Design for all in a commercial perspective

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The Norwegian Design Council

The Norwegian Design Council (NDC) was established in 1963 by the Norwegian Trade Council and the Confederation of Norwegian Business and Industry (NHO). Today the NDC is organised as a foundation financed by the the Ministry of Trade and Industry, through the provision of business consultancy and from its own, standalone projects.

The ambition of the NDC is to promote design as a strategic tool for innovation, in order to offer greater competitive advantage and profitability to Norwegian trade and industry. The NDC achieves this by delivering design-related business advice to Norwegian enterprises . It disseminates its work through printed and online publication, radio, news items, web pages, exhibitions, design awards, and national and international conferences.

For several years, the NDC has emphasized the importance of Design for All whilst working with Norwegian industry. A four-year programme, named Innovation for All, was initiated to support industrial growth by contributing to and supporting new product development processes based on Design for All principles. One of the goals of this programme is to identify and demonstrate the innovation potential of this approach and to develop products and services that are user friendly and attractive for all.

A key objective of the programme is to provide relevant knowledge of Norwegian conditions for industry and design communities, as well as offering motivating and effective approaches that can be easily adopted and implemented in everyday practice.

It is also vital to prepare Norwegian companies for forthcoming legislation that will require products and services to be more socially inclusive and cater for people with different ages and capabilities. An important part of the programme is to demonstrate the commercial as well as social benefits of this approach, emphasising Design for All as a strategic tool in user-centred innovation processes and business development.

This article is based on the research, projects and findings of the programme Innovation for All.

Global challenges

One of the challenges facing the global business community is to have a wider perspective when considering design; it is no longer a question of using design to meet purely aesthetic, functional or emotional needs. Attention has to be focused on the role design can play in promoting sustainability, enabling human rights and creating social inclusion.

Companies that can concentrate their innovation processes around understanding real consumers, respond to the new emerging trends and then meet these challenges effectively through good design practice will retain or even increase profitability and leave their competition behind (Myerson, J., 2001). In this context, Design for All can be considered a

profitable strategy for innovation and an effective, low-cost, low-tech, design-driven tool that can satisfy previously unmet market demands for inclusive, mainstream products and services.

A commercial perspective

The concept of 'Design for All' is founded on the principles of Universal Design and promotes design for human diversity, social inclusion and equality. It is an ideology that has great resonance in the current political climate where addressing exclusion is high on the agenda (Coleman, R., Harrow, D., 1997a). However, from a purely commercial perspective, it means the creation of new market opportunities and a strategy for product development and innovation that is more centred around consumer aspiration. The dichotomy between meeting user need and working within commercial constraints can provide a space in which designers are pushed to innovate and create inventive solutions that satisfy both demands.

Companies are increasingly beholden to the perceptions of society and those companies that wish to be seen as customer-friendly need to adopt a socially responsible approach. Design for All can help a company to achieve a position both as an attractive employer and as a key participant in the social arena. This encompasses both inclusion and sustainable development as key areas of focus and forms part of what we often term Corporate Social Responsibility.

As well as being a philosophy or ideology, Design for All is most effective as a practical approach, allowing companies to view existing customers in a new way or to expand into previously untapped markets. This is a main focus of the Innovation for All programme at the NDC.

Towards a more inclusive society

By identifying and presenting this innovation potential to Norwegian industry, one can induce the development of products and services that are user-friendly and attractive for all. In this context, Design for All, when adopted by industry as a strategic business tool, will become a key driver of change steering us towards a more inclusive society.

Both nationally and internationally, Norwegian companies who are not preparing for these new challenges will soon find themselves lagging behind. Whether operating in markets worldwide or meeting competition in the local marketplace, these companies will realise that global attention is directed towards human-centred issues such as sustainability and inclusion.

Design consultancies also have to pay attention as expert knowledge of and insight into using Design for All as a strategic design tool becomes an increasingly important selling point. Individuals who realise this will have a competitive edge in the market as they can help clients to identify new potential products, services or innovations, thereby capture a larger market with more inclusive solutions.

