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Delegations will find attached Commission document SWD(2013) 142 final **(Part 1 of 3)**.

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Part 1 of 3

COMMISSION STAFF WORKING DOCUMENT

Strengthening the environment for Web entrepreneurs in the EU

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COMMISSION STAFF WORKING DOCUMENT

Strengthening the environment for Web entrepreneurs in the EU

Contents

1. INTRODUCTION

On 9 January 2013 the European Commission adopted the Communication on the "Entrepreneurship 2020 Action plan"[1]. Under the heading of "Unleashing the business opportunities in the digital age" it is announced that the Commission will launch specific actions for Digital and Web entrepreneurs.

The Communication states that the Commission will help entrepreneurs and SMEs to fully exploit the potential of ICT, both in terms of *supply* of new digital products and services, and in terms of *demand* and smart use of these technologies. On the supply side, Web entrepreneurs constitute a specific category of entrepreneurs who create new digital services and products that use the web as an indispensable component. On the demand side, Digital entrepreneurs drive economic and/or social value by using new digital technologies. Digital enterprises are characterised by a high intensity of new digital technologies to sharpen their business intelligence, engage with their customers, improve their operations and invent new business models. Digital and Web entrepreneurs create the jobs and growth of the future.

A study on "Doing business in the Digital Age", to be followed by a Staff working document covering the wider topic of Digital entrepreneurs are under preparation by DG Enterprise and Industry.

Regarding Web entrepreneurs, the Commission announced a series of specific actions such as:

i)   a Startup Europe Partnership to unlock expertise, mentoring, technology and services,

ii)   a Web Entrepreneurs Leaders Club to bring together world-class web entrepreneurs and strengthen the web entrepreneurial culture in Europe;

iii)   a European network of Web business accelerators;

iv)   work with European investors in order to increase the flow of venture capital and crowd-funding into Web startups;

v)   foster Web talent by stimulating the emergence of Massive Online Open Courses and the setting up of platforms for mentoring, and skill building.

The Staff Working Document (SWD) describes the specific characteristics of Web entrepreneurship and the Web entrepreneurial environment in Europe, with its strengths and weaknesses.

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[1] COM(2012) 795 final of 9.1.2013

The SWD also sets out the rationale for specific actions for Web entrepreneurs, on the basis of an analysis of barriers and challenges for Web entrepreneurship in Europe, and provides details on the actions envisaged.

2. AN OVERVIEW OF THE CURRENT LANDSCAPE

Web entrepreneurs constitute a specific category of entrepreneurs who create new digital services and products that use the web as an indispensable component[2].

The businesses Web entrepreneurs start not only create many new jobs in the digital industry, but also have an important transformational and cross-border impact on the society and economy. Startups create the majority of new jobs and currently 30% of new startups are web startups[3]. To ensure that Europe benefits fully from Web entrepreneurship, more Web entrepreneurs ought to start in Europe and stay in Europe.

There are many new and quite specific entrepreneurial ecosystems emerging in Europe. Web entrepreneurs are part of them. However their skills and mindsets can be very different from those of other startup founders. Web challenges are also distinct from those facing startup founders in other industries across Europe.

Web entrepreneurs rely on existing Web technologies, APIs and cloud platforms to develop new products and create new services, as well as to distribute and sell them. They operate in a complex and fast moving eco-system, where networking and experimenting is paramount. They often require relatively little time to build new Web products and distribute them, which means the time between idea and go-to-market is shorter. The Web being their main development tool, they can operate independently of physical locations, both in terms of building their businesses and finding and serving clients

Web startups are cheaper to set-up and the entry barriers are low, making them an attractive vehicle to start an entrepreneurial career. On the other hand, they cope with high risk of failure, a global, borderless playing field and often unproven existing technologies, platforms and distribution mechanisms. Web startups tend to grow and fail faster than other businesses, which translates into higher rewards, but also higher risks.

Web startups often reinvent and reshape existing incumbent companies, market segments, or even entire industries. (ie. Zappos for retail shoes, Spotify for music, Rovio for games, Coursera for education). The most successful Web startups can grow from a team of 2 people to 200 people in less than a year, and increase revenues tenfold in the same period from customers worldwide.

Web entrepreneurs require for that reason tailored support measures to structurally strengthen the web startup ecosystem. [4]

On a local and/or national level, many initiatives exist that actively aim to improve the situation, whether grassroots, corporate, or government-led. Yet, so far, these investments

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[2] Communication on the "Entrepreneurship 2020 Action plan"
[3] Data from the USA (Start-up America Partnership)
[4] Communication on the "Entrepreneurship 2020 Action plan"

have not resulted in a stronger, globally competitive environment that yields a higher number of scalable Web businesses and global leaders in the field.

Compared to other regions, notably the USA and Asia, the landscape for web-entrepreneurs in Europe is not delivering comparable results. Europe is struggling to create new startups, make them grow and turn them into global leaders. This is true also for Web startups.

These three stages of Web-businesses development are crucial to compete in the Web economy.

- **Seed stage:** The Web is a highly competitive world. At the seed stage, the cost of failure is low, but the rate of failure is extremely high. If Europe does not generate sufficient web startups it will have less companies competing for growth.

- **Early growth stage**: Here Web-business specific venture capital (VC) is the go no-go factor. The graphic below shows the radically different growth path followed by companies depending on whether VC has been invested in them or not.

- **Late growth stage**: Global web-business leaders exercise a massive market power which is very difficult to challenge. They are powerful magnets that attract new businesses and make them grow. However very few high growth European companies manage to enter the maturity stage and become global leaders because the majority are bought by US internet giants beforehand[5].
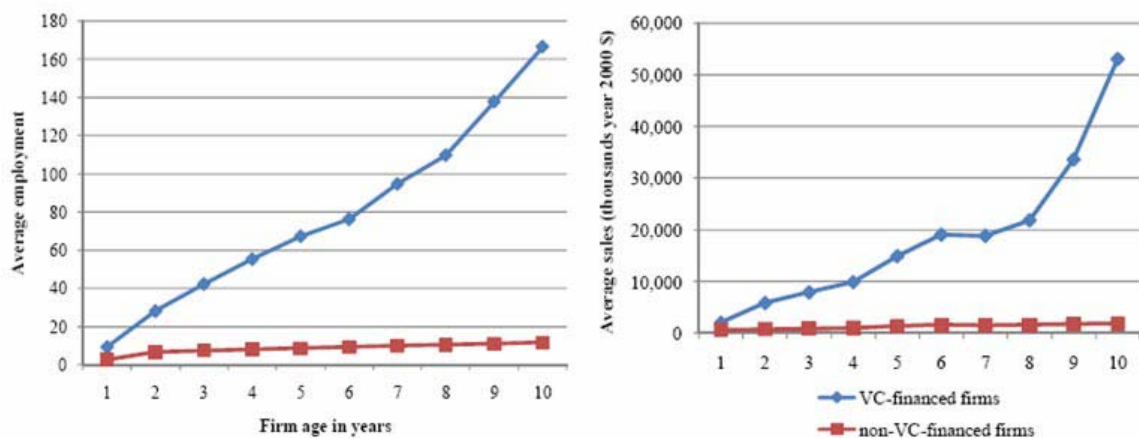
Graphic 1: Evolution of employment and sales for VC and non-VC financed firms (source: M. Puri and R. Zarutskie)

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[5] See annex 1 point 2

Despite its many challenges a sizeable number of successful Web entrepreneurs do originate in Europe, some of which created global technology businesses that play a genuinely leading role in their respective fields. Detailed descriptions of some of these success stories can be found in Annex 1.

Nimbler, innovative and young European startups also draw praise and attention (and capital) from all over the world. These companies are based all across Europe, showing that innovation can happen in any Member State. They are responsible for creating many new jobs, across multiple European countries and regions, by growing fast and by establishing offices continent-wide.

And yet, the most innovative, lucrative and largest businesses built by Web entrepreneurs are clearly created and operated outside of Europe. Younger startups founded by Web entrepreneurs that command high valuations typically hail from the United States.

Increasingly, European Web entrepreneurs and the ventures that start and operate are unable to compete against these players in their respective categories. They often experience slower growth compared to overseas competitors, only to end up getting acquired, stop growing or even shutting down.

When it comes to exits, successful European Web entrepreneurs often opt to get acquired by a US company, usually a larger rival in the same sector, or go public on stock markets outside of Europe (e.g. NASDAQ or the Tokyo Stock Exchange). This often results in entrepreneurs relocating to other regions, and after returning capital to their investors their earned profits are spent elsewhere.

This matters because Web entrepreneurs will be responsible for a significant and growing portion of economic and net job growth throughout Europe, as the 'Web' economy steadily replaces parts of the old economy. E-commerce progressively supersedes the retail market. New (social) media continuously absorb certain sectors of the old media, Software as a Service (SaaS) substitutes traditional enterprise software. While businesses like law and finance have experienced sluggish growth over the past 5 years, companies in the tech sector are seeing revenue growth of at least 30%/annum, and frequently upwards of 100%/annum[6]. Both, startups and larger companies are beneficiaries of this explosive growth.

According to the Lisbon Council, the availability of open source tools, cloud computing and the rise of virtual office infrastructure has driven the cost of launching an Internet venture down from €4.4 million in 1997 to €530,000 in 2002, and to €34,000 in 2008.[7]

The App Economy is now responsible for roughly 466,000 jobs in the United States, up from 0 in 2007 when the iPhone was introduced.[8] Europe lags behind in these fields and is not preparing the landscape for growing new players capable of competing with companies like Google, Facebook and Apple.

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[6] http://blog.indexventures.com/tech-in-the-city/
[7]   Lisbon   Council,   Wired   for   Growth   and   Innovation,   Issue   12/2012
        http://www.lisboncouncil.net/publication/publication/73-new-policy-brief-wired-for-growth-and-
        innovation.html
[8] http://www.technet.org/wp-content/uploads/2012/02/TechNet-App-Economy-Jobs-Study.pdf

Web companies create economic impact through both direct effects, caused by its day-to-day activities within Europe, and indirect effects[9], accruing to third parties as a result of the ecosystem[10]. Some examples include: Rovio a company that recruited 625 employees, works indirectly with 30.000 other people. This creates significant global impact and economic value through enabling ecosystems.

3.   ISSUES AND CHALLENGES

A well functioning Digital Single Market can contribute significantly to the creation of new, successful web businesses. Measures in this area are taken in the dedicated pillar of the Digital Agenda for Europe, with a focus on facilitating cross-border online trade. The issues and challenges identified below focus on the conditions for starting and growing a web-business, irrespective of its specific nature.

3.1.   The unbalanced distribution of facilities and resources for Web entrepreneurs across Europe.

Web entrepreneur weaknesses are common to all countries, but some areas perform better than others[11] as regards accelerators, hubs and funding opportunities. This unbalanced situation across Europe is presented below.

3.1.1   Accelerators

Accelerator programmes are designed to prepare web startups' for the market, using both mentorship and seed capital investment. Accelerator programmes have grown in popularity over the past three years in Europe, following the success of schemes like Y Combinator and TechStars in the USA. Today there are a number of established accelerator 'brands' operating multiple programs across the EU, along with many individual examples, too.

Examples of the most notable accelerators in Europe can be found in Annex 2. These are concentrated in 8 cities across Europe (the ones with square pins). There is a need to have a more balanced distribution of and easier access to accelerators so that more Web entrepreneurs have the opportunity to get into high profile accelerators programmes.

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[9] Web companies have significant indirect impact through: business participation by enabling businesses to raise awareness of their products and therefore generate new sales; platform effects, by developing a focused specific App community and enabling more frequent and larger social activities among users; technology sales, by boosting the demand for technology through increased sales of devices and broadband connections.

