Summary

RISE workshop on **Financing for Innovation**

Framework conditions and incentives

28 June 2017

The workshop focused on three themes related to *financing innovation,* namely 1) financing gap from start ups to scale ups, 2) market creating innovations and mobilising corporate investments into R&I and 3) innovative tools and instruments for R&I investments. In addition to the RISE Members working on the theme and the invited speakers, the workshop brought together colleagues working on related themes. This closed format ensured a lively and in-depth discussion.

Welcome address by RISE Member Francisco VELOSO, Dean at Imperial College London Business School

The welcome address was provided by Francisco Veloso by setting the scene for the workshop. The RISE Group was set up to provide support in realising Commissioner Moedas' R&I policy priorities. This work culminated in the recently launched (15 May) RISE book which also elaborates the EIC concept. However, the R&I financing was not covered thoroughly in the book, highlighting the importance of the workshop and future work on the topic. Veloso noted that some talent may be hidden in pockets that are not reached through normal means and instruments. Therefore there is a need to have an open perspective and to look at ways to support e.g. start-ups that are not covered by existing instruments. For this, an even broader set of support is needed. In addition, in today's volatile world identifying promising disruptive ideas is extremely difficult, and often an iterative process. Therefore, instruments that are either going to finance everything or alternatively 'play safe' by being overtly diligent may not be best suitable for the prevailing R&I environment. To that end, flexibility and adaptability are necessary features also for future financial instruments. As for the EIC, it should be complementary to existing institutions and is not meant to replace them as e.g. the SME instrument is already implementing some elements foreseen for the EIC. To that end, there are synergies to be found as well as complementarities between the instruments. However, the RISE Group sees various problems when it comes to using different, often overlapping, funding instruments. To that end, discussing, identifying and distilling problems and solutions are necessary and to be linked with the EIC development.

1st session: Finance gap – from start-up to scale-up

Alberto Onetti set the scene for the session by presenting two recent studies focusing on the start-up/scale-up issues. Whereas start-ups as a dynamic phenomenon are very difficult to define and capture in terms of numbers, for analysis purposes it is more useful to focus on scale-up companies as they are more established. With a given definition and methodology, it can be calculated that there are 3950 scale-up companies in EU28 that represent 55.6bn€ in

raised capital. Noteworthy, however, is that 1412 of these companies are located in the UK, representing 35.4bn€ in raised capital. The effect Brexit will have on the EU start-up/scale-up scene e.g. in terms of company location and investments is unclear. The top ecosystems for scale-ups can be found in the UK, followed by German, France and the Nordics which are punching above their weight in terms of number of companies versus capital raised. What is noteworthy, however, is that the VC industry launched in the Silicon Valley already decades ago, where as in the UK the industry has been active 8-10 years while in continental Europe only 3-5 years. In other words, whereas the US and the UK have a head-start, the continental Europe is still maturing. Here, Europe is catching up. It continues to hold true that Europe is still a good place to start up a business, but less so to scale-up a business. Against this background, dual-firms (presence in two or more countries) most typically relocate to the US, and in case of Europe, in London. The main reason for relocating outside the country of origin is simply access to capital, while also access to markets and proximity to strategic partners also play a major role. Noteworthy is, however, that dual companies typically leave operations also in the country of origin e.g. because finding talent, skills and workforce is somewhat easier in Europe in the country of origin (cheaper, more loyal, quality is consistent, larger pool etc.). While European scale-ups are still suffering from a funding gap, becoming a dual firm is not a problem per se: they still contribute to jobs and growth also in Europe.

In the following discussion it came apparent that Europe dwarves compared to the US and Asia in terms of unicorns with 1 bn € valuation. This is partly due to the lack of risk capital. However, noteworthy is that there is much more funding available for SMEs in Europe compared to SMEs in the US. The problem is how to complement or mix forms of funding, e.g. equity and quasi-equity instruments. Another issue is how to unlock the capital assets of European pension funds and direct investment in European companies where the EU FoF will hopefully enable pension funds to invest into the European VC ecosystem. Possible solutions could include for instance creating a EU start-up passport with common rules, as well as raising awareness of using equity instead of grants and debt-instruments. Here, another solution could be to explore the possibility for venture debt instruments as a way to provide more capital for the scale-up stages. Third potential solution would be to increase the investment capacity where the EC is on the right path in doing that e.g. by repealing and replacing the Prospectus Directive.

