

# AN ANALYSIS OF THE SWEDISH GOVERNMENT'S DESIGN PROGRAMME IN 2003-2005 FROM A PROFITABILITY PERSPECTIVE

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Many people talk about the positive connection between design and profitability, but there are surprisingly few scientific investigations into the relation. None have until now been made with Swedish empirical material. The government's and SVID's design investment programme during 2003-2005 has, however, been the object of a scientific investigation on the basis of a profitability perspective. The result shown is that profitability has been good enough for the government to get its money back solely on the increase in VAT (as the result of the increase in turnover to which the design projects led in several of the companies)! In addition, there are other important results such as a large number of new workplaces and "new ways of thinking" among company management. In the long term, the latter may be just as important as the increase in turnover and VAT.

## THE SWEDISH DESIGN INVESTMENT PROGRAMME IN 2003-2005

The Swedish government invested over 3 years (2003-2005) SEK 17 million per year or a total of SEK 51 million (excluding the design year) in nine national and a large number of regional projects. The nine national projects focused on different things and may be considered to be development projects to test the options of design and increase its area of use. The projects were as follows:

### **Project 1: Employees and companies in good form.**

The basic idea of this project is to make use of the employees' ideas and experiences to either improve the company's / organisation's products and services or the work environment for the employees. The latter has often occurred through someone happening upon a new product that another company could in turn have produced and that has thereby benefited both the originating company and the new manufacturing company. The work model for the project was that a designer worked for 10 hours together with the employees, and that the companies then rowed the project ashore themselves. The project leader did play an important role as "matchmaker", however.

### **Project 2: Competitiveness of vehicle suppliers.**

Vehicle manufacturers have been using designers for a long time, but this is a new phenomenon for the subcontractors. Swedish subcontractors have a high level of skills and must be internationally competitive and supply to several different players if they are to manage in the long run. Design becomes important in several ways in this context: More subcontractors begin to develop and supply their own products. Others remain subcontractors but need the help of designers to communicate their capacity. This project has been the

biggest of all with around 40 different part projects.

**Project 3: Design for the export of medical technology.** In this project, eight different companies have each worked with a designer and cooperated through a number of conferences. New products have been manufactured and people have started to cooperate with designers in new, more strategic ways.

**Project 4: Design for services.** Design is most often linked to the modelling of products, environments or communication. In this project, people have tried to see how designers can be used to develop different types of service. People have worked in several different part projects with such different companies and phenomena as the development of services in an aluminium-producing company, development of communication within a psychiatric care unit, an e-magazine, etc.

**Project 5: The packaging as value creator.** This project has worked with both regional and national network operations within packaging-related industries, with the development of design methodology and with different product development projects, including one concerning packages that are good for both the visually impaired and consumers with normal vision.

**Project 6: Design for entrepreneurship.** This project aimed to teach the companies to increase their profits by teaching them the right way to use design. A substantial part of the resources were used for design analyses and design briefings and to develop the methodology for these.

**Project 7: The summer design offices.** The summer design offices started in 1997, and during this period covered a good 50 design offices consisting of students in design, economics and technology. They worked in interdisciplinary groups for one summer on solving different problems that they had received from local authorities and companies.

**Project 8: Design for small and large societies.** This project worked with four different local authorities (Orsa, Hällefors, Laxå, Västervik) to test the way in which the design methodology can help to influence the local authority's development positively. One characteristic of the project was that people integrated economic development and physical development at different levels and thereby worked with both the big picture and details.

**Project 9: The external environment for the school of learning.** This project concerned both creating external environments around school playgrounds that are pedagogic and accessible to all, and producing the "BarnBra" [child-friendly] product mark that guarantees that the products are good for children and have been produced together with children. All projects were to increase Swedish competitiveness. This article analyses the investment on the basis of an economic investment perspective, and shows that it was a profitable investment for the Swedish

government. Around 5-10 % of the projects have led to a strong increase in competitiveness and expansion, strong enough to justify the whole investment.

## PREVIOUS STUDIES ON DESIGN AND PROFITABILITY

The profitability of design is a field that is often discussed. Individual stories with happy endings appear regularly in SVID's material. At the same time, it is easy for those who are interested to produce both examples of companies with good design whose finances are not that good, and companies with good financial results without having particularly good design. There are therefore no absolute connection patterns between design and financial results.

