

## **Local Policies for High-Employment Growth Enterprises**

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“High-growth firms: local policies and local determinants”

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## 1. Introduction: the relevance of high-growth firms

This report investigates the main features of local policies for high-employment growth enterprises, the rationales, success factors, obstacles and responses, and the impact of these policies. We make a distinction between enabling policies, removing barriers to new firm formation and business expansion, and policies that provide direct support to selected (potential) high growth enterprises, e.g. through training, mentoring, financing and innovation support. A key issue in this report is how private sector actors are involved in these policies, e.g. in business accelerator programmes, which identify (potential) high-growth enterprises and help them to innovate on a large scale and/or to expand in international markets

This report presents an overview of the literature on institutions, policy and entrepreneurship, by focusing on two dimensions:

- We are interested particularly in *high*-employment growth enterprises (HEGEs)
- Policies are aimed at the *local* dimension

The relevance of the focus on HEGEs is that a minority of (young) firms is responsible for the lion share of new jobs created. For instance, NESTA (2009) found that 6 percent of all UK firms with ten or more employees could be seen as high-growth firms adopting the OECD definition, i.e. firms with average annualized growth in employees greater than 20% a year over a three-year period. These 6 percent were responsible for more than half of the new jobs generated by the UK firms employing ten or more employees. Canadian research showed that hyper growth firms (those with at least 150 percent growth in employment over 4 years) accounted for 4 percent of continuing businesses between 1993 and 2003, but were responsible for 45 percent of net jobs created by continuing firms (Parsley and Halabisky 2008). This reflects older evidence (Storey 1994; Kirchoff 1993) that about 4 percent of the new firms is responsible for more than 50 percent of the net new job creation in a cohort of firms. On a similar account, Autio (2007) considers, rather than performance on hindsight, the *expected* contribution of entrepreneurs. He finds that, across the globe, the 7.4 percent of entrepreneurs that expect to create 20 or more jobs in the next five years account for 73 percent of the expected job creation. Of course these expectations are, across the board, optimistic or for some even overly optimistic. Even though many of these expectations will not be realized, growth ambitions in itself are close to a necessary (but not sufficient) condition for substantial growth to happen in firms at all (Stam et al. 2012).

Next to these direct (employment) effects of HEGEs, there are also (perhaps even more important) indirect effect on (regional) economic development (see Fritsch 2011). Young high-growth firms are an important driver of structural change (Bos and Stam 2011), and a stimulus for competition in a region that is likely to increase productivity and employment levels in a region (Fritsch 2011).

Policy efforts to promote entrepreneurship in the 1990s were often more focused on increasing the rate of entrepreneurship than on targeting particular types of entrepreneurship.<sup>1</sup> These generally did not make sharp distinctions between promoting high-growth entrepreneurship and low-growth entrepreneurship. In contrast, current policy efforts in many OECD countries have an explicit aim to increase the number of ‘gazelles’ (see Lilischkis 2011; Stam et al. 2012). Such programs tend to have a national, or at least ‘state level’ scope. Local policies aimed at stimulating HEGEs are still scarce.

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<sup>1</sup> Entrepreneurship policy programs did focus on several groups of individuals, such as female entrepreneurship, immigrant entrepreneurship and the unemployed.

Taking the above into account, this report is based on (i) a conceptualization of local policy aimed at HEGEs, by taking into account the broader perspective (namely national and supra-national institutional context and policies aimed at entrepreneurship in general); (ii) an overview of the relevant empirical evidence and (iii) results of interviews with a mix of policy makers, managers of business accelerator programs, and private stakeholders from several OECD countries.

## 2. Definitions

### 2.1 High Employment Growth Enterprises (HEGEs)

Even though HEGEs are put central in this report, it makes sense to take into account the actors that started the process resulting in a HEGE, i.e. ambitious entrepreneurs. Policy programs aimed at stimulating HEGE mostly try to connect to individuals who are (potential) ambitious entrepreneurs. Doing so acknowledges the emphasis on viewing entrepreneurship as a *process*, in line with the Shane and Vankataraman's (2000) key message discussing the research field of entrepreneurship. In the same line of reasoning it is useful to split up the HEGE population into young (gazelles) and established enterprises. In addition we will include insights from empirical studies that classify a firm as a high-growth firm if it belongs to the top segment (in terms of growth) of the population of firms included in the study, for example the so-called Ten Percenters (see Parker et al. 2010) that include the top ten percent of growing firms. Table 1 defines the three types of entrepreneurship and enterprises on which this report will focus: ambitious entrepreneurs, gazelles, and high-growth enterprises.

Table 1. Definitions of relevant research objects

| <b>Ambitious entrepreneur</b>  | <b>Gazelle</b>  | <b>High-growth enterprise</b>   |
|--|---|---|
| someone who engages in the entrepreneurial process with the aim to create as much value as possible (Stam et al. 2012: 26) | >20% growth per year in 3 subsequent years, for firms with 10 employees or more; born 5 years or less before the end of the 3-year observation period (OECD 2008: 20) | >20% growth per year in 3 subsequent years, for firms with 10 employees or more (OECD 2008: 10) |

Even though high-growth enterprises need to show continuous growth over a particular time period, this does not mean that they are likely to reveal a continuous growth path during their life course: the opposite is even more likely. Many studies have shown the erratic nature of firm growth (Coad and Hözl 2009; Parker et al. 2010; Garnsey et al. 2006; Garnsey and Heffernan 2005b): setbacks are the rule, continuous firm growth is the exception. However, high growth does not necessarily lead to instability, i.e. high growth firms are not more likely to go bankrupt than other types of firms (De Kok et al. 2012)

### 2.2 Stages towards HEGEs

Local policies for HEGEs should take into account the transitions that need to be taken before (sustained) high-growth of the firm can be reached. Stam et al. (2012) assess the individual level and emphasize four transitions that precede the realization of substantial growth. The four key transitions that precede HEGEs are (see Stam et al. 2012):

- ⇒ First, to turn individuals into ambitious individuals, either with respect to performance ambitions or entrepreneurial ambitions
- ⇒ Second, to transform (ambitious) individuals into (ambitious) entrepreneurs (in whatever organizational setting). This involves a two-step process: triggering entrepreneurial intentions and realizing the start of a new business.
- ⇒ Third, to stimulate entrepreneurs to become ambitious entrepreneurs; and
- ⇒ Fourth, to realize the creation of new value (e.g. in HEGEs).

Each of these transitions is marked by different determinants at the levels of individuals and contexts. It would be impossible to have it all at once. Basic entrepreneurship policies, for example, result in a sound base of entrepreneurs who could then develop strong ambitions to grow, innovate or engage in internationalization activities. Each transition also concerns different policy areas. The first transition relates to general social and education policy, targeting ambitions, while the second transition concerns traditional entrepreneurship policy, focusing on entrepreneurial behaviour. As for the third and fourth transition, more dedicated

business policies can be offered that are more directly tailored to growth ambitions and the creation of new value. These policies concern, respectively, stimuli for human talent and ambitions, stimuli for entrepreneurship in general, incentives for the allocation of talent, incentives for the allocation of entrepreneurship, and removing the barriers for growth. Table 2 summarizes this reasoning.

