



ANNEX 4.3 TO THE JRC TECHNICAL REPORT

# High Growth Enterprises:

demographics,  
finance &  
policy measures

## FACTSHEET - CYPRUS (CY)

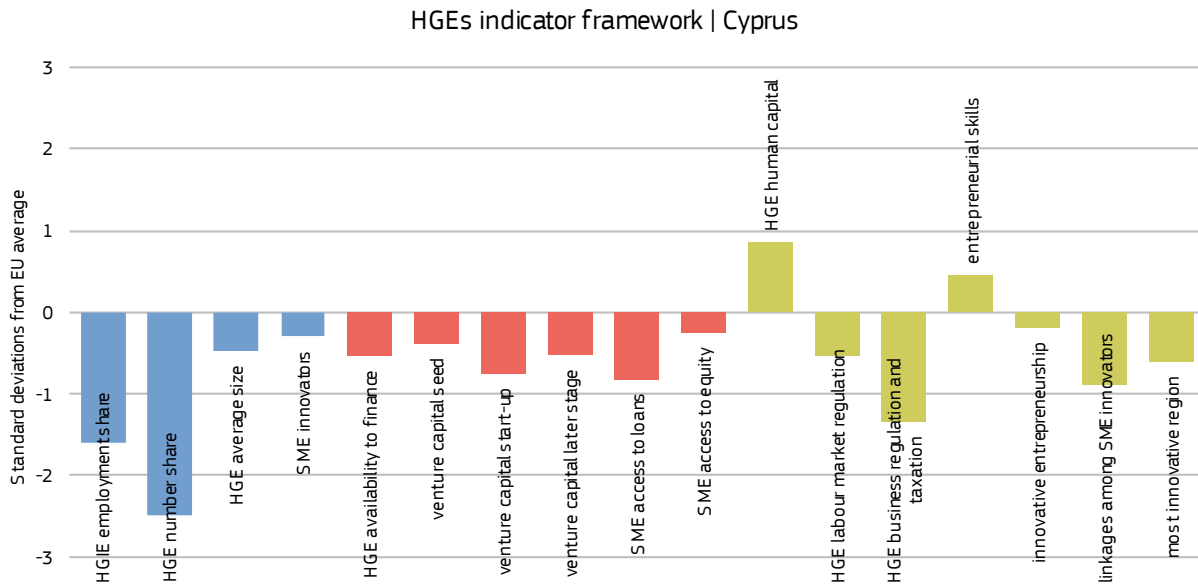
F. FLACHENECKER  
J. GAVIGAN  
X. GOENAGA BELDARRAIN  
G. PASI  
N. PREZIOSI  
B. STAMENOV  
G. TESTA

## 1. Executive summary

CY overall underperforms in factors determining the development of high growth enterprises\* (HGEs). The employment and number share of HGEs in CY are far below the EU average. The generally weak performance of the innovation ecosystem in CY impedes the development of HGEs. The emergence of HGEs is also impaired by the below-EU average accessibility to finance and most framework conditions with the notable exception of entrepreneurial skills and HGE-related human capital. The latter aspects could partly explain the flow of venture capital (VC) towards CY, although with a high variation in the stage of financing. The availability of staff with the right skills is an important condition for investments by HGEs. CY performs above the EU average for this indicator. The possession of adequate skills is also reflected by the higher than EU average proportion of the working-age population who believe they have the required skills and knowledge to start a business. The sectoral distribution of VC investments is not diversified, but rather concentrated in a few sectors such as ICT in 2013 as well as financial and insurance activities and education in 2016. The most significant stage for VC financing over the years 2013-2016 is related to start-ups.

The conditions for HGEs could improve by supporting the development of a VC market and relevant HGE framework conditions. Furthermore, CY is far below the EU average in terms of the share of employment held by HGEs. In addition, access to finance indicators are also underperforming with respect to the EU overall. The financing gap is an aspect that CY could address to improve the overall performance of the country. The CY scores regarding business regulation and taxation show additional constraints for investment decisions by HGEs.