Moreover, a notion that was echoed throughout the discussion was that the fragmentation in the EU risk capital markets is still a major problem. Another major issue is the growth stage trap, where 44% out of companies that made an exit in recent years had been bought by non-European entities, i.e. American investors/companies. This is a strong indication that Europe continues to nourish and incubate companies that will eventually be bought by mainly US based entities. While the EIF has many instruments -such as the InnoFin and EFSI- aimed at overcoming some of these problems by e.g. supporting FoFs and Angel investors, more would need to be done to help companies benefitting from H2020 funding. For instance, companies receiving funding from the SME instrument and in the need of further financing might not be catered through existing instruments. The question is how to better help these companies and link the companies with private investors? As a solution, the SME instrument website could

be adapted to investor needs so as to link the companies and investors better. Another way of mitigating these problems could be a single EU equity flag ship initiative with a single budget and a single set of rules. In this context, also streamlining the regulatory framework and reducing uncertainties should be considered.

While some US VCs invest in Europe through European VC funds, direct US investments into European companies located in Europe is rare as US investors usually require local presence. A question then is, how could US investments into Europe based companies either directly or through European VC funds be incentivised further?

Key points from 1st session:

- Alberto Onetti – Mind the Bridge: Ecosystem growing, uneven but promising, late stage missing.
- Cedric Pacheco – Association of Financial Markets: Debt availability not matched by equity and quasi equity availability and awareness
- Minerva Elias – European Innovation Fund: Key to have EU flagship initiative, single set of rules, reporting and contact.

2nd session: Market creating innovations – mobilising corporate investments into R&I

Anna Sandström, Science Relations Director for Astrazeneca, set the scene for the 2nd session by elaborating how R&I policies can enable research intensive global companies to contribute to and prosper in a vibrant innovation climate. As a form of open innovation, Astrazeneca has set up a platform where companies can interact without any commitments to see what synergies can be found between companies operating in different sectors. This practice has been taken up also by other MNCs in Sweden such as ABB. As 3.7% of total Swedish export of goods is by Astrazeneca, cross-sectoral cooperation is therefore extremely important. Together with other biopharmaceutical companies, Astrazeneca is dependent on public policies as they are operating in a highly regulated sector. There is a great interdependency between companies the public sector as well as end-users as blue sky research is not only finances through public money but also the end products come into the public realm. Incentives as earmarked grants acting as carrots are needed from public policy so as to make the R&D climate more attractive. On the other hand, enhanced collaboration between big and small companies depends on five factors: i) incentives and lower thresholds to participate, ii) right competences based on research questions, iii) the right chemistry between the collaborating companies, iv) and commitment in the team, as well as v) agreed objectives on the process and outcomes to allow breakthrough results to emerge through consortiums. To create an attractive climate for R&D, public co-funding is needed to incentives and enable big companies to be actively involved with academia and smaller companies. As a way of example, the Astrazeneca's incubator programme is part of their open innovation initiative. However, in the open innovation landscape good contractual basis and agreements are essential. For big (research intensive) companies protecting their inventions is important

while in some cases particularly in consortiums small companies and academia might even be protected more efficiently. In consortiums, in-licencing is often the way Astrazeneca develops results further or acquires them rather than through M&S.

In the following discussion it was emphasised that the current narrative in Europe is too narrow with the focus on digitalisation while circular economy, health etc. have different dynamics. We would also need to broaden our horizon beyond the US as there's a lot happening also in China, India and the developing countries. As for releasing the capital from big companies, the question is why big companies are so hesitant to release the resources. However, while some large US based ICT companies are more eager to invest; the question is how to incentivise e.g. European companies to invest as well and what the EU could do in this regard? As a potential partial solution, the EU programmes could have an important role in linking global companies with e.g. developing countries. In addition, challenge-driven approach could perhaps be used on European level as well to address the issues. However, important one important area of focus in addressing the issues concerning interaction between big and small companies is innovation friendly regulation. In this regard, e.g. public procurement still has unexploited potential.

