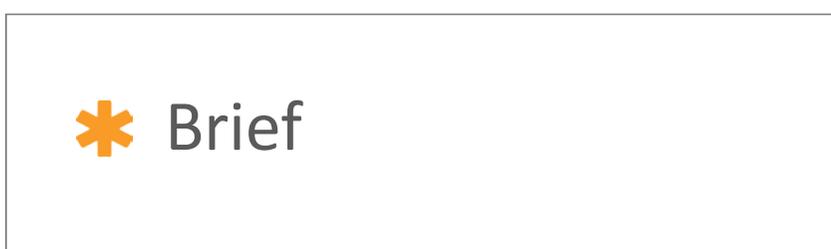
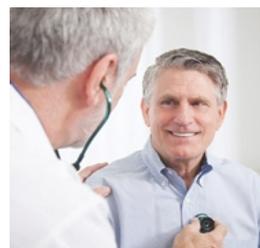


Barriers to growth for the biopharmaceutical sector in Europe



Our findings based upon the comparative analysis

- **Companies with annual R&D expenditures > €1bn or revenues over €4 billion (large biopharmaceuticals)**

The largest European and US companies are very similar in terms of growth and R&D intensity. All along the value chain these companies are active investors through licensing contracts and corporate acquisitions.

- **Companies with annual R&D expenditure between €100-999m (mid-size biopharmaceuticals)**

European companies have significantly lower growth and R&D intensity. There is a sharp division in this category between EU companies, which are long-established companies with established portfolios of market and R&D products which traditionally have funded their business out of profits, and US companies using advanced biologics technologies often funding growth through IPOs.

- **Companies with annual R&D expenditure between €30-99m (small biopharmaceuticals)**

The most notable feature of this category is that there are far more US based companies than EU ones. US companies commonly originate from one of the US clusters and appear to be willing to take on high debt levels to achieve rapid growth, whereas their EU counterparts adopt a more conservative approach.

We have considered five factors that may contribute to the superior growth of the US originated companies compared to that in the EU

- **The science base:** Although the quality and quantity of fundamental research is broadly similar in the EU and the US, retrospective studies suggest that the origins of more useful commercialised medicines can be traced back to basic research in the US. US academic researchers appear still to have a greater aptitude to seek useful applications for their discoveries.
- **The environment for development:** There are fewer top class academic-industry bioscience clusters in the EU, which have the 'critical mass' of capabilities, both technical and commercial, to sustain locally portfolios of micro and SME companies growing along the value chain.
- **Sources of private finance:** The scale and international scope of specialised bioscience private venture capital funds, which support the early development phases of proof of concept and safety testing are less well-developed in the EU. Equally important, these weaknesses in European funding extend to other sources of funding and the later stages of product development.
- **Sources of public funding:** Public funding sources in Europe are providing investment support to companies, but this is focused on the earliest stages of their development and on particular types of companies.
- **Market demand:** Cost containment in the European market has made commercialisation of products far more challenging and this has reduced the incentive to invest in R&D. It is not clear that this is a significant disadvantage for micro and SME European companies compared to US companies. Cost containment in Europe has significantly impacted EU mid-sized companies.

Policy implications

- **Market failure:** We concur with previous studies in recognising that EU financing for micro and SME companies suffers from market failure (due to lack of track record, asymmetry of information between the company requiring funding and the investor and weaknesses in the European investment industry). However, evidence that this is limited to micros and SMEs is weak.
- **Mid-size companies:** The weaknesses in the growth of the European pharmaceutical industry goes beyond SMEs and encompasses a key sub-set of mid-size companies, which invest up to €1 billion each annually in R&D and have annual turnovers of up to €4 billion. The weaknesses in the funding of European companies go well beyond weaknesses in the European venture capital industry and the earliest stages of product development.
- **A broader perspective:** There is a need for future EU public strategies and policies for the biopharmaceutical industry to take a broader view of the innovation process, including the expensive late stage development and commercialisation stages. A more integrated European Commission and Member State approach is needed.
- **A new investment plan for Europe:** More recently, the European Commission has gone further by introducing a new investment plan for Europe to support funding for SMEs and for mid-cap companies. This is helpful but a selective approach to supporting specific categories of projects for biopharmaceutical companies could be justified.
- **An exploratory dialogue:** In conclusion, increasing the flexibility of public support for later stage development projects for mid-sized companies is worthy of further investigation.