#### 9 December 2015



# ERT TRILOGY ON THE DIGITAL ECONOMY Paper #3 "Start-Ups/Entrepreneurship"

# Support for the meeting with the European Commission

European competitiveness depends on lively ecosystems for entrepreneurs, start-ups and small enterprises. These ecosystems are needed as dynamic partners for European industry to innovate. Lively ecosystems would also serve as the pool for the creation of the next generation of industrial global champions based in Europe.

In particular, the development of start-ups is essential for Europe to maintain its competitiveness in the emerging digital economy. In recent years promising IT start-up hubs have developed in European capitals such as Berlin, London, Paris or Stockholm, thanks also to specific Government programs for start-ups. However, these hubs are far from achieving the scale of Silicon Valley. And they tend to focus on the IT consumer market. What Europe needs to develop are large-scale ecosystems for the digitisation of the European economy, which will be essential for job creation, growing the economy and ensuring Europe's future competitiveness.

Europe can be proud of its entrepreneurial successes, its innovations and its many talents. There are many IPO-ready technology companies in Europe willing and capable to embrace the opportunities of the internet economy. Unfortunately, while Europe has become more hospitable to entrepreneurs, the overall ecosystem is still less supportive to new business creation than e.g. the United States. Moreover, emerging markets such as China are creating large ecosystems for entrepreneurship and start-ups, especially for digital technologies and services. Europe must urgently increase its efforts to create more start-ups and facilitate their ability to grow in Europe.

ERT companies have made significant investments in programs that promote start-ups in Europe. Just in the past few years, more than a billion Euros of private funds have been invested in start-ups by ERT companies. It is expected that several billion Euros of additional investments will be made by them over the next 5 years. ERT companies are ready to join forces with European policy-makers to further advance the development of entrepreneurship and start-ups in Europe. ERT companies are willing to increase their cooperation to promote start-ups for the Digital Economy in Europe, with a focus on Big Data and Internet of Things applications.

#### 1. Opportunities for European Start-ups

With € 18 trillion GDP Europe exceeds China and the US in terms of purchasing power and is the biggest economy in the world. The potentially largest Single Market offers a great field of opportunities for European start-ups. Europe presents itself as a highly attractive place for VCs, as shown in the Country Attractiveness index (IESE, 2015).

There are several fast growing start-up hubs, e.g. Berlin, London, Paris, Stockholm, with an increasing amount of venture capital (E&Y Startup Barometer, 2015). Digital start-ups have been thriving in Europe in the last decade. More than 30 so-called "unicorns", tech companies that pass a billion-dollar valuation, have been created in Europe. Spotify, TransferWise, Criteo, Klarna and BlaBlaCar have become successful companies globally. In addition, big non-profit start-ups like the Raspbery Pi foundation are emerging. (https://www.raspberrypi.org/blog/five-million-sold/). However, these hubs do not have the scale of Silicon Valley and they tend to focus on the IT consumer market. Europe must develop large-scale ecosystems for the digitisation of the European economy. Foremost are Big Data and the Internet of Things applications that will drive innovation in almost all industries.

It should be noted that digital technologies as such make it easier for young entrepreneurs to start and grow a new business. For example, the increased competitiveness of electronic components and Key Enabling Technologies<sup>2</sup> in Europe have significantly lowered the entry barriers for new entrepreneurs, facilitating the development of new and innovative products, emerging applications or services. Giving another example, cloud computing can significantly reduce capital expenditure as users only pay for what they actually use. This way entrepreneurs can obtain high-performance IT solutions, which helps them to innovate and grow their business faster. Emerging B2B online trading platforms such as the SAP Ariba network provide start-ups with easy access to a vast global network of potential customers and partners.

