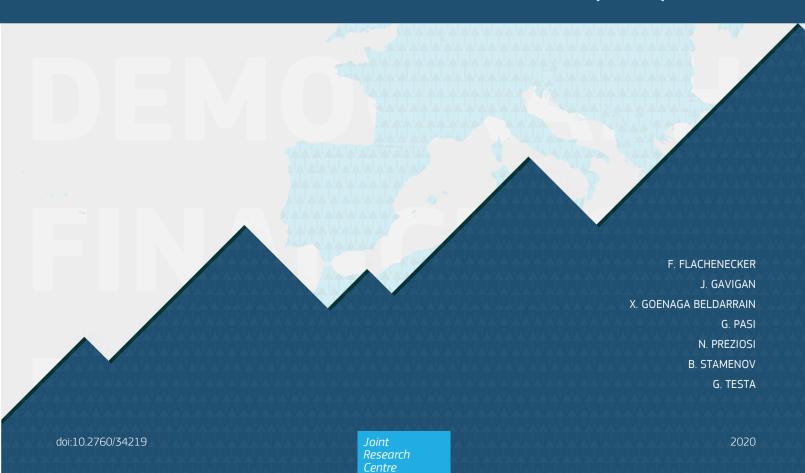


ANNEX 4.19 TO THE JRC TECHNICAL REPORT

High Growth Enterprises:

demographics, finance & policy measures

FACTSHEET - ROMANIA (RO)



1. Executive summary

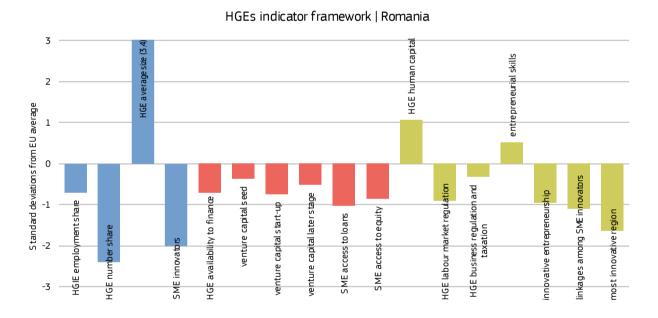
Romania performs well in terms of human capital available for HGEs* and entrepreneurial skills. The start-up scene is booming and this is reflected in the fact that in the 2016 Start-up Nation Scoreboard RO ranks on the 9th position among EU28.

RO has a small share of HGEs but they are hiring a large number of employees. This type of companies are found almost exclusively in the services sector, with a slightly higher concentration in knowledge-intensive services. There is a very limited number of HGEs in manufacturing and especially in its high-tech segment. The innovation ecosystem performs weakly due to relatively unfavourable financial, regulatory and market conditions. As a result SMEs show very low innovation activity.

Financial constraints that this type of companies face in RO tend to be relatively stronger than in the EU as a whole. The venture capital market is underdeveloped, and it is restrained to a small number of deals and sectors, concentrating in only two development regions. There are no policies or financial instruments specifically targeting HGEs, but there are instruments and policies focusing on SMEs that that also cover implicitly HGEs as beneficiaries, targeting all stages of enterprise development. Funding schemes are available from national and European sources, the latter having a substantial share.

Improvements are needed in making the business environment friendlier for SMEs with growth ambition and in strengthening their innovation ecosystem. Measures to consider can include modifications in regulation (labour market, business regulation and taxation), enhancement of collaboration among SME innovators, development of strong innovative capacities in regional hubs, as well as measures to improve access to finance.

