Opportunities in Design

Strategies for Growth in the Irish Design Sector

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The Institute of Designers in Ireland

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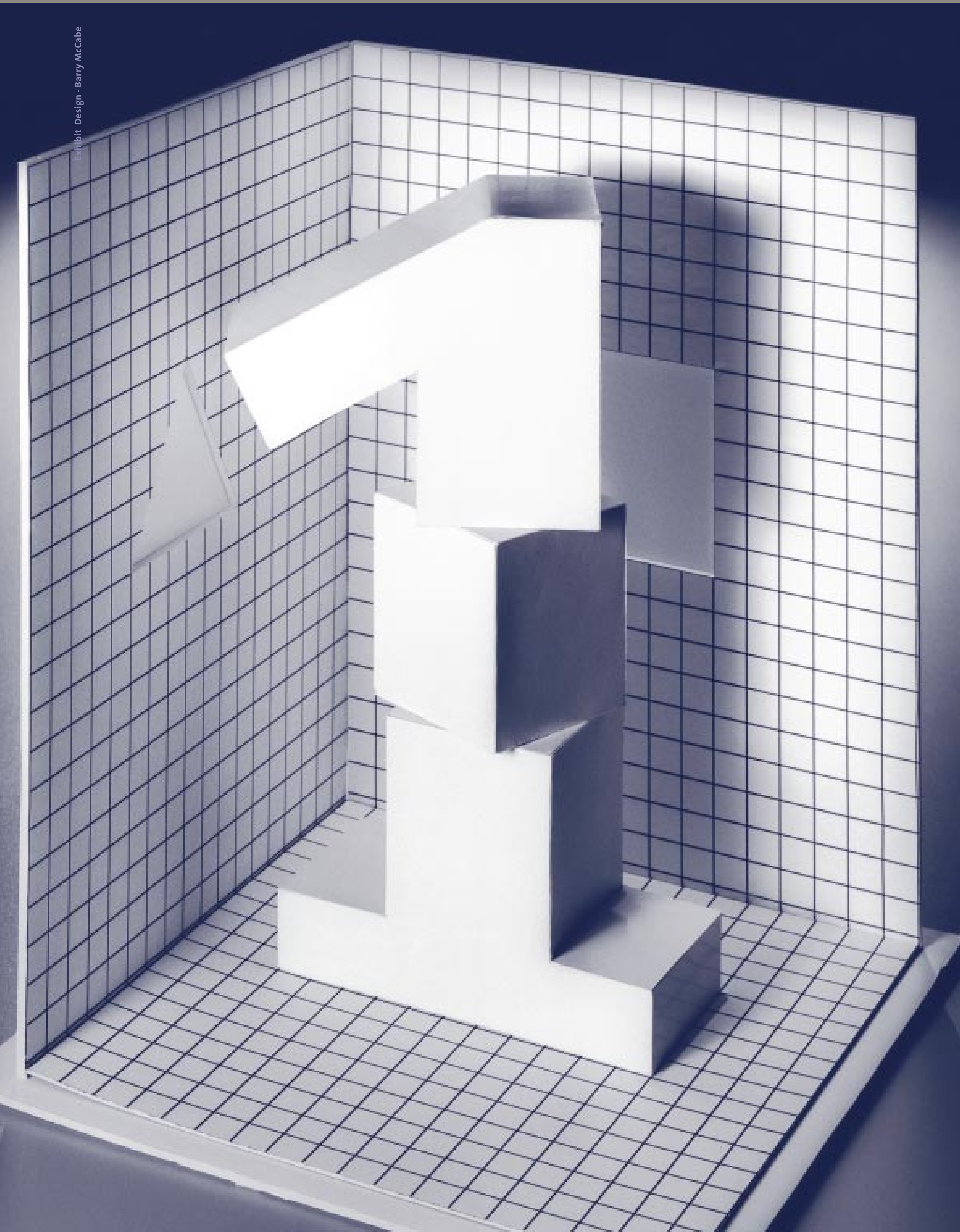
1. Executive Summary



What is design?

Design does not lend itself to easy definition. At one level it is about – "what you see is what you get" – colour, imagery, style, precise lines, shapes, texture, a look, a whole gamut of elements, rarely just one on its own. At this level design permeates all aspects of business life, from the product or service delivered, to office layout, website design, corporate imagery. According to Sir Terence Conran, a well established and creative designer, "design is 98% common-sense and 2% that magic ingredient sometimes called aesthetics and sometimes style". But, Tony Blair, in championing the cause of British design, argues that "good design is not simply about aesthetics or making a product easier to use. It is a central part of the business process, adding value to products, and creating new markets". At such a level, design is a dynamic process, it "unlocks innovation and turns good ideas into reality" (John Sorrell, Chairman, UK Design Council). At a national level, design is of strategic importance. It is part of a country's image and identity – it is the proposition that is presented to the outside world. How a country presents itself and how products, services and buildings are presented are no longer optional extras but vital to the economy of the next century, in which creativity and knowledge will play an increasingly important role.

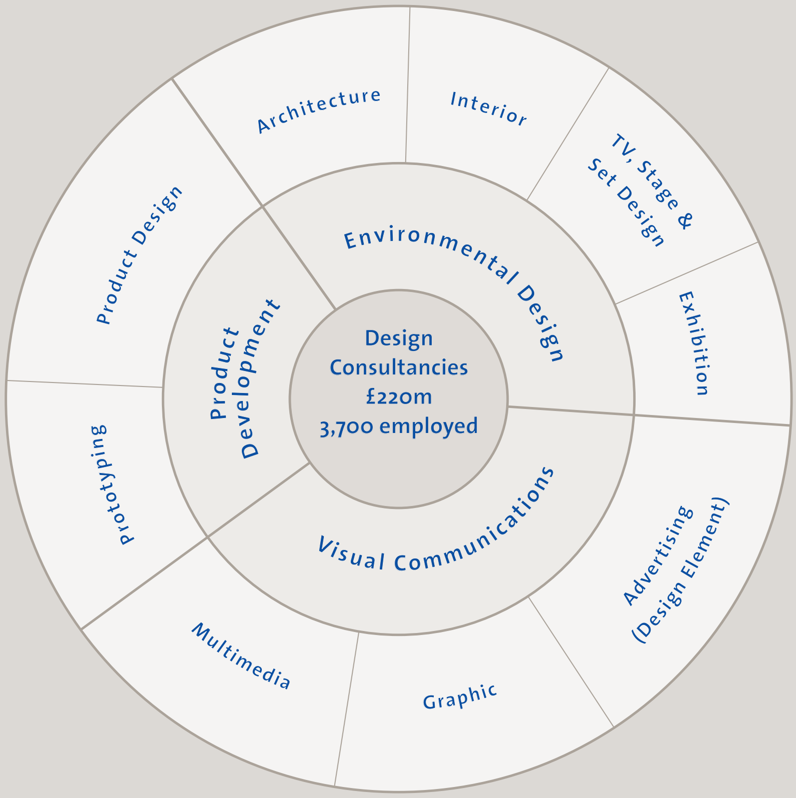
Design in the context of business management, is the process by which organisations seek to identify and profitably satisfy, existing and emerging user needs and preferences in a competitive environment. As a planning process, it applies the innovative potential of the enterprise with the changing (economic, social, cultural and political, etc.) requirements of the market. The role of design in the context of business management is to:

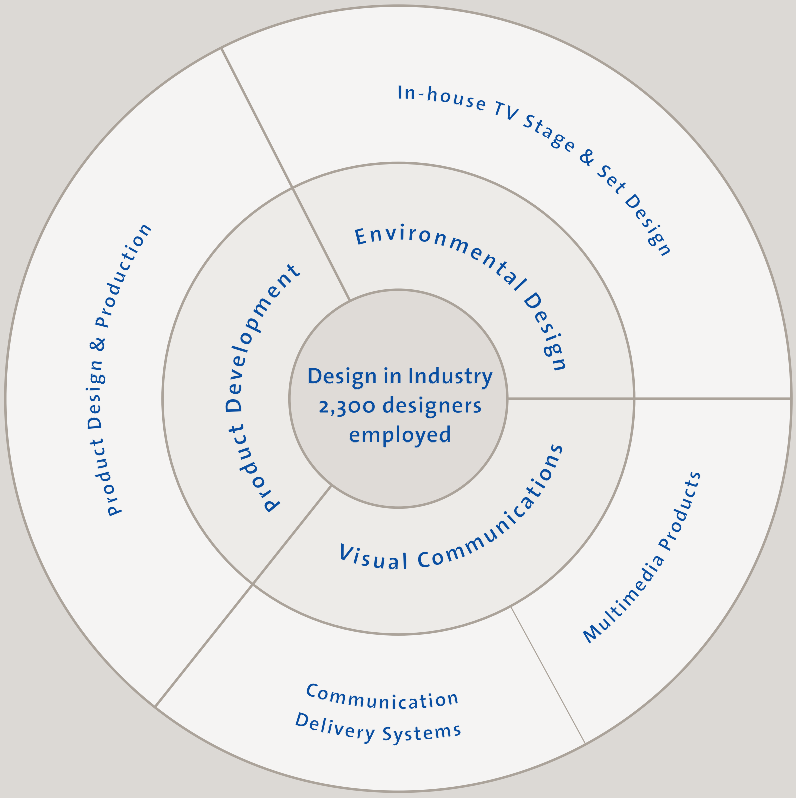
- optimise differentiation according to corporate strategy;
- identify and profitably satisfy, existing and emerging user needs and preferences, and to maximise added-values, and
- make the 'product position' visible, understandable and desirable.

Design management is the strategic and operational use of the design resources (tangible and intangible) available to an organisation towards the creation and attainment of business or organisational objectives. The critical challenge facing designers and managers of innovative organisations is to develop the competence, capability and creativity to: intelligently question and challenge conventional practices and assumptions; amplify and incite signals of change; and conceptualise and embody information in innovative and appropriate forms.

Design in Ireland

Design embraces two distinct sectors (I) Design practices/consultants and (II) Design in industry. Each sector is further sub-divided into a number of different design sub-sectors or disciplines.





The study brief

The objectives of the study were to profile the design sector in Ireland and, in light of opportunities in the marketplace, to set out a development strategy for the sector that will address the current barriers and weaknesses, and stimulate the growth of the sector. The terms of reference for the study are presented in more detail in Appendix 1.1.

The scope of the study embraced all aspects of professional design, whether undertaken by design consultancies/practices, or by manufacturing companies. The methodology applied by the consultants to this study is briefly outlined in Appendix 1.2 and clearly conveys the wide and inclusive consultative approach adopted. The design consultancy sector, and design within a manufacturing context were profiled using the output of a detailed survey and individual consultations with relevant industry experts. The design education sector is also profiled based on a combination of survey work, interviews and workshops. International trends in design were reviewed by carrying out extensive desk research and various key interviews. The value-added case for design was considered with regard to three Irish projects – John Rocha at Waterford Crystal, Waterford Stanley's new oven range, and the repositioning of Innisfree perfume by Fragrances of Ireland.
Part of the consultation process involved a series of day-long sectoral workshops with designers, design customers, international design experts and design educationalists in attendance. The participants at these workshops are listed in Appendix 1.3.

The key findings, conclusions and recommendations of this study are reviewed below under the following headings:

1. *The Irish Design Sector – Current profile and future prospects.*
2. *The issues and factors impacting upon the development of design in Ireland.*
3. *Vision, strategic objectives, strategies and measures*

Current Profile

- There are approximately 6,000 people employed in design in Ireland, 3,700 in design consultancy and 2,300 in design positions within manufacturing companies.
- The total value of the design consultancy sector is in the region of IR£220 million and has grown by 37% in the past three years.
- The design consultancy sector generated exports of approximately IR£38 million in 1997, the main markets being the UK, US, EU countries and Eastern Europe.