[10]   Deloitte: The impact of social networks in the economy (http://www.deloitte.com/assets/Dcom-UnitedKingdom/Local%20Assets/Documents/Industries/TMT/uk-tmt-media-facebook-europe-economic-impact.pdf)

[11] For instance, the London Web startup ecosystem vs. other EU areas, see www.startupgenome.co
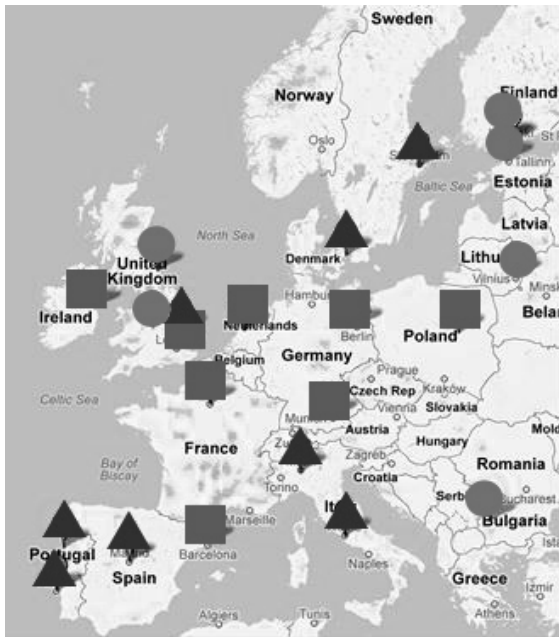
Figure 1. *Map depicting the locations of the accelerators listed above.*

■ = *locations with two or more high-profile accelerators*

▲ = *locations of accelerators that are part of a multi-location brand*

● = *stand-alone accelerators*

3.1.2   Hubs

Although Web entrepreneurs can be found operating successfully across the EU, hubs of startups and investors have emerged in recent years, allowing for the benefits of easy networking and shared resources.

The map below shows the weak current situation across Europe. Though there are many hubs across Europe few of them are primary or secondary hubs[12], and those are concentrated in a handful of selected cities. Having an adequate geographical distribution of primary and secondary hubs and providing better access to such hubs, across the EU, would contribute to strengthening the overall web startup ecosystem.

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[12] The Primary hubs are considered to be the main EU Startup clusters from a global perspective. The secondary hubs are also notable according to the maturity and development of the ecosystem. (http://www.theatlanticcities.com/jobs-and-economy/2012/11/worlds-leading-cities-startups/3937/)
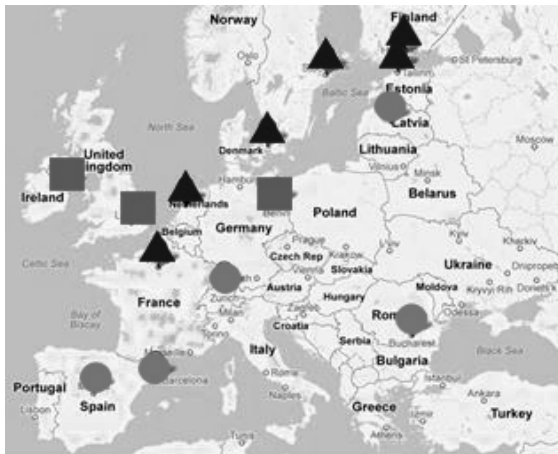
Figure 2. *Map depicting the hubs in Europe*.

■ = Primary hubs

▲ = Secondary hubs

● = Emerging hubs

3.1.3 Early-stage investments and access to finance for Web businesses

Early-stage investment for European Web startups has traditionally been viewed as a scarce resource for any entrepreneurs. This is a major handicap for Web entrepreneurs since, in most cases, the money required to initiate a Web business is very small, but it should be easy to get given the higher failure rates. This limited availability of early-stage investment for Web businesses is due in part to a low number of major exits releasing knowledgeable angel investors into the ecosystem.

While there are large private equity firms and major VC firms that have the financial resources to propel growing Web businesses to global leadership, Web entrepreneurs in need of significant growth capital to, for example, expand internationally through organic growth or mergers and acquisitions, often struggle to raise capital from them. This is a serious disadvantage compared to startup founders in countries like the United States[13], Israel, Japan and other Southeast Asian nations.

Venture capital investment firms in Europe[14] often don't have an interest in investing in technology companies, and the ones who do often lack the capital, structure or talent to invest in early-stage startups (seed funding). In addition, business angel investors throughout Europe often shy away from financing young Web entrepreneurs and their ideas because of a lack of knowledge and supporting network.

Moreover, the distribution of VC is concentrated in a few countries. More than 60% of the VC available in the EU[15] goes to Europe's four major countries for venture investment – the U.K., France, Germany and Sweden (graphic below)

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[13] http://www.dowjones.com/pressroom/releases/2012/01202012-Q4VC-0004.asp
[14] http://www.dowjones.com/pressroom/releases/2012/01302012-Q4EUVC-0007.asp
[15] http://www.dowjones.com/pressroom/releases/2012/01302012-Q4EUVC-0007.asp

VC Investment Distribution

The figure below also reveals a strong north south gap in terms geographical distribution of investment sources for Web startups.

Figure 3.*Map depicting the investors' offices in Europe for the different stages of growth of a Web startups*.

■ = Early- and later-stage funding

▲ = Later-stage funding

● = Early-stage funding

3.1.4   The Web business growth path

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Number of companies

Growth
(Jobs & profits)

Time

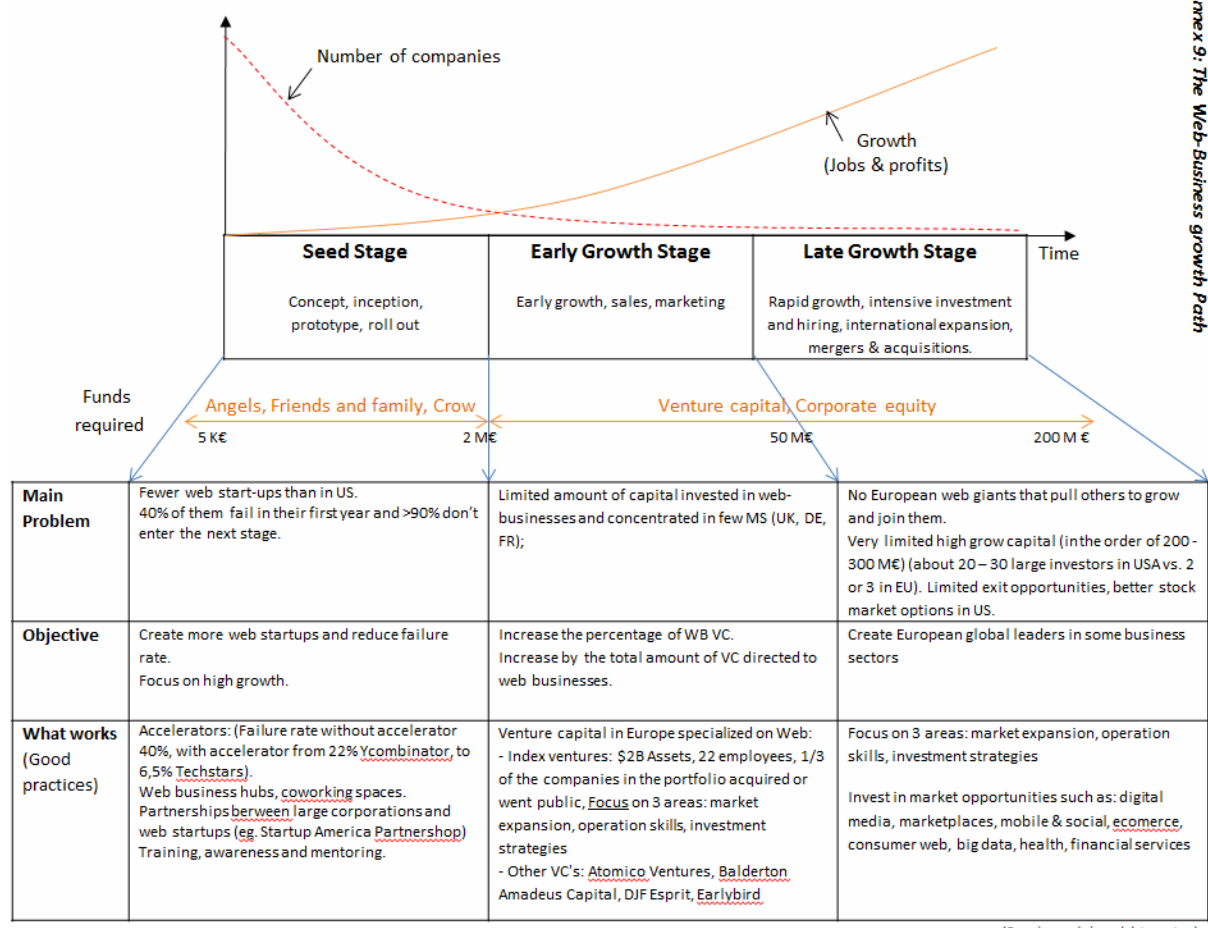|	Seed Stage	Early Growth Stage	Late Growth Stage
	Concept, inception, prototype, roll out	Early growth, sales, marketing	Rapid growth, intensive investment and hiring, international expansion, mergers & acquisitions.

Funds required

Angels, Friends and family, Crow

Venture capital, Corporate equity

5 K€   2 M€   50 M€   200 M €

	Seed Stage	Early Growth Stage	Late Growth Stage
Main Problem	Fewer web start-ups than in US. 40% of them fail in their first year and >90% don't enter the next stage.	Limited amount of capital invested in web-businesses and concentrated in few MS (UK, DE, FR);	No European web giants that pull others to grow and join them. Very limited high grow capital (in the order of 200-300 M€) (about 20 – 30 large investors in USA vs. 2 or 3 in EU). Limited exit opportunities, better stock market options in US.
Objective	Create more web startups and reduce failure rate. Focus on high growth.	Increase the percentage of WB VC. Increase by the total amount of VC directed to web businesses.	Create European global leaders in some business sectors
What works (Good practices)	Accelerators: (Failure rate without accelerator 40%, with accelerator from 22% Ycombinator, to 6,5% Techstars). Web business hubs, coworking spaces. Partnerships berween large corporations and web startups (eg. Startup America Partnershop) Training, awareness and mentoring.	Venture capital in Europe specialized on Web: - Index ventures: $2B Assets, 22 employees, 1/3 of the companies in the portfolio acquired or went public, Focus on 3 areas: market expansion, operation skills, investment strategies - Other VC's: Atomico Ventures, Balderton Amadeus Capital, DJF Esprit, Earlybird	Focus on 3 areas: market expansion, operation skills, investment strategies Invest in market opportunities such as: digital media, marketplaces, mobile & social, ecomerce, consumer web, big data, health, financial services

(On-going analysis and data capture)

As the graph above shows, there are specific problems for each stage of growth of Web startups: seed, early growth and late growth stages. The figure describes the main problems at each stage, presents some desirable objectives to aim for at each stage and lists different measures that are actually working in each funding stage.

3.2. Barriers and challenges as perceived by stakeholders[16]

The figures below show the relative importance of the different types of perceived barriers for Web entrepreneurs and other stakeholders. The analysis is based on a first collection of data, without claiming to represent a deep analysis of all the barriers for Web entrepreneurs.