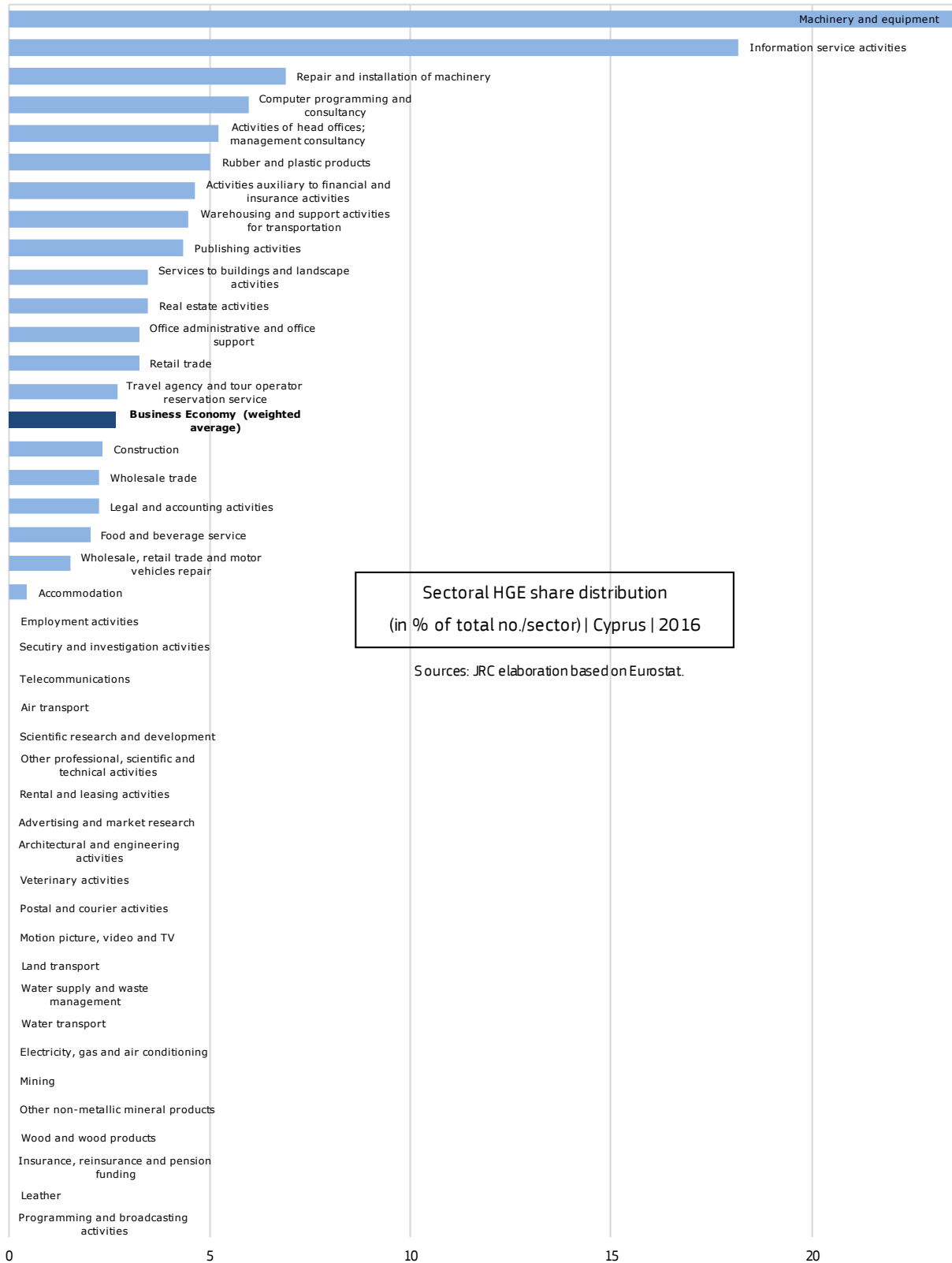
## 2. HGEs indicator framework



- CY performs below the EU average in several indicators, especially in terms of its percentage share of HGEs of enterprises with at least 10 employees, HGE business regulation and taxation, and linkages among SME innovators.
- The presence of HGEs could improve through the availability of HGE-related human capital and entrepreneurial skills.
- CY could further improve the conditions for HGEs by supporting the development of a VC market and the regulatory environment related to HGEs, and enhance the overall linkages among SME innovators.

