Promoting Leadership Development in High-Growth Firms

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Background Paper

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Summary

This discussion paper focuses on how to support the development of leadership and managerial skills in high-growth ventures. The paper has been written as a discussion paper for the OECD LEED Programme's initiative on leadership and management skills in high-growth firms.

The objectives of this paper are:

- To provide a brief overview of the entrepreneurship and leadership literatures, focusing specifically on the narrow intersection of the two literatures
- Elaborate a theoretical synthesis of the two literatures, with a particular focus on entrepreneurial leadership
- Develop a model categorising policy support initiatives using the theoretical synthesis as a lens to assess the ability of each to contribute to entrepreneurial leadership and management skills development in high-growth ventures
- Review six initiatives to support leadership and management skill development in high-growth new ventures, including new business accelerators, high-growth support initiatives, mentoring programmes, business angel networks, and technology programme networks
- Based on the above, identify good practices for supporting the development of leadership and managerial skills in high-growth new ventures

This paper is structured as follows. First, I review received literature on leadership, with a specific focus on what is known about leadership in new ventures. I use this brief review to elaborate implications for supporting leadership in high-growth new ventures. Based on this review, I develop a leadership support model that tracks highlights the emphasis of leadership support provided by different support initiatives. I highlight this model in the context of selected high-growth support initiatives, each of which incorporates a leadership support component. I conclude by discussing good practice in supporting leadership in high-growth new ventures.

Leadership and Entrepreneurship Literatures: An Overview

Definition of leadership

Leadership is one of those concepts that everyone has an idea of what it means – yet everyone's intuitive idea might be a little different from anyone else's. In the leadership literature, numerous definitions have been given for the concept of leadership over time. Most definitions describe leadership as an influencing process – as a process by which some individuals inspire others to work towards shared goals. By definition, leaders lead others. I therefore define leadership as: "the nature of the influencing process—and its resultant outcomes—that occurs between a leader and followers and how this influencing processes is explained by the leader's *dispositional characteristics* and *behaviours*, *follower perceptions* and *attributions* of the leader, and the *context* in which the influencing process occurs [italics added]" (Antonakis, Gianciolo, et al., 2004:5).

The above definition highlights several important aspects relevant for our discussion here:

- First, it distinguishes between leaders and followers. Leaders lead, and followers "follow" – I.e., they perform the actions the leader seeks to induce. As I will elaborate later, high-growth new ventures are likely to differ quite drastically from large, established firms when it comes to defining exactly who those followers are and where they reside.

- The second point to note is that leadership is an *influencing* process: leaders seek to influence others, through a continued process of interaction between the 'leader' and the 'followers'. This draws natural attention to the question of how this influencing occurs. Again, keeping in mind the focus of this discussion paper, one may speculate that high-growth new ventures differ from large organisations in terms of the repertoire of influencing mechanisms that they require.

- Third, according to the definition, leadership effectiveness is co-determined by leader *characteristics* and follower *perceptions*. In other words, it is follower perceptions, rather than what the leader actually does, that matter for the leader's ability to induce desired outcomes. This resonates with the importance of, e.g., symbolic actions that new ventures have been reported to occasionally employ when seeking to access and mobilise resources for opportunity pursuit (Zott and Huy, 2007).

- Fourth, the above suggest that leadership effectiveness may be contingent upon the context within which leadership behaviours are performed (Antonakis and Autio, 2006). In other words, different leadership styles may be required in new venture contexts and mature firm contexts, for example.

To understand the leadership process, therefore, one has to account for the context in which the influencing process occurs. For example, contextual factors influence which types of leadership characteristics are effective in inducing desired behaviours in followers (see, e.g., Palich and Hom, 1992; Crossan et al., 2008). This is important, because entrepreneurial organisations are quite different from corporate contexts. From the perspective of supporting leadership development in high-growth new ventures, the big gap is that most of the received leadership research has focused on mature corporate context while virtually ignoring the context of entrepreneurial firms (Vecchio, 2003; Cogliser and Brigham, 2004; Antonakis and Autio, 2006). This being an under-researched topic, there is relatively little systematic research on what leadership actually means in new organisations and

how effective leadership differs between old and new organisations. This, then, implies that little is known about how to *support* leadership in new firms.

Leadership theory: Overview

Before focusing more closely on the distinctive aspects of leadership in high-growth new ventures, it is useful to briefly summarise what is currently known about leadership theory. Today, the 'full-range leadership theory' provides perhaps the most widely used (although not the only) framework in leadership research (Bass, 1985, 1998). The important contribution by Bass and others was to move beyond leader characteristics and traits to considering leadership styles, such as transactional, transformational, instrumental, charismatic, and visionary leadership. Bass's (1985) theory was essentially a behavioural theory of leadership that focused on three major classes of leader behaviour: (a) transformational leadership, which explains value-based, visionary, emotional, and charismatic leader actions, which are predicated on the leader's symbolic power; (b) transactional leadership, a quid pro quo influencing process utilising reward and coercive power; and (c) laissez-faire leadership, which actually represents the absence of leadership. This theory was subsequently extended by others who added more leadership behaviours into the palette (Howell and Avolio, 1993; Antonakis, Cianciolo, et al., 2004). As such, this theory is well supported, as noted in several meta-analyses (Derue et al., 2011; Oh et al., 2011).

Transformational leadership enhances the motivation, morale, and performance of followers with a range of behaviours, such as enhancing followers' identification with the project and the organisation and thus enhancing their sense of ownership of the project. Transformational leaders also act as inspiring role models that followers seek to emulate. Transactional leadership, on the other hand, emphasises monitoring and supervision. Transactional leaders set incentive mechanisms to incentivise desired behaviours, but they also intervene with sanctions if desired performance is not forthcoming. Thus, whereas transformational leadership is proactive, emphasises identification with higher goals and moral values and promotes creativity and innovation in problem solving, transactional leadership is reactive, operates within and reinforces an already established organisational framework, and appeals to followers' self-interest rather than higher ideals (Wikipedia; Bass, 1985, 1998; Hackman and Michael, 2009).

The palette of leadership behaviours recognised in the literature extends beyond transactional, transformational, and laissez-faire leadership. Of relevance for our discussion here are the notions of 'instrumental' and 'strategic' leadership. Instrumental leadership represents a task-oriented leadership style, which seeks to accomplish specific, defined goals. It represents a class of leader behaviours to enact the knowledge of the leader towards the fulfilment of organisational goals (Antonakis and House, 2002). Because of its goal and team orientation, this form of leadership almost represents coaching, and the role of the leader is to facilitate team performance. Strategic leadership, on the other hand, is distinguished by its external focus: it encompasses leadership behaviours that monitor threats and opportunities in the external environment of the organisation and translates these into strategy formulation and implementation within the organisation (Zaccaro, 2001).

Leadership in entrepreneurial contexts

The relevance of different leadership styles for our discussion goes back to the notion that different leadership styles may be effective in different contexts. For example, Jansen et al (2009) linked transactional and transformational leadership to organisational learning outputs and found transactional leadership to be more effective for exploitative learning, whereas transformational

leadership was more effective to support explorative learning (Jansen et al., 2009). This finding was consistent with the finding by Ensley, Pearce and Hmieleski (2006), who found the effectiveness of these two leadership styles to vary with the degree of environmental dynamism, with transformational leadership style producing better results in highly dynamic environments (Ensley, Pearce, et al., 2006). Similarly, Waldman et al (2001) found the impact of transactional and charismatic leadership on organisational performance to vary with environmental uncertainty and volatility, with more uncertain and volatile environments favouring more charismatic leadership (Waldman et al., 2001).

These and other empirical evidence point to potentially important differences between new venture contexts and established organisations. Whereas established organisations are more likely to operate in established markets and more predictable environments, where a high level of agreement may exist with regard to 'good' and 'effective' business practices, new ventures often seek to compensate for their underdog position relative to incumbents by trying to be different – in terms of products, services, business models and market niches targeted (MacMillan and McGrath, 1997). This implies that, on the whole, new ventures tend to face less predictable environments than large firms. Even when operating in established industry contexts, the quest for differentiation means that there may be few guideposts to help predict how customers, suppliers, and resource holders will react to the novelty introduced by the new firm. This suggests that leadership styles more appropriate for managing in uncertain and dynamic environments, such as transformational, visionary and charismatic leadership might be more appropriate for high-growth new ventures. On the other hand, because transactional leadership styles are more suited to exploitation within established development trajectories, their applicability in new venture contexts might be smaller.

As hinted previously, high-growth new ventures may also differ from established corporations in terms of where the followers reside. Remember that new ventures are created to pursue opportunity (Shane and Venkataraman, 2000). To this end, they need to access and mobilise resources external to the firm (Stinchcombe, 1965; Pfeffer and Salancik, 1978). This, then, implies that an important element of entrepreneurial leadership activities focus on parties and stakeholders external to the firm, rather than on employees internal to the firm. A couple of important distinctions derive from this difference. The most obvious implications concern the range and scope of influencing activities new ventures have at their disposal. Internally oriented leadership activities can rely on formal incentives and sanctions that operate within the organisational hierarchy. This is obviously not possible with external stakeholders, meaning that new ventures have to resort to informal motivational devices, such as symbolic actions (Zott and Huy, 2007), social capital building and leverage (Eisenhardt and Schoonhoven, 1996; Nahapiet and Ghoshal, 1998; Yli-Renko et al., 2002), charismatic leadership and visionary leadership to achieve their goals. Again, transactional leadership style would appear to fit only poorly in such situations.

With specific reference to entrepreneurial firms, the traits and behaviours that predict entrepreneurial success may also change over the life cycle of the firm (Antonakis and Autio, 2006; Ensley, Hmieleski, et al., 2006). For example, based on received research one may speculate that traits like extraversion will matter more in the expansion phase than in the startup phase, because this stage involves motivating sub-ordinates to work hard to effect organisational growth (Ensley, Hmieleski, et al., 2006). Similar differences might be observed for, e.g., supervisory leadership and strategic leadership (e.g., Antonakis and Atwater, 2002; Crossan et al., 2008; Jansen et al., 2009).

The key policy implication of the above is that high-growth new ventures may require different forms of leadership, and, by implication, different forms of leadership support relative to established firms. In addition, high-growth firms may need to adjust leadership styles and behaviours in different life

cycle stages, as their organisational conditions and challenges evolve rapidly. High-growth ventures tend to go through a succession of management changes as they grow, so a key challenge is in ensuring that the right skills are in place when required. The discussion above suggests that policy measures designed to support leadership development in high-growth new ventures should:

- Emphasise leadership styles that befit unpredictable and dynamic environments – e.g., transformational and visionary leadership
- Emphasise leadership styles that are suited to soliciting resource access and mobilisation relative to external stakeholders – e.g., charismatic leadership, visionary leadership, symbolic actions
- Emphasise the centrality of teams in organisational goal achievement – e.g., instrumental leadership
- Adapt to changing needs of the growing venture over its life cycle

Next I outline a model for assessing the effectiveness of leadership development initiatives in high-growth new ventures in the light of the needs of such ventures, and also, in the light of leadership and entrepreneurship research.

