A Digital Union — Increasing Competitiveness in the Single Market

A brief essay for the European Commissioner for Digital Economy and Society, Andrus Ansip

"Software is eating the world" — an adage originally propagated by venture capitalists in Silicon Valley[1] has become the buzz-phrase of the global economy. One industry after the other, from telecommunications, retail, the hospitality business, to most recently public transportation, has been "disrupted" by digital ventures. Harnessing computational power, economies of scale and networks effects, newly founded companies can capture markets of millions of people through their smartphones with unprecedented speed. Their "creative destruction", powered by exponential growth, eventually leads to the demise of the incumbents. This development is not a trend limited to the emergence of a digital economic sector, as it was the case during the dot-com era. Instead, the *entire* economy is becoming digital: Digital investments already drive 50% of all growth in productivity in the EU and — while the European economy as a whole is still just slowly recovering from the 2008 financial and subsequent sovereign debt crisis — the digital economy is growing at 12%[2]. Recent advances in deep learning and the prospect of artificial intelligence hint at even higher growth in the future. Given these economic trends, Europe's future prosperity will be largely determined by how well it can foster an innovative entrepreneurial environment that produces high-growth technological enterprises.

Problems

Unfortunately, the EU is ill-equipped to embrace the digitalization of the global economy. It cannot keep pace with its competitors overseas, as evidenced by the fact that

1 Andreessen, Marc. "Why Software Is Eating The World." Andreessen Horowitz, 20 Aug. 2016. Web. 24 Apr. 2017. <http://a16z.com/2016/08/20/why-software-is-eating-the-world/>.

2 "The European Union Explained: Digital Agenda for Europe." European Union, Nov. 2014. Web. <https://europa.eu/european-union/file/1497/download_en?token=KzfSz-CR>.

none of the world's highest-valued technology companies[3] were funded in Europe. They all emerged from the United States or, more recently, China. If one were to combine the market capitalization of all European unicorns — startups with a valuation in excess of $1bn — founded since 2000, one would reach $120 billion[4]. This figure pales in comparison with individual American internet businesses such as Facebook ($429bn), Amazon ($438bn), or Google ($623bn). The EU's lack of competitiveness can be explained by several structural deficits:

1. **Insufficient funding** sources for high-risk ventures.
2. A linguistically, culturally and legally **fragmented market**, making it difficult to scale a product across countries.
3. An **underdeveloped entrepreneurial culture** which does not embrace failure.

Let us look at each of these areas in detail.

Traditionally, European firms have relied on credit from the banking sector for funding.[5] This approach works well for companies with a proven, viable business model which have an established stream of revenue and can show financial guarantees. Yet, the system falls short for innovative, high-risk ventures whose utmost priority is rapid growth amid unclear success prospects. In the US, different sources for funding are available for companies that fall into the latter category, namely venture capital (henceforth VC) and, for later stages, the stock market. This diversity of financing options and less reliance on the banking sector is one of the reasons why the US economy has been more dynamic in its recovery following the 2008 crisis. With a comparatively underdeveloped VC sector — VCs invested more than 5.4 as much money in the US than in Europe and closed deals worth $72.4bn in contrast with $13.5bn in the EU[6] — European startups raise only about one

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3 With the exception of SAP, a business-to-business rather than consumer-facing enterprise.
4 Pethokoukis, James. "Why Europe Failed to Match America's Tech Boom." American Enterprise Institute, 09 Sept. 2016. Web. <https://www.aei.org/publication/why-europe-failed-to-match-americas-tech-boom/>.
5 Law and Public Policy Opinion EuropeGlobal Focus. "Europe's Financial Reforms: What Are the Next Big Changes?" Knowledge@Wharton. N.p., n.d. Web. 25 Apr. 2017. <http://knowledge.wharton.upenn.edu/article/europes-financial-reforms-next-big-changes/>.
6 Levin, Eugene. "Why Europe Lags behind the US in VC Investment." VentureBeat. N.p., 13 Mar. 2016. Web. 25 Apr. 2017. <https://venturebeat.com/2016/03/13/why-europe-lags-behind-the-us-in-vc-investment/>.

third of the capital which their American counterparts can secure.[7] Especially given the winner-takes-all proposition of many digital markets and therefore the necessity of exponential growth, these early differences accumulate and can decide on who will capture the entire market.