Proposed development strategies and initiatives

Future Prospects

- The value of the design consultancy sector could be worth in the region of IR£500 million by 2003, if certain barriers to development are removed, of which approximately 20% or £100 million per annum by 2003 could be earned in export markets.
- Employment by design consultancies could increase to about 8,000.
- Together with the 4,000 projected employment level for designers in industry would result in a total of 12,000 employed in design.

The Irish Design Sector – Current profile and future prospects

Employment

There are in the region of 350–400 design consultancy practices in Ireland. As in other European countries, they are small enterprises employing, on average, 10–12 people each. They employ in the region of 3,700 people, which represents approximately 0.2% of the labour force. Allied to this there are at least 470 manufacturing companies with in-house design capabilities. These companies employ in the region of 2,100 – 2,500 design staff. In total, therefore, there are about 6,000 people employed in design in Ireland, equivalent to 0.4% of the labour force.

Value of design

We estimate that the total value of the design consultancy sector to be in the region of IR£220 million, which represents 0.5% of GDP in respect of 1997. The largest sector is Visual Communications which represents 78% of total design income, followed by Environmental Design at 20% and Product Design Consultancy at just 2%.

The design consultancy sector would appear to have grown by 37% in the past three years. The sub-sectors experiencing the greatest rates of growth were multimedia, architectural and interior design, with moderate rates of growth being achieved in the visual communications/graphic design area and product design consultancy areas.

Within a European context, a CAGR of 6.6% has been reported, which suggests that the Irish design sector in recent years has been growing at a faster rate than the EU at large. In our view, this reflects a combination of, the Celtic Tiger economic conditions in recent years, an increasing appreciation on the part of clients/buyers of the value of design, and the relatively small base and underdeveloped nature of the Irish design sector in prior years.

It is not possible to place a value on design in the manufacturing sector, as income is earned from the sale of products, albeit with design being an integral part of the overall manufacturing process. Thus, the value of design at IR£220 million does not include the economic wealth generated by manufacturing companies with in-house design capabilities.

Level of exports

There would appear to be a higher instance of design consultancy practices exporting their services than previously considered to be the case. Nearly half of all practices surveyed reported that they sell their services in markets outside Ireland. In this regard, earnings from foreign markets represented 17% of their turnover for 1997. If this propensity to export is reflective of the sector at large, then it would equate to exports of IR£38million for the sector as a whole.

Architectural, interior and multimedia design have been the most successful, to date, in generating business overseas. In internationalising the Irish design consultancy sector, it will be important to target those sectors within which Ireland has a distinctive competence. During the workshop sessions with informed Irish and international design experts, a number of niche areas were identified in which Irish designers exhibit particular and marketable design skills:

(a) **Multimedia design** – website architecture, website interface design, software interface design (e.g. computer-based training software) and computer animation and on-screen graphics;

(b) **Design for the music and entertainment sector** – packaging design for music labels, set design for gigs and shows etc;

(c) **Food and drink packaging** – on-pack graphic design;

(d) **Knitwear, apparel and woven textiles design;**

(e) **Tourism and leisure:**
– identity and graphic design
– giftwear design
– environmental and interior design.

Future prospects

We believe that the level of organic growth experienced by the sector in recent years is not sustainable in the long-term, unless certain issues and barriers to development are addressed. The proposed development strategy, represents an integrated gameplan for the development of design in an efficient and inclusive manner. If implemented, we believe that the impact and rewards will be significant. By the year 2003, the value of the design consultancy sector could be worth in the region of IR£500 million, with export earnings representing approximately 20%, or IR£100 million. The benefits in terms of employment would also be significant, with an estimated 8,000 people employed. This represents a more than doubling of the sector in terms of value and employment.

The manufacturing sector have indicated that, over the next three years, they will have a requirement to recruit an additional 1,100 designers. By the year 2003 it is estimated that the employment of designers in industry will be in the region of 4,000 – half that employed in the consultancy sector.

The issues and factors impacting upon the development of design in Ireland

The issues and barriers impacting on the development of design in Ireland cluster into six separate, but inter-related, thematic areas, which are summarised below.

1. The positioning, structure and cohesiveness of the Irish Design Industry
Irish design does not have a clear distinctive selling proposition or image, which undermines its ability to communicate and reach international markets. A positioning for Irish design needs to be developed, but must be done within the context of, and in co-ordination with, the development of a proposition for Ireland Inc.

The design consultancy sector suffers from a lack of cohesion and leadership. It has developed, to date, in an ad hoc and unfocused way and, in doing so, has not realised its full potential. Because of its lack of unity, it has failed to communicate effectively with its various audiences and has not to any great extent engaged with, or availed of, the support available from the state development agencies. Allied to this, there has been no inward investment by international design businesses into Ireland. As such, the industry has developed in isolation.

2. The Marketing of Irish design internationally
The international market for design services is vibrant, but buyers are becoming increasingly sophisticated and demanding. The Irish design consultancy sector is similar to other countries in that it is made up of a large number of small businesses, employing less than 12 per company. The sector has grown significantly over the past three years and, while just under half of all design practices surveyed professed to be active in international markets, exports represented 17% of their income at just under IR£38 million. As such, the sector is a relative novice in international marketing terms. Unlike many other EU countries, however, Ireland does not have a strong design tradition, which will make the internationalisation of the sector all the more challenging.

A number of niche areas have been identified where Irish designers exhibit particular skills. The sector must focus on these niche areas and seek to build a strong competitive position in a focused and strategically managed way. But, because of the relative inexperience of the sector in trading internationally, significant and proactive support will be required by the relevant development agencies. Working in tandem with the agencies, those design practices planning to operate in the international marketplace must invest significant time and resources in developing marketing skills and operations, if they are to develop a long-term sustainable position in the international market place.

3. Awareness of the value of design
Notwithstanding the availability of international empirical evidence and case studies in support of the inherent “value” of design, the case, in support of the value of design, has, to date, not been effectively communicated. The stakeholders – being design consultancies themselves; industry/other buyers of design; government and state development agencies; the media and the general public – have yet to be convinced.

To fully maximise and exploit the “value” of design, it must be an implicit and integral part of the strategic planning process and the New Product Development (NPD) process, and not an add-on or afterthought. This applies equally to both manufacturing and service companies and will require a shift in mind-set/ philosophy/culture on the part of both design practices and industry. Design practices must assume an apostleistic role in preaching and reinforcing the ‘value of design’ philosophy. Equally, it is crucial that the importance and status of design, as a factor underpinning competitiveness, be elevated onto the national/governmental agenda, alongside R&D and innovation and that the state development agencies play their role in reinforcing and supporting its importance.

4. Skill base and training

Buyers of design seek (i) quality and creativity of design, and (ii) quality and professionalism in the ‘process’ of delivering design solutions. The sector struggles to deliver on both fronts. A number of lacunae have been identified in the skill base, which are inhibiting the development and growth of many design businesses. In general, the main skill gaps are centred around business administration and communication. These lacunae need to be addressed by means of in-service training schemes and continuous professional development programmes.

A key influencing factor on the proficiency of the skill base is the quality of new design graduates coming onto the job market. The quality and appropriateness of the skills of such graduates is strongly criticised by established designers, but they, as a profession, have done little to engage with and support the design education sector. A mechanism, to facilitate dialogue and a closer working relationship between the two groups is urgently required in order to ensure that the quantity and quality of design graduates are in keeping with the changing needs of industry.

Based on the information provided to us during the course of our research, we anticipate that approximately 780 designers will be required each year, for the next three years, by design consultancy practices and manufacturing companies.

5. Organisational and operational effectiveness of design businesses

There are a number of factors that adversely impact upon the organisational and operational effectiveness of design consultancies. To a large extent they emanate from the lacunae in the skill base as outlined above, the structural fragmentation and lack of cohesiveness that prevails within the sector, and the relative lack of emphasis on, and support for, design on the part of the development agencies.

The factors impacting on the effectiveness of design in industry, on the other hand, tend to have their roots in the perception and positioning of design within the corporate structure, and the culture of the organisation vis a vis the extent to which there is a design-focused ethos and philosophy within the company.

Structural, cultural and attitudinal changes are required to fully realise the potential inherent in good and creative design.

6. Design education

Unlike many other European countries, design is not taught at primary or secondary school level. Therefore, third level colleges have to start at first principles. In all we estimate that there are in the region of 18 third level colleges providing approximately 47 design courses (certificate, diploma, degree and post-grad. level) in Ireland. The average annual intake is just over 1,380 students, with an estimated 1,000 graduates seeking employment in design each year. But, while there are a significant number of courses on offer, there are major areas of overlap, and some significant gaps. This situation is further exacerbated by the apparent lack of dialogue and collaboration, both between colleges and within colleges (i.e. inter-design department). There is a need for a national perspective approach to be adopted in order to address this situation.

Another crucial factor, as noted previously, is that there is insufficient interface and interaction between educators of designers and employers of designers, regarding such areas as – graduate in-take requirements; the appropriateness of course content to meet the changing needs of industry; student support and work placement; job placements etc.

Criticism of design education relates to course content and scope, specifically that many courses do not adequately reflect the needs of industry, and that greater emphasis needs to be placed on – innovation and creativity in design, business and the commercial aspects of design, marketing skills, communication and strategic planning skills.

Vision, strategic objectives, strategies and measures

Design in Ireland is still at an early stage of development, and, while the industry has made significant advancements within the last number of years, there is still significant latent and untapped potential to be realised. However, as outlined above, there are a number of factors and barriers inhibiting its effective and speedy development. These need to be addressed in an integrated and co-ordinated manner. This, in turn, will require the commitment of the design industry itself (as the resolution of many of the issues lie within their domain), the government and the state development agencies alike, to work in partnership towards the strategic development of design in Ireland at its many levels.

Vision statement

Our overall vision is for Irish design to be perceived in home and export markets as being truly innovative and creative, with a unique and distinct 'Irish style' and image, capable of generating premium commercial returns. Underpinning this vision, it is essential that, within the Irish business arena, design is regarded as an integral part of the whole business development process, and recognised for its strategic importance as a key differentiater, capable of delivering sustainable competitive advantage and economic wealth.

Key strategic objectives

Underpinning this vision there are six strategic objectives, as follows:

1. Achieve recognition of the strategic, economic and cultural importance of design in Ireland.
2. Develop the requisite industry support infrastructure, at company, pan-industry and development agency levels.
3. Strengthen the Irish design sector in terms of design excellence, business effectiveness and marketing skills.
4. Promote the internationalisation of Irish design and, proactively, support the development of those sectors within which Irish designers have a distinctive competence and, therefore, a potential competitive advantage.
5. Address the lacunae in the skill base.
6. Promote the integration of design education with industry needs.

Key strategies and measures

1. Establish a Design Resource Centre ("DRC")

The DRC should be the 'strategic think-tank' for design in Ireland, with a strong design advocacy mandate. Its brief should span, and be of relevance to, all design disciplines. Its purpose should be to inspire the best use of design, by advising and influencing government, state agencies, industry, design consultancies and educators on the creative and effective use of design. It should act as a catalyst in bringing about greater industry cohesion, improved quality and creativity in design and a more effective interface between the design community, the state support infrastructure and design educators.

It should be an entrepreneurially-driven organisation, and will have a requirement for a staff of approximately five with an annual budget in the region of IR£300,000 to IR£350,000.

