

Mid-term review of the Business Innovation Fund

Business Innovation Fund
FORNYELSESFONDEN

Executive summary

Background and purpose of the review

The Business Innovation Fund was established as part of a political agreement in 2009 regarding the distribution of the Globalisation Fund Reserve for innovation and entrepreneurship etc. for the period 2010-2012. The fund has had a total budget of DKK 760m over these three years. The purpose of the Business Innovation Fund is to promote innovation and market maturation of green-economy products and welfare solutions. It is, furthermore, part of the fund's purpose to support Structural Change Projects in economically strained geographic areas.

The fund is to contribute to especially small and medium-sized enterprises being able to overcome the barriers that might be related to innovation and market maturation of new products and services. The key success criteria are to generate increased sales, employment and exports.

As an input to the decision process regarding a future strategy for the Business Innovation Fund, the Danish Business Authority has asked Deloitte Consulting to conduct a mid-term review of the fund's activities. The purpose of the review is to *'examine to which extent the projects of the Business Innovation Fund contribute to meet the purpose of the fund, including making probable whether the Business Innovation Fund will generate a business policy effect in terms of increased sales, employment and exports'*.

Main conclusions

Deloitte's main conclusions from the mid-term review of the Business Innovation Fund are summarised in the below box and will be elaborated in the following executive summary.

Main conclusions from the review

- **The Business Innovation Fund meets the purpose** part of which is that the support is to be primarily focused on small and medium-sized enterprises (SMEs). Furthermore, there is a wide variation in the supported projects regarding geography and project types – innovation projects, market maturation projects as well as Structural Change Projects are clearly represented in the project portfolio.
- **The Business Innovation Fund has a distinct commercial focus** where the supported projects are typically placed late in the innovation process or in the market maturation phase. Thereby the fund differentiates itself from other business support schemes that often have a more research-focused aim. Among other things, by means of requiring business plans and the use of external sub-

ject matter expert opinions, the Business Innovation Fund often contributes to strengthen the commercial foundation of the projects.

- **The Business Innovation Fund differs from other business support schemes** by virtue of its focus on the SME segment and its support to market introduction of new products and services. 8 out of 10 supported projects have not received any other public support.
- **The projects expect sizeable effects – not least in an international context.** The 80 projects that have received support (approx. DKK 340m) to innovation and market maturation expect increased sales after 5 years of approximately DKK 15bn, including DKK 10bn in exports. At the same time, employment is expected to increase by 6,400 persons.
- **The Business Innovation Fund contributes to overcome critical barriers.** The projects are still at an early stage where it is not possible to measure directly whether the expected effects are likely to be realised. But the review shows that the fund, to a considerable extent, helps the companies overcome critical barriers in order to achieve success, e.g. access to capital and customer confidence in new products. Thus, the Business Innovation Fund strengthens the projects' chance of success and the possibility of achieving the expected effects.
- **The Business Innovation Fund is a profitable economic investment.** The activities of the Business Innovation Fund are profitable in economic terms. If public fund deposits in the Business Innovation Fund are considered an economic investment, a 5-10-doubling of the invested funds appears to be a realistic size of the yield in five years. Increasing the funds of the Business Innovation Fund cannot, however, be expected to provide similar large effects because the effects depend on whether there are relevant projects to be supported.
- **The Structural Change Projects have a weaker commercial basis.** According to its legal framework, the Business Innovation Fund is to support business-related change in economically strained geographic areas. In general, the commercial basis of the Structural Change Projects appears less clear than for the other projects, and the conditions for achieving effect by means of increased sales and employment appear to be less favourable. Deloitte assesses that the projects' contribution to business-related change is uncertain, though difficult to assess for the time being.

High fulfilment of objectives

The review shows that the activities of the Business Innovation Fund to a very high extent have been in accordance with the objectives. Until now, the fund has supported 91 projects by means of subsidies and guarantees of a total of DKK 427m. More than 80 per cent of the support has been provided to SMEs with up to 50 employees.

The support is rather equally distributed between innovation projects and market maturation projects while there is an overweight in the green area in the distribution between green-area projects and welfare projects. In addition, support has been provided to 11 Structural Change Projects with a total amount of DKK 88m.

