ECIPE OCCASIONAL PAPER • No. 2/2013

EU POLICIES ON ONLINE ENTREPRENEURSHIP: Conversations with U.S. Venture Capitalists

By Fredrik Erixon, *Director and co-founder of the European Centre for International Political Economy (ECIPE)*



www.ecipe.org info@ecipe.org Rue Belliard 4-6, 1040 Brussels, Belgium Phone +32 (0)2 289 1350

EXECUTIVE SUMMARY¹

THIS PAPER EXAMINES the role of policy for creating an attractive atmosphere for venture capital investments in online start-ups and entrepreneurship. It is based on in-depth interviews with venture capitalists in the United States. The main takeaway points are:

- The policy atmosphere is important for Internet start-ups and online entrepreneurs. It is also important for investors and is likely to play an even more important role as regulations with a direct impact on online business grow and expand their scope. There is a difference between investors in how important they consider policy to be for investments in online entrepreneurship – how the policy atmosphere relates to other factors that are critical to success (e.g. access to capital, labour, et cetera).
- Most venture capitalists are critical of labour policy in Europe, and consider it to be one of the reasons why they are hesitant about investing money in European start-ups. The argument is that venture capitalists invest in companies with uncertain futures, and that the money they invest cannot be locked up in managing a work force that may not be the right one when a company need to change its course.
- Regulations with a more direct impact on online business are generally considered to be difficult to navigate and manage in Europe. Market and policy fragmentation in Europe adds to that problem: in several regulatory areas, there are differences between countries in regulations or how they implement them. The overall consequence is that investment proposals from Europe may be rejected because investors have difficulties understanding the exact risks that come from regulations and changes in regulations.
- The new EU proposal on data protection is considered to be particularly difficult to understand, and investors see obvious risks to investments emerging from that proposal. Most investors are not fully informed about all the details of the proposal, but one important point that is made is that there is something flawed with regulations that cannot be understood by people that are active in the fields that a regulation cover.
- The copyright system is seen as arcane and unmanageable for many new Internet start-ups. There is an upside, say several investors, if Europe manages to reform its copyrights as a copyright reform in the U.S. seems unlikely.
- Some investors are concerned about how new regulations encroach on the capacity to generate societal economic value in the online business sector, and there is a risk that investments will target regulatory "offshores": companies/sectors that are subject to lighter regulation, but not necessarily sectors that could generate larger economic gains for society.
- Venture capital investors argue that, to the extent policy matters, Europe could get an edge in the competition over investments if they offered a policy climate that is more hospitable to online entrepreneurship than in the United States. As policy and regulation increasingly define the scope for new innovations in this field, the way regulations are designed can have a significant influence in how investors think about the location of innovators and the destination of their investments.

^{1.} Bert Verschelde provided excellent research assistance for this paper. The research for this paper has been possible only because the interviewees agreed to spend a lot of time to talk to me about their experience as investors in online entrepreneurs. I am very grateful that they not only gave me time but also allowed me to take a dip in their wealth of knowledge about venture capital and the role played by venture capitalists for generating new online businesses. I am equally grateful to a research grant from Google to do this project. All opinions contained in this study reflect the independent views and analysis of the author alone.

1. INTRODUCTION

THE UNITED STATES is much envied for creating such a large portion of the new online startups that have grown big. It has been the starting point for numerous conferences in Europe to discuss what needs to happen in Europe in order to create innovative clusters like those in the Bay Area. While Europe has housed many successful companies in ICT hardware, it is said, the U.S. raced ahead of Europe in software and now excels in fostering online businesses. Or as a senior French politician recently complained: If the U.S. had a dominant position in the software field, it is now about to create a new hegemony for online commercial enterprises. Even if the birth certificate shows another nationality, smart ideas and innovation will soon migrate to the U.S. to draw on the benefits of a wide and deep culture, and a very advanced commercial infrastructure, for online entrepreneurship and bold business ideas.

While exaggeration may have been added to score points, there are many entrepreneurs and politicians that vent frustration about how slowly Europe moves in order to catch up on the technological and commercial development that will represent a big share of worldwide commercial growth in the next decades. If Europe is not better equipped to exploit the online commercial trend, the risk is that growth and welfare will suffer in Europe. It is not true that Europe is helplessly behind America. Europe is a source of many new smart online innovations. There is a growing community of online business developers, concentrated in particular regions around Europe, which feeds new enterprises as well as breathing online life into older ones. Yet there is a difference in entrepreneurial culture, and it is bigger in ICT and online services than in other areas. Business development in the United States is generally much richer; it grows more new online companies that go farther and faster than their European peers. Access to money, experience, labour, competitors and bold thinking simply is better.

Much of this owes to factors that do not necessarily have much to do with applied policy for the online business sector, politics with the direct intention of fostering online business entrepreneurship. The overall policy climate in the U.S. is more favourable to entrepreneurship than in Europe – a view, however, that is easier to contest today than in the past. But for specific sector policies, or policies that directly affect the scale and scope for online entrepreneurship, it is difficult to say whether the U.S. really offers better policy conditions when all types of measures are considered.

In some areas policies are more supportive, in others they are equally deterring of online entrepreneurship. Copyright policy in the U.S., for instance, is not an example for others to follow if they want a growing and innovative online media sector. The same is true for Europe – its copyright policy may even have worse consequences, partly because it is so fragmented along national lines. Many U.S. states have commercial laws – e.g. product market regulations – that make it difficult for new online market entrants to compete with incumbents. Many view the legal tradition in the U.S. as deterring for investments. Generally, it is probably safe to say that online entrepreneurial prowess in the U.S. is not a reflection of a policy designed to have that intended effect. Or to put it differently: Google or Facebook are not products of an exceptionally well-designed industrial policy crafted in Washington, DC. They are not creations of government fiat.

So what conclusions should European policymakers draw when they consider steps to improve the climate for online innovations in Europe? This paper stands in the nexus of policy and performance in online entrepreneurship. The question it seeks to answer is: if Europe improves the policy conditions for online entrepreneurship, could it help to support a development where Europe becomes a more prominent source of and host for online entrepreneurs? Could policy become a comparative – or even absolute – advantage for Europe?