2. Promote, strengthen and deepen the support provided by the state development agencies to Irish design

The services provided by Enterprise Ireland support the design industry in three different areas. These services need to be enhanced in some areas, and promoted to the design community. Proposals in this respect include:

– Strengthen the Design Advisory Service, which is focused on improving design creativity, capability and capacity in industry;

– Focus and promote the Business Development Programmes to the design consultancy sector, in order to support them in the professional and speedy development of their businesses, and

– Assist in the internationalisation of Irish design consultancy service by:

  ▪ *setting up a support programme, along the lines of the British Design Initiative, to proactively assist in the development of certain key sectors, within which Irish designers have a distinctive competence and marketable proposition;*
  ▪ *become a conduit for market intelligence on export market opportunities for Irish design consultancy services;*
  ▪ *develop a programme, in conjunction with the DRC, to showcase Irish design, nationally and internationally;*
  ▪ *promote the Irish Design capability to selected multinational companies located in Ireland, in collaboration with IDA Ireland.*

3. Government to set out a National Policy for Irish Design and champion and foster a 'Creative Ireland Inc' environment

Other European countries have benefited significantly from having a national formal policy on design. In this regard, there is an opportunity for the Irish Government to act as a champion for Irish design and to foster a 'Creative Ireland Inc' environment. The following proposals warrant consideration:

– the formulation of a National Policy for Irish design;

– the development of a clear and consistent proposition and image for Ireland Inc., one which is flexible and capable of being used by the various stakeholders in promoting Ireland, Irishness and Irish business internationally;

– national design, innovation and creativity flagship projects, and

– the setting-up of a small Design Promotion Unit, within a government department, to examine government's own use of design and design procurement.

4. Undertake a Training Needs Assessment Study and prepare a National Training Plan for the Design Sector

We propose that a full Training Needs Assessment Study be undertaken, embracing all the key skill areas – design, technical and IT, marketing and commercial and management – in order to identify more comprehensively the lacunae in the skill base. This should then be followed by a National Training Plan, setting out the nature and scope of in-service training and professional development programmes required by design practices and design in manufacturing.

5. **Implement the National Training Plan for Design when developed, and in the interim, develop and deliver certain key Continuous Professional Development (CPD) courses**

Interested industry representative organisations (IDI, GDBA, ICAD, IBEC/ISME) should champion the development and accreditation of the recommended training courses and programmes, working in close partnership with selected third level colleges and FÁS. They should also promote such courses and encourage their members to invest in the future development of their staff.

In the interim, the development of a number of CPD courses need to be fast–tracked so that certain critical areas of weakness begin to be addressed as quickly as possible.

6. **Set up a Design Education Working Party to address the Design Education Needs Beyond 2000, and to prepare an integrated national third level response**

A Design Education Working Party should be set up, comprising representatives of the design education sector, design consultancies, and design in manufacturing, to identify the training needs and resource requirements of the industry beyond 2000, and to prepare an integrated national third level response.

7. **Implement the recommendations of the NCAD/NCCA Working Party in relation to design education at primary and secondary levels**

The report of the NCAD/NCCA Working Party sets out ways in which design could be integrated into the primary and secondary school syllabi. The provision of an integrated design education would greatly enhance the overall appreciation of design, and raise the standard of students entering third level design education.

8. **The design industry to more proactively support the design education sector on an on-going basis**

We strongly urge the design profession and industry to invest more time and resources in supporting the third level education of design students, given that the medium-to-long-term development of the sector will be greatly influenced by the calibre of graduates entering the sector. The industry representative organisations have a key role to play in mobilising and channelling such support.

9. **Industry representative organisations to proactively seek to improve industry cohesion and to foster closer relationships with the state development agencies and the education sector**

Industry representative organisations have an important role to play in relation to the development of design in Ireland. Firstly, they must seek to expand their respective memberships and become truly representative of those working in the sector. A very large percentage of those working in design are not members of any representative organisation. Secondly, they must seek to improve cohesion and interaction, both within and between, the design consultancy sector and design in manufacturing. Thirdly, they should engage with the state development agencies in ensuring that the needs and requirements of the industry are clearly understood and addressed on an on-going basis, and in ensuring that their members are aware of, and partake in appropriate support measures. Fourthly, they should champion the development and promotion of in-service training and professional development programmes. Lastly, they should be the conduit for providing support to the design education sector, working closely with the development agencies and the Design Resource Centre.

10. Design practices need to develop their businesses in a more considered and planned manner and to support development initiatives aimed at strengthening the overall position of the design sector

We urge design consultancies to:

- seek to develop the business in a more structured and planned manner;
- undertake more effective networking, both within their specific design discipline and with other complementary design disciplines, with a view to the pooling of resources in respect of large scale and multi-disciplinary projects;
- invest more in the training and continuous professional development of staff;
- seek to communicate and promote the value-added case for design more convincingly.

11. Manufacturing companies need to consider more fully the inherent strategic importance of design as a driver of product differentiation and the role that proper design management can play in delivering greater efficiencies and cost savings

We urge manufacturing companies with in-house design capabilities to:

- commit to having a detailed design audit undertaken;
- put greater emphasis on design strategy, design management, and the integration of design strategy with the overall business strategy;
- interface with the rest of the design community and support sectoral development initiatives.

Conclusion

We feel that the design industry in Ireland has reached its present stage of development, primarily on the informal initiative of a large number of uncoordinated small enterprises. The industry has now reached a critical mass, such that, its ongoing, longer term development now, urgently, needs to be underpinned by a more co-ordinated and formalised approach along the lines that we have outlined above and describe, in more detail, in the main body of this report.

2. The issues and factors impacting upon the Development of Design in Ireland

Visual Communications · Ciaran O'Gaora

Introduction

The issues and factors impacting upon the development of design in Ireland cluster into six separate, but inter-related thematic areas:

1. *The positioning, structure and cohesiveness of the Irish Design Industry;*
2. *The Marketing of Irish design internationally;*
3. *Awareness of the value of design;*
4. *Skill base and training;*
5. *Organisational and operational effectiveness of design businesses; and*
6. *Design education.*

The positioning, structure and cohesiveness of the Irish Design Industry

1. The positioning of Irish design

Overview

Irish design does not have a clear distinctive selling proposition or image. This undermines its ability to communicate and to reach international markets. A positioning for Irish design needs to be developed, but must be done within the context of, and in co-ordination with, the development of a proposition for Ireland Inc.

Ireland's selling proposition and image

In an increasingly competitive and global market-place, Ireland's successful industries will no longer be those which focus on being the lowest cost producer, but those that seek to provide best value, anticipating the unspoken needs of consumers and providing high quality, distinctive and well–designed products and services. Now more than ever, it is crucial that Ireland is seen internationally as an economy based on creativity and innovation. In this regard, a sustained positive image of Ireland can greatly underpin the competitiveness of Irish companies as well as contributing to international relationships and a sense of national confidence.

The private sector has long since understood, and exploited, the value inherent in having a strong corporate image, however, at a national level such branding and image-building is significantly more challenging. But, nations do have identities (the flair of the Italians, the precision of the Swiss, the attention to detail/functionality of the Germans and the flamboyance of the French), whether by accident or by design. The competitiveness of Ireland, while dependent on many tangible factors, is also greatly influenced by the perception of Ireland and Irishness in the minds of consumers internationally.

In the past, Irish development and promotional agencies such as Bord Fáilte, IDA Ireland, the Irish Trade Board and Bord Bia have all invested in building varying images of Ireland, but each with its own remit in mind – Ireland as a tourist destination; Ireland as a business location; the international marketing of Irish food, products and services. The risk in projecting different messages and images is that it potentially dilutes the overall impact.

The design sector has yet to develop a USP for Irish design

In the same vein, the Irish design sector and Irish design suffers from not having a distinctive image and a clear selling proposition. To some extent this is a function of the diversity and structural fragmentation of the sector, but also because, to date, there has been no unifying force across the sector.

A number of very successful Irish brands and personalities exist which reflect Irish design and creative capability and which could act as icons of Irish design capability on world markets. These include, for example: John Rocha; Paul Costelloe; Lainey Keogh; Philip Tracey; Baileys; Waterford Crystal; Guinness; Iona Technologies; U2; The Irish Pub Company; and Riverdance. A rich resource, therefore, exists on which to establish a co-ordinated proposition and identity to communicate and profile Irish design capability. However, such a proposition, to be effective, should be developed within the context of Ireland Inc's overall proposition and identity.

2. Structure and cohesiveness of the design sector

Overview

The design consultancy sector suffers from a lack of cohesion and leadership. It has developed to date in an ad hoc and unfocused way, and in doing so has not realised its full potential. Because of its lack of unity, it has failed to communicate effectively with its various audiences and has not to any great extent engaged with, or availed of, the support available from the state development agencies. Allied to this, there has been no inward investment by international design businesses into Ireland. As such, the industry has developed in isolation.

Fragmented and diverse, no industry cohesion

The Design consultancy sector in Ireland is fragmented and diverse, comprising many small design consultancy practices, operating within different design arenas. While there are a number of different industry associations ie The Institute of Designers in Ireland, Royal Institute of Architects in Ireland (RIAI), the Graphic Design Business Association, Institute for Creative Advertising and Design, etc, no one organisation represents the interests of all designers. As a consequence, design is not represented at an industry level, there is no cohesion, poor networking, both within design areas and across design disciplines and little cross-fertilisation of ideas. Irish design firms do not pool their resources in order to compete for large-scale design assignments requiring composite design delivery capabilities. In this regard, a number of large-scale design projects have been lost to foreign design practices in recent years.

It is now critically important that the design sector unites and takes greater responsibility and ownership for its development. A strong industry representative organisation will be crucial in overcoming the structural weaknesses and improving cohesiveness.

Lack of communication with various audiences

The lack of a truly pan–industry representative organisation results in designers not only failing to communicate with other designers, in design practices and in manufacturing, but also failing to communicate with its other audiences – the buyers or users of design; policy makers and state development agencies; local and international media; potential new entrants into the sector; international design associations and the general public. Major buyers/users of design have expressed considerable frustration at not being able to establish basic information about the sector, the various design businesses within their particular areas of expertise and specialism eg graphic design, interior design etc. In the same way, there seems to be a lack of understanding on the part of design practices, regarding the way in which the state development agencies could support and facilitate the development of their businesses. Very few design practices would appear to avail of the services provided, and the sector has not been proactive in making representation to such agencies or seeking support particular to the needs of the design sector. Designers express concern regarding the lack of media coverage on the sector to highlight the quality of the work undertaken, but are increasingly realising that such profile must be proactively sought and promoted by the sector itself in collaboration with the media. A strong industry representative organisation is necessary to develop meaningful communication with the key audiences, and this is fundamental to the long-term development of the sector.

Not influenced by inward investing international design organisations

Unlike other service sectors, there has not been any inward investment into Ireland on the part of international design companies. As such, the sector has developed without external influences of this nature. In other sectors, such as, computing, film, pharmaceuticals and electronics, the development of indigenous industry has been greatly influenced by the presence of international players here, insofar as it exposes indigenous industry to new ideas and expertise, new ways of working, industry standards and work practices etc. In the absence of such influences, there is even more pressure on those design practices, that wish to grow and trade internationally, to seek out ways in which they can keep up-to–date with international trends and developments in design. In this regard, the market research capabilities of Enterprise Ireland and the resources within their international network of offices could be a valuable source and conduit for such information. But the sector must take the initiative in mobilising and directing such resources.

The indigenous manufacturing sector

Unlike design practices, manufacturing companies involved in the design and production of a diverse range of industrial and consumer products, have benefited from their 'manufacturing' status, and have to a large extent engaged with, and benefited from, the support provided by state development agencies. Manufacturing companies are increasingly recognising the importance of good product design and are resourcing their organisations accordingly, as evidenced by the significant uplift in the number of designers employed. Allied to this, manufacturing companies are also significantly more advanced at operating within the international market place, as a proportionally higher number of manufacturing companies are involved in exporting in comparison to design practices. The design consultancy sector and the manufacturing sector operate as quite separate sectors with very little inter-sectoral networking. There is a need for greater cohesion and a closer working relationship between both sectors at a design level, to the ultimate benefit of design overall. This reinforces the need for a strong industry representative organisation, one which would foster greater networking and interaction between both sectors.

