see Recommendation 2.4).

Bureaucracy is not perceived as a major issue when starting a business. However, in Romania it is a major issue for entrepreneurs running a business. They consider the cost of spending time to obtain permits, licences, concessions, or clearance from the tax office, as a high burden. In practice, they say, these lengthy and complex administrative procedures, blurred responsibility of the public authorities, and red tape often lead to corruptive behaviour²⁸.

However, it should be acknowledged that Romania is being praised as a role model in the region for fighting corruption, and the independent National Anticorruption Directorate, which prosecutes more than 1000 people a year, has been credited for this positive development²⁹. The country has improved its standing in the Transparency International Corruption Index from 69th in the world in 2014 to 57th in 2016³⁰. This progress is also confirmed by the World Bank Worldwide Governance Indicators, where Romania moved from 52 in 2010 to rank 58th in 2015³¹.

Nevertheless, there are examples which show the scale of the problem. A 2016 report by the Prime-Minister's Control Body found that the state spent around EUR 689 million on IT products and platforms commissioned between 2011-2016. Of that, IT products worth over EUR 25 million were not used or are not in operation. A large number of the non-compliant IT products were found in the Ministry of Regional Development, a Managing Authority for the Regional Operation Programme (ERDF). The malfunctioning IT system managing the EU fund applications has delayed the application and fund commissioning for months³².

The Control Body recommended that a specialised control and management body is established at a central level to monitor the public procurement and implementation of IT systems. The government took steps in this direction and set up the GOVIT Hub, which gathered volunteers and IT experts from the private sector in hackathons and to develop IT tools for improving public services – also based on open source software and open data³³. The GOVIT Hub is a welcome development and could be kept as a standing task force mandated with the incubation of e-government services.

²⁸ Data gathered during interviews during country visits.

²⁹ *The Economist*, 17 December 2016 edition.

³⁰ [Transparency International Corruption Perceptions Index](#), (2017), Romania Country page,

³¹ [World Bank Worldwide Governance Indicators; Percentile rank among all countries \(ranges from 0 \(lowest\) to 100 \(highest\) rank\)](#).

³² See [Hotnews, 5 December 2016](#).

³³ <http://ithub.gov.ro/>

Recommendation 3.1

Create a 'one-stop-shop' as a digital service centre for entrepreneurs offering integrated e-Government services.

Building on the National Strategy on the Digital Agenda for Romania 2020 (NSDA) that was adopted in 2015, this panel of experts recommends including the digitalisation of public services in the work streams of initiatives outlined in the Recommendations in chapters 2.2, 2.3, by setting up a baseline study and opening government data³⁴. The NSDA puts a strong emphasis on increasing efficiency and reducing costs in the public sector, thereby creating a sound basis for implementation of e-government and sets a target whereby at least 35 % of people will use e-government systems by 2020³⁵.

Creating a 'one-stop-shop' as a dedicated service centre for entrepreneurs should be based on the following building blocks:

- A web portal providing online access to download and submit documents, track documents, interact with an administrative entity, and benchmark the efficiency of a given administrative process;
- Set up a company online (with digital signature);
- Change entries in the company registry (e.g. NACE codes, signatories, board members, etc.) of the companies online.
- These activities should be coordinated with the government.

The digital service centre (one-stop-shop) should be implemented as a priority action under the government overall e-government agenda to boost public sector effectiveness and efficiency, reduce administrative burden and increase the quality of public sector services.

The main purpose of the digital one-stop-shop (and e-government in general) is to allow companies to interact with the public administration more efficiently and transparently (e.g. they can see who deals with their requests and how, the status of their request and when they can expect a response. No personal visit to public offices is required and the interface of the public office website creates a transparent interface with public servants who can initiate and manage administrative tasks electronically. Open data often refers to data made publicly available. While the digital one-stop-shop approach also allows transparency of

³⁴ The [Digital Economy and Society Index](#) (DESI) shows that the deployment and quality of broadband infrastructure in Romania is at the level of the EU average. However, the country lags behind in terms of digital public services, integration of digital technology, use of internet and human capital, but theoretically could advance if e-government becomes a political priority.

³⁵ The Romanian government estimates that the full implementation of the strategic vision of the ICT sector in Romania will bring an investment of around EUR 2.4 billion, creating GDP growth of 13 %, an increase in the number of jobs by 11 % and cutting administration costs by 12 % during 2014-2020 (see Romanian Government, 2017).

relevant appropriate data, facilitating open access to company data is only a secondary objective.

However, e-government captures both: on the one hand, it increases efficiency and reduces administrative burden – i.e. in general, better framework conditions, such as ease of doing business and less corruption. On the other hand, it gives open access to public data, introducing a high level of transparency in the system. In this context, e-government simply provides a wider context for the digital one-stop-shop, which is the main point in this recommendation. E-government can provide a link to the Connecting Hub through public agencies. They are either interconnected with the hub through hyperlinks and data feeds, or the hub enables them to collect the data and link it to other relevant data sources, such as public funding, participation in services, trainings, events, and more which are provided by public agencies, etc. Altogether, this interconnected system provides the Connecting Hub with other digital environments which are relevant to its customers – entrepreneurial companies in this case.

Box 3.1: E-government in Estonia³⁶

Digitalisation of public services has a critical role to play in the modernisation of the country's institutions. Using digitalisation as a tool for fighting bureaucracy is a way to improve the business environment (provided that the public procurement on ICT solutions improves).

E-government is key for accelerating innovation and the ICT absorption rate. It captures both increased efficiency and reduced administrative burden, and open access to public data. Open data policy creates more transparency but also develops new markets for innovation. Digital citizens extend their use of the internet towards consumption of online content (videos, music, games, etc.), financial services, e-commerce and online communication creating new markets for digital entrepreneurs. A good example for the impact of digitalisation is e-government in Estonia.

The vibrant entrepreneurial ecosystem in Estonia is a prime example of a synergistic relationship between the growth of innovative firms and e-government. In 2001, digitalisation of the public services became a strategic goal in Estonia. Since then, the country has led by example setting global standards in cyber security, offering digital citizenship and moving e-government services to the cloud.

The uptake of digital services across public administration in Estonia is a major example of a successful implementation of e-government. As of 2015, 81 % of citizens were using the internet for interacting with public authorities; 71 % used the internet for getting information; 39 % for downloading forms; and 71 % for submitting completed forms. The process has been monitored using four benchmarks which are open to the public: User Centricity – indicates to

³⁶ European Commission, JoinUp, (2016): [E-government in Estonia, European Commission 2015](#)

what extent (information about) a service is provided online and how this is perceived; Transparent Government – indicates to what extent governments are transparent regarding: i) their own responsibilities and performance, ii) the process of service delivery, and iii) personal data involved; Cross Border Mobility – indicates to what extent EU citizens can use online services in another country; Key Enablers – indicates the extent to which five technical pre-conditions are available online. These are: electronic identification (eID), electronic documents (eDocuments), authentic sources, electronic safe (eSafe), and Single Sign On (SSO).

3.2 Smart procurement

Reform of the public procurement system and implementation of the national public procurement strategy is one of the European Commission's recommendations for the Romanian government. Indeed, pre-commercial procurement and procurement of innovation as well as innovation partnerships can be powerful mechanisms helping innovations and new technologies enter the market. Start-ups often need an environment in which to test their prototype before it is further developed and introduced to a wider audience. Governments can play a vital role in this process by creating demand for new products and services and, at the same time, a testing ground for innovations.

However, quite often public procurement is not exploited to drive innovation and entrepreneurship. The reasons for this situation are multi-fold and range from procurement practices favouring incumbents, risk-averse culture, to a lack of institutional capacity or the absence of a champion at a high political level to drive new public procurement policies. These factors hinder, to varying degrees, the access of SMEs and the provision of innovative solutions to public procurement in Romania. Hence, public procurement fails to provide the growth opportunities it could.

Having made significant progress since 2008, Romania seems to be moving back and forth in terms of businesses' participation in public tenders, which declined from 30 % in 2013 to 25 % in 2015. A new institution, the National Authority for Public Procurement (ANAP), which operates under the authority of the Ministry of Public Finance, was set up to manage and monitor the public investment process and improve the quality of public spending. ANAP has already introduced a positive change: average delays in payments from public authorities fell from 21 days in 2014 to 0 days in 2015.

Recommendation 3.2

The National Authority for Public Procurement should undertake 'a sandbox approach' to experiment with pre-commercial procurement and procurement of innovation engaging start-ups and scale-ups.

European public procurement directives – with which national legislation must be aligned – offer much more flexibility than is typically used in Member states. This is also the case in Romania. To make better use of public procurement,

Romanian authorities should adopt the sandbox approach to test experimental procurement practices in an innovative way. This approach refers to a secure testing ground for new solutions. Efforts by the public administration should lead to the development and testing of a number of new practices to be embedded – when tested on a limited scale - in public procurement rules. These would create a portfolio of reference projects, which – if scaled up – could transform the entire public procurement system more rapidly³⁷. The projects developed with the sandbox approach could range from legal solutions to training programmes for public servants, and aim being, for example, to:

- Adjust the legal framework to the new public procurement procedures (if and when needed);
- Identify areas with high innovation potential aligned with Romania’s smart specialisation;
- Develop a methodology for the public procurement of innovation and a methodology for public-private innovation partnerships;
- Train public servants involved in procurement;
- Introduce simplified procedures and sample documentation for SMEs to participate in pre-commercial procurement and public procurement of innovation;
- Create a platform to share and exchange information and experiences among the entities involved in pre-commercial procurement, public procurement of innovation, and innovation partnerships.

The Romanian government could give start-ups and scale-ups a springboard for growth by opening up new markets, thanks to SME-friendly public procurement procedures. This approach could offer tremendous opportunities for not only stimulating their growth but also stimulating the cost-efficiency of public administration. It may even attract foreign SMEs to join the Romanian ecosystem and thereby help to internationalise it.

Box 3.2: Fintech Regulatory Sandbox in the UK

Great Britain’s Financial Conduct Authority (FCA) is the regulator for financial services firms and financial markets in the UK. As part of the government endeavour to promote innovation, the FCA has established Project Innovate which includes an innovation hub, advice unit and a regulatory sandbox.

The innovation hub explores how to improve regulatory requirements. The advice unit offers advice on UK regulation for firms in the financial industry. The regulatory sandbox aims to develop the fintech industry through a learn-by-doing approach. It experiments with the regulatory framework, setting up temporary conditions for selected companies to test their products, services,

³⁷ More international examples on SME-friendly public procurement policies are available at European Commission, DG GROW (2017): https://ec.europa.eu/growth/single-market/public-procurement/studies-networks_en.

business models and delivery mechanisms in a real market environment for a selected period. In July 2016, the first cohort of 24 eligible companies was accepted to the regulatory sandbox to test their innovations. They include both early-stage start-ups, as well as incumbent firms.

3.3 Legal framework for start-ups and scale-ups

Since 2008, Romania has undertaken several positive efforts to adjust its legal framework to the Single Market and to the specificities of the SME sector³⁸. In 2014, a strategic framework for public administration reform was put in place. One of its elements involved embracing the principles of the Small Business Act for Europe (SBA). The SBA provides a comprehensive SME policy framework, promotes entrepreneurship and anchors the 'Think Small First' principle in law and in policymaking to strengthen the competitiveness of this sector.

According to the 2016 SBA Fact Sheet for Romania, the country significantly underperforms the EU average in terms of all measures related to environmental procedures and time to resolve insolvency (3.5 vs. 2.01 in the EU). The Commission SBA monitoring data blames this underperformance on the complexity of administrative procedures, corruption, the low level of institutional capacity, including strategic planning, budgeting, public consultation process, evidence-based policymaking, and the low level of e-government³⁹.

Stakeholders interviewed during the country visit expressed a recurring opinion that the key problem is the poor quality of law, the fast-changing law, and the unpredictable law. The uncertainty of the legal framework, they claimed, prevents them from investing, has increased the cost of enforcing contracts and of working capital due to the length and complexity of administrative procedures⁴⁰.

Recommendation 3.3

Develop an 'Entrepreneurship-Friendly Regulation Agenda' with an 'Entrepreneurship Principle' as a guiding standard for cross-ministerial consultation and collaboration at the ecosystem level.

An Entrepreneurship-Friendly Regulation Agenda initiative should induce more coordination between ministries and departments within them responsible for innovation and entrepreneurship. Implementing the 'think-small-first' principle requires policymakers to take SME interests into account at the early stages of the policymaking process and include them in the sandbox approach. This

³⁸ The main legislation related to the SMEs has been presented in 'The Romanian Entrepreneurial Ecosystem – Background Report (Technopolis Group, 2016). The Report reviews the following legislation: the Government Strategy for SMEs and the Business Environment – Horizon 2020; the SMEs Law (Law Nor. 346/2014); Business Incubator's Law (Law Nor. 102/2016); and Business Angels Law (Law Nor. 120/2015).

³⁹ European Commission, (2016): [SBA Fact Sheet 2016 Romania](#)

⁴⁰ This observation has been validated by different business association representatives as well as individual entrepreneurs interviewed by the experts during the country visits.

initiative should be sponsored at the high-level, possibly within the work programme of the joint task force of the two existing national councils or a new consultative body (see Recommendations 2.1.1, 2.1.2 and 2.1.3)

The 'Entrepreneurship Principle' should be radar or a guide towards new standards for linking innovation-friendly approaches and a think-small-first policy to regulatory processes. A reference point could be the 'Innovation Deals' initiative as part of the European Commission's open innovation policy. Sometimes small adjustments in regulation may create a critical impact especially for entrepreneurs operating in international markets, in the digital economy and breakthrough technologies or disruptive business models, as is the case in the shared economy.

Box 3.3: Innovation Deals⁴¹

Innovation Deals is a pilot phase project launched by the European Commission in 2016 to identify small changes in the legal system or 'grey zones' which need to be addressed to boost innovation and potentially bring large-scale effects. It is a platform for voluntary cooperation between innovators and the national, regional and local authorities as well as the Commission. The outcome of these collaborations is to analyse current regulation in terms of its impact for either driving or hindering innovation, developing new legislative approaches to emerging economic practices, as in the circular or shared economy, for example.

Innovation Deals will be implemented using a fast-track legislative procedure while fully complying with legislative requirements. This is a tool for driving innovation in innovation policy aligned with the Commission's Better Regulation Agenda⁴².

3.4 Tax incentives for start-ups and scale-ups

The ecosystem stakeholders interviewed during the country visits have not really raised any actual claims regarding the current situation in terms of income tax and VAT, but they did complain about high labour costs⁴³. They also

⁴¹ European Commission, (2016): [Open Science, Open Innovation, Open to the World. A vision for Europe, European Commission, Directorate General for Research and Innovation, 2016](#)

⁴² European Commission, (2017): Smart Regulation website http://ec.europa.eu/smart-regulation/index_en.htm

⁴³ All income is generally taxable in Romania at the standard rate of 16 % for corporate and for individual income tax rate, except for income that is specifically exempt. Micro-enterprises are subject to a tax rate of 1 %, 2 % or 3 %. Romanian companies and individuals pay tax on their income in Romania and worldwide, while non-residents – both companies and individuals – pay income tax only on Romanian sources of income. Generally, an employer and an employee incur the following contributions on total gross salary: Social Security 15.8 % and 10.5 %; Health Fund 5.2 % and 5.5 %; and Unemployment Fund 0.5 % and 0.5 %. In addition, employers bears the cost of the Risk Fund (0.25 %), Accidents Fund (0.15-0.85 %), Medical Leave 0.85 % and Disabled Contribution 4 %. See Deloitte, (2017): International Tax. Romania Highlights 2017,

pointed out that the tax administration does not necessarily understand the specificity of young innovative companies, especially in the new sectors, e.g. the digital economy.

A number of changes in the Fiscal Code from early 2017 may affect entrepreneurs and investors⁴⁴:

- VAT was reduced from 20 % to 19 %. Other VAT levels of 9 % and 5 % still apply to specific products and services – no changes there.
- The requirement for companies to register, especially for VAT, if they engage in transactions with EU companies has been repealed. Thus, the normal VAT registration will also be valid for intra-Community transactions.
- Tax on constructions (1 % of the value of constructions that were part of taxpayers' assets) was eliminated.
- The stock option plan requirements have been relaxed. From 2017, all companies can offer employees, administrators, directors or other affiliated juridical persons the right to acquire stocks at a preferential price, or to receive a specific number of shares for free. Before 2017, this right was only available for those with securities admitted for trading on a regulated market or traded in an alternative trading system.
- Profit reinvested in specific assets, such as technology, computers, cash registers, IT programmes and IT licences, can be exempted from corporation tax. This provision was supposed to end in December 2016 but was extended indefinitely.
- Company expenses on vocational education and training can be deducted from the calculation of the tax on profit.
- The minimum threshold of the shared capital at which micro-enterprises can opt to pay the tax on profit has been lowered from EUR 25 000 to EUR 10 000. From now on, this also applies to micro-enterprises that increase their share capital to reach the EUR 10 000 threshold at some point in their existence. Previously, this option was only possible when a company started, never later, even if the company had enhanced its capital.
- The maximum turnover limit at which companies can be considered micro-enterprises was increased from EUR 100 000 to EUR 500 000; now all micro-enterprises pay 1 % profit tax.
- Companies whose only activity is RDI will be exempt from profit tax for 10 years from implementation of the government order (until now they have been paying 16 % profit tax).
- Several taxes were eliminated for companies changing their status in the trade registry (e.g. changing their name, the seat or their activity domain, etc.).

<https://www2.deloitte.com/content/dam/Deloitte/cn/Documents/international-business-support/deloitte-cn-ibs-romania-int-tax-en-2017.pdf>

⁴⁴ The analysis of the fiscal system is only valid until February 2017 and does not take into account any subsequent changes.

- Also, the minimum monthly gross salary level was increased from RON 1250 to RON 1450 (approximately EUR 278 to EUR 322), to be applied from 1 February 2017.

It appears that the Romanian fiscal system offers significant tax incentives for entrepreneurs and investors. There are also incentives for activities related to innovation as a 50 % deduction on corporate income tax can be applied for eligible expenses for research and development activities for Romanian taxpayers engaged in such activities. They can apply an accelerated depreciation of equipment and devices. There is corporate tax exemption for profits reinvested in certain technological equipment acquired after 1 July 2014 and put into operation by 31 December 2016⁴⁵.

Recommendation 3.4

Continue to monitor and adjust the tax and labour law systems to encourage equity investments, dividend reinvestments, and stock option schemes to stimulate the entrepreneurial ecosystem.

Extend tax exemptions to incentivise local investment in start-ups and to attract foreign capital. Streamline tax and labour law procedures to fit specific needs of innovative SMEs.

The Romanian government should keep competitive solutions to tax incentives in place. It should expand support start-ups in their development phase by exemptions on equity financing which implies an even more neutral tax system that treats debt and equity financing equally by enabling the deductibility of both interest and dividend payments. It should also allow start-ups to use stock-options schemes to attract and retain talent and offer favourable solutions to insolvent entrepreneurs to write off losses in the future. More detailed solutions in terms of tax incentives for investment in start-ups and scale-ups are discussed in Chapter 6.

3.5 Catalysing change: Romanian Entrepreneurship Agency

Stakeholders in the Romanian entrepreneurial ecosystem are waiting for the government to take more effective steps, which will trigger a radical and fast change at the ecosystem level in nurturing start-ups and scale-ups. This panel of experts recommends that to this purpose the government clearly assigns a strategic mandate, budgetary resources and an executive responsibility to a public entity, which will be held accountable for a new quality of public support to innovation and entrepreneurship in Romania. This public entity should be given a mandate to drive a strategic innovation and entrepreneurship agenda, to redistribute public funding to start-ups and scale-ups directly through grants, or indirectly, e.g. through a fund-of-funds, and to seed and govern new types of private-public-partnerships conducive to a higher birth and success rate among start-ups and scale-ups.

⁴⁵ Ibid.

There are two possibilities as to how to execute this recommendation. This mandate (and accompanying budget) can be assigned to an existing agency or a new executive agency created especially for the purpose.

In the former option, the government could assign this mission to the Executive Agency for Higher Education, Research, Development and Innovation (UEFISCDI). Established in 2010, UEFISCDI is a public body under to the Ministry of National Education (MEN) responsible for funding projects in higher education, scientific research, development and innovation. The arguments to support this option are that UEFISCDI is operational, it has a good track record of successful project implementation, and has been recognised as an important element Romania's innovation system.

In the latter, a new executive agency could focus better on coherent and integrated policy mix and instruments towards start-ups and scale-ups. It could implement more flexible funding rules than those currently managed by UEFISCDI. It could also provide funding schemes suited to the growth path of start-ups and scale-ups, and reinforce accountability by introducing simple and lean control mechanisms on funded projects and their outcomes. Furthermore, the agency could develop dedicated competencies to provide targeted advice, networking and training to help SMEs go global, participate in pre-commercial procurement tenders, and access capital by setting up and co-funding investment schemes, as described in Chapter 6.

The choice of option will depend on the context of the new growth and jobs agenda of the Romanian government. Whatever the strategic positioning, the agency should be somewhat independent from the ministries and have a transparent governance model which includes entrepreneurial ecosystem representatives.

Taking into account international experience, this expert panel favours creating a new dedicated executive agency for innovation and entrepreneurship. For specific solutions and best practices, the Romanian government could look to Tekes of Finland, Vinnova of Sweden, Enterprise Estonia, NCBR and Polish Agency for Enterprise Development (PARP) of Poland, or Enterprise Ireland (some of which are described in boxes below). These examples demonstrate different models for the classic role of a R&I funding organisation receiving grant proposals, towards more novel and proactive approaches to policymaking at the ecosystem level demonstrated by co-investment schemes and value added services for SMEs.

Recommendation 3.5

Establish the Romanian Entrepreneurship Agency (REA) as a funding agency dedicated to innovation and entrepreneurship.

The REA should become recognised as a reference point and key funding public source for innovation and entrepreneurship in Romania. It should carry out the following main functions:

- Give financial support to entrepreneurship and innovation (grants and other appropriate financial instruments);
- Provide co-investment for venture capital and business angel funding schemes;
- Exercise a strategic function to catalyse Romania's entrepreneurial ecosystem by supporting networking, promotion and internationalisation of Romanian start-ups and scale-ups, and exchange knowledge and best practices;
- Contribute to carrying out the Smart specialisation strategy by leveraging ERDF funds and linking its strategy to the Regional Innovation Strategies;
- Seed new types of partnerships between research, education and businesses, also in collaboration with other funding agencies, such as UEFISCDI or the Regional Development Agencies, for example;
- Arrange the design, organisation and management of evaluations totally independently from those responsible for implementing the programmes, and pioneer open data policy.

This panel of experts believes there are sound reasons for setting up a new entity. First, UEFISCDI originates from education and research. Academic bias is part of its culture – and rightly so. Policies fostering entrepreneurial ecosystem are quite specific due to the nature of start-ups and scale-ups. It seems natural that if these policies are embedded within UEFISCDI, over time the agency would take a more academic approach. Secondly, UEFISCDI is needed to lead the transformation of R&I areas, improve collaboration between universities and industry, and bring education into the policy mix. Focusing on start-ups and scale-ups would distract it from its core mission. Thirdly, while extending the scope and budget of UEFISCDI is possible, this would create problems because of the difference in required work styles and networks.

