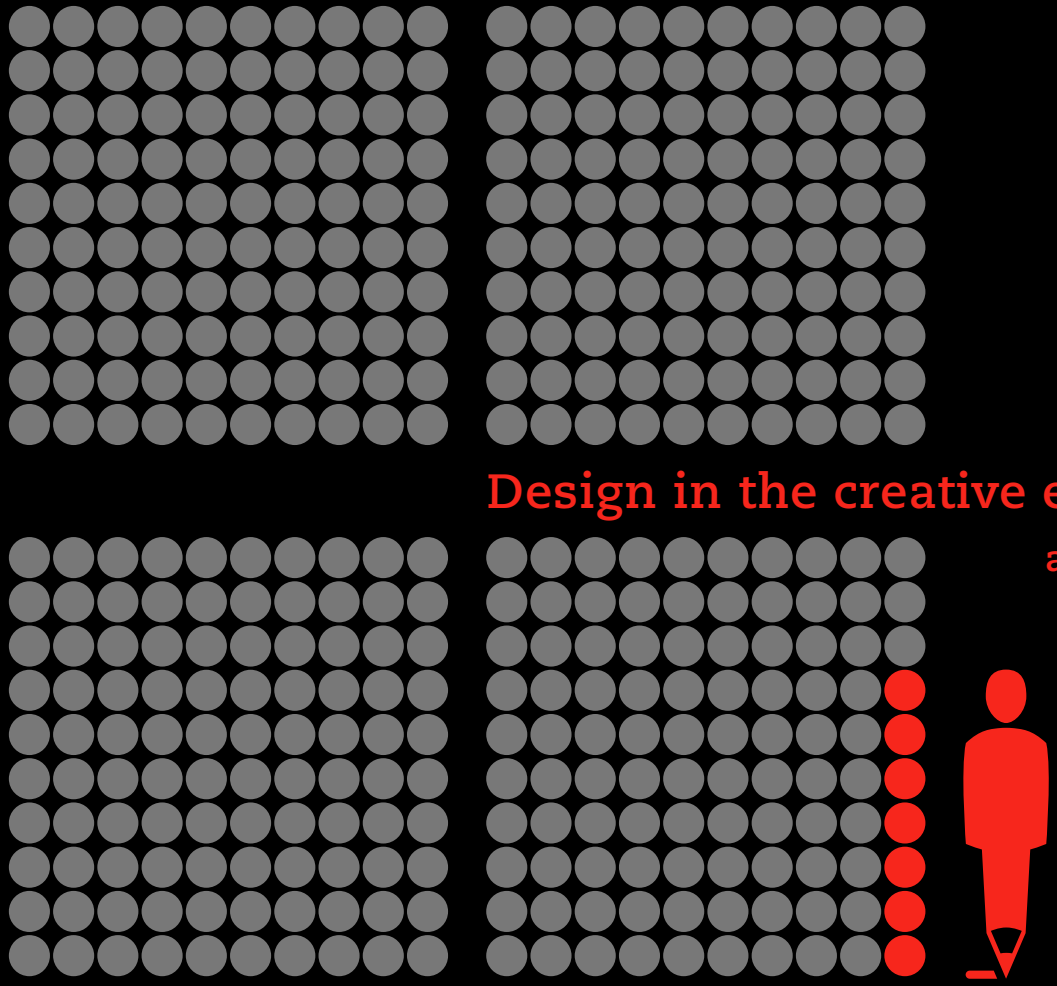


Design in the creative economy

a summary

Design in the creative economy

a summary

There are 46,100 designers in the Netherlands working in the following areas:

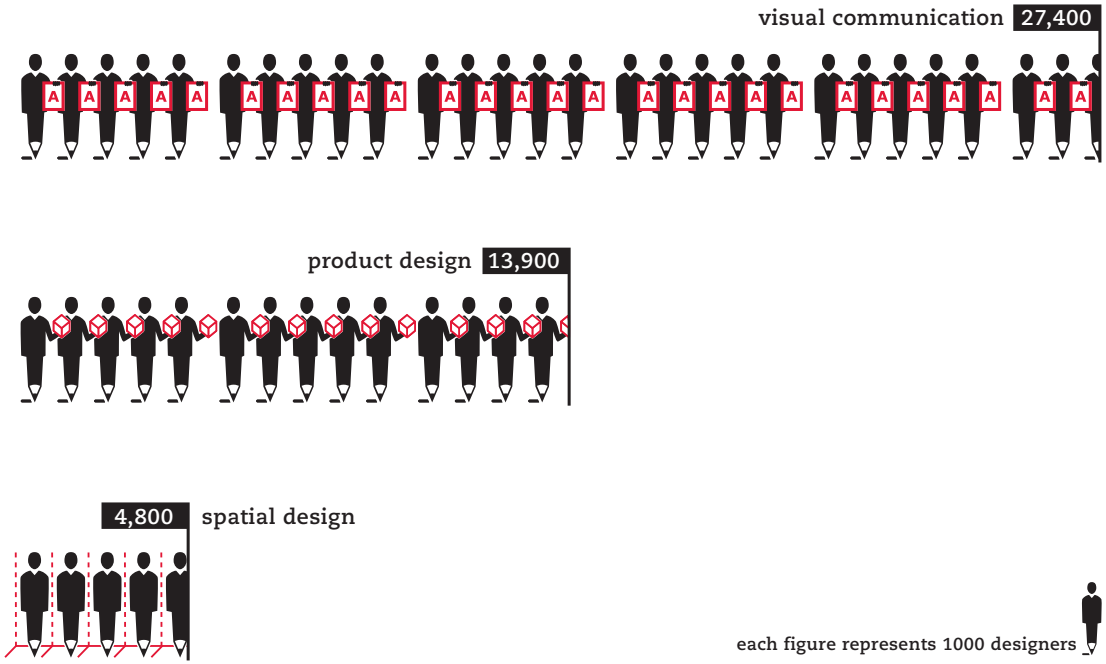
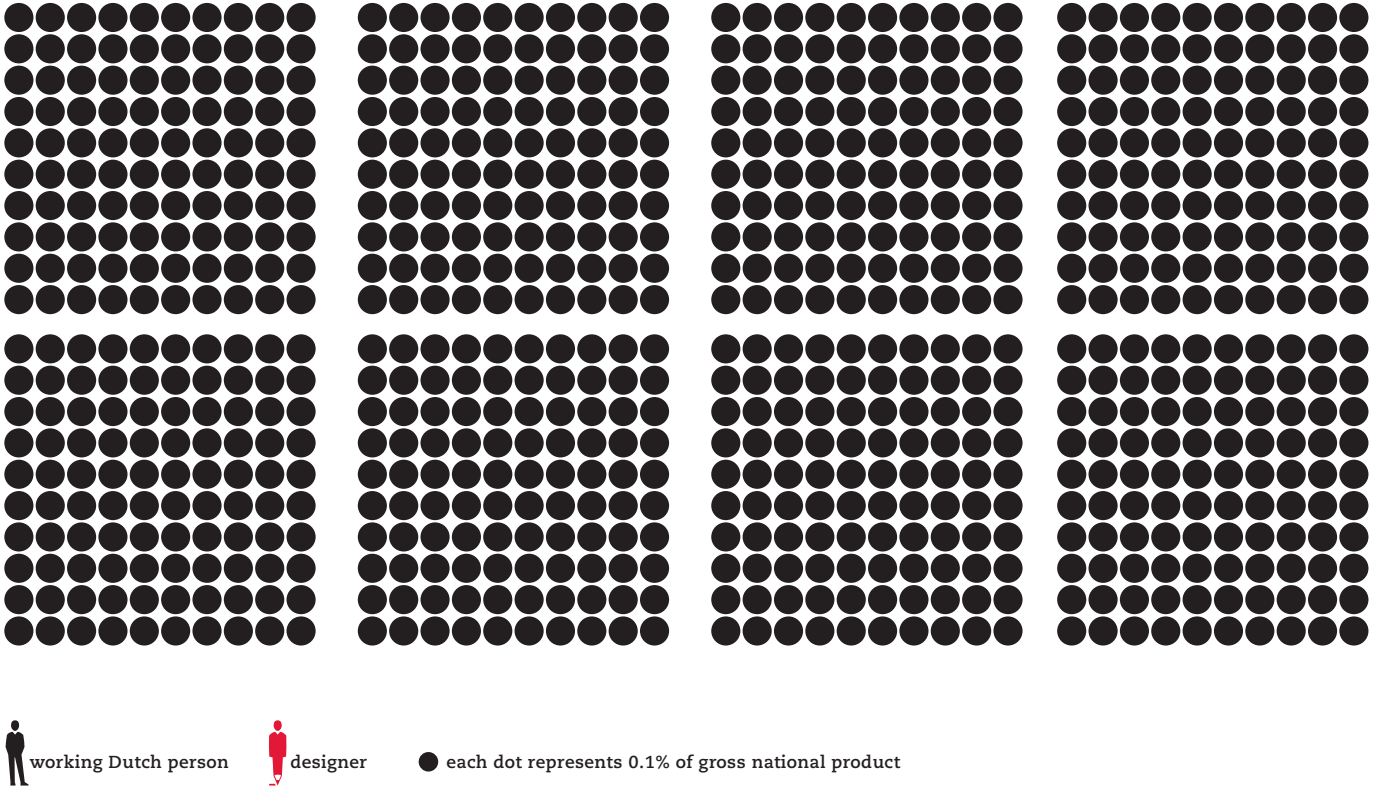


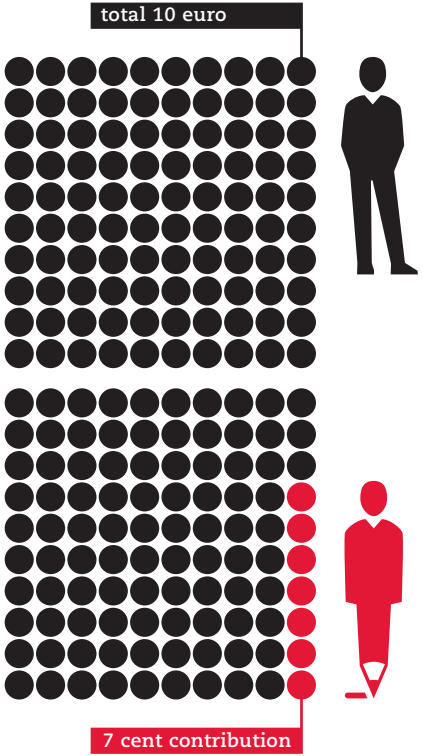
diagram 1

In the Netherlands, design is often regarded as something artistic and aesthetic. To highlight its economic importance, TNO[1] has conducted research into the role played by design in the economy of the Netherlands. The research was commissioned in 2004 by Premsela, Dutch design foundation, and the Ministry of Education, Culture and Science.

Designers' contribution to gross national product (GNP): € 2.6 billion

For every € 10 earned in the Netherlands, 7 cents is earned by Dutch design.