\* In line with Eurostat, HGEs are defined in this factsheet (unless otherwise stated) 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



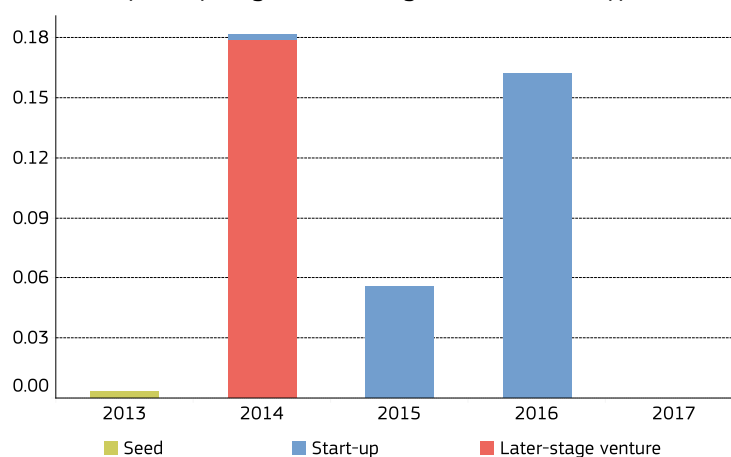
Sectoral HGE share distribution  
(in % of total no./sector) | Cyprus | 2016

Sources: JRC elaboration based on Eurostat.

- The average share of HGEs in CY is around 3% across the business economy, ranging from 0.4% in accommodation and 25% in machinery and equipment.
- The highest shares of HGEs are found in medium-high tech industries such as machinery and equipment; knowledge-intensive industries as information service activities; and medium-low technology sectors such as repair and installation of machinery.

#### 4. Financing HGEs and start-ups: the role of venture capital<sup>†</sup>

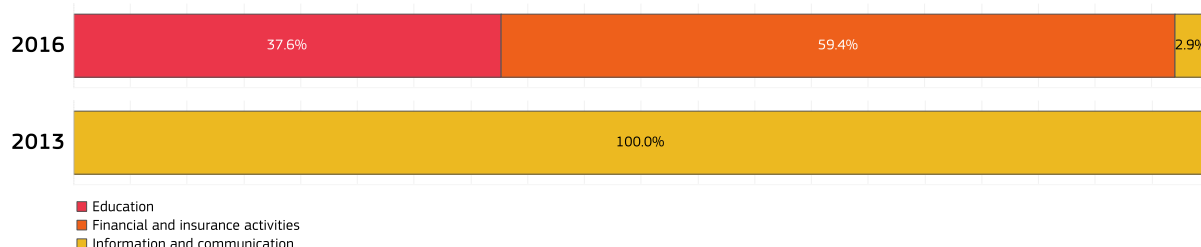
Venture capital by stage of financing (in % of GDP) | Cyprus | 2013-2017



Sources: JRC elaboration based on Venture Source.

- CY has overall increased VC investments as a share of GDP since 2013 until 2016, but has experienced a reduction in 2015 with respect to 2014. Generally, there are stark year-on-year changes in VC investments, both in terms of the amount as well as the distribution among stages of financing.
- The share of start-up ventures has substantially increased in CY, particularly during 2016. Later stage ventures appear only in 2014. The size of investments in seed companies is minimal and present only in 2013.