What is important for the Romanian entrepreneurial ecosystem is that the two organisations coordinate and occasionally collaborate. For example, close cooperation would be needed with respect to funding public-private partnerships, and contributing to developing a strategic innovation and entrepreneurship agenda. An example of cooperation between the two agencies can be seen in the case of FiDiPro⁴⁶, a Finnish funding programme for top researchers in science and technology and their close collaboration in the national foresight project programme⁴⁷.

The REA's institutional position and degree of governance needs careful planning. The agency should have a sufficient degree of autonomy concerning multi-annual budgeting, and flexibility in the design of instruments and in project follow-up. On the other hand, close coordination with other policies, e.g. smart specialisation, should be maintained by linking budget lines. The ministry

⁴⁶ See FiDiPro website, <https://www.tekes.fi/en/programmes-and-services/grow-and-go-global/fidipro/>

⁴⁷ See Finland, National Foresight Programme, <http://www.aka.fi/en/research-and-science-policy/foresighting/finnsight-2016>

or ministries should not have an operational role but should keep the key responsibility for policy analysis, planning, coordination and monitoring, particularly between the new agency, UEFISCDI, other ministries and regional development agencies.

To sum up, a number of elements will condition this agency's success in improving the Romanian entrepreneurial ecosystem:

- REA must have the ability to execute a multi-annual financial planning: the agency should have a medium- to long-term financial perspective and should be able to use unspent funds in the following year;
- REA's governance should be independent of the government and include leading actors in the Romanian entrepreneurial ecosystem
- REA's operations should be based on the principles of transparency, accountability and fairness and its instruments should be designed to fit SMEs through simplicity and flexibility of support mechanisms;
- REA must carry out peer-review of its activities and programmes to the highest standards, including maximum use of independent external expertise, which may or may not be academic, and should include international reviewers, benchmarked against international standards as well as its own performance scoreboard. Data on its operations and on the impact of its beneficiaries and partners should be open and easy to navigate;
- REA should have the possibility to both facilitate and seed joint programming and public-private partnerships;
- REA should be managed by the chief executive officer (CEO) with an adequate understanding of both the public and private sectors, and who has the leadership capacity to induce a culture of innovation in a public administration. The CEO and the management team should apply the private sector's best organisational practices and be rewarded for results and impact.
- The agency should be empowered to learn-by-doing and not be punished for taking risks by experimenting with new policy approaches.

The first step towards establishing the REA is to budget it in the new government's work plan. In 2018, it should include setting up an inter-ministerial task force to prepare a strategic concept and a legislative framework. From the start, the task force should include stakeholders in the entrepreneurial ecosystem in the agency's set-up. Once the REA legislation is adopted, the governing body should be set up to launch the agency into operation with administrative support from the task force.

Box 3.5: Enterprise Ireland⁴⁸

Enterprise Ireland is the state agency responsible for supporting the development of companies from a business idea for a high potential start-up to large companies. The agency funds such projects as an entry into new markets, efficiency improvement and internationalisation. The agency also provides funding for researchers to assist them with the development, protection and transfer of technologies into industry via licensing or spin-out companies.

Part of the agency's mission is to facilitate collaborative links between enterprises and academia to strengthen the practical application of research in business. Its customer-friendly interface helps navigate a landscape of over 80 governmental support schemes. Enterprise Ireland also invests in people by offering customised management development programmes and mentorship schemes. It offers advisory services to businesses, too. Each customer is assigned an Enterprise Ireland adviser dedicated as a point of contact for engaging with the agency, and a team of trained staff members provide expertise in areas such as export, technology development, market research, raising private investment and recruiting talent.

The agency plays a vital role in integrating and promoting the entrepreneurial ecosystem. It organises a number of networking events such as, for example, monthly mentor panels where companies in the early stages of development can present their business plan/investment proposal. Founders pitch to the panel of experts and potential investors and get valuable feedback and advice in a trusted environment. Another agency activity is The Innovation Voucher Initiative: by distributing grants of EUR 5000, the agency helps build links between small businesses and universities or research institutes.

Box 3.6: Polish Agency for Enterprise Development (PARP)⁴⁹

PARP was established as a funding agency to implement national and international projects financed from the European Commission's Structural Funds, state budget and multi-annual programmes. It has been one of Poland's key authorities responsible for creating the environment for innovation and entrepreneurship based on the principle 'Think Small First'. The six major areas of activities implemented by the PARP are: start-up market, training and skills improvement, investment in innovation, services for entrepreneurs, internationalisation, and infrastructure for development.

Its projects for 2014-2020 are clustered into six strategic objectives: supporting the development of new ideas and business models; initiating and supporting comprehensively the innovative activity of enterprises; supporting SMEs entering foreign markets; building links and supporting cooperation

⁴⁸ Enterprise Ireland, <https://www.enterprise-ireland.com/en/>

⁴⁹ Polish Agency for Enterprise Development, <https://en.parp.gov.pl/>

among enterprises and their environment; assisting the public authorities in the creation of the innovation policy; and creating and promoting innovative solutions in the public sector.

The government which came to power in 2015 has adopted a new Development Strategy (Morawiecki's Plan), while PARP, along with other funding agencies, has been part of a larger reform of Poland's innovation system.

4 ENHANCING THE START AND GROWTH OF NEW COMPANIES

Entrepreneurial education at large comprises four elements⁵⁰. First, it is important in creating an entrepreneurial culture, a mindset that appreciates and values entrepreneurship in society. Secondly, entrepreneurial education provides the knowledge and skills for the practices and tools required for setting up and managing businesses. Thirdly, it provides information on the different actors, networks and support structures active in the entrepreneurial ecosystem. Finally, it teaches the hands-on skills and understanding of what it means to be an entrepreneur through learning-by-doing, i.e. through practical entrepreneurial projects managed by students and supported by teachers and external mentors.

The entrepreneurial mindset is not only essential for setting up or working in start-ups. It is also increasingly valued by existing small and large companies and even the public sector. A key feature of the entrepreneurial culture and mindset is understanding and tolerating risks and failure. The concepts and understanding of such are deeply embedded in society. Entrepreneurial education has an essential role to play in changing attitudes towards a greater tolerance of risks and failure.

The majority of entrepreneurial education in schools and higher education institutes (HEI) focuses on teaching knowledge and skills as practices and tools which are necessary for entrepreneurs. Naturally, entrepreneurial education in schools will only provide an overview and an introduction to a limited set of practices and tools, while follow-up education at HEI or in specific training can go much deeper. While knowledge of entrepreneurial practices, and the necessary skills to use various tools are useful and necessary, their impact is likely to remain limited without the entrepreneurial mindset and personal experience or help from those who have it.

Raising awareness, providing knowledge and access to entrepreneurial and start-up communities and networks as well as other support structures in the entrepreneurial ecosystem is often carried out by dedicated structures or activities within, or partly outside, the school, such as entrepreneurial projects, hackathons, competitions, etc. Some of these are directed at individuals and others at teams. A feature common to these learning environments is that a school manages them in collaboration with an external service provider and companies.

Learning entrepreneurial skills cannot be achieved simply by reading books or attending academic lectures. It can only be learned by doing, by hands-on experience and by advice from experienced entrepreneurs. Learning-by-doing can and should be organised to suit each educational level. Primary schools may do practical small-scale projects, e.g. in farming and selling their products in local markets, whereas secondary schools may take on more challenging

⁵⁰ A more comprehensive Entrepreneurship Competence Framework is available from the European Commission, 2016: <https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/entrecomp-entrepreneurship-competence-framework>

entrepreneurial projects that may even lead to start-up companies. Specific training courses, school entrepreneurial clubs or societies as well as HEI can create specific environments to further support the development of potential business ideas and innovative products and services.

A valid business idea is always based on an identified need or opportunity in the current or future market. Thus, entrepreneurial education, especially entrepreneurial projects or activities, offer a solution-driven approach in education. Instead of teaching a single discipline, a solution-oriented approach requires the ability to combine knowledge from several disciplines and to apply it in the context of a specific business. Solution orientation is also an excellent basis for organising activities and projects in the form of competitions. Both the cross-disciplinary application of knowledge in the business context and competitions build and strengthen the entrepreneurial culture even more.

4.1 Entrepreneurship education in Romania

Recommendation 4.1.1

Invite schools, entrepreneurs, students and teachers (through their appropriate associations or representatives) to an open discussion on how to change the overall educational approach to better support entrepreneurship.

Formal entrepreneurial education in Romania is mainly limited to business schools and economics faculties at HEI⁵¹. While other disciplines increasingly see the need and value in integrating entrepreneurship into the curricula, this is hampered by disciplinary barriers between faculties and regulatory barriers to offering employment contracts to experienced entrepreneurs as teachers and mentors, due to lack of a formal academic degree. Both barriers indicate the lack of entrepreneurial culture and mindset in the educational system.

Recommendation 4.1.2

Make earmarked funding available for primary and secondary schools to organise entrepreneurial projects and activities, including entrepreneurial clubs, business plan competitions and societies.

Schools have an important role in creating and fostering the entrepreneurial culture. Attitudes towards risks and failure, teamwork, enterprises and business as well as to society at large are learned in schools. Thus, it is important that schools offer activities that enable students to experience entrepreneurship in practice.

⁵¹ School Education Gateway, 2015: Entrepreneurship education in Romania, http://www.schooleducationgateway.eu/downloads/entrepreneurship/Romania_151022.pdf , and Eurydice, 2012: Entrepreneurship Education at School in Europe, http://eacea.ec.europa.eu/education/eurydice/documents/thematic_reports/135EN.pdf

A good example is the Entrepreneurial Schools programme⁵² in the Cascais municipality (200 000 inhabitants) in Portugal, where every year 10 000 students between 8 and 21 years old participate in many activities, which also include teachers, parents and other main stakeholders.

Schools could choose to use and also build further on the Junior Achievement Romania activities, or they may design other approaches. These may also include summer schools and other special courses organised jointly in collaboration with a larger number of schools.

Furthermore, it could include a national business ideas competition for students. Each school would organise a business plan competition and select the best two projects which would then pitch in a competition among local schools before going forward to a regional competition. Regional winners would pitch in a national event. The national finalists could be rewarded with a free trip to an entrepreneurial ecosystem, like London, Berlin, Amsterdam, Barcelona, etc. Further awards could include mentoring, meetings with investors, potential clients and/or companies interested in licensing or commercialising the business idea, as well as funding and other support for developing the business idea further.

To create favourable pre-conditions for fostering the entrepreneurial mindset, the focus should be on a more balanced understanding and tolerance of risks and failure (e.g. failure can be an effective way to learn). It should also highlight a more extensive use of challenges/needs-based approaches to promoting students' ability to apply what they have learned in solving real challenges or developing solutions to address important needs (supporting both entrepreneurship and innovativeness).

The process should be initiated by the Ministry of Education in collaboration with REA and other appropriate authorities and partners such as chambers of commerce, industry associations and cluster organisations. The process should be interactive and include consultation with or the participation of schools, teachers, local businesses, entrepreneurs and investors on a voluntary basis. The work should result in a set of recommendations that schools would be encouraged to adopt in their curricula.

Box 4.1: Junior Achievement Romania entrepreneurial activities

Junior Achievement Romania (JAR) promotes entrepreneurial activities at schools and HEI which can be examples of what is already working well in entrepreneurial education and could be scaled up. JAR's activities are linked to Junior Achievement Europe and, as they are run simultaneously in several countries, provide an international context that allows for benchmarking, learning and access to proven tools and methods.

Junior Achievement has launched an Entrepreneurial University Initiative, for 2016-2018. The initiative provides a diagnosis of current university activities in

⁵² www.dnacascais.pt

promoting entrepreneurship, training courses for both faculty and students, facilitating collaboration between the university and businesses in organising entrepreneurial education, and support in developing solutions and recommendations for improving entrepreneurial education at university. The initiative uses tools developed by the OECD and the European Commission (HEInnovate)⁵³.

Selected secondary level schools are actively promoting entrepreneurship. They participate in the Junior Achievement Entrepreneurial School initiative, which is a competition between secondary schools for promoting entrepreneurship. The competition is initiated by Junior Achievement Europe, supported by the European Commission and multinational companies and is run in parallel in over 15 countries⁵⁴.

JA Romania also runs a Social Innovation Relay programme in collaboration with a Dutch partner in Romania. This focuses on the hands-on skills and entrepreneurial expertise needed in social entrepreneurship. The project involves students from eight countries and offers learning components such as an online quiz and the possibility for students to obtain a certificate which proves their knowledge in the field of social innovation, webinars on social innovation and entrepreneurship, and a competition of social innovation ideas and mentoring provided by experienced professionals⁵⁵.

While entrepreneurial education in Romanian schools can benefit from further development in all areas, the main challenges are related to the limited number or lack of entrepreneurial projects or activities at all school levels, and supporting the development of the entrepreneurial mindset in education at large. The issues regarding disciplinary barriers and the problems of using entrepreneurs as teachers are more relevant to entrepreneurial HEI and are discussed later in Chapter 5.

4.2 Access to talent

Access to a talented workforce, markets and funding are the most important features of an entrepreneurial ecosystem⁵⁶. Businesses can only operate and grow in an environment if they have adequate access to a talented workforce. In the case of start-ups, these means access to both 'regular' business managers as well as people with entrepreneurial competences. For the entrepreneurial ecosystem to develop, sufficient human resources and a quality multi-dimensional talented workforce must always be available.

⁵³ See Junior Achievement Romania, Entrepreneurial University programme, <http://www.jaromania.org/noutati/innovation-days-noi-perspective-de-dezvoltare-a-antreprenoriatului-si-inovatiei-in-universitati>

⁵⁴ See Junior Achievement Romania, Entrepreneurial School of the Year, <http://www.jaromania.org/profesorii/pagini/scoala-antreprenoriala-a-anului>

⁵⁵ See Junior Achievement Romania, Social Innovation Relay, <http://sir.jaeurope.org/>

⁵⁶ World Economic Forum (WEF), (2013): Entrepreneurial Ecosystems around the Globe and Company Growth Dynamics, http://www3.weforum.org/docs/WEF_EntrepreneurialEcosystems_Report_2013.pdf

There are three main sources of talented workforce: graduates, a retrained or additionally trained workforce, and immigrants. Graduates have been discussed previously and will be referred to again in Chapter 5. The current chapter focuses on the other two sources with regard to entrepreneurial competences.

Building entrepreneurial talent from the current or unemployed workforce relies on targeted training. Training courses can follow similar approaches to those used in entrepreneurial education. However, they should be more targeted to specific types of businesses and tailored to the level of the trainees.

The immigration of entrepreneurial talent can target either expatriates or foreign citizens. Much like modern effective measures to promote foreign direct investments, the measures to attract entrepreneurial talent should be targeted at specific groups with explicit messages based on the unique or at least competitive strengths and opportunities Romania can offer entrepreneurs. Entrepreneurs coming from outside of the EU require a visa.

Romania has been internationally recognised for its talent in the ICT sector. However, many talented people aspire to an international career or one in the service of multinational corporations rather than a start-up career. Romania's capability to attract or retain talented workforce is relatively low⁵⁷. The Romanian entrepreneurial sector suffers from an internal competition for talent, as well as brain drain. Furthermore, a large percentage of students choose to study humanities and social sciences. As formal entrepreneurship education at HEI is limited to business schools and faculties of economics, potential student entrepreneurs from beyond these academic communities lack access to formal programmes helping them to build the competences required, in particular by innovative high-growth start-ups and companies. The only exception is the ICT sector.

Entrepreneurial training for the current workforce or unemployed is limited. While there are some private initiatives, there is no systematic approach to cultivating entrepreneurial talent among this target group.

Romania has a relatively numerous diaspora, which is currently not used to its full potential as regards entrepreneurship. It can offer a highly potential talent pool for the entrepreneurial ecosystem, both in the form of entrepreneurs and talented workforce, as well as business angels and VC investors. However, there are no measures for capturing the potential of the diaspora.

Romania offers a business visa⁵⁸, which is targeted at foreigners working in Romania or people doing business there. It improves the situation for foreign investors and shareholders, and thereby also for foreign co-owners of start-ups established in Romania.

⁵⁷ See e.g. WEF, (2017): Global Competitiveness Index Romania, http://reports.weforum.org/pdf/qci-2016-2017/WEF_GCI_2016_2017_Profile_ROU.pdf and INSEAD, Adecco, (2014): Global Talent Competitiveness Index, www.adecco.com/en-US/Industry-Insights/Documents/qtci-report-2014.pdf

⁵⁸ A long-stay visa for economic purposes, see Romanian Ministry for Foreign Affairs website, <https://www.mae.ro/en/node/2054>

Recommendation 4.2.1

Establish a specific promotion programme for attracting foreign and expatriate (diaspora) entrepreneurial talent. Mapping diaspora talent will be key to implementing this project successfully.

Select specific potential target groups and countries and design the promotional activities accordingly. Key activities should include: events, visits and study tours to Romania, promotion material, showcasing successful Romanian start-ups and helping them get visibility at trade shows and supporting roadshows in investors' communities, assistance in launching a start-up in Romania by offering a welcome desk, and a single point of access to arrange formalities and receive information. The promotion programmes, their quality and impact could be overseen by a new agency, as discussed in Chapter 3.5 above, which should outsource them to private entities via a competitive tender. These entities should operate in close collaboration with or be the same as that managing the Connecting Hub (see Chapter 2).

Recommendation 4.2.2

Establish a start-up visa to attract foreign entrepreneurs to launch their new businesses in Romania.

Countries around the world are increasingly competing for entrepreneurial talent. A specific start-up visa has been introduced in some countries to help foreign entrepreneurs deal with issues related to immigration⁵⁹. Romania should not lag behind in this development, especially since it currently suffers from a serious brain drain.

The visa could be developed from scratch or, alternatively, the current business visa could be extended to better cover foreign entrepreneurs. Experiences from countries that have already introduced a start-up visa should be analysed as a basis for developing a sufficiently attractive, simple and administratively lean solution for Romania.

4.3 Non-financial support schemes for entrepreneurs

Additional and complementary competences are often more valuable than money for the 'first time' entrepreneurs and those entering international markets. They are often very cost-effective policy measures with high potential impact. However, the value of non-financial support relies entirely on the quality of the experts providing it.

Advisory services, mentoring, training, etc. can either be separate measures or can be integrated into funding programmes as mandatory or voluntary services

⁵⁹ E.g. Italy (<http://italiastart-upvisa.mise.gov.it/#ISVhome>), Canada (<http://www.cic.gc.ca/english/immigrate/business/start-up/>), UK (<https://www.gov.uk/tier-1-entrepreneur>)

for the funded companies. These can also be used as an external part of the *ex-ante* assessment before a decision is made from a funding programme.

A non-financial policy measure typically consists of some form of financial support. However, rather than giving direct financing to entrepreneurs, it implies offering indirect financial support (e.g. in the form of a fully or partially subsidised activity or service). This mechanism aims to ensure the availability and quality of support, and specific supported activity or service. Thus, the company (or entrepreneur) can access the service or the activity for free or at a reduced price. The funding can be given directly to the service provider or, alternatively, it can take the form of a voucher or a small grant. Support is given to a specific purpose relevant to the entrepreneur.

There are several ways to ensure the availability and quality of support. Public procurement is a possible approach, selecting qualified service providers when their availability on the market is low and the quality varies greatly. The downside of procurement is that the service providers are fixed for the duration of the contract, hence limiting new service providers trying to enter the market (or rather, to benefit from the support). Re-issuing (e.g. annually or semi-annually) the open call is another option which is applicable to situations where availability is sufficient, but the quality is very variable.

Certification is another approach to ensuring availability and quality. It can be organised and managed by the same authority implementing the policy measure, or by the service provider community itself (self-regulation). The former is suitable for situations where availability is sufficient, but quality varies. Successful application of self-regulation (certification, norms, operating principles, etc. defined and controlled by the service provider community) is possible when the service providers have been sufficiently well organised and their success depends on customer feedback. Certification can be complemented with web-based databases, service-provider searches, customer ratings, etc. to enhance transparency.

The supported activities can range from competence building (training) to business plan pre-assessment and various types of company diagnostics.

Start-ups and early-stage SMEs often benefit from an external assessment of their development or business plans. If they have a competent board with external members (e.g. business angel or VC investor), use external consultants or mentors on their own, participate in competitions or seek external investors they can have their plans assessed. However, other companies may struggle and lack realistic understanding of the true potential of the company and its plans.

Box 4.2: The Enterprise Development Programme in Estonia⁶⁰

This is a comprehensive programme combining various soft and financial supports for Estonian companies. The programme comprises three stages: the first focuses on mapping the company's status and establishing its ambition and readiness for change. During the second stage, the company prepares a development plan to achieve those ambitious objectives, which may be, for example, a new innovative product or service, entering international markets, new production process, etc. Companies with the best development plans can enter the third stage where they are supported during the implementation of their multi-year development plan. During the first two stages, the company has access to subsidised diagnostics and mentoring services. During the third stage, the company can also apply for funding from the programme, and from other public funding sources, too. Further mentoring and diagnostics services are also available during the third stage.

4.4 Non-financial support schemes in Romania

The non-financial support structures are not well established in Romania. Based on the existing and planned policy mixes aimed at supporting start-ups and SMEs, the administration's approach focuses on public funding schemes and is not very customer-oriented (see Chapter 3).

The main public policy measures offering non-financial support are Romania HUB, Start-up Plus and GovITHub. The last one is a specific support scheme targeted at attracting IT talents to work on solutions relevant to the public sector. The first is a more generic SME support scheme, which also includes activities targeted at start-ups. The Start-up Plus programme is aimed specifically at start-ups. The Enterprise Europe Network (EEN) provides some of these services as well, although with limited impact in the Romanian entrepreneurial ecosystem

Romania HUB was launched in 2014, so it is too early to assess its impact. However, based on the news regarding the Romania HUB programme, the focus at the beginning seems to have been mainly on training and the promotion of public funding schemes. To what extent and when the actual support services (mentoring, assistance, etc.) will become available is not clear. Furthermore, the services seem to be delivered by the Ministry for the Business Environment, Trade and Entrepreneurship. While there is no doubt that the agency can promote, advise and assist in accessing public funding schemes, it is less certain that they can provide further support services of the same quality that experienced entrepreneurs and consultants could. Romania HUB's future relies on the quality of the competences and thus the added value it can bring to participating SMEs.

⁶⁰ For more details see: Enterprise Development Programme in Estonia: <http://www.eas.ee/service/enterprise-development-programme/?lang=en>

Start-up Plus offers training, consulting and mentoring services in combination with funding. Services are organised through intermediaries, such as local public authorities, NGOs, chambers of commerce, universities and training companies. Funding is allocated in two stages, the second depending on the start-ups' ability to develop sufficient revenues during the first 12 months.

Systematically organised mentoring networks are rare. On the national level, only female entrepreneurs have their own mentoring network.

Recommendation 4.4

Launch a programme offering non-financial support for start-ups and SMEs seeking growth in international markets.

For many start-ups and SMEs access to appropriate competences is even more important than money. To ensure optimal impact, public funding schemes should be complemented with mandatory and/or voluntary mentoring, consultancy and other non-financial support services. This will allow start-ups and SMEs access to the necessary competences as well as to develop their own skills and competences.