Therefore companies and designers who recognise these opportunities and the potential inherent in existing (and future) design challenges as a result of social, cultural and demographic changes in the market can secure future growth and profitability through unique competitive advantages and insights (Gheerawo R., Myerson J., 2006).

A successful approach

British retailer B&Q has taken a proactive approach to the Disability Discrimination Act 1996 (DDA) through a company-wide diversity initiative. The aim is to make B&Q stores, products, services and employment opportunities accessible to as wide a range of the population as possible, and to go beyond compliance with the DDA (Disability Discrimination Act 1996) to make Design for All a key business strategy and way of developing the B&Q brand.

The retailer has recently introduced new "inclusive" own-brand products, and more are in the pipeline. The products, a handheld sander and electric screwdriver have massively oversold and although developed with lead groups of older users, they were deliberately marketed and designed as lifestyle tools for everyone. Recently, the products were named by a national paper in the UK as two of the 'must have' gadgets for 2005 in a list that also included Apple's iPod. (Source: Helen Hamlyn Centre, Royal College of Art)

Images: B & Q. Power to the people: Gofer screwdriver and Sandbug sander
Source: The Helen Hamlyn Centre, Royal College of Art

The Older Consumer

The ageing population in the western world is the singlemost important driving force behind all future design challenges.

In a few years' time, half of Norway's adult population will be over 50 years of age. Today, Norwegians over the age of 45 own more than 70 % of the population's total reserves of cash and securities. Every third krone paid out in the form of salaries goes to someone over the age of 55 years; in total, this group has more than NOK 300 billion to spend each year. And this figure is growing all the time.

Given their record-breaking purchasing power and their willingness to use it, older consumers will comprise the most potent and challenging customer group in the market in the future. Older people consume the largest share of products and services related to health or well-being as well as those involving travel services and luxury goods in Norway.

However, a new trend is emerging among these older consumers. They are remortgaging their homes in order to maintain or increase their standard of living in the latter stage of their lives – which means their heirs will not inherit houses or large amounts of money. These assets are being channelled into higher levels of consumption. Companies and design consultants who can recognise and understand the needs and purchasing power of this group will be better placed to succeed.

These customers pose also major challenges. They are not a homogenous, uniform group and can differ significantly in terms of style, preference and development. They are the most opinionated, demanding consumer group who are comfortable with consumerism but have yet to be included by mainstream design and recognised as the 'real spenders' by industry. They receive very little marketing and designers rarely accommodate their needs.

As they grow older, their sight, hearing, muscle strength, motor skills and cognitive powers will become poorer as a natural part of the ageing process (Haigh, R., 1993). Designers should therefore place an emphasis on functionality, user-friendliness and simplicity in the solutions they design without compromising the need for aesthetics, desirability or variety that may appeal to the specific emotional values that older consumers might have (Audit Commission, 2000).

New approaches to product development

The concept of Design for All represents a potential for innovation that can lead to more user-friendly products and differentiate one company from another, even in a saturated marketplace. By designing products for people with reduced functional abilities, the solution arrived at will be better for all whether older or younger. Products that are easier and safer to use can be appreciated by everyone, regardless of their age or ability.