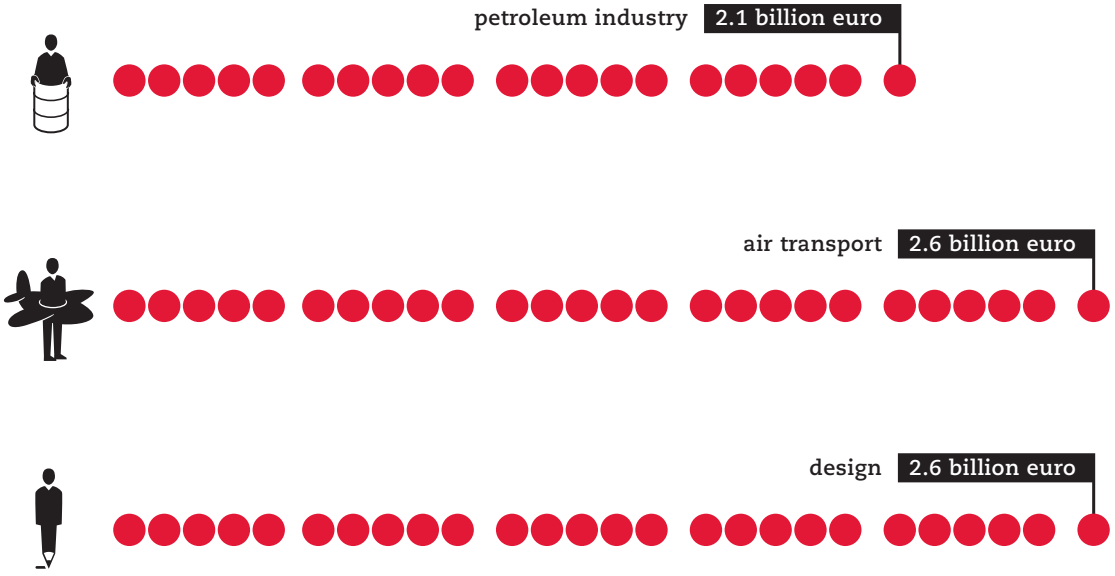


Employment and value added

There are some 46,000 designers active in the Netherlands[2]. Almost three-quarters are working in the commercial services sector, a fifth in industry and less than 10% in the non-profit sector.

Together, Dutch designers are responsible for an estimated € 2.6 billion in economic value added. This amounts to 0.7% of the total value added of the Dutch economy (diagram 2).

Value added in the Dutch economy



Design is on a par with the petroleum industry (excluding mineral extraction) and the air transport industry. In 2001, these two industries realised a total value added of € 2.1 billion and € 2.6 billion respectively.

diagram 3

Design holds a particular role in the economic structure of the Netherlands. It is both a service purchased by companies and organisations in the marketplace, and, at the same time, a large-scale activity carried out in-house by companies and organisations as part of their own production and marketing processes to meet their own demand.
The importance of design can best be illustrated by looking at the different ways in which designers are employed in different business sectors.

It becomes evident that there are three major roles played by design within the different sectors of the Dutch economy.



1. design sector

- advertising agencies, advertising design agencies, consultancies and other advertising services
- interior and fashion designers, etc.



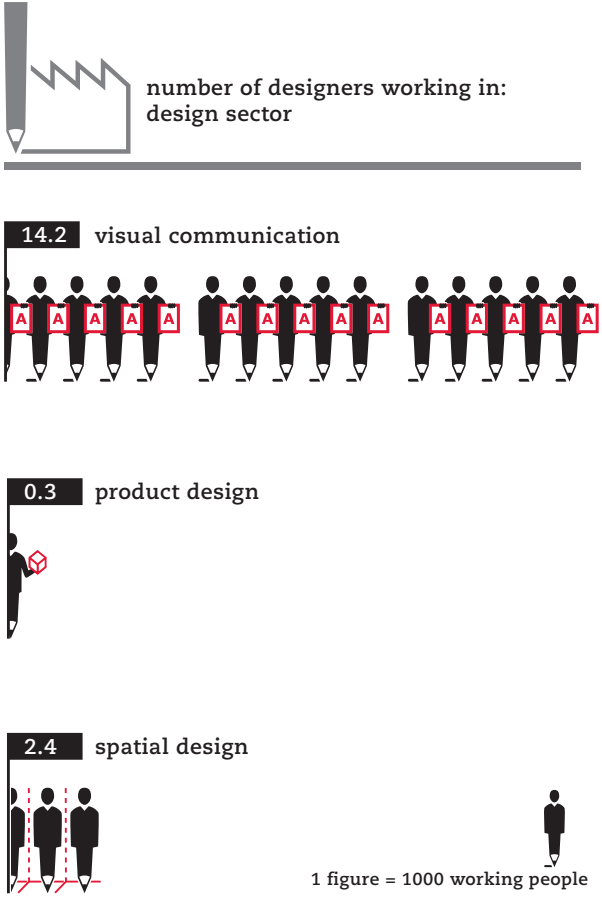
2. companies with substantial numbers of designers

- publishers, printers
- manufacturers of furniture and other goods
- wholesalers and trade information
- retailers and repairers of consumer goods
- architects, engineers and other technical design, drawing and consulting agencies
- real estate, rental and trade, movable property rental and business services
- environmental services, culture, recreation and other services



3. companies without substantial numbers of designers

diagram 4



1. The design industries

One third of all designers work in the so-called design industries. These are businesses offering design services or services in which design plays a central role: advertising, fashion and interior design. Of these, advertising is by far the largest activity, employing some 14,000 people; fashion and interior design employ a total work force of 2,900. In the advertising industry, designers account for 26% (approx. 1 in 4) of the total number of employees; for fashion and interior design the figure is 48.3% (approx. 1 in 2).

Designers working in the fields of communication and spatial design are overrepresented here, while product designers make up a much smaller percentage (diagram 5a).