One can easily find counter-argument to that hypothesis. For example, why should policy at all play any more than a marginal role for investments that are mainly about what economic value that could be generated by a new technology, new applications, new businesses or new markets? Yet the presumption is that the design of applied policies could play more than a marginal role. When Europe does not have strong online entrepreneurial clusters as in the U.S., or when its general conditions for start-up enterprises are less supportive, the way it designs its direct regulations of online entrepreneurship and commerce could offer advantages to innovators and venture capitalists whose businesses are sensitive to intrusive regulations. If Europe's comparative attractiveness to online entrepreneurs is not in the field of the commercial infrastructure, where could it else be than in having well-designed regulations that are better than those in the U.S. or other parts in the world? As online commerce generally grows, it is increasingly evident that some regulatory approaches have more supportive effects than others. Furthermore, it is also increasingly the subject of new direct regulations, and they can shift the comparative effects of regulations in one region vis-à-vis another region.

This paper seeks to discuss EU policy with effect on online entrepreneurship from the viewpoint of U.S. venture capitalists. The paper is primarily based on interviews with a small but selected number of venture capitalists in the United States with views on the role of policy for their investment and the climate for commercial development. They all have experience of investing in European online enterprises – and generally bring a wealth of experience to online entrepreneurship. Interviews have covered a panoply of different regulations, but two that have been to the forefront are copyright and privacy laws.

2. A BRIEF GLANCE AT DATA: VENTURE CAPITAL IN THE EU AND THE U.S.

IS THERE A big gap between Europe and the United States in the number of new online startups that succeed? Is there a big difference between how much venture capital is invested into this sector? Are venture capitalists more eager to put their money into Internet start-ups in the United States than in Europe? Let us start by looking at some aggregate data for the two continents.

The first point to make is that existing data do not offer many chances to make sophisticated econometric analyses of online entrepreneurship and start-ups – or how the VC (venture capital) community shapes that development. Data is often scant and incomplete, making it close to impossible to create reliable data sets over time that is comparable between countries.

	FUNDS	INVESTED	FUNDS	S RAISED
	EU	US	EU	US
2000	18,1	105,2	n/a	101,4
2001	10,9	41,0	n/a	38,9
2002	9,3	22,1	n/a	11,9
2003	9,5	19,7	n/a	10,6
2004	12,8	23,2	n/a	18,1
2005	15,8	23,6	n/a	30,6
2006	21,7	27,6	n/a	31,4
2007	8,5	31,9	11,5	29,4
2008	10,0	29,9	9,3	25,6
2009	5,7	20,4	4,9	16,2
2010	5,2	23,3	4,1	13,5
2011	5,4	29,5	6,8	19,3

TABLE 1. VC FUNDS RAISED AND INVESTED IN EU AND US, IN \$ MILLIONS

Sources: National Venture Capital Association Annual Yearbook 2013; European Private Equity and Venture Capital Association (EVCA) Yearbook 2012.

As shown in table 1, there is a clear gap between the EU and the US in terms of aggregate venture capital funds raised and invested. The EU seemed on its way to closing the gap in the first half of the decade, after the burst of the 2000 dotcom bubble had led to a decrease in investments in the U.S. Since the financial crisis of 2007-8, however, the gap has been widening again. When the financial crisis turned into a sovereign debt crisis in Europe in 2009, this marked the start of a severe decrease in investments. For 2012, the EVCA Quarterly Indicator shows venture capital investments to be at the lowest levels since 2007.² On the U.S. side, investments saw a drop in 2009 and 2010 but have recovered to the 2007 level since 2011. On the other hand, 2012 was the sixth consecutive year in which more money was invested than raised in the U.S., due to the limited success of recent IPO and acquisition markets⁻³

	EU	US
Private independent	19,3	91
Financial institutions	18,6	5
Corporations	12,1	2
Government	34,3	-
Other	14,9	2

TABLE & COUDOEC			(0044 1010)
TABLE 2. SOURCES	OF FUNDING FOR	VENTURE CAPITAL	(2011, IN %)

Sources: National Venture Capital Association Annual Yearbook 2013; European Private Equity and Venture Capital Association Yearbook 2012.

A notable difference between the U.S. and the EU can also be found in the sources of venture capital funding. Venture capitalists raise funds from other investors such as wealthy individuals, financial institutions and pension funds. Table 2 presents the source of funding for

^{2.} EVCA (2012), EVCA Quarterly Indicator Q1 2007 - Q3 2012, p. 2, accessed from [http://www.evca.eu/ WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=7388]

^{3.} NVCA (2013), NVCA Yearbook 2013, p. 24, accessed from [http://www.nvca.org/index.php?option=com_ docman&task=doc_download&gid=955]

2011 in the EU and the U.S. and unveils substantial differences. The majority of U.S. funding comes from private independent investors, mainly pension funds, whereas these firms only accounted for around 20% of funds raised in the EU. The European venture capital industry is much more reliant on individual investments (see: other), financial institutions and government agencies at all levels (e.g. the EBRD and EIF at the EU level).

In the U.S., the contribution of the government (which is captured in the "other" statistic) is much lower. It should however be noted that the U.S. government also provides early stage finance to start-ups through its Small Businesses Investment Company program (SBIC), which enabled Apple for example to grow out of the seed stage.⁴

	2007 2008		08	2009		2010		2011		
	EU	US EU US		EU	US	EU	US	EU	US	
Seed	3%	10%	4%	10%	4%	14%	3%	10%	4%	5%
Start-up	38%	32%	38%	31%	50%	36%	50%	36%	51%	45%
Later stage1	59%	58%	57%	59%	47%	50%	47%	54%	45%	50%

TABLE 3. VENTURE CAPITAL INVESTMENTS BY STAGE (2007-2011)

The difference in the role of private/independent investors between the EU and the U.S. is important. It does not appears to foster big differences in what stages of a business development that an investor step in. Table 3 shows at which stage in the development of new firms investments have taken place in the EU and the U.S. between 2007 and 2011. In the seed stage, financing is provided for a firm to research, assess and develop an initial concept, whereas in the start-up stage, capital is provided to enable product development and initial marketing. In the later stage, capital is meant to allow profitable ventures to expand.⁵

In the U.S., a significantly larger share of total venture capital tends to be invested in the seed stage. However, the EU figures do not incorporate the investments made by business angels, who are mostly active at this stage. The actual investments in the EU at the seed stage could therefore be higher than these figures show.6 On the other hand, EU investments are higher during the start-up stage than in the US.