Model for assessing the effectiveness of leadership development in high-growth new ventures

After the brief review of the leadership and entrepreneurship literatures, I next develop a model for assessing the qualities of policy initiatives designed to support leadership development in high-growth new ventures. Our model is based on the following premises. First, I echo the distinction in the leadership literature between instrumental and task-oriented activities, on the one hand, and strategic and visionary activities, on the other. Instrumental and task-oriented activities aim at reaching tangible milestones in new venture development. These may include organising tasks such as recruitment and setting up business processes, as well as reaching developmental milestones such as growth targets, business model configurations and financing rounds and other resource activities. Strategic and visionary activities involve designing and implementing strategic plans, configuring business models, monitoring strategy implementation as well as establishing and performing control functions.

Second, I distinguish between capability transfer and execution, on the one hand, and capability development and learning, on the other. Capability transfer and execution involve the transfer of existing capabilities to the new venture, so that these can be readily deployed within the new venture context. Capability development and learning involve the development of new organic capabilities within the new venture.

Policy interventions can support new venture development both within the instrumental task performance and strategic visioning continuum, as well as within the capability transfer and capability learning continuum. The combination of these two continua sets up four distinct areas of leadership development in high-growth new ventures:

1. Leadership development initiatives can support the learning and development of new strategic leadership capabilities within the high-growth new venture. Examples of policy initiatives enhancing this aspect include board mentoring initiatives as well as initiatives designed to support the development of visioning activities and momentum-building activities within the high-growth new venture.

2. Leadership development initiatives can also support the learning and development of new instrumental and task-oriented capabilities within the new venture. Examples of policy initiatives enhancing this aspect include networking activities designed to enhance exploratory learning from peers and industry leaders.

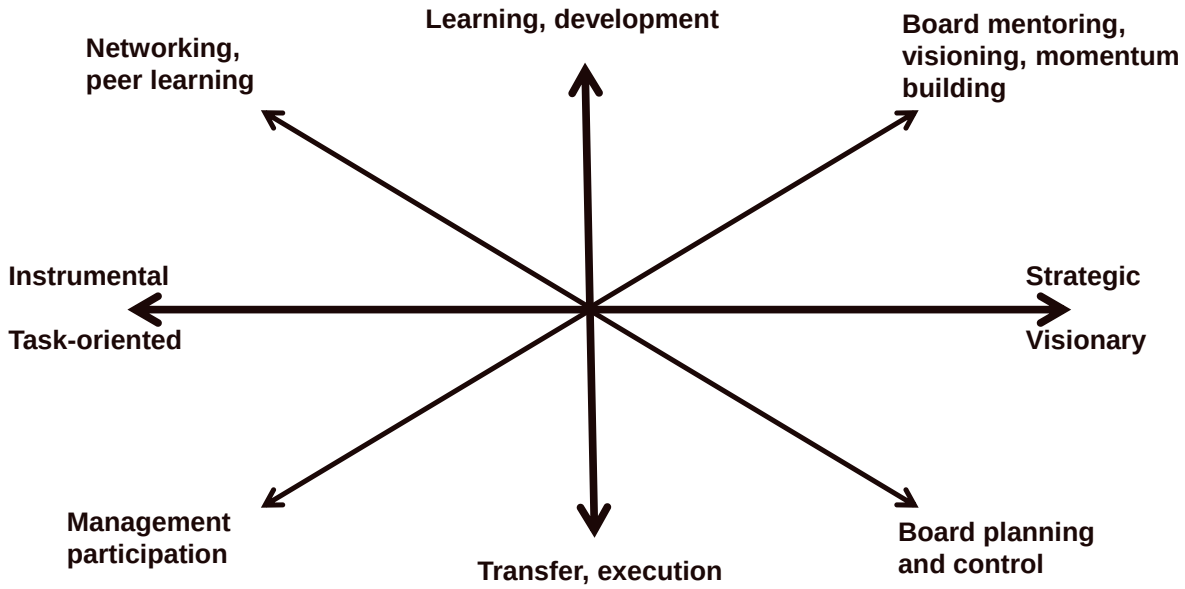
3. Leadership development initiatives can also be designed to transfer instrumental and task execution capabilities to the high-growth new venture. Examples of policy initiatives focusing on this aspect include the transfer of seasoned managers to the new venture and hands-on management consulting activities.

4. Finally, leadership development activities can support the transfer of strategic planning and monitoring capabilities to the high-growth new venture. Examples of policy initiatives falling into this category include the transfer of non-executive directors to high-growth new ventures under mentoring schemes.

The above areas of leadership development often occur together. For example, initiatives designed to transfer seasoned managers and non-executive directors to high-growth new ventures may involve networking and peer learning activities in addition to capability transfer. Similarly, board mentoring activities may also involve direct participation to instrumental management activities. In particular,

funding-driven initiatives such as new venture accelerator initiatives can involve leadership development activities in all four areas highlighted above. our schematic model of leadership development support in high-growth new ventures is outlined in Figure 1.

Figure 1 Model of leadership development initiatives in high-growth new ventures



The value of the model outlined in Figure 1 is that it can be used to profile and compare different kinds of policy initiatives, as these seek to support leadership development in high-growth new ventures. In the following, I use this model to profile four different cases of policy interventions that target high-growth new ventures. The cases are: (1) The Vigo New Venture Accelerator Programme; (2) The Young Innovative Firms (NIY) Programme; (3) The Targeted Technology Programme Initiative; (4) the Danish 'Growth House' Initiative; (5) the Dutch Growth Accelerator Programme; and (6) New Venture Mentoring Programmes. In the next chapter, I use the above model to assess the effectiveness of each of the four types of support initiatives from the perspective of their ability to support leadership development in high-growth new ventures.

Case studies

I selected a number of representative policy initiatives that sought to promote the growth of new ventures. I did not sample initiatives that were specifically dedicated to promoting leadership development in high-growth new ventures, since such initiatives are rare. Even initiatives specifically dedicated to promoting the growth of new ventures are quite rare, although their number has increased in recent years due to increased policy awareness of the economic importance of high-growth new ventures (Autio et al., 2007; Autio, 2011). In most initiatives, leadership development is only one aspect of the range of developmental benefits sought, and the mechanisms used to achieve this benefit may vary.

The purpose of the case studies was to assess the leadership development contributions within different high-growth venture support initiatives. The cases were post-hoc cases studied by means of archival research. Only such initiatives were selected for which there existed extensive archival material, mostly in the form of previous evaluations of the initiative.

The case examples were selected to represent different types of policy interventions. The first case study analysed the 'Vigo', new venture accelerator programme implemented in Finland (Autio et al., 2013). This is one of the first properly evaluated accelerator initiatives in Europe. The second case study analysed the 'NIY', or Young Innovative Firms programme in Finland, the aim of which is to provide progressively intense support for new ventures, as they pass successive development milestones. The third case is provided by the 'Täsmä' technology programmes, which seek to address and correct selected gaps in select industrial value chains in Finland through the use of new technologies, thereby enhancing the prospect of SME growth in those value chains (Autio et al., 2003, 2008). This initiative had a strong focus on facilitating networking and peer learning amongst the participating SMEs as these explored how their business models would be affected by the new technology. The fourth case is provided by mentoring initiatives, which seek to pair high-potential new ventures with seasoned managers to boost their leadership capabilities. Thus, the cases represent different approaches, from direct equity participation (Vigo programme) to active hands-on interventions on a selective basis (NIY) to networking and context facilitation (Täsmä) to active transfer of new leadership competencies to the new venture (mentoring). These different approaches therefore sought to accomplish very different things, yet all addressed one aspect of leadership or another. In the following I discuss each case and analyse them using the model developed in Chapter 3 above.

Vigo new venture accelerator programme

The Vigo accelerator programme represents a case of an active, hands-on support initiative, which seeks to combine high-growth new ventures with entrepreneurially experienced equity investors who will take an active, hands-on role in the development of the new venture. From a leadership development perspective, the Vigo programme represents the most hands-on form of policy interventions oriented at leadership development.

Background and operation of the Vigo programme

Since early 2000s, evidence has accumulated that Finland has relatively low numbers of entrepreneurs in general, and high-growth entrepreneurs in particular. In the light of international comparative data, Finland has been claimed to suffer – paradoxically, given the amount of investment in R&D – from a lack of high-aspiration innovative firms (Autio, 2009). This has raised the question whether the Finnish SME support ecosystem might be lacking important in its ability to induce and support high-growth ventures. This provided an impetus for policy-makers to address this failure. One of the initiatives designed to address this gap is the Vigo new venture accelerator programme.

The Vigo Accelerator Programme is designed to connect innovative business ideas that have international growth potential with internationally experienced business professional and private and public growth finance (TEM, 2012). The programme seeks several distinct contributions to the Finnish entrepreneurship ecosystem:

- Accelerate growth and internationalisation of new firms
- Strengthen high-growth capability (both managerial and governance) in Finland
- Help high-potential new firms attract equity funding, both from Finland and abroad
- Strengthen the links between the Finnish high-growth venturing community and its foreign equivalents
- Create a network of business accelerators in Finland to address growth bottlenecks in the post-incubator phase

The Vigo Programme was launched in March 2009 by the decision of the Ministry of Employment and Economy (TEM, 2012). It facilitates the creation of new business accelerators that raise and invest their own funds (and that of other private-sector operators) to take equity stakes in new ventures. Public funds are provided for Programme coordination. Public sector agencies (notably, Tekes and Finnvera) commit themselves providing preferred treatment of funding applications from Vigo firms (provided these meet the usual funding criteria). This way, the Vigo Programme seeks to enhance the provision of ‘smart’ and ‘hands-on’ funding for potential high-growth ventures in Finland.

The key idea of the Vigo Programme is to attract experienced accelerator teams to invest in Finnish high-growth ventures and use their skills, experience and networks to help them grow. The accelerator teams should have demonstrable experience, networks, and capability to facilitate high-growth ventures, and they should be wealthy enough to invest in equity stakes of the high-growth firms of their choice.

The Vigo accelerator teams (I.e., the teams that manage the accelerators and invest in high-growth ventures) are selected in competitive calls for applications. Vigo accelerators are typically private firms that provide experience, expertise, and hands-on managerial support for their own portfolio firms. They take equity stakes in their portfolio firms, in addition to helping raise further equity funding from other investors.

