Impact Study Design Sector

Commissioned by VLAIO and Flanders DC

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KPMG

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1   Introduction

1.1   Context of the study

Flanders has expressed the ambition[1] to become one of the **main innovative knowledge regions** at European level. British research[2] has shown that companies that invest in Design and other creative services are 25% more likely to introduce innovations. **The Design Sector** and other creative services and sectors can thus provide significant added value to companies, enabling them to **create competitive advantages** over other companies and industries.

Design can contribute to innovation in several ways. Digital product, service & systemic Design form part of the broader Design Thinking discipline, a way of solving problems that starts from the needs of the user, citizen or employee and that involves them in devising and testing solutions through **co-creation**. Design Thinking uses the collective intelligence and creativity of the various stakeholders. Open and creative *ideation* and brainstorming sessions thus provide supported, innovative solutions to known problems. The Designers use methodologies, tools and techniques based on **cognitive and behavioural sciences**. This way of working is not only applied when designing products, but also when designing services or devising solutions for organisational problems or (complex) social issues. Design therefore not only has an economic, but also a social and public impact. Design Thinking is characterised by an approach that is **people-oriented**, **co-creative**, **holistic**, *evidence-based* and **iterative**.

The Flemish government and in particular the Agency for Innovation & Entrepreneurship (VLAIO) is aware of this added value of Design and has already taken targeted actions to further develop Design in Flanders. For example, Flanders is collaborating with eight European regions in the European project **Design4Innovation** (D4I). Through this project, SMEs are supported to create more attractive projects and services, which should promote their **growth** and enable them to **increase competitiveness**. In the context of Design4Innovation, VLAIO, in collaboration with Flanders District of Creativity (Flanders DC), is working on an action plan to stimulate Design as an instrument for user-oriented innovation, in line with the broader innovation policy in Flanders. In addition, Flanders DC has already focused on the development of a range of initiatives and activities, intended to raise awareness about Design and to introduce the principles of Design Thinking within Flemish companies and governments. Examples include the **inspiration and matchmaking sessions** of **Flanders DC**.

A few years ago, the Flemish government further initiated a study to map out the **impact of the Cultural and Creative Sectors (CCS) in Flanders**, which the Design sector forms part of. To date, this impact study was approached from a **quantitative perspective**, which allows to calculate quantitative information such as the number of employed equivalents (employees + self-employed staff), turnover and added value of the CCS.

The existing study and ongoing monitoring of the impact of the CCS in Flanders are an important step and shows the **economic relevance and added value of the CCS**. However, the study has some limitations. For example, the economic impact is mapped out in a **purely quantitative manner** and no methods are provided to map out concrete added value for companies. In order to allow the CCS, and in particular the Design sector, to further develop and contribute to innovation, an **additional and in-depth study** is required, in which the current and potential impact of these sector(s) can be mapped out in a more **qualitative manner** as well. This addition to the existing CCS impact study, specifically for the design sector, is the subject of **this study**.

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[1] 2019-2024 Coalition Agreement Flemish Government
[2] Creating innovation: do the creative industries support innovation in the wider economy? – Nesta

In order to conduct this study, various **partners** from the field were called upon:

Throughout the process, these partners have contributed in various ways, including by providing knowledge and insights, supplying contact persons and promoting the study.

1.2   Objectives of the study

To be able to optimally stimulate and support innovation within Flanders via the design sector through *evidence-based* and well-considered policies, additional knowledge must be acquired about the **impact of Design on innovation** in Flanders. In order to optimise innovation within Flanders via the design sector as described above, the quantitative impact study of the CCS, which mainly focuses on employment, turnover and added value, must be supplemented with an analysis that goes deeper into the **qualitative impact** of the Design sector on the **general business operations** of Flemish companies, as well as their specific **innovation capacity**.

The aim of this study is therefore to map out the impact of the design sector on the Flemish economic landscape, through a combination of quantitative and above all qualitative research methods. The aim is to provide a thorough answer to the following questions[3]:

- What is the **current impact** of **Design** and/or the **Design sector** for Flemish **companies** at an **economic** level and what influence does Design have on the various aspects of business operations (innovation, market position, development of new products and/or services, etc.)?

- How can the Flemish government, and in particular VLAIO and Flanders DC, contribute to **increasing the impact of the Design sector**?

- How can **companies be convinced** of the added value offered by Design?

The objective of the study is that the study results, i.e. the detailed answers to the above questions, as well as the policy recommendations arising from this, enable VLAIO and Flanders DC to be more specific in supporting companies in the (efficient) use of Design. In addition, this study serves to provide VLAIO and Flanders DC with the necessary substantive input to raise **awareness about the added value of 'Design (thinking)' for innovation**.
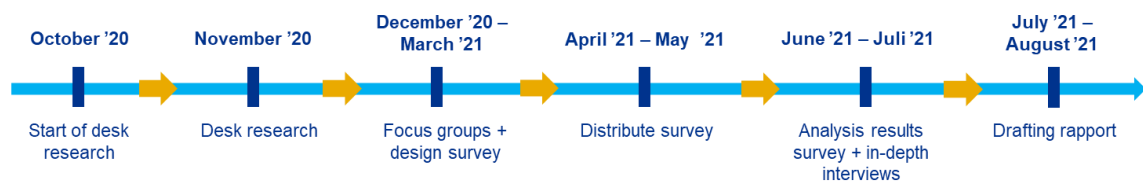
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[3] These questions, formulated here at a high level, are broken down into more detailed and concrete questions in the next section.

2 Methodology

2.1 Research methodology

This study was conducted through a **combination of methodologies**. The study set off with a traditional start in the form of a **desk research**. Based on this desk research and with the input from various **focus groups**, innovation and design were defined and a concrete research methodology determined. This methodology contains a detailed **survey** that is digitally distributed and provides semi-structured **in-depth interviews** to complement and deepen the results of the survey. The figure below provides a visual presentation of the complete course of the study. The methodologies used are explained in more detail in the remainder of this section.

Figure 1: The research methodology used

October '20	November '20	December '20 – March '21	April '21 – May '21	June '21 – Juli '21	July '21 – August '21
Start of desk research	Desk research	Focus groups + design survey	Distribute survey	Analysis results survey + in-depth interviews	Drafting rapport

2.1.1 Desk study

This study was started by **conducting a desk research** of available and existing national and international documentation related to innovation, Design, the Design sector and the impact of Design. Appendix 6.1 contains an overview of the main sources that have been consulted for this. The aim of this desk study was twofold. First, the relevant literature was studied to **define and operationalise** the concepts of innovation and Design. The final definitions will be discussed in detail later. Subsequently, the literature was also used to determine and draft the most **suitable research method** (research questions, research methods, etc.) for this impact study.

Based on this desk research, the following **research questions** were formulated regarding the impact of Design:

- What is the extent to which companies **invest** in Design and to what extent is this investment focused on in-house Design or on external Design services?

- What are the main **reasons** why companies **invest** in Design and/or integrate Design disciplines into the operation of the business?

- Through which specific phases of the **value chain** has Design provided added value (e.g. R&D, procurement, product/service development, marketing, distribution, technology or software development, etc.)?

- What is the extent to which specific and tangible **results** were achieved as a result of using Design and/or collaborating with companies from the Design sector?

- What is the **added value** of Design for the specific **innovation capacity** of Flemish companies and the added value that Design has provided within the innovation operation of companies (e.g. in devising and developing new and innovative economic concepts, business models, products, services, processes, etc.)?

2.1.2 Organising different focus groups

After the desk research, three different focus groups of varying composition and purpose were organised. Appendix 6.2 contains the complete list of participants in these focus groups.

Focus group 1

In the first focus group, the **Design regions** and various **research institutions** were invited to participate. In this focus group, this study and accompanying context were outlined with space for an interactive discussion of the developed research methodology (operationalisation of Design, operationalisation of innovation, etc.).

The objective of this focus group was twofold. Through this focus group, the study was announced to main actors within the Design sector in order to generate sufficient *awareness* and support. On the other hand, this meeting served to discuss and then further refine the developed research methodology with both the experts on Design and with experts from the research institutes.

Focus group 2

The second focus group consisted of about 10 **companies** that were already used to **working** with **Design**. Through an interactive discussion, feedback was collected on a draft version of the survey.

The objective of this focus group was to further *fine-tune* the survey together with the companies by discussing the questions that had been formulated and, more specifically, to verify:

- Are these questions sufficiently clear for the intended target group?
- Can the average business manager in Flanders provide a realistic and truthful answer to these questions?
- Are these questions relevant to the study?
- Etc.;

The survey was finalised by processing the input from this focus group. Appendix 6.3 contains the full survey.

Focus group 3

In the third and final focus group, **umbrella organisations** from various sectors (technology, construction, industry, design, etc.) were invited. Ideas were exchanged about the best possible way to distribute the survey.

The objective of this focus group was twofold. First, the focus group served to generate *buy-in* from the different organisations, to the extent that they were willing to support the distribution of the survey. In addition, input was also collected on the most appropriate way of distributing the survey, with attention being paid to the timing, the different channels (e-mail, newsletter, website, etc.) through which the survey could be distributed and the form and content of the survey of the accompanying communication.

2.1.3 Conducting a survey

Given the fact that the objective of the study was to investigate the impact of Design within the broad spectrum of Flemish companies, it was decided to conduct an **online survey**. This advantage of this approach is that a **large number of companies** can be reached, as well as that respondents are only asked to make a **limited time investment**.

The survey was composed of five short parts and contained a total of 35 questions:

- Part 1 contained some general identification questions;

- Part 2 asked about the various innovation activities within the company;

- Part 3 focused on the use of Design within the company;

- Part 4 asked about the impact of Design on (innovation within) the company, if the company stated to work with Design;

- Part 5 enquired about the reasons why Design was not used. This part was only completed if the respondent had stated in part 3 not to invest in Design.

Before the start of part 2 and part 3, the survey included the applied definitions of innovation and Design respectively (see section 2.2), in such a way that all respondents started from a similar conceptual framework when answering the questions.

Distribution of the survey

Two methods were used simultaneously for the distribution of the survey. The first method that was used concerned a **direct mailing** to companies that were identified and contacted via databases made available by VLAIO. More specifically, **3 datasets** were combined:

- Companies that have applied for support from VLAIO via the SME portfolio and have indicated that this application relates to one of the following fields: innovation, research and development, process innovation, product development, technology exploration or artificial intelligence;

- Companies that can be linked to Design in the current SME portfolio on account of their (core) activities and/or their involvement in a Design-related project;

- Service providers who specified Design as their specialisation when registering with VLAIO.

The total dataset consisted of more than 11,000 companies.

In addition, following on from the third focus group, **various umbrella organisations were collaborated with**, which had indicated that they wanted to support the study. Discussions were held with each of these organisations to explore the best possible way for them to contribute to the distribution of the survey. Below is a brief description of how each organisation ultimately facilitated the distribution.

- **Agoria** made a selection of about 10 relevant companies in the context of our study and personally contacted these companies with the request to complete the survey;

- **Antwerp Powerd By Creatives** prepared and passed on a selection of about 15 companies, so that they could be included in the list of companies to which the survey would be sent;

- **Design region Kortrijk** scheduled appointments with about 15 companies and conducted the survey face-to-face during these appointments;

- **Ministry of Makers** sent a direct mailing to their (local) network (approx. 1,600 companies) and promoted the survey via their website and social media;

- **POM Limburg** posted an announcement on their website introducing the study and offering a link to the survey.

The distribution of the survey, through the various channels, eventually led to **124 respondents** who completed the survey in full. The results of the survey will be extensively presented and discussed in chapter 3.

2.1.4　Conducting in-depth interviews

The final step of our study involved in-depth interviews with various respondents who completed the questionnaire, with the aim of **further expanding the insights from the survey results**. A semi-structured questionnaire was used for this (see Appendix 6.4), which had been adapted to the specific answers of the respondent to the survey. The interviews took an average of 30 to 45 minutes.

The companies that were contacted for an interview were selected on the basis of a number of parameters. First, the intention was to conduct interviews with, on the one hand, companies that had indicated to invest in Design and, on the other, with companies that had indicated not to do so. In addition, the aim was to conduct interviews with both large and small enterprises (or even micro-enterprises), combined with a aim in variation in terms of turnover figures and the sector in which the company operated. Appendix 6.5 contains a brief description of all companies that were interviewed.

2.2　Applied definitions of innovation and design

One of the main aspects (for the success) of this study was the provision of a clear definition and especially **operationalisation of the concepts** that were investigated, being innovation and Design. The reason was that the literature review and the various focus groups had shown that both concepts cover many meanings and evoke different associations in different people. Consequently, there is no unambiguous way to define or describe innovation and Design. The definitions of innovation and Design applied in this study, which are described below, were formulated on the basis of descriptions derived from the **scientific literature** and were furthermore validated by a **panel of researchers** and experts on Design and innovation.

2.2.1　Innovation

Within the framework of this study, we look at **innovation in a much wider context** and wish to go further than just examining the (narrow) administrative interpretation and reporting on innovation. We say that a company is innovating when (i) it **looks for a solution** and/or **develops a solution** to tackle a concrete **problem or challenge** and (ii) **initiates actions** in the context of **realising** its **potential**. By the latter we mean, among other things, using possibilities and opportunities, actively strengthening and/or exploiting the assets of the company and the (continuous) optimisation of its own operations, without having to identify problems first.

These solutions and/or actions may include: the **development of new knowledge,** the development of new and/or improved **products and services,** research into entering new **markets** and the introduction of new and/or improved **business processes/organisations**. The causes for these innovations can be very diverse too, such as using outdated working methods, experiencing ecological/social challenges or experiencing increased competition.

2.2.2　Design

When talking about Design within this study, we mean all forms, methodologies and skill sets related to Design that can contribute to: Product Design, Service Design, Process & Strategy Design, Communication & Graphic Design, Spatial Design, Social Design, Artistic/Artisanal Design and User-interface and Experience Design.

It is emphasised here that Design essentially starts from a **holistic approach** and that the disciplines below should not, or even cannot, be seen separately from each other. We have nevertheless opted to use the

following categorisation in order to (I) **operationalise** the concept of 'Design' and (ii) because this provides a clear overview of **potential perspectives** with regard to Design.

Product Design: designing, creating and/or adapting new industrial or consumer products (e.g. designing a table, a Smartphone or a car).

Service Design: designing new services or adapting existing services (e.g. drawing/adjusting the procedure when customers contact the help desk).

Process & Strategy Design: the conversion of a company's vision, objectives and available resources into concrete processes and actions to realise the company's vision (e.g. drawing up a business strategy and associated concrete processes to sell products on the Dutch market).

Communication & Graphic Design: the creation of (visual) content to convey messages to the right target groups via different communication channels (e.g. creating a flyer or website).

Spatial Design: the design of human environments, both indoors and outdoors (e.g. designing buildings or offices).

Social/Public Design: the application of design methodologies to address complex social/public issues, such as inclusion, integration and belonging (e.g. applying certain techniques to promote solidarity, interaction or knowledge sharing between employees).

Artistic/Artisanal Design: the production of original works performed through artisanal or industrial techniques related to the processing of different types of material (e.g. shaping works of art or craft objects).

User-interface and Experience Design: the design of digital products, events, software, games, experiences and environments with a focus on the quality of the user experience (e.g. developing the visualisations within a PlayStation game).

2.3   Methodological limitations of the study

Before discussing the results of the study, it is important to briefly discuss the main limitations of the study and the associated methodologies used.

The first limitation is closely related to the previous section and relates to the difficult operationalisation of innovation and Design. As stated previously, there is no consensus in the (scientific) literature on the definition of these terms. Therefore, each study will formulate its own definition according to the objectives and characteristics of the study concerned. In addition, this also means that **choices have to be made** about what falls within the scope of the study and what not. For example, in this study a conscious decision was taken to disregard Fashion Design, which undoubtedly is a form of 'Design' within the applied definition of Design. No attempt was therefore made to formulate a comprehensive description or definition of both concepts, but a definition that was in line with the needs of this study.

A second limitation to this study is a consequence of the previous one. The ambiguity of both concepts, being innovation and Design, means that the **perception or understanding of innovation and Design can vary** (substantially) among the **respondents** who participated in this study. The aim was to rectify this as much as possible by formulating a clear definition of the various concepts and invariably presenting these

to the respondents before answering the questions. Nevertheless, it is plausible to state that the perception and understanding of the respondents regarding innovation and design were not always identical.

A third limitation in the context of this study is the number of respondents participating in the survey. Although 124 companies is a considerable number, it can **not** be assumed that this pool of companies is **representative** for the entire Flemish company population. The sample is not sufficiently extensive for this. However, **the sample does allow** for **interesting qualitative connections** to be observed within the Flemish business population**.** For example, it can be investigated whether companies indicating to work with Design do so mainly to strengthen their market position.