The EU –e.g. in the context of the EIC- should also take into policy consideration the start-up and spin-off activities of big companies as large companies are good at scaling up the(ir) start-ups and spin-offs and most of such successful companies in fact stem from existing companies. However, these companies also struggle but operate under the public support radar. Also important to keep in mind and integrate into the policy approaches is that more than half of R&D expenditure in EU stems from large companies and therefore collaboration with large companies is very important. One solution -explored by Astrazeneca and Vinnova- to leverage the resources of big companies is to see whether larger companies can partner with VC funds to see whether their spin-off/out activities could be financed in a structured way. While the legend persists that big companies hog up most of the H2020 or public support, the H2020 interim evaluation notes, however, that only around 11% of funding for companies goes for large companies. Big companies needed to participate in the EU R&I framework programme as they are the ones that disseminate e.g. research results. In this regard, a mission-oriented approach would be endorsed, as then actions can really focus on achieving the objectives and this would also help getting closer to citizens. As for the current funding structures, a lot of money is currently being invested in the so called zombie SMEs not developing anywhere simply because of the employment factor.

Key points from 2nd session:

- Anna Sandstrom – Astrazeneca: Internal venturing programs, piloting spinouts.
- Lennart Stenberg – Vinnova: Not only digital deep tech very promising.
- Jan van den Bisen – former Phillips: Large companies much better at scaling, EIC should support them also.

3rd session: Innovative tools and instruments for R&I investments

Thomas Mayer, partner in the Open Evidence study team, set the scene by elaborating the DG RTD commissioned study findings on 'New Financial Instruments' for innovation. New financial instruments and instruments that could be used for innovation financing include e.g. performance based loans and royalty based funding. One of the main conclusions from the study was that the instruments should be kept flexible instead of being rigid. Prizes could also be considered as incentives for innovation. Whereas grants are a reward for the process with no guarantee of the results, prizes work the other way around and could reward the outcome, not the process. To this end, one approach could be to consider VC as a prize. While prizes may not necessarily be any better than grants, public policy makers have become so used to grants based thinking that thinking out of the box has been lost.

In the following discussion it was noted that prize schemes could infact provide a good deal flow e.g. to VC investors and flush out new fresh innovations as well as be used to incubate ideas and teams. Prizes are also a good way for finding and validating technologies while they're less good in validating management teams. However, prizes are not suitable for everything. For instance, prizes are not optimal for basic research as it's still far away from the markets, or in cases where the markets are too slow and small or where only one solution is needed to solve a problem. In this regard, prizes should be considered as complimentary approach to grants while they are good for technology validation and preparing the field for leveraging private investments into the innovative endeavours. While prizes are therefore not the only instruments, they work well with a clearly defined problem and objective. As the approach can be combined with other financial instruments, NESTA is for instance experimenting ways to combine prizes with grants, crowdfunding and the use of debt instruments.

Another item discussed was while Europe has a lot of wealth e.g. in terms of high-networth individuals and family trusts, how this wealth could be tapped into so as to steer 'dormant' money into innovations. The question then becomes, how to incentivise these private investments into innovations? While Europe has a lot of un-harnessed private wealth, it is noteworthy that the US has more family offices whereby the also invest into entrepreneurship unlike in Europe. These types of institutions are currently lacking from the European innovation financing landscape. Against this backdrop it was discussed whether prizes could then be considered as incentivising investments into innovation in addition to steering innovation. According to the experiences from the US prize schemes suggests that in the first instance prizes can be used to steer not only innovation abut also investment thinking in the right direction, while at a later stage they can also be utilised as an incentive to investments once the TRL levels and proof-of-concepts are at a right level. In this regard, prizes optimally can stimulate new markets and investments. However, it was concluded that should the European Commission start to utilize prizes schemes in a large scale, a multi-stage approach would be advisable.