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[16] Information in this chapter is drawn from the OPUS study - "Open platforms for web based applications and services in Europe" - 2013 (SMART 2011/0043) – Annex 3 of the SWD, http://www.opus2012.eu/ EC DG Connect
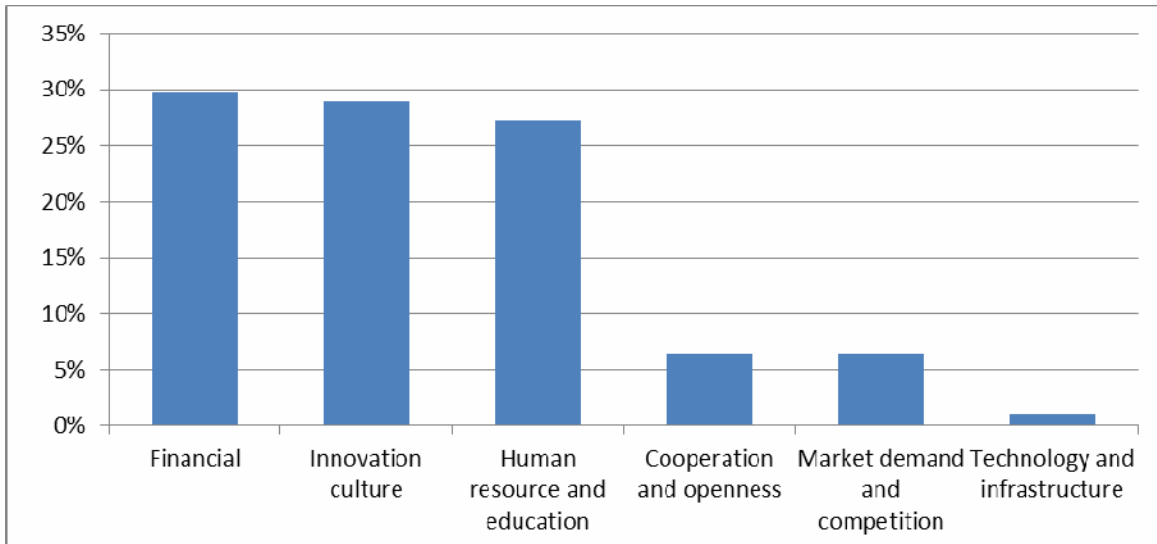
Figure 4: Barriers perceived by Web entrepreneurs and other stakeholders

3.2.1.   *Financial Barriers*

The main bottleneck in this area is limited access to venture capital[17], bank loans, and public funding. Measures to help overcome this bottleneck include stimulating banks to offer loans to startups and providing assistance in securing venture capital, grants, and subsidies.
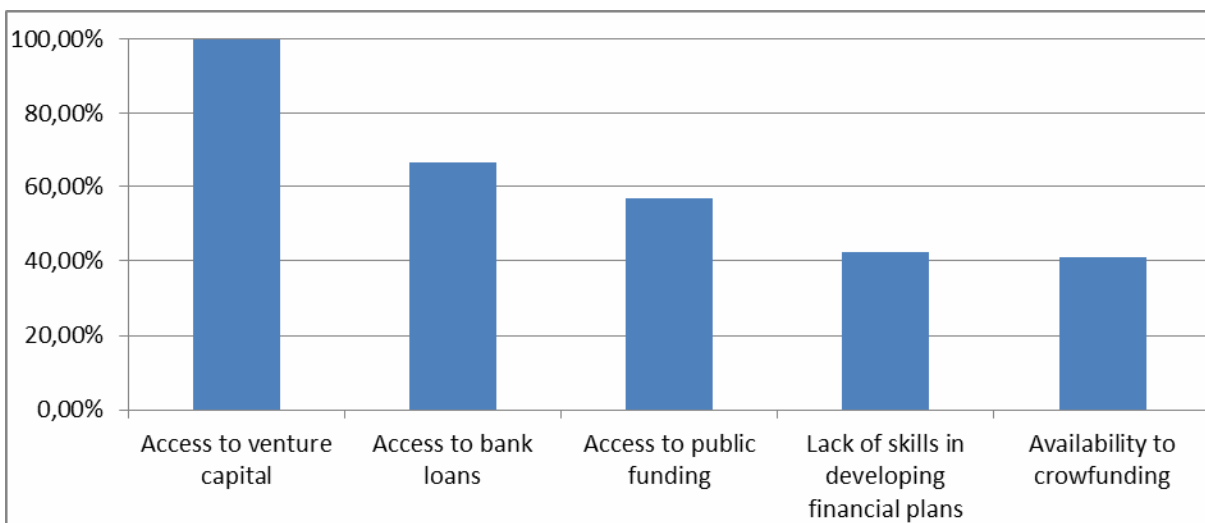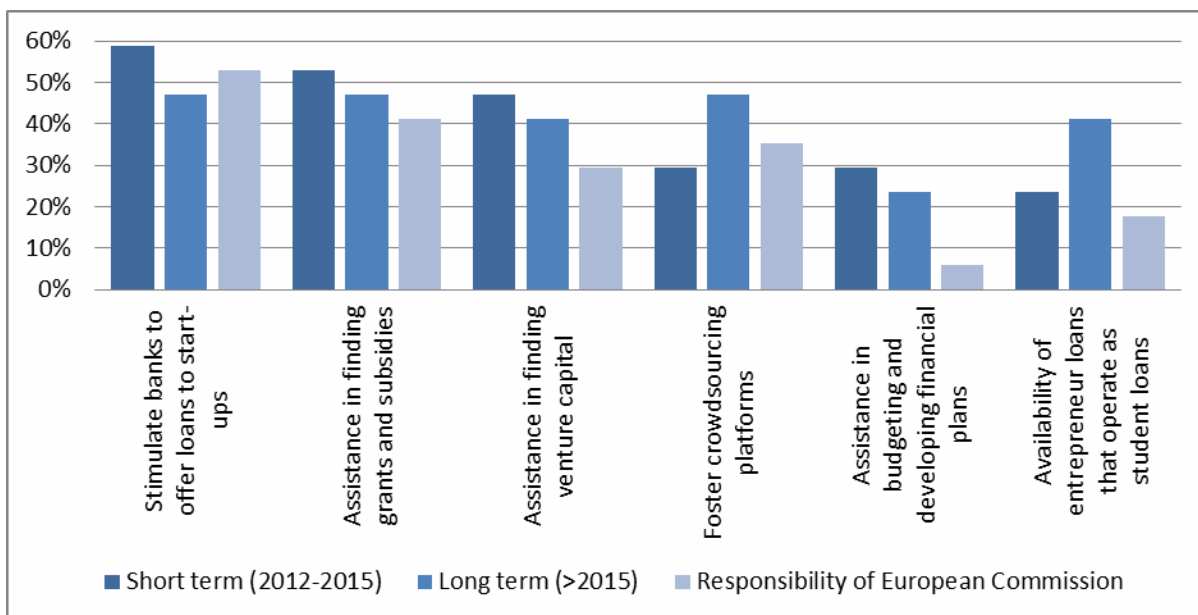

Figure 5. Relative importance of financial bottlenecks

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[17] http://www.economist.com/blogs/schumpeter/2012/04/european-venture-capital

Figure 6. Measures that could help to overcome the financial bottlenecks

3.2.2. *Innovation Culture*

The main bottlenecks in this area are the rigidity of the workforce regulation[18] (e.g. hiring freelancers), a discouraging tax regulation for entrepreneurs, and the complexity of regulations (e.g. relating to intellectual property rights).

Popular measures to stimulate the innovation culture include the provision of tax incentives and the reduction of administrative burdens for startups.

Especially for the latter two measures, a majority of respondents indicated that there is a need for action at European level.
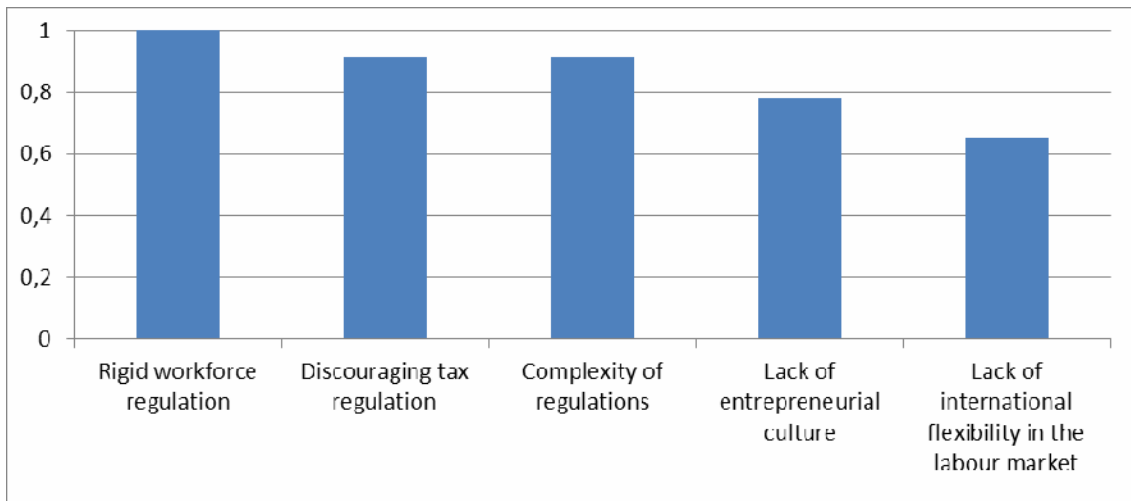
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[18] http://www.economist.com/node/21559618

Figure 7 Relative importance of bottlenecks relating to the innovation culture
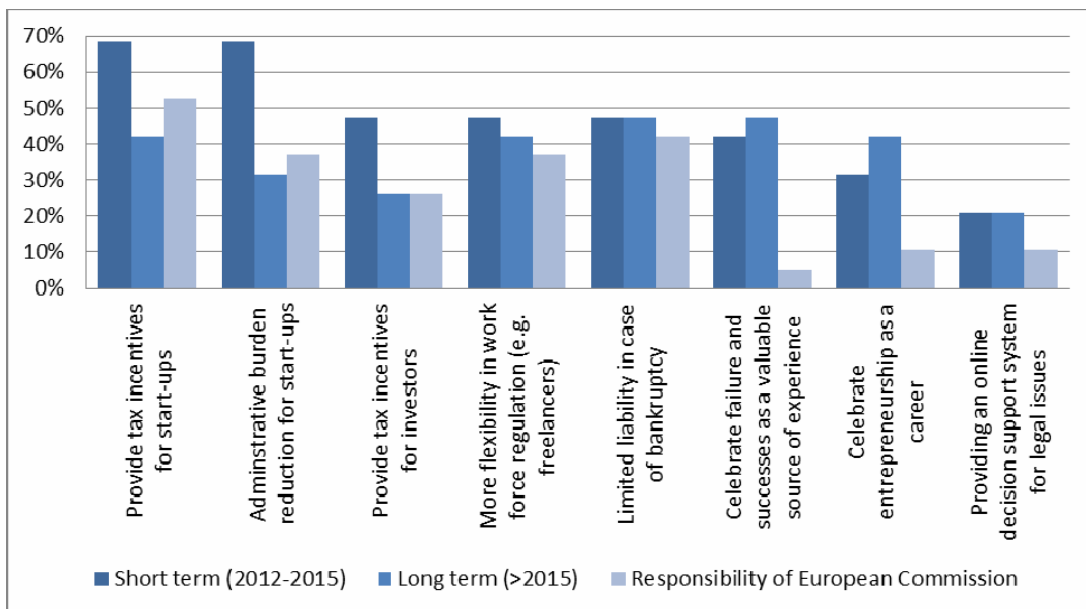

Figure 8. Measures that could help to overcome the bottlenecks relating to the innovation culture

The actions for Web entrepreneurs proposed in the Entrepreneurship 2020 Action plan, concerning the establishment of a Leaders Club, the development of web talent and the Startup Europe Partnership aim at addressing some of the issues identified above.

3.2.3.   Human Resource and Education

Education systems often fail to embed entrepreneurial learning approaches as part of the core curriculum, or to promote entrepreneurship as a career option to young people outside of the main business schools and specialised universities. Furthermore, across most of Europe there prevails a culture where 'failure in business' is regarded as a cause for shame and not as a valuable learning experience and a chance to start something new.

