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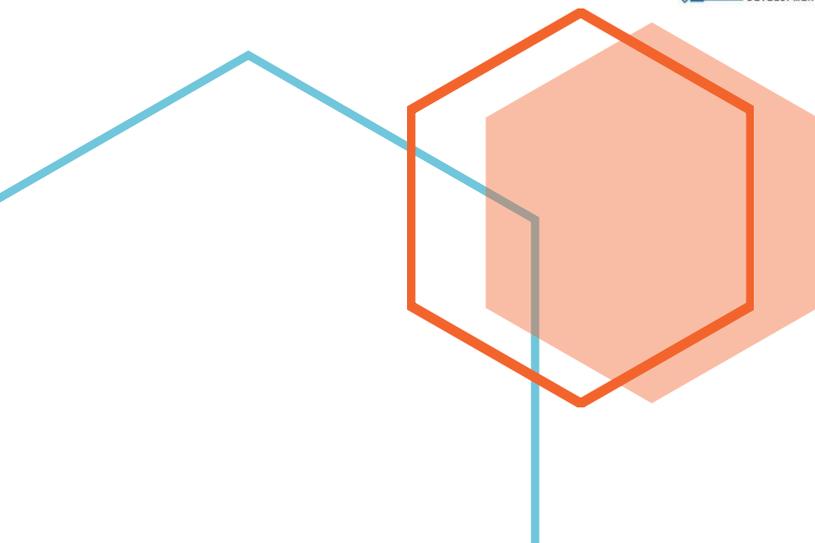


Design Impact Observatory (DesImO)

Design Options Paper (DOP)

January 2022

This document is the final deliverable of the transnational project DesImO. It is a practical handbook that provides a tested methodological framework on how to monitor the level of integrating Design into business and its impact on SMEs.





Design Impact Observatory (DesImO) - DOP

Executive Summary

The project

Design Impact Observatory - DesImO is a project financed by Horizon 2020. The main objective of the project is to collaboratively address a common innovation support challenge, through the concept of the Twinning+ methodology. DesImO aims brought four organisations with long-standing experience in Design ([KEPA](#) – Greece, [Danish Design Centre](#) – Denmark, [PDR](#) of Cardiff Metropolitan University – United Kingdom, [Estonian Design Centre](#) – Estonia) together, to jointly explore best practices and provide guidelines and tools regarding effectively measuring Design and its impact on SMEs.

The process

The partners set up a peer-learning group that identified methodologies, indicators and data collection procedures applied in existing studies and reports on Design effects (Design value creation) and tracked their advantages and disadvantages to distil insights on best use cases. Then, they proceeded with the development of a framework for Design impact monitoring and measuring. These draft guidelines and tools were put into practice in the project partners' territories. The results from the tool testing were shared and peer reviewed amongst the partners, leading to refining the process and guidelines/tools for an "Design Impact Observatory" for measuring Design and its impact on SMEs.

The final outcome

Based on the outputs of all the previous activities, the final deliverable of the project, that is the present Design Options Paper (DOP), was elaborated, leading the way to a monitoring system of Design – or any other driver of innovation – at the service of all interested parties (innovation agencies, policy makers etc.). This paper contains the descriptive analysis of the selected case studies, the framework of the proposed methodology for measuring Design and its impact on SMEs and the results of the tool testing.

The Design



"Design is an approach to problem-solving that puts the user at the heart of the development process. As such, it can be applied to developing user-friendly products and services in the private sector as well as effective public services." (Dr. Anna Whicher, Head of Design Policy of the International Design and Research Centre at Cardiff Metropolitan University)

"Design is not just about the way things look; it is also about the way they work. Design creates value and contributes to competitiveness, prosperity, and well-being in Europe. The European Commission aims to accelerate the take-up of design in industrial and innovation activities at European, national, and regional level." (DG GROW's dedicated website for Design for Innovation, Innovation Policies)

'There is a lack of reliable, comparable statistical evidence demonstrating design's contribution to the economy and its impact on return on investment. Developing effective evidence-based policies requires comprehensive, reliable methods for measuring the impact of investing in design. Also, there is a need for a comprehensive picture of design investment across Europe.' (European Commission, Action Plan for Design-driven Innovation, p.7)



Design Impact Observatory (DesImO)

Design Options Paper (DOP)

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The project partnership

 <p>  https://kepa.e-kepa.gr/  Leda Maria Block – Hermes Building 6th km Harilaou-Thermi Thessaloniki Greece PC 57001  eudpt@e-kepa.gr </p>	<p>The Business and Cultural Development Centre (KEPA), since its establishment in 1991 by the Federation of Industries of Northern Greece and the Greek International Business Association, has been a point of reference in the regional development and one of the major providers of entrepreneurship and business support in Greece.</p> <p>The Hellenic Design Centre (HDC) of KEPA is the first and most experienced organisation in the country that provides integrated Design support services to private and public organisations, to assist them in problem solving and in driving innovation into services and processes by putting people in the centre.</p>
 <p>DDC[®] Danish Design Centre</p> <p>  https://danskdesigncenter.dk/  Bryghuspladsen 8 1473 Copenhagen Denmark  ddc@ddc.dk </p>	<p>With design knowledge, problem-solving know-how, and hands-on tools, DDC empowers businesses and organizations to innovate with greater impact. DDC was established in 1978, more than 40 years ago – a period of major societal transitions. Over the years, DDC has experienced how collaboration is key to eliminating the silos that get in the way of innovation. That's why DDC designs strong partnerships where businesses and organizations work together across industries to drive green, digital, and social changes with long-lasting results.</p> <p>At the core, DDC is all about building capacity and giving the people they work with the tools and methods to pursue and realize new opportunities for sustainable growth. To the benefit of organizations, society, and the planet.</p>
 <p>pdr. International Centre for Design & Research</p> <p>  https://www.pdr-design.com/  Alexander House, Excelsior Road, Cardiff, CF14 3AT UK  info@pdr-design.com </p>	<p>For over two decades, we create innovative, user-centred and sustainable solutions for organisations ranging from start-ups and SMEs to blue chips, governments and public institutions across the world. PDR is an award-winning centre of expertise in design-led innovation based at Cardiff Metropolitan University. PDR conducts world-class, high impact applied research by working closely with industry, the public sector and government. PDR's team have specialist knowledge in conducting research with citizens and developing creative approaches to engagement to drive innovative and sustainable products, services, systems & experiences.</p>
<p>EESTI ESTONIAN DISAINI — DESIGN KESKUS CENTRE</p> <p>  https://disainikeskus.ee/  Telliskivi 60a 10412, Tallinn Estonia  info@disainikeskus.ee </p>	<p>Estonian Design Centre (EDC) is a non-profit organization, established in 2008. EDC is a leader in the promotion of professional design in Estonia, being a partner for designers, entrepreneurs, public sector representatives and policy makers. The mission of the EDC is to support strategic design implementation in the business and the public sector and to nurture an innovative and cooperation-oriented environment for the development of design. Our aim is to increase design awareness and promote the use of design as a strategic tool for solving big societal challenges, growing the economy, increasing innovation and improving the quality of everyday life.</p>



The project team

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1. The Challenge

The project framework

Design is a process of creative problem solving and is being recognised as a major driver of innovation. A particular importance of design, as a key discipline and activity to bring ideas to the market, has been recognised in the Innovation Union, Europe's 2020 flagship initiative. It is clear that design has also become a discipline of management and strategy. When design principles are applied to strategy and innovation, the success rate for innovation dramatically improves. Design is a methodology used to solve complex problems, and to find desirable solutions for clients by integrating innovation. SMEs could approach the practice of innovation (creating new products, services, and customer experiences) with a set of practical and rigorous methods, tools, and frameworks by design. Design drives the innovation process, and hence sharpens industry competitiveness for Europe. It must be led by a vision that sets out to achieve extraordinary results, and realised by strategies that extract the most valuable assets of innovation, creativity, and design to propel EU SMEs to the next greater height. In the context of green, digital and human-centred transformations that are currently on the top of the European policy agenda, design offers an accessible approach that can successfully help small businesses in achieving their goals. In a few words, it is the co-creation that adds value to a service or a product and it ensures its desirability, as it is co-developed with its final user in the centre of the procedure. Yet, it is one of the most frequently-overlooked yet crucially important elements of innovation.

Nevertheless, there is a lack of reliable data and evidence on design in various contexts, which is crucial for implementing the strategy, measuring success of respective inputs, enabling actors to demonstrate the value of design and to raise-awareness of design.

The basic **DesImO's concept** is to tackle the challenges that national/regional agencies face, providing innovation support services that really apply to and satisfy the needs of the SMEs, especially regarding monitoring the impact that drivers of innovation – such as Design – have on their performance. Business support organisations face a lot of pressure to deliver ongoing schemes even if the evidence of their success is weak. Having a simple and coordinated approach to measure the impact of innovation interventions would allow them to better align their support offer, and ultimately ensure the best results from public funding to businesses. But how do you manage to collect the necessary data, in order to provide valid and tangible information to both SMEs and also to policy makers? What methods, guidelines and tools are the most appropriate to make use of, when attempting to measure the impact of Design?

During the last programming period, the European Commission has raised its attention to inclusive procedures, as proven by the setup of its programmes, both during their development and their post evaluation. But what happens when it comes to a more national/regional/local level? SMEs are reported dissatisfied by either the kind of support and/or the quality of it. More enterprise-friendly support schemes have to be designed, starting from the analysis of good practices.

In this respect, the main **goal of DesImO project** is to create and propose a guideline on how any agency could develop a mechanism to monitor Design – or any other driver of innovation – and its impact on SMEs.



The methodology followed by DesImO partners

The 4 partner organisations of DesImO project followed a blended methodology of Twinning + and Design Thinking.

Setting the goal – Value of monitoring Design

Having in mind the initial challenge of “How might we develop a framework of a proposed methodology for measuring Design and its impact on SMEs?”, the DesImO partners kept revisiting this purpose in the sense of why it is important and useful to monitor the value of Design to SMEs. As a result, the necessity to separate the state of Design in SMEs and the impact of a specific Design intervention emerged.

Desk research – Evaluation/selection of good practices

Good practices on how to monitor Design were looked for, at global level, inside and outside the DesImO partner organisations. During the first peer-learning workshop, the participants presented their findings and then reviewed the elements that turn those case studies into “good practices” and could – thus – be useful for the DesImO’s own purpose. As the outcome of this learning exchange process, the following 5 case studies were finally selected to be further exploited in terms of methodology, indicators and data collection procedure.

For State of Design in SMEs:

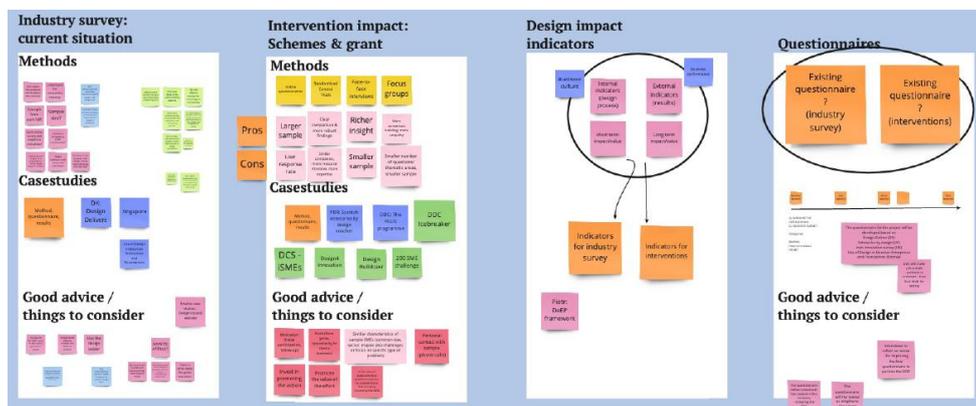
- Design Delivers (DDC)
- Creating Value by Design (Design Singapore Council)
- Use of Design in Estonia Enterprises and Foundations (EDC)

For intervention impact:

- RCT method (“DCS-iSMEs” and “200 SME challenge” projects)
- Evaluation of the Scottish Enterprise ‘By Design’ voucher

Framework of proposed methodology

In addition to outlining the basic features of the above-mentioned cases, the DesImO’s peer-learning group members proceeded in sorting the learnings to bring forward for developing a new proposed methodological framework for measuring Design and its impact on SMEs.





Evaluate

In order to assess this scheme of quantitative and qualitative surveys, 2 questionnaires were formulated (one for State of Design in SMEs and one for Intervention Impact) according to the related indicators.

Run pilot action

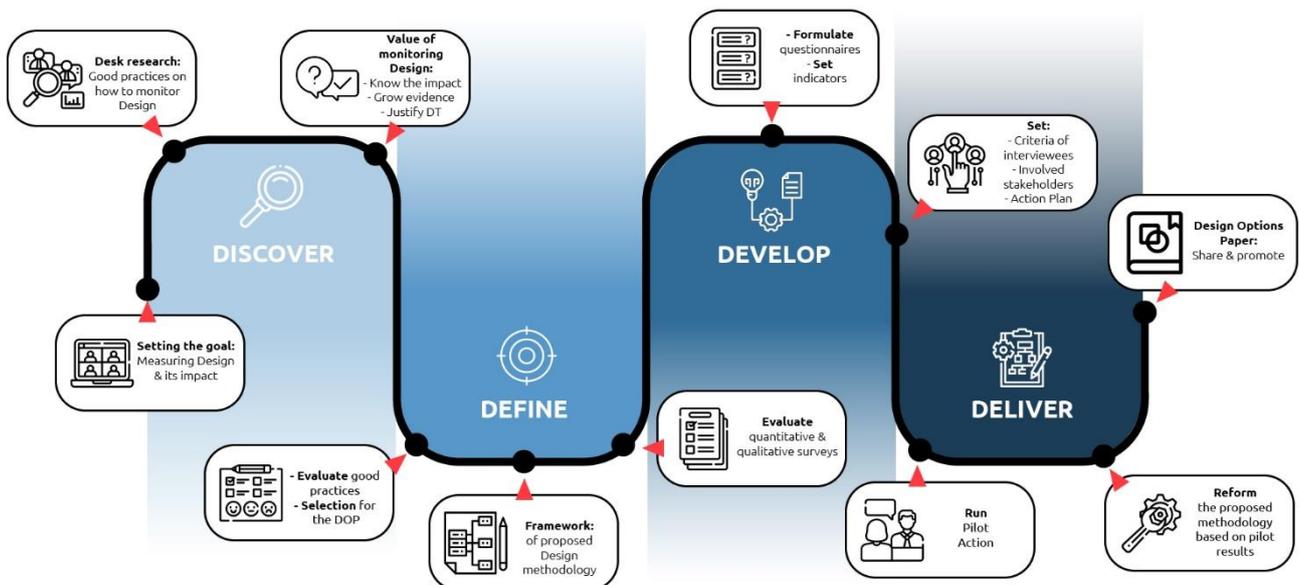
Based on the Action Plan developed to test these research tools, all 4 partners ran their own pilot action, addressing SMEs and relevant innovation agencies, so as to get their feedback.

