



European  
Commission

ANNEX 4.4 TO THE JRC TECHNICAL REPORT

# High Growth Enterprises:

demographics,  
finance &  
policy measures

## FACTSHEET - CZECHIA (CZ)

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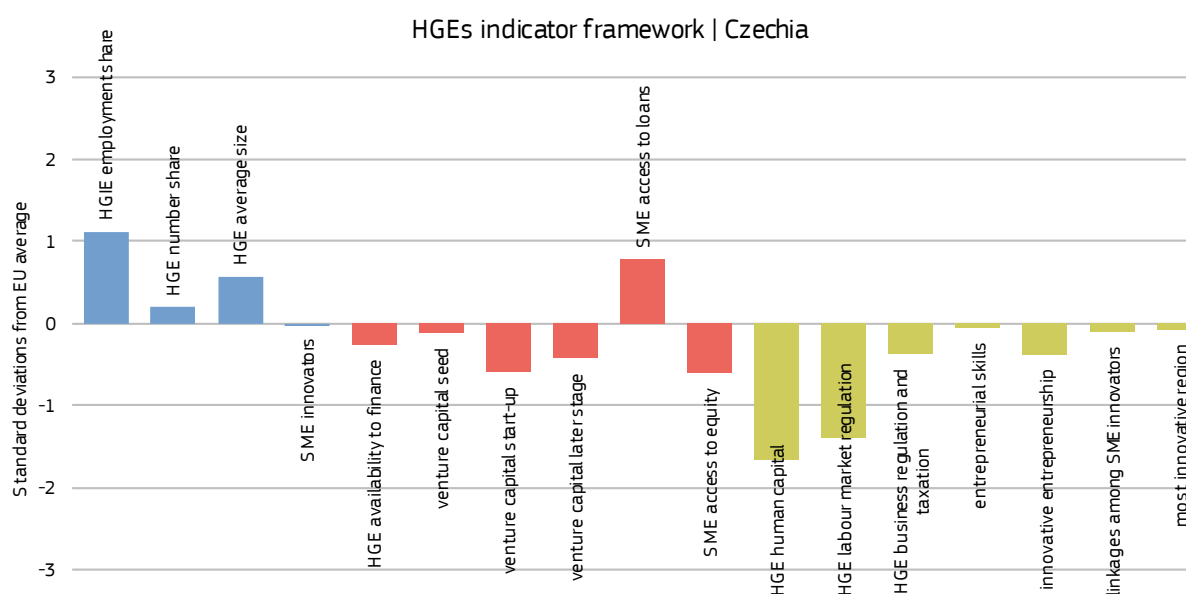
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## 1. Executive summary

High growth companies (HGEs\*) in CZ are performing above EU average, strongly contributing to the employment share. The highest share of HGEs can be found mainly in knowledge-intensive services. Although venture capital (VC) investments as a percentage of GDP are negligible, they reached the highest share in 2014, it decreased in 2015 and 2016, and then it slightly recovered in 2017. Most VC investments can be found in IT, financial and insurance activities and manufacturing, which represent a strong investment potential in CZ, and they tend to concentrate in South Bohemian region and Prague.

The overall business framework environment for CZ is below EU average. The lower level of human capital quality, less favourable market regulation and taxation, without good enough entrepreneurial approaches and innovation clusters, makes it harder for firms to grow fast. In general, CZ does not present an adequate financing environment, underperforming in terms of all the framework indicators. In particular, the equity market seems quite underdeveloped, while the generally easier access to loans may compensate this gap. Start-ups and scale-ups are not explicitly supported in CZ programmes. Thus, new policy programmes might be needed to influence the national system of innovation and create a local competitive environment for the emergence of HGEs.