Studies show that entrepreneurship education makes a difference, with young people getting jobs earlier, becoming more innovative employees and importantly starting more companies[19]. In a time of rising youth unemployment, outcomes such as these are critical.

The main bottlenecks for Web entrepreneurs are the limited availability of skilled labour, finding existing skilled labour, and labour costs, specifically in the Web business area. Trends show continuing mismatches between the supply and demand of specialists, regional imbalances, and impending difficulties due to replacement demand.[20]

Popular measures to help overcome this bottleneck include encouraging entrepreneurship education, encouraging computer science studies, and providing financial incentives to startups for the recruitment of new personnel.

Over 60% of the respondents indicate human resource and education as a problem area. This suggests that encouraging entrepreneurship education and stronger focus on Web and Internet training require actions at European level.
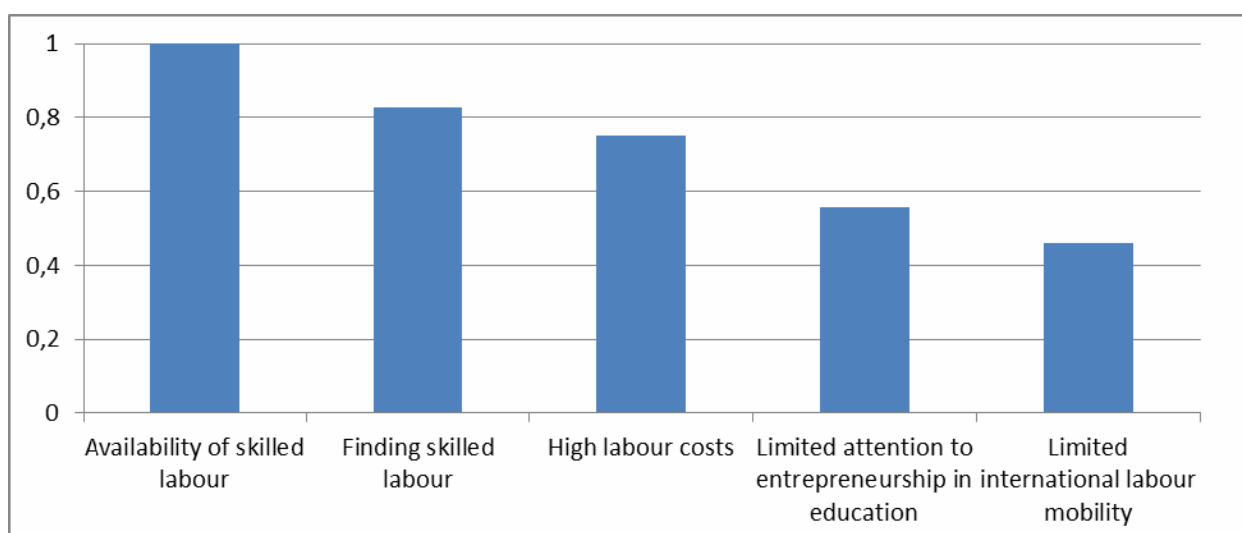

Figure 9. Relative importance of bottlenecks relating to human resources and education in the area of Web business

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[19] Effects and Impacts of Entrepreneurship Programmes in Higher Education, DG Enterprise (March 2012) http://ec.europa.eu/enterprise/policies/sme/promoting-entrepreneurship/files/education/effects_impact_high_edu_final_report_en.pdf

[20] EU Skills Panorama Analytical Highlight, ICT professionals (November 2012): http://euskillspanorama.ec.europa.eu/docs/AnalyticalHighlights/ICTProfessionals_en.pdf
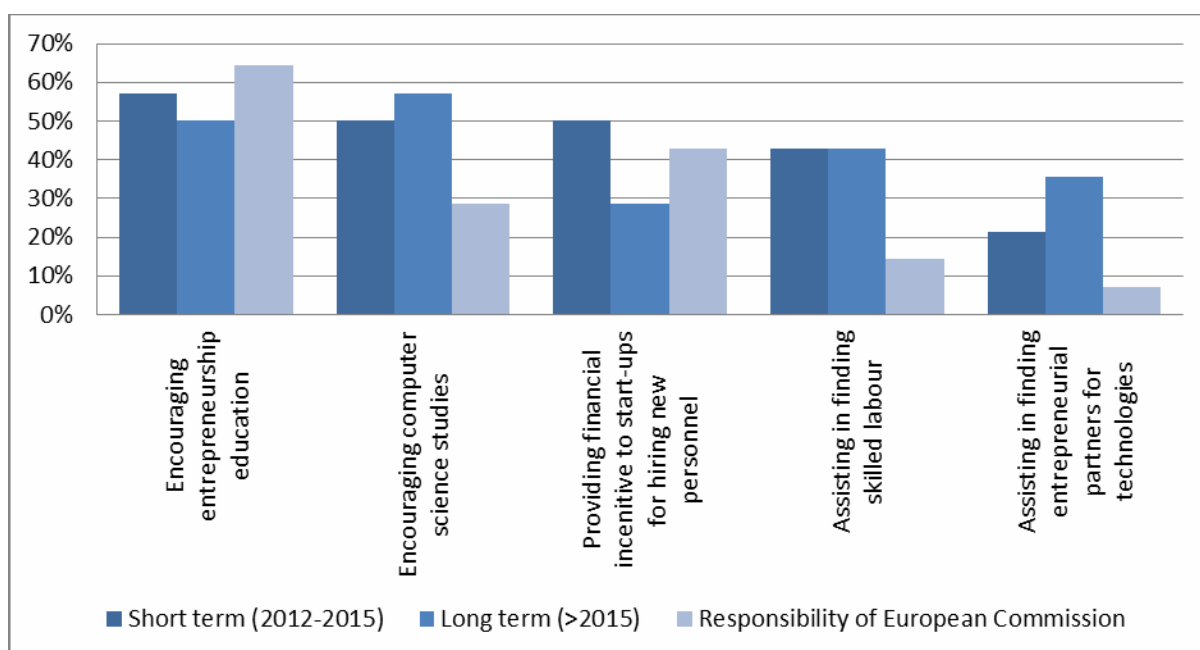
Figure 10. Measures that could help to overcome the bottlenecks relating to human resources and education (source: OPUS study)

The three main challenges in the Web business sector are, therefore, the entrepreneurial culture, access to capital and the availability of ICT/web talent.

4.   **MEASURES**

The challenges cited above are issues extending well beyond the borders of individual Member States. These issues, affecting all industrial sectors, become more relevant in the fast moving and strongly globalised sector of Web entrepreneurs.

The actions proposed aim at promoting a renewed culture of innovation and talent development at a European level. Some Member States perform better than others so successful approaches should be replicated, adapted and scaled across the EU. Key resources for Web entrepreneurs can be effectively stimulated and pooled at EU level to create single points of access, independent of their national origin, or location.

The measures proposed are tailored to the specific characteristics of the Web start-ups. The need for maximum speed, flexibility, and the peculiar growth and market development patterns are so specific that generic support actions will be insufficient to cover the needs of Web startups. The measures proposed therefore will provide focus, flexibility and be adapted to the needs of Web entrepreneurs.

These actions respond to the issues and challenges identified by the stakeholders and described in chapter 3 of this document. Several of the challenges referred to are of generic nature and are well covered by the other initiatives included in the Entrepreneurship 2020 Action Plan. The measures for Web entrepreneurs are short term and focus on actions to catalyse further developments in the Web business sector.

As stated in chapter 3, Web entrepreneurs and other stakeholders recognised barriers in terms of access to finance, innovation and entrepreneurial culture, human resources, skills and training. They also highlighted the importance of encouraging entrepreneurship as a career in the Web business sector and celebrating failure, as well as success, as sources of valuable experience (see figures 4 to 10).

The measures proposed deal with these specific concerns. The Startup Europe Partnership, providing access to advice, mentoring, and resources, stimulating social networking with successful stakeholders and supporting Web business to grow and expand globally will be a concrete initiative dealing with a combination of the identified issues. The Web entrepreneurs Leaders Club will help improve the entrepreneurial culture in Web business, especially amongst the young generation. The network of Web business accelerators will combine benefits in terms of human resources, mentoring, skills and access to services, as well as seed funds. The crowd funding and venture capital action will complement existing measures by focusing on networking and coordinating available resources in the Web business field. The activities included under the heading of "Fostering Web entrepreneur talent" will explore the potential of some innovative methods to palliate the skills and training deficit. This will be fully coordinated with the actions in the Grand Coalition for Digital Jobs[21].

The 5 specific measures for Web entrepreneurs, announced in the Entrepreneurship 2020 Action Plan, are further described below, by explaining the objectives and the activities to be undertaken:

4.1   Startup Europe Partnership

The **Startup Europe Partnership** will be an initiative encouraged by the Commission, but led but the community of stakeholders. It aims at facilitating access to resources such as expertise, technology, services or logistics to support entrepreneurs. It will bring serial entrepreneurs, large companies, specialised investors, mentors, accelerators and media in contact with young entrepreneurs and online startups. This can also work for all tech startups but will definitively offer a boost for web entrepreneurs.

The Startup Europe Partnership will provide three main services to web entrepreneurs: access to advice, expertise and other resources (mentoring programmes, IT resources, financial resources, etc) at European, national and local level, social networking and validation opportunities for their ideas, and empowerment to scale up their business beyond national borders.

4.2   Web Entrepreneurs Leaders Club

This action will promote an entrepreneurial culture by celebrating successful startup founders and increasing their visibility as role models throughout Europe. This will be done in partnership with major industry, media, and trade bodies. The **Web entrepreneurs Leaders Club** will consist of a few high profile Web entrepreneurs who will act as role-models for the

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[21]http://ec.europa.eu/digital-agenda/en/grand-coalition-digital-jobs-0

young generation, as well as share experiences, best practices and recommendations to promote and improve the European startup culture.

In addition, successful startup founders will be celebrated for their achievements in dedicated events (for example the European 'Tech All Stars' competition and the Europioneers Web Entrepreneurs award).

4.3 European network of web business accelerators

Accelerators act as catalysts for initiating, advising, consolidating, professionalizing, growing and globalizing web startups. In doing so, they increase their competitiveness and expand their operations in regional and global markets.

The European network of accelerators, will increase awareness of the existing accelerator programs in Europe and of their benefits, by sharing success stories and best practices, facilitating networking activities and eventually attracting more Web entrepreneurs to enter accelerator programs. Furthermore, the purpose is to stimulate other accelerators to cover the web business, as well as to increase the number of web focused accelerators in Europe.

4.4 Venture Capital and Crowdfunding

This action will raise awareness among venture capital investors about the Web business opportunities and help them understand the specific characteristics of Web-entrepreneurship, including by sharing success stories, and networking activities.

The action will also support a network of European crowdfunding platforms in view of providing support, visibility, transparency and interconnectivity among existing EU crowdfunding platforms, including those specialised in Web startups.

The goal is to provide increased visibility and accessibility of existing crowd funding opportunities for Web entrepreneurs Europe wide, strengthen the links and networking among European crowdfunding platforms, as well as raise the level of awareness of funders and web entrepreneurs as regards investment opportunities and access to finance through crowdfunding.

Eventually, the goal would be to associate and support existing seed funding and mentorship-driven programmes, crowd-funding platforms and service providers to create a pan-European network for Web startup accelerators and incubators.

4.5 Fostering web talent

Young people are not sufficiently motivated and suitably educated to start their own businesses when they leave the education system, while adults with relevant entrepreneurial skills and experience may lack the digital skills needed to create a web startup.[22]

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[22] Currently only 27% of Europeans aged 16-74 have high ICT skills. (Eurostat, Information Society Statistics)

To remedy this situation the European Commission has launched[23] a "Grand Coalition for Digital Jobs" on 4 March 2013. It will help accelerate and intensify efforts initiated by the Digital Agenda for Europe, the e-Skills Strategy, the Employment Package, the Opening up Education Initiative, the Rethinking Education Strategy, the Youth Opportunities Initiative, and the EU Skills Panorama. New initiatives have also been launched to foster e-leadership skills[24] for ICT practitioners, Chief Information Officers (CIOs), managers and entrepreneurs.