The Marketing of Irish design internationally

The international market for design services is vibrant, but buyers are becoming increasingly sophisticated and demanding. The Irish design consultancy sector is similar to that of other countries in that it is made up of a large number of small businesses, employing less than 12 people per company. The sector has grown by 37% over the past three years, and just under half of all design practices surveyed professed to be active in international markets. Exports represented 17% of their income which, when extrapolated upwards for the sector as a whole, equals to total sectoral exports of just under IR£38 million. As such, the sector is a relative novice in international marketing terms. Unlike many other EU countries, however, Ireland does not have a strong design tradition, which will make the internationalisation of the sector all the more challenging. A number of niche areas have been identified where Irish designers exhibit particular skills. The sector must focus on these niche areas and seek to build a strong competitive position in a focused and strategically managed way. But because of the relative inexperience of the sector in trading internationally, it will require significant and proactive support from the relevant development agencies. Working in tandem with the agencies, those design practices planning to operate in the international marketplace must invest significant time and resources in developing marketing skills and markets for their services, if they are to enjoy a long-term sustainable position in the international market place.

Internationalising Irish design

The marketing of Irish design internationally takes place in two distinct ways. Firstly, design services are sold by design consultancy practices to international clients, and secondly, Irish designed and produced products are sold by manufacturing companies. In both instances, good design and creativity are fundamental to the exportability of the product or service. The Irish design community, from a structural perspective, is regarded as being typical of design suppliers throughout the EU in terms of numbers employed, with EU design practices typically employing less than 25 staff and many employing only two to three people.

Increasingly, Ireland is becoming a credible source of design skills and a real alternative to UK designers and other international design suppliers in a number of design disciplines. Certain categories of design practices, such as architectural and interior design, multimedia design and product design, are more adept at exporting their services than others, such as corporate identity and graphic designers who tend to concentrate on the home market. It would appear that a significant number of design practices are involved in overseas assignments, with earnings from such activities representing 17% of total earnings.

However, compared to some other EU countries, Ireland does not have a strong tradition in design, which will make market entry into certain product and design areas difficult. Some examples of established national design traditions are: Italy (Contract Furniture, fashion and consumer goods); Scandinavia (household furniture); Spain (Ceramics); Germany (product design, specifically electrical goods, public/institutional design, urban/civic design); Holland (typography and graphic communications).

The fact that, the design community in Ireland is young and cosmopolitan and has developed a range of niche design skills as well as an impressive list of internationally-established personalities and brands, are among the Irish industry's strengths. In addition, positively perceived attributes of Irishness (eg, "good communicators", we "fit in culturally", we're "flexible to change", "attractive working environment", "quality of life") are to Ireland's advantage in building relationships with prospective international design clients. In general, Irish business is well-exposed to, and familiar with, competing internationally and our 'Celtic tiger' image has underlined Ireland as a serious commercial player in the modern business environment. Allied to this, Irish design is typically less expensive than other international market sources, and, on the basis that the quality and creativity of design standards are on a par, potentially represents a good competitive tool.

Our research and workshop discussions identified a number of niche areas in which Irish designers exhibit particular and marketable design skills and expertise. These are:

(a) **Multimedia design** – website architecture, website interface design, software interface design (eg computer-based training software) and computer animation and on-screen graphics;

(b) **Design for the music and entertainment sector** – packaging design for music labels, set design for gigs and shows etc;

(c) **Food and drink packaging** – on-pack graphic design;

(d) **Knitwear, apparel and woven textiles design;**

(e) **Tourism and leisure:**
– identity and graphic design
– giftwear design
– environmental and interior design.

With regard to internationalisation of the Irish design sector, it must be recognised that it cannot profess to be all things to all people. Instead, the challenge facing the sector is to concentrate on those design areas, in particular those mentioned above, where it has a distinctive competence, and focus on building a competitive position in such areas.

Among the design industry's weaknesses, as regards internationalising the sector, is the lack of any detailed knowledge of the marketplace. There is no regular market intelligence gathering mechanism, whereby interested design practices can keep up-to-date on market developments and opportunities in specific countries and sectors. However, this is the type of service that would fall within Enterprise Ireland's remit and capabilities, but the sector to date has not been collectively proactive in seeking support of this nature.

At a more pan-industry level, Irish design services are not marketed internationally in a captive manner. Pan-industry promotional initiatives are used by other countries to 'showcase' the best of their design with a view to generating favourable international perceptions and as a platform from which to subsequently target certain countries/sectors. Examples of other countries engaging in such approaches include:

- Eurodesign Market (Barcelona, November 1997) brought together European designers and manufacturers, with the main purpose of stressing the importance of European design as a business factor. During the two day event designers presented their credentials to prospective clients and manufacturers, who in turn stated their design needs for future new product development. Six countries took part including Spain, Italy, United Kingdom, France, Belgium and the Netherlands. The initiative was supported by the European Commission Enterprise Programme;
- In June 1996, the first European forum for designers and the users of design, 'European Designer' was staged in Maastricht. This trade show featured design promotion centres from around Europe and individual design consultancies;
- Every October, the Design Show in London features the top UK design consultancies, showcasing their credentials to potential buyers of design and to the design sector at large.

In relation to marketing expertise, there is a dearth of international marketing skills and nous within the sector, which is understandable given the underdeveloped nature of this side of the business. The task of exporting, therefore, seems daunting for many design consultancies, with little evidence of strategic planning as regards export target marketing, market entry strategies or market development and resourcing. This is compounded by the poor attitude and lack of interest on the part of sector constituents (design SMEs) towards networking with other design companies for the purposes of joint operations or service enhancement (via complementary skills). Interested design practices will need to consider how such lacunae can be addressed. Again, this is an area where the industry should work in concert with the development agencies. In addition, the established mobility of European design suppliers within Europe and further afield (eg, the US is the largest export market for UK designers) provides a challenge to Irish designers, who will require to commit whole-heartedly to international client development and servicing, including undertaking heavy itineraries of personal visits and the investment of financial and other resources.

In summary, a number of niche design sectors have been identified in which Irish designers possess specialist design skills and experience. Priority should be given to internationalising and fully exploiting the potential of these particular sectors. Enterprise Ireland already provides a certain amount of marketing support to the Irish design sector. However there is a need for the state development agency to work closely with interested companies in:

- undertaking more detailed market research to identify particular countries and companies who would be interested in such expertise;
- interfacing and matching potential clients with suitable Irish design companies; and
- assisting the Irish design companies to develop their marketing and commercial skills.

The nature of the support envisaged is not dissimilar to that provided by The British Design Initiative. BDI is a commercial design consultancy which works in a very focused way with a portfolio of UK clients in the internationalising of their design services.

Awareness of the value of design

Notwithstanding the availability of international empirical evidence and case studies in support of the inherent "value" of design, the case, in support of the value of design, has, to date, not been effectively communicated. The stakeholders – design consultancies themselves; industry/other buyers of design; government and state development agencies; the media and the general public – have yet to be convinced.

To fully maximise and exploit the "value" of design, it must be an implicit and integral part of the strategic planning and NPD processes, and not an add-on or afterthought. This applies equally to both manufacturing and service companies and will require a shift in mind-set, philosophy and culture on the part of both design practices and industry. Design practices must assume an apostleistic role in preaching and reinforcing the 'value of design' philosophy. Equally, it is crucial that the importance and status of design, as a factor underpinning competitiveness, be elevated onto the industrial policy agenda alongside R&D and that the state development agencies play their role in reinforcing and supporting its importance. At national level, the role that good design can play in strengthening and communicating Ireland Inc's international identity should not be underestimated.

Present situation

Despite the availability of empirical evidence in support of the inherent value of design, there is poor awareness of the value of design in Ireland, both in industry and among the other stakeholders. Even those companies who do appreciate the value of design frequently demonstrate a weakness in how to effectively manage this important creative asset. This is not surprising as the case for design has not been proactively presented, although a number of design-driven export successes have been well-profiled by the national media (ranging from John Rocha at Waterford Crystal, Riverdance, the Irish Pub Company, U2's Popmart stage set to name but a few).

These, having caught the attention, interest and imagination of the general public in all strata of Irish society, provide an established base from which to proceed to present a firm case for investment in design – and, specifically, the case for investment in Irish design.

In essence, the commercial value of design is based on the potential of design to act as a driver of competitive advantage in a marketplace replete with increasingly homogenous and closely competing products and services. Quantification of the value of design can be denominated in different measures – increased profits/ROI, premium marketing positioning, market share growth; additional product performance capabilities etc. A number of major studies have been undertaken, while others are still on-going, which endeavour to evaluate the commercial value of design inputs. The UK and Norway have taken a leading role in strategically documenting and monitoring performance at both a national and case-study level. Some of these findings are presented in this report, and collectively make a strong case supporting and quantifying the value of design at both a national GDP level and company performance level. In an Irish context, research of this nature has never been undertaken, and while this study briefly profiles three Irish case studies, there is a real need to gather, in a systematic and independent manner, a greater bank of data and evidence.

This study identified a number of key causal factors which have resulted in a lack of appreciation of the value of design in Ireland. These are briefly outlined below.

The value of design is not promoted or championed

The proposition regarding the strategic, economic and commercial value of design has never been effectively documented and communicated to the relevant Irish constituents or stakeholders – the Government, state agencies, customers/users of design and the media. There is a real need for an educational and awareness programme to be developed, communicated and 'championed' in a rational and coherent manner.

Designers and design consultancies have been poor ambassadors of the value-added case

Designers are not united and, because there is no overall umbrella organisation representing design and the interest of designers, no pan-industry development initiatives, or even debate on the value-added case of design, has taken place. Thus, while individual designers believe that design adds value, as individuals they are not well equipped (with hard evidence) to present and persuade clients/employers of the value of design.

Strategic planning processes at Government and corporate level does not include design

Corporates and government departments alike are increasingly more sophisticated at strategic planning and the management of inclusive strategic planning processes. However, to date, design has not been fully integrated into either corporate, or governmental, strategic planning processes.

With respect to private companies buying design, the challenge facing the Irish Design Sector is to promote the proper integration of design into the overall strategic planning process of Irish industry and into the New Product Development process. To date, the use of design has been treated as an add-on (and frequently optional) resource. This requires a culture change in how Irish industry perceives, values and applies design. Likewise, Irish design practices also require a cultural change in order to more effectively service and communicate the strategic importance of design to their clients.

At Government and national policy level, there has been little understanding of, and (to date) a low level of commitment to, the development of the design sector. As a consequence, state policy does not identify design (as it does R&D, innovation, and technology) as a success factor for future economic growth. In view of this, state policy has not been formulated to encourage the use of design in industry.

By contrast, in the UK, the Department for Culture, Media and Sport, within the context of the Blair initiatives for a 'more creative Britain' is acting as a pioneer within government in striving to become an exemplar in the effective use of design. It is doing so in the belief that Government's own use of creativity, innovation and design should set an example to both the private sector and the rest of the public sector. This will, they believe....“ generate direct benefits for government departments themselves in terms of cost efficiency, improved staff morale and motivation and more effective procurement”. In this regard their initial specific objectives are, to generate new knowledge about best practice in the use and management of design which can be transferred to other government departments as well as the rest of the public sector, and to set an example which inspires other organisations and companies to raise their own levels of creativity, innovation and design effectiveness.

Design is not represented at Board level

The extent to which design is perceived as an important strategy for commercial success is perhaps reflected by the lack of representation of design at board level within most companies. This is also indicative of the lack of clarity by senior management of the relationship of design to business strategy. In essence, design is just beginning to be valued by manufacturers and service industries.