Notwithstanding these limitations, the chosen and applied approach is sufficient to achieve the stated objectives (see above). For example, combining the survey with additional in-depth interviews generated the necessary information to gain insight into the impact of Design on general business operations and innovation. In addition, the results and insights from the survey were often confirmed and even reinforced during the interviews. Finally, during the interviews, concrete suggestions and ideas were often captured, which served as input for formulating policy recommendations, among other things (see Chapter 5).

3 Results

This section discusses the results of the study. The survey results serve as basis for this. In addition to these results, quotes or concrete examples captured during the in-depth interviews are cited throughout the analyses as well. The latter allows the results from the survey to be further substantiated and/or to be translated into concrete actions, initiatives and results.

## 3.1 General description of the participants

This section provides a general description of the pool of respondents that participated in the survey.

First of all, it appears that the vast majority of respondents (80%) are **managers, directors or board members** within the company. This is in line with the wishes of the study, which explicitly asked the companies to have the survey completed by the business manager, CEO, director or an equivalent, since these people are in the best position to answer the questions correctly.

In addition, 92% of the companies appear to be small enterprises (10 – 49 FTEs) or micro-enterprises (<10 FTEs). 6% are medium-sized enterprises (50 – 250 FTEs) and 2% are large enterprises (> 250 FTEs). This **spread** in **size** of companies is in line with the **'true population'** of companies in **Flanders**, according to figures from the National Social Security Office (RSZ 2020) [4].

Furthermore, a **healthy spread** in companies can be seen with regard to the **sectors** in which they operate on the one hand and their **geographical location** on the other. As illustrated in Chart 1, a total of 70% of the companies are active in either technology (25%), services (19%), construction (13%) or industry (13%). Companies that could not be classified in one of the six proposed categories indicate that they mainly focus on consultancy or marketing.

Chart 1: What is the main activity of the company (n=124)?
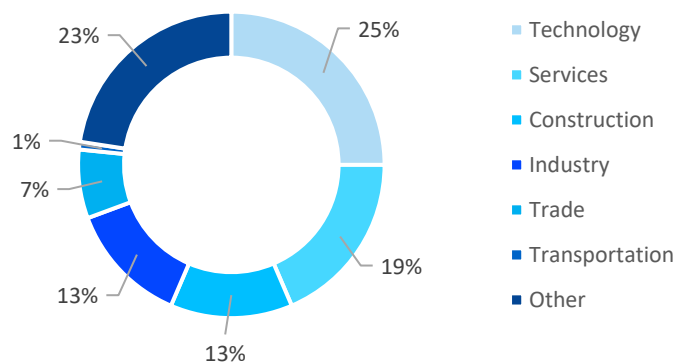
As regards the geographical spread, we can see that 31% of the companies are located in Antwerp, 24% in East Flanders, 23% in West Flanders, 15% in Flemish Brabant and 7% in Limburg. This indicates a healthy **geographical distribution** of the surveyed companies, with only a slight under-representation in the province of Limburg.

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[4] https://rsz.be/file/cc73d96153bbd5448a56f19d925d05b1379c7f21/a40a3f02ddc15a30aee09f47a379aa036350904a/Werkgevers%20totaal_VAL.pdf

Finally, the main **sales markets** of each company and the average **annual turnover** over the past three years were assessed. This shows that about 1/3 of the companies generate a turnover of less than EUR 250,000, 1/3 between EUR 250,000 and EUR 2,000,000 and 1/3 more than EUR 2,000,000.

Chart 2: What is the average turnover of the company (n=124)?
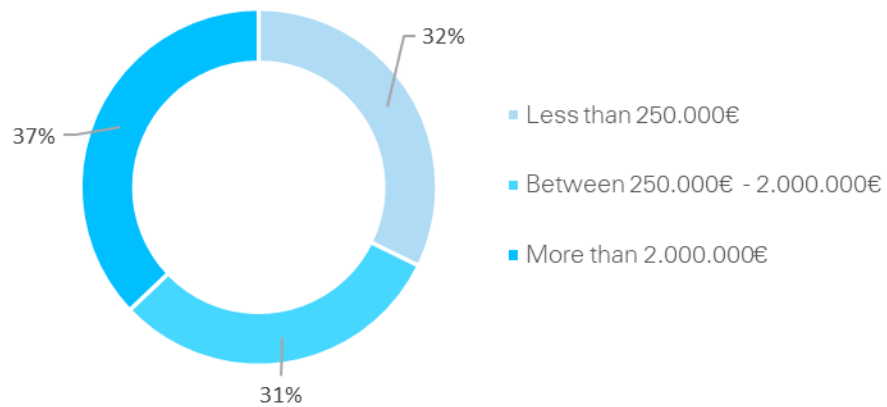
In addition, in line with expectations, 77% of the companies mentioned **Belgium** as their main sales market. A total of 12% indicated that they mainly sell their products and/or services to **neighbouring countries** (the Netherlands, Germany, Luxembourg, France and Great Britain). All detailed charts related to analyses not presented in the report can be found in Appendix 6.6.
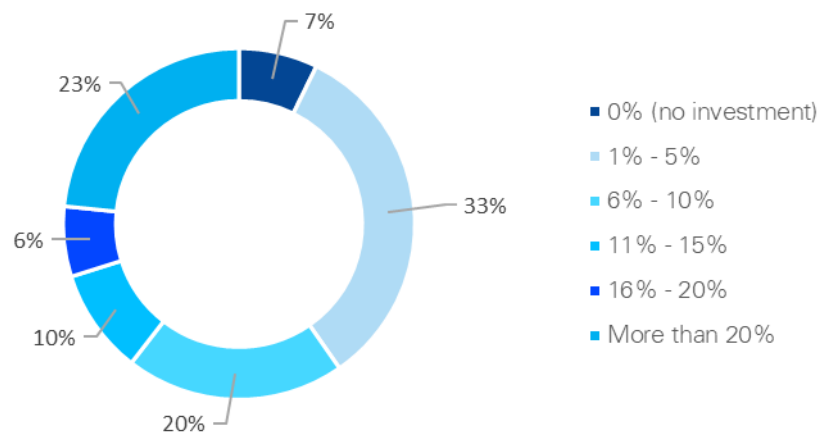
3.2   Innovation

This section outlines the role of innovation within the surveyed companies. To this end, the investments in the context of innovation are discussed first, followed by a description of how these investments are translated within the company in concrete terms. For example, it describes which activities are deployed and which service providers are engaged. Finally, the main motives for investing in innovation are discussed.

3.2.1   Innovation through internal employees

The chart below shows the reported investment in in-house innovation. This refers to innovation that is performed or realised by internal employees and not by external parties such as freelancers, research institutes, consultants, etc. This shows that **93% of the companies invest in in-house innovation**. Moreover, almost a quarter of companies spend even more than 20% of their business turnover on this.

Chart 3: What percentage of turnover does the company invest in in-house innovation (n=124)?

When assessing the purpose of these investments, there appear to be three important **objectives**, as shown in the figure below. These motivations are fully in line with the findings from the literature review and previous studies on innovation[5].

Figure 2: What are the main motives for investing in in-house innovation?

01	Development of new and/or improved products or services
02	Development of new knowledge
03	Development of new and/or improved processes

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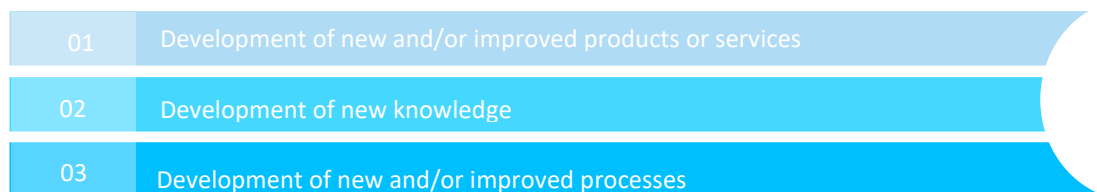
[5] See e.g. Creating innovation - Bakshi, MyVittie & Simmie; The Community Innovation Survey

Since almost all companies invest in in-house innovation and pursue similar objectives, it is interesting to examine *how* the companies try to realise these objectives, and thus innovation. The study shows that 45% of the companies indicate to have an **innovation entity**. The most common 'entities' are (ad hoc) **work groups**, an **innovation manager** and/or **a specific department** aimed at innovation. In addition to installing an innovation entity, there are also various **methods** that can be used to promote innovation. Figure 3 shows the most common methods.

Figure 3: What are the most commonly used methodologies to realise innovation?
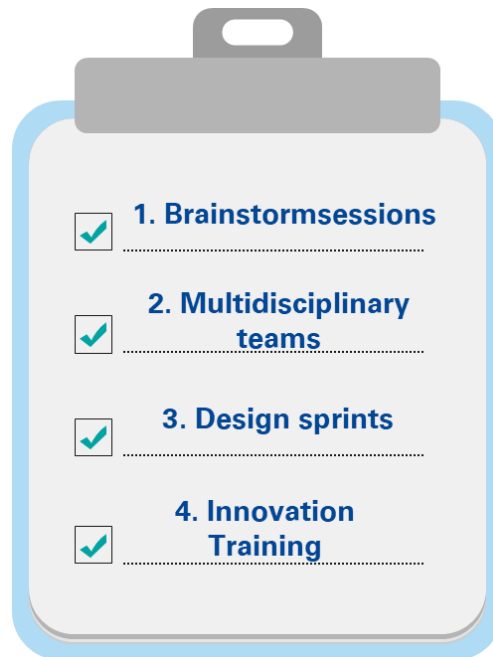
Brainstorming sessions and multidisciplinary teams are among the more traditional methodologies, which explains why they are often mentioned. It is striking to see that more than 50% of the companies indicate that they use Design sprints (to a limited extent or otherwise), which is a relatively recent technique. Methodologies such as an internal innovation *challenge* and/or organising a Hackathon are less popular.

3.2.2   Innovation with the help of external service providers

The above methods are possibilities for realising innovation with the company's own employees. However, a company can also call on external service providers to facilitate their innovation ambitions. The study shows that **55%** of companies **rely** on **external services** to promote innovation within the company. This is significantly less than the 93% who say they invest in innovation through their own employees.

This also translates into investments in innovation through external services, as shown in the chart below. The percentage of companies that indicate that they make a minimum investment (1% - 5%) is 30% higher compared to in-house innovation. In addition, the percentage of companies that indicate that they make a serious investment (> 20%) is 12% *lower* compared to in-house innovation.

Chart 4: What percentage of turnover does the company invest in innovation through external services (n=68)?
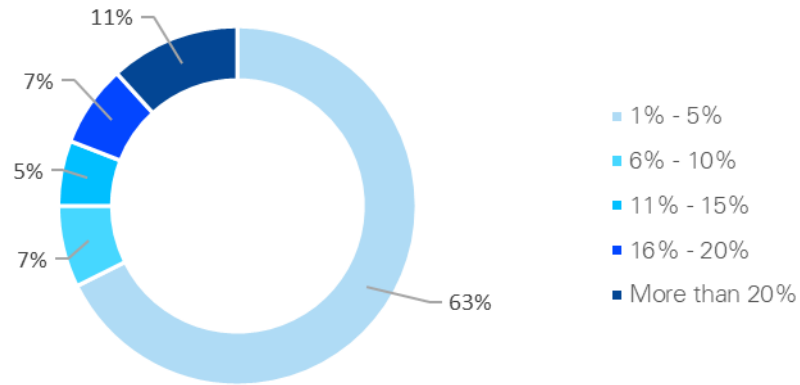
On the other hand, companies that invest in external services to facilitate innovation do so for the same reasons for investing in in-house innovation, i.e. the development of new and/or improved products or services, the development of new knowledge and/or new or improved processes.

Subsequently, the **service providers** called upon to realise external innovation were assessed as well. This shows that, as set out in Chart 5, especially **partners within the ecosystem** (suppliers, investors, business partners, etc.) play an important role in this. Furthermore, the more traditional service providers are mentioned as well, such as developers, knowledge institutions, public service providers (such as VLAIO, Team Bedrijfstrajecten, Flanders DC, etc.) and Designers.

> *"As a small company in a very competitive market that's evolving very quickly, innovation is extremely important to us. In order to promote and realise innovation, I consult people who I know are engaged in this professionally. They include my CTO and other internal staff members, external partners or business relations. I believe this is the fastest and most efficient way to achieve innovation."*
>
> *- Small enterprise developing software*

Chart 5: Which external service providers are engaged (n=114)?
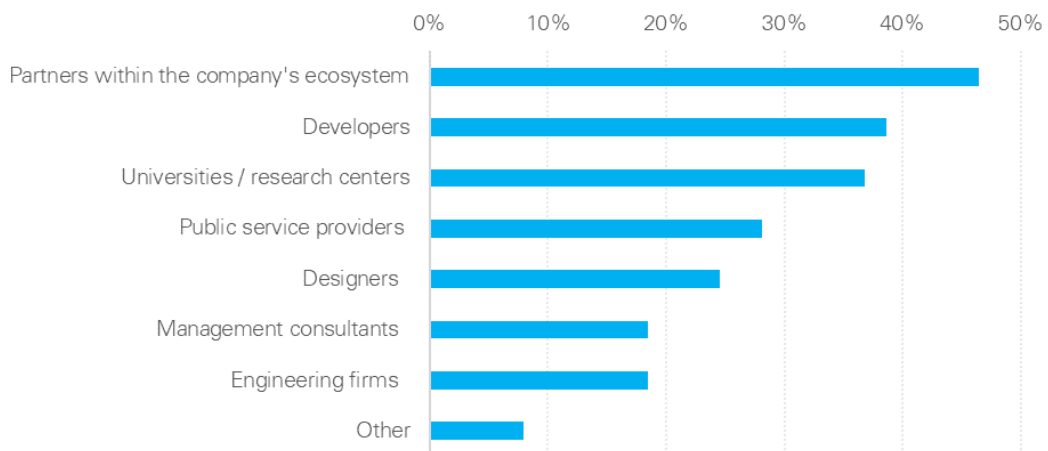
3.2.3   Reasons to invest in innovation

The above results have clearly shown that the surveyed companies invest (substantially) in innovation. When asked about the **motives** for this, five reasons stand out. These are set out in the figure below.

Figure 4: *What are the main reasons for investing in innovation?*

Although mentioned less frequently, social, regulatory and public motives can still be important motives for focusing on innovation, depending on the context and situation. This was confirmed during the interviews:

> *"Our customers are not the end customers who use our product on a daily basis, but installers who install our products. The main reason for us to adapt or develop new products is the feedback we receive from them. This on the one hand concerns feedback they receive from the end customers and pass on to us, but, on the other, also feedback directly from them to improve our products. For example, we receive concrete suggestions from them to use other materials that are more flexible and that make the installation process easier.*
>
> *Technological developments offer additional opportunities. Examples include new insulation options or motorised products. Social and public trends and associated regulations are other factors that can cause us to adapt products or develop new ones. The demand for more sustainability is certainly an important motive. In addition to the quality and ease of use of the material, we now also take into account its durability and the possibilities for decomposition."*
>
> *- Large enterprise in the construction sector*

3.3 Design

This section outlines the role of Design in Flanders and, more specifically, within the surveyed companies. To this end, we first discuss the range of Design on offer, after which investments in Design are examined. This section further describes how these investments translate within the company in concrete terms (i.e. which employees or external parties are engaged, which Design disciplines are deployed, where within the company is Design being applied, etc.).

3.3.1 Design range offered by external service providers

In order to be able to invest in Design, and more specifically in external services, it is important for companies that they are familiar with the Design range that is offered. The results show that almost **75% of respondents** are **unfamiliar** with the current **range**, or to only a limited extent. This limited knowledge of what is on offer is somewhat surprising, given that the majority of companies invest (substantially) in innovation. This shows that Design is more than just innovation, but at the same time shows that awareness of the Design range in Flanders is still (too) limited.

Chart 6: What is your knowledge of the current Design range offered by external service providers (n=124)?

Legend
- I am not familiar with the external offerings
- I have a limited familiarity with the external offerings
- I am familiar with the external offerings
- I am very familiar with the external offerings

5% · 34% · 22% · 40%
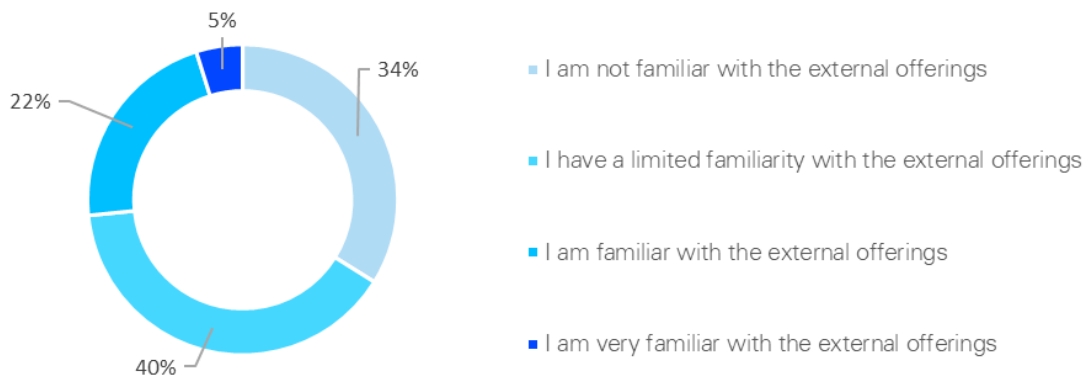
The respondents who are familiar with the range generally indicate that they are **satisfied with this range** (see chart below). This shows that the quality of the range on offer meets the expectations of companies and that whether or not companies use Design is mainly determined by (the lack of) knowledge of the Design range.

