

**EVALUATION OF
PROGRAMS FOR
CUSTOMER EXPERIENCE,
CREATIVE INDUSTRIES,
AND HUMAN-CENTRIC
BUSINESS**

EVALUATION REPORT

Olli Oosi, Katri Haila, Mikko Valtakari, Juha Eskelinen,
Veera Mustonen, Antti Pitkänen, Rama Gheerawo





The authors:

Olli Oosi, Katri Haila, (Owal Group Oy)

Mikko Valtakari, Veera Mustonen (MDI)

Juha Eskelinen, Antti Pitkänen, Rama Gheerawo

Copyright Business Finland 2020. All rights reserved.

This publication includes materials protected under copyright law, the copyright for which is held by Business Finland or a third party.

The materials appearing in publications may not be used for commercial purposes. The contents of publications are the opinion of the writers and do not represent the official position of Business Finland. Business Finland bears no responsibility for any possible damages arising from their use. The original source must be mentioned when quoting from the materials.

ISBN 978-952-457-654-3

ISSN 1797-7347

Cover photo: AdobeStock

Graphic design: Maria Singh

Page layout: DTPage Oy

CONTENTS

Foreword	4	4 Findings from Liideri (2012–2018)	37
1 Introduction	5	4.1 Program implementation	37
2 Evaluated programs in context	7	4.2 Concrete results of the programs.....	39
2.1 Descriptions of the four evaluated programs.....	7	4.3 Impact of the program	45
2.2 Methods of the evaluation	9	5 Findings from Luovimo (2010–2016)	52
2.3 Operative environment during program implementation	18	5.1 Program implementation	52
2.3.1 Major influencing factors of sectors relevant to the programs	18	5.2 Concrete results of the programs.....	54
2.3.2 Creative economy as a resource for global competitiveness	19	5.3 Impact of the program	57
2.3.3 Platform economy enabling systemic change.....	20	6 Findings from Lifestyle (2015–2018)	59
2.3.4 Virtual reality as an emerging trend in experience economy / intangible value creation.....	21	6.1 Program implementation	59
2.3.5 The Shift from the Experience Economy to the Transformation Economy	22	6.2 Concrete results of the programs.....	61
2.3.6 The Rise of The Intelligence Economy	23	6.3 Impact of the program	62
2.4 Comparing programs in international perspective.....	24	7 Cross-cutting themes and conclusions	66
3 Findings from Feelings (2012–2018)	25	7.1 Summary of key results and impacts.....	66
3.1 Program implementation	25	7.2 Learnings from program implementation	68
3.2 Concrete results of the programs.....	29	7.3 Lessons for future in planning actions to support creative industries, consumer business, customer experience, and new value creation?	70
3.3 Impact of the program	32	Sources	75
		Appendix 1. Benchmarking report: United Kingdom	76
		Appendix 2. Benchmarking report: Netherlands.....	88

FOREWORD

Intangible value creation and non-technical, human-centric business innovations have gained increasing importance over recent years as the proportion of service sector in GDP has kept on growing. Business Finland with its preceding organizations Tekes and Finpro have contributed to the area with the four programs that have been evaluated at this report. The “Liideri” (2012–2018), “Feelings” (2012–2018), “Luovimo” (2010–2016), and “Lifestyle” (2015–2018) programs have been among forerunners at Tekes and Finpro for promoting human-centric businesses and intangible value creation. Overall, these programs have served as awareness raisers of the importance of non-technological innovation within their respective business sectors. Lifestyle program supported the exports and international growth of Finnish design and fashion SMEs. Liideri was a program for development of work methods, such as shared leadership, networked and fragmented work, and innovative utilization of ICT. Feelings was helping companies understand the value of customer experience as a driving force of business development. Luovimo had the goal of developing creative sector, targeting e.g. design, movies, television, performing arts and content creation.

Regarding the four evaluated programs, one also needs to understand that they were executed by organizations that were different in their goals compared to the current Business Finland, and reflected each their time. Tekes was funding R&D&I projects whereas Finpro was providing services and not funding. Accordingly, Feelings and Liideri were wide-scale programs whereas Luovimo and Lifestyle were targeted smaller-scale programs. Furthermore, Finpro was a registered association before its transformation into a government-owned company, whereas Tekes was a governmental agency before the latest merger. All this adds complexity to goal setting and execution and thence to the evaluation of each of the programs, which the evaluators handled well. This study was carried out by Owl Group as the lead consultancy, together with MDI. Business Finland wishes to thank the evaluators for their thorough approach and expresses its gratitude to steering group and all others that have contributed to the evaluation.

Helsinki, May 2020

Business Finland

1 INTRODUCTION

Intangible value creation has become increasingly important. Intangibility can be realized as a service such as digital service, as an instrument for more efficient operations, and as a product property. Business Finland has contributed to the building of intangible capital for companies by supporting the development of intangible value creation. The “Liideri” (2012–2018), “Feelings” (2012–2018), “Luovimo” (2010–2016), and “Lifestyle” (2015–2018) programs have been among the forerunners at Tekes and Finpro for promoting human-centric businesses and intangible value creation (see chapter 2).

Previously, the non-technological programs of Tekes, i.e., Liito, Serve, and Muoto, were evaluated in 2016.¹ The evaluation showed that the contexts of the programs have changed remarkably during the 2000s. The proportion of service sector in GDP has grown while the proportion of industries has decreased in the 2000s. Design

has become an integral part of the innovation process as well as a problem-solving tool. Design is an integrating function, enabling collaboration between multiple disciplines and departments. Furthermore, the evaluation of Liito, Serve, and Muoto emphasized that the success and sustainability of the projects in non-technological programs depended more on key personnel, such as project leaders or partners, than they did in technological projects.

According to the evaluation of Working Life 2020², one of the key achievements of the Liideri program was attracting a large group of actors with diverse backgrounds into the project networks. The project succeeded in taking into account the changes in the operating environment. The actions appropriate to each stage of the lifecycle were implemented.

¹ Oosi et al. 2016. Tekes Report 2/2016.

² Valtakari, M. & Nyman, J. 2019. Työ- ja elinkeinoministeriön julkaisu 2019:33.

The present evaluation aimed to produce both a qualitative and a quantitative analysis of “Liideri” (2012–2018) and “Feelings” (2013–2018) programs of former Tekes, and “Luovimo” (2010–2016) and “Lifestyle” (2015–2018) programs of former Finpro. The evaluation questions were as follows:

1. What concrete results have the programs created, how well have the objectives set for the programs been achieved, what impacts have they had, and how relevant, efficient, and effective have the programs been?
2. How has each of the programs contributed to business development, turnover, exports, jobs, and the internationalization of the participating companies?
3. Regarding program implementation and services, what has been significant, what has worked well and what has not?
4. What added value have the programs created for the industry and the participating companies?
5. How well have the programs supported each other? Have their potential synergies been recognized and utilized?
6. How have the funding instruments of Tekes and Business Finland been able to support brand or concept development and the creative industries? What have been the associated challenges? How should Business Finland funding be developed to better support brand and concept development?
7. What are the lessons learned for planning actions or programs in Business Finland to support creative industries, consumer business, customer experience, and new value creation?

It should be noted that the four evaluated programs were originally implemented in different organizations. Their implementation logics, described under each chapter, are vastly different. Feelings and Liideri are wide-scale programs with a wider scale of actions. Luovimo and Lifestyle are smaller-scale targeted programs, which does not include R&D&I-projects as such, but focus both on company-level activities (namely utilizing external expert support for companies) and joint activities (differing per program or for each funding round). This explains some of the differences between the different chapters of this report.

The evaluation report presents the results of the evaluation as well as recommendations for planning actions to support creative industries, consumer business, customer experience, and new value creation.

2 EVALUATED PROGRAMS IN CONTEXT

2.1 DESCRIPTIONS OF THE FOUR EVALUATED PROGRAMS

This chapter includes short descriptions of the evaluated programs. Each chapter then includes more detailed descriptions of the implementation of these programs and main expected results and impact themes based on the descriptions of each program.

This set of programs includes two R&D&I-programs from Tekes: Liideri and Feelings. They have a wider budget and their context can be seen as R&D-funding programs with a wider scale of funding and program services provided within these programs. Luovimo and Lifestyle are former Finpro programs and are different in their intervention logic, which focuses on a limited number of companies and on providing expert support, either by the experts procured externally or by experts of the funder organization. Peer support and networking are also important parts of these programs.

FEELINGS (FIILIKSISTÄ FYRKKA) 2012–2018. BUDGET: TOTAL €120M, OF WHICH €66M FROM TEKES

The business world has become aware of the significance of intangible values in the value creation process (Tikka & Gävert 2014). The Feelings program was created to work with the vision of Finland being the leading country in business driven by intangibles. The mission for the program was to help businesses operating in Finland recognize the possibilities of value creation and to utilize them as the source of competitive advantages. The program meant to highlight the importance of added value that is driven by the customers' feelings. Thus, the program encouraged companies to scrutinize their business and value chains to seek new ways of doing business and develop new revenue logics. Targeted companies were ones that aimed for growth and/or internationalization. The companies could create value either in b2b market or in b2c markets.

The following objectives were set for the Feelings program:

- To bring Finland new business activity and global networks, where immaterial content has a significant role in value creation
- To give companies new methods and tools to develop their understanding of customers
- To develop means for companies to better their leadership abilities, management, and the protection of their immaterial assets
- To link the research of immaterial to research that supports market and business life
- To develop mechanisms by which the know-how from immaterial assets can be transferred forward

LIIDERI 2012–2018. BUDGET: TOTAL €133M, OF WHICH €67M FROM TEKES

Liideri was a business development program in which companies could renew their business practices by developing their leadership abilities, their work processes, and by constantly utilizing the know-how of employees. The Liideri program vision was that in 2020 Finland will have the best places to work in Europe. To achieve this vision, the program saw that radical shifts have to happen in the ways of leadership and in the ways we work. By doing so, the program sets goals to renew companies' business practices and competitiveness. The program was aimed at SMEs that seek growth through interna-

tionalization, SMEs that seek growth and renovation but focus on domestic markets, larger companies (250–500 employees) that are on the threshold of renovation, and organizations that seek to renew their services and are working as significant sources of ideas and inspiration for themselves and other companies. The focus areas of Liideri were:

- Renewal of management
- Employee participation in renewal of products, services and their production
- New forms of work organization and working

LUOVIMO 2009–2015. BUDGET: APPROXIMATELY €1 300 000 OF PUBLIC FUNDING

Luovimo had three different participant selection rounds between 2009 and 2015. At the core of the program was an insight where the creative sector was seen as a prominent sector for growth in Finland. Experimentality, visuality and experiences are strapping to supply and it is increasing the potential for competition. Finnish know-how is among the best in the world. The development of the creative sector was set to be one of the national core goals. Luovimo focused on developing concept, product or service sales in selected clusters in the creative sector. Design, movies, television, performing arts, and content creation/games were set as focus branches. The program's stakeholders were, in addition to Finpro who was managing the program at the time, industrial orga-

nizations, the Finnish cultural, and academic institutes and cultural sectors of embassies of the focus countries. The goal for Luovimo was to further select companies to international markets in a manner where sustainable and profitable business activity would be created.

LIFESTYLE 2015–2018. BUDGET: APPROXIMATELY €855 000 OF PUBLIC FUNDING

The goal for the fashion and lifestyle program was to create growth and readiness for companies for their internationalization. Another goal for the program was to help local businesses network with their international counterparts. Lifestyle Finland services were meant for Finnish lifestyle consumer goods companies (including fashion, design, home décor, furniture, children's products, beauty, and personal care) that hoped to enter the markets or accelerate their sales in Asia or Europe. Target companies were lifestyle companies with clear growth plans for the focus markets of the program. The program was focused on commercial go-to-market activities, such as:

- B2B Matchmaking
- Meet the buyer activities
- Media & stakeholder activities
- Fairs & showrooms
- Retail cooperation
- Fact finding
- Coaching & workshops

2.2 METHODS OF THE EVALUATION

A multi-method approach was applied in the evaluation. The methods are described in brief as follows. The limitations of the evaluation data are discussed in connection with the findings of each program.

Document analysis included analysis of the program documents provided by Business Finland and literature review. Based on the document analysis, anticipated outcomes and impacts of each program were drafted.

International benchmark analysis. The evaluation also included a benchmarking study of programs and funding instruments to support consumer business, brand development, and creative industries in the United Kingdom and the Netherlands. The benchmarking study was based on a literature review.

Electronic survey. An electronic survey was designed for each program. Survey data was collected about the implementation, results, impacts, and the added value of the programs. In the case of the former Tekes programs, Liideri and Feelings, the survey was directed at companies and research groups. In the case of the former Finpro programs, Luovimo and Lifestyle, the survey was directed at companies.

Thematic interviews. A total of 30 thematic interviews were performed to gain more detailed insight into the programs. The interviewees represented beneficiaries of the programs, program managers, program leaders, steering committee members of the programs, and experts.

Case studies. A case study approach was applied to deepen the understanding of the programs' impacts. Selected case examples of each program are included in the evaluation report.

ECONOMETRIC ANALYSIS

As part of the evaluation, a statistical analysis was conducted to examine the impacts of the programs on their target companies and industries. As the programs were designed to promote company growth in specific industries and increase the export growth potential of certain products, the effects should be visible in the company growth of both turnover and personnel and in the export numbers of the companies and their industries.

The basic methodology used to investigate the impacts outlined above was to adopt a counterfactual approach.

- The Feelings and Liideri impact analyses were based on a quasi-experimental analysis of the participating firms. The methods used were matching (Coarsened Exact Matching, CEM³) to avoid bias due to the difference between the program firms and their counterfactuals, and statistical tests that were used to analyze the change in the response variables.
- The Lifestyle impact analysis used aggregate country and product-level data and the Synthetic Control

Method (SCM⁴) to construct the counterfactual for each program target country and target product.

The analysis was conducted using financial statements⁵ and the export statistics of the companies (2012–2019) and of the control group of companies. In addition, data from Tekes/Business Finland funding and project information was also used. Export data was acquired from Eurostat.

The Luovimo program was omitted from the analysis as it was considered to be too difficult to analyze quantitatively. The companies in that program focused primarily on the service sector and always participated in one “round” of Luovimo. While it is generally assumed that export statistics in these industries are often inadequate, the firms in this program were unique in their niche markets, thus finding a firm-level control firm to be compared to the available data sources would have been difficult. As such, this program is evaluated solely by qualitative methods.

FEELINGS AND LIIDERI COMPARISON GROUPS AND ANALYSIS

The impact analysis was conducted by using a quasi-experimental approach. Program participation was considered as ‘treatment’. In the treatment groups there were

³ Iacus, S. M., King, G. & Porro, G. 2012. Causal inference without balance checking: Coarsened exact matching. *Political Analysis* 20:1, 1–24.

⁴ Abadie, A., Diamond, A. & Hainmueller, J. 2010. Synthetic control methods for comparative case studies: Estimating the effect of California's tobacco control programme. *Journal of the American Statistical Association* 105, 493–505.

⁵ Financial statement data was acquired from *Suomen Asiakastiето Oy* and export numbers from Business Finland

firms that had participated in the *Feelings* program and firms that had participated in the *Liideri* program. Control group consisted of firms that had applied for funding from Business Finland (or its predecessors) but where project funding had been declined. However, both the treatment and control group firms may have received funding for one or more other than Feelings/Liideri projects from Business Finland.

There were initially 315 companies in the *Feelings* program and 290 in the *Liideri* program (a small number of companies were in both programs; these companies were examined as part of both programs). The universities and research institutes were excluded because they were not the subject of the research.

The analysis was done on a company level using both the financial statements of the companies involved and Tekes/Business Finland funding and project information. The indicators investigated were as follows:⁶

- Turnover
- Number of employees (as a proxy for job creation)
- Value added per employee
- Exports (EUR)

The analysis focused on changes in the ratio between the treatment and the base year figures (e.g. ratio of the turnover after and before). The funding decision year is the base year. If the data for the full 12-month indicator were missing, the next full year was used as the base year. The change was then studied over two- and three-year periods

after the base year. The third follow up period that was examined was two years after the closing of the funded project. In this last case, the follow up period varies between two to five years after the project decision because the lengths of the actual projects differ. Two years after the project was selected for the analysis because a longer time (for example three years) would have decreased the number of comparable firms significantly.

If the indicators of follow up period were missing the firm was omitted from the change analysis. As a large proportion of firms joined the programs in 2016 the original treatment group was reduced significantly compared to the initial number of firms in the programs. Additionally, very small firms (with a base year turnover less than EUR 20 000) and large firms (with a base year turnover of more than EUR 100 000 000) were omitted.

DATA

The treatment and control groups and data to be used were designed in cooperation with Business Finland. Treatment groups were constructed separately for Feelings and Liideri programs. Treatment groups consisted of firms that had received funding from these programs and there were two types of firms in these groups. The first treatment group consisted of firms that had received funding from Business Finland already previously (i.e. old Business Finland customers). The other group consisted of firms that had not previously received fund-

⁶ This was used as a substitute variable for the number of staff because staff number data was incomplete in many financial statements.

ing from Business Finland (i.e. new customers).

Respectively, control groups consisted of firms that had not received funding from Feelings or Liideri programs. There were also two types of firms in the control groups. As with the treatment groups, the first control group consisted of firms that had received funding from Business Finland earlier for some other project (i.e. old Business Finland customers). Similarly, the other group consisted of firms that had not previously received funding from Business Finland (i.e. applicants that have never received any funding from Business Finland). The best control group was deemed to be those firms that had applied for funding from *Feelings* and *Liideri* programs but had not received it.

Control group firms were retrieved from Business Finland database. Composing control group firms in this way ensured that all firms in both treatment and control groups intended to grow and develop, also in the case of control group companies that have never been customers of Business Finland.

The treatment and control groups were matched based on the previous BF funding as described above and, additionally, based on other firm characteristics such as size, firm age or industry. After matching, the remaining difference between the treatment and control groups should therefore be the treatment itself i.e. the participation in the *Feelings* or *Liideri* programs.

The firms eligible for analysis were identified in order to prepare a set of treatment and control firms to be examined later. For that purpose, applications and funding decisions were screened. All applications without at

least two years of potential follow up were discarded (i.e. decision year 2017 or after). This was the most important single factor in the decision to omit firms from the final analysis.

The firms were also classified based on their Business Finland or other funding five years before and two years after the start of the program. Additionally, firms that had significant negative funding (EUR 20 000) were discarded as their funding base was not clear. The funding applications were also classified based on their risk assessment (resource, financial, technological and market risk). Business Finland calculated the risk assessment during their decision process. Logistic regression analysis was first employed to study the probability of the *Feelings* and *Liideri* applications being approved. The parameters of the regression analysis were used to calculate a score depicting the probability of all application being selected in the *Feelings* and *Liideri* programs based on their risk assessment.

MATCHING

Quasi-experimental studies are sensitive to differences between the treatment and control groups. In this study, the firms that applied and were qualified to the *Feelings* and *Liideri* programs differ from the firms that did not participate. If such differences in the firm characteristics impact on the investigated indicators the results can be seriously biased. For example, the size of the firm is a factor that impacts the growth rate of the firm. The median of turnover in the year of funding decision

is EUR 300 000 in Feelings program, EUR 8.5 million in Liideri program, and EUR 640 000 among control firm with high variance in all groups. If these differences between the program firms and the control firms are not taken into account, the comparison would be useless.

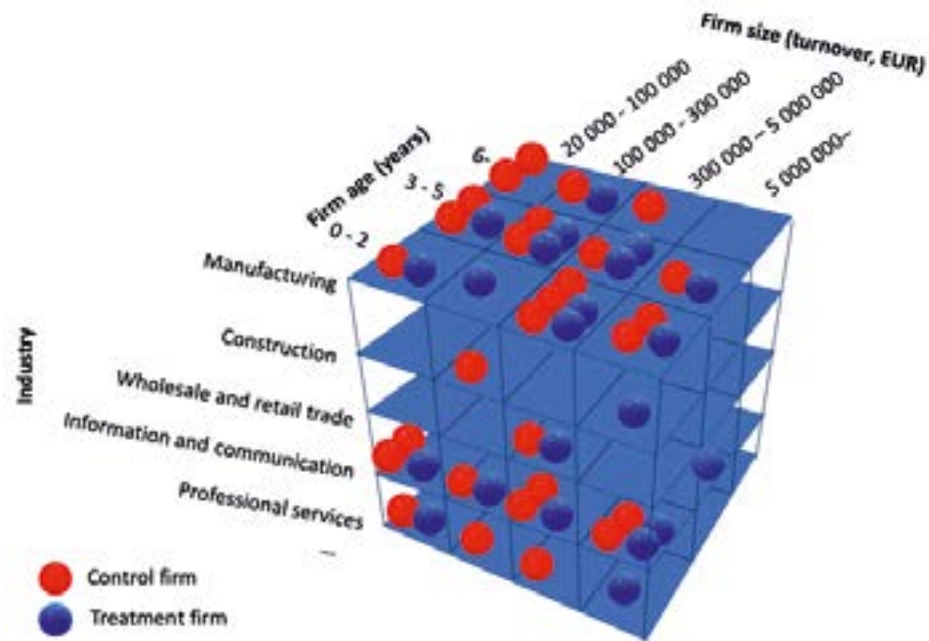
Matching is an often-used approach to control for these differences in quasi-experimental studies. The objective is to select similar members of the treatment and control groups based upon their observed relevant characteristics. In the following description, we call these characteristics matching criteria. CEM is one of the matching techniques. It has some virtues in this case. It bases on coarsened, categorical data which fits well for heterogenous firm characteristics and non-linear linkages between these characteristics and the result indicators. Unlike some other often used matching techniques, it allows matching several control and treatment units with each other, making the loss control data in matching often relatively small. As the samples contain more firms the results of the analysis less sensitive to exceptional cases. It is also a relatively straightforward technique and intuitively understandable.

Figure 1 illustrates matching when applying CEM technique. This is a simplified version of the final matching applied in this study. There are three matching criteria in the figure: firm size, firm age and industry. Our fourth matching criteria, other Business Finland funding received by the firm, is not presented in the figure. There are a total of ten industries in the matching, but the figure includes only five. The combinations of the different criteria levels (small horizontal squares in

the picture) are called strata in CEM. Each control and treatment firm are assigned to a stratum based on their size, age and industry. The treatment firms are matched with the firms in the same stratum. Sometimes there are only one control firm and one treatment firm to be matched. For example, there is one control firm and one treatment firm in the stratum manufacturing, size EUR 20000–100000, age 0–2 years. There can be and often are several control or treatment firms in a stratum. The technique calculates weights for each control firm. These weights take into account the varying number of the control firms and treatment firms in the strata. Strata with no control or no treatment firms are discarded as matching is not found (for example stratum manufacturing, size 100 000–300 000 EUR, Firm age 0–2 which contains one treatment firm but no control firms). The levels of matching criteria that determine strata were determined partly by commonly used classifications (UN 10 industry classification) and statistical tests regarding the linkage between the continuous firm characteristics (firm age, turnover) and the relative change in the result indicators before and after the funding. The outcome of the matching process is the final set of matched control and treatment firms and their weights used in the statistical analyses. This procedure ensures that there are equal proportions of similar firms in the treatment and control groups based upon the matching criteria.

In this study, we applied matching twice. The preliminary matching was used to identify firms that can be potentially included in the impact analysis. The preliminary matching was conducted on the application level

FIGURE 1. Finding matches when applying Coarsened exact matching technique.



because the risk assessment of the application was included and many control had several funding applications. The preliminary matching was based on the following categorial variables:

- Firm size (based on Business Finland classification)
- Customer segment (Business Finland classification)
- Risk assessment classification (three categories based on the risk assessment score)
- Other Business Finland funding before and after the program decision

- Industry (aggregation in 10 classes according to United Nations classification)

Business Finland collected the necessary financial and export indicators for the matched firms after the preliminary matching process. These data consisted of all available years for a firm starting from 2011.

The final matching determined the firms and their weights for the statistical impact analysis. This matching was conducted on the firm level. Should the firm have several applications, the earliest application was used. There were three treatment groups: Feelings and Liideri programs separately and a pooled group comprising the firms of both programs. Each treatment group was matched separately with the control group. Thus, the control firm can be an eligible match for all three treatment groups. The matching was also conducted separately for the three follow up periods (two and three years after the project decision and two years after closing the project).

The prerequisites for final matching were that the firm had a full 12-month financial statement for the year of decision. If this did not exist, data for the next year was used assuming it covered the full 12-month period. The firm was also expected to have a full 12-month data during the follow up year.

No outlier detection was conducted. The result indicators represent changes as the firms involved here are typically growth firms and no justified limit for growth can be determined without undermining the purpose of the analysis.