Complementary to the above, and in order to foster more Web talent in Europe, the following three domains will be explored: 1) The role of online platforms (such as "Massive Online Open Courses") in providing education to combat the shortage of Web developers; 2) The use of barter platforms as marketplace for sharing and trading skills Europe-wide among Web entrepreneurs; and 3) The viability, at European level, of the concept of twinning of senior, experienced people with young entrepreneurs to share ideas and experiences.

5. SUPPORT FROM EU PROGRAMMES

The Future Internet Public-Private Partnership[25] (FI-PPP) launched in 2011 under FP7 aims to accelerate the development and take-up of innovative Internet services and applications based on generic technologies developed by the technology flagship project FI-WARE. As FI-PPP moves now into the exploitation phase, FI-WARE launched already an open call[26] for additional partners to broaden the base for technology take-up. Furthermore, the FI-PPP launches a call for proposals in May 2013 (Euro 100 million allocated[27]), which includes support for web-businesses and entrepreneurs throughout Europe. FI-PPP offers thus the instruments and opportunities, including as a bridge towards Horizon 2020, for take-up and usage of its results among communities beyond the partnership, notably targeting web-entrepreneurs.

Horizon 2020 is the next EU research and Innovation Programme implementing the Innovation Union, a Europe 2020 flagship initiative aimed at securing Europe's global competitiveness.

This programme is part of the drive to create more growth and jobs in Europe and it should stimulate innovative SMEs, including Web entrepreneurs.

The new opportunities and instruments provided by Horizon 2020 to stimulate innovative SMEs, will thereby provide opportunities for Web entrepreneurs: facilitation of access to risk capital, pilot projects, inducement prizes, the SME instrument as direct support to promising web enterprises.

Another path to consider at the European level is to ensure the best use and leverage of European policy instruments supporting Web entrepreneurship, notably those proposed for the

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[23] www.filling-the-gaps.eu
[24] www.insead.edu/events/e-leadership-conference/
[25] www.fi-ppp.eu
[26] http://www.fi-ware.eu/open-call/
[27] ICT Workprogramme 2013

next multi-annual financial framework 2014 – 2020, such as Cohesion funding[28], Erasmus for All, and COSME. The "Opening Up Education" initiative[29], aimed at enhancing education and skills development through new technologies, is another tool to be explored. EU funding could also support the training of web-entrepreneurs including on regulatory issues (such as training on consumer protection legislation for web entrepreneurs).

6. MEASURING THE EU WEB ENTREPRENEUR ECOSYSTEM

Much of the growth and innovation that can be attributed to Web entrepreneurship is not captured in official EU statistics. A recent EC study (2012)[30] highlighted that Web entrepreneurs across Europe still operate largely under the radar.

Information on Web startup business practices and value chains is highly fragmented and sparse. There exist only limited studies in selected geographies[31] or domains[32], but a comprehensive picture of the European situation with regards to Web entrepreneurship is missing. To inform policymaking and to measure progress in terms of revenues, and job growth across the EU, will require a novel approach to business data collection.

The Commission launched the "Digital Entrepreneurship Monitor" in January 2013[33], with a view to measure and appraise the key technological trends, emerging market needs, new business paradigms enabled by digital technologies, as well as their impact on the European economy. The objective is to provide to European businesses and policy makers convincing evidence and up-to-date information on trends, market dynamics and up-coming business opportunities that would help inspire new actions on Digital entrepreneurship.

The Digital Entrepreneurship Monitor covers a much wider scope than the web businesses but will also provide information concerning the specific sector of web entrepreneurs. As the activities of the Digital Entrepreneurship Monitor progress it will be assessed wheatear it is necessary to complement the information provided by the Monitor with more focussed and specific data to measure the status and evolution of web businesses and web entrepreneurs.

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[28] As a continuation and focussing of significant support already provided through the Cohesion Policy. For 2007-2013 the ERDF & ESF funds allocated to ICT were over EUR 15 billion or 4.4% of the total cohesion policy budget. In the current period there is a clear shift in the investment priorities from infrastructure to support for content development, both in the public sector (eHealth, eGovernment, etc.) and SMEs (eLearning, eBusiness, etc.).

[29] DG EAC initiative, http://europa.eu/rapid/press-release_IP-12-1233_en.htm

[30] OPUS study. http://www.opus2012.eu/ EC DG Connect.

[31] Such as the France Digital Barometer study among 100 Web entrepreneurs (2012)

[32] A study tracking the Apps Economy has been announced by EC DG Connect for 2013.

[33] DG ENTR initiative on "Connecting SMEs to the Digital Market: fostering the knowledge base on Digital Entrepreneurship in Europe"
(http://ec.europa.eu/enterprise/newsroom/cf/itemdetail.cfm?item_id=6091&tpa=135&tk=&lang=es)

The target could be to have 90% coverage of online entrepreneurial activity and impact within 5 years.

The Commission services will consider defining high-level indicators to measure the success of the actions described above (e.g. a higher number of Web and Digital startups in all EU Member States by the end of 2015, a higher number of European "exits").

7.   CONCLUSIONS

Web entrepreneurs have an increasing impact on society. By using innovative technologies and platforms they create products, services and solutions that improve and enrich our everyday lives, whether it is about access to information, education, entertainment, or security.

From an economic perspective, the importance of Web-based businesses for economic growth and jobs creation, especially among the youth, is increasingly clear. Boosting Web-entrepreneurship can be part of the solution. Web startups represent an alternative career opportunity, in particular to young people, and especially those that are skilled and however unemployed and without job prospect in a large organisation. Web startups can constitute the first step for a broader entrepreneurial renewal of our economies.

Europe is clearly lagging behind other geographical areas in terms of global leaders in this sector. Compared to the United States, but also to regions like Southeast Asia, fewer startups are founded by European Web entrepreneurs and those that are relatively successful, very rarely grow up to become global leaders.

The Entrepreneurship 2020 Action Plan has highlighted short and medium term specific actions to improve the present situation of Web entrepreneurs, while this SWD provides additional elements on the present Web entrepreneurial landscape in Europe and further details on the actions envisaged.

ANNEX I – EUROPEAN WEB BUSINESS SUCCESS STORIES

1. European Web business success stories

Here are some examples of highly successful businesses founded by European Web entrepreneurs. The intention of this list is to spotlight that there are many success stories in Europe but the list does not intend to provide a comprehensive catalogue of successful web related business in Europe.

- Skype

Started by a Danish and a Swedish entrepreneur in 2003, voice-over-IP (VoIP) software and services company Skype was acquired by eBay for $2.6 billion in 2005. In 2009, eBay sold 70% of the business to a consortium of investors, and Microsoft acquired Skype in 2011 for $8.5 billion.

On any given day, an estimated 40 million people connect to Skype *simultaneously* to communicate with friends, family and co-workers.

- MySQL

Swedish database software company MySQL was initially founded in 1995 but raised its first round of institutional funding in 2001. It became one of the largest open-source software firms in history, and was acquired by Sun Microsystems for approximately $1 billion in 2008. Sun (along with MySQL) was later acquired by Oracle.

- Vente-Privee.com

Launched in 2001, this French e-commerce company pioneered the now incredibly popular online flash sales club concept. The company is still private, employs roughly 1,500 people worldwide and booked revenues of over 1.1 billion euros in 2011.

- LOVEFiLM

Founded in 2002, this UK-based provider of video rental and on-demand streaming was acquired by Amazon.com in 2011.

- Mind Candy

The company behind the hugely successful franchise for kids, Moshi Monsters, was founded in the UK in late 2003 and is estimated to be worth roughly $1 billion.

- XING

A competitor to LinkedIn, this German business social network service has attracted millions of users from over 200 countries. Founded in 2003, it went public in 2006.

Here are some examples of recently founded (after 2006) Web startups that are growing fast and gaining traction and global acclaim.

- Dailymotion

This France-based video Website operator lets people upload, share and view videos, rivaling Google's YouTube. It is now the third largest video Website and one of the most visited sites in the world. It was acquired by France Télécom's Orange in 2012.

- Klarna

Founded in Sweden, this e-commerce solutions company allows users to buy items online and pay for them upon delivery in order to minimize fraud. The firm has raised a little over $166 million in venture funding to date.

- Rovio

The Finnish company behind hit mobile and social networking games like Angry Birds and Bad Piggies has launched a global brand and is rivaling companies like Electronic Arts, Zynga and The Walt Disney Company.

The entertainment company had revenues of over 75 million euros in 2011.

- SoundCloud

Originally started in Sweden but established in Berlin, Germany, this company's platform allows people, mostly musicians, to share audio recordings with each other privately and publicly.

The company has raised over $13 million in funding and has over 20 million registered users.

- Spotify

Spotify is a Swedish-British music streaming service provider that has amassed over 15 million registered users since its launch in October 2008. The company has raised close to $200 million in funding to rival Apple's iTunes and public companies like Pandora in the United States.

- Tuenti

A Spain-based provider of social networking services for young people and students. Launched in 2006, the company was acquired by telecom operator Telefonica in 2010 and currently boasts 14 million users.

- Scanadu

It is a Silicon Valley-based company that makes medical technology devices for consumers. It was founded in January 2011 by Walter De Brouwer and Misha Chellam in Brussels, Belgium as heal.th and launched during the first edition of Startup Weekend Brussels. The company relocated to the Silicon Valley in mid-2011 in view of further growth and to set up a lab at NASA Ames in Mountain View, where it shares space with Singularity University. Recently It has been awarded at CES 2013 for the Best Innovation of 2013 in Personal Electronics Category.

- Withings

It is a consumer electronics company located in Issy les Moulineaux, France. Withings creates smart products and apps for weight loss, health and family including the Baby Companion, Health Companion and Health Mate apps. Withings designs Internet-connected devices and describes its products as part of the Internet of Things.

2: High-Growth EU Web Business acquired in the last years by US web companies

Google:

allPAY , Germany - Payments

Brunet, Germany - Mobile

Neven Vision, Germany - Pictures

Endoxon, Switzerland - Mapping

Trendalyzer, Sweden - Analytics

Marratech, Sweden – Videoconferencing

PlinkArt, UK – Visual Search

Simplify Media, UK – Music

BlindType, Greece – TouchTyping

Zynamics, Germany – Security

BeatThatQuote.com, UK – Price comparison

DailyDeal, Germany – Offers

Sparrow, France – Mobile App

Amazon.com:

LoveFilm, UK,

The Book Depository, UK

BuyVip,ES

Bookpages, UK

Telebook, DE

PlanetAll, UK

Pushbutton, UK

Facebook:

Sofa, Nederlands - Design

Lightbox, UK – Pictures

Ebay:

Alando, DE

iBazar, FR

Marktplaats.nl, NL

Gumtree, UK

Mobile.de, DE

Loquo, ES

Skype, LU

Tradera, SE

DBA & Bilbasen, DK

Zong, DE

Twitter:

Twitterdeck, UK

Summify, RO

Rakuten:

Priceminister, FR

Wuaki.tv, SP

Others:

Playfish, UK – EA

Lastfm, UK - CBS

Annex 2

European Activities Specific to Web Entrepreneurs

This report is commissioned by The European Commission in October 2012.

The report represents the view of the author and do not necessarily reflect the view of the European Commission.

Martin Bryant

Table of contents

Executive Summary

This report covers a broad range of activities and resources aimed at Web entrepreneurs within the European Union.