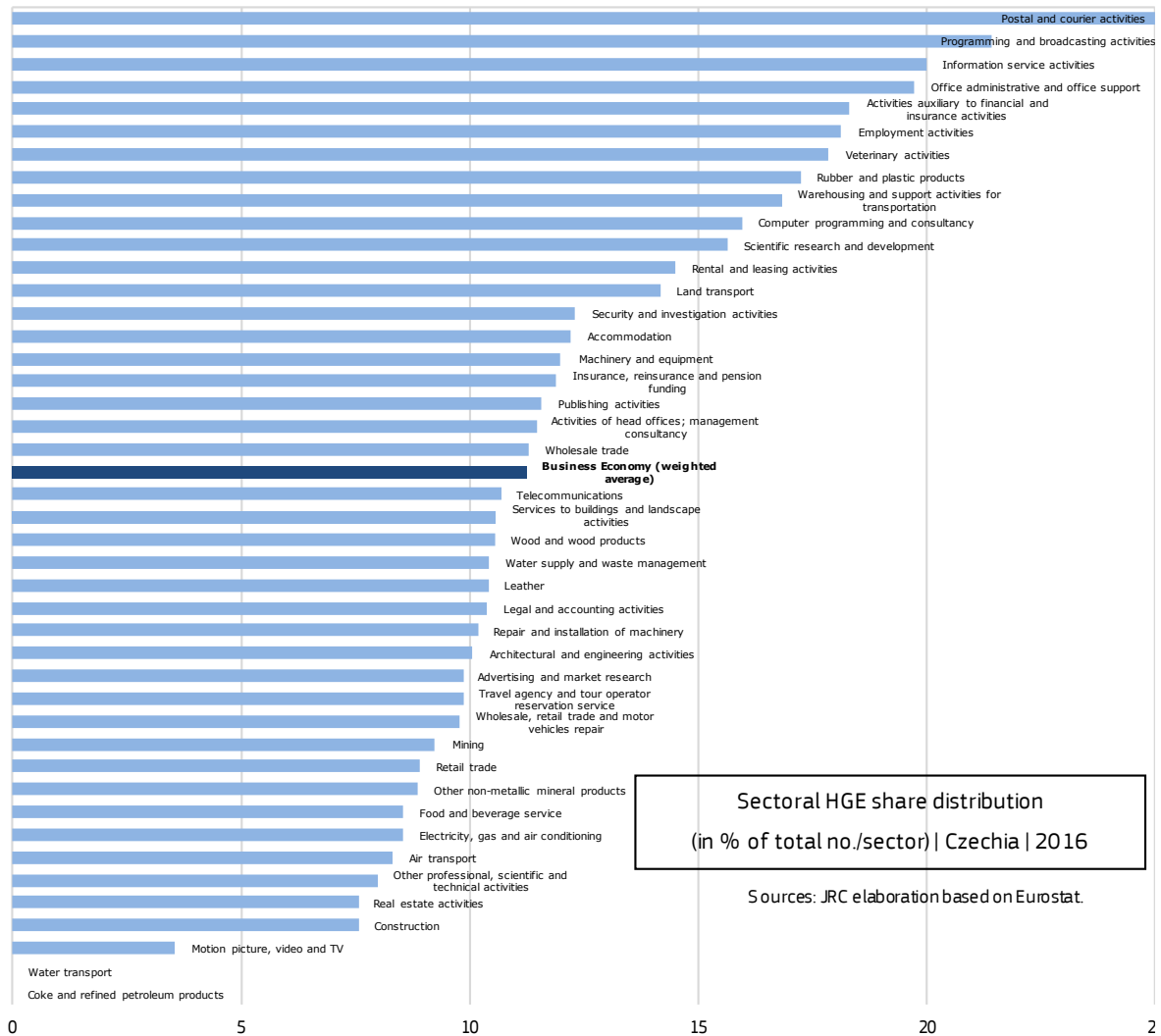
## 2. HGEs indicator framework



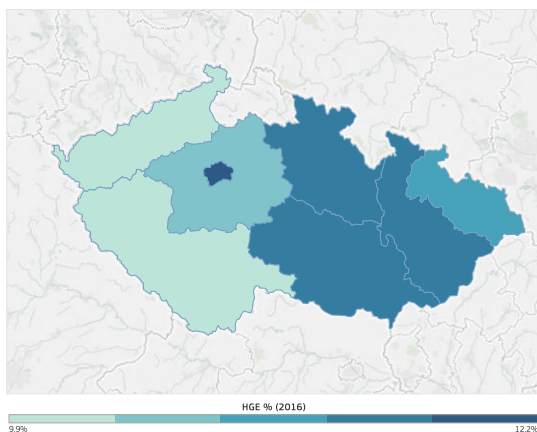
- HGEs in CZ are performing above EU average, strongly contributing to the employment share. The same positive pattern does not appear for the SMEs innovation environment.
- In general, CZ does not present an easing financing environment, underperforming in all the framework indicators. In particular, the equity market seems quite underdeveloped, while the generally easier access to loans seems to compensate this gap.
- The overall business framework environment for CZ is below EU average. The lower level of human capital quality, less favourable market regulation and taxation, without good enough entrepreneurial approaches and innovation clusters, makes it harder for firms to grow fast.
- There seems to be a contradiction between the relatively good HGEs performance and the poorer financing and framework conditions. A higher GDP growth than EU's one (3% against 2%) in 2018 may be a partial explanation, other than the relatively good export growth (around 15% in 2013-2018). Also, CZ is highly integrated into global value chains, which could also explain part of it.