The basic requirements for Vigo accelerators are that they have to be profit-seeking, privately held firms; they need to demonstrate investment capability; the managers need to hold a majority

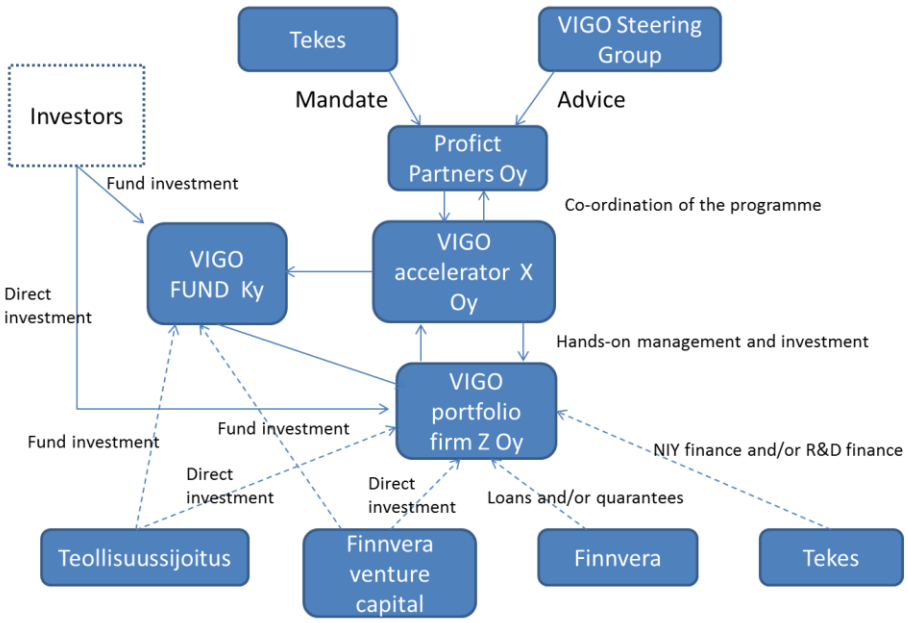
ownership of the accelerator company; the accelerator managers need to demonstrate solid venturing experience in their sector; and there have to be at least two managers who work primarily in the accelerator business and have previous experience in starting, growing, and internationalising young innovative firms or experience as an investor in young innovative firms (TEM, 2012).

Vigo accelerator teams have three prospective sources of income: (1) capital gains achieved by increasing the value of their portfolio companies through hands-on support and resourcing; (2) possible fund management fees from external investors to Vigo accelerator funds (at least two accelerators having set up their own equity funds with external investment); (3) management fees paid by portfolio firms in return for managerial services offered by accelerator teams (Tekes has approved the use of NIY funding to pay such fees – see the NIY programme case).

Vigo accelerators are attractive for innovative new firms because of the skills, networks and experience of accelerator managers in their sectors. Potential portfolio firms also benefit in terms of equity funding, as every Vigo accelerator is required to have the financial capability to make an investment of at least 30 K€ in each portfolio firm and help bring in additional external investors if necessary. Through their investments and allocation of management resources, accelerator teams share in both upside and downside risks (both financial and reputational) with the portfolio firm.

The organisational structure of the Vigo programme is showin in Figure 1. The programme was started on the initiative of the National Technology Agency Tekes. Tekes commissioned a private company, Profict Partners Oy to co-ordinate the Programme. The programme is supervised by the Vigo Steering Group, which includes as members representatives of all the public stakeholders of the Vigo Programme (I.e., Tekes, TEM, Finnvera, and Finnish Industry Investment), as well as seasoned venturing professionals from start-up and venture finance sectors.

Figure 2 Operation Structure of the Vigo Programme (source: Autio et al, 2013)

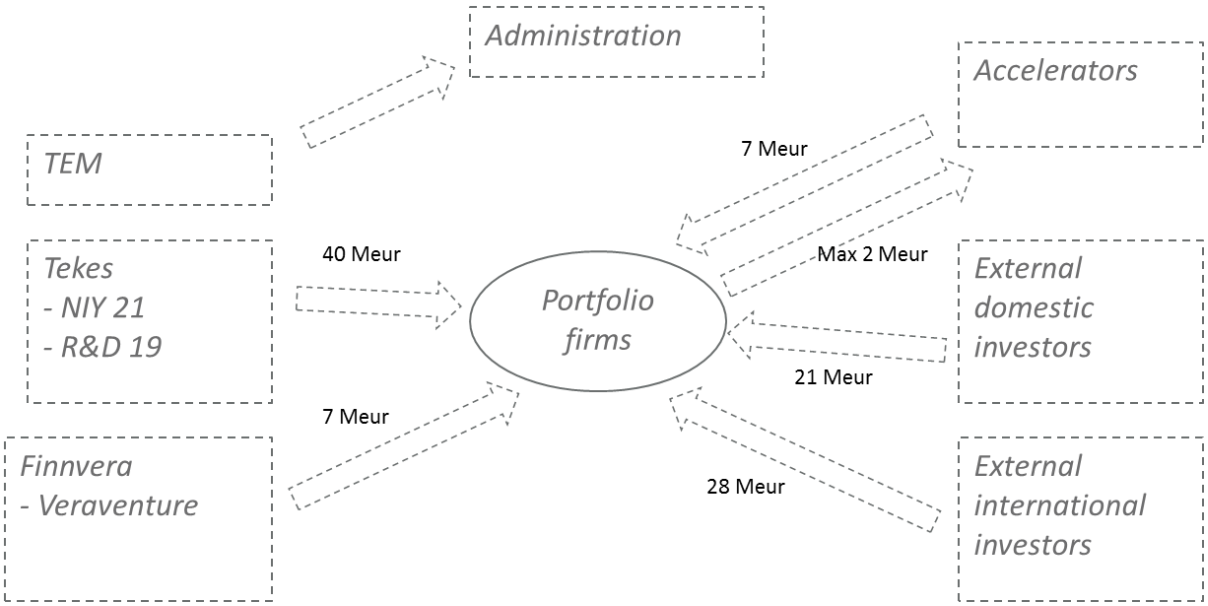


The central operational structure of the Vigo programme is constituted by Vigo accelerators. These may set up small-scale venture funds, with funding raised from private and institutional investors. Vigo accelerators, which are established and managed by accelerator teams consisting of

entrepreneurially experienced individuals who invest their own funds into the project, may invest in portfolio firms either directly from their balance sheet or through their venture fund, if one has been created. To make this financially viable for the accelerator teams, public-sector organisations are committed to prioritising support applications from Vigo portfolio firms, and they are also committed to making equity investments into the portfolio firms as long as their normal investment criteria are met.

The Vigo programme has been quite successful in catalysing equity funding towards high-growth new ventures from public and private sources (Autio et al., 2013). As shown in Figure 3, Vigo portfolio firms had received a total of 40 M€ by June 2012 from Tekes, of which 21 M€ was young innovative firm funding (NIY) and 19 M€ R&D funding. NIY. By June 2012, 7 M€ had been invested by Finnvera, a Finnish public-sector funding agency into Vigo portfolio firms as equity. The Vigo accelerators themselves had invested total of 7 M€ by June 2012. External domestic investors had invested a further 21 M€, and international investors had invested approximately 28M€. With a total of nearly 100 M€ invested during the first year with a public-private ratio of 1:1, the programme has clearly exceeded its target for the first year of operation.

Figure 3 Funding Streams Catalysed by the Vigo Programme (source: Autio et al, 2013)



Leadership development by the Vigo programme

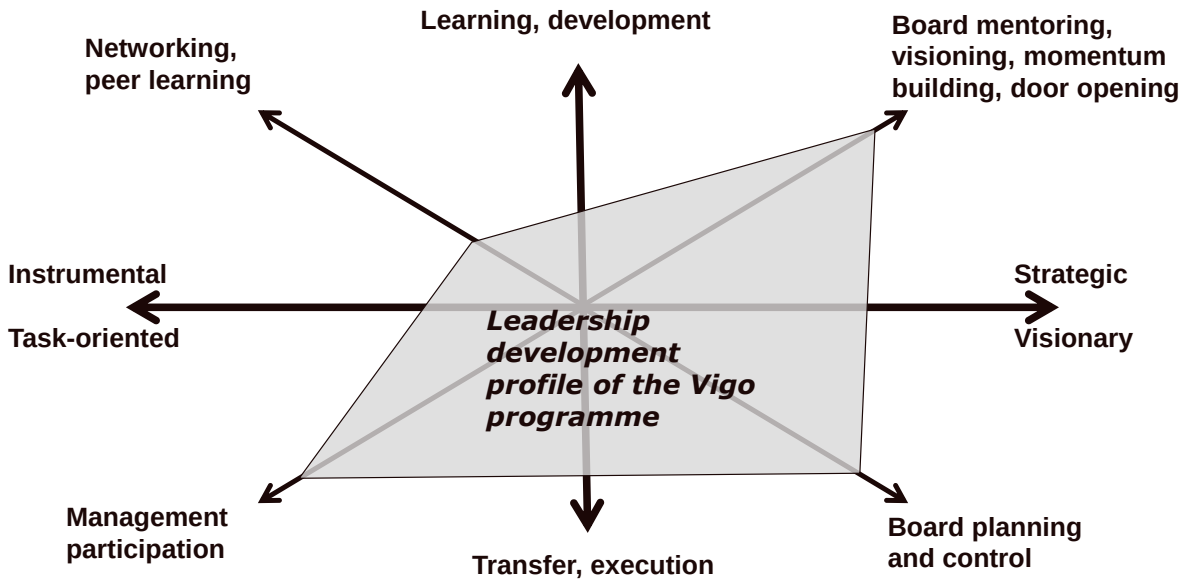
As noted above, the central objective of the Vigo programme is to mobilise seasoned entrepreneurs and venture capitalists to drive the growth of high-potential new ventures. The model mixes both public and private funding and support, and equity participation ensures that the accelerator teams participate in both upside returns and downside risk. There is thus a strong financial incentive for the accelerator teams to do their best to help the portfolio ventures grow as vigorously as possible.

As such, the participation of the Vigo accelerators in the development of their portfolio firms is determined individually. There is no pro-forma templates to regulate the form of investor participation. In practice, both strongly hands-on and hands-off participation is observed, with some accelerators contributing both strategic and operational management expertise, whereas other

accelerators (or individual portfolio firm cases) may limit their participation to governance and control through non-executive directorships. Nearly all of the accelerator teams sought to contribute their social capital and industry contacts to help access and mobilise resources and open doors towards customers and other important stakeholders.

The above suggests the following leadership support profile for the Vigo programme, see Figure 4.