What is of greater interest is what type of investment that investors make. Giving seed funding or investing in a start-up is to a large extent associated with uncertainty. Many established institutions, like banks, larger corporations, and governments, have difficulties dealing with uncertainties. Many of them, including government-sponsored start-up funds, have been skilled at managing risks, but risks are different from uncertainty. Risks are calculable and can be managed. Uncertainties, by contrast, are not really calculable. Uncertainty can be managed, but require a different sort of understanding of market and innovative processes. It also requires better patience among the financiers.

Venture capital in the U.S. – as far as existing data allows for interpretation – is a bit more focused on frontier areas – markets or products that are not dominated by large and old(ish) firms that have developed a good profile in incremental innovation. Frontier innovations are more about creating new markets and developing new type of products that did not exist before in that form. Multinational firms in both the EU and the U.S. have been good

^{4.} Mazzucato, M. (2013), Taxpayers helped Apple, but Apple won't help them, Harvard Business Review, accessed from [http://blogs.hbr.org/cs/2013/03/taxpayers_helped_apple_but_app.html]

^{5.} EVCA (2013), Yearbook 2012, p. 19

^{6.} EUROPEAN PARLIAMENT (2012), Potential of Venture Capital in the European Union, Directorate General for Internal Policies, p. 32

at incremental innovation and making innovations marketable in many different markets. But this type of firms are spending less resources at frontier innovations, partly because the policy and financial environment have become increasingly inhospitable for that type of investments.

One way of looking at this difference in the data is through what sectors that take up a big proportion of venture capital investments. The EU venture capital landscape also differs from the U.S. in terms of sectoral distribution. Table 4 clearly shows that over the 2007-2011 period, the life sciences sector was the most successful at attracting EU venture capital. Computer and consumer electronics accounted for 19%, while 16% was invested in the communications sector and 12% in the energy and environment sectors.

	2007	2008	2009	2010	2011	2007-11	% of total
Agriculture	31.214	46.717	19.794	13.775	7.582	119.082	1%
Business & industrial products	415.033	387.105	275.709	253.577	139.891	1.471.314	6%
Business & industrial services	171.688	293.104	105.328	125.657	100.306	796.082	3%
Chemicals & materials	93.718	91.081	72.922	86.154	76.243	420.118	2%
Communications	881.095	1.071.719	658.454	549.802	645.991	3.807.060	16%
Computer & consumer electronics	1.254.797	1.157.686	698.224	731.754	651.512	4.493.973	19%
Construction	46.214	66.711	13.257	25.671	18.676	170.528	1%
Consumer goods & retail	294.711	394.162	200.050	153.885	165.306	1.208.114	5%
Consumer services	249.252	195.304	118.324	101.408	119.410	783.698	3%
Energy & environment	579.221	1.097.591	453.731	382.132	416.540	2.929.217	12%
Financial services	146.070	190.296	34.720	41.918	102.799	515.802	2%
Life sciences	1.487.758	1.378.709	1.066.608	1.084.091	1.138.576	6.155.741	26%
Real estate	70.432	44.218	6.589	12.024	12.210	145.473	1%
Transportation	78.423	71.125	22.793	49.262	45.456	267.059	1%
Unknown	161.676	44.884	50.723	4.693	21.358	283.334	1%
Total investment	5.961.302	6.530.412	3.797.224	3.615.803	3.661.856	23.566.597	100%

TABLE 4 VENTURE CAPITAL	INVESTMENTS IN EU SECTORS (IN THOUSANDS OF EU	IR)
		2 11/

Where this leaves the ICT sector in Europe is hard to assess, as the figures on software and ICT services have been aggregated with those for computer hardware and semiconductors under the "computer and consumer electronics" label. Equally, Internet technology has been brought under the broad "communications" sector, making it indistinguishable from the traditionally strong European telecommunications sector.

Regardless of the different sector classifications, table 5 clearly shows that the U.S. ICT sector has been more successful in attracting venture capital. Adding up the software (22%), IT services (7%), semi-conductors (5%) and computer and peripherals (2%) sectors, 36% of total venture capital has been invested in the ICT sector in the US between 2007 and 2011. Investment in the U.S. life sciences sectors seems to be on par with the EU, with 29% of total capital (combining biotechnology, medical devices & equipment and healthcare services).

	[
	2007	2008	2009	2010	2011	2007-11	% of total
Software	6.124	6.069	4.205	5.116	7.516	29.030	22%
Biotechnology	5.713	4.970	3.972	3.903	4.825	23.383	17%
Industrial/Energy	3.082	4.631	2.564	3.456	3.595	17.328	13%
Medical devices & equipment	3.759	3.603	2.605	2.341	2.883	15.191	11%
IT services	1.930	2.108	1.228	1.661	2.264	9.191	7%
Media and enter- tainment	2.166	1.796	1.371	1.572	2.258	9.163	7%
Consumer products and services	454	418	489	571	1399	3331	2%
Semiconductors	2.041	1.595	773	1.046	1.345	6.800	5%
Telecommunica- tions	2.191	1.514	636	792	631	5.764	4%
Retailing/ distribution	340	222	156	165	454	1337	1%
Computers and peripherals	550	470	345	408	494	2267	2%
Networking and equipment	1.443	756	753	678	357	3.987	3%
Healthcare services	307	159	171	272	394	1303	1%
Financial services	580	464	404	408	394	2250	2%
Electronics/ instrumentation	557	646	393	422	437	2455	2%
Business products and services	621	475	260	491	215	2062	2%
Other	18	30	56	4	37	145	0%
Total investment	31.875	29.926	20.378	23.316	29.497	134.987	100%

TABLE 5. VENTURE CAPITAL INVESTMENTS IN U.S. SECTORS (IN MILLIONS OF USD)

3. U.S. ONLINE VENTURE CAPITALISTS – WHAT DO THEY THINK ABOUT EUROPE?

EUROPE – EUROPEAN Union institutions as well as national governments – have in the past ten years been struggling to understand why there is such a big gap between itself and the United States in investment and entrepreneurship in online business. Some have looked at it with envy, others with curiosity. What, exactly, are the factors explaining the vast differences in online commercial performance between Europe and the United States? And, going back to the hypothesis of this paper, would U.S. online venture capitalists be more keen to invest in Europe if EU policy in areas such as copyright, privacy, data protection and data storage regulations offered gave an advantage vis-à-vis U.S. policy in these areas? In this chapter, the results from a series of interviews with successful U.S. venture capitalists will be reported.

