



## Financial and Institutional Reforms for Entrepreneurial Society



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## 1. Excellence

### 1.1 Objectives

In this project we will analyse the **broader contexts of smart, inclusive and sustainable growth** in Europe to support implementation of the Commission's 'Europe 2020' growth strategy and to restore Europe's **ability to innovate, grow and create jobs** over the coming decades. In this proposal we argue that entrepreneurship<sup>1</sup> must play a central role in that effort. 'Entrepreneurship' tends to make people think of the US and its model of high growth and high-tech start-ups in Silicon Valley. We are keenly aware, however, that a European growth agenda requires a focus on European entrepreneurship. US recipes and models will not fit the European context and do not deliver the results Europe wants. Our project's objective is therefore to thoroughly analyse European institutional arrangements and their current (in)ability to mobilise Europe's human, financial and knowledge resources for entrepreneurial activity. This will help us formulate an effective reform strategy to reinvigorate European economies. The current diversity of institutional arrangements in Europe has long and common historical roots that must first be recognised and understood. Based on common global trends in technology and competition, we then establish the urgency and desirability for making the transition to a more entrepreneurial economy throughout Europe.<sup>2</sup> Once this has been established, our project will develop and provide the tools for policy makers to assess the quality of national and regional entrepreneurial ecosystems and to identify the main strengths and weaknesses with regard to making the transition. Based on this assessment we will formulate specific proposals to enhance the allocation of talent, finance and knowledge to new value creation and we will conclude our project with a legal analysis to see where competencies currently lie and what action could be taken. Table 1 summarises the project's objectives, approaches and actions:

**Table 1: Project Objectives**

| <i>Objective</i>   | <i>Approach</i>           | <i>Actions</i>  |
|--|---------------------------|---|
| <b>Characterise Europe's trajectories of national development in institutional</b> | History and Institutional | Focus on institutions governing the creation and allocation of financial, human and knowledge |

<sup>1</sup> We will define our key concepts more precisely below. Entrepreneurship here refers to introducing change into the economy by firms (new and old) creating and engaging in new value creation propositions.

<sup>2</sup> We will use the terms entrepreneurial society and entrepreneurial economy more or less interchangeably, although strictly speaking the latter should be considered a part of the former, more encompassing concept. The focus in our project is on the economy.

|  |   |   |
|--|---|---|
| <b>arrangements</b>  | Economics   | capital<br><br>Identify and distinguish those that are deeply embedded from more superficial (and easily changeable) institutions<br><br>Identify and distinguish common roots and national/regional divergence in institutional development  |
| <b>Urgency and desirability of the transition towards a more entrepreneurial economy</b> | International Economics, Economics of Innovation and Labour Economics | Collect data and analyse trends in specialisation patterns over global value chains<br><br>Analyse strategies for smart specialisation at the task-level for European nations and regions<br><br>Analyse job growth and opportunities through entrepreneurial activity  |
| <b>Tools to assess the current state of the entrepreneurial economy in Europe</b>        | Entrepreneurship Studies  | Collect and analyse data on institutional quality and entrepreneurial activity at a national and regional level<br><br>Focus on institutions governing the supply and allocation of financial, human and knowledge capital<br><br>Develop entrepreneurship scoreboard to identify opportunities, bottlenecks and urgent reform strategies.  |
| <b>Tailoring reform strategies to European member states and regions</b>                 | Institutional Economics, Policy Design and Evaluation                 | Focus on institutions governing the supply and allocation of financial, human and knowledge capital<br><br>Distinguish strategies as short, medium and long run driven by institutional embeddedness<br><br>Distinguish strategies by their most appropriate level as regional, national and European   |
| <b>Legal action and reforms required to implement the strategy effectively</b>           | Administrative Law and International Law                              | Translate proposals into specific policy actions for specific actors given current EU legal frameworks (treaties, national competencies and regional autonomy)<br><br>Identify opportunities, problems and obstacles to implementing the proposed reforms in the current legal framework<br><br>Propose required changes to European, national and regional legal frameworks where needed |

It is within this context that we propose a multi-partner and multi-disciplinary project, which will unveil the significance of entrepreneurship to innovative growth in Europe. Our proposal involves nine partners that represent Europe's leading centres for research on entrepreneurship, many of which also have strong links to research in finance, innovation and labour market institutions. Moreover, we will involve scientists from such diverse disciplinary backgrounds as history, economics, geography, law, political science and business

management. We perceive that there are five essential steps in formulating a sound institutional reform strategy to accommodate the transition to a more entrepreneurial society and have therefore designed our project to consolidate understanding and then advance research in each of these steps. The project will also contribute by building research capacity, and research management capabilities (including amongst women and disadvantaged groups) by offering ample opportunities for junior researchers to engage in challenging research questions.

Our project will therefore take an innovative, multidisciplinary (history, economics, geography, management, political science and law) approach to the call, zooming in on entrepreneurship as a core concept in analysing the **broader context of smart, sustainable and inclusive growth** in Europe. Moreover, our multidisciplinary approach allows us to develop a strategy that is built on Europe's diverse, but historically deeply rooted institutional foundations, while also introducing the legal reality check that ambitious reform proposals often lack. The resulting realistic and feasible reform strategy FIRES up Europe's economic engine for the 21<sup>st</sup> century.

## *1.2 Relation to the work programme*

This project addresses work programme Topic **13. Europe in a changing world – inclusive, innovative and reflective societies** call for proposals under **EURO-2-2014: The European growth agenda**. The specific challenge stated in that call reads: “The impacts of the economic crisis have been far reaching on the **ability of the EU economy to innovate, grow and create jobs**. In response, the EU has proposed a new growth strategy ‘Europe 2020’ which aims at tackling common European challenges and **boosting economic growth and quality employment through smart, sustainable and inclusive growth**. However, to ensure conditions for a successful economic recovery we need to better **understand the broader contexts of growth** in Europe”. In our project we focus on the “**ability of the EU economy to innovate, grow and create jobs**” by focusing on the entrepreneurial process. The Commission has already recognised the importance of entrepreneurship in other publications (European Commission 2011, 2013). We argue that mobilising and directing more human, financial and knowledge resources towards new value creation in Europe can boost “**economic growth and employment through smart, sustainable and inclusive growth**”. We explicitly propose a holistic, multidisciplinary approach to this challenge to help “**understand the broader contexts of growth in Europe**” theoretically, empirically and practically.

The call then recognises that national systems of institutional arrangements have evolved historically and performed very differently in response to the crisis. Also the call stresses the pressure on Europe's competitiveness arising from globalisation, trade and technological change, and calls for research to help understand the conditions that stimulate innovation, that foster growth, create jobs and reduce inequality.

In our project we will therefore start with an economic-historical analysis of the evolution of Europe's institutions. We will focus on the institutions that drive the mobilisation and allocation of human, financial and knowledge resources to entrepreneurial activity. The aim is here to uncover the institutional foundations on which any successful reform strategy has to build. European economies' comparative advantages seem to be shifting away from mature, routine, large-scale industrial activities, products and tasks. Instead Europe's new growth is founded on innovative, non-routine, small-scaled entrepreneurial tasks in the increasingly globalised and fragmented value chains. This establishes the need to mobilise Europe's entrepreneurial potential. In addition to this push factor, however, there are also important pull factors for developing an entrepreneurial growth strategy. For example, new job creation is increasingly concentrated in young firms and the jobs created in new ventures are typically available to all educational levels and occupations. In addition, corporate entrepreneurship or intrapreneurship creates more challenging, satisfying and sustainable jobs, whereas independent entrepreneurship provides a flexible and often high-quality alternative to formal employment that is also open to disadvantaged groups on the labour market (e.g. migrants and the older unemployed)(Coad et al. 2014). Importantly, however, the entrepreneurial ecosystems in Europe have features that set them apart from their US counterparts. However, the (institutional) conditions under which entrepreneurship and innovation therefore benefit society at large, need to be explored. In our project we will show that the transition to an entrepreneurial economy is urgent, desirable and feasible.

The scope of the call has therefore been limited to four topics: **Reform management for recovery, Innovation-based growth strategy for Europe, Global production and innovation networks – costs and benefits for Europe and Migration, prosperity and growth**. Table 2 below lists the four topics, key words for that topic from the call text and the corresponding work packages and deliverables in our proposal that address them. The work packages and deliverables are described in more detail in the work plan in Section 3.