Granted funds and projects in progress, February 2012

Activities	Action area	Number of projects	Granted funds (DKK million)	Share of granted funds (per cent)
Innovation	Green	24	118	28
	Welfare	7	36	8
Market maturation	Green*	24	108	25
	Welfare**	25	77	18
Structural Change in economically strained areas	-	11	88	21
Total		91	427	100

* Including 3 guarantee projects that have been provided guarantees of a total of DKK 32m.

** Including 7 projects regarding public procurement that have received subsidies of a total of close on DKK 12m.

A clear profile in the landscape of business support schemes

The Business Innovation Fund has had a clear focus on the commercial possibilities of the projects. The funds have been targeted at companies and projects working at developing or introducing specific products and services with a view to sales on the Danish and international markets. Furthermore, the fund has contributed to bringing the projects closer to the market and thereby shortening the way to market introduction, e.g. via focus on user-driven innovation.

This focus is both a result of the legal framework and an intended strategy of differentiation vis-à-vis other business support schemes, including schemes more aimed at research. The beneficiary companies, to a large extent indicate that they also in practice experience this difference relative to other programmes. 8 out of 10 projects have not received other public support than that from the Business Innovation Fund, which indicates that the fund has a clear profile among the existing public business support schemes.

Especially in the welfare area, the fund is experienced to have a special profile – where other support programmes are typically driven by public players, the welfare projects under the Business Support Fund arise from private companies' efforts to develop solutions, products and services that are attractive to the welfare sector.

More than 80 per cent of the beneficiary companies assess that the Business Innovation Fund is directly usable as a reference – this especially applies to market introduction. At the same time, almost half the companies respond that thanks to contents and quality requirements in the application material, the Business Innovation Fund has contributed to developing or strengthening the project's strategy regarding market introduction and potential markets. This applies to the innovation projects as well as the market maturation projects.

In general, the companies experience significant barriers in relation to innovation and market maturation

Market imperfections and barriers related to the development of new products and services are central parts of the theoretical basis for the Business Innovation Fund, and overcoming the barriers that the beneficiaries will typically meet in either the innovation or the market maturation phase is so to speak the transmission mechanism through which the fund's efforts provide an impact.

Therefore it is a significant part of the mid-term review to analyse and assess to which extent the Business Innovation Fund contributes to the companies being able to overcome relevant barriers. The analysis has been based on 11 specific potential barriers, which have been listed in the box.

The review shows that the identified barriers are generally common and they are experienced by the companies to be important or critical to overcome in order to successfully conduct the innovation and market maturation projects. From the dialogue with each of the projects, it is, furthermore, Deloitte's opinion that the listed barriers essentially cover the challenges that the companies experience.

Barriers

1. Customer confidence in new products/services
2. Customer confidence in small companies/start-ups
3. Development and test
4. Sales references
5. Market knowledge
6. Development cooperation
7. Time frame
8. Capital
9. Level of ambition
10. IPR
11. Scale efficiency

This picture varies somewhat across the 11 barriers and between the innovation projects and market maturation projects – as well as between the green-area projects and the welfare projects. On the basis of the review, the most prevalent and most significant barriers appear to be lack of risk capital, limited customer confidence in new products/services and a long time frame from initiating the innovation/market maturation phase to actual market introduction. The description and the analysis of the barriers are elaborated in chapter 5.