#### 2. Bottlenecks for European Start-ups

While there are tremendous opportunities for European start-ups and while Europe has become more hospitable to entrepreneurs, the overall ecosystem is still less supportive to new business creation than e.g. the United States. Key gaps include:

- People: Despite being well educated in general, European citizens create new businesses less
  frequently than their US counterparts. The manifold reasons for this include e.g. the lack of a
  true entrepreneurial culture in Europe, cultural attitudes to risk, family expectations about
  career paths, and overall awareness of entrepreneurship as an option. For example, almost half
  of founders in Germany believe that the German school system is not sufficiently teaching
  entrepreneurial thinking<sup>3</sup>.
- Regulatory environment: European entrepreneurs struggle with red tape and burdensome
  regulation as well as the lack of a homogenous single market in Europe, which is essential to
  scale up their businesses. 28 different sets of regulatory requirements, cultures and languages
  present a barrier even to big players, but can be insurmountable for start-ups. For start-ups the
  lack of a Digital Single Market and burdensome data protection rules are major bottlenecks.

<sup>&</sup>lt;sup>1</sup> GB Bullhound, <a href="http://tech.eu/features/5067/european-tech-unicorns-gp-bullhound-report/">http://tech.eu/features/5067/european-tech-unicorns-gp-bullhound-report/</a>); second largest IPO proceeds of \$1.3 bn, after US and before China in Q2/2015 (<a href="http://www.pwc.com/gx/en/technology/publications/global-technology-ipo-review">http://www.pwc.com/gx/en/technology/publications/global-technology-ipo-review</a> introduced in the proceeds of \$1.3 bn, after US and before China in Q2/2015 (<a href="http://www.pwc.com/gx/en/technology/publications/global-technology-ipo-review">http://www.pwc.com/gx/en/technology/publications/global-technology-ipo-review</a> introduced in the proceeds of \$1.3 bn, after US and before China in Q2/2015 (<a href="http://www.pwc.com/gx/en/technology/publications/global-technology-ipo-review">http://www.pwc.com/gx/en/technology/publications/global-technology-ipo-review</a> introduced in the proceeds of \$1.3 bn, after US and before China in Q2/2015 (<a href="http://www.pwc.com/gx/en/technology/publications/global-technology-ipo-review">http://www.pwc.com/gx/en/technology/publications/global-technology-ipo-review</a> in the proceeds of \$1.3 bn, after US and after US a

<sup>&</sup>lt;sup>2</sup> Key Enabling Technologies (KETs) are investments and technologies that will allow European industries to retain competitiveness and capitalise on new markets. See: <a href="http://ec.europa.eu/programmes/horizon2020/en/area/key-enabling-technologies">http://ec.europa.eu/programmes/horizon2020/en/area/key-enabling-technologies</a>

<sup>&</sup>lt;sup>3</sup> German Startup Monitor (http://deutscherstartupmonitor.de/fileadmin/dsm/dsm-14/DSM\_2014\_PK\_Slidedeck.pdf)

- Funding: Entrepreneurs are generally under-funded in Europe, compared to the US, once they have completed their start-up phase. Seed funding (usually < € 1 Mio) for European entrepreneurs is largely covered by a growing angels and accelerator landscape, which has been supported through various government programs and also by ERT companies. The real funding gap in Europe is in the initial growth phase of start-ups (so-called A funding round) when revenues are still weak and where investments between approximately € 1 and € 10 Mio per company are needed. In later growth phases requiring development funding (so-called B/C/D investment rounds, usually > € 10-20 Mio) the gap is smaller as European entrepreneurs can rely on global funds.
- Technology: Entrepreneurs depend on easy and cost-effective access to existing technologies (hardware, software, wetware, etc.). European technology leaders should expand corporate programmes for providing start-ups with better access to technologies, e.g. software licenses, cloud services, development kits and hardware platforms for the Internet of Things, as well as chemical and biotech equipment.
- Ecosystem: An ecosystem of customer and partners is critical for start-ups to rapidly reach critical mass and to globalise their businesses. Such ecosystems are not sufficiently developed in Europe. This is partially due to corporate risk aversion, often manifested in restrictive internal compliance rules, that prevents closer cooperation with young companies with low revenue. Large European corporations should increase their efforts and make their global ecosystems of partners and customers available to start-ups.
- Exits: Successful exits of European small enterprises via IPOs or M&A happen less frequently than in the US. For example, even though Europe is strong in the B2B area, with 'Enterprise SaaS' being the most popular vertical for exits, followed by 'Adtech', 37% of all acquisitions of European tech firms were made by US-based companies<sup>4</sup>. To change this trend is critical for the long-term growth of an entrepreneurship ecosystem, as successful founders typically become angels who reinvest in subsequent start-ups. The shortage of European start-ups aiming for IPOs is especially problematic is, as these are engines of economic growth, bringing disproportionately high rates of job creation and corporate taxes and significant benefits for investors. While 14% of venturebacked start-ups go public in the US<sup>5</sup>, only 0.8% of venture-backed start-ups in Europe<sup>6</sup> realise this option. Presumably, funding needed for an M&A exit is significantly lower compared to taking a company all the way to IPO. However, while M&As promise earlier returns on an investment, sales will happen at a smaller scale and generate lower returns.