Chart 7: Is the company satisfied with the current range (n=74)?
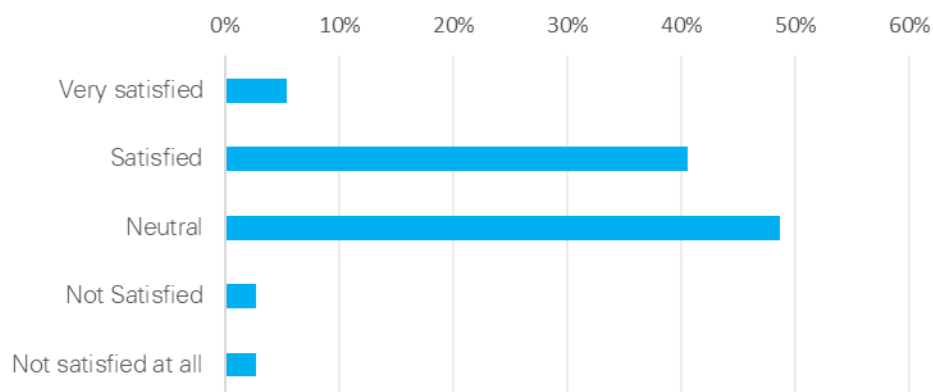
3.3.2   Investment in Design

Being familiar with the Design range offered by external service providers is of course not a requirement to invest in Design, as this can also be taken up by the company's own employees, similar to innovation. This is also apparent from the results of the study. Chart 8 shows that 2/3 of companies indicate to invest in Design. This is despite the fact that 75% indicates that they are not familiar with the Design range offered by external service providers, or to only a limited extent. So at this stage, it is clear that Design is mainly applied by the company's own employees.

Chart 8: Does the company invest in Design(n=124)?

Companies that indicated not to invest in Design (1/3 of the respondents) were asked what the main reasons were. The figure below shows the three main reasons.

Figure 5: What are the main reasons for not investing in Design?

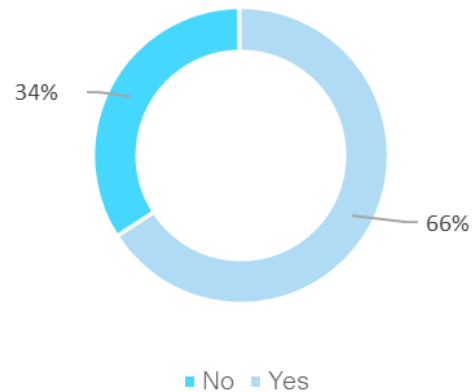| 01 | I'm not familiar with the Design range on offer |
| 02 | Not a single Design discipline suits me |
| 03 | I don't have the finances to invest in Design |
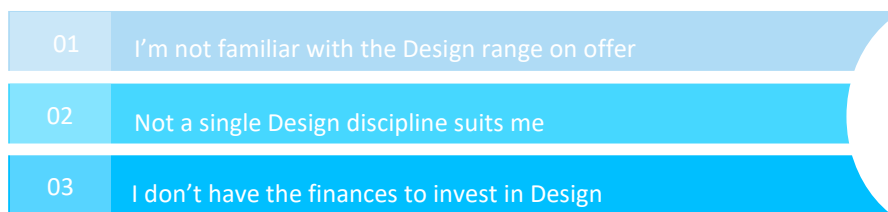
Although **knowledge** about the **range** offered by external service providers is not essential, it appears to be the main reason not to invest in Design. In addition, it is often stated that not a single Design discipline suits the company. It should be noted, however, that this may be the indirect result of not being (sufficiently) familiar with the range. Therefore, companies may interpret Design too narrowly and misjudge the various possibilities and applications, as a result of which they come to the (wrong) conclusion that Design is not relevant to them. A third important reason turned out to be the lack of **finances**. This is especially the case with micro-enterprises. The latter is an interesting finding, since the survey included an option for stating that Design is too expensive or that you are not convinced of the added value of Design. These appear to be reasons not to invest in Design for a only very limited number of companies. It can therefore be stated that, if these companies had sufficient financial scope, they would consider an investment in Design, as they are not dissatisfied with the cost price and recognise that Design can offer added value.

During the interviews, this was discussed in more detail with the respondents who had specifically indicated that they did not invest in Design. This showed that sometimes that had to do not only with the financial scope to invest, but also with a **lack of time**. The day-to-day business takes up so much time that there is little or no time left for developing and working out new ideas in which Design could definitely play a role.

> *"We're a small company with only 8 employees. We've had a number of specific ideas for the further development of the company's services for the past two years, but finding the time to develop these ideas further is very difficult. Apart from our annual 'gathering', we do not manage to free up enough time, e.g. on a monthly basis, to reflect on past projects and to discuss the (near) future of the organisation. During these types of consultations, Design (Thinking) methodologies could certainly play a role, e.g. to break away from the day-to-day activities and start thinking out-of-the-box more."*
>
> *- Micro-enterprise within the services sector*

Although Design can provide significant added value for most companies, this does not appear to be the case for every company. Another company for example, which had indicated in the survey not to use Design, stated that Design was still used to develop their product, but that further use of Design provided **no added value** at this time. The company has a product that is **technically superior** compared to all competitors, so that it has a comfortable market position and making the product looks more attractive and/or optimising its user-friendliness is thus of secondary importance.

> *"We're in a niche market and have no competitors who can match at a technical level. Our customers are very focused on the technical capabilities of our product and consider its other aspects to be secondary. As a result, investments in the Design of our product are not required or even uneconomic. It's important to mention that we work in a business-to-business context. If we had been operating in a business-to-consumer context, this would probably be a completely different story and Design would (and could) certainly be a differentiating factor."*
>
> *- Small enterprise developing software*

However, the majority of companies indicate that they are already investing in Design. The remainder of this chapter therefore focuses on this pool of companies. First, the size of the investment in Design is studied (Chart 9). Half of the companies indicate that this involves a relatively limited investment (1-5% of their turnover). However, more than 1/5 also indicate that they invest heavily in Design (> 20% or more of their turnover). Moreover, of the companies that indicate that they invest in Design, it appears that they **mainly invest** in **Design** performed by their own employees (75%) and to a lesser extent by external service providers of Design (25%). The underlying motives will be discussed further on.

Chart 9: What is the scope of the investment in Design (n=82)?

21% — ■ 1% - 5%
■ 6% - 10%
5% — ■ 11% - 15%
10% — ■ 16% - 20%
11% — ■ More than 20%
54%
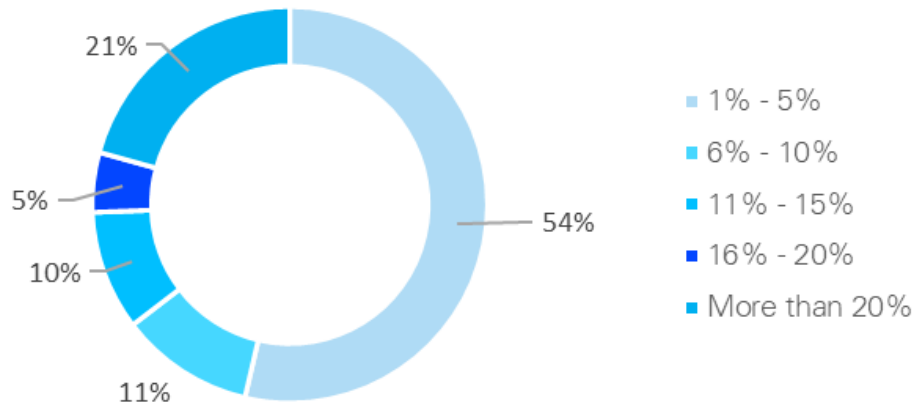
When asked about the reasons for investing in Design, companies state four **main reasons**, as shown in figure 6. In their responses, no less than half of the companies mentioned 'focusing on the needs of users and customers'. In addition, Designers are often called on account of their skills to convert knowledge and concepts into practical ideas and tangible initiatives. This shows that Designers can already be deployed in the early phases of the development of a product, service, etc., thereby creating added value. This in contrast to the often dominant perception in which Designers are (or can) only/mainly (be) used to optimise the design or user experience of an almost final product or service.

Figure 6: What are the main reasons for companies to invest in Design?

01 **Focusing on the needs of users/customers**

02 **Improving the "marketability" of products and/or services**

03 **Encouraging innovative, creative and solution-oriented thinking**

04 **Converting knowledge and concepts into actionable ideas and tangible initiatives**
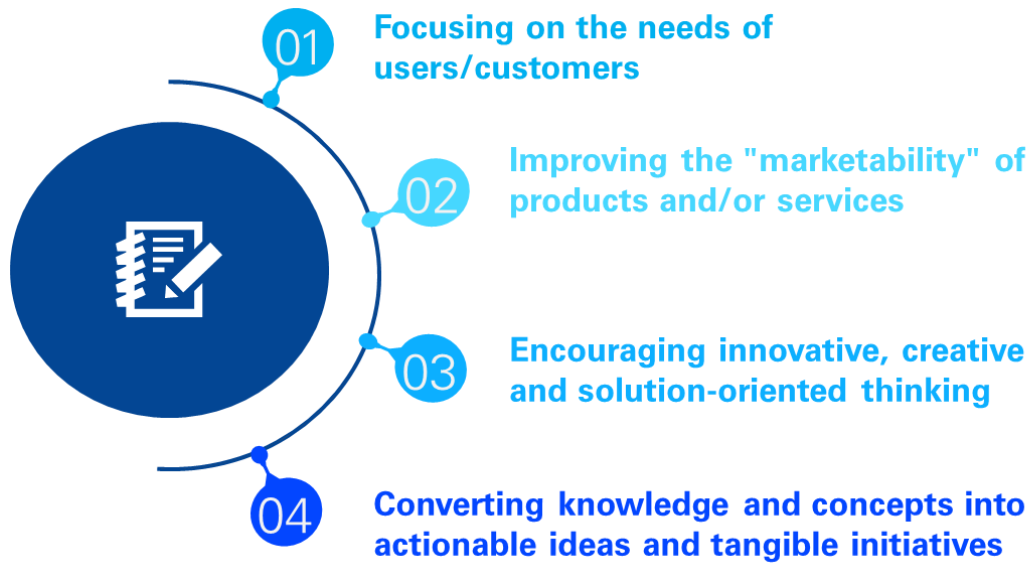
The importance of the needs and wishes of users and customers and improving 'marketability' were all confirmed in the interviews:

> *"Our company produces interior products. Our customers find it important that the products they buy to some extent reflect their personality. In the past, this process was mainly influenced by several major trends that moved relatively slowly. However, with the rise of social media, we tend to refer to these as 'tendencies' as they are more intense and shorter in nature. As a result, a (much) greater variety of products comes onto the market every year. It is therefore more difficult to develop a 'standard' product that attracts a large audience. We need to create a wider range of diverse products which represents the needs and wishes of all kinds of groups. Design plays a fundamental role in this."*
>
> *- Small enterprise within the industrial sector*

Not only did this study investigate why companies invest in Design, but also which event, person, experience, etc. convinced them to effectively implement the investment (Chart 10). By far the main motives appeared to be the contact(s) and advice within the company's **own network and information from specific professional and industry literature.** We can draw a parallel with innovation, in which the company's local ecosystem appears to play an **important role** as well. Media coverage was not specified by any of the respondents. A significant proportion of the companies further indicate that their **own experiences** and **training**, **within the organisation or of employees**, played an important role in this.

> *"Our company has always been interested in Design. The tipping point to consciously and actively invest in and work with this, however, only came after several new colleagues joined the company. Through their specific training and some pilot projects, these employees were able to quickly demonstrate what Design could bring to the company."*
>
> *- Large enterprise in the technology sector*

Chart 10: What are the reasons why companies start investing in Design (n=82)?
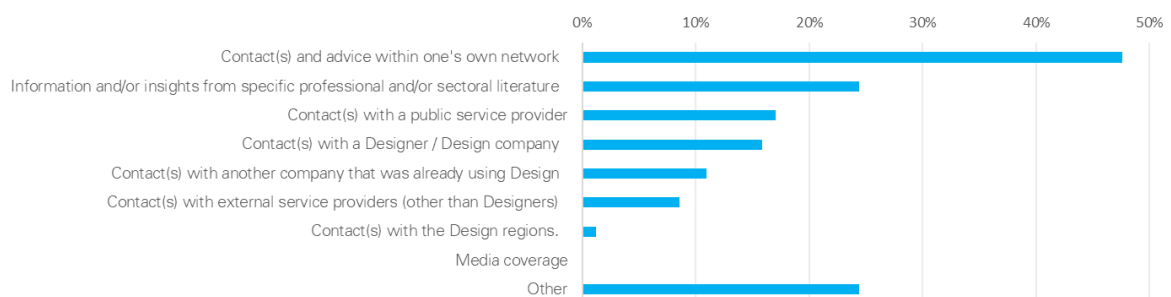
During the in-depth interviews, this 'turning point' and the contacts within the company's own network were further explored:

> *"Whilst on a job, we came into contact with a specific service provider whom we hadn't worked with before. This provider acted as our partner on this job and effectively became part of our 'network'. After the job, we started investigating the possibilities for a possible further collaboration, in which we could link their unique expertise, which is mainly focused on communications, with our knowledge and experience within the mobility sector. This way, we can present our combined expertise to potential customers, where relevant."*
>
> *- Micro-enterprise within the services sector*

3.3.3   Application of Design

As with the investment in innovation, the surveyed companies were also asked how these investments are given concrete form within the company and, more specifically, which Design disciplines are applied, which employees or external service providers are engaged for this and within which departments of the company Design is applied most often.

The survey shows that **Product** Design, **Communication and Graphic** Design and **User Interface and Experience** Design are most popular (Chart 11). Just under 80% of the companies indicate to apply Product Design.

> *"The main requirement that a good software developer must meet is to deliver high-quality software that works flawlessly and generates added value (cf. link with Product Design). However, we notice that the ease of use and the extent to which our products can be used 'intuitively' are becoming increasingly important for our customers. This reduces the training time they have to invest in learning to work the software, among other things. As a result, we as a company are focusing extra on User-interface & Experience Design, the more so since we notice that our competitors too respond to this in an attempt to distinguish themselves from us."*
>
> *- Small enterprise developing software*

A total of 40% of the companies apply Communication and Graphic Design and almost 1/3 focus on User-interface & Experience Design. The (growing) importance of this latter discipline has also been confirmed by other companies:

> *"As a company active in the technology sector, UX Design has always been crucial to us. However, it's an expertise that we've focused on more in recent years, due to its increasing importance within our sector. We notice that customers are placing this higher and higher on the agenda. In our experience, if you want to focus on this, you'll automatically end up contacting Designers, given the specific knowledge they bring."*
>
> *- Large enterprise in the technology sector*

Chart 11: *Which Design Disciplines are applied within the companies (n=82)?*
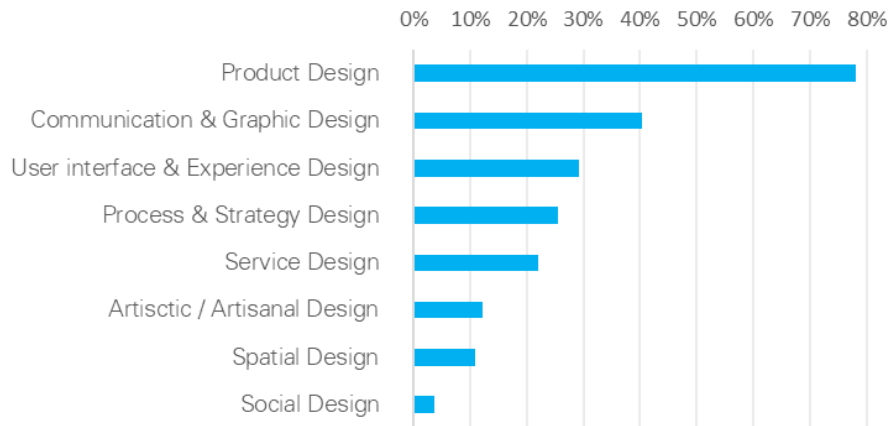
Design within companies appears to be mainly applied by the companies **own employees** (Chart 12), in combination with freelancers or Design agencies or otherwise. This is in line with the earlier observation that companies indicated that 75% of their investments are aimed at applying Design through own staff.