The programme should offer at least three specific services: pre-assessment of a company's business or development plan, company diagnostics (i.e. identification of areas the company should focus on, e.g. production process, products, services, management, market analysis, networking, etc.), and mentoring. The programme should be managed by the REA, the new entrepreneurship agency (see Chapter 3.5). The services should be provided by a certified group of private experts and consultants. Where this programme is managed separately from public funding programmes, the funding should take the form of a voucher. If the programme is integrated into a funding programme or programmes, the appropriate funding model is either a fully or partially subsidised prize or a grant. The programme should also include the development of web-based matching tools to help companies identify suitable service providers among certified ones, but organised using social networking tools rather than an administered formal and traditional database. Later, these tools may also enable companies to manage web-based competitive tendering, rate service providers, etc.

The practical implementation of this recommendation can be achieved through the following steps:

1. Selection of service providers: this should be done using an open call and based on transparent, easy to understand eligibility criteria;
2. Establish a continuously open voucher scheme for entrepreneurs: the voucher could be, e.g. EUR 2500 per company, and should preferably be valid for no longer than six months;
3. Receivers of the vouchers should be selected by the REA (possibly with the help of external experts) using transparent criteria.

Some form of customer feedback collection would be advisable to monitor the quality of service providers. This can be integrated into the monitoring of the voucher scheme.

4.5 Public funding schemes for entrepreneurs

Financial support schemes based on guarantees or equity are discussed in Chapter 6. The current chapter focuses on direct public funding in the form of grants and loans.

Public funding should always be analysed either in the wider policy context or, in this case, the entrepreneurial ecosystem. Direct funding is a relatively strong form of public intervention and as such its use should be targeted at areas where other policy measures are not strong enough to facilitate the desired behavioural change. Prioritised policy measures should include regulatory reforms, competence building, networking, etc. – i.e. measures with potentially high impact with limited public support or intervention. In case these other policy measures are not adequate, the next approach is to identify indirect financial measures, such as guarantees and fund-of-funds. Finally, loans and other reimbursable instruments should be considered before grants, unless of course the incentive effect of soft loans is not sufficient.

In all cases, public funding should be complementary, that is matching and leveraging private investment, and should encourage the reallocation of private funding. At project and programme levels, this is reflected in the shares of public funding in the overall funding. Public funding at the ecosystem level should be allocated using appropriate instruments to maximise funding leverage. Eventually, these instruments will lead to an appropriate balance, where public funding covers funding needs which are not adequately covered by private funding.

This means targeting public funding at areas, activities and target groups where market failures are most severe, and where the incentive effect and eventual impact of public funds, and their leverage, is greatest. This has led many countries to introduce target-group-specific programmes, which combine funding with non-financial support services. These are easier for companies to understand and approach. Instead of having to tailor an application and apply to a separate scheme with different administrative requirements, rules and limitations for each activity (R&D, innovation, investments, competence building, etc.), a company can apply for access to a single scheme, which combines the different financial and non-financial supports. Legally, these schemes can benefit, for example, from the General Block Exemption Regulation (GBER) SME aid provisions, which allow for a wide range of eligible costs and the possibility to use grants, loans and guarantees or combinations of these.

While the target-group-oriented combined schemes may be a bit more challenging administratively to establish at the beginning, they are not more difficult to implement. Combined schemes are also flexible and can be tailored, to some extent, to companies' individual needs. For example, some companies need more in-depth diagnostics or mentoring in specific business activities,

whereas others may need support in building competences, or some company projects focus more on R&D and IP, while others may need to focus on acquiring modern manufacturing technology or developing software platforms.

A financial scheme's added value depends on the amount and share of funding received, as well as on the administrative burden, possible delays and uncertainties related to the funding. To ensure an effective and efficient financial scheme, the applicant should be given the opportunity to follow the process. Very often, more important than the exact sum of money or funding share is the ability to correctly anticipate when decisions are made and, once they have been made, all follow-up decisions related to the funding can be adequately predicted. The administrative burden materialises as an additional cost to the company, thereby reducing the effectual support. Administrative procedures should be lean, especially in schemes where the funding is relatively small. This is one reason why voucher models have been adopted in many countries for small aid decisions.

4.6 Financial schemes for entrepreneurs in Romania

Financial support schemes in Romania are mainly general-purpose entrepreneurship programmes. Almost all allow the support to be allocated to investments in equipment, machinery and IT and, in some cases, IP. In addition to general purpose programmes, there is a small number of R&D and innovation-oriented programmes, including public private collaborative programmes. However, several of these are yet to be or have only recently been launched. There are a couple of start-up-oriented programmes for all start-ups, or for those originating from R&D results or patents.

Financial schemes are managed by the Ministry for Business Environment, Trade and Entrepreneurship, UEFISCDI or, in the case of Structural Funds, the Ministry of Regional Development, Public Administration and European Funds (through Regional Development Agencies, too). Most of the funding schemes are based on *de-minimis* and are thus restricted to relatively limited amounts of money per beneficiary company.

As such, the mix of direct funding schemes consists of typical types of such schemes. It leans towards general company support and catching up, rather than allocated specifically for innovation and growth. Start-up instruments are mainly small scale (below EUR 50 000) and generic (available for all start-ups regardless of their level of ambition). R&D and innovation schemes have focused on commercialisation of R&D results which, given the R&D intensity of companies, captures only a small share of potential firms. Except for one scheme targeted at experimentation and demonstrations, business development, commercialisation and R&D&I are targeted separately within specific programmes.

Soft loans are not used as a form of direct funding, although guarantee schemes and guarantee funds as well as grants are available. This may be explained to a large extent by the fact that a significant share of funding comes from Structural Funds, which are rarely given in the form of loans. The low level of trust between the government and companies and banks is also likely to

explain why the interest in loans – even soft ones – is probably rather low. Similarly, indirect loan support via public guarantee funds suffers from the managing authority’s unpredictability. Unless this is resolved, future guarantee schemes are unlikely to benefit SMEs to the extent expected.

In general, the balance between grants and reimbursable instruments seems appropriate. There might be an argument for the appropriateness of start-up grants vs. business angel funding, since start-up grants are limited, come with specific requirements and generally seem more appropriate for local businesses, rather than high-growth and innovative companies, which are typically of interest to most business angels.

Although the funding instrument mix is not highly fragmented, the specific scheme rules and administrative practices complicate the use of multiple schemes. In such situations, companies tend to select one programme and reapply instead of learning to access another programme which may be more suitable for their needs.

Any further analysis of the direct funding mix is difficult at this stage, since several key funding programmes have yet to be implemented or have only just been launched. Further analysis would also require more detailed information regarding the recipients of funding from each programme and the impact assessment public support has delivered.

Recommendation 4.6.1

Introduce comprehensive integrated funding schemes for start-ups (and selected SMEs).

The public support landscape with dedicated support for each specific purpose is quite fragmented. This results in an unnecessarily high administrative burden for both start-ups and SMEs, and for the public authorities. Subsequently, many start-ups and SMEs will not benefit from the support. Support better tailored to the needs of start-ups and SMEs would significantly reduce the overall administrative burden. It would also enable more companies to benefit from the support, or in case of limited resources, allow the scheme to be more selective. Competition allows for the allocation of support to the most promising start-ups and SMEs, thereby giving support schemes a greater impact.

Companies with the most potential should be identified in target groups with the greatest potential with respect to key policy objectives. For these target groups, design new integrated schemes addressing the needs and opportunities of target group companies. The schemes should be designed using the stage-gate approach and combine both funding and non-financial support measures. The first new integrated schemes should be launched for start-ups and/or SMEs with high international growth ambition. Having gathered experience and evidence, this kind of integrated approach could be extended to other relevant target groups. The specific schemes for integrated target groups should be complemented by more generic schemes to capture the needs of larger numbers of entrepreneurs.

The schemes should be based on the following features:

1. Applications are based on the company's business and/or growth plan, not on a specific project plan. Budget calculations at this time can be rough estimates.
2. The most promising applicants are accepted into the first stage, where they receive non-financial support such as diagnostics and mentoring. The purpose of this stage is to develop the growth plan, ascertain its commercial viability, and to verify the company's commitment and readiness for growth. No funding is given during the first stage.
3. Of the companies applying for entry to the second stage, the best are selected based on their developed growth plan prepared during stage 1.
4. During the second stage, companies prepare a detailed growth plan (mentoring), address their competence gaps (training, mentoring), plan access to markets (mentoring, consultancy, international visits, etc.), and prepare plans for updating production capabilities and/or products (mentoring, consultancy, further diagnostics). This stage may include vouchers and small grants.
5. Companies are selected for the third and final stage according to the plans prepared during the second stage and assessments from mentors and possibly further diagnostics, too. During the third stage, companies implement their growth plan. Support includes non-financial (e.g. mentoring, consultancy, vouchers) and financial (grants, loans, guarantees, etc.). Financial support must be applied separately and based on detailed budgets. Part of the funding can be from a separate allocation reserved for companies in this programme, although others may also apply to any other funding scheme available for all companies. Firms are helped to identify and apply for international funds and private funding.
6. If non-financial support is accompanied by a voucher, the maximum voucher allocation should be higher (e.g. two to three times) than for other companies. The same experts can be used for this scheme and for non-financial support schemes open to all companies.

Recommendation 4.6.2

Establish common procedures for managing funding programmes, including IT systems and electronic management of applications and monitoring of projects and programmes across all agencies.

Common procedures and systems facilitate better monitoring and evaluation of programmes and their eventual impact. It also facilitates data sharing, e.g. companies need to provide the information only once and it can be used by all agencies and ministries, which can further reduce administrative burden and cost.

This should be done in a joint process among ministries and agencies. The implementation should be based on joint definition and outsourcing the appropriate IT systems.

4.7 Demand-driven policy measures and other initiatives

Interest in demand-driven policy measures is increasing in most countries. One of the main tools enhancing entrepreneurship is innovative or smart public procurement, which is discussed in Chapter 3.4. Similar competitive approaches have gained interest among companies and policies targeted at entrepreneurship, especially those addressing societal challenges.

Challenge competitions, used by companies and the public sector, invite individuals, teams and companies to propose and develop solutions to challenges defined by the competition sponsors. Companies often use them to search for innovative solutions to improve their existing business processes or products. The public sector typically launches such competitions to find solutions to specific societal challenges.

These competitions are based on the idea that whoever has the need or has identified an opportunity for improvement defines either the challenge or the desired result. Then, those entering the competition can relatively freely select their own approach on how to address the challenge or reach the desired result. The competition format provides an opportunity for high media visibility and acts as a platform for public and private actors to work together in addressing real and meaningful challenges. Besides producing solutions, the competitions act as a learning platform where the public sector learns from new possibilities and companies can better see how public sector markets or markets strongly influenced by public policy decisions are likely to develop in the future and what new business opportunities may open as a result.

In many respects, hackathons are similar but are a more ICT- and software-oriented way of addressing comparable challenges. Interest in hackathons has increased and they are frequently sponsored by companies and public-sector organisations. The main challenge in establishing a more systematic and sustainable competition concept is how the concept deals fairly with the non-disclosure agreements (NDAs) during the competition, as well as with the resulting IP.

It is not surprising that in a country with strong ICT competences, hackathons are quite frequent. They are organised by regions (e.g. Bucharest, Cluj-Napoca), large companies (e.g. ING, Microsoft, Oracle), investors and start-up communities (e.g. Start-up Romania), as well as domestic and international public agencies (e.g. ROSA, NASA).

While there are some challenge competitions in Romania (e.g. E-ON), the focus is strongly on hackathons. The competitions could offer an interesting option, especially for the public sector, which needs to find solutions that extend beyond ICT and software to properly address various societal challenges.

Recommendation 4.7

Design and launch a scheme to organise challenge competitions to address selected societal challenges, which combine national needs with high international market potential.

Challenge competitions are a visible way to encourage companies to develop innovative solutions to help address societal challenges. At the same time, competitions allow the public sector to define which societal challenges need to be addressed and what specifications the innovative solutions must fulfil. Addressing globally relevant societal challenges allows companies to develop solutions which have international market potential.

The scheme can be managed by an agency, as mentioned in Chapter 3.5., or overseen by the agency and outsourced to a private organisation. It should be based on two to three stages, whereby the first one is a competition to identify the best approaches and ideas. These will be selected for the second stage where a more detailed implementation or development plan is devised along with the anticipated outcome of the development. Those entering the third stage will be those which can propose an ambitious, innovative, yet sufficiently realistic plan, including the core team, consortia and both the financial and human resources needed for implementing the development and demonstrating it in the form of a commercial application, marketable product or service, etc.

The recommendation above is for a stand-alone scheme, which is targeted at entrepreneurial teams, start-ups and early-stage innovative companies. A similar approach can also be used in the context of entrepreneurial education in schools, universities and other higher education institutions.

An indicative budget for these recommendations is presented in the table below.

Table 1: Indicative budget allocation for demand-driven entrepreneurship policy measures

Recommendation	Description	Costs (EUR)
4.1 Earmarked funding for primary and secondary schools for entrepreneurial projects	Estimated EUR 500-2000 x 3500 schools (each school receives funding once in two years; could be fully or partly included in the existing government or regional funding for schools, which would reduce the amount of additional funding)	3 500 000 (annual), reallocated funds
4.2 Open discussion to change the overall educational approach	No additional cost	0
4.3 Attracting foreign and expatriate entrepreneurial talent	Promotion activities estimated at EUR 50 000/year for 3 years	150 000 (3-year period)
4.4 Start-up visa	No additional cost	0
4.5 Non-financial support for start-ups and SMEs	EUR 2500 voucher for 500 companies per year	1 250 000 (annual)
4.6 Integrated funding schemes	Selective and targeted for 50 scale-up (and start-up) companies per year, on average EUR 100 000 per company over 3 years (<i>de-minimis</i> based, max. EUR 200 000 per company) + additional funding from other funding schemes	5 000 000 (annual), reallocated funds

Recommendation	Description	Costs (EUR)
4.7 Common procedures for managing funding programmes	No additional cost	0
4.8 Challenge competitions	Funds should primarily be taken from existing public procurement budgets and other sources. Additional funding for promotion and management estimated at EUR 50 000 per year	150 000 (3-year period)
	Total EUR (assumes reallocation of EUR 8 500 000 existing funds annually, rec 4.1 and 4.6)	1 350 000 (annual) 4 050 000 (3-year period)

Source: PSF Panel

5 UPLIFTING THE ROLE OF INCUBATORS, ACCELERATORS, UNIVERSITIES AND OTHER HIGHER EDUCATION INSTITUTES (HEI) IN THE ROMANIAN ENTREPRENEURIAL ECOSYSTEM

Universities and all higher education institutions⁶¹, incubators and accelerators are key actors in all entrepreneurial ecosystems. However, their ability to play an *impactful* role depends on their design and strategies, and on the roles that at least some of them endorse, and are respected for, in any given entrepreneurial ecosystem.

Universities can typically contribute to the development of an ecosystem through direct involvement in the creation of spin-offs. Often, they also participate through entrepreneurship education programmes, or through incubators and accelerator programmes, in partnership with, or thanks support from public and private actors. Their participation can also be particularly salient if they allow their faculty members to contribute actively to entrepreneurial ecosystems, notably by participating in the commercialisation of the IP they have developed in their labs.

Incubators and/or accelerators⁶², for their part, serve as meeting grounds for various actors, both from the public and private sectors, including most notably angel investors and venture capital firms. They reach visibility and salience thanks to their track-record and to success stories among the start-ups they have accelerated and/or incubated. Thus, they contribute to the attractiveness and branding of their entrepreneurial ecosystems and help create a label from which incubated or accelerated companies benefit directly. Moreover, through the start-ups they nurture, incubators and accelerators contribute hundreds if not thousands of jobs to their local economies, thereby inducing considerably more dynamism in their entrepreneurial ecosystems. These are the most frequent functions endorsed by incubators and accelerators within dynamic entrepreneurial ecosystems around the world.

Incubators or accelerators, or even universities, often fail to become key actors in entrepreneurial ecosystems. This is because they do not implement strategies and initiatives in line with some of the functions suitable for them to play within their ecosystems. Universities, in particular, often remain more passive members of entrepreneurial ecosystems if not enclaves isolated from the more active locations where innovation actually takes place. On the other hand, incubators and accelerators can face severe difficulties in attracting start-up projects, especially those with significant growth potential, if they do not endorse a strategy that makes them relevant players in their ecosystems, or if they only focus on networking and events. In fact, the latter strategy does not usually help them to secure strong links with sources of entrepreneurial

⁶¹ Unless specified, « universities » here refers not only to universities but also to all higher education institutions. In addition, when referring to research activities (and not to education), what applies to universities also applies to other public research organisations.

⁶² In a related vein, incubators and accelerators here include mainly technological incubators and accelerators, but not only since innovative service start-ups and scale-ups should also be taken into consideration.

potential, of start-ups and of innovations. Another strategic mistake is to neglect to track the medium-term impact of their start-ups.

This situation is quite prevalent even when top-down initiatives, like clusters supported by national and/or regional authorities, endorse part of the networking and animation role within a given ecosystem. The existence and actions of such players cannot replace bottom-up initiatives since the former usually operate within a more limited scope and at comparatively higher (public) costs. The strategies developed by players “from the ground up” are critical to developing entrepreneurship and teaching entrepreneurship in universities, helping spin-offs emerge, or actively coaching start-ups in places or programmes such as incubators or accelerators. The reason for this is that they build into this process a considerably stronger sense of belonging to a selective community, share a valuable label, and because the associate costs are reduced considerably.

The existence of a top-down cluster strategy, although potentially enabling the emergence and development of entrepreneurial ecosystems, cannot replace the addition and positive accumulation of several and varied bottom-up initiatives. If these initiatives arise from universities, incubators and accelerators can create positive feedback loops between all these actors’ strategies and thus collectively help create a vibrant ecosystem, endorsed by all as a common good. Entrepreneurial ecosystems are polycentric, dynamic and generally fostered by a few key players.

When public authorities address the issue of developing entrepreneurial ecosystems, they should acknowledge that, essentially, both start-ups and entrepreneurial ecosystems develop from the bottom up. Consequently, public authorities willing to intervene in order to foster job creation and significantly stronger economic growth should replace traditional top-down policies, whenever feasible politically, by an explicit, financial, but strictly arm’s length support to key players and to new entrants in ‘their’ entrepreneurial ecosystems.

5.1 Universities, incubators and accelerators in the Romanian entrepreneurial ecosystem

The Romanian entrepreneurial ecosystem appears relatively rich in terms of universities involved in entrepreneurship education and in the presence of actors, such as incubators, accelerators and others business facilitators. The recent figures (2015) reported in Tables 2 and 3 below provide an overview of diverse actors and programmes by regions. The landscape is probably even richer now due to the recent emergence of new initiatives.

Table 2: Regional distribution of business facilitators in Romania

Region	Accelerators	Centre for info. and / or tech. transfer	Clusters	Hub	Incubator	Industrial park	S&T park	Total
Bucharest Ilfov	4	11	10	8	6	2	1	42
Centre		1	12	2	1	17		33
North-East			4	1		3	1	9
North-West	3	6	5	4	1	13		32
South		1	1		1	20		23
South-East		1	3	1		2		7
South-West		1	5		2	7		15
West		1	5	1		2		9
Total	7	22	45	17	11	66	2	170

Source: UEFISCDI mapping, February-May 2015, www.ree.uefiscdi.ro

However, as suggested above, such numbers do not necessarily translate into impact. A more qualitative examination is needed to determine to what extent these actors and programmes play the roles expected of them in Romania's entrepreneurial ecosystems.

In this respect, a very positive sign is coming from various evidence showing that the current international 'start-up phenomenon' is dynamic and gaining momentum in Romania. There are several hundreds of start-ups listed in national and international databases, mostly associated with digital technologies. Clearly, this start-up phenomenon is mostly an urban one and concerns, in particular, cities like Bucharest, Cluj, Timișoara, Iași or Brașov. A straightforward explanation can be found in the fact that start-ups are especially active on the labour market for talents, and that talents are known to exhibit strong preferences for urban neighbourhoods (see the work of Richard Florida, among others).

Table 3: Specific entrepreneurship and business administration programmes for tertiary education (number)

Region	Location	Total programmes	Bachelor degree programmes	Master's programmes	MBA programmes	Joined MBA Programmes
Bucharest Ilfov	Bucharest	13	3	6		4
North-West	Cluj Oradea	6	1	4		1
West	Timisoara Arad Lugoj	3	1	1	1	
Centre	Brasov	3	1	2		
South-West	Craiova Tg. Jiu	3		3		
South	Pitesti	1		1		
South-East	Constanta Bacau Galati	4	2	2		
North-East	Iasi	3	1	2		
Total		36	9	21	1	5

Source: UEFISCDI mapping, February-May 2015, www.ree.uefiscdi.ro

Furthermore, many sources of dissatisfaction remain, notably among Romanian stakeholders themselves, as reported in the recent analytical literature with respect to Romanian entrepreneurial ecosystems, and mentioned by many of the interlocutors the panel of experts had the chance to meet. These weaknesses are listed below since they were mentioned in several unrelated sources and were not challenged significantly when mentioned to various interlocutors. Furthermore, no relevant counter-evidence was provided against them.

Success stories

A limited number of start-up success stories are emerging from Romanian entrepreneurial ecosystems. Prominent success stories do not seem to have benefited significantly from either university programmes or incubators. This includes the 15 technological and business incubators and the four scientific and technological parks which are members of the national network for innovation and technological transfer (ReNITT). This also concerns accelerators, although since their emergence is only recent, there is not enough data at this stage. Furthermore, most of these success stories have at least partly moved their offices, if not their headquarters, abroad and have benefitted from foreign investors.

Spin-offs from universities

There is very limited evidence of academic spin-offs from universities in Romania, and even less so of successful academic spin-offs, although there are no figures available to support this. Over the last eight years, none of the 48 'Innovation and Technology Transfer' entities created, based on legislation GD no. 406/2003 and GD no. 14/2002, approved by Law no. 50/2003, have benefitted from specific financing programmes⁶³.

Technology transfer from Universities

Technology transfer is a relatively recent activity in universities, although the major universities have developed their own technology transfer offices. Twelve TTOs are members of the Romanian network for innovation and technology transfer, ReNITT, together with 12 centres for technological information. Overall, technology transfer activities in Romania appear modest at this stage.

Patenting in Romania

Very few European or international patents originate in Romania. Eurostat data show that there were less than 10 EU patents granted per year during the period 2008-2012. International patenting is a standard outcome and measure of technology transfer activities. In general, it leads to the incorporation of spin-offs that benefit from the licensing of intellectual property owned by universities and other HEI. The low level of patenting shows the weakness of the technology transfer system at universities.

Entrepreneurship education at universities

Entrepreneurship education appears to be largely absent in the curricula of non-economic faculties, notably STEM faculties (Leovaridis et al., 2016), whereas STEM education is a potential strength within Romania's higher education. There is no evidence that existing programmes are specifically made available to STEM students or graduates, especially to IT students and graduates.

In addition, regulations in Romania do not facilitate the involvement of entrepreneurs in entrepreneurship education by requesting a degree to teach at universities. Although this is an international standard with respect to tenured faculty-level positions, it would become an absolutely atypical requirement when it concerns non-tenured but short-term and part-term teachers, particularly in entrepreneurship education. It is an international standard to involve business people, notably entrepreneurs, as role models to share their experience with students, in entrepreneurship education programmes. There is probably no evidence anywhere of a successful entrepreneurship educational programme that would not have involved entrepreneurs and business people and would be taught solely by academic faculty with no specific experience in entrepreneurship or start-ups. As necessary as it is, teaching various aspects of management is not sufficient to guarantee an above-threshold level of

⁶³ Contribution from ARoTT received in the context of the PSF Programme.

entrepreneurship education. Teaching entrepreneurship through the lenses of academic research on entrepreneurship which, in itself, is a vibrant and extremely interesting field of research internationally, is not sufficient with respect to entrepreneurship education.