**Table 2: Scope, Work Packages and Deliverables**

| <i>Scope of Call</i>   | <i>Key Words in Topic</i>   | <i>Work package</i> | <i>Deliverable(s)</i> |
|--|---|---------------------|-----------------------|
| <b>Reform management for recovery</b>  | Explanatory framework for politico-socio-economic models                                  | WP2                 | 2.1                   |
|  | Trajectories of national development  | WP2                 | 2.2-2.4               |
|  | Assessment of policy responses to the crisis  | NA                  | NA                    |
|  | Reasons for perseverance of long-term structural problems                                 | WP2                 | 2.2-2.4               |
|  | Assessment of policy proposals to overcome these  | WP5                 | 5.3-5.5               |
|  | Benchmarking socio-economic competitiveness   | WP4                 | 4.1-4.5               |
| <b>Innovation-based growth strategy for Europe</b>                               | Effectiveness of Europe 2020 growth strategy  | WP4                 | 4.5                   |
|  | Need for supporting policies  | WP5                 | 5.5                   |
|  | Differences across sectors  | WP3/5               | 3.1-3.3, 5.3          |
|  | Trade-offs between growth, employment and inequality                                      | WP3                 | 3.4-3.5               |
|  | Improving and creating better comparative data  | WP3/4/5             | 3.1, 4.1, 5.1         |
| <b>Global production and innovation networks – costs and benefits for Europe</b> | Analyse the costs and benefits of globalisation   | WP3                 | 3.2-3.5               |
|  | Global value chain analysis   | WP3                 | 3.2-3.3               |
|  | Corporate social responsibility   | WP3                 | 3.6                   |
|  | Coordinated EU industrial policy  | WP5/6               | 5.5, 6.1-6.4          |
|  | Scenarios for smart specialisation  | WP3                 | 3.2-3.3               |
|  | Asses feasible steps taking variation between sectors and geographical areas into account | WP3/5               | 3.2-3.3               |
|  | Tools for cooperation   | WP6                 | 6.1-6.4               |
| <b>Migration, prosperity and growth</b>  | Analysis of how migrants can contribute   | WP5                 | 5.3                   |
|  | Analysis of link between migration and innovation   | WP3                 | 5.3                   |
|  | Making Europe more attractive to productive immigrants                                    | WP3/5               | 3.4, 5.5              |
|  |   | WP3/5               | 3.4, 3.7, 5.5         |
|  | While protecting European workers   |                     |                       |

This proposal is based on the notion that any strategy that aims to invigorate the **ability of the EU economy to innovate, grow and create jobs** should carefully consider Europe's entrepreneurial ecosystem(s). Empirical evidence (Audretsch and Lehman 2005; Acs et al. 2009; Braunerhjelm et al. 2010; Fritsch 2013; Wilson and Silva 2013; Estrin et al. 2014) strongly suggests that entrepreneurship is the missing link between innovation, economic growth and job creation, and it is new, young, entrepreneurial firms that innovate, grow and create jobs. In line with the call's encouragement "**to include additional aspects that are relevant to the specific challenge**" we will therefore include entrepreneurship and in fact centre our proposal around (re)designing institutions to mobilise and allocate more of Europe's human, financial and knowledge resources towards entrepreneurship in the future.

### **1.3 Concept and approach**

#### *Our Overall Approach*

An entrepreneurial growth and innovation strategy for Europe cannot be a one-size-fits-all copy-paste of policies that proved successful in other contexts, notably the US. The very diverse institutional preconditions and national or even regional histories in Europe make such an attempt futile from the outset. In addition, it would not necessarily yield the inclusive and sustainable growth the EU is aiming for. But this call is not nearly broad enough to attempt tailor reform strategies to all 28 EU member states, let alone its multitude of economic regions. The overall goal of this project is therefore to investigate the necessary steps and develop the tools to formulate effective reform strategies. Given the importance of institutions to growth in general and entrepreneurship in particular we will start our project with a careful historical analysis of the most important institutional arrangements for entrepreneurial venturing: those that allocate finance, talent and knowledge to new ventures. Then we will establish the need for a transition to a more entrepreneurial economy in Europe and analyse the institutional prerequisites to also make this transition desirable. Then we will provide a quick scan of the strengths and weaknesses of the entire Europe Union's entrepreneurial ecosystems. To illustrate the practical usefulness of our approach we then deal with the UK, Germany and Italy in depth, as they arguably belong to different institutional families and in the Varieties of Capitalism terminology represent European examples of a liberal market, a coordinated market and a mixed market system, respectively. As a final step we will also provide a careful legal analysis of how and at which levels of legislation an effective reform strategy must be formulated in these different institutional contexts. The remainder of this proposal will elaborate on the concepts, theories and literature that the various steps in the project are founded on.

#### *A Schumpeterian Perspective on Entrepreneurial Society*

The overall idea underpinning this proposal is nicely framed in Audretsch (2007) by what he refers to as the Entrepreneurial Society. Audretsch (2007) argues that the days of the managed, industrial economy of the post-war years are over and advanced countries are now moving towards a creative, innovative, small-scale, entrepreneurial economy and identified two major trends that caused (parts of) the US to develop into this Entrepreneurial Society. First external competition (from Europe and Japan) destroyed US supremacy (and jobs) in the very industrial complexes that had propelled it to global economic dominance in the decades before. The steel belt had turned into the rust belt long before the 2008 crisis. Second, information and communications technology (ICT) provided the general-purpose technology that fostered and facilitated a period of entrepreneurial venturing and experimenting last seen at the turn of the 19<sup>th</sup> century.

In this project we will show that this pattern is now repeating itself in Europe. External competition from emerging and industrialising countries is rapidly destroying jobs in the old, mature, managed economy that relied on economies of scale and cost reduction to maintain global competitiveness. Evidence in for example OECD (2013b) suggests that new value and job creation primarily arise in young firms in Europe too. Firms of less than 50 employees and younger than 3 years account for only 11% of employment, but create 33% of new jobs in the OECD. The net job destruction during the current crisis, which amounted to 2% on average (and was up to 8% in countries such as Spain, Greece, Ireland and Estonia between 2008-2011) was mostly caused by the downsizing of large, mature firms that experienced fierce competition from emerging global competitors. As a consequence, the jobs and industries lost are not likely to return to Europe. This is a good example of Schumpeter's 'creative destruction' in action. And it seems to hurt the managed economy most. But instead of competing with the BRIICs for the sectors, industries, products, jobs and tasks of the past it makes more sense for Europe to join the US at the global technology frontier, creating new value and jobs for the future. There (Aghion and Howitt 2006) European firms can find their new niches and develop new strengths. Having been at the global technology frontier for centuries, Europe has the legacy and the history. Moreover, we do not believe, as Acemoglu et al. (2012) seem to suggest, that this inevitably requires

accepting high inequality and adopting the US model lock, stock and barrel. However, for Europe to regain its capacity to generate new jobs and replace the jobs that have been lost, it will have to make the transition to a more entrepreneurial economy grafted on Europe's diverse institutional foundations.

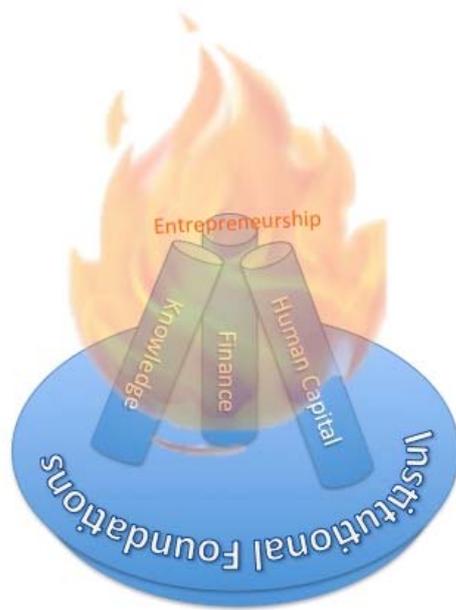
We arrive at this conclusion building on Schumpeter's (1911, 1934) evolutionary perspective on economic growth and development. The selection environment and the processes of variety generation and replication should be considered from an evolutionary perspective (Nelson and Winter 1982). In Schumpeter's view markets provide the selection environment in capitalist economies. In the market environment a variety of firms compete for a market share with their products and practices. Profitability in these markets then attracts competitors and motivates new variety generation. Globalisation, ICT and rising incomes have increased the size of markets, but at the same time allowed demand to become much more sophisticated and heterogeneous. These trends on the demand side determine the selection environment for European firms. And these trends increase the need for experimentation and smart specialisation. Schumpeter envisioned such experimentation to be the role of entrepreneurs, but this obviously also changes the environment for incumbent firms. Entrepreneurship, here defined as introducing new combinations to markets, is required across the board and making the transition to a more entrepreneurial economy is urgently needed.

Europe is also well positioned to do so. Europeans are inherently no less entrepreneurial, creative or talented than e.g. Americans. Building on the institutional ideas of North (1990), Baumol (1990) proposed instead that current institutional arrangements might limit or obstruct the allocation of resources to productive entrepreneurship. But institutions can be changed, although this may take quite some time and effort. Europe has already embraced the idea to boost entrepreneurship and promote smart specialisation through institutional reform as a way out of the current economic crisis. To date, however, policies aimed at stimulating entrepreneurship - like the provision of matching venture capital, incubators or platforms for entrepreneurial networking events (European Commission 2011, 2013) – have only shown limited effectiveness. While some high-tech industries, such as Italy's biotech industry, have developed without governmental support (Hermann 2008), high-quality entrepreneurial activity remains underdeveloped in regions such as Southern Italy or East Germany despite massive subsidies for entrepreneurship (Muffatto et al. 2012; Sternberg et al. 2012; OECD 2013b). Arguably, this is because US inspired entrepreneurship policies are not well adapted to the European institutional context. Designing a successful entrepreneurship policy that works in Europe therefore has to go beyond copying successful American programmes and recipes. Europe cannot hope to become Silicon Valley and should not aspire to, as it needs to build a European entrepreneurial society on very different institutional foundations. The Commission has correctly observed that institutional reform is required to boost innovation in Europe. We argue here that this requires a tailored and coordinated institutional reform strategy that considers the broader context of Europe's entrepreneurial economy.

From Schumpeter we take our proposition that a successful venture requires (at least) a dedicated entrepreneur with an idea and the ability to bring together a team and resources to start and grow the venture.<sup>3</sup> The institutions we therefore need to focus on are those that drive the creation and circulation of knowledge, the (re)allocation of human capital and the flows of finance. This provides our general framework for analysis with three institutional legs supporting the process of entrepreneurship as envisioned by Schumpeter (1911, 1934) and illustrated in Figure 1. Moreover, these institutions should be considered together, as knowledge, human and financial capital are complements, not substitutes in creating innovation. This requires a broad, multidisciplinary approach to the challenge that is detailed below.

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<sup>3</sup> This is where we got the acronym for this project. Feldman et al. (2005) refer to 'entrepreneurial sparks at the root of cluster development' and this reminds us of the 'triangle of fire' i.e. to start FIRES you need a spark (knowledge), fuel (motivated and talented co-workers) and oxygen (finance). The fire will not burn if one of the elements is missing.