CONVERSATIONS WITH ONLINE VENTURE CAPITALISTS

In the course of the work with this paper, seven U.S. venture capitalists have been interviewed. They all have a record of successful seed investments in Internet start-ups that have grown to become large enterprises. Five of them offered a significant amount of time for conversations, while two of the interviews have not been completed due to time constraints for the interviewees. One of the interviewees asked to be anonymous. In addition to that person, this chapter is based on conversations with the following people:

Brad Burnham, Managing Partner at Union Square Ventures Jeff Clavier, Founder and Managing Partner at SoftTech VC David Hornik, Partner at August Capital Marc Jacobsen, Managing Director at O'Reilly AlphaTech Ventures

IS EUROPE DOOMED?

THERE IS – in commentary and literature – a significant group of experts on online entrepreneurship that claims Europe to be doomed or beyond salvation. Europe has a strong profile in telecommunications and the hardware segment of the ICT sector. But its market success rests on businesses created many decades ago – companies, often cherished national champions, which have successfully managed the transition from nationally oriented firms to multinational enterprises with a strong presence on many markets. In many countries, the big and dominating ICT company is a telecom incumbent that were wholly or partly privatised during the 1990s.

A combination of progressive innovation of core product segments, an engineering tradition, and market savvy have made some of these companies highly successful in global competition. But, according to this view, little has grown outside the dominion of these hardwareoriented firms. They missed out on the big software development and now they are running far behind global leaders in innovating and expanding the online-based service economy. And, more generally, the conditions for online start-ups, and growing start-ups, are not sufficiently supportive in Europe. Policy in Europe deters rather than encourages risky entrepreneurial activities. High taxes are starving commerce from capital. Employment and other regulations cause start-ups to choke. Europe, therefore, has a policy designed for big industrial firms of 20th century vintage but has failed to changed it to support 21st century business growth.

Is this view shared also by venture capitalists? Interestingly, not one of the venture capitalists interviewed for this paper claims Europe to be doomed. In fact, many of them commented appreciatively about Europe and have made investments there, often successful investments. One of the investors said that while it is true that its innovative capacity has been more directed towards telecommunication equipment and hardware, it is increasingly difficult to draw up distinct borders between sub-sectors of the ICT industry and that online start-ups and entrepreneurs benefit from these sectors. They create an overall interest in modern ICT technology. Universities invest in these areas and attract students – domestic as well as foreign students – to generally develop skills that can be employed or harnessed by a hardware manufacturer as well as a social media enterprise or new data mining services.

One noted Silicon Valley investor puts it like this: "It is true that most of my investments in recent years have been focused on U.S. start-ups and especially starts-ups on the West coast. I have perhaps made seven or eight successful investments in Europe in the past three years. That is all. But one thing I have found in my business in Europe is that skills exist, that they can be found in many parts of Europe, and that students, fresh out of university, are as good as students that I meet here. Many of them also come with experience from working directly with companies in developing new technology or new businesses. Their universities have been working close together with companies, and they come with a mindset for applied technology. That's an asset."

Another venture capitalist, based in the same region, but with experience from many businesses in Europe said: "If you take a French university, they actually train really good engineers. They are as good as engineers graduating from Stanford or MIT. I would not recommend anyone to chose a French university over Stanford or MIT, but the point is that there is not a skills shortage for the businesses I invest in, or may consider investing in, in Europe."

That is an interesting point. Many companies in Europe are increasingly raising the problem of a "skills shortage" in these and associated sectors, but all VC-investors interviewed for this paper rather makes the opposite point. Other venture capitalists than those quoted above also touched upon this – stressing an engineering tradition and access to skilled personnel as an advantage in Europe. They also pointed to the importance of students with good language skills and interest in studying abroad as supportive factors for investments in Europe.

There are of course differences across Europe, and when people interviewed were asked to name special regions in Europe it was largely the same regions that came up. But for Europe as a continent it seem quite clear to the venture capitalists that access to qualified labour is not a reason to think twice about investing in European online start-ups. And the general point they make is that Europe is far from doomed. It is certainly "behind the curve" in online business entrepreneurship and business growth. But it can be fixed – if political leaders are willing to reform policies and regulations.

A U.S. venture capitalist puts it like this: "No one is doomed in this business. Different regions have different strengths and weaknesses. Europe's weaknesses we all know about; they are in the area of policy and capital. But this is a business that lives and breathes innovation. And innovation, and the innovation process, is quite often not as streamlined or linear as some people think. Europe is not a good place today to take innovations to and make viable businesses of them. But it has a source of innovation in many parts of the industry that I am interested in – mobile technology, to take one example."

And another noted Internet start-up investor makes a comparison with the United States that is not very flattering for the U.S. He said: "Not everything in Europe is gloomy. In some areas you have an edge, you are better than us. We have been spending a lot of time fighting local authorities and bureaucrats in the U.S. when we have been trying to expand in sectors you would think would be welcoming investors and new entrepreneurs. But the U.S. market is highly regulated in some product and service categories. In some services like education we have been spending too much time trying to get around various state regulations, but it has not worked, at least not yet, or at least not as we had planned. And we have seen how similar businesses have grown in some European countries, trying to approach the market in the same way as we have done."

WHAT ARE EUROPE'S PROBLEMS?

DESPITE AN APPRECIATION of some advantages in Europe, all venture capitalists interviewed in the research for this paper come across as critical of the policy climate for online entrepreneurship in Europe. Interestingly, even if there are differences between the investors in what policies they identify as problematic, they all combine macro and micro regulatory factors in their analyses.

Let us start with some general policy conditions for entrepreneurship and start-ups. There are two overall conditions that stand out. First, the overall business climate for online start-ups is much better in the U.S. than in Europe. The U.S. offers a better structure and supply of venture capital, even if European venture capitalists in online start-ups have expanded somewhat in the past years. And in areas like California, Internet entrepreneurs get access to a network of people and a skills base that are much richer and sophisticated than in Europe.

Second, most of the investors are sceptical of the labour-policy climate in Europe, especially the difficulty for a start-up to manage staff volumes in a quick way depending on what happens to the business. They point to it as a general reason for why most investors in the United States and elsewhere will have problems entertaining the idea of investing money in risky online start-ups in Europe.