Where relevant, geographic maps have been provided at the end of chapters to provide a visual reference. However, in cases where the majority of resources listed are online or EU-wide, a map has not been included.

It should be noted that although every effort has been made to ensure that the information is complete, new activities are emerging all the time in this fast-moving sector.

The report shows that Europe has a healthy and growing accelerator scene, with some brands, such as Startupbootcamp and Founder Institute expanding to multiple locations, leading to competition in cities such as Amsterdam and London.

Although startups (note that in general, Web entrepreneurs tend to refer to their companies as 'startups' as opposed to 'start-ups' – a subtle difference in spelling but one that it's worth observing as it is the spelling generally used in technology blogs, at major technology events and the like) themselves are active across the EU, everywhere from large cities to small villages, a number of major hubs are emerging. The most notable of these are London, Dublin and Berlin, with 'secondary hubs' (a term created for this report) spread across the Union.

The report lists a wide range of sources of funding for Web entrepreneurs. These include accelerators, venture capital funds, seed-stage investors, crowd funding (raising funds online from members of the public) and innovation programmes. While provision of these types of funding is largely growing healthily alongside the sector itself, there is more work that innovation programmes could do to speak the language of Web entrepreneurs and reach out to them.

Major EU technology conferences are mapped out in the report. Many smaller events also take place across the Union – far too many to list – but the most important in terms of either influence or size have been included.

Online resources aimed at Web entrepreneurs are listed, although seeking these out is difficult as no central directory is available for them, and new resources are started and abandoned regularly.

Finally, the report details the emergence of political lobbying groups reflecting the views of Web entrepreneurs. Although there are few true organisations here as yet, movements such as 'Les Pigeons' in France show that Web entrepreneurs aren't afraid to use their voices to lobby for change to political policies that could affect them adversely.

Accelerators

Accelerator programmes are designed to significantly boost Internet startups' readiness for the market, using a mixture of mentorship and seed capital investment.

Accelerator programmes have grown in popularity over the past three years in Europe, following the success of schemes like Y Combinator and TechStars in the USA. There are now a number of established accelerator 'brands' operating multiple programmes across the EU, along with many individual examples, too.

These programmes take a number of different approaches, the main examples of which are outlined below. While there are often small differences between individual programmes, these are the core models used by accelerators operating in the EU. For the purpose of this report, they have been labeled A, B and C.

A: 'Y Combinator' model: Based on the process used by the Y Combinator accelerator in Silicon Valley. An intense period of incubation (often for three months) in which a group of startups is selected to take part, working in the same location, with mentorship from a range of different experts. At the end of this period, there is an investor day (or sometimes multiple days in different locations), in which seed-stage investors and venture capitalists get a chance to meet the teams and have an opportunity to offer further funding. This type of program tends to offer teams that take part between €12,000 and €30,000, largely to cover living costs while the programme takes place. They tend to take an equity stake in each company in return; usually between 6 and 10 per cent, although this varies depending on the accelerator in question. Although usually privately funded, public money is sometimes either invested in startups or used to facilitate setting up the accelerator itself.

B: '500 Startups' model: Inspired by the 500 Startups fund and accelerator based in the USA, this model involves multiple stages. Eleven, an accelerator based in Bulgaria, uses this model. In that case, the first stage is similar to a type 'A' accelerator. Teams work together in the same location as each other and have access to mentorship as they develop proof-of-concept products. They also receive a small €25,000 investment to cover living expenses, while an 8% stake in the company is taken by the accelerator. Teams accepted into phase 2 then receive a further €25,000 in return for an additional 5% stake in the company while they refine their product. Teams chosen to enter stage three, where they are expected to commercialise their products and target a global market, can receive as much as €150,000 in funding for a negotiable equity stake. Telefonica's Wayra programme operates a similar model, with six months' incubation in return for 10% stake in a startup for up to €50,000, followed by a demo day to pitch for further funding from other investors. Telefonica has first rights to acquire companies that take part in Wayra.

C: Longer-term acceleration model: This model usually combines traditional equity-based seed investment with a long-term program of workshops, events and mentorship aimed at improving the companies involved. This model is used by London-based Seedcamp, which invites companies to apply to take part in events that it holds around Europe. 'Winners' from these events (those chosen as favorites by Seedcamp's investors) receive €50,000 for 8-10% equity and are entered into a year-long programme which includes regular mentorship and social events, a trip to the USA, a week of events and a chance to pitch to investors in London plus a pack of free or reduced-rate services. Rocket Internet offers an alternative model, that brings in entrepreneurs to build startups, usually blatant 'clones' of existing successful services, bringing their business models to untapped markets. Rocket

closes unsuccessful startups quickly, but supports strong ones with additional funding, sometimes eventually selling them to the company they 'cloned' in the first place. Its Citydeal company was acquired by America's Groupon to establish its European presence, for example

Notable accelerators in Europe:

As noted above, the number of accelerators in Europe has grown rapidly over the past three years, but what follows is a list of the highest-profile examples across the EU.

Name	EU Location(s)	Model	Website	Notes
Eleven	Sofia	B	http://eleven.bg/	
The Founder Institute	Helsinki, Rome, Barcelona, Lisbon, London, Warsaw	A	http://fi.co/	
GammaRebels	Warsaw	A	http://www.hardgamma.com/gammarebels/	
Ignite100	Newcastle (UK)	A	http://ignite100.com/	
Le Camping	Paris	A	http://www.lecamping.org/	Non-profit, doesn't take equity.
Oxygen Accelerator	Birmingham (UK)	A	http://www.oxygenaccelerator.com/	
Propeller Venture Accelerator	Dublin	A	http://www4.dcu.ie/ryanacademy/propeller.shtml	
Rocket Internet	Amsterdam, Paris, Berlin, Munich, Milan, Warsaw, Porto, Stockholm, London	C	http://www.rocket-internet.de/	
Rockstart	Amsterdam	A	http://rockstart.com/accelerator/	

Name	EU Location(s)	Model	Website	Notes
Seedcamp	London (invests across Europe)	C	http://www.seedcamp.com	
Springboard	London, Cambridge (UK)	A	http://springboard.com/	
Startupbootcamp	Copenhagen, Berlin, Dublin, Amsterdam	A	http://www.startupbootcamp.org/	
Startup Highway	Vilnius	A	http://startuphighway.com/en/	
Startup Sauna	Espoo, Finland	A	http://startupsauna.com/en/	Focused on Northern Europe and Russia.
Startup Wise Guys	Tallinn, Estonia	A	http://startupwiseguys.com/	
Wayra (Telefonica)	London, Munich, Barcelona, Madrid, Dublin	B	http://wayra.org/en/	

High-profile EU accelerators mapped

This map depicts the locations of the startups listed above.

Red pins = locations with two or more high-profile accelerators
Yellow pins = locations of accelerators that are part of a multi-location brand
Blue pins = stand-alone accelerators

Hubs

Although Web entrepreneurs can be found operating successfully across the EU, clusters of startups and investors have emerged in recent years, allowing for the benefits of easy networking and shared resources.

Primary Hubs: These hubs are considered to be the main EU clusters from an international perspective.

City	Notable startups	Notes
London	Mind Candy, Spotify, Skimlinks, Brainient, Shutl, Seedrs, Hailo, OpenSignalMaps	Web entrepreneurs have clustered around the Shoreditch area of east London, in an area branded by the UK government as Tech City, and more colloquially as 'Silicon Roundabout'. London's status as a major international business hub still makes it a natural base for Web entrepreneurs from across the EU.

City	Notable startups	Notes
Berlin	SoundCloud, Wooga, 6 Wunderkinder, Readmill, Amen	Berlin has become home to an increasingly notable group of companies largely building consumer-focused products that have attracted international investment. The investor community is growing here too.
Dublin	Redeem & Get, NewsWhip	Although Dublin isn't home to any 'big-name' startups, it is the location of European bases for major US companies like Google, Facebook and Microsoft and accelerators like Propeller, Startupbootcamp and Wayra. This makes it a very important city to the European Web technology industry, and it should expected that the combination of accelerators and people leaving major companies based there will lead to more Web entrepreneurs in the city.

Secondary Hubs

These hubs are also notable.

City	Notable startups	Notes
Copenhagen	Issuu, Podio (recently acquired by Citrix), Endomondo, The Eye Tribe, Roozz	A closely-knit community of startups operates in Copenhagen. Although Danish legislation and its currency makes operating internationally from the country difficult, the quality of life and inspiration from the success of Zendesk (now based in the US but founded here) drives them forward).
Amsterdam	LayerGloss, Mobypicture, 22tracks, eBuddy	Many startups have set up home here, often taking a uniquely Dutch approach to business and life.
Stockholm	iZettle, Rebtel, Bambuser, Stardoll, Tobii, Tripbirds,	Although home to a number of promising startups, many companies founded here (such as Spotify, SoundCloud and Readmill) relocated to London or Berlin due to taxation rules that make building a company in the country unattractive if you're likely to be acquired by an international company.

City	Notable startups	Notes
Paris	Deezer, Jolicloud, Withings, Total Immersion	Paris startups find it hard to operate under a legislative environment that doesn't encourage entrepreneurship. A group of technology startups have recently successfully forced the government to retreat on a plan to significantly increase equity taxes in France.
Tallinn	Erply, Fits.me, GrabCAD	Estonia was home to Skype's developers and has quietly been turning out noteworthy startups ever since.
Helsinki	Rovio, Ovelin, Audiodraft, Kiosked	The dominance of Nokia is declining rapidly in Finland, but its talent pool is being displaced and helping a growing number of startups in the country.

Emerging Hubs:

Also noteworthy are the following cities that have increasing levels of startup activity: Bucharest, Riga, Barcelona, Madrid, Lisbon and Zurich (not in the EU but relevant).

EU Hubs Mapped

Red pins = Primary hubs
Yellow pins = Secondary hubs
Blue pins = Emerging hubs

Innovation Programmes Relevant to Web Entrepreneurs

Although there are many technology-focused innovation programmes in the EU, very few are directly relevant to Web entrepreneurs. Academic institutions tend to stay away from entrepreneurial innovation activities because of the risk attached.

It's fair to say that innovation programmes could arguably do more to engage with Web entrepreneurs. The language used by these programmes is often acronym-heavy and indirect and the level of awareness of such programmes is lower than it could be amongst the Web entrepreneur community in Europe.

The following programmes offer clear opportunities for Web entrepreneurs in Europe. There may be others that would be of interest but generally, marketing and visibility of them is low.

Programme	Description	Geographic Scope	Website
App Campus	An €18m joint project from Aalto University, Microsoft and Nokia, offering financing and coaching in mobile technology, design and usability to Windows Phone developers.	Global (Based in Finland and requiring some time spent in Finland in most cases)	http://www.appcampus.fi
EIT ICT Labs	This programme from the European Institute of Innovation and Technology offers support to entrepreneurs who are developing technology in fields including cloud computing, digital cities of the future and networking solutions for future media	EU-wide	http://www.eitictlabs.eu

Programme	Description	Geographic Scope	Website
Eurostars	Eurostars aims to stimulate SMEs to lead international collaborative research and innovation projects by easing access to support and funding. Covers technology in a range of industries but offers many opportunities for Web-based innovation.	EU-wide	http://www.eurostars-eureka.eu
Geovation	Runs challenges that help communities address their unmet needs through the application of geographic data, skills and expertise.	EU-wide	http://www.geovation.org.uk/
RAPTOR	"RAPTOR aims to build a digital ecosystem of SMEs developing real-time smart urban applications on a secure brokerage platform creating new value chains from government, industry and Start-Up's to citizens."	UK	http://www.raptorsme.com
Technology Strategy Board	Runs a number of innovation competitions and links with innovation programmes across Europe in the field of technology.	UK	http://www.innovateuk.org/

Funding Opportunities

This report covers venture capital, seed-stage and crowdfunded funding opportunities for Web entrepreneurs.