Together, the design industries account for an economic value added of € 635 million – almost a quarter of the total value added of € 2.6 billion generated by the design sector as a whole. An estimated 16,900 designers work in the design industries, equivalent to 36.7% of all designers employed in the Netherlands.

2. Business sectors for which the number of designers can be established

The majority of design activities in the Netherlands take place 'in-house', as part of a company's non-design-related activities. Research can establish the number of designers employed in a number of these business sectors[3]. However, the number of business sectors for which this is not possible is far greater.

The proportion of designers in the total work force of these business sectors varies between 4% and 0.2%; the average is 0.6%, or one in 154. That makes the proportion of employees who work as designers substantially smaller in these business sectors than in the design industries. However, since the work force of the business sectors involved is large, the total number of designers in these business sectors actually exceeds that of the design industries.

Almost half (46.9% or 21,600) of the designers working in the Netherlands are employed in these non-design sectors. Product designers account for a large proportion of these: three-quarters of the Netherlands' product designers work in these sectors (diagram 5b).

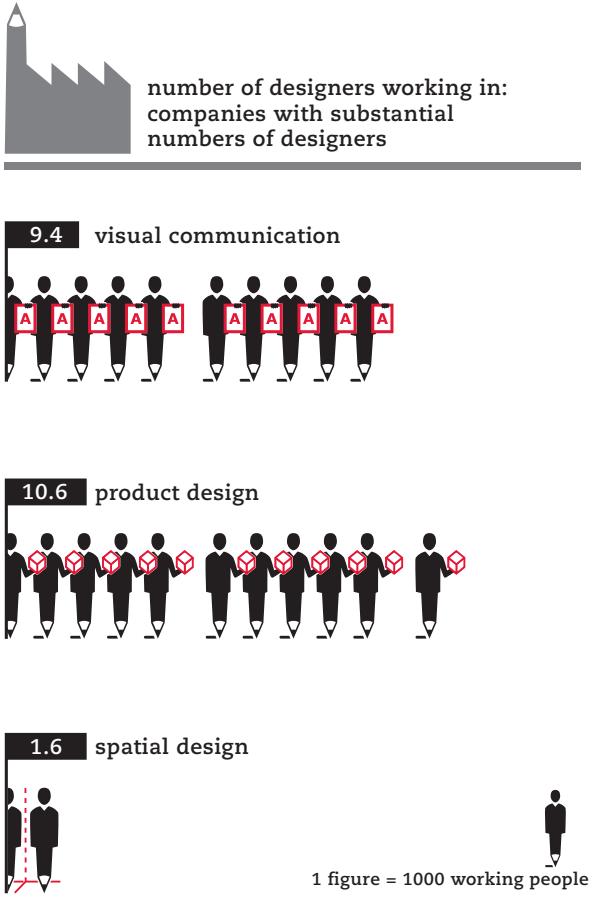


diagram 5b

Because there is such a relatively large proportion of designers in these 'regular' business sectors, it is assumed that most of their design needs are met in-house, and that they do not make much use of outside design services.

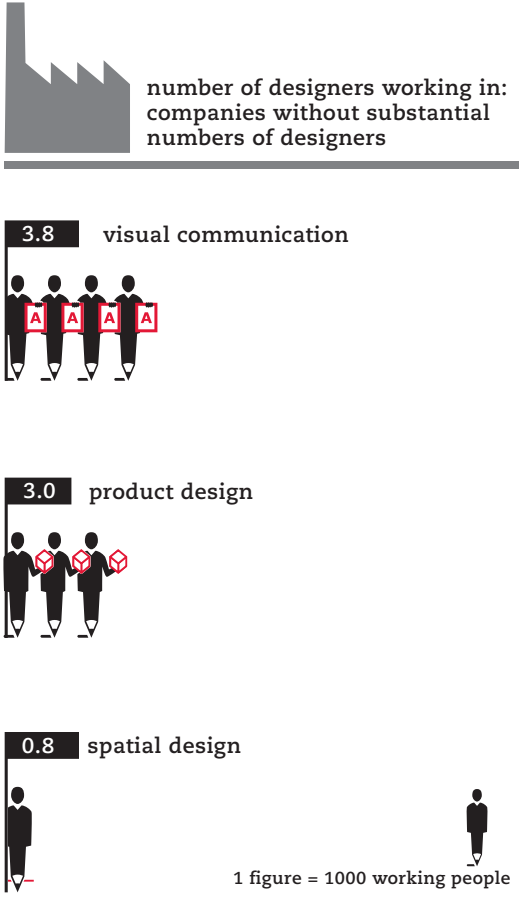
The business sectors that employ the most designers are: 'retail and consumer goods' repair', which employs some 6,100 designers; and 'publishing, printing and the reproduction of recorded media', which accounts for a further 4,000. Together, these business sectors, for which the number of designers can be established, are responsible for an estimated € 922 million, or 36% of the value added created by Dutch designers as a whole.

