

# DESIGN ISSUES IN EUROPE TODAY

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# CONTENTS

## DESIGN ISSUES IN EUROPE TODAY

- 2 EXECUTIVE SUMMARY
- 4 FOREWORD STEPHEN HITCHINS
- 6 INTRODUCTION: DESIGN DEFINES THE CENTURY STUART MACDONALD

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### SECTION A DESIGN INNOVATION AND ECONOMIC DEVELOPMENT

---

- 10 DESIGN, INNOVATION AND ECONOMIC DEVELOPMENT PETER ZEC
- 14 DESIGN MANAGEMENT & LEADERSHIP BUSINESS TOOLS FOR MAXIMISING VALUE RAYMOND TURNER
- 16 GENERATING TOOLS: FIGHTING BARRIERS TO INNOVATION LUISA COLLINA, GIULIANO SIMONELLI
- 18 INTEGRATING DESIGN THINKING INTO CORPORATIONS JAN R. STAVIK

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### SECTION B DESIGN'S RESPONSIBILITIES

---

- 22 DESIGN ETHICS AND PHILOSOPHY STEINAR AMLAND
- 24 LIFECYCLE ASSESSMENTS & SUSTAINABILITY SYSTEMS EZIO MANZINI
- 26 DESIGN AS A TOOL FOR WEALTH DISTRIBUTION KAREN BLINCOE
- 28 DESIGN FOR ALL – QUALITY OF LIFE FOR ALL CITIZENS FRANCESC ARAGALL
- 30 SUSTAINABILITY AND CORPORATE RESPONSIBILITY PETER BUTENSCHON

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### SECTION C DESIGN AND CULTURE

---

- 36 DESIGN AS CULTURAL CARRIER JORDI MONTANA
- 38 THE POTENTIAL OF DESIGN TO COMMUNICATE VALUES HELMUT LANGER
- 40 DESIGN'S ROLE IN SECURING REGIONAL QUALITIES & IDENTITY JOHAN VALCKE

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### SECTION D DESIGN EDUCATION AND RESEARCH

---

- 44 INTEGRATING DESIGN THINKING INTO OTHER CURRICULA ROBIN EDMAN
- 46 DESIGN AS A RESEARCH TOOL: NEW CHANCES FOR DESIGN COMPETENCES PAOLA BERTOLA
- 48 DESIGN EDUCATION IN EUROPE NORMAN MCINALLY

---

### SECTION E EPILOGUE

---

- 54 A EUROPEAN VISION FOR DESIGN MICHAEL THOMSON
  
- 56 APPENDICES, BEDA AND DESIGN EUROPE

THIS WHITE BOOK SEEKS TO ENCOURAGE A BROADER UNDERSTANDING OF DESIGN AND ITS POTENTIAL IN THE CONTEXT OF THE EUROPEAN UNION. IN OTHER WORDS, THE VALUE THAT IT CREATES, ITS ROLE WITHIN INNOVATION, ITS POTENTIAL TO INCREASE COMPETITIVENESS AND SUPPORT EUROPE'S POSITION AS A WORLD LEADER.

- The role of design and the creative industry and cultural contribution with which it is associated, is a key economic issue. The real challenge lies not just in designing better products and better processes but in designing entirely new business models.
- Europe is in a unique position to export a whole range of design-related activity to the rest of the world. This leadership position has been developed over many years but will not last indefinitely.
- All of the countries in the European Union need to develop innovation policies. Innovation is not only technology; design is fundamental to innovation.
- Literally everything now depends on design. Its role as a bridge between technology and art, ideas and ends, culture and commerce is now important.
- Innovation and social structure are intertwined. Indeed, design is closely connected to the economic development and sustainability of particular regions, nations and Europe itself. In terms of design, each needs to be promoted proactively to strengthen competitiveness.
- Design management and leadership together make a commercial imperative because they enable companies, regions and nations to differentiate themselves and sustain competitive advantage.
- Design-driven innovation goes beyond the familiar technology pull and market push forms of innovation. Its driving force is design capacity.
- During the last two decades, designers, as well as society at large, have challenged the perception of design. Accepting the vast influence design has on the quality of life has changed the parameters of designing – it is as much to do with ethics as it is aesthetics.
- Design quality has to be seen within a wider socio-economic context. As designers communicate more directly with consumers their contribution and social responsibility expand in equal measure.
- Design-driven innovation and design for sustainability can converge as a strategic design activity capable of creating sustainable solutions and new ideas of well-being.
- A company's activities can no longer be valued by financial performance only. Corporate Social Responsibility (CSR) – the inclusion of social values in business – is also important. Design, through the provision of enlightened solutions, can help promote CSR.
- Design for All is the umbrella term for those activities focussed on securing social inclusion and equality. The European Commission's Design for All Award is an example of best practice in this regard.
- Each regions' cultural identity is perfectly compatible with the desire for integration into a larger community. Design can help maintain local, regional and supranational cultural identities.
- Major demographic shifts mean that design has a significant responsibility for the development of barrier-free products, information and systems to satisfy the needs of all regardless of age or ability.
- Design education is in a strong position to encourage education through design to promote the attitudes and capabilities to provide the products, services and environments needed by European citizens in the 21<sup>st</sup> century.
- Because design can be a major player in shaping a world where a value-enhanced user-perspective is developing, cross-functional, creative alliances must be formed. Design thinking ought, therefore, to permeate the educational curricula.
- Economic and social change highlight the importance of knowledge and research as key factors on global competitiveness. Research as a continuous learning attitude for both companies and institutions is an imperative.
- Europe needs a design policy to help member states initiate mature policies for development and to offer arguments to support appropriate investment in the promotion of design as an integral aspect of economic growth.

## FOREWORD

It is the combination of artistry and usefulness that makes design the creative industry par excellence. As the future growth of the European economy depends increasingly on our strengths in creativity, innovation and ideas, areas in which Europe has a pre-eminent record of achievement, we have to find ways to maximise the potential of these skills in order to maintain international competitiveness and expand its position as a world leader.

Europe's design industry not only makes a vital cultural and economic contribution at home but can also set a new direction for manufacturers and business around the world. The role of design and the creative enterprise and cultural contribution with which it is associated, is a key economic issue. These are the areas where many of the jobs and much of the wealth creation are going to come from in future. And not just design, but business concept design where the real challenge today lies. Not just in designing better products, not only in designing better processes, but in designing entirely new business models. As designers create the next commercial landscape, so we cannot measure results simply by looking at past performance. We must measure design's contribution against the moving targets of tomorrow.

In order to support sustainable growth in the creative industries it is important to identify exactly what is happening at the moment - to identify current activity, the potential for the future - and to establish what are the key obstacles and threats to such growth. Assessing the economic value of design to Europe, promoting a wider appreciation of that value, considering how regional, national and international policies impact on that value, identifying wealth-creating opportunities for the industry and to identify what is hindering that growth are essential government activities and, increasingly, European activities. These subjects are at the heart of this collection of essays by some of the continent's most respected practitioners.

Europe is in a unique position to export a whole range of design-related activity to the rest of the world. This position of leadership has developed over many generations but will not last indefinitely. It needs to be maintained in order that Europe's competitive advantage is maintained over the long term. That competition is now intense, as Asian countries in particular develop centres of design and innovation.

All countries in the European Union need to develop innovation policies. Innovation is not only technology. Design is fundamental to innovation. Whereas science and technology are seen as the keys to Europe's future and are seen as essential components in devising an innovation strategy, design is not. An appreciation of design's potential value to increase competitiveness has only just begun and the part design can play in management strategy is seldom appreciated.

I trust that this White Book will go some way to encourage both a greater appreciation of that value which design creates, its significance at the heart of innovation, its potential to increase competitiveness and support Europe's position as a world leader.

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**STEPHEN HITCHINS** PRESIDENT OF BEDA 2003-2005.

IT IS THE COMBINATION OF ARTISTRY AND USEFULNESS THAT MAKES DESIGN THE CREATIVE INDUSTRY PAR EXCELLENCE. AS THE FUTURE GROWTH OF THE EUROPEAN ECONOMY DEPENDS INCREASINGLY ON OUR STRENGTHS IN CREATIVITY, INNOVATION AND IDEAS, AREAS IN WHICH EUROPE HAS A PRE-EMINENT RECORD OF ACHIEVEMENT, WE HAVE TO FIND WAYS TO MAXIMISE THE POTENTIAL OF THESE SKILLS IN ORDER TO MAINTAIN INTERNATIONAL COMPETITIVENESS AND EXPAND ITS POSITION AS A WORLD LEADER.

## INTRODUCTION

# DESIGN DEFINES THE CENTURY

Over the twentieth century various attempts were made at defining design, a process over which many different interest groups have claimed hegemony. In the case of spacecraft, aircraft, weapons, and ships it has always been seen as a matter of specialised technical expertise, most-times anonymous. Only in the case of fashion, cars, furniture and luxury goods has design become associated with individual personalities and even hero figures, and efforts to define it in terms of regional difference and national identity are a relatively new phenomenon. In terms of the consumer, design is governed by polls, surveys, focus groups and more recently the demand for differentiation and customisation. Nonetheless, it is marketing and the power of the brand that holds sway. Does any of this matter in the twenty-first century? Can we define design in a way that is relevant for the new century that does not begin with technology, or with artefacts, nor their creators, appreciators, users or consumers?

In English design is both a noun and a verb, referring to intentions and plans as well as fashioning and concocting. It is also connected (and this tells you a lot about the English language) with deception and cunning. Craft, which too is a noun and a verb, has as its adjective crafty, also meaning cunning. According to the philosopher Vilem Flusser, designers are like cunning plotters because they bridge art and technology to overcome or deceive nature. However, this is not to open up a sterile semantic or philosophical debate. Rather, the point is that at the beginning of the twenty-first century we are better able to see behind artifice or trickery. Our education and access to communications technology means that we can interrogate for ourselves claims about 'weapons of mass destruction', the inequities or benefits of globalisation, ethical or environmental matters linked to industrial development, or issues relating to our identity. What we are seeking, it would seem, propelled not only by the likes of pressure groups, eco-warriors, and global protestors as well as other post-industrial changes, is the perfect reconciliation of needs with resources.

What was previously concealed, whether by design or accident, is now subject to greater debate and analysis – the process is a matter of wider public concern. Thus, design has become a matter for a broader constituency. In that widened context it is also important to consider design's other connotation, its relationship to sign: a sign of the times, a sign of things to come, a sign of

membership. In other words, everything now depends on design. It is its role as a bridge between technology and art, ideas and ends, culture and commerce that is now important, not in its surreptitious twentieth century form but in the openness of its twenty-first century definition.

This collection of papers seeks to open up design's expanding range; a selection of key figures in the European design field discusses a number of inter-connecting themes. Peter Zec sets the scene by underlining how innovation and social structure have to intertwine in order to create the climate needed for survival far less sustainability. Indeed, describing what the future needs to be like and choosing the correct direction to get there is a function of leadership – a key element in the new arena of design management – and is at the core of Raymond Turner's contribution. Taking up that leadership challenge requires the application of a business tool and according to Jan Stavic, design proffers such a tool. Luisa Collina and Giuliano Simonelli underpin Stavic's thesis by underlining the importance of 'design driven' innovation. The debate is amplified by Steiner Amland who indicates how design is now integrated with other contexts and thus sets another challenge – designers need to re-evaluate what they do in that light. All of this is congruent with the contemporary re-defining of design, however, with that convergence come certain responsibilities.