Venture Capital

There are a large number of venture capital firms across Europe. Credible, strong venture capital companies for Web entrepreneurs are largely based in the UK. There are many more venture capital companies across the EU that may occasionally invest in Web entrepreneurs, but this report focuses on the major ones that do so regularly.

These listed below generally get involved when a company has gained some traction in the marketplace, participating in investment rounds beyond 'Series-A'. However,

Venture Capital Firm	EU Location	Notable Web tech investments	Notes
Accel Partners	London, UK	Spotify, Rovio, Hailo, Mind Candy, Wonga, Top10, StylistPick	
Advent Venture Partners	London, UK	Dailymotion, Qype, Vitrue	
Amadeus Capital Partners	London and Cambridge, UK	Lastminute.com, MyDeco	
Arts Alliance	London, UK	Blinkbox, Brainient, Graze, Lastminute.com, LoveFilm, MyDeco, Opera, Shazam,	
Atlantic Capital Partners	Munich, Germany	FreeAgent, Geckoboard, Amplidata	
Atomico	London, UK	6 Wunderkinder, FON, Hailo, Jolicloud, Last.fm, Madbid, Mydeco, Playfire, Rovio, Seesmic, Silk, Wrapp	Founded by Niklas Zennström, the co-founder of Skype
Balderton Capital	London, UK	7 Digital, Archify, Bebo, Betfair, LoveFilm, MySQL, Scvngr, Wooga	
Connect Ventures	London, UK	Citymapper, Secret Sales, Space Ape Games, Url.ist	

Venture Capital Firm	EU Location	Notable Web tech investments	Notes
Dawn Capital	London, UK	Bathrooms.com, Cognitive Match, Wonga	
DFJ Esprit	London, UK	Conversocial, LoveFilm, Lyst, Radium One, Taptu, WAYN	
DN Capital	London, UK	Shazam, Mobile Roadie, Seedcamp	
Doughty Hanson & Co.	London, UK	Plazes, SoundCloud, Secret Sales, MegaZebra	
Earlybird Venture Capital	Berlin, Hamburg and Munich, Germany	Carpooling.com, Madvertise, Socialbakers	
EC1 Capital	London, UK	Glean.in, Lifecake,	
Eden Ventures	London and Bath, UK	We7, UberVu, Huddle, Tru, A-Frame, Zemanta	
Fidelity Growth Partners	London, UK	Innogames, Seatwave, StylistPick,	
Frog Capital	London, UK	Rated People, BuyVIP, Mediatonic	
Hoxton Ventures	London, UK	GoCardless, Llustre	
Index Ventures	London and Jersey, UK	Dropbox, Erply, Facebook, FON, Geckoboard, iZettle, Just-Eat, Last.fm, LoveFilm, Mind Candy, Moo, Path, Rebtel, Seedcamp, Songkick, SoundCloud, Squarespace, Zendesk	Also operates a fund dedicated to early-stage investments (see next table)
MMC Ventures	London, UK	AlexandAlexa, iiPay, LoveHomeSwap, MoneyExpert	

Venture Capital Firm	EU Location	Notable Web tech investments	Notes
Nexit Ventures	Helsinki, Finland; Stockholm, Sweden	Bifone, Blyk, Funambol, SkyPilot Networks	
Neuhaus Partners	Hamburg, Germany	MyHeritage, Propertybase	
Notion Capital	London, UK	BrightPearl, Shutl, The Currency Cloud, Tradeshift	
Pentech Ventures	London and Edinburgh, UK	Certivox, FanDuel, Nutmeg, Struq	
Piton Capital	London, UK	DaWanda, FanDuel	
SAP Venutures	Karlsruhe, Germany	Apigee, RedHat, Box, WebEx, LinkedIn, MySQL,	
Scottish Equity Partners	Glasgow and London, UK	Skyscanner, WAYN, Zeus	
Seventure	Paris, France; Munich, Germany' London, UK	Efficity, Footways, Tigerlily, Vistaprint	
Spark Ventures	London, UK	Mind Candy, Firebox	
Sunstone Capital	Copenhagen, Denmark Bastad, Sweden	Amen, MakieLab, Podio, Gidsy	
T-Venture	Bonn, Germany	9Flats, 6wunderkinder, myTaxi, Cooliris	Venture arm of Deutsche Telekom
Wellington Partners	Munich, Germany and London, UK	EyeEm, Game Duell, Hailo, Hootsuite, Qype, Readmill, Spotify	

Early-stage Investment (non-accelerator)

Early-stage investment for European Web startups has traditionally been viewed as a scarce resource, due in part to a low number of major exits releasing knowledgeable angel investors into the ecosystem. However, this is being countered by the growth of accelerators (see earlier section) and early-stage funds run by venture capital firms.

There are also a number of early-stage angel investors of note in Europe. The table below lists a very small number of the higher-profile examples. There are many more angels of varying degrees of reputation. As of October 2012, online resource AngelList (http://angel.co) details hundreds of investors expressing an interest in investing in European startups. It should be noted that not all of these are based in the EU.

The list below also includes some venture capital funds with an early-stage focus, as well as Seedcamp, which, while included in our accelerator chapter, is an important part of the early-stage investment landscape in Europe. In cases where later-stage investors regularly also invest at an earlier stage, they are duplicated from the list above.

Notable EU-based early-stage investor	EU Locations	Notable investments
Atlantic Ventures	Berlin, Germany	Imedo, Plista, StudiVZ, SoundCloud
Atlas Venture	London, UK	DailyMotion, Moo, Secret Escapes, Seedcamp, Zoopla
Delta Partners	Dublin, Ireland	Cleverbug, HulloMail, WhipCar
Earlybird Venture Capital	Berlin, Hamburg and Munich, Germany	Carpooling.com, Madvertise, Socialbakers
Eden Ventures	London and Bath, UK	We7, UberVu, Huddle, Tru, A-Frame, Zemanta
Index Ventures (early stage fund)	London, UK and St Helier, Jersey (UK)	ASOS, Assistly, Facebook, Chartbeat, Flipboard, LoveFilm, Skype
Kima Ventures	Paris, France	Chart.io, Moveable Ink, Paper.li, Rapportive, Sparrow, Storific
London Venture Partners	London, UK	Applifier, PlayJam, SuperCell, GreyArea
Martin Varsavsky (founder of Fon and others)	Madrid, Spain	Seesmic, Tumblr, Dopplr, 23andMe, Fring
Mangrove Capital Partners	Luxembourg	Skype, Rdio, Nimbuzz, Jolicloud, Seatwave

| Notable EU-based early-stage investor	EU Locations	Notable investments
Michael Acton Smith (CEO, Mind Candy)	London, UK	Mino Monsters, Playfire, Newspepper
Northstar Ventures	Newcastle, UK	Screen Reach, A-frame, Palringo, Freerunner, VideoJuicer
Octopus Investments	London, UK	Aframe, Graze, Reading Room, Secret Escapes, Zoopla
Passion Capital	London, UK	Adzuna, Duedil, EyeEm, Flattr, GoCardless, GoSquared, Mendeley, Readmill, WireWax
PROfounders Capital	London, UK	Luluvise, 9flats, TweetDeck, Lanyrd, OneFineStay
Robin Klein (TAG and Index Seed)	London, UK	Slideshare, Seedcamp, Transferwise, Farmeron, Tweetdeck, LoveFilm, Moo
Seedcamp	London, UK	Campalyst, SocialBro, Editd, Soup.io, Rentlord, Brainient, Vox.io, Teleportd, GrabCAD
Sherry Coutu	Cambridge, UK	LoveFilm, AlertMe, Brainient, PeerIndex, Duedil, Zoopla
Sunstone Capital	Copenhagen, Denmark Bastad, Sweden	Amen, MakieLab, Podio, Gidsy
T-Venture	Bonn, Germany	9Flats, 6wunderkinder, myTaxi, Cooliris
Team Europe	Berlin, Germany	Delivery Hero, SponsorPay, SudiVZ, Amiando
Vodafone Ventures	London, UK and Munich, Germany	Qype, Amobee, Vouchercloud

Venture and seed capital mapped

Bear in mind that these are the offices of investors being mapped, not the geographic scope of their portfolios. As already noted, there are many more venture capital investors across the EU but these are the main locations for sources of investment in Web startups.

Red pins = Early- and later-stage funding
Yellow pins = Later-stage funding
Blue pins = Early-stage funding
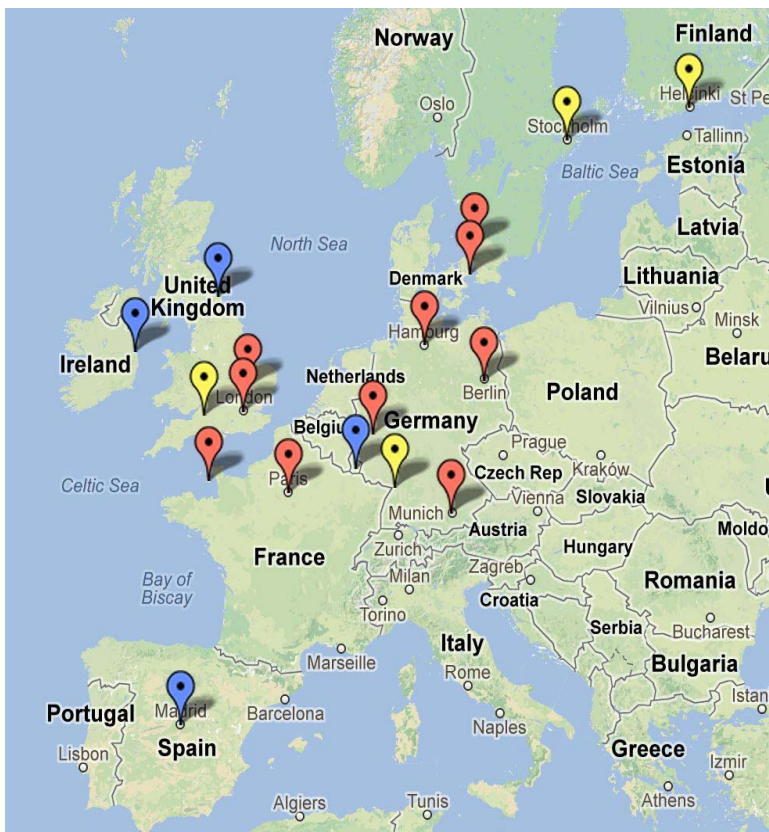
Crowdfunding

Crowdfunding is an growing alternative to traditional seed funding, although it is still in its early stages of development.

Crowdfunding websites tend to take one of two approaches: equity-based and reward-based. Equity-based crowdfunding offers a traditional stake in the company, while reward-based crowdfunding offers tangible incentives (e.g., products and perks) to encourage backers.

Here are the main examples relevant to EU Web entrepreneurs.

Crowdfunding platform	URL	EU Countries eligible	Notes
Bloom VC	http://bloomvc.com	All	Reward-based
Boomerang	http://www.booomerang.dk	Denmark	Reward-based
CrowdCube	http://www.crowdcube.com	UK	Equity-based
Eppela	http://www.eppela.com	All	Reward-based
Kickstarter	http://www.kickstarter.com	UK (from late October)	Reward-based. Currently difficult for non-US citizens to use (a US bank account is required), although it will launch in the UK on 31 October 2012.
Seedmatch	https://www.seedmatch.de/	Germany	Equity-based
Seedrs	http://www.seedrs.com	UK	Equity-based
Symbid	http://www.symbid.com	Netherlands	Offers both equity and reward-based crowdfunding opportunities.
PPL	http://www.ppl.com.pt/	Portugal	Reward-based
Ulele	http://fr.ulule.com	All	Reward-based

Skills and Recruitment

Recruitment

The following resource offer either online or physical services to help connect Web entrepreneurs with good quality employees. Standard job search portals have not been included, as although they may sometimes also be used, the resources listed here are dedicated to technology startups.