Table 2. Correspondence between four transitions and key policy areas

| <b>Transition</b>  | <b>Key policy areas</b>                    | <b>Key stimuli (removal of barriers)</b>                     |
|--|--|--|
| I -> ambitious individual                                | Social and education policy                | Human talent and ambitions                                   |
| II (Ambitious) individual<br>-> (ambitious) entrepreneur | Entrepreneurship policy                    | Allocation of talent; entrepreneurship as career perspective |
| III Entrepreneur -> ambitious entrepreneur               | Entrepreneurship and industrial policy     | Allocation of entrepreneurship; growth attitude              |
| IV Ambitious entrepreneur -> Realized new value creation | Industrial policy and labour market policy | Reduction or removal of growth barriers                      |

### 2.3 Local policies

Local policies will be defined for the purposes of this report as policies that are designed and/or delivered by sub-national governments and (semi)public organizations, including actions by regional and local governments and by state governments in federal countries, as well as policies that are designed by national governments but that have intended or unintended spatially uneven effects. This is a rather broad definition, but allows us to take into account non-local policies that have significant impacts on particular localities.

Policies by regional governments might include labour market regulations (e.g. at the state level in the USA) and targeted programs for HEGEs (e.g. in Scotland and Wales). Regional development agencies might be important providers of venture capital and training in the region (like the former RDAs in the UK). Local governments have been important investors in local incubators and accelerators. Science and innovation policies designed by national governments may have distinctive regional and local effects.

### 3. Rationales and reasons for HEGEs policies at the local level

Policy support for HEGEs is normally legitimized by market failures (e.g. too limited supply of capital, due to information asymmetries, or too low investments in R&D due to the public good nature of R&D investments), system failures (e.g. a lack of interaction between firms and knowledge institutes, leading to a suboptimal exploitation of new scientific knowledge) or by more broader public goals like employment creation. Most often an implicit assumption of market failure in the sense of support needs of high-growth start-ups not being adequately met by the private sector due to incomplete formation on both sides of the potential market for business services. The underlying reasoning is that an increase in HEGEs is serving these public goals, or that a suboptimal number of HEGEs is caused by these market and system failures, leading to inefficient allocation of resources in society (in the case of market failure) or suboptimal levels of value creation (in the case of system failures).

The desired direct outcome of policy support could be more HEGEs or faster-growth (to a larger scale) of HEGEs (see e.g. Owen 2004). The ultimate outcome should be growth of market production (beyond the suboptimal level caused by market failures), more new value creation, measured as innovation and/or higher productivity levels, and more employment. Increases in market production, productivity and employment need not go together.

The expected employment generation of HEGEs is based on a long line of (micro-economic) empirical research showing that the majority of net new job creation is realized by a relatively small number of high-growth firms (see Henrekson and Johansson 2009; 2010, Acs 2011, and Stam et al. 2012 for recent reviews). The question, however, is whether policies to support HEGEs lead to an additional number of new jobs, or just reallocate jobs from established, slow-growing or non-growing organizations, to the set of HEGEs. The limited amount of macro-economic empirical research that is available suggests a net positive effect of an increase in the rate of ambitious entrepreneurship on aggregate national economic growth (measured as GDP growth; see Stam et al. 2011; Stam and Van Stel 2011) and on regional productivity levels (Bosma 2011). However, this in itself does not prove that policy support to stimulate ambitious entrepreneurship and/or HEGEs will lead to improved aggregate economic performance. Policy support might also lead to substitution or deadweight effects (cf. Santarelli and Vivarelli 2007), having no positive influence on aggregate economic performance at best, and a negative influence at worst.

The only way to examine the positive effects of policy support is a properly designed evaluation programme to trace the direct effects of the policies (i.e. has the number of HEGEs increased? what has been the additionality of the policy program?), and the effectiveness and efficiency of the policies in terms of improving aggregate economic performance (i.e., has the policy been implemented efficiently? have there been positive indirect effects, on the region, industry, national economy?). Storey (2003) has proposed a hierarchy of evaluation methodologies from simple monitoring exercises that count the number of participants (step I); assess clients satisfaction (step II); or test their feel for the efficacy of the program (step III). Beyond these simple steps are evaluation exercises proper that are attempts to match with some 'average' participant (step IV); attempts that seek to match assisted and non-assisted participants on observable differences (step V); or that make use of sample selection effects which control for observable and non-observable differences between the two samples (step VI). Unfortunately, there are no such full fledged evaluations of (local) policy programmes for HEGEs. There have been evaluations of other policy programs that might provide some useful insights into policy support for HEGEs, e.g. the micro-economic effects of the SBIR program (Lerner 1999: positive effect on the growth of SBIR supported high tech small firms), the micro-economic effects of being located on a science park (Siegel et al. 2003: no effect on firm performance).

In practice, HEGEs policies are often driven by benchmarking, with the assumption that more HEGEs is better for economic performance, i.e. that lower rates of ambitious entrepreneurship,

gazelles, and high-growth enterprises than benchmark countries is a sufficient reason for policy intervention; even more so when output indicators (e.g. with respect to (un)employment) are unfavourable. Ingram et al. (2010) showed that in the case of US state level business incubator programmes, this is an adequate framework for predicting the number of (state policy supported) business incubator programs: relatively low regional economic performance (either historically, or in comparison to neighbouring states) and the adoption of incubator programs by neighbouring states revealed to have a positive effect on the number of business incubator programs started in a state over the period 1980-2004. Such a behavioural theory of state action might explain a lack of positive effects on aggregate economic performance, as these programs are not based on 'clear' economic rationales but more on satisfying behaviour and 'arms race competitions' (or mimetic behaviour in policy making, see Dobbin et al. 2007). This latter type of behaviour might even lead to locational tournaments in which regions compete for attracting investments by young or established firms.

#### **4. Enabling HEGE policies**

Gilbert et al. (2004) argue that only since the 1990s, a new set of policies emerged that focused on enabling the startup and viability of entrepreneurial firms rather than constraining existing enterprises and that this became especially relevant when it was established that knowledge was a major source of competitiveness in emerging industries. Regional and local examples identified in the US include policy programs in the Research Triangle (North Carolina) and Austin (Texas). In this section we will more extensively discuss the role of education policy, R&D and technology policy, and labour market policy in enabling the emergence and growth of firms. We do not discuss the tax and other financial policies because these are most likely initiated at the national level, without very distinctive regional level effects.<sup>2</sup>

##### **4.2 Education policy**

As most education institutes are local in reach and impact, education policies are an important element of local policies for HEGEs. Education policy is an important policy area for increasing the inflow of ambitious entrepreneurs in a society. The capacity to set high personal but obtainable goals, the so-called need for achievement (McClelland, 1961) is an important input for the growth of firms. This need for achievement is not a given trait, but can be developed, and this happens to be most important during adolescence and youth. This implies that the primary and secondary education system becomes more relevant in a broad sense – for example, by influencing younger people’s preferences, knowledge and skills. This would also include securing that (local) entrepreneurial role models are present in the educational program.