As a result, many ambitious entrepreneurs are leaving Europe to start a business in other regions, especially in the US. There are estimated 500 start-ups in Silicon Valley with French founders.<sup>7</sup> Entrepreneurship and start-ups, which have been the engine for growth in the US and emerging markets, have generally not been cultivated as effectively in Europe. According to the Global Entrepreneurship Monitor<sup>8</sup>, in 2014 early-stage entrepreneurs made up just 4,4% of Italy's adult population, 5,3% of Germany's and 5,3% of France's, compared to 13,8% in the US, 15,5% in China and Brazil's 17,2%.

See Tech.eu, http://www.eu-startups.com/2015/05/10-key-take-aways-of-tech-eus-ma-and-ipo-report-for-2014/

<sup>&</sup>lt;sup>5</sup> See <a href="http://nvca.org/pressreleases/venture-backed-ipo-exit-merger-activity-down-in-first-quarter-after-busy-2014/">http://nvca.org/pressreleases/venture-backed-ipo-exit-merger-activity-down-in-first-quarter-after-busy-2014/</a>

<sup>&</sup>lt;sup>6</sup> See <a href="http://www.evca.eu/media/385581/2014-european-private-equity-activity-final-v2.pdf">http://www.evca.eu/media/385581/2014-european-private-equity-activity-final-v2.pdf</a>

<sup>&</sup>lt;sup>7</sup> The Economist, July 2012

<sup>&</sup>lt;sup>8</sup> See <a href="http://www.gemconsortium.org/report">http://www.gemconsortium.org/report</a>

#### 3. Existing start-up initiatives of ERT member companies

ERT member companies have collaborated with European start-ups for many years and have provided support to enable them to take off and prosper.

Numerous initiatives launched by ERT member companies are ongoing. They have been developed in close cooperation with other stakeholders and have benefited hundreds of start-ups throughout Europe. The ERT companies involved in such initiatives represent a wide range of sectors: telecoms, IT/IS, industry, energy, pharmaceuticals, chemical, engineering, mobility (automotive, rail), steel, consumer goods, and retail.

These initiatives have shown that European industry needs dynamic "entrepreneur ecosystems" consisting of investors, industry, public actors, universities and entrepreneur-minded individuals, to boost start-ups, foster their growth, particularly in the digital area, and enable the emergence of new business models. Such start-ups can facilitate access of major firms to a breakthrough technology, product or service. They test new ideas, do concept proofing ("garage"), and open large firms to the continuously changing outside world. Eventually these start-ups accelerate innovation in Europe, contribute to economic growth and jobs.

ERT member companies usually develop a blend of the following approaches in their start-up initiatives:

People: ERT companies typically foster entrepreneurial spirit by providing start-up managers
access to tailored mentoring programmes, workshops and internal/external networking (with
engineers, managers, researchers, investors, etc.). Internal staff is also often encouraged to
make the leap forward via ad hoc programmes. Guaranteeing autonomy is an important
component of this approach.

#### **Example: SAP Startup Pledge**

To foster entrepreneurial spirit within the company, SAP has established an Intrapreneurship program which enables employees to realise game-changing ideas inside SAP. But company employees have many more ideas than any single company could realise. In the second half of 2015, SAP will also launch an Excubation program, providing a simple path for employees to turn ideas not prioritised by SAP into startups.

• **Funding**: Well over a billion Euros of private funds have been invested in start-ups by ERT companies in recent years. It is expected that several billion Euros of additional investments will be made by them over the next 5 years.