Chart 12: *Who applies Design within the company (n=82)?*
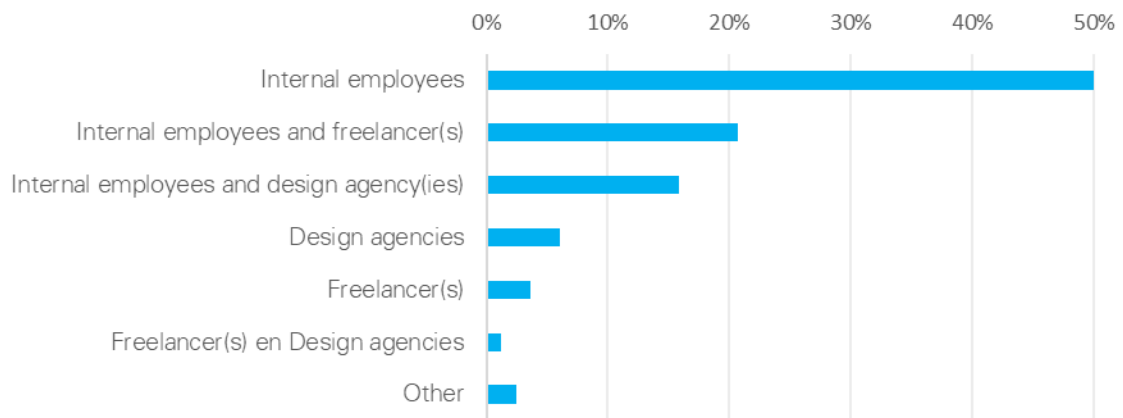
It is noteworthy that only 10% of the companies exclusively use external services. This is all the more remarkable since the survey also shows that, if they do work with external Designers, companies are **satisfied** about this **collaboration** (Chart 13). For example, 46% of the companies indicate that the efficiency of Designers is higher than with other service providers. In addition, 54% of the companies indicate that Designers succeed in creating significant added value compared to other service providers. It was further found that 71% of the companies believe that Designers apply a specific perspective and 65% report that they use methodologies not offered by other service providers. It is also striking that only very few companies indicate to not at all agree with these claims and therefore have a negative view of Design.

Chart 13: *Overview of findings on collaboration with Designers (n=82)*

	0%	20%	40%	60%	80%	100%
Efficiency is better with Designers than other service providers	32%	20%	26%	10%	10%	
Designers apply a specific angle of approach	18%	10%	27%	30%	13%	
Designers succeed in creating greater added value	22%	7%	17%	21%	24%	9%
Designers use methodologies that others do not offer	21%	12%	28%	23%	13%	

■ No opinion ■ Strongly disagree ■ Disagree ■ Agree ■ Strongly agree ■ Completely agree
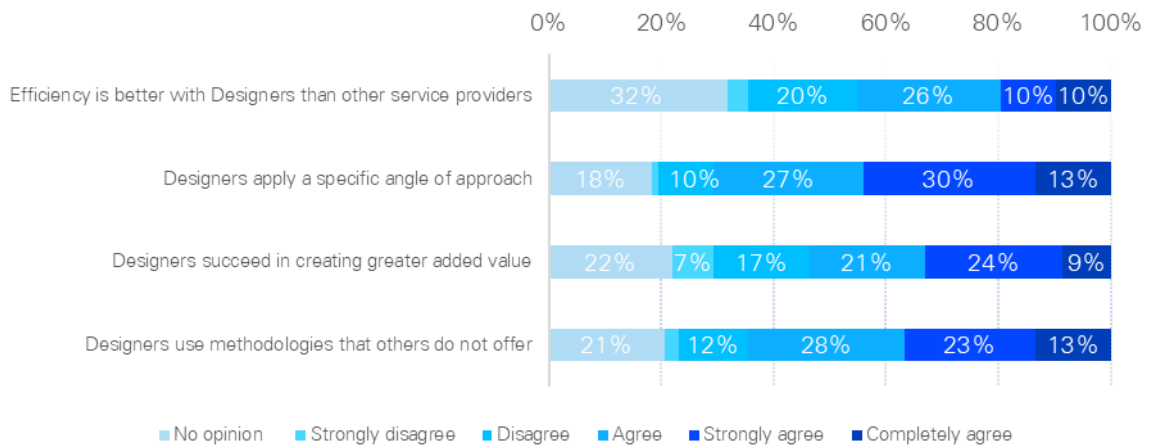
The interviews showed that the main reason for working mainly (or exclusively) with internal Designers is the **preservation of knowledge**. Certain Design disciplines are often part of the company's core activities. If external Designers have to be called upon for this too often, companies become very dependent on this support, which in turn involves certain risks, such as a Vendor lock-in[6]:

> *"Within our services Design is extremely important. This is because we produce a basic product that is relatively simple and offered by multiple companies. It's through Design that we've been able to expand and improve our basic product, so that we can deliver a unique product. For this we work with a number of freelancers, but we mainly aim to develop and preserve our knowledge internally. After all, this is part of our core activity and therefore not something for which we want to be dependent on external parties. Freelancers are mainly hired if the workload becomes too high for our internal workers or if certain specialist knowledge is required for a specific project."*
>
> *- Small enterprise in the technology sector*

Several interviews further revealed that companies (especially micro and small enterprises) often do **not** have **sufficient financial scope** to invest in **external Design Services**. These companies are often founded with limited start-up capital, which is fully used for the expansion of their core activities, preferably in the most cost-efficient way. The financial strength for additional investments, even if they generate a significant return in the medium or long term, is lacking.

Furthermore, the respondents were asked about the departments in which Design is most commonly used (see figure below). The **research and development department** (R&D) was mentioned most often. This indirectly shows that Design plays an important role with regard to **innovation**, given the link between R&D and innovation. In addition, Design also appears to be frequently used within the marketing and sales departments. These departments will mainly use Communication and Graphic Design. Finally, Product Design and Process and Strategy Design will play an important role within production.

Figure 7: In which department is Design used most (n=82)?

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[6] Vendor lock-in makes a customer dependent on a supplier for products and services, because they are unable to switch supplier without incurring substantial costs or inconvenience.
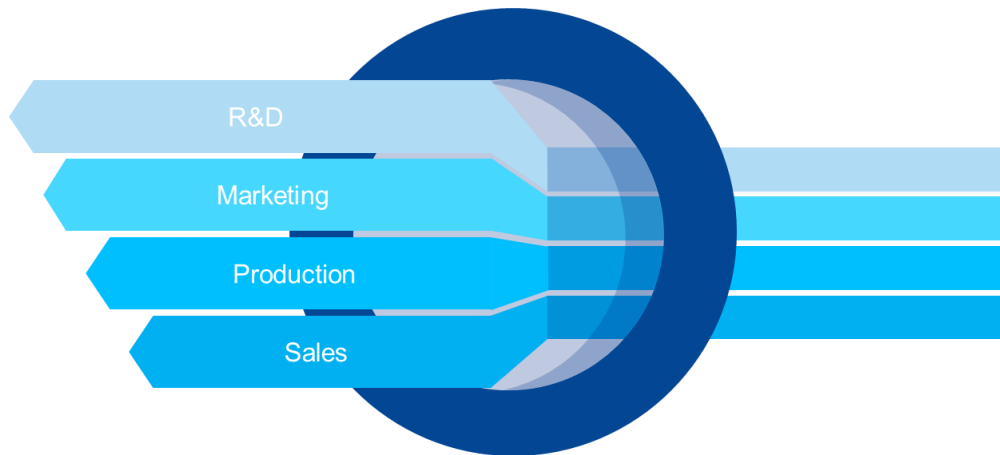
Finally, the respondents were asked in which step(s) of the value chain Design is used (Chart 14). This shows that it is often already applied **early** in the **value chain**, i.e. in the development of a new idea/concept and in the development of the product, and only to a lesser extent in the end phase, i.e. at the launch of a new product/service or at the finishing stage. This was also reflected in the interviews.

This is an interesting observation given the frequently heard perception that Design is only relevant or limited to the 'cosmetic part' and making a product or service more visually appealing. It is clearly more than that for the (large) majority of companies.

Chart 14: In which phases of the value chain is Design used (n=82)?
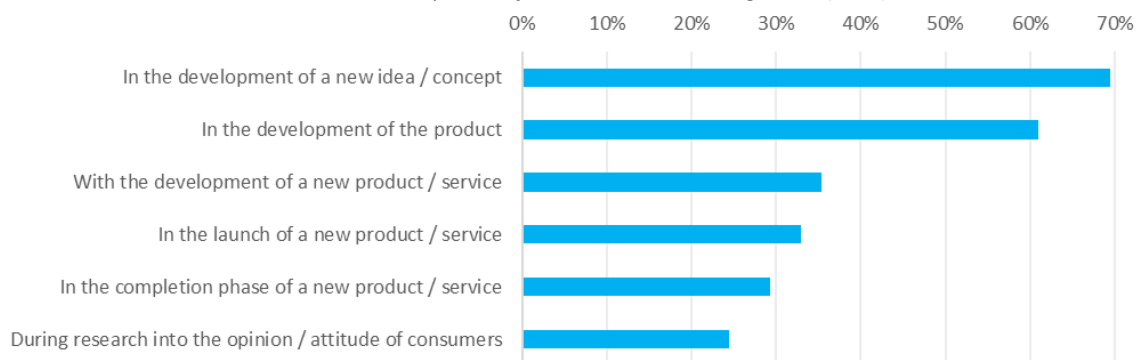
This section extensively discussed both the investment in Design and the concrete application of it within companies. It has been established that Product Design, Communication & Graphic Design and User-interface & Experience Design are the most frequently used Design disciplines within the surveyed pool of Flemish companies. The impact of these three design disciplines will therefore be explored further in the subsequent chapter.

Moreover, it turned out that these three disciplines, together with Process & Strategy Design and Service Design, are by far the most used disciplines. The detailed analyses of the impact of Process & Strategy Design and Service Design can therefore be consulted in Appendix 6.5. Detailed analyses for the other three disciplines (Artistic/Artisanal, Spatial and Social Design) are not available, as the number of respondents was too low to perform meaningful analyses.

3.4   Impact of Design

This section of the report zooms in on the impact of Design on innovation and on general business operations. This is based on a detailed analysis of the impact of the three most commonly applied Design disciplines (see above) within the companies. First, it is indicated for each discipline on which elements of the business operations they generate the most impact. Afterwards, this is further specified and expanded on the basis of various statements. This focuses on the short and long-term impact of Design, the (future) investments in Design and the contribution that Design makes to realise innovation, among other things.

3.4.1   Product Design

The figure below lists the five elements on which Product Design has the most impact.

Figure 8: On which elements does Product Design have the most impact?

01	Introducing new products or services
02	Increasing sales
03	Introducing improved products or services
04	Tapping into new markets
05	Increasing market share

Product Design therefore mainly ensures that companies can develop new products or services or improve existing products or services. A practical example that emerged during the in-depth interviews illustrates the above well:

> *"Originally we started with industrial Design to design our basic product, a conveyor belt. We create this basic product using mechanical Design and is also offered by many of our competitors. However, we've succeeded in creating enormous added value by combining this basic product with various forms of automation and robotisation. This too involves a strong reliance on Design in what we call 'electronic Design'. By combining both forms we succeed in realising efficiency improvements, which give us an advantage over the rest of the market and, more specifically, over our competitors, who only offer the basic product.*
>
> *The significant added value that Design offers in this respect is that it enables us to think along with the customer about the specific problem they experience and to work towards a solution with them. We will therefore certainly continue to invest in Design. To date, we've always succeeded in achieving a payback period of three years or less with regard to Design projects."*
>
> *- Small enterprise in the technology sector*

As a direct result of this, these companies also report an increase in sales and market share and the opportunity to expand into new markets:

> *"We are a company that has to compete on a global stage with manufacturers in China, Turkey, etc. who can manufacture products cheaper. To safeguard our competitive position, we use Design. Through Design we succeed in setting ourselves apart from our global competitors and offering added value to our customers that these competitors cannot."*
>
> *- Small enterprise within the industrial sector*

In general, the companies indicate to be **very satisfied** with the **impact** of Product Design, as shown in Chart 15. A total of **78-92%** of respondents **agree** or strongly or fully agree with each of these statements.

Chart 15: Overview of the impact of using Product Design (n=64)
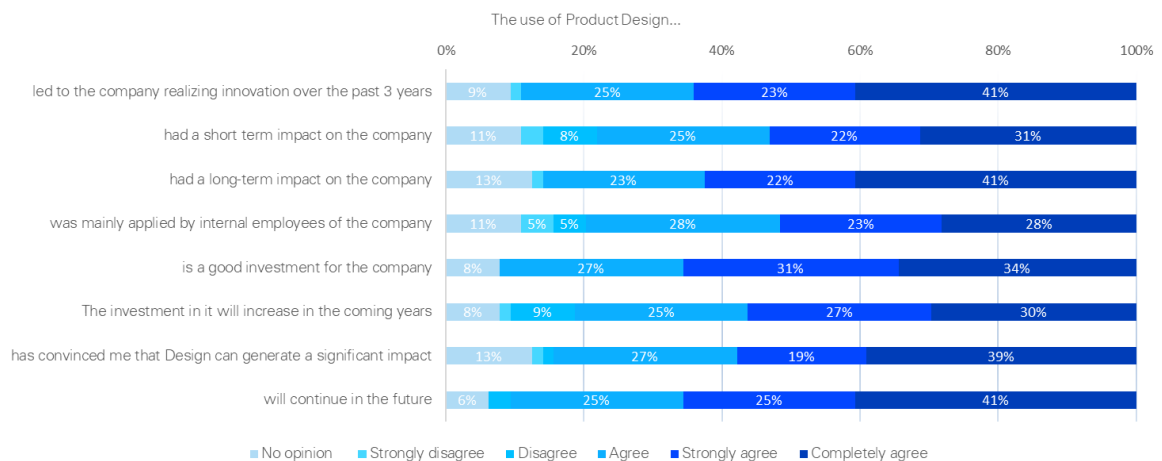
For example, 89% of the companies indicate that the use of Product Design has led the company to engage in **innovation in the past three years**. Furthermore, 78% of the companies indicate that Product Design had an impact on the company in the short term and 86% in the long term. In addition, 92% state that the investment in Product Design was a **good investment**, 91% that they will continue this investment in the future and 81% state that this investment is set to even **increase** in the next few years. It is also striking that very few companies indicate that they (fully) disagree with one or more of these statements. Moreover, this also appears to be the case for the other Design disciplines we asked about (cf. infra).

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3.4.2 Communication & Graphic Design

The figure below lists the five elements on which Communication & Graphic Design has the most impact.

01	Introducing new products or services
02	Increasing competitiveness
03	Improving the reputation of the company
04	Increasing market share
05	Improving the innovative image of the company

Communication & Graphic Design on the one hand supports the company in the introduction of new products or services and, on the other, plays an **important role in the way in which the company is perceived** given the major impact on the company's reputation and its innovative image. The combination of both means that the companies that aim for this also succeed in developing their **competitive power** and **increase** their **market share**. The impact of Communication & Graphic Design is illustrated on the basis of a concrete example below:

"A few years ago, we started our own business as a pair, offering a premium product (non-alcoholic drink) to customers. Since we really aimed for a premium product, not only should the product itself must be of the highest quality, its presentation too must be 'premium'. We ourselves have only limited knowledge of graphic design (e.g. Adobe Photoshop or designing booklets, cards, labels, etc.). The first months, however, there was no budget to call in help for this and we had to make do with what we could work out ourselves. However, in order to grow as a company, we thought it necessary to collaborate with graphic designers and developers, e.g. to develop a personalised bottle, design stylish gift boxes, design thank you cards, etc. These collaborations seem obvious, but as a company they have enabled us to not only to deliver a beautiful product, but to also create a unique appearance and to develop a very coherent and attractive range. This allowed us to continue to grow as a company and keep us at the top of the market."

- Micro-enterprise within trade

The impact of Communication & Graphic Design is experienced as very positive by the companies (Chart 16). A total of 76-94% of respondents agree or strongly or fully agree with each of the statements below.