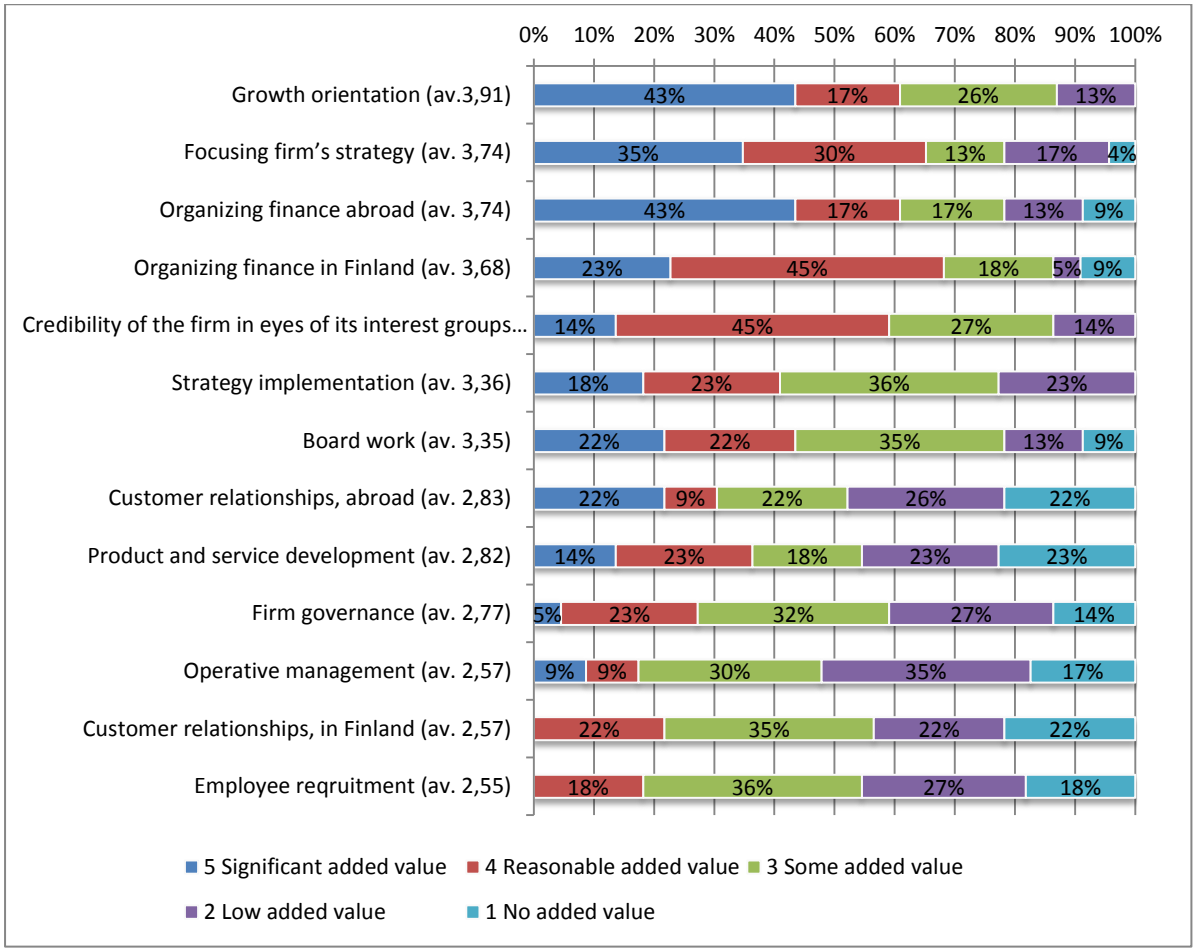
Figure 4 Leadership development profile of the Vigo programme



As can be seen in Figure 4, the equity participation model that mobilises seasoned entrepreneurial experience produces a balanced and extensive contribution towards leadership development in high-growth new ventures. Vigo has successfully mobilised both the transfer of external capabilities for the support of high-growth new ventures, while also supporting learning and development of firm-internal leadership capabilities through example and active coaching by accelerators. Similarly, the Vigo programme has been successful in mobilising both strategic and visionary leadership support, while also supporting instrumental leadership and the execution of specific tasks and milestones. Thus, we see that an equity-based accelerator model with private-sector participation provides a basis for broad-based leadership development support. There have even been cases where a member of the accelerator team has stepped in for six months to act as the managing director of the new business. This has been made possible by the possibility of using NIY funding to pay for consulting services, so that the accelerator team member has been able to receive a modest salary for his or her participation. This is an important aspect of the Vigo concept, as the small equity investments and small-scale funding are not able to support the kinds of management fees usually associated with equity investment activity. Thus, the NIY funding has made it possible for the accelerator team member to draw income while working to increase the value of the portfolio firm.

The leadership development profile illustrated in Figure 4 is confirmed in the profile of received benefits, as self-reported by Vigo portfolio firms in response to programme evaluation survey. These benefits are summarised in Figure 5.

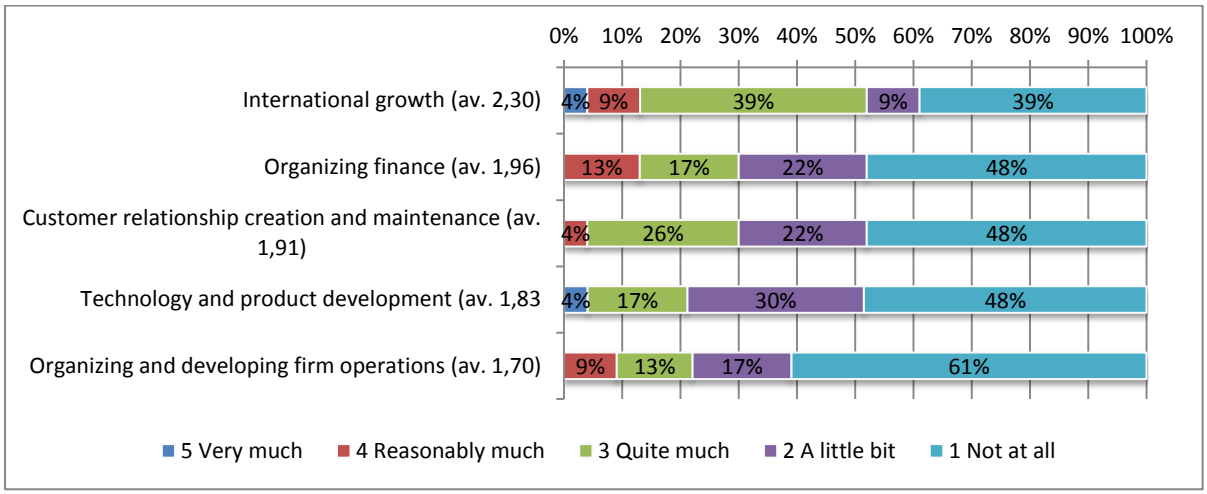
Figure 5 Value added of Vigo accelerators, as perceived by Vigo portfolio firms (source: Autio et al, 2013)



As shown in Figure 5, the most prominent benefits reported by Vigo portfolio firms concern strategic dispositions (growth orientation and strategic focus) and resource mobilisation, notably, finance. However, the Vigo portfolio firms also reported important instrumental and task-oriented benefits in, e.g., strategy implementation, product and service development and operative management.

Perhaps the least prominent leadership development activity in the Vigo programme is represented by peer learning. This is also highlighted in Figure 6. Although the Vigo portfolio firms reported some learning from peers, the level of this learning was not at the same level as the perceived value-added from Vigo accelerators. One reason for this is that the Vigo programme does not actively promote peer learning – I.e., learning from the experiences of other Vigo ventures – although it does (quite) occasionally organise formal events and meetings to discuss growth challenges. The absence of this element appears more than compensated for by the direct transfer of entrepreneurial growth experience for the benefit of the portfolio firms, however.

Figure 6 Self-reported peer learning by Vigo portfolio firms (source: Autio et al, 2013)



Relative to the wide-ranging benefits achieved, the downside is that this kind of intervention can only be applied to a highly select sub-group of high-potential new ventures. A high degree of selectiveness is automatically introduced by the requirement that the Vigo accelerator teams invest their own funds into their portfolio firms. This ensures strong self-interest for the Vigo accelerators to pick only the very best ventures into their portfolios. On the other hands, those select ventures are then assured the very best leadership support, due to the rigorous selection process that Vigo accelerator teams themselves have to undergo in order to qualify for the programme. This combination appears to be highly successful. To date, the most successful Vigo portfolio firm, Supercell, has experienced a 6 000 –fold sales growth from a non-trivial level of €150 000 in 2011 to a projected €1 Billion in 2013 (Strauss, 2013).

NIY young innovative firm development programme

The NIY programme represents another Finnish support initiative specially tailored to address high-growth new ventures. Unlike the Vigo programme, where accelerator teams make equity investments in portfolio firms, the NIY programme operates with public funding from the National Technology Agency Tekes.

The NIY programme was started in 2008 to address the dearth of high-growth new ventures in Finland. As noted above, studies have repeatedly reported relatively low levels of growth ambition among new ventures in Finland relative to their counterparts in other countries (Pukkinen et al., 2007). The NIY programme was designed to address this gap by applying some of the principles introduced in a high-growth policy report by the Finnish Ministry of Trade and Employment (Autio et al., 2007). That report called for the design of high-growth –specific policy initiatives that would adhere to the following principles:

- Orchestration across policy domains and support agencies. Recognising that high-growth ventures require broad-based support and that the supply of support initiatives was fragmented across different agencies, the report called for a high degree of cross-agency coordination in policy initiatives targeted at high-growth new ventures.

- Focus on high-quality entrepreneurs. Recognising that many high-growth firms rely on innovations often developed in universities, the report called for specific focus on new ventures that sought to differentiate from competition through innovative offerings.

- Hands-on support. Recognising that achieving growth is difficult and takes sustained effort, the report called for policy initiatives that offer hands-on support over longer periods.

- Selectiveness and proactiveness. Recognising that only a few new ventures have the ability and motivation to achieve rapid growth, the report called for highly selective support initiatives that are proactive in approaching candidates deemed to have the capacity for rapid organisational growth.

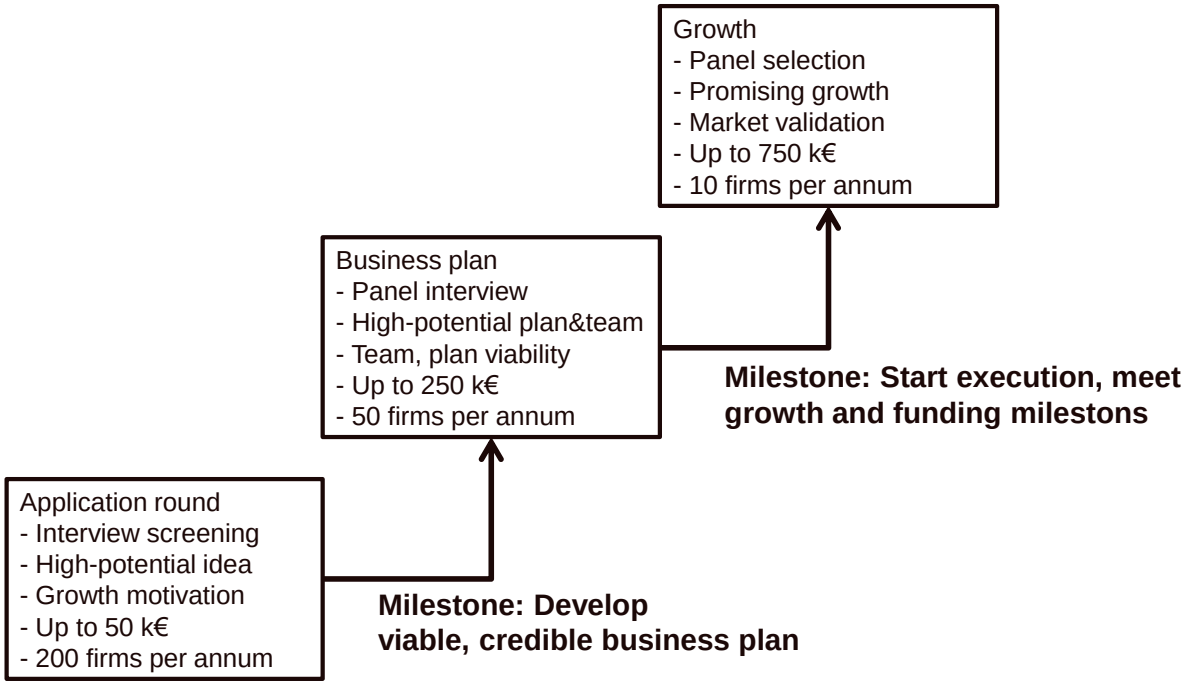
The last point – selectiveness – represents challenges in two fronts. First, it is challenging for policy-makers to introduce support policies that are targeted at a highly select group for firms, who are likely to succeed in any case. Support for new firms represents reallocations of tax money, so handing out support on a selective basis is always challenging to justify politically. Second, even if selectiveness is politically possible to achieve, governments still face the 'Picking the Winners' problem (Reid and Storey, 1995). If venture capitalists have a poor hit rate, how can governments to better? Thus far, the 'picking the winners' challenge has proved difficult to crack, thereby undermining the entire case of channelling support towards a select group of high-potential new ventures.