Targeted entrepreneurship education

There is no evidence that targeted audiences of special interest would be addressed by dedicated and high-level entrepreneurship education programmes as one of the ways to develop stronger entrepreneurial ecosystems in Romania. Such programmes could prove beneficial if designed to fit the needs of individuals with work experience, with graduate degrees, faculty members interested in commercialising their IP, as well as non-faculty members such as PhD students and post-doctoral students.

In addition, the structural distinction between different types of entrepreneurship education does not appear to have been a driving feature in the implementation of entrepreneurship education in Romania. Notably, the different modules offered to all students at a Bachelor degree level to raise their awareness are structured to raise their awareness as electives. More intensive programmes offered mainly to final-year Bachelor or Master programmes, or even to PhD students, require another type of entrepreneurship education. A significant fraction of participants in such student-entrepreneur programmes with strong initial entrepreneurial intentions will eventually procrastinate and will not create their own business immediately.

Policy initiatives

Currently there are numerous policy initiatives which aim to develop each of the relevant aspects of an entrepreneurial ecosystem: for instance, the National Strategy for Research, Development and Innovation 2014-2020 (NS 2014-2020) supports a mixture of instruments which cover a broad range of activities, from the idea to the market, such as projects initiated by companies, competence centres and transfer infrastructure, and innovation incubators.

The Romanian authorities appear to be aware of most of these weaknesses and have already taken various steps to address them. A new law has recently been promulgated to foster the creation of accelerators and incubators (see below). As regards technology transfer, efforts are being made to enhance the institutional capacity of technology transfer offices through a project financed by the Structural Funds and through the introduction of the profession of "innovation manager" into the national classification of occupations.

However, a related and complementary line of analysis, which might eventually be crucial, should also directly address the practical aspects of implementing diverse programmes. In the context of intense mistrust between private actors and public entities, it is unclear whether efforts such as implementing new legal schemes are the only way forward. Adding to existing regulations, whose detrimental effect is already considered as heavy by many actors in Romanian entrepreneurial ecosystems, should be considered with caution and only used where absolutely necessary.

With respect to the role of universities, incubators and accelerators, Romanian entrepreneurial ecosystems might be at a crossroads, in more ways than are generally considered. In time, Romania may not benefit significantly from the potential growth associated with the digital revolution if it waits any longer to endorse high-level, independent and non-strictly-institutional initiatives. In the spatial dimension, it should be recognised that the development of entrepreneurial ecosystems is strongly associated with urban phenomena. Consequently, as regards innovation, competition in Europe and elsewhere is increasingly becoming more between cities than between regions. Finally, there is the institutional dimension with respect to the nature of the solutions selected by national authorities to address issues and the problems they have diagnosed.

A significant step forward towards building more capacity and impact at certain universities and incubators willing to take a more strategic approach could be sourced in an international peer-reviewing exercise linked to public support and funding to initiatives originating from the private sector or initiatives born independently in a quasi-NGO manner. Indeed, if Romanian entrepreneurial ecosystems do not want to miss rapidly evolving digital opportunities, a significant and rapid step forward should be taken. The country's entrepreneurial ecosystems should benefit from their own dynamism by offering actual and effective support to bottom-up initiatives.

5.2 Transforming universities, incubators and accelerators in Romania

A new law, issued in July 2016, aims to foster the development of incubators and accelerators. This 'Business Incubators Law' (no. 102/2016) defines the framework for establishing and operating business incubators and accelerators in Romania, a business incubator being defined as a 'business support structure, organised in the business incubator infrastructure in a proper area in which the incubator residents are located, managed by a manager who aims to create a favourable and sustainable environment for small and medium-sized start-ups, stimulating their development, potential and viability, helping them to develop in the early stage, by providing shared facilities and the necessary managerial support'. This law gives the following definition for a business accelerator: 'a business incubator providing access to funds, in stages, to residents in order to launch on the market a product or service in a short time'.

Recommendation 5.2.1

Revise the Incubators Law to benefit from international experience and to be compatible with international standards. Promote the international accreditation of leading Romanian incubators and accelerators.

Various detailed stipulations in this law address founders, types of businesses, application processes, operations, types of services offered, and residents. Here are some details:

- The types of business incubators or accelerators are segmented into: a) business incubator with mixed portfolio targeting the SMEs with growth

potential from a wide range of sectors; b) technological business incubator; c) academic business incubator implementing or using the R&D activity in an university or public research institute; d) agricultural business incubator; e) social business incubator; f) business incubator specific to a certain sector; g) incubator for non-agricultural activities in rural areas.

- The operations of a business incubator to be delivered by a manager whose appointment needs to be approved by order of the head of the central public administration authority with responsibilities for SMEs, if a public authority is among the founders; the manager signs a service agreement with the founders of an incubated company for three years, which is also the length of an incubation period; two years can be added to the contract for monitoring the incubator's residents post-incubation phase. This service agreement can be renewed following positive evaluation of meeting performance criteria. The manager's responsibilities include the provision of services for operating the business incubator; attracting economic operators as residents; preparing a development plan; and monitoring the residents post-incubation phase. The manager also develops the criteria for selecting the business incubators' residents.
- These residents are defined as any SME, Romanian or foreign, with no more than three years of activity, and not undergoing a process of dissolution, legal reorganisation, liquidation, bankruptcy, or in difficulty. Residents have the right to benefit from the business incubation services and use the infrastructure, based on the incubation agreement, for no more than three years, reduced to up to two years if the resident benefits from accelerator services. They are responsible for paying the manager the amounts stipulated in the agreement, and for creating at least one new job within six months from entering the incubator, among other formal responsibilities. The title of business incubator brings some fiscal incentives for the founders, such as exemptions from land tax, from tax on buildings and from any taxes owed to local budgets of administrative-territorial units, for issuing any urban planning certificates, building permits and/or demolition permits for the lands and buildings of the business incubator infrastructure.

The level of details in the stipulations introduced by the law show that there are few comparable international examples. This law might eventually act as a counter-incentive in the general Romanian context, where the level of mistrust from private actors vis-à-vis public initiatives is high. It should be noted, for instance, that on an international scale academic incubators focus on providing coaching and office space for start-up projects before the start-ups are legally incorporated, taking into account the need for projects born in academia and with academic personnel to strengthen their knowledge of the business sector, and often their teams, before they are able to incorporate (i.e. register as a company). The current version of the law appears to overlook the importance of this element, which could create incentives to incorporate earlier, if it is a prerequisite to be accepted by a business incubator. This could prove detrimental, if not disastrous, since too early incorporation hardens shareholder positions before the team is complete, creates rigidities with regard to necessary future evolutions, and increases operating costs.

Since this legislation is very recent, it is unclear yet whether these latter incentives will suffice to motivate actors to found new business incubators or accelerators, also bearing in mind that several private actors have launched accelerator programmes in Romania over the past few years, such as MVP Academy. In addition, some of the legislation is already obsolete with respect to international standards and international experience and should be rapidly modified to be rendered more attractive.

Subsequently, **the following sections of the incubator law should be considered for revision:**

- Article 3g: business accelerator – business incubator providing access to funds, in stages, to its residents, including not-yet-incorporated projects, in order to launch on the market a product or service in a short time, thanks in particular to mentors and to the organisation of project presentations to potential investors (“demo days”), during a period of three to six months, exceptionally up to 12 months for projects that were not already incorporated when accepted in the business accelerator.
- Clarification of Article 4 might be needed to specify responsible authorities.
- The procedure described by Article 7(3) and the evaluation criteria should be published.
- Article 12(1)c: business accelerator services – for a period of three to six months, exceptionally 12 months, when beneficiaries were not incorporated when accepted in the business accelerator.
- Article 14(1)a: they are start-ups with no more than three years of activity and can include not-yet incorporated projects notably for business accelerators and pre-incubation programmes.
- Article 14(2) should be rewritten so as not to exclude ‘fintech’ start-ups, as is the case with the current wording.
- Article 15(3)e: not applicable, to be removed.
- Article 16(1)c: if the SME does not begin its activity, as planned in its application, within three months from its entry into the business incubator, except for pre-incubation and acceleration programmes.
- Article 16(1)d: if the entrepreneurs are not present in the incubator for more than four weeks consecutively without explanations.
- Article 16(1)e: not applicable, to be removed.
- Article 18(4): business accelerators can own up to 10 % equity in accelerated companies.
- Add an article specifying that business incubators, business accelerators and their residents agree to share data with public administrations, notably company names, fiscal numbers, number of employees, sector of activity, founder names and contacts.
- Add an article specifying that the maximum time for a business incubator or accelerator to be approved or denied by the administration is three months, otherwise the application is said to be accepted by default.

Recommendation 5.2.2

Promote an international accreditation of several incubators and accelerators in Romania and provide support to the most promising ecosystem players within Romanian entrepreneurial ecosystems.

A complementary way forward would be to help a few existing and leading incubators to develop more quickly. This could be achieved by acquiring international labels, such as EBN/BIC⁶⁴, to gain credibility and visibility. Until now, no Romanian incubator has a BIC status. Such help could easily be provided by international peers acting with the support of Romanian authorities, in relation with the EBN association, for instance. Such involvement by international experts and/or bodies should benefit to all kinds of accelerators and incubators, including recent bottom-up projects that have started to gain momentum, and should address some of the relevant functionalities with respect to developing thriving entrepreneurial ecosystems across Romania.

Based on an open call, five leading incubators and accelerators in Romania would be selected. Applicants can be both existing and/or new ones created under the new Business Incubators Law (no. 102/2016) or a subsequent revised regulation (as proposed above). Support would be provided for the selected incubators and accelerators, with access to international coaching, and with the aim of applying for international accreditations, such as the EU BIC.

In general, incubators and accelerators should be encouraged to join both Romanian and international networks of peers, fostering exchange of good practices among incubators and accelerator managers and provide soft landing possibilities to incubated and accelerated companies abroad, without which incubators and accelerators generally tend to fail to reach national or even local brands.

A further way forward would be to provide key entrepreneurial ecosystem players based on international peer-reviewed examinations, and then to give them financial support. Such a framework would imply the involvement of an agency that would have: a) easy access to and a strong track record with respect to European funds; b) a strong track record with respect to implementing international peer-review; and c) the capability to implement funding mechanisms in an operational way.

Accelerators and incubators would be among entities suitable to receive such support, along with TTOs, associations that provide support for young entrepreneurs through summer schools, entrepreneurship seminars or business contests in partnership with experienced entrepreneurs such as Innovation Labs, etc.

In any case, these players should be selected based on their track records and successes, but also by taking into account their leaders' profile and

⁶⁴ <http://ebn.be>

achievements, for which the selection of their structures would also provide recognition, in some way similar to internationally renowned social entrepreneurship programmes such as Ashoka.⁶⁵ Thanks to this programme, previous contributions by these talented individuals to their entrepreneurial ecosystems, through the creation and development of key ecosystem players, would enable their structures to continue actively building polycentric and vibrant entrepreneurial ecosystems in Romania.

This recommendation can be implemented by selecting seven key entrepreneurial ecosystem players based on international peer-reviewed examinations, and providing them with financial support for three years (EUR 100K per year) to help them develop their activities and contribute to the development of the entrepreneurial ecosystems in which they are active. Critically, the agency (e.g. REA) piloting this new mechanism must have a strong track record with regards to both European funding and international peer-review. All actors receiving funding should agree to share basic data with public administrations on a mandatory basis.

Box 5.1: Innovation Labs

Innovation Labs, which is now beginning its fifth edition, has grown as a cross-boundary community engaging academic mentors, students, industry professionals and entrepreneurs. It has been organised in partnership with several major Romanian universities: University Politehnica of Bucharest, Babeş Bolyai University in Cluj Napoca, Technical University of Cluj-Napoca, "Alexandru Ioan Cuza" University of Iaşi, "Gheorghe Asachi" Technical University of Iaşi, Lucian Blaga University of Sibiu, Politehnica University of Timișoara, West University of Timișoara, and "1 Decembrie" University of Alba-Iulia.

Since 2013, Innovation Labs has been held in five university centres – Bucharest, Cluj, Sibiu, Timișoara and, since 2017. Since it began, 206 teams comprising 1040 young participants have taken part in the programme. Throughout Innovation Labs 2013-2016, 305 technology product ideas were hatched, developed and pitched; 120 mentors gave their time, energy and know-how; and 85 Demo Day minimum viable products (MVP)s were pitched in front of investors and media.

Innovation Labs places a strong focus on consolidating the reputation of young participants, its mentors and the programme, at national level; their impact and the future impact of similar initiatives should be scaled-up with public support.

Recommendation 5.2.3

Launch a national acceleration programme for start-ups.

⁶⁵ <https://www.ashoka.org/en/about-ashoka>

Launching a national acceleration programme according to international standards in partnership with an international accelerator network responsible for running the programme would significantly help the Romanian entrepreneurial ecosystem acquire visibility at the international level. It would also act as a positive signal for accelerated start-ups through an open and high-profile Demo Day and would enhance cooperation among Romanian incubators while stimulating their ecosystems.

The number of start-ups selected should be very limited and the programme very selective in order to make sure this acceleration programme starts acting as a sign of quality with respect to investors, including international ones. It could include international start-ups willing to benefit from Romanian entrepreneurial ecosystems in order to develop in Romania. Indeed, mixing both Romanian and international start-ups in the same programme would benefit both in terms of image and potential collaborations.

Examples such as StartUp Chile⁶⁶ and French Tech Ticket⁶⁷ could be taken into consideration when setting up this programme, the major difference being that, in the case of Romania, involving an internationally recognised incubator or accelerator – completely external to Romanian entrepreneurial ecosystems – as the operational partner for programme implementation, might prove instrumental in its efficiency and durability. In order to be more efficient, the accelerator should be focused on one of Romania's areas of smart specialisation. In the open call, candidates should mention on which field they want to focus.

The acceleration programme operator should be selected by an open call. He/she should be an internationally renowned operator working in collaboration with local partners and should be given funding to set up the activities during the first year.

The acceleration programme should be very selective and provide services for only 10 to 20 start-ups each year. Companies accepted on the programme should receive a voucher to cover the programme costs. The programme should be supported with strong mentorship relying on high-level Romanian entrepreneurs active at home and abroad, as well as national and international venture capitalists connected to Romanian incubators.

To foster internationalisation and attract start-ups in the country, non-Romanian start-ups should also be accepted in the acceleration programme.

Recommendation 5.2.4

Provide Romanian companies accepted in international acceleration programmes with a grant of EUR 15 000 to subsidise their travel and subsistence expenses.

⁶⁶ See <http://www.startupchile.org/>

⁶⁷ See <http://www.frenchtechticket.com/>

Short-term (approximately three months) international accelerator programmes are now commonly used by entrepreneurs to open international markets for their start-ups, while their company and most of their teams are based in their home country. Developing a scheme to provide such explicit support for these endeavours would enable the Romanian ecosystem to develop international links and provide high-potential start-ups with services and support to develop internationally while maintaining their roots and personnel in Romania. Similar schemes exist in many countries, although until now they have tended not to take into account the new international landscape of acceleration programmes. This would be the case according to this recommendation, thereby easing the process through which applications could be processed and beneficiaries would be allowed to penetrate other entrepreneurial ecosystems abroad.

The Connecting Hub (see Recommendation 2.2.1) would be the logical entity to coordinate this program. It would review proposals from Romanian start-ups willing to apply to or already accepted on an international acceleration programme.

Recommendation 5.2.5

Develop a specific scheme to support the involvement of academics in entrepreneurial activities.

Following international standards, faculty members in Romania, from all fields and universities, are evaluated in order to advance in their career on academic research metrics, especially scholarly publications. However, there are no significant indicators for teaching excellence, or metrics for the successful integration of education into broader pursuits such as entrepreneurship or social development. This means that university professors, and particularly young faculty members who need to advance their careers, have no formal incentives to involve themselves in entrepreneurial ecosystems and notably to mentor students or to expand their teaching towards innovative entrepreneurship, collaborations with industry and the social environment.

In the same vein, IT companies expect tech education to converge with their priorities and concerns, without a full awareness of the constrained scholarly focus within academic careers. Consequently, companies are not involved in developing shared research or learning programmes. There are no shared metrics on progress or relevance connecting researchers and teachers from academia (PhD students, faculty) with companies. A specific support scheme for academics to develop such initiatives would therefore not only support initiatives but also create awareness at the national level, thereby facilitating collaborations between academia and the private sector. Specific programmes, like summer academies teaching entrepreneurial skills, could be organised by technical universities in partnership with business representatives.

Recommendation 5.2.6

Set up an Intellectual Property Law for Romanian universities to regulate the transfer of IP, define criteria for the evaluation of university entrepreneurship activities, establish a common TTO structure for all universities, and provide international training and coaching for TTO personnel.

Laws such as the USA's well-known Bayh-Dole Act of 1982 or France's 1999 'Innovation Law' are standard in many countries and have often had a very significant impact. This refers not only to their practical consequences, but also because of their ability to foster cultural evolutions by signalling to all stakeholders within entrepreneurial ecosystems – and notably to all academic institutions – that there is clear momentum and consensus that academic institutions should willingly and coherently engage in their respective entrepreneurial ecosystems. Otherwise, academic institutions, even if completely benevolent with regard to entrepreneurship and innovation, often fail to devote enough effort to contribute significantly in this respect. The number and acuteness of other issues they face – with respect to teaching extremely large cohorts of students and to raising their research to attain international excellence – might prevent entrepreneurship and innovation to be part of their operational priorities, even if it is clearly on their explicit agendas.

The new University Intellectual Property Law should:

- Regulate IP transfer from universities to their spin-offs;
- Create common TTOs for several universities, with shared services, to reduce costs and increase specialisation;
- Institute a criterion upon which universities would be evaluated, alongside existing ones, that would deal with the number of spin-offs supported by the university based on its faculty personnel count, taking into account variations among the disciplines taught.

In addition to developing a new piece of legislation dedicated to university IP, and without waiting for it to be promulgated, a specific training and coaching programme, similar to the AUTM⁶⁸ in the USA, should be developed in partnership with international institutions to benefit TTO personnel and help them develop their skills.

The table below outlines estimated budget items related to implementation of the above recommendations.

⁶⁸ www.autm.net

Table 4: Budget allocation for programmes at universities, HEI, incubators and accelerators

Recommendation	Description	Costs (EUR)
5.2.1 Updating Incubator Law		0
5.2.2 International accreditations and key ecosystem player support	EUR 20 000 x 5 = EUR 100K: coaching missions by international experts to help Romanian incubators or accelerators to apply for international accreditations + EUR 100 000 per year for 3 years x 7 key ecosystem players selected	2 200 000
5.3 National acceleration programme	Operational costs (per year) of an international incubator and/or accelerator in charge of setting up and running the programme	150 000
5.4 Grant to participate in international acceleration programmes	50 start-ups x EUR 15 000 over 3 years	750 000
5.5 Support scheme for academics involved in entrepreneurial ecosystems	Consultancy fees to determine indicators estimated at EUR 50 000 + running program EUR 50 000 per year for 3 years	200 000
5.6 University IP law and training programme for TTO personnel	Cost of the training programme, estimated at EUR 100-150K (including international partnership and speakers), would be covered by fees invoiced to its participants, and thus should only be guaranteed by a Romanian stakeholder	0
	TOTAL EUR	3 300 000

6 ACCESS TO FINANCE IN ROMANIA

Data on access to finance for European firms and SMEs is available through the pan-European SAFE⁶⁹ survey (Doove et al., 2015). Based on this survey, access to finance is not considered the most important problem facing Romanian SMEs as they ranked this issue with a score of 6.1 (on a scale of 1 to 10). Arguably, this is higher than the EU average of 4.7. More Romanian SMEs rank finding customers (28 % of SMEs), availability of skilled staff (18 %), labour production costs (13 %) and regulation (12 %) as more problematic than access to finance (11 %). This is potentially in line with the World Bank Doing Business Report which ranks Romania seventh for ease of obtaining credit.

However, during the expert panel's field visit, it was mentioned that it is really difficult for a new company (even after three or five years in existence) to get credit from banks. It is not clear if the World Bank Doing Business Report ranking is based on less bureaucracy for obtaining credit or if it is actually easy to obtain credit.

In the SAFE survey, Romanian firms largely rely on credit lines and overdrafts (relevant for 61 % of SMEs, while the EU-average is 54 %)⁷⁰. The prevalence of bank loans is somewhat lower than the EU-average (relevant for 39 % of SMEs in Romania, and for 49 % for the EU-28 average). Responses of around 500 participating Romanian firms show that Romania leads all EU-28 countries with respect to using "other loans" as one of the finance channels analysed (18 % of SMEs have used other loans in Romania, and the indications are that a further 16 % find them relevant as source of funding).

Access to financial capital in Romania is represented by several financial institutions, although lacking geographical diversity and, more importantly, access for all stages of a company not covered (see UEFISCDI, 2015)⁷¹. Moreover, important pillars in the early-stage ecosystem, such as equity crowd funding, business angels and venture capital funds, currently invest very little in new ventures.

This leads to the bootstrapping phenomenon which means that entrepreneurs just starting their business have no support and invest a lot of time and own funds just to keep the business alive. This includes reinvesting their profit into their business and borrowing money from friends and family. The most recent data collected in Romania confirms this significant trend. In 2016, over 71 % of SMEs financed their activities from their own sources (see CNIPMMR, 2016). However, this figure has fallen from its peak at 91 % of all Romanian SMEs being entirely self-financed in 2013 (see Uritu and Popa, 2015).

⁶⁹ See European Commission, 2016, Access to finance: http://ec.europa.eu/growth/access-to-finance/data-surveys_en

⁷⁰ ibid 66

⁷¹ See www.uefiscdi.ro

6.1 Seed funding in Romania

Business angels are high-net-worth individuals who invest in new ventures, sometimes creating an investment portfolio with more companies in different sectors. They are particularly valuable to new businesses because they bring in the so-called "smart money", comprising their experience, advice, network and ultimately funds. Not only do they mentor new companies in their early phases, but they also bridge financing gaps in the market, since businesses across Europe, especially in Romania, cannot rely on bank loans. New ventures' risks, which can no longer be supported by bank loans in Europe, are often taken on by business angels now.

Business angels are not the only early-stage market players a company can reach out for funding. Venture capitalist funds professionally invest large sums of money in new businesses, while helping to build the company so as to increase its valuation, anticipating acquisition or the company going public. The data is inconsistent on the number of venture capital funds in Romania, ranging from three to eight (see RIO-2015 and UEFISCDI, 2015). In several European countries, excessive governmental support to venture capital funds, aimed at bridging the access to finance gap, has been seen as driving away other private investors, restricting the growth of a strong community of business angels.

Another booming European trend in the early-stage investment ecosystem is crowd funding whereby a large group of people each invest a small amount of money. This impressive proof-of-market model can be based on a reward, loan, investment or even a donation. There are a number of crowd-funding platforms in Romania, although some Romanian companies turn to major ones based in the US, like Kickstarter or Indiegogo. The highest sum raised in Romania so far was USD 95 000 (Gheorghiu et al., 2016).