The final matching criteria were defined in the interaction with the financial data. The differences in the treatment and control group firms were matched based on the following indicators or classifications:

- Firm turnover on the base year (four categories: **1.** EUR 20 000–100 000, **2.** EUR 100 000–300 000, **3.** EUR 300 000–5 000 000, **4.** EUR 5 000 000–1000 000). The base year turnover has a significant impact on the follow up year's turnover and growth rate.
- Firm age on the base year (three categories 1. 0–2 years, 2. 3–5 years, 3. 6– years)
- Aggregate level industry (UN 10 categories)
- Other Business Finland funding five years before and two years after the funding decision (two categories: **1.** no funding before or after the decision **2.** funding before or after decision)

A special procedure was needed for the matching of the follow up period two year after the project closing. The change in results indicators is impacted by time from the base year. The differences in distributions of these times differ between the treatment, and control group may have a biasing impact on the results. Actually, there was not even an actual project closing for the control firms because their base year is based on a rejected project that was never started. Thus, each control firm

was assigned a virtual closing year so that the distributions of the project lengths were equal between the matched treatment and control groups.⁷

ANALYSIS OF LIFESTYLE PROGRAMME

The first analysis of the *Lifestyle* program was based on comparing Finland's export statistics in respect of selected product categories to the target countries of the program and to comparison group countries. The target countries of the program were Denmark, Germany, the UK, Japan, China and South-Korea. For the control group, 26 countries were chosen. The requirement was that they should be OECD countries from the same part of the world as the target countries and that they should have similar types of export trade volumes from Finland, as the target countries.

The second analysis was undertaken by comparing the export numbers of selected target product categories to the product categories chosen in the comparison group. This analysis concerned only the program's target countries.

In the first stage, all 59 companies associated with the *Lifestyle* program were scanned to find out what kind of products they were manufacturing and/or selling. As a result of this process the most common product categories were identified. These were furniture and interior

⁷ Technically the assignment was based on each matching stratum. The years were assigned so that the distributions of the project length followed the distribution of the treatment firms in the stratum. Control firms that had no match with the project length of the actual treatment firms were discarded. The equality of the distributions were tested by using chi-square test. The statistical significances were Feelings $p=0.984$, Liideri $p=0.864$, and Pooled sample 0.968 . There is statistically significant differences, actually the distributions are "far from different". A statistically significant difference would occur if $p<0.05$.

design as well as clothing and fashion. The subsequent analysis focused on these product categories, as over 75% of companies had these products in their product catalogue. It was estimated that the most significant impacts in export numbers (value in euros) should be seen in these product categories.

In the next phase, these products were matched to the product categories of Internal Trade in Goods classifications CN and HS2-HS4. At the same time, product categories for the comparison group were chosen from CN and HS2-HS4 classifications. The comparison group selection included products that were of a similar type to those of the target group products. In both groups, combinations of more than one product category were generated as variables for furniture and interior design as well as clothing and fashion and for their comparison product groups. This matching process was assisted by Business Finland experts.

The export data was acquired from the Eurostat export product database between December 2019 and January 2020. The data was acquired for the years 2000–2019.

In the first analysis, the goal was to find comparison countries for the target countries which were as similar as possible. A synthetic control method was used to choose synthetic comparison countries from the 26 comparison countries. This means that the target countries were not compared to one single comparison country but rather to a combination of several countries which were statistically generated so that the synthetic control country resembles the target country, as much as possible. Synthetic control is a combination of countries which together

make up the most similar artificial country for the export of a product group. When constructing a synthetic control, the following country-specific control variables were used (after logarithmic conversion):

- population of the country
- gross domestic product per capita
- export of product group to countries ((EUR) 2006, 2010 and 2014).

When constructing the synthetic control, the method takes into account the development of the export numbers of the chosen product categories in the target country and the potential comparison country before the program is assumed to have had an impact. The target country and the synthetic control curves are intended to correspond to each other in 2000–2014, before the inception of the Lifestyle program.

Based on the data, a weight for a single comparison country is calculated between 0 and 100%. Usually, synthetic control is a combination of a few countries with weight >0% and summing up to 100%. Sometimes the best synthetic control is one country with a 100% weighting. After the Synthetic control process, the synthetic control country was generated for all of the 6 target countries. For Denmark, Germany and the UK, only European countries were involved in the formation of the synthetic control since the analysis would otherwise have produced poor results, as the export volumes of the non-European comparison countries are very small. The proportions of comparative countries that make up the synthetic control for each target country are presented in

the following graphics. The synthetic control was formed for each target country for both the furniture and interior design product group and for the clothing and fashion product group.

The results were calculated as index numbers for each target country and their synthetic control country per each year. The index number was calculated by comparing each year's export value with the average export value of the years 2006, 2010 and 2014. The average export value from the years 2006, 2010 and 2014 was given an index value of 1.

ANALYSING THE DIFFERENCES BETWEEN THE PROGRAM AND CONTROL FIRMS

The characteristics of the program firms impact the statistical analysis. The Feelings firms in particular tend to be smaller, thus large changes are typical and the results vary significantly by firm. There are many significant leaps in the indicators here. The distributions of the changes (as well as the original result variables) are highly skewed with long tails, both in the treatment and control group firms. Often, many of the firms would have been considered outliers in the analysis. In such cases, the firms were often SMEs which are expected to grow significantly. Thus, these fast-growing firms could not be removed.

This has also had methodological implications. An often-used approach for similar quasi-experiments is

'difference-in-differences'. It first compares the differences in means after and before the treatment period in the treatment and control groups and then estimates the treatment effect by comparing these differences between the treatment and control groups. This procedure is sensitive to outliers and assumes normal distributions. Even though we estimate the treatment effect by using this approach, the results are generally statistically weak and unreliable due to these reasons.

In addition, we have calculated the *relative change* which is the ratio of the result indicator after the follow up period to the results indicator before. It is an index number that depicts the growth rate and transforms the firms with very different sizes close to each other. As this ratio is still sensitive to outliers, we report only median. We employ a non-parametric statistical test that has less assumptions and is less sensitive to distributional 'anomalies.' The Mann-Whitney U test explores whether the changes in treatment firms are generally greater than the changes in the control group. We have also estimated the so-called *common language effect size*. It indicates the probability of a randomly chosen program firm to have a faster growth (ratio of after to before) than a randomly chosen control firm.

This latter approach gives a more reliable results on the impact of the programs. Thus, the *relative change* is our main form of impact analysis. The results are presented as change percentages from the base year.

2.3 OPERATIVE ENVIRONMENT DURING PROGRAM IMPLEMENTATION

2.3.1 MAJOR INFLUENCING FACTORS OF SECTORS RELEVANT TO THE PROGRAMS

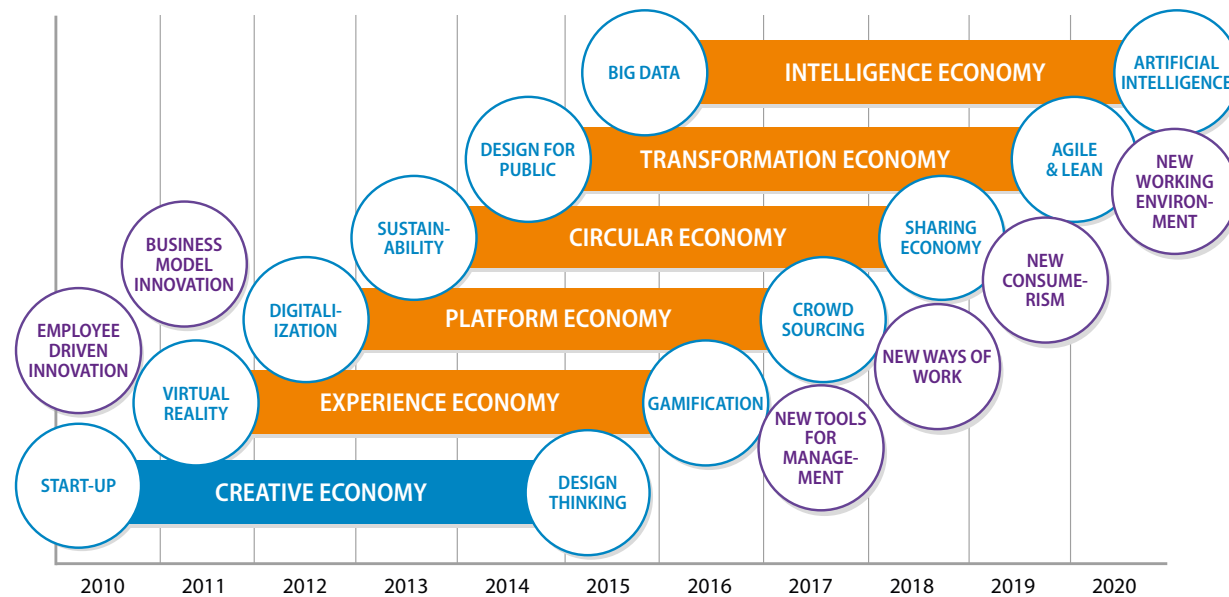
The evaluated programs were implemented over a long period of time. In the interviews of this evaluation, the context and changes in the operative environment were also discussed. This is important if we want to under-

stand some of the results of the programs in a wider context. The context story also included expert interviews both internationally and in Finland. Based on the different viewpoints from interviews and international research, the following issue-map can be identified, which tries to describe the operative environment of the wide objective areas of these programs.

What were the major influencing factors that shaped the creative sector in Finland between 2010 and 2020?

During the last decade, the creative sectors, like many others, have been influenced by increasing changes and

FIGURE 2. Issue-map of major influencing factors of sectors relevant to the programs.



developments of different economic models that have become to exist in our modern society. Not only have the creative sectors been adapting to changes but also actively contributing to how well new economic models are perceived and used within Finnish society.

The definition of creative industries in Finland is based on international models of similar studies. According to the definition commissioned by the Ministry of Trade and Industry, 15 sectors are included in the creative industries in Finland. The sectors range from animation, film and television production to sports and adventure services, architectural and design services, advertising and marketing communications to fine art and art galleries, handicraft, and many others.

The variety and spread of these make it difficult to make a clear comparison between the various specific sectors and their influencing factors. Different key trends are described in greater detail in the following chapters.

From the standpoint of developing our Finnish ecosystem for creative and consumer oriented industries, it could be argued, based on our expert interviews, that the beginning of the 2000s witnessed the establishment of major creative industry support, promotional and export organizations, such as Diges (2003, business development of the creative industry), Neogames (2003, gaming industry), Musex (2005, music exports, now Music Finland), Favex (2007, export of the audiovisual industry, now Audiovisual Finland), Agma (2009, Association of Agents and Managers in Creative Industries), and Finanimation (2005, development of

the animation industry). These organizations and their heads played an important role in acting as spokespersons for their respective creative industry sectors and supporting their development. Also, other individuals working in the public sector at the grassroots level together with the creative sector companies influenced the creation of important public support structures. Now many of these people hold important positions at the governmental level, i.e., in ministries. It was these individuals' candid, goal-oriented, and persistent measures and actions that were needed to get the above objectives accomplished.

2.3.2 CREATIVE ECONOMY AS A RESOURCE FOR GLOBAL COMPETITIVENESS

The creative economy is the economic added value of the creative economy and the creative industries as a whole. The value of the creative economy is measured, for example, through trademarks, patents, design protection, and copyrights. The intellectual property rights cover technology, design, trademarks, and other distinctive features

At the heart of the creative economy are creative individuals who create innovations, such as working methods, service concepts, new products and services, and brands. In this case, creativity is not limited to the creative sector, as innovation-promoting creativity can also exist within organizations. Creative solutions can also emerge through various forms of collaboration and industry interfaces outside the organization. Indeed, we

can see that the creative economy can only be achieved through creativity in all sectors.

The creative industries can strengthen the competitiveness of other industries and the country as a whole. Creative industries are also considered to contribute to economic and social development, innovation, and cohesion in our society. According to the Finnish Ministry of Employment and the Economy, creative industries improve global competitiveness, in particular through services provided by animation, design, advertising, and communications.

The creative sector has also been influenced by concerns surrounding climate change, sustainability, and circular economy. Circular economy aims to maximize the circulation of products, components and materials, and the value attached to them, in the economy as long as possible. In a circular economy, production and consumption generate as little waste as possible. Frequently, the value-added services related to circular economy are created through services and intelligence based digital solutions.

In the Finnish context, the transformations in the educational offering, i.e., the rise of multidisciplinary education, the formation of the Aalto University at the forefront, has had an impact on the evolving of certain creative sectors and creativity being recognized as also important in the business context.

Circular economy is particularly visible in companies in the textile, fashion, and clothing sectors. In November 2015, EK surveyed its member firms' estimates of the circular economy. The results show that Finnish

companies are well on the map of the opportunities of the circular economy. They commented that the logic of circular economy was at the heart of business long before the concept came into being. The Finnish Textile and Fashion Association commissioned a survey of its members, the results of which were in line with the EK study. A significant proportion of respondents, over 80%, were positive about the circular economy.

The greatest value potential of circular economy is not in material flows or waste. Valuable recovery methods include, but are not limited to, maintenance, reuse, and remanufacturing of equipment. The starting point should, therefore, be to maximize value cycling and waste prevention, not to maximize the use of waste as a raw material or energy.

Approximately at the same time as these programs were launched, and before that, employee driven innovation, wide-scale innovation policies, and business model innovation had been emphasized in public discussion. All these trends were also relevant for the programs. However, as we will see later, the employee-driven innovation and participatory working life development was not fully part of the Liideri program.

2.3.3 PLATFORM ECONOMY ENABLING SYSTEMIC CHANGE

Platform Economy refers to a fast-paced business organization model that has emerged from the evolution of the Internet and is especially used to implement rapidly scalable service entities. Platform economy has found

productive ways to apply information technology and software expertise holistically across enterprises or organizations. Platform economy also allows for systemic changes, new business models, and more productive commercial and creative structures.

The sharing economy is not a well-established term, and some of its dimensions may also be referred to as platform economy. However, they are not synonymous, and platform economy is a matter of providing different commodities. Some of the international platforms include applications like Airbnb and Uber, which provide a platform for the sharing economy.

Some of the most important manifestations of platform economy in Finland have been Restaurant Day, the crowdsourced Iron Sky films, and applications such as Treamer, which seeks to combine jobs and independent service providers. Restaurant Day was originally a food carnival which started in Finland in May 2011. On Restaurant Day, anyone can set up a restaurant, café or bar for the day in any place they want. Restaurant Day was one of the largest food events in the world and was held four times a year. During its heyday, more than 14,300 popup restaurants were set up to mark the day of the restaurant, founded by 57,200 restaurateurs. One-day restaurants have seen 1.63 million diners.

Tubecon is a community-driven international YouTube event that gathers YouTube creators and their audiences in arena-sized public events. The first Tubecon took place in August 2014 in Hartwall Arena, Helsinki, with over 5,000 visitors. Since then Tubecon has been

organized 25 times in 4 different countries so far (Finland, Sweden, Spain, and Switzerland) with altogether over 120,000 visitors. In recent years Tubecon has grown significantly, as the YouTube and online influencer scene has also grown. The biggest Tubecon events have gathered over 18,000 visitors and featured over 200 YouTubers and online influencers.

2.3.4 VIRTUAL REALITY AS AN EMERGING TREND IN EXPERIENCE ECONOMY / INTANGIBLE VALUE CREATION

The rise of the experience economy has also been one of the key economic trends of the 2000s and in particular in the 2010s. In the experience economy, the customer pays for experiencing something that is meaningful to them. In this case, the price of the product is not so important from the customer's point of view, and the competition factor is the clarity of the product. In this way, it is possible to have a higher profit margin on the product.

One particular area within experience economy that has resulted in a significant increase of applications has been the evaluation of mixed and virtual reality. With virtual reality it is possible to simulate a real environment or create a completely imaginary environment through which to create new experiences and, for example, communicate a brand, story or simulate an immersive experience. Most virtual reality environments are almost

entirely based on a visual impression created either on a computer screen, a widescreen or a special stereoscopic viewing device.

Virtual and augmented reality technologies are of particular interest to those seeking new ways of doing things in a society where the value of experiences is growing all the time. Virtual reality (VR) and augmented reality (AR) are often combined with visions of the future, even though these technologies are already well established in many areas. Virtual reality has been used for many years in business, for example, in the construction industry, games, marketing, and advertising, establishing itself a significant medium of expression.

Developments in the sector are also noticeable in the number of companies developing and using these technologies. According to a study published by Business Finland, today there are over 100 software companies working on augmented reality. Some of the new companies that have risen include VR specialist design companies such as Zoan, Stereoscape, and platform providers such as Glue Works and Varjo.

Based on expert interviews, it could be argued that, in the Finnish context when looking at the big trends of the past years, it seems that AR and VR have not yet had the major breakthrough in the creative industry on a larger scale and their business opportunities are not yet seen, although some versions have been realized on an individual level. However, when the operating environment evolves and the needed equipment and tools are in place, probably in a few years' time, all possible content might be watched in 3D.

2.3.5 THE SHIFT FROM EXPERIENCE ECONOMY TO TRANSFORMATION ECONOMY

As a natural evolution of the opportunities that experience economy, platform economy, and digitalization have offered smart businesses and public institutions, those businesses and institutions are beginning to realize they are providing more than a product or a service. They are the enablers of something larger than themselves; they have become the catalysts for something profound.

They have come to realize that they are operating in the transformation economy instead of the experience economy. At some point in time they have also realized that they need support on their route to enabling change for their users and customers. This has created the opportunity for the rise of the transformation economy.

Within the creative sector, one particular field that has been influenced by this trend has been design. On the enterprise side, there has been a shift in the focus toward digitalization and customer-centricity, which has led to the rapid growth of digital service design agencies.

These agencies have then also led to consultancies to offer Lean and Agile Transformation services to large corporations. This has led to many large IT companies and top management consultancies going shopping for the smaller, more creative design companies. Within the last few years there have been many examples of such: Capgemini bought Idean, Solita bought Palmu, and Eficode bought Adage. Some discussions of transformation and related methods can both be seen in the projects within Feelings and Liideri.

This, of course, is part of a bigger trend that has been going on for a long time. IT companies have acquired design expertise through recruitment and small acquisitions as IT companies are unable to recruit designers. Therefore, acquisitions are an effective way to expand one's expertise.

Interviews point out that in many of the projects, close collaboration between design and implementation is one of the most critical factors for success. Combining these worlds through acquisitions will certainly make project-level collaboration easier.

In terms of working life innovation, these have resulted in the discussion concerning **new working practices and new tools for management**. These also go in line with the methods such as agile, or self-sustained self-steering organizations or transforming work organizations. All of which are relevant themes in the Liideri program.

From the perspective of the Feelings program, one could also argue that during the program implementation period, sustainability has become an important trend as part of consumerism, to some extent labelled as "new consumerism" in some of the interviews.

2.3.6 THE RISE OF THE INTELLIGENCE ECONOMY

Arguably, we are on the verge of a techno-economic revolution that will fundamentally transform the world as we know it. Within the next 15 years, powerful and disruptive intelligent technologies (such as artificial intelligence, robotics, autonomous vehicles, machine learning, and

the Internet of Everything) will reach a tipping point and pervade every part of the economy, businesses, and our daily lives, but also the creative sector and how it is perceived.

As the 2010s approach their end, there are signs that the rise of artificial intelligence, machine learning, and neural networks that feed on big data collected from the increasingly connected and ubiquitous society might have significant influence on the creative sector. This revolution in our creative means will lead to some great opportunities but also interesting questions about ethics and intellectual property.

An example of the above is Skandal Tech, a spinoff of Lighting Design Collective, a Helsinki, London, and Madrid based lighting design studio. POET, the company's first AI-powered software application, uses big data to trigger different lighting moods for public spaces. By connecting POET feeds from almost any public data ranging from public transport, weather or sports to social media they create a rich medium for ambient communications and visual art.

In terms of the projects funded through Feelings and Liideri, the possibilities of AI and machine learning have been investigated to some degree, and the projects have helped many companies transform their organizations before automatization.

As we see the rise of these new technologies, can it be stated that it is the start of a new era of creativity and culture? In the last decade, the creative sector has been quick to make use and be influenced by a multitude of different economic developments and models, but also

by new technologies. This phenomenon in Finland does not stand on its own or in isolation from different trends. Based on the interviews, it is also unlikely that this trend will slow down.

2.4 COMPARING PROGRAMS IN INTERNATIONAL PERSPECTIVE

The United Kingdom and the Netherlands have been compared in how the countries have supported innovation and growth in the field of creative industries, intangible assets or enhancing customer experience.

In the UK, there is a range of funding initiatives that currently help to grow strategies, programs, policy, jobs, ideas and innovations within creative industries. For instance, one central instrument for governmental support for creative industries is the tax relief scheme (for the detailed benchmarking report see *Appendix 1*).

In the Netherlands, the key focus of the innovation policy has been the top sector approach. One of the nine top sectors is creative industry. Public-private partnership initiatives are an important part of the top sector policy (for the detailed benchmarking report see *Appendix 2*).

3 FINDINGS FROM FEELINGS (2012–2018)

3.1 PROGRAM IMPLEMENTATION

The Feelings program belonged to the continuum of Tekes' programs to promote the service business. Previously, the Serve program (2007–2013) promoted the creation of new innovative service concepts for Finnish companies. The proportion of the service sector in GDP has grown, while the proportion of industries has decreased in the 2000s. The context of the Tekes programs has changed remarkably during the 2000s since design has become an integral part of the innovation process. Design is an integrating function, enabling collaboration between multiple disciplines and departments⁸. According to the evaluation of the Serve program, Serve also had an impact on the increased focus on non-technological innovations in R&D programs in Tekes as well as in the EU Research and Innovation programs⁹.

The vision of the Feelings program was that in 2030 Finland will be the leading country in business driven by

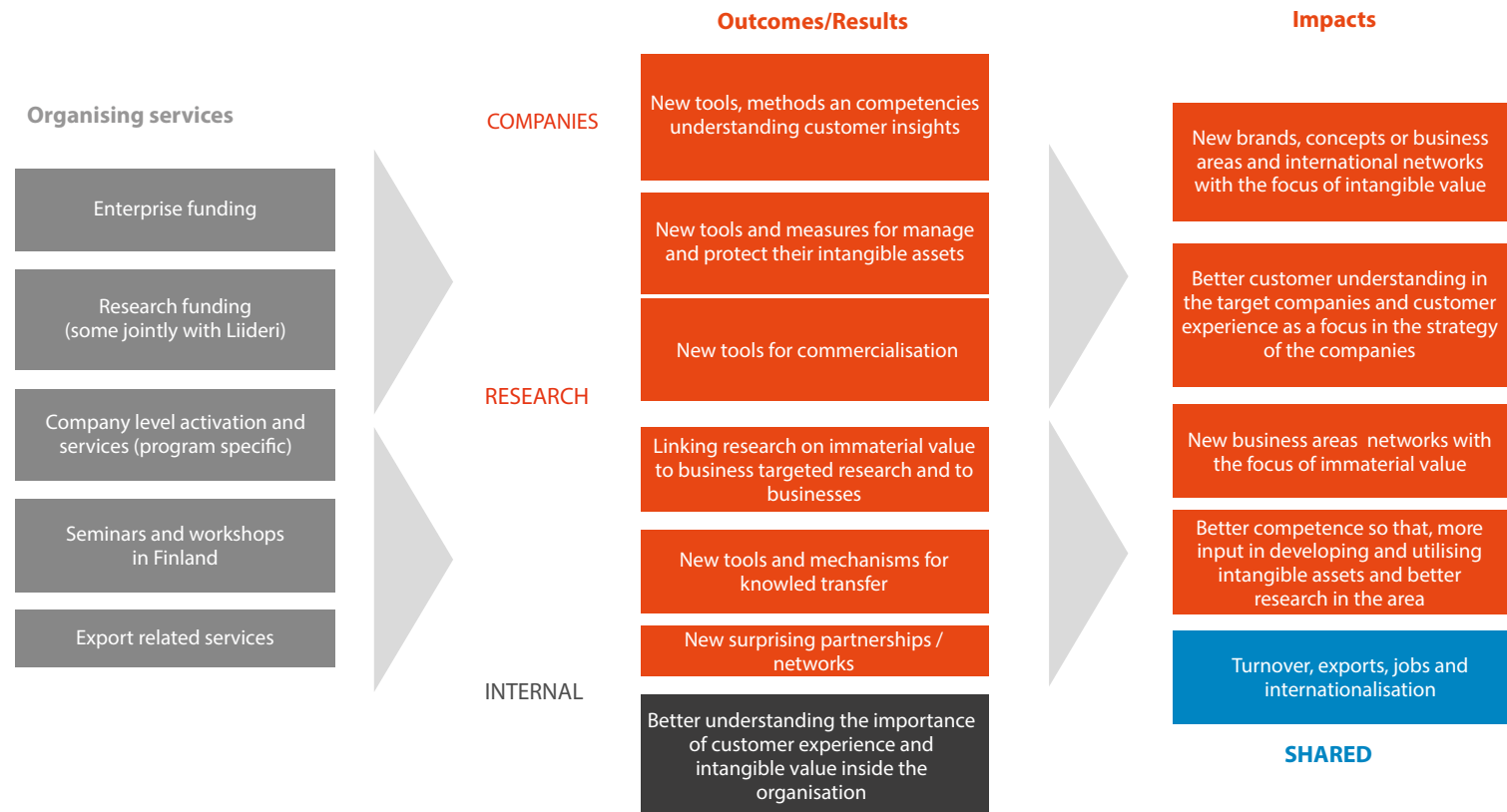
intangibles. The program focused on helping the companies better understand the value of customer experience and the feelings associated with it as a driving force of business development. Furthermore, the Feelings program aimed to create new knowledge networks and unexpected partnerships between creative industries and other companies. The expected outcome and impact themes of the Feelings program are illustrated in Figure 3.