The power of the media as an effective communication channel has not been exploited

The lack of a design press in Ireland is indicative of the lack of communication and commentary about Irish design and represents a key barrier to presenting, on a continuous basis, the investment case for design.

Similarly, the sector has not established adequate communication links with journalists in Ireland (or elsewhere) and has not, therefore, promoted either the concept of design as a key commercial strategy, or the distinctive competencies of Irish designers. At present, there are no collective marketing or media campaigns undertaken by the sector to develop a profile in the marketplace. While some success stories are reported in the media, many go unreported and the general public, in the main, have a low appreciation of Irish design and the potential that it can unleash in a modern and creative society.

Design is not on the general education agenda

It is also apparent that, apart from the design colleges/departments, there is no discussion of design generally within schools and colleges. This results in a lack of awareness of the value of design and its potential among the wider, non-designer, third level population. As the country's future decision-makers, graduates are not sufficiently well equipped to understand the potential of design and to apply it within their fields of employment for the benefit of all sections of Irish society.

Conclusion

Clearly the low levels of awareness of design and its value as a competitive tool exist because of the lack of design advocacy and the absence of an organisation to champion its cause. In other countries, such a role (along with other important functions), is carried out by a Design Council or Institute. The presence of a similar organisation or Resource Centre in Ireland could begin to redress the situation.

Skill base and training

Buyers of design seek (i) quality and creativity of design, and (ii) quality and professionalism in the 'process' of delivering design solutions– the sector struggles to deliver on both fronts. A number of lacunae have been identified in the skill base which are inhibiting the development and growth of many design businesses. In general, the main skill gaps are centred around business administration and communication. These lacunae need to be addressed by means of in-service training schemes and continuous professional development programmes.

A key influencing factor on the proficiency of the skill base is the quality of new design graduates coming onto the job market, and, while the quality and appropriateness of the skills of such graduates is strongly criticised by established designers, they, as a profession, have done little to engage with and support the design education sector. A mechanism, to facilitate dialogue and a closer working relationship between the two groups is urgently required in order to ensure that the quantity and quality of design graduates are in keeping with the changing needs of industry.

As clients, or buyers of design, become more experienced in buying design services, they also become more demanding in the challenges they set design consultancies. Increasingly clients want more that just a simple one-dimensional solution to their business problem, as this alone will not gain a competitive edge or increase customer satisfaction. Just as quality assurance became the norm and not the competitive edge for many companies, so too design has become the norm for many industry sectors eg the fast-moving-consumer-goods sector (food and drink packaging), the airline sector and the tourism sector.

In addition, clients are seeking design services that are not only delivered on time and within budget, but are also strategically orientated. This strategic dimension increases the value of the service and clients have demonstrated a willingness to pay higher fees if this strategic element is successfully addressed. In choosing a design consultancy, clients are increasingly basing their decision on creativity, sectoral experience and track record of the individual designers, rather than on price.

1. Gaps in the skill base

The skill gaps in the design sector vary from discipline to discipline and on consultancy size. The main lacunae in the skill base of designers in Ireland which have emerged from our research findings and workshop sessions are considered to be as follows:

Weak Project Management Skills

Research shows that project management skills in the design industry tend to be quite weak. This supposition is further augmented by the design profession's reputation for missing deadlines, running over budget and lacking administrative skills. These weak management skills can be attributed to a lack of professional business project managers employed in the design profession. Designers often feel the need to control all aspects of the project, when in fact, their core competence is in creativity and not in implementation.

Weak Design Management Skills

There is a distinct lack of strategic planning skills in the Irish design industry. This skill gap has allowed UK-based design consultancies to secure lucrative Irish contracts which demand a high degree of strategic planning. A number of design management consultancies have been established in recent years to service the strategic needs of client companies. In addition, a small number of Irish graphic design consultancies have expanded their services to offer strategic consultancy work.

Poor at Marketing Design Services

A large proportion of Irish design consultancies are owner-managed. This relationship has contributed significantly to the lack of business professionals employed in the design industry. In the last two years, however, a significant number of non-designers (eg Marketing & Sales, Client Executives and Administrators) have been employed by design consultancies to perform marketing and other support roles.

Many design consultancies market their business on an ad-hoc basis. Marketing efforts are limited to brochures, cold-calling, direct marketing, workshop participation and advertising. Research shows that clients who actively purchase design (mainly visual communications) receive up to three telephone calls per week from design consultancies offering their services. Buyers of design have remarked that design consultants predominantly present the creative side of a proposal and that rarely any effort is made to profile the value-added case for design in terms of potential cost savings, performance improvement etc. In addition, buyers of design note that design consultancies have little concept of the strategic importance of design services for a company and are unable to communicate and contextualise its role within the strategic planning process.

Weak customer service skills

There is a tendency within the Irish design industry to operate on a project-by-project basis. This approach hinders long term relationship building. In comparison to the marketing services sector, design consultancies are poor at building and nurturing client relationships. This weakness results in design practices not fully realising their potential from repeat business.

Teamwork skills

Design graduates tend to be ignorant of the skills of other design disciplines. This is partly due to a lack of cross-fertilisation between third level design departments. In addition, there is little evidence of teamwork at college level. This is in stark contrast to the professional scene where designers always work as part of a team, either with other designers, or business professionals.

Clients are increasingly seeking design services with diverse design skills for one project (eg in retail design, both interior architecture and graphic branding skills could be required). Team-working skills are not regarded as a strong feature of the Irish design profession. In contrast, UK design consultancies excel in team-working and this capability allows them to offer a more comprehensive and seamless design service than most Irish design practices.

Information Technology skills

Irish design consultancies invest heavily in Information Technology (IT) and Computer Aided Design (CAD) hardware and software systems. This is due in part to a certain level of peer-pressure which exists within the design industry to invest in IT and to maintain up-to-date CAD facilities.

The investment in skill developments, however, is well below other industry sector standards. This skill gap is partly due to designers opting for the self-teaching method as opposed to allocating time and resources for Continuing Professional Development (CPD).

Scoping and understanding the client's brief

The issue of scoping and fully understanding the client’s brief was discussed in some detail at the various workshops. The view of a cross-section of buyers of design is that Irish designers tend, in the main, not to be as proficient as they should be at scoping-out and demonstrating a deep understanding of the client’s design brief. Allied to this, there is a reluctance to explore the client’s full design requirements beyond the design consultancy’s immediate delivery capabilities, often leaving it up to the client to identify required skills for project completion. Again, this criticism is reflective of the narrow design disciplines within many design practices, and the reluctance on the part of design consultants to merge forces with their design profession counterparts in other disciplines to offer a seamless and comprehensive design service to clients.

In conclusion, there is a real need for design consultancies to give serious consideration to addressing the weaknesses in their skill base. A series of CPD programmes need to be developed, specifically for the design sector. The industry representative organisation, working closely with the development agencies, is possibly best positioned to prepare and deliver CPD programmes. However, given the diverse nature of the different disciplines and the need for pre-requisite skills and competencies in creative, technical and commercial functions, the above assessment of the skill gaps should be regarded as very high level and general.

In order to assess the training needs of the sector more accurately, it will be necessary for a skills audit and training needs assessment study to be undertaken. The national training agency, Fás, has undertaken such exercises in other sectors in the past.

2 Insufficient interface with design colleges

Designers in consultancy and in industry are quick to articulate their general dissatisfaction with the calibre and versatility of design graduates coming out of college. Yet at the same time they have not, as a profession, constructively engaged with the design education sector in feeding-back industry skill requirements, or in supporting education establishments in better preparing graduates to meet the needs of modern design organisations. While there are a number of exceptions (fashion design, knitwear, furniture and software/multimedia design), this is true of the sector in the main. This is an area which must be addressed in a co-ordinated and planned manner. Clearly the design industry representative organisations, along with IBEC and ISME, have an important contribution to make in this area.

Organisational and operational effectiveness of design businesses;

There are a number of factors that adversely impact upon the organisational and operational effectiveness of design consultancies. To a large extent they emanate from the lacunae in the skill base as outlined earlier, the structural fragmentation and lack of cohesiveness that prevails within the sector, and the relative lack of emphasis on, and support for, design on the part of the development agencies.

The factors impacting on the effectiveness of design in industry, on the other hand, tend to have their roots in the perception and positioning of design within the corporate structure, and the culture of the organisation vis a vis the extent to which there is a design-focused ethos and philosophy within the company.

Structural, cultural and attitudinal change will be required if the potential inherent in good and creative design is to be fully realised.

1. Design consultancies/practices

The key factors impacting upon the development and growth of design consultancies are summarised briefly below. As may be noted, some factors are external to design practices themselves, but most pertain to the manner in which designers manage their businesses:

No Design Tradition

Ireland is not regarded as a country with an established design tradition. Unlike the Danes, the Finns and the Italians, Ireland has not developed a reputation, either in the home, or in international markets, for being strong on design. This lack of an established reputation for Irish design represents a challenge in terms of growing and internationalising the design sector. Nevertheless, a number of niche areas of design have been identified, in which Irish designers exhibit specialist and marketable design skills and expertise. It is proposed that significant emphasis be placed on these sectors in terms of internationalising the sector and that Ireland should seek to build a reputation for being world class leaders in these areas.

Small scale, limited design disciplines

Irish design companies are typically small in terms of number of employees and as a consequence are unable to provide a wide range of design disciplines beyond the individual companies' core design skills. There is also a reluctance to join forces with design firms with complementary design disciplines, when proposing/tendering for design projects. The net effect is to dilute the proposition presented to design buyers and, consequently, to under-sell the potential role and impact of design as a strategy for commercial success. From the design practice's perspective, it means that individual firms are unable to take on large-scale projects and this curtails the potential growth of the firm.

Design practices need to recognise the need to pool resources in an attempt to win more diverse, larger-scale design assignments. A strong industry representative organisation, or a resource centre, could act as a catalyst in encouraging cross-disciplinary networking and in supporting design practices in proposing for international design assignments.

Lack of sectoral expertise

In Ireland, the design sector is supplying a business sector (design clients) which is comprised mainly of small and medium-sized enterprises trading in a very wide range of different industrial sectors. In view of this, major design buyers (ie, global brand companies, international marketing companies, etc..) believe that Irish designers have little experience or competence in providing large-scale, integrated, design solutions, tailored for specific sectors or industries. As a consequence, Irish design firms have not been considered for some large-scale integrated Irish design projects requiring specific sectoral expertise. Other types of consultancy professions, when faced with a similar situation, generally endeavour to team up with foreign professionals with the required sectoral expertise in order to compete for such work. Such a combination, comprising local, generalist experience and foreign sectoral specific expertise, generally represents a credible proposition to design buyers, while allowing the indigenous firm to gain valuable experience. Again, Irish design practices should seek to build up an international network of complementary design practices, which have established and proven sectoral expertise.

Client handling more project-focused rather than relationship building

Designers are not good at promoting their skills and capabilities. Their focus tends to be too “project-driven” and not “relationship-building”. This is particularly noticeable when comparisons are made with related professions such as advertising and media suppliers. Anecdotal evidence also suggests that UK design companies are much more effective than Irish design companies at selling their design services, frequently employing non-designers to market the business. There is a general criticism that designers do not communicate effectively with clients to highlight the value of design, or, to underline the application of design for commercial advantage. Indeed, designers frequently pitch in a language and in a format that clients find difficult to comprehend. In addition, designers do not adequately inform industry about the design process itself, with the result that buyers are often unaware of the timings and phasing of activities in the design process. There is also a lack of awareness among design buyers about the potential cost-efficiencies and financial gains achievable from the implementation of effective design strategies. In general, buyers of design, at the workshops, claimed that designers lack entrepreneurial spirit in their relationship with their clients and should strive for closer client collaboration during project briefing. A number of CPD programmes in the areas of effective communication, client handling, design management, and project and process management would begin to address these deficiencies.