The number of scientific investigations into the connection between design and profitability is remarkably small. Investigations that have been carried out and reported in international scientific journals are also small in number (see Roy 1994, Riehl & Balmer 1997, Hertenstein & Platt 2000, 2001, 2005, for example). The number of investigations that have been carried out by researchers that were implemented at the request of government bodies and only reported through these bodies is somewhat greater (see Kahl and Thorselius, 1997, The Economic Effects of Design, 2003, Design Council, 2004, Johansson; Feldt and Westerlund, 2004, Swedish Companies on Design, 2004, Kolmodin and Pelli, 2005, Design in Britain, 2005-2006, for example). The principal studies on the connection between design investments and profitability have been implemented by English researchers and consultants at the request of the Design Council, which has been carrying out questionnaire studies for fifteen years for companies that have received financial support for design projects (see Design in Britain 2005-2006, for example).

A comprehensive analysis of the difference between design-intensive and less design-intensive listed American companies and their development over five years at the end of the 1990s was carried out by Hertenstein and Platt, who looked at a large number of different key financial ratios and how they developed over a five-year period for design-intensive and less design-intensive companies respectively. The studies showed clear and interesting differences in most respects between the two groups of companies. Design-intensive companies did better during the recession and increased their profit more quickly when the economy turned (Hertenstein & Platt, 2005).

In England, the Design Council has for a long time analysed the development of the stock exchange among companies that were judged to be leading in design and compared them with the average stock exchange development. If you look at the development over a ten-year period from 1994-2003, there is an evident gap where the leading design companies enjoyed a considerably more positive development (the Design Council has implemented questionnaires for a longer period for a large number of companies that invested in design projects (see Design Council, 2004). In Sweden, a replica of the Design Council's investigation has been implemented by students at Stockholm University, who researched 55 companies

that had received a design verification of up to SEK 25 000 during the period of 1993-95 to be used to fund an introductory contact with designers. The investigation showed, among other things, that 60 % of the companies participating had either been given profitable projects or were expecting to be given them within the near future, and that 75 % of the companies believed that they had gained at least one other benefit from the project (Kahl and Thorselius, 1997). This current study is within the framework of a field that is often discussed but less often scientifically studied.

#### THE ORIENTATION AND SCOPE OF THE SWEDISH INVESTMENT

The results shown here form part of the evaluation that the author carried out on the government's design investment programme in 2003-2005. On 13 February 2003, the government decided to grant SVID a total of SEK 60 million to develop and strengthen Swedish competitiveness of small and medium-sized companies:

economic field that has particular potential to develop and strengthen competitiveness and contribute to sustainable growth of small and medium-sized companies must be prioritised.

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The assistance of the economy in the implementation and the financing of the projects within the frameworks of the programme will be guaranteed. The projects ought if possible be linked to current regional growth agreements and forthcoming regional growth programmes and the EU's structural funds programme. Partial financing via the EU's structural funds programme, particularly aims 1, 2 and 3, ought to be sought. The national programme's contribution to financing in the projects must not exceed 50 per cent. <sup>1</sup>

SEK 9 million went to the 'Design Year' that was implemented jointly by Svensk Form and SVID. The remaining SEK 51 million – or SEK 17 million per year - went to 9 different national projects as shown below and a large number of regional projects. It is these projects, *not* the design year, on which this discussed evaluation focused.

Project	Number of companies/ organisations	Funds including share in SVID's central administration
"Employees and companies in good form"	36	1.8 million
"Competitiveness of vehicle suppliers"	38	5.9 million
"Design for export of medical technology"	9	2.3 million
"Design for services"	27	2.7 million
"Packaging as value creator"	65	6.1 million
"Design for entrepreneurship"	3	3.2 million
"The summer design offices"	352	2.4 million
"Design for small and large societies – Local authority design"	4	1.9 million
"The external environment - design for the school of learning"	6	0.7 million
"Design as a development force – regional project and reinforcement of the cooperation office"	92	22 million
Investigations, evaluations		2.5 million
<b>TOTAL</b>	<b>540</b>	<b>51.5 million</b>

Table 1: Overview of the different part projects, the number of projects within them and the part projects' share of the total grants.

#### PRESENTATION OF THE EVALUATION

<sup>1</sup> Government decision in 1 2003-02-13 N2003/989/NL

The evaluation was implemented using multiple methods to both be able to obtain more characteristic qualitative features of the investment, and to be able to make statements on quantitative effects. The following methods were primarily used:

### **1. Focus groups, individual interviews, participant observations and study visits.**

The focus groups were initially intended to constitute the main methodology to decide whether or not the studies fulfilled the targets and various criteria. However, they came, together with interviews and study visits, to constitute an explorative preliminary study for the questionnaires. The change in direction was justified by the fact that interesting financial results could be discerned but proved to be difficult to calculate using the methods involved in the focus groups and interviews.