3. The remaining business sectors

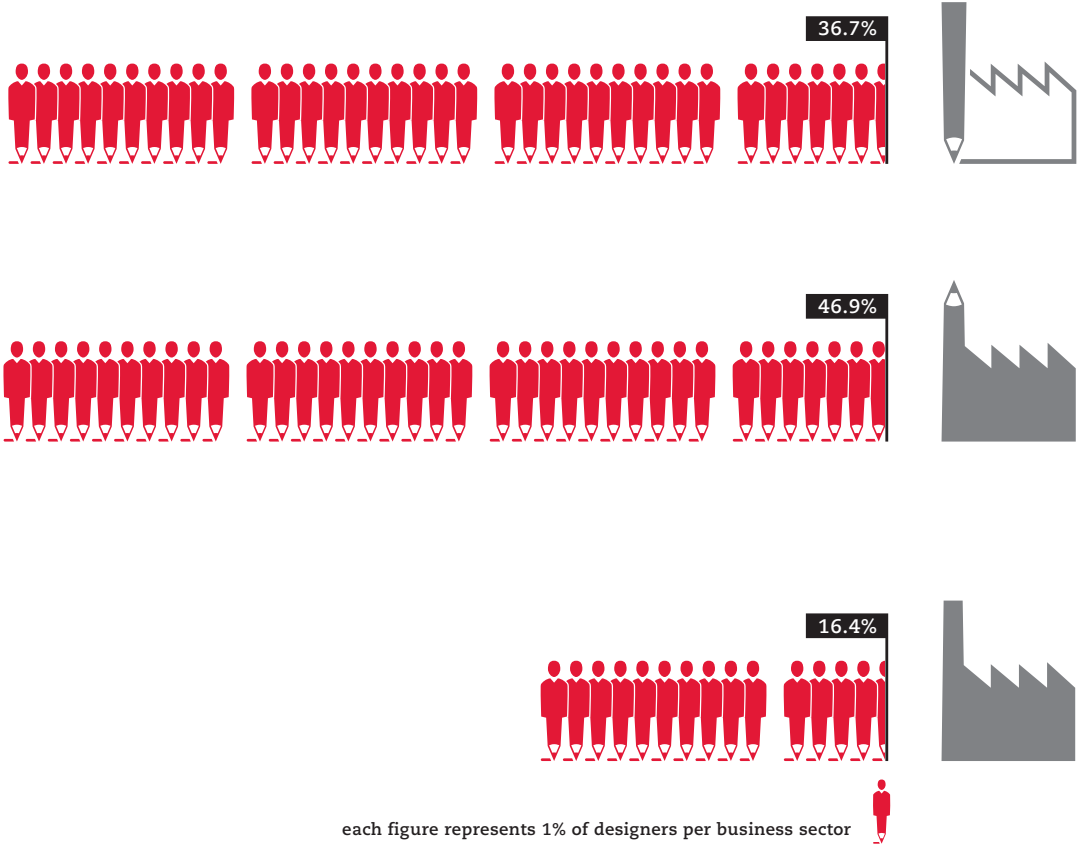
It is not possible to establish an accurate figure for those designers employed in each of the remaining business sectors because the number of designers per sector is too small. In terms of jobs, these business sectors account for over half of the Dutch economy. The average percentage of designers in this category is less than 0.2%, one in every 644 employees work as a designer. Most of the design needs of these companies will probably be met by purchasing design services elsewhere, in particular from the design industries. Occasionally they will hire, or work together with, in-house design enterprises, established to fulfil their own design needs.

The total number of designers employed in this category is 7,600 or 16.5% of all designers in employment (diagram 5c).

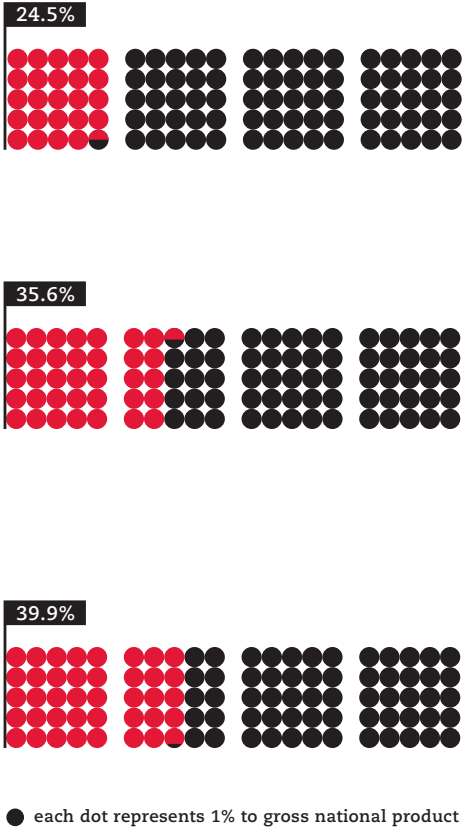
It is worth noting that these designers are responsible for almost 40% of the value added realised by designers as a whole.



Proportion per business sector in terms of: the total number of designers (100% = 46,100) and



total value added of design (100% = € 2.6 billion).



Productivity

By analysing the Dutch design sector, it becomes apparent that there is a negative relationship between the number of designers employed per business sector and the productivity of that sector[4]. The productivity of those sectors that employ a relatively high proportion of designers is, on average, lower than in those employing fewer designers.

To illustrate this: the value added contributed by the design sectors is, at 24.5%, substantially lower than in the other sectors, although the percentage of designers (36.7%) working in these sectors is quite high. A similar relationship exists, to a lesser extent, in those business sectors where the number of designers can be established. In these sectors work 46.9% of the designers, and 35.6% of the added value is realised here. The opposite is true for the category 'other businesses'. These employ just 16.5% of the total design work force, but are responsible for 39.9% of the value added realised by design.

This phenomenon can be largely explained by the labour-intensive nature of the design profession. As with all other areas of the creative sector, the possibility of deploying capital goods to increase the efficiency of the production process is limited. However, the resulting reduction in productivity does

not diminish the economic importance of design, providing that the productivity of the Dutch design sector compares favourably with that in other countries. Furthermore, the economic significance of design is not limited to the contribution it makes to economic value added and employment opportunities. Design also plays an important role in stimulating other activities that are vital to the economy. A substantial number of businesses rely partly on design to sharpen its competitive edge; design is a crucial factor in product development and marketing. The importance of design to the economy as a whole also constitutes a driving factor of the dynamics of the economy in a variety of economic activities in the manufacturing industries and the service sector; its economic value should be considered from this broader perspective and not simply in the direct contribution it makes to the economy in terms of value added. Such a conclusion demands both the development of methodology for measuring the wider contribution of design, as well as improved insights into the precise contribution design makes to innovation.