Final Outcome

During the second peer-learning workshop, the project partners shared their experience, reviewed the process and reformed the proposed methodology based on the pilot results. The findings are integrated in the present Design Options Paper, which provides a methodological framework for measuring Design and its impact on SMEs, by illustrating the basic process and analyse each phase/step with specific guidelines, good advice and things to consider.

As demonstrated visually in the graph below, DesImO partners followed a methodological process, passing from the phases of **Discovering** good practices, **Defining** the framework of a proposed methodology for measuring Design and its impact on SMEs, **Developing** the tools/questionnaires to monitor the state of Design in SMEs and the impact of a specific Design intervention, **Delivering** the pilot testing, which led to the elaboration of the Design Options Paper (DOP).

Methodology followed by DesImO partners





2. Case studies on how to monitor Design

With the aim to jointly develop a methodology on how to measure Design, DesImO Project explored and peer reviewed good practices (case studies) to formulate the basis of creating a Design Observatory and to provide guidelines and tools regarding effectively measuring Design Impact on SMEs. The selected case studies are the following:

For the State of Design in SMEs survey:

Design Delivers (DDC),
Creating Value by Design (Design Singapore Council),
Use of Design in Estonia Enterprises and Foundations (EDC)

For intervention impact:

RCT method (DCS-iSMEs & 200 SME challenge),
Evaluation of the Scottish Enterprise 'By Design' voucher



Case Studies for “State of Design in SMEs” survey

Design Delivers (2016 & 2018)

by the Danish Design Centre



The approach

The Danish Design Centre conducted a survey in 2016 that was repeated in 2018 in partnership with the Confederation of Danish Industries. The Research agency Epinion acted as an external supplier who conducted all telephone interviews.

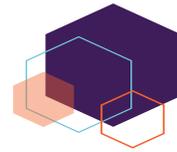
The survey called “Design Delivers” mapped the use of design in Danish companies and identified to what degree Design pays off. 75% of the participating companies experienced that Design has a positive impact on the economic bottom line (in 2018).

Many of the questions from Design Delivers 2016 were repeated in the 2018 survey, enabling a comparison over time, although the 2018 survey includes also new questions. The companies were stratified into size categories (based on number of employees) and main industries). Within each stratum, companies were randomly selected for inclusion in the survey. The collected sample was subsequently weighted for size and main industry sector, to ensure that the findings are representative of the population of Danish companies. The sample also includes a satisfactory regional spread. The report only includes weighted and, thus, representative findings.

In general, the survey revealed a high degree of stability in the results from 2016 to 2018. Several of the results pointed to a development in the use of Design that highlights the need for more knowledge on Design unfolds in the Danish companies. The value/effect of Design and the results were based on quantitative data from the survey based on telephone interviews with 805 decision-makers working with business development, product development or innovation, in Danish companies with at least 10 employees. The survey involved a representative selection of main industries. Moreover, interviews with several companies as case studies were conducted to underpin the findings and inspire other companies.

Why this case study was useful?

- ✓ it gives a qualitative approach in measuring design
- ✓ it offers comparable results in the long-term checking on impact over time
- ✓ it describes case studies of companies that used design to better support the surveys numbers
- ✓ it shows good response rates due to the positive experience
- ✓ it involves a mix of Industries and mix of businesses in different steps of The Design Ladder.



What works well and why?

The survey was conducted several times, which makes it possible to compare the use of Design in Danish companies over time.

The mix of quantitative and qualitative data underpinned the findings

The high number of participating companies offered more secure results

The use of The Design Ladder offered representative businesses that are attributed to different Ladder steps.

What are the attention points?

Only Danish companies participated in the Design Delivers case study, so the results cannot be generalized in other EU businesses. But there are no restrictions and no significant adjustments for the survey's tools to be applied in other countries.

Further Details:

Created in 2016 and repeated in 2018.

Links

2016:

<https://danskdesigncenter.dk/en/design-delivers-how-design-accelerates-your-business>

https://danskdesigncenter.dk/sites/default/files/pdf/designdelivers_pixi_eng_rettet.pdf

2018:

<https://danskdesigncenter.dk/en/design-delivers-2018-how-design-accelerates-your-business>

https://danskdesigncenter.dk/sites/default/files/pdf/design_delivers_-_how_design_accelerates_your_business.pdf



[Download](#) Publication



Creating Value by Design

by the Design Singapore Council (Dsg)



The approach

A closer benchmark on how to measure Design's impact might be to look at how innovation is adopted in an organization and how that impacts financial performance. This would be more measurable because there are similar frameworks to measure the impact of innovation on business performance. In a way, Design is a participant in the process of innovation as well. It was decided to verify this with the leaders in the industry both from the practitioners' point of view and from the adopters. This then shaped the approach in search of the impact of Design on business performance. The study showed that continuous adoption of Design could provide higher revenues – companies which continued to adopt Design also saw better returns (in terms of profits) as compared to firms which remained stagnant or reduced their Design adoption. However, a limitation of the study is that overall business performance cannot be just attributed to the use of Design.

Why this case study was useful?

- ✓ It points out how innovation is adopted
- ✓ It measures Design impact both in internal business development and external environment
- ✓ It involves in-house designers

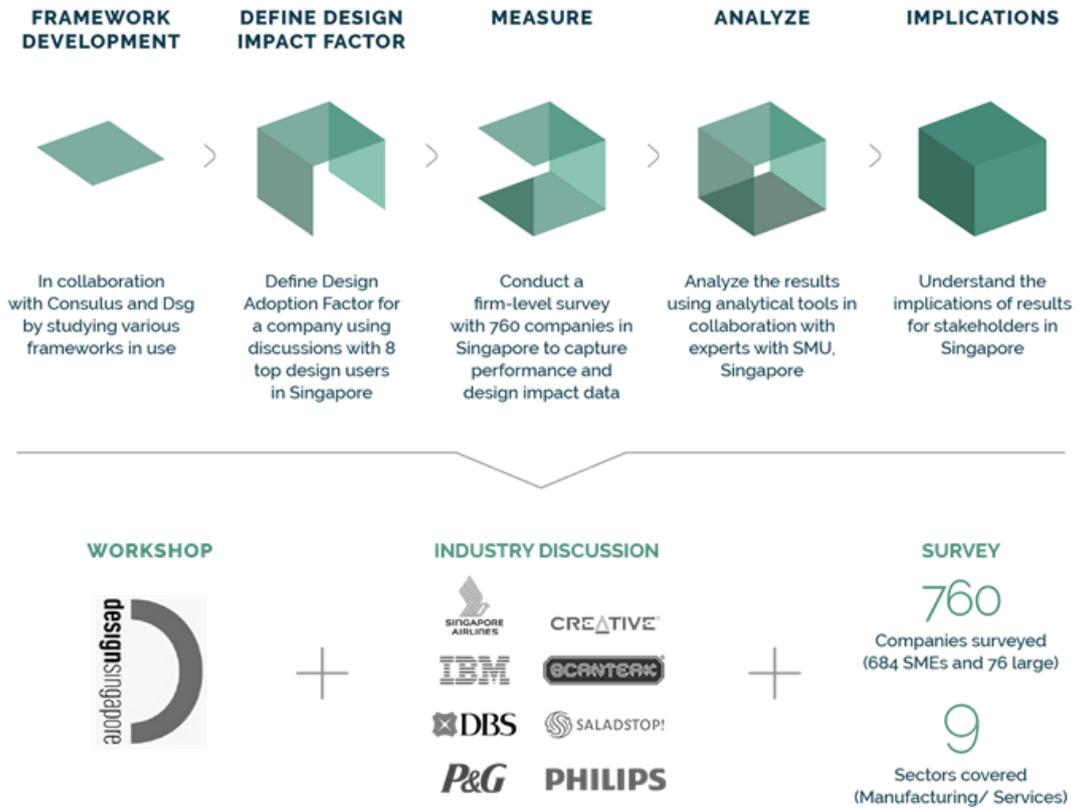
The Approach of the case study is based on a collaborative approach:

- Framework Development
- Define Design Impact Factor
- Measure
- Analyse (firm-level survey, interviews)
- Implications

Design Impact Observatory (DesImO)



It was this iterative and collaborative approach which led to the following framework:

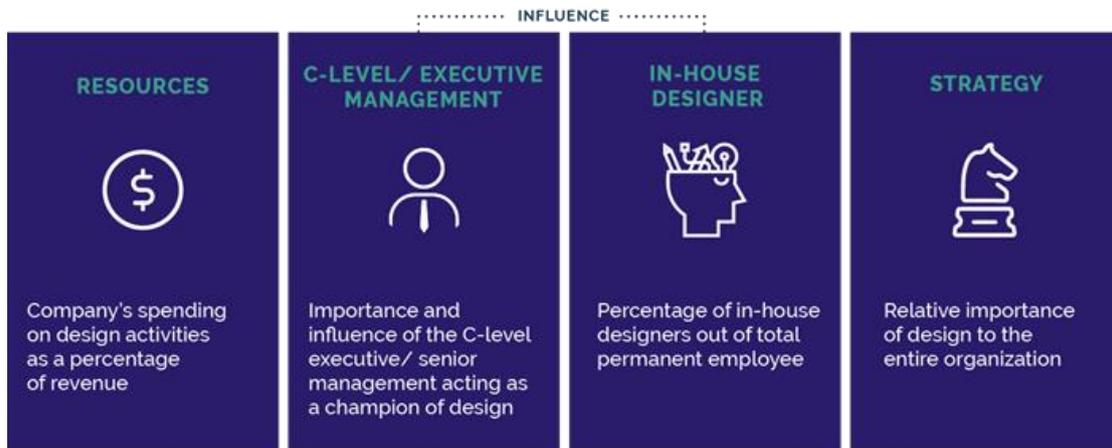


The methodology measures **two dimensions** of Design Adoption

-Design Depth which is based on Resources, C-Level/Executive management, In-House Designer, Strategy

More specifically, the methodology identifies what it means to have Design champions internally and whether they have the power to shape strategy and resources.

Design Depth

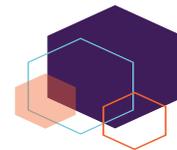




-**Design Breadth** which is based on Design Object, Design Environment, Media Design, Service Design

The Design breadth identifies the entire process from ideation to the user-experience, how widely is Design applied throughout the process and at what levels. These activities, typically, vary across the sector but are consistent across organizations within the sectors.

Design Breadth



What works well and why?

A longitudinal study was conducted to propose a way of determining the value arising from the use of Design to companies in Singapore and the factors influencing success by surveying the same group of companies in both periods (2014 and 2016). The firm-level survey was conducted with 760 companies (684 SMEs & 9 large, covering 9 sectors) in Singapore to capture performance and Design impact data.

What are the attention points?

A limitation of the study is that overall business performance cannot be solely attributed to the use of Design.

The study was made in Singapore, where the companies present a high level of Design adoption. The transfer of the method in other, less-mature business environments needs attention.

Further Details:

Report published in 2019 - use of data of 2014 and 2016

Link: <https://www.designsingapore.org/resources/creating-value-by-design.html>



Use of Design in Estonia Enterprises and Foundations

by the Estonian Design Centre (EDC)

EESTI ESTONIAN
DISAINI — DESIGN
KESKUS CENTRE

The approach

The study was conducted by the Center for Applied Social Research of the University of Tartu (RAKE).

The purpose of the study was to find out the current state of Design use and the needs and opportunities of private and public enterprises, as well as foundations and NGOs established by the state.

The first study was completed in 2013, and it was repeated in 2018, to reach safe and comparable conclusions.

As a result of the survey, six key recommendations for improving and increasing Design use were proposed. To fulfil the purpose of the study, strategic documents and literature related to design development were analysed, questionnaire-based telephone interviews and semi-structured face-to-face interviews with industry managers and experts in production and service companies as well as with design companies were conducted.

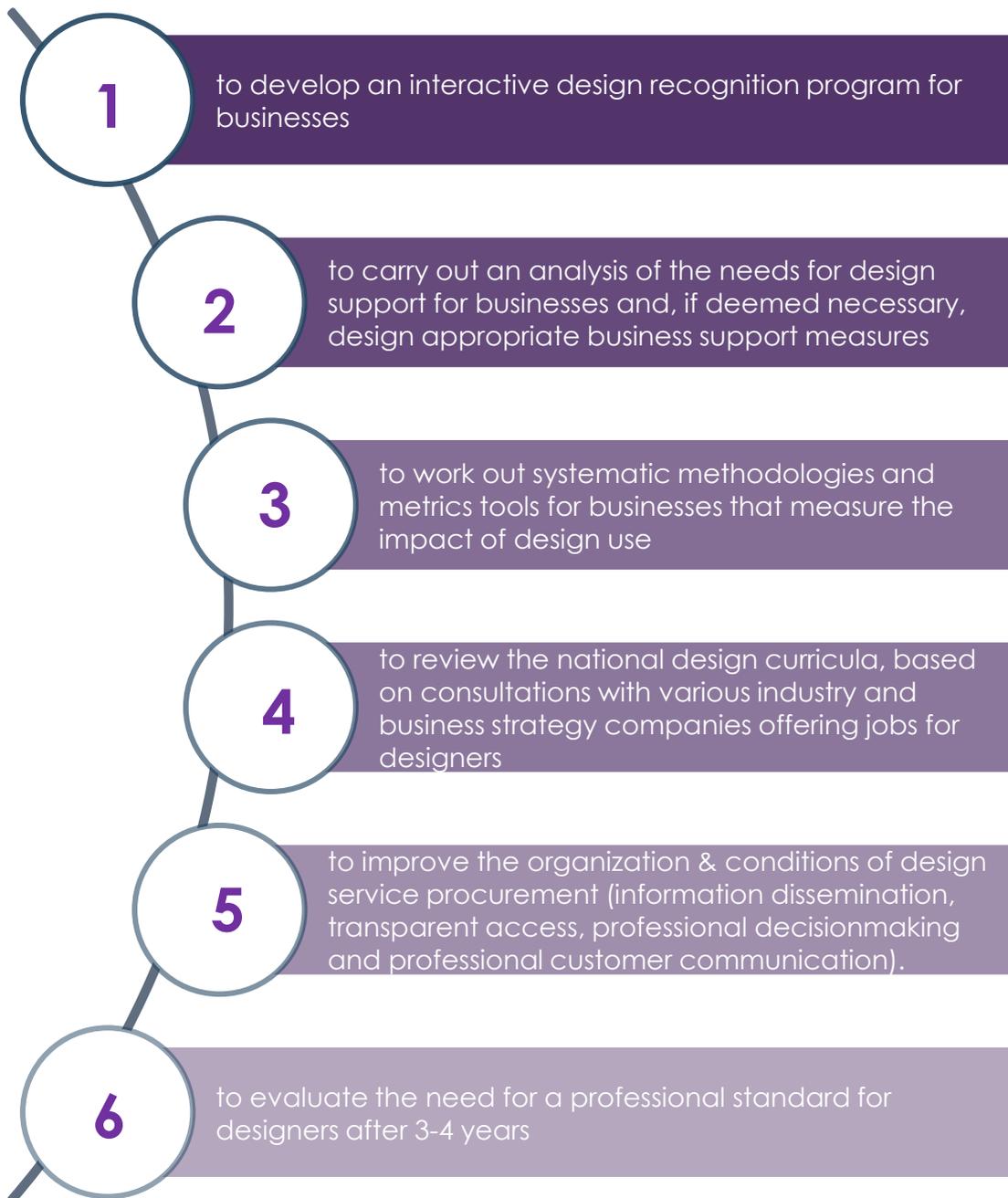
The study was developed in five stages:

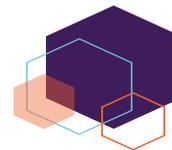
- Stage I: document analysis;
- Stage II: preparation of the questionnaire and interview plans;
- Stage III: conducting a telephone survey among companies;
- Stage IV: conducting interviews
- Stage V: data analysis and reporting

Why this case study was useful?