The NIY programme has been able to address the 'picking the winners' problem with an innovative approach. This approach basically consists of using several, progressively more challenging selection stages instead of one grand selection. The NIY programme is application-driven. Open calls for applications to participate in the NIY programme are issued twice per year. This requirement (participants have to respond to calls for applications) ensures that only firms with at least some motivation to grow are self-selected. These applications are reviewed by Tekes experts to ensure that the applicant has a strong motivation to achieve growth and promising potential to achieve that growth.

The review does not yet resolve the 'picking the winners' problem. The important innovation in the NIY programme is constituted by the use of not one but several selection points, with progressively more ambitious milestones associated with each selection point. At the preliminary stage, the NIY companies receive funding up to €50k to develop a business plan. The funding can be used to cover the cost of services and travel. With a business plan complete (with an emphasis on laying out strategies for growth) the firm moves to the first actual NIY phase. During this phase, the firm is interviewed by a panel consisting of VC investors, business angels and professional board members. If successful, the venture can receive up to €250k to invest in developing the business and going international. This funding can be used to cover some salary costs (up to 30%) and the procurement of support services. If successful, another panel review may be carried out, which, if successful, can open the door for up to €750k additional funding. The conditions for the use of the funding are the same as in the previous phase, and the purpose of this funding is to facilitate investment in growth.

This multi-stage selection process with progressively more demanding milestones and progressively more generous allocation of support converts the 'Picking the Winners' problem into a 'Retaining the Winners' process. This multi-stage selection process is illustrated in Figure 7.

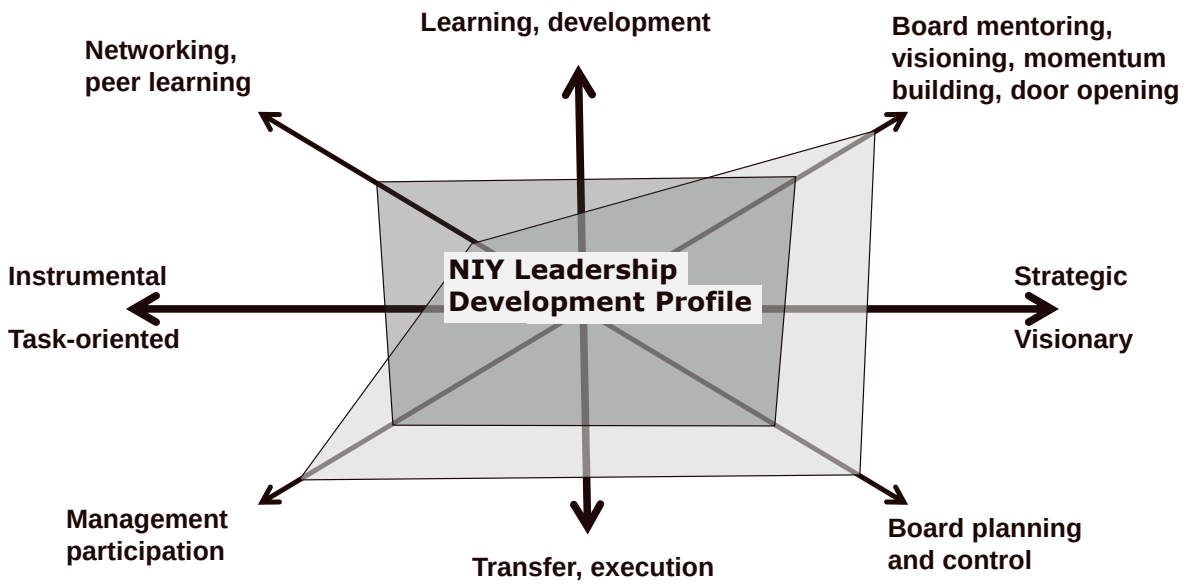
Figure 7 NIY: From 'Picking the Winners' to 'Retaining the Winners'



Compared to the Vigo programme, the NIY programme does not directly solicit equity investment in the venture, although such investment often complements NIY funding. The NIY funding is public support, which can be used to cover investment in the business and the purchase of support services (e.g., consulting, market research). Also, relative to the Vigo programme, the emphasis of the NIY programme is more on instrumental task execution facilitated by service procurement. Thus, the emphasis is more on skill transfer and outsourcing rather than internal capability development. Similar to Vigo, there is not much emphasis on networking, and there are no systematic efforts to facilitate learning from peers. However, given that NIY funding constitutes a branding and a certification mechanism in its own right, NIY companies often attract equity funding in parallel with NIY funding. This means that also Vigo-type benefits are achieved by many of the NIY companies. Indeed, many NIY companies become Vigo portfolio companies, making it difficult to disentangle leadership developments obtained by virtue of the NIY programme from those achieved through complementary funding.

The leadership development profile of the NIY programme is shown in Figure 8. The leadership development profile of the NIY programme is indicated with the red area, against the background of the corresponding profile for the Vigo programme, which is indicated with light yellow.

Figure 8 Leadership development profile of the NIY programme



The NIY programme has conducted an on-going impact evaluation since 2008, using several stratification and comparative population designs to allow control of self-selection bias, and thus, 'clean' evaluation of the impact produced by NIY on the development of high-growth new ventures. A key challenge in evaluating the impact of any support initiative is controlling bias resulting from the fact that participants self-select into the programme. To receive NIY support, you have to apply and pass the panel review. Thus, if is not surprising that NIY participants would achieve faster growth than non-NIY participants (as they do), given that this is the primary selection criterion. This is confirmed in Tables 1 and 2, which exhibit the growth of the NIY company cohort from 2006 to 2010 against a stratified comparison cohort during the same period (I.e., young-technology-based firms that are customers of Tekes but do not participate in the NIY programme).

Table 1 Growth of NIY firm cohort, 2006 - 2010

	2006	2007	2008	2009	2010
N	33	33	33	33	33
Missing	0	0	0	0	0
Mean	316	644	922	1530	1880
Mean, annual chg		104 %	43 %	66 %	23 %
Mean, chg 06-10					495 %
Median	170	271	423	732	1079
Median, annual chg		59 %	56 %	73 %	47 %
Median, chg 06-10					535 %
Std err	481	876	1085	2262	2484
Min	5	5	4	12	1
Max	2346	3780	4377	10838	10766
Cohort	10422	21260	30438	50477	62028
Cohort, annual chg		104 %	43 %	66 %	23 %
Cohort, chg 06-10					**495 %**

Table 2 Growth of comparison cohort, 2006 - 2010

	2006	2007	2008	2009	2010
N	93	93	93	93	93
Missing	0	0	0	0	0
Mean	436	588	983	932	912
Mean, annual chg		35 %	67 %	-5 %	-2 %
Mean, chg 06-10					109 %
Median	256	314	400	405	415
Median, annual chg		23 %	27 %	1 %	2 %
Median, chg 06-10					62 %
Std err	512	667	1752	1736	1827
Min	2	2	4	3	1
Max	2358	3204	11505	13674	15942
Cohort	40516	54729	91425	86707	84844
Cohort, annual chg		35 %	67 %	-5 %	-2 %
Cohort, chg 06-10					**109 %**

Table 3 shows the effect of the Tekes support received by the NIY firms on sales growth with a one-year time lag. The Heckman 2-step regression controls for selection of NIY firms into the programme. As can be seen, the regression indicates that Tekes support has had an effect on NIY firm growth beyond the selection effect (column indicated with light purple).

Table 3 Effect of Tekes support on NIY firm growth controlling for selection effect

Heckman selection model		Number of obs	=	107
two-step estimates		Censored obs	=	71
		Uncensored obs	=	36
		Wald chi2(5)	=	95.52
		Prob>chi2	=	0.000
Dep var: Sales at t1 (log)	Coef.	Std.err	z	P>|z|
Sales at t0 (log)	.624	.079	7.91	0.000
Founding year	-.026	.121	-0.22	0.83
High-tech sector dummy	-.120	.358	-0.33	0.74
Large city dummy	-.304	.482	-0.63	0.53
Tekes support, k€ (log)	**.312**	**.161**	**1.93**	**0.05***
_cons	51.596	242.671	.21	0.83
Selection to NIY				
Sector	.268	.127	2.11	0.03
Growth direction	.211	.100	2.10	0.04
_cons	-3.13	.759	-4.12	0.000
Mills				
Lambda	.023	.534	0.04	0.965
Rho	0.02755			
Sigma	0.84137			

The available evidence thus suggests that the NIY programme has had a real and positive impact on high-potential new venture growth above and beyond the selection effect. Similar to the Vigo programme, a NIY-type support intervention is able to facilitate quite broad-based leadership development support, with the support profile emphasising transfer of capabilities into the new firm, and also, the execution of instrumental tasks to achieve development milestones. A limitation of the NIY programme – again similar to Vigo – is that this support is available to a highly select group of firms, and the development support gets increasingly targeted as the venture passes development milestones. However, the progressive selection applied by NIY is innovative, as it effectively addresses the 'Picking the Winners' problem that afflicts many growth-oriented support initiatives that implement one-stage selection only. The multi-stage selection process of NIY reflects the philosophy that only a small number of new ventures possess real potential to grow, and that reliably predicting growth performance is extremely difficult due to venture-specific and environmental uncertainty. Therefore, a 'Retention' approach can be expected to focus leadership development support more effectively on true high-growth ventures.

Täsmä industrial value chain development programme

The Vigo and NIY programmes provided examples of highly sophisticated policy initiatives that apply state-of-the-art approaches to high-potential new venture support. Next I compare these initiatives against two examples of more traditional forms of new venture support. The first of these is provided by the 'Täsmä' programme, which seeks to facilitate the functioning of industry value chains through targeted technology development and networking activities.