It should not be overlooked here that design is a relatively labour-intensive profession employing highly skilled individuals.

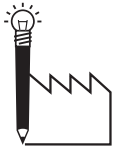
As such it makes a significant contribution to the knowledge-intensive labour market. As already noted, a highly skilled labour force plays an increasingly central role in today's emerging 'experience' economy. In addition, this professional level of employment is firmly embedded in the context of today's western creative economies and cannot be easily transferred to other regions.

Broad economic significance

The broad economic significance of culture and creativity is being underlined today more than ever before. In the creative economy, success is determined by the ability to create value based on new concepts and new ideas. As already stressed, the broad spectrum of activities covered by design plays a key role here, making increased insight into its economic significance crucial.

Innovation
A closer look at the results of the yearly innovation survey carried out by the CBS (Statistics Netherlands), shows that design makes a marked contribution to innovation, as does marketing, to an even greater extent. Both design and marketing are seen as integral parts of what is called ‘non-technological innovation’.

In the above-mentioned survey, entrepreneurs are asked for ‘aesthetic product refinements such as changes to colour, packaging and such like’. However, this covers just a small part of what is understood by ‘design’, strengthening the statement that design has a substantial impact on the competitive position of a business.



Companies that innovate with design as a percentage of all companies innovating in a non-technological way (based on employment).

average 20%

100%



Companies that innovate with marketing as a percentage of all companies innovating in a non-technological way (based on employment).

average 38%

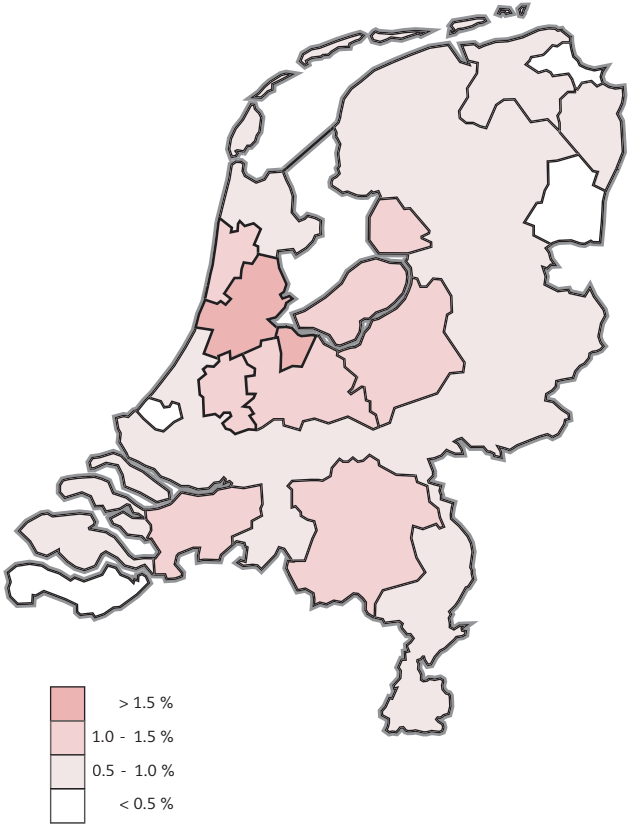
100%



The importance of design for innovation differs per business sector, as revealed by the results of the innovation survey. The same is true for marketing. The average percentage of companies that implement innovations by design is 20%. The top three within the business sectors actively implementing innovation by design achieve much higher percentages: 1. the base metal industry (55%); 2. the (luxury) food and beverages industry (46%); and 3. the textile and leather industry (40%). For marketing the average score is 38%, with the top three: 1. the petroleum industry (74%); 2. transport, post and telecommunications (66%); and 3. culture, sport and recreation (60%). (diagram 7)

Furthermore, companies that implement innovation by design as part of 'non-technological innovation' experience greater increases in their market share than those that do not. 58% of these businesses experienced a positive effect on their market share, compared to 47% in the group that did not implement such innovations. Here, too, the estimated effect of new marketing developments on innovation is larger: 59% of companies that consciously implemented innovations in marketing as part of 'non-technological innovation' experienced an increase in market share, against 44% in the group that did not. These findings correspond with those of studies on the relationship of design and innovation in other countries, for instance the United Kingdom.

Relative concentration of design sectors in the Netherlands



Regional economy

Exploratory research into the location of Dutch design in the regional economy, based on two limited studies into the situation in and around Amsterdam and Eindhoven, draws some salient conclusions. There appears to be a clear link between the type of design activities carried out in the regions and the structure of the local economy. However, those companies active in a regional design sector are not or no longer necessarily dependent on and/or aimed at the local market for business. On the contrary, they choose increasingly to operate at a national or international level. Regional organisations, from knowledge and educational facilities to trade associations, all seem to follow this trend.