Said one of the seed investors who spoke from own experience of managing a work force in an Internet start-up: "I know there is a debate about this (ed. employment or hiring-and-firing legislation) in Europe and that it is a sensitive issue. But I can tell you how I look at it as an investor, and I think I can speak for the entire community of venture capitalists. There is no successful investment that constantly will move in a linear way, and progressively, step-bystep grow its financial backing and its volumes of sales. Most investments have rollercoaster moments; it goes up and it goes down. One day you have managed to raise new money to continue investing in and developing the business, the next day almost all venture funding is tried up. This is the way it works."

So what are the consequences of this reality for the way start-ups manage their labour forces? The same investor said: "And any start-up will have to quickly get used to managing up-anddown cycles with employees. One day you have to fire 20 percent of your staff, or perhaps more, but next week you are hiring again to expand. And you are never really sure what sort of talent will be needed. If you hired the wrong sort of people, people with an education or experience you thought was what you should be looking for, you must have the flexibility to let them go quickly. Starts-ups don't finance employees by sales revenues, they are financed by venture capitalists and investors, and they cannot accept the idea that your money is being spent on having the wrong sort of people employed."

And he continued: "When I look at Europe or investment proposals sent to me from Europe, this is one of the first things I think about. Call me a brutal capitalist, but I cannot spend my money or tell my investors that we have to accept the way the European labour market works. We just don't do that. We say no or if it is a good idea, we check with them if they are prepared to move from Europe and develop their business elsewhere. If they are not ready to do that, we stop the dialogue right there. Then there is no point for any of us to continue."

A Silicon Valley venture capitalist echoed these views and said that Europe must find a way to allow for greater flexibility on the labour market if it is ever going to attract investments in start-ups of a volume similar to the United States. He also spoke from own experiences, especially from investing in France and Germany. Here is what he said: "I have lived and worked in Europe. I have run investments there. I have run companies there. And it just does not work for small start-ups. It gets better if you have become a mature company and raised around 50-100 million U.S. dollars, when you are getting close to actually having a marketable product, a product to sell that can drive revenues. But before that the labour laws in Europe are a kiss of death. Energy, passion, money – they are all spent on managing the workforce and the labour laws. It simply does not work in this hard environment. I can give you dozens of examples, companies that I have been involved in, that would have died right away if we had had to do it the French way."

This investor, however, said that labour market regulations did not deter them entirely from making any type of investment. This may sound a bit contradictory, but his point is that that they have to find ways around these regulations, or address them in direct ways by having no employees (paying people with stock) and source as much as possible. It means, however, that the investor had to spend more time thinking about ways to reduce artificial barriers to business growth, and how to manage an overall increased risk with the investment.

Another Bay Area venture capitalist echoed that view and said that nothing would stop him from investing "if a really, really brilliant idea came my way". But he added that the cost of an investment goes up in a climate inhospitable to the special demands in the venture capital sector, because there must be ways that structural regulatory obstacles are managed. A standard phrase heard from many investors is that they are skilled at managing investment, but they are not policy analysts with a well-developed ability to understand policy or political risks. Therefore, he argued, when presented with investment opportunities that do involve such risks or uncertainties, many investors simply ignore the investment opportunities. If they are too interesting to ignore, it means that the potential reward has to be bigger.

Said one of the investors interviewed for this paper: "This is not a science. What our business is about is to find smart people with smart ideas; smart people with an idea that keeps you awake at night thinking about it. So we are as much about passion as we are about crunching numbers. But investing in new Internet ideas has become a bit riskier in the past years, partly because of new regulations and because other companies know they have to beat new market competitors at an early stage. So we have to think more about risks or external threats, and we cannot just invest in something because it seems like a really, really smart idea. We have to understand if there are policy risks involved. And if there are, we have to learn about them and understand them. We have to be prepared for how to manage them. And that means that we also think about the potential reward. If the risk goes up, so must the potential reward."

This investor said that he largely approached investment in Europe from this angle. Given labour market regulations, the potential reward would have to be higher if someone comes with an investment idea but does not want to move to the U.S. and develop it there, which is the first choice.

REGULATIONS AFFECTING ONLINE ENTREPRENEURSHIP

THE RISK-REWARD DISCOURSE seems to be at work also when U.S. venture capitalists look at the regulations that more directly covers online business, like copyrights and regulations of privacy or data protection. Most, if not all, investors interviewed in this research are of the opinion that regulations in Europe, to the extent they know how they operate, affect or damage business to a greater degree than similar regulations in the United States. That also influences the way they are pricing risks in relation to potential rewards. The degree to which regulations matter for investments appears to differ – between investors and between what types of investments that are considered. For some, many investments do not come close to regulatory risks that may have an impact on the investment. For others, the consequences of regulatory risks are sometimes stark: they simply do not invest at all if an investment gets too close to regulations that are too intrusive or too difficult to understand. Said one investor about investment opportunities in Europe: "For us it is a very binary choice. If you are developing a new business model in areas where European regulations are too intrusive, we don't invest. We can't manage these risks, and these risks can destroy the investment entirely. We know the U.S. regulatory system a bit better and can manage some of the regulatory concerns, but Europe we don't understand from a regulatory point of view, so we cannot make investments there."

Other investors with a more granular understanding of European regulations can navigate risks a bit better, but are also wary of them. A Bay Area investor with a couple of investments in Europe said: "There are some investments I simply won't do. If someone with a brilliant idea on online advertising in Germany calls me up, I end the conversation immediately. I am not that stupid. And if someone comes along with a business idea that is based on processing of European data outside Europe, I'll get nervous straight away. It has to sound like a fantastic investment if we are going to continue that conversation. And that is usually not the case. But there are countries in Europe and special sectors that I am interested in and where we are actively looking at several potential investments for the moment. And they are in countries we know quite well and in sectors where we know what the potential regulatory risks are."

He expanded his views on the effects of an inhospitable regulatory climate and argued that a possible new trend – if it is not already here – is that a greater part of the venture capital industry will take its cue from regulations, but not in the intended way. He said: "As investors most of us in the venture capital business are focused on the ideas, the technology, the market potential. But the environment now for many of these new online investments is worsening because of a stream of new regulations that affect various businesses. I can see that in many of the fields I find interesting. It is much more difficult to manage the regulatory environment now if you invest in online payment facilities, in data mining applications, for instance. Regulations are catching up and they have the effect that they raise the entry barriers to the market. So how should we respond to that development? We can't really. Either we have to live with it, or we stop making such investments. And I think we are now moving into that latter option, that too many of the investments will move to regulatory off-shores where the risks are more manageable. I know this is how some of my colleagues think about it, and I can see that other venture capital funds act in the same way."