# Example: Iberdrola Ventures – Perseo, Investing in energy start-ups

In 2008, Iberdrola launched its 70 M€ corporate venture capital and start-up support program, and since then more than 49 M€ have been invested in cutting-edge energy start-ups with the goal of shaping the future of energy. This investment has leveraged a coinvestment of more than 150 M€ from other investors and helped the creation of more than 13,000 jobs.

#### Example: Nokia engagement in start-ups/entrepreneurship

Nokia - through its investment arm NGP (Nokia Growth Partners), is a significant global investor in technology start-ups. NGP's team of 20+ staff acts with two primary objectives: to find and fund the best entrepreneurs in mobile technology and connectivity, and to establish successful partnerships both for Nokia and its portfolio companies. Investments are being made in companies with high growth potential, companies that already have a shipping

product and a business model validated by customers. NGP provides financial resources, and in addition to that many other means of support, including deep domain expertise and market insight, a global perspective and a vast network to help young businesses engage faster globally. Nokia currently has global investment commitments of \$700M overall. Since the start in 2005, the commitments have been building up. The last two funds were launched in 2013 (\$250M) and 2014 (\$100M) respectively. During the last years, NGP have been investing in the range of \$50-60M per year. In Europe, Investments have been concentrating so far on start-ups in Finland, Sweden, Germany, France, Spain and Switzerland. NGP has a proven financial and strategic track record of success, for further information visit: http://www.nokiagrowthpartners.com/

# Example: Orange Digital Ventures, launched in Jan 2015

ODV focuses on early stage start-ups developing the next generation of services in the fields of B2B SaaS (Collaboration, Cloud, Big Data, Cybersecurity...), Connectivity services, Internet of Things and Fintech. The first investments includes Afrimarket, a cash-to-goods service replacing international money transfer and which will benefit from Orange's African footprint, and Actility, a French pioneer in the long rang, low power networks under the LoRaWAN open standard, developing a platform and a marketplace for the IoT.

#### Example: Telefónica Open Future

Telefónica Open Future gathers all the global initiatives related to open innovation, investment and entrepreneurship of the company. Its aim is to connect start-ups, investors and public and private organisations worldwide. It covers all stages of support to entrepreneurship: ecosystem and local talent empowering, ideas and disruptive projects acceleration, scale up and investment on IT SMBs. Regarding investments, Telefónica Open Future and its partners have committed € 550 million to start-ups through different initiatives:

- Wayra: more than € 22M invested in more than 500 digital seed stage start-ups since 2011
- Telefónica Ventures: VC fund created in 2006 that has invested around US\$ 66M in companies with products and services with clear fit with Telco business.
- Amérigo Funds: network of VC funds that manages around €250M, where Telefónica plays a leading role as investor.
- Communications Investment Platform: launched in 2015, Telefónica has US\$ 200M to this innovation factory in order to invest in disruptive product and services around the core business strategic priorities.
- Technology: Entrepreneurs depend on easy and cost-effective access to existing technologies (hardware, software, wetware, etc.). ERT companies have set up a large number of (incubation and other collaboration) programmes for providing start-ups the possibility to access their domain knowledge and corporate technologies, as well as the facilities, platforms and tools required to launch and develop their activity.

#### Example: Alcatel-Lucent's technology support and partnership

In Lannion and Villarceaux sites in France, Alcatel-Lucent provides hosting to start-ups (incubation), with all necessary facilities. When relevant, Alcatel-Lucent licenses IPR to start-ups for the development of their products (e.g. mirSense, being spun out of the joint III-V labs sponsored by Alcatel-Lucent, Thales, CEA).

Alcatel-Lucent develops regular exchanges with start-ups and recently signed a technology partnership with Partech Shaker, the Paris-based hub dedicated to open innovation in digital technologies. Alcatel-Lucent is also deeply involved in collaborative projects launched by

digital clusters (SytemaTIC, Images & Réseaux, Cap Digital). Many start-ups are involved in these projects.

#### Example: Bayer co-laborator space

Bayer has created a co-laborator space in Berlin, Germany, that serves as incubator for startups in the life science field. Proximity and access to the company's research facility and its digital technologies, and the vicinity to Berlin's science and start-up community, create the ideal environment for innovative ideas.