**2. Questionnaire investigation on 349 companies and organisations.** A questionnaire investigation was planned on the basis of nine drawn up criteria as shown below – criteria that were formulated on the basis of previous international investigations and patterns that appeared to be interesting during the focus groups:

- Criterion 1: Increase in turnover and/or profit*
- Criterion 2: Reduced costs*
- Criterion 3: New products and improved quality of existing products and services*
- Criterion 4: Improved competitiveness/stronger market position*
- Criterion 5: Improved internal/external communication*
- Criterion 6: Improved image of company /organisation and its products or services*
- Criterion 7: Increase in the number of workplaces*
- Criterion 8: Other effects identified*

On the basis of these 8 criteria, a Web questionnaire with 12 questions was drawn up, which in turn had different sub-questions (see Johansson, 2006). The questionnaire was sent out to 349 companies with a total of 540 contributors (there was a selection of projects for the summer design offices to facilitate the processing). Only 46 % or a total of 162 companies and organisations answered the questionnaire.

The proportionately large lack of response was interpreted as a strategic lack of response in so far as it was the less successful projects where to a greater extent people failed to respond. The answers have therefore not been processed as representative; instead, those where there was no response were considered to be “nil return” when counting the results. The reliability is thereby further increased and such processing proves to be the most interesting after the results are still so good. One consequence of this is that the responses can be considered to be on the low side rather than the high side, since it is probable that not *everyone* who did not answer has nil return (something that I as a researcher also know through my contacts with them).

### **3. Questionnaire investigation to 125 design**

**companies.** Total of 150 designers have participated in the investment. A Web questionnaire was sent out to 125 designers in 92 design companies. In the questionnaire to the designers, I was particularly interested in the following four aspects:

- *The character of the task.* What was the experience of the task? Do the designers and the companies feel that the projects are “different development tasks” or are special in some way? Or are they more “normal tasks”? If they are perceived to be “special”, in what way is that so?
- *Has the investment improved the design companies’ situation?* How many companies have received so many tasks that they themselves think that it has influenced the design office’s financial situation?
- *To what extent have the projects led to consequential tasks?* Many designers said in the focus groups that they had invested more than they received payment for in the projects that have been implemented with grants from the government and SVID, for the purpose of being able to continue assignments at companies that had previously not been used to engaging designers. To what extent have expected consequential tasks been received?
- *General experiences and points of view of the designers.* What are the more general experiences that the designers have to forward to me as evaluator?

Four main questions were formulated on the basis of the issues above. 42 designers or 34 % answered the questionnaire. The response frequency was thus even lower for the designers than for the companies, which meant that it is difficult to make more exact statements on what applies to the design profession.

**4. An investment analysis where the government is viewed as a risk investor.** A few different simple investment calculations have been implemented on the basis that the government is viewed as a risk investor. The method was to look at which criteria apply to risk investments and to implement some calculations on the basis of these bases.

## **THE MOST IMPORTANT RESULTS**

“Results” is a word that can be used in many different ways and gives different impressions. It can refer to *practical results* (result in a new way of working or a new practice for companies and organisations involved), and it can refer to *knowledge-related results* (result in new theoretical insights and experiences). These two dimensions do not always tally. For example, you can work in a new way without reflecting on it and without it being documented. This creates a new practice but not necessarily new awareness and documented knowledge on which others can build. The documented and reflected knowledge can also be of different types. It may be a question of more direct measurements of results, of insights into the character of designers’ cooperation and

meetings with the companies, and it may be a question of critical knowledge that shows new perspectives and problems that have not been observed.

There are several advantages to *linking* the practical experimentation and development work with *reflective research*:

- If you start by building on the knowledge that already exists, the risks are lower than if you try to “reinvent the wheel”. However, this requires previous knowledge to be documented in such a way that you can build on it. (= knowledge catch-up)

- a researcher is an “on the basis of” person and can act as a good conversation partner and feedback person while work is ongoing (= process evaluation).

- a researcher can study the result of the work and both measure and reflect on it in such a way that it can be used for future work and its direction (= reflective research).

Researchers therefore ought, using my bases as a starting point, be there both before, during, and after an experimental development work takes place.

