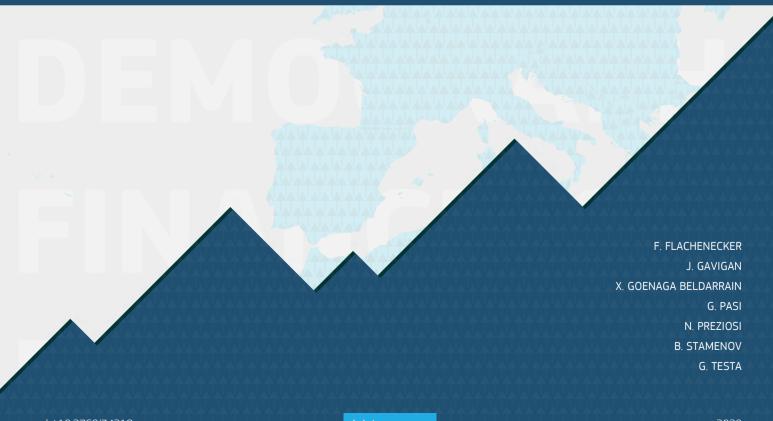


ANNEX 4.11 TO THE JRC TECHNICAL REPORT

High Growth Enterprises:

demographics, finance & policy measures

FACTSHEET - CROATIA (HR)

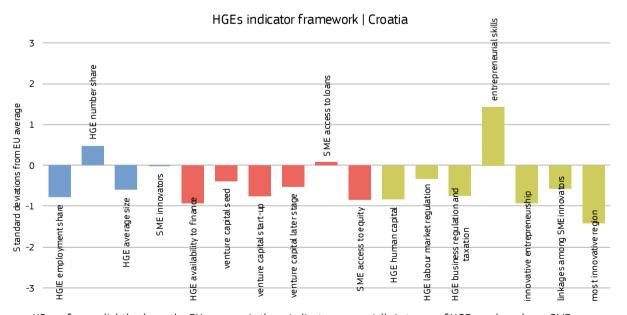


1. Executive summary

HR overall performs well below the EU average in most factors determining the development of HGEs (it is among the five Member States with the lowest relative performance across the EU28). In spite the number share of HGEs is slightly below the EU average, the employment share is still far from being compared to other Member States. Along with grants schemes fostering SMEs growth and for which HGEs were eligible, the most part of available financial instruments in HR are measures supporting favourable loans and guarantees obtained through ESIF. In 2018 and 2019 two main initiatives, both supported by the EIF (The Croatian Venture Capital Initiative and the Croatian Growth Investment Programme) have been launched with the aim of establishing a venture capital market in the Country. Overall, given the lack of monitoring and evaluation data and studies, it is difficult to analyse the exact impact of relevant national / region al strategies and policies to encourage and support entrepreneurial activity. The weak performance of the innovation ecosystem in HR does not support the development of HGEs. Also the poor performance in terms of most innovative regions heavily affects the rise of HGEs. However the emergence of HGEs is mainly hindered by the lack of venture capital financing and access to skilled workforce. The sectoral distribution of venture capital investments is diversified, but certa in sectors stand out, such as air transport and employmentservices. Despite positive expectations due to the contribution obtained through support by ESIF, the venture capital markets in HR remain underdeveloped in comparison to the EU average.

The conditions for HGEs could improve by supporting the development of a venture capital market and an increased human capital. The availability of staff with the right skills is considered an obstacle for investments by HGEs. HR performs well below the EU average for this indicator. The lack of adequate skills is also reflected by the low proportion of HGE employment share. The equity financing gap is another aspect HR could address to improve the overall performance of the country. With regard to the skilled workforce shortage this can be addressed via closer collaboration with the educational institutions. For what concerns instead the financing gap, this can be initially addressed through ESIF-backed funds.