**Figure 1: Three institutional legs fuelling entrepreneurship.**

*Institutional Arrangements and Varieties of Capitalism (VoC)*

In **characterising Europe's trajectories of national development in institutional arrangements** the Varieties of Capitalism (VoC) (Hall and Soskice 2001) literature takes a useful holistic institutional approach. In this literature, institutional arrangements are considered to have evolved historically into complex systems of interdependent and complementary institutions. Its traditional focus on labour market institutions allows us to immediately analyse the ability of new, young firms to attract workers to grow their venture. Moreover, financial market institutions, albeit with a strong focus on governance, were also explicitly considered in this literature and a clear link to the earlier National Systems of Innovation literature is also present (Hermann 2008). To date, the VoC literature makes the most clear-cut propositions on how national institutions constitute the basis of country-specific business interaction. This approach is easily combined with the newly emerging literature on national and regional systems of entrepreneurship (Qian et al. 2013), and the more popularised policy concept of entrepreneurial ecosystems (WEF 2013; Feld 2012).

Contemporary Europe's institutions were shaped by history and inherited from a different time. The post-war period of reconstruction and convergence has left its mark on Europe's institutional arrangements. This period called for a disciplined, well-educated and specialised workforce to operate the rapidly rebuilt, state-of-the-art, large-scale industrial complexes that were intended to efficiently produce high-quality manufactures for international markets. Europe's national systems of innovation were geared towards basic research aimed at maximising absorptive capacity and incremental innovation in industrial R&D. Meanwhile Europe's private, universal bank-dominated financial sector efficiently channelled the highly institutionalised savings (pensions and insurance) in the expanding welfare state into secure, collateralised loans for the physical capital of stable and large multinationals and national champions. These institutional arrangements allowed Europe to rebuild and quickly catch up with the US. But as Aghion et al. (2013, p. 21) put it: 'policies and institutions that are appropriate for countries close to the global technology frontier are often different from those that are appropriate for non-frontier countries, because those policies and institutions that help a country to copy, adapt and implement leading-edge technologies are not necessarily the same as those that help it to make leading-edge innovations'.

Our institutional strengths of the past have become a weakness. Entrepreneurship calls for small-scale experimentation (Kerr et al. 2014; Rosenberg and Birzell 1986) by creative jacks-of-all-trades (Lazear 2004) employing a flexible workforce in a dynamic housing market that rapidly distinguishes success from failure and can therefore serve as a global launch pad for new products and services. European universities still push scientific boundaries, but struggle to catalyse new business propositions, whereas corporate R&D typically will not cannibalise existing core activities (Akcigit and Kerr; 2010). As for the financial sector, even before the crisis universal banks and institutional investors channelled Europe's financial resources into marketable assets (e.g. real estate, government bonds and interbank deposits at home or abroad) that were deemed to be more secure and profitable than small loans to experimenting entrepreneurs and young firms without a track record or collateral. Inevitable post-crisis efforts to strengthen bank balance sheets are likely to only aggravate this trend.

Making the transition to an entrepreneurial economy in Europe, however, cannot involve copying the institutional arrangements in the US. The VoC approach suggests that American and European financial markets, labour institutions and knowledge infrastructure have evolved into distinct systems of internally consistent and complementary institutions. Moreover, these institutions have deep historical and cultural roots that, following Williamson (2000)'s hierarchy of institutions, cannot all be reformed within a relevant time scale. Finally, Europe has developed a rich variety of national and regional institutional arrangements that defy a one-size-fit-all approach to reform. We therefore face the challenge to reform European institutions in such a way that they continue to suit Europe's deeply rooted cultural heritage while accommodating the historically evolved diversity of national institutional systems yet simultaneously move decisively towards a *European Entrepreneurial Society*.

#### *Schumpeterian Entrepreneurship, Specialisation and the Product Life Cycle*

The **urgency and desirability of the transition towards a more entrepreneurial economy** follows from our proposition that smart, sustainable and inclusive growth at the global productivity frontier requires a more entrepreneurial economy. At the leading edge of the economics of growth (e.g. Acemoglu 2009) it has been firmly established that technical change, the implementation of new, useful knowledge in products and processes in the economy, is the engine of economic growth in advanced economies. Importantly, growth theory (Romer 1986, 1990; Aghion and Howitt 1992; Jones 2006) focuses on understanding the creation of new knowledge and ideas, taking the implementation of such inventions to be a trivial and automatic process. And this can perhaps even be justified for the analysis of fundamental sources of long-term, steady state economic growth. Because why, in a market economy, would any valuable idea be left idle? But entrepreneurship is far from trivial. It requires significant resources and rewards, and may in fact be the main bottleneck in the innovation process (Acs and Sanders 2012). This idea goes back to the work of Joseph Schumpeter (1934), who wrote:

*“Economic leadership in particular must hence be distinguished from ‘invention’. As long as they are not carried into practice, inventions are economically irrelevant. And to carry any improvement into effect is a task entirely different from the inventing of it, and a task, moreover, requiring entirely different kinds of aptitudes...it is, therefore, not advisable, and it may be downright misleading, to stress the element of invention as much as many writers do.”* Schumpeter, 1934 pp.88-89

In this project we heed Schumpeter's (1911) warning and focus on entrepreneurship, here defined as introducing 'innovations' i.e. new goods, new methods, new markets, new sources of intermediate goods or new organisational structures. Moreover, we subscribe to Knight's (1921) approach to entrepreneurship, who proposed that the role of entrepreneurs in the economy is to turn the ex-ante uncertainty related to such innovation into ex-post calculable risks that investors can deal with.

This links our approach to the product and industry life-cycle approaches in industrial organisation as proposed by for instance Vernon (1966) and Klepper (1997). Case studies and empirical evidence in this literature have shown that the introduction of new ideas typically follows a stable pattern. That pattern involves an experimentation and exploration stage in which many, small, new firms and entrepreneurs enter an emerging industry. Once all the elements for success have been discovered and are brought together by one or more of these entrepreneurial firms, a dominant design may establish itself and typically a shake out occurs in the industry (Klepper and Miller 1995). Many of the pioneering firms then flounder, but their employees

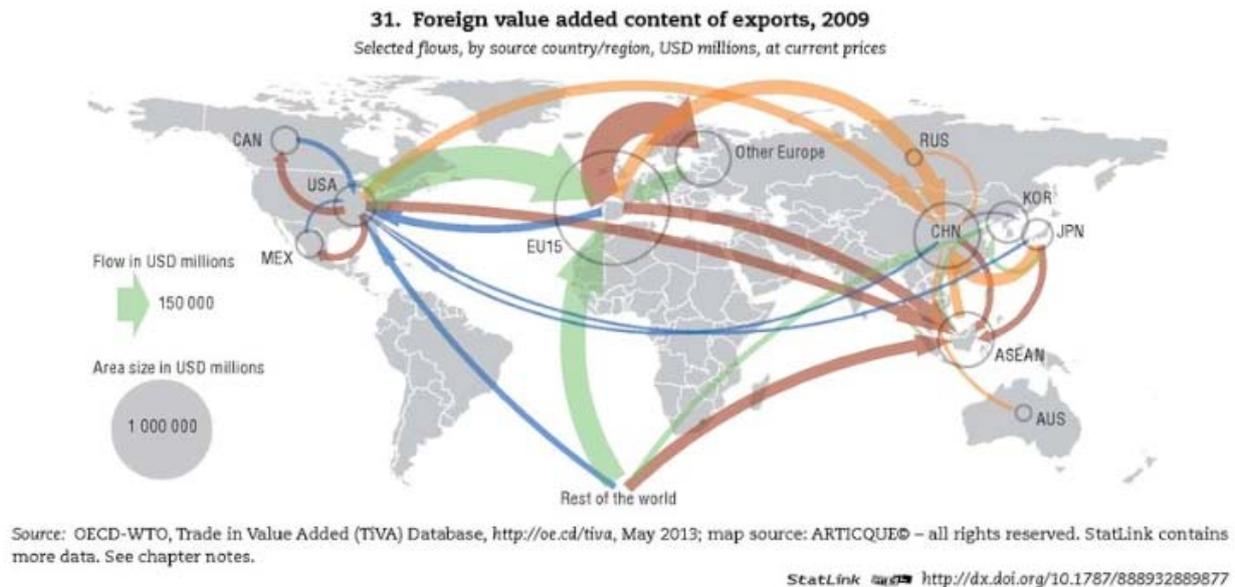
and owners often find new employment with the rapidly growing new industry leaders. As the industry matures the emphasis in innovation switches from quality improvement to cost reduction (REFS), production is rationalised and excess labour is shed (Klepper 1996). In fact, as production becomes routine, the industry may well move manufacturing to low cost regions elsewhere or succumb to competition from such regions (Audretsch and Sanders 2011).

This pattern can be found for individual products and firms, industries, sectors, regions and countries as these all produce a more or less diversified portfolio of products at any given point in time. For firms it is standard practise to actively and strategically manage this portfolio (e.g. Boston Consulting Group Portfolio analysis). This approach can of course not be directly applied to industries, sectors, regions or countries. First there is no single manager in charge and second, the product portfolio cannot be managed so directly. In addition, there is increasing fragmentation of global value chains across countries and regions. This means that tasks, not products become the relevant units of analysis. But the portfolio approach is still useful for characterising important trends (Audretsch et al.; 2012). As global trade integration and competition from emerging economies put pressure on European market shares in mature markets, more emphasis should be placed on Europe's stars and question marks; this involves smart specialisation in the products and tasks in the early stages of product and industry life cycles. And those tasks are the more entrepreneurial ones.

The European portfolio of tasks in global value chains is a canary in the coalmine in this respect. Evidence on trends in international trade (OECD; 2013) suggests that European jobs and competitiveness increasingly depend on global final demand and that the share of foreign value added in European exports is increasing (see Figures 2 and 3).