The knowledge-related results can be both latent and manifest. By latent results I mean that the actual investment contains results and experiences that *it was possible* to draw from them. The investment is of such a comprehensive and complex nature that it would be adequate for several doctoral theses – which are latent because they will probably not be written<sup>2</sup>. By manifest results and experiences I mean those that have been documented, primarily in the summarising evaluation that discusses a number of different experiences and characterises the different projects and more overall experiences (Johansson, 2006). In this article, I have concentrated on describing the profitability of the investment. I have also selected the most obvious and interesting profitability measurements, which are presented below:

## 1. INCREASE IN TURNOVER

Increase in turnover is a blunt but simple measurement. It is blunt because the companies can have a positive combination of a fall in turnover and an increase in profit. This can happen by a company manufacturing a simpler product that costs less but is more valuable to the user, and that can therefore bring an increase in profit through higher margins. The main rule, however, is that an increase in turnover is a sign of an expansion and an increase in competitiveness, i.e. a signal that the company has ranges (products and services) that perform better on the market. Turnover is also a measurement that is manipulated to a lesser extent than profit, for example. I have therefore chosen to focus on increase in turnover as a certainly blunt but in this context quite good measurement<sup>3</sup>.

<sup>2</sup> However, it is likely that a few doctoral theses will be implemented with the material as a basis.

<sup>3</sup> One reason that it came to be such a good measurement is because the increase in turnover was so unbelievably big that even fairly rough rounding provides interesting evidence. In a future situation where more subtle measurement methods may be needed, other measurements may be more interesting.

## **Between one half and three quarters of a billion in turnover increases – and 300 million on the importance of the design investment programme noted**

The profitability of the investment on the basis of the government perspective can easily be summarised in the companies own assessments that they have seen or expect to see (most often within one year) an increase in turnover of around SEK 300 million, which is directly related to the design projects.

In the questionnaire, the companies had to answer the question: “Has the project contributed to/or can it be expected to become a part of the future increase in turnover (for the company as a whole or a specific product group)?”. Those who answered yes to the question (= 46 % of the total of 162 who answered the questionnaire) then had to estimate the size of the turnover increase in different intervals. If you add up the increases in turnover already achieved and the estimated surges in the design projects, you arrive at between SEK 444 and 745 million or around one half to three quarters of a billion in turnover increase.

Design is rarely the full reason for the success. Many different factors most often contribute in a complex way to the increase in turnover. In order to ascertain the importance of the design in this context, a distinction was made between whether the design had been “a necessary condition for the turnover increase” or whether it had been “a contributory cause” of a turnover increase that may have happened anyway. If you sort out the companies that answered they “do not believe that the increase in turnover would have come about without the design investment programme”, you get a total of 27 companies that estimate a total turnover increase of between SEK 176 and 299 million, or an estimated SEK 200 million increase in turnover that they say would not have been brought about without the design investment programme.

A further 19 companies said that they had seen turnover increases as a result of the design projects, but that design was not “a necessary condition”. They had to “weight” the importance of the design to the turnover increase (“large part” or “small part” had to be given on a scale of one to seven that was translated to percentage rates). The result of the count was as follows: These companies estimated an increase in turnover of a total of SEK 312-422 million. After the weighing of the design’s share of this turnover increase, the result was 19 companies that estimate turnover increases where the design investment programme is estimated to contribute to SEK 88-117 million or around an SEK 100 million turnover increase.

If you add up the turnover increase that can be related to the fact that the design investment programme was necessary (around SEK 200 million) and the “weighted turnover increase” (around SEK 100 million), you get a total of an SEK 300 million turnover increase in which the investment of SEK 17 million per year or a total of SEK 51 million resulted.

## 2. BIG DIFFERENCE BETWEEN THE COMPANIES AND THE DIFFERENT SVID PROJECTS

Far from all projects led to large turnover increases. For one part of the projects, there were also no primary targets for the project, even if it was also possible that the work environment projects could sometimes result in products that lead to both an increase in turnover and a better work environment. Only 5-10 % resulted in a clear increase in turnover. On the other hand, they have led to such a big turnover increase that they economically justify the whole of the investment.

How is the turnover increase distributed between the different SVID projects? Do all of the projects have around the same sized share, or do some projects stand out as particularly interesting as regards the influence on the companies' turnover, and that would in this connection be able to form the basis of further decisions on investments? There are quite large differences between the different projects for several different reasons, which are shown by the following table:

SVID project	Number of companies	Total estimated increase in turnover for companies indicating that the design investment programme was needed (SEK million)	Total estimated increase in turnover for companies indicating that the design investment programme was <i>not</i> needed (SEK million)	Weighted increase in turnover (SEK million)	Total necessary and weighted increase in turnover (SEK million)
Companies and employees in good form	5	6	1.5	0.75	7
Competitiveness of vehicle suppliers	12	134	48	11	145
Design for export of Medical Technology	4	15	8	2	17
Design for services	2	1.5	15	3.75	5
The packaging as value creator	14	6	221.5	47	53
Design for Entrepreneurship	4	5.5	36.5	12.63	18
Summer design offices	8	38	10	5.23	43
Design for large and small societies	0	0	0	0	0
Design for external environment	1	0.1-0.25	0	0	0.1-0.25
Regional project	3	16,5	8	1,2	18
<b>Total</b>	<b>53</b>	<b>223</b>	<b>349</b>	<b>84</b>	<b>307</b>