- ✓ It uses both qualitative and quantitative data
- ✓ It includes mix of survey tools (questionnaire, interview telephone communication)
- ✓ It pays attention on survey repetition after certain time
- ✓ It results in six specific key recommendations for improving and increasing Design use

As a result of the study, **six key recommendations** were provided to enhance design use.





What works well and why?

The project has been conducted two times (in 2013 & 2018), which makes it possible to compare results and data.

The mix of quantitative and qualitative data underpinned the findings.

What are the attention points?

Only Estonian companies participated in the project, so the results can't be generalized.

Attention should be paid to the quality of the sample, including sample size and representativeness.

Some important objective quantitative indicators are excluded from the analysis.

There were some questions in terminology. Respondents' understanding is crucial.

Further details:

The first study was completed in 2013: <https://www.kul.ee/kunstid-ja-loomemajandus/disain>

The second study was completed in November 2018:

https://www.eas.ee/wp-content/uploads/2018/12/Disainikasutuse_uuring_2018_AMP.pdf



Case Studies for “Intervention Impact” survey

Randomized Control Trial-RCT method

By DCS-iSMEs & 200SME challenge/ Horizon 2020 Projects



The approach

Both Horizon 2020 projects used the Randomized Control Trial Method. According to this method one can test the efficiency of a process/ service and get data and information. This method is very common in science, like in medicine, but is also promoted as a tool for social sciences by INNOSUP-06.

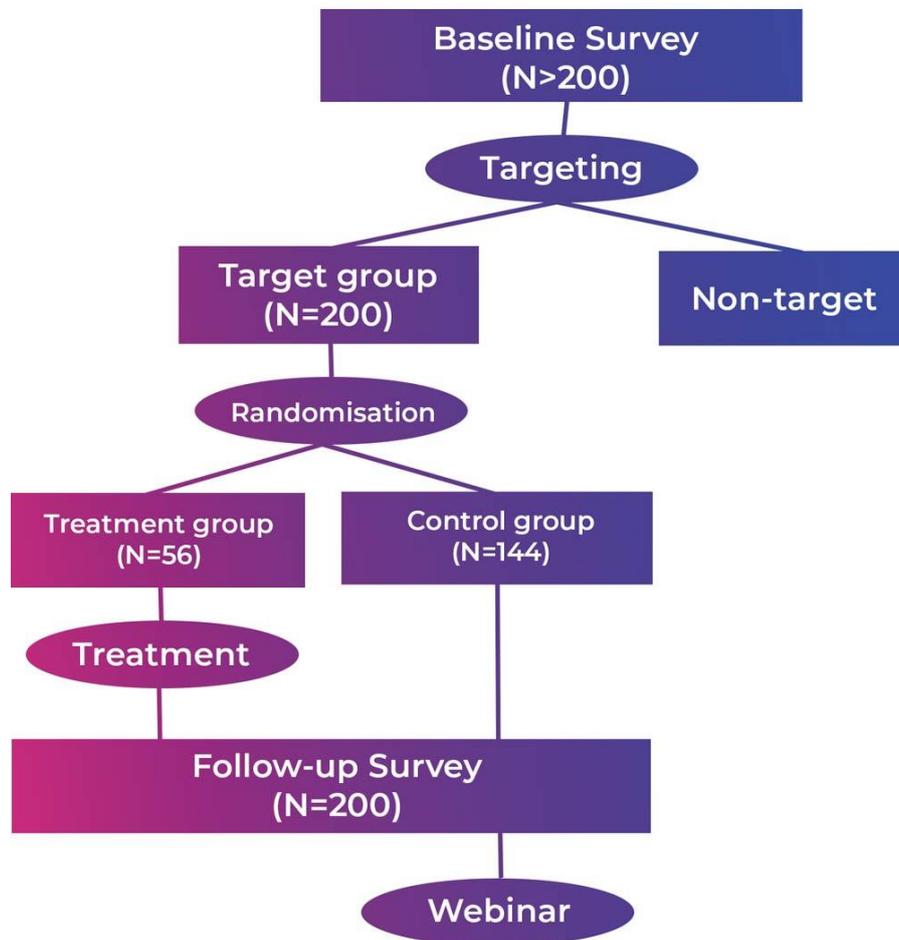
The main aim of DCS-iSMEs project was to cover the need of an “after-sales” service towards beneficiaries of NSRF programmes, in order to engage them into actions that will further ensure their initial investment. In order to achieve this, KEPA applied the Design Thinking approach and tools and tested it through the RCT method.

According to RCT Method, the sample was split in 2 groups; the control group and the treatment group. The control group receives basic information on the proposed service (a DIY guide in DCS-iSMEs case), while the treatment group receives extensive information and more specialized services (in DCS-iSMEs case, support from a Designer through Design Clinic service).

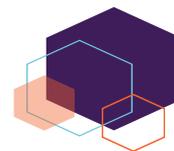
In the case of 200SME Challenge, RCT was used to validate the UX Challenge as a policy instrument capable of improving SME knowledge and awareness about benefits of design thinking and user-centric innovation and related methodologies and tools. The survey sample was split in intervention group (companies selected to enter the Innovation Challenge and experience a Design Sprint) and control group.

Why this case study was useful?

- ✓ It offers an easy comparison framework between the two groups (treatment & control group)
- ✓ Sample can be outreached via an open call featuring a Baseline Survey measuring scores over major outcome variables



Source: <https://www.200smechallenge.eu/randomized-control-trial/>



What works well and why?

Through the selection of specific indicators, one can prove the direct and indirect effect of the Design Thinking methodology and get both quantitative and qualitative data.

The status of Design Thinking in Greece still allows research/monitoring of awareness

What are the attention points?

In order for this method to succeed:

- The sample of the SMEs has to have common characteristics; same sector and size
- The indicators have to be clearly defined and easy to get; specific, as qualitative as possible, directly related to the impact of Design Thinking
- The selected SMEs have to be committed, even if the provision of the data for the indicators is more complex; ie number of clients, age groups etc.

Further Details:

Link: <https://kepa.e-kepa.gr/european-programs/dcs-ismes/?lang=en>

<https://cordis.europa.eu/project/id/824216>

<https://www.200smechallenge.eu/randomized-control-trial/>



Evaluation of the Scottish Enterprise 'By Design' voucher

by Cardiff Metropolitan University – PDR



The approach

'By Design' is a light-touch grant for companies to access up to £5,000 to work with a Design agency. Over five years, 618 companies received the grant. The evaluation, undertaken as part of the Interreg Atlantic Area funded project User-Factor, revealed that Design is a relatively low-cost way for companies to innovate as 64% of companies reported bringing a new product or service to market and 27% entered new markets. Furthermore, after the grant, 83% of companies continued to work with a Design agency going on to invest £26,000 on average. This demonstrates that a small government grant of up to £5,000 can stimulate a five-fold increase in investment.

PDR took design approach to conduct the evaluation and applied different methods on the stages of the conceptual double-diamond model:

Discover - As part of the Discover phase, a scoping workshop was held with Scottish Enterprise in November 2018 to co-design the approach to conducting the research including objectives, data collection parameters and methods. Consequently, PDR developed two surveys – one for grant beneficiaries (small to medium-sized enterprises) and one for the suppliers (Design agencies). The response rate of the SME survey was 55%. Survey for suppliers was disseminated by Scottish enterprise to Design and creative agencies and freelancer designers who delivered design services through the programme. The survey reached 30% response rate. Companies and Design agencies responded anonymously, unlike the supported SMEs.

Define – the survey analysis was used to inform the next stage of the research, including selection of a short-list of representative companies for participation in a workshop, telephone interviews to create case studies as well as a background briefing for the workshop. Five companies were selected to participate in a workshop to map their user experience of the journey of participating in the programme. These companies were selected because they had very different experiences of the grant.

A second workshop took place with the team of Scottish Enterprise Innovation Specialists to map the experience of the service users (companies) against the experience of the service providers (innovation specialists). Both these workshops were held at the Scottish Enterprise office in Edinburgh in June 2019 and facilitated by PDR. The purpose of the user journey mapping exercise was to identify pressure points in the process and opportunities for enhancing the experience. After completing the user journey maps participants were able to identify common themes and pinpoint concrete ideas for action.

Develop – One of the outcomes of the workshop was the need to demonstrate the impact of the grant not only at a macro, quantitative level but also at a micro, qualitative level through impact of case studies among beneficiaries. As such, PDR conducted one-to-one interviews with 11 companies including six with product solutions in different sectors and five with service solutions in different sectors. These case studies were validated by the companies and Scottish Enterprise and disseminated.

Why this case study was useful?

- ✓ The survey was developed using Design Thinking Methodology
- ✓ The case study included also professional designers in the survey sample
- ✓ The survey was addressed to representative companies



Deliver – Based on the surveys, workshops and interviews, PDR created a series of master user journey maps to demonstrate the pressure points in the process and pinpoint opportunities to improve the user experience and enhance the efficiency for the innovation agency. A series of recommendations were made, which will be tested through prototyping within the User Factor project.



What works well and why?

The survey reached a good response rate! Sometimes, a major challenge in conducting research with companies is getting a large enough sample size to be representative. Many companies have survey fatigue. However, perhaps due to the light-touch nature of the grant or the fact that companies were motivated to share their experiences, the turnout for this research was comparatively high (55% for companies and 41% for Design agencies).

The survey was based on self-reporting. Even though self-reporting is not always reliable, it gives the advantage of rapid access to data, democratising data and empowerment of business respondents.

What are the attention points?

One of the perennial challenges of Design research is isolating 'Design' as a single independent variable. In an ideal world, it would be possible to isolate 'Design' as a single independent variable against other independent or dependent variables influencing the success of a company launching new products and services such as marketing, leadership, technology, knowledge management, development strategy, development speed and market orientation, among others. However, it was not within the scope of this research.

A further desired criteria would have been verifiable quantitative data detailing indicators such as new turnover, cumulative sales etc; however, due to GDPR issues this was also not within the scope of this particular study.

The data is based on companies self-reporting the impact of the grant – this entails a number of implications: 1) companies might be tempted to over-report the financial results in the hope of receiving more funding from the innovation agency;

2) the results are based on estimates which are not verified in company accounts; and

3.) the knowledge limitations of respondents who may not have access to all of the information requested in the survey.

Further Details:

Conducted in Nov 2018 - April 2019

Link: [By Design, Grant Evaluation – Research Report – User Factor](#)



The DOs and DON'Ts summary

For the “State of Design in SMEs” survey	
DOs	DON'Ts
<ul style="list-style-type: none"> ✓ Repeat the survey over time ✓ Use mix of quantitative and qualitative data ✓ Measure also other values besides the economic value as well ✓ Use mix of tools when conducting the survey (questionnaire, interviews, telephone communication) ✓ Address high number of survey participants and encourage responses to achieve high response rate ✓ Use representative businesses out of different steps of The Design Ladder ✓ Pay attention to the quality of the sample, sample size and representativeness. ✓ Use categorized questions that point out the value of Design ✓ Try to build a Design mentality to every entrepreneur, employee etc. ✓ Remember about limitations of self-reporting and 'guesstimates', but keep in mind that sometimes they are the easiest way to get data ✓ Include new forms of design practice to raise awareness of what it can be used for 	<ul style="list-style-type: none"> X Don't proceed to survey before you test/check that all questions are answerable and understandable X Don't use questions that reflect the respondent's answer → Avoid “guesstimates” wherever possible X Don't address the survey to anyone in the company → Make sure you find the right person to reply X Don't limit the study only to survey questions → Offer case studies, good practices and successful Design applications to inspire X Don't overlook what is the management's mindset towards Design

For the “Intervention Impact” survey	
DOs	DON'Ts
<ul style="list-style-type: none"> ✓ Select specific indicators to prove the direct and indirect effect of the Design Thinking methodology and get both quantitative and qualitative data. ✓ Measure then pre and post intervention ✓ Choose indicators directly related to the impact of Design Thinking ✓ Address the survey to professional designers who delivered the intervention as well ✓ Attract large number of survey participants by also giving SMEs good examples of other SMEs that experienced progress due to Design impact 	<ul style="list-style-type: none"> X Don't mix different industries → measure companies that belong in the same industry and have the same size X Don't forget to commit SMEs to participate in the survey, even if the provision of the data for the indicators is more complex X Don't rely only on self-reported estimations of Design Impact. → “fish” verifiable quantitative data detailing indicators such as new turnover, cumulative sales etc.

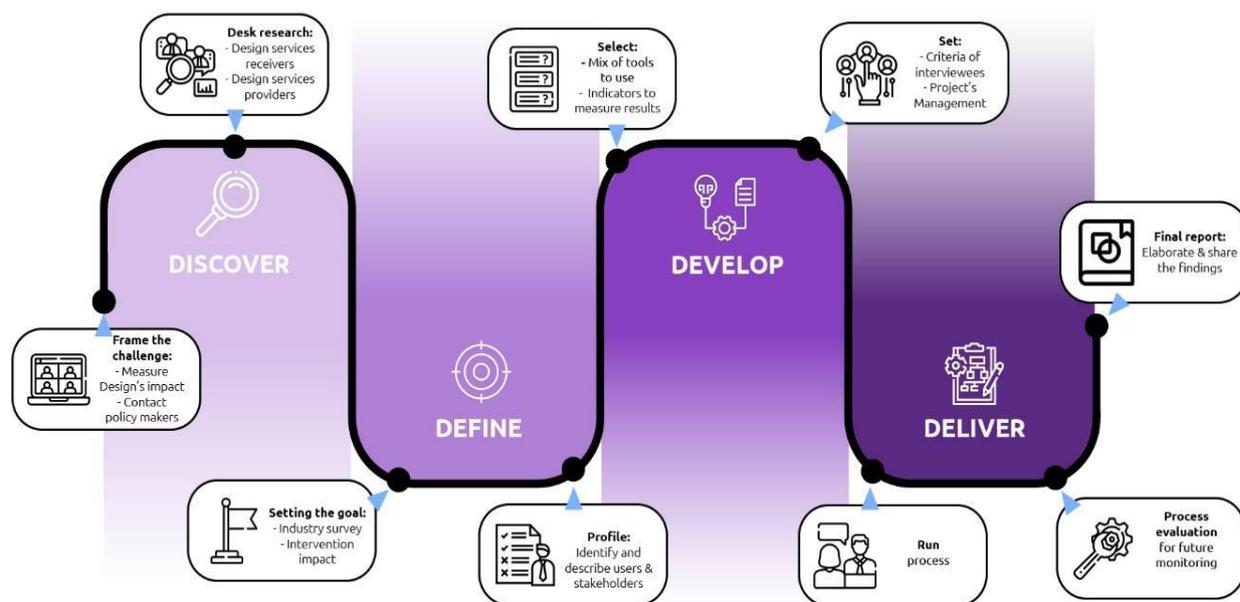


3. Our proposition

In order to make our process replicable for other business and innovation support organisations across Europe and beyond, we are suggesting a framework methodology that will allow you to follow the process and assess the impact of design in your region.