**Figure 2: Foreign value added content of exports 1995**



**Figure 3: Foreign value added content of exports 2009**

It is important to remember that global trade statistics, although indicative, hide a lot of relevant detail at sub-national level. The globalisation of value chains connects nodes in many countries, but this does not imply that 'the world is flat' (Friedman, 2006) and all compete on an equal footing. Instead, economic activity is increasingly concentrated in urban centres that act as hubs in globalised production networks. It is in these urban centres, these global hubs, that entrepreneurship typically flourishes. Richard Florida (2005) refers to this trend as the 'spiky world' and stresses the importance of an open and tolerant culture to facilitate the circulation of knowledge and to support creativity and experimentation, not only in the economic sphere (Bosma et al. 2009). This suggests that entrepreneurship must be considered a local or regional phenomenon (Feldman 2001), even if most data and formal institutions are typically national or even supranational in Europe. A clear positive link between regional development and entrepreneurship supports this proposition (Van Oort and Bosma 2013; Fritsch and Storey 2014; Glaeser et al. 2014) and stresses the importance of going beyond the national level where the data allows such detail. The mismatch between national institutional arrangements and regional or local entrepreneurial ecosystems at any rate requires careful consideration of aggregation biases (Stam and Bosma 2014).

The Commission's policies aimed at furthering smart specialisation propose that European member states and regions manage their portfolio of tasks.<sup>4</sup> That is, European regions should not try to copy or build entirely new industries and competitive advantages ex nihilo. Empirical evidence (e.g. Dalum et al. 1998) shows that specialisation patterns remain rather stable over time. Dynamics and growth come from discovering and building on related variety that builds on the existing knowledge and support infrastructures (Frenken et al. 2007). What distinguishes smart specialisation from traditional industrial and innovation policies is mainly the process defined as 'entrepreneurial self-discovery', an interactive process in which entrepreneurs in a market discover and produce information about new activities and the government assesses the outcomes and empowers those actors most capable of achieving the potential (Foray and Coeraga, 2013; Hausmann and Rodrik 2003). Smart specialisation therefore stresses the universal importance of entrepreneurship in discovering related variety. Every region in Europe can accelerate the development of a smart specialisation by focusing on institutional reform to support entrepreneurship.

The transition to a more entrepreneurial Europe should therefore be driven by the need to maintain international competitiveness and to promote smart specialisation strategies to ensure sustainable growth. In

<sup>4</sup> [http://ec.europa.eu/research/regions/index\\_en.cfm?pg=smart\\_specialisation](http://ec.europa.eu/research/regions/index_en.cfm?pg=smart_specialisation)

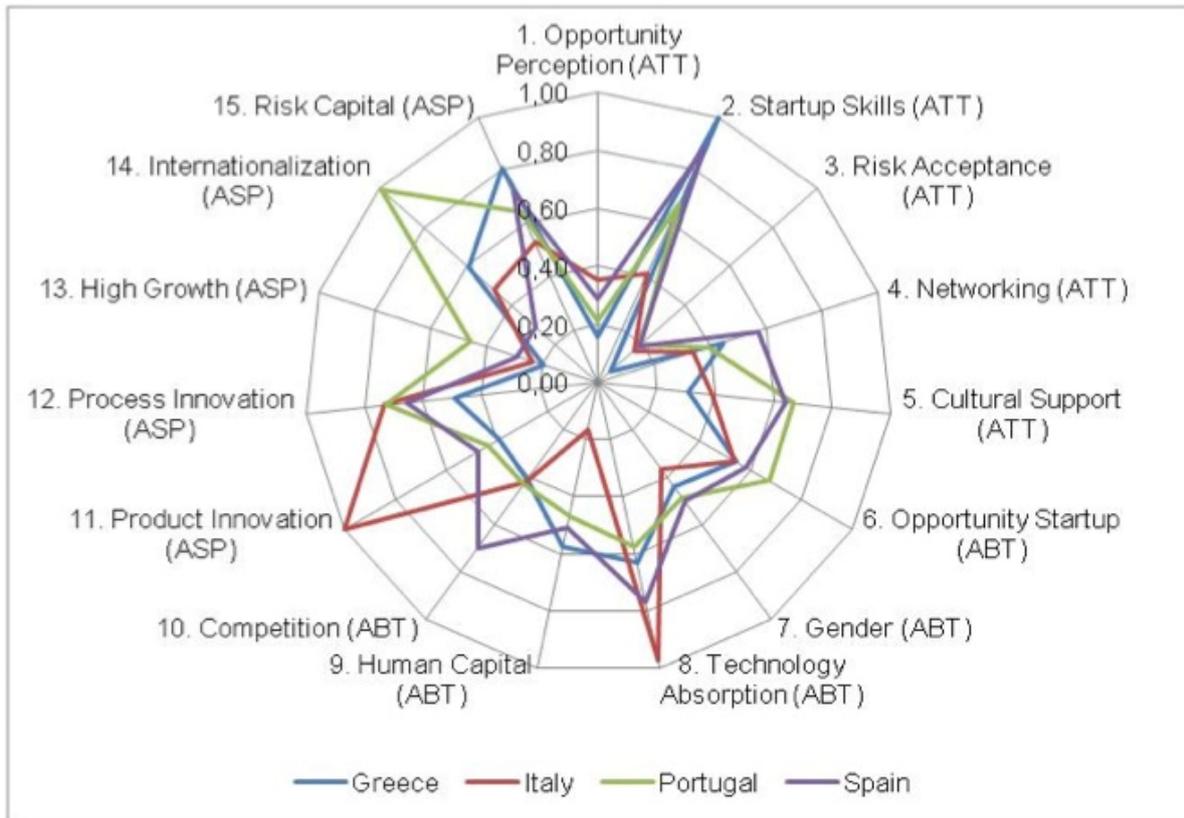
addition we argue that an entrepreneurial society would make growth in Europe more inclusive. The economic crisis has affected less skilled, intensive sectors such as construction hard in recent years. However, skill biased technical change and global competition have put increasing pressure on many people's labor market position in Europe. It is, however, not the least educated manual workers that suffer most from these long-term trends. Instead it is the lower middle class that is hit hard by the downsizing of the large, mature corporates that the economic crisis sparked (Goos et al. 2009). Using public data (OECD 2013b) on job creation in the EU we will demonstrate that experimental, new, young firms create jobs across the board and typically offer more opportunities for traditional labour-market outsiders as well as the former insiders released from mature industries.

### *Assessing the quality of entrepreneurial ecosystems using the Global Entrepreneurship and Development Index*

From the push and pull factors we move on to diagnostics. **Tools for assessing the current state of the entrepreneurial economy in Europe** are currently in their infancy. If we want to know how Europe is doing when it comes to its transition to an entrepreneurial economy, we need to collect data, but more importantly we need to combine that information into informative indicators. For this purpose we use the Global Entrepreneurship and Development Indicator (GEDI), developed by Acs and Szerb (2011). The GEDI is a methodological and statistical tool for understanding how *individuals* and *institutions* interact to create economic growth. GEDI is a so-called composite index. By reducing a number of variables down to basically one, composite indices are appropriate tools for providing summary information about multi-dimensional phenomena. The GEDI index uses a unique 'penalty for bottleneck' methodology. The key principle of this approach lies in the assumption that system performance is determined mainly by the weakest performing variable.

The penalty for bottleneck methodology has direct policy relevance as it identifies the weakest links in a country both at an institutional level as well as at an individual level and highlights the changes needed. This results in a multidimensional assessment of the entrepreneurial eco-system as illustrated for four European Member States in Figure 4. Figure 4 provides a comparison between four European member states for 15 dimensions, relevant to entrepreneurial growth. This picture reveals that in Mediterranean countries opportunity perception and risk acceptance are particularly low and reforming the institutional arrangements to enhance their scores for these dimensions is likely to generate high returns in terms of impact. The scores for these dimensions combine multiple indicators for relevant institutional qualities and entrepreneurial activities. Behind these so-called pillars in GEDI lies a broad set of indicators taken from public sources and adult population surveys of the Global Entrepreneurship Monitor. For our purposes, the GEDI methodology and data can be extended in various directions. Additional variables and pillars may need to be added to put more emphasis on the three key institutional legs: finance, labour and knowledge that we identified above. Moreover, in this project we will extend the analysis from the national level snapshot analysis into a time series analysis at national level to uncover relevant trends and at regional level to zoom in on the geographic units that matter most to entrepreneurial activity. The GEDI methodology has already been adapted to and data is available to us at a European regional level. The methodology has been applied to the regional level for European NUTS-1 and NUTS-2 regions in a project for the European Commission (DG REGIO) in REDI. With our extensions the index can be used to identify weaknesses to formulate a strategy and assess and track changes over time to see the impact of policy modification.

## The Comparison of Greece, Italy, Portugal, and Spain



**Figure 4: GEDI spider diagram**

Moreover, in order to better understand the impact of entrepreneurship on economic growth we will build GEDI/REDI scores into a GMR ('Geographic Macro and Regional') model (Varga 2007). GMR models provide ex-ante and ex-post evaluation of development policies such as the promotion of R&D activities, human capital advancement or improved physical accessibility. The GMR research programme intends to develop efficient, relatively simple model structures, which fit the generally weak quality of regional data. The first example of the GMR approach was the EcoRET model built for the Hungarian government for ex-ante and ex-post evaluation of the Cohesion policy. This was followed by the GMR Hungary model, which is currently used by the Hungarian government for Cohesion policy impact analyses. GMR Europe was built in the IAREG FP7 project and was recently extended and policy simulations for DG Regional Policy have been applied.