Chart 16: Overview of the impact of using Communication & Graphic Design (n=33)

	No opinion	Strongly disagree	Disagree	Agree	Strongly agree	Completely agree
led to the company realizing innovation over the past 3 years	6%	6%	9%	42%	15%	21%
had a short term impact on the company	3%	6%	9%	36%	27%	18%
had a long-term impact on the company	12%	3%		33%	18%	33%
was mainly applied by internal employees of the company	3%	6%	15%	30%	21%	24%
is a good investment for the company	6%		24%		39%	27%
The investment in it will increase in the coming years	9%		24%		30%	33%
has convinced me that Design can generate a significant impact	12%		21%		27%	36%
will continue in the future	6%		27%		30%	36%

■ No opinion ■ Strongly disagree ■ Disagree ■ Agree ■ Strongly agree ■ Completely agree

The use of Communication & Graphic Design appears to be extremely interesting in both the **short term** (82%) and **long-term** (85%). A total of 78% indicate to also engage in innovation as a result. In addition, it appears that, once companies invest in Communication & Graphic Design, they are **satisfied** with the investment (91%), that they will **continue to invest** (94%) and that the investment itself is set to be **increased** (88%).

3.4.3   User-interface & Experience Design

The figure below lists the five elements on which User-interface & Experience Design has the most impact.

Figure 10: On which elements does User-interface & Experience Design have the most impact?

01	Introducing new products or services
02	Improving the reputation of the company
03	Introducing improved products or services
04	Increasing sales
05	Increasing overall customer satisfaction

As seen with the two previous Design disciplines, User-interface & Experience Design too plays an important role in developing new or improving existing products or services. This is in line with the expectations as it is an inherent characteristic of Design that its application leads to a new and/or modified

28

product or service. However, it is the specificity of this product or service that will determine which Design discipline is applied therein.

In addition, User-interface & Experience Design, which main objective is to improve **ease of use** and the **experience** of customers and **end users**, actually achieves this objective, as it appears to have a significant impact on overall customer satisfaction. Moreover, this appears to have a positive influence on the **reputation** of the company.

The impact of User-interface & Design is illustrated on the basis of a concrete example below:

> *"We are a company that organises recreational activities with the help of drones. We started on a low-cost basis by purchasing some toy drones and creating games and activities involving these drones. However, other organisations too offer drone workshops. We soon realised, for example through (in)formal feedback during and after our events, that there was a lot of potential in what we offered, but that we had to focus even more on the perception and experience of the participants. We therefore started to think creatively and started designing add-ons for our drones that increase the possibilities with regard to our activities exponentially. For example, we managed to get the drones to carry objects or food. Later we started to combine other technologies, such as VR, robots, Segways, etc. with our drones. This way, we can truly offer our customers an experience that none of our competitors can. Not only do we get a lot of satisfaction from this ourselves, we notice that our customers in particular enjoy it a lot and are very satisfied.*
> *In the development of the add-ons, the Design aspect is part of our operation and that's also what we used to set ourselves apart from the competitors and develop an improved service. At the same time, we're careful not to fall into the trap of creating new add-ons for the mere sake of it. Each add-on we develop must have the potential of effectively creating added value to the perception and experience of what we offer."*
>
> *- Micro-enterprise within the services sector*

In general, the companies indicate to be very satisfied with the impact and contribution of User-interface & Experience Design on innovation and general business operations. For example, 71-92% of respondents agree or strongly or fully agree with each of the statements below.

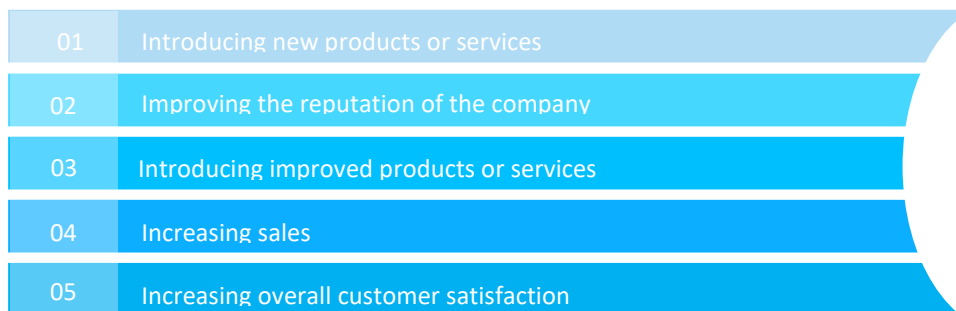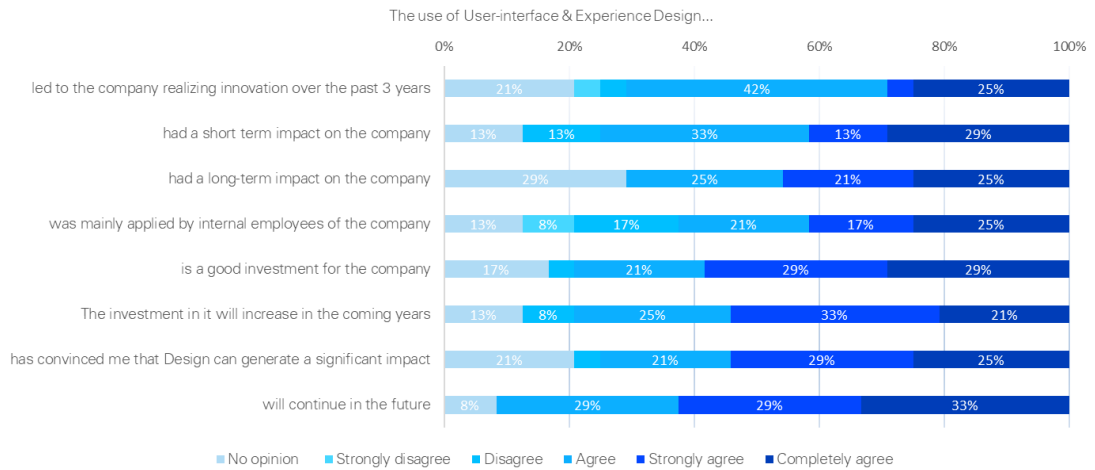*Chart 17: Overview of the impact of using User-interface & Experience Design (n=24)*

No less than 71% of the companies indicate that they have realised innovation through the use of User-interface and Experience Design. In addition, it is reaffirmed that this discipline is becoming increasingly important, since 92% of the companies indicate that they will continue to invest in this, while 79% report that they expect the investment to increase. It is also the discipline with the least number of companies indicating that this is performed by internal employees (63%), implying that external support is used for this discipline most often.

4 Conclusion and discussion

This report provides an overview of the main findings of the study into the impact of Design on Flemish companies. In this context, various focus groups were organised, combined with a survey and in-depth interviews. Efforts further included the input of a pool of more than 100 companies. This pool contains companies from various sectors and varying turnover figures. Furthermore, the distribution of the companies in terms of their size and geographical location across Flanders is representative.

This section briefly summarises the main findings. This follows the same structure of the report. First of all, innovation is discussed, followed by the investment and application of Design, and ends with the results and impact of using Design within Flemish companies.

Innovation

The study has shown that nearly all surveyed companies appear to invest in innovation to a greater or lesser extent, focusing mainly on **innovation through their own employees** and, to a lesser extent, on innovation with the help of external service providers. The main objectives are the development of new and/or improved products or services, the development of new knowledge and the development of new or improved processes. In order to realise this, they initially rely on partners within the (local) **ecosystem** of the company, developers and knowledge institutions, an finally on Designers. The motives for innovation are mainly of an **economic** nature (customer wishes and changes in the market), but the strategic aspect (position relative to competitors) and technological developments plus associated opportunities play an important role in this as well.

Design

A total of 2/3 of companies indicated to invest in Design. These investments are generally less than those made for innovative purposes. In addition, it appears that the largest investments are made in **in-house activities**. The main reason for this is to avoid any dependence on external service providers, in this case Designers. In addition, it has turned out that, with regard to external service providers, a large majority of companies (75%) have no or only **limited knowledge** of the **existing range** that these service providers offer. Those who are familiar with the range on offer, on the other hand, indicate that they are **satisfied** with it and its quality. It appears that the services of Designers are regarded as an added value. They are efficient and deliver sufficient **return on investment**. Finally, as regard the investment in Design, it appears that the initial investment, internally or externally, was mainly made after contacts within their own ecosystem or through industry and professional literature or indeed through their own (professional) experiences (e.g. training courses).

Design is mainly applied because of its **focus** on **users/customers**, the **'marketability'** of products and the **promotion** of **innovation**. The most commonly used Design disciplines to achieve this appear to be **Product** Design, **Communication & Graphic** Design and **User Interface & Experience** Design. This latter discipline in particular is on the rise and seems to be gaining in importance within the business community. User-

interface en Experience Design is also the discipline with the least number of companies indicating that this is performed by internal employees (63%), meaning that external support is used for this discipline most often.

The investment in Design and subsequently the concrete application thereof are only part of the story. It is also important to examine what **effect** this has on innovation capacity and general business operations. It can be concluded from the study that companies that apply Product Design, Communication & Graphic Design and/or User-interface & Experience Design are generally **very satisfied** with it. The same applies to Process & Strategy Design and Service Design (see Appendix 6.5). Specifically through the application of these Design disciplines, the companies are reporting:

- The realisation of **innovation**;

- Increased **turnover**;

- New or improved **products** en/of **services**;

- Positive effects in the **short term** and **long-term**.

In addition, companies already working with Design indicate that they will **continue to invest in Design** and that the investments will be **increased** in the future.

Bearing in mind the practical examples provided, it can be stated that the application of Design can have an impact on all facets of business operations, ranging from the graphic design of communications that are part of a product to the development and Design of software or applications to promote automation and robotics. In addition, it can consistently be established that **Design** succeeds in **contributing** to **important aspects** in **business operations**, such as the innovation and development of new and/or improved products and services, as well as the reputation and image of the company and the market position it manages to conquer or maintain.

> *"Our company produces various fabrics that are supplied to high profile brands. Through the application of Design, we've been able to evolve from a company that mainly focused on producing large quantities to a company that focuses on high value, low volume and high rotation. This way, we've evolved to the top segment of the market in which we've taken up a comfortable market position."*
>
> *- Small enterprise within the industrial sector*

A general consideration in the above conclusions is that the very broad spectrum of application in Design is not only an asset, but also an important concern. Companies must ensure that they do not apply Design for the sake of its mere application. **Design is**, with the exception of specific Design disciplines such as Fashion Design and Artistic Design, **not an end in itself**; it is a means to achieve a specific goal (e.g. meeting the wishes and needs of users/customers). Based on this vision, it is important during the Design process to thoroughly check the assumptions regarding these wishes and needs with the (potential) user, so that the developed product or service effectively meets these requirements.

Finally, we further established that, within the investigated pool of companies, 34% indicated **not to invest in Design**, despite the quite innovative character of the companies surveyed. The main reasons for this are that they **have no knowledge of the existing range** (offered by external design services), that they **have no need for** Design application or Design methodologies, which could mean that they are not aware of the added value that Design can bring to their company, or lack the **financial scope** to engage in it. The latter appears to be the main reason among micro-enterprises.

5 Policy recommendations

To conclude this study and report, various policy recommendations are formulated in this chapter. These are based on the main findings of the study and the many input and feedback collected through the various meetings and interviews with respondents and experts who contributed to this study.

Definition of Design

One of the most striking findings during the study was that defining Design turned out to be an extremely difficult task. Depending on the person or company we spoke with, 'Design' was interpreted in a different way. Factors such as function, sector, personal experiences and predefined objectives always influenced the exact definition of Design.

> **Recommendation 1**: Pursuing a more unambiguous definition of Design.

Depending on the **recognisability** of Design and the Design sector, and linked to this the familiarity and associated knowledge about what Design can do for an organisation, it is advisable to strive for a certain **uniformity** regarding the **definition of Design**. What needs to be taken into account is that Design often starts from a holistic perspective and that a strict definition is somewhat at odds with this. However, we are not advocating to pigeon-hole Design into a specific 'category'. It does seem interesting, however, to enter into dialogue with the sector and work out a few **guidelines/parameters** that enable some sort of definition of Design. Obviously, this definition is not static and will be **subject** to change **over time**. The definition used in this study is an example of how Design can be interpreted very broadly and nonetheless apply certain 'external limits'.

Raising awareness of (the) Design (range) within Flanders

This study has shown that a large majority of Flemish companies indicate that they are not familiar with the **current range** offered by external Design services or only to a **limited extent**. The companies that are familiar with the Design range indicate that they are satisfied with it and regard it as qualitative. The main obstacle to use Design more thus seems to be familiarity with the range. The first and most important recommendation therefore follows on from this.

> **Recommendation 2:** Promoting and strengthening awareness of the current Design range.

The **Henry Van de Velde awards,** presented by Flanders DC and considered the most prominent Design Awards in Belgium, are an important initiative in this context. However, the collected feedback shows that this event is especially important to the **in-crowd**, i.e. persons, companies, Designers, etc. who are already involved in Design professionally or who already have a great interest in Design. In addition, it mainly remains an 'award presentation' that can be attended by only limited group of people. In order to really promote Design for it to be 'taken up by the companies' more is needed, so it seems.

> **Recommendation 2.1:** Organising an event where Design is promoted in all possible facets.

This event must be more than 'an exhibition' and respond to the perception and experience of the visitors, in such a way that it addresses a wide and diverse audience. A possible source of inspiration to achieve this can be found in the Netherlands. Each year, they hold the **Dutch Design Week**: a large-scale and international event in which Design in all its facets takes centre stage. Such an event succeeds in presenting Design to a **larger audience** by focusing on the **perception** and *experience* of its visitors.

A similar event called SuperNova has already been set up in Flanders and centres around technology and innovation. Modern technological developments are presented to the general public while applying an accessible and fascinating approach. However, following a successful edition in 2018, there was no follow-up, partly due to the COVID-19 pandemic. Setting up such an event surrounding Design combined with initiatives to link up Designers and companies is a potentially interesting path to further promote Design. In addition, this event could serve as a **banner** for **'Flemish Design'**. This way, Flemish expertise in Design can also be promoted more at an international level.

Lastly, such events are also the ideal opportunity to bring the lesser-known abilities and skills of Designers to people's attention. For example, the study showed that Designers have the skills to convert knowledge and concepts into practical ideas and tangible initiatives. However, this is an expertise not attributed to Designers by many, but which many companies (and their managers) do need. Creating awareness about this can further promote the use of Design in Flanders.

> **Recommendation 2.2:** Promoting and supporting the presence of Designers at trade fairs.

The presence of Designers at trade fairs can also contribute to increasing knowledge of the Design range offered. Flanders DC already provides guidance to entrepreneurs who wish to participate in trade fairs. However, as explained previously, the intention is to focus on more than just design fairs such as Maison&Objet and the London Design Festival. As seen during the Henry Van de Velde awards, too often these events attract an in-crowd. It seems particularly opportune to present Design during **trade fairs linked to sectors in which Design can play an important role**, such as Batibouw, Cocoon, Autosalon, Velofollies, Green Expo, Transport & Logistics, etc. First of all, creating opportunities for Designers to present themselves at such events and **preparing Designers** to present themselves to the best of their ability, all this adapted to the characteristics of the event and the corresponding target audience, can contribute enormously to the overall familiarity with these Designers and the range they offer.

> **Recommendation 2.3:** Providing a platform on which Designers can present themselves to various companies.

An additional way to promote Design (and Designers) is to offer a platform where they can introduce themselves and **pitch** their efforts aimed at generating added value for companies. For example, a monthly physical or digital pitch event could be organised which various companies from a specific sector are invited to each month. As part of the approach, Designers are informed about the **target audience** and invited to present a pitch about what added value they can offer through their expertise and methodologies within this specific sector.

Another option is to work with a **'speed dating concept'** during which short one-on-one meetings are held between interested companies and Designers. Whenever possible, these network events can also be linked to specific Design or trade fairs or other events (see above). This makes it possible to attract a wider audience to these events.

> **Recommendation 2.4:** Promoting Design through targeted communication in professional and industry literature or through setting up a broader awareness campaign.

Our study has shown that professional and industry literature is an important source for many companies to start investing in Design. Information campaigns by Designers or communication surrounding specific Design projects in concrete journals or magazines could enhance this. This does not concern typical 'Design magazines' such as Wallpaper, Domus and Iterni, but rather **professional literature** from the **various**

sectors. In the construction sector, for example, it is possible to investigate the possibilities offered through magazines of the Construction Confederation. When setting up such initiatives, it is important to consult closely with the umbrella organisations regarding the message, format and timing of these communications.

An alternative to a targeted promotion of Design is to 'market' Design more broadly by setting up an awareness-raising campaign. Various channels can be used that often have a greater reach than the industry literature. Example include Kanaal Z, De Tijd newspaper, communication channels of UNIZO and Voka, etc.

Important aspect in this is that the message of the communication campaign is sufficiently adapted to the objective of the communication. For example, a broad awareness campaign aims to focus more on creating awareness about Design and generating interest in it. Promotion in specific professional literature, on the other hand, is more aimed at convincing the target group of the added value of Design, for example by providing concrete examples and *cases* within the sector.