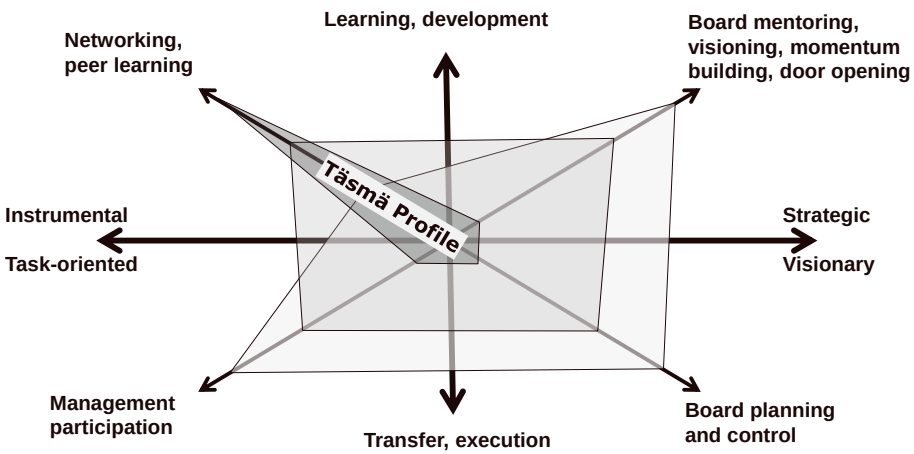
The word 'Täsmä' in Finnish evokes the notion of a high-precision focus. 'Täsmä' programmes represent a specific sub-category of Tekes' 'National Technology Programme' initiatives, which seek to boost innovation-led productivity and growth through subsidising the development and adaptation of new technological advances by industrial companies and other stakeholders. The 'Täsmä'

programmes stand out because of their narrow focus on a specific industrial value chain context. A 'Täsmä' programme could seek, for example, to enhance the value chain of injection-moulded plastic parts in response to the growing needs of the mobile telephony industry. This value chain involves intense interactions among, e.g., mould manufacturers, mobile phone designers, plastic part manufacturers, mobile phone manufacturers and materials suppliers (Autio et al., 2008). Interaction among these would be enhanced by the development of shared technology platforms such as shared CAD/CAM systems. To promote collective and cross-firm learning among value chain participants, a Täsmä programme would invite a core group of firms occupying different roles and positions within the value chain, and also, research groups specialising in the platform technology. These participants would be picked by a programme steering group consisting of industry representatives and other relevant stakeholders.

The Täsmä concept involves active, hands-on intervention and management of the programme participants. A major emphasis is laid on experimental learning and knowledge exchange among the participants, as these experiment with and develop alternative solutions to the problems at hand. Many projects may involve collaborative development among different firms – e.g., between mobile phone designers and mould manufacturers, for example. Seminars and workshops are frequently arranged to further promote knowledge exchange and dissemination and the exchange of experiences. This way, the Täsmä programmes seek to generate a learning externality which not only fosters the development and take-up of boundary-spanning technologies such as CAD-CAM and rapid prototyping applications, but also, associated experimentation with and learning on supporting business models as well as evolving customer tastes and preferences (Autio et al., 2008).

The above implies a specific profile in terms of leadership development associated with Täsmä programmes. These programmes do not seek to access and mobilise external resources such as equity funding, although participating firms and universities do receive R&D subsidy. The main emphasis of the programme is on learning externality and the promotion of peer learning that goes beyond technological experimentation, as the participating firms not only develop technology, but also, experiment with alternative business practices. The leadership development impact therefore takes the form new capability development that is oriented more towards task execution through learned practices than towards strategic planning and visioning. The leadership development profile of Täsmä programmes is illustrated with turquoise colour in Figure 9 against the backdrop of the profiles of NIY and Vigo programmes.

Figure 9 The leadership development profile of Täsmä programmes



Because Täsmä programmes foster learning externality and experimentation, their impact on new venture growth is indirect. Because they foster learning from experimentation, the contribution is very much directed at instrumental and task-oriented learning. Thus, the salient dependent variable to evaluate Täsmä's effectiveness is learning – I.e., technological learning and the learning of effective business practices. These are illustrated in Table 4 for technological learning and in Table 5 for business learning.

In Tables 4 and 5, 'community identity' measures how strongly the respondent firm identified with the learning community that the Täsmä intervention sought to facilitate. This is an indirect measure of the learning externality effect that the Täsmä programmes sought to induce. Table 4 shows that the effect of the network facilitation efforts by Täsmä programmes (operationalised as 'interaction frequency) on technological learning is fully mediated through its effect on learning externality (operationalised as 'community identity'), thereby suggesting that the effect is indeed driven by learning externalities created by the programme intervention.

Table 4 Technological learning induced in Täsmä programmes (source: Autio et al, 2008)

	Direct technological learning						Technological distinctiveness					
	Std Beta		Std Beta		Std Beta		Std Beta		Std Beta		Std Beta	
Strength of community identity					**0.271**	*					**0.277**	*
Support from programme management			**0.265**	*	0.163				-0.020		-0.124	
Interaction frequency			**0.218**	+	0.153				**0.259**	*	0.193	+
Technological diversity of interaction	-0.060		-0.113		-0.184		0.104		0.037		-0.035	
Extent of external interaction	0.115		0.006		0.014		0.083		-0.016		-0.008	
Project technological sophistication	0.148		0.168		0.084		0.021		0.034		-0.052	
Firm technological distinctiveness	0.345	*	0.304	*	0.304		0.631	***	0.609	***	0.608	***
Project duration	0.001		0.071		0.091		-0.187		-0.158		-0.137	
ProMuovi dummy	0.101		0.095		0.049		0.156		0.189		0.143	
Pigments dummy	-0.119		-0.086		-0.098		0.100		0.090		0.079	
(Constant)		***						***		**		***
Adj. R2	0.056		0.133		0.167		0.299		0.330		0.370	
F	1.552		2.110	*	2.305	*	4.958	***	4.556	***	4.815	***
F Change			3.578	*	3.292	+			2.344	+	4.547	*
df (residual)	58		56		55		58		56		55	

1-tailed tests, controls 2-tailed; p<0,10+; p<0,05*; p<0,01**; p<0,001***

Täsmä's effects on business learning (I.e., learning about evolving markets and learning how to internationalise the business) are shown in Table 5. We can see that the Täsmä programmes do not directly facilitate learning about markets. However, we also see that the peer learning fostered by Täsmä programmes did drive business process learning in the form of learning how to internationalise the business. This provides evidence that the peer learning externality had been effective in fostering the development of instrumental leadership capabilities within the participating companies.

Table 5 Business learning induced in Täsmä programmes (source: Autio et al, 2008)

	Market learning						Internationalisation learning					
	Std Beta		Std Beta		Std Beta		Std Beta		Std Beta		Std Beta	
Firm community identity					0.153						**0.282**	*
Support from programme management			**0.241**	*	**0.183**	+			**0.346**	**	0.240	+
Interaction frequency			**0.322**	**	**0.286**	*			**0.312**	*	0.242	+
Technological diversity of interaction	0.064		-0.017		-0.057		0.169		0.091		0.020	
Extent of external interaction	0.240	+	0.093		0.098		0.142		-0.016		-0.011	
Project technological sophistication	0.119		0.143		0.096		-0.009		0.020		-0.079	
Firm technological distinctiveness	0.138		0.091		0.090		0.091		0.034		0.033	
Project duration	-0.070		0.010		0.021		-0.011		0.092		0.120	
ProMuovi dummy	0.232	+	0.241	+	0.215		-0.068		-0.079		-0.126	
Pigments dummy	-0.259		-0.232		-0.238		-0.133		-0.097		-0.110	
(Constant)		*						*				
Adj. R2	0.180		0.290		0.297		0.022		0.139		0.173	
F	3.032	**	4.010	***	3.750	***	0.831		1.988	+	2.153	*
F Change			5.712	***	1.250				5.494	**	2.895	+
df (residual)	58		56		55		48		46		45	

1-tailed tests, controls 2-tailed; p<0,10+; p<0,05*; p<0,01**; p<0,001***

In summary, we see that the leadership development profile of networking-oriented policy interventions is very different from the more selective, funding and equity-oriented policy interventions. On the upside, such interventions can effectively reach a larger group of new ventures due to their less selective nature. Also important, learning from peers emphasises learning by doing and learning from doing, thereby enhancing the development of instrumental leadership capabilities. On the downside, such interventions may be less effective in facilitating the development of strategic leadership capabilities.

Danish Growth Houses

The Danish Growth Houses were launched in June 2006 to promote high-growth new ventures in Denmark (OECD, 2013)[1]. Pursuant a reorganisation of the Danish regional governance structure, a total of five Growth Houses were created, one per region. In this administrative overhaul, the Growth Houses replaced 15 business service centres that offered SME support services under the old governance structure. The Growth Houses became operational in January 2007.

The Growth Houses represent a one-stop-shop type approach to growth facilitation, with Growth Houses acting as coordinating nodes in a network of resource and service providers from public and private sectors alike. The network coordinated by Growth Houses includes local business service providers, private-sector service providers, research parks and incubators and Danish support programmes and agencies such as the Vaekstfonden (growth fund), the Danish Trade Council, Connect Denmark and GTS nettet. As such, the growth houses are organised as foundations, funded by the Danish National Agency of Enterprise and Construction together with local municipalities. For example, the Copenhagen Growth House (Vaeksthus Copenhagen) is supported by 29 municipalities in the Copenhagen metropolitan region. The Growth Houses operate on a non-profit basis and offer impartial support and advice free of charge. The budget of the Danish Growth House initiative is shown in Table 6 (OECD, 2013).

[1] The Danish and Dutch case examples rely mostly on the OECD LEED benchmarking analysis of public programmes for high-growth firms (OECD 2013)

Table 6 Annual Budget of Danish Growth Houses Provided through National Block Grants (mUSD)

Year	2007	2008	2009	2010	2011	2012	2013
Total budget, mUSD	**15.6**	**15.5**	**16.0**	**16.1**	**16.3**	**16.7**	**17.0**

The Growth Houses operating primarily in a coordination and referral role, they undertake relatively little direct advisory and support activity by themselves. However, they do play an important selection and assessment role, and they also provide direct services, primarily in the early stages of the customer engagement. Similar to the NIY and Vigo programmes, the Growth Houses emphasise facilitation of firm-level growth. This is reflected in their selection procedure, which emphasises growth potential and growth motivation, again similar to the NIY and Vigo programmes. However, compared to NIY and Vigo, the selection procedure implemented by Growth Houses is less strict, and customers are allowed from all sectors. Unlike NIY, the Growth Houses do not require their customers to be innovative young firms. However, it is required that the firms are up to five years old and must have employed at least five employees during their first two years. In 2012, some 30% of the Growth Houses' clients were in industry, raw material extraction and utility services; some 20% in trade and transport; some 20% in business services; some 10% in information and communication sectors; and the remainder in building and engineering works; culture; public administration, education and health; and in real estate (OECD, 2013). Thus, the sector scope is broad, and quantitative targets are also high: in 2011, the goal of the Growth Houses was to provide an initial business diagnosis to 2 650 clients, and over 2 800 were actually processed (OECD, 2013).

The services offered Growth Houses are tiered at three levels. The entry level consists of selection and growth diagnosis. The selection process checks selection criteria, notably, growth motivation and potential. A growth diagnosis is performed using a tool developed for this purpose. The 'growth wheel' tool supports a comprehensive analysis of the firm's business concept, customer relations, organisation and operations. In each of these areas, five specific aspects are evaluated, such as the quality of business processes; IT systems; branding; and customer portfolio. This assessment informs the creation of a growth plan. This diagnosis informs the referral of the company to appropriate service providers, which may be either private or public sector providers. The use of private-sector providers is encouraged, and the objective of the programme is to refer at least 80% of qualified clients to external service providers (the Growth Houses themselves can take up to 20% of their clients to their own programmes), and of these 80%, at least 70% need to be private-sector entities (OECD, 2013). Overall, the Growth Houses support network incorporates over 2 500 private-sector service providers.