Table 2: Number of companies that indicated a specific turnover increase divided among SVID's national projects, and whether or not the design project was deemed to be a necessary condition

As the above table shows, there are some projects that particularly interesting and where the project logic is worthwhile commenting on:

**Competitiveness of vehicle suppliers** represents around half of the total turnover increase, and an even greater share if you count the projects where design was a necessary condition for the increase in turnover. Even if the project was also given more resources than the other part projects, it clearly stands out as the most profitable project. The vehicle industry's subcontractors also find themselves in a situation where they must change from being subcontractors of Swedish vehicle manufacturers to being global players. A number of subcontractors have obtained their own products – others are working with using design to create a credible impression among the total contacts with the customers. Many of the projects here have been judged the design investment programmes to be necessary for the increase in turnover.

**The packaging as value creator** is – somewhat unexpectedly – in second place. The unexpected consists in that the project succeeded in both working with network operations and creating a regional platform for the design cooperation and obtaining concrete results in the form of an increase in turnover for contributing companies and long-term local company investments. Here, it is not just a question of the design of packages but also of starting to use a comprehensive approach for all of the different industries included in the production of packaging, and used the design methodology and different workshops were used very successfully for this.

**The summer design offices** is in third place and has thereby established itself as a force on the basis of several different perspectives: The project is interesting on the basis both training and regional development perspectives. A large number – but far from all – of the summer design offices end up with products that make a commercial impact.

**Design for the export of medical technology**, together with **Design for entrepreneurship** and the **regional projects**, share fourth place. Regarding Design for the export of medical technology, the result will be even better if there is a follow-up in a few years because the companies were considerably more cautious in indicating figures when they filled in the questionnaires than when they spoke in a focus group, something that is probably because there are long lead times between development and sale. Just a few months after the implementation of the questionnaires and

before the report was printed, new information showed that this was the case.

The abovementioned probably also applies to the **Companies and employees in good form** project which, in relation to the means that were available to work with, received a particularly good distribution. Here, there are also indications that the figures are clearly underestimated and may increase in the future. Because it is a question of employees in a company that together with a designer must come up with ideas to improve the work environment and/or products, it is usually companies other than those you start with that have to be involved (e.g. the fire brigade where, together with the designer, the employees come up with a new piece of smoke diving equipment that must be manufactured by a completely different company). This has led to delays that mean that some results do not appear for several years.

### 3. 150 NEW EMPLOYEES IN THE WAKE OF THE PROJECTS – THE DESIGN INVESTMENT PROGRAMME WAS NECESSARY FOR ALMOST HALF OF THEM

One of the questions in the questionnaire to the companies read “*Will any of the above increase in turnover lead to an increase in number of employees?*”. Here, the companies had to indicate how many may have already been employed, how many were expected to be employed, and when the employment was estimated to take place.

The fact that the investment would lead to an increase in the number of job opportunities was a target that few of the project participants believed would be possible to fulfil. The general development within both industry and service companies is that production increases, but with existing or a reduced number of employees. This has been a usual development over the past decade. Only when you start production within completely new fields or offer completely new services are new job opportunities the obvious thing. The result that the investments led to a large number of new job opportunities was therefore an interesting and somewhat unexpected result.

It showed that the total increase in turnover led to no fewer than 22 companies (certainly just 6% of all those that participated and received a questionnaire – but still no bad result) *had already employed 55 people. The plan was also to employ a further total of 90-95 people* converted to full-time jobs, i.e. a total of around 150 new jobs have or are estimated to be the consequence of the investment.

Take the group that says that *the design investment programme was necessary*, and you are talking about 12 companies that have already employed 44 people and that plan to employ a further 43 people. This means that – all on condition that the plans are realised – the *Design*

as a development force investment generated 87 workplaces where the project was a necessary ingredient.

#### 4. OTHER PARTIALLY QUANTIFIABLE EFFECTS

A further number of different quantifiable effects of the projects arose. The most important were as follows:

A total of 30 new products had emerged according to the questionnaire. It is likely that the figure for the whole of the investment is somewhat higher because not all companies and organisations responded to the questionnaire. It is however evident that there is a smaller share of the total design projects that resulted in completely new products. This was also not the aim of many project. According to the questionnaire, a further 37 projects have led to the improvement of already existing products or services. In all, according to the questionnaire, this means that 67 projects have led to either new products or an improvement of those existing. This indicates that a relatively small share of the total number of projects led to concrete changes in products or services carried out. This can be interpreted as the fact that there is room to further increase “the accuracy of the aim” and the investment dividends.