Our methodology is based on a concept of divergent (free-flowing) and convergent (analytical and deductive) phases of a design process and progresses through discovery, definition, development and delivery stages.

Proposed Framework Methodology



Discover

- **Frame the challenge:**

⇒ Rationale behind the 'Measure Design's impact' challenge:

- To effectively measure Design's impact on SMEs
- To support/justify the application of Design
- To know the impact of design interventions
- To grow evidence
- To grow a common language on value of design
- To monitor the impact of different Design programs

⇒ Contact policy makers

- To share the project goal, its value and the upcoming results
- To identify their needs in terms of design impact evidence
- To advocate for design to be included in the future financial instruments for SMEs growth



- **Desk research:**

- ⇒ Initial exploration of the research field
 - Focus on specific topic
 - Update of useful related good practices
- ⇒ Design services receivers
 - Identify the SMEs that had a Design intervention in the past
 - Collect findings from the interventions – Prototypes
- ⇒ Design services providers
 - Identify Freelancer Designers & Design Agencies that provide Design services
 - Collect findings from the interventions - Portfolios

The first step, or so-called 'discovery' phase of the design process, is concerned with scoping and framing our main task. This starts with stating the intent for our design impact evaluation activity, be it growing the knowledge of design use in business, assessing the impact of existing programmes, collecting input for new programmes development, influencing the policy or a mix of all of them. A good design-led process always involves stakeholders to make sure that the right people have input in the project, the result of the process serves its purpose and the system can leverage the outcome. In this context, stakeholders are institutions or individuals who play a role in decision-making, funding, implementation, delivery and evaluation of design, innovation and business services and policies. At this stage it is also important to look broadly into existing data to ensure that there is no duplication of work, identify best practices and assess knowledge gaps. In assessing the impact of design two groups are central to your research – businesses (either as a whole population or specifically the ones that received design services) and designers or design agencies. Scope out potential cohorts of those groups to know if and how they will be available to take part in your study.

Define

- **Setting the goal:**

- ⇒ Industry survey
 - Assess the design state of play among SMEs (across industries or in selected ones) Intervention impact
- ⇒ Intervention impact
 - Assessing impact of design in SMEs that have had a design intervention
- ⇒ Invest in promoting the action and its effort

- **Profile the target group:**

- ⇒ Identify and describe:
 - Users:



- ✓ Identify the level of maturity of the SMEs in relation to Design (e.g. with the use of Design Ladder). Try to find the equal number of SMEs that belong to each level (stage of the Design Ladder).
- ✓ Identify industry, size, challenges
- Stakeholders:
 - ✓ Involve freelancer Designers & Design Agencies in the research – valuable feedback for the process
- ⇒ Keep in mind all the limitations (sampling, language etc.)

Once you explored the scope and consulted your goals with stakeholders, it is time to make a decision on the type of the study that is most aligned with your objective. The 'state of play' study will allow you to assess the current use and understanding of design among businesses and draw conclusions on the drivers and barriers for greater adoption of it, while 'intervention survey' focuses on the effectiveness and impact of design interventions. Your study can focus on selected sectors or other characteristics of a business, such as size, maturity, region or challenges encountered. Defining well your target group will help you to develop access routes to them. Businesses, especially micro and small ones, are time-poor and it is crucial to adopt engagement strategies to their needs, clearly explaining the goal of the study, how it can help them or offering incentives to participate if needed.

Develop

- **Select:** Mix tools to use
 - Dimensions of Design adoption (depth & breadth)
 - RCT method (Randomized Control Trial)
 - ✓ Control group vs treatment group
 - Measure values besides the economic one
 - Use Quantitative and Qualitative methods
 - ✓ Surveys
 - ❖ Online Surveys
 - ✓ Interviews: Use different methods of interviews
 - ❖ Online interviews
 - ❖ Face to face meetings
 - ❖ Phone interviews
 - ❖ Focus groups
- ⇒ Indicators to measure results
 - ✓ Set long term vs short term indicators
 - ✓ Set indicators that show change in business culture
 - ✓ Set indicators that show change in business performance (both internal & external)



- ✓ Assess impact on both SMEs & Design agencies
- ✓ Set internal indicators on the Design process

- **Set:**

- ⇒ Criteria of interviewees

- Select the right companies
 - ✓ Different level of maturity in relation to Design (stage in the Design Ladder)
 - ✓ Similar size
 - ✓ Same sector
 - ✓ Same challenges
- Select the right people in the company (entrepreneur, manager, etc.)
- Interview more than one person in the company to test the validity of responses

- ⇒ Project's Management

- Set methods to conduct research
- Set actions and required resources
- Set timeline

Choosing the study methodology and developing the right questions is an art in itself. If you do not feel confident about building it yourself, consider working with specialised market or user research agency. However, we have collected for you a bank of questions, methods and tips that will hopefully help you to do it yourself. Online surveys are good for collecting large amounts of data quickly, while at the same time there is a 'reporting fatigue' among many organisations and the response rate can be low if they do not see a clear value or incentive for them in taking part in the study. Currently, there are many accessible online platforms available that will help you to build a survey and even do a data analysis and visualisation for you. It is good to complement the quantitative data with more in-depth reflections collected through interviews or focus groups. Direct interaction with interviewees gives an opportunity to get a more nuanced picture and delve deeper into some subjects. Based on the interview data, you could produce case studies to accompany your impact report. Randomized Control Trial (RCT) is a more complex research methodology, a sort of experiment that will allow you to compare two distinct cohorts: one (the experimental group) receiving the intervention that is being tested (e.g. design support), and the other (the comparison group or control) receiving an alternative service or none at all. The two groups are then followed up to see if there are any differences between them in outcome [see examples of DCS-iSMEs & 200SME challenge studies in our case study section]. We have included examples of design surveys in the appendices, so you can get inspiration about the type of questions to ask. Broadly we recommend starting with contextual questions about the business, its size, age and activities; then ask about business performance and business culture in the focus on design, its understanding, use and perceived or measured effect. This information usually requires thorough knowledge of the organisation so make sure to address the right people in the organisation who will know the answer. Remember that design can mean a lot of different things to many people so you might want to clarify what you mean



by design and other specialist terms. If you are planning to assess the effect of design intervention it is good to collect comparable data before, during and after the intervention. You can also retrospectively ask about the situation pre-intervention, but the data collected at the start will be more accurate. Additional sets of questions about the experience of design intervention should be considered, especially if the intervention was part of a support programme that you aim to improve – ask about the process of finding, applying, receiving, and reporting on the support measures. It will help you develop more business-oriented schemes in the future. Impacts of the supported design intervention should be also measured in the service providers – designers and design agencies. This will reveal if the support programme had influence on the design sector and whether there were any challenges on the support journey.

Deliver

- **Run process**
- **Process evaluation** for future monitoring
 - Evaluate the process internally and externally by using feedback from users & stakeholders
 - ✓ Validate findings with Designers & support agencies
 - Re-Design process for future use
- **Final report:**
 - ⇒ Elaborate & share the findings
 - Data processing
 - Elaborate final report
 - Share it with policy makers and ecosystem stakeholders. Use statistical data of useful information that need to be highlighted
 - Share it with Designers' community
 - Design a promotional campaign about the value of Design, using the findings according to chosen target group
 - ⇒ Follow up after a pre-selected time
 - ⇒ Set a date to repeat the process



Once your survey or interview questions are ready, it is good to do a small-scale pre-test to assess if they are understandable and whether the respondents are able to answer them. After final checks, run your data collection exercise. Make sure you collect and store it in a data privacy compliant way. As mentioned before, survey software can do the basic data analysis and visualisation for you, but to get richer insight, get together with your stakeholders to discuss the results and look for other correlations and interdependencies. Develop an engaging report and key messages tailored to specific target groups that can be easily shared through various communication channels.

It is a good practice to debrief with your team on what worked well and what can be improved for the next edition of your study. Repeating the study regularly will allow you to observe trends and see long term effects of policy or support programmes.



4. Tool testing

Overview of the tool testing

To get the accurate and reliable data from the survey study, it is important to pre-test the questionnaire's content and flow.

KEPA, DDC, PDR and EDC worked together to create two questionnaires; the first one on "State of Design in SMEs", to investigate the use of design and design processes in SMEs and the value it produces, and the second one on "Design Interventions", to document how design interventions have an impact on the participating companies.

As the purpose of the DesImO project is to develop a best practice tool based on the experience of various questionnaires, the "tool for testing" contained more questions than suitable - simply to use the possibility to test the quality of more questions.

KEPA, DDC and EDC tested both questionnaires developed (State of Design and Interventions) on **21 SMEs** (4-9 per partner) between October and November 2021:

	State of Design	Interventions	Total
KEPA	4	4	8
DDC	4	-	4
EDC	3	6	9
Total	11	10	21

KEPA and EDC tested both questionnaires, DDC the questionnaire of "State of the Design".

KEPA, DDC and EDC translated the questionnaires in their **native language**.

The questionnaires were tested through **different methods**: interviews (telephone/ online in Zoom/ face-to-face) and electronic forms. Our goal was to test all types of interviews and get (live) feedback from interviewees on questionnaires and process.

According to the tool testing, the strengths and weaknesses of the different methods are as follows:



Interviews

Type	Strengths	Weaknesses
General	<ul style="list-style-type: none"> • 2 interviewers at one time • Inserting the answers on Google form in real time (including the evaluation questions) 	<ul style="list-style-type: none"> • Interviewer=intervention's Designer → biased answers and already known
Telephone	<ul style="list-style-type: none"> • Easiness and flexibility to conduct the interview • 100% response rate • Valuable additional information • Reaching the "right" person • Opportunity to explain questions 	<ul style="list-style-type: none"> • No visual access to listed answers → interviewers had to read them repeatedly • No visual contact • Expensive • Time consuming
Online	<ul style="list-style-type: none"> • Possibility to do share the questionnaire on screen 	<ul style="list-style-type: none"> • Difficult to assess the body language of the interviewee
Face-to-Face	<ul style="list-style-type: none"> • User empathize • Opportunity to explain questions • Valuable additional information 	<ul style="list-style-type: none"> • No visual access to listed answers → interviewers had to read them repeatedly • More time needed in total

Electronic form

Type	Strengths	Weaknesses
Online electronic form	<ul style="list-style-type: none"> • Cheap • Opportunity to involve a large number of companies' • Visual access to listed answers 	<ul style="list-style-type: none"> • Low response rate (25%) • No possibility to explain questions • Reaching the "right" person

Most respondents liked that it was a telephone interview, but some would have preferred to have an electronic form – due to the length of the questionnaire. It is difficult to say if the ones that preferred the telephone interviews liked it because it was DDC/EDC/KEPA calling – and not a third party's consultant. The number of respondents that you are aiming for, has a huge impact on strengths and weaknesses.



Average duration of the interview was 30-45 minutes including:

- Interventions 30-40 minutes and
- State of the Design 35-45 minute (it would last longer if face-to-face).

DDC survey also included 6 additional questions on circular economy and therefore, the duration of the interview was longer (45 – 50 minutes). *The company hired for conducting the survey on behalf of DDC and the confederation of Danish Industries advice that **telephone interviews like these must not last longer than 15 minutes.***

According to the feedback from interviewees, the length of the questionnaire/ interview of the Interventions was suitable, but answers were too long (**to many options**). The length of the questionnaires of State of Design was **too long**. Some respondents were confused when they were presented large number of options / answers. Having the online interview with shared screen was a huge support - the respondent saw the answer options and therefore the answering was easier. Telephone interviews were more tiring because of repetitive answers & questions.

Prior to the interview, an **introductory letter** was sent to all interviewees containing the objectives of the study, the main topics, and general information (who is conducting the study, etc.). Some partners sent **reminding emails** one day before, to confirm the meeting and accompanied by a Letter of Consent on GDPR, as well.

In general, it wasn't hard to reach "**right person**", as all partners had already cooperated with companies. Respondents were aware of the organization conducting the survey and were happy to answer the questions. Respondents were able to answer all questions. Nevertheless, in the case of companies which were not on partner's contact list, it was complicated to identify the person involved in design process. For larger companies (14.000 employees) it was important not to have interview with CEO on design matters. CEOs might not know design - they have hired people who do that. A few companies which were reached for the first time never responded to the request to participate in the survey. In Estonia EDC tested electronic survey. The response rate was very low (25%) - 8 State of the Design questionnaires were sent out and only 2 replied by answering. EDC sent one reminder (personal reminder via email) – unfortunately, the effect on response activity was low.

We tested questionnaires on **companies with different size** (micro, small, medium-sized, large). In this particular case of measuring a Design intervention's impact, the size of the company is not a factor that influences the response to the questionnaire. The size influences the response to the State of Design questionnaire, as larger companies have the possibility to dedicate human resources / different departments to design. Smaller companies do not have specific departments handling design, innovation, and transformation. Instead, it permeates the whole company. This might be especially true for companies that have design as part of their DNA. Generally, the more design-driven they are, the more they like to talk about Design.



The respondents were (position in company):

- Owner of the company
- Chief Human Resources Officer
- Internal Expert
- Design Manager
- Marketing Manager
- Board member
- Designer
- Marketing and Brand Manager
- Head of Business Development and Brand
- COO & Director of circular economy in the company

All respondents were actively involved either in design activities or during the intervention.

There were not any **refusals** to respond to the survey - all respondents already knew EDC/DDC/KEPA and were happy to answer the questions! Some did not find time to answer them, hence it was not a matter of "not being interested in the survey", but simply only lack of time.

The partners did not brief respondents on the required information in advance, but only on the scope and the general topic of the interview. Given the length of the survey, it was of great importance to keep reminding the respondent on the title of the questions and stating when moving on to new types of questions, as this helped in giving the respondent a feeling of progress and navigation. Still, one of the respondents pointed out to the length being an issue and stressed that the interview was time consuming.

Where possible, companies from **different levels of the Design Ladder** were selected to respond to the questionnaires. Just a few questions were not understood completely by the companies of lower steps of Design Ladder and led to less concrete answers. Questions can be understandable, but still difficult to answer because the respondents usually could not select a proper answer or the answers provided were not valid for the respective company. In general, all questions were understandable to the respondents. Clarifications provided by the interviewers – when needed. Slight refinements needed in wording (State of the Design). The question on the amount of money spent by the company on external designers is impossible to answer for large companies. Respondents pointed out to the general backdrop of quantitative data: Questions can be too broad as we are approaching many different types of companies.