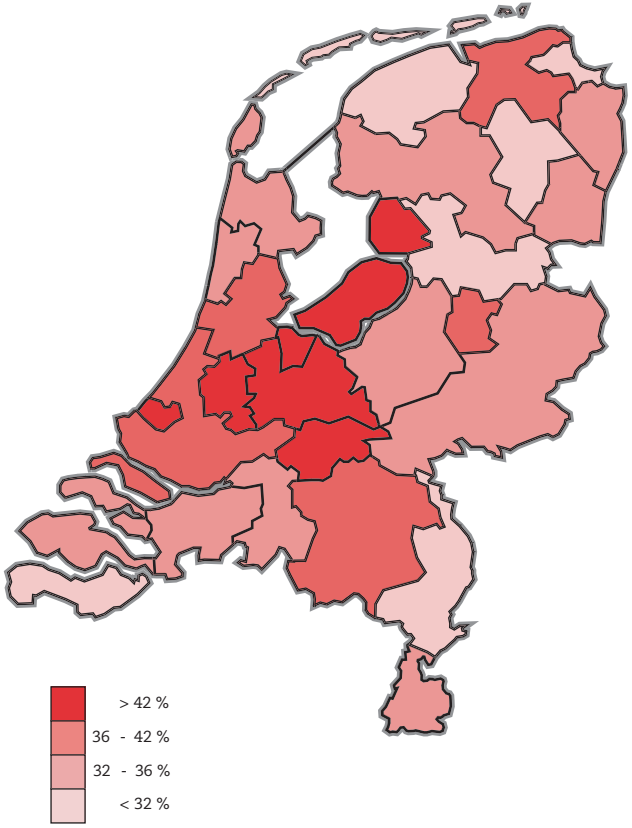
The central role played by the Amsterdam region in the Netherlands' creative sector also extends to the field of design.

Amsterdam employs many more people in the design sectors than Eindhoven, which nonetheless has a reasonable cluster of design companies. In both regions, the advertising industry is substantially larger than either the fashion or interior design sectors, with the latter growing faster than the former.

During the Nineties, the strategic importance of design for the business world appears to have increased in both regions. Design is regarded as a 'business creator' in and around Eindhoven, where advanced technology and the manufacturing industry largely determine the context for design. Here, designers are involved in a company's innovation process right from the start. In the Eindhoven area, the strength of design lies particularly in the contribution it makes to product development in the technologically advanced manufacturing industry.

'Communication design', which has evolved from the tradition of graphic design, is particularly important in the Amsterdam region. (diagram 8a)

Relative concentration of sectors with substantial numbers of designers



Graphic design has gradually developed into this new discipline, which is now a major contributory factor in the development of a company's corporate identity and touches all aspects of how a company presents itself, both to the public and its business relations. The case studies show that specialised areas of design in the regions often develop from the linkage between local demand for design, the availability of educational facilities, knowledge centres and current regional design practices. A trend to meet the needs of the national and international markets had replaced any dependency that may have existed on the local market.

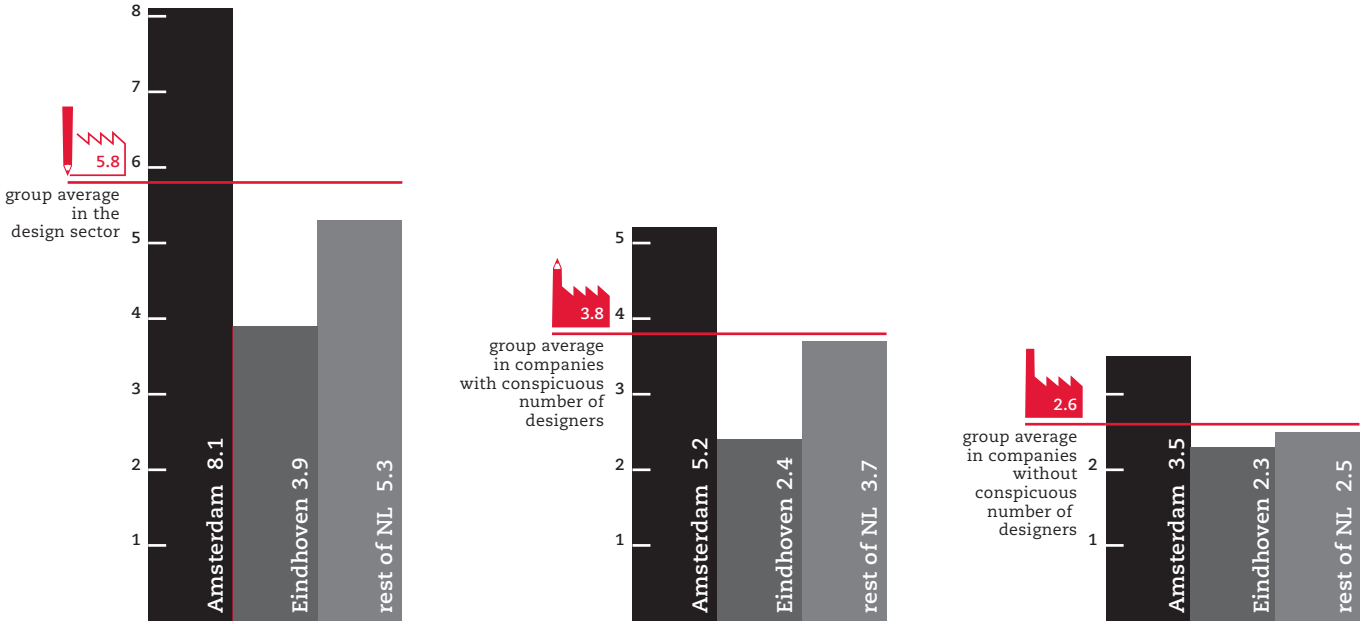
The success of design in the regions is therefore dependent on finding clients and exploiting markets outside the region, preferably abroad.

The future

Design has a two-fold significance in the creative economy. Firstly, the demand for design is on the rise, influenced by developments in both the cultural and economic sectors. This is apparent from, among other things, the sharp growth in the number of designers employed in the design sectors, particularly in fashion and interior design. Since society places increasing value on lifestyle, the user-friendliness and experience quality of products, there will be more and more work for designers in the future. This will result in an increase in added value, more directly realised, from design activities both in the design sectors and within 'traditional' companies.