Is this regulatory "off-shore" development a larger trend – and should it influence Europe as it considers reforms of various regulations that cover online entrepreneurship? Obviously, investors have for a long time been searching for investment objectives in new areas that are not regulatory mature, but it this trend now also affecting Internet and online innovation? Several investor agreed, but not all. Two investors offered some criticism. One of them suggested that the main factor behind the choice of investments is the idea and the passion and energy of the people involved in a company. He agreed that regulations do play a role for how

^{7.} See Box 1 and later sections of this chapter for a comprehensive discussion about EU data privacy regulations and current ambitions to change such regulations. This is not the only investor that has pointed to Germany as a particularly problematic country from the viewpoint of online advertisement and privacy. Federal regulations in Germany and local state regulations, sometimes supported by courts, have developed a particularly strict view on data privacy in circumstances related to online businesses.

a venture capital investment is structured, but that good ideas always will find investors in a country like the U.S. The other investor echoed that view and emphasised the focus on the core of an investment proposition.

Yet as the discussion continued, he detailed his view and gave examples of consequences of regulations that do not affect access to capital but deter innovators to start thinking boldly about new ideas. Here is what he said: "I am more worried about what regulations do to our intellectual boldness, the way we think about where and what type of innovations we want to develop. This has really nothing to do with access to venture capital, but what worries me is that many new regulations eats into the minds of innovators, the people that should come to us with new investment ideas. I sometimes have the feeling that these new ideas walk on very safe grounds, and that it is not so often these days that something comes up that is very exciting but that trespass on difficult regulatory territory."

And he gave a specific example from recent months that had made him to "stop and think about where we really are heading". He said: "I have been investing in some new mobile broadcasting technology that ties together people in different countries. I cannot say what they are about, but it has been a funny process where different innovators have come to us with ideas that have been similar but not identical and where there are interesting overlaps from a market point of view. It actually started with a discussion with a Chinese innovator that designed this new real-time broadcasting technology that he could not put on the market in China. He had been trying to get some companies to buy the technology in order to use it for in-house, management purposes, but that was far below its potential. At the same time we got in touch with an American student that had built new technology in the same area, but did not understand how this could work on the market. But the European component was more interesting. A German start-up that a colleague came across on a trip there had been looking at some applications for traditional broadcasting, and we were discussing with them what they thought about cutting off from traditional technology and go mobile with it. When we first made that decisions, they just neglected us and turned to something else. Then we brought it up again, and they just shot the idea down. But we insisted, and we made a third attempt, and then one of them said that is 'just a crazy idea that we should spend our time thinking about technologies that you can't do anything with in Europe because regulations are so bad'."

And he ended: "So what happened? We took the Chinese technology over to the U.S., put it in a firm together with the U.S. innovator, and it took them two weeks before they have come up with a add-on function that entirely destroyed the product the Germans had. So if you are not prepared to think in bold terms, you will be out of business soon."

Problems in Europe are obviously reinforced by the fact that Europe has many countries that apply regulations differently. An investor also referred to the special difficulties in Europe where regulatory systems differ between countries. Sometimes the actual differences in substance are not big, but the simple fact that there is no immediate right for cross-border transfer of data means that the costs of business go up.

He said that the IPR system (especially copyrights) "is a nightmare in Europe. You can't do business in several markets at the same time from the same destination. If you want to stream music or TV in one country, you have no immediate right to do it another country. You have fragmented the market along national borders. Of course, it is something you can work with, you can do something about it, but it costs money. And you have to ask yourself: why should a new business venture be developed in Europe? Why not do it in the United States and then take it to Europe when the business has proven that it is profitable, or at least that it is technologically sound."

And he is not alone. A venture capitalist from Silicon Valley argued that market and regulatory problems in Europe could amplify the problems with IPR trolling. He said that many new Internet start-ups transferring content or converging networks and platforms with content face the problems with companies that "spend much time, energy and money to supervise and defend an IPR portfolio that is not used for innovative purposes, often only to make life more difficult for others".

If a company have to pay a fee on different markets in Europe for the same product, then the aggregate costs become very high. And he was pretty frank about the consequences: "I have seen several investment proposals from European Internet entrepreneurs that were exciting in the abstract but that became impossible once the copyright fragmentation had been factored in".

A celebrated Internet investor from a venture capital fund echoed that view and confirmed what was said above, that there is generally a trend of "offshore innovation" where entrepreneurs and investors are increasingly moving to areas subject to fewer regulatory risks. He said he could not point to any aggregate data supporting this view, but that it was clear from his own investment activities. As an investor particularly interested in the intermediation role of the Internet, and how new business models in transport, traffic, hotels, and education could be developed through the intermediary role of the Internet, he was particularly concerned about new regulations on privacy and storage of data, and how that would deter venture capitalists that find the regulatory risks to be unmanageable.

And he pointed in the direction of Europe: "I think Europe will have to think again about how it designs privacy regulations. I have seen the new proposal and I can't see how that could work. The modern world does not work like the old thinking about regulations that have gone into this idea from the EU. If it is applied like it is constructed it will prevent a lot of new business from starting and growing in Europe. It does not matter if you are a small enterprise and exempted from the regulation. If you have a new brilliant idea about a business, you don't know if you are going to be big or small three years from now. And it is a killer to ask investors to put up capital to invest in something that once successful might be caught up in a regulatory net that destroy much of the value generated."

And he picked up on the same EU proposal later in the conversation and gave flavour to his previous comments. He said: "And it does not matter if you are big and small if anyone could get in touch with a business and say that they want to make use of the right to be forgotten rule and that every record of that individual's behaviour should be erased from the company's data bases. For some firms it is not going to be possible to do that without destroying the entire data base, the key asset they have." He said that it would in effect be technologically impossible to do this – that there is no way to erase the digital footprint of an individual, especially when so many of the new innovations and applications based on personal data are derived from other public sources, or sources that are derivatives of data to which an individual has agreed.

Apparently, the proposal by the European Commission to reform Europe's privacy regulation in its proposal on data protection has not passed unnoticed. Two other U.S. investors made references to it, and one of them made an interesting point about how regulators act in a way that deters investors even if that is not the intention. He said that he had read parts of the proposal "to understand how this will work, but I just don't understand it".