Crucial to this re-definition, re-evaluation and re-emphasis and the responsibilities embedded therein, is the issue of sustainability. This is developed through the contributions of Peter Butenschon, Ezio Manzini, Karen Blincoe and Francesc Aragall, all of whom agree that it is the design profession that should take the lead on the issues of sustainability, Corporate Social Responsibility (CSR), and Design for All. In this sense, if there is an over-riding narrative, it is that design has emerged as an inter-connected economic, socio-cultural and environmental concern with wide-ranging relevance to the citizens of Europe. Certainly, much of the foregoing discussion refers to cultural as much as it does economic change.

This progression is nicely encapsulated by Jordi Montana for whom design should move from being a dialectical process with manufactured nature (the cunning plot) to being a dialectical process between people and cultures in permanent communication with nature. This is a way of grounding design in the local ecology and thus, of

propagating regional identity. To be successful, and this is Johan Valcke's point, design promotion has to recognise this and be organised locally, in order to promote local strengths more effectively. The subterfuge of Scottish electronic products with Japanese names or Flemish fashion branded Italian is no longer sufficient for more demanding and discerning European consumers, who can see through the 'plot'.

In this more transparent context, values, another twenty-first century concern, therefore can be communicated more honestly. Helmut Langer believes that as visual culture grows designers are the key brokers in transforming information into knowledge and values in that sense will strengthen European identity and competitiveness. Importantly, he highlights the difference between globalisation and homogenisation; globalisation means a multiplication of values. Fundamental to these values ecology or family of responsibilities - especially the relationship of ethics, sustainability and design - is education. Design education, no less than the design profession which informs and which it is informed by, is also subject to a host of economic and social pressures. In Europe this is particularly acute due to the Bologna Agreement and the likely convergence of education systems and curricula, and movement of students. Like the design profession, education requires to overhaul (re-design?) itself to relate to future needs. In that context a number of those needs are identified by Norman McNally; promiscuity, ego and play are added to some of the characteristics McNally believes necessary to attain the desired flexibility and transferability, and which, in some degree, design already possesses. Indeed, from Robin Edman's viewpoint, design thinking should be integrated across the higher education curriculum to pollinate creative alliances essential for future growth. Paola Bertola concurs with this view this the production of new knowledge is key, advocating that research should become a permeating, continuous process for both business and academia. In that sense, Design requires to be put higher up the academic research agenda.

Of course, the concerns of this White Book are not confined to Europe, they are universal. To take but one example; the South Koreans are actively developing a design policy that embodies many of the issues set out here. As Michael Thomson reminds us, the South Koreans are only one country in Asia amongst a number who

are embarking on similar initiatives. Even if there were no other pressures illuminated by the contributions to the White Book, the encroachment of Asian countries into areas hitherto assumed to be the sole territory of European design creativity, in addition to their march on Western manufacturing and service industries, would be reason enough to raise the matter of a European policy, or at least a resolution, on design and its promotion. It is hoped this White Book will provide the components of such an increment.

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SECTION A  
**DESIGN INNOVATION &  
ECONOMIC DEVELOPMENT**

## SECTION A

# DESIGN INNOVATION & ECONOMIC DEVELOPMENT

At the start of the new millennium our society, under the influence of economic globalisation and the omnipresence of electronic information and communications technologies, is experiencing a change of paradigms in the political, economic, ecological and technological fields. The challenge is that of sharpening our perspective of the new and regeneration, especially the conurbations in industrial regions, which are marked by high unemployment in the wake of structural change and face great responsibilities.

**Networks and infrastructure** Creating a climate for innovation means creating room for design and cost-effectiveness. Design promotion means economic promotion, particularly for small and medium sized enterprises. Those are in most cases the enterprises that are obliged to seek out alternative corporate strategies in times of devastating price wars. There, in particular, quality strategies, knowledge management and innovations are essential to survival. On the political level, this means two things: on one hand, innovations from the academic field have to be made accessible to businesses and society. On the other hand it means pushing ahead with the promotion of suitable infrastructures and networks so that a dovetailing of knowledge, businesses and society can take place.

**'What could the world in which we hope to live be like?'** The understanding of design that has grown up in the course of industrial history assesses a product according to whether it is functional and follows the laws of logic. Traditional proponents of this position assert almost dogmatically that form must follow function, and that product design always has a specific problem to solve. This view proceeds from solutions to the question of what the world we live in is like. But what happens when we ask, 'What could the world in which we hope to live be like?' This question provides a point of orientation for a redesign of industry and society. Without this questioning approach any system is caught up in the paradox that nowadays many things can be manufactured but very few imagined.

The topics of the future are to be found in

- Information and communication technologies
- Micro-systems and nanotechnology
- Biotechnology and medical technology
- High-tech materials and intelligent materials

### **Information and communication technologies**

According to the industry association Bitkom, the information and communications sector is undergoing a structural change from 'a manufacturing industry to a service industry'. Over 70% of sales are now achieved with telecommunications services, IT services and software. The industry expects further impetus. According to Bitkom, the market for portable computers and modern mobile telephones has by now reached around the size of the entire home electronics market. The current products trends are communication from and to any place in the world, the personalised information environments of mobile offices, progressive miniaturisation down to 'wearables', intelligent products and clothing. With the growing information content, a rapid rise in the information density of memory media and transmission channels is also necessary.

**Micro systems and nanotechnology** Hardly any other technology offers to fulfil such a host of applications in many production processes and various products: Micro technology now covers not only electronic components, but also mechanical, acoustic, optical, magnetic, chemical, and biological systems which require little space, energy and material. Micro engineering is already a booming market. Airbags, ABS and engine management systems are standard equipment for motor vehicles, and we have CD drives, scanners, mobile telephones and computers. 'Microsystems technology products are central to the function and commercial success of all these examples', as Professor Stephanus Buttgenbach, head of the micro-systems, and nanotechnology department at the VDE/VDI company for microelectronics, micro-engineering and precision engineering, notes.

While many applications are no longer conceivable without micro-systems technology, the next step is already taking place on the level of extremely small structures: the advance into the nanocosmos. There, the dimensions decrease by a further factor of 1,000 from millionth (micro), to billionths of a metre. To illustrate this, a metre is to a nanometre what the earth's diameter is to a hazelnut. Nanotechnology in the construction industry is a field, which is currently concentrating on what is known as the 'Lotus effect'. This term describes how nature demonstrates the self-cleaning of nanostructured hydrophobic surfaces by moving water - a phenomenon which occurs on lotus leaves. The special structure prevents drops of water or dirt adhering to the surface.

Nanotechnology has also made its way into many areas of the consumer goods industry. There, nanoparticles are used, for example, to increase the protective effect of sun creams, to establish a finish on sanitary ware, shower partitions and tiles that reduces cleaning work, or to enrich toothpaste so that it closes the finest cracks in the enamel.

**Design and new technologies** These are just a few examples of new fields of knowledge, which will increasingly influence cost effectiveness and industrial design. In order to create efficient network links and establish co-operation between the new fields of knowledge and industry and design, infrastructure reforms and new foundations will be necessary, just as was accomplished by the computer industry in Silicon Valley.

With exacerbated competition between the industrialised nations, companies today have to concentrate intensively on strengthening their qualitative factors such as productive technology, technical innovations in product development, service, marketing and management. In that process, design naturally adopts the function of increasing quality and effectiveness. Over and above this, however, products like the 'ipod' from Apple show that design does not merely create purely functional products for today's technological innovations, but also emotionally appealing ones. For the form and aesthetics of the 'ipod' do not provide a clue as to its function or its technical innovations. Design, rather, conveys a self-explanatory pleasure in the observer.

**Structural developments from design** Technological progress always goes hand in hand with the development of new social behaviour with regard to innovations. For design is also the aesthetic expression of modern industrial culture and is, therefore, closely connected to the technological and economic developments of a society and a region. Design promotion, therefore, also requires structural promotion of a certain region or even an entire nation. For design developments should accompany technological developments and thus contribute to strengthening the competitiveness of business located in or moving to the region. Furthermore, design can help to advance structural change on the socio-culture and economic levels, and assist in creating a new image for the region. One example of successful and promising structural change proceeding from design is the Ruhr area in connection with the Zollverein Mine

complex, part of our World Cultural Heritage, as a design location.

**Zollverein – a location for the future** At least since the structural crisis in the coal mining and iron and steel industry, the consciousness that a further change in the Ruhr region is necessary had been growing. The highest unemployment rates are still in the former steel and mining cities. With the move by the Zollverein Mine in 1997, the Zollverein design location was founded. Further cultural and design-orientated organisation followed. On Zollverein's inclusion in the UNESCO World Cultural Heritage list in 2001, the future of the city of Essen was clearly seen to be in that area. A world exhibition for architecture and design is to be staged on the Zollverein Mine site for the first time in 2005 and thereafter every five years. This project will enable the city of Essen to project its image as a European city and one, in its relationship with a cultural asset, with a post-modern face. The design complex at Zollverein makes use of the factor of design and its economic significance to give historically and culturally important location and the region as a whole, a new identity and economic basis orientated towards design.

Essen's city council and the state government of Nordrhein-Westfalen have the function in connection with the world exhibition for design and architecture project of creating new and interesting background conditions for the development of a residential and industrial structure, and themselves acting as 'knowledge managers' for the region. There can be no better location than Zollverein for this future task. For the fundamental transformation from an industrial society to knowledge society only becomes evident there. Design is the bridge connecting the two types of society, for it is of essential importance in both social and economic forms.

The world exhibition for design will not only reposition Essen as a business location, but will also create a peripheral area embedded in the information structure of the region and the state of Nordrhein-Westfalen. The urban nexus of the city of Essen can, with this project and the development of Zollverein as a location for the future, become a precious part of a united Europe, in which the free movement of people and goods could bring about not only economic unification but also social integration.

**Summary- a climate for innovation and design** A region that wants to remain alive needs inward investment by innovation sectors of industry, together with the formation of a new social structure. Design provides a real opportunity for such a structural change by attracting design studios, service and supply enterprises, and focusing on topics and events relevant to design at a defined location: Zollverein. For the commercial elite is international, highly mobile and financially powerful. It can only be bound to a particular location by innovative projects, which are planned for the long term and, moreover, offer a social added value. Furthermore, the people who set up homes in the vicinity in response to the favourable living conditions will support these projects. This is one of the most important steps towards effective integration in Europe.

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**PETER ZEC** IS PRESIDENT OF RED DOT DESIGN AWARD, DESIGN ZENTRUM NORDRHEIN WESTFALEN AND PRESIDENT ELECT OF ICSID (INTERNATIONAL COUNCIL OF SOCIETIES OF INDUSTRIAL DESIGN).

AT THE START OF THE NEW MILLENNIUM OUR SOCIETY, UNDER THE INFLUENCE OF ECONOMIC GLOBALISATION AND THE OMNIPRESENCE OF ELECTRONIC INFORMATION AND COMMUNICATIONS TECHNOLOGIES, IS EXPERIENCING A CHANGE OF PARADIGMS IN THE POLITICAL, ECONOMIC, ECOLOGICAL AND TECHNOLOGICAL FIELDS. THE CHALLENGE IS THAT OF SHARPENING OUR PERSPECTIVE OF THE NEW AND REGENERATION, ESPECIALLY THE CONURBATIONS IN INDUSTRIAL REGIONS, WHICH ARE MARKED BY HIGH UNEMPLOYMENT IN THE WAKE OF STRUCTURAL CHANGE AND FACE GREAT RESPONSIBILITIES.

To maximise the full potential of design in business, design must operate at both a management and leadership level. Management is essentially about responding to a given business situation. The basic skill is about facilitating a change process. Leadership is about describing what the future needs to be like and then choosing the direction to take in order to get there. This is also at the core of what design leaders do. Each area of expertise depends on the other for its relevance to business. Without design leadership you don't know where you are going; without design management you don't know how you are to get there. The first step is a stepping-stone to the second. Both are critically important to business and both are necessary to get maximum value from design. There is a fundamental difference between the skills needed to address both areas of expertise.