In addition to the importance of early education in targeting the first transition stage of raising generalized ambition (see above), tertiary education is an important context to support the transitions towards ambitious entrepreneurship, and its effectuation in the third and fourth transition stages. The development of ambitions to grow, innovate or internationalize heavily depends on individuals’ cognitive abilities (see Chapters 3 and 6 in Stam et al. 2012). Education has a strong positive effect on the probability of having growth ambitions as an entrepreneur (Bosma et al. 2009), and on average, more highly educated entrepreneurs have better performing firms. Indeed, entrepreneurs have even higher returns to education than employees (Hartog et al., 2010), and enrolment in tertiary education also has a positive effect on the number of fast-growing enterprises at the national level (Teruel and De Wit, 2011). Moreover, meta-analyses have shown that human capital is important for venture success beyond self-employment, and that this relationship is stronger for human capital investments with high task-relatedness. Entrepreneurship education at universities and in professional education seems reasonable for promoting ambitious entrepreneurship as well.

##### **4.3 Labour market policy**

Depending on the political system in a country, labour market policies and regulations are designed and implemented on the national, regional or municipal level. Labour market policy has significant direct and indirect effects on the growth of (new) firms. An important barrier to the employment growth of new firms are regulations that constrain the flexibility of labour markets, like strict employment protection legislation and non-compete agreements.

Employment protection affects ambitious entrepreneurship by its impact on the opportunity costs of becoming an entrepreneur (or joining a fledgling new business). For ambitious

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<sup>2</sup> We also do not discuss RTD (Research and Technology Development) policies here, because these policies are most often nationally initiated, and they are often implicitly or explicitly targeted at particular (high-tech) industries, and thus cannot be ‘labelled’ as enabling policies. For example, R&D tax credits are sometimes taken to be horizontal or enabling policies, but in practice this kind of policy is targeted towards (high-tech, often manufacturing) firms that invest substantially in research and technology development.

employees, these may be relatively high in regimes with strong employment protection legislation: leaving their secure job for a highly insecure occupation as founder of a start-up may become less attractive in conditions of strong employment protection. Hence, ambitious entrepreneurship would benefit from more flexible labour markets. Moreover, in the later stages of our transition model, employment protection will make ambitious entrepreneurs more reluctant to hire employees, as it may be hard to get rid of them in bad times. Thus, beyond being helpful in removing incentives that discourage prospective ambitious entrepreneurs from leaving their tenured jobs and creating new enterprises, a lower degree of employment protection would reduce the risks and impediments for new enterprises to create jobs and start growing.

Domain-specific experience matters for ambitious entrepreneurship. In both the independent entrepreneurship and intrapreneurship literatures, we find that management experience enhances entrepreneurial behaviour and willingness to grow. Likewise, industry experience has been shown to be important for growth and success. Growth-oriented entrepreneurs tend to be relatively highly educated and rather wealthy in terms of household income (see Stam et al. 2012 Chapter 5). This implies that not any new entrepreneur is important, but that the focus should be on a special kind of individuals – i.e., those who have much to lose when engaging in entrepreneurship, and accordingly face high opportunity costs. Rather than ‘necessity-driven’ entrepreneurship (e.g., the transition to entrepreneurship by unemployed) policymakers should consider targeting experienced managers. Providing support and guidance to these potential high-growth entrepreneurs is merited. In the context of labour market institutions, labour market mechanisms should especially be made more flexible so that the individuals that are best positioned to grow a new venture will have more stimuli to do so. These individuals most likely face the highest opportunity costs for leaving their secure and well-paid jobs when embarking upon a high risk-high gain project. This means that making it more attractive for *the best and the brightest* to start a potentially high growth enterprise is likely to be the most effective labour market policy action. An example can be to provide targeted support for talented people, for instance through creating awareness, training and mentoring. This should not be seen as a discriminatory support programme favouring those who are already well-equipped for the job market, but merely as an additional tailor-made programme that can exist next to other (targeted) programs for entrepreneurship; after all the goal is the creation of jobs for all segments of the population.

An additional possibility is to reduce the attractiveness of employment. Loosening employment protection legislation lowers the opportunity costs for (high potential) employees to leave behind their job to start or join a new firm. They would bear more (financial) risks but also have prospects to high rewards. Strict employment protection not only makes it harder to hire new recruits, but also makes it harder for new employers to fire employees, which is likely to be necessary in the very dynamic early phases of development of (potentially) high growth enterprises (Garnsey et al. 2006). New business owners are more likely to refrain to hire new employees, and thus to grow in employment, if they face such strict employment protection. Non-compete agreements – contract clauses that inhibit employees to pursue (potentially) competing projects once the employee leaves the incumbent firm - make it hard for employees that want to pursue innovative ideas with their own business in the same or a related market of their employer. Empirical research has shown that the abolishment of these non-compete agreements takes away the barriers for innovative high potential start-ups (Fallick et al. 2006; Gilson 1999; Garmaise 2011; Marx et al. 2009; Samila and Sorenson 2011). However, one should be careful in implementing this as a one-size-fits-all policy. The regional context is an important contingency in the effectiveness of these labour market policies: Fallick et al. (2006) argued that the regional benefits of labour mobility in Silicon Valley (partly enhanced by California’s policy not to enforce non-compete agreements) depended on the benefits from shared tacit knowledge outweighing losses from reduced employer incentives to invest in human capital. The advantage of abolishing non-compete agreements thus might depend on

local industry characteristics (i.e. a high density of similar or related industries). These labour market regulations sometimes originate from the national level (e.g. employment protection legislation), but can also originate from subnational levels (e.g. the USA state level, in the case of regulation that prohibits the use of non-compete agreements).

Broad-based exemptions from employment regulations based on firm size may support marginal businesses, but also put disproportionate burdens on firms beyond a certain firm size (Braguinsky et al. 2011; Garicano et al. 2012). These legislations are established to secure employee rights, that improve the quality of jobs in general. Providing exemptions for small firms might make sense as a generic entrepreneurship policy: they take away burdensome costs of compliance for start-ups, which are often relatively small. However, they also constrain the expansion of firms, and indeed might achieve the opposite effect of targeting high potential firms (Shane 2009). Examples in the US are the Americans with Disabilities Act (which prohibits discrimination against the disabled and requires reasonable accommodations) for firms with 15 or more employees, the Family and Medical Leave Act (which requires provision of up to 12 weeks of leave as parental leave or for serious health conditions) for employers with 50 or more employees, and the Workers Adjustment and Retraining Notification Act (requires advance notice of layoffs of specified numbers of employees) for employers with 100 or more employees (Feldman et al. 2011). Within the US, there is substantial state and local variation in these kind of employment regulations. The main message here is not to abolish these regulations, but to harmonise them over regions, and to reconsider the phased nature of these regulations in order not to provide disincentives to grow businesses beyond a certain threshold.