Adopting a Design for All approach places more stringent demands on a product's qualities and the way in which it functions. Thus, the method becomes an innovation tool that can be used to drive designers and manufacturers to produce unique products with improved user properties for everyone.
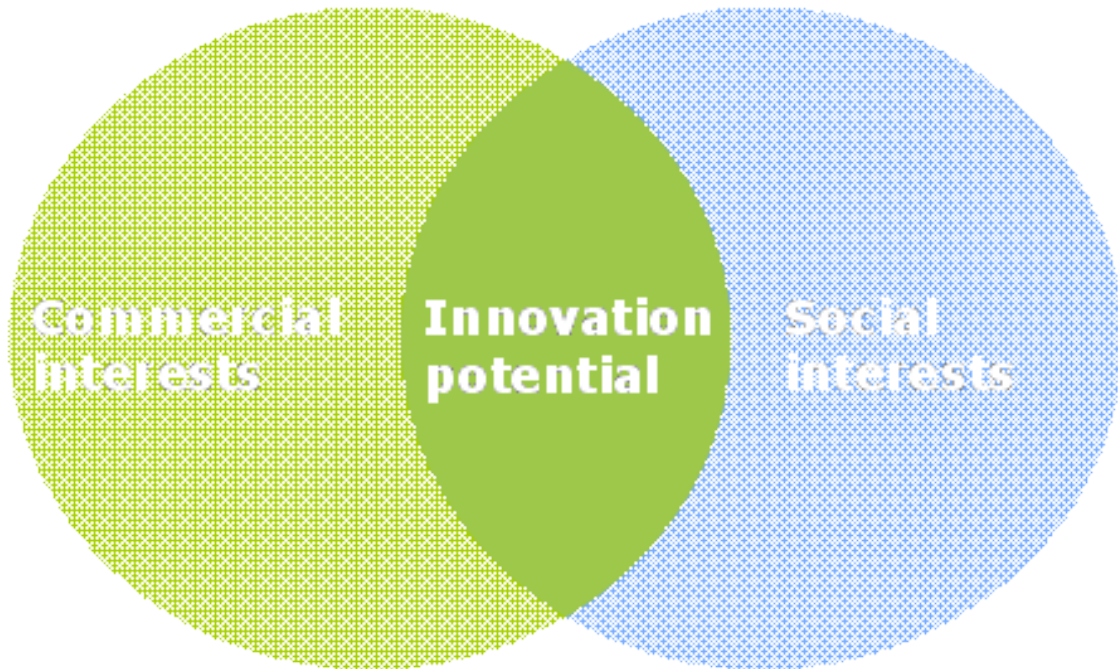

Diagram : Showing the juxtaposition between ideal needs and commercial interests.
Interests are overlapping when industry develops competitive advantages through Design for All and customers are offered products that better meet their needs and are barrier free. With the aging society and everyone's call for user friendly products in a complex and busy everyday life, there is increasing potential for industry to apply Design for all as a strategy within user-centred innovation.

<u>Increased market potential</u>

By widening the user group for a particular product or service, companies can increase its market potential. A Design for All approach will therefore become a prominent and even preferred alternative to conventional design processes in the future.

Products aimed at a primary segment characterised by healthy and able-bodied customers, often called the average consumer, tend to exclude other groups usually on the grounds of age or other limits to ability. Design-for-All solutions include these new customer groups whilst maintaining attraction for customers within the primary segment, simply because the solution is better for everyone.

This can even increase a company's market share within the primary segment as well as adding new customer groups that might not have been targeted before.

Simplifying design

Living as we do with busy, stressful lifestyles filled with an increasing number of technically complex products, we all have a growing need for simplification. Design for All, when embedded into the product development process, ensures that the resultant products become more simple and intuitive to use since this method also takes into account the needs of various customer groups such as older people with reduced functionality and cognitive powers and/or multiple minor impairments.

There are a number of other groups in society with these special needs who are currently excluded by mainstream design. These include a growing number of people with sensory impairments, physical disabilities and arthritis, as well as a large number of children.

It is not only excluded groups who benefit from simple products that are easy to use and understand. In a time characterized by a high level of self-service solutions and technological overload, everyone can benefit from simple, intuitive products. The phrase 'easy to use' or 'simple to understand' is included in almost every product design brief. Using Design for All methodologies can be a direct way of achieving this.

Some examples of simple and user friendly products.

New legislation – new opportunities

In all markets, both nationally and internationally, more stringent legislation is being introduced to support Design for All and accessibility whilst combating discrimination and minimising exclusion.