The GEDI-REDI composite index approach is well suited to scanning the quality of entrepreneurial ecosystems across Europe and quickly diagnosing where which bottlenecks should urgently be addressed. Given that a lot of work has already been done in earlier projects, we can now perform such a systematic analysis for the entire European Union. However, to develop actual institutional reform strategies we need to complement this data driven analysis with more detailed information about institutional conditions and how they inhibit or promote the process of entrepreneurial venture creation over time.

### *Sequence Analysis of Start-up Processes to Identify Institutional Barriers to Entrepreneurship*

**Tailoring reform strategies to European member states and regions** requires focusing our attention on specific case studies in this part of the project. Case studies are a useful tool for quickly collecting information on specific institutional contexts for entrepreneurial activity and drawing inspiration for specific policy programmes against the backdrop of our general theoretical and conceptual framework. But drafting tailored reform strategies for Member States involves collecting more in-depth data on the institutional arrangements affecting entrepreneurship. As part of the project we will therefore collect data in a survey among start-ups. A Marie Curie project (Hermann 2010) has provided a sound basis for this data collection effort. As a data

collection effort cannot be made within the scope of this call for all 28 Members States of the European Union, we will focus our analysis on Germany, Italy and the UK (and include the US, for which data is already available, as a reference point). In this way, we will illustrate the usefulness of our approach for a coordinated, liberal and mixed market economy in the traditional VoC classification.

We will study the resulting dataset with sequence analyses, a novel method in the social sciences that was originally developed to decode the human genome (Aisenbrey and Fasang 2010). Using this innovative method will allow us to reveal which institutional conditions foster or hinder start-up processes and how these conditions differ between the institutional environments of Germany, Italy, the UK and the US. Most importantly, the analysis will allow us to identify those entrepreneurship measures that are successful in each country and those that are ineffective. In combination with the more quantitative indicator approach described above, we can subsequently identify reforms in finance, labour markets and knowledge institutions that might be useful to adopt in the specific German, Italian and UK contexts. The historical-institutional VoC approach, however, reminds us to always consider such reforms in the broader context of interlinked and complementary institutions. This means that, to build a sound reform strategy, we will also have to refer back to the historical analysis that distinguishes malleable superficial from deeply rooted institutions. When this has been achieved we will turn to the practical implementation of the resulting reform strategy.

Finally, we will use a legal competencies and instruments analysis that links the proposed, desired reforms to the appropriate policy and decision-making bodies and agencies. To conclude this stage of the project we will actually present and discuss our analysis and proposals with responsible policy makers to involve these stakeholders directly. By concluding the entire reform strategy design process for Italy, Germany and the UK we can illustrate the practicality of our general approach.

### *Positioning*

This project has elements throughout the spectrum from fundamental research to policy action. Proposals have been developed up to the point of indicating who should take which action, but these proposals are firmly founded on empirical and theoretical scientific research on the interrelation between entrepreneurship and growth that would qualify as fundamental research that is of interest in its own right. The work in the early stages of our project, investigating the institutional foundations and structures currently promoting or inhibiting entrepreneurial activity in Europe, connects historical research to the urgent modern day challenges Europe faces. The empirical research we propose on establishing the need and desirability of moving towards a more entrepreneurial Europe involves state-of-the-art empirical research into trade dynamics and job creation. Moreover it brings us to the question of how entrepreneurship creates new, sustainable value when more material consumption is facing diminishing returns in the creation of well-being. This too might be considered an urgent, rather fundamental question, with clear policy implications. Our project becomes more applied in nature when we turn to investigating the strengths and weaknesses of regional entrepreneurial ecosystems in Europe. We will develop a plug-and-play assessment tool that can scan for urgent bottlenecks using publicly available data and will validate this tool extensively. Results from this analysis can be used to identify structural weaknesses relative to other EU regions, but designing a complete reform strategy requires more in-depth analysis of start-up processes in the jurisdiction under study. We will collect data on start-up processes and provide a tool for analysing such data. The results of these in-depth analyses will then be fed into a reform agenda that can be operationalised by performing a final, legal analysis to determine who should do what at which level and in which sequence to bring the entrepreneurial economy in Europe to life.

### *Context*

Our project will build on prior research projects in various instances. The importance of entrepreneurship for (regional) growth and development was already established in the FP7 IAREG project ([http://www.iareg.org/fileadmin/iareg/media/papers/IAREG\\_Deliverable\\_3.3.pdf](http://www.iareg.org/fileadmin/iareg/media/papers/IAREG_Deliverable_3.3.pdf)), while the FP7 AEGIS project focused on knowledge-intensive entrepreneurship (<http://www.aegis-fp7.eu>). The FP7 FINNOV-project ([http://ec.europa.eu/research/social-sciences/pdf/policy-briefs-finnov-022012\\_en.pdf](http://ec.europa.eu/research/social-sciences/pdf/policy-briefs-finnov-022012_en.pdf)) demonstrated that financial flows to new, real value creation lag behind in Europe. What is missing in these projects is the historical-institutional perspective we propose to apply to this question. In our historical analysis we will build on research conducted by Gerarda Westerhuis and funded by the Netherlands Organisation for Scientific research (NWO). That project developed and illustrated a framework for analysing the historical evolution of financial institutions for the Netherlands. We aim to expand this research into labour and knowledge

institutions, focus it on entrepreneurial venturing and apply this in the European context. Obviously there is also a close link to, and our project will benefit from work carried out as part of the FP7-VICO project ([http://ec.europa.eu/research/social-sciences/projects/443\\_en.html](http://ec.europa.eu/research/social-sciences/projects/443_en.html)).

On the basis of the results of the FP7 EFIGE project ([http://ec.europa.eu/research/social-sciences/pdf/policy-briefs-efige01-june-2012\\_en.pdf](http://ec.europa.eu/research/social-sciences/pdf/policy-briefs-efige01-june-2012_en.pdf)) we feel it is fair to argue that European firms can only maintain or expand their global competitive position through innovation and smart specialisation. This we will demonstrate by carefully analysing global trade data to uncover changing specialisation, job creation and destruction patterns. In our empirical work we will build on the vast literature and data collected in international research projects on trade, global value chains and structural change. Our data sources include:

- UN Comtrade database (<http://comtrade.un.org/>)
- World import/export data (NBER) Centre for International Data, UCDAVIS University of California (<http://cid.econ.ucdavis.edu/>)
- International Trade (<http://epp.eurostat.ec.europa.eu>)
- World input output tables. University of Groningen ([http://www.wiod.org/new\\_site/home.htm](http://www.wiod.org/new_site/home.htm))
- Eurostat: Structural Business Statistics (including the recently published regional statistics on business dynamics), ProdCom (manufactured goods), Annual National Accounts (<http://epp.eurostat.ec.europa.eu>)
- UNIDO (INDSTAT4 - 2013 edition CD ROM, see <http://www.unido.org/en/resources/statistics/statistical-databases/indstat4-2013-edition.html>)
- OECD Stan Structural Analysis Database (<http://www.oecd.org/industry/ind/stanstructuralanalysisdatabase.htm>)
- OECD Science, Technology and R&D Statistics ([http://www.oecd-ilibrary.org/science-and-technology/data/oecd-science-technology-and-r-d-statistics\\_strd-data-en](http://www.oecd-ilibrary.org/science-and-technology/data/oecd-science-technology-and-r-d-statistics_strd-data-en))
- Regions, Metropolitan regions and Cities (<http://epp.eurostat.ec.europa.eu>)

The innovation in our approach is to analyse this data through the lenses of the product life-cycle and Europe's transition to a global frontier economy.

Our data analysis in the assessment of Europe's entrepreneurial ecosystems is drawn from the Global Entrepreneurship and Development Indicator (<http://www.thegedi.org>) and this data has already been used for such analyses by the World Bank (Acs and Correa, 2014), the EU (DG-REGION) and others. The expansion, building the GEDI-index into a geographic-macro-regional (GMR) model provides a link to work for the Hungarian government in ([http://www.gkk.ktk.pte.hu/files/tiny\\_mce/File/Muhelytanulmanyok/GKK0405.pdf](http://www.gkk.ktk.pte.hu/files/tiny_mce/File/Muhelytanulmanyok/GKK0405.pdf) and <http://krti-en.ktk.pte.hu/pec/pdf/200704.pdf>).

Our in-depth analysis of start-up processes in Europe builds on data, data collection and analysis methods developed in the Marie Curie project Herrmann (2010). Assessing the compatibility of our proposed institutional reform agenda with extant legislation and identifying policy action to make the reform strategy legally feasible involves adding a strong legal dimension to our project. This is uncommon in this type of research, but we believe this adds a valuable step in making our results more practical.

### *Conclusion*

Our project will develop a framework for understanding Europe's common institutional foundations (WP2) and the changing global and technological environment (WP3). We will subsequently a tool for analysing the institutional framework for the entrepreneurial ecosystem as to its key dimensions and provide a quick scan for the union (WP4), while developing more in-depth analysis resulting in tailored proposals for selected cases to illustrate the value of our approach (WP5) and will conclude with a practical analysis of how and where in the European legal framework the various types of interventions can be put into effect (WP6). In doing so we will provide the building blocks for designing coherent growth and recovery strategies for Europe. To ensure that we achieve our goal of developing a feasible and practical reform strategy, we will involve stakeholders in the process both at the beginning and the end. A large, professionally organised stakeholder consultation event will kick-off the project and we aim to keep our stakeholders explicitly involved throughout the project to ensure practical results and effective dissemination.

## 1.4 *Ambition*

The unique character and main innovation of our project lies not only in its individual components but also, and specifically, in the combination of methods, approaches and insights brought together around its central theme. We will use a multi-disciplinary approach to demonstrate that and how entrepreneurship is shaped by, and therefore differs according to, national and regional institutions. The ground-breaking ambition behind our project is therefore to illustrate that similar policy measures do not necessarily lead to similar entrepreneurial outcomes, but affect entrepreneurs differently – depending on the respective institutional environments.