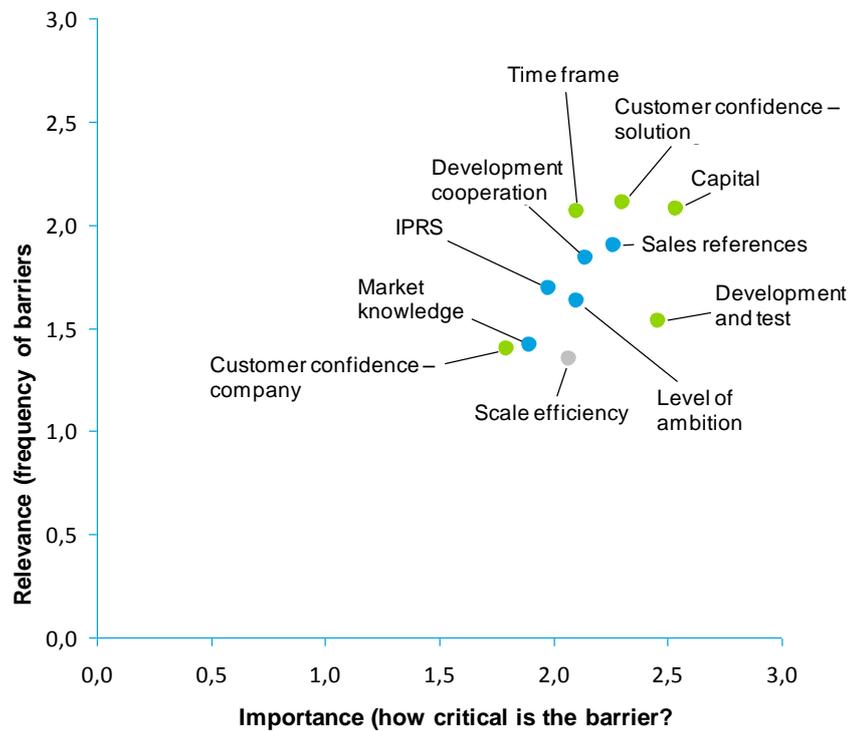
The Business Innovation Fund contributes to overcoming the most significant barriers

More than half the beneficiary companies indicate that the project might not have been realised without support from the Business Innovation Fund. The larger part of the other respondents assess that the project's development and market introduction would have taken place on a smaller scale, that fewer competences would have been involved and that the probability that the project would have been sufficiently focused in the development and market introduction phases, would have been smaller.

More than 90 per cent of the beneficiaries assess that the support from the Business Innovation Fund has advanced market introduction by more than six months. And more than one in four companies estimate an effect of more than two years in terms of advancing market introduction.

Moreover, the review shows that the most prevalent and most critical barriers are also those that the Business Innovation Fund is best at addressing according to the projects. In order of priority, this relates to *lack of possibility to raise capital, limited customer confidence in new products and services, challenges in developing and testing as well as prolonged innovation or market maturation phases*. This is illustrated in the below figure.

Map of barriers and the Business Innovation Fund’s contribution



Note: The relevance of the barriers and the importance of overcoming them are scored on a scale from 0 (not at all) to 3 (to a large extent) and the figure shows the average score for the individual barriers on the two dimensions.

The colouring indicates the projects’ assessment of which of the barriers the support from the Business Innovation Fund has been especially effective to help overcoming.

Even though there is a methodical uncertainty related to interpreting and assessing the extent of the companies’ survey replies, the review does help the Business Innovation Fund to strengthen the companies’ likelihood of success.

Overall, it is Deloitte’s assessment that the Business Innovation Fund has tangible additionality effects at project level. In addition to the companies’ survey replies, this is based on our impression from in-depth interviews with a number of the companies.

The expected effects on sales, exports and employment are significant

As part of the application process, the beneficiaries have been asked to indicate their expectations to growth in sales, exports and employment at project closing as well as 5 years after.

The 80 projects (excl. the Structural Change Projects) that have so far been approved to receive support to innovation and market maturation projects have been granted a total of DKK 339m. This amounts to about 80 per cent of the granted funds, but less than half of the Business Innovation Fund's total budget. At the time of application, these 80 projects expected a total growth in sales of just over DKK 15bn five years after project start-up, including just over DKK 10bn in exports.

The projects' expected effects after 5 years

<i>Market maturation</i>	
• Sales (DKK billions)	+ 6.3
• Exports (DKK billions)	+ 4.6
• Employment (1,000 persons)	+ 3.2
<i>Innovation</i>	
• Sales (DKK billions)	+ 8.8
• Exports (DKK billions)	+ 5.6
• Employment (1,000 persons)	+ 3.1
<i>Total</i>	
• Sales (DKK billions)	+ 15.1
• Exports (DKK billions)	+ 10.2
• Employment (1,000 persons)	+ 6.4

Similarly, the companies expected an increase in employment of 6,400 persons. Of this, there is a relatively large amount of high-value and knowledge-intensive jobs compared to the composition of the total domestic workforce.