Providing financial support

Our study has further shown that one of the main reasons for not investing in Design is a **lack** of **financial scope**. This appears to be a stumbling block, especially for companies of **limited size**. However, our results also indicated that once companies invest in Design, they state that they will continue to do so. It was further found that the companies report a **fast** and **healthy** *return on investment* with regard to their investment in Design.

> **Recommendation 3:** Investigating the possibilities for a (one-off) financial incentive for companies that wish to start investing in Design.

Currently, SMEs in Flanders can rely on the SME portfolio, through which they can receive financial support for the purchase of services aimed to improve the quality of the company. This is subject to a maximum amount of EUR 7,500 per year. Offering **subsidy** or an **interest-free loan** specifically aimed at Design can offer a further incentive with regard to this SME portfolio.

First, with the current measures there is a risk that companies do not perceive certain Design disciplines as 'services that improve the quality of your company'. Consequently, they will not call on the SME portfolio for engaging these services. In addition, the **SME portfolio** is capped at EUR 7,500 per year. If companies use this to promote non-Design related services, no financial scope is left to deploy this to promote Design.

A higher amount can be made available, especially if you opt for the interest-free loan. This can generate the necessary financial scope for micro-enterprises and smaller companies to make a first investment. By generating a **return on investment**, they can subsequently repay the investment and realise further investments in Design. It is a method that has already been successfully applied in Scotland. The 'By Design' subsidy amounted to 70% of project costs (capped at GBP 5,000) and could only be obtained in the context of projects yet to be started and that would use limited set of Design activities, such as Product Design, Service Design and Strategy Design. The evaluation of the subsidy showed that 83% of the companies initially subscribing to this subsidy would go on to invest in Design [7] in the future.

Finally, it should also be stated here that Flanders already makes available the **SME growth subsidy** and a **subsidy for development projects**. The SME growth subsidy can be applied for if a company aims to realise a growth trajectory and wishes to purchase external strategic advice or recruit an employee for this. The growth trajectory must be in line with one of the following themes: internationalisation, digitisation, innovation, sustainability and circular entrepreneurship. The subsidy for development project covers the

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[7] By Design – Grant Evaluation (2019).

development of a completely new or innovative product, process or service, the result of which will have a significant impact on the performance of your company[8]. Given the findings from this research, such as (i) the significant impact of Design on innovation and the development of new products and/or services and (ii) the specific skills of Designers that allow them to convert knowledge and concepts into practical ideas and tangible initiatives, we propose investigating to what extent existing subsidy instruments can be applied to integrate the above findings. For example, these skills seem particularly interesting for new projects in the context of sustainable and circular entrepreneurship. As before, an important challenge here will be to provide companies with sufficient information about the various options.

Incorporating Design into various courses

Our study has further shown that the respondents' own experiences of (e.g. training) and employees with specific knowledge or an **educational background** in Design can be a **facilitating factor** in the integration of Design within businesses. Based on this, it can be stated that an introduction to Design (methodologies) can be relevant for, for example, economic courses at a college or university.

> **Recommendation 4:** Exploring the possibilities of integrating Design into the curriculum of certain university and college courses.

Giving design a place in tertiary education would not only raise **awareness** about Design, but also offer opportunities to obtain more **consistency** about what is considered Design in Flanders. In addition, this would also be an excellent opportunity to present the **added value** that Design has to offer, as evidenced by the numerous literature and also this study.

There are various options for integrating Design into the course curriculum. For example, Design can be integrated as a **course unit** within non-Design related courses (e.g. various economic courses such as Commercial Engineering, Applied Economics or Commercial Sciences), in which students are given an introductory course on the basic principles of Design. This still offers the opportunity to include this as a compulsory subject or incorporate it in the list of electives. In addition, there is the possibility of organising '**boot camps**' or short seminars in which students (or professionals) can participate. These can be organised by the colleges and universities themselves or by external partners, as part of which the schools make their infrastructure available.

Expanding the network of Designers to a fully-fledged ecosystem

Our results have shown that companies are very satisfied with the collaboration with external Designers and/or Design companies. In addition, it appears that they are efficient and deliver quality and that they succeed in creating added value for the company. Nevertheless, the interviews showed that their services can be enhanced further, particularly by **further expanding their network to a complete ecosystem**, both to share knowledge internally and to serve a broader range of potential customers externally. The current network of most Designers is often anchored locally and insufficiently integrated in the broad spectrum of services on which Design can exert influence.

> **Recommendation 5:** Supporting Designers and Design companies in building their own (international) networks and ecosystems.

Given the holistic vision that is specific to Designers and the major impact that Design can create on various facets of the company, companies indicate that it would be interesting if Designers could not only offer

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[8] https://www.flandersdc.be/nl/gids/financiering/subsidies?gclid=CjwKCAjwuvmHBhAxEiwAWAYj-L2LFtMFQH2d9kwHzQUoa87sMJPEGcc-nZGDZjwxrRMfQnvOwzXyKxoCL1gQAvD_BwE

their own expertise, but **combine** this with **complementary knowledge** from e.g. research institutions, start-ups, scale-ups and other service providers. This way, an integral offer can be created, in which insights from (academic) research on customer needs can be used to develop a new service, using Design techniques. The required tools for the development and implementation of this service could be developed by a start-up, through an iterative process in which close collaboration is established with the Designers.

Various respondents indicated that international Design Agencies are currently responding to this stronger than the Flemish Designers. VLAIO and Flanders DC can again take up a **facilitating role** by organising network events that bring together companies that potentially have complementary knowledge and expertise.

In addition, the expansion of their own networks will enable Designers to **share and transfer knowledge** more efficiently. In the context of specific assignments they can, for example, call on certain Subject Matter Experts within their networks. Furthermore, this will also enable them to share experience of similar projects or customers within the same domain (banking, public sector, energy sector, mobility, etc.). This will further enhance their services.

In line with this, it can also be stated that not only 'individual' Designers or Design companies have to strengthen their ecosystems, but that there is also room for the sector in Flanders as a whole to better organise itself. At the moment, partly due to rapid growth, the sector is quite fragmented, which means that (i) there is no unambiguous overview of the Design sector within Flanders, (ii) there are no clear contact points for the Design sector and (iii) there is insufficient clarity about what the design sector can do for other sectors and companies. Achieving this is primarily the responsibility of the sector, insofar as possible supported by other stakeholders such as, for example, knowledge institutions (see e.g. recommendation 4) and the government (see e.g. recommendations 2, 6 and 7).

Strengthening the coordination of Design in Flanders

A final recommendation relates to one of the first findings from this study, namely the difficult definition of the term Design, since the term evokes (very) different associations in different people. In addition, it has been established that Design has a very broad spectrum of application. This makes it difficult for Designers, customers and other stakeholders involved to keep an overview. A **leading organisation** or **entity** that can act as a centre of expertise and first point of contact for everything related to Design in Flanders could contribute to this.

At present, this role is, to a certain extent, taken up by Flanders DC. However, the core activity of this organisation is to promote and support entrepreneurship in the Cultural and Creative sectors in Flanders. The Design regions, on the other hand, are more focused at a local level and less on Flanders as a whole.

> **Recommendation 6:** Investigating the best possible way to improve the coordination of Design in Flanders.

The study results show that there is a need for a more **structural coordination** of the sector. This structured and coordinated approach will make it possible for the sector to focus more on **knowledge sharing** between, for example, local Design regions. In addition, enhanced coordination can contribute to facilitating **matchmaking initiatives** between Designers and companies and expanding **international contacts** between the Design sector and e.g. the Barcelona Design Centre (BDC) or the PDR Research Institute. Finally, a more organised and structured sector will offer opportunities for organising large-scale and overarching Design events, similar to the Dutch Design Week. The most appropriate approach to arrive at this more structured sector needs further investigation.

6 Appendices

6.1 Documentation consulted

The table below provides an overview of the main literature consulted as part of the desk research.

#	Title	Year	Author(s)
1.	Impactstudie CCS	2016	VLAIO/Flanders DC
2.	Creating innovation	2008	Bakshi, MvVittie & Simmie (Experian)
3.	The impact of Design Thinking in Driving innovation within business	2018	Tomlinson (Researchgate)
4.	Measuring Design and its role in innovation	2015	Galindo-Rueda & Millot – OECD
5.	Design, the language of Innovation: a review of the Design Studies Literature	2018	Hernandez, Cooper, Tether & Murphy
6.	Design Thinking as a strategy for innovation	2019	Naiman
7.	The Design Innovation Spectrum: An overview of Design influences on Innovation for manufacturing companies	2017	Hoo Na, Choi & Harrison (International Journal of design)
8.	Eurodesign publicaties	2014	Barcelona Design Centre (BCD)
9.	How to demonstrate design's value and measure its ROI – design strategy guide	2020	Kavcic – Design strategy
10.	By Design – Grant evaluation Scotland	2018	PDR Research Institute (Cardiff)
11.	Design capacity model	2017	D2I (Design to Innovate)
12.	The Value of design to the UK	2015	Design Council
13.	Design Maturity Survey	2016	Artefactgroup
14.	Design-driven Innovation: why it matters for SME competitiveness	2015	The Circa Group Europe – Northern & Western Regional Assembly
15.	DME survey	2009	Kootstra – CBRD
16.	DROI measurable design	2012	Aalto University, Tekes & FDBA (Finland)
17.	Effectiviteit van Design	2010	Candi, Gemser & Van den Ende (Rotterdam)
18.	Leading business by Design	2013	Design Council – Warwick Business School
19.	The economic effects of design	2003	National Agency for Enterprise and Housing
20.	Value added by design	2012	Vijfeyken, Cools & Nauwelaerts
21.	Why we underestimate the economic value of design	2020	Miller (Design Council)

6.2 Focus group participants

Focus group participants 1	Organisation
Gonda De Smedt	VLAIO
Helga Willems	VLAIO
Marijke Boucique	VOKA
Johan Guldix	VOKA
Stijn Debaillie	Designregio Kortrijk
Klara De Smedt	APBC
Annelies Thoelen	Huis voor actuele kunst/Z33
Paola Campestrini	Flanders Make
Emma Claeys	Flanders Make

Focus group participants 2	Organisation
Gonda De Smedt	VLAIO
Helga Willems	VLAIO
Jan Vannispen	VLAIO
Carlo Vuijlsteke	Flanders DC
Tom Suykerbuyk	Flanders DC
AnnaMariaCornelia De Gersem	Studio AnnaMariaCornelia
Benedict Geers	FIBROCIT
Dany Snokx	Snokx
Erik Sijmons	Samsonite
Guy Vanwijmeersch	Barco
Johan Bonner	Squid
Julie Lietaer	ESG
Axel Funhoff	Achilles Design
Philip De Wulf	Yellow Window
Pieter Lesage	Studio Dott
Stephan Rogge	Outdoor Wood Concepts

Focus group participants 3	Organisation
Gonda De Smedt	VLAIO
Helga Willems	VLAIO
Carlo Vuijlsteke	Flanders DC
Marijke Boucique	VOKA
Stijn Debaillie	Designregio Kortrijk
Chris De Roock	Wood.be
Charlotte Greant	Scale-ups.eu
Sven Hermans	Agoria
Pieter Lesage	IDES groep/Studie Dott
Ralph Nafger	Ministry of Makers
Doreen Schouterden	UNIZO
Bas Sturm	Team Bedrijfstrajecten
Jonas Vandewalle	Start it @KBC

6.3   Survey questionnaire

Introduction

Dear participant,

KPMG is currently conducting a study in collaboration with Flanders DC on behalf of the Agency for Innovation & Entrepreneurship (VLAIO) into the impact of Design on innovation within Flanders. This study is part of the broader objective of the Flemish government to encourage the use and deployment of Design/Designers and to use Design as a tool to drive innovation forward within Flanders.

Through this survey, we look into experiences with Design and the extent to which Design offers added value for companies and, more specifically, where it influences the innovation capacity within companies. We are of course aware that Design is a broad concept that covers many meanings and evokes different associations in different people. As a result, a concrete definition of Design will be presented to you later in the survey. This can serve as a guideline when filling in and answering the various questions.

The survey consists of 5 short parts and a total of 35 questions. Completing the survey will take 15 to 20 minutes of your time.

•	Part 1 contains some general identification questions;

•	Part 2 asks about the various innovation activities within the company;

•	Part 3 focuses on the use of Design within the company;

•	Part 4 asks about the impact of Design on (innovation within) the company, if the company stated to work with Design;

•	Part 5 enquires about the reasons why Design is not used. This part only needs to be completed by respondents who indicated in part 3 not to work with Design.

The answers you provide will be treated as private and confidential and only be processed in the final report in the form of aggregated results or conclusions.

Thank you for your participation!

Your personal data will be processed in accordance with this privacy notice.

Part 1. General information

1. Your name:

2. Your position:

3. Your e-mail address:

4. Name of the company you work for:

5. Year in which company was incorporated:

(enter year in 4 digits)

6. What is the core activity of the company?

- Industry
- Transport
- Technology
- Construction
- Catering & Hospitality
- Services
- Trade
- Other, namely:

7. What is the size of the company?

- Micro-enterprise (< 10 FTEs)
- Small (10 - 49 FTEs)
- Medium (50 – 250 FTEs)
- Large (> 250 FTEs)

8. In which Flemish province is the company head office located?

- Antwerp
- Limburg
- East Flanders
- Flemish Brabant
- West Flanders
- Not located in Flanders

9. In which geographic markets has the company sold products or services in the past 3 years? Please only indicate those geographic markets in which the company has generated at least 10% of its turnover. Rank these markets from highest to lowest turnover achieved, in which 1 represents the highest turnover.

- Belgium
- Neighbouring countries (Netherlands, Germany, Luxembourg, France and Great Britain)
- Europe
- Worldwide/International

10. What was the company's average annual turnover over the past 3 years?

- Less than €50,000

- Between € 50,000 and € 99,999

- Between €100,000 and €249,999

- Between €250,000 and €499,999

- Between €500,000 and €999,000

- Between €1,000,000 and €1,999,999

- Between €2,000,000 and €4,999,999

- More than €4,999,999

11. Through which organisation were you informed about this survey?

- Through VLAIO

- Through the Design regions

- Through a sector organisation

- Through your own network

- Other, namely:

12. How were you informed about this survey?

- A personal e-mail

- A general e-mail

- A newsletter

- Other, namely:

Part 2. Innovation

Within this part of the survey, we ask about innovation (activities) within your company. Innovation is a broad term that covers many different meanings. Within the framework of this study, we look at innovation in a much wider context and wish to go further than just examining the (narrow) administrative interpretation and reporting on innovation. We say that a company is **innovating** when (i) it **looks for a solution** and/or develops a solution to tackle a concrete problem or challenge and (ii) initiates actions in the context of **realising** its **potential**. By the latter we mean, among other things, using possibilities and opportunities, actively strengthening and/or exploiting the assets of the company and the (continuous) optimisation of its own operations, without having to identify problems first.

These solutions and/or actions may include: the development of new knowledge, the development of new and/or improved products and services, research into entering new markets and the introduction of new and/or improved business processes/organisations. The **causes** for these innovations can be very diverse too, such as using outdated working methods, experiencing ecological/social challenges or experiencing increased competition. All these elements are included in our survey.

Below we will first ask about the extent to which the company invests in, on the one hand, internal innovation and, on the other, the extent to which external service providers are engaged. Later on in the questionnaire, we ask about the types of services/service providers in which investments are made and the motives/reasons behind this investment or these investments.

13. In-house innovation/research (R&D)

a. What percentage of company turnover (estimated average over the last 3 years) is invested in realising in-house innovation?

- 0% (no investment)
- 1% - 5%
- 6% - 10%
- 11% - 15%
- 16% - 20%
- More than 20%

b. In the previous question you reported the total investment in in-house innovation. Deem this investment equal to 100%. Now divide this 100% over investments in:

- the development of new knowledge
- the development of new and/or improved products and services
- the development of new and/or improved processes
- research into entering new markets
- Other. Please indicate what this investment or these investments focused on:

14. Does the company have an innovation manager or innovation entity and/or are there specific innovation initiatives?

- Yes
- No

If yes, what kind?

- Department of Innovation
- Chief Innovation Officer (CINO)
- Innovation Manager
- Ad hoc work group(s) on Innovation
- Formal collaboration with an 'innovation service provider' Information
- Other, namely:

15. In the past 3 years, has the company applied the following methods to promote new ideas and/or creativity among its own employees?

	Very often	Often	Sometimes	Seldom	Never
Brainstorming sessions					
Multidisciplinary teams					
Job rotations					
Monetary incentives for employees with new ideas					
Non-monetary incentives for employees with new ideas					
Design sprints					
Hackathon					
Internal innovation challenge					
Specific, innovation-oriented training courses					

16. Number of patents applied for in the past 3 years?

17a. In the past 3 years, has the company engaged external parties to promote innovation within the company? For example, engaging/hiring consultants, external service providers, external Designers/Design agencies, etc.)