The following conclusions are based on the available data and field visit inputs:

- Established companies with strong balance sheets and good collateral do not have a big problem accessing funds (mainly through banks) in Romania;
- It is difficult for new companies or those without strong balance sheets to access funding, even with solid business plans;
- Providing loans to 'new innovative companies' is not the best way to fund these new companies, because the founders cannot bear the risk involved if their companies default.

Key to facilitating access to finance in Romania is creating and fostering an ecosystem of business angels and business angel networks, paying particular attention to co-investment schemes and tax incentives in the latter phase to support companies in their sensitive early phases. An innovative policy for venture capital funds is also needed.

6.2 Banking sector funding

In any economy, the banking sector plays a vital role in financing SMEs. In Romania, it seems that SMEs with strong balance sheets have no real problems in getting funding, despite complaints about high interest rates.

To reduce the risk for banks to provide loans to SMEs, it is important that a credit guarantee system works well in Romania.

- FNGCIGIMM – the National Fund for Credit Guarantees for SMEs – runs several types of credit guarantees for SMEs, in partnership with up to 27 local banks (depending on guarantee product):
- The standard guarantees are for loans for investment projects or bridge guarantees for SMEs requiring co-financing for EU-funded projects (guarantees of up to EUR 2.5 million);
- The fund manages a Credit Guarantee Programme for SMEs whereby bank credit lines of up to EUR 1 million are guaranteed for 24 months (with a 12-month extension possible). The FNGCIGIMM guarantee equals up to 50 % of the bank financing value (excluding interest, etc.);
- The Ministry of Economy has been running SME grant schemes – START and SRL-D (for start-ups) in partnership with FNGCIGIMM, guaranteeing access to finance;
- FNGCIGIMM also offers guarantee ceilings of up to 80 % of the loans provided by 23 partner banks to SMEs;
- Since October 2016, FNGCIGIMM and the Romanian Counter-guarantee Fund (FRC) have re-launched the mechanism for guaranteeing – and counter-guaranteeing SME loans, which had not been in operation for several years. This risk-sharing instrument aims to increase access to financing for SMEs.

Despite the fact that the whole system under FNGCIGIMM was well designed by the Romanian authorities, at the time of writing this report, since the FRC was not operational the whole system was not working.

Recommendation 6.2.1

Fund FRC (Romanian Counter-guarantee Fund) with sufficient money so that FNGCIGIMM can issue guarantees to banks to fund SMEs

The Romanian government must urgently find the financial resources (e.g. partially using ERDF money) to make the FRC operational. The funding deployed by FRC should be of such magnitude that the bank sector can have the confidence that those funds will be adequate to cover any losses in terms of the loans counter-guaranteed by the FRC.

A new set of programmes using the FRC counter-guarantee should be set up to target new segments of entrepreneurs (e.g. microcredit loans, unemployed people looking to create a viable business, entrepreneurs outside of Bucharest).

Should this recommendation be followed up, its impact will enable banks to provide more credit to SMEs, enabling entrepreneurs to benefit accordingly.

Another example where FCR could have a big impact is in microfinance.

The UEFISCDI site on the Romanian Entrepreneurial System lists 13 institutions under “funding resources” specifically for microfinance⁷². An assessment made by Pop & Buys (2015) after surveying the microfinance sector in Romania noted that: *‘Currently, due to the existing regulations, microfinance activity can be practiced only at authorised banks’ level, while the non-banking financial institutions involved in microfinance can only provide micro-credits. Moreover, the territorial concentration shows a high concentration within the more developed country regions than with regions in need of microfinance support. While the demand for microfinance products given the important number of microenterprises at Romania’s level exists, the Romanian microfinance sector remains marginal and blurry, included in commercial bank large offers, and hidden among various types of credits offered by a high number of non-bank financial institutions, credit unions and mutual aid houses.’*⁷³

A good initiative welcomed by the panel of experts is the Romanian government’s agreement with the European Investment Fund. The Ministry of Regional Development signed an agreement with the EIF in October 2016 to set up the SME Initiative Operational Programme (ERDF). In 2017, the SME Initiative OP programme launched a call to select financial intermediaries. The aim of the EUR 100-million programme is to help SMEs grow their capacity in regional, national and international markets and to become more engaged in innovation processes.

The stakeholders have also received several comments indicating that the FNGCIMM’s management practices do not follow the best international practices (see www.aecm.eu). An independent audit could probably identify any potential existing skills and management gaps and suggest changes. It is out this panel’s scope to enter into such detail.

6.3 Business angels in the Romanian start-up ecosystem

A thriving entrepreneurial ecosystem needs well-established early-stage lending mechanisms and a well-established business angel community. In some countries, there is confusion about the concept of business angel versus venture capitalist. Contrary to popular belief, business angels are not usually high-net-worth individuals providing private investment at a level comparable to institutional investors, such as venture capital funds.

According to statistics from the European Business Angel Network (EBAN) 2016, the average investment by European business angels was EUR 22 500, which shows that most business angels are not necessarily millionaires themselves⁷⁴. A business angel is an individual not a corporate, and invests his/her own money, not money from others, in start-up companies. They take their own investment and divestment decisions and are not dependent on investment committees.

⁷² www.ree.uefiscdi.ro

⁷³ Pop, C. & Buys, P. (2015): Microfinance in Romania, in: Barkovic-Bojanic & Lulic (2015): Contemporary Legal and Economic Issues V.

⁷⁴ EBAN, (2016): Early Stage Markets Statistics, <http://www.eban.org/wp-content/uploads/2016/06/Early-Stage-Market-Statistics-2016.pdf>

Apart from the money, business angels also provide mentorship and networking to the companies they invest in. Certain myths about business angels are presented in a short but educational video⁷⁵ which clarifies their role. But why are business angels so important in an entrepreneurial ecosystem of emerging markets such as Romania? Their investment in early-stage business in Europe is two to three times greater than that of venture capitalists⁷⁶. Thus, they play an important role in start-up ecosystems – a role that often is misunderstood or underdeveloped for a number of reasons.

Business angels are the largest supplier of equity in start-ups after family, friends and founders. Figure 6 shows that they are the most important source of external equity (apart from family, friends and founders) in Europe, making up 67 % (or EUR 6.7 billion) of the total European early-stage investment in 2016. While this is remarkable, the really significant trait of a well-functioning business angel system is that the invested money is 'smart'. Many of the challenges faced by entrepreneurs are not solved by pouring more money into the venture. Rather, the lack of knowledge on how to transform a good idea into a viable business, and the essential know-how on securing access to customers and building distribution networks, are the factors causing most ventures to fail. The equity gap is not just a money gap, it is also a skills and a networking gap.

The public sector is often reluctant to support business angels and their investments⁷⁷. They are considered wealthy, and thus do not warrant further support. However, the rationale for supporting business angels lies in their growing investments in innovative products and services that solve problems and foster economic development through job creation. A study on the impact of business angels concluded that through 3600 business angel investments studied across 37 European countries, the firms supported grew from five to 16 employees over a three-year period⁷⁸ (see also Figure 7). This shows that business-angel activity creates jobs, retaining highly qualified people in the country – brain drain is a key issue in Romania.

Public intervention is not to fund the business angels themselves but to give an incentive for potential business angels to become real business angels. As most countries lack a business angel tradition – mainly restricted to the Anglo-Saxon area – initially, an investment culture must be developed. This is a 'chicken-and-egg' problem which demands public action and investments from the beginning. Otherwise, potential business angels will continue to invest in 'safer' bets like real estate or the stock exchange.

⁷⁵ <https://www.youtube.com/watch?v=1b8YLBFOy44>

⁷⁶ EBAN 2016 Statistics Compendium and Invest Europe 2016, www.evca.eu or www.investeurope.eu

⁷⁷ Lundström, A., Vikström, P., Fink, M., Crijns, H., Glodek, P., Storey, D., Kroksgård, A. (2013), Measuring the Costs and Coverage of SME and Entrepreneurship Policy: A Pioneering Study, Entrepreneurship Theory and Practice, May.

⁷⁸ Moreno, L. (2014). The economic impact of business angel investment unveiled, presentation at EBAN Annual Congress, Dublin, 19 May: <http://www.eban.org/research-the-economic-impact-of-angel-investment/- .V20qKpOLThc>

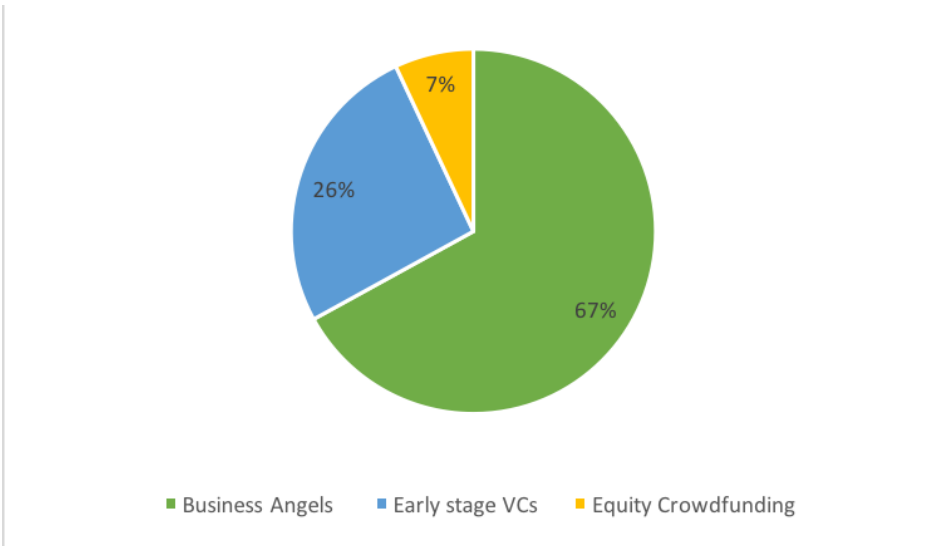


Figure 6: Early-stage investment by type of investor in EUR billion in 2016

European Early-stage Investment	Business Angels	¹ Early-stage VCs	² Equity Crowdfunding
EUR 9.9 billion	EUR 6.7 billion	EUR 2.5 billion	EUR 0.7 billion

¹ Invest Europe 2016; ² EU Commission - CrowdSurfer Dashboard
 Source: EBAN Statistics compendium 2016, Invest Europe and CrowdSurfer Dashboard,
<http://www.eban.org/eban-2015-statistics-compendium-angel-investment-grows-to-e61-billion>

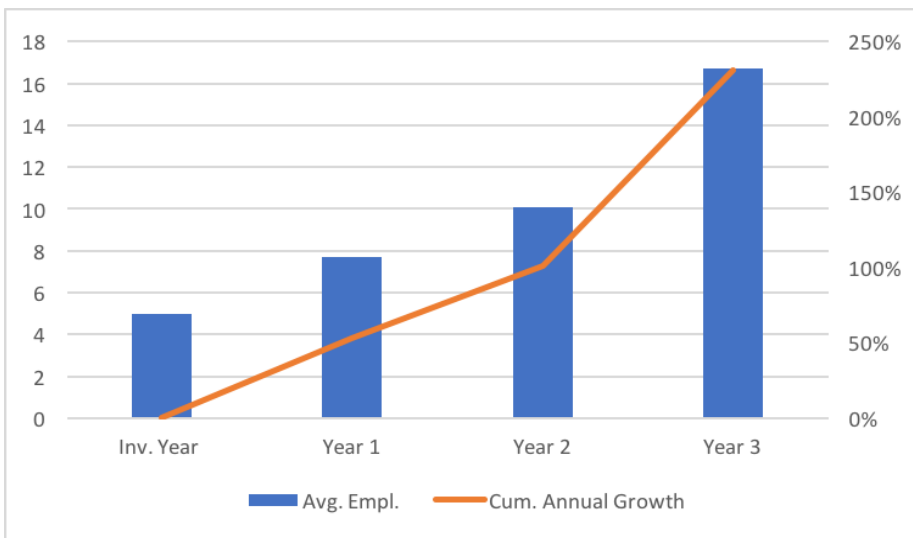


Figure 7: Average employment in companies financed by business angels
 Source: EBAN⁷⁹

⁷⁹ See EBAN, (2015): *The Economic impact of Angel Investment*:
<http://www.eban.org/research-the-economic-impact-of-angel-investment/>

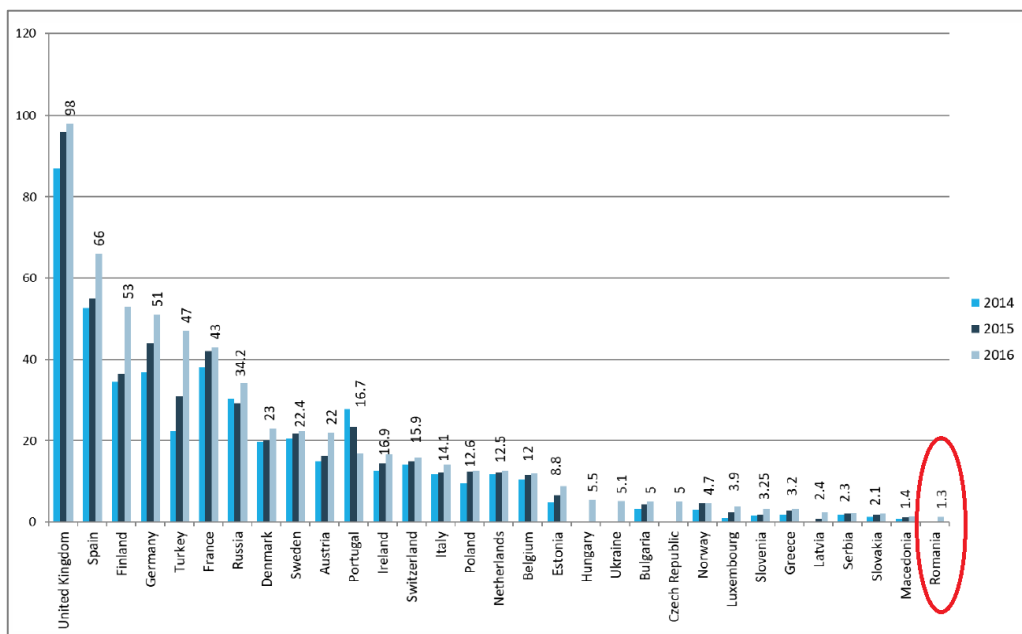


Figure 8: Amounts of angel investments by country in 2014-2016, €m; visible market stats
 Source: EBAN, 2016: Early stage market statistics

In Romania, although business angel activity is very incipient, some business angel networks (BANs) already exist, such as Venture Connect⁸⁰, AngelConnect⁸¹, Business Angels Romania and TechAngels. They have been developed based on the experience of successful Romanian entrepreneurs who want to support the Romanian entrepreneurial ecosystem. For instance, TechAngels is a platform dedicated to “facilitating the development of tech businesses from South-Eastern Europe through investment, expertise and connections”⁸². The platform profiles 24 angel investors. According with the European statistics in 2016 (gathered by EBAN83), Romania is placed in the last position out of 31 european countries. Romania is even surpassed by smaller countries like Macedonia, Slovakia, or Latvia.

Business Angels Romania⁸⁴ is a member of EBAN (The European Trade Association for Business Angels, Seed Funds, and other Early Stage Market Players). Its mission is to facilitate matchmaking between start-ups and investors and to provide services for both angels and start-up companies. It is also trying to lobby for a better regulatory environment in Romania for business angel activity.

In Romania, business angel activities are not well-defined, which is natural in a country where they are not so well developed. During talks with stakeholders in

⁸⁰ See <http://www.ventureconnect.ro/>

⁸¹ See <http://www.angelconnect.ro/>

⁸² See www.techangels.ro

⁸³ www.eban.org

⁸⁴ See <http://businessangelsromania.ro/>

Romania, some mentioned that the absence of business angels means it would be unwise to create policies towards this segment of investors. This was also a reality in Portugal and other countries before the strong expansion of business angel activity in the respective markets.

Despite some potentially positive actions related to business angel activity, such as the Business Angel Law, the Romanian authorities tried to close the early-stage equity gap by supporting (with EIF participation in some cases) early-stage venture capital funds. Several governments worldwide have taken the same approach. However, OECD data on financing high-growth firms clearly shows that, in reality, angel funding is the primary source of external seed and early-stage equity⁸⁵.

"While venture capital tends to attract the bulk of the attention from policy makers, the primary source of external seed and early-stage equity financing in many countries is angel funding not venture capital."

Figure 9: Quote from OECD on business-angel funding
Source: OECD, (2011): *Financing High-growth firms: The role of Angel investors*
<https://www.oecd.org/sti/ind/49310423.pdf>

In the view of the expert panel, the reasons why business-angel activity in Romania is not very visible yet include:

- Risk aversion of potential business angels as there is no tradition of angel activity in Romania. Wealthy people or even businessmen tend to invest their savings in assets they consider less risky, such as real estate or publicly traded shares, or to save them as bank deposits.
- There is no real incentive for potential business angels to become real business angels. The absence of a business angel co-investment fund is a clear example.
- The existence of grants for entrepreneurs creates an additional barrier to developing a thriving business angel community. Entrepreneurs tend to prefer non-diluting funding (e.g. grants) to money from business angels or venture capitalists. This is unfair competition because business angels cannot give their money free to entrepreneurs, while the state can.
- There are no strong business angel networks with full-time staff. Without professional BANs, it is more difficult to attract new business angels, and entrepreneurs do not find it easy to contact them.
- Unfair competition from early-stage venture capital funds created with government support. Naturally, if there are early-stage venture capital funds co-funded by the government which address early-stage companies, there is less room for private investors to participate in the early-stage ecosystem.

⁸⁵ <https://www.oecd.org/sti/ind/49310423.pdf>

- Fiscal incentives for early-stage investors may lead to an increase in start-up valuations, crowding out business angels investors. A fiscal incentive attracts money to the ecosystem but does not guarantee a commitment to mentoring and networking from investor's side. With an early-stage investment fiscal incentive policy in place, entrepreneurs will also contact wealthy people lacking experience in investing in early-stage deals who will accept higher valuations. With high valuations, professional business angels will not invest which risks crowding them out of the system. The Romanian ecosystem needs more business angels who can bring not only money but also networking and mentoring.
- Lack of exit markets: despite efforts in AeRO market, it cannot be said that Romania's stock market is well developed for innovative SMEs. Without the availability of exit routes, willingness to invest in this kind of asset will decline.
- Last but not least, culture and knowledge on how to invest in early-stage companies is lacking.

6.3.1 Creation and support of the Business Angels Networks in Romania

To attract new investors and aggregate demand and offers in the early-stage market, the Romanian government must team up with local groups of Business Angel Networks (BAN)s. There are two types: one is led by a network member (one of the business angels); the other is led by a paid manager. In Europe, the majority of BANs are not self-sustainable and are maintained by membership fees and revenue from events and sponsorships coming mainly from public entities.

Box 6.1: Activities to be performed by a BAN

- Identify potential business angels in the region;
- Educate business angels and entrepreneurs in early-stage investment practice;
- Raise awareness locally about early-stage investment and attract new business angels;
- Participate in the national programme for certification of business angels;
- Disseminate national or international programmes targeting business angels;
- Support the creation of business angel syndicates (groups of investors who jointly invest in one or more early-stage companies);
- Become a contact point for entrepreneurs looking for investors;
- Become a contact point for business angels or other BANs looking for co-investors;
- Act as a filter for potential investment deals and help entrepreneurs to

gather important information to be given to business angels, which increases the likelihood of investment;

- Gather data and monitor early-stage investment activity in the market.

Several countries have implemented initiatives to support the creation and maintenance of existing BANs (e.g. Spain, UK, France, the Netherlands). The Spanish programme, led by Secretaría General de Industria y de la Pequeña y Mediana Empresa, is considered in the sector, which includes this expert panel, to be the most advanced scheme. In many ways, it is the blueprint for the recommendations made here⁸⁶.

Recommendation 6.3.1

Speed up the development of a business angel culture by supporting the creation of BANs, help set up a national federation of BANs and sponsor a road show to popularise the initiative

Business angel activities can be accelerated with a concerted intervention to provide more investments for start-ups⁸⁷. Without this, start-ups may have problems financing early-stage ventures.

Measures to establish a business angel culture should try to ascertain that:

- Business angels know the techniques required to invest in early-stage companies.
- Business angels form a community or communities that enable an exchange of information and a common assessment of opportunities.
- Business angels are increasingly certified and thus reliable and accountable players in start-up ecosystems.
- Statistics are available on all relevant activities in the business angel sector.

The creation of BANs would be supported by an annual grant awarded in a competitive process for covering administrative costs and conditional on meeting agreed performance goals, e.g. minimum number of business angels in the network, training sessions, investments made (see Annex II for a complete list).

Both business angel models (member-led and manager-led BAN) should be able to apply for support. The expected impact of this action is that six to ten new BANs would be created in Romania, most of them in larger cities. It is expected that these networks will be able to aggregate between 200-300 business angels, which represents a significant change in the ecosystem.

⁸⁶ [Ministry of Energy, Tourism and Digital Agenda Spain,
http://www.minetur.gob.es/PortalAyudas/Business/Solicitudes/Paginas/solicitudes.aspx](http://www.minetur.gob.es/PortalAyudas/Business/Solicitudes/Paginas/solicitudes.aspx)

⁸⁷ See also the various measures across Europe in the Start-up Europe Policy Tracker, section 3.2, <http://www.europeandigitalforum.eu/startup-manifest-policy-tracker/dashboard> .

Apart from setting up BANs, it is important that a training programme for network managers and business angels is organised to make progress in this direction.

The ESIL project funded by the European Commission is attempting to provide initial training to BAN managers and BAs in Romania⁸⁸. The overall aim of the Early Stage Investing Launchpad (ESIL) pilot is to develop and boost business angel activities through an international capacity-building programme.

The ESIL pilot focuses on three EU Member States where the number of business angels and BA-related activities and investments remain underdeveloped or are just emerging. Particular attention is devoted to seed and early-stage investment in highly innovative ICT start-ups and SMEs. Although this is a good initiative, it will not be able to make a huge impact in the market because of the need for continuous training for new business angels and new BAN managers. Furthermore, certification services for business angels must be provided by the public sector, but count on the knowledge of local BANs.

Public support can play an important role in launching associations and networks but it should be structured in a way that sets clear benchmarks or provides incentives for these organisations to move to a self-sustaining model over time. If public support is given to BANs, it is important to ensure that they are generating an appropriate level of angel investment activity⁸⁹. If a BAN does not meet the minimum obligations agreed, funds should be suspended. The minimum obligations and performance criteria should be adapted to each region's potential.

The Romanian government should launch a call for proposals for the creation and support of BANs, possibly through a new entrepreneurship agency (see section 3.5). This agency should organise a roadshow (see Annex III for more details) in the country, demonstrating the importance of business angels and BANs and encouraging potential business leaders and existing business angels to apply to set up a BAN. Business associations, local chambers of commerce, business clubs, etc. should be the target group for this roadshow. Potential applicants are encouraged to seek premises without monthly costs and to partner with local municipalities. Potentially, members of an international Romanian diaspora network could also apply.