## 5. Targeted HEGE policies

Truly high-potential ventures (and their entrepreneurs) tend to be well known in a limited industry circle, so it may be worth involving business angels, industry experts and incumbent suppliers and/or customers to help identify ambitious entrepreneurs. Next, some kind of mechanism is needed to screen and select those most promising individuals. For admittance, programs should require explicit orientation toward growth. Even though growth orientation cannot guarantee growth, growth in the absence of aspiration is extremely rare. Therefore, support programs should require explicit commitment to growth as a key criterion. Second, the longer a venture progresses in its development path, the more tangible proof of its growth potential should be required. In the early phases of new ventures, growth orientation and flexibility should be emphasized – corresponding with the third stage of our transition model. In the more advanced (fourth) stage, tangible proof of market acceptance may provide a feasible selection criterion.

One type of targeted entrepreneurship policy that already exists since several decades are so-called business incubators. In the next section we will discuss the more recent and focused business accelerator programmes.

### 5.2 Business accelerator programmes

There is no single definition of incubators in the literature, but there are some common characteristics, including an element of space provision, shared services, on-site management with a business support function, a strong selection policy, and a supportive environment (cf. Hannon and Chaplin 2003). Business incubators are a diverse breed in that they have aimed at a broad variety of policy targets, from lowering unemployment, to neighbourhood restructuring, to technology transfer, by lowering the barriers to entrepreneurial entry, and possibly to stimulate subsequent growth as well. There is no consensus on the business focus of the incubators: the focus is the result of the public and/or private interests involved in the business incubator. A recent type of HEGE policies that is attracting increasing attention are the so-called Business Accelerator Programmes (BAPs). BAPs have some similarities with business incubators, but BAPs have a more explicit focus on accelerating the growth of firms.

#### Box 1. Bryo business accelerator programme

The Bryo initiative in Flanders (Belgium) targets bright young (between 18-36 years) individuals who are ambitious and have ideas to start and grow new ventures. They bring together peers in the local environment, give them the opportunity to learn from local role model entrepreneurs that have already achieved success and provide tailor-made advice on issues like finance, internationalization and commercialization of ideas and new products. One of the recent ‘successes’ of this program is embodied by the young entrepreneur Davy Kerstens, who came to Bryo with a one-page proposal on his business idea TwitSpark: the opportunity for firms to get an overview on how people across the globe tweet about their business. With some advice from the Bryo program – the bulk of the work still being done by Davy Kerstens and his father – he managed to secure a 1.125 million US dollars in Silicon Valley, within seven months after launching his one-page business idea. This is an example of how targeting a specific segment of the population (in this case: bright young individuals with entrepreneurial intentions and ambitions) may lead to high-growth enterprises. In concurrence with the transition model provided by Stam et al (2012), it starts with potential ambitious entrepreneurs. They benefit from a context (offered by the Bryo initiative) that supports their ambitious entrepreneurial endeavours.

There are two types of BAPs: virtual BAPs and location based BAPs. Virtual BAPs most often target gazelles that want to make the transition towards HEGEs, while location based BAPs most often target ambitious entrepreneurs that aim to develop their (nascent) business into a

gazelle. Virtual BAPs are most often initiated by governments at the national (and sometimes regional) level that provide a platform for peer learning, coaching and business services for owner-managers of gazelles that want to make the transition towards a HEGE. Virtual BAPs are primarily funded with public money, but participants often also have to pay a (relatively) small fee, in order to be committed to participation. The implementation of these virtual BAPs is often done by private organizations (e.g. business consultants, business angels), sometimes in coalition with civil servants or university staff that provides additional expertise. The virtual BAPs can be implemented on a regional level in order to ease the accessibility for participants, and can have a sectoral focus in order to tailor the program to sector-specific needs, problems and opportunities. Virtual BAPs can have offices that provide meeting points or training sites for the programme participants, but do not provide real estate services to locate firms. Two examples of these programmes are the “Groeiversneller” program in the Netherlands and the “Bryo” and “Gazellensprong” programmes in Flanders (a region in Belgium).

#### Box 2. Gazellensprong business accelerator programme

The program ‘Gazellensprong’ (Gazelle-jump) is currently being implemented for the region of Flanders in Belgium, after a pilot version was conducted in 2010. In this pilot phase, with a budget of 1.5 million Euros, 170 entrepreneurs were supported in their endeavour to grow their firms. The program is based on a dual policy. First, the need was established to selectively and intensively *approach high-potential firms*, and to provide them with intensive guidance and support. Second, a more open approach applies to ‘average’ growth enterprises; here the goals are to help them strengthening their business strategies and overcoming growth barriers. An important element of the program is that potential high growth enterprises are pro-actively identified, adopting an ‘opportunity analysis’ tool that is conducted by private consultants and takes seven days to complete. Furthermore, preference is given to firms that do not solely compete with other firms in the region. Thus, internationalisation and innovative potential are important elements for being selected into the Gazelle-jump program.

#### Box 3. Groeiversneller business accelerator programme

The Dutch ‘Groeiversneller’ (Growth Accelerator) program targets 100 firms per year that aim to achieve an annual turnover of 20 million within 5 years. It is publicly funded (€6 million) for the period 2009-2013, and is planned to be continued by private parties afterwards. The participating entrepreneurs also have to invest time (about 2 days per month) and money (€70 k) during the five year program. The firms are selected with the following criteria: they have to reveal growth ambition and the potential to reach an annual turnover of €20 million in 5 years, currently a gross turnover between €1-8 million, a commitment of the entrepreneurs to actively participate, head office in the Netherlands. The program has been initiated by the Dutch Ministry of Economic Affairs, but is implemented by a private sector High-Growth Stars Consortium: a partnership of PriceWaterhouseCoopers, Port4Growth, De Baak Management Centrum VNO-NCW, Philips Applied Technologies and AKD Prinsen Van Wijnen. The core of the program consists of developing a clear vision of where the firm should be within 5 years, and which steps are needed to get there. The program content is delivered by a mix of experts (from the consortium) and fellow entrepreneurs.