According to the survey, up to 90% of the recipients found the Feelings program very (69%) or quite (21%) useful. However, 4% did not find the program useful. The survey recipients represented both research projects (N = 28) and company projects (N = 27). The background organizations of the survey recipients represented the following fields: research (N = 16), education (N = 9), trade (N = 7), creative fields (N = 6), information and communications (N = 4), industries, (N = 3) other service activities (N = 2), hotel and restaurant business, energy and environment fields, and other fields (N = 6).

⁸ Oosi et al. 2016. Tekes Report 2/2016.

⁹ Oosi et al. 2016. Tekes Report 2/2016.

FIGURE 3. The indicated outcome and impact themes of the Feelings program.



Both the interviews and the survey demonstrate that RDI funding was the most useful implementation of the Feelings program. A total of 90% of the recipients agreed that RDI funding was useful (of which 72% of the survey recipients agreed that RDI funding was very useful, and of which 12% agreed it was useful) (Figure 4).

For instance, the RDI work would not at all have occurred without the Feelings program, new things would not have been developed without the program, the focus of the RDI work would have been different without the program, and the budget of the RDI work would have been smaller without the program (Figure 5).

However, the responses concerning the program seminars and communications and company specific consultancies were less congruent. A total of 40% of the survey recipients agreed that the program seminars were useful (16% very useful and 24% useful). On the other hand, 28% of the survey recipients did not find

the seminars relevant. Furthermore, 22% agreed that the program seminars were neither useful nor useless, and a total of 10% agreed that the program seminars were useless (Figure 4).

Approximately one-third of the recipients found the program communications useful (Figure 4). Furthermore, 26% agreed that the program communication was neither useful nor useless. A total of 12% agreed that the program seminars were fairly useless. Correspondingly, the interviewees said that the external communication of the Feelings as well as the Lifestyle and the Luovimo programs was a weakness. It was noted that the visibility of the participating companies could be improved through program communications.

Approximately one-fourth of the recipients found the company-specific consultancies useful (Figure 4). According to the interviewees, company sparring by the steering committee members was a good practice. However, the interviewees also pointed out that the Feelings program was less active than expected in promoting new tools for commercialization. Almost half (48%) of the survey recipients agreed that the company specific consultancies were irrelevant. This finding may be explained by the fact that half of the survey recipients represented research projects.

With respect to the program activities at the target markets, majority (58%) of the survey recipients agreed that the program activities at the target markets were irrelevant, 14% of the survey recipients agreed that the activities were useful, whereas 8% agreed that the activities were useless (Figure 4).

FIGURE 4. Usefulness of the Feelings program implementation (n=48–50).

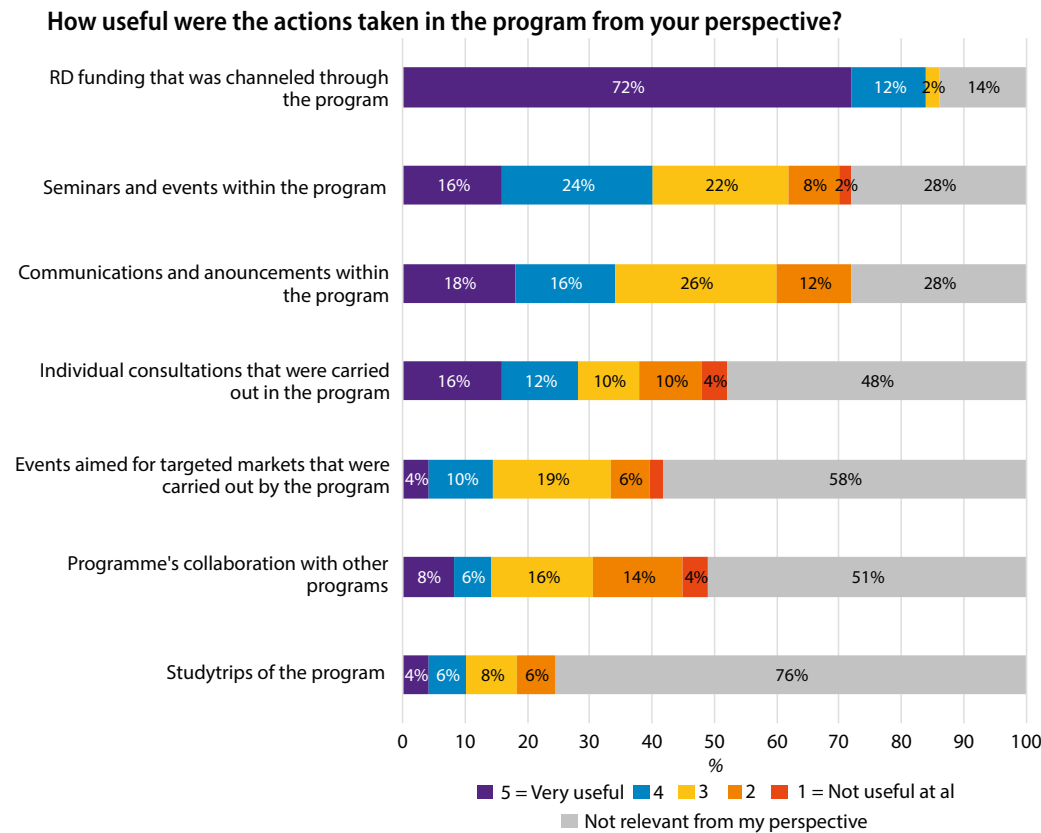
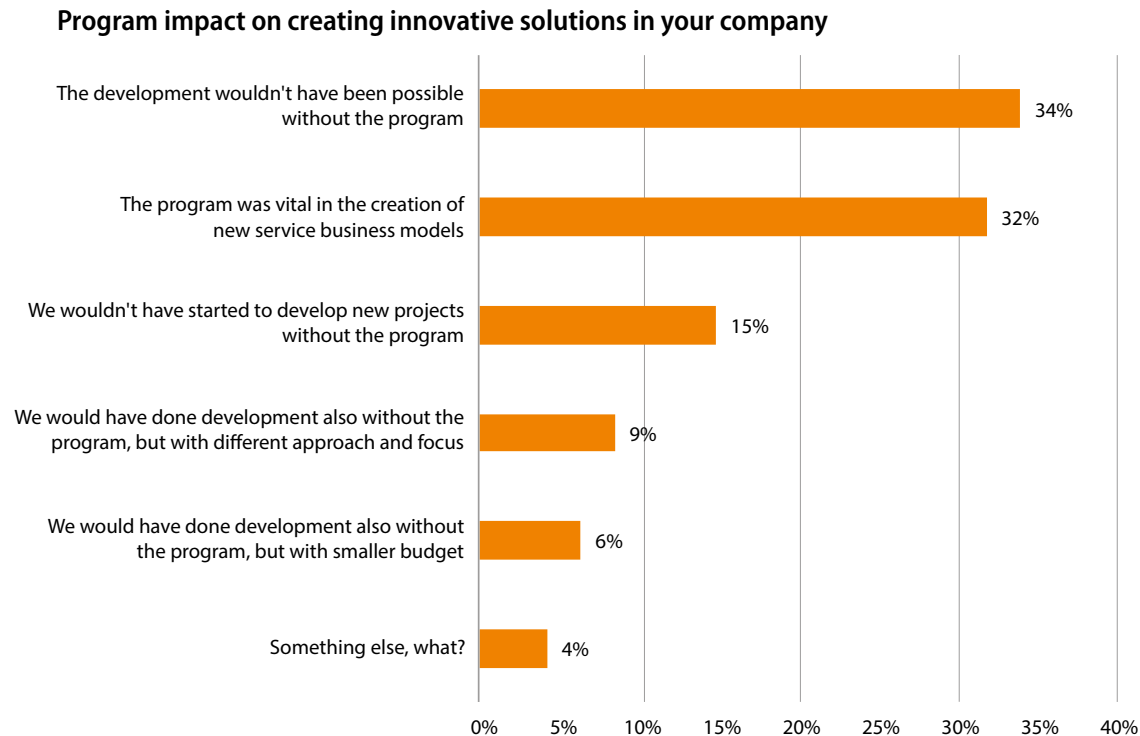


FIGURE 5. Added value of the Feelings program (n=48-50).



The study tours of the Feelings program were irrelevant to the majority (76%) of the survey recipients. Only 10% agreed that the study tours were useful, whereas 6% agreed that the tours were useless (8% agreed that the study tours were neither useful nor useless) (Figure 4). Furthermore, according to the interviewees, the program was less active than expected in promoting new tools for commercialization as well as in EU cooperation.

The Feelings program collaborated with other Tekes programs. For instance, the Feelings program had a joint thematic research call together with the Green Growth program as well as a joint call with the Liideri program in 2013. Research projects were still carried out separately for each program. Furthermore, the Feelings program had coaching services in cooperation with the Lifestyle program. However, only 14% of the recipients found the cooperation between the programs useful, whereas 18% agreed that the cooperation was useless (Figure 4). The majority of the survey recipients agreed that the cooperation with other programs was irrelevant. The evaluation data is discordant because the interviewees stated that reaching other funders for creative fields was a weakness of the Feelings program.

3.2 CONCRETE RESULTS OF THE PROGRAMS

The Feelings program (2012–2018) comprised a total of 416 projects (74% of the applications were accepted). The goal of the total funding volume was €106 million, of which €53 million was estimated to be Business Finland funding. At the end of the Feelings program, the total funding budget was €119 million, of which €65.8 million was from Business Finland. Business Finland exceeded its funding goal by 24%.

CASE: ELINA AHLBÄCK LITERARY AGENCY – the Feelings program speeding up the development of a unique start-up

Elina Ahlbäck Literary Agency was involved in the Feelings program. The company is a relatively new start-up organization, providing agency for Finnish literature—its mission is to build bridges between authors and publishers worldwide and has a passion to internationalize Finnish literature. The company is the first Finnish internationally oriented literary agency.

The Feelings program provided support in creating a growth strategy and developing the IPR strategies and products helping in future internationalization. Again, several projects were carried out during the evaluation period and they formed comprehensive support for the organization. The key aspects were developing the core business and taking it to new international markets. Work also included mapping out all relevant target markets. The whole business model and product models were created during the projects. The contribution of funding was substantial to the development of this organization, and based on the interviews, it could be argued that the same amount of development would not have been possible at the same pace without the funding. ■

The Feelings program funded a total of 304 companies by €42.9 million, of which €26.6 million was grant funding and €16.3 million loan funding. The majority (64%) of the company projects were located in the Uusimaa region. The program funded a total of 109 RDI projects (60% of the applications were accepted). The total volume of RDI projects was €22.8 million, which exceeded the funding goal.

The Feelings program covered a variety of branches and did not have any target field. The emphasis was on the promotion of consumer business. The program succeeded in timing and in reaching design companies. The program promoted new business areas including digitalization and better customer understanding by funding projects on customer experience. According to the survey, the Feelings program played a crucial role in promoting the creation of service business models (Figure 5).

Based on the interviews, brand development was a challenge. In particular, it was needed to clarify which funding instrument would be suitable for brand development. According to the interviewees, understanding of the significance of branding as well as the cultural aspects in connection with brand development generally improved in Finland during the program period.

The case examples demonstrate how the program funding has speeded up the development of companies in their early stages as well as an example of a successful R&D collaboration project.

CASE: FLOWHAVEN LTD. – Leveraging a start-up toward its international growth potential

Flowhaven Ltd. had a constellation of three different projects funded under the Feelings program. The company was established in 2016. The company is focused on providing solutions and services for streamlining brand licensing programs. They provide a cloud-based customer relationship management platform that covers all aspects of licensing management to enable companies to centralize their accounts and operate efficiently.

During the Business Finland projects, the actual platform solution was first piloted (in the R&D-project), and the product was launched during 2017. At the same time, the company received its first international clients. The year 2018 was used to focus on developing the product and service model further. Business Finland's Tempo funding was also used in validating the market development. This means that the funding worked in developing the "core products and services" of a start-up in licensing business.

Growth of the company has been rapid. In less than four years it has established a subsidiary and an office in United States and employs over 20 people globally. At the end of 2019, Flowhaven received \$5.2 million (€4.75m) of seed round funding to take the company growth further. The overall export is assessed to be around 40% of the company's turnover.

The impact of the BF-funding was important. It helped to develop the core product and operational model, which would otherwise have been much slower and harder. The projects also helped secure international clients and supported the clarification of the strategic position of the company and the roadmap of the business activities. Based on the interviews, it could be said that the funding had an effect of hastening the company's innovation speed and international market-entry, both of which could have also developed without the funding at some point in time but at a much slower pace. ■

CASE: THE VALUE TRANSFORMERS R&D PROJECT

Value Transformers was a collaborative research project, coordinated and led by LUT University, in collaboration with University of Turku, Aalto University, Outotec, MacGregor, Kemppe, and SimAnalytics. The total budget of the project was €2.5 million, of which €1.5 million was covered by the companies and €1 million by the universities. Value Transformers was not a follow-up project although some of the project partners had cooperated in previous research projects.

The Value Transformers project focused on exploring how customer firms buy value in business-to-business (B2B) markets, what are the key challenges of this process, and what kind of adaptations both buyers and sellers need to undertake to facilitate value-driven exchange. The research in the project was based on extensive empirical data, which involved more than 100 field interviews with 13 different supplier firms and 17 different buyer firms in different B2B industries (mining, chemicals, shipping, container handling, bearings, power tools, etc.).

The project results have been presented in several international conferences, seminars, and managerial events in Finland, Australia, UK, and the United States. The project presentation "What adaptations does value-driven exchange require" won the best B2B track paper award at the Australian & New Zealand Marketing Academy conference in December 2018 in Adelaide, Australia. Furthermore, a popularized version of the project's academic results have been published in *Tekniikka ja Talous*. Currently, the project researchers are finalizing the write-up of several top-tier and peer-reviewed journal article submissions based on the project results.

The Value Transformers research project was a good example of highly successful collaboration between several academic and industrial partners. The project created new knowledge of the drivers, barriers, and conditions that can facilitate or hinder value-driven selling and buying in



►► **CASE: THE VALUE TRANSFORMERS R&D PROJECT**

B2B, and included new managerial tools and frameworks that helped managers to implement value selling and buying activities and strategies. Overall, the project has increased the capabilities and competencies of Finnish firms to sell and buy value in global markets.

The cooperation between the project and Business Finland was very fruitful and rewarding, and all of the steering group members from various institutes took an active role in sparring the project. Overall, the Feelings program provided a good framework that helped to position the project in the broader research and industry landscape.

Further reading:

Popularization of research in Tekniikka ja Talous: <https://www.tekniikkatalous.fi/uutiset/arvon-myyynnin-ja-ostamisen-kompastuskivet-varsinkaan-arvon-ostajien-haasteista-ei-juuri-puhuta/1ab3b96e-a286-37e1-a7c3-50c8c6902129>

Peer-reviewed conference articles:

Keränen, J., Vuori, M., Raukola, R. & Prior, D. (2019). Performance-based contracts in triadic settings: Analysis of actor perceptions – *IPM2019 conference*, August, Paris, France.

Keränen, J., Meehan, J., & Pinnington, B. (2019). Buying economic or ethical value? Value-driven buying in different contexts - *IPSERA2019 conference*, April, Milan, Italy.

Raukola, R., Keränen, J. & Vuori, M. (2019). Performance-based contracting in a service triad: Exploring actor-perceived barriers – *IPSERA2019 conference*, April, Milan, Italy.

Keränen, J., Jaakkola, E., Terho, H. & Mustak, M. (2018). Reciprocal adaptations for successful value-driven exchange in business markets - *ANZMAC 2018, Australian and New Zealand Marketing Academy Conference*, December, Adelaide, Australia.

Keränen, J., Jaakkola, E., Terho, H. & Mustak, M. (2018). Match made in heaven or hell: When and how are value-driven selling and purchasing approaches aligned? - *IMP Conference 2018*, September, Marseille, France.

Keränen, J., Jaakkola, E., Terho, H. & Mustak, M. (2018). Reciprocal adaptations for successful value-driven exchange in business markets – *Institute for the Study of Business Markets (ISBM) conference*, August 2018, Cambridge, United States.

Terho, H., Keränen, J., Jaakkola, E., Sundqvist, S., & Saurama, A. (2018). Value-Driven Buying: Constituents and Contingencies. *EMAC 2018 Conference*, Glasgow, United Kingdom.

Vuori, M., Keränen, J., & Karjula, J. (2018). Implementing value-based approach in service purchasing: Dyadic case study findings. *IPSERA 2018 conference*, Athens, Greece.

Terho, H., Jaakkola, E., Keränen, J., Rosendahl, O., Töytäri, P., Sundqvist, S., & Saurama, A. (2017). Understanding Value-Driven Buying in Business Markets, *ANZMAC 2017, Australian and New Zealand Marketing Academy Conference*, December, Melbourne, Australia.

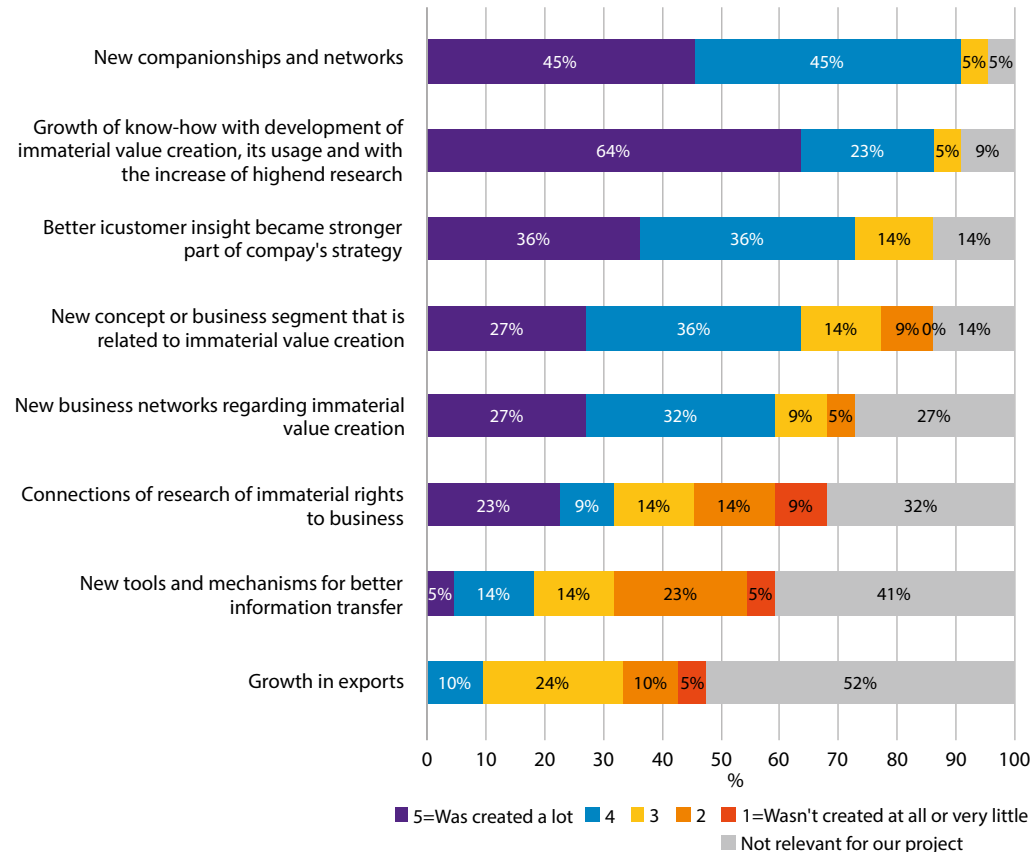
Terho, H., Jaakkola, E., Rosendahl, O., Keränen, J., Töytäri, P., Sundqvist, S., & Saurama, A. (2017). Conceptualizing Value-Driven Buying in Business-to-Business Markets, *Frontiers of Service Conference*, July, New York, United States. ■

3.3 IMPACT OF THE PROGRAM

One of the Feelings program's two main objectives was to create new knowledge networks and unexpected partnerships. Based on the interviews and the survey, the Feelings program achieved its goal in creation of new

FIGURE 6. The project-level results of the Feelings program (n=21–22).

What was created in the project funded by the program?



networks and promotion of the formation of partnerships between creative and other fields. As shown in Figure 6, up to 90% of the survey recipients agreed that new partnerships and networks were formed. Business Finland gained new customers, e.g., creative companies. Simultaneously, Business Finland learned new methods and procedures from those creative companies.

However, according to the interviewees, reaching industry companies was a weakness of the program. This finding is consistent with the evaluation of the previous Serve program, which preceded the Feelings program. Oosi et al. (2016) reported that the Serve program also had difficulties in reaching some of the target fields and industries¹⁰. However, a case study presents a successful R&D project between several academic and industrial partners (see below).

Based on the evaluation data, the Feelings program achieved its main objective in promotion of understanding customer experience. As shown in Figure 6, the survey recipients' customer understanding and customer experience are better than before. Furthermore, majority (63%) of the survey recipients agreed that new concepts and business areas were formed. Up to 87% of the survey recipients agreed that their own competence in intangible value creation grew. Also, majority (59%) of the survey recipients agreed that new business networks on intangible value creation were formed (Figure 6).

¹⁰ Oosi et al. 2016. Evaluation of non-technological programs. Tekes Report 2/2016.

Based on the evaluation data, the evidence of strengthening the connection between research of intangible value creation and business is rather weak. Approximately one-third (32%) of the survey recipients agreed that the connection between research of intangible value creation and business was irrelevant. Similarly, one-third (32%)

of the survey recipients agreed that research of intangible value creation was connected with business. Based on the survey, the companies which participated in the RDI projects have used the research results in business to some extent. In contrast, a total of 23% of the survey recipients agreed that the connections of research of intangible value creation and business were not strengthened (Figure 6).

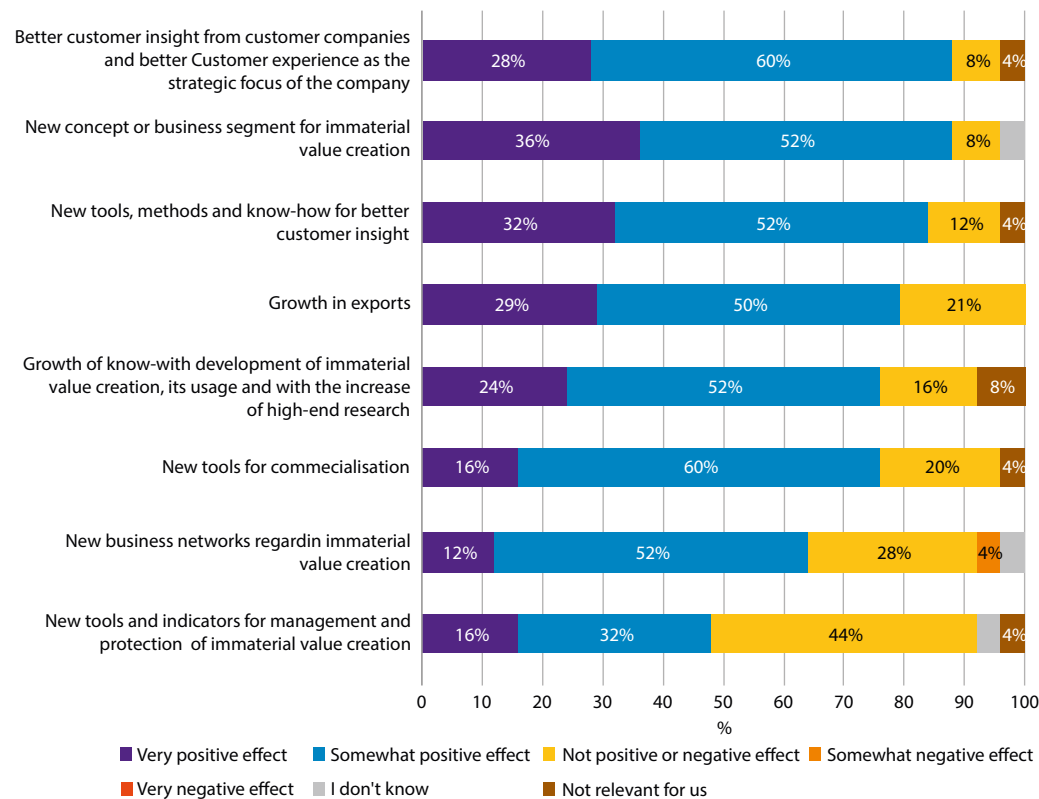
Only 10% of the of the survey recipients agreed that the export grew to some extent. Furthermore, 15% of the recipients said the export did not grow. Majority (52%) of the survey recipients agreed that export growth was irrelevant. It should be noted that approximately half of the survey recipients represented research projects (Figure 6). On the other hand, it could be expected that the Feelings program had an indirect effect on export growth (Figure 7).