All partners who piloted the questionnaires found that the interviews were held in a good atmosphere and respondents showed interest and satisfaction towards this initiative to explore the impact of a design intervention. Participants were expressed quite positively about the intervention itself. Some companies declared a clear change in mindset. Respondents showed interest and satisfaction towards this initiative to explore the state of Design in companies (Greece). One respondent from Denmark told: *"It really made me proud to answer these questions. Make me realise how far we have moved"*.

In general, the results of the piloting and the general feedback from respondents were very similar in different countries (Estonia, Greece, Denmark and UK).



Survey testing with Business Support Organisations

Additionally, as part of the DesImO questionnaire testing, PDR engaged with eight business and innovation support organisations from across Europe to ask for their expert view on whether the businesses they work with would be able to accurately respond to the surveys on design use and design intervention impact. Six responses were received mainly on the "State of the Design" questionnaire, highlighting that interventions could be very different therefore difficult to create a common framework.

PDR asked for feedback on individual questions, as well as whether the surveys meet standards of 'good questions' (Groves et al., 2004)¹:

1. **Content standard** – does the question ask about the right thing?
2. **Cognitive standard** – does the question make sense to the respondents who will be asked to answer it? And will those respondents be able to answer it accurately?
3. **Usability standard** – can all the people involved in the process use the question easily and effectively?

To get the accurate and reliable data from the survey study, it is important to pre-test the questionnaire's content and flow. In order to answer the question, the respondent needs to:

- Understand the question,
- Retrieve information in memory,
- Summarize information,
- Report an answer.

Therefore, some of the most common mistakes in survey development is:

- question wording that is misunderstood by respondents,
- questions requiring data that is too difficult to remember, calculate or estimate,
- questions that upset or annoy many respondents,
- addressing too many issues in a single question,
- inclusion of double negatives in the question and responses,
- the use of specialist terms or words unfamiliar to the respondents,
- the use of unevenly balanced scales in attitude questions,
- allowing response categories to overlap at their boundaries.

Expert reviews, focus groups, cognitive reviews, pilot studies and A/B testing are the most common methods for testing survey questions' content, cognitive and usability standards.

¹ Groves, Robert M.; Fowler, Floyd J.; Couper, Mick P.; Lepkowski, James M.; Singer, Eleanor & Tourangeau, Roger (2004). *Survey methodology*. Hoboken, NJ: John Wiley & Sons.



All involved business and innovation support organisations expressed their interest and overall appreciation of the initiative, confirming the need for a standardised approach to measuring the use and impact of design as a tool for innovation in business. A number of suggestions on the understandability, usability and flow, as well as on individual questions were made:

Questions and terms

- Definition can be too broad and all-encompassing – makes it even more vague for non-users of design.
- Don't use abstract or long terms – people will only catch the word they understand and cling to that.
- Some vague terms – if users require a lot of explanations, they might drift away.
- Design definition is a bit too wordy – makes design sound miraculous.
- Respondents may not be clear on a lot of design terminology e.g. personas, journey maps etc, but they might still use the concept.

Proposed answers - comprehensibility

- Sometimes too many options, too little variance.
- Relating design to 'strategy development' or 'social innovation' might be too ambitious for average SME.
- 'Brand development' can be ambiguous – prefer 'visual identity', 'graphics', 'print materials'.
- Design use questions are subjective, answers could very widely depend on who answers the phone and the scale of the business.

Information to answer questions

- A lot of respondents will struggle with exact numbers. Don't ask companies upfront what their annual revenue is. Do it at the end.
- To obtain more accurate results and avoid guesstimates, the questionnaire should be sent in advance for the company to prepare.
- There are some opinion-based answers, for example what is your understanding of design? It all depends on who you are speaking to.

Length of the interview

- Number of questions is fine, but often there are too many answer options per question.
- Too long for a phone interview. For phone interviews, short questions and concrete precise answers work best.

According to the piloting and the feedback received, we adjusted the interview questionnaires (for example, we added scales where there were too many answer options). Please see more details Appendix 1.



Findings and recommendations

Based on the piloting, our recommendations are as follows:

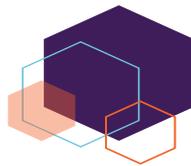
- It is important to note that each organisation must make sure that questionnaire meets your needs.
- Average duration of the interview should be within 30 minutes – keep it as short as it is possible!
- If an electronic survey is used, a relatively low response rate must be taken into account (requires a larger sample).
- In the case of an electronic survey, it is useful to send reminding emails (but not more than twice) – the first reminder 2 weeks before deadline and next a week before deadline.
- If a question consists of too many answer options, it is recommended to use scales to make the answer easier.
- For phone interviews, short questions and concrete precise answers work best.
- If you decide to ask numbers (for example turnover etc), it is probably wise to let respondent know beforehand.
- Ask general company information (company profile info) at the end of the interview, not at the beginning.
- If company information (size, industry, revenue etc) is publicly available (public databases), do not ask it. Consequently, these questions are indicated in the questionnaire as optional.
- Question “In which sector does your company primarily operate?” - use the official list of sectors in your country.
- Make sure control questions serve the purpose.
- The company size does not influence the response to the questionnaire.
- In the case of a questionnaire on the “State of the Design”, it may take some time to reach the “right “person who is familiar with the topic and can answer the interview questions.
- It is easier to find the interviewees when they know the organization that is conducting the survey (previous experience of cooperation, trust, etc.).
- It is important to point out that surveys might be good for raising awareness on design.
- Be prepared to provide additional explanations (terms) for companies that are at the lower levels of the design ladder.
- Intro letter – make it as relevant to the targeted company as possible (clear purpose, who is the interviewer (organisation name), the main interview topics, duration of the interview).

Design Impact Observatory (DesImO)



- If necessary, additional questions can be added to the questionnaire, but it should be remembered that the time for answering the questionnaire should not exceed 30 minutes.

- Some questions you might ask:
 - Questions linked to the specific nature of the services provided under the intervention
 - Include a question about after sales services following the intervention
 - Investigate the change in the company's mindset
 - Whether a company uses all or some of design's methodology stages and which version?
 - State of the Design: Separate question on available skills in the market – interesting to help determine skill gaps for employees with design expertise.
 - State of the Design: Whether company conduct customer surveys/ focus groups etc to ascertain their customers views?
 - Intervention: Pre-intervention: Why they've never used design (if they haven't)? What convince them to try it for the first time?





Conclusions – Interpretations

Obtaining hard, comparable data and scientific evidence of design effectiveness is still the holy grail of many design researchers. However, the more design infiltrates all areas of social and business life and becomes a horizontal approach applicable to various activities, the more difficult it is to track and measure it as an independent variable. In an enterprise it can be applied to a single product or service development process, used as a function of marketing and branding or it can be part of business DNA or mindset and used strategically in all aspects of running a business. As observed by Jeneanne Rae 'design is notoriously difficult to define, tough to measure, hard to isolate as a function, and tricky to manage, making it challenging for many non-designers to comprehend'². Design can have different meanings to different audiences in various sectors and its scope also varies significantly in different languages and cultural contexts therefore getting uniform, comparable figures can be problematic.

Fortunately, there is a wealth of good practice approaches and tips on how to address those challenges and get the information you need to learn about the current status of design application, its impact and based on that improve the use of design among SMEs.

First of all, it is important to remember that there is no one-fits-all approach - define your research goals, what you want to get out of your study and pick and mix the right tools and approaches. Qualitative methods are in many cases the best way to look holistically at the impact of design. You should trust your respondents and their estimates of design impact, most often it will be impossible to extract the exact figure independent of other influences and the estimates can give you equally valuable insight into what companies achieved through design and what they need to achieve more.

In any case, be persistent, design will be key in the green, digital and inclusive transformation that our society and small businesses require. Measuring design will help you develop the right evidence-based interventions that will best support this transformation.

² Rae, J. (2013) 'What is the Real Value of Design?' Design Management Review 24:4 p.31



Appendices

1. TOOLS DEVELOPED AND TESTED BY DesImO PARTNERS

State of Design Questionnaire

Suggestion for introduction to the questionnaire:

I am calling on behalf of X. We are carrying out a questionnaire to document how Danish/Estonian/Greek/British companies work with innovation and business development. We are especially interested in hearing about companies' use of design and design processes and the value it produces.

The purpose of the questionnaire is to identify the competitive parameters that create value for companies. We are collecting replies from business executives throughout Denmark/Estonia/Greece/Great Britain. The company's replies will be anonymised in the analysis.

In the following questionnaire, we use the word design. Design is a broad term that covers a wide range of phenomena. In this questionnaire, design is understood to mean a systematic, creative process. The process is visual and experimental and revolves around human experiences and behaviour. The results may be graphic or physical products, new services, systems or business models.

The questionnaire includes around 30 questions, and it will last no longer than 30 minutes. It includes a wide span of companies from several countries. Some of the questions may therefore not be relevant for your company, but we would be very grateful if you would give us the best answer you can. We thank you in advance for your help.

Sections and questions:

Use of design

1. **To what extent do the following parameters influence your competitive advantages? Please rate each parameter on a scale from 1 to 5, where 1 means no influence, and 5 means a big influence.**

- Low/competitive prices
- Speed of delivery
- Quality of production or services
- CSR and sustainability
- Branding
- Design
- Digitalization
- Innovation



2. What is the main advantage of your organization compared to the competitors in the opinion of the customers? (More than one answers)

- Quality of products or services
- Design of products or services, graphic design
- Reputation of the enterprise
- Price
- Sufficient production volume
- Usage convenience of products/services
- Quick delivery/quick customer service
- Branding, well-known trademark
- Distribution, availability
- Good marketing, campaign offers
- Contemporary production process

3. Which of the following statements match your company? Please answer yes or no to each of the following statements (optional – because of the descriptiveness of this question could be asked online)

- We have guidelines in place to ensure that our products or services have a uniform expression and a consistent visual identity [For interviewer: if in doubt: e.g. logo, website, packaging, brochures and other graphic materials]
- We have a clear focus on the aesthetic appearance and packaging of our products or services
- The user-friendliness and functionality of our solutions are just as important as their appearance
- We systematically collect knowledge about our customers or clients' needs as a basis for developing the company's products or services
- We use creative methods such as idea and concept development, user journeys, personas, visual scenarios and prototyping to develop and make decisions about future products, solutions or services
- We use creative methods such as idea and concept development, user journeys, personas, visual scenarios and prototyping to develop a strategy for how to reach the company's main goals
- We have a clear focus on giving our customers or clients a total experience where everything, from the manual to function, form and services, is permeated by our company's DNA
- None

4. Which of the following statements best describes your company's use of design?

- We do not work systematically with design
- We use design as a final finish, form factor or styling when we develop something new
- We use design as an integrated element in our processes when we develop something new
- Design is a central and guiding element in our business base



- Don't know

5. Which of the following statements best describes your understanding of design? (more than one answers)

- Design is for styling, finishing touches and aesthetics.
- Design is for function and form.
- Design is for marketing and promotion.
- Design is for creative problem-solving.
- Design is for new product/service development.
- Design is for better understanding user needs.
- Design is for innovation and competitiveness.
- Design is for strategic decision-making
- Other options could be added depending on the context.

6. Who handles design work for you?

- Mainly in-house employees
- Mainly external resources
- Both internal and external resources
- No one

7. What types of design work do you handle in-house? (More than one answers)

- Development of graphic materials and corporate design
- Development of online platforms, apps and website
- Appearance or styling of products and services
- Further development of existing products and services
- Development of new products and services
- Facilitation of development processes
- Development of new business areas and business models
- Collecting knowledge about our users and customers/clients
- Note if anything else (only if mentioned)

8. What categories of employees work with design tasks in your company? Please answer yes or no to each of the following options

- Employees with design training
- Employees with technical training (e.g. engineering or IT)
- Employees with graphic or communication training
- Employees with training in the social sciences (e.g. sociology, anthropology)
- Employees with a business degree (e.g. design management)
- Other [note]



- Don't know

9. Which type of design will you use in the next few years? (More than one answers)

- Graphic design: e.g. logo, visual identity (including working clothes, vehicles, etc), packaging, etc.
- Communication design: key messages, creative solutions, advertising materials, communication and sales promotion, social media
- Environmental design: interior design, service environment, store or other sales environment, signage, wayfinding and navigation
- Product design/industrial design or tangible products
- Service design or development of user experience, path and service
- Digital and multimedia design: homepage, mobile and web applications, e-store, ordering environments, user interfaces, interaction design.
- Strategic design (i.e. design as way of thinking, which helps to change and develop ideas into user-friendly and innovative products/services)
- Other, please specify
- None

10. What challenges does your company face any challenges in implementing new design initiatives? (More than one answers)

- Lack of manpower
- Insufficient funding
- Insufficient knowledge/expertise
- Difficult to include Design in our strategy/mindset
- Other: specify
- None

Your design activity

Firstly, we would like to understand your company's spending on design.

11. How much are you willing to spend on Design activities as a percentage of revenue in the next 3-5 years?

- 0%
- 0-5%
- 6-10%
- 11-20%
- 21-30%
- More than 30%

12. Do you buy services from external designers or design agencies?

Yes

No



IF YES (question 13 follows)

13. Design can be done in-house or outsourced to third parties. Can you share with me to what extent (percentage) your company's design activities are conducted in-house?

- 0%
- 25%
- 50%
- 75%
- 100%

14. In what situations do you buy external design services? Please choose the statements that best fits your company (*More than one answers*)

- When we encounter unexpected challenges in our work
- When it is cheaper to have design tasks handled externally compared to in-house
- When the task is so demanding that it exceeds our in-house resources
- When we want to be challenged and need an 'outside perspective'
- Note if anything else (only if mentioned)

15. What types of design services do you buy externally? (*More than one answers*) (*optional*)

- Graphic and corporate design
- Development of online platforms, apps and website
- Appearance or styling of products and services
- Further development of existing products and services
- Development of new products and services
- Facilitating development processes
- Development of new business areas and business models
- Collecting knowledge about our users and customers/clients
- Note if anything else (only if mentioned): _____

16. What is your experience in working with external design teams? (*Open question*)

If NO to Question 12

17. Why do you not buy external design services? (*More than one answers*)

- We use in-house design competences instead
- It is too difficult to prove 'return on [DHS1] investment' if we use external designers or design agencies
- We cannot afford to buy services from external designers or design agencies
- There are no designers or design agencies in our local area
- When we bought external design services, our expectations were not met



- We do not know of any designers or design agency capable of handling the challenges at hand
- We do not know where and how to find the right design agencies
- We are unsure about the value added of design
- Don't know
- Note if anything else (only if mentioned)

Now we have some questions on the management's work with design in the company.

18. Which divisions are involved in making decisions about design in your company? Please answer yes or no or not relevant to each of the following options.