And he continued: "I get the feeling that this is an armchair product from a group of regulators who think you can put a national flag on every piece of data that is transferred around the world. But never mind what I think, because, as I said, I don't really understand it. The thing they should worry about is that when people like me takes an interest in the regulation and tries but fail to understand it, the consequence is not that that we take a week off and fly over to Europe to get a crash course, the consequence is that we don't invest in start-ups that we think may be a bit too close to crossing the line of what you actually are allowed to do. Creating regulatory products like that is like putting up a big sign and saying – neglect us!"

Another investor made a similar point about what he thought is a fascinating new technology that offers great investment opportunities – path intelligence technology. Through collection of locational data of mobile phones, software models could generate knowledge about how people move – for everything from transport solutions and infrastructure investments to the design of shopping malls. All data collected is de-individualised – and it is not of interest at all to know who owns the mobile phone. It is the path that is of interest. But this is something that is challenging from a regulatory point of view.

He said: "I have seen companies that have had huge problems with regulatory authorities already. And if you add to that new restrictions on data collection, data storage, and new rights for individuals to manage their digital life even when the actual footprint is not there, it becomes too much for us. We can be stuck with an investment that could be valued at zero tomorrow because of a mistaken belief that you will increase privacy by entitling people to get their entire footprint erased. That sort of risk we cannot operate with, we have to say no."

He was not speaking only about Europe. In fact, most of his negative experience with regulators and politicians in this field come from the United States. But he admitted that he was worried about some investments planned for Europe. "I have a couple of investments in Europe, and they are all sensitive to this new EU idea. We collect a lot of tracking data in three countries, but our real capacity for making sense of the data is based here in the States. We have two subsidiaries that work directly with us from India, and we use the data we collect for designing new projects in other countries. So every single piece of data we collect is transferred in and out of Europe. And that is where we get exposed to new regulatory risks."

WHITHER DATA PROTECTION REGULATION IN THE EU?

So what is this new regulation on data protection in the EU that several venture capitalists have referenced? It is not easy to answer that question, partly because there is so far only a proposal from the European Commission that by all probability will get revised after it has gone through the process in the European Parliament and the Council of Member States. More importantly, the original proposal cannot be accused of being clear and exact in its definitions, proposals and estimates on consequences.

The basic principle of the new regulation is that almost all types of data and private entities would be covered through a 'one-size-fits-all approach'. The individual would have to give their explicit consent before any processing of their data, while they would also be given easier access to any data stored. If the data protection rules are breached, citizens will now be able to address the data protection authority in their country, even when the business is based outside the EU. Furthermore, a controversial 'right to be forgotten' rule will be implemented, allowing citizens to have their data deleted if there are no 'legitimate' reasons for retaining it.

The area that is most controversial is the new right to be forgotten rule. Regulatory authorities in the EU have concluded that it is a rule that is impossible to implement – and, more generally, it is an approach that is difficult to marry with the modern ICT-based world economy. The European Commission has not made an own impact assessment of what it would cost to uphold such a principle, but those that have tried suggest the cost could be very high.

A second area of controversy is the extraterritorial application of the new regulation – in effect, it forces any actor outside the EU territory to comply with EU rules if data should be allowed to be transferred across borders. Flexibilities may exist for those countries that are deemed to have equivalent regulations, but it remains unclear if, for instance, the safe harbour agreement with the United States can remain active under the new regulation. If greater restrictions on data portability rights were introduced, it could seriously affect the ability of companies to transfer data in and out of Europe.

Investors with an interest in peer-to-peer businesses also express scepticism. Many new Internet enterprises are driven by the active participation of consumers and consumer interaction. One investor said that much of the innovation these days take place in the application of services which build on consumers actively engaging with a technology and a company, and he used rental services such as *airbnb* as an example.

He said: "The old model or the former model of innovation was based on developing the networks and before that the infrastructure. Now the most exciting innovation in the sector takes place in the area of online applications. But that has led to a shift in the politics. When people and companies were innovating new network technology they could create and protect their assets in a fairly simple way. Now innovation has become more politicised, especially in areas related to privacy. This politicisation of privacy is dangerous for modern innovation. If we can't handle this in a non-politicised way, we will destroy many new businesses and ideas."

The same investor said he thought Europe should have an interest to offer more favourable conditions to these types of innovation than the U.S. He said: "You already have a vast number of U.S. software or Internet firms that have challenged or are challenging big European incumbents. There is no chance Europe can win a fight trying to protect old business models against these new ones."

And he continued: "But nor should there be a case for Europe to protect American software and Internet business on the market today. Many of them have already become mature companies; some of them are already big, if you think about Facebook for example. If there should be a special industrial outlook on these issues for Europe it should be about creating a policy environment that could foster firms to challenge the current big U.S. Internet firms. It is not old monopolies in telecommunication that are going to compete with Facebook or Google in the future, it is new companies that we don't know the names of yet, because they may not exist - most of them probably don't. But the conclusion for Europe should be to create a policy environment that supports these still unborn companies. That is the way it could make itself interesting for foreign investors and venture capitalists in a much bigger way than today."

A similar point was made by another investor who considers Europe's new regulation on privacy and data protection to be irrational, but that eventually will serve to entrench the current market and give the incumbents a much stronger position vis-à-vis new market entrants.

He said: "Europe is not getting it. You are now coming up with policies that target the big firms that already exist. But they can work around these regulations; they have the money and the skills to do it. I am much more worried about young, European innovators that have something new to offer on the market but that can't spend the money trying to understand how you get around a technical definition on data protection."

Some of the investors also thought that Europe could become much more attractive for U.S. and other Internet venture capitalists if they offered a regulatory framework more conducive to online commerce and entrepreneurship. No one thought Europe is doomed, or that the conditions are too bad for changes in regulations to actually have a positive effect on the volumes of investment.

One investor said: "All countries are trying to figure out what the right sort of regulation should be and how copyrights need to change. And all that will happen, current policies will not survive. If European countries or the EU could figure out a way to advance new thinking about regulations, they could get a head start. There are so many investors these days thinking about regulatory overheads and regulatory risk that the first big market that comes up with a policy better than what we have in the States now will attract entrepreneurs, innovators and also investors."

And another investor echoed that view, and put it in pretty stark terms. He said: "We as investors are in the business of destroying markets and creating new markets. The destruction will happen without us because the technological development is too strong for politicians to fight. The question is if there can be a better climate for creating new markets. And this is where all these regulations come in. We don't like what you are doing in Europe, and we don't really like the current system in the United States either. If Europe does find the way forward on privacy and copyrights that works with new technology then it is also there that new markets will be created."