The second way in which design significantly influences the creative economy is less direct and more difficult to measure. The realisation that design makes an important contribution in the development of new services and goods has been with us for some time; design influences the innovation process directly, and substantially. However, in recent years there has been an increasing awareness that design can play a key role in a company's marketing strategy. By hooking into social and cultural developments, design professionals can ensure that a company's services or products reach its target consumers effectively. Design is thus responsible for the 'symbolic value' of goods and services, lending them a competitive edge in the marketplace. Design can also make a valid contribution to the 'public image' of a company or organisation; from initial concept to final product; it plays a key role in the development of corporate identity and branding. The exploratory research carried out in the Amsterdam and Eindhoven regions clearly shows the existence of

Average annual employment growth in business sectors in the regions (1996 - 2002)



Each unit represents 1% growth

diagram 9

these practices and their increasing importance. The strategic significance of design for the business world and for other organisations is clearly growing. Definition and measurement of the contribution of design to the overall economy still needs further research, as does the way in which design contributes to innovation.

It is clear however, even on the basis of the current findings, that an innovative design sector that is constantly breaking new ground is a bonus for the national economy. In its interactions with the business world, design can boost a country's competitive edge in the international economy, it can help develop the international market and ensures good employment opportunities for a highly skilled work force and value added.

The research was
commissioned by Premsela,
Dutch design foundation, and
the Ministry of Education,
Culture and Science

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Design in the creative
economy: a summary
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Footnotes

1 The survey was conducted by TNO Strategy, Technology and Policy in conjunction with TNO Inro, and was completed in December 2004. Full report (in dutch) downloadable from www.premsela.org.

2 Taken from the survey 'Who are our designers?', carried out by the CBS, CBS, Statistics Netherlands, (2004) together with the Premsela Foundation, prior to this project.

3 This research was conducted by the CBS on the basis of the results of labour force surveys carried out in 2000, 2001 en 2002.

4 It should be noted that the productivity of designers in the different business sectors is made equal to the average productivity level of other employees in those sectors.



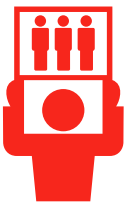
International System of Typographic Picture Education

About the diagrams used

The diagrams used in this report were designed by Bureau Mijksenaar and inspired by the work of Viennese sociologist, political economist and anti-philosopher Otto Neurath (1882-1945). As a child, Neurath was fascinated by Egyptian murals and hieroglyphics that he saw in an art museum. Between the two world wars, he worked with his wife Marie Neurath and the German graphic artist Gerd Arntz, to develop a system for communicating statistics visually. 'In this way,' wrote Neurath in later life, 'we gradually developed a lingual technique which was understood equally well by people of different nationalities.'
The Neuraths and Arntz called their system Isotype, an abbreviation of 'International System Of TYpographic Picture Education'.

International System of Typographic Picture Education

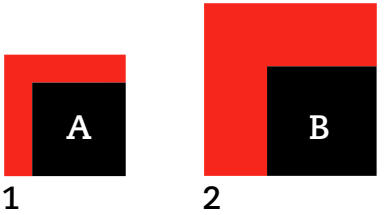
They mainly used it for pictograms in exhibitions and printed material.
From 1934 onwards, they worked steadily in The Hague towards a series of figures and symbols with which the statistical world could be visually portrayed in a simple and understandable way. At the time, their work was echoed by designers and artists like El Lissitzky and Jan Tschichold, and Peter Alma in the Netherlands. All subsequent infographic and pictogram designers owe a debt to the Neurath-Arntz trio though. For Neurath it did not end there. During the Second World War, he worked in London to develop Isotype into an International Picture Language. As well as its global comprehension, he believed a further advantage was that a visual language is more objective than a written one. No wonder his favourite motto was: 'Words divide, images unite.'



(source: Items 1/2005, Taal zonder typografie, Bas van Lier)

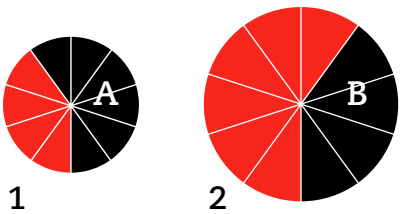
Squares

One is only able to say:
2 is greater than 1
B is greater than A



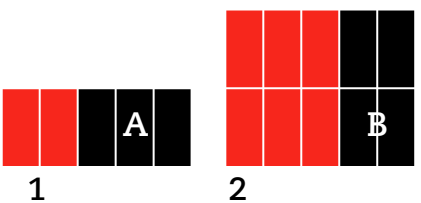
Circles

One is only able to say:
2 is greater than 1
A is $^{6}/_{10}$ of 1
B is $^{4}/_{10}$ of 2



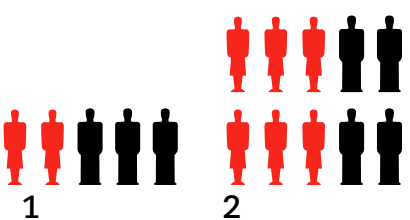
Four -sided forms put together from units

One is now able to say:
2 is twice as great as 1
A is $^{3}/_{5}$ of 1
B is $^{2}/_{5}$ of 2
A is $^{3}/_{4}$ of B



Groups of signs

One is able to say:
Group 2 is twice as great as group 1
Number of men is $^{3}/_{5}$ of 1
(number of women $^{2}/_{5}$ of 1)
Number of men is $^{2}/_{5}$ of 2
(number of women $^{3}/_{5}$ of 2)
Number of men in 1 is $^{3}/_{4}$ of number of men in 2
Number of women in 1 is $^{1}/_{3}$ of number of women in 2



source: International Picture Language, Neurath (1936)