- Management
- Marketing
- R&D (research and development)
- Innovation
- Product development
- Communication
- Business development
- Note if anything else (only if mentioned)

19. To what degree is management involved in decisions involving design in your company?

- To a high degree
- To a moderate degree
- To a minor degree
- Not at all
- Don't know

The value creation of design in the company

20. How does the use of design create value for your company? (More than one answers)

- It lets us develop and bring solutions to market faster (products or services)
- It helps us differentiate from our competitors and makes us more competitive
- It leads to more user-friendly solutions
- It leads to increased customer satisfaction
- It strengthens the company's brand
- It helps us sell more products and/or services
- It leads to increased exports
- It leads to more sustainable production
- It helps us develop new solutions and business areas
- Not existing/not relevant



21. How does the use of design create value internally in your company? Please rank each statement on a scale from 1 to 5, where 1 means 'no value' and 5 means 'maximum value'.

- It leads to increased employee satisfaction
- It helps us break down silos within the company
- It facilitates change processes through employee involvement
- It gives us insight into our customers' needs and preferences
- It makes it easier for us to make decisions in the company
- Creativity has enhanced
- Change in mindset
- Note if anything else (only if mentioned)

22. Does your company expect design to become a more important competitive parameter over the next five years?

- Yes
- Unchanged
- No
- Don't know

23. In your opinion, to what extent using design has contributed to your organization in the last 2 years? Please rank each statement on a scale from 1 to 5, where 1 means 'no value' and 5 means 'maximum value'.

- Quality of products/services has improved
- Appearance of products/services has improved
- Reputation of the organization has improved
- Competitive ability has increased
- Communication with consumers/citizens has improved
- Customer satisfaction has improved
- Has helped to develop new products/services
- Usage convenience of product/service has improved
- Availability of service has improved
- Distinction of product/service from the competitors increased
- Turnover increased
- Profit increased
- Supported the rise of new markets
- Productivity increased
- Market share increased
- Number of employees increased
- Internal communication improved



- Costs decreased
- Export increased
- Creativity enhanced/boosted
- None of the above
- Cannot tell

Drivers and barriers to use of design

24. To what degree would you say that design influences your company's bottom line

- To a high degree
- To a moderate degree
- To a minor degree
- Not at all
- Don't know

25. How would you say that the influence of design on your company's bottom line has developed over the past five years?

- Increasing
- Constant
- Stable
- Decreasing
- Don't know

26. Why does your company not use design? (More than one answers)

- Design is not relevant for a company such as ours
- It is too difficult to prove 'return on [DHS1] investment'
- We cannot afford to buy design services from external designers or design agencies
- There are no designers or design agencies in our local area
- When we bought external design services, our expectations were not met
- We do not know a design agency capable of handling the challenges we face
- We are unsure about the value added of design
- Don't know
- Note if anything else (only if mentioned)

Company profile / Business context: (this section is optional)

27. Date of establishment?

28. May I know your annual revenue for the last year?

- 0 – 12 000 EUR



- 12 001 – 25 000 EUR
- 25 001 – 50 000 EUR
- 50 001 – 100 000 EUR
- 100 001 – 200 000 EUR
- 200 001 – 500 000 EUR
- 500 001 – 1 000 000 EUR
- 1 000 001 – 2 000 000 EUR
- 2 000 001 – 5 000 000 EUR
- 5 000 001 – 10 000 000 EUR
- Over 10 000 000 EUR
- I don 't know

29. How many employees does your company have?

- Micro (<10)
- Small (<50)
- Medium (<250)
- Large (>250)

30. Which of the following categories best describes your company?

- Manufacturing company with its own products
- Service provider
- Manufacturing company as a sub-contractor
- Consultancy firm/ Designers/ Design Agencies
- Manufacturing company and service provider
- Commercial/trading company
- Merchandise
- Start-up company
- Other

31. Who are your primary customers?

- Other companies
- Private consumers
- Public sector
- Other companies and private consumers
- Don't know.

32. In which sector does your company primarily operate?

- Aerospace, Defence & Marine



- Chemical Sciences Construction
- Creative Industries
- Energy - Low Carbon/Renewables
- Energy - Oil & Gas/Thermal Generation
- Financial & Business Services
- Food & Drink
- Forest Industries
- Life Sciences Technology & Engineering
- Textiles
- Tourism
- Other, please specify

33. Does the Company export?

- Yes -> percentage of sales from exports?
- No

34. May I know your development in annual revenue during the last 5 years (on an average)?

- Increasing
- Constant
- Stable
- Decreasing
- Don't know



State of Design Questionnaire

Suggestion for introduction to the questionnaire:

I am calling on behalf of X. We are carrying out a questionnaire to document how design interventions have an impact on Danish/Estonian/Greek/British companies.

The questionnaire examines four areas:

1. Understanding and use of design prior to the intervention
2. Experience of the intervention
3. Use of design after the intervention/Impact of the intervention on business and design activity
4. Company profile

The questionnaire includes 10-17 questions, and it will last no longer than 30 minutes.

Sections and questions:

Understanding and use of design prior to the intervention

1. Which of the following describes your design activities prior to the intervention?

- We had never used Design before.
- We used external Design consultants on an occasional or ad hoc basis.
- We used external Design consultants on a regular basis.
- We employed our own designer(s) or had a dedicated design team.
- Other, please specify.

2. For what type of design activity did you use the intervention? (More than one answers)

- User insights
- Market research
- Network building
- Prototyping
- Brand development
- Concept development
- Web development
- Packaging
- Product development
- Service development
- Strategy development
- Social innovation
- Other, please specify.



Experience of the intervention

3. How did you find the experience of collaborating with the design agency?

- Very satisfied
- Mostly satisfied
- Neither satisfied nor unsatisfied
- Mostly unsatisfied
- Very unsatisfied
- Don't know

4. Which of the following statements best describes your design activities after the intervention?

- We had never used Design.
- We have not used Design systematically since the intervention.
- We used external Design consultants on an occasional or ad-hoc basis.
- We used external Design consultants on a regular basis.
- We employed our own designer(s) or had a dedicated Design team.
- We employ our own designer(s) or have a dedicated Design team.

Impact of the intervention on business and design activity

5. Did you continue to collaborate with the design agency?

- Yes
- No → if No, why not?

6. What were the main challenges for your business when using design in the development of the product or service?

- Open answer

7. Which of the following design disciplines has your company used since the intervention? (More than one answers)

- Communication and branding (e.g. graphics, print, packaging, identify).
- Product and industrial design (e.g. physical objects, artefacts, consumer products).
- Interior and exhibition design (e.g. retail design, office/workspace, lighting, displays).
- Fashion and textile (e.g. clothes, materials).
- Digital and UX (e.g. websites, animation, interaction design).
- Service design (e.g. new services, processes).
- Strategic design (e.g. system change or strategy development).
- Ecodesign (e.g. circular economy, sustainability).



8. Do you think that the intervention contributed to your company? (Yes-No)

- It improved our company image
- It improved our understanding of user needs
- It helped develop new or improved products
- It helped develop new or improved services
- It enhanced efficiency/productivity
- It enhanced our competitiveness
- It increased employment
- It improved our strategy development
- It improved our customer service
- It increased turnover
- It improved our internal financial management
- It helped exports
- It improved our internal operational management
- It improved our environment performance
- It increased profits
- It increased market share

9. In your estimation, as a direct result of the intervention, would you say that: [Increased – Decreased - Remained the same - Not relevant]

- Your company's employment has:
- Your company's sales turnover has:
- Your company's profitability has:
- Your company's exports have:
- Your company's awareness of design has:
- Your company's investment in design has:

10. To what extent do you think that investing in design will contribute to your company? [scale from 1 to 5, where 1 means "Not at all", and 5 means "To a great extent" + option "Not relevant"]

- It will improve our company image
- It will improve our understanding of user needs
- It will help develop new or improved products
- It will help develop new or improved services
- It will help our customer service
- It will increase turnover
- It will increase market share



- It will increase profits
- It will improve our environment performance
- It will improve our internal operational management
- It will improve our internal financial management
- It will help exports
- It will enhance efficiency/productivity
- It will enhance our competitiveness
- It will increase employment
- It will improve our strategy development

Optional: Company profile

11. Name of the company?

12. Date of establishment?

13. May I know your annual revenue for the last year?

- 0 – 12 000 EUR
- 12 001 – 25 000 EUR
- 25 001 – 50 000 EUR
- 50 001 – 100 000 EUR
- 100 001 – 200 000 EUR
- 200 001 – 500 000 EUR
- 500 001 – 1 000 000 EUR
- 1 000 001 – 2 000 000 EUR
- 2 000 001 – 5 000 000 EUR
- 5 000 001 – 10 000 000 EUR
- Over 10 000 000 EUR
- I don 't know

14. How many employees does your company have?

- Micro (<10)
- Small (<50)
- Medium (<250)
- Large (>250)



15. Which of the following categories best describes your company?

- Manufacturing company with its own products
- Service provider
- Manufacturing company as a sub-contractor
- Consultancy firm/ Designers/ Design Agencies
- Manufacturing company and service provider
- Commercial/trading company
- Merchandise
- Other

16. Who are your primary customers?

- Other companies
- Private consumers
- Public sector
- Other companies and private consumers
- Don't know

17. In which sector does your company primarily operate?

- Chemical Sciences Construction
- Aerospace, Defence & Marine
- Creative Industries
- Energy - Low Carbon/Renewables
- Energy - Oil & Gas/Thermal Generation
- Financial & Business Services
- Food & Drink
- Forest Industries
- Life Sciences Technology & Engineering
- Textiles
- Tourism
- Other, please specify



2. TOOLS USED IN EACH CASE STUDY

Design Delivers / Telephone Interview & SURVEY QUESTIONNAIRE

by the Danish Design Centre

INTRODUCTION

I am calling on behalf of the Confederation of Danish Industry and the Danish Design Centre. Epinion is carrying out a survey for the two organizations to document how Danish companies work with innovation and business development. We are especially interested in hearing about companies' use of Design and Design processes and the value it produces.

The purpose of the survey is to identify the competitive parameters that create value for Danish companies.

We are collecting replies from business executives throughout Denmark. The replies will be linked with the company's key economic data. The company's replies will be anonymised in the analysis.

I would like to speak with

[Companies under 200 employees: the CEO/owner (director/partner)]

[Companies over 200 employees: the person in the company who makes decisions on either business development, product development or innovation]

The survey includes a wide span of companies. Some of the questions may therefore not be relevant for your company, but we would be very grateful if you would give us the best answer you can.

We thank you in advance for your help.



FACTS ABOUT THE COMPANY

1. What is your job function in the company?

For the interviewer: Note the interviewee's job title. If the job title is in English, please note it in English. If the interviewee does not hold an executive position he or she is not in a position to answer the survey.

The following titles may offer some inspiration:

CEO/owner

Partner

Product manager

Head of development

Head of marketing

Head of business development

Head of innovation

Head of communication

Head of R&D (director of research and development)

2. How many employees does your company have? [single]

A: In Denmark _____

B: Worldwide _____

3. Which if the following categories best describes your company? [single]

A: Manufacturing company with its own products

B: Service provider

C: Manufacturing company as a sub-contractor

D: Consultancy firm

E: Manufacturing company and service provider

Other: _____

4. Who are your primary customers? [single]

A: Other companies

B: Private consumers

C: Other companies and private consumers

D: Don't know.



ABOUT BUSINESS DEVELOPMENT AND INNOVATION IN COMPANIES

5. To what extent do the following parameters influence your value added? [matrix]

Please rate each parameter on a scale from 1 to 5, where 1 means no influence, and 5 means a big influence.

A: Low prices

B: Speed of delivery

C: Quality of production or services

D: CSR and sustainability

E: Branding

F: Design

G: Digitisation

K: Innovation

6. Which of the following statements match your company? [yes/no matrix]

Please answer yes or no to each of the following statements.

A. We have guidelines in place to ensure that our products or services have a uniform expression and a consistent visual identity [For INT: if in doubt: e.g. logo, website, packaging, brochures and other graphic materials]

B. We have a clear focus on the aesthetic appearance and packaging of our products or services

C. The user-friendliness and functionality of our solutions are just as important as their appearance

D. We systematically collect knowledge about our customers or clients' needs as a basis for developing the company's products or services

E. We use creative methods such as idea and concept development, user journeys, personas, visual scenarios and prototyping to develop and make decisions about future products, solutions or services

F. We use creative methods such as idea and concept development, user journeys, personas, visual scenarios and prototyping to develop a strategy for how to reach the company's main goals

G. We have a clear focus on giving our customers or clients a total experience where everything, from the manual to function, form and services, is permeated by our company's DNA

Note if anything else (only if mentioned): _____



DESIGN USE

Design definition

In the following, we use the word Design. Design is a broad term that covers a wide range of phenomena. In this survey, Design is understood to mean

a systematic, creative process. The process is visual and experimental and revolves around human experiences and behaviour. The results may be graphic or physical products, new services, systems or business models.

7. Which of the following statements best describes your company's use of Design? [single]

Please pick **only one** of the following four options.

A: We do not work systematically with Design [if q7=A => Q23]

B: We use Design as a final finish, form factor or styling when we develop something new

C: We use Design as an integrated element in our processes when we develop something new

D: Design is a central and guiding element in our business base

E: Don't know

8. To what degree would you say that Design influences your company's bottom line? [single]

A: To a high degree

B: To a moderate degree

C: To a minor degree

C: Not at all

E: Don't know

9. How would you say that the influence of Design on your company's bottom line has developed over the past five years? [single]

A: Increasing

B: Constant

C: Decreasing

C: Don't know

10. Who handles Design work for you? [yes/no matrix]

A: Mainly in-house employees [if Q10=a => Q11]

B: Mainly external resources [if Q10 = B => Q13] (possibly have a list of various types of external actors: Design agencies, consultancies or other)

C: Both internal and external resources



11. What types of Design work do you handle in-house? [yes/no matrix]

A: Development of graphic materials and corporate Design

B: Development of online platforms, apps and website

C: Appearance or styling of products and services

D: Further development of existing products and services

E: Development of new products and services

F: Facilitation of development processes

G: Development of new business areas and business models

H: Collecting knowledge about our users and customers/clients

Note if anything else (only if mentioned): _____

12. What categories of employees work with Design tasks in your company? Yes/no [matrix]

Please answer yes or no to each of the following options:

A: Employees with Design training

B: Employees with technical training (e.g. engineering or IT)

C: Employees with graphic or communication training

D: Employees with training in the social sciences (e.g. sociology, anthropology)

F: Employees with a business degree (e.g. Design management)

Other [note]

E: Don't know

BUYING EXTERNAL DESIGN SERVICES

13. Do you buy services from external designers or Design agencies? [single]

A: Yes

B: No

C: Don't know

[if Q13= A]

14. In what situations do you buy external design services?

Please choose the statements that best fits your company

Please rate each statement on a scale from 1 to 5, where 1 'does not fit' and 5 'fits very well'.