The expected effects are thus significant. As none of the projects have been terminated yet – and many of them are still in the early project phase – it is not possible to actually measure whether the effects are about to be achieved. As part of the review, the companies have been asked to update and, if relevant, reconsider their expectations. Among 62 responding companies, there is a downward adjustment in the magnitude of 20 per cent in overall terms, but this may primarily be ascribed to a time-related delay in the penetration rather than a real expectation that the effects cannot be achieved.

Overall, Deloitte assesses that the companies' expectations may be too optimistic. On the other hand, the expectations generally seem to be based on serious and carefully prepared business plans. We have reviewed the business plans of a selection of the market maturation projects and conducted follow-up in-depth interviews with these. The quality of the underlying business plans is assessed to be strengthened by the requirements that the Business Innovation Fund has imposed on the applicants just as expert opinions have been prepared as part of the decision process. Even if the impact on sales, exports and employment may be overestimated by the companies, Deloitte assesses that it is very probable that the effects may be considerable and that the Business Innovation Fund's requirements regarding the project applications have supported this.

Profitability in macroeconomic terms

Deloitte has estimated the macroeconomic effects of the Business Innovation Fund's activities. The calculations show that if the economic effect that can be related to the Business Innovation Fund's activities amounts to 10-20 per cent of the total effects expected by the projects, this will generate public-sector revenue of DKK ½-1bn over five years per DKK 100m in support – add to this, that there will naturally also be positive revenue the subsequent years. In Deloitte's view, this is a realistic magnitude for the derived revenue effects.

Thus, in Deloitte's opinion, it is most likely that the Business Innovation Fund's activities are not only neutral for public finances, but also generate a sizeable macroeconomic payoff, especially via increased exports and net job creation. If investment of public funds in the Business Innovation Fund is considered a societal investment, a 5-10-doubling of the invested funds in five years seems to be a realistic magnitude of the yield.

It should be emphasised that this positive assessment of the macroeconomic effects is closely linked to the specific projects receiving support. Naturally, it is crucial that there are relevant projects to support, not least projects that have considerable exports potential. Thus, the reported effects cannot necessarily be scaled in relation to any larger budget for the Business Innovation Fund in the future either.

The effect of the Structural Change Projects is uncertain

In addition to support to innovation projects and market maturation projects, it is, as mentioned, part of the Business Innovation Fund's purpose to support projects that aim at creating new business and job opportunities in financially challenged areas. The aim is long-term economic development rather than immediate growth and employment. Hence, the same measurable effect and a comparative yield of these projects cannot be expected. At the same time, the beneficiaries comprise, in some cases, project organisations with (a considerable) participation from public authorities.

As a consequence of the different basic conditions, the requirements of business plans for the Structural Change Projects are less stringent and the theoretical basis is less robust. In addition, the projects are not systematically subject to external expert opinions – neither technical nor commercial. It is Deloitte's view that the commercial basis of the Structural Change Projects has hitherto been comparably weaker.

Approval of support has been given to 11 Structural Change Projects with an amount of DKK 88m, including DKK 37m to one project alone (LORC) regarding the utilisation of the facilities of the former Lindøværftet for new business activities. At the time of review, half the Structural Change Projects are still in the early start-up phase.

Deloitte has visited or interviewed by phone all the Structural Change Projects, among other things with a view to assessing the robustness of the expectations for sales and employment growth, which the projects have indicated in their applications – as regards employment, these expectations correspond to just over 4,000 new jobs. The review shows that the basis for the expected effects generally appears significantly weaker than for the other projects receiving support. In several cases, it has been explicitly indicated that the expected employment effects are very uncertain and probably significantly overestimated – and generally not based on carefully prepared business plans.

At the same time, Deloitte assesses that in the indicated employment effects, the dynamics of the local labour market and the mobility of the labour force, geographically as well as across industries and disciplines, have not been taken into consideration. Therefore achieving the expected employment effects will imply that qualified labour must be attracted to the local area. Furthermore, in several cases, the interviews have revealed that a significant part of the employment effects will take place outside the local area.

Based on that, it is Deloitte's assessment that the expected employment effects of the Structural Change Projects that have been stated are significantly overestimated, and consequently, they are not included in the calculations of the macroeconomic effects.

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