**The essence of the design manager's role** Design management is about delivering effective design solutions in an efficient, cost-effective way utilising a wide range of skills. There are five basic skills required for effective design management.

**1. Managing design people** Effectively involving everyone concerned with the design process i.e. end-users, clients, consultants, in-house designers, technical specialists and suppliers.

**2. Managing design budgets** Ensuring all expenditure on design is explicit and derives maximum value from the investment.

**3. Managing design timetables** The design activity in, say, a product launch, is extensive and complex. In many cases getting the timetable wrong may be catastrophic to the business.

**4. Managing design work** Ensuring that appropriate design projects are set up to address identified business issues, and solutions generated represent effective responses.

**5. Managing design organisations** Putting into place an appropriate design organisation within the business that ensures the commitment of sensible design budgets and other resources to address needs, gain design approval, use resources efficiently through to implementation of design proposals, then build on the experience gained.

Design management is complex, and the role of design managers is made more challenging by the fact that they often fulfil design leadership roles too.

**The essence of the design leaders role** Design leadership involves helping generate tangible business scenarios and clarifying their implications for the company. Once that direction has been set design leaders formulate design strategies and programmes to turn those visions of the future into reality.

Design leaders help companies to

- Clarify where they wish to go
- Define desired futures for them
- Demonstrate what those desired features might be like
- Develop design strategies that help them get there
- Turn the desired future into reality

**There are six basic skills required for effective design leadership:**

**1. Envisioning the future** Organisations need to understand what their future business needs to be like and encapsulating that vision so that everyone can relate to it is a fundamental role of design leadership.

**2. Manifesting strategic intent** Design is one of the few resources in business that provides a practical link between discussions in boardrooms and day-to-day activities of companies. Design leaders are responsible for establishing and maintaining these links.

**3. Directing design investment** Although vast sums are spent on design only a small proportion is formally acknowledged as design expenditure. Design leaders must determine exactly what these sums are, ensure the money is spent in the right way, and maximise return on that investment. They need to address the fact that the money spent on design is usually the largest area of expenditure that company boards know least about.

**4. Managing corporate reputation** Design helps organisations manage their relationships, and hence their corporate reputations, with all stakeholders. One of the fundamental challenges for design leaders is to ensure that design is used to deliver the most appropriate experience at every point of contact between company and stakeholders.

**5.Nurturing an environment for innovation** Continuous and radical innovation is often critical to business success. Design leaders have to harness and sustain innovation by creating environments in which innovation flourishes

**6.Training for design leadership** Little is known about training for design leadership and grooming successors to positions of leadership. Yet to maximise the full potential of design in business, it is crucial that those gaps in knowledge, skills and experience are redressed.

**Summary** Taken together, design management and leadership become a commercial imperative because they enable a company to differentiate itself from others, create and sustain competitive advantage, and evolve into a world-class performer. Unless design becomes part of a company's DNA this will not be possible. Design management and leadership enable that to happen.

## SECTION A

# GENERATING TOOLS: FIGHTING BARRIERS TO INNOVATION

Often the term innovation is linked to white coats and laboratories full of unknown machinery. There is another perception that innovation comes from the market, from listening to people for whom the products are intended. However, are there other forms of innovation, which go beyond the already well known 'technology pull' and 'marketing push' innovations? Recently the definition of a new innovation concept, defined as 'design-driven' innovation, has developed and is being established. This innovation is not necessarily linked to technological innovation or to sophisticated market analysis, but its driving force is design capacity.

**Design-driven innovation** Design-driven innovation refers to reconfiguration processes of value creation that are the result of the generative interface – that is capable of giving birth to unexpected solutions - and social potential (the 'field of what is socially possible'). In order for this to take place, a special ability to straddle the borderline between disciplinary, organisational and linguistic areas that are normally considered different and distant (technical, economic and managerial skills, on one hand, and socio-cultural, aesthetic and communications skills on the other) is called for.

What is needed is a kind of innovation that involves not only products but also, in a broader view, fields of services and communication. The importance of these is evermore relevant within the whole process, from the definition and anticipation of needs to the ways in which the product is launched nowadays as well as consumed by the users. One good example of this kind of innovation can be seen in the Italian production system where the success of 'Made in Italy' products is seldom related only to technology and where the real strength is given by the design of new qualities that often crosses all the above-mentioned borderlines. This kind of innovation allows these Italian companies to acquire a competitive advantage over firms - in many cases bigger and better structured - involved in other national economic systems.

**How can innovation be transferred?** Even in Italy, where awareness of the potential of design-driven innovation and competitive value is higher, many enterprises are still far from these innovative dynamics. Next to the so-called 'design-oriented' enterprises there is a multitude of SMEs (a productive force which represents a great richness for Europe), for whom innovation is seen merely

as process innovation - production with lower costs. These costs are mainly seen in economic terms, as human resource investments and risks by micro and small enterprises that are not able to bear these costs on their own. Hence, in order to 'overcome the barriers' between design and enterprises and meanwhile contribute to local development through design, it is important to address attention to those enterprises able to offer a 'leapfrog advancement' and potential for innovation.

At this point, the role of institutions, innovation centres, chambers of commerce together with universities, education centres and design associations who work in this field is crucial for directing enterprises towards design through practical projects, for example:

- Building trust through design with demonstration and experimental projects;
- Involving groups of enterprises and designers;
- Making Design economically accessible to SMEs.

As a second step, for more mature companies able to express 'design demands', it is possible to organize more structured projects in different forms, such as:

- Empowering education processes, focused on different specific realities;
- Offering design services to companies, through the organization and tutoring of design creative workshops, internships, combined design studios, etc.
- Enabling the birth of design companies through projects focused on:
  - The empowerment of design entrepreneurship
  - The stimulation of the designer's entrepreneurial role.
  - The creation of incubators for design companies.

### Two Italian case studies

#### DxD – Design for Districts

The project DxD – Design for Districts is an experimental design studio born early in 1999 through the connection of the Design Study Course at Politecnico di Milano and Lumetel, the agency for the local development of one of the most important and oldest Italian industrial districts located near Lumezzane, close to Brescia (supported by the Region of Lombardy and the Chamber of Commerce of Brescia). The aim was to lead the firms belonging to the district through product differentiation policies as well as policies for the improvement of their communication

systems and through the development of services tied to product distribution and marketing, in order to better face the medium-high market demand.

The DxD project (1999-2001) project initiatives:

- *Final year design studio: more than 60 students for two semesters have studied the local reality (from its product, production and distribution processes to the structure of the industrial community) and designed for its improvement;*
- *Work Placements: all the students have been involved in work placements in 22 district companies and institutions;*
- *DxD Design Award, 2 Seminars And 2 Exhibitions: all the projects designed by the students together with the companies within the placement, participated to a Design Award and have been discussed and presented in seminars and exhibitions;*
- *46 Degree Thesis: most of the students graduated with a dissertation on subjects related to the district.*

This model has been replicated and adapted afterwards in other Italian, as well international contexts.

**Design Focus** Design Focus is a cultural institution formed by different actors - Politecnico di Milano Foundation, Chamber of Commerce of Milan, and the Design Research Agency of the Politecnico di Milano. It is a meeting place, where it is possible to compare and thoroughly talk about design issues, aimed at facilitating research, innovation and competitiveness within the project field and the Lombardy economic and productive system. Some of the actions being promoted at the present moment are:

- **Adopt a designer':** the creation of a standard of excellence for young designers within local enterprises;
- **MIDES - Milan Design Scenario Innovation** an initiative to involve and stimulate Lombardy enterprises to structure a common path of strategic research, encouraging companies to identify project scenarios and develop a series of proposals up to the realization of prototypes. This is supported by young professionals and developed with the active support of enterprises;
- **Research Project and informative Network:** an Informative System shared among the actors involved in the Design

- **Focus observatory** that has been built in order to share through the web relevant information for improving the territorial design-system.

**Conclusions** In order to overcome the barriers between design and SMEs it is important to start specific actions which are focused on communities of enterprises, more than single companies and intended to force the companies to 'try', to 'touch', to 'taste' design rather than to 'listen about' design. These should be supported by universities, institutions, designers' associations, local development agencies or organizations, as facilitators of this convergence process.

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**GIULIANO SIMONELLI** IS A PROFESSOR AT POLITECNICO DI MILANO. HE IS THE DIRECTOR OF SDI, THE ITALIAN DESIGN RESEARCH NETWORK.

## SECTION A

# INTEGRATING DESIGN THINKING INTO CORPORATIONS

In order to address this topic we need to assume that most companies are concerned about at least three major issues:

1. fulfilling present future customer needs
2. beating the competition
3. creating profits and shareholder value

In other words, it's all about creating business and thus, focusing on business development.

Any corporate executive would agree with this. Most executive agendas are concerned about not only finding the right mixture of crucial business processes to achieve their goals, but also securing the best quality in the performance of corporate business processes. The problem, however, is that when everyone has read from the same book, everyone will act according to the same mantras and agendas and achieve average results, if any.

**Searching for excellence** Companies searching for more than this are companies that are searching for excellence. There are quite a few of these companies in Europe, but most of them are still searching. Some companies, however, have succeeded and have achieved a position as market-leaders within their field of business. In a country like Italy one will find quite a few small and medium sized companies, which have achieved such a position within areas like ski boots, spectacles, furniture.

These companies have created the three values mentioned above by implementing design as a competitive tool and have, thus, achieved a distinct identity and an international brand.

**The challenge** The challenge is to identify and implement a business development tool that makes a difference and creates unique and profitable values, when integrated with establishes business processes. Design is such a tool. The problem is that a majority of European companies are not aware of this. Those companies that acknowledge the value of design as part of corporate business development are the companies that are profitable category leaders within their business field today. They have identified design thinking and design procedures as the 'missing link' in order to create the extra value in the interface between the market and the corporation. That is what makes a difference.

**Corporate consequence** In order to utilise design as a catalytic value in corporate business development, the company has to:

- acknowledge design thinking and procedures as a business tool in itself
- adapt the organisational know-how and operational procedures to the business tool
- integrate this into established business processes such as:  
Product Development, Marketing, Production & Logistics, Corporate material, PR and information, Sales and information, Organisational behaviour/Corporate Culture.

**Who owns the challenge?** In most companies the board of directors, the CEO, and his or her management team will open any business development issue. With a commitment at company top-level, design will be put on the company agenda. This will have a strong influence on company behaviour and create the necessary culture for design-focus and design-performance in order to achieve a profitable competitive edge. Studios of successful companies that have been performed in different countries, strongly supports this viewpoint. Thus, it is imperative that the commitment to integrate design into corporations starts within the boardroom, and as a consequence, is executed by the CEO and his team. This is not the case in most European corporations. They simply do not know why they should implement design as part of their business processes, and certainly not how to do it.

**Summary - the bottom line** Any initiative towards introducing design as a business tool for creating a corporate competitive edge should start with initiatives aimed at the board of directors and the top management level. Without such initiatives a lot of companies will neither be exposed to why design is important nor how to implement design in company business processes.

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**JAN STAVIK** IS DIRECTOR OF NORSK DESIGNRAD, THE NORWEGIAN DESIGN COUNCIL.







SECTION B  
**DESIGN'S RESPONSIBILITIES**

## SECTION B

### DESIGN ETHICS & PHILOSOPHY

Design as we know it – a synthesis of skills known from crafts, architecture and engineering – has slowly adapted its own professional identity throughout the last half of the twentieth century. Today design is inextricably linked to the way in which society, culture and the environment interact. The environmental, social and moral responsibilities of designers are determining factors in our common exertion to foster a sustainable and harmonious society.