\* 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



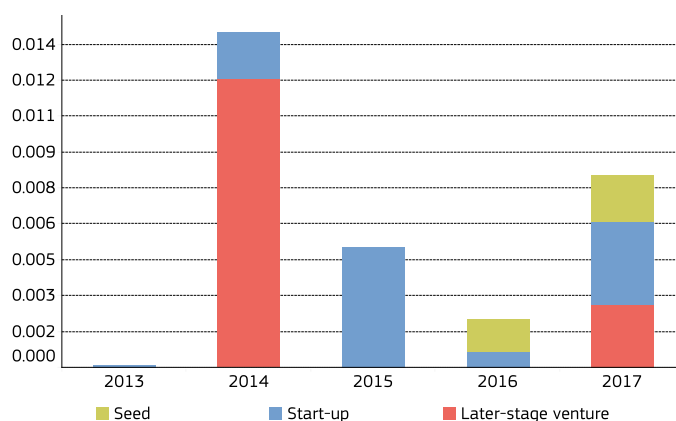
- The average share of HGEs in CZ is about 11% in the business economy. This value is in line with the 11% across the EU.
- The highest share of HGEs among active enterprises is postal activities (25%), while the lowest values pertain to motion picture, video and TV (3%).
- The knowledge-intensive sectors are predominant in the sectorial distribution of HGEs of CZ. Activities like programming, information service, office support and employment activities entail each around 20% of active firms.



- In terms of geographical concentration, HGEs are relatively homogeneously distributed in all the CZ regions, with a higher percentage in Prague and in North-east, South-east and Central Moravia regions.

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

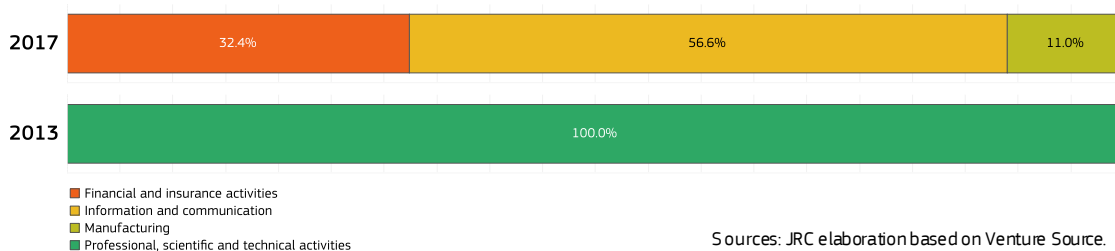
Venture capital by stage of financing (in % of GDP) | Czechia | 2013-2017



Sources: JRC elaboration based on Venture Source.

- VC investments (still low compared to the EU statistics) have undertaken an unstable trajectory in the recent years. Despite a relative boom (from 0 to 0.014% of GDP) in 2014, the level of investments slowed down in 2015/2016 to increase see another increase in 2017. It is worth noting here that this is mainly due to the lack of VC data information on different stages of financing.
- The boom and consequent drop evident in 2013 was due to the substantial investment in later-stage VC, which then dropped in the subsequent years to slowly grow again in 2017.
- Seed capital investments are only a very recent phenomenon, while the start-up environment was financed more constantly starting from 2013. The structure of VC investments is more balanced according to stage of financing in 2017.

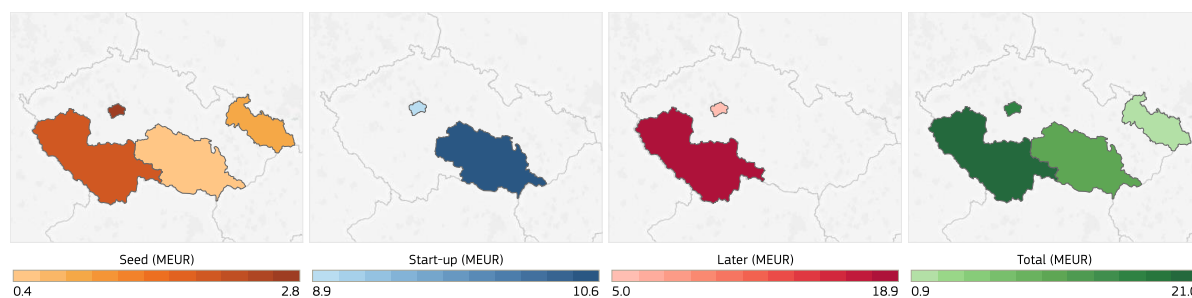
Sectoral distribution of VC investment (in %) | Czechia | 2013 & 2017



Sources: JRC elaboration based on Venture Source.

- The sectoral distribution of CZ VC investments in 2017 see the predominant position of information and communication (56.6%), with smaller investments made in finance and insurance (32.4%) and manufacturing (11%).
- The level of investments in VC in 2013 were so low that the sectorial comparison with 2017 is not much indicative. All of the VC invested was in professional, scientific and technical activities.