A: When we encounter unexpected challenges in our work

B: When it is cheaper to have Design tasks handled externally compared to in-house

C: When the task is so demanding that it exceeds our in-house resources

D: When we want to be challenged and need an 'outside perspective'

Note if anything else (only if mentioned): _____ [if Q13 = A]



15. What types of Design services do you buy externally? [matrix]

Please answer yes or no (or don't know) to each of the following options. You may answer yes to more than one option.

A: Graphic and corporate Design

B: Development of online platforms, apps and website

C: Appearance or styling of products and services

D: Further development of existing products and services

E: Development of new products and services

F: Facilitating development processes

G: Development of new business areas and business models

H: Collecting knowledge about our users and customers/clients

Note if anything else (only if mentioned): _____

[if Q13 = A]

16. In round figures, how much would you say your company spent on external design services during the most recent accounting year (in Danish kroner)?

A: DKK 0-99,999

B: DKK 100,000-499,999

C: DKK 500,000-999,999

D: More than DKK 1 million

E: More than DKK 10 million.

F: Don't know

[if Q13=B]

17. Why do you not buy external Design services? [yes/no matrix]

Please answer yes or no to each of the following options.

A: We use in-house Design competences instead

B: It is too difficult to prove 'return on investment' if we use external designers or Design agencies

C: We cannot afford to buy services from external designers or Design agencies

D: There are no designers or Design agencies in our local area

E: When we bought external Design services, our expectations were not met

F: We do not know of any designers or Design agency capable of handling the challenges at hand

G: We do not know where and how to find the right Design agencies

H: We are unsure about the value added of Design

I: Don't know

Note if anything else (only if mentioned): _____



MANAGEMENT'S WORK WITH DESIGN IN THE COMPANY

18. To what degree is management involved in decisions involving Design in your company? [single]

A: To a high degree

B: To a moderate degree

C: To a minor degree

D: Not at all

E: Don't know

19. What levels are involved in making decisions about Design in your company? [yes/no matrix]

Please answer yes or no to each of the following options.

A: Management

B: Marketing

C: R&D (research and development)

D: Innovation

E: Product development

F: Communication

G: Business development

Note if anything else (only if mentioned): _____

THE VALUE CREATION OF DESIGN IN THE COMPANY

20. How does the use of Design create value for your company? [matrix]

Please rate each statement on a scale from 1 to 5, where 1 means 'no value' and 5 means 'maximum value'.

A: It lets us develop and bring solutions to market faster (products or services)

B: It helps us differentiate from our competitors and makes us more competitive

C: It leads to more user-friendly solutions

D: It leads to increased customer satisfaction

E: It strengthens the company's brand

F: It helps us sell more products and/or services

G: It leads to increased exports

H: It leads to more sustainable production

I: It helps us develop new solutions and business areas



21. How does the use of Design create value internally in your company? [matrix]

Please rank each statement on a scale from 1 to 5, where 1 means 'no value' and 5 means 'maximum value'.

- A: It leads to increased employee satisfaction
- B: It helps us break down silos within the company
- C: It facilitates change processes through employee involvement
- D: It gives us insight into our customers' needs and preferences
- E: It makes it easier for us to make decisions in the company

Note if anything else (only if mentioned): _____

22. Does your company expect Design to become a more important competitive parameter over the next five years? [Single]

Please select one of the following options.

- A: Yes
- B: Unchanged
- C: No
- D: Don't know

BARRIERS TO USING DESIGN

NB! The barrier question is only addressed to the companies that select option **A** in question 7.

23. Why does your company not use Design? [yes/no matrix]

Please answer yes or no to the following statements, based on whether they match the company.

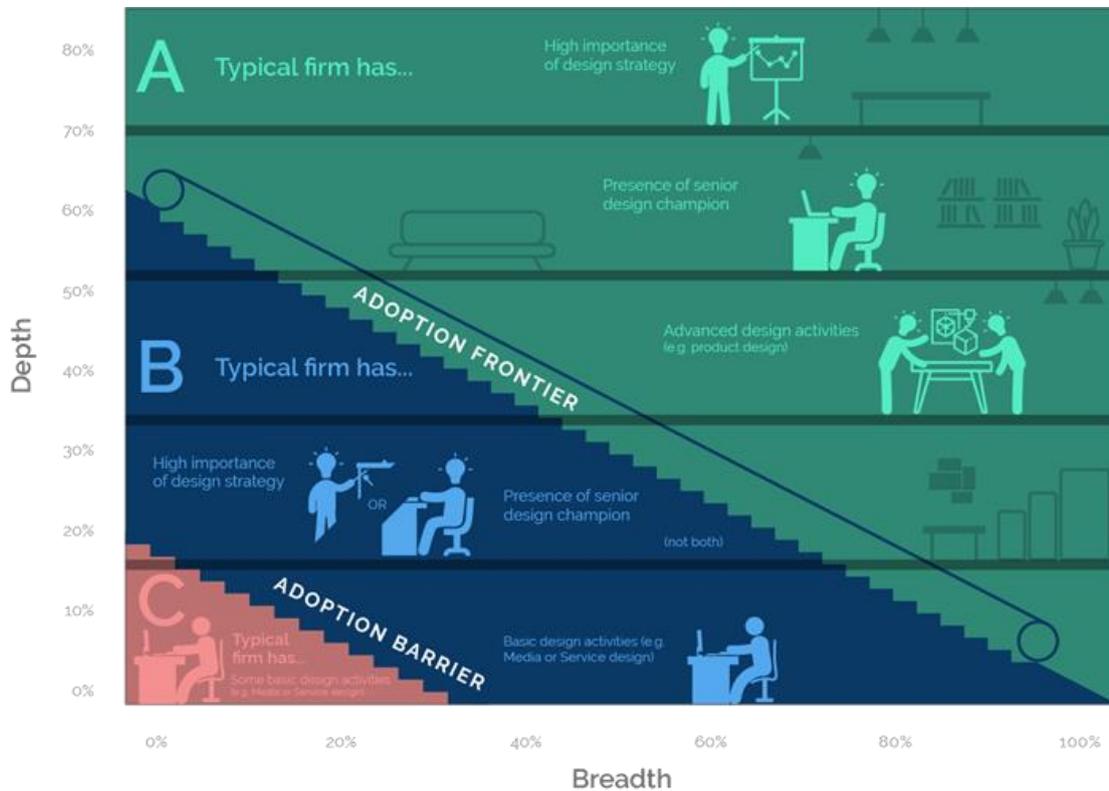
- A: Design is not relevant for a company such as ours
- B: It is too difficult to prove 'return on investment'
- C: We cannot afford to buy Design services from external designers or Design agencies
- D: There are no designers or Design agencies in our local area
- E: When we bought external Design services, our expectations were not met
- F: We do not know a Design agency capable of handling the challenges we face
- G: We are unsure about the value added of Design
- H: Don't know

Note if anything else (only if mentioned): _____



Creating Value by Design

by the Design Singapore Council (Dsg)



[Questionnaire](#) used in the survey



Use of Design in Estonia Enterprises and Foundations

by the Estonian Design Centre (EDC)



Euroopa Liit
Euroopa
Regionaalarengu Fond



Eesti
tuleviku heaks



KULTUURIMINISTERIUM

Questionnaire of Design use survey

Objective of the survey is to map Design use in private and public undertakings, as well as state foundations and non-profit associations.

The questionnaire is divided into the following blocks:

- 1) Determining suitability of organization
- 2) What is Design, its role as competitive advantage
- 3) Contact with Design and designers
- 4) Experience of using professional designers
- 5) Financial indicators related to Design use
- 6) Obstructions when using Design
- 7) Future expectations
- 8) Additional questions about the enterprise

Similar survey was conducted in 2013, the questionnaire of which is the basis for this survey. It is important to ensure comparability of results.

2018

TARGET GROUP: Private enterprises in processing industry and service; public undertakings and foundations.

TOPIC OF THE QUESTIONNAIRE: Use of design in Estonian enterprises (do not tell to the respondent!)

Hello! I am NAME from Turu-uuringute AS. We found your phone number by random choice from the Commercial Register database. We are conducting an inquiry of companies and public foundations. Could I speak with a top manager in your company/institution (executive manager, director, general director, head, member of the management board, owner).

/Specify the official title of the top manager/

Hello! We are conducting a survey on the topic, how Estonian enterprises and public foundations manage their development activities and generate new ideas. Answering to the questionnaire will take 10-15 minutes. As the survey covers both private and public sectors, we use the term „organization" throughout the questions. The survey is anonymous, your answers will not be related to the name of organization.

Area of activity of public undertakings and foundations is taken from the database

Determining suitability of organization



Question X1: ask from private enterprises

X1. First, few questions about your organization. Are you operating in processing industry or in service sector? Based on the answer, specify the field, reading the areas of activity of processing industry or service sector. **And what is the main area of activity of your enterprise?**

Processing industry, specify the field:

- 1) production of food and beverages
- 2) production of textiles, clothing and leather products,
- 3) timber processing, production of timber and cork products
- 4) production of paper and paper products, printing
- 5) production of chemicals and chemical products,
- 6) production of main pharmacy products and medical preparations,
- 7) production of rubber and plastic products,
- 8) production of other non-metal mineral products (glass, clay, porcelain, ceramics, cement, lime, gypsum clay)
- 9) metal production, production of metal products,
- 10) production of computers, electronic and optical equipment,
- 11) production of electrical equipment
- 12) production of machinery and equipment,
- 13) production of means of transport,
- 14) production of furniture
- 15) repair and installation of machinery and equipment
- 16) other production (e.g. jewellery, musical instruments, sports equipment, games, toys, medical instruments, brushes)

Service sector, specify the field:

- 17) wholesale and retail business, repair of motor vehicles
- 18) accommodation and catering,
- 19) publishing
- 20) production of cinematographic films, videos and TV broadcasts; publishing audio recordings and music
- 21) programmes and broadcasting
- 22) telecommunication and communication
- 23) programming, related consultations and other activities
- 24) information activities
- 25) financial and insurance activities,
- 26) real estate activities,
- 27) professional, research and technology activities (legal operations, management consultations, architecture, research and development, advertising),
- 28) administrative and support activities,
- 29) administration,
- 30) health and social care
- 31) transport, warehousing (transport, warehousing and related support activities, postal and courier service)
- 32) Other service activities
- 33) None of the above → *end the interview*

Ask from all

X2. What was the number of employees in your organization at the end of 2017?

- 1) 0 employees → *end the interview*
- 2) 1 employee → *continue X3,*
- 3) 2-4 employees → *continue X3,*
- 4) 5-9 employees → *continue X4*
- 5) 10-49 employees → *continue X4*
- 6) 50-249 employees → *continue X4*
- 7) ≥250 employees → *continue X4*



Ask X3 from private enterprises with 1-4 employees

X3. Is the work as the manager of the organization your principal job?

- 1) Yes → *continue X4*
- 2) No → *end the interview*
- 3) CANNOT TELL → *end the interview*

Ask X4a from private enterprises and public undertakings

X4a. Specify the range of turnover of your organization in 2017?

- 1) 0 – 12 000 Euros → *end the interview*
- 2) 12 001 – 25 000 Euros
- 3) 25 001 – 50 000 Euros
- 4) 50 001-100 000 Euros
- 5) 100 001-200 000 Euros
- 6) 200 001-500 000 Euros
- 7) 500 001-1 000 000 Euros
- 8) 1 000 001-2 000 000 Euros
- 9) 2 000 001-5 000 000 Euros
- 10) 5 000 001 – 10 000 000 Euros
- 11) More than 10 000 000 Euros
- 12) CANNOT TELL

Ask X4b from foundations

X4b. Specify the range of budget of your organization in 2017?

- 1) Less than 12 000 Euros → *end the interview*
- 2) 12 001 – 25 000 Euros
- 3) 25 001 – 50 000 Euros
- 4) 50 001-100 000 Euros
- 5) 100 001-200 000 Euros
- 6) 200 001-500 000 Euros
- 7) 500 001-1 000 000 Euros
- 8) 1 000 001-2 000 000 Euros
- 9) 2 000 001-5 000 000 Euros
- 10) More than 5 000 000 Euros
- 11) CANNOT TELL

Ask from all

X5. Which is the geographical area of operation of your organization:

Multiple answers possible

- 1) Entire Estonia
- 2) Tallinn
- 3) North and West Estonia
- 4) Tartu area, South Estonia
- 5) Virumaa
- 6) Outside Estonia

Ask from private enterprises and public undertakings

1. What is the main advantage of your organization compared to the competitors in the opinion of the customers? I read the options, please select the most important one? Let the respondent choose and then ask: Which else?

Read, let the respondent to choose the most important and up to 2 other major advantages. Rotate the options.

- 1) Quality of products or services
- 2) Design of products or services, graphic design
- 3) Reputation of the enterprise
- 4) Price
- 5) Sufficient production volume
- 6) Usage convenience of products/services
- 7) Quick delivery/quick customer service



- 8) Branding, well-known trademark
- 9) Distribution, availability
- 10) Good marketing, campaign offers
- 11) Contemporary production process
- 12) ANYTHING ELSE
- 13) CANNOT TELL

Ask from all

2. I read a list of statements, and after listening to them, please tell, what does Design mean for you as the manager of the organization?

Read all and only then let the respondent choose up to 2 most important answers

- 1) Design is related to the appearance of products or services
- 2) Design is used for creating new products or services
- 3) Design means well-functioning and user-friendly products or services meeting the needs of the customers / *(in case of a foundation, ask) needs of citizens*
- 4) Design helps to sell better a product or service / *(in case of a foundation, ask) Design helps to improve availability of a product or service for citizens*
- 5) Design is a strategic means of management, a tool providing competitive advantage for the enterprise
- 6) NONE OF THEM
- 7) CANNOT TELL

Next we will concentrate on the experience of your organization in the use of Design.

3. Has your organization improved or developed new products, services or business lines in last 2 years?

Read to the respondent, options 1-3 can be chosen together

- 1) Yes, products
- 2) Yes, services
- 3) Yes, business lines
- 4) No
- 5) CANNOT TELL

4. Which of the following Design types you have used in your organization in last 2 years? Tell all suitable options irrespective of the fact, if you purchased Design service from external designers, used in-house designer, designed with your own resources, or used help of a familiar person, including non-professional designer?