# Example: Deutsche Telekom's "Win with partners" programme

Deutsche Telekom emphasizes collaboration to offer a wider range of products and services to its customers, giving start-ups the opportunity to become partners on equal terms. To speed up time to market, Deutsche Telekom is developing standardised interfaces partners can plug in just like into a power strip. Additionally, Deutsche Telekom supports selected start-ups via "hub:raum", providing funding, expertise (both internal and external), and giving start-ups access to the company's business units and its platforms. To further expand the scope and volume of its investments in venture capital and technological innovation, Deutsche Telekom has recently established Deutsche Telekom Capital Partners, one of the largest investment funds in Europe.

Ecosystem: ERT companies develop regular and structured exchanges with start-ups by
engaging in direct/one-on-one R&D or business partnerships, by taking part in research
networks or in collaborative projects launched by digital clusters. They also support start-ups
in getting facilitated access to consultancies, marketing services, suppliers and customers.

#### Example: Air Liquide's i-Lab initiative

The i-Lab is the Air Liquide group's laboratory for new ideas. Its purpose is to help accelerate the pace of innovation and to explore new markets by analysing how usages are evolving. Boasting both a think tank and a venue for experimentation (a "Corporate Garage"), the i-Lab conceives and develops products and services of tomorrow. Connected to the global innovation ecosystem, the i-Lab builds partnerships with start-ups to accelerate innovation. Since 2013, i-Lab has launched several initiatives to detect disruptive technologies, to identify potential collaborations, and to strengthen its role on the start-up ecosystem such as the development of a dedicated Open Innovation program to accelerate R&D programs, the creation of the Breathe in the City start-up incubator in partnership with Paris&Co, the innovation agency of Paris, and the sponsorship of the Hello Tomorrow Challenge (a global start-up competition).

#### **Example: Orange Fabs in 6 countries**

Orange Fab is a 3-month acceleration program focused on growth and distribution opportunities. As noted previously by GigaOm covering the Orange Fab in the Silicon Valley, the strong value of the partnership comes from start-ups gaining access to Orange's massive distribution channels, partner program and marketing heft. For example, this allowed start-up Fenix International to work with Orange's African operations to distribute its off-grid batteries.

# Example: Siemens new partnership with TechFounders - a 3-month international accelerator program based in Munich.

TechFounders brings together tech start-ups with industry partners and venture capitalists. Start-ups have direct access to these industry partners, receive €25 000 in development

funding, get the continuous input from high-profile mentors and use free of charge Europe's largest hardware workshop with over 1 500  $\text{m}^2$  of various 3D printers, laser cutters and much more. The aim of the program is to get start-ups one of the industry partners as a high-class customer, business partner or investor.

 Exits: Some ERT companies actively pursue merger and acquisition (M&A) approaches with successful start-ups that fit well with the company strategy. The acquisition phase then relieves venture capital investments from their initial commitment to the benefit of other younger start-ups requiring fresh funding.

#### Example: Bayer and Algeta

Bayer acquired the Norwegian start-up Algeta in 2014 for € 2.1 billion. Algeta, an oncology specialist, fits well into the strategic R&D approach of Bayer. Algeta was founded in 1997 and went through classical start-up phases such as venture capital funding, going public at the Oslo stock exchange, a development and commercialisation deal with Bayer and then finally the acquisition by Bayer. With the acquisition, Bayer paid out the venture capital investors, thus rewarding them for their high-risk investment at an earlier stage.

# 4. Future cooperation of ERT member companies to support European Start-ups

ERT companies in various industries increasingly cooperate with IT start-ups to innovate and digitise their business. At the same time, ICT and technology companies within the ERT have start-up programs in place to foster the development of next generation IT technologies that will drive innovation in most industries. It is understood that ecosystems in the Digital Economy cannot be established by individual companies alone. Rather the creation of digital ecosystems, especially in the B2B space, requires resources and input from various players throughout the value chain. Europe must be at the forefront of the development of those ecosystems in order to maintain its industrial competitiveness in the digital age. Against this background, ERT companies agreed to increase their cooperation to promote ecosystems and start-ups for the Digital Economy in Europe.