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



Sources: JRC elaboration based on Venture Source.

- During the period 2013-2017, the VC investment distribution across region shows different patterns according to the investment phase. The southern and western regions of Bohemia were more prominent for seed and scale-up investments, while South-Moravia was a central hub for start-up financing. Across the investment stages, Prague represented always a consistent regional venture capital pole.

### 5. Finance-related policy measures

Instrument	Investment volume per year (MEUR)	Type
Portfolio guarantee for SMEs (ZARUKA programme 2015-2023)	93	guarantees
Preferential loan under EXPANZE programme	233	loans
Central Europe Fund of Funds (CFOF) 2018-2021	24	equity
Czech Accelerator	N/A	mixed
Activities and tools realized by regional innovation centres (eg. JIC Platinn programme)	N/A	mixed

- The need for financing SMEs and try to rise the number of HGEs is aimed to be addressed by the CZ government with a few main policy measure, in the forms of guarantees, loan programs and equity support. These, though, are not targeted, in a coherent framework, to address HGEs, but firms in their early stages of growth.
- The Zaruka programme aims at guaranteeing 70% of the principal of a loan, up to CZK 4 million. It started in 2015 with the support of the European Investment Fund.
- The most important finance-related policy measure in CZ (for investment volume) is the preferential loan available under EXPANZE programme. The loan amount ranges from 1 million CZK to 45 million (can be higher for special supported activities). Even though at least 20% of eligible expenses have to be financed by a commercial bank, the State support this measure, allowing the SME not to pay interests by subsidizing them to different extents according to the region/activity.
- The Czech Accelerator and JIC Platinn programme are less important programme meant to provide technical or managerial support to the SMEs or helping them in the networking process. The CFOF, instead, is a EIF lead fund to boost equity investments for SMEs.
- CZ financial measures for HGEs are mainly national (apart from the JIC Platinn programme and other regional instruments with less importance). There are no specific sector targeted, aside from the industrial products.

## Annex: HGEs indicator framework details

Indicators	Details	Motivation
<b>HGEs indicators</b>		
HGE employment share	Percentage share of employees among HGEs in 50% 'most innovative' industries relative to total employment ( <a href="#">EIS; 2018</a> )	Measures contribution of HGEs to employment creation
HGE number share	Percentage share of HGEs of total enterprises with at least 10 employees ( <a href="#">Eurostat; 2016</a> )	Measures how many firms are HGEs
HGE average size	Average size of HGEs (employment definition); employees divided by number of HGEs ( <a href="#">Eurostat; 2016</a> )	Measures 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 ( <a href="#">EIS; 2018</a> )	Existing SME innovativeness as predictor for future innovations
<b>Financing HGEs indicators</b>		
HGE availability of finance	Percentage of HGEs considering the availability of finance is not an investment barrier ( <a href="#">EIBIS; 2016-2018</a> )	HGEs access to finance is considered a precondition for the development of HGEs
Venture capital seed	Share of seed venture capital to GDP ( <a href="#">Venture Source; 2017</a> )	Venture capital is a relevant source of finance for potential HGEs
Venture capital start-up	Share of start-up venture capital to GDP ( <a href="#">Venture Source; 2017</a> )	Venture capital is a relevant source of finance for potential HGEs
Venture capital later stage	Share of later stage venture capital to GDP ( <a href="#">Venture Source; 2017</a> )	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 ( <a href="#">EIF; 2018</a> ).	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 ( <a href="#">EIF; 2018</a> )	SME access to equity is an important framework condition indicating the access to equity for HGEs
<b>HGEs framework conditions indicators</b>		
HGE human capital	Percentage of HGEs considering the availability of staff with the right skills is not an investment barrier ( <a href="#">EIBIS; 2016-2018</a> )	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 ( <a href="#">EIBIS; 2016-2018</a> )	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 ( <a href="#">EIBIS; 2016-2018</a> )	HGEs may be constrained by existing business regulation
Entrepreneurial skills	Percentage of 18-64 population who believe to have the required skills and knowledge to start a business ( <a href="#">GEM; 2018</a> )	HGEs may require entrepreneurial spirit, skills and knowledge
Innovative entrepreneurship	Ratio between improvement-driven and necessity-driven entrepreneurship ( <a href="#">ES; 2018</a> )	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 ( <a href="#">EIS; 2018</a> ).	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 Scoreboard within each Member State vis-à-vis the best performing regions across all other Member States ( <a href="#">RIS; 2017</a> ).	HGEs innovation ecosystems tend to be concentrated in most innovative regions/centres.

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