All in all, the direct and indirect impacts of the Feelings program have been positive (Figure 7). Majority of the survey recipients agreed that the Feelings program had a positive direct or indirect impact on customer understanding and customer experience, formation of new concepts and business areas in intangible value creation, growth of competencies in intangible value creation, new tools for commercialization, and creation of new networks between creative fields and other fields. Instead, evidence of the impact of providing new tools for protecting intangible value creation is weaker.

Approximately one-third (32%) of the survey recipients agreed that a follow-up project was built on the research project of the Feelings program. Up to 83% of

FIGURE 7. The direct or indirect impacts of the Feelings program (n=24–25).

Please estimate what kind of direct or indirect effect the program had for the following:



the survey recipients agreed that development of the solutions included in funded company projects was continued after the program. The findings indicate that indirect impacts of the Feelings program will come out in the next few years.

Based on the evaluation data, dissemination of the results was a weakness of the Feelings program (see also 3.1). Also, evidence of the program providing new tools and mechanisms for knowledge transfer is weak (Figure 7). For instance, the steering committee members did not receive follow-up information about the projects, e.g., information on outputs and preliminary results. With regard to impacts of the program, more attention should be paid to communication.

RESULTS OF THE ECONOMETRIC ANALYSIS

The following analysis focuses on the relative change in the result variables. Table 1 summarizes the median of the growth in result indicators in all firms. The values present the differences of median in percentages from the base year (i.e., the year of the funding decision).

Table 2 presents the results from a subset of firms that did not receive other Business Finland funding five years before or two years after the project decision. The results of exports are not presented due to the small number of eligible firms. The analysis was not conducted for the follow-up period of two years after the project closing for the same reason.

TABLE 1. Differences in median of the changes from the base year.

	TWO YEARS AFTER THE PROJECT DECISION		THREE YEARS AFTER THE PROJECT DECISION		TWO YEARS AFTER THE PROJECT CLOSING ^a	
	Control firms	Feelings firms	Control firms	Feelings firms	Control firms	Feelings firms
Change in turnover (EUR)	+14%	+30%	+9%	+27%	+26%	+48%
Change in number of employees	+8%	+17%	+1%	+24% *	+14%	+41% +
Change in value added/employee (EUR)	+5%	-4 % +	+10%	+1% +	+9%	+2%
Change in exports (EUR)	+1%	+58%	+47%	+33%	-	-

* Difference in distribution is statistically significant ($p < 0.05$), + Difference in distribution is statistically indicative ($p < 0.10$), (Independent samples Mann-Whitney U Test, 2-sided)

^a Two years after the project closing, varies from 2 to 5 years after the project decision. The average is 2.8 years.

TABLE 2. Results of the Feelings program firms that did not receive other Business Finland funding five years before or two years after the Feelings project decision.

	TWO YEARS AFTER THE PROJECT DECISION		THREE YEARS AFTER THE PROJECT DECISION	
	Control firms	Feelings firms	Control firms	Feelings firms
Change in turnover (EUR)	-1%	+37%*	+1%	+25%+
Change in number of employees	-1%	+34%+	-2%	+35% *
Change in value added/employee (EUR)	+12%	-2 % +	+20%	-2% *

* Difference in distribution is statistically significant ($p < 0.05$),
 + Difference in distribution is statistically indicative ($p < 0.10$),
 (Independent samples Mann-Whitney U Test, 2-sided)

The turnover growth has been faster in Feelings firms than the control firms in all three follow-up periods. These differences are, however, statistically insignificant when examining all Feelings firms. In the subset of new Business Finland customers, this difference is statistically significant. The common language effect sizes indicate that a randomly chosen Feelings program firm has a faster turnover growth than a randomly chosen similar control firm growth in 55 cases out of a hundred (61 cases among new customer firms).

We also studied the proportion of firms that were able to double their turnover with the two/three-year period

(Table 3). Approximately one fifth of the Feelings firms doubled their turnover in three years. This equals to approximately 25 % of annual growth. Almost one quarter doubled the turnover within two years from the project closing. There are, however, no significant differences between the Feelings firms and control firms in the proportions of any follow-up period. Even though the Feelings firms have generally increased their turnover faster than the control group, more fast-growing stars cannot be seen emerging from the Feelings program compared to the control firms.

TABLE 3. Proportion of the Feelings firms that have doubled their turnover from the base year.

	TWO YEARS	THREE YEARS	TWO YEARS AFTER PROJECT CLOSING
Control firms	18.0%	20.5%	23.7%
Feelings firms	17.3%	19.2%	23.3%

The growth in the number of employees has been faster in the Feelings firms compared to the control firms. These differences are statistically significant especially when the follow-up period is three years. When comparing the growth rate of randomly chosen Feelings and control firms, the growth has been faster in 60 cases out of a hundred (the corresponding figure is 61 cases among new customer firms).

The development is different when comparing the value added per employee. **The value added per em-**

ployee has retained the same level in the Feelings firms but the control groups have improved their productivity. These differences are statistically indicative in the set of all firms and statistically significant when in three follow-up years of the new firms. A randomly chosen Feelings firm has improved their value added per employee only in 40 cases out of a hundred (35 cases among new customers).

Export has grown both in the Feelings firms and the control firms, especially in the three-year time frame. Exports seem to be very volatile in Feelings firms and their peers, which are typically small. There is no clear evidence that the program would have increased the exports. The number of firms that have comparable base year exports is relatively small (43 control firm and 14 Feelings firms), making the analysis unreliable.

4 FINDINGS FROM LIIDERI (2012–2018)

4.1 PROGRAM IMPLEMENTATION

The Liideri program was prepared during 2011–2012 under the working title of “Creative, innovative, and participatory workplace” in Finland. It was part of the long continuation of workplace development programs (TYKE 1996–2003) and Tykes (2004–2010) and their results. It was, at the time, based on the strategy of Tekes, Finnish National Innovation Strategy (2008), and wide stakeholder consultation under the program preparation.

Key themes for the program included employee participatory innovation, in which the active and systematic participation of employees in service design, renewal, and idea generation produces new solutions and new value for customers. Included important theme was research and development of new work and new work methods, such as shared leadership, individual solutions, networked and fragmented work, and innovative

utilization of ICT as part of the work. The important insight regarding research and development was that it requires the renewal of management principles which then has to be reflected in the management processes and principles in terms of the organization of the work as well as the supporting structures of the work.

During the program implementation, the Ministry of Employment and Economic Affairs upheld the national strategy of Working Life 2020. The management group from this project worked as an “expert group” for the program. The Liideri program also had a role as an expert in its implementation. Many interviews point out that Liideri was an important factor in implementing this national strategy and it was one of the “most visible” activities for the strategy.

During its implementation, external factors affected the implementation of the program and are important to understand when analyzing the results of the program outside its individual project objects or its impact on the participating companies.

1. CHANGE OF PROGRAM VISION, MISSION, AND OBJECTIVES DUE TO CHANGES IN TEKES' STRATEGY

During the implementation period, Tekes' strategy changed more toward international growth of the companies. This was further emphasized when the organization of Business Finland was formed in 2018. Even though Liideri had "international growth" as part of its underlying themes, based on interviews it can be argued that this meant that generic management and management innovation themes were raised as part of the key themes and these were geared toward management of international growth. Some of the original focus areas of the programs, such as employee-driven innovation or joy of work, were replaced by general objective of development of management culture as part international growth.

TABLE 4. Changes to the Liideri program.

	MISSION	VISION
2012 #936661	Program produces management and organizational measures which renew business and working life as Best in Europe 2020. Program implements the Working Life development strategy for 2020 and helps to promote its objectives.	Finland will have Europe's best workplaces in 2020. These workplaces are high-performing and provide joy of work. Program procures new management and organizational practices which have significant contribution toward this objective.
2016 #1501582	Program helps enterprises and other organizations to review their organization and grow their business by developing their management and working practices.	Finland has Europe's best, renewed, and participatory management enterprises, which take on the possibilities provided by digitalization and create international growth with people.

This also meant increasing cooperation between the Liideri program and other programs (such as Feelings or programs in the digital fields). However, cooperation between Liideri and digital programs was not continued when Liideri was transferred away from the unit responsible for digital programs inside Tekes.

The changes to the mission and vision are summarized in the final report, see Table 4.

Changes to the vision were part of the emphasis on the business-driven aspects of the vision. This meant better alignment between Tekes' internationalization strategy and led to stronger emphasis on management of international business.

2. CHANGE OF RELATED FUNDING INSTRUMENTS

These strategic changes also affected the practical funding instruments available for the program. In the enterprise project this meant that the focus was on those companies which target international growth. According to interviews, this led to a drastic drop of applications as well as actual projects within the program. Originally there was also the funding instrument TYKE, which funded projects focused purely on development of organization structures. This was first diminished and then abolished and partly replaced by other funding instruments, such as KIITO, which also changed the focus of the program from the original vision.

This also meant that during the implementation period, the funding available for projects within the program changed. Where the original ideas were based on state aid-based funding, during the program implementation most of the funding was in actuality derived from loans. From the perspective of organizational innovation, this approach is seen as difficult in the interviews. However, one practical measure by the Liideri program was the activation of R&D&I-projects for wider management and business model development projects. This was eminent during years 2017–2018 when these wider-scale changes, including international growth, were emphasized. This can also be seen in some of the case examples.

Includer change was the change in research funding, which can also be seen in the Feelings program.

3. ORGANIZATIONAL CHANGES AND THEIR MEANING FOR PROGRAM IMPLEMENTATION

During the implementation period, the organization went through drastic changes. For example, core management structures were redesigned and the manager responsible for the program changed over time. This caused some challenges for the actual program implementation and motivation of key expertise inside the program, including the steering group of the program.

Organizational management innovation as a new theme in innovation funding is mentioned in the interviews as a difficult theme for many experts traditionally working with technological innovation.

4.2 CONCRETE RESULTS OF THE PROGRAMS

The illustration of Liideri's impact logic is described in Figure 8.

Originally these results followed three different themes:

- New working life management practices
- Employee driven innovation
- New work methods

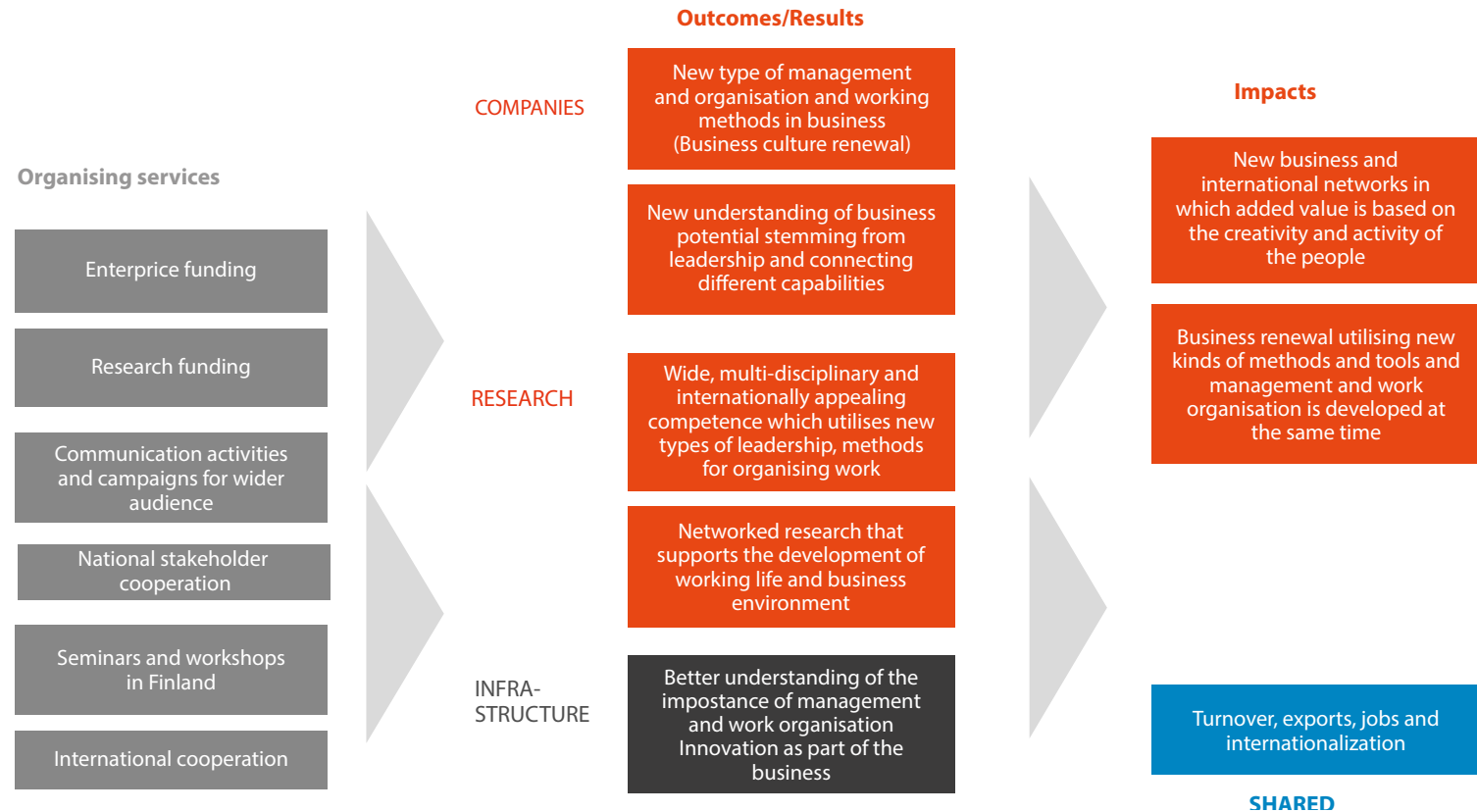
The concrete results for different result categories of the program can be grouped at three different levels based on what kind of activities were organized during the program. These are:

- 1.** Program-level results from the activation work, feeding into further project-level results
- 2.** Project-level results (from both enterprise and research projects)
- 3.** Other program-level communicational and stakeholder cooperation activities leading to the wider recognition of the importance of the issues the program tried to achieve

Original quantitative objectives for the program within these themes included:

- The aim is to get at least 200 companies of the program's primary target group to participate in the program's development or research projects.

FIGURE 8. Expected outcome and impact themes of the Liideri program.



- The aim is to have at least 300 companies or other organizations to launch a program-funded projects, of which at least 70% should bring about clear and measurable improvements.
- The aim is that at least 500 companies of the program's primary target group and at least 1000 companies or organizations altogether make use of services of the program or gains concrete benefits from the program in running their own business activities.

RESULTS FROM THE ACTIVATION WORK

The program did different activation work during its implementation period. Based on the document analysis, the following table summarizes the key findings and observations from the interviews.

TABLE 5. Results from activation work.

YEAR	FOCUS OF THE ACTIVATION	OBSERVATIONS OF CONCRETE RESULTS
2013	Tekes-Talk tour in several cases with Feelings program	Over 20 forums to meet companies, thematic groups for interested organizations
2014	Challenge “Finland needs 50000000 leaders” campaign (discussed below) and regional discussions in all regional ELY-regions and several other thematic groups as well as participation in different happenings	New projects (around 70 R&D-projects) and new research call together with Feelings program
2015	Redesign of the key themes based on selected topics, focus on ambitious projects, self-evaluation activities, and participation in over 10 meetings	Strategy for networks and learning platforms
2016	Part of the Reboot Finland -concept and part of the digi-strategy, Passionate Enterprise Sparring, and new funding instruments introduced (Tempo, Kiito and Into) Sparring for Growth Enterprises Communication activities on 8-year of work (discussed separately), Passionate Enterprise -campaign, and participation in several other meetings and activities	Campaigns which build the awareness of the program (discussed separately)
2017	Focus on international development in the projects within the programs and result workshops and seminars (around 30) Research cooperation with Winnova Made by Finland -brand study	Dissemination of results through seminars: reach over 7000 different recipients, over 1000 followers in Twitter for program manager New key projects in combining business and growth management in digital international business (8 key projects)
2018–2019	Incorporating management theme to all client sparring activities for SME unit inside Business Finland Focusing of “leader legacy” and incorporating new content to the webpages Planned policy paper for key stakeholders – was not realized	

CONCRETE PROJECT-LEVEL RESULTS

Projects surveyed in the evaluation survey mention that the projects had led to very concrete results as well. They point out that they received the new expertise they needed for the development project (69% of respondents), the project helped prepare for the changes in the operative environment (62%), the project helped develop new tools for further developing the organization (58%) and gain new partnerships (54%). The Liideri projects focus only indirectly on customers because few projects mention if the project had an impact on new customer numbers.

Theme: New type of management and organization and working methods in business (business culture renewal)

Most of the project interviews and survey responses emphasize the theme of new management and organization and working methods. This also involves business culture renewal, which is discussed as a direct practical result of the program of intermediate impact of the development work carried in the organization. Almost all projects have somehow utilized this approach as a part of the development work. These results can also be emphasized using several cases collected by either the evaluation or the program itself.

CASE: HYDROLINE – an example of new business restructuring based on the project

One of the development cases reported by the program is a company called Hydroline. The contribution story of the case represents the new realization of core processes based on organizational innovation in field work. The project led to a realization that the machinery equipment should be maintained before too many technical difficulties rose. Another realization was that there were not many maintenance providers for hydraulic cylinders. This led to a redesign of the key business areas of the company and to a realization that maintenance and digital prevention diagnostics are important. This development project led to a more stable financial situation and increased growth potential. During the program implementation the growth rate has been stable and the development project accelerated this growth in an important way. ■

CASE: LINKOSUON LEIPOMO – an example of cultural renewal

Linkosuo Bakery changed its production from traditional bakery products toward snacks. The development project related the development of the organization within this drastic change. Personnel motivation has been one of the key drivers for this change, and the personnel has been motivated. Renewing or updating the competencies has meant the rise of digital work within the production process, where most of the production line was automatized. The project focused on taking new software into use and led to the hiring of a digital developer within the organization.

The key thing in the development project was that the personnel picked up the new work methods very fast and were extremely enthusiastic about the work. The project supported the company in the realization of strategy implementation and matched the need for renewing competence as well as technology in the new competitive situation. Enterprise culture is seen as one of the most difficult things to change in a company, and this means that to do it as part of the change project is seen as very important. ■

CASE: REMEDY – an example of change in work methods

Remedy Entertainment grew from a 130-person game development company to a company employing more than 200 employees. Most of the revenue is international. A key part of the company's strategy was the transformation from a single project production organization to multiple project organization. The Liideri development project helped to design the implementation of this new strategy.

The development focused on developing more autonomous teams, where the top management defines strategic direction and key milestones but development projects work mainly independently in the given framework. The Liideri project focused on this transformation and helped to redesign the strategy. Practical work methods were development and the project had a direct impact on the speed of product development within the company. ■

Theme: New understanding of business potential stemming from leadership and connecting different capabilities

CASE: INTEGRAL – corporate culture development in changing times

After acquisitions, digital design company Integral had several different corporate cultures. The subject of the development project was to change the corporate culture as well as the work methods and head toward cultural renewal after the fusion.

The project focused on creating a new corporate culture based on interaction. The goal of Integral was to transform their work methods and develop knowledge utilization processes within the company. Service Design was used to redevelop the brand, and internal processes were analyzed. Shared communication processes were development and the development of communication, tone of voice and internal dialogue led to the development of the new corporate culture. This has been seen as an important part of how the organization functions. ■

CASE: PLASTEP

Thermoplastic injection company Plastep developed a participatory approach to product development as part of the Liideri project. This has helped the company to understand the needs of the customer better. Especially after the product development process included all personnel, they have made many improvement actions in the production. This has led to a change in product development practices, and group-based participatory methods are used. This has impacted the motivation of the personnel. It has also led to a redesign of the corporate hierarchy, and management is seen as an enabler and servant of the employers. ■

Theme: Wide, multi-disciplinary and internationally appealing competence which utilizes new types of leadership, methods for organizing work

Overall, the program funded 55 consortia by approximately €19 million. The consortia were comprised of a total of 90 research organizations. Many of these research projects were highly networked both in terms of the research providers and companies. There is much public information about these projects available in Business Finland, as part of the Liideri. Individual projects are not summarized in this evaluation, but following categories can be identified:

- Practical research providing new information on either new management methods, work organization or their application (for example Mindfulness intervention research, Learning Camp, Käynnissäpitötöiden organisointi ja toimintamallit, Agile, Managing Service Impact).
- Wider-scale research projects on new work methods, including several participants providing a lot of publication as well as including co-creative aspects with companies (i.e., Hyve 2020, Organization 2.0, e-Value Creation).
- A set of research projects developing new methods for management innovation or working life development (i.e., BisnesPotku, DigiKaappaus and Innovation Booster, VALIT, Innospring Catch, MatchDesign).

Based on the interviews and monitoring data, one challenge is that, despite some of the result publication activities done by the program, research projects are sometimes responsible for publication and dissemination of the results. Some interviews point out that this is something that could be further enhanced by the programs. However, it may be partly explained by the fusion of the funding organizations and related changes.

According to our survey respondents and interviews, the research project has really helped to provide wide and multi-disciplinary knowledge about the new work methods (around 62% of respondents), and only very few survey respondents or interviews pointed out that the results from the research were not utilized. According to our survey, most of the research groups or networks co-funded by the program still exist.

Based on the interviews to projects and survey responses for company and research project it could be argued that the research funded has been really networked within (92% of respondents in the survey) and helped to renew the business with its methods (10 project cases saw really positive impacts). Only very few of the research projects mention that the utilization of the research results within the research projects funded was inadequate in the participant companies.

RESULTS FROM OTHER COMMUNICATIONAL AND STAKEHOLDER COOPERATION ACTIVITIES

Most of the interviews point out that the program contributed in part to several important developments in the working life of the program participants. Enterprise-level projects were also important. There is a sharp contradiction between interview data and the goals of the program under Business Finland. Those actors traditionally responsible for monitoring the overall working life development in Finland tend to be more critical toward the choices that needed to be done when the program was implemented as part of Tekes (now Business Finland). The expert and steering group were interested in a program that would widely support the development of working life and strategy change in 2016, but it led, in their opinion, to too much on some enterprise segments.

One of the most visible actions in terms of awareness raising were the “Finland needs 5 000 000 leaders” campaign in 2014 and a series of Liideri Cafés in different managerial innovation themes. The latter of which has received high level of participants and great feedback as can be seen from the internal documentation of the programs.

The program also has international cooperation, especially with the EUWIN-network. This project was funded by the European Commission and was an important part of exchanging best practices in working life innovations across member states. The project lasted three years and published a separate journal, and the Liideri program was an active part of the network.

4.3 IMPACT OF THE PROGRAM

This chapter answers the following evaluation questions:

- Analysis, including econometric analysis, of the contribution of each of the programs on business development, turnover, export, jobs, and internationalization at the participating companies.
- What added value have the programs created in the industry and the participating companies?

IMPACTS IN QUALITATIVE ANALYSIS

This chapter summarizes findings from stakeholder interviews, case-studies, and secondary data as well as survey responses. Survey responses were analyzed qualitatively as individual responses for each project due to limitations of the data.

Based on our survey, we can see that at least those projects which took the time to respond to our survey saw that their employees are now better utilized as part of the innovation activity, and new types of managerial or organizational innovations were part of the organization’s activity (100% of the respondents agree with the statement). However, international networks or internationalization were more seldom reported as an impact (50% of the respondents agree), and 8 companies reported the growth of expertise due to the development of the program.