In addition, we will be taking highly innovative research approaches and undertaking cutting-edge research in the project's various WPs. For example, the empirical analysis of specialisation patterns in terms of tasks and the time series analysis of the GEDI index have not been made. Similarly, the sequence analyses underlying WP5 constitute a genuinely new methodological approach in entrepreneurship research. Our work will therefore add to scientific literature. The resulting reports and academic publications will contribute to the so far, rather limited literature on the link between institutions, entrepreneurship and entrepreneurial policies.

The uniqueness and main ambition of this project lies in attempting to bring all the theories, concepts, tools and approaches together in addressing the broader societal challenge the European Commission has set. It is our conviction that this is key to doing successful multidisciplinary research. That is, we can productively work across disciplinary boundaries if it is clear which real world problem we are addressing. If Europe wants innovative, smart, inclusive and sustainable growth we will use this project to show that it will have to invent a European variety of the Entrepreneurial Society.

Accordingly, it is a further overarching ambition of our project to first make concrete suggestions towards that future. Based on sound scientific foundations we will develop a sensible and realistic institutional reform strategy for making three specific European member states more entrepreneurial. In the process of doing so we will bring our wide range of expertise to bear on as well as develop and test the tools needed to repeat such an exercise for all 28 European member states and its multiplicity of regions and cities.

Our proposal will enable European, national, regional and local policy makers to develop an institutional reform strategy to strengthen the entrepreneurial ecosystem in their constituencies. Different institutions will have to be reformed at different levels and speeds to suit local needs and opportunities. Given that this will often involve a complex, multilayer legislative and political process of decision-making and implementing policy programmes, it is imperative that all the parties involved have a common framework to work with. Once our project has been completed, the tools for developing such a strategy on the basis of a sound framework will be available and ready for use. The first step in our analysis provides the distinction between deeply embedded (e.g. cultural) and more superficial (e.g. legislative) elements in the institutional framework, essential for determining the type of and time frame for reforms to be considered. The third step identifies the most urgent bottlenecks and the appropriate geographic level at which reforms are likely to be most effective. Step 4 then allows those directly involved in start-up processes to identify the most urgent bottlenecks in a more qualitative survey-based method, providing an essential validation and elaboration on the data based diagnosis in Step 3. The final step in our approach identifies the appropriate administrative levels and legal instruments to be used in effectuating the reforms. Table 3 below provides a systematic overview of where the policies should be situated in a tailor-made reform strategy. Proposal X could, for example, refer to a coordinated policy action at EU, national and regional levels to promote a return to relationship banking in the EU. Given that a change of banking culture is required here, a longer timeframe and a different set of policy actions will need to be designed.

**Table 3: Policy Proposals Matrix**

|                                   | <i>Finance</i> |     | <i>Labour</i> |     | <i>Knowledge</i> |     |
|-----------------------------------|----------------|-----|---------------|-----|------------------|-----|
|                                   | High           | Low | High          | Low | High             | Low |
| <b>Institutional Embeddedness</b> |                |     |               |     |                  |     |
| <b>EU</b>                         | X              |     |               |     |                  |     |
| <b>National</b>                   | X              |     |               | Y   | Z                |     |
| <b>Regional</b>                   | X              |     |               |     |                  |     |
| <b>Local</b>                      |                |     |               |     | Z                |     |

Policy Y could be a policy that provides the self-employed with access to affordable disability insurance in the Netherlands. This can quickly be implemented, as extending such an insurance would be compatible with existing general Dutch attitudes towards social security and the welfare state. Moreover, this policy requires very little coordination at the various levels of legislation and government. Policy Z might be a policy experiment promoting open innovation and patent pooling in the High Tech Cluster around Eindhoven (Netherlands), requiring a paradigm shift in thinking about intellectual property and perhaps involving national laws as well as local attitudes.

This matrix represents an innovative approach to policy making, very much complementary with, but perhaps more practical and comprehensive than alternative mono-disciplinary approaches. To this end, we will combine sound economic modelling and rigorous econometric analyses to establish the need and desirability of making the transition to a more entrepreneurial Europe. Our historical and institutional embedding prevents us from disregarding path dependency and making seemingly rational proposals of the one-size-fit-all type that economists tend to make. On the other hand, our legal checks will prevent us from addressing our proposals to the wrong decision-making levels or proposing changes that are impractical within current European legal frameworks.

## 2. Impact

### 2.1 *Expected impacts*

The starting point in this project is the realisation that it is entrepreneurial firms, old and new, that introduce innovation into the economy. Furthermore it is institutions that determine the supply and allocation of scarce resources to such Schumpeterian entrepreneurship. Our project will achieve five major goals in line with the intentions formulated in the call (bold face citations are taken from the call text).

First of all it will analyse how current institutions have evolved and as a consequence have developed both deep historical roots and complicated interactions with contemporary institutions. This research is thereby: **“expected to contribute to the scientific base for policies aimed at successful economic recovery in line with the objectives of the ‘Europe 2020’ growth strategy”**.

Secondly, it will establish empirically that global competition pushes and sophisticated consumer demand pulls European member states and regions into a specialisation pattern in which new value creation involves more entrepreneurial activity. We will thereby establish the economic need and desirability of reforming institutional frameworks to promote entrepreneurship. Our project will thus: **“provide insights into establishing durable foundations for growth and employment through more effective forms of governance at national and European level. In particular, it will contribute to a better understanding of the policy instruments designed to tackle the challenges facing the EU in the era of globalisation and will provide new ideas for fostering its international competitiveness”**. Our project will **“close important knowledge gaps”** in the economic foundations exactly by taking a distinctly historical and institutional approach. In our understanding of Europe’s global competitiveness we will take a distinctly dynamic approach to comparative advantage and trade. We view specialisation and trade not as the mere exchange of goods and services, but as European firms and workers creating value for a changing global market. This requires a task-based approach to specialisation and our empirical work will prominently feature the product life cycle as a way to interpret trade and specialisation dynamics. By confirming that European economies are close to or at the global technology frontier we will establish the need to shift gears. By explicitising the benefits in terms of more inclusive job growth and opportunity creation we will also provide policy makers with the scientific foundations for their reform agendas.

Thirdly, based on the idea that it is the interplay of institutions and entrepreneurial activity that drives economic development, we will provide a plug-and-play assessment tool to measure and compare the quality of European entrepreneurial ecosystems. We will expand the existing GEDI index back in time for member states to identify trends and to the NUTS-2 level to compare across European regions. Panel data and multilevel, cross-sectional analysis will then provide us with a state-of-the-art impression of Europe’s entrepreneurial strengths and weaknesses. Activities under this proposal will therefore: **“also develop tools for a better assessment of the socio-economic evolution of national economies in general as well as for the analysis of policy options and decision making mechanisms to overcome the current economic and financial crisis”**.

Fourth, by collecting additional data on start-up activity in three member states and developing tailored reform strategies for them, we will demonstrate that: “**this new knowledge will help to improve the effectiveness of the European growth and employment strategy both in individual Member States and at the EU level**”. These economic and econometric efforts will provide sound scientific and economic foundations for the reform proposals.

Fifth, however, by also adopting a legal perspective, our reform strategies will also be subject to a legal and political feasibility test. This final step is indispensable to ensure that our project: “**will contribute to an effective implementation of the Innovation Union**”.

To be successful, the FIRES project aims to make an impact at several different levels.

#### *Impact scientific (academic) level*

Based on an overarching conceptual framework aimed at characterising institutional arrangements, in-depth analyses of various datasets for country-specific trade and job creation patterns, entrepreneurial characteristics and start-up processes this project will provide in-depth insight into the strengths and weaknesses of Europe’s institutional preconditions for entrepreneurship. Recent and future developments regarding the notion of entrepreneurship, most notably as a result of the coming into force of the Lisbon Treaty, will also be taken into account. We will corroborate our theoretical models and quantitative cross-country studies with case studies that will look at the more specific circumstances for entrepreneurship in the various member states. The project provides cross-national scientific knowledge about how to further enhance and expand EU entrepreneurship, thereby building on past and ongoing research. Over the course of the second year, individual studies will be assembled and combined into an academic conference with all the partners and scholars from outside the consortium. A specific impact will be to boost academic research on European entrepreneurship by focusing on the interplay between institutions and innovation, which will be presented in academic journals, at seminars and conferences.

#### *Impact policymakers*

The second level of intended impact is that of entrepreneurship policies at European, national, regional and local levels. Our empirical approach to specialisation and entrepreneurship will establish a sense of urgency among politicians and policymakers, while our focus on job creation, inclusiveness and sustainable value creation may provide them with much needed comfort that entrepreneurship, when embedded in the correct institutional framework is a potent driver of economic development and wellbeing. The historical approach to institutions aims to provide a long-term perspective on the challenges facing modern policymakers in relation to channelling more of Europe’s available resources into entrepreneurship. Our regional approach will allow us to compare various entrepreneurial ecosystems and to connect their characteristics to economic performance and overall wellbeing. Finally, this project will also take into account the complex multi-layered legal environment that connects cities, regions and member states in the European Union with a view to streamlining the adoption, implementation and monitoring of our policy recommendations.

#### *Impact on financiers, employees and would-be entrepreneurs*

A further crucial aspect of the project will be to encourage more people in Europe to invest in, work for and consider undertaking entrepreneurial ventures themselves. As institutions in the member states will be analysed from the finance, labour and knowledge perspective, further knowledge will be gained with regard to the institutional obstacles that exist for EU citizens to engage in entrepreneurial activity. Importantly, we will highlight how these obstacles can be removed and how citizens may be encouraged to commit their resources. To this end, a project website will be set up and old and new social media will be used to maximise the effective communication and impact of ‘FIRES’ and to animate and support publication of knowledge accumulated by the programme. Working papers will be published on the website and the stakeholders will be actively involved in the dissemination of our research results.