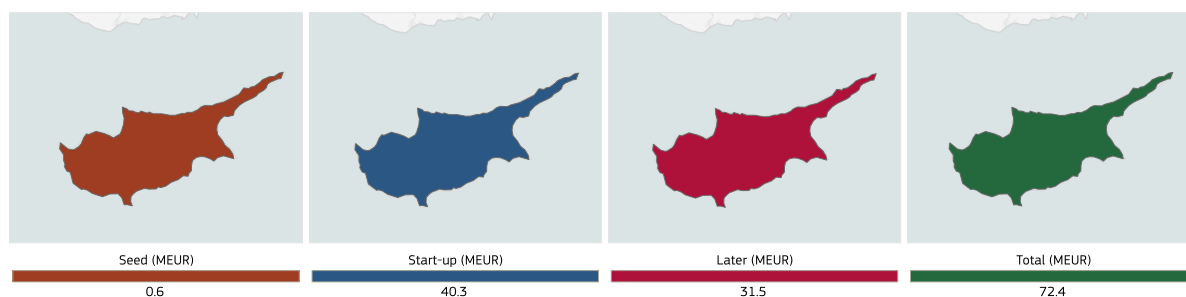
Sectoral distribution of VC investment (in %) | Cyprus | 2013 & 2016



Sources: JRC elaboration based on Venture Source.

- The sectoral distribution of VC investments is not diversified, only very few sectors receive most investments, such as ICT in 2013, and financial and insurance activities as well as education in 2016.
- The sectoral distribution of VC investments did change substantially across time.

Regional distribution of VC investment by stage of financing (in MEUR) | Cyprus | 2013-2016



- Over the period 2013-2016, there is a prevalence of start-up VC investment with respect to all stages of financing.

<sup>†</sup> It would appear how CY receives no VC during 2017, however such an outcome is heavily contingent on data availability and missing values.

## 5. Finance-related policy measures

Policy Measure	Duration	Target	Value (€)
Government Guarantees to the European Investment Bank	2 to 12 years	Businesses incorporated and operating in CY, employing up to 3000 employees	€1.5m up to €12.5m
Risk Sharing Loans (through the Cyprus Entrepreneurship Fund)	N/A	SMEs	€140m
Guarantees/Risk Sharing through InnovFin SME Guarantee	N/A	SMEs and mid-caps (250-499 employees)	€20m
Tax incentives introduced by the Ministry of Finance	5 years	Innovative businesses and start-ups.	Relief up to 50% of an investor's taxable income, and a deduction of up to €150,000 per year

- Aside from R&I grants which address the needs of HGEs<sup>‡</sup>, the main publicly supported financing instruments are:
  - Government Guarantees to the European Investment Bank (EIB) for loans of €1 billion in collaboration with Cyprus-based commercial banks. The beneficiaries of the scheme are Cypriot businesses incorporated and operating in CY and employing up to 3,000 employees. The loan amount ranges from €1.5m up to €12.5m in each case with a duration of 2 to 12 years. The financing terms include low interest rates, choice of fixed or floating rate, long repayment periods, grace periods of up to 2 years for repayment of principal, more favourable interest rate - 0.5% lower - to enterprises that meet the “Job for Youth” criteria, pricing set according to the enterprise’s risk. All economic sectors are eligible except weapons and arms, gambling, tobacco, pure real estate development activity and pure financial activities (e.g. trading in financial instruments).
  - Risk Sharing Loans (through the Cyprus Entrepreneurship Fund) in collaboration with the EIB and the private sector banks of CY. The scheme budget is at €140 million.
  - Guarantees/Risk Sharing through InnovFin SME Guarantee with a budget of €20 million.
  - Tax incentives. The Ministry of Finance has introduced tax incentives to encourage investment in innovative businesses and start-ups. The incentives provide tax relief on investments of up to 50% of an investor’s taxable income, and a deduction of up to €150,000 per year which an investor can spread over a 5-year period. The incentives apply to investments in innovative companies in the form of shares, loans or grant guarantees.

<sup>‡</sup>Most participations in the national funding scheme for R&I come from enterprises.

## 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="#">EIS; 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.

## 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 independent evidence throughout the whole policy cycle.



### EU Science Hub

[ec.europa.eu/jrc](https://ec.europa.eu/jrc)



@EU\_ScienceHub



EU Science Hub - Joint research Centre



EU Science, Research and Innovation



EU Science Hub