In terms of added value to the industry, it is reasonable to note that due to the non-sector specific nature of the program, the added value of this program was about its theme. Many stakeholder and enterprise interviews point out that this aspect of the program was about the managerial innovation and combining

the organizational innovation with other development practices. There does not exist much financial support for these kinds of innovation processes. Another example mentioned in the development of the organizational culture as part of the transformation processes of these cultures.

CASE: PEL-PRODUCT – participatory approach as part of the digitalization of the corporate culture

PEL-product delivers stone-collecting machinery internationally to 38 countries. Half of the company's turnover comes from exports. The rise of the turnover has been steady and product development and exports were seen as the key drivers of the change.

The development project helped the organization implement the robotization of the production line. Robotization has meant the change of products, created new jobs within the company, and cleared new roles within the organization. This digitalization has been a challenge to management, and participatory approaches in the development project has helped to diminish the potential worries of the employers caused by the robotization. ■

CASE: CRITICAL FORCE – design an organization in a growing field with the support

Critical Force had support from Business Finland's Liideri program for their project in spring 2018 and the project has not ended yet. Critical Force received both a loan and funding for their project to create and scale up a world leading mobile e-sports company. Critical Force is a game developing company that was founded in 2010. The company creates and develops competitive games for mobile platforms. Critical Force operates in Kajaani and Helsinki. By the time of Business Finland funding, the company had an office in South-Korea as well.

Gaming is one of the fastest growing entertainment industries in the world. Business Finland contacted Critical Force due to their potential for rapid growth. The purpose of the project is to build and scale Critical Force into the world's leading mobile esports FPS game developer, and to increase the company's business to an internationally significant level. In addition, the purpose of the project is to contribute to the emergence and operation of the global Critical Ops e-sports ecosystem, which offers new value and business opportunities for international e-sports markets.

In 2018 Critical Force was one of the leading mobile e-sports companies in the world and had received €4m funding from South Korea before participating in the Business Finland project. Their mobile game Critical Ops has been downloaded more than 70 million times worldwide. At the moment the project is momentarily on hold due to internal issues in company, but will be restarted and adjusted with Business Finland in 2020. Even though the project is still ongoing, the company was able to more systematically organize itself because of the support from BF. Especially with the changes in the company's situation, the support and versatility from Business Finland has been essential for the company's growth and internal organization even in an evolving situation. ■

CASE: LAMOR CORPORATION AB – development of the Lamor network with new leading model

Lamor Corporation AB is an internationally operating company based in Porvoo, Finland. The development of the Lamor network with a new leading model was funded under the Liideri program during 2016–2019. Lamor—Larsen Marin Oil Recovery—was established in 1982 as a specialized, family-owned shipyard in Finland. Before the new millennia, the company was operating mainly as a machinery supplier in the field of oil recovery. In the beginning of the 2000s, the company started to sell oil recovery as a service instead of machinery supplying, and in 2012 the company started to develop their service production and service business models further.

The company's Liideri program was divided into three parts. For the first part, the goal was to develop a shared communications platform to enhance communication between employees working world-wide and to enable better leadership. The second part was to broaden production and technology networks for better presence in certain countries, where stronger cultures for local business-making are present. The third part was to link Finnish pioneering companies to be a part of Lamor's value production networks and to develop new solutions to new kind of environmental problems that are constantly emerging.

Lamor has established a status where they produce half of the services from the global €75m markets in environmental cleaning. They currently have 350 employees and they operate in 104 countries. Lamor has 20 years of history with Business Finland and their predecessors. Currently Lamor is planning a new project with Business Finland to develop a pioneering business ecosystem in the field of environmental cleaning. ■

RESULTS OF THE ECONOMETRIC ANALYSIS

The following analysis focuses on the relative change in the result variables. Table 6 summarizes the median of the growth in result indicators in all firms. The values present the differences of median in percentages from the base year (i.e., the year of the funding decision).

Table 7 presents the results from a subset of firms that have not received other Business Finland funding five years before or two years after the decision. The results of exports are not presented due small number of eligible firms. The analysis was not conducted for the follow-up period two years after the project closing for the same reason.

The Liideri projects are generally long, especially when compared to Feelings projects. There has been no clear detectable impact during the short two-year follow-up period. After the two years, Liideri projects have just been closed or are still running. According to the data **the impact of the program emerges only after three years** from the project decision. The difference also remains two years after the project closing (in average 3.7 years after the funding decision) but the number of observations decline as the follow-up time becomes longer. This reduces the statistical significance of the results.

The turnover growth has been faster in Liideri firms than the control firms when comparing the three-year follow-up. This result was statistically significant both in all firms and new customer firms. A randomly

TABLE 6. Differences in median of the changes from the base year.

	TWO YEARS AFTER THE PROJECT DECISION		THREE YEARS AFTER THE PROJECT DECISION		TWO YEARS AFTER THE PROJECT CLOSING ^a	
	Control firms	Liideri firms	Control firms	Liideri firms	Control firms	Liideri firms
Change in turnover (EUR)	+9%	+12%	+6%	+16%*	+6%	+16%
Change in number of employees	+7%	+7%	+8%	+18%+	+11%	+23%
Change in value added/employee (EUR)	-2%	+2 %	-2%	0%	-4%	0%
Change in exports (EUR)	+19%	+18%	+32%	+42%	-	-

* Difference in distribution is statistically significant ($p < 0.05$), + Difference in distribution is statistically indicative ($p < 0.10$), (Independent samples Mann-Whitney U Test, 2-sided)

^a Two year after the project, varies from 2 to 5 years after the project decision. The average is 3.7 years.

TABLE 7. Results of the Liideri program firms that have not received other Business Finland funding five years before or two years after the project decision.

	TWO YEARS AFTER THE PROJECT DECISION		THREE YEARS AFTER THE PROJECT DECISION	
	Control firms	Liideri firms	Control firms	Liideri firms
Change in turnover (EUR)	+9%	+9%*	+3%	+16%*
Change in number of employees	+7%	+5%	0%	+10%
Change in value added/employee (EUR)	-2%	+5%	+8%	+5%

* Difference in distribution is statistically significant ($p < 0.05$), + Difference in distribution is statistically indicative ($p < 0.10$), (Independent samples Mann-Whitney U Test, 2-sided)

chosen Liideri firm has had faster turnover growth than a randomly chosen similar control firm in 59 cases out of a hundred (63 cases among new customer firms).

We also studied to which extent the Liideri firms have been able to grow fast. Generally, the Liideri firms are much larger than the Feelings firms, impacting also their potential for fast growth. This can be seen in the proportion of firms that have been able to double their turnover. Such firms are rare in the Liideri program. We see a slightly higher proportion of Liideri firms reaching fast growth but the differences are far from statistically significant.

TABLE 8. Proportion of Liideri firms that have doubled their turnover from the base year.

	TWO YEARS	THREE YEARS	TWO YEARS AFTER PROJECT CLOSING
Control firms	6.4%	4.7%	6.0 %
Liideri firms	6.4%	6.9%	7.0 %

The growth in the number of employees has been faster in Liideri firms, when compared to the control firms in the three-year time frame. When comparing the growth rate of randomly chosen Liideri and control firms, the growth has been faster in 57 cases out of a hundred for the Liideri firms. The difference is statistically indicative among all firms (58 cases among new customer firms, but the difference is statistically insignificant).

The pattern regarding the value added per person is similar in Liideri firms and control firms. **The value added per employee has been retained on the same level in the Liideri firms** and the control firms. There is no evidence that the Liideri firms would have improved their productivity from the base year.

The difference in the change of exports is statistically insignificant.

The economic impact of the Liideri program seems to reach the peak in one to two years after the project closing. The results can be seen both in the increase of number of employees and in turnover when compared to the control group. Unlike in the Feelings program, this simultaneous change does not seem to have undermined the productivity when compared to the control group. However, the program does not seem to have improved the productivity of the participating firms, either. Generally, the value added per employee seems to have remained on the same level among the Liideri program firms.

LIMITATIONS AND CONCERNS OF THE ANALYSIS OF THE RESULTS AND IMPACTS

There are several limitations that need to be addressed.

The first concern is the relatively small sample size in the final analysis. A big proportion of the program firms were lost because the projects started so recently that

the financial statements of the follow-up years are not available yet. Some firms were also lost in the matching process. The small initial sample size also impacts the loss in matching: the smaller the number of treatment and control firms is originally the more difficult it is to find matches.¹¹

The study also left the question whether the relatively short time period between the base year and follow-up year is sufficient so that the full impact of the program can be observed. However, it is not clear how long we can expect the project impact to be observable when the business environment is continually changing, and many other events influence the development of the funded firms.

For the two reasons above, we propose that a new follow-up analysis is performed after a couple of years. This would enable the use of the full set of program firms and see the long-term impacts of the programs.

Even though the customer firms approved to the programs share similar observed characteristics with the matched control groups firms, there may be some additional characteristics why control group firms have not received funding for which they have applied. These unobserved characteristics may also impact the outcomes. This is the case particularly in the new customer firms acquired into the programs. Could it be that the control firms have not received funding because they are not as ambitious to grow as the Feelings and Liideri program

¹¹ In this study, the loss in matching was relatively small because least significant matching criteria were removed in the final stage. The loss in matching varied from 6% to 16% of the firms, depending on the programme and the follow-up time.

firms? Are the control firms more conservative, focusing on the cost side in order to succeed? One way to control for the different focus and capabilities of the firms is to study the growth trends of the firms before funding. In this project, this approach had a drawback. This approach can be utilized only for firms that have a sufficiently long history. Especially Feelings firms are often young. 30% of the Feelings firms had been established within two years of the project decision, and only 54% of the firms had been established six years before the decision year or earlier. We received long term history data from Business Finland. This data contained minimum three years of history data for approximately 50% of the Feelings firms and 80% of the Liideri firms. If the history data would have been used in the matching, the proportion of the matched firms would have declined substantially. We expect that little insight could have been retrieved from the analysis using the history data. The question of the different behavior of different firms is extremely relevant. We propose that this is taken into account so that future follow-up studies can utilize a larger set of firm-level data.

The fourth concern regarding the analysis is if the other Business Finland firms can provide an ideal peer group with which to be compared. There are successful Finnish firms that utilize other sources of funding and the firms compete in international markets. It could be more insightful to see how the funded firms perform when compared to other firms in the same industries, and especially when compared to the most efficient

firms in these industries. There are approaches that use all comparable firms in each industry (in Finland or internationally) to analyze the development curve of the observed firms over time. Interesting questions could be: do the publicly funded firms catch up the best performers in their industries or do they deteriorate when compared to the most efficient firms that are likely to dominate in the future? It would also reveal insights regarding the potential that the firm could have if they would have sufficient financial resources and capabilities to use them efficiently. This would provide another perspective to impact analysis and probably new insights.

There is limited monitoring data available from the projects. Originally the program had an evaluation plan, but there were not enough resources available to carry out this plan. There were no systematic feedback structures within the program, although the program team collected best practice cases and good examples from enterprise and research projects. The selection criteria from best practices were business growth and export growth. In addition, companies which had several Tekes projects were selected.

As stated earlier, the theme of management information was emphasized during the program implementation. In the interviews it is argued that the real measurement of the impact of the changes of management culture and management innovation to the performance of the company on an individual development project level is something that no one has real tools so far, or if

there was (such as a timeseries of 360 degree measurements) that kind of measures would be beyond impact evaluations.

One notion addressed in the interviews has been the challenge of the principle of worker-involvement in the

projects. As noted, the key principle of employer-participation is difficult to assess based on the applications and application processes during the implementation. Later during the implementation, the importance of this viewpoint is diminished.

5 FINDINGS FROM LUOVIMO (2010–2016)

5.1 PROGRAM IMPLEMENTATION

IN A NUTSHELL

Luovimo had three different participant selection rounds between 2009 and 2015. In the core of the program was an insight where creative sector was seen as a prominent sector for growth in Finland. Experimentality, visuality and experiences are strapping to supply and it is increasing the potential for competition. Finnish know-how is among the best in the world. The development of the creative sector was set to be one of the national core goals. Luovimo focused on developing concept, product or service sales in selected clusters in the creative sector. Design, movies, television, performing arts, and content creation/games were set as focus branches. The program's stakeholders, in addition to Finpro who was managing the program at the time, were industrial organizations, the Finnish cultural and academic institutes, and cultural sectors of embassies in the focus countries.

The goal of Luovimo was to further select companies to international markets in a manner where sustainable

and profitable business activity will be created. The development of turnover, export, and number of employees were followed during the program.

Luovimo was based on three consecutive selection rounds where participants were selected based on applications. There was a total of 54 participants during the program period, and only one company participated in several rounds due to a change of their business model at the time.

Additionally, Luovimo Digital was a program which was aimed to help creative industries with the digital viewpoint to internationalize their business. The overall selection criteria changed little over these rounds, but not dramatically. The main logic of the services within Luovimo relate to three things: co-creative or mentoring processes, thematical workshops, and company level sparring consulting relating to the target markets of the participant companies. In the first round of Luovimo (2010–2011) this co-creation process was tried out, but it was seen as difficult by the participants and was not continued (as seen in the reporting documents from the program).

Figure 9 illustrates the evaluator’s viewpoint of the expected outcome and impact themes of the Luovimo program.

FIGURE 9. The expected outcome and impact themes of the Luovimo program.



5.2 CONCRETE RESULTS OF THE PROGRAMS

EFFICIENCY OF PROGRAM SERVICES AND THEMES

Most of the stakeholder interviews saw Luovimo as a very relevant program at the time. It was seen as a good package for growth enterprises. One of the challenges

pointed out was the question of the participants: were the participant companies the right companies for the program? Luovimo had a selection and evaluation process as well as participation fee for the companies.

Most of the services, except for the co-creation during the first selection round, were seen as high-quality activity. Key feedback from the monitoring data is summarized in the following table (Table 9).

TABLE 9. Sample results from monitoring data and interviews.

ROUND OF LUOVIMO	MAIN OBSERVATIONS OF EFFICIENCY AND CUSTOMER PERCEPTION FROM THE COMPANIES
Luovimo round 1 (2010–2012)	<p>The amount of feedback in 2010 was high and most of the companies in '10/'12 agreed that the program met the expectations. Some picks from the feedback are summarized below:</p> <ul style="list-style-type: none"> • “The concrete contribution to our current internationalization has been insights of our consultant.” • Regarding co-creation: “Interesting and might provide contacts to benefit from in business opportunities in 1-3 years.” <p>In 2011, the feedback study and interviews mention that enterprise-level consulting was seen as valuable. Especially the flexibility of the consulting services. The added value is based on a tailored approach for an individual company.</p> <p>The co-creation process was not successfully facilitated and was far away from the daily business of the companies. Some partnering activities can be recognized.</p>
Luovimo round 2 (2012–2013)	<p>Overall satisfaction with Luovimo is high (4/5). Some of the findings in the feedback relate to consultancy, professional advices and ideas, and shared meetings. The challenge in this round was that the companies wished for even more concrete help/ connections for business/sales/resales creation, more practicality.</p> <p>It was noted in the feedback that creative industry is a difficult “whole“. Sometimes the problems can be very different from each other.</p>
Luovimo round 3 (2014–2015)	<p>Overall satisfaction from workshops and company level sparring is relatively high, close to 3.</p>
Luovimo Digital	<p>Luovimo Digital had a high level of satisfaction related to the workshops, test-drive concept and service design. Overall feedback exceeded 4 (on a scale of 1–5) and the NPS score was over 9,3 from most of the program services.</p>

Based on the monitoring data and program reports as well as the interviews and survey responses in this evaluation, it could be stated that the activities were seen as quite useful for the companies. Several participants report that the agendas were good and clear and the quality was mainly good and gave companies important insight.

The tailored nature of the activities (for example, a market study) was seen as an important factor in both stakeholder and company interviews. One challenge mentioned in our survey was that especially SMEs in this field feel that specific tailored advice and guidance for companies in creative industries is unavailable in public

enterprise and innovation services. This also emphasizes the importance of a tailored expertise approach.

Table 10 is based on the documentation of company level development projects (the consultancy projects) from the different rounds of Luovimo (1–3 and Digital). This information is also summarized in program reports by company name, but is rethemed in this analysis (Table 10).

Based on the monitoring data available, it can be argued that in many instances the concrete result is a client contact in the target market and the competence to work in this market. The actual sales, if any, are in many cases finalized after the program.

TABLE 10. Sample results by theme from monitoring data and interviews.

RESULT THEME	FINDINGS
Building competencies for business design in the field	Incorporated in almost all activities. Was mentioned in almost all interviews.
Building competencies for international sales	Client-visits and potential client meetings in the target markets: 10 cases in monitoring data, mentioned in all interviews.
Developed plans for internationalization and growth	Overall plan or specific action plan for target market activities: 7 cases in monitoring data, mentioned in all interviews.
Understanding of the target markets	Market studies: embedded in almost all activities, at least 4 distinct cases in monitoring data. Establishment of client contact in the market (including product testing with the client or more concrete leads): 8 cases in monitoring data, discussed in the interviews. Establishment of potential new partners in the target market (including product testing through partners): 8 cases in monitoring data, discussed in the interviews.
New partnerships and cooperation possibilities in home country and shared learning among participants	This was emphasized especially in the first round of Luovimo. Also, some of the participant companies formed actual partnerships afterward, but the evidence is very limited.

BUILDING COMPETENCIES FOR BUSINESS DESIGN IN THE FIELD

In the evaluation interviews, this was mentioned by steering group members and industry representatives as an important starting point for the whole program, which, according to the same, was also realized. The first selection round is also seen as an icebreaker for the activities. At the same time, this related to overall development of cultural exports, not just the creative businesses as a whole.

BUILDING COMPETENCIES FOR INTERNATIONAL SALES

Most of the interviews dealing with Luovimo emphasize that this competence building was part of the idea of the program. This has been an important aspect for the participants, and based on the feedback above, it has arguably happened.

DEVELOPED PLANS FOR INTERNATIONALIZATION AND GROWTH

All companies had some plans for internationalization and growth as part of the participation to the program. Based on follow-up data and interviews, it can be argued that around 25% of the companies see that the expert advice and activities led to more systematic planning of either internationalization or growth, or in some cases both.

UNDERSTANDING OF THE TARGET MARKETS

Most of the company level activities included some kind of scoping activities for the key target markets. Based on the follow-up data, it can be argued that it has at least led to some better understanding in terms of those markets that were part of the activities.

NEW PARTNERSHIPS AND COOPERATION POSSIBILITIES IN HOME COUNTRY AND SHARED LEARNING AMONG PARTICIPANTS

This theme is mentioned in several interviews. It was made possible by the combination of shared learning processes (co-creation, despite its flaws), shared workshops/trainings, and tailored support. However, the basic challenge was that the program was only for members. Even though there were testimonials and success stories, most of the programme's communication activities were confidential company reporting. Thus, wider visibility from the program was not realized.

The following case study example illustrates the results of the Luovimo program.

CASE: STEREOSCAPE – Expert advice within program leads to redesign of the value proposition

CASE: STEREOSCAPE OY – Luovimo helping in the growth of a company

Stereoscape had and still has pioneering solutions in the field of 3D, AR, and VR. In 2017, they saw that their knowledge and products would be ready to be exported and shared internationally, and thus the company participated in Business Finland's Luovimo program between 2017 and 2018.

During the Business Finland project, the company received expert consulting and advice. Before the project, Stereoscape had positioned themselves in b2c markets where retail and consumer brands were seen as the main customer group. After tight sparring and advice from Business Finland experts, the company re-evaluated their value proposition and customer segmentation.

Besides the BF experts, also the keynote speakers and other experts from Luovimo gave input for the re-evaluation process, especially for the customer orientation. In the end, Stereoscape decided to shift from b2c to b2b markets and redirect their product portfolio accordingly.

Stereoscape is Helsinki-based and employed 11 people in 2018. Their revenue has grown since 2016. With the help of Luovimo program, the company's next steps will be taken toward international markets. Their participation in the program helped to build up the base and re-organize to achieve this goal.

The company is grateful to Business Finland's experts for their expertise and their approaches and working methods that challenged the company and their thinking. The events and networking possibilities were partially responsible for a shift in mindset, which enables Stereoscape to take the next steps toward international markets. ■

5.3 IMPACT OF THE PROGRAM

Luovimo was not itself included in the econometric analysis.

IMPACT DESCRIBED IN QUALITATIVE DATA

Table 11 represents the key impact of the activities as part of Luovimo.

During selection round three (2014–2015), economic metrics were also monitored. Four companies had a significant growth leap during the participation. Key points from these enterprise-level projects are also included in the above table. For the best companies, the project was part of their infrastructural internationalization where the project helped in establishing a new daughter company or partnerships structure, helping to create a presence in the target country. Based on our own monitoring data, the amount of increase in export growth has been around 20–35% in the best cases (monitoring data from Finpro, final report 452/05.01.07/2015).

All case-interviews and qualitative analyses of the company responses to our survey point out that these development activities would not have been possible without the funding, or possible only with limited scope.

TABLE 11. Examples of Impacts in monitoring data.

THEME	OBSERVATIONS
Understanding a company's situation and potential in target markets	Mentioned in the interviews as one of the key impacts from the participation to the programs.
Behavioral changes in companies through learning	Reported in our survey to some extent. Reported by stakeholder interviews as well. Some point out that the knowledge gained through program activities, especially networking and peer support, was considered more important than funding.
Production of new business opportunities and increased business abroad	Four cases in monitoring data, reported in the interviews and qualitative surveys.
Level of internationalization and export increased (qualitatively)	Establishment of daughter company or relevant international organization: Five cases.

6 FINDINGS FROM LIFESTYLE (2015–2018)

6.1 PROGRAM IMPLEMENTATION

Lifestyle (2015–2018) was a series of one-year programs. The program supported the exports and international growth of Finnish SMEs in the lifestyle industry, consisting of design and fashion. Previously, Tekes has had some non-technological programs such as Muoto (2002–2005) and Liito (2006–2010), and Finpro had the Luovimo program in 2010–2016.

The budget of the Lifestyle program was €855,000. The government subsidies for the Lifestyle program were altogether €426,000 (€213,000 in 2015, €127,800 in May 2016, and €85,200 in December 2016).

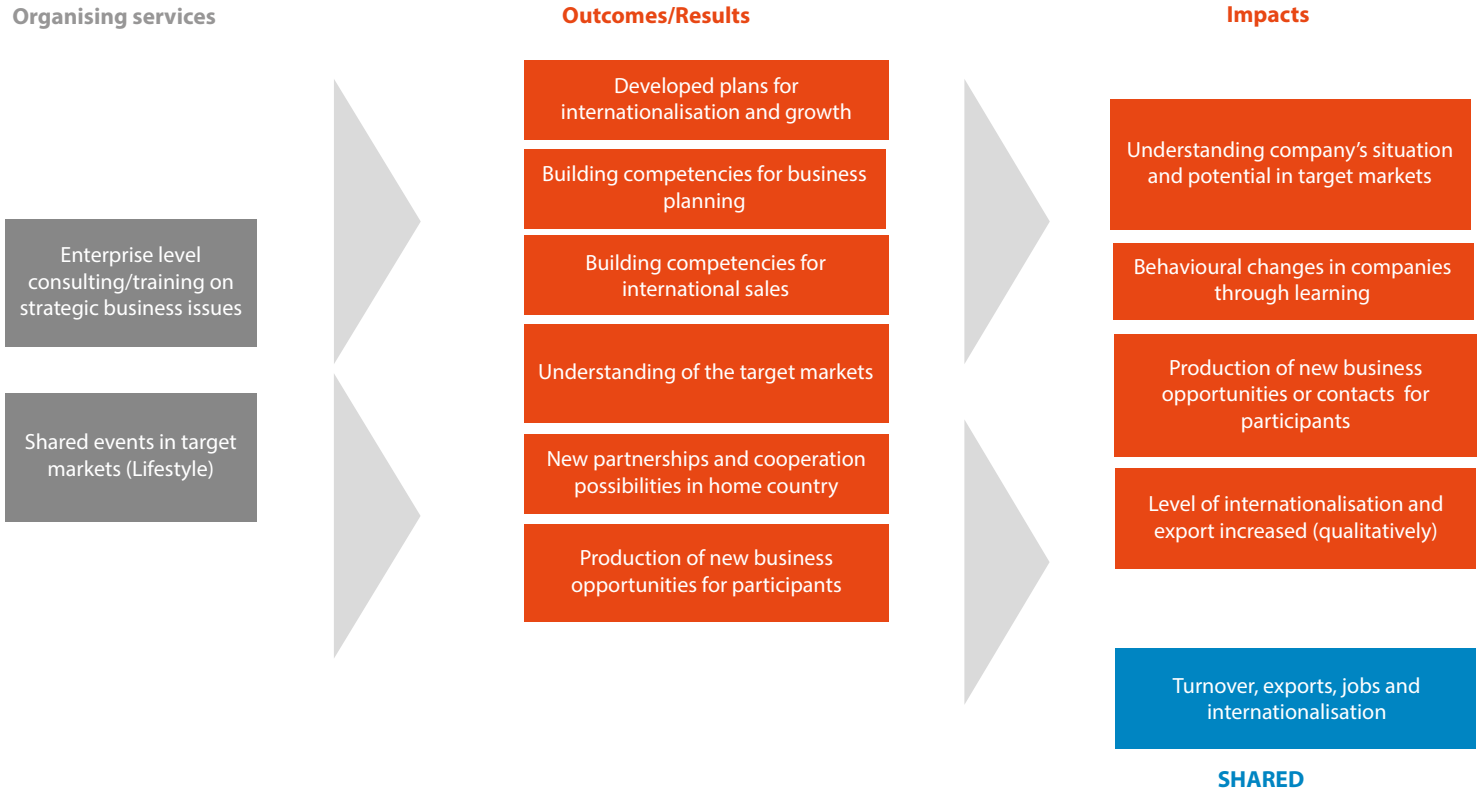
The Lifestyle program boosted the lifestyle companies in entering and accelerating sales in international markets. The Lifestyle program aimed at supporting

the growth of Finnish lifestyle companies in the field of fashion, design home décor, furniture, children's products, beauty, and personal care. The goal of the turnover growth was 10%, and export growth 20%, respectively.