Planning and managing business growth and development

A number of owner-managers of design consultancies have aired their anxiety and dilemma at the prospect of growing their businesses. Many acknowledged that there were opportunities to expand and grow their businesses but considered the process to be a daunting one, insofar as they were concerned about their ability to fund and manage a larger enterprise. Such anxieties are not dissimilar to those of other industries and are part and parcel of the growth process. However, unlike other sectors, there appears to be a low level of awareness amongst design consultancies of the range of support programmes available to them as an internationally traded service. There is a real need for the design community to engage more effectively with the state development agencies. In this regard, a promotional and awareness programme should be undertaken with a view to communicating to the sector the type of support provided by the state agencies.

3. Manufacturing businesses with in-house design

The factors influencing the effectiveness of design within manufacturing are somewhat different and include:

Design tends not to be represented at Board level

The status of design within industry is not dissimilar to that of marketing 10 to 15 years ago, insofar as it is not fully understood, represented or integrated into the running of the business. There are very few manufacturing companies that have design represented or championed at senior management or Board level, resulting, in many cases, in the design function and overall design capabilities, not being fully maximised.

Exposure of designers to clients

Allied to the above, designers are critical of the fact that they are not exposed to clients. Instead, communication and directions are often delivered via the sales/marketing manager, or the general manager, with potential, consequential dilution or misinterpretation of the message. In the same vein, designers claim that they do not get sufficient exposure to new trends and developments via trade fairs, exhibitions and shows etc. Exposure to foreign and emerging trends are crucial in stimulating creativity and innovation.

The importance of design as a strategic tool underpinning a company's competitive position needs to be highlighted and reinforced at industrial level. Evidence of the value–added case (as noted earlier) will help to convey this message, but measures to drive home the strategic importance of design, and good design management, will need to be undertaken.

3. Support for design from the state agencies

State development agencies, recognising that R&D and innovation are key to business competitiveness, have invested heavily in the support and promotion of R&D within industry. A number of different schemes have been introduced to foster and develop R&D competencies and the extent to which companies engage in R&D. Certain aspects of design, in particular new product design and prototyping, are covered in such schemes.

In addition to R&D/NPD support, Enterprise Ireland provides a range of services to the manufacturing sector which are focused on improving the capacity and capabilities of design in Irish industry, specifically in industrial and consumer products through the provision of the following services:

- Design Audits Programme
- Individual Company Counselling
- New Products Programme
- Design Intelligence Programme
- Provision of a range of services to assist designers market their services internationally

In addition to the above, Enterprise Ireland also organises:

- Trend Forecasting Workshops, aimed at the clothing and knitwear sectors, which provides companies with advance colour and trend information;
- Design Study visits to international markets for manufacturers wishing to research product and market trends. The manufacturers are often accompanied by an international design consultant.

In all, a staff of two with design expertise have been allocated to servicing Enterprise Ireland's client base of approximately 1,500 manufacturing companies. In this regard, it would be unrealistic to expect that with such limited resources, Enterprise Ireland would be able to provide the depth and range of design support services required by industry.

The Design consultancy sector, which, effectively, may be regarded as an internationally traded service, has not, to any great extent, engaged with, or benefited from, the support of Enterprise Ireland. And, while the sector is still in its infancy in terms of exporting its services (estimated at IR£38 million in 1997), it has grown by 37% in the last three years.

Internationalisation of the design sector will necessitate an enhanced level of support from the state development agencies, in particular, Enterprise Ireland, which now embraces the former Forbairt, Irish Trade Board and industrial training part of Fás. The detailed proposals regarding the nature and level of support required are addressed in the next section, and are focused on:

Design consultancies

- the development and strengthening of design consultancies and the skill base;
- facilitating Irish design consultancies to showcase and market their services internationally;
- pro-actively developing those design sectors as noted earlier, in which Irish designers have displayed distinctive competencies.

Design in industry

- promoting the strategic importance of design and the benefits of good design management;
- strengthening and supporting design capabilities, innovation, and creativity in industry;
- continuing to support Irish manufacturers in exporting their products;
- encourage designers in industry to visit export markets.

Design education

Unlike in many other European countries, design is not taught at primary or secondary school level, therefore third level colleges have to start at first principles. In all we estimate that there are in the region of 18 third level colleges providing approximately 47 design courses (certificate, diploma, degree and post-grad. level) in Ireland. The average annual intake is approximately 1,380 students, with an estimated 1,000 graduates seeking employment in design each year. But while there are a significant number of courses on offer, there are major areas of overlap, and some significant gaps. This situation is further exacerbated by the apparent lack of dialogue and collaboration both between colleges and within colleges (ie inter-design department). There is a need for a national perspective approach to be adopted in order to address this situation.

Another crucial factor, as noted previously, is that there is insufficient interface and interaction between educators of designers and employers of designers regarding such areas as - skill and training needs assessments, student support and work placement, job placements etc.

Criticism of design education relates to course content and scope, specifically that many courses do not adequately reflect the needs of industry. Greater emphasis needs to be placed on - innovation and creativity in design, business and the commercial aspects of design, marketing, communication and strategic planning skills.

During the course of our research significant time was invested in getting a firm insight into the different opinions and views on design education in Ireland. In this regard, consultations took place to seek the input of design educators, employers of designers and design students themselves. Interestingly, there is a high level of consistency in opinions between the three groups, which we briefly review below.

1. Views of the Industry

Design in schools

The discipline of design as a problem-solving exercise is not taught in primary or secondary schools. The disciplines of craft and the arts are delivered through a number of different subjects. Moreover, design is not encouraged throughout secondary education. By contrast, design and technology are subjects that are included in the secondary school curriculum in the United Kingdom and a number of other European countries. It should be noted, however, that a NCAD & NCCA Working Party Report has looked at this area and have put forward proposals to begin to redress the situation.

Exposure to Business Studies and the Business Environment

There is a lack of ‘business appreciation’ among design graduates. Graduates, on leaving college, tend not to demonstrate an understanding of the value of design, or of the commercial application of design. This low level of business/commercial awareness possibly reflects the absence of business modules within design courses and the lack of practical work experience or exposure to the industrial or business environment during the period of their education.

Input on Course Content

Industry has little or no input into course content or syllabi development. In some design disciplines, such as industrial design, where a strong work placement scheme exists, there are good communication links and industry is able to make a useful input into the coursework, albeit towards the end of the students education. For some courses, the only interaction with industry is during final assessment, where a business person is invited to be part of the external assessment panel. For many design courses, the views of industry, or potential employers, are not sought.

Multi-disciplinary design projects

As designers are trained in one professional discipline, they generally demonstrate a weakness in addressing design problems outside their discipline. Clients increasingly require a number of design skills (for example graphic and interior design in the retail sector) to tackle a business initiative, and seek designers who can address issues outside the scope of their immediate design discipline. This ‘narrow’ approach to design can sometimes hinder innovation and creativity. In this regard, a general foundation course in design, embracing design in the widest-sense, and undertaken prior to specialisation, would greatly benefit designers’ experience.

2. Views of the Professional Designers

Projects and briefs are one-dimensional

Design projects undertaken in college are considered to be too one-dimensional, rarely conveying the complexity of high quality design. They tend to be solution-driven, with the emphasis being placed upon ‘a clever idea’ to the detriment of in-depth, strategic solutions. Lateral thinking is neglected. Similarly, projects fail to reflect the reality of design jobs, where designers rarely work in isolation, generally creating concepts in conjunction with copywriters, marketing specialists and other designers from related disciplines. Crossover between the different design departments in the colleges is practically non-existent.

Management and professional skills, such as communications and the ability to present creative work in a coherent manner, need to be emphasised. Attention to detail and a desire for very high quality in all aspects of the job must be encouraged.

Technical skills

Professional designers lament the standard of technical skills amongst graduates, though the difficulty of teaching technical skills at colleges is acknowledged. There was a general feeling that the mandatory internship/work experience requirement of many colleges in Europe should be introduced. This would require a certain responsibility on the part of the professional design practices to provide work placement opportunities, a point which was emphasised repeatedly in conjunction with many aspects of design education. There appears to be a readiness on the part of the professionals to get involved with education, if the end result provides graduates that are better equipped for the workplace.

Visiting lecturers

The tradition of visiting lecturers is an excellent feature, although these lecturers are not necessarily exploited to best advantage. Corresponding with the need for more complex projects, it is suggested that some of these lecturers should conduct semester-long projects with the students, who would attend college, not for a single block, but for one day a week over a longer period of time.

Network theory

Professional designers lament the isolation of their training to within their own disciplines and their ignorance of the skills practised by other design professions. Most professional designers are required to communicate with other types of designers on behalf of their client and exposure to other design disciplines during education would foster a stronger designer network.

3. Views of the Design Educators

Lack of support

Design educators expressed frustration at the sheer lack of support from design professionals and from industry in terms of participating in course-work, providing resources for research and general non-interest in design education. There is also poor support from the various design industry representative bodies towards design education.

Career in Design

A career in design is not judged to be financially rewarding. This is often misunderstood by students and lecturers. There is a perception that only the ‘rich’ can pay for design and therefore design is a limited luxury for most organisations.

How to market Design Services

Design educators do not see the ‘marketing of service’ skills as relevant to design education. Focus is on the training of a designer and not the integration of the designer into the business marketplace.

Design in education

The view was expressed by some design educators that designers should be encouraged to teach at primary/secondary level. More design graduates should consider teaching art in secondary schools. Design should be addressed in other subjects (eg home economics) and not as a stand alone subject, again reinforcing the need to integrate design into our primary and secondary schools.

Post-Graduate Design Courses

The post-graduate opportunities in Ireland are quite limited. More post-graduate courses should be offered especially to address the specialist aspects of design. Design courses should be more multi-disciplinary at undergraduate level and more specialised at post-graduate level.

Motivation & confidence of students

Motivation and confidence levels of students could be improved by increased team work, multi-disciplinary teams and by conveying a greater understanding of the business case for design. The European Commission Erasmus programme, whereby students can study and work abroad, was noted as a good opportunity for students to enhance their appreciation of design within a different design environment and culture.

Inter-College communication

There is no sharing of ideas among design educational establishments. Design colleges have become very academic: there is not enough practical experience and too little hands-on work.

Work-placement

The existence of work-placement schemes is ad-hoc. Colleges require more assistance from industry and professional designers to implement such schemes.

The long-term growth and development of Irish design practices and design in industry, is dependent upon the quality of students entering the job market. Currently there are significant gaps and overlaps in the nature of design courses provided, and a level of dissatisfaction on the part of educators and employers. It is incumbent on professional designers and industry to work closely with, and support, design educators, in order to ensure that the current and future resource needs of the industry will be satisfied by graduates. Such support and interaction should be channelled in a co-ordinated and structured way. In order to address this very critical area, it will be necessary for design educators, design professionals and industry to come together and to agree upon the design education needs beyond 2000 and to prepare an integrated national third level response.

Summary

This section outlined the issues and factors impacting upon the development of design in Ireland. These issues or factors cluster into the following six areas:

1. *The positioning, structure and cohesiveness of the Irish Design Industry;*
2. *The Marketing of Irish design internationally;*
3. *Awareness of the value of design;*
4. *Skill base and training;*
5. *Organisational and operational effectiveness of design businesses; and*
6. *Design education.*

In recognition of the many issues, factors, and barriers impacting upon the development of the design industry, we set out, in the next section, a vision statement for the industry, which is considered to be challenging but achievable; strategic objectives that the industry should work towards, and a series of strategies and measures that are required to be undertaken, if the objectives and vision outlined are to be realised.