- Yes
- No

b. What percentage of company turnover (estimated average over the last 3 years) is spent on external services, aimed at promoting innovation within the organisation?

- 0% (no investment)
- 1% - 5%
- 6% - 10%
- 11% - 15%
- 16% - 20%
- More than 20%

c. In the previous question you reported the total investment in in-house innovation. Deem this investment equal to 100%. Now divide this 100% over investments in:

- the development of new knowledge
- the development of new and/or improved products and services
- the development of new and/or improved processes
- research into entering new markets
- Other. Please indicate what this investment or these investments focused on:

18. If the company calls on external service providers to innovate and/or develop solutions with regard to specific challenges/problems, then what service providers are engaged for this?

- Partners within the company's ecosystem (suppliers, investors, etc.)
- Knowledge institutes/research centres (universities, colleges, Flanders Make, etc.)
- Public service providers (VLAIO, Team Bedrijfstrajecten, Flanders DC, etc.)
- Designers
- Engineering firms
- Management consultants
- Developers/Development agencies (technology development, software development, etc.)
- Other, namely:

19. If the company invested in innovation (in-house or external services) in recent years, what was the main reason for this investment? (Select at least 1 and a maximum of 3 answers)

- Economic motives (profit, turnover, costs, growth, etc.)
- Strategic motives (competitive position, positioning towards the customer(s), suppliers, etc.)
- Marketing motives (branding, communication, etc.)
- Ecological motives (sustainability, climate, etc.)
- Social motives (demographic changes, attracting talent, etc.)
- Regulatory motives (privacy legislation, climate legislation, European legislation, etc.)
- Technological motives (introduction of new technologies, systems, tools, etc.)
- Other, namely:

Part 3. Design

As stated previously in the introduction to this survey, there is no unambiguous way to define or describe Design. The definition of Design applied in this study was formulated on the basis of descriptions derived from the scientific literature and validated by a panel of researchers and experts on Design and innovation. You can consult this definition of Design, which encompasses different Design disciplines, below. However, you also have the option to consult this information later on in the survey, via the information icon.

When talking about Design within this study, we mean all forms, methodologies and skill sets related to Design that can contribute to: **Product Design, Service Design, Process & Strategy Design, Communication & Graphic Design, Spatial Design, Social Design, Artistic/Artisanal Design and User-interface and Experience Design**. It is emphasised here that Design essentially starts from a holistic approach and that the disciplines below should not, or even cannot, be seen separately from each other. We have nevertheless opted to use the following categorisation in order to (I) operationalise the concept of 'Design' and (ii) because this provides a clear overview of potential perspectives with regard to design. Design.

- **Product Design**: designing, creating and/or adapting new industrial or consumer products (e.g. designing a table, a Smartphone or a car).

- **Service Design**: designing new services or adapting existing services (e.g. drawing/adjusting the procedure when customers contact the help desk).

- **Process & Strategy Design**: the conversion of a company's vision, objectives and available resources into concrete processes and actions to realise the company's vision (e.g. drawing up a business strategy and associated concrete processes to sell products on the Dutch market).

- **Communication & Graphic Design**: the creation of (visual) content to convey messages to the right target groups via different communication channels (e.g. creating a flyer or website).

- **Spatial Design**: the design of human environments, both indoors and outdoors (e.g. designing buildings or offices).

- **Social/Public Design**: the application of design methodologies to address complex social/public issues, such as inclusion, integration and belonging (e.g. applying certain techniques to promote solidarity, interaction or knowledge sharing between employees).

- **Artistic/Artisanal Design**: the production of original works performed through artisanal or industrial techniques related to the processing of different types of material (e.g. shaping works of art or craft objects).

- **User-interface and Experience Design**: the design of digital products, events, software, games, experiences and environments with a focus on the quality of the user experience (e.g. developing the visualisations within a PlayStation game).

20. To what extent are you familiar with the current range of external Design services offered by Design agencies, Design consultants, Designers, etc. in Flanders?

- I'm not familiar with the external range

- I'm familiar with the external range to only a limited extent

- I'm familiar with the external range

- I'm very familiar with the external range

21. How satisfied are you with the current range of external Design services you can rely on?

- Not familiar with the range

- Not satisfied at all

- Not satisfied

- Neutral

- Satisfied

- Very satisfied

22. What percentage of company turnover (estimated average over the last 3 years) was invested in Design?

- 0% (no investment)

- 1% - 5%

- 6% - 10%

- 11% - 15%

- 16% - 20%

- More than 20%

Part 3. Design (Continued)

23. In the previous question you reported the total investment in Design (=100%). What percentage of this total investment is allocated to:

(The answers to the questions below should add up to 100%)

- In-house Design

- External design services from Designers, Design Agencies, external consultants, etc.

24. You have indicated to invest in Design. What were/are the main motives for this? Select a maximum of 3 answers.

- Promoting innovative, creative and solution-oriented thinking

- Focusing on the needs of the users/customers

- Converting knowledge and concepts into practical ideas and tangible initiatives

- Improving the 'marketability' of products and/or services

- Integrating a changed societal context (e.g. greater emphasis on sustainability) in the design/adaptation of products and/or services

- Increasing the efficiency of internal operations

- Analysing certain issues from a new perspective

- Other, namely:

25. You have indicated to invest in Design. What made the company ultimately decide take the step to deploy/implement Design and invest in it?

- Contact(s) with a Designer/Design company

- Contact(s) with the Design regions

- Contact(s) with a public service provider (VLAIO, Team Bedrijfstrajecten, Flanders DC, etc.)

- Contact(s) and advice within your own network

- Contact(s) with another company that already used Design

- Contact(s) with external service providers (other than Designers)

- Information and/or insights from specific professional and/or industry literature

- Media coverage

- Other, namely:

26. You have indicated to work together with Designers. To what extent do you agree with the following statements?

	Fully agree	Strongly agree	Agree	Rather disagree	Fully disagree	No opinion
⎯ The efficiency (ratio between price paid and the quality/return you receive) is better with Designers compared to other service providers						
⎯ Designers use a specific perspective that other service providers do not offer						

— Designers succeed in creating greater added
  value than other service providers

— Designers use methodologies that other service
  providers don't offer

27. How would you categorise the use of Design within the company?

- We don't use Design

- Design is used to finish the product or service in its final stages

- Design is integrated into the operation of the company and its processes, but does not form an integral part of the policy or has any influence on the company's strategy

- Design is a central element in our business strategy

- No opinion

28. Number of employees within the company who:

- Work with Design all of the time (numerical answer only):

- Work with Design part of the time (numerical answer only):

- Have completed Design training/attained a Design certificate (numerical answer only):

29. To what extent do you agree with the following statements?

	Fully agree	Strongly agree	Agree	Rather disagree	Fully disagree	No opinion
We don't use Design within the company						
Within the company, Design is used on an ad hoc basis to solve problems, should they arise, in the development process of products and services						
Within the company, Designers have been permanently included in product and service development teams						
The company pursues a formal Design policy for the development of new products, services, offers, concepts or brands						
Designers are actively involved in determining the business strategy/vision						

30. If the company uses Design, either in-house or through the purchase of external Design services, or a combination of the two, can you indicate which of the following forms of Design are applied (most)? Select a maximum of 3 answers.

- Product Design

- Service Design

- Process & Strategy Design

- Communication & Graphic Design

- Spatial Design

- Social Design

- Artistic/Artisanal Design

- User-interface & Experience Design

31. If the company uses Design, can you indicate who realises this?

Internal employees/Designers within the company

- Freelancer(s)

- Design agency/agencies

- A combination of internal employees and freelancer(s)

- A combination of internal employees and design agency/agencies

- A combination of freelancer(s) and design agency/agencies

- Other, namely:

32. In which phase of the value chain within the company is Design applied?

- When developing a new idea/concept

- When researching the opinion/attitude of consumers towards the developed idea/concept

- When developing the product

- In the production of a new product/development of a new service

- During the finishing stage of a new product/service

- When launching a new product/service

33. In which departments of the company is Design used?

- Facilities management

- Procurement

- Communication services

- HR

- Marketing

- IT/Administration

- Finance

- Sales

- R&D

- Training

- Production

- Management

- Other, namely:

Part 4. Impact of Design on general business operations and on Innovation

These questions are filled in on the basis of the respondent's answers to question 30.

34. Can you indicate on which outcomes the Design type has had the most impact? Select a maximum of 3 answers for this question.

- Tapping into new markets

- Increasing market share

- Introducing new products or services

- Introducing improved products or services

- Introducing more sustainable products or services

- Increasing competitiveness

- Increasing sales

- Increasing profits

- Reducing costs

- Implementing a new business model

- Adjusting the current business model

- Increasing overall customer satisfaction

- Increasing employee satisfaction

- Achieving a more sustainable operation of the company

- Improving the reputation of the company

- Improving the innovative image of the company

- Other, namely:

35. To what extent do you agree with the following statements?

	Fully agree	Strongly agree	Agree	Rather disagree	Fully disagree	No opinion
—— Use of the Design type has led the company to realise product innovation for the past 3 years.						
—— The use of the Design type had an impact on the company in the <u>short term</u>.						
—— The use of the Design type had an impact on the company in the <u>long term</u>.						
—— The use of the Design type was mainly applied by internal employees of the company.						
—— The investment in the Design type was a good investment for the company.						
—— The company's investment in the Design type is set to increase in the coming years.						

- The use of the Design type convinced me that Design can generate an important impact in different facets of business operations.

- The company will continue to use the Design type in the future.

Part 5. No investment in Design

- You have indicated not to invest in Design. What are the main reasons for this?

- I'm not familiar with the Design services on offer

- I can't use any Design discipline or Design application within the operation of the Company

- I don't have the finances to invest in Design

- I believe that investing in Design is too expensive

- My understanding of the potential impact of Design is insufficient

- I believe that the evidence regarding the contribution that Design can make to the company is insufficient

- I'm not convinced of the added value of Design for the company

- I believe that investing in Design is not sufficiently profitable

- I believe that investing in Design has too little effect in the short term

- I believe that investing in Design has too little effect in the long term

- Other, namely:

6.4   Questionnaires used in the interviews

Questionnaire for companies that indicated to invest in Design

Introduction
- ➢ Outlining the origin of the assignment
- ➢ Different phases of the assignment and where we are right now in the process (data collection)
- ➢ Why we would like an interview with X (participant)
- ➢ Purpose of the assignment

Interview topics
General information
- ➢ Who are you and what is your position within the company? Can you briefly describe your role and responsibilities?
- ➢ Can you give a brief explanation of your organisation?

Investment in Design
The survey shows that you invest XXX in Design and that you use XXX Design disciplines. We would like to take a closer look at the use of Design/these Design disciplines within your organisation with you.
- ➢ Why does the organisation invest in Design?
  - o Perhaps for economic, strategic or technological motives?
  - o Focus on the needs of the customers, improving the marketability of products, promoting innovative/creative thinking, etc.
  - o Top-down management decisions versus bottom-up initiatives; success of a specific project; competitors or other companies using design

- ➢ With regard to investing in Design, which factors determine the size of the investment in Design? And do you see a difference in this for companies with a larger organisation/turnover compared to companies with a smaller organisation/turnover?

- ➢ We see that the focus is mainly on in-house Design and internal employees engaged in Design. You yourself indicated to invest XXX in In-house Design and XXXin External Design. Why is that and why are external services used less (supply, experience, knowledge, price, etc.)?

Application of Design
- ➢ To what extent is Design anchored in your organisation at a strategic level?
  - o And if it is, can you explain in concrete terms how Design is exactly integrated within your business strategy/business operations?

- ➢ What made you decide to start with Design? Can you explain this in more detail (competitors who use Design, a successful project in Design, a manager, an article, a presentation, a workshop, etc.)?

- ➢ Before you started working with Design, had you been familiar with the design range for some time? If not:
  - o Were you familiar with the range of other services to promote innovation within your organisation? Can you explain why you were aware of these services and not those relating to Design?
  - o How do you think awareness of the Design range can be improved?

- ➢ Do you use external design service providers? Why/why not?
  - o The survey showed that, in the case of innovation, a large part of companies indicated that they call on 'their own' ecosystem (partners, suppliers, etc.) to achieve this. Do you

think this is also the case with Design? Why/why not? What role do you think the ecosystem can still play in the further publication of Design?

➢ What do you think are the top-3 stumbling blocks for further development of Design within the Flemish economic fabric?

Impact of Design

The survey shows that XXX Design has the most impact on XXX. Is this true for your company as well, or do you see other elements? And can you give a concrete example of how Design has contributed to this?
➢ Can you give examples of how Design benefits the business and generates ROI?
o Do you think Design offers benefits in terms of creativity, innovation, morality, organisational development, culture, skills and training?

Projects (best practices or projects with interesting lessons learned)
➢ Can you name one or two projects in which Design has played an important role?

Questions per project:
➢ Why was this project successful?

➢ What was the role of Design therein? When did it play a role therein?

➢ What were the critical success factors for this project?

➢ Is there proof/evidence that Design has led to improved performance?
o Financial aspects: profitability, revenue growth, new market share, etc.
o Non-financial aspects: raising brand awareness, improved strategic thinking, sustainability, etc.

➢ Is there proof/evidence that Design has led to increased innovation? What form/types of innovation?

➢ Can you estimate the general return on investment?

Questionnaire for companies that indicated not to invest in Design

Introduction
- ➢ Outlining the origin of the assignment
- ➢ Different phases of the assignment and where we are right now in the process (data collection)
- ➢ Why we would like an interview with X (participant)
- ➢ Purpose of the assignment

Interview topics
General information
- ➢ Who are you and what is your position within the company? Can you briefly describe your role and responsibilities?
- ➢ Can you give a brief explanation of your organisation?

Investment in Design
The survey shows that you do **not** invest in Design and that, consequently, you do not use one or more Design disciplines. We would like to take a closer look with you as to why this is.
In the survey you indicated the following reasons for not investing in Design:
- • XXX
- • XXX

- ➢ Can you explain this in a bit more detail?
    - o If you stated not to be familiar with the Design range, are you referring to the effective possibilities of Design (methodologies) or rather to the fact that you don't know who to contact to get in touch with the right Designers (matchmaking)?
    - o How can companies be familiarised with the Design range better?
        - ▪ Through sector events?
        - ▪ Through professional literature?
        - ▪ Through media publicity?
        - ▪ Other?
    - o You have indicated that you do invest in innovation. Why do you invest in innovation and not in Design? What method does the company use to try to achieve innovation?

(Optional) proposing a short case/testimonial
- ➢ Do you think such a project could succeed in your company and generate a positive impact? Why/why not?
    - o Investment;
    - o Role of Design;
    - o Result;
    - o Way/method through which investment in Design was started;
    - o Etc.

(Optional) brief presentation of our identified Design Disciplines:
- ➢ Do you think your company could benefit from using one or more of these Design disciplines? If so:
    - • From which disciplines?
    - • What benefits do you see in this?

- ➢ Would you be willing to invest in Design in the future?
    - • What preconditions must be met for this?

6.5   Interviews with respondents

Brief descriptions of the 10 companies with which in-depth interviews were conducted is set out below. Of these companies, **8 indicated to invest in Design:**

I.   A large enterprise that focuses on the global market and that operates within the technology sector. The turnover of the company is more than EUR 5,000,000.

II.   A micro-enterprise from East Flanders that focuses on the Belgian market and that operates within trade. The turnover of the company ranges between EUR 250,000 and 500,000.

III.   A small enterprise from Antwerp that focuses on the Belgian market and that of neighbouring countries, operating within the technology sector. The turnover of the company ranges between EUR 2,000,000 and 5,000,000.

IV.   A small enterprise from West Flanders that focuses on the European market and that operates within the industrial sector. The turnover of the company ranges between EUR 2,000,000 and 5,000,000.

V.   A micro-enterprise from Flemish Brabant that focuses on the Belgian market and that operates within the services sector. The turnover of the company ranges between EUR 100,000 and 250,000.

VI.   A large enterprise from Antwerp that focuses on both the Belgian market and the European and global markets and that operates within the construction sector. The turnover of the company is more than EUR 5,000,000.

VII.   A large enterprise from West Flanders that focuses on both the Belgian market and the European and global markets and that operates within the technology sector. The turnover of the company is more than EUR 5,000,000.

VIII. A small enterprise from Antwerp that focuses mainly on the Belgian market, as well as on the European and global markets and that operates within the industrial sector. The turnover of the company ranges between EUR 1,000,000 and 2,000,000.

A total of 2 companies indicated **not to invest in Design**:

I.   A small enterprise from East Flanders that focuses on the global market and that is engaged in software development. The turnover of the company ranges between EUR 500,000 and 1,000,000.