In addition to the program manager at Finpro, the Lifestyle program had a steering committee and an external program coordinator. Based on the interviews, the variety of competencies of the steering committee members was an advantage. The steering committee members complemented each other. With regards to communications and marketing, the Lifestyle program worked in cooperation with Finnish Textile and Fashion, which is the central organization for textile, clothing, and fashion in Finland.

Figure 10 illustrates the evaluator's viewpoint of the expected outcome and impact themes of the Lifestyle program.

FIGURE 10. The expected outcome and impact themes of the Lifestyle program.



6.2 CONCRETE RESULTS OF THE PROGRAMS

A total of 60 companies participated in the Lifestyle program. The companies represented mainly fashion businesses. Firstly, the program developed internationalization skills through peer learning in a workshop. For example, the program provided coaching in brand development, international sales, commercialization, protection of immaterial property rights and making agreements with agents. The peer learning workshops were fulfilled as planned. However, pitching coaching was added in the program activities, as recommended by the steering committee.

Secondly, the Lifestyle program arranged events at the target markets. The target markets were Denmark, Germany and UK in Europe, and Japan, South Korea and China in Asia. The Lifestyle program arranged a total of 50 events abroad. It was estimated that the companies received on average of 10 potential partnerships at the international events. All in all, a total of 3 000 global market professionals were met during the program. For instance, the Lifestyle program reported the highlights of 2017 as follows: 59 members, 43 activities, more than 160 market entry steps, 1 100 buyer and media contacts, 191 media hits, 40 leads and opportunities, and 300 activated companies.

The results achieved in the Lifestyle program are exemplified in the case studies as follows.

CASE: FINARTE – rebranding for international markets

Finarte took part in Business Finland's Lifestyle program between 2015 and 2018. Finarte was founded in 1985 and their core business is in carpet production. Before the Lifestyle program, the company had been doing a brand renewal with the support of Centre for Economic Development, Transport and the Environment. Participation in the Lifestyle program was a continuum to the brand development process. The goal of the program for the company was to enter the international markets and build up and grow their networks.

During the Lifestyle program, Finarte received consultation from the experts on how to brand their company and products for different foreign markets. They participated in business delegations and match-making trips to Europe and Japan. Participation in the Lifestyle program was worthwhile for Finarte and they managed to network with other actors. Networking was also beneficial for the company since they managed to share best practices within the networks.

Even though the economic impact has not been huge for the company yet, they managed to find an importer from Japan. In the future Finarte is investing in exports and growth and will use Business Finland's services where it is possible. The program was meaningful but not essential to the company. The takeaway comes from network building and delegation trips. It helps and gives a platform for companies in fashion and design to build up networks, where they by themselves would not have such resources. ■

CASE: MYSSYFARMI – Lifestyle bringing in important purchasers from Asia

Myssyfarmi is a farm-based design enterprise aiming toward international growth. The brand was already established in 2009 but the company was not established until 2015. The company has been growing, but is a start-up company.

The company has utilized enterprise development funding earlier and was also a member of the Feelings program and participated in Lifestyle. The aims of these projects relate to international growth. The key point for participating in the Lifestyle program was twofold: to benefit from the networking with other organizations and to receive concrete leads to target countries.

The company sees participation in these programs as significant in helping them start the actual business. Lifestyle was an important actor in helping to open doors for very interesting buyers in the target countries. This was especially well done compared to other internationalization programs. Well-targeted programs to contact real buyers provided the company with contacts and deals which form the basis for the internationalization of the company. The key challenge that was raised by the company relates to the long timeline of sales in this business sector, and from this perspective the program ended too soon, leaving the company in a situation where the development of internationalization is only beginning. ■

6.3 IMPACT OF THE PROGRAM

IMPACTS IN QUALITATIVE ANALYSIS

Based on the monitoring data and program reports as well as the interviews, peer learning was the main added value of the Lifestyle program. The workshops were useful for the companies because the peer learning was provided by the limited group of participants. The quality of the workshops was high. The international speakers at the workshops were considered excellent.

Based on the interviews, the know-how of target markets increased remarkably. The participating creative firms gained experience in international business. The companies received new information on Asian markets and retailers in particular. The study tours to Asia received positive feedback. On the other hand, some interviewees said that more attention should be paid to Europe as a market as some companies would more likely start their internationalization in Europe. Some interviewees were disappointed with the quality of the study tours in Europe. The interviewees stressed the importance of the selection of the agent at the target market.

The length of the series of one-year Lifestyle programs was also an advantage in terms of impacts. The interviewees emphasized that it takes time to create an ecosystem¹². However, the interviewees felt that the Life-

¹² See, e.g., Oksanen et al. 2018. In search of Finnish creative economy ecosystems and their development needs – study based on international benchmarking.

style program was too suddenly ended. It was asked if the Lifestyle program had an exit strategy.

The interviewees emphasized the importance of responding to changes in business environments. The Lifestyle program promoted brand development successfully. At the same time, the significance of branding has now been generally learned in Finland. Instead, according to the interviewees, Business Finland did not consider the circulation economy and use of circulation material enough.

Although approximately 200 media and press representatives were met during the Lifestyle program, the external communication was seen as a weakness like in the Feelings and Luovimo programs. The interviewees emphasized that more external communication would have been needed instead of keeping the information inside Business Finland.

ECONOMETRIC ANALYSIS OF THE IMPACTS OF THE LIFESTYLE PROGRAM

The following analyses focus on the development of the exports to Lifestyle program countries over time to see if there is visible evidence of the impact of the program on an aggregate level.

The first analysis of the Lifestyle program was based on comparing Finland's export statistics of selected product categories to the target countries of the program and to comparison group countries. Target countries of the program were Denmark, Germany, United Kingdom, Japan, China, and South-Korea. For the control group, 26

countries were chosen. The requirement was that these should be OECD countries from same parts of the world as the target countries and that they should have similar type of export trade volumes from Finland as the target countries.

The second analysis was done by comparing the export numbers of selected target product categories to the product categories chosen in the comparison group. This analysis concerned only the program's target countries.

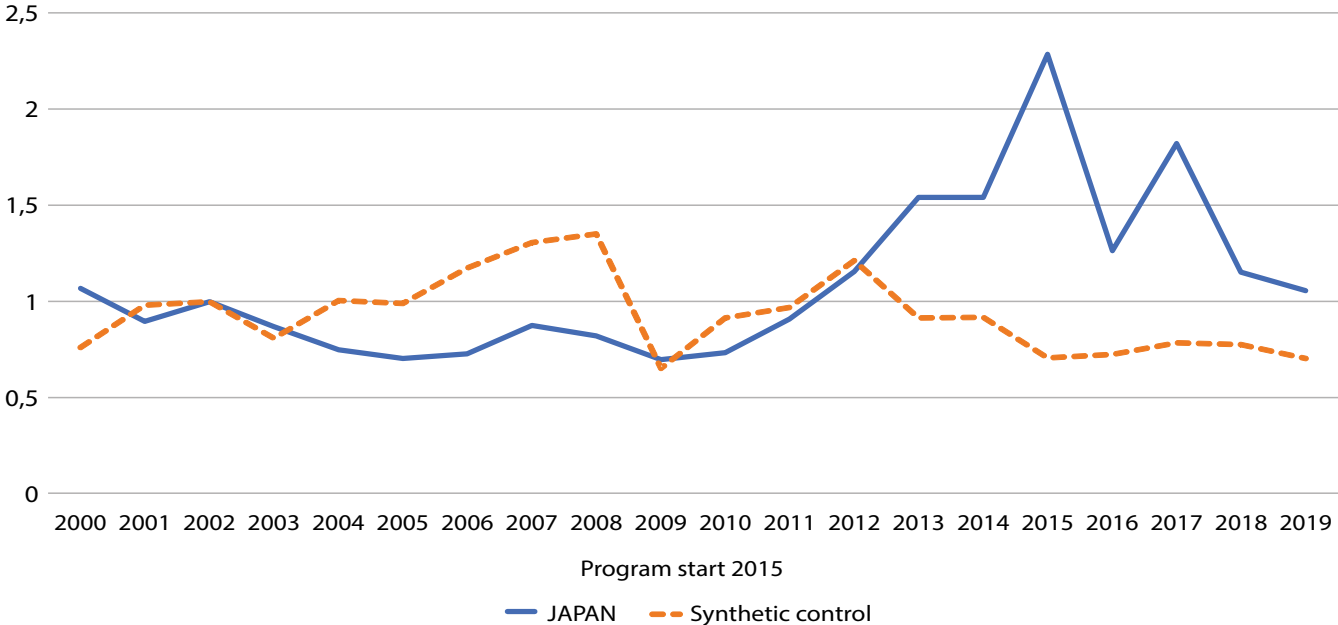
The approach is based on identifying a single counterfactual for the exports of a target product category to a target country. When analyzing the exports to a target country, the counterfactual is not a single country but a combination of other countries that comprise a "synthetic control". This synthetic control has the best fit with the exports to the target country based on the development curve of the export before the program launch and the country characteristics (population, GDP/capita, export volumes). Similarly, when comparing the exports of a product category, the benchmark is not a single selected product category but a combination of the product categories that has the best fit with the export curve of the target country. Also, the export volumes product categories to the target country are on a similar level. In the analysis the pre-program years were 2000–2014. The years starting from 2015 were the "treatment years" when the program can have an impact on the exports. The approach to estimate the counterfactual was based on the Synthetic Control Method (see Methods for more details).

The results were calculated as index numbers for each target country and their synthetic control country per each year. Index number was calculated by comparing each year's export value with the average export value of the years 2006, 2010, and 2014. The average export value from the years 2006, 2010, and 2014 was the index value 1.

Figure 11 presents an example of the results. It presents the exports of furniture and interior design products to Japan between 2008 and 2019 and compares the development to its synthetic control which is a combina-

tion of Russia 80%, The Netherlands 18%, India 1%, and Indonesia 1%. We can see that the export curve of the synthetic control and Japan match relatively well in the early 2000s. The curve shows an increase in exports to Japan between 2010 to 2015, beating the synthetic control clearly. During the last year the number of exports of furniture and interior design to Japan has declined. We cannot conclude that the Lifestyle activities has had an aggregate level impact on the exports of the furniture and interior design products to Japan.

FIGURE 11. The development of furniture and interior design products exports to Japan and its country synthetic control. (Synthetic control: Russia 80%, The Netherlands 18%, India 1%, Indonesia 1%; Index 1.0 = Average of years 2006, 2010, and 2014.)



Generally, no clear impact associated with the Lifestyle program could be detected. In Asian target countries, there has been a slight increase in product exports during the last decade, but as to what extent this is due to the Lifestyle program is uncertain. The comparison with other product categories confirms that the positive development in Asia can be attributed to the general export activity to the country and no effect of the Lifestyle program can be identified so far.

In the European target countries, there has not been a clear change or development in export to the target

countries. The result does not mean that the program has not had impact on the firm level. It shows that no aggregate level impact can be identified.

Table 12 presents the total export volumes of the two product categories in scope in 2018. In order to have any visible impact on the curves, the exports would need to increase significantly. For example, in Germany a 10% increase would require additional annual exports worth several million euro. That would be a challenge for the program firms that are mostly SMEs.

TABLE 12. Exports of furniture and interior design products, and fashion and clothes to Lifestyle target countries in 2018 (euros).

	DENMARK	GERMANY	UK	JAPAN	CHINA	SOUTH KOREA
Furniture and interior design	6,859,686	22,887,242	12,396,946	6,328,858	2,101,333	1,884,507
Fashion and clothes	3,910,263	23,758,082	3,598,761	4,796,565	438,669	688,634

7 CROSS-CUTTING THEMES AND CONCLUSIONS

7.1 SUMMARY OF KEY RESULTS AND IMPACTS

As stated in the introduction, it should be noted that the evaluated four programs were originally implemented in different organizations. Their implementation logics, described under each chapter, are vastly different. Feelings and Liideri are wide-scale programs with a wider scale of actions. Luovimo and Lifestyle are smaller-scale targeted programs, which does not include “R&D&I”-projects as such, but focus both on company-level activities (namely utilizing external expert support for companies) and joint activities. This has to be considered when forming conclusions of these quite different programs.

Overall, these programs have served as awareness raisers of the importance of non-technological innovation within those business sectors relevant for these programs and within Business Finland itself. The programs brought a new type of customer for Business Finland and its predecessors, bringing them into the field of innovation funding and export support.

Based on the timeline of issues map (see chapter 2.2.), it can be argued that the programs were very relevant and their timing or their objectives and themes were well grounded in those trends emerging internationally.

On the level of concrete results evaluated, the four programs had very different intervention logics, thus yielding different results. Especially the Luovimo and Lifestyle programs were more focused on practical activities within participant companies and their results differ from those of Liideri and Feelings. These are summarized as follows:

- **Feelings:** The program succeeded in timing and in reaching design companies. The program promoted new business areas including digitalization and better customer understanding projects on customer experience.
- **Liideri:** Had high visibility on the importance of managerial innovation and working life innovation and instigated much positive discussion within its various themes. On project-level there are plenty of concrete results, but, most notably, development projects led to some kind of important (organiza-

tional) changes for the companies and pushed them on their development journey.

- **Luovimo & Lifestyle:** These programs have provided more competencies for international sales, concrete client contacts, and new networks within their target industries. Concrete results in these programs tend more toward the activities the companies carry out and expertise acquired from those activities. In many instances the findings point out that participation in these programs provides “support” or a nudge in the relatively long process of establishing business in these sectors that leads to export. The findings also speak about the learning from expert services provided or peer organizations, but still relatively limited business impact.

On the level of impacts, the qualitative analysis speaks about the speeding up of the innovation, internationalization, and growth processes on project and company levels. Even though some of the case studies and survey results point out that some of the results obtained in development projects would have happened to almost same extent at some point, the projects have speeded up the development. This “speeding up” could be labeled as a contribution that is similar to all four evaluated programs.

The econometric analysis of the Feelings and Liideri programs included the following observations:

- **Feelings:** The turnover growth has been faster in Feelings firms than in the control firms in all three

follow-up periods. These differences are, however, statistically insignificant when examining all Feelings firms. In the subset of new Business Finland customers, this difference is statistically significant.

- **Feelings:** The growth in the number of employees has been faster in the Feelings firms compared to the control firms. These differences are statistically significant especially when the follow-up period is three years. The development is different when comparing the value added per employee. The value added per employee has been retained on the same level in the Feelings firms but the control groups have improved their productivity.
- **Liideri:** According to the data, the impact of the program emerges after three years from the project decision.
- **Liideri:** The turnover growth has been faster in Liideri firms than in the control firms when comparing the three-year follow-up. This result was statistically significant both in all firms and new customer firms.
- **Liideri:** The growth in the number of employees has been faster in the Liideri firms when compared to the control firms in the three-year time frame.
- **Liideri:** The pattern regarding the value added per person is similar in Liideri firms and control firms. The value added per employee has been retained on the same level in the Liideri firms and also in the control firms. There is no evidence that the Liideri firms would have improved their productivity from the base year.

To summarize, Feelings and Liideri have had a positive and statistically significant impact on turnover and number of employees. Among all firms of the two programs, this impact can be described as follows: a randomly selected program firm has grown faster in 57 to 58 cases out of a hundred when compared to randomly chosen control firms. The corresponding effect size is 61 to 62 among firms that are new customers (i.e., firms that have not received any other Business Finland funding). There was no statistical evidence that Feelings, Liideri or Lifestyle would have had an effect on exports in the analysis. These observations are well in line with those findings from speeding up contribution of the development process for Liideri and Feelings and “learning” and “supporting the export process” types of impacts for Luovimo and Lifestyle.

7.2 LEARNINGS FROM PROGRAM IMPLEMENTATION

EXTERNALITIES AND THEIR IMPORTANCE TO PROGRAM IMPLEMENTATION

The question of how well the funding instruments of Tekes and Business Finland have been able to support brand or concept development and creative industries vary between programs. Externalities had a relatively large impact on program implementation. The key externalities were:

When developing new types of non-technological innovation, the internal processes of the funding organization are challenged. This could be tackled either by giving more leeway to the new programs or adjusting the boundaries and requirements for funding accordingly. During the implementation period, especially the Liideri and Feelings programs had difficulties in adapting the program objectives, potential client organizations, and the requirements of the funding organization.

Strategy change: According to the evaluation interviews and background program documents, the change of the funding strategy for Business Finland was changed to focus mainly on companies seeking international growth. This instigated changes to the mission and vision of Liideri, and also had an impact on the practical implementation of Feelings. This led to a decline in project applications and left some mismatch between the original ideas of these programs and the strategic targets. This evaluation does not make it possible to assess the strategic position of Business Finland, but it is important to note that the non-technological programs differ in their logic in terms of seeking internationalization, and the takeaway is that if strategies shift the program portfolio, it requires careful planning and communication with the program participants.

Organizational changes and support to programs: All evaluated programs were implemented at the time of the formation of Business Finland. Partly because of this change and partly because of other factors, there was constant change in the leaders responsible for the programs, and the program teams or managers were

left relatively alone several times during the implementation. The lack of management interest might cause challenges in learning from programs and in the implementation of these activities. This challenge is difficult especially for the kind of programs like Liideri, which also had communicational and awareness-building activities and other objectives besides the traditional funding.

SYNERGIES AND COOPERATION BETWEEN PROGRAMS

The programs cooperated together in the organizations implementing them. Feelings and Liideri shared activation activities and had a joint thematical research funding call. Lifestyle and Luovimo were managed by the same personnel, which meant that in order to be holistic, the companies were guided in which program to participate during the interviews. In addition to this, the Feelings and Lifestyle programs had some joint activation activities, and several enterprises that were part of Feelings also participated in the Lifestyle program.

These programs also had some shared themes, such as the impact of digitalization, internationalization of the companies in creative industries, and some others. Interviews point out that depending on the people they face in program services, the synergies are built in different ways. Sometimes these are carefully built, sometimes it is left to the company to identify and build these possibilities.

Due to the non-sector specific focus of Feelings and Liideri, it was mentioned that the real synergies were theoretically easy to build but it was not realized in the

programs. The targeted approach in Lifestyle and Luovimo meant that there were not, in fact, these synergies between various funding cycles or programs. Same companies could not participate in the consecutive selection rounds. However, several companies and our case studies utilized, for example, both Luovimo and Feelings or Lifestyle and Feelings. These cases have had R&D-projects from former Tekes programs and then participated in the export driven activities in either Luovimo or Lifestyle. In this respect the funding has formed a strategic continuum for these organizations.

PROGRAM SERVICES AND GOOD PRACTICES

The four evaluated programs have had some interesting program services and themes built into them, which differ from program to program. The differences are explained by the different original implementation organizations and targets of the programs. It should be noted that many of the program participants were new clients for Business Finland (or Tekes at the time).

The overall quality of the program services is high, as can be seen from the participant feedback. From monitoring data and the evaluation interviews, it could be argued that all evaluated programs had high quality workshops, seminars, knowledge exchange and support for the program application. Luovimo and Lifestyle have included company-level expertise and support as well as peer support and networking, which have been seen as important and high quality in the monitoring data, survey and interviews.

Continuing the communication activities after programs was a challenge. There are contrasting findings from the program services and communication activities. Even though there have been many activities (seminars, blogs, testimonial videos, blogs), many interviews point out that there are two issues concerning the lack of continuation of program communication activities. First, the organizational change made it so that some of the communication activities (for example, case examples, testimonial videos) are currently not utilized (they exist but are not communicated through web pages). The second challenge is that for some of the programs the key communication of potential, the results achieved, and future activities are deemed to be focused too much on the existing stakeholders already involved in these programs. This is to some extent inevitable in Luovimo and Lifestyle, due to the selective and targeted nature of these programs. However, Business Finland is in a situation where much unutilized knowledge exists in these themes that could be further communicated and used in the organization and also in wider target sectors.

Good practices from the program implementation relate especially to those activities which built the awareness of some particular new theme and matched funders and potential applicants. Examples of such activation instruments were Liideri Café or joint seminars/groundwork made by Liideri and Feelings programs in various business events.

Liideri originally had a very ambitious evaluation plan, including program theory, qualitative assessment, and interviews as well as a project-level monitoring sur-

vey for participants, including the viewpoint from both the management and employees. This was not realized due to lack of resources and changes in the organization. Afterward it can be argued that this level of information of the impact of projects to the actual organization would provide even more wider understanding of the impacts of the programs. Lifestyle and Luovimo have reported some organization-level follow-up information in their yearly reports. These kinds of activities to follow up the companies is to some extent included in the overall growth/export programs, but is not done systematically in Business Finland.

7.3 LESSONS FOR FUTURE IN PLANNING ACTIONS TO SUPPORT CREATIVE INDUSTRIES, CONSUMER BUSINESS, CUSTOMER EXPERIENCE, AND NEW VALUE CREATION

FUNDING OF BRAND AND CONCEPT DEVELOPMENT AND CREATIVE INDUSTRIES

The original evaluation question focuses on brand and concept development as well as creative industries.

Creative industries are supported through both targeted export-driven programs as well as the more general Feelings program. It can be argued that a targeted approach for creative industries or relevant thematical

subset (such as in Lifestyle or in Luovimo Digital) has been a successful approach in terms of creating different levels of networking activities among program participants and leading to a different level of discussions between participant companies (this is relevant for the selective participant/subscription based programs, Luovimo and Lifestyle).

Feelings and Liideri both brought a new kind of customer to Tekes (at the time). Some of the companies of the creative industries did not fit into the financial criteria of the Tekes/Business Finland funding. For example, brand development was a challenge both for the companies and the funding criteria. The significance of brand was learned in Finland during the Lifestyle program. During the implementation of the Liideri program, the funding instrument targeted for organizational development (so-called TYKE-funding) was abolished as part of the strategy change of Tekes.

If we look at the international examples of supporting creative industries, it could be argued that there is a need for sector and sub-sector specific innovation and export support in this sector. This is done in other countries with the strategic sectoral support which then leads to development of the available funding instruments and other activities for this sector. Luovimo and Lifestyle have both provided this kind of networked support, even though the funding has been in the style of short interventions.

Creative industries and its sub-sectors start to form an ecosystem in which the funding instruments of Business Finland can play a role in providing support for innovation activities as well as the export-driven activities, but the time scale of these activities seems to have been too limited in contrast to the industry need. The support to develop an ecosystem in the creative industries should be strengthened. The time needed to grow business internationally or to create an ecosystem should be considered in the Business Finland funding or program.

From the international examples, the “ecosystem” approach is evident especially in the United Kingdom where “Creative Industries” is understood quite widely, and different organizations provide a variety of support from the start-up phase toward the more scalable internationalization programs (such as the Catapult program), which are then reassessed based on different national strategies implemented during the last five years. This approach of strategic coordination among funding opportunities and different roles for different funders responds to some of the challenges mentioned in the interviews of this evaluation exercise. The UK ecosystem also includes specific units providing policy design support for the sector (the so-called PEC units).

PLANNING PROGRAMS TO SUPPORT CREATIVE INDUSTRIES, CONSUMER BUSINESS, CUSTOMER EXPERIENCE, AND NEW VALUE CREATION

The results of this evaluation can be categorized into two: operational and strategic.