The funding gap is particularly large for later-stage funding. This means that European startups are able to raise seed capital of on the order of $1.5-4m dollars, but do not succeed in subsequently finding investors willing to finance further rounds (Series B) which are necessary to keep growing.[8] Closing the funding gap will be the single biggest boost for European entrepreneurs.

The Single Market encompasses more than 500 million of the most affluent consumers in the world, 340 million of them paying with the Euro. Yet, the market is quite heterogeneous compared to the one of the United States with 324 million citizens who speak the same language and share a common culture. [9] The European fragmentation makes the go-to-market strategy more complex, as companies have to make adjustments to serve customers from different member countries with different languages and expectations. A European startup that saturates all of the French and German market with an innovative business idea will likely lose in the world-wide race against an American competitor that can "scale" its operations domestically and grow much larger before expanding internationally.

The European digital market is furthermore fragmented legally. Differing intellectual property laws, geo-blocking of content and roaming, make it harder to develop truly European businesses with truly European customers. The best example for this legal hindrance is Spotify. The Swedish music streaming service could not expand quickly from its strong markets in Scandinavia and the UK into the rest of Europe, since it had to negotiate individual licensing agreements for each member country. This red tape prevented it from pursuing global expansion earlier, giving US competitors such as Apple,

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7 Levin, Eugene. "Why Europe Lags behind the US in VC Investment." VentureBeat. N.p., 13 Mar. 2016. Web. 25 Apr. 2017. <https://venturebeat.com/2016/03/13/why-europe-lags-behind-the-us-in-vc-investment/>.
8 "Les Misérables." The Economist. The Economist Newspaper, 28 July 2012. Web. 25 Apr. 2017. <http://www.economist.com/node/21559618>.
9 Levin, Eugene. "Why Europe Lags behind the US in VC Investment." VentureBeat. N.p., 13 Mar. 2016. Web. 25 Apr. 2017. <https://venturebeat.com/2016/03/13/why-europe-lags-behind-the-us-in-vc-investment/>.

Google, and Amazon time to catch up, build their own solutions and gain market share.[10] Some aspects of the aforementioned heterogeneity in the European market — language and culture — are immutable and will always be a disadvantage vis-à-vis both the US and China; other, such as legal obstructions, can and should be removed.

A strong economy needs creative and enthusiastic entrepreneurs. Many member states lack such a community and a commitment to entrepreneurship. Self-employment is considered a first choice by only 37% of Europeans[11], compared to 51% of US Americans and 56% of Chinese citizens[12]. The attitude towards entrepreneurship in general differs markedly between Western European citizens having a much more positive view than Central and Eastern European ones.[13]

Adding to perceptual issues, the regulatory framework around business failure is problematic. About three in four startups fail.[14] Therefore, swift bankruptcy procedures are necessary to allow entrepreneurs to move on and focus on their next business. Indeed, ventures of repeated founders have been found to have a higher chance of succeeding.[15] Unfortunately, today's legal reality could not be further from this ideal: In France, it can take a bankruptee up to 9 years "from the end of the liquidation process until [he or she] is freed from debts".[16] In Germany, failed entrepreneurs can even be banned from attaining senior executive positions following a bankruptcy — for their lifetime.[17] Some of these business-hostile measures derive from the assumption of fraud that drives bankruptcy proceedings — even though we know that 96% of bankruptcies are "due to a string of late