**Challenging the perception of design** However, for decades design remained product-driven – complying with famous American designer Henry Dreyfuss' assertion that 'industrial designers are employed primarily for one reason; to increase the profits of the client company'. As a result design has gained an ill repute of serving only the most privileged, excluding major groups, both in consumer markets and on a global scale. During the last two decades designers, as well as society at large, have challenged the perception of design. The changing role and responsibilities of design and designers are currently being addressed both on institutional and individual levels.

Socrates and Plato reasoned that to be good, one must know what good is. Accepting the vast influence design has on the quality of life, the potential consequences of the work of designers have changed the way in which many designers see themselves and the parameters of designing. Knowing good from bad, not only in terms of form and function, but also in terms of societal, environmental, cultural and human properties, gradually assume equal importance to economy, technology and market demands. This shift is important for a number of reasons.

**Convergence** When design was all about the object, its inherent qualities were duly focused. As the heritage from crafts, architecture and engineering increasingly converges with social studies, psychology and environmental studies, the object itself becomes peripheral. Design no longer characterises only the object but also the context – the values it reflects, the objectives it pursues and the ethics it represents – that is, when the design process leads to a material object. More and more often the outcome is not, and was never intended to be, an object, but a way or method.

As design gains recognition as a relevant approach to challenges within education, health care and other public services, management and political processes, ethics

and philosophy become increasingly important pillars in design practise. At the same time the scope of designers is enlarged considerably as is the potential force of design as a tool for change.

**Summary – Re-evaluating design** Consequently, the need to know good from bad becomes imperative. Professional skills will not suffice. A fundamental reappraisal of the role and responsibilities of design and designers is therefore needed in the design community as well as in the environment, in which designers play, or could play, a role. The design community needs to re-evaluate and debate its codes of conduct to facilitate a new set of design ethics appropriate to their future challenges. 'Designers need to take a participatory role within society earning respect, not demanding it – focusing on real problems rather than artificially constructed ones'.

Political and corporate environments need to discover the unexploited potential of design as a powerful competence – much more powerful than generally appreciated – and to welcome the challenges posed by design and designers, while concurrently challenging their own ethical aspirations and philosophies. Good design not only requires ethics and integrity, skills and a powerful idea on the part of the designer. It requires integration of processes and interdependence between all parties involved based on their different skills and benchmarks. And, it exacts a common understanding of what good is.

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**STEINAR AMLAND** IS MANAGING DIRECTOR OF DANISH DESIGNERS

DESIGN AS WE KNOW IT – A SYNTHESIS OF SKILLS KNOWN FROM CRAFTS, ARCHITECTURE AND ENGINEERING – HAS SLOWLY ADAPTED ITS OWN PROFESSIONAL IDENTITY THROUGHOUT THE LAST HALF OF THE TWENTIETH CENTURY. TODAY DESIGN IS INEXTRICABLY LINKED TO THE WAY IN WHICH SOCIETY, CULTURE AND THE ENVIRONMENT INTERACT. THE ENVIRONMENTAL, SOCIAL AND MORAL RESPONSIBILITIES OF DESIGNERS ARE DETERMINING FACTORS IN OUR COMMON EXERTION TO FOSTER A SUSTAINABLE AND HARMONIOUS SOCIETY.

Environmental and social sustainability requires a discontinuity: from a society where a normal healthy condition was one of growth in production and material consumption, we must move to a society which is capable of developing by reducing them, while improving the quality of the overall environment. It is difficult to foresee today how this can come about. However, it is certain that a discontinuity will take place and that we must expect a long period of transition. In this wide process of transition design may play an important role by facilitating forms of systemic innovation on an everyday level.

#### **Sustainable solutions, ideas of well-being and design driven innovation**

Our everyday life is based on a series of solutions: networks of people, products and infrastructures that allow us to obtain results and which enable us (or should enable us) to do what we wish to do, and be what we wish to be. Nowadays we know that a large part of the solutions we look to, and therefore the lifestyles deriving from them, are unsustainable. And we know that in the near future new families of solutions will have to emerge and develop on our everyday life - solutions to enable us to live better by consuming less and regenerating our physical and social contexts of life.

The success of sustainable solutions and their adoption in society worldwide depends on a change in our ideas of well-being and the way we act to achieve it (ideas of well-being are social attractors able to stimulate and direct actions both on the demand and the supply sides of the production and consumption system). At the same time, new ideas of well-being can emerge and spread only if somebody demonstrates, in practice, that new ways of living are possible and new solutions are available, since new solutions trigger off new ideas on how it would be possible to live. In other words, there is a double link between solutions and ideas of well-being. New ideas of well-being are needed in order to develop radically new solutions, and new solutions are the enabling platform for new ideas of well-being to take off.

Design, by its very nature, is an activity that bridges the gap between the socio-cultural and the techno-economical dimensions of the production and consumption systems. For this reason it is able to operate a two-way process, by promoting forms of innovation that generate, at the same time, both the demand for new solutions and the new solutions themselves that meet this emerging demand.

This kind of innovation, which may be defined as design driven innovation, is what is principally required in the transition towards sustainability. When this design potential for innovation is orientated towards sustainability, we can talk of design for sustainability (DFS), a strategic design activity, which conceives and develops sustainable solutions and the corresponding new ideas of well-being.

#### **Systemic social innovation and a new design role**

The concept of design driven innovation is very wide and means different things in different contexts of application. In the context of the transition towards sustainability, it is related to the potential of design 'to drive', though in this case it would be better to say, 'to facilitate' - a form of systemic social innovation. In fact, sustainable solutions are complex socio-technical systems that are very often realised by a multiplicity of actors. In developing them designers have to change their consolidated professional profile and become operators who act within a network, taking the role of facilitators of the innovation process. In this way, their role is to promote the generation of shared visions that trigger the energy of the different actors and help them focus on one common objective. In other words, when dealing with sustainable solutions, the 'design activity' that must drive the innovation process is 'facilitated by designers', rather than directly 'performed by designers'. Designers themselves should use their creativity and communication ability to promote a high degree of effective social participation, rather than try to leave their own personal mark on the final results.

#### **Summary – implicit and explicit design knowledge**

As often happens in design activities that are interesting and innovative, design for sustainability has up to now rarely been recognised as a 'design activity'. Most of the tangible examples of sustainable solutions that we could mention (from the now familiar ones of simple car sharing and organic food delivery), to more complex ones such as fair trade systems or co-housing initiatives) are the result of 'implicit design activities', that is, activities carried out by people who are not designers and who are often not even aware that they have 'designed' something. The problem with this 'implicit design' is that, although it can achieve extremely interesting results, its capacity to consolidate experiences and make them reproducible is intrinsically weak. Since it is the result of implicit knowledge, it is unable to express itself in a way that is

easily comprehended or rationalised. It does not generate operative instruments and has difficulty in transmitting what it has learnt from its experiences to others.

Overcoming this difficulty means moving from implicit to explicit design knowledge. It means clearly identifying that set of concepts and operational tools that, together, would enable us to speak of a new discipline and new professional skills.

## SECTION B

# CORPORATE SOCIAL RESPONSIBILITY AND ITS IMPACT ON THE DESIGN PROFESSION

Corporate Social Responsibility, CSR, is the inclusion of social values in business operations. CSR highlights the interests of stakeholders, in other words, all those affected by a company's conduct, and is an integral part of the company's business policies and actions. CSR is a model of the Triple Bottom Line approach, which focuses on the social, environmental and economic activities of a company. The goal is to positively impact on society, reducing the environmental impact while achieving business success. The difference between Triple Bottom Line and CSR is the fact that the main focus of CSR is on the social aspects of a company's behaviour whereas in the Triple Bottom Line model the environmental impact is equally important.

**Financial performance is no longer enough** Until recently a company's activities were measured by its financial performance only. Since the seventies there has been a trend, however slow, to start judging a company on its general behaviour in the marketplace. There are several reasons for this:

- Increased international trade and investment (globalisation) where the world market is ruled by fewer and larger corporations or multinationals.
- The advance of the Internet and Worldwide Web where information crosses continents in seconds and reaches thousands of people simultaneously.
- Stories of corruption, scandals, and ill treatment of workers especially in the developing countries – child labour, sexual harassment for example, the recent disclosure of corrupt companies.
- Environmental degradation and pollution of water, land and air by large-scale industries –cutting down of rainforests, displacement of ethnic minorities, CO2 emissions, toxic rivers, pollution of the seas

The recent increase in CSR activities by companies around the world has been a direct result of the Enron scandal, which through the media became worldwide knowledge overnight. Negative stories affect companies, causing employees to leave their jobs, customers to put their business elsewhere, lack of investment, bad reputation which affect sales and profit margins – at least in the short term. Companies who are seen to be reliable, open, honest and straight enjoy good media, high branding value, happy employees, investor interest and loyal customers, all of

which affect the financial result.

When asked why a company should take on CSR and asks, 'Is it good business?' the above should answer the question. There is no doubt that business now and in the future will be able to relate their economic performance to good reputation.

**The design profession** Is CSR good business for designers? Again the answer is positive. We have not as yet seen the real impact of CSR on the design profession. Good companies want to use suppliers (design companies) who also commit to responsible behaviour. Clients will want to use designers who understand the concept and the implications of CSR. They will look for advice on how to enhance stakeholder communication at many levels from shareholders (annual reports), employees (internal communications), customers (product development, information and usability) to local and global markets in terms of PR and branding.

The design disciplines facing the challenge of CSR right now are clearly graphic design, visual communication, design management and branding consultancies. As more and more companies focus on stakeholder communication they look to these consultancies for advice and creative ideas to reach their targets. Product and other design disciplines will also be challenged as the impact of accessibility and environmental considerations will challenge them to search for more resource efficient, more universal, 'lighter' and more 'enlightened' solutions to design problems.

**Summary** It is of paramount importance that the design profession learn about both CSR and sustainability issues in order to be able to grasp this opportunity and make a real difference both to the client company as well as to society and the environment.

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**KAREN BLINCOE** IS DIRECTOR OF THE ICIS CENTRE DENMARK AND TREASURER OF ICOGRADA

NEGATIVE STORIES AFFECT COMPANIES, CAUSING EMPLOYEES TO LEAVE THEIR JOBS, CUSTOMERS TO PUT THEIR BUSINESS ELSEWHERE, LACK OF INVESTMENT, BAD REPUTATION WHICH AFFECT SALES AND PROFIT MARGINS – AT LEAST IN THE SHORT TERM. COMPANIES WHO ARE SEEN TO BE RELIABLE, OPEN, HONEST AND STRAIGHT ENJOY GOOD MEDIA, HIGH BRANDING VALUE, HAPPY EMPLOYEES, INVESTOR INTEREST AND LOYAL CUSTOMERS, ALL OF WHICH AFFECT THE FINANCIAL RESULT.

## SECTION B

### DESIGN FOR ALL - QUALITY OF LIFE FOR ALL CITIZENS

**Defining design for all** Every moment of our daily lives we interact with products, services or built environments. Beds, clothing, buses, telephones, credits cards and even toys are designed to cater for our human needs, wishes and aspirations. But if we really want to suit individual requirements the design of real or virtual objects must always acknowledge human diversity. This human diversity comprises differences in age, gender, abilities, cultural background, religion, sexual orientation, and personal principles. Together these constitute the individual's characteristics, abilities and limitations. Design for All, also known as Universal Design or Inclusive Design, is the answer provided by design professionals who, together with end users, governments, manufacturers and service providers, feel the ethical responsibility to provide everyone - all citizens - with environments, products and services that are useful for everyone, thereby promoting social inclusion and equality.