#### *Methodology*

This project also aims to have a methodological impact. The research into institutional barriers to entrepreneurship and formulating an effective institutional reform strategy to promote smart, inclusive, sustainable and innovative growth requires a multidisciplinary and multidimensional approach. By combining history, economics and law, FIRES also combines and integrates a variety of methodological paradigms, tools and instruments. Taking into consideration that entrepreneurship is a social practice as well as a historical process, the programme's methodological challenge is to raise mutual understanding on the multidisciplinary

character of entrepreneurship, to formulate linguistic and conceptual principles that enforce this mutual understanding and to exchange and share methodological approaches that improve it.

The research will be carried out in work packages identifying the following approaches:

- The historical approach: to identify key institutions and distinguish them by degree of embeddedness and malleability;
- The empirical approach: to establish the need and desirability for the transition to a more entrepreneurial union;
- The composite index approach: to provide the tools for a comprehensive assessment of the quality of entrepreneurial ecosystems across the European Union;
- The sequence analysis and case study approach: to uncover country and context specificities to be considered in drafting a tailored reform strategy for three European member states;
- The legal and political reality check: to ensure practical & political feasibility and to translate the strategy into concrete policy actions;
- Together, the various impacts we plan to achieve will provide a scientifically sound, evidence-based and policy-oriented foundation to further enhance and expand the European entrepreneurial economy, not only as a necessity from the past, but as an opportunity for the future.
- The consortium and its advisory board will have the critical mass for research on EU entrepreneurship during the project and beyond to influence academia, policymakers and the media.

## **2.2 Measures to maximise impact**

### **Consultation with stakeholders before, during and after the project**

During the initial months of our project we will organise a kick-off conference in Berlin with the help of a professional organisation specialized in organizing such stakeholder engagement processes, to which we will invite a broad range of entrepreneurial society stakeholders. Most important of all, we will invite representatives of SMEs, the financial sector, labour organisations, knowledge institutes and policy makers. But our list should definitely go beyond these groups, as the stakeholders in Europe's entrepreneurial future also include students, minority and female entrepreneurs, intrapreneurs, impact investors, private equity financiers, the solo self-employed, artists, freelancers and employees at start-ups. Of course, the current beneficiaries of institutional arrangements that would require reform are also stakeholders in this project, although they will be asked to support a transition that they may not necessarily consider in their (short-term) interests. Labour unions, bankers' associations and large incumbent firms can all be considered to have a stake in the managed economy we propose to reform. We aim to bring in these stakeholders in the later stages of our project, when the foundations of our approach and diagnosis are strong and we can discuss how our proposals may address concerns they have.

The consultation event, as can be seen in the list of deliverables, will consist of a series of workshops and round table discussions at which we will present our project and proposed directions for research and explicitly aim to receive valuable feedback before the actual research is embarked upon. We feel such an elaborate and professionally-organised stakeholder consultation will strengthen our project and ensure a more effective dissemination of the results. We will create a stakeholder committee at this kick-off event that will be asked to participate in all the project's subsequent events to comment on key deliverables over the course of the project. In doing so we aim to keep our project firmly founded in practice.

To ensure the effective dissemination of our scientific results we will obviously aim for high-quality peer reviewed publications. However, as a lot of the actual work for this project will be carried out by junior researchers, we also feel it is imperative to organise early feedback and support. Obviously this is first and foremostly the responsibility of the respective supervisors and the partner institutes have excellent support infrastructures in place, but the project will organise a scientific conference at which all the intermediate research results will be presented to and discussed with the senior consortium partners and, more importantly,

with scholars in various fields from outside our consortium. Our outstanding advisory board and consortium partners will ensure that such a conference will attract scholars from around the world to Hydra, in Greece around Month 18 of the project. At that conference our junior researchers will receive invaluable feedback on their work and we aim to interest at least one academic journal or publisher in publishing a special issue or edited volume on this event.

We will conclude our project with a policymakers' workshop in Brussels. At that event we will not focus on the academic output of this project, but will conversely zoom in on the tools we have developed and provide hands-on training and guidance on how to use them to formulate effective multi-level institutional reform strategies towards a more entrepreneurial Europe. The target audience for this event are naturally policymakers and people involved in preparing policy proposals at the EU, member states, regional and local levels as we believe that implementing a strategy will involve all these levels of decision making and all will benefit from learning to work from the platform our project will create.

### **Dissemination and exploitation of results**

The FIRES consortium recognises that the ongoing involvement of the relevant target groups in the project as well as the timely dissemination of its findings among policy and decision makers at all levels, is an essential goal of the project. We will create a dissemination plan to maximise impact and dissemination. As the project and the consortium encompass nine countries, the dissemination plan will establish regional structures for dissemination. In each of the relevant countries a local consortium partner will act as a regional dissemination officer collaborating with the central office, thereby creating a virtual regional dissemination team. The regional dissemination team's task will be to adapt and translate the project results for dissemination - as prepared by the central office - to the communication environment of their respective country. Impact and dissemination are an integral part of the work in all WPs, as should be evident from the listed deliverables with that explicit aim. Policy questions developed at the outset of the research will be monitored throughout the dissemination process and adapted to the national policy environments.

The objectives of this project are: to maximise internal and external communication, to publish research results in the academic field, to translate and communicate results to policymakers, practitioners and professionals, and to train young researchers in such a way that they will transfer the aims and knowledge of the 'FIRES' project. In order for these objectives to have real impact, the dissemination plan will focus on:

- The development and stimulation of further academic research on this topic
- Communicating the objectives of FIRES in order to put these on the agendas of policymakers, practitioners and professionals at a European, national, regional and local level
- Involving and engaging relevant stakeholders, including entrepreneurs and relevant associations in industry, finance, labour unions and at knowledge institutes.
- Training young researchers
- Raising public awareness of the programme's core concepts.

The dissemination plan will be presented for discussion and verification at a dissemination planning workshop held during the kick-off meeting in Month 3. The dissemination planning workshop will involve a wide range of parties, including the project partners and a broad range of potential end users, including policymakers, civil society representatives and opinion leaders. The resulting plan will detail the dissemination activities to be developed over the course of the project and their timing, also in relation to the deliverables of the various WPs.

#### Target groups

The dissemination plan will identify four major target groups in order to introduce the findings of the project into a productive cycle of evaluation, discussion and implementation:

*Academia:* We will address researchers and academics globally, at various institutions and in various research settings, to spur further investigation into the topic, to enforce an international academic debate on European

entrepreneurship and to make them ambassadors of change and progress. This target group will be reached through publications and an open academic conference to be held in or around Month 18 of the project, whereby intermediate results will be presented and valuable feedback will be solicited from academics in, but more importantly also from outside our consortium.

*Policymakers:* We will target policymakers at a European level (European institutions, such as the European Commission, the European Council, the Council of EU, the European Parliament, the Committee of the Regions, the European Economic and Social Committee), at a national level (ministries, governmental agencies) and at a regional and local level. We will present them with our policy formulations and the policy recommendations derived from our scientific research, engage them in an open exchange of views to understand their needs for evidence-based conclusions in their decision making and use that input as feedback for our continuing research. The main channel for this will be our concluding policymakers event in Month 36, but we will organise smaller 'round table' discussions based on the policy briefs our project produces as they are published.

*Stakeholders:* including representatives of various organisations. We will build up our project in close and permanent contact with the key stakeholders who are closely involved and interested in the process of innovative entrepreneurship in Europe. We will involve these stakeholders in our project from the kick-off meeting in Month 3 and throughout our project using web surveys and active engagement in the aforementioned round tables.

*Public and opinion leaders:* We will address the public, as European entrepreneurship and innovation are also of public interest. To implement the transition to a more entrepreneurial economy in Europe successfully, we will need to organise a broad base of general public as well as policymaker support.

#### Dissemination Agents

The multidisciplinary character of the 'FIRES' consortium and its high-level, International Scientific and Policy Advisory Board will provide an excellent opportunity to embed the project in the wide and diverse network of expertise that surrounds the project.

Members of the International Scientific and Policy Advisory Board:

Members of the International Scientific and Policy Advisory Board have been chosen based on their outstanding knowledge of and expertise related to the programme's various dimensions and issues. They will provide permanent guidance to the programme partners, but at the same time they represent important resources in view of their own standing in the academic and policy communities for disseminating outputs and outcomes of the project to policymakers and colleagues at national and European/international levels. The International Scientific and Policy Advisory Board members will be mobilised in several specific ways for the dissemination of the project, its activities and results:

- They will be invited to the kick-off meeting. It is expected that several renowned individuals will actively participate in this initiation phase i.e. by guiding the beneficiaries to plan actions that will enable the achievement of the objectives of the project, thereby demonstrating the importance they attach to the project and their commitment to contribute to it. Their views and advice will be integrated into the various activities that will be undertaken by the various work packages.
- They will also be invited as keynote speakers to the conferences that will be organised during the project.
- Special press conferences will be organised in relation to the main events, which members of the scientific and policy boards may take part in, thereby increasing the programme's visibility as well as underlining the general importance attached to entrepreneurship and its institutional context.
- They will be invited to be signatories for policy briefs and other publications, and/or to write the prefaces to these.
- In accordance with their scientific background and main policy interest, a number of the board members will be invited to specific workshops and seminars that will be undertaken at the conferences at the invitation of the cluster coordinators.

- At regular intervals, individual board members will be asked to advise on specific activities in various work packages. In this context, they will also be asked to contribute to scientific and/or policy relevant publications e.g. by hosting them, writing the preface to them or otherwise.

#### Key stakeholders:

Exchange and discussion with key stakeholders is important to keep the project activities in line with timely developments with regard to European entrepreneurship and foci it may or should have.