The location based BAPs are based in distinctive premises, which provide offices and working space for the programme participants, i.e. the tenants of the accelerator. These location based BAPs can be part of national policy programs, but are also initiated by private parties (e.g. the new Google Campus in East London’s Tech City, and the Rockstart Accelerator in Amsterdam, located at TomTom’s premises one of the few very successful Dutch high-growth firms). In practice most of them involve private and public organizations, and in that sense differ from the prior generation of business incubators that were often purely public organizations. Business accelerators provide different mixes of services, ranging from renting offices or work spaces, to

educational services, to consultancy and financial services. The emphasis differs per program, and also signifies the different (business) models these business accelerators pursue.

For this report interviews with representatives of three business accelerators have been held. The Canadian business accelerator MaRS had been started with the question: “Is there a better way to capture the commercial potential of Toronto’s \$1 billion in annual science and technology research spending?”. Just like UtrechtInc, it’s policy source and major funding came from national science and technology policies, concerned with the too low levels of (science-based) innovation in Canada and the Netherlands. These two incubators are also both funded by a mix of public and private money, and focus on a set of industries, and on social innovation in addition in the case of MaRS. General Assembly in contrast is largely a private sector initiative; it can be seen as a start-up itself, with only limited public sector funding. It has a much more focused client group (new ventures combining ICT and design), and largely earns its money by providing educational services. The main features of the business accelerator programmes can be found in Table 3.

Table 3. Business accelerators MaRS, UtrechtInc, and General Assembly

|                                    | <b>MaRS<br/>(Medical and Related<br/>Sciences)</b>  | <b>UtrechtInc</b>   | <b>General Assembly</b>  |
|------------------------------------|---|---|--|
| <b>Year of<br/>founding</b>        | 2005  | 2009 (predecessors 2005,<br>2007)   | 2011   |
| <b>Policy source /<br/>funding</b> | Federal Science & Technology policy (\$20mln; provincial (Ontario: \$30mln) innovation policy, local (City of Toronto \$4.5mln, Teaching hospitals + 3 Toronto Universities \$5mln); many \$1mln+ private investors | National Science & Technology policy, provincial innovation policy, local business development policy (City of Utrecht, Utrecht University, HU University of Applied Sciences); Rabobank. (\$5mln for 6 yr period). | Private initiative, and mainly privately funded (>\$4.25mln VC, CVC). Only (\$200k) start-up grant from New York Development Corporation |
| <b>Sectoral focus</b>              | Life sciences and health care; Advanced materials and engineering; Cleantech; Information technology, communications and entertainment; Social innovation   | Initially ICT; currently health / life sciences, sustainability   | (IC)Technology-Design-Entrepreneurship   |
| <b>“business<br/>model”</b>        | Largely publicly funded   | Largely publicly funded; Fee for service (starting with equity stakes soon)   | Fee for service; education (especially for external parties)   |

None of these business accelerator programs has been fully evaluated. Evaluating these programs is also more challenging than prior public programs due to the multi stakeholder nature of the business accelerator programs. This means that next to the (different) targets of the (multiple) policy levels involved (national, regional, and municipal), also targets of private parties should be taken into account for evaluations.

#### Box 4. HEGE UtrechtInc YUNOO

YUNOO is a software start-up that has developed a personal finance planning program. It has been founded in 2007 by students participating in an entrepreneurship course at the computer science department of Utrecht University. It has been incubated in the virtual student enterprise incubator Netherware and subsequently in the business accelerator UtrechtInc at the Utrecht University campus. It subsequently grew beyond a size of 10 employees and moved to its own business premises. In 2011 its expansion was stimulated with a trade sale to AFAS software, one of the leading young Dutch ICT firms. Now continuing as AFAS personal, as branch of AFAS software.

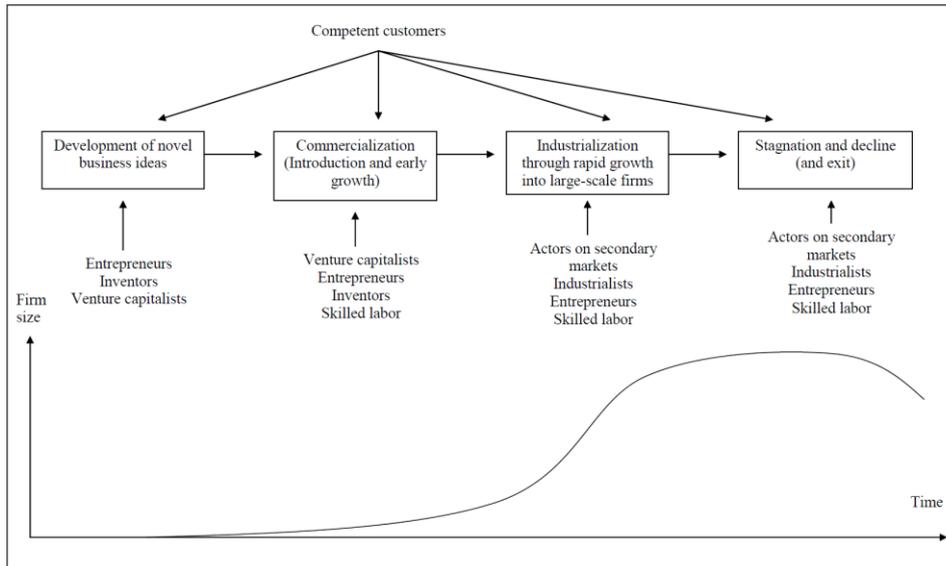
### 5.3 Industrial organization and HEGE policies

Multiple industrial policies have direct or indirect effects on HEGEs. One category of industrial policies, that is especially relevant here are policies that target particular industry-area combinations, also known as clusters or competence blocs. Entrepreneurship and in particular HEGEs play different roles during the evolution of these clusters or competence blocs (see Braunerhjelm and Feldman 2006; Brenner and Mühlig 2007; Feldman et al. 2005; Bos and Stam 2011).

The recent literature suggests that the role of entrepreneurship is crucial in the very early-stage of cluster formation (Feldman et al. 2005; Avnimelech and Teubal 2006; Breznitz et al. 2008) even though it is not a necessary condition. The probability of entrepreneurial sparks being ignited at the roots of cluster formation is likely to be dependent on the regional institutional setting: regions with an entrepreneurial culture require less intervening attention and have higher probabilities of such entrepreneurial sparks, while other regions may require more active and selective policy (Breznitz et al. 2008). In addition there are also examples of firms that have not been very successful but that have been of key importance for cluster formation through spin-off processes (Buenstorf and Fornahl 2003; Garnsey and Heffernan 2005). Thus, even relatively 'unsuccessful firms' (in terms of job creation) may prove to be important for cluster formation and HEGEs at a later stage.