II.   A micro-enterprise from East Flanders that focuses on the Belgian market and that operates within the services sector. The turnover of the company ranges between EUR 2,000,000 and 5,000,000.
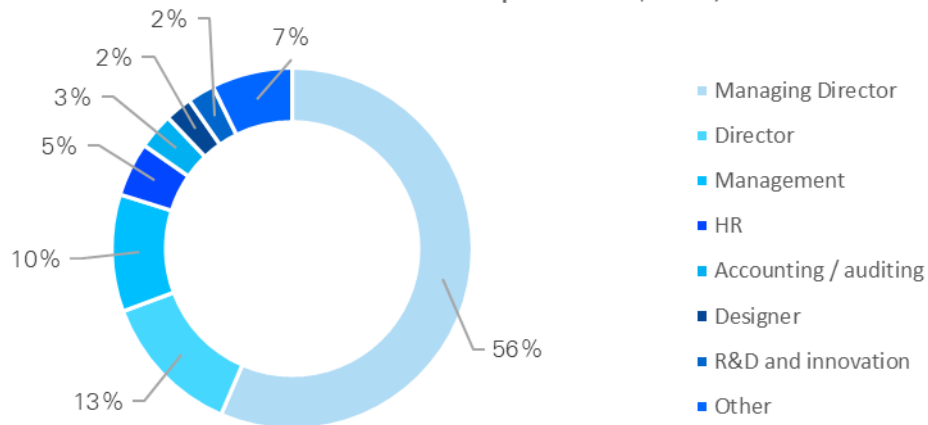
6.6   Comprehensive analyses

General description of the participants

Positions of the respondents

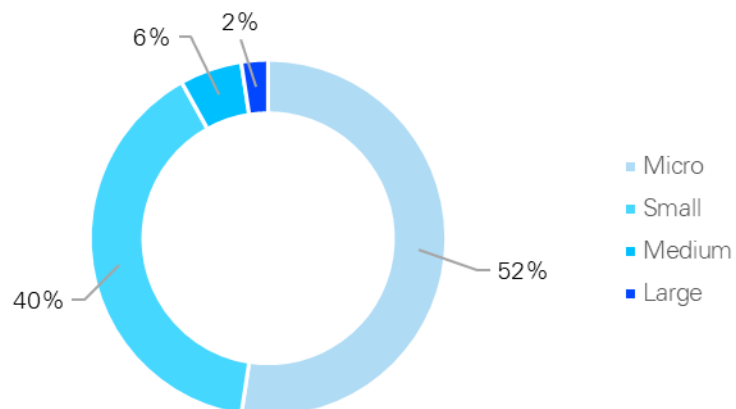80% of respondents are managers, directors or board members.

Chart 18: What is your position (n=124)?

Size of the company

The vast majority of companies (92%) appear to be small enterprises (10 – 49 FTEs) or micro-enterprises (<10 FTEs).
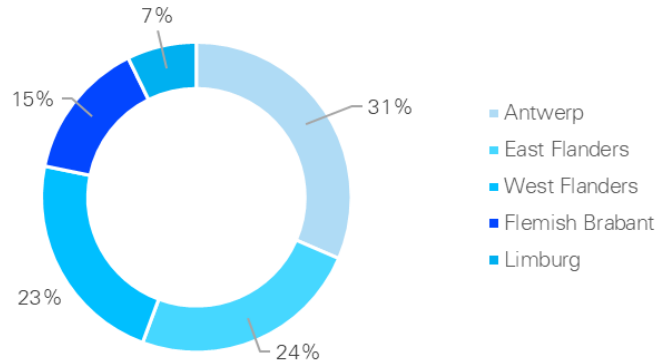
Chart 19: What is the size of the company (n=124)?

Geographical distribution

There is a healthy geographical distribution of the surveyed companies, with only a slight under-representation in the province of Limburg.

Chart 20: What is the geographical location of the company (n=124)?

- Antwerp
- East Flanders
- West Flanders
- Flemish Brabant
- Limburg

Sales market

A total of 77% of the companies indicated Belgium as their main sales market and 12% indicated that the neighbouring countries (the Netherlands, Germany, Luxembourg, France and Great Britain) were their main sales markets.

A total of 56% of the companies further indicated a second sales market, with 64% indicating neighbouring countries, 16% Europe and 13% Belgium.

Chart 21: What is the company's primary sales market (n=124)?
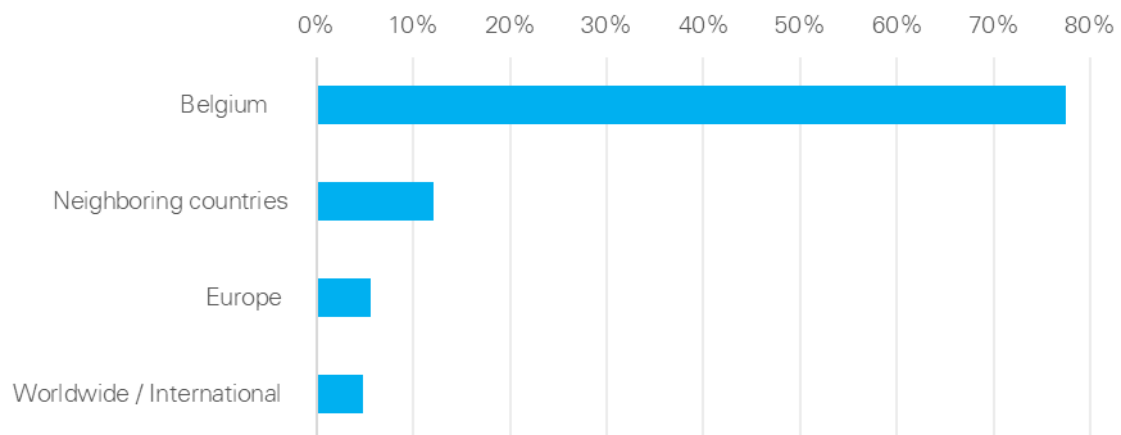
Chart 22: What is the company's secondary sales market (n=69)?
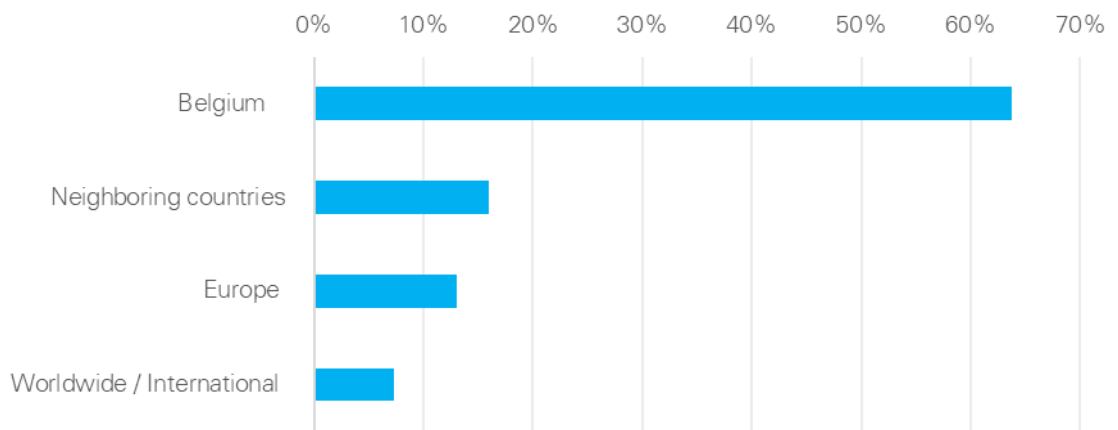
Innovation

Investment

Investments in in-house innovation mainly focus on the development of new and/or improved products or services (37%), new knowledge (24%) and new and/or improved processes (20%).

Chart 23: What is the spread of the investment in in-house innovation (n=124)?

Innovation entity

A total of 45% of the companies indicate to have an innovation entity. The most common 'entities' are (ad hoc) work groups, an innovation manager and/or a specific department aimed at innovation.

Figure 11: Overview of the 3 innovation entities claimed by companies most often
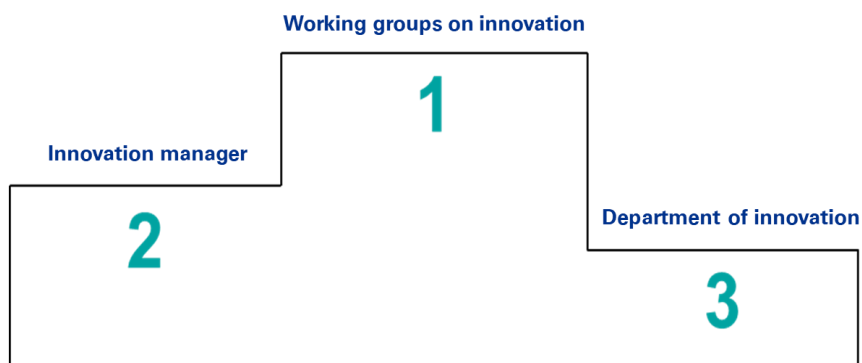
External services related to innovation

Companies that invest in external services to facilitate innovation do so for the same reasons for investing in in-house innovation, i.e. the development of new and/or improved products or services (40%), the development of new knowledge (26%) and/or new or improved processes (22%).

Chart 24: What is the spread of the investment in external service provision related to innovation (n=68)?

Legend:
- the development of new knowledge
- the development of new and/or improved products and services
- the development of new and/or improved processes
- research on entering new markets
- Other
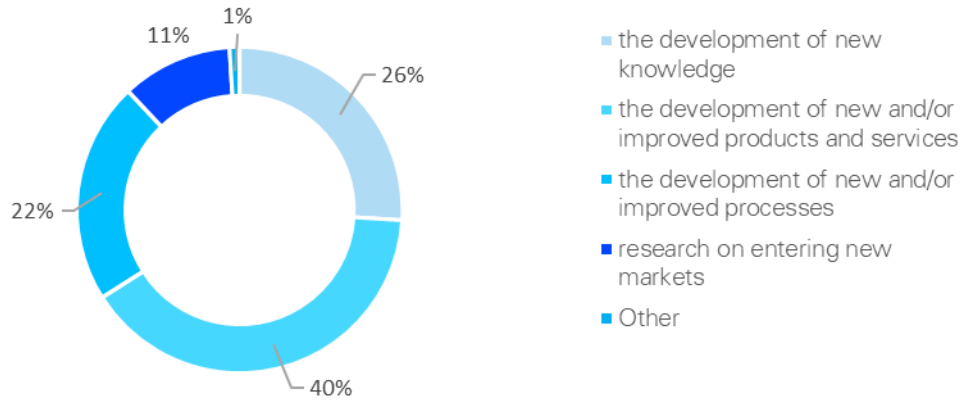
Design

The study shows that half of the companies that indicate to invest in Design also see Design as a central element in their business strategy.

Chart 25: To what extent is Design integrated in the company (n=82)?
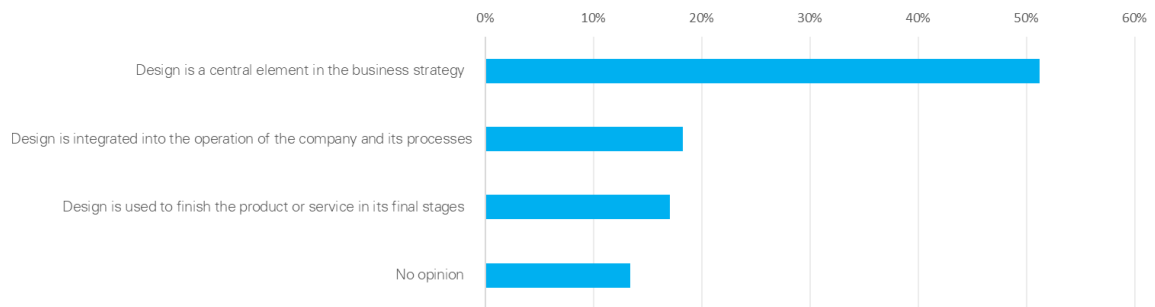
Impact of Design

Process & Strategy Design

The 5 main elements on which Process and Strategy Design has the most impact are:

Figure 12: On which elements does Process and Strategy have the most impact?

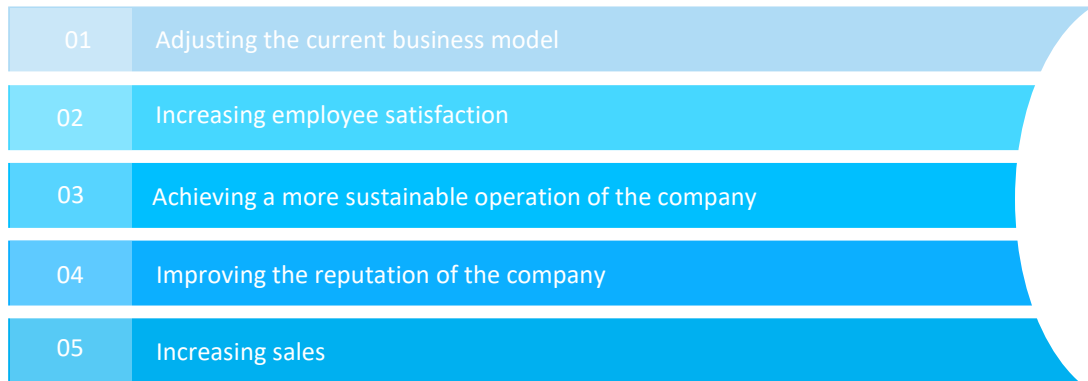|	
01	Adjusting the current business model
02	Increasing employee satisfaction
03	Achieving a more sustainable operation of the company
04	Improving the reputation of the company
05	Increasing sales

In addition, the companies that use Process and Strategy Design are generally very positive about its impact. A total of 76-95% of respondents agree or strongly or fully agree with each of these statements.

Chart 26: Overview of the impact of using Process and Strategy Design (n=21)

The use of Process en Strategy Design...

	No opinion	Strongly disagree	Disagree	Agree	Strongly agree	Completely agree
led to the company realizing innovation over the past 3 years	5%	5%	29%	24%	38%	
had a short term impact on the company	5%	14%	43%	10%	29%	
had a long-term impact on the company	5%		24%	24%	48%	
was mainly applied by internal employees of the company	10%	10%	5%	52%	14%	10%
is a good investment for the company	5%		29%	29%	38%	
The investment in it will increase in the coming years	10%	10%	38%	14%	29%	
has convinced me that Design can generate a significant impact	10%		24%	33%	33%	
will continue in the future	10%		24%	24%	43%	

Service Design

The 5 main elements on which Service Design has the most impact are:

Figure 13: On which elements does Service Design have the most impact?

01	Reducing costs
02	Increasing overall customer satisfaction
03	Introducing more sustainable products or services
04	Increasing sales
05	Adjusting the current business model

In addition, the companies that use Service Design are generally very positive about its impact. A total of 78-89% of respondents agree or strongly or fully agree with each of these statements.
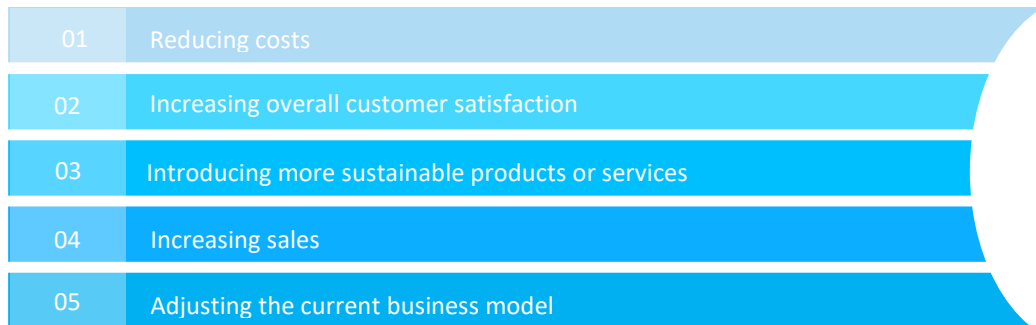
Chart 27: Overview of the impact of using Service Design (n=18)

The use of Service Design…

	No opinion	Strongly disagree	Disagree	Agree	Strongly agree	Completely agree
led to the company realizing innovation over the past 3 years	17%		6%	28%	22%	28%
had a short term impact on the company	6%		17%	44%	17%	17%
had a long-term impact on the company	11%			33%	44%	11%
was mainly applied by internal employees of the company	6%		17%	33%	33%	11%
is a good investment for the company	6%		6%	44%	33%	11%
The investment in it will increase in the coming years	6%		11%	22%	33%	28%
has convinced me that Design can generate a significant impact	6%		6%	44%	17%	28%
will continue in the future	6%		6%	33%	28%	28%