Key stakeholders can initially be identified at different territorial levels: local, regional, national, European and worldwide. Secondly, they are different in nature; relevant DGs of the Commission of the European Communities, members of the European and national parliaments, social partners, women's organisations, business, European NGOs, etc. Thirdly, our stakeholders will have different foci of interest. These issues should be kept in mind with regard to the requests for their participation and engagement. We will invite entrepreneurial economy stakeholders to take part early on in the project, leaving the engagement of managed economy stakeholders for the later stages, when the reform strategies will be more mature.

A database of stakeholders will be set up at the project's outset. A first version of this database will be ready before the kick-off in Month 3 and will be continuously updated throughout the project. All significant stakeholders will be approached directly, with information on the project goals and activities as well as how to obtain ongoing information on the project (website, newsletter, etc.). Furthermore, the project will review which stakeholders are appropriate for which events.

#### International cooperation and outreach:

The project intends to involve researchers from other parts of the world to contribute to the research work to be undertaken. This will be enhanced by the fact that the International Scientific and Policy Advisory Board consists of members from inside and outside the European Union. This international exchange and transfer of information will also be used for dissemination purposes.

#### Communication Activities

The dissemination plan for the relevant target groups will include a broad array of dissemination tools to enable the abovementioned considerations and needs. The dissemination strategy's various components will reinforce one another, benefiting the project not only by increasing its visibility, but also by keeping up to date with and accommodating new policy and research developments. The keywords of the dissemination strategy are therefore: impact oriented, effective, targeted and integrated. The various dissemination activities will be carefully planned to optimise synergy with the project's research, quality control and management activities.

#### Plenary Conferences:

The three conferences will become FIRES' landmarks. For reasons of efficiency, economies of scale and to endorse a common rhythm for all participants, the conferences will guarantee the integration of all activities. The conferences will last four days and will be organised in such a way that:

- WP Coordinators will organise meetings to plan their activities and to discuss their work in progress and their results; they will invite members of the Advisory Board to comment.
- Experts will present key lectures and plenary meetings will be organised on central programme issues to enable and facilitate stakeholder reflection on the latter.
- Coordinating activities - decisive meetings of the executive committee and the governing committee - will be organised.

These conferences will institute programme landmarks, the integration of all the participants and the tempo of the research activities. These meetings will also be crucial to management activities. Finally, the conferences will promote the visibility of the programme and the spreading of information on its results.

#### Online Activities:

The project website: A highly professional website will be developed that will have an interactive, moderated communication interface for project partners and external communities. The website will facilitate dialogue between key target groups and the project with a view to increasing the project's policy responsiveness. It will present the programmes, the teams, the goals and, if available, the tentative and final results.

The website will provide a discussion forum for everybody interested in the project's main themes, from proponents to critics, and can contribute ideas to a structured discussion. A moderator will guarantee the quality of the contributions. This uncomplicated ongoing discussion will enable the quick inclusion of new research and ideas.

A specific policy section of the website will feature an area for downloading project outputs as well as relevant third-party documents (papers, reports, legislation, directives, etc.). Other features, such as a working paper series, will be developed as results become available and in accordance to the needs of the various target groups. Website maintenance will be an ongoing project activity.

#### Printed Tools:

Flyers with clear and attractive presentations of the project, its objectives and its partners will be valuable during the early stages of the project acting as consortium business cards that can be used for professional contacts. Brochures produced at the project's outset and during its finalisation phase will serve to physically disseminate the project's intentions and results.

#### Policy briefs:

Policy briefs have recently (and with reason) gained immense importance. Short presentations in written form, six to ten pages long, with key and catchy information definitely attract the highest attention from policymaking and policy decision circles. With this in mind, the managers of FP7-SSH have initiated the policy brief website: Getting policy insights at a glance, discovering thought-provoking results and comparisons in Europe, checking quickly a methodology. This is why the Socioeconomic Sciences and Humanities (SSH) programme publishes policy briefs: to communicate research results in a structured way in only a few pages. Policy relevant results will be published when appropriate throughout the project in a series of policy briefs in which researchers can articulate their evidence-based conclusions in the form of constructive policy recommendations. Over the course of the project, sixteen policy briefs will be made available as project deliverables. A final conference will be organised in Brussels at which the findings will be discussed.

#### Academic publications (open access):

Besides the policy briefs, the project will also produce academic publications. As scientific research into European entrepreneurship is the project's core, academia will be highly involved in all dissemination efforts. The new knowledge created by the project will be disseminated throughout the academic fields with the goal of engaging scientists all over the world in the further development of research on this topic. All the dissemination tools will therefore address the academic community with academic publications, edited volumes, special issues and conference coverage. A professional project website, where working papers will be published is essential. In Month 18, all preliminary and final results will be assembled and presented at the academic conference that will also feature an open call for papers to explicitly invite scientists from outside the consortium to participate and reflect on our work to date. A specific impact will be to boost academic research on EU entrepreneurship by focusing on the interplay between institutions and practices and this will be presented in academic journals, at seminars and conferences.

When possible the project will strive to publish open access following the 'gold' model. If this is not possible the 'green' model will be chosen.

#### Networking the networks:

The academic institutions of the partners in the project have access to a broad array of publications relevant to this project. In addition, a number of the project contributors also have extensive media visibility and connections. Members of the project consortium are active in academic networks that will be important channels for capitalising on the research findings within the academic community. These networks include the Schumpeter Society, World Interdisciplinary Network for Institutional Research, Small Business Economics Journal etc.. The project will make use of these established dissemination vehicles and networking activities in combination with the expertise of all the beneficiaries to present and discuss project results, providing permanent ongoing involvement and dialogue with key target groups at all levels throughout and after the project.

The project will specifically aim to prominently publicise its findings and policy conclusions:

- in the in-house periodicals of the partners with special issues for FIRES
- in academic and practitioners' newsletters
- in relevant peer-reviewed academic journals, particularly those edited by consortium and Advisory Board members
- at regular scientific conferences, workshops and/or seminars organised by partners
- at any other transfer activities directed at civil society or policy actors where FIRES lectures could be provided.

#### Media Appearances and Contributions:

Appearances in the press will accompany the project throughout its duration. The conferences present an obvious publicity-seeking opportunity. The presence of a large number of high-ranking experts and scientists, members of the scientific and policy boards, key stakeholders including civil society representatives as well as political and economic opinion leaders will attract public attention and provide an opportunity for an intensive interchange with newspapers, radio stations and television broadcasters.

As the scope of the project is European, the aim of the media activities is to reach an interested audience at various national levels as well as at a European level. It will therefore address media with national and international coverage.

Press releases will constitute a basic media tool and will be drawn up to communicate to-the-point information of public interest.

At significant stages in the project, when information of interest to a wider audience is available, journalists will be invited to the conferences and round tables. Direct contact with European and national journalists will be maintained to provide them with basic information, including organising exchanges with consortium experts and members of the scientific and policy boards if appropriate and useful to the project's goals as a whole. Short and accessible articles will also be sent to journals and magazines such as the (European) Parliament Magazine in an effort to connect with policymakers at a national level. Contacts at national and international newspapers and journals will be activated for possible review or publication purposes. We will also organise interviews with members of the International Scientific and Policy Advisory Board in connection with the topic of entrepreneurship, to be published on a regular basis in prominent media. In addition, a number of the project contributors also have extensive media visibility and connections.

#### Discourse with the European Commission and related bodies:

The project's findings will also be made relevant and accessible to practitioners and policymakers e.g. at a European Union level through presentations at European Commission events, such as those organised by DG-ENTR, DG-ECFIN, DG-REGIO and DG-EMPL on various aspects of EU entrepreneurship. Other specialised bodies related to the commission should be identified to establish a broad platform of policymakers and stakeholders in Europe to ensure that they are aware of and positively support the project's objectives.

#### Conference coverage:

The dissemination plan will be updated annually with a list of appropriate conferences, workshops, etc., where the project outputs could be best presented and/or special sessions could be organised. If the opportunity exists, special sessions will be held during these international conferences and discussion partners from Europe and other parts of the world will be invited to contribute to the themes. Furthermore, project experts will intend to obtain roles as keynote speakers during plenary sessions at these conferences.

#### Relationship between target groups and tools:

The various dissemination tools will be utilised in specific ways to communicate information about the project and the scientific and policy-relevant results of FIRES to the key target groups in the most effective manner possible. The dissemination focus of FIRES is shown in the table below, which gives a brief impression of the planned dissemination activities.

*Target group*

|                                | <b>Academia</b>                               | <b>Policy Makers</b> | <b>Stakeholders</b> | <b>Public</b> |    |
|--------------------------------|---|----------------------|---------------------|---------------|----|
| <b>Academic Journals Tools</b> | <b>Online Activities</b>                      | XX                   | XX                  | XX            | XX |
|                                | <b>Printed Tools</b>                          | X                    | XX                  | XX            | XX |
|                                | <b>Policy briefs</b>                          | X                    | XX                  | XX            | X  |
|                                | <b>Academic Journals</b>                      | XX                   |                     |               |    |
|                                | <b>Networking the networks</b>                | XX                   | X                   | XX            | X  |
|                                | <b>Media Appearances and Contributions</b>    | X                    | XX                  | XX            | XX |
|                                | <b>Discourse with the European Commission</b> |                      | X                   |               |    |
|                                | <b>Conference coverage</b>                    | XX                   | XX                  | X             | X  |

X = very relevant to target group, XX = very strong relevance to and focus on target group

Management of intellectual property rights and data:

With regard to intellectual property rights, it is the partners' intention to waive these to the highest level possible, since this project is to strive towards augmenting the public good with its results which are to be used and implemented by all stakeholders. All deliverables will have a public dissemination (PU) level with the exception, for obvious privacy reasons, of the micro data collected in the survey in WP5. A data-management plan will be provided as part of the dissemination plan.