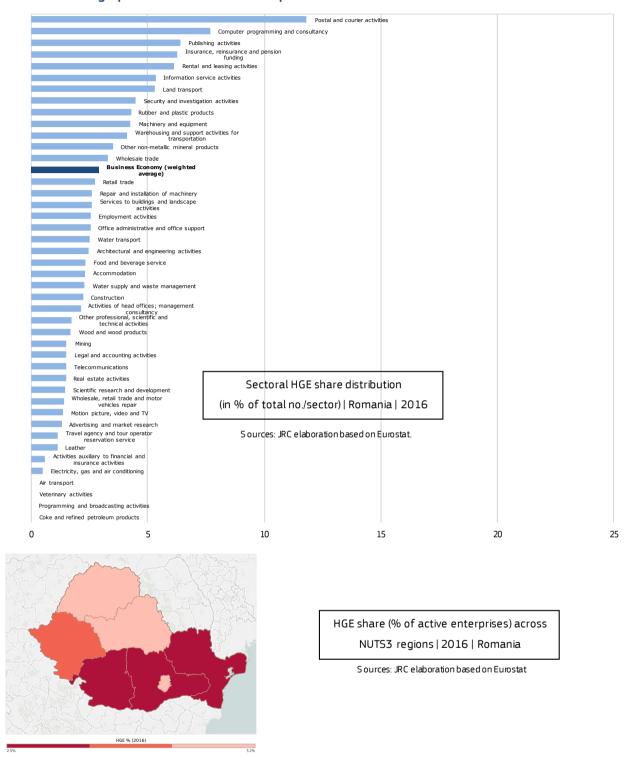
2. HGEs indicator framework



- RO performs below the EU average in all respects (firm demographics, access to finance and framework conditions), except for the average size, human capital available for HGEs and entrepreneurial skills.
- The lower performance in HGE number share coupled with the high average size is an indication of few, but large companies in this segment. Contribution to employment creation is weaker compared to the EU average.
- HGEs face relatively strong financing constraints, both in terms of equity and debt financing.
- Despite general labour shortages in the country, it seems that potential employees with the right skills are available for HGEs.
 However, the innovation ecosystem performs weakly due to regulatory, innovative entrepreneurship, collaboration and regional innovation aspects.

^{*} In line with Eurostat, HGEs are defined in this factsheet as enterprises having (i) experienced an annualised average employment growth rate of 10% per year over a three-year period and (ii) at least 10 employees at the beginning of the growth period. The importance of HGEs is directly linked to their substantial contribution to employment growth, productivity improvements, economic renewal and innovativeness.

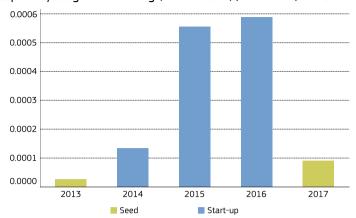
3. Firm demographics and sectoral decomposition



- The average share of HGEs in RO is relatively low, at around 3-4% (weighted average of the business economy) ranging from 0% in certain service sectors to 12% in postal and courier activities (the EU average across the business economy is 11%).
- HGEs are found almost exclusively in the services sector. There are almost no HGEs active in manufacturing, especially in high-tech manufacturing.
- HGEs are mostly concentrated in Northern and Central Transilvania as well as in Bucharest.

4. Financing HGEs and start-ups: the role of venture capital

Venture capital by stage of financing (in % of GDP) | Romania | 2013-2017



Sources: JRC elaboration based on Venture Source.

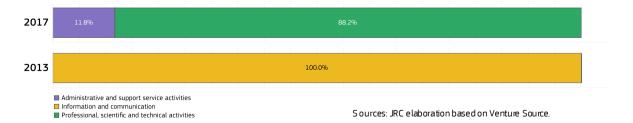
- The venture capital market is very much underdeveloped characterized by a practically negligible share of this type of financing, and it is restrained to a very limited number of deals.
- The key players are as follows:

Name	Total Portfolio	Stage	Total support in RO	Areas	Comment
Catalyst	EUR26mln	early	EURO.2-2mln	Technology, media, telecom.	JEREMIE initiative
GapMinder	n.a.	Pre- seed, seed	n.a.	IT Software (fintech, cyber sec., MedTech, digital transformation (AI, ML, etc)	National VC fund
Gecad	EUR100mln	early	n.a.	Software and high-tech	
Early Game	EUR22mln	early	Up to EUR3.5mln per company	Innovative comps (blockchain, cloud, electric vehicles, NPL, big data, Al, ML, advertising, agritech, fintech, etc.)	National VC fund, co-funded by the ERDF. It has EIF backing.
Fribourg Capital	EUR20mln	Early, seed	n.a.	Early stage tech startup investments	
La French Tech	EUR1mln	seed	EUR20,000- 100,000	Support for French start-ups to enter the RO market	It starts in 2020
3TS	3TS Capital	n.a.	n.a.	technology	It owns 10 companies in RO