One piece of legislation that will have a major impact on Norwegian companies is the Public Procurement Act. It stipulates that public procurers are required to choose product and service solutions that meet specific criteria in line with inclusive design criteria. Suppliers who meet these demands will be preferred.

There is also an implication for the growing number of older people related to maintaining autonomous and independent living. Enabling an older person to spend even one year longer in their homes rather than moving into care facilities can save a significant amount of money. This becomes increasingly important as there is also a decrease in the number of younger people available to support retirees. There is therefore a mutual interest for both public institutions and private companies in meeting these needs in order to create a sustainable future.

However, whilst new legislation invariably involves new challenges, forward-thinking companies that can successfully embrace the Design for All philosophy and practice will discover good opportunities for innovation and create competitive advantages for themselves that are in line with new legislation. Organisations that can recognise the need to move design approaches beyond mainstream markets will be best placed to capitalise on these changes in law and policy and become the preferred option in the future.

A strategy for better design

Design for All is essentially a strategy for design that centres on users. Because of this, it also represents an efficient tool for designers that deliver practical methods for developing more user-friendly products. People are a rich source of inspiration and the problems they have can give designers insights that push them to create better and more inventive design.

Companies that integrate this way of design thinking in their own strategy will obtain new expertise and insight, leading to a deeper understanding of the diversity of users with regard to age, gender, culture and level of functionality as well as individual aspirations and emotional needs.

Understanding users (consumers) also involves assessing and understanding various situations in which the product is being used. Increased knowledge of one's customers provides more information and inspiration for everyone involved in the design process, helps to challenge creativity and can lead to unexpected approaches and solutions (Warburton, N., 2003).

Thus, valuable expertise is transferred to companies, marketing consultants, designers and product developers in a way that is richer and deeper than traditional market research as it goes beyond static questioning to really understanding user need and creating empathy with their lives.

Such expertise is a valuable source of information in the wider context of business development. It can help companies to position themselves clearly in the market place, reinforce branding and give them a considerable edge over their competitors. **In this context, it becomes evident that a user-centred design process is not only a strategy to solve problems but a potent strategy for identifying problems to solve.**

Consumers themselves, especially the marginalised groups, therefore represent a powerful tool for innovation that can have a significant influence on companies and give them the impetus to leave traditional competition behind and enter new, unexplored markets of unmet needs.

A holistic way of thinking

A Design for All strategy need not only be limited to product design, i.e. development of accessible and user-friendly products and services for as many people as possible. It can be a foundation for companies to base their entire business philosophy on. An inclusive way of thinking may impact on employment policy, personnel management and adaptation, customer service, communications strategy and marketing.

Such an approach means that the design disciplines and other areas of expertise must cooperate in providing a holistic approach that has firm roots in company policy and practice and can be implemented both at management level and throughout the organization.

It should be mentioned that practising Design for All and conducting user-centred research requires a minimum amount of investment when compared to technological research and product development. This can therefore be a low-tech, cost-saving and uncomplicated method for innovation with low barriers for implementation in both the short term and long term. It is also suitable for both small and big companies and can yield immediate results for both the company in terms of bottom line and for consumers in terms of better, more inclusive products.

Quote:
"If, for example, a company is prepared to spend 3 per cent of its turnover on technology, it might achieve the same effect through design with only 0.3 percent."
Krister Ahlström, "heavyweight industrialist"
Source: Design Matters

Implementing Design for All

How Design for All can be introduced and implemented in companies' own processes will depend on many factors and vary from company to company.

Factors of particular importance are the company's size, resources, expertise, established technology, processes and systems for product development. Experience of practical, systematic development work and design process will also be crucial.

Companies that are already experienced in using design as a tool for innovation and product development in general are more apt to successfully integrate a user centred approach in their processes. They will find this rewarding, inspiring and considerably less demanding than expected especially in terms of resource requirements, administration and coordination.

Possible limitations

Mature design users are often larger companies that traditionally have heavy technology, with established processes and methods for product development in place that can be difficult to change.