Name	URL	Notes
AngelList	https://angel.co/	This site helps connect entrepreneurs with not only investors but also potential employees and co-founders via its Talent search feature.
Berlin Startup Jobs	http://berlinstartupjobs.com/	Online recruitment platform for Berlin's technology startups.
Italian Startup Scene Jobs	http://it.startupscene.org/jobs/	Lists job vacancies at Italian startups
Join a Copenhagen Startup	http://copenhagenstartups.com/	Infrequent jobs fair for startups in Copenhagen, Denmark.
Remix Jobs	https://remixjobs.com/	French recruitment site focused on startup-related skills.
Silicon Milkroundabout	http://siliconmilkroundabout.com/	Based in London, Silicon Milkroundabout is a regular free jobs fair event designed to match startups with developers, product managers, and designers.
VentureBeat Jobs	http://jobs.venturebeat.com	Jobs board provided by US technology blog VentureBeat. Features some European jobs.

Encouraging new talent by developing skills and knowledge

These events and organisations encourage and support new entrepreneurial talent. It's worth noting that there are many one-off and small-scale events along these lines that take place around the EU organised by amateurs, public sector organisations and private companies. It's not possible to list them all, but this is a thriving part of the grass-roots entrepreneurship landscape in Europe.

Name	URL	Notes
AIESEC BOOST Your Startup	http://aiesec.fi/boostyourstartup	Programme looking to support startups in Finland by attracting international talent that will help them grow and go international.
Campus Party	http://www.campus-party.org/	Based in Madrid, but with events around the world, Campus Party invites young technologists to 7-day events featuring lectures, workshops, competitions and hackathons, all taking place simultaneously. It covers more than just Web technology, but that is a part of it.
Coder Dojo	http://coderdojo.com/	A network of clubs aimed at training young people. Started in Ireland but has spread around the world. Although not specifically entrepreneurial, it is a vital training ground for encouraging children into software development.
Music Hackday	http://musichackday.org/	One of the first media-focused hackday events, Music Hackday was founded in the UK and takes place in cities around the world, encouraging developers to create new solutions for music industry problems.
Rewired State	http://rewiredstate.org/	UK-based 'hackday' events where developers come together to create products to solve problems within a limited timeframe.
Startup Weekend	http://startupweekend.org/	A global network of weekend-long events designed to encourage entrepreneurship. Teams come together to build companies and products over the space of a weekend.

Name	URL	Notes
Young Rewired State	http://youngrewiredstate.org/	UK-based series of events designed to encourage young people aged under 18 to create apps and services that use open data.

Major EU Technology Conferences and Events

The conferences listed here are events that attract international audiences from across Europe and beyond to network, discuss the latest trends, demonstrate new technologies and socialize. Although there are more that take place across the EU, these are the most important in terms of either size or influence.

Name	Location	Frequency	Notes
Arctic 15	Helsinki, Finland	Annual (October)	Designed to highlight Web entrepreneurship in the Nordic and Baltic countries, the Arctic 15 conferences feature a startup competition for companies from this part of the world, and international speakers, but with an emphasis on successful entrepreneurs from the region.
DLD	Munich, Germany	Annual (January)	This invite-only event acts as a tech and design focused precursor to the World Economic Forum in Davos. Although focused on thought leaders from across technology, media and design, it is attended by Web entrepreneurs and makes for a valuable melting pot of people and ideas. It has recently expanded to other locations outside the EU as well as an event in London.

Name	Location	Frequency	Notes
Dublin Web Summit	Dublin, Ireland	Annual (October)	Now in its third year, this event has grown quickly to become one of the essential events for Web entrepreneurs around the world. It attracts a high calibre of speakers thanks to its sister event, F.ounders (see below). The Web Summit includes a startup competition. This year saw the introduction of START, a separate, invite-only strand aimed at providing networking opportunities for early-stage technology startups.
The Europas	Berlin, Germany	Annual (January)	Previously run by Mike Butcher of TechCrunch in London each November, the 2013 event will be run by the team behind the Dublin Web Summit. This is a party where the winners of awards relating to Web entrepreneurship (as judged by a panel of startup experts and a popular vote) are celebrated.

Name	Location	Frequency	Notes
The European Pirate Summit	Cologne, Germany	Annual (September)	Now in its second year, this is the smallest event listed. It is included because it is willfully 'alternative' in its organization (it takes place outdoors in a scrapyard-cum-art-exhibition-space next to a busy railway) and represents grassroots entrepreneurship, with high-profile investors meeting with early stage companies for talks, panels and a startup competition, followed by a late-night, outdoor party. Note this event represents a 'pirate-style' approach to entrepreneurship and has no affiliation or alignment with the Pirate Party or The Pirate Bay.
F.ounders	Dublin, Ireland	Annual (October)	Connected to the Dublin Web Summit and organized by well-connected Irishman Paddy Cosgrave, this event attracts top entrepreneurs from Silicon Valley, Europe and beyond for a combination of conference-style panels and socializing. This is an high-class event. For example, last year, the Irish Prime Minister hosted a dinner for F.ounders attendees at her residence.

Name	Location	Frequency	Notes
Founders Forum	London, UK	Annual (June)	This is an intimate series of events around the world. The EU-based one takes place each summer in London. It attracts successful technology and media company founders and investors for an event focused on emerging technologies.
How To Web	Bucharest, Romania	Annual (November)	This is a smaller conference than most of the others listed here but focuses on helping Web entrepreneurs in central and eastern Europe connect with their western counterparts, with an emphasis on sharing knowledge and highlighting the talent in the region. It features a startup competition aimed exclusively at central and eastern European companies.
LeWeb	Paris, France	Annual (December)	Organized by US-based, French-born entrepreneur Loic Le Meur, this event attracts big names from Silicon Valley and an audience from across Europe. Includes a high-profile startup competition.
LeWeb London	London, UK	Annual (June)	With the support of the UK's Tech City organization, LeWeb now has a sister event in London. It took place for the first time in 2012 with a similar format to the Paris event. Another has been announced for 2013.

Name	Location	Frequency	Notes
NEXT	Berlin, Germany	Annual (May)	The six-year-old NEXT conference attracts a mixture of technology and business leaders to discuss emerging topics that will have an impact on the European digital industry within the following year.
The Next Web	Amsterdam, Netherlands	Annual (April)	2012 saw the seventh edition of this popular conference, which attracts an audience from around the world. A little less formal than some other conferences but with high production values, it includes a well-respected startup competition.
Pioneers Festival	Vienna, Austria	Annual (October)	An annual event organised by Vienna-based STARTeurope and designed to celebrate entrepreneurship, with a particular focus on the Web.

Also important:

Long-running tradeshows focused on established media industries, such as MIPIM and MIPTV in Cannes, France (covering the music industry and TV industries respectively) and IBC in Amsterdam, the Netherlands (covering broadcast technology) are increasingly attracting emerging, media-focused Web entrepreneurs from across Europe and beyond, to do business with leaders in these industries. Media is changing fast, and established players are turning to innovative startups to help them.

Major EU technology conferences mapped

Online Platforms and Resources

Active and aspiring Web entrepreneurs meet on a number of online platforms. There are also a number of online resources to help them reach their goals and to inspire them. Here are the most notable examples.

Name	URL	Notes
AngelList	https://angel.co/	A worldwide platform for connecting entrepreneurs with angel investors. It is hugely popular and used by many startups and investors.

Name	URL	Notes
Hacker News	http://news.ycombinator.com	Provided by well-known US accelerator Y Combinator, Hacker News is a link-sharing and discussion platform used largely by Web entrepreneurs and those enthusiastic about them. There are physical meetups of members in cities around the world, including several in Europe.
Italian Startup Scene	http://it.startupscene.org/	A group devoted to sharing discussion and ideas amongst members of the Italian startup scene.
Quora	http://www.quora.com	This US-based question and answer platform is used for in-depth discussion about Web entrepreneurs and their companies. It has a strong European following in the field of Web entrepreneurship.
Startup Britain	http://www.startupbritain.co/	This UK-based initiative is designed to encourage people to start businesses of all kinds, including Web startups. Provides offers and links to relevant events around the UK.
Startup Café	http://www.startup-cafe.fr	Focused on France but also available in the English language, this site offers videos, links to relevant online tools and a map of startup-related activities across France. Supported by Google.
Startup Spain	http://startupspain.com/	A site dedicated to improving the startup ecosystem in Spain. It runs 'school' events for nascent entrepreneurs in the country, among other activities.

Also:

The following **LinkedIn Groups** are currently active and focused on European startups.
- Italian Startups: http://www.linkedin.com/groups?gid=1373907&trk=group-name
- Europe 2.0: http://www.linkedin.com/groups?gid=78436&trk=group-name
- Startups Romania: http://www.linkedin.com/groups?gid=2717579&trk=group-name
- London Startups: http://www.linkedin.com/groups/London-Startups-2431056?gid=2431056&trk=group-name
- Startups in Scandinavia: http://www.linkedin.com/groups/Startups-in-Scandinavia-Community-Entrepreneurs-2679241?gid=2679241&trk=group-name
- UK Startups: http://www.linkedin.com/groups?gid=2993024&trk=group-name
- NL Startups: http://www.linkedin.com/groups/NL-Startups-2173542?gid=2173542&trk=group-name
- European Startups & Entrepreneurs: http://www.linkedin.com/groups?gid=1879098&trk=group-name
- Swedish Startups: http://www.linkedin.com/groups?gid=1110927&trk=group-name
- Copenhagen Startups: http://www.linkedin.com/groups?gid=3992878&trk=group-name
- French Startups: http://www.linkedin.com/groups?gid=2521400&trk=group-name

The following **Facebook Groups** are currently active and focused on European startups. There are many more groups on Facebook than LinkedIn, but many have very little activity. These are some of the more popular ones, although activity levels are hard to judge as most only display content to members.
- New Europe Startups: http://www.facebook.com/groups/205823522802657/?fref=ts
- European B2B Startups: http://www.facebook.com/groups/222801067848068/
- Berlin Startups: http://www.facebook.com/groups/159595270791268/?fref=ts
- Romanian Startups: http://www.facebook.com/groups/romanianstartups/?fref=ts
- Cologne Startups: http://www.facebook.com/groups/cgn.startups/
- Amsterdam Startups: http://www.facebook.com/groups/322955004461273/
- Munich Startups: http://www.facebook.com/groups/munichstartups/
- Stockholm Startups: http://www.facebook.com/groups/sthlmstartups/

Manchester Startups: http://www.facebook.com/groups/193730410734286/

Political Lobbying Groups

Web entrepreneurs are beginning to develop an organised political voice in some EU countries. The following groups have been set up as dedicated lobbying groups representing technology startups.

Name	Country	URL	Notes
Coadec	UK	http://www.coadec.com/	The Coalition for a Digital Economy (Coadec) was founded in 2010 and works to support legislation and other government policies that foster "a vibrant, innovative and sustainable digital economy for Britain."
France Digitale	France	http://www.francedigitale.org/	Launched in 2012, France Digitale lobbies for the views of tech startups in France.
TechAmerica Europe	EU-wide	http://www.techamerica.org/europe	Lobbying for American tech companies operating in Europe.
We Start Denmark	Denmark	http://www.westart.dk/	A single-issue campaigning group against an entrepreneur tax in Denmark.

Other activity:
•Les Pigeons: Successfully lobbied for reforming French tax laws relating to proceeds from equity sales. See: http://gigaom.com/europe/pigeon-power-french-startups-force-government-into-retreat-over-equity-tax/
The Berlin Startup Manifesto. See: http://siliconallee.com/berlin/2012/10/02/berlin-startup-manifesto-presented-to-philipp-rosler