3. Recommendations: Vision, Strategic Objectives, Strategies and Measures

Fashion and Textiles · Cuan Hanly

Introduction

Design operates at a number of levels within modern society. Firstly, design is of *national strategic* importance, it is part of a country's image and identity. How a country presents itself and how products, services and buildings are designed are no longer optional extras but vital to the economy of the next century, in which creativity and knowledge will play an increasingly important role. Secondly, design is of *economic and commercial* value. The concept and application of design is integral to the whole innovation process. Translating pure research and bright ideas into commercial applications is a discrete and challenging activity in itself. Investment in effective design enables companies to increase the perceived value of whatever they are offering, as well as improving the efficiency of their organisation and systems. Thirdly, design is an *integral part of a country's cultural heritage*. It is the tangible manifestation of ones imagination and creativity. The ability to use design and innovation effectively comes primarily from the skills of the people in society and within organisations. In particular, it comes from investing in them and investing in their knowledge – its generation, application, storage and transmission – to the same extent that investment has been made in physical infrastructure in the past.

Design in Ireland is still at an early stage of development, and while the industry has made significant progress within the last number of years, there is still significant latent and untapped potential to be realised. However, as outlined in the previous section, there are a number of factors and barriers inhibiting its effective and speedy development. These issues need to be addressed in an integrated and co-ordinated manner. This in turn will require the commitment of the design industry itself (as the resolution of many of the issues lie within their domain), the government and the state development agencies alike, to work, in partnership, towards the strategic development of design in Ireland at its many levels.

Future potential and growth prospects

Design consultancies

Design consultancies employ in the region of 3,700 people and have an aggregate turnover of approximately IR£220 million. Of this total approximately IR£38 million, or 17%, is generated on export markets. The sector has experienced growth of 37% over the last three years.

Allied to this, design consultancies have recruited in the region of 2,000 staff within the last three years, of which 1,260 were designers. This represents a more than doubling of the numbers employed in the sector in that period. This up-lift in staffing levels has been experienced across all design disciplines, and reflects, to a large extent, the buoyancy of the economy, coupled with the increasing acceptance on the part of clients/buyers of the value of design services and recognition that good design is a driver of product/service differentiation and competitive advantage.

We believe that this level of organic growth is unsustainable, as many design practices are nearing the end of the embryonic stage in their organisational life cycle, when development plateaus-out, unless external influences are brought to bear to trigger the next stage of organisational development.

However, if the recommendations and strategies outlined below are implemented in a co-ordinated and cohesive manner, then, we believe, that they will be sufficient to act as the catalyst in driving development of the sector to the next phase. By the year 2003, the value of the design consultancy sector could be worth in the region of IR£500 million, representing a CAGR of 15%. Given the buoyancy of design consultancy sectors internationally and Ireland's distinctive competence in a number of key sectors, exports of design consultancy services could reach IR£100 million, or 20% of total sector turnover. In terms of employment the benefits would also be significant, with an estimated 8,000 people employed in design consultancy, representing a more than doubling of employment within the period.

Design in industry

There has been a trend on the part of manufacturing companies to employ more in-house designers. Within the last three years, the manufacturing sector has more than doubled the number of designers employed to reach its current level of between 2,100 and 2,500. This trend exactly mirrors that found in the consultancy sector. Over the next three years, manufacturers have indicated that they intend to recruit an additional 1,100 designers. Therefore, by 2003, it is estimated that employment of designers in industry will be in the region of 4,000 or half of the numbers employed in the design consultancy sector. The strategies proposed in relation to design in industry are very much focused on improving the quality of design and design management, resulting in greater internal efficiencies and improved product competitiveness in the marketplace.

Strategic development of design

We set out below the key elements of our proposals for the strategic development of design in Ireland, under the following headings:

1 *The Vision for Irish design;*

2 *Key strategic objectives;*

3 *Key strategies and measures.*

1. The Vision for Irish Design

Our overall vision is for Irish design to be perceived in home and export markets as being truly innovative and creative, with a unique and distinct 'Irish style' and image, capable of generating premium commercial returns. Underpinning this vision, it is essential that, within the Irish business arena, design is regarded as an integral part of the whole business development process, and recognised for its strategic importance as a key differentiater, capable of delivering sustainable competitive advantage and economic wealth.

2. Key strategic objectives

Underpinning this vision are six strategic objectives, which we detail as follows:

1. Achieve recognition of the strategic, economic and cultural importance of Irish design

It is essential for Government and policy makers to recognise the strategic, economic and cultural importance of Irish design, and for an awareness of Irish design, and the need to support it, to be elevated onto, and represented at, national policy level.

It is equally necessary to promote the value-added case for 'best-practice design' and to fully awaken business leaders to the benefits that can ensue from integrating design into the strategic planning, New Product Development (NPD) and other management processes.

2. Develop the requisite industry support infrastructure at both industry and development agency levels

It is important that the design sector be unified and strengthened in order to focus and maximise its development and commercial potential. It is equally important to ensure that the support provided by the state agencies and other representative organisations is provided in an effective, efficient and economical manner.

3. Strengthen the Irish design sector in terms of design excellence and business effectiveness

There is a need to strengthen and develop design businesses at two levels (what it does, and how it does it:

- design excellence – elevate/improve the quality, creativity and innovation of Irish design;
- business effectiveness – improve the commercial and business effectiveness of design businesses.

4 Promote the internationalisation of Irish design

Internationalise and maximise the export potential inherent in both Irish design services and Irish products. This could be achieved by focusing on markets and service/product sectors within which Irish design represents a unique selling proposition and is capable of maintaining a strong and profitable competitive position.

5 Overcome lacunae in the skill base

Ensure that the skills and expertise of the Irish design sector are current and in keeping with the constantly changing needs of the market place and that designers are capable of managing and developing the business in a professional and sustainable manner.

6 Promote the integration of Design education with industry needs

Ensure that the many education establishments within the design education sector understand the current and potential future skill and resource needs of the design community and are educating students to meet the challenges of these needs.

3. Key strategies and measures

The proposed strategies and measures require new structures and new ways of working. Greater industry commitment and a more focused emphasis on design and the development of the sector on the part of government and the state agencies is also required. The proposed strategies and measures also require greater support and interaction between professional designers, designers in industry and educators of design. It should be noted that, while we start with these recommendations which would require to be driven by Government and the state development agencies, this in no way implies any understatement of the very crucial and demanding role that the industry participants themselves and their representative organisations must assume in the integrated development of design in Ireland.

Proposal 1 Establish a Design Resource Centre

There is a need to establish a small organisation with a strong design advocacy mandate. Its brief should span, and be of relevance to, all design disciplines. Its purpose should be to inspire the best use of design, by advising and influencing industry, government, state agencies and educators on the effective use of design. This organisation should be the 'strategic think-tank' for design in Ireland and have a key catalystic role in bringing about greater industry cohesion, improved quality and creativity in design and a more effective interface between the design industry, the state support infrastructure and design educators.

The role of the Design Resource Centre (DRC)

Its primary role should embrace the following critical areas:

- promote and heighten the awareness of the value of design and the role and impact that design can have on competitiveness;
- stimulate and encourage improved design practice by developing helpful new knowledge about design, design tools and programmes, and design-related technologies by working closely with Enterprise Ireland, the public sector and education in promoting the uptake and use of such tools and programmes;
- foster and encourage greater cohesion and interaction, both within the design industry (embracing both consultancies and manufacturing) and between the design industry, on the one hand, and buyers of design in Ireland, educators and the state support infrastructure on the other;
- develop a reservoir of relevant design information for the benefit of the design community to include inter alia:
  - *a database of information on design companies and designers in Ireland;*
  - *intelligence data on design trends and developments;*
  - *new technology in design*
  - *case studies on the value-added case for design*

The Design Resource Centre should have a secondary role in supporting other agencies/organisations in relation to:

- the internationalisation of design consultancy services;
- addressing the skill gaps and in-service training needs of design practitioners;
- working with educators to ensure that the skills of design students are in keeping with the needs of industry.

Organisational structure and funding requirements

In order to effectively carry out the above role, it is envisaged that a staff of five will be required. An organisational chart setting out the structure for the DRC is included in Appendix 3.1 and a positioning chart for the Centre within the context of the industry and the support infrastructure is also presented. In terms of financial resources, annual funding in the region of IR£300,000 to IR£350,000 will be required.

Ownership of, and responsibility for, the Design Resource Centre

In the absence of a clear champion to initiate the establishment of the DRC a number of options are considered:

- **Option 1** The Government to set up and fund the DRC as a stand-alone autonomous Board or Council, but reporting directly to a government department. This is the model used in many European countries including the UK and Germany.
- **Option 2** The Government, or Enterprise Ireland, to invite, by way of public tender, representatives of the private sector to set up and manage the Centre on a fixed-term contract basis. This approach was adopted by the Department of Economic Development in the setting up of the Northern Ireland Design Directorate as a separate organisation within the Industrial Research and Technology Unit.
- **Option 3** The design industry, represented by one, some, or all, of the industry representative organisations (IDI, GDBA, RIAI, ICAD, IBEC/ISME) to set up and manage the Centre as a stand-alone organisation, and to seek support and co-funding from Enterprise Ireland in this regard.

Irrespective of the option used to set up the Centre, it is crucial that it is staffed with entrepreneurial personnel, experienced in leading-edge design policies and concepts. A close working relationship with government and the state agencies (Enterprise Ireland, FAS etc), the design community (consultancies and manufacturing), educators (Dept. of Education/HEA, design colleges), and industry will be critical to its success. Care will need to be taken to ensure that there is no needless duplication by the Centre and Enterprise Ireland in relation to the gathering and provision of information. Likewise, the services offered by both organisations should be provided in a complementary and seamless manner.

It is recommended that a detailed development plan be prepared for the DRC as soon as possible, and that procedures be put in place, whereby it is evaluated at the end of a five year period. The role of the Centre may change and evolve over time, but it is important that it remains relevant to the needs of the design community and other potential beneficiaries.

Proposal 2 Promote, strengthen and deepen the support provided by the state development agencies to Irish design

Design consultancy practices, in the main, are not aware of the range of support measures for which they are eligible as an internationally traded service. Enterprise Ireland should undertake a promotional/awareness programme, highlighting the nature and extent of the support services available to the sector.

Prior to the merger of The Irish Trade Board and Forbairt into Enterprise Ireland, both organisations provided a range of services in support of design. It is our understanding that these services will continue to be provided by Enterprise Ireland. We recommend that the support for design should be strengthened and deepened, as follows:

1. **Strengthen the Design Advisory Service which is focused on improving design creativity, capability and capacity in manufacturing industry**

Enterprise Ireland provides a Design Advisory Service to manufacturing industry. This service covers both industrial and consumer products and is focused on improving the quality and creativity of design and ensuring that product design and

NPD are in keeping with the needs of the marketplace. This service provides funding and support under a number of schemes:

Design Audit Programme – to evaluate the company's products, packaging, sales literature and promotional print. The up-take of this service by industry in recent years has dropped. The views coming through from industry are that, to be of any real value, the nature and scope of the design audit, need to be more rigorous and should cover such areas as NPD, design systems and processes, design management etc.

It is proposed that industry should be consulted, in order to determine how this service can be developed to better satisfy their needs. It is our opinion that rigorous research and diagnostic tools and methodologies need to be developed and realised in a Design Management Tool Kit, which would guide the research and analysis phase of the design audit. Advice and assistance in this regard should be provided by the Design Resource Centre.

Individual Company Counselling – to assist manufacturing companies in formulating design objectives, policies and briefs so as to improve existing, and develop new, products, packaging and promotional material.

This service needs to encompass the more strategic aspects of design and design management and identify how design can be used to drive competitiveness and to improve internal efficiencies and cost reductions.

New Products Programme – to provide financial assistance towards the design of products. Market and consumer research and testing can be assisted under other programmes.