Henrekson et al. (2010) start from a competence bloc approach to analyse the phasing of policies that foster high-growth firms in particular industry-area combinations. The competence bloc approach emphasises that the growth of (new) firms does not only depend on the entrepreneurial talents of the founder, but increasingly on the functioning of related capital, labour and other markets, and the competences of actors in these markets. Henrekson et al. (2010) distinguish four stages: business idea development, commercialization, rapid growth, stagnation (and possibly decline and exit). They identify entrepreneurs, inventors and venture capitalists as key players in the initial stage of entrepreneurial activity in a particular industry-area combination. In the next phases, skilled labour, actors on secondary markets and industrialists come into play. The explicit role of the local government will be to *enable* the development of the competence bloc, but this necessitates targeting particular actors at particular phases of the firm life course: suppliers of risk capital and inventors in the phases of business idea development and commercialization, entrepreneurs and skilled labour in the phases of commercialization and rapid growth, and industrialists and actors on secondary markets during the phases of rapid growth and stagnation (and possibly decline and exit).

Figure 1. The roles and interaction of different actors fostering high growth enterprises



Source: Henrekson et al 2010

A general local ‘blueprint’ policy approach to HEGEs is unlikely to be successful. Contexts will always matter and need to be appreciated for determining the most relevant accent at every stage of the process. Concerning the first phases De Groof and Roberts (2004), in their case of cluster policies in Belgian regions, point at the problematic factor of low growth orientation in weak entrepreneurial cultures. Kerr (2010) argues that migration, and particularly new immigration to the United States, may have facilitated cluster development directly after breakthrough innovations occur. However, from the case of Buenstorf and Fornahl (2003) it is rather unclear if there were any particular institutional settings that enhanced cluster formation in the region around Jena, as their evidence points at a large role of idiosyncratic spin-off events evolving around a pioneering (but unsuccessful) firm (cf. Klepper 2009; 2011).

As far as the phase directly after the emergent phase of local industry development is concerned, Gertler and Vinodrai (2009) attribute an important role to *anchor firms*, industrial associations and civic entrepreneurship but only if these serve as mechanisms for aligning the interests and resources of diverse stakeholders in the cluster. Buenstorf and Fornahl (2003) come up with similar arguments, but especially stress the spin-off mechanism. In line with the process models offered by Henrekson et al. (2010) and Feldman et al. (2005), Audretsch (2002) and Avnimelech and Teubal (2006) stress the role of the development of venture capital markets as critical aspect of local industrial development. However, the emergence of a substantial and effective venture capital market is more like to take place after a critical mass of high-growth firms has developed in a region rather than vice versa (Braunerhjelm and Feldman 2006; Casper 2007).

## 6. Policy mixes

### 6.1 Local-national policy mixes

Reviewing the policy mixes in a selection of OECD countries (Belgium, Canada, Finland, the Netherlands, Spain, UK, and USA), we observe that the program setups differ along specific features of the country. All countries have national policies in place that are aimed at supporting entrepreneurship. However, in case the impacts of regional states are significant, most of the policies aimed at high-growth entrepreneurship (and in fact for entrepreneurship in general) are orchestrated from the regional state level. The impact of regional states can be high for two main reasons. Obviously, large countries have more significant regional governments. This is for instance observed in Canada, where many entrepreneurship programs are directed from the provincial level. The United States do have significant national-level policies on entrepreneurship (the Small Business Innovation Research program being one of them) but also leave substantial autonomy for regional policies at the state level. The fact that legislations differ across US states makes this very relevant. For instance, some of the states allow non-compete agreements whereas others do not. This may impact the general set of policies directed at HEGEs, and gazelles in particular.

The second reason for a prominent regional imprint on entrepreneurship policy has to do with historical and cultural differences. For instance, in Belgium the Flemish (Dutch language) region policy and Walloon (French language) region policy largely operate stand-alone. As an example, Wallonia has designed new industrial policies and Flanders is starting a new ‘gazelle-jump’ accelerator program. Belgium’s neighbour the Netherlands, instead, primarily orchestrates entrepreneurship policies at the national level, for example through its national growth accelerator program.

In Denmark the national government structured its business support programs by creating five regional business development centres in 2007. From January 2011 the ownership and funding were transferred to 98 municipalities. Sweden’s (high growth) entrepreneurship policy seems to be far less explicit compared to Denmark’s, certainly when it comes to identifying targets (Bornefalk and Du Rietz 2009). Finland does explicitly target and monitor high-growth entrepreneurship; in contrast to Denmark the programs do not appear to have a particular regional component. In 2008 the Finnish innovation department of the Ministry of Employment and the Economy established a division for growth ventures (Lilischkis 2011). In addition, Finland’s VIGO programme was introduced in 2009. It focuses on high-growth potential young firms and especially tries to provide international funding to early-stage technology firms (Lilischkis, 2011).

The United Kingdom’s countries have separate programs as they are concerned with stimulating growth in their region through entrepreneurship. Here, Scottish enterprise boosts a rather extensive campaign aimed at stimulating (high-growth) entrepreneurship. Also the Welsh government is actively supporting HEGEs through a specific ‘going for growth’ challenge, as part of the Welsh Action Plan for Entrepreneurship. The UK high-growth start-up programme is a national programme to provide enhanced support for start-ups with high-growth potential<sup>3</sup>, that is however regional in scope. Both the targets (and allocated budget) and the implementation are regional. The public funding is focused on advisory support (not on the provision of start-up

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<sup>3</sup> A start-up with high-growth potential is defined in the following way: an individual (or group of individuals) who, at the point of first contact with the support system, has commenced trading within the previous twelve months; with an aspiration of £1 million sales per annum, and a potential to trade outside the immediate locality within a period of about twelve months from when the support is provided (Smallbone et al. 2002).

loans, grants or equity stakes), largely provided by private sector organizations. These private sector organizations most often act on a regional level and act as intermediaries to supply potential high-growth clients to the programme and as associates, offering mentoring and specialist advisory services (Smallbone et al. 2002). This also involves a degree of sponsorship, mainly through in-kind contributions of staff time, as the public funds available within the programme to contribute to the cost of bought-in services are insufficient to meet the full cost of these services.

A more recent programme is the GrowthAccelerator (see [www.growthaccelerator.com](http://www.growthaccelerator.com)): a partnership between private business growth experts, including Grant Thornton UK LLP, Pera, Oxford Innovation and Winning Pitch, and the Department for Business, Innovation & Skills. The Department of Business Innovation & Skills invests nearly £200 million in GrowthAccelerator (previously known as Business Coaching for Growth). It aims to provide high growth potential small businesses with the know-how and ability to achieve sustainable growth, and in the end to increase the number of small businesses that achieve rapid growth. Business experts work with business leaders to tackle issues such as: developing and delivering a tailored growth strategy, becoming investment ready and securing finance, commercialising innovation effectively, and developing leadership and management capability. GrowthAccelerator is available only for companies that are identified to have genuine potential for rapid and sustainable growth. These are businesses with fewer than 250 employees and turnover below £40m with the capacity, commitment and intent to double turnover or employment within three years.