One criterion for receiving funds from this BAN support scheme is an obligation to contribute to setting up and participating in a national business angel federation. The federation's main role is to reduce the cost of duplicating certain tasks that would have to be done individually by each network in the absence of a federation. It also represents the Romanian business angel community vis-à-vis other stakeholders and the government, and represents the country internationally in sector events. If the BANs decide that an existing organisation

⁸⁸ www.europeanesilpilot.eu

⁸⁹ See OECD 2011, Financing High-Growth Firms: The Role of Angel Investors

could serve as the umbrella for the angel community, then that would be even better.

Full members of this federation should be BANs and investment vehicles (companies created by business angels to invest together). Associate members can include individual investors, banks, governmental agencies, etc. The governmental agency should not be involved in the day-to-day politics of the federation, giving the BANs and investment vehicles complete freedom to self-organise.

Given the infant stage of business angels in Romania, training courses given by experienced national and international coaches should be organised for network managers and business angels. Again, part of the costs could be covered by the government with a substantial contribution coming from business angels and BANs.

Once up and running, the Federation of Business Angels may set up a campaign to stimulate interest in this activity. It should team up with local communities, companies and BANs to run this campaign, with help from the Structural Funds to cover some of the costs. A blue print for a campaign 'Proud to be a business angel in Romania' can be found in the Annex III.

To monitor the real impact of business angel activity in Romania, it is important that there is a platform for monitoring the number of angels in the networks, the number of deals submitted to the networks, the funded deals in each BAN, and the performance of the companies funded under the co-investment scheme (see Box 7.1). Receiving public funds brings the obligation to share the requested data with the Romanian ecosystem's monitoring platform (see section 7.1).

6.3.2 Business angels' co-investment scheme

As the OECD mentions in its report on 'Financing High Growth Firms', the creation of a business angels co-investment fund plays a very important role in developing a strong business angel community⁹⁰. There are several reasons why many governments/European entities have launched business angel co-investment funds, including:

- Co-investing with the best-in-class business angels to achieve a good return on investment. In this case, the government selects 5-15 business angels in one country and co-invests with them. This has a very limited impact in the ecosystem. The EAF (European Angel Fund⁹¹) operational in Austria, Denmark, Germany, Ireland and the Netherlands, is an example of such co-investment.
- Co-investing with the existing business angel community to increase the availability of early-stage funding. This enables a larger number of existing

⁹⁰ OECD, 2011

⁹¹ http://www.eif.org/what_we_do/equity/eaf/

and experienced business angels to co-invest with the government. One example is the UK Angel Cofund⁹².

- Creating a community of business angels to kick-start business angel activities. Here, experienced businessmen and women with good mentoring skills are invited to become business angels and invest alongside more experienced investors. Portugal has created a co-investment fund with this motivation.

Designing a co-investment scheme requires many decisions by government, the most prominent being the mode of investment and the decision-making process:

- Should the government invest directly in the start-up or through an investment vehicle created by business angels?
- Should the decision on the investment be decided only by the business angels or should it also be validated by an independent expert group (e.g. Angel Cofund in UK)?
- What downside protection should the scheme offer for the business angels, if any?

The Dutch Seed Instrument – the former Technopartner co-investment scheme – is another example of such an instrument whereby the government has invested alongside business angels. Since 2005, about EUR 40 million has been invested annually in early-stage companies through this Dutch scheme. In this model, at least three business angels create an investment vehicle that may invest up to EUR 4 million. The government makes a special loan up to EUR 4 million. This scheme has been successfully transferred to Portugal. The experiences of UK Angel Cofund, EAF (by EIF), the Scottish co-investment scheme⁹³ and EC ICT Pilot co-investment scheme have been taken in account for our suggestions for Romania.

Recommendation 6.3.2a

Create a business angels co-investment scheme for Romania

In the context of Romania, a co-investment scheme would aim to create a community of hands-on business angels to support Romanian start-ups. The already existing community is a good starting point for triggering broader development in the country. The scheme should be designed to promote joint investments by business angels thereby dramatically reducing the risk of fraud. The management fees for running the co-investment vehicles should be moderate to focus investors' minds on growing the value of the companies they

⁹² <http://www.angelcofund.co.uk/>

⁹³ <https://www.scottish-enterprise.com/services/attract-investment/scottish-coinvestment-fund/scif-overview>

are investing in⁹⁴. Our recommendation is based on the model of Dutch and Portuguese experiences with adaptations to ensure compliance with state-aid rules from the beginning.

Such a co-investment scheme worth EUR 27.5 million is expected to create 50 new investment vehicles (IVs) owned and managed by business angels, giving entrepreneurs 50 new doors to knock on to raise money. As the average investment will be around EUR 200,000, over 250 start-ups will be financed over the next four to five years.

We suggest that at least three certified business angels are needed to apply for the funds from the co-investment scheme in order the application to be considered eligible. Certified foreign business angels should be incentivised to participate. In case of a successful application, business angels create an IV in which certified business angels hold the majority of shares and the decisions. Once the IV is set up, one-third of the funds should be invested by business angels. Funds will be invested in companies that were established no longer than five years ago, and some sector restrictions should apply (e.g. banking sector).

Every time the IV intends to invest in a company, the management authority (e.g. new entrepreneurship agency) would need two to three weeks to analyse the proposal in term of conflicts of interest, obedience of restrictions (sector, region, company not being listed in public markets) etc. A successful evaluation would result in two-thirds of the resources needed for the IV being transferred by the management authority. The IV transfers 100 % of the money to the final recipient (invested company). All legal documents to conclude a deal between an IV and a start-up should be standardised and pre-approved by the management authority to avoid high legal costs and speed up deals.

The management authority's maximum 'loan' to an IV should be EUR 500 000 EUR resulting in EUR 750 000 EUR being made available overall for investments in start-ups. The loan should extend over 10 years while the IV investment period should be no longer than three years. The IV may charge a management fee of up to 10 % to cover legal costs and salaries but will not benefit business angels.

When divesting, the split is one-third for business angels and two-thirds for the managing authority, up to the break-even point. Resources beyond this point are distributed asymmetrically with up to 90 % going to business angels. When applying for co-investment funds, each applicant must suggest competitively the asymmetric distribution on the upside, ranging from 33,3 % to 90 % to business angels.

⁹⁴ See also priority area 3.1 and 3.2 of the European Digital Forum Start-up Manifesto Policy Tracker.

Box 6.2: International best practice in business angel co-investment fund

In Portugal, in 2009, following persistent lobbying by the few business angels, the government started to develop and implement policies to foster this form of investment. The launch of the business angel co-investment fund saw 70 IV applications representing more than 350 business angels. Finally, more than 260 business angels were certified and 54 IVs were approved (EUR 770 000 per IV). The government was very surprised by the quantity and quality of the applications. Just three years after the effective launch of IVs and other policies, business angels became the main source of funding for start-ups in Portugal. In 2016, business angels were the first option for entrepreneurs looking for equity for their projects. Nonetheless, the business angel community needed this initial government support to develop a critical mass.

Another example is the UK which has the largest business angel market in Europe. British government supported BANs and national campaigns highlighting the role and importance of business angels. A co-investment scheme⁹⁵ with EUR 128 million (£100 million) and fiscal incentives (Enterprise Investment Scheme+SEIS⁹⁶) triggered investments in start-ups worth more than EUR 2 billion in 2014.

Two calls should be launched, the first in early 2018, and the second in 2019. Assuming that between 20 and 25 IVs (business angels investment vehicles) will be selected in each round, the initiative will require EUR 27.5 million (including management fees) from the Operational Programme. This will trigger an investment of at least EUR 27.5 million from business angels. Should there be no demand for these resources or any progress in this field, the second call should be cancelled.

Launching a business angel co-investment fund requires the government to decide with whom to co-invest. In this context, it is important that a proper certification process is set up to certify experienced business angels. The Angel Law is not the answer here because it does not differentiate between investors who just bring money and those who also provide mentoring and networking. In the co-investment fund, the state should look to co-invest mainly with the latter.

Recommendation 6.3.2b

Create certification for business angels in the co-investment fund

⁹⁵ Angel Cofund UK: <http://www.angelcofund.co.uk/>

⁹⁶ UK Government, Business Tax Investment Schemes: <https://www.gov.uk/topic/business-tax/investment-schemes>

Romanian Business Angel Law does not require the certification of business angels because it classifies them according to the investor's financial contribution. The selection of co-investors in the co-investment fund should be much stricter than the certification for early-stage investors aiming to benefit from a tax credit.

The new certification may be carried out by the management authority or funding institution (of the co-investment fund), with the support of an independent and reliable expert group able to ensure full transparency in the certification decision process (see Annex VII).

Ultimately, the state has to set the rules or organise the certification process. It is recommended that BANs play a role in the certification process as they know the investors and should be able to testify for a particular investor in the process.

To attract foreign business angels, the acceptance of certifications procedures should be considered, which may be centralised in the management authority.

A certification process must be in place in due time to allow business angels to obtain certification before applying for co-investment funds. More details on the documents required when requesting certification are in the Annex VII.

As regards the impact, the state will be able to select those business angels able to become co-investors in early-stage investments together with the state. This initiative will bring more discipline, transparency, allowing the co-investment scheme to advance much faster.

6.3.3 Implementation of tax incentives for early-stage investors and the Business Angel Law

The Romanian authorities have spearheaded the development of the entrepreneurial ecosystem to attract private money to the early-stage ecosystem through the Business Angel Law, which regulates the conditions under which natural persons, called individual investors – business angels, can benefit from tax incentives.

The main reason why countries design and implement a Business Angel Law is related to the certification of individuals as business angels.

Another piece of legislation usually issued in some countries defines the tax incentives rules for early-stage investors. Unfortunately, the Romanian Business Angel Law does not define what a business angel is (bringing money, mentoring and networking) and is quite badly designed in terms of tax incentives.

This panel of experts recommends withdrawing the current law and creating two new pieces of legislation: a real Business Angel Law and tax incentives for early-stage investors.

Alternatively, the current law could be amended extensively to turn it into a tax incentive law.

Recommendation 6.3.3

Amend the Business Angel Law but only implement it if other measures do not perform. Create a Business Angel law to define the certification process for business angels

The Business Angel Law must be changed to make it much more effective. We recommend the following adaptations:

1. The term 'business angel' should be changed to 'early-stage investor' or something similar. The term business angel should only be used for co-investment funds and related to BANs. A business angel doesn't bring only money. It brings also mentorship and networking experience.
2. The incentive should be given when the investment has been made (e.g. 50 % of the investment made could be deducted from the personal income tax bill, as happens in the UK²⁵).
3. The fiscal incentive cannot be dependent on other company associates because it introduces uncertainty for the investor.
4. The law should be focused on equity investment not on loans.
5. Initially, the law should not aim to cover all sectors because it will crowd out potential business angels. One solution would be to allow tax breaks for investments made in biotech, space or cyber security areas, for instance. After 2019, other areas could be included.
6. To avoid crowding out professional business angels, initially the tax incentive could be made available only to certified business angels (under co-investment certification rules).
7. The amount that could be deducted as a tax benefit should be in line with best practices, as is the case in UK (where 50 % of the investment is deductible from the income tax bill under the SEIS initiative⁹⁷). Turkey has recently approved a 75 % tax credit for early-stage investors.
8. Create a real Business Angel Law which will define the certification process for business angels (see Annex VII).

In terms of impact, creating a well-designed tax break for early-stage investors can bring significant sums of money to the ecosystem. However, the tax break should not be implemented before a community of business angels is established in Romania.

Tax incentives have proved to be a good tool for transferring money from, for example, real estate investments or the stock market to start-up investments⁹⁸ but they do this at a cost for the state budget. On the other hand, since tax incentives do not guarantee the transfer of know-how and networking

⁹⁷ UK Government, Business Tax Investment Schemes: <https://www.gov.uk/topic/business-tax/investment-schemes>

⁹⁸ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/497288/Venture_Capital_Schemes_report_v11_PUBLICATION.pdf

opportunities for start-ups, the priority should be to develop business angel co-investment schemes first.

6.3.4 Recommendations on business angel policies

As has been made clear, it is important that policy interventions follow a certain sequence. For instance, launching an initiative like the certification of BANs before the roadshow to stimulate the creation of these BANs will not be effective. The figure below suggests the steps to be implemented sequentially.

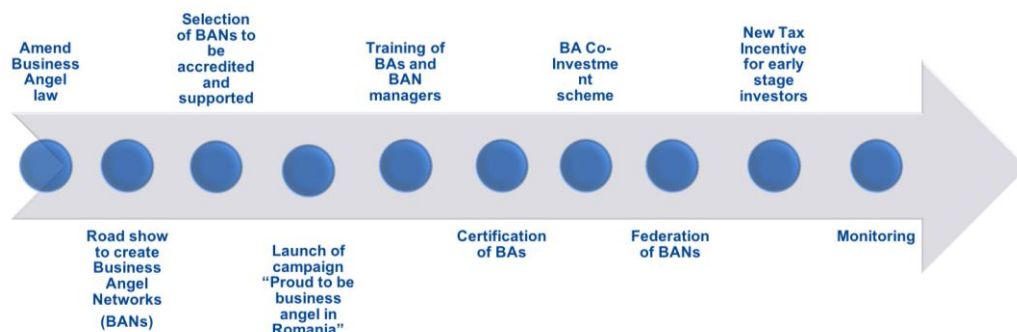


Figure 10: Sequence of the policy measures suggested to address Romania’s business angel community
 Source: PSF panel. Note: BA = Business Angel; BAN = Business Angel Network

The goal of any government is for an intervention in the business angel ecosystem to create a self-sustainable business angel community. Governments must bear in mind that it will take some years for business angels to have positive exits from the investments, but this should not stop them taking immediate action.

During the implementation phase, it is important that through the implementation agency the government could have an international advisory group which would support the implementation of the initiatives and could create trust among all the stakeholders involved in these policies.

Without public support, it will be virtually impossible for Romania to create a strong business angel community. To start this process, EUR 1.4 million will be needed between 2018 and 2020 (see Table 5). A further EUR 27.5 million will be required for the co-investment scheme but hopefully this will be repaid after the investments have been concluded. More information on how these amounts were calculated is available in the Annex VIII.

Table 5: Estimation of resources needed to fund the measures proposed to support business angels

Budget 2018-2020	EUR
Support to BANs	675 000
Federation of BANs	105 000

Budget 2018-2020	EUR
Campaign 'Proud to be a business angel in Romania'	190 000
Training sessions	100 000
Certification	20 000
Co-investment scheme	30 000
Statistics + platform	200 000
Advisory group	90 000
Total	1 410 000

Source: PSF panel

6.4 Venture capital

There are different reports counting the number of venture capital (VC) funds active in Romania. The European Research and Innovation Observatory Report (RIO)-2015 on Romania⁹⁹ counts seven venture capital firms¹⁰⁰. UEFISCDI has three VC investors on file – 3TS Capital Partner, TechAngels, Earlybird Venture Capital (see UEFISCDI, 2015) – while crunchbase¹⁰¹ lists three VC and three micro-VC firms.

Invest Europe data¹⁰² shows that private equity (PE) investments in Romanian start-ups declined sharply following the fall-out from the financial crisis, hitting a low in 2012 with an investment volume of EUR 28 million in 10 start-ups (see also Invest Europe, 2016). There has been a steady increase in investment volume, but the number of firms into which funds are being invested fluctuates within a bandwidth of around 10 to 20 per annum. New data for 2015 shows an overall investment volume of EUR 144 million into 11 firms (see Figure 11). As a percentage of Romania's GDP, PE investments amounted to 0.09 %, putting it in front of Czech Republic (0.01 %) but well behind Hungary (0.15 %) or Poland (0.19 %).

⁹⁹ Gheorghiu et al., (2016): European Research and Innovation Observatory Report on Romania, 2015: <https://rio.jrc.ec.europa.eu/en/country-analysis/Romania/country-report>

¹⁰⁰ According to the RIO report, these are "Advent International Romania (loans around \$5m), AIG New Europe Fund (loans around \$10m with refund rate of 35 %), Global Finance International Ltd. (loans \$2-3m to companies with a turnover of minimum \$6m), Danube Fund (provides loans between \$0.5-2m, refund rate of 30%), Environmental Investment Partners (loans \$1-3m to the companies with minimum sales of \$0.8m and 3 years of activity, refund rate 35%), ORESA Venture Romania (loans \$1m), and Romanian Investment Fund (Cyprus) LTD."

¹⁰¹ <https://www.crunchbase.com/#/home/index>

¹⁰² <http://www.investeurope.eu/>

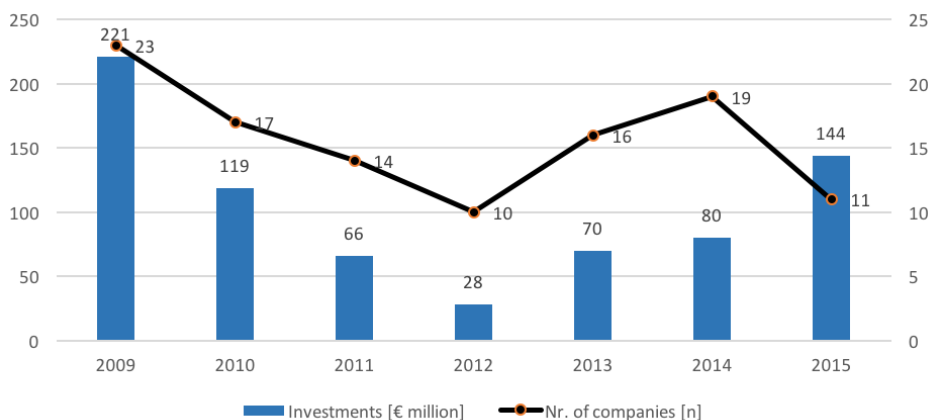


Figure 11: Private equity statistics for Romania, by investment volume and number of companies invested in
Source: Invest Europe

As can be seen in the table below, buyout capital was the major type of investment capital in 2014 and 2015. In terms of total venture, in 2015 the respective investment was only EUR 1.8 million, lower than the corresponding value in 2014 (EUR 5.3 million). However, it must be noted that with small numbers of investments per annum, fluctuations over time are expected to be high.

Invest Europe data indicates that between 2012 and 2015 there were between three to five exits per annum in Romania with divestments of between EUR 42 to EUR 120 million each year.

Table 6: Type of private investments in Romania, 2014 and 2015 (EUR million)

Type of investment	2014	2015
Seed	0	0.455
Start-up	1.825	0
Later-stage venture	3.478	1.374
Total venture	5.303	1.829
Growth	24.144	2.265
Rescue/turnaround	1.060	0
Replacement capital	0	0
Buyout	49.182	140.200
Total	79.689	144.294

Source: Invest Europe

The RIO report, which draws on different sources of data, such as papers as well as anecdotal evidence – states the following in relation to supply and demand on the VC market (see Gheorghiu et al., 2016):

- Local culture is said to not favour serial entrepreneurship. There is a tendency for founders of a firm to never consider selling it, while highly educated people who could potentially found a start-up prefer jobs in multinational corporations for better job security.
- Start-up founders frequently over-rate their business and there is lack of awareness regarding milestones that a company has to fulfil once it becomes part of a VC portfolio.
- However, there is an increasing tendency to view Romania as an emerging and promising start-up location.
- But it is also noted that “more and more Romanian entrepreneurs raising early-stage financing directly abroad” were only able to do so after relocating to Western Europe or North America. Therefore, such success stories may be more about firms of ‘Romanian origin’ than of Romanian firms.
- “for the period 2014-2020, both the National Strategy for RDI 2020 and the Strategy for SMEs provide for the creation, within the *de minimis* aid programme, of an investment fund with starting capital and seed capital for innovative entrepreneurs; as well as an investment fund with venture capital and growth capital for innovative start-ups”. More specifically, the national RDI strategy 2014-2020 is supposed to develop: “within the *de minimis* aid programme, an investment fund with starting capital and seed capital accessible to innovative entrepreneurs; establishing an investment fund with venture capital and growth capital for innovative start-ups” (ibid).

Recommendation 6.4

Create an innovative policy regarding venture capital funds

VC funds play a vital role in many European countries¹⁰³ helping businesses to scale up, and are part of the value chain for growing companies.

In Romania, with the emergence of the VC market, it is important that the government can implement the right policies, such as:

1. Support the creation of VC funds that will invest in Romanian companies at a slightly later stage than for business angels. These funds should invest between EUR 750 000 and EUR 3 million in each company. A call for tenders should be launched early 2018. Preference should be given to VC firms that have access to international markets and can help innovative Romanian companies to scale up.

¹⁰³ See EIF for good examples of venture capital funds in Europe EIF, 2016: http://www.eif.org/news_centre/publications/eif_wp_34.pdf

2. To help VC funds to raise money, the government should allow the LPs (limited partners, or the founders) of these new VC funds to benefit from a personal income tax benefit (like the VCT scheme in the UK).
3. The government should also create a matching fund deal by deal with international accredited and specialised VCs on a 1:1 basis. For instance, a Romanian company contacts outside investors in Germany, Hungary and Poland, and if they invest in the company the Romanian governmental agency will invest the same amount of money. The specialised international VC would have an option to buy out the state money at a hurdle rate to be decided (suggested between 2 % and 8 %). In this way, Romanian companies will show investors the strong benefits to be gained from the company remaining in the Romanian ecosystem.

We expect this recommendation should make an impact by creating a set of VC funds in Romania able to fund innovative projects of between EUR 750 000 and EUR 3 million. Attracting international VCs will ease Romanian entrepreneurs' access to international markets.

In terms of budget to be allocated to these VC policies, between EUR 100 million and 200 million should be made available to invest in VC funds in later stages and between EUR 15 million and EUR 30 million to create a matching fund to invest on a deal-by-deal basis with experienced (mainly international) VC funds.

Romania has great potential to enable its companies to scale up into international markets. However, for this to happen the full ecosystem must be built up and many positive aspects leveraged which are already in place locally. It is not enough for a government to promote entrepreneurship or to try to increase the number of companies. Numerous examples around the world show that many good entrepreneurs are unable to fund their projects simply because the governmental grants are inadequate and the private investors do not exist. Therefore, it is important that a set of policies should be implemented in Romania to create a positive environment in which banks, crowd-funding platforms, business angels and venture capitalists can flourish and fund many viable businesses to make funding available at all stages for start-ups in the Romanian ecosystem.

6.5 Romania's stock market

To create a new market for early-stage companies, the Bucharest Stock Exchange (BVB) launched the AeRO market in February 2015.

The Alternative exchange in Romania is the equities market segment of the Bucharest Stock Exchange Alternative Trading System (ATS). AeRO is designed to list early-stage companies such as start-ups and SMEs looking to finance their projects, growth strategies, increase their visibility and contribute to developing the business environment. The goal behind the creation of AeRO was to have a market with fewer reporting obligations for the listed companies but, at the same time, with sufficient transparency to motivate investors to

trade. The companies listed on AeRO have a chance to get acquainted with the more relaxed transparency and reporting rules applicable to companies quoted on stock exchanges (hence the name 'lightly regulated market'). These companies can transfer themselves to the Main Market later but face the prospect of being more susceptible to stricter rules regarding corporate governance and reporting.

Despite this initiative, which was expected to bring more innovative and young companies to the market, and more investors investing in these new and innovative companies, etc., the reality is that several bottlenecks are preventing AeRO from becoming more successful:

1. Lack of liquidity in the market

With very low liquidity volumes, investors are afraid to buy stock which may be subject to huge variations in terms of stock price, making this asset class very risky. Low liquidity creates exit problems for investors. For instance, if a company stock trades on average EUR 1000 (approx. 4500 RON) per day, it will take 50 working days (more than two months) for an investor to buy EUR 50 000 worth of stock. And it will take a further 50 days to sell all the company's shares. Very few investors will risk buying stock in these circumstances.