They may find it a challenge to incorporate "user priorities" into existing processes and to engage users successfully especially at the early stages of a project. In addition, established technology and production methods may place limitations on what is possible to achieve in terms of new, user-focused solutions especially in the short term.

In such companies it is important that a user-centred focus takes into account existing frameworks and capitalizes on existing processes. It will therefore be highly important to use Design for All criteria in the decision-making process when planning for the long-term and making significant changes or investment in the company structure.

Little experience, greater effort

Companies with limited experience of design may find that the learning curve is steep and considerable effort is required to engage with Design for All processes. This requires more flexibility, an ability to adapt and a willingness to learn – both on the part of the company and of the designers involved in the process.

Embedding Design for All processes and user involvement in a company's own structure, technology, resources and outcomes will be crucial. By adapting to suit budgets, working conscientiously through problems and focusing implementation in the start-up phase, the chances of success will increase.

The scope for take-up may be increased after early successes have been proven and projects are delivered on budget, proving the cost-effectiveness of these processes. Methods and tools that have been developed in the Innovation for All programme at the NDC are intended to simplify processes and adapt them to the company's own capabilities and conditions.

A continuous process

When introducing Design for All as a strategy, a number of challenges will need to be overcome that are specific to each company. The companies must therefore be self-reflective and understand their own position and aspirations in order to define the challenges that face them.

For all types of companies, regardless of size, age, resources or technological capability, it will be essential to adapt and scale a Design for All strategy that engages with existing processes and therefore impacts on their own long-term planning. Success will depend on framework conditions, implementation and their ability to maintain change. In this way, a Design for All approach should be a continuous process where everyone involved in the organization can develop along a learning curve.

Case study - USA

OXO is a successful brand whose entire product range is based on the principle of Design for All. These measuring jugs are a good example of design-driven innovation. They are the result of user involvement at an early stage and typical "low tech" product development. The resulting products are better for everyone, not just older, arthritic or disabled users.

Alex Lee, President, OXO:" Our philosophy has not only resulted in user-friendly products for a wider user group; it has also proved to be a profitable business model. We have achieved annual growth of 30 per cent since 1991 and have won more than 100 international design awards."
www.oxo.com

Case Study - Norway

The Jordan packaging project was the first pilot project in the Innovation for All programme. Jordan increased both sales and market share immediately after the launch of a new design and packaging.

"Design for All gives us a competitive edge and we have succeeded in distinguishing ourselves from our competitors," says Geir Hellerud, Product Development Manager at Jordan. (Source: Teknisk Ukeblad)

> *"We see very clearly the benefit of this way of thinking. We have always tested our products on consumers, but this is the first time we have taken our point of departure in elite users. We have had feedback we otherwise would not have received."*
>
> *Bård Andresen, product developer*

(Reference is made to the article by Marianne Støren Berg, Ph.D:
The Small Design Changes that Make a Big Difference – a Case Study in Packaging Design from the Norwegian Company Jordan)

Case study - Japan

Japan is very advanced when it comes to developing products for an ageing population and using Design for All processes. Japanese industry realized several years ago that the market for products that meet the needs of a greater diversity of customers has an enormous commercial potential. In 2003, leading Japanese companies formed the International Association for Universal Design (Universal Design is the Japanese term for Design for All). This design organization now has 144 members, including household names and global brands such as Panasonic, Mitsubishi and Toyota.

Panasonic also has a good example of how Design for All can form the basis for new product and design development. This was a strategic decision, based on Panasonic's perception of what they needed to do in order to survive in an increasingly tough market.

Panasonic - Tilted washing machine

One result from this way of thinking was the tilted-drum washing machine. Atypically, the revolutions per minute and energy consumption were not considered the most important factors for consumers. Panasonic developed their new, energy efficient washing machine with an angled door placed at a height that makes it easier to use. The result is better use for a wider range of customers as the picture demonstrates and a unique selling point – easier loading of kilos of laundry – that differentiates this Panasonic washing machine from the competition.