In Europe, several different initiatives have developed in recent years, both to raise awareness and to put the tools and strategies for implementing Design for All into practice. Some significant examples include:

**IT in Europe** e-Europe is the European Commission's strategic programme aimed at guaranteeing access to The Information Society Technologies to all the European citizens. As a consequence of this initiative, several working lines have been developed, including the mandate to CEN, CENELEC and ETSI to adapt European standards to the criteria of Design for All and the establishment of EDeAN (European Design for All e-Accessibility Network)

**Research** Both the Fifth and the Sixth Research Framework Programmes promoted by The European Commission include budget lines addressed to research in Design for All.

**Corporate social responsibility** The Barcelona-based Design for All Foundation is conducting a project to promote corporate commitment to demonstrating their social responsibility by offering their customers products and services based on the principles of Design for All.

**Education** The European Council of Ministers has approved a resolution that calls on Member States to include Design for All in curricula related to study of the built environment, Similarly, the European Commission

has funded the IDC.NET project, whose aim is to include Design for All in University curricula.

**Awareness** The Design for All Award promoted by the European Commission, and established with the co-operation of EIDD (European Institute for Design and Disability), aims to recognise European best practices and products developed using the criteria of Design for All. The 2003 edition of the European Concept of Accessibility Network (EUCAN) explains the social need of Design for All and furnishes recommendations to adapt the built environment to user diversity. Since 1993, EIDD has been working at European level through its national members in 17 European countries, constantly organising courses, seminars and conferences in co-operation with national and local governments to increase awareness among different social actors. Evidence of the social impact of Design for All is its consistent presence in the Internet: recently, the search engine Google gave 224,000 references to Design for All and 222,000 to Universal Design. All of this focus on the criteria of Design for All required a short definition. On 9 May 2004, EIDD filled this gap with the EIDD Stockholm Declaration©, which clearly defines the social importance of Design for All as a strategy for improving the quality of life of all citizens and increasing social inclusion.

#### The EIDD Stockholm Declaration©

*Good design enables, bad design disables.*

Soon after its establishment in 1993, the European Institute for Design and Disability (EIDD) developed the mission statement: 'Enhancing the quality of life through Design for All'. After ten years as the European platform on Design for All, involving the development of external relations and an internal structure – national member organisations, corporate members and individual members now in sixteen European countries – EIDD believes that the time has come to issue a Design for All Declaration.

Design for All has roots both in Scandinavian functionalism in the 1950s and in ergonomic design from the 1960s. There is also a socio-political background in Scandinavian welfare policies, which in Sweden in the late 1960s gave birth to the concept of 'A society for all', referring primarily to accessibility. This ideological thinking was streamlined

into the United Nations Standard Rules on the Equalization of Opportunities for Persons with Disabilities, adopted by the UN General Assembly in December 1993. The focus of the UN Standard Rules on accessibility in a clear equality context has inspired the development of the Design for All philosophy, which became a generally accepted concept in EIDD at its Annual General Meeting in Barcelona in 1995.

Comparable concepts have developed in parallel in other parts of the world. The Americans with Disabilities Act contributed to the evolution of Universal Design, while Inclusive Design has gained ground in the UK. Today, Planning and Design for All are being recognised increasingly as necessary elements in pro-active strategies for sustainable development.

#### **The European Institute for Design and Disability (EIDD)**

On the occasion of its Annual General Meeting in Stockholm on 9 May 2004, EIDD adopted the following Declaration:

*Across Europe, human diversity in age, culture and ability is greater than ever. We now survive illness and injury and live with disability as never before. Although today's world is a complex place, it is one of our own making, one in which we therefore have the possibility – and the responsibility – to base our designs on the principle of inclusion.*

*Design for All is design for human diversity, social inclusion and equality. This holistic and innovative approach constitutes a creative and ethical challenge for all planners, designers, entrepreneurs, administrators and political leaders.*

*Design for All aims to enable all people to have equal opportunities to participate in every aspect of society. To achieve this, the built environment, everyday objects, services, culture and information – in short, everything that is designed and made by people to be used by people – must be accessible, convenient for everyone in society to use and responsive to evolving human diversity.*

*The practice of Design for All makes conscious use of the analysis of human needs and aspirations and requires the involvement of end users at every stage in the design process.*

*The European Institute for Design and Disability therefore calls on the European institutions, national, regional and local governments and professionals, businesses and social actors to take all appropriate measures to implement Design for All in their policies and actions.*

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**FRANCESC ARAGALL** IS PAST PRESIDENT EIDD, PATRON, BARCELONA DESIGN CENTRE AND PRESIDENT, DESIGN FOR ALL FOUNDATION.

Growing up in Europe after the Second World War, we have experienced profound changes. There is not only the obvious experience of a changed material environment, of the designed objects being more abundant, with new materials and with the aid of new technologies, there is also the experience of intense privatisation, of getting for ourselves what we in the immediate post-war years shared with others – the washing machine, the gramophone player, the bus. But perhaps most important of all is that in these years the whole concept of quality has dramatically changed. When I was child, the quality of a house was measured in very practical terms. Did the roof leak, and did the walls keep the heat in and the winter storms out? Did hot water come out of the tap when turned? Quality had to do with functionality, with the thing doing what it was supposed to do. Quality had to do with fulfilling basic needs.

**The concept of Quality** In today's Europe, this concept of quality seems outmoded. Most people no longer bother to check whether the things they buy or use actually perform as they are supposed to. That is now expected. You buy a house without checking the hot water tap. I have bought a car without checking whether there was an engine in it. For most Europeans, the daily needs for life, for basic safety and comfort, are being met, and there is a safety net that protects and reassures all but the most unfortunate of us.

Quality is now measured in terms of want and desire, rather than need. We judge the designed objects that we surround ourselves with depending on whether they please us, seem beautiful, contribute to giving us a desired identity, and give us an image in relation to the world outside. We are concerned with the story that the object or the environment is telling, with its branded communication. Long ago, VW stopped selling vehicles for transportation and started selling lifestyle. When I wear an Alessi watch, it is not because I judge this to be a reasonable tool for telling me what time it is. It is expensive, gives only the most essential information and is difficult to adjust. But for me as an architect and designer, it contributes to a façade that I judge to be suitable. I like my watch.

When my teen-age children buy a pair of Nike shoes for 200 Euro, they know only too well that they are paying only 20 Euro or so for the footwear, produced by underpaid

and perhaps under aged Asian labour, and the rest for the brand, for the identification with the name and with the success stories on other users of Nike shoes. There is not much point trying to impress my children with bland and correct stories of comfort, durability and fiscal frugality.

**A house or a home** A theory of mimetics tells us that people are concerned with imitation, doing what the others are doing, and keeping up with their neighbours. At a time of widespread cultural fragmentation across social communities and national borders, designing and redesigning your image in relation to peer groups and acquired cultural ideals becomes very important to peoples lives. Trend magazines constantly tell us of changes that ought to be made, of models to be copied, with a frequency of change that is adjusted to the need of the market to supply suitable items for sale. When Norwegian families constantly refurnish and redecorate their homes, statistically more often than any other group of people, it is not only because they can afford it, but also because they place an extraordinary emphasis on the home as a storyteller. The story has to move, develop its narrative and seek confirmation and admiration from old and new readers.

People do not live in houses but in homes. A home that has been matured, has been given the appropriate signs from its inhabitants – furniture old and new, mementoes from travels, kids drawing, wedding pictures, trinkets from many large and small life stories. The home is also a façade. The modern office building can be seen much in the same way, not just an efficient envelope for office workers, but as an expression of a desired company identity. New corporate headquarters dotting the highways outside our cities do not seek their aesthetic guidance so much from local building authorities as from the current symbols of business innovation, creativity and freshness, as is currently expressed by globally leading companies and confirmed on the New York, Frankfurt and Tokyo stock exchanges. Inside, these office buildings are often Spartan and exchangeable, giving maximum flexibility for management, but their façade stories become increasingly loaded with symbols of success and with essential elements of brand building.

**What is good and bad design?** In this context, what is good and bad design? It is not bad if it does not function, but it is bad if it does not suit the customer, if the customer does not like it. Quality has been placed in a wider context, where the designed object had been placed in its larger environment, where it influences this context in which it is placed, and in return is influenced by that environment. A lamp is not just a lamp, it changes according to the nature of the room in which it stands and the walls and furniture on which it sheds its light.

Design must now be understood in this larger situation, as giving service and meaning rather than as mere products. Electrolux does not produce refrigerators, but they sell the service of cooling and freezing, with all that involves, from the object, its installation, servicing and repair, its obsolescence and recirculation of its component parts, its branded image for the user and the home. Because the whole concept of 'user satisfaction' has changed so dramatically, designers now talk less of function and more of aesthetics, less of things and more of concepts, less of production and more of ideas. I have seen figures indicating that in the US in the 1950's, designers spent 75% of their time working on the design of the product, whereas today they spend only 30% of their time on this, while the other 70% is spent on developing the concept, working on the idea, the story, and developing the branding surrounding the product.

**A changing profession** This has made the work of designers more inviting of user participation, more open, individual and vague, and flexible rather than prescriptive. This change of the professional role coincides with the development of industrial production methods and of market infrastructures. Production is made in smaller and smaller series, individualised and customised. Almost anything can be ordered from almost anywhere, produced and delivered to customer specification within 24 hours. This invites consumers to participate in the whole design and production process, and it opens up to local and regional differentiation to an extent that has been unheard of since before the age of mass production took off at the end of the 19<sup>th</sup> Century.

Such a new role for designers, as direct interpreters of personal wishes and desires, carries with it a very significant change in the traditional balance between designer and industry. For the past decades, we have

been taught that good design is good for business and, therefore, should be initiated by business, and that designers should work under corporate leadership as an activity integrated in corporate strategy. We now see the opposite relationship growing up. As designers communicate directly with the consumer and understand the full range of product culture and environment, the meanings and desires enclosed in it, it is the designers who come up with the concepts, the ideas, and the prototypes. So we see new designer companies who shop around for decent producers for their ideas, at home or abroad. We see strong designer nations like United Kingdom where design services become a major export article, not the designed goods that may be produced by any company in any country offering the right price, flexibility and infrastructure.

It is not strange that industry is reluctant to give away the primacy of the position of purchasing design services. But as the commerce of lifestyle products develops globally, giving designers and not just corporate boardrooms the upper hand, the significance of the design contribution to product success gives designers an unprecedented and powerful role that ought to be better utilised.

**Emerging markets for design** Moving from object to concept, from mass market to individualised market, from functional consumption to storytelling, designers become better able to look at the needs and wants of people directly, not only through the eyes of industry. This also opens up new design markets, markets that are not primarily determined by the shop shelf and the corporate branding specialists. Designers can look at challenges in the public sector, in hospitals and schools, in the public space, in community development, even when the established production units and known markets are not immediately demanding new products in these areas. And it enables designers to work more intensely with that 80% on the world population that has less than 2 dollars to spend a day, but still need sensitive products for their everyday needs – for the provision of clean water, sewer systems, sound housing, school equipment, cooking facilities, cooling of food, medical aids and much more. As designers themselves become more active in writing the questions and defining the challenges, this may give unprecedented new markets for production as well as design worldwide.

**Summary** It will probably serve the corporate world well if the growing importance of the designer, as analyst and interpreter of human desire is now given a more acute attention. And, it will strengthen the ability of designers to address some really significant challenges on the human scene if they were less humble with their possible contributions.

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**PETER BUTENSCHON** RECTOR AND CHAIRMAN OF  
THE OSLO NATIONAL COLLEGE OF THE ARTS, ICSID  
PRESIDENT 2001-2003.







**DESIGN AND CULTURE**

## SECTION C

### DESIGN - A CULTURAL CARRIER

Everything in human society that does not come directly from nature is designed by man. Even natural products are normally presented in packaging and display specially designed brand names and logos. It is inevitable that both the designer and the person who commissions the design (the latter, be it a company or other kind of public or private organisation, also taking charge of production and the other creation and communication of images) will put across their own culture and the culture of their organisation. In this case culture can be defined as the set of values, beliefs and attitudes shared by the members of the organisation. Moreover, there is feedback creating another culture, an object and image culture, derived from the products, services and brands themselves.