Source: JRC elaboration

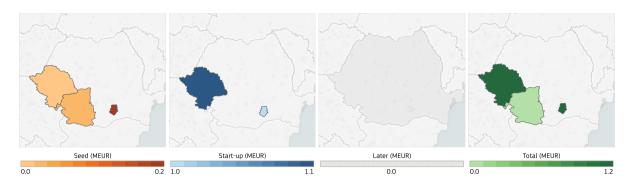
• Later-stage venture capital is completely missing, indicating a growth stage funding gap.

Sectoral distribution of VC investment (in %) | Romania | 2013 & 2017



• There is practically no sectoral diversification in the venture capital investments, which may be due to the very limited number of deals. Only the following three sectors received venture capital during 2013-2017: ICT, professional / scientific / technical activities as well as administrative and support services.

Regional distribution of VC investment by stage of financing (in MEUR) | Romania | 2013-2017



Sources: JRC elaboration based on Venture Source.

• Venture capital investments concentrate mainly in two regions: Bucharest and Banat. While the former concentrated both seed and start-up capital, the Banat region's companies received VC mostly in their start-up stage.

5. Finance-related policy measures

Instrument	Budget	Objective / Comment
Operational Programme for Competitiveness (OPC) and PA1	EUR 59mln	Accelerator and seed stage for innovative ideas and portfolio Risk Sharing Loan for innovative SMEs and research organizations
	EUR 104mln, over 2014- 2020	Innovative technological projects; Innovative spin-offs and start-ups; Innovative newly created enterprises.
Scale Up Program	EURO.1mln/business, 10% co-financing	Financial support to young technology enterprises. To be launched in 2019.
Start-up Nation	EUR 430mln	financial support for the establishment of start-ups ('start-up' in the definition of the programme does not draw on all three criteria commonly used in EC definition of start-up, but rather offer support to new, seed, small companies)
Diaspora Start-up Programme	EUR 40,000/ citizen	increasing employment by supporting non-agricultural enterprises in the urban area. It targets Romanian citizens living abroad wishing to set up a new company in Romania. Closed, has not been reopened.
Start-up City	EUR 10mln	compensate the lower chances for people of Bucharest to compete in Start-up Nation
SME Invest Romania	EUR 150mln	encourages and stimulates the development of SMEs via state guarantee facilities for their credits
National Multiannual Program for Microindustrialisation	EUR 65 mln over 2017- 2020	encourage and stimulate the development of SMEs in priority sectors. Target: 660 beneficiaries
State aid scheme for stimulating investments with a major impact on the economy	EUR 300mln	companies investing at least EUR 1 million net

Source: JRC elaboration

- Under the policy cycle 2014-2020, there are no policies, nor financial instruments, specifically targeting HGEs.
 However, there are instruments and policies that include implicitly the HGEs as beneficiaries, targeting all the stages of enterprise development.
- Strategies with an impact on the long-term development of SMEs are the National Strategy of Research, Development and Innovation (NSRDI) 2014 –2020 and the National Strategy for Competitiveness (NSC) 2015-2020. The NSC defines five strategic priorities, related to improving the regulatory environment of the business environment, supporting public private partnerships, improving the ICT skills of the population, promoting the economic sectors potentially competitive and increasing the standard of living.