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10 Savov, Vlad. "Europe's Other Problem: Where Are All the Tech Startups?" The Verge. The Verge, 09 Apr. 2013. Web. 25 Apr. 2017. <http://www.theverge.com/2013/4/9/4178156/european-tech-startups-report>.
11"Flash Eurobarometer 354: Entrepreneurship in the EU and Beyond." European Commission, Aug. 2012. Web. 25 Apr. 2017. <http://ec.europa.eu/public_opinion/flash/fl_354_en.pdf>.
12 "Entrepreneurship 2020 Action Plan." European Commission, 9 Jan. 2013. Web. 25 Apr. 2017. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52012DC0795&from=EN>.
13 "Flash Eurobarometer 354: Entrepreneurship in the EU and Beyond." European Commission, Aug. 2012. Web. 25 Apr. 2017. <http://ec.europa.eu/public_opinion/flash/fl_354_en.pdf>.
14 Gage, Deborah. "The Venture Capital Secret: 3 Out of 4 Start-Ups Fail." The Wall Street Journal. Dow Jones & Company, 20 Sept. 2012. Web. 25 Apr. 2017. <https://www.wsj.com/articles/SB10000872396390443720204578004980476429190>.
15 "Entrepreneurship 2020 Action Plan." European Commission, 9 Jan. 2013. Web. 25 Apr. 2017. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52012DC0795&from=EN>.
16 "Les Misérables." The Economist. The Economist Newspaper, 28 July 2012. Web. 25 Apr. 2017. <http://www.economist.com/node/21559618>.
17 "Les Misérables." The Economist. The Economist Newspaper, 28 July 2012. Web. 25 Apr. 2017. <http://www.economist.com/node/21559618>.

payments or other objective problems", not fraud.[18] To make matters worse, entrepreneurial failure is often treated as personal failure, attaching social stigma to those who take risks and are creative. Creating non-punitive bankruptcy laws thus must be a policy objective for the Commission.

Recommendations

How can the EU move past the above-mentioned obstacles and position itself as a strong digital actor in the global economy, with the prospect of "contribut[ing] €415bn per year to the EU's economy and creat[ing] hundreds of thousands of new jobs", as the Commission claims?[19]

To date, only the People's Republic of China has managed to build an ecosystem of companies similar in magnitude to the ones found in the United States. Unfortunately, the Chinese model that enabled online shopping behemoth Alibaba and the chat/mobile payments platform WeChat, is not applicable for the Commission: It is (a) based on protectionism and (b) was enabled by a lack of strong offline incumbents in many industries which made the ascent of technology companies easier.[20] The former does not conform with the EU's commitment to free-trade, the latter condition is simply not met. What the EU can learn from China, however, is the fundamental prerequisite of a large, integrated market.

Thus, the Commission has to find its own means to address the Single Market's structural weaknesses. At the same time, it should not forget about Europe's strengths: its excellent, cutting-edge research institutions in Oxford, Cambridge, Zurich, Lausanne, Munich and many other places; the emerging startup hubs in London, Berlin, Dublin and, more recently, Paris; the high quality of living in its cities, enabled in part by public services

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18 "Entrepreneurship 2020 Action Plan." European Commission, 9 Jan. 2013. Web. 25 Apr. 2017. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52012DC0795&from=EN>.
19 "Making the Most of the Digital Opportunities in Europe." Digital Single Market. European Commission, 24 Feb. 2017. Web. 25 Apr. 2017. <https://ec.europa.eu/digital-single-market/en/news/digital-single-market-making-most-digital-opportunities-europe>.
20 Thornhill, John. "China's Digital Economy Is a Global Trailblazer." Financial Times, 20 Mar. 2017. Web. 25 Apr. 2017. <https://www.ft.com/content/86cbda82-0d55-11e7-b030-768954394623>.

and excellent healthcare, which are crucial to attract top talent. There are already 4.7mi professional software developers in Europe, more than in the US (4.1mi).[21]

To address the deficiencies in funding, the Commission must act decidedly to diversify the financial resources available to startups — moving away from a bank-based credit system towards venture capital. The goal should be to increase the absolute volume of VC investments in Europe in general as well as to close the late-stage funding gap in specific. The *Regulation on European venture capital funds (EuVECA)* should therefore be amended to make the registration of venture capital funds easier and quicker, enabling individuals, so-called angel investors, to pass on their expertise and money. Furthermore, the cap on 250 employees for companies eligible for EuVECA-funds should be increased, to allow later-stage companies to benefit (to close the late-stage funding gap).[22] The Commission should furthermore consider the establishment of a European-wide public-private VC fund. The governmental commitment of this endeavor could increase the willingness of institutional investors such as pension funds, to reconsider their stance on European digital ventures. Apart from changes in the law, the Commission should foster an active dialogue with venture capital investors and fund managers on the behalf its member states, jointly determining benchmarks to judge the union's performance in this area over the next 10 years.