These high-growth start-up programmes resemble some of the elements of the business accelerator programmes, in that they also target a narrow set of high-potential start-ups and supports them with a mix of public and private sector efforts. The latter programme (GrowthAccelerator) has hardly any local focus, which reflects the general situation in the UK, dominated by the winding up of regional policies.

Spain is a country that has a bit of both: Spain has national entrepreneurship policies but is also sufficiently large to identify regional nuances - and there are historically rooted cultural differences. Whether these regional differences also warrant distinct high-growth entrepreneurship policies is, however, a valid question: the scope of some of Spain's autonomous regions may be too limited for developing efficient distinctive policies on HEGEs. In line with the findings by Ingram et al (2010) there is a risk that neighbouring regions implement similar types of policies directed at HEGEs, without considering overall consistency and complementarities at the national or supra-national level. In effect, local and regional policies should, as far as possible, be compatible with, and complementary to, national and supra-national policies, identify the unique local strengths and growth potentials and frame local policy such that it complements regional and national policies.

The above already indicates that for local policies for high-growth entrepreneurship, the focus of this report, cannot be disentangled from policies at larger spatial levels. Table 4 illustrates that even though local policies obviously impact the local area as they are designed to do (some effects may be witnessed in neighbouring areas), also many regional, national and supra-national (such as EU) policies will have implications at the local level. For instance, changes in national science policies may have severe implications in areas that rely strongly on one or more universities. Another example is the Small Business Innovation Research (SBIR) program implemented in the United States. Even though this was a national program, the activities stemming from this program were highly skewed across regions: especially the (already strong) regions in California and Massachusetts benefited from the SBIR initiative. Grimm (2011) reports that the Lisbon Agenda provided substantial opportunities for German local policy

programs through European Structural Funds, more so than in the previous situation where the entrepreneurial policy making was implemented top-down<sup>4</sup>.

Table 4. Multilevel policy sources and effects

|               |                | Policy effects  |  |                                |
|---------------|----------------|---|--|--------------------------------|
|               |                | Local   | Regional   | National                       |
| Policy source | Local          | Municipal business policies (e.g. incubators), land use regulations |  |                                |
|               | Regional       | Regional development agencies, regional public venture capital      | US state level labour regulations (e.g. non-compete agreements)    |                                |
|               | National       | National science policies (affecting local university policies)     | SBIR, industrial policies (e.g. biotech), cluster policies         | National employment regulation |
|               | Supra-national | European structural funds, European Investment Bank capital         | European structural funds (ERDF), European Investment Bank capital |                                |

Local policies for high-employment growth enterprises are less likely to be less successful in areas where regional, national and supra-national policies are potentially conflicting with the proposed local policy. For example, local initiatives for fostering high growth entrepreneurship may be more difficult where the national regulations protect employment (Henrekson et al. 2010; Bosma and Levie 2010), or put disproportionate burdens on firms beyond a certain firm size (Braguinsky et al. 2011; Garicano et al. 2012). One example in this respect is the underdevelopment of the high-tech industry in Ontario (Canada) in spite of high levels of R&D at local universities and firms, high flows of venture capital, and active support from the local government. According to Samila and Sorenson (2011: 25) ‘part of the answer may reside in the way common law in Canada effectively bars management-level employees from leaving to competing firms, even in the absence of actual non-compete clauses’. This observation also calls for more detailed studies on how the design and implementation of non-compete and related laws varies by jurisdiction (either regionally or nationally).

It is essential to keep in mind that local policies should appreciate the local context in terms of resources, demography, cultural values and industry structure. There is an abundant evidence of initiatives aiming to copy the ‘Silicon Valley’ model in other regions (cf. Casper 2007; Hospers 2006). Most of these initiatives have not been successful because they could not capitalize on essential elements that were key to Silicon Valley’s success, such as the presence of ‘star’ universities, supply of skilled labour, a culture in which knowledge sharing was facilitated, institutions enabling flexible labour markets, and an excellent financial infrastructure (Saxenian 1994).

Local policy makers also need to be aware of the strengths of close neighbours. Competing with them may be far less rewarding than collaborating (for example through niches and stressing other regional amenities). Examples of this kind of policies are so-called locational tournaments in which regions compete in attracting (foreign direct) investments to their region. Such competitions are referred to as tournaments because payoffs are not awarded to all participants, but only to the winner. Participating in such a tournament involves substantial administrative and promotional costs for the regions involved, but only one of them can have a potentially positive outcome from the tournament. However, even this is not guaranteed for the winning region, as it can in the end be subsidizing new jobs at the cost of indigenous economic

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<sup>4</sup> At the same time, one of the interviewed experts mentioned that EU regulations also impose some restrictions to local policy, for instance regulations that prohibit supporting local established firms financially, or targeting small innovative firms (e.g. with the SBIR program in the Netherlands).

development. Competing with neighbouring regions for investments in a specific industry could even lead to a net loss at a societal level.

## 6.2 Entrepreneurship policy complementarities

From the perspective of ambitious entrepreneurship, it is positive that policies are offered to influence people’s preferences for entrepreneurship, to enhance their knowledge and skills, to improve access to finance and labour, and to diminish the regulatory burden – at least to the extent that ambitious independent entrepreneurship is not possible without people willing to engage in self-employment first. In Belgium and the Netherlands, these more generic entrepreneurship policies are well developed, and both countries also already offer growth-oriented policies. Policies for ambitious entrepreneurship, gazelles and HEGEs do not completely upset entrepreneurship policy thinking, but suggests that complementary interventions merit attention.

However, especially in the third and fourth transition (see Table 2), policymakers have to be aware that the design of policy interventions should deviate from earlier transitions. To stimulate people’s ambition and lure them into self-employment, policies can be broad and untargeted – examples include general programmes for entrepreneurship education, providing inspiration by means of role models, and offering general tax deductions for the self-employed. Such policies can be labelled as ‘the more the better’. To stimulate the next transitions, however, policies should be much more selective. For high-growth policies, Autio et al. (2007) summarized the main distinctions. Their summary is provided in Table 5.

Instead of focusing on quantitative aspects of entrepreneurship, to facilitate the third and fourth transition, policy should focus more on the qualitative aspects of entrepreneurship. Ultimately, welfare increases if the economy allows and rewards productive entrepreneurial initiatives, in whatever context. Whether this takes place in new or old, small or large firms, by self-employed or wage earners, is an empirical issue. Empirical evidence suggests that it is not self-employment or new (small) firms that drive economic growth, but that it is particularly ambitious entrepreneurship (Stam et al. 2009; 2011; 2012; Stam and Van Stel 2011; Wong et al. 2005) and the subsequent realization of gazelles and high-growth enterprises that positively affects economic growth.