- Several schemes funded from national state budget or European funds are available. The start-up and enterprises' growth and expansion through innovation are mainly funded through specific programmes of the National Strategy for RDI. European funds for SMEs, including growth through innovation, are managed through a number of operational programmes. The Regional Operational Program (ROP) targets SMEs competitiveness with a total budget of EUR 877 million. SMEs in focus are those in the fields identified as competitive by the National Competitiveness Strategy and of the RDP. It aims at promoting the entrepreneurial spirit and supporting the creation and extension of the capabilities advanced by production and development of services.
- RO lags behind in business angel funding. There is a number of private investors who contribute equity to finance businesses with high potential for growth. Business Angels, allocate, on average, between EUR 10,000 and EUR 200,000.

Annex: HGEs indicator framework details

Indicators	D etails	Motivation				
HGEs indicators						
HGIE employment share	Percentage share of employees among HGEs in 50% 'most innovative' industries relative to total employment (EIS ; 2018)	Measures contribution of HGIEs to employment creation				
HGE number share	Percentage share of HGEs of total enterprises with at least 10 employees (Eurostat; 2016)	Measures how many firms are HGEs				
HGE average size	Average size of HGEs (employment definition); employees divided by $$ number of HGEs (Eurostat; 2016)	Me a sures average size of HGEs, an indication for future job growth potential				
SME innovators	Share of SMEs with product, process, marketing or organisational innovations or innovating in-house among all SMEs (EIS ; 2018)	Existing SME innovativeness as predictor for future innovations				
Financing HGEs indicators						
HGE availability of finance	Percentage of HGEs considering the availability of finance is not an investment barrier (EIBIS; 2016-2018)	HGEs access to finance is considered a precondition for the development of HGEs				
Venture capital seed	Share of seed venture capital to GDP (Venture Source; 2017)	Venture capital is a relevant source of finance for potential HGEs				
Venture capital start-up	Share of start-up venture capital to GDP (<u>Venture Source; 2017</u>)	Venture capital is a relevant source of finance for potential HGEs				
Venture capital later stage	Share of later stage venture capital to GDP (Venture Source; 2017)	Venture capital is a relevant source of finance for potential HGEs				
SME access to loans	EIF SME Access to Finance Sub-index for loans, comprising the use and cost of loans (EIF; 2018).	SME access to loans is an important framework condition indicating the access to loans for HGEs				
SME access to equity	EIF SME Access to Finance Sub-index for equity, comprising use of equity and the sophistication of the equity market ($\frac{\text{EIF}}{2018}$)	SME access to equity is an important framework condition indicating the access to equity for HGEs				
HGEs framework conditions indicators						
HGE human capital	Percentage of HGEs considering the availability of staff with the right skills is not an investment barrier (EIBIS; 2016-2018)	HGEs access to human capital is essential for the development of HGEs				
HGE labour market regulation	Percentage of HGEs considering the labour market regulation is not an investment barrier (EIBIS; $2016-2018$)	HGEs may be constrained by existing labour market regulation				
HGE business regulation and taxation	Percentage of HGEs considering the business regulation (e.g., licences, permits, bankruptcy) and taxation is not an investment barrier (EIBIS; 2016-2018)	HGEs may be constrained by existing business regulation				
En tre p re neurial skills	Percentage of 18-64 population who believe to have the required skills and knowledge to start a business (GEM; 2018)	HGEs may require entre preneurial spirit, skills and knowledge				
Innovative entrepreneurship	Ratio between improvement-driven and necessity-driven entrepreneurs hip ($\underline{\text{EIS}}$; $\underline{2018}$)	Countries with high relative prevalence of improvement-driven opportunity, and entrepreneurship tend to be primarily innovation-driven, thus conducive for HGEs				
Linkages among SME	Innovative SMEs collaborating with others, public-private co-publications and	Quality of innovations increases with collaboration and provides information on				
innovators	private co-funding of public R&D expenditures (<u>EIS; 2018</u>).	sophistication of SME innovation ecosystem, thus related to HGEs.				
Relative performance of most advanced region in the Regional Innovation Most innovative region Score board within each Member State vis-à-vis the best performing regions a cross all other Member States (RIS; 2017).		HGEs innovation ecosystems tend to be concentrated in most innovative regions/centres.				

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