The Commission is already on the right path when it comes to reducing the fragmentation of the single market. The announced (and partially achieved) goals of gradually reducing roaming fees, abolishing geo-blocking and reducing the cost of inter-country parcel delivery point in the right direction, but they are not nearly far-reaching enough. One very specific area that has been poorly addressed until now is online payments. The Commission should initiate the stepwise abolition of inner-EU credit card fees, allowing Spanish residents, for example, to buy goods or services from a Dutch online retailer without additional charges.

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21 "Making the Most of the Digital Opportunities in Europe." Digital Single Market. European Commission, 24 Feb. 2017. Web. 25 Apr. 2017. <https://ec.europa.eu/digital-single-market/en/news/digital-single-market-making-most-digital-opportunities-europe>.

22 "Strengthening of European Venture Capital Funds – Proposal for Regulation Amendment." Noerr LLP - Wirtschaftskanzlei. N.p., 27 Nov. 2016. Web. 25 Apr. 2017. <https://www.noerr.com/en/newsroom/News/strengthening-of-european-venture-capital-funds-%E2%80%93-proposal-for-regulation-amendment.aspx>.

The Commission should further consider overhauling its patent system as it pertains to software. Given the constantly evolving technological landscape and its financial viability, the current overly broad patents granted and the long durations of protection of intellectual property are an impediment to innovation. Software patents also tilt the playing field towards large corporations which can afford the bureaucratic effort to register and the legal means to defend their IP. The most logical step would be to abolish software patents altogether.

Some pundits claim that the EU's different notion of and emphasis on privacy is limiting the attractiveness of it as a technological center. The converse is true. Both for B2B and consumer-facing businesses, privacy can be a selling proposition. One example for the latter is Microsoft's decision to erect data centers in Germany, to keep its customers' data on European soil.[23] Hence, instead of limiting its data protection laws the Commission should embrace them and be a proponent of strong encryption, making Europe a stronghold of privacy, a unique selling proposition vis-à-vis competing markets in the US and China.

Despite all these measures to defragment the Single Market, Europe's cultural and linguistic fragmentation will remain. While this certainly is an obstacle for the immediate go-to-market strategies, Europe's diversity can also be seen as an advantage: By expanding to other member states quickly European startups gain the knowledge of how to enter new markets much earlier than their US counterparts which often lack experience in catering their products to the needs of another market, since they were only active domestically.[24] This can be a boon to eventual worldwide expansion.

Lastly, the Commission needs to act to improve the climate for entrepreneurship in some of its member countries. This crucially necessitates the reform of bankruptcy procedures in many member states with emphasis on reducing the amount of time until entrepreneurs are discharged and moving away from a general suspicion of fraud. Laws

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23 Petroff, Alanna, and Jose Pagliery. "Microsoft to Store Data in Germany to Keep It from Third Parties." CNNMoney. Cable News Network, 11 Nov. 2015. Web. 25 Apr. 2017. <http://money.cnn.com/2015/11/11/technology/microsoft-germany-data-center-privacy/index.html>.

24 Duong, Minh Ha. "The 3 Key Differences Between European vs US Startups." Startup Grind. N.p., n.d. Web. 25 Apr. 2017. <https://www.startupgrind.com/blog/the-3-key-differences-between-european-vs-us-startups/>.

prohibiting unsuccessful founders from starting another company must be abolished. As always, learning from each other is a unique strength of the EU. In this case the Danish and Norwegian model for bankruptcy laws should be studied and applied to other member countries.

Aside from legal instruments, the Commission should start a dialogue with universities about how they can facilitate the transfer of academic knowledge to actual companies and products. The Commission should further promote a more positive image of entrepreneurship by contributing to the funding of incubators and meetups in its startup hubs. Awards and competitions such as the *Startup Europe Awards*[25], should receive increased funding.

It is important to see that all of the enumerated areas of action are intertwined. For example, reducing the fragmentation of the market will inevitably make it more attractive to investors and therefore increase the level of VC funding available to European businesses. By following the prescribed recommendations, Europe will be on its path to become more competitive technological center of the future.

25 Startup Europe Awards. N.p., n.d. Web. 25 Apr. 2017. <http://startupeuropeawards.com/>.