In addition, 102 companies or organisations in the questionnaire indicated that they had gained a strengthened market position through the design project. 94 companies and organisations said that design projects had helped to change their view of the possibilities of design to “contribute to innovation and development and an increase in competitiveness”. These changed attitudes will in turn probably lead to a trade that further involves design and improves future competitiveness. Whether or not this actually happens remains to be followed up in a future follow-up study, however. Two thirds of those who answered the questionnaire say that they intend to increase their use of design in the future, however.

#### 5. IMPORTANT NON-QUANTIFIABLE EFFECTS

New ways of thinking form the basis of new ways of acting. This is a fundamental outlook in both psychology and different constructionistic and symbolic perspectives on the man organisation (see Czarniawska 1993 and Johansson 1998, for example). The person who has a positive and curious approach to design is more inclined to use designers and meet design on its own terms, and according to Svengren (1995), among others, this is a condition to be able to exploit the potential of design skills. She also talks about the importance of a positive attitude among the management of a company for someone to be able to use design as a strategic resource (Svengren 1995).

In the company questionnaire that was implemented in this reported study, around two thirds of the respondents answered that they agree fully or partly (on a scale of 1-7) with the statement that contact with the project “has made me think in a new way”. These “new

ways of thinking” or the fact that they have “come into contact with design thinking” as many expressed it, proved to be something that many thought was the most important thing that had happened in the focus groups that were also implemented. As such a change in attitude influences not just the particular project that has been implemented during this investment but probably also future projects and the overall willingness to be included and finance own future projects. This changed attitude was also discussed in a master’s thesis that studied the attitude to the design projects within the “Design for medical technology” project (Sjölander, 2005). Sjölander believes that the very contact with new ways of thinking and with the designers’ attitudes not just to aesthetic questions but to problem-solving overall was a very important result of the projects. Another essay discussed design as an investment and the student group who wrote it (Duric, Måby and Wulcan) concluded that all company managers whom they interviewed during the course of the projects had changed their perception of the meaning of the concept of design. They have broadened their view and believe that design can be seen as an investment that provides a yield in the future. It is a change that does not have accounting-orientated consequences, but the reconstruction and the changed view is probably important to how much money people are prepared to “invest” in design (Lundqvist and Sjövall, 2005).

#### 6. THE PERSPECTIVES OF THE INSTRUCTING THE COMPANIES AND THE DESIGN COMPANIES

The questionnaire that was sent out to contributing designers indicates that the investment was positive, but not as positive for the design companies as for the companies that gave them the instructions. The designers to a greater extent perceive tasks as “normal tasks”, while the companies think that it is something quite different, new and exciting. This was what both focus groups and questionnaire indicated.

There are also surprisingly few design companies that via the questionnaire report having had direct consequential tasks. The response frequency is low, but only eight design companies with a total of 34 tasks indicate that their economy was influenced to a large extent by the projects. Many designers have spent more time than they were paid for and hope for more tasks in the future.

On the basis of the responses from the design companies, it is doubtful whether the design industry has seen the same catalyst effect of the investment that a number of instructing companies saw. However, it is difficult to make a secure statement about this for several reasons (including the low response frequency, but also because it is uncertain as to whether people actually relate all assignments that are directly or indirectly connected with the investment to one another).

#### 7. THE PROFITABILITY OF THE INVESTMENT WHEN THE GOVERNMENT IS

## SEEN AS A RISK CAPITALIST INVESTOR

A clear pattern rapidly emerged in the evaluation. There seemed to be a smaller number of projects where the design investment programmes led to almost unreasonably good results, and then a large number of projects with varying results and where it seemed to be relatively difficult to measure any financial effects. The uneven result was confirmed by the questionnaire.

On the basis of this picture with a small number of very successful projects, I drifted towards a risk capitalist reasoning. I got the idea of risk capitalist reasoning from William B. Gartner<sup>4</sup>, known entrepreneurship researcher, who described the risk capitalist approximately as follows<sup>5</sup>:

A risk capitalist maybe invests in 12 different projects that he or she finds interesting. He is clearly aware that only one or two of them will lead to profit, but hopes and believes that the profit will end up being so substantial as to justify the investment in all twelve. The point is that even if he knows that only 1 or 2 will succeed, he does not know in advance which will succeed. It is therefore necessary to invest in all of them.