Inclusive marketing

We generally only see young, Western, beautiful, healthy people with no disabilities in advertising campaigns and in other forms of communication. However, most companies claim to target a wide diversity of customers in terms of gender, age, culture, abilities and lifestyle and do not wish to be labelled as discriminatory. This is a dichotomy between product aspiration and the realities of marketing.

Photos by Elisabeth Ohlson Wallin, for an advertising campaign promoting Design for all in Sweden 2006, by EIDD

Marks & Spencer, a UK retailer of clothing in the high street, has understood this and now uses a wider range of models in its advertising. The company realised that it was a mistake to identify 'trendy' as meaning 'young' as its solid consumer base was the over 50's who wanted fashionable, exciting products at a good price. They employed people who were identified as icons for this age group, people such as the model Twiggy and the actor Antonio Banderas. The result of this is that many more older customers feel they can identify with M&S and are part of M&S' target group. This change in attitude has had a positive effect on the company's development, growth and importance in the market.

Defining Success

There are a number of criteria that are essential in introducing a Design for All strategy into a company's core practice.

1. Integration as part of overall business strategy - rooted in the organisation

Design for all must be firmly rooted in company policy. It must be firmly rooted in both management structure and throughout the organisation itself. This includes all the departments, not just the Design department. These can include Development, Marketing, Sales, Communication, Production, Logistics and Finance.

Definite goals and operational measures that dictate the strategy are important but it is even more essential to display the benefits of such an approach in order to show employees what can be achieved and persuade them to adopt it. This can include demonstrating an increased understanding of the market and customers, new insights from user involvement, greater innovation, better competitive edge, growth and profitability.

By doing this the employees will engage with Design for All whilst maintaining ownership of their own tasks and responsibility, even adapting company policy to suit their own purpose. In this way, user-centred thinking can be secured within the organisation across all subject areas and departments.

2. Combining creative design expertise and an interdisciplinary approach

Adopting an interdisciplinary approach throughout the process is vital to success. Mutual understanding and collaboration between complementary skills within an organisation is also vital.

Various types of design expertise that focus on user priorities must be involved from start to finish.

3. User participation and lead users

Involving users and securing the right type of users is of key importance and must be addressed before starting. There is a need for systems to manage and introduce user involvement throughout the company as well as systems for user participation, the organisation of resources and continued planning throughout the various stages of the process.

In this context, a user-centred approach means involving users who are not normally considered by mainstream design such as older people or those with disabilities. These groups can form the lead users in the project. The concept of lead users means people with critical needs that can challenge the functional capacity of the product and encourage the designers to think beyond their current constructs.

4. An inclusive design approach should be adapted and tailored to the company's own development process

Design for All is best implemented in the company's own product development and design process by ensuring that everyone involved, both project participants and decision-makers, define and plan the process together. A good starting-point is to create a common understanding of how - and on what platform - Design for All can be integrated and tailored to the company's own, established process. It is important to define how user needs can be voiced and subsequently, be influential in design decisions and when user involvement in the various phases is to be implemented.

Furthermore, it is crucial that communication and criteria tools are developed that can define the project's potential and ensure that all aspects and project criteria throughout the value chain are taken into account, e.g. marketing, branding, production, price, finance, environment, logistics, distribution. The commercial basis (the customer's willingness to pay) for user-centred solutions must be demonstrated and described in order to secure and support the decisions concerning the selected Design for All solutions. Seen as a whole, this means that the Design for All aspects must be included in a holistic and financially sound approach.

In Conclusion

Together, these criteria give some measure of success and, if met, can help Norwegian businesses use design in general, and Design for All in particular, to create competitive advantage and move closer to the consumer. Design for All is a powerful tool for innovating in existing markets as well as opening the door to new markets. In the consumer-driven, more socially conscious world of today, this methodology is becoming increasingly important and is something that companies cannot afford to ignore.

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