Key points from 3rd session:

- Thomas Meyer – LDS Partners: New financial instruments complementary to grants and take more risk, address gap. European LPs only look at return, no affinity to innovation.
- Christopher Frangione – Xprize: More than a prize, an incubation for innovators, deal flow for VCs, accelerates solutions market would not pick up.
- Marco Zappalorto – Nesta: Innovation foundation: market failures identified and solutions designed (financial instruments, prizes etc).

Conclusions

In his concluding remarks Saïd El Khadraoui, the European Political Strategy Centre, noted that R&I financing needs to be tied and considered with other policy initiatives and budget instruments and cannot therefore be treated in silos. In this regard, e.g. long term markers as the SDGs and the Paris Climate Agreement work as reference points. To be able to achieve these targets, the different pieces of the puzzle need to be put together and the dots connected. From a societal point of view, the economies need to be renewed and made robust so that they can absorb future shocks. For instance in the case of the Energy Union, the climate and energy provides the framework for the future activities. In addition, also other internal market measures, the skills agenda, Europe on the move etc. need to be put in place as well as external policies relevant for global value chains. In all these initiatives financing is at the very heart as a cross-cutting issue and therefore blending different instruments as well as private and public funding is essential. Another important element is consistency with the financial instruments to be able to address all barriers even beyond access to finance. Therefore, a holistic approach to finance is needed while also having tailor made and flexible instruments which adapt to market needs without being overtly complex or overlapping. The instruments also need to be competitive in relation to each other. There's also evidence that Europe is doing somewhat well in terms of R&I albeit finance and access to it still remains a problem – the companies in Europe are not able to reach their full potential, which is an issue that policy makers need to address. In other words, there's a need to put in place the right mechanisms to address the issue. The Fund-of-Funds, being prepared by RTD, ECFIN, GROW and EIF, will hopefully address some of the issues raised during the workshop. However, it needs to be remember that even in the US the VC market is not purely privately run as there are public mechanisms (e.g. in the form of guarantee systems) that facilitate the markets. Therefore, it's not only about creating the right instruments but also having a holistic view to how to create suitable ecosystem conditions. There is a need to have some political steering in order to streamline and optimise the use of EU financing instruments since over the years each EC service have created independent and autonomous instruments which are nowadays often overlapping and confusing.

RISE Member Stephan Morais closed the workshop by noting that the tech and VC industry is developing positively in Europe and there's a need to stop beating ourselves over nothing. Europe has a lot of qualified and skilled people, even more than in the US. Moreover, the companies are creating lots of jobs and growth across Europe while making Europe less concentrated than the US. There is also a growing pipeline of new companies and start-ups in Europe. The question then, again, is whether there is enough funding available for the companies. As became apparent during the workshop, acquiring scale-up capital (B round onwards) is difficult in Europe. Noteworthy is that Europe has a vibrant deep- tech (AI, machine learning etc.) start-up ecosystem. US companies are also establishing foothold and presence in European countries as there is skills and qualified workforce available in Europe. Europe is producing big scale-up companies with an increasing speed, which are also already acquiring companies themselves. In other words, it is no longer only US companies acquiring promising European companies anymore. One big difference between the US and Europe is, however, that in the US the pension funds allocate a fraction of their assets under management to VCs where as in Europe this is not the case. Having European pension funds allocating funds for VC investments would make a huge difference in private financing for innovative companies in terms of available capital. On the other hand, small local VCs drag down the overall performance of the VC markets and might distort the markets (Series A). As for Series B and C (scale-up) phase, there are not that many VCs in the markets in Europe and there is also a lack of European LPs for the scale-up phase. However, there are several ways to remedy this problem such as fiscal or other kind of nudging to pension funds and others to invest into VC. There’s a need to substitute the 'not-so-sophisticated' public money poured into VCs with more sophisticated private money (such as pension funds), and for this incentives are needed.