Two focus areas for the new ERT initiative will be Internet of Things and Big Data, as technologies and applications in those areas will affect almost all industries.

- Internet of Things: IoT refers to advances in technology enabling real-world objects to communicate and interact. However, despite the projected market growth for IoT, globally only few start-ups are being created in this domain, e.g. compared to e-commerce or financial technologies. Especially industrial application areas like manufacturing (Industry 4.0) are underdeveloped. One obstacle is that IoT start-ups require more capital for utilising or even developing hardware components. Another is the difficulty for start-ups to find industrial customers and partners that are willing to provide use cases and access to sites. To overcome these barriers and lead the future IoT market, a joint effort of corporates is needed. By combining individual corporate start-up offers (financial, technology and access to use cases) an ecosystem for successful creation of IoT start-ups can be realised.
- Big Data: Big Data refers to the automatic processing, analysis and visualisation of large amounts of data. Similar to IoT, there is a great projected market potential while at the same time start-ups experience entry barriers. One reason is the limited access to corporate data and use cases, mainly because of risk aversion in relation to legal constraints. Secondly, specialised hard- and software for processing high data volumes fast demanding much more financial resources, e.g. compared to building consumer apps for mobile devices. Again, this

situation can only be overcome effectively by joining forces and combining offers towards the start-ups.

Moving forward ERT will explore how companies can create synergies between their existing start-up initiatives, especially through the exchange of information, sharing of best practices and by orchestrating their approaches where beneficial. In any case, ERT companies will publish information about their individual start-up initiatives, in order to increase visibility, transparency, and accessibility. To this end, the ERT will create a web presence that bundles this information in a central place.

# 5. Recommendations for EU Policy-Makers

ERT welcomes government programs to promote start-ups in Europe. For example, the Startup Europe Partnership (SEP) set up by the European Commission has contributed to the recent proliferation of start-ups in Europe. Similarly, start-up programs in Member States, for example in France, Germany, Spain and the UK are instrumental for the creation of start-up hubs.

While these initiatives are warmly welcome, a lot remains to be done<sup>9</sup>. ERT recommends 10 actions for governments to promote start-ups in Europe:

- 1. Completion of the EU Single Market: The completion of the EU Single Market is a prerequisite for start-ups to scale up easily and attract investment. Start-ups especially care about a common set of consumer rights that provide consumers with confidence, but don't stifle innovation. They also demand one-stop-shop systems so that they only have to deal with one regulator or tax authority. We encourage the European Commission to identify those areas that are especially important for start-ups and to give them priority in the new Internal Market Strategy. This relates, among others, to processes such as registering a web domain, forming a company, paying VAT, hiring employees, resources or managing small equity investments. Many digital start-ups will be created in the future. Therefore, the rapid implementation of the Digital Single Market should be a priority.
- 2. Innovation-friendly data regulations: The fragmented and outdated regime for the protection of personal data in Europe is a bottleneck for start-ups. ERT supports a harmonisation across all Member States of data protection rules that establish a balance of promoting new digital services and business models while effectively protecting consumers. We also encourage policy-makers to review and if possible remove existing data localisation policies within the EU. Governments should make government data public. By opening up data, government can help drive the creation of innovative business and services. Governments should create requirements to establish open data as the default, ranging from data standards to new requirements for designing new data systems, to crafting complimentary laws with publication and data standards built in from the start.
- 3. **Reducing red tape:** To ease the set-up and growth of start-ups it will be crucial to reduce red tape for business creation and minimise filing and documentary requirements. Setting up a company is a challenge for start-ups in Europe, whereas the requirement does differ from member state to member state. We support to institute a new type of corporation called the E-Corp that should have common requirements across the EU. This would simplify the

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<sup>&</sup>lt;sup>9</sup> ERT supports recommendations that have put forward by European start-ups and young entrepreneurs such as the StartupEurope Manifesto; see <a href="http://startupmanifesto.eu/">http://startupmanifesto.eu/</a>.

creation of a new company as well as the cross-border investments in start-ups. ERT members encourage policy-makers to develop and to network European centres of excellence, either in a defined geographical area and/or for a defined group of start-ups particular favourable framework conditions could be created.