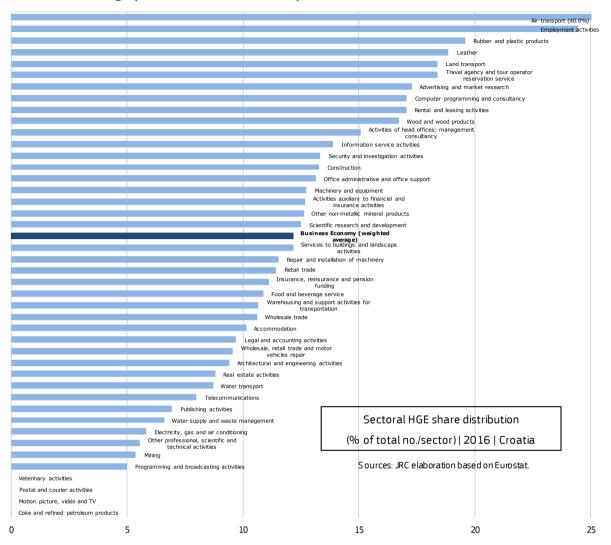
2. HGEs indicator framework



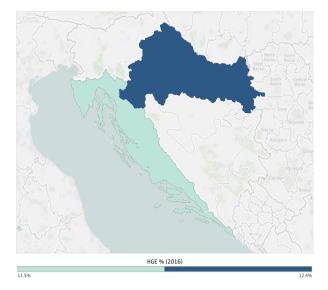
HR performs slightly above the EU average in three indicators, especially in terms of HGE number share, SME access
to loans, and entrepreneurial skills. However, all the other indicators show a negative performance of HR, especially in
terms of most innovative region, SME access to equity and HGE availability to finance.

^{*} 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

- HR could improve the conditions for HGEs by supporting SME access to equity finance and targeted investments in human capital via a closer collaboration with educational institutions..
 - 3. Firm demographics and sectoral decomposition



- The average share of HGEs in HR is around 11% across the business economy, ranging from 5% in programming and broadcasting activities to 40% in air transport.
- The highest shares of HGEs are found in knowledge-intensive and medium-high tech manufacturing industries, particularly in air transport, employment activities as well as rubber and plastic products.

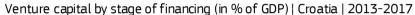


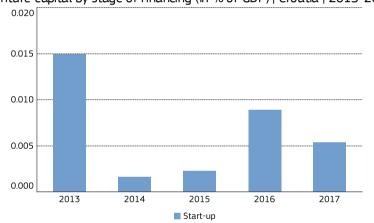
HGE share (% of active enterprises) across NUTS2 regions | 2016 | Croatia

Sources: JRC elaboration based on Eurostat.

• In terms of geographical concentration, HGEs are homogeneously distributed in all the HR regions, with a slightly higher percentage in the Zagreb region (12.4% vs. 11.5%).

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



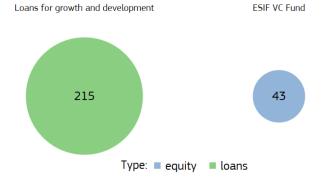


Sources: JRC elaboration based on Venture Source.

- In the period 2013-2017 HR saw the pick of venture capital investments as a percentage of GDP in 2013. The volume felt in 2014 and then increased in 2015 (slightly) and in 2016. It felt again in 2017.
- Importantly, the entire volume of venture capital investments over the period 2013-2017 targeted start-up enterprises, leaving uncovered seed companies and later-stage ventures