On the operational level, new kinds of development themes (creative industries, customer experience, and new value creation as well as managerial or work-place innovation) need capabilities, competencies, and insight also in the funding organizations. Based on the findings, many external challenges have affected how well Business Finland has been able to maintain and develop this expertise. Programs do not have independent funding processes and whenever new innovation themes are included into the funding, it takes lot of time and effort to make the “old processes” understand the new. Despite an already long history, many interviews point out that non-technological themes are still undermined by technological innovations inside Business Finland, and even though program managers have high substance expertise, the wider substance or sector expertise in the relevant fields is mentioned to be limited.

Outcome 1 – “The need for ecosystem development”:

The support to develop an ecosystem in the creative industries should be strengthened. The time needed to grow business internationally or to create an ecosystem should be considered in the Business Finland funding or during the program implementation.

Recommendation 1. Business Finland should explicitly gather its services and funding instruments for creative industries as planned in “Creative Business Finland”. This would help in argumentation of their role as developers of the creative industry ecosystem in Finland. This should be clearly communicated as part of the communication activities of Business Finland (as well as its web pages). This should also include better communication of practical results already achieved and the material available from these programs which is currently left offline during the organizational change.

Outcome 2 – Constant capacity building on all levels while funding new themes:

On the operational level, these kinds of themes also need competence building inside the funding organization, and maintaining that competence and viewpoint needs constant discussion between programs and other functions of the funding organization. As the programs include important and well received program services in capacity building or their target sectors/participants, the same kind of intensity should also be applied to the capacity development of the internal funding organization. One practical example of such measures is an internal guide from 22nd of January 2020 with the title “Management, change of work and development of organizations in R&D&I-funding”, which incorporates those aspects relevant for Liideri.

Recommendation 2: Business Finland should widen its capabilities when starting a new funding themes and ensure that capacities are internally better utilized and the current funding processes and criteria match those human-centric themes in funding, such as in the future themes of creative industries or consumer business.

On a strategic level, sector or related ecosystem focus and focusing of the programs is important. There is much discussion around the phenomena of intangible value creation and different industries within it. The evaluated programs have had wide focus (Liideri and Feelings) and targeted focus (Luovimo and Lifestyle) in terms of the key ecosystems. Looking at the findings, it could be argued that new innovations in human-centric innovation require a more targeted approach toward key enterprises, especially when the potential ecosystem which is currently being developed is relatively young. In this instance we rather speak about the ecosystem than a cluster or “business sector”. This was, of course, also partly done in both Liideri and Feelings through yearly planning of activation or specific “themes” taken up by the program during different years of implementation. However, if there is also need for the development between the participant companies/research institutions, a more targeted approach seems to work better.

This leads to the discussion raised in many interviews in this evaluation which sees that any innovation initiative considering the “consumer business” is too large and a more targeted approach is needed for the actual

programs. These could include those phenomena that already exist and have been on the rise during recent years. The overall strategic theme is seen as relevant, but key themes raised are, for example, more wide and profound promotion of creativity and design or the continuation of those themes as in Lifestyle.

Outcome 3 – “A more targeted approach is needed in human-centric innovation areas”:

There is a need for a more targeted support in new innovation themes in the field of new value creation, creative industries, and brand development. The optimal size and scope for export and growth driven R&D&I-program intervention seems to be somewhere in the middle of the program lengths. This is emphasized in the viewpoints where Liideri was seen as too long a program and Luovimo and Lifestyle as too short interventions to develop long standing impact.

From an international perspective, Finnish non-technological R&D&I-programs have been relatively unique (already seen in precedent programs, Oosi et al. 2016). In other countries most of the public risk-oriented funding is geared toward a more targeted sectoral support, either through a sectoral approach such as the Dutch “Top Sector Approach” for Creative Industries as in Appendix 2 or through the determination of different roles for different organizations in sectoral ecosystems, and strategically coordinating the funding for different parts of these various ecosystems as in the United Kingdom and the coordinated approach of the funding as described in Appendix 1.

On the other hand, the more sectoral or narrower programs evaluated (Luovimo and Lifestyle) were also really “participant-centric”, meaning that most of the activities within those programs were based on the wishes of the participant companies. In these programs the results are focused on the individual companies and their change instead of developing scalable innovations. Despite this, the more clearly defined boundaries within the innovation programs will, based on the findings, help potential participants to apply for funding and better utilize the internal competencies of the funding organizations as well.

Recommendation 3. The activities under “consumer business” should be clearly targeted for more focused client segments. In many sub-sectors of consumer business, the networking, peer learning, and cross-industry activities are seen important and effective, but they should be clearly targeted. “Consumer business” as such is seen as too large.

Liideri was a continuation of long-standing tradition of work-life development innovation instruments in Finland. Even though on the project-level there were many success stories for the individual companies, the changes in Tekes’ strategy made some of the original ideas of the program obsolete. The themes presented in the evaluation assignment do not include themes relevant for that program, but based on the findings, it could be argued that the support for employer-driven innovation and managerial innovation is not part of public funding schemes and does not fit into the thematic portfolio of activities. This leads to the question if this is something to be considered by the Ministry of Employment and Economy to whom the development of working life and the steering-related public funding belong.

Recommendation 4. Business Finland should, together with the Ministry of Employment and Economy, reassess if there is a need for further funding and develop managerial innovation and working life development, as it can be seen that there might still be a need and relevance for these issues. Some of the above objectives were not met during the Liideri program, mainly due to changes in the organization.

SOURCES

- Buunk, E. & Tieben, B. 2017. Creativiteit en productiviteit: De creatieve zakelijke dienstverlening als onderdeel van de economie, report, Amsterdam June 2017.
- Dialogic. 2017. Evaluatie topsectorenaanpak - Deel 1 Hoofdrapport. Utrecht: Dialogic. Retrieved from <https://www.topsectoren.nl/publicaties/publicaties/rapporten2017/juli/27-07-17-1/evaluatie-topsectoren-aanpak--deel-1>
- Oeij, P., De Vroome, E., Van Teeffele, I. 2014. Investing in workplace innovation pays off for SMEs: A Regional Innovation Initiative for the Netherlands. *International Journal of Social Quality*. Volume 4, 2. Winter 2014.
- Oksanen, J., Kuusisto, O., Lima-Toivanen, M., Mäntylä, M., Naumanen, M., Rilla, N., Sachinopoulou, A. & Valkokari, K. 2018. In search of Finnish creative economy ecosystems and their development needs – study based on international benchmarking. Publication series of the Government's analysis, assessment and research activities 50/2018.
- Oosi, O., Gheerawo, R., Keinänen, J., Parsama, L., Pitkänen, A. & Wennberg, M. (2016). Forerunning innovation support in the field of non-technological innovation. Evaluation of non-technological programmes. Tekes Report 2/2016.
- Todderdil, P., Exton, R., Gold., M. & Gkiontsi, D. 2016. Workplace innovation How policymakers can meet the challenges of diffusion. EUWIN report: <http://uk.ukwon.eu/pdfs/Policy-2016.pdf>
- Valtakari, M. & Nyman, J. 2019. Työelämä 2020-hankkeen loppuarviointi. Työ- ja elinkeinoministeriön julkaisu 2019:33.

APPENDIX 1. BENCHMARKING REPORT: UNITED KINGDOM

The UK's Creative Economy, which embraces the creative industries and the cultural sector, is a dynamic and vital part of the UK's economy. The sector ranges from major corporations to small and micro enterprises.

HISTORY

“The term ‘Creative Industries’ (CI) began to be used about twenty years ago to describe a range of activities, some of which are amongst the oldest in history, and some of which only came into existence with the advent of digital technology. Many of these activities had strong cultural roots and the term ‘cultural industries’ was already in use to describe theatre, dance, music, film, the visual arts and the heritage sector.

In 1997, a newly elected Labour government attempted a definition to assess the direct impact on the British economy. Drawing on a study published in 1994 by the Australian government, Creative Nation (<https://apo.org.au/node/29704>), and on the advice of an invited group of leading creative entrepreneurs, the government's new Department for Culture, Media and Sport

published *Creative Industries – Mapping Document* (1998) that listed 13 areas of activity.

The concept of **intellectual property** (in other words the value of an idea that can be protected by copyright, patents, trademarks or other legal and regulatory mechanisms to stop it being copied or turned to commercial advantage without the permission of the person whose idea it was) was seen as central to any understanding of creative industries – and continues to be so.” (Source: *British Council*)

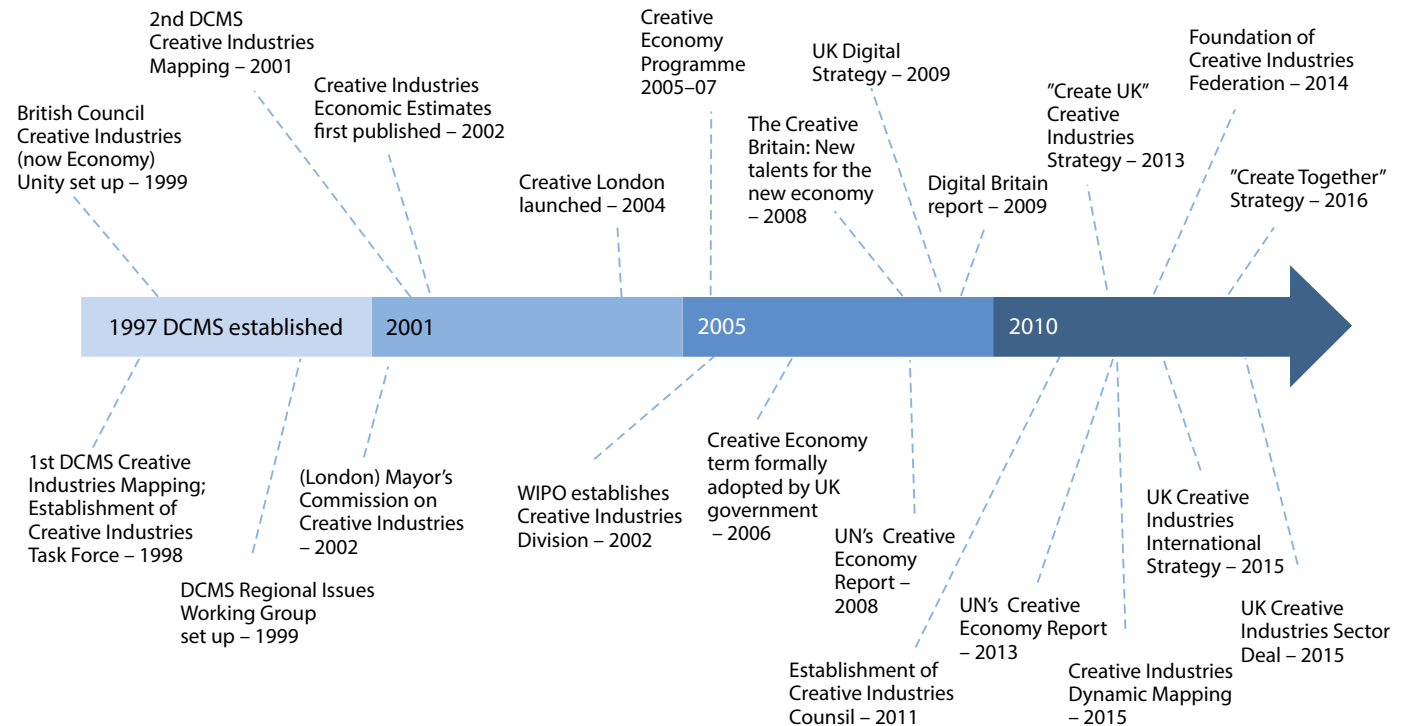
In September 2005, Gordon Brown, Chancellor of the Exchequer, commissioned Sir George Cox, the chairman of the Design Council, to review the use of creativity in industry. This set a trajectory for CI for the next 15 years. The main aim of the report was to “look at how best to enhance UK business productivity by drawing on our world-leading creative capabilities”. The Cox Review noted threats from emerging economies in the Far East and the vast potential and creative upskilling in China, Brazil, Russia and India. To counter this, Cox suggested that “sustained success in business increasingly depends on the ... availability and exploitation of creative skills.”

Today, the creative industries are the fastest growing part of the UK economy. They are defined by the UK government as “those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property.” (Source: *Creative Industries Federation*)

CONTEXT

The UK has a history of over two decades in understanding and funding the creative sector (Oksanen et al. 2018). This makes UK a useful benchmark country for the study. In the UK, CI has been within the scope of public agenda since the 1980s, but a turnkey moment is seen to be the year 1998 when the first official mapping of the industry was done by the Department for Culture,

FIGURE 12. Timeline of Creative industry in UK (Oksanen et al. 2018).



Media and Sports. This was not only an important point for UK but also internationally as it has been seen as the first established attempt in the world to systemize creative industries. (Oksanen et al. 2018.) Since the end of '90s the role of CI has increased in the country's economy.

In 2017 the value of CI was estimated to be over £100b in the UK and (<https://www.creativeindustries-federation.com/statistics>) between 2010 and 2016 the growth in the creative sector has been twice as fast compared to the UK average (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/695097/creative-industries-sector-deal-print.pdf). It is estimated that with the current growth rate, the sector value will increase to £130b a year by the year 2025 (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/649980/Independent_Review_of_the_Creative_Industries.pdf). Automation is only seen as a small risk to jobs in the creative industry, which makes the industry prominent for future jobs and creates potential for growth in the future as well. Many of the companies in the CI are micro-companies (<https://www.creativeindustriesfederation.com/statistics>).

SECTOR DEFINITION

According to UK's Creative Industry Federation (2020), CI consists of the following sub-sectors: advertising and marketing, architecture, crafts, design (product, graphic and fashion), film, tv, video, radio, photography, IT,

software and computer services, publishing, museums, galleries, libraries, music performing, visual arts, animation and VFX, video games, and heritage (<https://www.creativeindustriesfederation.com/statistics>).

KEY PLAYERS IN CREATIVE INDUSTRIES

In the UK, there are some major CI organizations that play a role in advocacy, programs, policies, and strategies for CI. Each has published an important document since 2016. These contain further details to the summaries written below.

I. CREATIVE INDUSTRIES SECTOR DEAL (CISD)

The UK government plays an important role in steering the industry. It does so by connecting with the organizations and funding creative sector directly and by channeling lottery funds and supporting local governments (Oksanen et al. 2018).

One of the most recent and relevant policies steering CI is the Creative Industries Sector Deal (2018) (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/695097/creative-industries-sector-deal-print.pdf).

The Deal is an agreement between the government and the industry, which seeks to unlock growth for creative businesses. It contributes to the Industrial Strategy's vision of good jobs, greater earning power for all, and prosperous communities across the UK. According to the deal, more than £150 million will be jointly in-

vested by government and industry to help the country's world-leading cultural and creative businesses thrive as part of this landmark Sector Deal. In addition, a new Cultural Development Fund will see cities and towns have access to £20 million to invest in culture and Creative Industries. A careers program opens up CI training and jobs for people of all backgrounds. The Sector Deal and its policies are built upon four principles, which are outlined below:

Places

Support creative centers across the country to enable clusters of world-class businesses to increase GVA and employment. We will commit £20m over the next two years to roll out a Cultural Development Fund so that local partnerships can bid for investments in culture and creative industries, with industry contributing funding, networks and leadership.

Ideas

Open up Research and Development (R&D) funding to catalyze innovation. The Industrial Strategy Challenge Fund and industry will invest an estimated £58m to harness the power of immersive technologies and double the UK's share of the global creative immersive content market by 2025. Jointly invest £64m in an Arts and Humanities Research Council program to deliver eight partnerships between universities and creative businesses across the UK, creating 900 business-led collaborations, 360 jobs and 65 new businesses, backed by a national Policy and Evidence Centre.

Business Environment

Tackle copyright infringement, continue to address the transfer of value from creative industries and progress work on closing the value gap at the European and domestic levels. Convene online intermediaries and rights holders to consider the need for and agree on new Codes of Practice in: social media, digital advertising and on-line marketplaces. Extend investment for the successful 'Get it Right' copyright education campaign. Reduce barriers to accessing finance for growth. The British Business Bank will seek to improve access to finance for high-growth firms outside London—including creative businesses—via a commercial investment program to support clusters of business angels. Help creative firms access finance by investing up to £4m (subject to business case) in a program of intensive business investment readiness support. Build on strong export performance to drive a Global Britain. We will create an industry and government Trade and Investment Board targeting a 50 per cent increase in creative industries exports by 2023.

People

To increase the supply and diversity of skills and talent in the creative industries, government will make up to £2m available (subject to business case) to support an industry-led creative careers program aiming to reach at least 2,000 schools and 600,000 pupils in two years and industry development of apprenticeship standards. Industry will provide further leadership on diversity and scope expanding the voluntary Skills Investment Fund supporting on-the-job training.

II. THE CREATIVE INDUSTRIES COUNCIL (CIC)

The Creative Industries Council (<https://www.gov.uk/government/groups/creative-industries-council>) is a joint forum between the Creative Industries and government. Set up to be the voice for CI, the council focuses on areas where there are barriers to growth facing the sector, such as access to finance, skills, export markets, regulation, intellectual property (IP) and infrastructure. Council members are leading figureheads drawn from across the creative and digital industries including TV, computer games, fashion, music, arts, publishing and film. Representatives are drawn from organizations such as BBC, TEAM 17, The Creative Industries Federation and Creative England.

A Creative Industries Trade and Investment Board (CITIB) was agreed within the Creative Industries Sector Deal as part of the Industrial Strategy and is outlined in the CIC report. The aim of the Board is to elevate industry leadership and ownership of the trade and investment strategy. The Board has established two targets. First, increasing creative industries goods and services exports 50% by 2023, and second, significantly increasing the number of creative businesses exporting.

III. THE CREATIVE INDUSTRIES FEDERATION (CIF)¹³

The Creative Industries Federation (<https://www.creativeindustriesfederation.com/about>) is “the member-

ship body which represents, champions and supports the UK’s creative industries. There are more than 10 000 individuals as members. They are influential advocates on the issues that matter most to creative community; creative careers and skills, the impact of Brexit and the importance of entrepreneurship and growth. They bring together their members to facilitate valuable connections and collaborations that generate new ideas and foster both artistic and commercial successes.”

According to CIF (2018) more than one in three (37%) creative enterprises accessed some form of public support, including support provided by UK government, such as tax incentives, export finance (UK Export Finance), inward investment (Department for International Trade and the GREAT Campaign), and IP (Intellectual Property Office); their devolved government; and support provided by local/combined authorities and Local Enterprise Partnerships (LEPs) or Growth Hubs.

IV. THE CREATIVE INDUSTRIES POLICY AND EVIDENCE CENTRE (PEC)¹⁴

PEC provides independent research and authoritative recommendations to aid the development of policies for the UK’s creative industries, contributing to their continued success. The Centre provides a step-change for our three main stakeholders—industry, policymakers and the wider research community—in the quality of evi-

¹³ <https://www.creativeindustriesfederation.com/sites/default/files/2018-12/Creative%20Industries%20Federation%20-%20Growing%20the%20UK's%20Creative%20Industries.pdf>

¹⁴ <https://pec.ac.uk>

dence for the creative industries, asking some of the best researchers across the UK the most pressing questions about the sector. It is funded by the Arts and Humanities Research Council through the Industrial Strategy Challenge Fund, seeks to address these shortcomings in the evidence base. We want to bring about a step change in the quality and quantity of evidence used to inform decision-making with respect to the creative industries and policies intended to support them. The PEC's work activities are organized through five overlapping work strands, each led by an expert UK research center, and coordinated through a Management Board. In addition, there is a Policy Unit which is focused on connecting the research and evidence with policymaking.

FUNDING SOURCES AND MECHANISMS IN CREATIVE INDUSTRIES

This section outlines a range of funding initiatives in the UK that currently help grow strategies, programs, policy, jobs, ideas and innovations within CI. These are drawn from government, private sector and public sector. Throughout the development of CI, multiple organizations have been founded and have taken part in the development and funding of the industry. Today the development, funding and administration of CI are in the hands of multi-actor network. Oksanen et al. (2018) recognize the following organizations as the most important for the creative sector: The Department for Culture, Media and Sports (DCMS), the Creative Industries Council (CIC), the Creative Industries Federation (the Fed-

eration (CIF), the British Film Institute (BFI), Creative England and Nesta. Other organizations are also listed resulting from the research conducted in compiling this report.

CREATIVE INDUSTRIES COUNCIL (CIC) AS A FUNDER AND ADVICE BODY

Under the CIC, the Creative Finance Network is specifically designed to help creatives understand the complexities of finance and find the money they need to make their ideas a reality. It provides glossary fact-sheets, rundowns of the various sources of finance and sign-posting to various funding and finance opportunities that are open to specific sectors.

THE CREATIVE INDUSTRIES FEDERATION (CIF) PROVIDING SUPPORT PROGRAMS

The CIF have two ongoing programs to support their mission: The Creative Careers program and Creative Kickstart.

- *The Creative Careers Programme* is an industry-designed initiative, delivered by the Creative Industries Federation, Screen Skills and Creative & Cultural Skills, to raise awareness of opportunities for work across the creative economy. It was a commitment made by government and industry through the Creative Industries Sector Deal, championed and supported by the Creative Industries Council. The Department for Digital, Culture, Media and Sport has

provided funding to kick-start the program. Through the program, around 2 million young people will be able to access better advice about pursuing a creative career, and leading organizations and individuals from across the creative industries will engage with more than 160,000 school-age students by March 2020.

- *Creative Kickstart* is a new industry-designed program providing tailored business support, mentoring and advice to hundreds of creative companies that are looking to grow. It emerged from the historic Creative Industries Sector Deal, and is powered by a unique partnership between the Creative Industries Council and the Creative Industries Federation. Working alongside public investment from the Cultural Development Fund and Creative Scale-Up program, Creative Kickstart will target up to eight key areas through a series of high-profile workshops and mentoring opportunities.

THE DEPARTMENT FOR CULTURE, MEDIA AND SPORTS (DCMS)

DCMS is part of the UK parliament and thus the governmental body to support CI. Creative Industries is one of the eight sectors that DCMS accounts for.

The CI sectors are well covered in the DCMS's agenda, as it is the fastest growing subsector. At the heart of DCMS's action is the government's long-term economic plan to build a stronger, more competitive economy and secure a better future for Britain. DCMS plays a key role in the economic plan. It accounts for just 0.18% of total central government spending yet sector contributes 16% of total Gross Value Added to the UK economy.¹⁵

The Creative Sector is the fastest growing subsector among the sectors in DCMS and where 16 % of UK's working population is employed in DCMS sectors, 6 % works in the creative industries.¹⁶

CREATIVE ENGLAND (CE) AS AN INVESTOR

CE is an investor in the field of creative industries. They address the financing gap for creative businesses by offering bespoke investments, loans and growth mentoring. They connect national investor networks to regional creative businesses. They also work as a creative influencer, by making the case for national and local policy to be developed in a way that helps creative people and businesses to grow and succeed. They also have a role as creative collaborator, where they discover new voices and help find creative talent and screen businesses from across the country.¹⁷

¹⁵ <https://www.gov.uk/government/publications/dcms-single-departmental-plan-2015-to-2020/single-departmental-plan-2015-to-2020>

¹⁶ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/811903/DCMS_Sectors_Economic_Estimates_2018_Employment_report.pdf

¹⁷ <https://www.creativeengland.co.uk/what-we-do/>

Since 2012, CE has invested over £20 million into over 350 creative business across the country, investing an average of £4m per year during 2012-2017. Their supported businesses show an average of 25% revenue growth in their first year of investment and go on to achieve outstanding long-term sustainability, evidenced by 3-year survival rates of 83% compared to the business national average of 60%. An average investment size for a company is approx. £ 67,000.¹⁸

BRITISH FILM INSTITUTE (BFI) AS A FUNDING ORGANIZATION

BFI is the UK's lead organization for film, television and the moving image who acts as the distributor of National Lottery funds for film. Founded in 1933, the BFI is a registered charity governed by Royal Charter. Almost £70m in grant in aid and National Lottery funding are invested annually through the British Film Institute (BFI) to support a range of activities across the UK.¹⁹

NATIONAL ENDOWMENT FOR SCIENCE, TECHNOLOGY AND THE ARTS (NESTA) AS IMPACT FUNDER

NESTA is an innovation foundation. For almost ten years, NESTA has been working in partnership with the British

Council to deliver the Creative Enterprise Programme (CEP). The program's core offer is a three-day workshop designed to support creative entrepreneurs in establishing and building resilient and sustainable businesses. In late 2016, the program underwent a major redesign to make it more compatible with wider regional and local creative economy agendas, generate longer term impact, and build a lasting legacy. Between November 2016 and April 2018, CEP took place in 25 cities in 15 countries, in six languages, with more than 800 creative entrepreneurs.