4. Offer tax incentives for start-ups and those investing in start-ups: Europe needs to encourage talents to join start-ups and reward risk-taking, e.g. by investing into early-stage technology ventures, through tax reductions. For instance, France and the UK have put in place tax policies to foster innovation and start-ups. ERT encourages all Member States to consider introducing similar tax policies.

<u>The UK</u> has an 'entrepreneur relief' scheme, which basically means that any gain on the sale of a successful start-up business (all, part, shares or assets) is taxed at 10% rather than 18% or 28%. There is a threshold of £10m but the scheme encourages entrepreneurs and serial entrepreneurs to take risks and deliver success without undue fear of the value being taken by the government. General rules for interest deductibility and loss relief also support investment and risk taking.

<u>In France</u>, start-ups can also access tax incentives: R&D tax credit, innovation tax credit, favourable accounting treatment for R&D expenses and expenses (conception and creation of softwares). A specific tax regime has also been set up for "Innovative Young Companies" ("Jeunes Entreprises Innovantes"). In addition, other tax incentives applicable to investors (corporate or individuals) may also apply (one-shot depreciation, capital gain tax exemption, and 5-year amortisation for some investments, exemption from wealth tax for SME' shares, income tax reduction for investment in French innovation fund (FCPI) or in local investment fund (FIPI)).

- 5. **Provide public funding:** Public funding should focus on the initial growth phase of start-ups in order to address the real funding gap in Europe. The ERT would welcome more EU-wide and dedicated government programs to support digital start-ups, possibly with a focus on Internet of Things and Big Data applications. European policy-makers should also take into account a funding model similar to 'Chief Scientist's Matching Grants Program' in Israel. Through this initiative, firms in Israel submit R&D proposals to the Office of the Chief Scientist, and grants are awarded on a competitive basis, with between 66 and 90% of the research costs covered b public funds. We also suggest creating an EU-wide grant program for start-ups. The European Commission could potentially create an investment fund owned by ECB with the appropriate governance. Its objective would be to take equity participation (up to 10-20%) during a limited time into start-ups, which develop innovative solutions in focus areas, provided that R&D and manufacturing will be done in Europe.
- 6. **Facilitate participation of start-ups in public procurement.** This can be achieved through simplifying and reducing lengthy and burdensome procurement processes. Obviously, supporting measures for start-ups to access public procurement should be non-discriminatory and consistent with a value-for-money approach.

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http://www.oecdobserver.org/news/fullstory.php/aid/3546/Start-up\_nation:\_An\_innovation\_story.html#sthash.F7XcPreJ.dpuf

- 7. **Reducing personal impact of start-up failure:** This could be achieved through limiting personal liability of founders and limiting lawsuits on insolvency procrastination for start-ups. Personal insolvency treatment for technology start-up founders should be improved.
- 8. Promote ICT skills and entrepreneurial culture: Entrepreneurial thinking should be promoted throughout the various educational systems, starting already in school. We should strengthen entrepreneurial programs at European universities. All major start-up hubs in the world are linked to a well-known University (Stanford University in Silicon Valley; MIT/Harvard in Boston, Cambridge University in Cambridge; Lund University in Lund, etc.). In the US many students create a new business before they graduate from university. This allows students to "test" entrepreneurship while they are still in a structured environment of the University. ERT also supports the creation of a European network of Student Entrepreneurship Centres, where students can exchange best practices and find additional support and possibly funding to realise their business projects. For further recommendations on skills, see annex.
- 9. Access to talents: Many start-ups find it difficult to recruit talents in Europe to grow their business. While in principle there exists a common labour market in the EU, hiring a talent in an EU country outside your own is still complex and costly. We should encourage talents from other regions to start a company in Europe or to join a European start-up. At the same start-ups need flexibility to let employees go to quickly adapt to market dynamics and stay competitive.
- 10. Promote the setup of effective start-up initiatives in all Member States organisations, taking into account good practices such as *Finnvera* and the German *Gründerfonds* since the importance is rather to understand the markets in several EU Member States but not necessarily funds that act cross-border.