Table 5. Generic entrepreneurship policy versus high-growth entrepreneurship policy

| <b>Policy goal</b>      | <b>Generic entrepreneurship policy</b>          | <b>High-growth entrepreneurship policy</b>        |
|-------------------------|---|---|
| Overall focus           | Quantity  | Quality   |
| Entrepreneurs           | Get more people to start new firms              | Get the <u>right</u> people to start new firms    |
| Entrepreneurial firms   | Increase the number of entrepreneurial ventures | Improve the quality of entrepreneurial ventures   |
| Operational environment | Facilitate SME entry and operation              | Facilitate new firm growth                        |
| Resources               | Mostly public                                   | Public and private partnership                    |
| Resource distribution   | A little to many                                | Much to a few                                     |
| Fiscal                  | Reduce VAT for small firms                      | Accommodate dramatic change over firm life course |
| Type of support         | Standard advice for firm creation and operation | Expert advice on growth and internationalisation  |

Source: Autio et al. (2007).

## 6.3 Conflicting entrepreneurship policies

Some of the differences between traditional entrepreneurship policy and policies directed at ambitious entrepreneurs can be so drastic that they may give rise to conflicts and trade-offs between these policies – for example, when a single Euro needs to be spend on few (3<sup>rd</sup> and 4<sup>th</sup> transition) or many entrepreneurs. Unlike traditional entrepreneurship policies, to stimulate ambitious entrepreneurship, policy resources should be spend on few ‘high-potentials’, rather

than many individuals who never make it beyond self-sufficiency. In the second transition, the common policy goal of creating more businesses implies that public funding initiatives seek to provide at least some level of support to everyone. In the third and fourth stage of transition, however, providing limited help to everyone is not compatible with the objective of effecting substantial growth. Only a small number of new firms have the potential for rapid growth, while their support needs can be demanding. When faced with limited public funding, this requirement may actually cause conflict between ambitious entrepreneurship and traditional entrepreneurship policies. In addition, stimulating self-employment may even harm ambitious entrepreneurship, as the incentives to stay self-employed may deter these solo entrepreneurs from expanding their business with recruiting other personnel. At first sight, a group of solo self-employed may substitute for a high-growth start-up, especially when project forms of organizing are dominant (e.g., in the construction industry and in multimedia productions). However, when it comes to scale economies and large-scale innovations, thousand solo self-employed cannot substitute for one 'Google' or 'Facebook'. New firms that want to change the economy and society are more likely to succeed with a large group of like-minded people that are committed to the collective endeavour.

## 7. Conclusions

This report has provided an overview of the recent academic literature and policy practice on local policies for high-employment growth enterprises. Even though it has become widely recognized that these enterprises are an important driver of economic development, locally and nationally, there is less insight into the need, effectiveness and efficiency of policies that enable or directly stimulate these high-employment growth enterprises locally.

We discussed the different definitions of high-employment growth enterprises and related firms. More in particular, we emphasized the transitions that precede the realization of a full-fledged HEGE. Insight into these preceding transitions is necessary in order to increase the pool of potential HEGEs and to target particular transitions in the path towards becoming a HEGE.

Important enabling HEGE policies can be found in the areas of education policy and labour market policy. Even though these enabling policies are rather generic in nature, they can be made more effective by targeting particular groups that are more relevant for particular transitions towards becoming a HEGE. These policies often have specific local effects, because they are implemented on a regional level, and sometimes because they are even designed on a regional level.

With respect to targeted local HEGE policies we focused on the recent stream of business accelerator programmes. These programmes are often implemented with private parties, and sometimes they are even initiated by private parties, with only limited public support (e.g. the General Assembly business accelerator). In addition, there are many targeted industrial policies and regional cluster policies that also have direct implications for the presence of HEGEs.

Most countries have a mix of national and regional policies for HEGEs. In many cases the national policy programmes are implemented in a region-specific way. In order for local policies to be effective they should not conflict with national and supra-national policies, and they should complement rather than compete with policies in neighbouring regions. Recent findings seem to suggest that neighbouring regions more often copy their neighbour's policies than that they learn from them and implement these policies in a way that fits the region-specific characteristics or decide to implement other policies that better fit the region. Such a more intelligent policy approach also suits the competence bloc approach and the recent smart specialization strategy for European regions.

In many cases generic entrepreneurship policies are complementary to high-growth entrepreneurship policies, because they increase the pool of potential ambitious entrepreneurs. However, there are several kinds of generic entrepreneurship policies that conflict with high-growth entrepreneurship policies, especially those policies that favour self-employed and small firms and in that way provide opportunity costs for entrepreneurs to hire employees (beyond a certain firm size).

Table 6 provides a summary of the policies discussed in this report.

Table 6. Overview of policy instruments

|                          | Main instruments   | Types of policy                            | Spatial level          | Roles for public and/or private institutions | Examples   |
|--------------------------|--|--|------------------------|--|--|
| <b>Enabling policies</b> | Regulation   | Labor market flexibility                   | National               | Public                                       |  |
|                          |  | Non-compete agreements                     | National; State        | Public                                       | US: cross-state differences in legislation         |
|                          | Finance  | Venture capital                            | National; State        | Public/Private                               |  |
|                          |  | Informal investors                         | National/local         | Public/Private                               |  |
|                          |  | Seed capital                               | National; State        | Public/Private                               |  |
|                          | Culture  | Creating awareness, provide role models    | National               | Public                                       | NL: entrepreneurship in education                  |
|                          | Demography   | Attracting bright foreigners               | National; State        | Public                                       |  |
|                          |  |  |                        |  |  |
| <b>Targeted policies</b> | Accelerators: targeted at (new) businesses               | Virtual business accelerator programs      | National; State        | Public                                       | BE: Gazelle-jump<br>NL: Growth accelerator         |
|                          |  | Local business accelerator programs        | Local                  | Public/Private                               | CA: MaRS<br>NL: UtrechtInc<br>US: General Assembly |
|                          | Programs targeted at relevant segments of the population | Programs for young adults                  | State; Local           | Public/Private                               | BE: Bryo   |
|                          |  | Programs aimed at international students?  |                        |  |  |
|                          | Programs targeted at sector/region                       | New industrial policies & cluster policies | National; State; Local | Public/Private                               | BE: Wallonia<br>NL: Top sector policies<br>ES:     |

It should be noted that the OECD definition of high-growth entrepreneurship that is adopted in this report may disregard entrepreneurial initiatives within existing organizations (intrapreneurship, or ‘entrepreneurial employee activity’, see Bosma et al. 2012), without leading to 20% growth for the entire firm. Such entrepreneurial activities by employees may also be triggering growth in *other* firms in the same area, for example due to supply-chain mechanisms, or because the intrapreneurs may take the initiative into a newly established firm. Even though intrapreneurship is not a particular focus in this study we would like to point out that entrepreneurial behaviour by employees within firms may lie at the roots of high growth entrepreneurship, possibly (but not exclusively) in the same area.

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