A product can be seen as a set of functions. It also has particular aesthetic qualities and a symbolic representation. These three elements – function, aesthetics and symbol – are deeply cultural. One can see how aesthetics and symbols can be deeply cultural, but the set of functions offered are too, although this is not clear. A product's functional elements are intimately related to its aesthetic and symbolic elements. Thus, even the aesthetics of a product are often determined by its shape, which derives from the object's function, along the lines of the three 'Fs' principle: form follows function.

**Differentiation** At a time when the technological gap is rapidly closing, the differentiation of products, services and brands in general – through innovation and an improvement in their functions – has become practically non-existent. Any technological innovation can become outdated within a few months. The differentiation has to come from the brand's cultural value, represented by its aesthetics, its significance and, to a lesser degree, its functions. It is these cultural values that arouse emotions, help the user relate to the product and form emotional links between the consumer and the brand. Moreover, cultural values are hard to imitate.

In a globalised world in which there is an abundance of objects that are simply indistinguishable black boxes, the opportunity now exists to incorporate design into the creation of European signs of identity. Succeeding in making people identify products and brands with European culture through design may be a sustainable competitive advantage, and could be a real strategy for success.

**European cultural identity** Is it possible to create a single European cultural identity from the individual cultural identities of the peoples and nations that make up Europe? One might speak of a single European design to the extent that there are many designs that transmit the cultural values, which characterise the diversity of Europe. This is of particular importance at a time when the single way of thinking appears to predominate. Europe, because of its signs of identity, is proof that ways of thinking are and can be varied. Each region's cultural identity is perfectly compatible with its desire for integration into a larger community. The political principles of subsidiarity can be applied as cultural principles. Today, it is possible to maintain local, regional and supranational cultural identities.

Even better, new cultural identities are being created from interconnection, from people communicating with each other. Student exchanges, tourism within Europe, commercial relations, finance mobility and the mobility of markets and people, are all creating new shared signs of identity, without detriment to people's own, original signs of identity. The disappearance of 'bloc' politics and the hegemony of a single large power provide old Europe with a new role of cultural prominence. The integration of former Eastern bloc countries is a new cultural contribution that can be defined as a culture of diversity, an eclectic culture, a culture of a thousand movements – anything but a single culture. Competitiveness based on differentiation is possible. Global competition based on local values is possible. Globalisation does not exclude the development of products and brands with strong emotional and symbolic associations, based on strong cultural bases. Indeed, this development is very desirable.

**Post-modern Europe** From the cultural point of view, there are different parameters for understanding the changes that are taking European society from modernity to post-modernity. If we can confine ourselves to production, modernity is represented by the industrial revolution. Mass production, large factories, centralised production and scale economics were the modern reaction to a situation that had lasted for thousands of years since the Neolithic revolution, in which agriculture and cattle farming had predominated and production

**Design as cultural dialectic** The impossibility of finding explanations that encompass the complex, changing and at times erratic reality of society means that people live in the present, they tend to enjoy life, appreciate games and leisure activities, look for the things that will bring out extreme emotions and enjoy aesthetics. People try to fulfil their needs with everyday objects and brands and want companies to awaken positive feelings in them. In this analysis, design moves from being a dialectical process with manufactured nature to being a dialectical process between people and cultures and in permanent contact and relation with nature, manufactured or otherwise. Design has to take cultural roots into account and transmit them, as that is what consumers want. Users and consumers demand something more than just functions, they ask for values.

This is already obvious in certain product categories, such as food, drinks, cosmetics, clothing, shoes, real estate and lighting, where the original cultural base is very important. It is also being demanded in other products that were previously less cultural, such as airlines, banking and financial services, electronic goods and complex machinery. Most products have to transmit elements of cultural identity in order to obtain a competitive advantage. European culture, the culture of the nations that make up Europe, is known and valued throughout the world. In a global environment, transmitting European values through products and brands is a challenge for companies and designers. As design has always been a competitive tool for companies and for nations, it will also be a competitive tool for the European Union as a whole.

**Internationalising design professionalism** In order to achieve this, designers' training and qualifications have to be contemplated from a European point of view, giving greater importance to the cultural aspects of all the regions, increasing the level of interaction between the different peoples, and improving the knowledge of the different customers, the history, the traditions, the languages, the ethnic groups, religions, nationalities and political visions that make up Europe.

Exchanges between design students might be positive but are not enough in themselves. The opportunity presented by the European Space for Higher Education Area according to the Bologna Declaration, combining and enriching design studies with the knowledge of

European cultures, should not be missed. New means of co-operation in the field of design between schools and universities within Europe should be found, facilitating the mobility of professionals and teachers. Large design firms should have international, multicultural staff and small companies should network in order to be effective and efficient in spreading culture that should be increasingly appreciated all over the world.

**Summary** There are important areas of responsibility that help promote interconnections between the different design promotion centres. Supranational organisations devoted to research, development and innovation in the field of design can be created, or existing ones supported in order to allow them to communicate their results. Design is suffering from a lack of depth in its scientific foundations and greater intellectual effort will be required in areas related to the knowledge of the user and of society, especially in areas related to design management within companies. Without these bases, it will be hard to transmit Europe's complex cultural values efficiently.

## SECTION C

# THE POTENTIAL OF DESIGN TO COMMUNICATE VALUES

Our modern world is undergoing a fundamental transformation as the industrial society that marked the 20<sup>th</sup> century rapidly gives way to the information and knowledge society of the 21<sup>st</sup> century. This dynamic process promises a fundamental change in all aspects of our lives, including knowledge dissemination, social interaction, economic and business practices, political engagement, media, education, health, leisure and entertainment. His or her exterior – including fashion and intensity of suntan, home, means of transport, all utensils of daily necessity, food and environment are all objects created by design. Whether ergonomically correct or technically perfect, of primary importance is the visual impression – the communication of values.

**A new visual culture** Video phone and satellite conferences, the visualisation of audio-communication, visual simulation in science and research, the graphic ability of mobile phones, the world wide web, multi-media, universal mobile telecommunications systems, global networks; all lead to the beginning of a visual alphabetisation of culture. In other words, this represents a visual presence from and on every corner of the world. We are standing at the beginning of a global visual culture and value revolution.

A new visual culture is replacing the world of linearity. The global knowledge society is evolving at breakneck speed. The accelerating convergence between telecommunications, broadcasting, multimedia and information and communication technologies is driving new products and services, as well as ways of conducting business and commerce. Never before in the history of mankind have so many had access to such a wealth of information available for data rendering and application. Access to and understanding of information are the keys to success and to survive in social, cultural, economic, technological and environmental terms. Information may be what is presented but knowledge is the goal – the value. Designers, as the communicators are in the process of ‘changing paradigms’, that is, from information to knowledge.

**Design and global culture** Design has become worldwide, more and more significant over the last years in all areas and fields of the industrial, commercial, cultural, ecological and social activities. Design is of necessity multi-faceted and multi-dimensional in nature. There is

excellent Italian, German, Finnish, Swedish design, fashion from Paris and Milan, Danish interior design, English graphic design, Bavarian, Breton, Scottish traditional costumes, avant garde movements and popular culture in every metropolis. Design is expressing and communicating every typical cultural and characteristic value of European civilisation of the past as well as the present.

Classic modern-age design is a Europe-wide innovation with global effects. To that extent these are hardly ever the result of former European epochs. During the first half of the 20<sup>th</sup> century modern architecture, industrial design, fashion, film and graphic design represented world-famous ‘European culture values’. Due to nationalism and the consequences of the two World Wars this development collapsed. With the integration process of forming the European Union, design is beginning to re-establish its dynamic energy in industrial, commercial, cultural, ecological and social terms.

**Europe and sustainability design values** Design values must contribute to a strong Europe that must keep up in the international competition of quality and innovation of products and services. This is a Europe that must increase its cultural identity and its competitive capacity by further reinforcing of the co-operation in all fields of design. It must be in the mutual interest of all member states of the European Union to use these values for a new common policy.

European civilisation ‘our high standard of living’ is based on the culture and technology of articles of everyday life and means of communication. Design is essential but will be useless without new thinking in environmental value terms. Our survival depends on our succeeding to protect the environment and to design products and services in a sustainable, ecological way. Sustainability adds value over and above product performance. As a valuable component of corporate image it differentiates brands in a positive and persuasive way. Companies can have a key role in promoting sustainable products and services, benefiting both themselves and the environment. The demand for higher environmental values must be understood as a political, entrepreneurial, intellectual and European cultural challenge. The highest degree of creativity and innovative ability, combined with technological expertise, is required to continue this process of value shift towards re-orienting, re-cycling, re-using and reducing waste.

This will include new consumption patterns and new value understanding, such as moving from buying and possessing products to sharing products.

Design today is an integral tool including cultural, communicative, ecological, economical, aesthetic, practical, informative, social and technological aspects to reach high quality values in daily life, contribution to satisfaction and freedom. Flexible production in combination with innovation and quality through design for products and services will provide the world community with the possibility of infinite choice. Markets of the future, through innovation and quality design, make the difference, as well as creating and communicating value.

**Summary** Cultures, like products, are de-massifying. And, the multiplicity of media accelerates this process. The new global media systems should deepen diversity instead. Globalisation, therefore, is not the same as homogeneity and even means a multiplicity of quite different global villages with their specific values – all wired into the new media systems, but all straining to retain or enhance their cultural, ethnic, national, religious or political individuality.

In addition to the general shift in values taking place in the world economy and the international community, should be added the tremendous demographic challenge within the European Union and other industrialised countries. More aged and people with disabilities than ever before in history, claim their special values for an independent life. Designers have a high responsibility for the development of a barrier-free environment, of barrier-free products and barrier free or unrestricted information and communication for all people of all ages with and without disabilities. Design has a great potential to create and communicate values. Designers hold much responsibility for forming culture, influencing values, making our complex world understandable and shaping the future.

Quality design is an international and global concept based upon holistic, universal principles and processes, but in contradiction its products are recognized for the most part as a regional product. For instance, one has Italian, Scandinavian and British design, despite the product being meant for an international market and not the region where it originated. On the other hand there exists design that is promoted as if coming from another region than the region, which conceived and produced it. A good example is the high quality Belgian fashion brand Olivier Strelli that is created and produced in Flanders but under an Italian name. Of course, in this way the name refers to another region in the world, the north of Italy, where fashion is important, but it does not refer to the originating region where fashion is also very important. This brand does not promote the regional quality of fashion in Flanders and surely not its identity. Others brands do and one can refer to fashion designers and companies such as Walter Van Beirendonck, Ann De Meulemeester, Dries Van Noten, all of whom use their own Flemish names.

**Design promotion** This non-globalist attitude has to do with the way design is promoted. Today many regions use design to focus on their creative and innovative qualities and, at the same time enhance their identity and improve their image. They develop a regional design policy and install a permanent instrument, a design promotion organisation to realise this policy. Those centres promote design from within the region and fully use its strong points to link them with design and vice versa. Regional organisations work by definition closely with their designers, studios, offices and production companies to reach the regional, national and international general public. The impact is a reinforcement of the image and identity of the region in general.

**Design centres** Therefore, design, which is an important item in the globalisation of economics and culture within our contemporary society, in fact becomes a regional actor because of the structure of organizing its promotion. In this way design both uses and strengthens the qualities and the identity of the very region. Most of those design centres use similar programmes and instruments. There are exhibition galleries, workshops, studios, magazines, subsidies, websites. Sometimes they organize the systematic selection of designers or undertake creative talent scouting for potential design clients. Some work with schools and students, some do not.