REFORMING COPYRIGHT POLICY IN THE EU

Copyright policy in the EU still fragments European markets, and it has been a source of frustration for years to Internet and telecom firms that cross-border usage of copyright-protected material has undermined the capacity to enlarge markets in Europe. Furthermore, there have also been substantive complaints, going beyond fragmentation, and they have increased in the past years. Now the Commission is talking about changing the policy for copyrights and copyright levies, but it remains to be seen how far-reaching these reforms will be, if they at all will happen. A reform of copyright levies, for instance, has been discussed for decades without any result.

There is an obvious conflict between various interests in the EU, and between various member states and various departments inside the European Commission regarding what change should be effected by the new initiatives. There is already a proposal on the table to change the governance of the collecting societies that manage the copyright levy system applied in many parts of Europe, but the proposal falls shorts of suggesting larger reforms. A mediator was appointed by the Commission to come up with a compromise proposal on how larger reforms could be designed, but no such compromise could be achieved. In the meantime, a French review has suggested the introduction of a new tax – the so-called iTax – that would force any buyer of technology that could stream or carry copyright materials to pay a tax to support domestic content producers.

The Commission, however, has talked up a larger reform of copyright, and how it can be reformed to fit with the modern economy. Neelie Kroes, the Digital Commissioner, certainly "talks the talk" about copyright reforms for a digital age. But how far is she prepared to fight for a reform? While Kores, too, is careful to stress that a reform must strike a balance between rewards for artists and creators, on the one hand, and new technology on the other hand, it is quite clear that the thrust of the reform that she envisions would reduce the restrictions that today exist. A proposal by the Commission is expected, and for the time being it is running a couple of dialogue sessions with the industry, e.g. covering license requirements for data mining, to discuss the structure of what the Commission, or at least DG Connect, hopes will become a "modern copyright system".

He also made a larger point about copyrights. Like another venture capital investor with experience of media, he said that there are dimensions of copyrights in Europe that limit the attention span for many investors looking into Europe for new attractive investment opportunities. He believed that the current fragmentation of policy made it close to impossible for an outside investor to estimate what sort of regulatory problems and risks are facing a new innovation. So, in that sense, it is a no-brainer for the EU to establish a unified system for copyrights in Europe, that is borderless and does not add huge administrative burden on those that actually deliver the copyrighted content.

Yet he said that the desire by politicians to reform copyrights cannot be limited to creating a pan-European system for copyright and copyright levies, it also has to reform substantively if it should attract more foreign venture capital into businesses that operate in the field of media. He said that this is a policy area where Europe really could have an edge vis-à-vis the United States.

He said: "There is a clash between systems, between economic interests. We have a system of copyrights now, in both the U.S. and Europe, that is at odds with new technology and new online media businesses. Right now the content providers have the upper hand; they have an enormously strong protection, and if that protection is maintained, its will eat away a lot of potential economic values for the society. This does not have to be a conflict between creators and the technology - that clash can be settled. It is the clash with an outdated system that is more worrying."

And he continued putting this in a European perspective: "Europe should have a chance to do this better. You don't have such a powerful copyright interest as in America. And if you figure out a way to do this, you will see a lot of interest from investors across the world that want to put money into new ventures. To me this would not be an issue about if it will happen; if Europe reforms copyright policy there will be investments." He said that vested interests in Europe sometimes could have a more destructive role than big copyright-based companies in the United States, and he pointed especially to collecting societies and they way they manage copyrights. Consequently, Europe, too, is up against influential actors when copyright policies are discussed.

Finally, a Bay Area venture capitalists with several successful investments in copyright areas said Europe has a choice to make if it really wants to attract more foreign VC investors to put money into Europe. He was making an interesting argument about whether Europe really could close the gap to the U.S. under current political and regulatory circumstances. But he did not refute that notion, or considered it impossible, His argument was rather one about what societal model Europe wants to follow.

Here is what he said: "I don't think Europe can become like the U.S. or give businesses or investors like us a better deal when it comes to the broader issues, like employment regulations. You simply don't like the model we have here, you think it is too much capitalism, and that it leads to too many swings in the economy. That is fine, that is your choice. But if you still want to attract us to invest there, what is then your value proposition as a policy entity? What is it that you can attract us with? To be frank, you don't have so many choices. If you are going to keep current policies and actually make the worse – then I don't think you should bother at all about attracting VC's in Internet start-ups. What is the point, really? But if you want to catch up on the U.S., you can do so by giving a policy space that differs from the U.S., a policy that makes it much more attractive to develop new companies in Europe."

4. CONCLUDING COMMENTS

THIS PAPER STANDS in the nexus of policy and performance of the online start-up sector in Europe. It started from the assumption that Europe could make policy a comparative advantage rather than a disadvantage – and help to promote a growing number of online enterprises through policy reform. Most of the research for this paper is based on in-depth interviews with seasoned venture capitalists in the U.S. with a proven record of successful investments in Internet-based start-ups.

What are the takeaway points from this paper?

First, the policy atmosphere is important, and is likely to play an even more important role as regulations with a direct impact on online business grow and expand their scope.

Second, most venture capitalists are critical of labour policy in Europe, and consider it to

be one of the reasons why they are hesitant about investing money in European start-ups.

Third, regulations with a more direct impact on online business are generally considered to be difficult to navigate and manage in Europe. Market and policy fragmentation adds to that problem. The overall consequence is that investment proposals from Europe are rejected because investors have difficulties understanding the exact risks that come from regulations and changes in regulations.

Fourth, the new EU proposal on data protection is considered to be particularly difficult to understand, and investors see obvious risks to investments emerging from that proposal.

Fifth, the copyright system is seen as arcane and unmanageable for many new Internet startups. There is an upside if Europe manages to reform its copyrights, however, as reform in the U.S. seems unlikely.

Sixth, investors are concerned about how new regulations encroach on the capacity to generate societal economic value in the online business sector, and there is a risk that investments will target "offshore" companies/sectors that are subject to lighter regulation, but not necessarily sectors that could generate larger economic gains for society.

And lastly, venture capital investors argue that Europe could get an edge in the competition over investments if they offered a policy climate that is more hospitable to online entrepreneurship than in the United States. As policy and regulation increasingly define the scope for new innovations in this field, the way regulations are designed can have a significant influence in how investors think about the location of innovators and the destination of their investments.