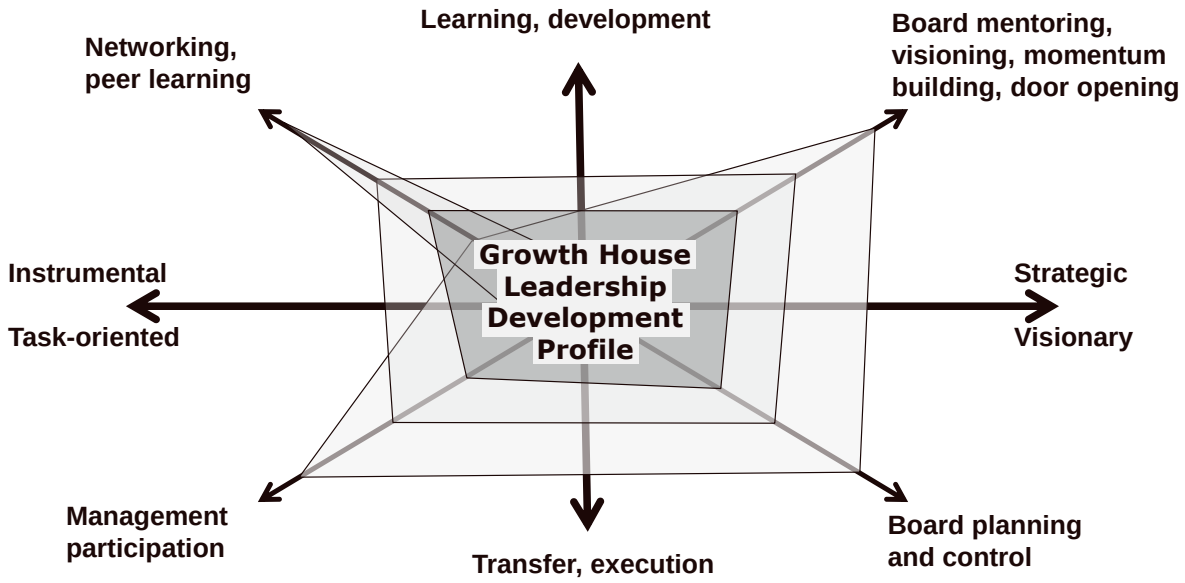
As the third aspect of Growth House activity, the Growth Houses may also participate in Danish and EU projects that seek to facilitate new firm growth, for example, by introducing new services and infrastructures for this purpose.

Although the Growth Houses refer clients to service providers, the choice of the provider and the type of the service ultimately resides with the client – although the growth plan informs this choice. According to the available information, there are no milestones within the growth plan, and the support is not tied to the achievement of those milestones[2]. There is also no integral equity funding element in the programme. Thus, the Growth House initiative is less hands on than the Vigo and NIY

[2] The recent OECD report has recommended the inclusion of milestones to GH operations.

initiatives. These features give the Growth Houses a fairly rounded but not very extensive leadership development profile, as illustrated in Figure 10.

Figure 10 Leadership Development Profile of the Danish Growth Houses



Because of its relatively less hands-on approach as compared to Vigo, NIY and even the Täsmä programmes, the Danish Growth Houses emphasise learning and development relatively more than skills transfer and execution. On the other hand, there is a wide range of services available, and the choice of the services is not tightly regulated. The Growth Houses do offer a specific leadership development programme – Vaekst via ledelse (www.vvl.dk) – but this three-day workshop is not compulsory. The relatively less hands-on approach is compatible with the broad scope and large volume of the Growth Houses, which would be strained to support a more interventionist approach. Relative to Vigo and NIY, the Growth Houses have more encompassing missions, as they are tasked with facilitating Danish SMEs' growth ambitions in general, and also, facilitating the development of private-sector service provision for growth-oriented SMEs. There are early indications that Growth House participants do achieve faster short-term growth than a control group, but further evaluations of this aspect are likely necessary, with appropriate control for the selection effect.

Dutch Growth Accelerator Programme

The Dutch Growth Accelerator Programme was started in 2009 to address perceived Dutch weakness in the production of high-growth new ventures. Unlike the name of the initiative suggests, though, this is not an equity funding initiative, but rather, a hands-on training initiative that seeks to strengthen new ventures' growth capabilities through a sustained intervention that spans over five years.

The distinctive features of the Dutch Growth Accelerator Programme are:

- Intensive training and managerial skill development
- High degree of selectiveness: Only two hundred ventures are admitted into the programme
- Strong emphasis on peer learning and experience exchange
- Combination of both firm-level and CEO-level development plans

- Involvement of a consortium of consultants and management development coaches

Given the above characteristics, the Dutch Programme could almost be called an 'Academy' instead of an 'Accelerator'. Similar to the Danish Growth House initiative, the Dutch Programme does not require specific sector focus as a selection criterion; a strong growth orientation suffices. There are also no age criteria for selection. Instead, the Dutch Programme seeks to pick ventures that have annual sales turnover in between 3 and 5 Million Euro, and a verified ambition (by a selection panel that includes external members) to reach an annual sales turnover of at least €20 Million in five years' time – and for the entrepreneur to be willing to submit to regular peer reviews. The programme intervention is then customised to support this ambition. The five-year intervention consists of four phases (OECD, 2013). These are:

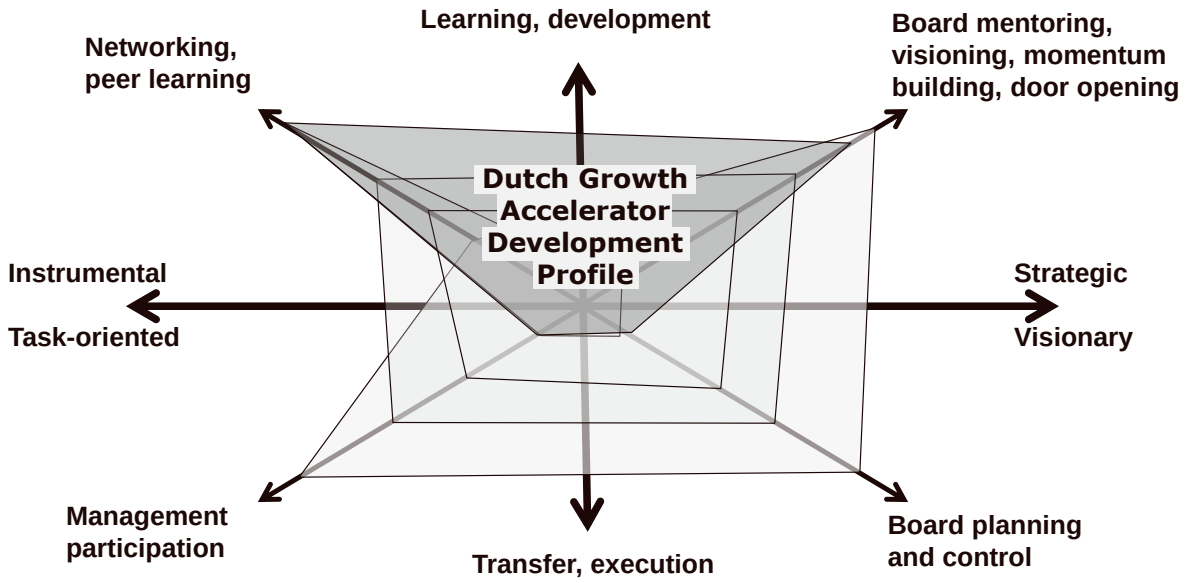
- **Planning phase**. During the first year, the programme concentrates on developing comprehensive growth and personal development plans for the venture and for the focal entrepreneur. These are called the 'Strategic Picture' and the 'Personal Picture', respectively. These plans are similar to the Danish Growth House plans, although the conceptual frameworks used differ somewhat. A distinctive aspect of the Dutch Programme is its heavy reliance on growth models developed in entrepreneurship research, such as the Greiner (1972), Churchill and Lewis (1983) and the Kazanjian (1984) stage models of new venture growth[3].
- **'Realisation'**. During years two and three, the Dutch Programme starts shifting towards operational implementation of the 'Strategic' and 'Personal' Pictures. These years are punctuated by regular workshops and training and professional development interventions (including peer learning sessions) that focus on specific themes. Each entrepreneur also benefits from the services of a personal 'Growth Coach', with whom they are expected to meet every two months. Also, specific 'Inspiration' sessions are organised to brainstorm new growth paths.
- **'Growth Start'**. This phase starts during year four. In essence, the development plans laid out during the Planning Phase and revised during the Realisation Phase are further refined and specific action plans implemented. Workshops and peer learning sessions continue and the participants also receive one-to-one advise and coaching.
- Year five focuses on execution and draws up revised growth plans. Also, Dragon's Den –type sessions are organised, and the participants officially graduate from the programme.

The programme intervention is managed by a consortium of external consultants including PriceWaterhouseCoopers, Philips Innovation Services and Port4Growth. As noted above, the emphasis of the programme is on coaching, training and peer learning, and although the realisation of firm-level and personal growth plans is monitored, continued support is not tied to milestones. There is no explicit equity funding element in the intervention, but rather, the cost of consulting is covered by the Dutch government and from the firm-level participation fees of 75 k€ per participant. This again emphasises the academic training aspect of the Programme, almost resembling an executive MBA degree. The absence of an equity or similar funding aspect also means that while the coaching and training is quite intense and hands-on, there is no active development input into the daily operations of the participating ventures, e.g., in the form of board participation, contact intermediation, strategy execution, fundraising and similar activities. These characteristics give the Dutch Programme a leadership development profile that emphasises learning and managerial

[3] However, the material does not list more recently developed growth models that also take the firm's context into account.

competence development but de-emphasises management participation, board planning and control and skills transfer and execution, as shown in Figure 11.

Figure 11 Leadership Development Profile of the Dutch Growth Accelerator Programme



New venture mentoring initiatives

Finally, I assess the leadership development impact of mentoring programmes. I do this because mentoring programmes represent a quite popular form of policy intervention to facilitate leadership development in new ventures. However, because there have been few evaluations of the impact of such programmes on new venture performance, there is no strong evidence one way or the other (Crompton, 2012). Therefore, we do not focus on any given mentoring programme but consider mentoring activities in general.

Overall, new business mentoring can take many forms. Professional mentors provide coaching-like services, often delivered in one-to-one sessions with key executives of the ventures that are being mentored. Typically, new business mentors seek to operate as a sounding board that gives confidential feedback on the executive's daily problems and challenges. They may also seek to enhance executives' self-awareness and provide individual feedback on their leadership styles, as displayed in their interactions with other management team members, subordinates and external stakeholders.

Another form of mentoring seeks to connect new ventures with experienced managers. Rather than coaching, this form of mentoring rests upon the belief that (entrepreneurial) leadership can be learned through experience – and that this experience can be taught to others. Relative to the 'coaching' mode of mentoring, this type of mentoring emphasises skills and social capital learned and acquired through experience. In other words, the skill of effective entrepreneurial leadership cannot be codified, but rather, it has to be learned through trial and error.