Multiple answers are possible

- 1) Graphic design: e.g. logo, visual identity (including working clothes, vehicles, etc), packaging, etc. → *If yes, continue immediately with questions 5 and 6, after answering to them return to the next option.*
- 2) Communication design: key messages, creative solutions, advertising materials, communication and sales promotion, social media → *If yes, continue immediately with questions 5 and 6, after answering to them return to the next option.*
- 3) Environmental design: interior design, service environment, store or other sales environment, signage and navigation → *If yes, continue immediately with questions 5 and 6, after answering to them return to the next option.*
- 4) Product design/industrial design or tangible products → *If yes, continue immediately with questions 5 and 6, after answering to them return to the next option.*
- 5) Service design or development of user experience, path and service → *If yes, continue immediately with questions 5 and 6, after answering to them return to the next option.*
- 6) Digital and interaction design: homepage, mobile and web applications, e-store, ordering environments, user interfaces, interaction design. → *If yes, continue immediately with questions 5 and 6, after answering to them return to the next option.*
- 7) Strategic design (i.e. design as way of thinking, which helps to change and develop ideas into user-friendly and innovative products/services) → *If yes, continue with questions 5 and 6.*
- 8) None of them → Q8



Ask immediately, if 1-7 is chosen in q4

5. Who has been dealing with Design in your organization in last couple of years? Designing has been performed by...

Read all options and only then let the respondent choose, multiple answers are possible

- 1) Design office, advertising agency, architectural/interior design office, professional external designer, freelancer → *If yes, continue immediately with question 6, after answering to it return to question 5.*
- 2) Designer with special education or design team working in the organization → *If yes, continue immediately with question 6, after answering to it return to question 5.*
- 3) Person or persons without Design education working in the organization (not the manager or the owner) → *If yes, continue immediately with question 6, after answering to it return to question 5.*
- 4) Manager or owner of the organization → *If yes, continue immediately with question 6, after answering to it return to question 5.*
- 5) A person outside the organization without special Design education → *If yes, continue immediately with question 6, after answering to it return to question 5.*
- 6) Contracting entity or a customer → *If yes, continue immediately with question 6, after answering to it return to question 5.*
- 7) CANNOT TELL → Q8

Ask, if q5=1-6

6. What has been the number of Design projects or orders in your organization in last 2 years?

Only one answer

- 1) 1
- 2) 2-5
- 3) 6-10
- 4) More than 10
- 5) CANNOT TELL

7. In brief, which of the following statements describes in your opinion best the use of design in your organization?

Read all options and only then let the respondent choose, only one answer

- 1) We do not use Design systematically and consciously
- 2) We use Design for developing something new, creating external finish or drafting marketing materials
- 3) Design is involved in the development process of new solutions from the beginning
- 4) Designer/ Design manager is involved in the management of the enterprise and development of visions and strategies. Design is integral part of all operations of the organization.

Ask from those, who have used services of a professional designer, q5=1-2

8. Who is or are usually responsible for the activities related to Design in your organization? We hereby mean setting initial task, budgeting and assessing suitability of solutions?

Multiple answers can be selected (except 9-11)

- 1) Owner of the enterprise, manager, member of the management board
- 2) Business unit manager/head of department/head of structural unit
- 3) Manager of the specific project
- 4) Marketing manager, brand manager, communication manager
- 5) Development manager
- 6) Manager of research and development
- 7) Design manager
- 8) Everybody can assess the Design solution and provide feedback
- 9) Not specified, depends on occasion
- 10) Anybody else, please specify
- 11) CANNOT TELL



<p>9. When you use designers in the design of products, services, processes or environment, in which stage you usually do it? Select all stages, where a designer is involved. If the respondent cannot assess the usual process, ask: in which stage you did it last time?</p> <p><i>Multiple answers can be selected from options 1-8</i></p> <ol style="list-style-type: none"> 1) For defining the initial task or a problem needing solution 2) In the phase of preliminary research and generation of new ideas 3) During development of the concept 4) For developing primary conceptual design and creative solutions or sketches. 5) In the stage of production or detailed description of prototype 6) In pilot stage, testing of product or service 7) In the design phase of final appearance/essence of product/service 8) In implementation and marketing phase 9) CANNOT TELL
<p><i>Ask, when k5=2 i.e. the enterprise has in-house professional designer/ Design department</i></p> <p>10. What is the size of your in-house Design team?</p> <ol style="list-style-type: none"> 1) 1 person 2) 2-3 persons 3) More than 3
<p>11. Who belong into your Design team?</p> <p><i>Multiple answers can be selected</i></p> <ol style="list-style-type: none"> 1) Employees with technical education / experience (e.g. engineers) 2) Employees with graphic Design education / experience 3) Employees with product Design education / experience 4) Employees with service Design education / experience 5) Employees with interaction Design education / experience 4) Employees with business education / experience 5) Employees with background of social sciences 6) Other
<p><i>Ask, when k5=1, i.e. Design service is outsourced</i></p> <p>12. In which cases you purchase Design service?</p> <p><i>(agreement rate, i.e. 1- do not agree at all, 5- agree completely)</i></p> <ol style="list-style-type: none"> 1) When a task is so demanding that we cannot manage with own resources 2) When we need a change or viewpoint from outside 3) When our own Design team has no available resource due to short term 4) When purchasing the service is cheaper than solving the task in-house 5) Always when necessary, we have not our own Design team 5) Other (please comment)
<p>13. Have you had experiences with involvement of foreign designers?</p> <ol style="list-style-type: none"> 1) Yes, we have used them 2) No, but we have considered using them 3) No, we have not used them and do not plan to do it
<p>14. How you find or have found designer to cooperate with?</p> <p><i>Multiple answers can be selected</i></p> <ol style="list-style-type: none"> 1) Personal acquaintance 2) Recommendations of friends 3) Publicity and reputation of the designer 4) Based on the portfolio/work examples of the designer 5) Procurement or competition 6) Facebook group of Estonian designers 7) Through professional associations and organizations (e.g. database of the Design Centre, Association of Designers, Estonian Marketing Association) 8) Forums or web environments (Pixel, Behance) 9) Former cooperation experience 10) Other, please specify 11) CANNOT TELL



15. What is the main criterion, based on which you select the Design service provider? What is the most important criterion in the following list? What else is important?

Let the respondent choose the most important and then up to 2 more, rotate options 1-7

- 1) Former cooperation with your organization
- 2) Portfolio/work examples of the designer
- 3) Participation in competition, offering their own solution (the solution offered is the best solution for the organization in the given conditions)
- 4) Price, cost
- 5) Good knowledge of the area of activity of your organization
- 6) Designer's education or professional qualification
- 7) Good mutual understanding, mutual chemistry
- 8) No need to select, we have already long-term relationship with one service provider
- 9) Other, please specify
- 10) CANNOT TELL

16. In your opinion, what benefit your organization has gained from using Design in last 2 years? Please answer „Yes“ or „No“.

Read in succession and tick immediately the suitable options; multiple answers can be selected, rotate options 1-19

- 1) Quality of products/services has improved
- 2) Appearance of products/services has improved
- 3) Reputation of the organization has improved
- 4) Competitive ability has increased
- 5) Communication with consumers/citizens has improved
- 6) Customer satisfaction has improved
- 7) Has helped to develop new products/services
- 8) Usage convenience of product/service has improved
- 9) Availability of service has improved
- 10) Distinction of product/service from the competitors increased
- 11) Turnover increased
- 12) Profit increased
- 13) Supported the rise of new markets
- 14) Productivity increased
- 15) Market share increased
- 16) Number of employees increased
- 17) Internal communication improved
- 18) Costs decreased
- 19) Export increased
- 20) NONE OF THE ABOVE
- 21) CANNOT TELL

Ask from all, who have used professional designers, i.e. q5=1-2

17. How much you have been generally satisfied with the work of designers in your organization so far?

- 1) Very satisfied
- 2) Rather satisfied
- 3) Rather not satisfied
- 4) Not satisfied at all
- 5) CANNOT TELL

Ask from all, who have used professional designers, q5=1-2

18. Which budget includes the budget of Design projects in your organization?

Multiple answers can be selected

- 1) Marketing budget
- 2) Product development budget
- 3) Innovation budget



<p>4) Communication budget 5) Separate Design budget 6) There is no separate budget 7) Other budget, please specify 8) CANNOT TELL</p>
<p>19. What are your average annual expenses on Design projects in last 2 years? Please assess only the sum spent on remuneration of internal or external designer of the organization and do not count the cost of materials, media channels, etc. <i>Only one answer</i></p> <p>1) Up to 4000 Euros 2) 4001-10 000 Euros 3) 10 001-25 000 Euros 4) More than 25 000 Euros 5) CANNOT TELL</p>
<p>20. How has investment into Design changed in your organization in last few years? <i>Only one answer</i></p> <p>1) Significantly increased 2) Slightly increased 3) Has not changed 4) Slightly decreased 5) Significantly decreased 6) CANNOT TELL</p>
<p>21. In your opinion, how the investments of your organization into Design services will probably change in next few years? <i>Only one answer</i></p> <p>1) Will increase significantly 2) Will increase slightly 3) Will not change 4) Will decrease slightly 5) Will decrease significantly 6) CANNOT TELL</p>
<p>Ask from those, who have not used professional design service (internal or external), in q5 did not select options 1 or 2.</p>
<p>22. What are the main reasons, why your organization has not used services of professional designers in last few years? <i>Read all options and only then let the respondent choose, multiple answers can be selected, rotate options 1-13</i></p> <p>1) Bad experience with designers 2) Design is too expensive and does not bring enough profit 3) Design has not been necessary 4) Design is not important in our area of activity 5) We do not know any designers 6) We have not found any suitable option from the available designers 7) We would like to use a foreign designer, but have no experience. 8) Public procurement should be organized for that purpose 9) Designers lack skills for cooperation 10) We do not see advantages of using Design 11) Lack of money, limited budget 12) The organization has no people, who would handle the issue 13) Lack of time 14) OTHER REASONS, PLEASE SPECIFY 15) CANNOT TELL</p>



<p>23. What would cause you to pay more attention to Design in the future? <i>Multiple answers can be selected</i></p> <ol style="list-style-type: none"> 1) Need to keep pace with competitors 2) Wish to be different from competitors 3) Good development programmes, which provide new knowledge 4) Design service becomes more favourable 5) State support for using Design service 6) OTHER REASONS, PLEASE SPECIFY 7) CANNOT TELL
<p>24. How probably your organization will purchase professional Design service in next 2 years?</p> <ol style="list-style-type: none"> 1) Will definitely purchase 2) Will probably purchase 3) Probably will not purchase 4) Definitely will not purchase 5) CANNOT TELL
<p><i>Ask q22 from those, who are definitely or probably planning to purchase Design, q21=1 or 2</i></p> <p>25. Which type of Design you will probably use in next few years? <i>Multiple answers can be selected</i></p> <ol style="list-style-type: none"> 1) Graphic design: e.g. logo, visual identity (including working clothes, vehicles, etc), packaging, etc. 2) Communication design: key messages, creative solutions, advertising materials, communication and sales promotion, social media 3) Environmental design: interior design, service environment, store or other sales environment, signage and navigation 4) Product design/industrial design or tangible products 5) Service design or development of user experience, path and service 6) Digital and multimedia design: homepage, mobile and web applications, e-store, ordering environments, user interfaces, interaction design. 7) Strategic design (i.e. Design as way of thinking, which helps to change and develop ideas into user-friendly and innovative products/services) 8) Other, please specify 9) CANNOT TELL
<p><i>Ask from private enterprises and public undertakings</i></p> <p>26. What could offer the best support for your organization for using Design services in the future? I read the options and you tell, what would offer the best support? What else? <i>Read all options and only then let the respondent choose one main and then additionally up to 2 answers, rotate options 1-9</i></p> <ol style="list-style-type: none"> 1) State support for purchasing external Design service 2) Support for project-based involvement or employment of a designer in the enterprise 3) Sending Design students to the enterprise to free practice 4) Establishment of professional qualification system for designers 5) Raising awareness of key persons of enterprises of the possibilities related to the use of Design (trainings, consultations, professional literature, etc) 6) State supported development programmes for designing new strategies, products and services 7) Organization of contact events for contacting enterprises with designers 8) Products/service designed by qualified designers provides advantage in public procurement 9) Other, please specify 10) NONE, WE ARE NOT INTERESTED TO USE DESIGN 11) CANNOT TELL
<p><i>Ask from all</i></p> <p>27. How probably your organization would purchase more Design services, if designers would possess official qualification?</p> <ol style="list-style-type: none"> 1) Definitely more 2) Probably more



<p>3) Probably not more 4) Definitely not more 5) CANNOT TELL</p>
<p><i>Ask from private enterprises and public undertakings</i></p> <p>X6. Finally, few general questions about your organization. How many years your organization has operated?</p> <p>1) Less than 1 year 2) 1-4 years 3) 5-9 years 4) 10 or more years 5) CANNOT TELL</p>
<p>X7. On which capital your organization is based?</p> <p>1) 100% Estonian capital 2) Partially on foreign capital, the share of Estonian capital is over 50% 3) Mainly or completely on foreign capital 4) CANNOT TELL</p>
<p>X8. Who are the customers of your organization?</p> <p><i>Only one answer</i></p> <p>1) Mainly or only end consumers 2) Mainly or only other enterprises 3) Equally both 4) CANNOT TELL</p>
<p>X9. How the turnover of your organization has changed in last 3 years?</p> <p>1) Has decreased 2) Has remained more or less the same 3) Has increased moderately 4) Has increased rapidly 5) CANNOT TELL</p>
<p>X10. Did your organization export their products or services in 2017?</p> <p>1) Yes → <i>continue the interview</i> 2) No → <i>end the interview</i></p>
<p>X11. Approximately how large was the share of export turnover in total turnover of your organization in 2017?</p> <p>1) Less than 25% 2) 25-49% 3) 50-74% 4) 75-100% 5) CANNOT TELL</p>
<p>X12. How large was the approximate export sales revenue of your organization in 2017?</p> <p>1) Up to 25 000 Euros 2) 25 001 – 50 000 Euros 3) 50 001-100 000 Euros 4) 100 001-200 000 Euros 5) More than 200 000 Euros 6) CANNOT TELL</p>



Evaluation of the Scottish Enterprise 'By Design' voucher

by Cardiff Metropolitan University – PDR

Questionnaires:

[By Design Participant Survey](#)

[By Design Support Agency Survey](#)



3. USEFUL SOURCES AND LINKS

- <https://kepa.e-kepa.gr/european-programs/desimo/?lang=en>
- <https://ddc.dk/>
- <https://www.pdr-design.com/>
- <https://disainikeskus.ee/>
- "Implementing an Action Plan for Design-Driven Innovation", European Commission, 2013
- <https://danskdesigncenter.dk/en/design-delivers-how-design-accelerates-your-business>
- https://danskdesigncenter.dk/sites/default/files/pdf/designdelivers_pixi_eng_rettet.pdf
- <https://danskdesigncenter.dk/en/design-delivers-2018-how-design-accelerates-your-business>
- https://danskdesigncenter.dk/sites/default/files/pdf/design_delivers_-_how_design_accelerates_your_business.pdf
- <https://www.designsingapore.org/resources/creating-value-by-design.html>
- <https://www.kul.ee/kunstid-ja-loomemajandus/disain>
- https://www.eas.ee/wp-content/uploads/2018/12/Disainikasutuse_uuring_2018 AMP.pdf
- <https://www.200smechallenge.eu/randomized-control-trial/>
- <https://kepa.e-kepa.gr/european-programs/dcs-ismes/?lang=en>
- <https://cordis.europa.eu/project/id/824216>
- <https://www.200smechallenge.eu/randomized-control-trial/>
- [By Design, Grant Evaluation – Research Report – User Factor](#)
- Groves, Robert M.; Fowler, Floyd J.; Couper, Mick P.; Lepkowski, James M.; Singer, Eleanor & Tourangeau, Roger (2004). *Survey methodology*. Hoboken, NJ: John Wiley & Sons.