The question is whether this situation also applies to these current projects. There are views that argue both for and against it. It seems in several cases to have been impossible to predict that those very companies that were so successful would become successful. At the same time, there are a number of experiences to be drawn that mean that in the future, people ought to be capable of investing with a greater accuracy of aim<sup>6</sup>. Irrespective of the predictability, however, the focus of the risk capitalist can be taken as a basis for evaluation if you want to, rather than the banker's perspective that ought to be the more common one.

The difference between a bank investor's and a risk capitalist's perspective on the investment is that factor being focused on. Expressed in somewhat simple terms, you can say that bankers attempt to minimise the risks and create as large securities as possible. The greater the security, the lower the cost of the loan – this something that is recognised by all home owners or others who take out loans.

A risk capitalist has a different logic and focuses not on the possibilities of loss and the security, but more on the actual possibilities and what they may bring. He or she is aware that the majority of the projects will lead to loss, and that only a few will pay their way and result in profit. However, on the other hand, these few

<sup>4</sup> William B. Gartner is a Professor at Clemson University in the USA and has over the last 25 years been a world-leading researcher within the field of entrepreneurship and small company development. In 2006, he won an "FSF-NUTEK Award in entrepreneurship and small business research".

<sup>5</sup> William B. Gartner. Seminar at Växjö University in May 2005. Free notes.

<sup>6</sup> See, for example, experiences from Chap. 3 and conclusions in Chap. 7.

profit-bringing projects will probably lead to so much profit that they justify the whole of the investment. The problem for a risk capitalist – and the reason that he or she cannot seek securities – is that there is no advance knowledge of which projects really can lead to large profits and which will lead to large losses. Security does not exist in a risk capitalist's logic – only risks and options.

It may seem far-fetched to view the government as a risk capitalist, but the fact is that the government did for a long time pay a large part of the risk-bearing capital in Sweden, whereas bankers must handle securities rather than risks in accordance with the Banking Act. One frequently occurring reasoning in the project was also that risks would be taken because it was government money that was being worked with. Where there are no risks, other interested parties could join in with the financing was the view expressed in various interviews. In my opinion, primarily the following 3 reasons justify seeing the government's investment on the basis of a risk capitalist perspective:

A risk capitalist focuses on that what can be realised more quickly than on average.

The successful projects justify the whole of the investment.

Seeing design as a risk investment means seeing design as an investment rather than as a cost.

## CALCULATIONS SHOW THAT THE INVESTMENT HAS BEEN VERY PROFITABLE

On the basis of the view that the government has invested SEK 17 million per year, you can easily perform two different risk investment calculations on the basis of the increase in turnover in the companies. The increase in turnover is a blunt but good yardstick in this context. The point of the calculation is not to be all-embracing, but to see whether the government gets back the funds it invested only through the small number of companies that radically increased their turnover. This leads to two different questions and 2 different calculations to answer them:

1. How large a turnover increase is needed for the SEK 17 million per year to pay just through the VAT – where is the critical break-even point? If you start from the fact that VAT is 25 % (only partially correct) and take into account the difference between incoming and outgoing VAT, and take into account the fact that other companies may experience a fall in turnover, i.e. are out-competed, you can man reduce the government's calculated increase in VAT income to 12.25 -16 % of the companies turnover increase<sup>7</sup>. If the investment led to a turnover increase of around SEK 100 million, it would be profitable. Bearing in mind around SEK 300 million, you can confidently state that the government will probably

<sup>7</sup> A more in-depth description of how these figures were produced is in Johansson, 2006.

get back the funds it invested solely through an increase in VAT.

2. Another calculation reasoning looks like this: If the investment leads to an SEK 300 million increase in turnover, how much is it then profitable for the government to invest? If the increase in VAT income is between 12.25 and 16 % of the companies' turnover increase, you can ascertain that it is worthwhile investing between SEK 37 and 48 million if the increase in turnover is SEK 300 million that is directly related to design. This means that on the basis of this relatively narrow profitability perspective it would be profitable for the government to invest between 2 and 3 times as much as had been invested in reality!

## SUMMARISING COMMENTS AND CONCLUSIONS

There are several different experiences, reflections and conclusions to be drawn from the evaluation of SVID's and the government's design investment programme. The investment is so complex and interesting that there are many experiences that cannot be formulated in figures, but instead concern reflections and observations of different relations. In this article, however, I have focused on the profitability of the investment, and in particular on the profitability that was evidently easy to ascertain and measure. In the following, I summarise the conclusions that I consider to be the most obvious. The conclusions differ widely in themselves.