There are two main impact funds for CI:

- The Arts Impact Fund: The £7 million Arts Impact Fund is the "first of its kind" to focus on the social, artistic and financial return created by arts-based organizations. It provides repayable finance between £150,000 and £600,000 to arts organizations in England with ambitions to grow, achieve great artistic quality and have a positive impact on society.
- Cultural Impact Development Fund: The new £3.7 million Cultural Impact Development Fund offers small-scale repayable finance between £25,000 and £150,000 to socially-driven arts and cultural organizations that are committed to improving the quality of their impact practice and evaluation and could benefit from external support with this.

¹⁸ <https://www.creativeengland.co.uk/what-we-do/>

¹⁹ <https://www.thecreativeindustries.co.uk/media/462717/creative-industries-sector-deal-print.pdf>

GRAND CHALLENGES FROM THE UK GOVERNMENT AS SUPPORT MECHANISM RELATING TO INTANGIBLES AND CREATIVE SECTOR²⁰

The UK Government's Industrial Strategy sets out Grand Challenges to put the UK at the forefront of the industries of the future. It is developing ambitious missions to tackle these Grand Challenges. Each mission will focus on one of four specific problems, bringing government, businesses and organizations across the country together to make a real difference to people's lives. CI plays an important role in this initiative with the funding being distributed through competitive, collaborative and creative programs. A range of typical activities include financing of thematical innovation, launching competitions to support trade between UK and different countries and partly fund different competence centers.

KNOWLEDGE TRANSFER PARTNERSHIPS (KTP) AS A GRANT TOOL – ALSO FOR THESE SECTORS²¹

KTP grants are awarded to businesses who employ recent graduates working on innovation projects; graduates must be working in coordination with and supervised by a research partner. The grant is open to businesses large and small, but the percentage of funding varies depending on size and project. Applicants for a KTP award must be a UK business, charity, educational institution or pri-

vate/public sector research organization. KTP Grants offer up to 67 per cent of project costs, larger businesses may only apply for up to 50 per cent. A limit on the financing is not stipulated but is assumed.

DESIGN AND ARCHITECTURE

Design and Architecture plays an important role in CI and are increasingly seen as core creative activities in the economy. A short section is therefore dedicated to some key activities and organizations in the UK. The UK's creative industries generate a staggering £8 million per hour for the UK economy, and design is at the heart of this—we have the second largest design sector in the world, some of the best-known names in design, and many of the world's leading brands, buildings and products. From 2011–13 jobs in design increased by an astonishing 22% (<https://www.designcouncil.org.uk/news-opinion/design-key-new-creative-industries-strategy-growth>).

Some other organizations are also relevant in this ecosystem. **All-Party Parliamentary Design and Innovation Group (APDIG)** is a cross-party coalition of *Parliamentarians* and *design sector organizations* that works to develop new design policy ideas, critique existing government decision-making around design, communicate the enormous potential value of design with Parliament, and help the design community better engage

²⁰ <https://www.gov.uk/government/publications/industrial-strategy-the-grand-challenges/missions>

²¹ <https://www.gov.uk/guidance/knowledge-transfer-partnerships-what-they-are-and-how-to-apply>

with the policy process. Design policy is an emerging field, and the APDIG is proud of the role it plays in promoting its development by identifying new areas where design thinking might be helpfully applied to government policy. APDIG was cited in a new report on creative education directly making a link to CI (<https://www.policyconnect.org.uk/apdig/news/apdig-cited-new-report-creative-education>).

THE DESIGN COUNCIL (DC)²²

The UK Design Council champions the power of design to tackle the biggest challenges of our time and bring about real, positive change in people's lives. DC's purpose is to make life better by design. DC works from grassroots to Government, delivering programs, producing world-class research and influencing policy. Uniquely, the programs cover the built environment, public sector design and social innovation, and business innovation. DC has a 75-year history and network of 450 associates across the design economy. DC work collaboratively in partnership with others—government, public bodies, charities and foundations and businesses—to achieve lasting results on pressing economic, social and environmental challenges.

DC runs programs that contribute to CI. An example is Transform Ageing, funded by The National Lottery Community Fund. This takes a community and design-led approach to improve people's experience of ageing. The

program has been delivered through a partnership of Design Council, UnLtd, South West Academic Health Science Network and the Centre for Ageing Better. It brought together people in later life, social entrepreneurs, and health and social care leaders to define, develop and deliver new solutions that better support the needs and aspirations of our ageing communities (<https://www.designcouncil.org.uk/what-we-do/social-innovation/transform-ageing>).

Other institutions include **Royal Institute of British Architects (RIBA)**, **Policy Lab (PL)** in field of Design and design councils.

UK RESEARCH AND INNOVATION (UKRI) AS A FUNDER FOR THESE SECTORS

UK Research and Innovation (UKRI) is a new organization that brings together the UK's seven research councils, Innovate UK and Research England to maximize the contribution of each council and create the best environment for research and innovation to flourish. It continues the council's strong tradition of funding excellent research in the sciences, social sciences, arts and humanities, supporting the UK's world-leading universities and research institutions. It will also be a powerful supporter of business innovation and enterprise, through the work of Innovate UK, the Catapult Centres, and the new Industrial Strategy Challenge Fund.

²² <https://www.designcouncil.org.uk/>

The UK is globally recognized as a world leading knowledge economy. It is vital that we maintain and capitalize on this status at this time of global demographic, technological, and geopolitical change. Recognizing these challenges, the Government has positioned research and innovation at the heart of its Industrial Strategy.

UKRI will continue to promote and accelerate the commercialization of the best ideas across sectors by:

- Investing in open programs to support the best innovative ideas from all sectors of the UK economy
- Investing in the Catapult Network, to attract private investment into innovation
- Improving business access to investors through our investor accelerator program
- Increasing the talent pool of innovators developing exciting ideas in the UK through diversity campaigns
- Piloting a £50 million program of loan commitments from 2017-2020, deployed over up to three years with terms extending up to 10 years.
- UKRI's Strategic Prospectus is at <https://www.ukri.org/files/about/ukri-strategy-document-pdf/?pdf=Strategic-Prospectus>

In addition, **Arts and Humanity Research Council (AHRC)** supports research in this sector including Creative Industries Clusters Programme: Funded through the Government's Industrial Strategy Challenge Fund (ISCF), the £80 million program will support nine Research and Development (R&D) Partnerships between

industry and groups of universities to respond to challenges identified by the creative industries in their cluster.

On the exports side UK-China Collaborations in the Creative Industries is one of the spearhead projects: The Creative Economy is of increasing importance to prosperity and growth in both the UK and China and a major opportunity exists to build a new era of collaborative research and innovation partnerships in the field. Some other relevant projects include:

- *Immersive Experiences*: The AHRC and the EPSRC are funding 32 new research projects exploring the future of Immersive experiences. They range from using VR to recreate the benefits of outdoor group singing, to allowing museum goers to virtually peruse priceless ancient texts that would otherwise be off limits
- *Creative Fuse North East*: This major project explores how the creative, digital and IT (CDIT) sector in the North East can be developed in order to play a leading role in the region's economy

CREATIVE INDUSTRIES CLUSTERS PROGRAMME (CICP) AS A SPECIFIC MEASURE²³

CICP started in 2018, looking to invest £80m in eight new creative Research & Development partnerships bringing together the UK's renowned creative industries with arts and humanities led research from our world-leading uni-

²³ <https://ceprogramme.com/cicp#bids>

versity sector. CICP will act as a catalyst to further grow the creative economy, unlocking emerging fields and adapting new technologies with a new wave of R&D that will open up exciting ways to create, distribute, and participate in products and experiences. Part of the *Government's Industrial Strategy Challenge Fund*, this program will drive economic growth through the development of exciting new products and services, generating a step-change in the creation of new jobs and the supply of high-value skills to fill them.

The Creative R&D Partnerships competition garnered a huge response with over 60 expressions of interest in bidding to host one of up to eight partnerships.

Both British Council and Arts Council England offer funding opportunities as well.

TAX RELIEF AS A POLICY TOOL

One central instrument for governmental support for CI is the tax relief scheme. The tax relief scheme consist from a total of eight corporation tax reliefs stated below. Tax reliefs “allow qualifying companies to claim a larger deduction, or in some circumstances claim a payable tax credit when calculating their taxable profits”. To qualify for creative industry tax reliefs, all films, television programs, animations or video games must pass a cultural test or qualify through an internationally agreed co-pro-

duction treaty—certifying that the production is a British film, British program or British video game. In all cases, formal certification is required to qualify. The cultural test is held by the British Film Institute. The eight tax reliefs are:

1. Film Tax Relief
2. Animation Tax Relief
3. High-end Television Tax Relief
4. Video Games Tax Relief
5. Children's Television Tax Relief
6. Theatre Tax Relief
7. Orchestra Tax Relief
8. Museums and Galleries Exhibition Tax Relief (HCRM 2020). <https://www.gov.uk/guidance/corporation-tax-creative-industry-tax-reliefs>

The UK's suite of creative tax reliefs is among the most competitive in the world, with government paying out over £1.1 billion in tax reliefs in 2018–2019. UK film is the largest benefactor, where film accounted for £600 million alone through the tax reliefs. The tax reliefs have since 2007 attracted over £15 billion of investment in British screen industries.²⁴

Managerial innovation or new work methods has not seen the same focus in innovation policy in the UK as in Finland through Liideri.

²⁴ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/826824/August_2019_Commentary_Creative_Industries_Statistics.pdf

APPENDIX 2. BENCHMARKING REPORT: NETHERLANDS

INSTITUTIONS

As a short comparison we look at how those themes, relevant for the evaluated programs, are supported in the Netherlands. This chapter does not include a full description of the Dutch system, but takes the viewpoint of the particular programs under evaluation. The role of non-technological innovation and human-centric innovation is in high focus in Netherlands. Especially due to the importance of the service sector in the Economy.

The Netherlands is characterized by an increasing role of the service sector. The share of the service sector grew from 56% of gross value added (GVA) in 1969 to 78% of GVA in 2016. More than 60% of the service sector consists of knowledge intensive services (46.97% of GVA). The Netherlands is the sixth largest services export country in the world (Statistics Netherlands, 2017), with total exports amounting to around €42b in 2017 (van den Broek 2018).

Most of the research and innovation policies in Netherlands are centralized at the national level. The central government remains the main financing body, but policymaking and focus areas are gradually becoming

more regionalized. Direct support to business R&D&I is also increasingly provided at the regional level, partly because R&I have become more prominent in the EU Structural Funds.

The main institutional actors are the Ministries of Economic Affairs and Climate (EAC) and Education, Culture and Science (ECS). EAC and ECS share the responsibility for enterprise policy, which includes innovation policy. ECS is responsible for science and education policies and the allocation of institutional funding to the universities. The main implementation bodies are the Netherlands Organisation for Scientific Research (NWO), the Royal Netherlands Academy of Arts and Sciences (KNAW), and the Netherlands Enterprise Agency (RVO). Non-profit organizations and foundations do not play a large role in overall R&D&I funding in the Netherlands (ibid.) Most of the instruments for development projects are challenged via RVO.

Non-governmental bodies play a crucial role in administering some of the public funding as well. For example, Creative Industries Fund NL administered a four-year internationalization program for the Dutch creative sector (2013–2016). This happened in close collaboration with

the main DutchDFA partners, united in The New Institute and the Dutch Federation of Creative Industries.

The government expects good results from the generic, indirect instruments of the funders and the Innovation Credit as well as the SME Innovation Stimulation Top sectors (MIT) scheme. Through the PPP allowance for R&D&I (formerly TKI-allowance), the government creates a lever for private R&D investments: in-cash contributions and a limited amount of in-kind contributions by firms are matched with a public PPP-allowance.

TOP SECTOR APPROACH AND CREATIVE INDUSTRIES AS A FOCUS

During 2010s the so-called top-sector policy has been the key focus of the innovation policy. The introduction of the top-sector policy in 2010 meant a major change to the overall system. There are two aspects to this change: the first aspect involves the sector-based and integrated approach, while the second has to do with a new way of financing and organizing public-private partnerships with a greater emphasis on demand-driven aspects (Awti 2014).

One of these sectors is Creative Industry. During the last ten years there have been many development activities within this sector, in terms of building the capacity of the sector, developing the related publicly funded R&D&I-offering and related services. However, creative industries are the only relevant sector from the perspective of this evaluation. There is no strategic level emphasis in employer-driven innovation or consumer

innovation as policy focus. Due to heavy emphasis on Top Sector approach, more novel sectoral or thematical funding schemes have not been on the agenda.

From the viewpoint of the Finnish Liideri program, only some smaller-scale initiatives under the broad theme of “Workplace” innovation could be seen as relevant in Finland. Based on the earlier analysis done from the Finnish working life programs (i.e., Oosi et al. 2009), it could be argued that there are no comparable public interventions to Liideri.

As part of the policies mentioned above, the task force (the so-called Top Team) is responsible for each Top Sector agenda and policy that is formed. This also includes a consortium boosting the development of the sector called CLICKNL, or, Creative Learning Innovation Co-creation and Knowledge NL. Top Team consists of five representatives from the government, research institutions and science as well as the creative businesses. The Team is chaired by the industry and supported by the secretaries from the relevant ministries. This team is responsible for the monitoring of the implementation of the top-sector approach.

Tasks of CLICKNL include the development of a national knowledge and innovation agenda for the creative industries, and monitoring the progress and quality of its implementation. It identifies and initiates new forms of cooperation and creates crossovers (PPP projects which work across sectors pooling funds from various sources). CLICKNL also acts as the national and international point of contact for all players that want to innovate in and with the Dutch creative industries. It

also stimulates the smart use of practical policy instruments. It provides value to the sector by acting as an intermediary, enabling cross-sectoral activities and promoting the potential of the cultural and creative sectors for other economic sectors and society. As an organization CLICKNL has no permanent employees, it acts as a consortium. (Oksanen et al. 2018)

After around four years of implementation of the top-sector approach, an evaluation by a government progress committee showed that the Creative Industry sector was still unorganized and too fragmented to show impact. The industry was advised to organize its clusters and to plan their concrete performance. In answer to the recommendation of the committee, the stronger clusters and networks of the creative industries (design, architecture, games, fashion) formed the Dutch Federation of Creative Industries (FDCI Federatie Dutch Creative Industries), which was later extended when other clusters joined (photography, digital agencies, advertisement) (Dutch Creative Industry Interactive Timeline, 2017; Bas interview, 2018). (Oksanen et al. 2018, 63)

The Dutch Creative Council (DCC) was established at the initiative of the Federation Dutch Creative Industries in 2012. This is an independent strategic advisory board with representatives of the various networks within the creative industry. The Top Team effectively used to act as the board of both the DCC and CLICKNL. The Council convenes once every two months. The Federation Dutch Creative Industries (FDCI) is relevant to the working method of the Creative Industry. (ibid., 64)

In its evaluation of the top sector policy, Dialogic (2017) found that the policy did not (yet) lead to ground-breaking innovations—which was not an explicit goal of the top sector approach.

AVAILABLE PUBLIC FUNDING SCHEMES RELATIVE TO THE EVALUATED PROGRAMS

One of the nine top sectors is *creative industry*. PPP initiatives are an important part of the top sector policy. Besides that, many public offerings of innovation policy instruments are designed around these top sectors. For example, Netherlands Enterprise Agency has Creative Industries as one of the focus areas you can find the generic and specific instruments available. Current offerings for creative industries include over 15 different funding instruments available with wide variety. The similar or commonly cited instruments are:

- Innovation Credit: For both start-ups and established companies
- Dutch Trade and Investment Fund loans, guarantees and export finances
- Starters International Business – SIB: A voucher for SMEs taking part in trade missions or aims to stimulate export
- Partners for International Business (PIB)
- Normal Seed capital and proof-of-concept funds

TABLE 13. Summary of the key available instruments are presented in the Netherlands.

INSTRUMENT AND DESCRIPTION	SCOPE (GENERIC / SECTOR SPECIFIC)	BUDGET AND FUNDING
<p>DHI subsidy</p> <p>The demonstration projects, feasibility studies and investment preparation studies (DHI) is a subsidy for SMEs with international ambitions in emerging markets and developing countries. The DHI program helps SMEs test the feasibility of their concepts abroad,</p>	<p>DHI focuses on SMEs in the Kingdom of the Netherlands with international ambitions and an interest in emerging markets and developing countries.</p>	<p>N/A</p>
<p>Innovation Credit</p>	<p>All companies, whether start-ups or well-known companies, can apply for the Innovation Credit.</p>	<p>The total 2019 budget for clinical development projects, is €40 million. For technical development, there is a budget of €30 million. The Netherlands Enterprise Agency has a first come first serve policy concerning (complete) applications. The maximum credit per company depends on the size of the company. For clinical development projects, there is a maximum of €5 million and for technical projects, it is €10 million.</p>
<p>SIB</p>	<p>SIB-vouchers come relatively close to what was actual done as part of the Luovimo and Lifestyle programs. There are three different types of vouchers available: individual coaching voucher can be used to hire external consultant to look at the opportunities abroad and to work toward a concrete plan of action, collective activity voucher enables participation in an outbound trade delegation or a joint trade fair presentation, and knowledge acquisition voucher can be used to hire an international lawyer or tax consultant.</p>	<p>Vouchers range from 1,500 € (collective voucher) to around 2,500 € and the company pays 500 € or so. This is comparable to other productized services in Finland as well. Budget for these vouchers is limited and changes from year to year. Overall budget seems to be around €2 million overall, but this is not focused only for creative sectors.</p>
<p>PIB</p>	<p>Generic</p> <p>Partners for International Business (PIB) is a program that allows Dutch businesses to enter into a public-private partnership to realize their international ambitions. Doing business abroad is not always easy. You may be confronted with trade barriers, a lack of knowledge among local government bodies and businesses or restrictive local laws. Joining forces with other businesses in your industry and with the Dutch government puts you in a better position</p>	<p>N/A</p>
<p>Seed capital</p>	<p>Generic seed capital instrument</p>	<p>€22 million annually</p>
<p>Proof-of-concept funding</p>	<p>Generic proof-of-concept funding</p>	<p>Around €8 million annually</p>

Besides these, for example, WBSO tax credit has been widely marketed for these sectors. Purpose of WBSO.

Some of the more targeted innovation funds can also be mentioned:

- MIT (MKB-innovatiestimulerend Regio en Topsectoren – SME Innovation Stimulation Region and Top Sectors) is a scheme specifically aimed at SMEs. In 2015, 23 project proposals were funded within the national tender for a total amount of €3.5 million. This made the creative industry the largest user of the scheme in that year, after the Top Sector High Tech Systems and Materials. The MIT scheme is implemented by RVO (Netherlands Enterprise Agency) (Janssen et al. 2017).
- The Creative Industry-KIEM (Kennis Innovatie Mapping – Knowledge Innovation Mapping) program is organized by NWO (Nederlandse Organisatie voor Wetenschappelijk Onderzoek – The Netherlands Organisation for Scientific Research) and focuses on the development of short-term fundamental or industrial research projects with the aim of encouraging partnerships between knowledge institutions and private partners. KIEM enables consortia (consisting of at least one private partner and at least one researcher employed at a Dutch University or another research institution recognized by the NWO) to develop sustainable partnerships focused on fundamental or industrial research. An important condition for the current call of KIEM is that applications fit within the framework of the Knowledge and Inno-

vation Agenda 2018–2021 of CLICKNL. The funding budget for such projects can be up (Oksanen et al. 2018, 68).

- CRISP (Creative Industry Scientific Programme) aims to develop a knowledge infrastructure that will consolidate its leadership position as a pioneer research program within the Dutch Design Sector and Creative Industries. CRISP focuses on the development of Product Service Systems and on generating and disseminating the knowledge, tools and methods needed to design complex combinations of intelligent products and services with a highly effective user experience. CRISP is supported by the Economic Structure Enhancing Fund (FES, ~€22M over 4–5 years) from the Dutch government and a consortium of scientific and industrial partners. The CRISP program period ended in June 2015. A follow-up program focusing on “key enabling methodologies” to be funded by the NWO is in the pipeline. As an indication of total funding, €32 million of public funding has been made available for the period 2016–2017. In total, €87 million is invested in knowledge and innovation together with knowledge institutions and companies. Outside of these resources, a contribution of approximately €7 to 8 million is also made by the Het Nieuwe Instituut. However, a significant proportion of these funds also go to the cultural sector and these funds cannot be fully included in the resources of the creative industries top sector (Janssen et al. 2017) (ibid., 69).

As noted in the analysis, the sector has been highly fragmented which has led to the questions of demand articulation. Although there was collaboration with universities of applied sciences, the research was small-scale, fragmented and the contact with other knowledge institutions was limited. Cooperation with other sectors was also limited by the lack of structure in the creative industry (Janssen et al. 2017) (Oksanen et al. 2018, 70).

Overall challenges of the Dutch system have been raised in the national innovation and research council reports. A sector or innovation system consists of lots of small parties who are not able to interconnect, or the demand is not uniform (Awti 2018). There is also much discussion around the research system and how it should be more efficient or redesigned (Awti 2019; shaking up the system).

FUTURE PLANS FOR TOP SECTOR APPROACH AND CREATIVE INTERVENTIONS

After a 14-year consistent focus on Key/Top Sectors, the current government will, as of next year (2019), switch its focus to big societal issues. As the creative industries represent no value chain in itself, they will remain strongly focused on crossovers (PPP projects across the top sectors) (Bas interview 2018) (Oksanen et al. 2019, 74). A national roadmap is currently being built for the creative industries, which resembles some of the

work done also in the context of Creative Finland. Co-operation among the stakeholders in creative industry is strengthening and its foundation is the Knowledge and Innovation Contract, in which the government, knowledge organizations, the Top sector and CLICKNL agree on the ways in which interpretation will be given to research and innovation within the creative industry. It will lead to calls for research by the NWO and SIA and will include new sectors of the creative industry.

The work will be done through public-private partnerships that will be facilitated by all members of the Top Team (Dutch Creative Council, Federation of the Dutch Creative Industries, Stimulation Fund Creative (fusion of cultural funds), Het Nieuwe Instituut (culture funds) and CLICKNL). Funding will be through the RVO, SIA, NWO, MIT (Ahsmann interview 2018 in Oksanen et al. 2018) and the Creative Industries Fund (mainly for architecture design and digital culture and all possible crossovers) and Horizon 2020, as well as FP9 (CLICKNL is currently involved in developing the related FP9 program) (Oksanen et al. 2018, 76).

Research suggest that The Top Sector Creative Industry is still growing, but it is not as productive in numbers as other top sectors in the Netherlands even though the creative industry produces added value for other sectors, but it does not see the same benefit. New business models are needed that will support creative industry professionals' rights and benefits more effectively (Bunk & Tieben 2017).

PERSPECTIVES ON WORKPLACE INNOVATION

Netherlands have not had a similar level of policy focus in workplace innovation as Finland. There have been various policies and programs to stimulate workplace innovation, but their scope has been more limited in terms of funding (as noted in earlier evaluations it was mainly funded by ESF funding).

Workplace innovation has been part of the “Smart Industry” R&D program run by TNO, the Ministry of Economic Affairs, VNO-NCW and the Chambers of Commerce and FME. They have taken the initiative to make a report on the meaning of Smart Industry for companies, knowledge institutions, and government in the Netherlands. The approach was formalized in an Action Agenda in November 2014, which was renewed in 2018 with the Implementation Agenda. The aim is to make the industry more competitive through faster and better utilization of the opportunities ICT has to offer. Key forms including financial support of Field Labs (€15 million) and funding co-operation among companies and research institutions.

As a topic the Workplace Innovation is an initiative of TNO in the Netherlands. The knowledge bank has been (partly) translated on request of EUWIN. The Liideri program was a part of the EUWIN network. Workplace innovation is a renewal of the work organization and employment relations leading to improved performance of the organization and improvement of the quality of work. Via this knowledge bank, we want to share knowledge about and practice in Workplace innovation with workers (representatives, employers, managers, entrepreneurs, policy makers, researchers, and consultants).

The rest of the initiatives are more regional. For example:

- Expeditie Sociale Innovatie/Duurzame Inzetbaarheid is designed to stimulate and inspire companies to implement workplace innovation practices and to learn from each other through workshops and other learning resources (Todder 2016).
- Regional Government initiatives on Workplace innovation (Noord-Brabant) (OECD 2017).
- My Enterprise 2.0: Regional workplace innovation project by regional government with a good impact (Oeij, De Vroome, Van Teeffele 2014).