2. Lack of incentives for investors to invest in the stocks listed in AeRO.

3. Lack of several success stories.

4. Lack of awareness on the part of entrepreneurs about the advantages of listing the companies in an alternative and junior market, such as AeRO.

5. Lack of financial literacy in some segments of Romania's population, among investors and entrepreneurs alike.

The expert panel received several suggestions from the Bucharest Stock Exchange (BVB) related to listing innovative SMEs and was very pleased to note the willingness of the BVB to develop AeRO further. We also acknowledge the value BVB's effort in several initiatives related to entrepreneurship education, promotion of investment knowledge, and ecosystem thinking.

The expert panel strongly believes that the main problem of listing more companies in AeRO is not the cost of listing them but the lack of liquidity. Even if the listing costs were zero, without buyers and sellers the market could not function.

Recommendation 6.5.1

In 2018, launch a national 'Innovative SMEs are in AeRO market' selection programme

A national program should be launched to create a minimum critical mass for the AeRO market and make potential listed companies aware of its advantages. The programme should be coordinated and implemented by the BVB. Through a set of criteria (company growth, its scalability, current revenues), it would

select between 40 and 60 innovative companies in Romania. These companies would be invited to take part in an educational programme in recognition of their quality and growth potential. Following the educational programme, the 10 best companies would be selected to benefit from the support of BVB and the listing sponsors (see recommendation 6.5.2).

To attract the attention of potential investors, a roadshow featuring at least these most-promising companies should be organised by contacting potential investors (angel investors, VC funds, pension and other established funds). After the roadshow, if there are potential investors willing to invest in those companies, these companies can then list their stock in AeRO.

The government should (is recommended to) support this awareness campaign, and educational training (e.g. through EU Structural Funds) with a sum of approximately EUR 150 000. This amount should not represent more than 50 % of the total cost (advertising, renting venues, transport, etc.).

The Bucharest Stock Exchange launched a similar programme in February 2017, in partnership with a group of private companies. The project, called 'Made in Romania' (www.bvbleague.ro), was looking for Romania's most innovative companies. Of the 167 companies which participated in the first edition of the project, 50 were selected to go into the final stage, where 15 top companies were selected by an international jury. The companies were then offered free-of-charge training, mentorship as well as one-to-one meetings with potential institutional investors¹⁰⁴. The project has also given the selected companies more visibility, helping them to enhance their public profile. However, Made in Romania should be scaled up in the future to attract more companies, while the support of the public authorities could improve the project's visibility, thereby ensuring its concept is accessible to more innovative businesses. The lessons learned from the "Made in Romania" project should be taken into consideration to design the new programme.

Recommendation 6.5.2

The Bucharest Stock Exchange as well as the local environment should be more ambitious towards developing AeRO, resulting in an optimal ecosystem

In order to have a minimum critical mass for AeRO to work as a real alternative for funding innovative SMEs, the BVB informed the expert panel group that a minimum of 10 new companies should be listed in AeRO. The expert panel group agrees with this vision and recommends that:

¹⁰⁴ Institutional investors include investment banks, insurance companies, pensions, hedge funds, REITs, investment advisors, endowments, and mutual funds, and in general entities that can trade large volumes on the stock market and / or purchase securities, real property, and other investment assets or originate loans.

- The BVB should not charge listing fees (even if they are low) for these 10 companies (the fees for listing on AeRO include a processing fee of RON 250/EUR 55 and an admission-to-trading fee of RON 700/ EUR 155).
- It should invite intermediaries to join the process (authorised advisors/brokers, law firms, auditors, accountants, listing sponsors) in order to reduce the fees for these 10 new companies. The aim would be to cut the cost of listing a company. A good example of these potential partnerships with advisors is the London Stock Exchange Elite¹⁰⁵ program.
- The most important initiative for AeRO is to create the conditions for liquidity to exist in the market through different mechanisms. The BVB should collaborate with a public body to set up a programme similar to the one executed successfully in Poland the Liquidity support programme¹⁰⁶
- The BVB should create a subcategory inside AeRO called, for example, 'Innovative AeRO'. The companies included in this subcategory will be high-potential innovative firms with strong expansion plans to go global. There should be synergy between the BVB's efforts and government agencies promoting export, international trade and research and development.
- Incentives for the brokers/authorised advisers. Currently, the Bucharest Stock Exchange is struggling with a situation whereby interest from brokers in helping companies to list on the AeRO market is very limited, even if there are companies listed on the market. This is because such assistance is regarded as risky, not sufficiently profitable and does not generate revenues from further trading once the company is listed. This obstacle is typical of all market trading companies with low market capitalisation and a low free-float value. In the case of AeRO, the current situation with brokers is slowing down the pace of market development and is having a negative and discouraging impact on those companies interested in listing.
- Once there are incentives for investors to invest in AeRO and other conditions that guarantee liquidity in the market, BVB could implement a program similar to the polish 4Stock (Box 6.3). It was implemented under the 2014-2020 financial perspective, then extended to cover a wider array of qualified costs as well as international listings outside the Warsaw Stock Exchange. The project could be established under the Romanian Entrepreneurship Agency and financed through the EU and national resources.

It is expected that the listing of these 10 companies will have a positive impact on the market because investors will have several alternative means to diversify their portfolios and exit strategies, while entrepreneurs will see more examples of successful businesses developing with the help of the local capital markets.

¹⁰⁵ <https://www.lseq.com/elite>

¹⁰⁶ Warsaw Stock Exchange: Liquidity support programme (4Stock): <https://www.gpw.pl/liquidity-support-programme>

Box 6.3: PARP's 4Stock project¹⁰⁷

4Stock is a project carried out by PARP that aims to support and stimulate the development of the Polish SME sector. The programme envisages covering, by up to 50 %, the purchase by the beneficiary company of the advisory services necessary to prepare the documentation and analysis in order to raise money by issuing shares or bonds on the stock exchange. The 4Stock programme is a continuation of the 3.3.2 Program Operacyjny Innowacyjna Gospodarka measure (also referred to as 3.3.2 PO IG) which played a significant part in the dynamic development of the New Connect markets between 2009-2013. The new feature adopted by the 4Stock project compared to measure 3.3.2 PO IG is that it also allows the companies to seek funding by issuing bonds.

The 4Stock programme is organised in competition mode. The funding is available only to companies falling under the micro, small or medium-sized enterprise category as per Commission Regulation No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty. In addition, companies that apply for the funding must be established on Polish territory, confirmed by an entry in the appropriate register. There is also a set of specific criteria precluding the companies from receiving financing through this measure, which include, *inter alia*: the obligation to repay the aid that was declared illegal and incompatible with the internal market by the European Commission as well as several other rules that are defined in national law. Verification of compliance with the specified conditions is carried out at the final stage, prior to signing the grant agreement.

As per a project's eligibility, its deliverability must be within the requested timeline (36 months), from the date the application is submitted. Furthermore, the requested amount must be in line with the funding rules applicable to this measure.

The grants provided are non-refundable. They cover up to 50 % of the costs incurred by a prospective issuer of shares or bonds. Financing ceilings are set, specifying the maximum amount of funding to be granted, which vary across the different markets:

- For issuing shares on NewConnect, the SME market, the maximum grant is PLN 100,000 (23,400 EUR);
- For issuing shares on the WSE Main Market, the maximum grant is PLN 800,000 (187,170 EUR);
- For issuing shares on foreign regulated markets, the maximum grant is PLN 800,000 (187,170 EUR);
- For issuing bonds on the Catalyst market, the maximum grant is PLN 80,000 (18,720 EUR);

¹⁰⁷ Based on competition rules for the 4Stock Programme, available in Polish at: <http://poir.parp.gov.pl/attachments/article/37424/Regulamin%20konkursu.docx>

- For a successive issuance of bonds on the Catalyst market, the maximum grant is PLN 60,000 (14,040 EUR).

The grant can be used to cover the costs of the advisory services necessary for preparing the required documentation and analysis. The services provided cannot be continuous or periodic in nature and may not be related to the beneficiary's current operating activity, in particular: tax advisory, permanent legal services or advertising. Advisory services that qualify for the grant must be provided by:

- Authorised advisors, as authorised by the Warsaw Stock Exchange;
- Brokerage houses, as authorised by the Polish Financial Supervisory Authority;
- Other parties whose services are essential in the process of issuing securities such as, *inter alia*, auditors and law firms;
- In the case of bond issuance on Catalyst – rating agencies certified by the European Securities and Markets Authority (ESMA);
- In the case of shares issuance on foreign regulated markets – entities that are authorised and accredited to provide the necessary services in the given market and, in absence of the accreditation process, have experience in supporting companies with issuing financial instruments.

The total budget for the most recent round of grant allocation, available between November 2016 and November 2017, is PLN 14,342,574.50 (3,355,570.66 EUR) which is split as follows:

- PLN 789,330.00 (184,670.65 EUR) for grants for companies located in the Masovian Voivodship;
- PLN 13,553,244.50 (3,170,900) for grants for companies located in Voivodships other than Masovian.

Recommendation 6.5.3

A new set of incentives for those investors investing in the Innovative AeRO market

If the Romanian Ministry of Finance does not apply budget constraints, all Innovative AeRO market initiatives could also apply to all the companies listed in AeRO.

The Romanian government should create a set of incentives for investors in the Innovative AeRO market in order to increase the market's liquidity:

- A tax incentive (similar to EIS in the UK¹⁰⁸) should be given to individual and corporate investors investing in companies listed in Innovative AeRO.
- The same incentive should be given to individual investors investing through established VC funds (similar to VCT¹⁰⁹ in UK) that can be created with the aim of investing in companies listed in Innovative AeRO.

Recommendation 6.5.4

Remove artificial barriers to institutional and regulated funds that prevent them from investing in early-stage companies

Institutional and regulated funds (e.g. pension funds¹¹⁰) are usually managed by professionals, so there is no reason why these funds would be prevented from investing in early-stage companies. A cap of 2 % or 3 % of the size of the fund would not harm it (nor put it at risk) but would have a significant impact (in terms of number of companies listed, volumes traded, etc.) not only in the Innovative AeRO market but also in other funds that invest in early-stage companies. It would make the stock market a real alternative for new innovative companies.¹¹¹

Recommendation 6.5.5

Introduce a fiscal incentive that would qualify the cost of listing on the AeRO as a deductible expense

To reduce any discrimination between debt financing (currently, interest on a loan can be deducted from a company's expenses in Romania) and equity financing, providing the possibility to deduct the listing fees could incite entrepreneurs to seek financing on the AeRO market. Offering a Notional Interest Deduction (NID) or a similar instrument could help SMEs reduce their dependency on debt financing and improve the competitiveness of Romanian companies by promoting innovation in terms of seeking financing alternatives. At the same time, the measure could provide a level playing field enabling capital market financing to compete with bank loans, since NID or a similar incentive could be deductible in a similar way to interest expenses.

¹⁰⁸ See UK Government, HM Revenue and Customs (2013): Enterprise Investment Scheme, UK: <https://www.gov.uk/government/publications/the-enterprise-investment-scheme-introduction>

¹⁰⁹ <https://www.gov.uk/guidance/venture-capital-schemes-tax-relief-for-investors>

¹¹⁰ See Pensions Europe, (2016): <https://www.pensionseurope.eu/system/files/PensionsEurope%20-%20CMU%20brochure.pdf>

¹¹¹ A comparison to other countries can be downloaded at <http://www.oecd.org/daf/fin/private-pensions/2017-Survey-Investment-Regulation-Pension-Funds.pdf> or <https://www.investeurope.eu/media/510671/Invest-Europe-Pension-Fund-Guide-to-Private-Equity-and-Venture-Capital.pdf>

NID or something similar would undoubtedly contribute to strengthening SMEs' financial position by encouraging them to increase their equity. It could also serve as an incentive to retain earnings in an entity and to use these to finance new investments, thereby offering further support to innovative projects in Romania.

A NID has been implemented in Italy¹¹² and Belgium¹¹³. All arguments supporting this instrument for SMEs are also pertinent for all categories of companies, giving equal access to bank and non-bank sources of financing.

¹¹² See PwC: <http://www.pwc.com/us/en/tax-services/publications/insights/guidelines-notional-interest-deduction-anti-avoidance-rules.html>

¹¹³ See AmCham Belgium: <http://www.amcham.be/policy/corporate-taxation/notional-interest-deduction>

7 MONITORING PLATFORM: MEASURING THE PERFORMANCE OF THE ECOSYSTEM

Globally, entrepreneurial ecosystems reside in different country and regional contexts, which partly explains and feeds into their respective strengths and weaknesses. The performance and development of an ecosystem cannot be understood without relevant and consistent monitoring and reliable evaluation data.

Monitoring and evaluation is based mainly on data collected from the ecosystem. This enables monitoring of developments over time, including the impact of specific policy measures and the overall policy mix. Data also allows for benchmarking with other ecosystems internationally. However, benchmarking is only viable if the contextual differences between ecosystems are adequately known and understood. International benchmarking should be continuous since all ecosystems are evolving continuously. This can be based largely on existing international comparisons and benchmarks, such as the annual Global Entrepreneurship Monitor (GEM) study.

Key performance indicators (KPIs) used in monitoring should originate from the overall policies and policy objectives. For example, if the policy objectives emphasise creation of start-ups and access to finance, KPIs should respectively include the number of new start-ups and their survival rate, and volumes and sources of private angel and venture funding. If the policy emphasises company growth, the KPIs should include growth rates, volumes of international trade, numbers of growth companies, etc. If the focus is more on job creation, the number of new jobs should be among the KPIs.

KPIs typically react relatively slowly to policy measures. Furthermore, they are often sensitive to changes in the overall economic conditions. It is therefore appropriate to identify a set of metrics that can give an early indication of the emerging developments and trends. These can be identified by modelling the expected impact pathways of key policy measures and the expected development trends within the ecosystem.

Entrepreneurial ecosystem data is not collected systematically in Romania. Data collection relies on current news and data collected from public funding and non-financial schemes. This is further supported by specific case studies, such as the recent mapping of incubators and accelerators. Regardless of policy emphasis and the respective relevant set of KPIs, the current methods of collecting data are inadequate.

Collecting data based on studies is very costly and cannot assure the quality that 'live data' can provide. Live data enables changes in policies to be identified much quicker. Live data means data provided on a daily basis by the ecosystem players. This 'live feed' is only possible (in terms of its cost and reliability) if all the players share the same monitoring platform. It is the role of the government to provide the ecosystem with such a platform.

The general assumption and awareness that start-ups contribute to innovation, growth and jobs and that Romania has the ambition to develop an active start-up policy and prosperous start-up ecosystem requires a thorough approach to monitoring, measuring effects and evaluation. To develop a monitoring and evaluation system, the following steps should be taken:

Recommendation 7.1

A government (or independent public organisation) should develop an IT system that can receive data automatically from the ecosystem stakeholders. Every three years, produce a study on the Romanian entrepreneurial ecosystem based on real data collected from within it

Sufficient understanding of the current situation is necessary to identify appropriate and reachable policy objectives. Developing the respective impact models (intervention logic) for these objectives enables the relevant indicators for monitoring to be identified.

An IT system should be implemented in order to provide concrete facts and figures on key indicators, for example:

- the number and type of start-ups and scale-ups;
- the stage of development and the proven viability of the business model: survival, how fast they grow in turnover, profit and people;
- the number participants in entrepreneurship education and training;
- the number of successful spin-offs from universities;
- the quality of incubators, accelerators and other start-up support: the number of start-ups they service, their growth, as well as their viability over three to five years.

Other topics which might be considered include, for example, funding sources for start-ups and the availability of talent and funding to scale up operations inside Romania and abroad.

Ministries' role is to define the objectives and to demand the agencies provide the data.

An independent public organisation can organise a public procurement (call for proposals) concerning the IT system, periodic ecosystem studies, developing the monitoring, effect measuring and evaluation of the policy framework and the underlying conditions. Private-sector initiatives are only obliged to give data if they receive a subsidy. In other cases, it will be voluntary. There are many ways to anonymise confidential data (see Box 7.1).

Box 7.1: Data to be collected and privacy levels

There are three different levels of privacy regarding the data collected by the monitoring platform:

Data on name and fiscal number of companies invested, size of funding per BAN or IV, and the sectors invested should all be in the public domain.

Internal data – to be submitted to and published by the institution monitoring the ecosystem – covers information on entrepreneurs and companies that received investments (address and contact details, project title, sector) and a list of BAN members. This data will not be made public.

Private data that is not given to the monitoring platform but may be given (optional to be decided by the members of the federation) to the federation of business angels: private business angel data, and some entrepreneurs' project details (unless they request it is made available online).

Another advantage of such platform is to identify the majority of entrepreneurs in Romania and provide them (through the Connecting Hub – see recommendation 2.2.1) with the information or support they need depending on the development stage of their entrepreneurial activity. Entrepreneurs may opt out of the platform at any time which means that they no longer want any contact with the Connecting Hub.

Every three years at least, a comprehensive study should be based on the data collected from the ecosystem stakeholders, and should review if and how the instruments are contributing to reaching the government's overall objectives.

It is important that monitoring of the ecosystem is woven into any public support activity right from the start. Receiving public support comes with the obligation to deliver data to monitor the evolution of the start-up ecosystem. This concerns incubators, accelerators, business angels, universities, venture capitalists, etc. and enables analysis, benchmarking, managing, evaluating and thus understanding how the system is evolving. Without data, no proper policy design and implementation is possible.

The Romanian government should clearly state its 'smart' objectives when developing policy and forthcoming instruments for start-ups and strengthening the Romanian start-up ecosystem. The periodical comprehensive ecosystem study provides the foundation for future policy success.

When enough data has been collected for a specific initiative, the government (or public agency) may decide to change that initiative based on real data, thereby bringing more transparency to the ecosystem.

8 CONCLUSIONS

The evolution of the global entrepreneurial ecosystem shows that – from a regional perspective – resources such as knowledge, talent and funding are concentrated around leading metropolitan areas. Once a critical mass has been achieved, the development of an ecosystem enters a phase of exponential growth. This attracts direct foreign investment, which creates knowledge spill-over and leads to new business opportunities for start-ups and scale-ups alike. The recent history of Central and Eastern Europe shows different degrees of success in growing entrepreneurial ecosystems. Drawing insights from the trajectory of the peer countries in the region, notably from Poland, which has a comparable market size to Romania, could provide relevant lessons¹¹⁴.

Romania, and Bucharest in particular, has a great potential to become one of the most vibrant innovation hubs in Central and Eastern Europe. As of 2017, the country's capital is listed as number 52 on the Digital City Index¹¹⁵, a ranking of 60 European cities, and number 51, as benchmarked against Start-up Manifesto and Scale-up Manifesto, respectively. The city authorities should make systematic efforts to lobby for and assist in implementation of the recommendations presented in this report.

However, there are issues beyond the capacity of local government administrations. No single recommendation can transform Romania's current ecosystem overnight. Every vibrant entrepreneurial ecosystem in the world needs several components working together very well, which is why we have suggested a set of recommendations that try to apply the best existing practices in Europe to Romania, always taking into consideration the feedback from local stakeholders.

This report has been prepared by a team of practitioners and our collective hands-on experience dictated our approach to policy development. We would like to highlight the **main aspects of our practice-driven recommendations:**

Involve the stakeholders in the design and implementation of new policies, instruments and initiatives. With greater stakeholder involvement, the initiatives will be better designed, there will be a stronger commitment from the ecosystem to implement them, there will be greater transparency, and the initiatives will benefit from more publicity by the stakeholders.

Establish a new entrepreneurship agency. By concentrating the coordination of design and implementation of new initiatives in a modern and dynamic agency, critical mass and critical expertise will be created in several areas of Romanian entrepreneurship policies. It will also stop potential beneficiaries from getting lost among several agencies and organisations.

¹¹⁴ For a regional benchmark see a case study on Poland: D. Gołębiowska-Tataj, 'Poland: An Emerging Innovation Leader of the Visegrad Group', CEED Institute and Ministry of Foreign Affairs Republic of Poland, Warsaw, 2014: <http://ceedinstitute.org/report/1841>

¹¹⁵ <https://digitalcityindex.eu/city/7>

Design and enable the Connecting Hub. Despite some islands of excellence in the Romanian entrepreneurial ecosystem, the reality is that communication in the ecosystem does not flow among the different participants. The Connecting Hub will enhance communication and knowledge among the stakeholders, and will allow the most promising Romanian start-ups to be readily identified and connected with international markets, international accelerators and international investors through the brokerage service.

Launch an open data-monitoring platform. As Peter Drucker says "If you can't measure it, you can't improve it". Without proper data from the ecosystem, the Romanian government will be unable to determine which initiatives are having the expected impact and which should be improved. Without data from the different stakeholders, it is impossible to identify the rate of return of money spent or invested in each incubator, each business angel network, etc. The funding policy should be based on outputs (jobs created, number of companies created, money raised) rather than inputs (money spent by the beneficiary). For this change to happen it is important to have a platform with data.

Improve access to finance with incubation vouchers. By creating a healthy competition among the incubators, where the selection is done by the market, the quality of incubation in Romania will improve, creating more successful companies than the current existing model.

Implement the business angel co-investment funding in line with the change in the existing business angel law. Thanks to the new initiatives suggested in business angel areas, there is a strong possibility that a vibrant community of investors will arise from the ecosystem players and start investing in many companies .

This report also proposes a **timeline for implementing the recommendations, in line with the prioritisation of efforts** (see Annex I).

We strongly believe that the policy mix outlined in this document should be coordinated by a single entity – such as, for example, the Romanian Entrepreneurship Agency – which would become a vital, respected voice in the entrepreneurial ecosystem, taking a holistic system perspective on its development. By being accountable for leading change, this entity should build on **Romania's strengths**, such as:

- Access to top talent with science and engineering backgrounds;
- Cost advantage: prices for labour, real estate, goods and services are below developed Western European markets;
- Fragmented yet dynamically emerging ecosystem initiatives such as incubators, co-working spaces and pre-acceleration programmes;
- Willingness of the Romanian authorities to change the current status quo and build the entrepreneurial ecosystem;
- Availability of European Union funding schemes including Structural Funds, Horizon 2020, the SME Instrument and other initiatives;

- Diaspora of Romanian entrepreneurs who may have the potential to bring back know-how, access to global markets and funding to Romania;

As a member of the EU, Romania offers a democratic political framework and rule of law, access to the European Single Market and Single Digital Market, and proximity to some of world's most vibrant innovation hubs. This represents an opportunity to attract top talent from different parts of the world, including Eastern Europe, Eurasia, the Middle East as well as Asia and Americas.