### **1. It has quite clearly been profitable for the government to invest in design - 5-10% of the companies have made such large profits so as to justify the whole of the investment**

As shown by the above report, the government's investment was of SEK 17 million per year over three years was a very profitable investment. The investment has very probably led to an increase in turnover of at least SEK 300 million a year, and even if this is reduced because some of these companies will beat others, it means that the government will probably get back the funds it invested with interest<sup>8</sup> through the increase in VAT income alone. In addition to this, there are a number of new workplaces and indirect effects that may be of equally great value.

As opposed to the Design Council's investigations that show that between 60 and 80 % of the companies achieved improvements in the form of an increase in turnover, improved market relations, etc., the Swedish investigation shows a much more uneven result. This is probably due to several factors. Partly that the Swedish investment aimed to more experimentally test design in different new situations, while the English one was to a large extent aimed at contributions and design verifications linked to design business, and partly that the English business aims more at companies while

some of the Swedish projects are also aimed at public organisations.

It is, however, interesting to note type of investment. It leads to a very uneven distribution of the clearly recognisable result (i.e. there may well be positive results among the remaining 90 – 95 % of the companies – but these are not recognisable in the form of an increase in turnover). In all, more than 500 companies and organisations have had projects, but only 46 of them have had directly indicated turnover increases as a result. On the other hand, this small group has gained such positive results that they justify the whole of the investment.

### **2. Increase in interplay between practical development work and research – in-depth knowledge of decisive factors for the success of the design work can increase the accuracy of aim in the results**

One conclusion is for example that SVID's project work ought to a greater extent to *be based on* existing knowledge, not just through the knowledge that exists in SVID's comprehensive practical and institutional network, but also the knowledge that exists within research. The experimental business run by SVID in this projects is interesting – but it would clearly be much more interesting if it were linked to a research business. The ambitions of developing different design methods could, for example, be beneficially implemented in the form of research projects that research possibilities of working in new ways. In the best scenario, such a connection will in any case be made subsequently.

It is also desirable for at least parts of the business in itself to have an explorative approach and be followed up by researchers. The projects accommodate an extremely rich empirical material that is suitable for reflections on the basis of both design and aspects of strategic management. By allowing researchers to follow up and study different part projects and their experiences to a greater extent, a common experience bank can be built up; doing this *is research* and it needs to be done by research personnel, but can and ought also to be of practical benefit in that experiences can drawn so that future business can build on abstracted experiences and in this connection further increase the accuracy of the aim of the investments.

It can thus be concluded that investments of this type ought to be evaluated by researchers in order for the knowledge to be of benefit to both the practical and the research society – that the experiences will be stored and be included in the academic talks and form the basis of new projects. Bearing in mind the low level of accuracy of 5-10 % of the companies, there is all the more reason to believe that research with in-depth analysis and reflection can result in increasing the insight into which factors are crucial to the success of the design work, and thereby somewhat increase the level of accuracy of the results.

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<sup>8</sup> Translator's note: this is meant in the figurative sense, i.e. 'with knobs on'.

Not just research into the design projects, but also into the design industry

Another research field is to focus not on the actual projects as such, but more on the design profession and the way in which it structures its identity, its industry logic and its profitability. The investigation showed that the design companies do not appear to have earned from the investment to the same extent as the companies for which they acted as consultants. People with knowledge of the design industry often believe that designers' way of structuring themselves and their roles probably has a negative influence on the profitability. It would be interesting to have more in-depth studies and analyses of how Swedish designers experience themselves, their identity and their relations to those giving the instructions. It would also be interesting to see in-depth analyses of and reflections on the industry's profitability, pricing mechanisms and industry logic.

Follow-up of the results in 2-3 years desirable

The results of the company questionnaires are based on a combination of results already achieved and estimates already made. For the companies that participated in 2003, the results are usually but not always realised. For companies that participated in 2005, the results are usually estimated. For some industries and actions, there is a shorter time between project idea and realisation. For other industries and products, it takes several years for the realised effects of the projects to become apparent. The source-critical examination indicates that the estimated results are given to be on the low side, but it cannot be said whether this is the case until these are followed up. Such an investigation is interesting on the basis of both SVID's and the government's point of view to obtain more secure statements on the effects of the investments. Such a follow-up is also methodologically interesting because it may permit an analysis and assessment of the quality and the reliability of different types of data such as interviews, the first questionnaire, the follow-up questionnaire and annual reports. In connection with such a follow-up, there are also possibilities of doing in-depth analyses of which factors appear to have been conditions that were common to the projects that led to substantial profits.

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