5. Finance-related policy measures

Financial Instruments (MEUR) | Croatia



- Support to entrepreneurship is a widely shared policy objective at national, regional and local levels. These include the Smart specialisation strategy (S3), Strategy for the development of entrepreneurship in Republic of Croatia 2013 2020, Strategy for fostering Innovation, as well as local and regional development strategies, all of which have defined goals of fostering entrepreneurial environment and competitiveness.
- Measures for fostering economic activities on national level primarily refer to incentives awarded by the Ministry of Economy, Entrepreneurship and Crafts (MEEC) in line with the national strategy for development of entrepreneurship, and specific acts, such as the State Aid Act, Investment Promotion Act, Act on fostering development of, and the Croatian Agency for SMEs, Innovations and Investments (HAMAG-BICRO), which is focused on fostering innovative entrepreneurship.
- As of 2019, there are three main policy measures which are expected to boost scaling up of HGEs, all co-financed through ESIF (Operational programme Competitiveness and Cohesion 2014-2020). These include: financial instruments, grants for innovative SMEs and measures for establishing VC market.
- Financial instruments: favourable loans and guarantees promoted by HAMAG-BICRO, obtained through ESIF amounted to €500m (already contracted in full). The largest sum (€ 215m) has been allocated to ESIF Loans for growth and development, which target SMEs operating for at least 2 years. Total allocation per project amounts to €50,000 with the repayment deadline of 10 years and an interest rate of 1.5%.
- Grant schemes: in 2019, the main grant scheme was Innovations in newly established SMEs, for which €20m was allocated. Towards the end of July 2019, the total allocation was increased to €26m and submissions are expected to continue. Furthermore, in July another grant scheme targeting innovative SMEs ("Innovations in S3 areas") was launched (€85m). Both grant schemes are managed by Ministry of Regional Development and EU Funds of Croatia (MRDEUF), Ministry of Economy, Entrepreneurship and Crafts (MEEC), and HAMAG-BICRO.
- Venture Capital: in June 2018, The Croatian Venture Capital Initiative (CVCi FoF) was established by the European Investment Fund (EIF) and the Ministry of Regional Development and EU Funds (MRDEUF) with the purpose of creating one or more venture capital funds for investing in Croatian start-ups and HGEs. Fil Rouge Capital was selected to manage the new VC fund, whose activities started in 2019. EIF allocated €35m into the fund, while private investors contribute at least €7m.
- In January 2019, the EIF and the Croatian Bank for Reconstruction and Development (HBOR) launched the Croatian Growth Investment Programme (CROGIP), a €70m investment programme to support fast-growing SMEs which are established and are operating in Croatia. EIF and HBOR will each commit EUR 35m in order to facilitate additional private-sector investments into equity funds.
- However, the effectiveness and impact of the adopted strategies, implemented measures and allocated resources
 often varies. The policy measures implemented include also reduction of administrative burden (including digitisation
 of administrative procedures), provision of services at favourable terms (incubation, acceleration, education,
 mentorship, and internationalisation) as well as different tax incentives for investments and RDI projects.
- Given the lack of monitoring and evaluation data and studies, it is difficult to analyse the exact impact of relevant national/regional strategies and policies to encourage and supportentrepreneurial activity. This will change over time, since many (if not most) measures implemented today include co-financing through ESIF, and their implementation is subject to monitoring and evaluation.
- However, on the basis of indicative evidence and overall positive trends in enterprise development, it can be
 concluded that additional resources made available in the recent years (primarily through ESIF), coupled with some
 reduction of administrative and tax burdens are generating positive results.

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 ($\underline{\text{EIS}}$; 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)	Me a sures how many firms are HGEs
HGE average size	Average size of HGEs (employment definition); employees divided by $$ n umber of HGEs (Eurostat; 2016)	Me a sures average size of HGEs, an indication for future job growth potential
SME innovators	Share of SMEs with product, process, marketing or organisational innovations or innovating in-house among all SMEs ($\underline{\text{EIS}}$; 2018)	Existing SME innovativeness as predictor for future innovations
Financing HGEs indicators		
HGE availability of finance	Percentage of HGEs considering the availability of finance is not an investment barrier (EIBIS; $2016-2018$)	HGEs access to finance is considered a precondition for the development of HGEs
Venture capital seed	Share of seed venture capital to GDP (Venture Source; 2017)	Venture capital is a relevant source of finance for potential HGEs
Venture capital start-up	Share of start-up venture capital to GDP (Venture Source; 2017)	Venture capital is a relevant source of finance for potential HGEs
Venture capital later stage	Share of later stage venture capital to GDP (<u>Venture Source; 2017</u>)	Venture capital is a relevant source of finance for potential HGEs
SME access to loans	EIF SME Access to Finance Sub-index for loans, comprising the use and cost of loans ($\underline{\text{EIF}}$; 2018).	SME access to loans is an important framework condition indicating the access to loans for HGEs
SME access to equity	EIF SME Access to Finance Sub-index for equity, comprising use of equity and the sophistication of the equity market ($\frac{\text{EIF}}{2018}$)	SME access to equity is an important framework condition indicating the access to equity for HGEs $$
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 entrepreneurial 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 innovators	Innovative SMEs collaborating with others, public-private co-publications and private co-funding of public R&D expenditures (EIS: 2018).	Quality of innovations increases with collaboration and provides information on sophistication of SME innovation ecosystem, thus related to HGEs.
Most innovative region	Relative performance of most advanced region in the Regional Innovation Score board within each Member State vis-à-vis the best performing regions across all other Member States (<u>RIS; 2017</u>).	HGEs innovation ecosystems tend to be concentrated in most innovative regions/centres.

The European Commission's science and knowledge service

Joint Research Centre

JRC Mission

As the science and knowledge service of the European Commission, the Joint Research Centre's mission is to support EU policies with indipendent evidence throughtout the whole policy cycle.



EU Science Hub

ec.europa.eu/jrc



©EU_ScienceHub



f EU Science Hub - Joint research Centre



in EU Science, Research and Innovation



EU Science Hub