Unless certain bottlenecks are removed, the Romanian entrepreneurial ecosystem will remain structurally unable to move ahead more quickly and take advantage of the upcoming renewal of the European economy, following the crises which started in 2008 and which, for almost a decade, have hindered growth in this largest economic area in the world. These **bottlenecks** include:

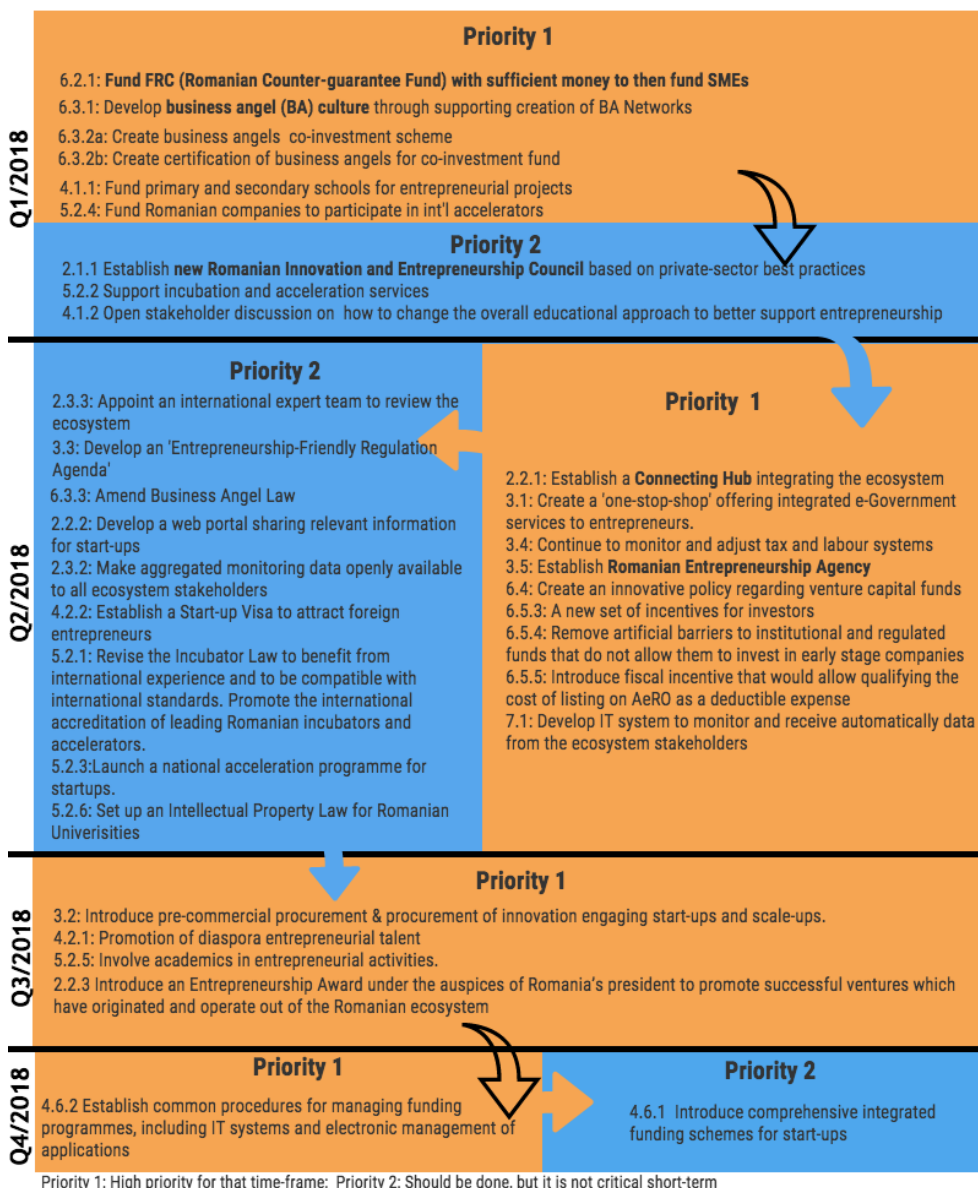
- Bureaucracy, which affects the development of the entrepreneurial ecosystem at all levels;
- Lack of trust in governmental initiatives and in government; all possible avenues should be explored to further limit corruption, build collaborative initiatives between business, academia and governments, and foster a new type of institutions;
- Lack of a single institution, with a mission equivalent to that of the proposed Romanian entrepreneurship agency, to be held accountable for taking leadership as an agent for change in the entrepreneurial ecosystem;
- Limited international connectedness in the local entrepreneurial ecosystem with regional, European and global hubs, demonstrated by small amounts of knowledge transfer, talent and capital;
- Lack of entrepreneurial culture and entrepreneurial education at all levels but especially in science and technology universities;
- Poorly targeted incentives in some of governmental initiatives and subsidies based on input rather than on output and impact;
- Lack of incentives for private investors (including corporate investors) to invest in early-stage companies.

Overall, we believe that Romania is on the right path to reforming its innovation system, and the government has played a vital role in this process by adopting a number of policies with an eco-system perspective towards fostering entrepreneurship. Accelerating the impact of these efforts will depend on the timely and systematic implementation of the recommendations presented in this report.

9 ANNEXES

ANNEX I RECOMMENDATIONS ACCORDING TO PRIORITY AND TIMELINE FOR LAUNCH

Suggested timeline for implementing the PSF Panel recommendations



Source: PSF Panel

ANNEX II: CRITERIA TO SELECT AND SUPPORT BUSINESS ANGEL NETWORKS

The following criteria should be assessed in the accreditation and selection process of BANs:

- Organisational structure of the BANs for developing the activities covered in the application. The number of business angels in the network and the capital allocated specifically to developing the activities has been taken into account (0-15 points).
- Level of network activity in the past year. The number of projects received, the number of projects presented to investors, the amount of investment in operations closed, and the number of information activities, dissemination and training has been taken into account (0-30 points).
- National and international implementation: collaboration with other national and international networks and the capacity to attract foreign investors have been taken into account (0-25 points).
- Actions defined in the application: definition, objectives, content and appropriateness of the activities to be undertaken to achieve the objectives, planning, resource availability, adequacy of schedule, performance indicators and evaluation, detailed and adjusted costs for the activities described. BANs focusing on Romanian smart specialisation sectors have priority (0-30 points).

For entities applying for support to create new BANs, only criteria a), c) and d) have been taken into account (weights are 20, 50 and 30 points, respectively).

A minimum score of 50 points is required to receive a grant.

According to the evaluation criteria mentioned above, the governmental agency should shortlist applications according to the highest scores obtained and award grants until the available credit has been exhausted.

The support of the governmental agency should be based on a three-year agreement and should have two components:

- Fixed: EUR 15 000 per year per BAN, linked to a minimum set of objectives (MSO);
- Variable: up to an additional EUR 15 000 per BAN per year, dependent on performance objectives to be agreed on between the parties (e.g. amounts invested by business angels in that network in highly scalable companies).

With reference to the minimum set of objectives (MSO), a BAN agrees to:

- attract a minimum number of business angels per year and retain a percentage of existing ones in the network;

- provide a specific number of training sessions for BANs and entrepreneurs;
- present a minimum number of deals to the business angels in the network per year;
- participate as a BAN in a specific number of events per year (e.g. as speakers);
- maintain an active web page;
- maintain at least one full-time staff member;
- provide data and statistics to the governmental agency;
- carry out a specific number of investments.

ANNEX III: THE 'PROUD TO BE A BUSINESS ANGEL IN ROMANIA!' CAMPAIGN

It is important to have a campaign in Romania to raise awareness of business angel activities and their benefits, and to explain the role of BANs, etc.

A good international best practice example is the UK's 'Angels in the City'¹¹⁶.

Without a proper campaign, it will be hard for stakeholders to comprehend the importance of business angel activities in the start-up ecosystem.

The campaign should target other important markets, such as the main countries of the diaspora and neighbourhood countries – and all investors around the world are welcome to invest in Romanian companies.

The title of the campaign can differ from that suggested, but it should transmit a positive notion of being a business angel in Romania.

This campaign should be conducted during 2018 by a governmental agency connected with the BANs in Romania, should the federation of BANs have yet to be established. From 2019, this campaign should be managed by this federation (if it exists).

The campaign should take the form of a roadshow travelling around the country and in the neighbourhood countries; it should be covered by different types of media: online, offline, events.

Potential business angels should be able to apply to existing BANs.

A code of conduct should be adopted for business angels and published online on the campaign portal so that potential business angels know what is expected of them when they take on the role.

The estimated investment for 2018 should be EUR 100 000, while in 2019-2021 it should be EUR 30 000 per year just to maintain the previous campaign. The sum of EUR 30 000 is suggested based on the experience of national federations in Spain, Ireland, Portugal and Estonia.

Total estimated budget: EUR 190 000

¹¹⁶ <http://www.angelsinthecity.org.uk/about-angels-in-the-city/>

ANNEX IV: TRAINING SESSIONS FOR BAN MANAGERS, BUSINESS ANGELS AND ENTREPRENEURS

As there is a lack of knowledge in terms of BAN management (e.g. how to map, attract and recruit private investors, how to create a sustainable BAN) and investment readiness, a specific programme should be created to train BAN managers, business angels and coaches.

If BAN managers do not know how to run a BAN, nothing will happen, even with all the money in the world.

In terms of BAN management, two training sessions (two days each) should be envisaged targeting BAN managers. One session should be held in early 2018 and the other one early in 2019.

At least one training session (two days) targeting business angels should be held in each BAN.

At least two training sessions (two days each) should target the 'Train the trainers', so that in future participants can deliver training sessions on investment readiness for entrepreneurs. These sessions should take place in early 2018 and 2019.

All the above training sessions should be delivered by international coaches experienced in the topics mentioned above.

A global budget of EUR 100 000 has been estimated for these training sessions.

ANNEX V: THE TASKS OF THE BUSINESS ANGEL FEDERATION

The business angel federation should deal with the following tasks:

- Represent the Romanian business angel community in meetings with stakeholders (including the government).
- Suggest changes to laws, rules and regulations that can help to develop the business angel community.
- Represent Romania in international organisations and at international events.
- Create a set of documents (e.g. shareholder agreements, code of conduct) that can be shared among all BANs.
- Create or translate booklets on 'How to invest in early-stage companies', targeting potential and actual business angels, and 'How to raise money from business angels', targeting Romanian entrepreneurs. These booklets can be used by all BANs.
- Be the link (matchmaking) between the international community of business angels and local BANs.
- Share international best practices in Romania.
- Collect data and provide statistics at the national level on business angel activity in Romania.
- Promote relevant international training sessions in the country about angel investments, inviting international experts from different fields.
- Manage the 'Proud to be a business angel in Romania!' campaign.
- Help create new BANs.

ANNEX VI: RULES FOR MANAGING THE CO-INVESTMENT FUND

The following rules are recommended for managing the co-investment funds:

- At least three certified business angels apply to a public tender to be launched by the Romanian government/agency. The inclusion of foreign certified business angels should receive additional points to attract international investors. If approved, the business angels create a company –investment vehicle (IV).
- Certified business angels must have the majority of the IV shares and must control the management of the IV. This rule allows virgin business angels to be IV shareholders and to learn from those with more experience. Control of the management means that investment and divestment decisions are taken exclusively by the certified business angels. However, business angels can hire either a person or an entity to take care of daily administrative issues that take place in an investment entity.
- Once business angels have been selected (by the scheme management authority – MA) based on the business angels' expertise and their capacity to mentor the companies, they create the IV into which they will put one-third of all the money to be invested in each deal. Target SMEs must have been in existence for less than five complete years.
- There will be several restrictions in terms of the investment: it must be an SME, some sectors will not be allowed (e.g. banking), listed companies will not be allowed, conflict of interest will not be allowed, money must be invested in Romania, companies must have potential of growth with IRR (internal rate of return) superior to a certain level, etc.
- There will be a 10-year loan agreement between the IV and MA, with the conditions described below.
- An IV investment period should not exceed three years after signature of the loan agreement.
- Every time the IV wants to invest in a company, it informs the MA, and the MA will have two to three weeks to analyse the documents (e.g. verify conflict of interest, restrictions) and transfer two-thirds of the money required for the deal to the IV. The IV will transfer 100 % of the money to the final recipient (start-up).
- The maximum MA loan for each IV will be EUR 500 000 which means that each IV will have an investment of EUR 750 000 to be leveraged in start-ups.
- The IV may charge 10 % of management fees to cover legal costs and salary(ies) of IV full-time or part-time staff. Management fees cannot be used for the direct benefit of business angels.

- On the divestments, up to break-even the distribution is obviously one-third for BAs and two-thirds for the MA. After break-even (including the management fee), the asymmetric distribution can rise to 90 % for BAs and 10 % for the MA.
- In the applications for call for tender, applicants must suggest a competitive asymmetric distribution on the upside, ranging from 33,3% to 90 % for business angels.

ANNEX VII: DOCUMENTS NEEDED FOR THE CERTIFICATION OF BUSINESS ANGELS

The co-investment scheme demands a certification process for business angels. Across Europe, different certification procedures are in operation.

Through one of the governmental agencies (e.g. the new Romanian Entrepreneurship Agency), the government should accredit reliable BANs with issuing declarations of investment readiness for business angels. These BANs can also be networks which exist outside of the country.

There are three main advantages to certifying business angels backed by declarations as 'business angels networks':

Due diligence on the reputation of the business angel is carried out locally by the BAN. Local BANs are in a much better position to testify on a person's respectability than the central government/agency;

Brand (meaning that BANs may put their reputation at risk). A BAN will feel responsible if any of its members do not respect the rules or try to compromise ethical behaviour. In this way, they will select the members carefully and will not always blame the government if something does not work well.

Creating a critical mass of investors in the BANs is very important. Potential business angels should be actively encouraged to join a BAN.

However, in case of foreign business angels or Romanian business angels who are not members of any accredited BAN, the government should consider alternative solutions. For example, the Romanian Entrepreneurship Agency should follow a flexible procedure and be able to replace a mandatory declaration issued by a BAN with an alternative that should include a personal interview with the applicant. If the applicant is outside of Romania, an interview by Skype or a similar online tool should be considered.

An applicant wishing to apply for co-investment through the co-investment funds should deliver the following documents:

- A CV which can prove that he/she has at least five years of management experience or five years' experience in investing in start-ups;
- A description of previous early-stage investments (if they exist) and their outcomes;
- Self-declaration stating that he/she has their own funds needed for the co-investment and is not insolvent;
- A certificate showing that he/she does not owe any money to the state in taxes;

- Attention proving that he/she has no criminal record of having been condemned for mismanagement
- Declaration of an accredited BAN stating that the applicant is qualified to perform early-stage investments and is a member of the BAN.

When these documents have submitted (preferably electronically) by each business angel, an independent and reliable expert group (certification committee) appointed by a governmental agency would recommend which of the applicants can be certified and which cannot. The idea of a reliable expert group came after the second visit by this expert panel when several stakeholders mentioned that if the ultimate certification decision was made by the government, the process would not be transparent and people would not respect it. The expert group or certification committee should include successful entrepreneurs and business angels to guarantee full transparency throughout the entire process.

Certification can be withdrawn at any time if there is a change in the situation of the business angel.

There is an estimated EUR 20 000 for consultancy fees (e.g. EUR 15 000 for lawyers and EUR 5000 for the certification committee) for the implementation of this certification process.

Foreign business angels should be invited to become certified business angels in Romania.

For all the certified business angels, a ceremony could be envisaged where the Prime Minister or Republic President could hand out the certificates. This would highlight the importance of those who invest their own money in the success of Romanian entrepreneurs.

ANNEX VIII: ESTIMATED COSTS FOR THE SUGGESTED BUSINESS ANGEL POLICIES

Activity	Description	Costs (EUR)
Support to BANs	Considering that there will be support to 10 BANs for 3 years at EUR 15 000 per year. Estimating that 5 BANs will over-perform and will get the additional EUR 15 000, it will mean EUR 15 000 x 10 BANs x 3 years + EUR 15 000 x 5 BANs x 3 years.	675 000
Business Angel Federation	For the support of this federation, the governmental agency should allocate EUR 35 000 per year, for a minimum set of objectives (MSO) linked to the role of the federation mentioned above, to be agreed on between the governmental agency and the federation. The total budget for 3 years (EUR 35 000 x 3 years) is estimated at EUR 105 000.	105 000
Training for BAN managers, business angels and future trainers	In terms of BAN management, 2 training sessions (2 days each) should be envisaged targeting BAN managers. One session should occur in 2018 and the other in early 2019. At least 1 training session (2 days) targeting business angels should occur in each of the BANs. At least 2 training sessions (2 days each) should target the 'Train the trainers', so that in the future participants can deliver training sessions on investment readiness for entrepreneurs. These sessions should take place in 2018 and early 2019. All the above training sessions should be delivered by international coaches with experience in the above topics. A global budget of EUR 100 000 has been estimated for these training sessions.	100 000
Campaign: 'Proud to be a Romanian business angel'	It is estimated that in 2018 the investment should be EUR 100 000, while in 2019-2021 the investment should be EUR 30 000 per year just for maintenance of the previous campaign. The sum of EUR 30 000 is suggested based on the experience of national federations in Spain, Ireland, Portugal and Estonia. Total estimated budget: EUR 220 000.	190 000
Legal costs for setting up the certification process	Consultancy fees (e.g. lawyers) for implementing this certification process are estimated at EUR 20 000.	20 000
Pre-approved legal documents for co-investment scheme	The external costs for consultancy fees to develop all the calls, legal documents, off-shelf documents, etc. are estimated at around EUR 30 000.	30 000
Statistics + platform	The cost of an IT platform for the ecosystem (not only BAs) to provide data.	200 000
Advisory group	An estimated cost of EUR 30 000 per year x 3 years = EUR 90 000.	90 000
	TOTAL	1 410 000

ANNEX IX: PARTICIPANTS CONSULTED BY THE PSF PANEL DURING THE COUNTRY VISITS

The PSF Panel would like to thank the Romanian representatives of from national public authorities, universities, technology transfer centres and incubators, banks, as well as business angels, investors, or entrepreneurs for their participation in the two country visits and their very valuable contributions and feedback to the report.

Table 7 Participants in the first PSF country visit, October 2016

Nr.	Name	Organisation	Function
1	Adrian Curaj	Former Minister of National Education and Scientific Research	
2	Vlad Andriescu	startup.ro	Editor-in-chief
3	Romiță Iucu - Bumbu	University of Bucharest	Pro-rector
4	Claudiu Vrinceanu	Ministry of Economy	State Secretary
5	Malin Stefanescu	MVP Angels	Business Angel
6	Dan Calugareanu	Tech Angels	Business Angel
7	Péter Barta	Fundatia Post-Privatizare	Business-angel and Executive Director
8	Dan Lupu	Early Bird	Partner
9	Vlad Craioveanu	Impact Hub	Founder
10	Razvan Rughinis	Innovation Labs - Pre-accelerator programme	Founder
11	Bogdan Iordache	How to Web and TechHub	Co-founder and board manager
12	Dragos Roua	Connect Hub	Founder
13	Daniel Cosnita	Romanian Cluster Association - Clustero	President
14	Anca Harasim	American Chamber of Commerce in Romania	Executive Director

Nr.	Name	Organisation	Function
15	Ion Ivan	Technological Transfer Center ICPE-CA	Director
16	Alexandru Marin	Technological Transfer Center CTT POLITECH	Director
17	Cornelia Muraru-Ionel	Technological and Business Incubator INMA-ITA	Coordinator
18	Gabriel Vladut	National Council for Innovation RO INNO	Vicepresident
19	Marius Mitroi	UEFISCDI	Former Head of Innovation Funding Department
20	Tania Ignat	Iceberg Consulting	Innovation Consultant
21	Vlad-Cristian Dumitru	CCIR	Deputy Secretary General
22	Liviu Rogojinaru	National Council of Private SMEs in Romania	Vicepresident
23	Raluca Popa	InvestRomania	Counsellor
24	George Ștefan	InvestRomania	Counsellor
25	Andreea Zamfir	ASE	Director, Management of Research and Innovation Department
26	Leonard Cornoiu	Banca Transilvania	Director, Department European Programmes
27	Iulian Basu	Businessangelsromania.ro	Business Angel

Table 8 Participants in the second country visit and Open Forum, February 2017

Nr	Name	Organisation	Function
1	Adrian Curaj	Former Minister of National Education and Scientific Research	
2	Ionel Andrei	Ministry for Research and Innovation	General Director, Directorate-General for Strategic Coordination, Policy, Programs and Institutional Development
3	George Stefan	InvestRomania	Counsellor
4	Raluca Popa	InvestRomania	Counsellor
5	Iulia Hertzog	Ministry of Regional Development, Public Administration and European Funds	Head of MA for RO-BG Cross-Border Cooperation Programme
6	Malin Stefanescu	MVP Angels	Business Angel
7	Mihai Sfintescu	Abilito Capital	Venture Capital and Private Equity Investor
8	Irina Anghel	South Eastern European Private Equity and Venture Capital Association	Managing Director
9	Alexandru Marin	Technological Transfer Centre CTT POLITECH	Director
10	Cornelia Muraru-Ionel	Technological and Business Incubator INMA-ITA	Coordinator
11	Bogdan Mihailescu	Politehnica" University of Bucharest Center for Technological Electronics and Interconnection Techniques (UPB-CETTI) Technological and Business Incubator	Lecturer
12	Razvan Rughinis	Innovation Labs - Pre-accelerator programme	Founder
13	Alin Angheluta	Bucharest Business School – University of Economic Studies	Dean
14	Ştefania Eugenia Popp	Junior Achievement Romania; Global Entrepreneurship Network	CEO

Nr	Name	Organisation	Function
15	Camelia Dragoi	European Investment Fund	Mandate Manager, Regional Business Development
16	Cristina Toncu	RICAP - Romanian Innovation Commercialisation Assistance Programme	Programme manager
17	Florin Ioan Rosu	Ministry for Business Environment, Commerce and Entrepreneurship	Head of Unit, Directorate for Business Environment
18	Camelia Coporan	Ministry of Regional Development, Public Administration and European Funds	Deputy Director, Department for European Programmes
19	Paul Svasta	Center of Technological Electronics and Interconnection Techniques (CETTI)	Founder
20	Sorana Baci	Chancellery of the former Prime-Minister Dacian Ciolos	Former Secretary of State
21	Madalina Prina	World Bank	Private Sector Development Specialist
22	Lucian Anghel	Bucharest Stock Exchange	President of the Administration Council
23	Zuzanna Kurek	Bucharest Stock Exchange	Deputy Director
24	Ionut Tata	Hub One Zero Brasov	Founder
25	Dalina Dumitrescu	Bucharest University of Economic Studies – ASE	Vice-Provost; Professor of Finance
26	Calin Pantea	MarcTel S.I.T	General Director

ANNEX X: BIBLIOGRAPHY

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The PSF panel also made use of a number of legislative texts (translated from Romanian to English), as shown in the table below.

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The Romanian National Strategy for Research, Development and Innovation	Strategia Națională de Cercetare, Dezvoltare și Inovare 2014-2020
Business Angels Law	Legea privind stimularea investitorilor individuali - business angels
SMEs Law	LEGE Nr. 346 din 14 iulie 2004 privind stimularea înființării și dezvoltării întreprinderilor mici și mijlocii actualizată
Government Strategy for SMEs development and improving Romanian business environment – Horizon 2020	Strategia guvernamentală pentru dezvoltarea sectorului întreprinderilor mici și mijlocii și îmbunătățirea mediului de afaceri din România - Orizont 2020
Business Incubators Law	http://www.cdep.ro/pls/proiecte/docs/2015/pr029_15.pdf

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This is the final report of the PSF panel of experts under the PSF Specific Support for Romania, which has been carried out from July 2016 to December 2017. The report provides an overview of the key challenges and opportunities of the Romanian entrepreneurial ecosystem and outlines key policy recommendations for improving the performance of startups, scaleups and the entrepreneurship ecosystem in Romania.

Studies and reports