Arguably, the most powerful and major instrument remains a prestigious exhibition. A good example is the recent exhibition organized for the Flemish Parliament in Brussels (October 2003-March 2004). The title was 'Icons from Design in Flanders' despite the fact that design from Flemish or other Belgian designers in Flanders is pretty unknown, far less being iconic. Nonetheless, a collection of design objects was brought together which had the signature of a Flemish designer. We chose strong images or products used daily by Belgians or novel objects that had a strong potential to survive time and could become a classical work. The impact of the exhibition was incredibly positive in the media and with the public. It generated 'Aha Erlebnissen' when people discovered that certain items were conceived and produced in Belgium or Flanders. The public recognized and identified with the products on display and consequently with the region. This is what was hoped and thought would happen.

**Summary** A few words of explanation. Design objects play a role in a non-verbal communication act, just like signals, signs, symbols and gestures. If you understand that words and numbers themselves constitute symbolic metaphors, their role in science, mathematics, literature and art can be understood. In addition, with these symbols, an individual is able to define his or her own identity. So it is perfectly appropriate that design products fortify the image of the region and with it its qualities and identity.





The image features a dark teal background with a large, lighter teal curved shape on the left side. The text is positioned in the bottom right corner.

SECTION D  
**DESIGN EDUCATION AND RESEARCH**

Technology develops at a speed that neither the market nor the human being is capable of fully adjusting to. Human behaviour changes at a much slower pace and the need to cognitively understand new technology is great. The contribution of design thinking to the creation of innovative solutions is based on its focused user perceptive. This translates to understanding the user's known and latent needs. The use of visual tools and representations acting as mediating artefacts is the core competence of design.

One role of design is to incorporate new technologies into concepts that can easily be understood and appreciated by the user. The training of designers includes that capability to see the interface and nuances between the user and the product; the product being an object, a service or a process. The capability is recognised, in a holistic sense, as a bridge between technology, market and user and, therefore, is a core dimension in cross-functional creative processes including research and development. Experience and knowledge of design is a necessity to make full use of one's professionalism. Experience by itself, however, does not generate knowledge. It is the reflection about the experience that creates useful knowledge and therefore should be shared. Therefore, it is absolutely necessary to integrate the knowledge of design into curricula other than design education.

**Design as an economic and social tool** Business leaders and politicians recognise design as a powerful tool for change in shaping processes, messages, goods, services and environments. Many national policies in Asia and Europe support the development of design for increased competitiveness. In the United States design is recognised as a powerful commercial tool for innovative new product development and is now in the curriculum of business schools. In line with the increased awareness of the value of design, there are a rapidly growing number of design education programs in Europe, North America and Asia, especially.

Design is also a powerful tool for social progress. It affects people's new living patterns and can help to improve the values inherent in these patterns. Design can be used more systematically to introduce a sense of caring, innovation and a greater awareness into efforts to satisfy people's needs and intents. A global understanding of the relationships between society, economics, technology and design is needed in building support on a national level. There is a need to educate and enlighten people about design and to generate a real sense of participation in society's important decisions. Therefore, design can be a major player in shaping a world where a value-enhanced user perspective is introduced.

**Validation** The views expressed above would seem to be validated by many of today's leading thinkers on design and education. For example, Dr Min Basadur believes that most of today's problems are multi-faceted. Long gone are the days when you could say that a problem is just a product developing problem, or a marketing problem or a purchasing problem. Often problems are interwoven, mixed together, to form larger issues facing the organisation. The speed at which we need to address problems and opportunities has also changed. We simply do not have time to do things the way we used to when everything was sequential.

Equally, Greg Van Alstyne thinks that disciplines arise in order to manage and solve recognisable problems efficiently using highly refined vocabularies and specific patterns of thinking. But what happens when, as in our present condition, societal and technological changes accelerate to the point where problems are no longer recognisable? We need to maximise agility, flexibility and creativity. The multidisciplinary mind is inherently orientated towards looking at a problem from a variety of angles.

For Ken Friedman the increasing number of areas that are now subject to human initiative also reflects the

importance of design. The vast range of technologies that surround us mediate most of the human world and influence our daily lives. These include the artefacts of information technology, mass media, telecommunications, chemistry, pharmacology, chemical engineering, and mechanical engineering, along with the deigned processes of nearly every service industry and public goods now available other than public access to nature. Within the next few years, these areas will come to include the artefacts of biotechnology, nanotechnology and even newer hybrid technologies.

**Summary** To be able to lever these exciting opportunities cross-functional creative alliances must be formed. We need to better utilise the strength of design and create an understanding and co-operation between developers, politicians, leaders of the public sectors, business developers, technicians, economists, behavioural experts, educators and many other professionals. To make this happen we will have to actively inspire and promote the establishment of design thinking into other curricula than design education.

The main characteristic of new millennium workers and professions seems to be the capacity to analyse, structure and process information. They must be able to face complex situations, clearly setting the problem and constructing new problem-solving processes in any given context. In the knowledge society a continuous learning attitude is needed and professionals will be more focused on learning processes than learning contents. Content is constantly changing with less and less reference to a specific discipline and skilled and high level workers have to acquire trans-disciplinary visions and competencies. This new way to look at knowledge and learning processes represents a remarkable challenge for all organisations and institutions. Research is becoming a strategic function and researchers are one of the top-level professions of our time. Historically considered an applied art, only recently has design been recognised as a codified discipline and a field for 'explicit' research. In the contemporary context design as a research 'tool' demonstrates peculiar competencies that open up new scenarios.

**Design practice and design research** Design is a relatively new research field compared with other disciplines such as mathematics or physics which are considered 'scientific' disciplines and have been building their own research methods for a long time. Design has been considered a 'practical know how' or an 'applied art' since the 20<sup>th</sup> century when the experience of the Bauhaus and the Ulm Hochschule für Gestaltung, and then the contributions of Buckminster Fuller and Herbert Simon tried to give design the status of 'science'. Starting from this point design entered the universities and became a field of academic education and scientific research. Nevertheless, it has always been strongly related to practice and material culture, as its knowledge is mainly embedded in artefacts and visual forms. For this reason different approaches to design still exist. One considers design as a science in the sense of a positivist doctrine with theoretical laws and rules on which design practice should be based. In this perspective design research is

a scientific activity, investigating reality through certain methods and logic and consequential processes.

A second approach, coming from the Arts and Crafts school, still considers design as an applied art relying on personal attitude and experiential learning. In this perspective design cannot be codified as a discipline and it can't be a research field in a scientific sense.

A third and more recent approach introduced by Donald Schön presents design as a reflexive practice, that is to say, the capacity of building theoretical and general knowledge starting from practice. This peculiar attitude is contiguous with the general need of research and educational institutions to leave their traditional deductive approach – first theory and then, as a logical consequence, practice – to be able to better face the complexity of real world. This last approach seems to be particularly able to explain 'design way of knowing' and the nature of design research, but also to rationalise the increasing interest in design research coming from companies and institutions.

Design research is becoming a strategic function which is able to develop competencies that go further than the traditional way of conceiving design as a 'tool' for creating new products.

#### ***Design research competencies***

**Design as a problem setting competence** One of the main changes happening to contemporary workers and professionals relates to their capacity to integrate technical and specific competencies with management attitudes. They mediate between different qualities and disciplines and manage complex problems. Design is in itself a dialogic activity, integrating different fields and disciplines – technology, users studies, production and processes – and, more important, is able to communicate through visual language. These conditions give design the chance to be a fundamental competency in problem-setting processes, being able to facilitate decision making by integrating

different areas of knowledge and representing a problem in visual form.

**Design as an action research competence** Companies are facing an increasing level of complexity and they reorganise their processes leaving hierarchical and sequential models behind – first research and then development – to adopt concurrent and parallel processes where the research phase goes together with the development one. This change perfectly fits in with design research that is in itself a ‘reflexive practice’, that is to say, an ‘inductive’ process, integrating theoretical thinking with action. Design research investigates reality by producing visual models of it and proposing possible changes. In other words, it develops an action research capability that is an essential skill in contemporary organisations.

**Design as a strategic research competence** Strategic planning in contemporary societies is an increasingly difficult activity as traditional forecasting tools become less and less reliable. The capacity of producing complex and visual models of the future to give a strategic orientation to companies is needed more and more. In this perspective design research can be more than a capability for innovating products. It can be a tool for investigating reality and building new visions of the future which, being communicated through metaphoric and visual language, can be understood and shared by a community supporting strategic planning.

**Design as a research ‘tool’** Design has a longer tradition as a professional practice than a codified discipline. Only recently it has been recognised as a research resource with its own methods and specificity. The way advanced companies are integrating design resources inside their process highlights this change. Designers are more and more present in research departments and they are involved in the very early decision-making phase, enabling teamwork, problem-setting and negotiating solutions. Their attitude in ‘action research’ perfectly fits in with

new organisations where processes are synchronic and parallel. In this context research needs a constant evaluation of its potential applications and environmental consequences. Design constantly provides visual models of reality enabling this evaluation. But the most interesting trend tends to give design research a strategic value. Many important companies are externalising design research departments, focusing their activity on investigating reality producing visions and scenarios for the future of the company. Design research is seen as a forecasting activity that interacts with different actors. Mediating different contributions can represent possible worlds in a visual language, in the long run giving the company a more strategic orientation.

**Summary** The changes occurring in economies highlight the importance of knowledge and research as key factors for competing in global markets. Companies and societies have to face a complex situation where the traditional laws of markets and competition are contradicted by global phenomena such as emerging economies, ecological issues, and social sustainability. Processing information and producing new knowledge seems to be the only way of facing this context. Research as a continuous learning attitude is an imperative both for companies and institutions and design seems to be a fundamental ‘actor’ for the future research agenda. It has been increasingly involved in research processes as a resource enabling problem-setting, promoting action research, and supporting strategic investigation. Nevertheless, these ‘natural’ attitudes of design have to be developed through specific educational programs and promoted as a chance for contemporary organisations to integrate new competencies inside their research departments.

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## SECTION D

# DESIGN EDUCATION IN THE 21ST CENTURY

*We are all taking part in a race, a race we can never win. There can be no winners because there is no finish line... just a dynamic arena in which conditions are always changing. The challenge is to lead from the front: seize the initiative, embrace change and be inspired. Organisations that take the lead are driven by great forces.*

Ghyll Royd (1996)

Recognising the race, defining that arena, embracing change and being inspired, all provoke a fundamental question concerning the future of any design education- is it 'education' and, thus, delivering knowledge and flexibility transferable to unforeseeable future employment, or is it 'vocational' training leading solely to practice within design?

**Issues in design education** First, that race. Most design courses still aim to develop future practitioners- designers for a wide range of entrepreneurial and professional contexts, and see themselves linked in a more or less dynamic continuum with their vision of the profession. However, there are potential disappointments for graduates and institutional statistics alike contained within this model, because there are far more students currently studying design than the most optimistic forecast of the numbers of potential graduate uptake. This mismatch constitutes a fundamental challenge to design courses and a limitation of career opportunities open to design subject (vocational) graduates.

Then, those great forces. Present issues relating to UK university funding models aside, all tertiary education in the UK and in Europe is already in a state of constant revision. Within the contexts of the Bologna Agreement all European design education will undergo some measure of convergence in standards of achievement, lengths of study and the titles of awards given. Within the UK, government continually sets new targets, imposes rigorous reporting structures, presses institutions for achievement in both learning and teaching and research, and brings forward year-on-year reductions in budgets while, at the same

time, declaring that 50% of the school leaving generation should have a degree education by the year 2010 (Scotland has already achieved this target). This accumulative 'dynamic arena' may appear far from being advantageous in developing individuals capable of being effective in an innovation, ideas-led economy, or an increasingly competitive employment market.