There exists little empirical evidence in support of either of the two basic modes of mentoring. However, the little evidence there exists seems to support the efficacy of coaching as a potent

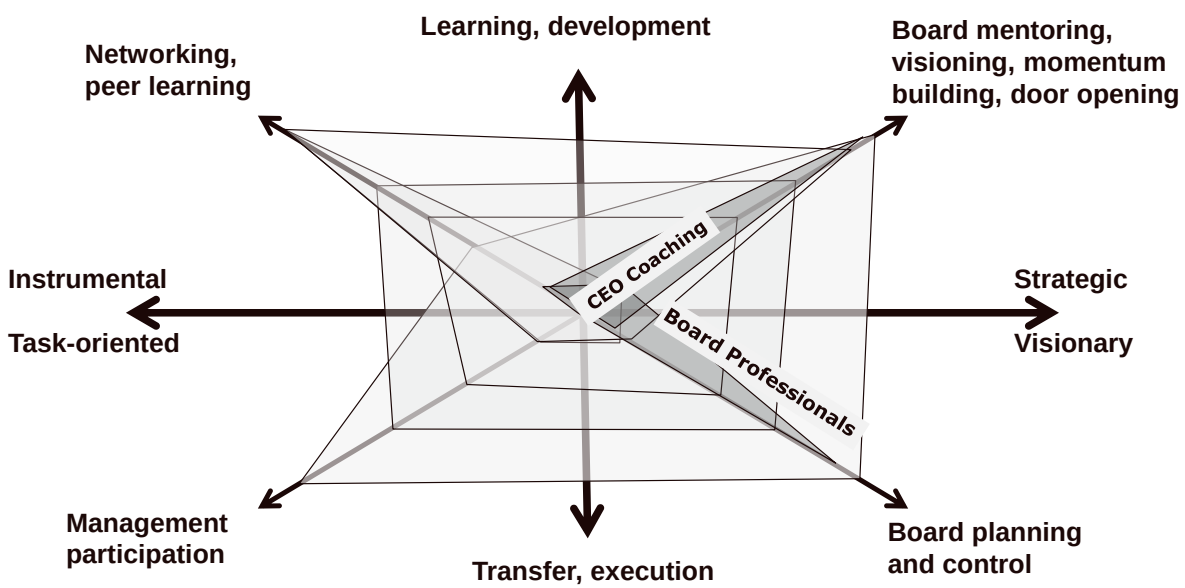
mechanism for leadership development in high-potential new ventures (Crompton, 2012). Coaching rests on independent observation and immediate feedback. It thus represents a form of behavioural learning, under which entrepreneurial leaders receive immediate feedback on the efficaciousness of their leadership behaviours. it is easy to see why this form of leadership development would be effective, although expensive.

In contrast to coaching, which seeks to facilitate the learning and development of leadership skills within the high-growth venture, the other form of mentoring seeks to facilitate the transfer and deployment of managerial skills and social capital for the benefit of the high-potential new venture. This form of mentoring treats leadership skills as a sticky experiential skill that needs to be transferred by moving individuals. In consequence, many mentoring initiatives seek to 'marry' high-potential new ventures with experienced business leaders.

There is even less research on the efficacy of this second type of mentoring in leadership development in high-potential new ventures. My theory review suggests, though, that the efficacy of this second type of mentoring could depend on the type of managers linked up with high-potential new ventures. Some mentoring programmes seek to facilitate connectivity between new ventures and experienced managers from large corporate settings. While this type of activity might help strengthen the governance and control aspects of the new venture's board of directors, it is not guaranteed that corporate managers would be able to contribute much beyond that activity, given the very different leadership challenges entrepreneurs and corporate managers face. On the other hand, there are also mentoring initiatives that seek to facilitate the connectivity between new ventures and serial entrepreneurs. Such initiatives can be expected to be more successful, given the similarity of leadership challenges faced.

The above discussion suggests two different types of mentoring profiles – coaching and board participation. Their respective leadership development profiles are shown with dark colour in Figure 12.

Figure 12 Leadership development profiles of different types of mentoring activities



Discussion and conclusions

The importance of high-growth new firms for job creation and economic dynamism has been widely acknowledged. What has been less widely recognised, however, is that designing policy interventions to maximise the growth potential of new ventures is challenging. However, the point that high-growth new ventures face unique and highly demanding leadership challenges has received arguably the least recognition thus far. As my literature review showed, leadership challenges in high-growth new venture contexts have received only scant attention from researchers thus far, and the unique aspects of those challenges – i.e., orientation towards external stakeholders and emphasis on instrumental and transformative leadership behaviours – remain yet to be fully recognised and addressed by policy initiatives.

In this paper I have sought to shed some light on what is actually known about leadership challenges faced by high-growth new ventures and how these differ from, e.g., those usually faced in corporate contexts. Based on this literature review, I developed a model that helps highlight differences across policy support initiatives directed at high-growth new ventures, in terms of their potential contribution to leadership development in such ventures. The four case studies focusing on new venture accelerators, high-growth new venture funding support, networking and peer learning, and mentoring show that different support initiatives can make drastically different contributions towards leadership development in high-growth new ventures. Whereas some support initiatives emphasise capability transfer to support strategic and visionary leadership abilities of high-growth new ventures, other initiatives appear to support the build-up of ventures' internal leadership capabilities, perhaps to assist the development of instrumental leadership skills to aid the accomplishment of defined tasks and milestones. Although the model is not necessarily exhaustive, it is hoped that the model provides one way of thinking about leadership development from a policy perspective, thereby helping policy-makers to make sense of the different tools in their repertoires.

To date, there have been few, if any, evaluations of the effectiveness of different policy interventions in terms of their ability to contribute to leadership development in high-growth new ventures. In the evaluation evidence cited in this paper, the evaluation has focused on the impact of the initiative as a whole, rather than on any specific aspect of leadership development. Distinguishing the effect of leadership development from, e.g., the resource mobilisation effect in any given support initiative would likely be prohibitively difficult. Although there is some evidence highlighting the relative effectiveness of different leadership behaviours in new ventures (e.g., Ensley, Hmieleski, et al., 2006; Ensley, Pearce, et al., 2006), conclusive evidence of the ability of dedicated support initiatives to deliver a noticeable impact through new venture leadership development remains elusive. With this limitation in mind, I nevertheless offer the following tentative recommendations for policy initiatives that seek to facilitate leadership development in high-growth new ventures:

- **Selectiveness**. The importance of selectiveness, of course, has been long emphasised in the context of high-growth entrepreneurship policy (Autio et al., 2007). However, this notion also applies to support initiatives that seek to develop the leadership capacities of high-potential new ventures. Developing leadership capabilities is resource consuming and takes a sustained effort, so it is important to ensure that this resource is channelled to those ventures who have the best potential to achieve rapid growth. Of the interventions reviewed, the Vigo and NIY programmes were the most selective, as was the Dutch Growth Accelerator Programme (although to a slightly smaller degree). Also the Danish Growth Houses practiced careful selection, but their scope was already significantly broader.

- **Proactiveness**. A related point concerns proactiveness. Given that truly high-potential new ventures are rare, there is a good chance that they would already be known to policy-makers. This aspect was demonstrated in the NIY programme, and also, in the Täsmä and Dutch Growth Accelerator programmes. Proactive approach to support appears particularly relevant for leadership development, given the time lags involved.

- **Hands-on approach**. Perhaps with the exception of mentoring through board professionals, all of the cases reviewed exhibited a hands-on approach to supporting high-potential new ventures. The initiatives with the strongest participation in the ventures (notably, the Vigo accelerator programme) also achieved the broadest leadership development impact. The hands-on training and coaching manifest in the Dutch Growth Accelerator Programme should be able to yield a lasting leadership development impact, given its sustained nature and emphasis on peer learning and personal coaching.

- **Participation in upside returns as well as downside risk**. Given that leadership development takes sustained effort, it is important to ensure long-lasting, committed partnership between high-potential new ventures and their stakeholders. This aspect is most readily realised through equity investment, e.g., in the context of new venture accelerators. The more sustained and resource intensive the development effort, the more relevant such arrangements are likely to become. This aspect was the most manifestly present in the Vigo Programme, and, to some degree, in the NIY Programme. However, the Dutch and Danish interventions did not explicitly exhibit this aspect.

- **From picking the winners to retaining winners**. The multi-stage selection implemented in the NIY programme represents an innovative approach to the 'Picking the Winners' problem. Given that it is virtually impossible to predict new venture success especially in uncertain environments, an alternative approach is to implement a staged selection approach. The NIY experience suggests that such approaches may be more effective in identifying and retaining the new ventures with the highest potential for growth, thereby ensuring that support efforts are targeted at the right recipients. It seems that also the Dutch and Danish Programmes could benefit from a more explicit milestone approach.

- **Combination of skills transfer and skills development**. Of the cases reviewed, some emphasised skills transfer (e.g., board mentoring) whereas others emphasised leadership skills development (e.g., coaching, peer learning). Here, the challenge consists of balancing the two. Developing internal capabilities takes time, so combining skills transfer with skills development might well prove helpful in addressing both short-term and long-term leadership development needs.

- **Mentoring, but with care**. When implementing mentoring initiatives (notably, initiatives emphasising non-executive board memberships), it appears important to ensure that the ventures are linked with mentors that have the right leadership skills. As noted previously, new ventures differ from corporate contexts in terms of their task focus, consequent need for instrumental leadership, and their outward-oriented emphasis in leadership behaviours. in many high-growth ventures, strategy is created through iterative experimentation (i.e., strategizing by doing) rather than planning (i.e., strategy by planning). This applies particularly to new ventures that seek to create new markets. Board mentoring initiatives should be aware of this difference when facilitating linkages between high-potential new ventures and prospective board members. Of the interventions reviewed, the Dutch Growth

Accelerator Programme stands out as a good practice example of coaching and peer mentoring.

- **Networking and peer learning are more important in uncertain environments**. The Dutch Growth Accelerator and the Täsmä programmes have demonstrated the importance of peer learning for leadership development. Here, it is important to recognise that peer learning is likely to be more important in uncertain and unpredictable contexts, such as new industry creation, where the 'best' practices are yet to be found. In such contexts, experimentation is an important driver of learning, and the facilitation of peer learning and experience exchange could therefore support wide-reaching learning benefits among participants in the new sector or context.

In conclusion, I have highlighted distinctive aspects of leadership in high-growth venture contexts and introduced a framework to analyse the leadership development contributions of different support initiatives. The framework shows that there are significant differences even among policy initiatives that explicitly seek to support high-growth orientation and growth performance in new ventures. Across the programmes, there are important differences in terms of selectiveness, industry and firm scope, resource provision, training, networking, peer learning and the length of the intervention. The different programmes have been implemented in different contexts, responding to slightly different policy needs. The different profiles nevertheless show that there should be significant scope for peer learning among policy interventions, as experience accumulates and rigorous evaluation of the delivered growth impact becomes possible.

While preliminary, the framework may therefore provide useful insight for policy-makers, as they seek to develop new ways to facilitate new venture growth. I hope that further studies will develop the model further, and I also hope that the gaps in our understanding of optimal leadership styles and challenges in new venture contexts will prompt further research into this under-explored area.

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