### **Change in design and design education**

While these powerful forces appear to pull in different directions, at the same time they can and should be seen as an impetus to propel change in design education. Designing is not a subject in itself, it is an activity- and any activity must be informed by supporting subject material and by theory or it is in danger of becoming a practice-centred craft or apprenticeship. Vocational, subject-centred aspects of design education are overdue for overhaul.

Does design education even produce the 'right sort of designers' for contemporary design and enterprise practice, and how is design practice changing? Any investigation of the world into which students graduate inevitably produces the following revelations, all of which must become drivers in course design, but not all of which can be addressed through updating a design discipline syllabus.

- Rapid changes in practice and core expertise. Design practice is constantly evolving, and the edges between former specialisms are being continually blurred.
- Local, national and global competition. Designing is no longer a localised activity; every individual designer and design practice competes and has access to every level of practice and expertise.
- Flexibility - task and career switching. More practice consists of teams that coalesce for a project task, dissolve and reform with different personnel and expertise. Designers need flexibility and great networking skills.

- Teamwork. Few projects are now capable of being encompassed by an individual; designers must be comfortable working with others, and being skilled in managing the dynamics of groups activity.
- The growing importance of intellectual capital. In a world of democratic manufacturing technologies, we will live from ideas; designing is increasingly about intellectual capital, and less about delivering a trade or a craft ability.
- Creativity. Designers must be skilled in creating the right environment to promote creative thinking and design activity that develops vital intellectual capital.
- Information abundance. Information is now relatively 'cheap' and we are constantly bombarded by it. A key skill will be the ability to trawl this sea of information, to construct connections and thus create knowledge.

**Design as educational process** This insight alters the way we consider traditional design studies and adjusts focus to where and how design can make a difference. Today's designers are operating in a world of complex design services and products against a backdrop of social change and continuous innovation in technology. This makes us question the way designers apply their skills and what we should add to their capabilities - how we can add new knowledge and maximise the powerful values implicit within design education to make it truly transferable.

Anachronistically, while appearing inefficient, design education is often a highly effective educational process. While prevailing institutional thinking denigrates design education's apparent inefficiencies, these conspire effectively to create unusually enabled individuals and can actually deliver high quality graduates, albeit with strong vocational skills in making and developing subject-centred 2D and 3D products. However, simply reshaping individual products no longer delivers enough of the solution, nor integrates them into these rapidly moving contexts. Traditional design education urgently needs to embrace new knowledge and new contexts to integrate fresh subject-centred approaches and new perspectives

are needed to develop business and industrial foresight and, thus, develop a far better awareness of innovation for invisibles such as systems, services, behaviour and interfaces between people and technologies in local, national and international fields.

**Characteristics of design education** It could be argued that students already undertake a demanding educational journey that increasingly appears to be an excellent model for transferable and flexible undergraduate education in its widest sense. There are implicit strengths in an educational structure that maximise the following characteristics:

- Promiscuity: design students rarely develop deep expertise in any one field, preferring to take in information from many sources, cross-relate different developments and to jump across stacks of information. Far from being a weakness this represents a real generalist strength in an educational world which otherwise promotes deep expertise, that is, knowing more and more about less and less.
- Ego: design students are not often noted for shy, withdrawing ways. It often takes more than a certain amount of confidence and self-assertiveness to disrupt the status quo; designing needs a champion closely and personally committed to the task of managing change - and ensuring it happens.
- Student ownership: design courses place a high degree of responsibility on the individual student to contribute the 'extra mile', or at least to transcend their academic learning experience into learning about themselves. This is a potent model for student-centred learning - courses that expect each and every student to contribute as well as attend.
- Project-centred learning: all design courses are arranged around a core series of design projects-exercises in which delivered knowledge can be tested and integrated with design speculation. This core of personal experimentation is vital in the assimilation of

knowledge and in developing personal ownership of any study. Moreover, professional life subsequent to study is - more often than not - concerned with projects, not subjects.

- Small to medium sized Groups: though not always the case, most design courses are conducted with relatively small cohort numbers. No student 'gets lost in the crowd' and a healthy group dynamic develops in which students are open to sharing expertise and to test teamwork skills, thus multiplying the knowledge available to any one of them.
- Play: designing is essentially seriously playful-developing new scenarios, structuring behaviour and visual/tactile enjoyment. It is 'playful work'. Who wouldn't wish for a life full of playful work?

**Summary** Design education is in a strong position to encourage education through design, to promote a structure that nurtures trans-disciplinary designers with those very attitudes and capabilities currently needed by any young professional in the 21st Century - creativity, analytical and synthetic thinking, and highly attuned communication skills.

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EPILOGUE  
**A EUROPEAN VISION FOR DESIGN**

**Design promotion Asia** On Wednesday 3 December 2003, at a unique conference in the Blue House in Seoul, President Roh of South Korea launched his country's design policy for the five-year period to 2008. The policy is aggressive and seeks to position South Korea as a global design leader by 2008. In comparison, the target date for achieving the objectives set by the Lisbon Agenda for the EU to be the most competitive and dynamic knowledge-driven economy is 2010. The policy was offered to the President by his Minister of Industry, Mr Yoon, accompanied by the Minister for Education, before an audience of some 150 industrialists, diplomats and politicians. The policy statement was preceded by a testimony from the President of Samsung, who heralded the power of design and brand as the single most significant driver for his company's global business success since the mid 1990's.

**Investment in design** Unlike European countries, the Korean design strategy contributes to both macro and micro-economic targets. Design is to be a catalyst to help South Korea achieve per capita GDP of \$20,000 within five years. Whilst Samsung is currently the only recognised 'Korean Global Brand', the intention is to increase this to five or six, over the time of the strategy. To stimulate design in Korean industries, new Design Centres are planned in four regional cities. A request was made directly to President Roh to consider the building of a Design Centre on mainland China. For education, every school at primary and secondary level will introduce design into their curriculum, not through a science and technology route, but through art. Design training will be provided to all teachers.

Design is therefore positioned at a very high level on the national political agenda. It is recognised as a key process and tool to achieve competitive success, wealth generation and social cohesion. South Korea aims to become a design leader, not simply generating products and services as commodities, but rather creating sophisticated brands, offering consumers aspirational values and experiences.

**Gaining their competitors' know-how** Other initiatives held in parallel with the conference included a high-level government and industry luncheon with a speech by the President of LG, Mr John Koo and, for the first time in the history of national design promotion, a products and panel

exhibition of the national design award winners from 11 countries of the world was gathered together in one place.

The South Koreans are not alone in pushing for design in Asia. Singapore has recently created Design Singapore; Taiwan ROC's policy for 2008 is ambitious and heavily funded and Hong Kong set up its new Design Centre in 2001. Now that China has joined the WTO, it too is talking about the intended transition from an OEM (original equipment manufacturer) to an ODM (original design manufacturer). Most significantly perhaps, is that these countries are working towards an Asian 'design promotion network' bringing governments together to collectively build a pan-Asian design policy.

**Design promotion Europe** In January 2004, in Paris the APCI (Agence Pour La Promotion De La Creation Industrielle) held a conference on design policy in different countries of Europe. Different countries represented included Ireland, Flanders, Germany, the Czech Republic, Sweden and Denmark. Design policy in Europe at the national level is fragmented. The funding for national design centres across Europe (many of whom were attending the conference) varies widely according to each government's respective belief in design. Their funding ranges from 9m Euro for the Design Council in the UK to the more usual, very much smaller sums, measured in the hundreds of thousands and in some cases, no government funding at all. These inadequate levels of funding, when compared to those of Asia, condemn these organisations to the periphery of national economic and industrial policy and manifest a complacent view of design's role.

A key outcome of the Paris conference and, indeed, the ongoing work of BEDA has demonstrated through its Communication Series in Brussels, is that Europe lacks a platform to gather information at the European level on the contribution of design to the economy. Such a mechanism, harnessing the know-how of the national design centres, would support the development of economic and social arguments through providing up-to-date know-how, which in turn, would inform a relevant yet ambitious design policy at the European level.

**A design policy for Europe** At the same conference in Paris, an official from the EU intimated that the EU would never pursue a design policy at the European level until such times as the national policies became more effective

and consistent across the countries of Europe. However, it could be argued that the need for a European design policy has never been greater in terms of communicating the idea of Europe at a time of rapid expansion, of strengthening our image in the world and of ensuring better access to wealth creation in a knowledge economy by stimulating innovation and enterprise. The Asian tiger is getting off the floor and will, in a matter of only a few years, begin to beat Europe at its own game. Our cultural history and diversity may not be enough to stave off the competition and maintain or increase market share.

In order to remain competitive Europe needs a policy to help the nations of the community to initiate mature policies for design development and to offer arguments to help them see why it is necessary to invest properly in the development of design as an integral aspect of economic growth. To promulgate the concept that all the nations of an expanding Europe require an effective policy for design is already itself a policy. Europe cannot afford to hide behind the weaknesses of the current situation. Rather, it should grab the opportunity to push design, creativity and brand much further up the political agenda, in order, not only to stay ahead of our global competitors, but to build upon our collective, creative talent (which operates across the boundaries of individual nations), in order to make sure our competitors cannot catch up.

## APPENDICES

**BEDA** Founded in 1969, incorporated in The Netherlands and headquartered in Barcelona, BEDA exists to ensure permanent liaison between design organisations - the professional societies, promotional, educational, research, social and design management networks - and the authorities of the European Union. The organisation's objective is to develop long term policies on design for Europe, to promote the use of design across the continent and by so doing, to help industry compete in world markets. By co-ordinating the efforts of national design organisations, ensuring effective information management on legislative, legal, educational and intellectual property issues, and working in partnership with the EU to promote the economic impact of European designers at home and abroad, BEDA communicates the value of design and innovation.

BEDA works for the greater co-ordination of initiatives throughout the EU, between countries and across government departments with responsibility for the promotion and use of design. BEDA works with the EU institutions to support the development of design within Europe, to ensure that design supports innovation, that it helps build a culture of competition and to ensure that design is taken into account when framing policy in order to maximise the economic impact of the creative industries at home and abroad.

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**Design Europe** The Design Europe network was established in 2001. It brings together existing groups of design organisations across Europe: Cumulus - the European Association of Universities and Colleges of Art, Design and Media that works to enhance the quality of education through co-operation, student and teacher exchange within the European Union originally through the Erasmus programme, EIDD - The European Institute for Design and Disability that works to enhance the quality of life through design for all, BEDA - The Bureau of European Design Associations, together with looser associations of design promotional centres, research and design management networks, such as DMI Europe.

All of the members of the network maintain close contact with the three major international design organisations: ICSID - the International Council of Societies of Industrial Design, ICOGRADA - the International Council of Graphic Design Associations, IFI - the International Federation of Interior Architects/interior designers, together with Design for the World - an international humanitarian organisation whose objective is to match the skills and commitment of volunteer designers with the needs expressed by disadvantaged populations and the organisations that serve them worldwide.

In September 2005 there will be a major international design conference, 'era 05', staged in Helsinki, Malmö, Oslo and Copenhagen, that involves members of all these organisations that will seek to chart a direction for the future where the understanding and use of design will take a greater part in proposing solutions for questions of global concern and stimulate creativity, competition and innovation in the world of business.



## DESIGN ISSUES IN EUROPE TODAY

THIS WHITE BOOK SEEKS TO ENCOURAGE A BROADER UNDERSTANDING OF DESIGN AND ITS POTENTIAL IN THE CONTEXT OF THE EUROPEAN UNION. IN OTHER WORDS, THE VALUE THAT IT CREATES, ITS ROLE WITHIN INNOVATION, ITS POTENTIAL TO INCREASE COMPETITIVENESS AND SUPPORT EUROPE'S POSITION AS A WORLD LEADER.

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