NPD spans a wide sphere of activities, from technical R&D, at the one end, to consumer and market testing on the other. Support in the technical R&D area is provided by Enterprise Ireland, under the R&D Management Initiative, while the design and marketing aspects of NPD are supported through distinctly separate initiatives. There is a need to consider how support for product design and NPD can be packaged and delivered in a seamless manner;

Design Intelligence Programme – design intelligence and trend forecast information is gathered by Enterprise Ireland for a number of product areas and communicated to industry through publications, workshops and seminars.

Currently the forecasting service is restricted to the fashion/clothing/textiles areas. However, other industries expressed interest in a forecasting service tailored to their needs. In other countries forecasting services are operated on a commercial basis and provided to individual companies and sectors. We propose that the needs of both industry and design consultancies be researched in order to determine the level of interest in an expanded forecasting service, and that the feasibility of setting up such a service on a commercial basis be investigated.

Within the context of the strengthening of the Design Advisory Service outlined above, it will be necessary that the resources deployed to deliver this service are significantly strengthened. The means by which the services are delivered also warrants consideration, and, in this regard, the option to deliver the service by means of an expanded Enterprise Ireland team of Design Advisors/Counsellors, and/or, from a wider panel of experienced Irish and International design experts, needs to be evaluated.

2. Focus and promote the Business Development Programmes to the design consultancy sector in order to support them in the professional and speedy development of their businesses

Enterprise Ireland, through the Services Division of the Business Development Directorate, provides a range of services, tailored, not simply according to the sector in which a company operates, but also, taking account of its particular stage of development.

The design consultancy sector has experienced significant organic growth in recent years, but many of the leading firms have expressed the view that they are unsure as to how to grow their businesses further, from being a lifestyle business to becoming a larger, more professionally managed organisation.

We strongly recommend that the design consultancy sector and Enterprise Ireland interface more effectively, and that Enterprise Ireland proactively target this sector. The sector is at a watershed stage in its development and requires an injection of professional business expertise, in order to elevate it into its next development phase.

3. Assist in the internationalisation of Irish design consultancy services

Enterprise Ireland through its Marketing Advisory Services facilitates the growth of internationally traded services in export markets. In the area of design, support has been provided to a number of architectural and interior design firms involved in international construction projects. Again, we reiterate the need for the sector and Enterprise Ireland to interface more effectively, and, while design consultancy is possibly regarded as a very small segment within the wider traded services portfolio, it will require focused support.

(a) Set up a BDI type support programme

In the previous section we identified a number of design sub-sectors within which Ireland has a distinctive competence. It is proposed that Enterprise Ireland work proactively with firms in these sectors, in assisting them to internationalise their services. The nature of support required is along the lines of that provided by the British Design Initiative. The BDI is a commercial operation which provides a marketing support service to UK design consultancy clients. Together with its clients, it researches and identifies business opportunities in export markets and brokers relationships between their clients and target companies. According to the BDI, 50% of their clients have managed to win work in export markets with their assistance.

Within the last ten years or so, IDA Ireland have been increasingly more successful in persuading multinational companies to set up their more value-added activities, such as R&D, in Ireland, a key attraction being the availability of an educated and skilled workforce. In the same way the Irish design capability should be promoted to the multinational sector in Ireland and a Design Promotion Programme established to foster greater interaction. In addition, opportunities should be sought to target the head offices (New Product Development Centres) of selected multinational companies with operations in Ireland, with a view to presenting the portfolio of Irish Designers. Such an initiative should be undertaken in partnership with IDA Ireland.

(b) Become a conduit for market intelligence on export market opportunities

At a wider level, Enterprise Ireland with its network of 28 overseas offices, is ideally positioned to be the conduit for market intelligence data on international design export opportunities. However, it is up to the design sector to direct and work with Enterprise Ireland so as to ensure that research is focused and results-driven.

(c) Develop a programme to showcase Irish design

Other countries successfully showcase their design capabilities (both product and service) in a captive way, under a national umbrella, in order to gain international exposure. The UK for example have initiated a major millennium project focused on promoting UK design which is due to embark on a world-wide promotional tour. Greece, Spain and Portugal have also been successful in presenting strongly themed national design exhibitions.

While promotion of this nature and scale can be very expensive, it is a way of showcasing and communicating a particular national image or proposition. It is proposed that the feasibility and cost-benefit of developing a national programme to Showcase Irish Design be examined by Enterprise Ireland in consultation with the Design Resource Centre.

Other initiatives to promote Irish design internationally should also be considered, for example:

– use the websites of Enterprise Ireland, Bord Fáilte etc to showcase the work of Irish designers where appropriate to the theme of the website, or even develop an Irish design website;

– prepare a promotional pack for Irish design which can be displayed in Enterprise Ireland's network of offices and used for targeting purposes;

– undertake a PR programme seeking exposure in the international design press to highlight the works of Irish designers, for example, Baileys Whiskey (product identity/branding and packaging), Riverdance (set and stage design), Waterford Crystal (product and branding/packaging), Nua (multimedia design) etc.

Given that some of the above pan-industry promotional initiatives may be out of the normal scope of Enterprise Ireland, they could be undertaken by the DRC, in close collaboration with Enterprise Ireland.

Proposal 3 **For Government to set out a National Policy for Irish Design and to champion and foster a 'Creative Ireland Inc' environment**

The proposals above have very much focused on developing design as a business, and improving the competitiveness of Irish industry through the more effective and creative use of design. But as outlined in the previous section of this report, the importance of design in creating and communicating a national image is also critical. Therefore, the development of design in Ireland should be viewed within the context of a much wider arena.

The UK Government, and in particular the Prime Minister Tony Blair, has championed the importance of design and creativity in the modernisation of Britain, and has placed it firmly onto the national agenda. Under the Creative Britain banner, the government, in partnership with the creative industries, is succeeding in breathing new energy and enthusiasm into the whole design area, and the government is strongly " trumpeting the nation's strengths in design to both international and domestic audiences". A series of wide-ranging initiatives and measures have been put in place - the millennium products showcase and world tour; a Creative Industries Task Force; powerhouse UK project, exhibiting the best of British creativity and innovation; integrating and promoting design at international summits; using Foreign and Commonwealth offices to showcase British design and in projecting the new fresh face of Britain; the First Impressions initiative aimed at improving the international gateways into the country and the impression that visitors get when they first arrive in Britain; Britain on the web, showcasing the nation's wealth and talent in design and technology - and so forth.

At government level, the Department for Culture, Media and Sport is acting as a pioneer to examine the government's own use of design, creativity and innovation, in order to set an example to both the private sector and the rest of the public sector. It is envisaged that this initiative will generate direct benefits for government departments themselves, in terms of cost efficiency, improved staff morale and motivation and more effective procurement.

In Denmark design became an element in government policy in 1985, supported by a series of development and promotional measures. In 1993, four Ministries framed a joint-policy on design in respect of their respective ministries, resulting in 1994 in the Danish Design Policy. Many state-owned companies have had a formal design policy for many years.

The Spanish Ministry of Industry and Energy began promoting design in the mid-1980's with a series of promotional awareness and quality initiatives. In 1992, the Industrial Design Promotion Plan was launched to improve the performance of Spanish products by promoting their distinctive identity and to incorporate and consolidate industrial design in all Spanish SME's.

Much can be learnt from the lead taken by the Danish, Spanish and UK governments. In this regard we propose that the Irish Government should consider:

- the formulation of a National Policy for Irish Design and the role that it should play in fostering and championing a 'Creative Ireland Inc' environment;
- national design, innovation and creativity flagship projects;
- the case for setting up a small Design Promotion Unit, within a government department, to examine the government's own use of design and design procurement. It may be possible to integrate a design management programme across government departments and agencies as part of the Strategic Management Initiative roll-out.

At a more strategic level, the image that Ireland Inc seeks to project internationally needs to be examined. As noted in the previous section, the different development and promotional agencies have all invested in building varying images of Ireland. The risk in projecting different messages and images is that it potentially dilutes the overall impact. There is a need at national level for the various stakeholders to develop a clear and consistent proposition for Ireland Inc, one which is flexible and capable of being used by the various stakeholders in promoting Ireland, Irishness and Irish business internationally. To be successful, such an initiative would have to be championed at Government level and rolled-out, in a co-ordinated way, at agency level.

The Design Resource Centre will be a valuable resource and should be capable of providing critical support to government in the areas proposed above.

Proposal 4 **Undertake a Training Needs Assessment Study and prepare a National Training Plan for the Design Sector**

In light of the very significant gaps and lacunae in the skill base of design consultancy firms and designers in industry we propose that a full Training Needs Assessment study be undertaken, embracing all the key skills areas – design, technical and IT, marketing and commercial and management skills, in order to identify more comprehensively the areas of weakness. This should then be followed by a National Training Plan, setting out the nature and scope of in-service training and professional development programmes required. In our opinion, Enterprise Ireland is possibly the organisation best positioned to undertake this work, working closely with the industry representative organisations (IDI, GDBA, ICAD, IBEC/ISME), the third level Design Colleges and the Design Resource Centre. A similar study was undertaken by Enterprise Ireland (FÁS) in respect of the Film and Television sector some years ago, which has proven to be very successful.

Proposal 5 **Implement National Training Plan for Design, and in the interim develop and deliver certain key Continuous Professional Development (CPD) courses**

Once the National Training Plan for Design is completed, it will be necessary for the recommended courses and training programmes to be developed. This process, in our view, would be best championed by the industry representative organisations. They should work in close partnership with Enterprise Ireland and a number of the third level colleges that have expressed an interest in entering the in-service professional training end of the market and regard it as a natural progression to the third level courses which they currently provide. The industry representative organisations should, pro-actively, promote such courses and encourage their members to invest in the further development of their staff.

In light of the fact that it will take possibly in the region of six months to undertake a Training Needs Assessment Study and National Training Plan, and, possibly, a further six months to develop suitable training modules and courses, it is recommended that in the interim, the development of a number of CPD programmes are fast-tracked so that certain critical areas of weakness begin to be addressed as quickly as possible. The following areas have been identified in conjunction with industry:

- effective communication and negotiation;
- strategic business planning and development;
- effective management and organisational development;
- business development – proposing for and winning new business, client handling and marketing;
- project management, and
- IT skills

The industry representative organisations should work closely with Enterprise Ireland and a number of the colleges in developing and delivering appropriate courses. Obtaining formal accreditation for such courses would also be very important.

Proposal 6 **Set up Design Education Working Party to address the Design Education Needs beyond 2000, and to prepare an integrated national third level response**

In the last section we identified in some detail the key areas of weaknesses in the provision of third level design education, as perceived by design professionals, educators themselves, and design students. Concerns were raised in relation to the range of courses on offer, the structure of courses, the scope (or lack thereof) of subjects/disciplines within courses etc.

The absence of any real interaction between the design profession, industry and the colleges is a key factor and area of concern, insofar as there is no mechanism by which to communicate the changing needs of the industry back into the educational system. Allied to this, there would also appear to be very little communication between the different colleges. As a consequence, there are significant areas of overlap, and also gaps, in the type of courses on offer. In order to address the situation and to ensure that exchequer funding is deployed in an efficient and economical manner, it is recommended that a Design Education Working Party be set up by the Department of Education/HEA, to examine ‘Design Education Needs Beyond 2000’ and to prepare an integrated national third level response.

Representatives of the Department of Education, third level colleges, the design profession, industry and, possibly, educationalists from well regarded design colleges abroad, should be invited onto the Working Party.

Proposal 7 **Implement the recommendations of the NCAD/NCCA Working Party in relation to design education at primary and secondary levels**

There is also a strong view amongst design educationalists, that Irish design students are disadvantaged by the fact that design is not part of the primary or secondary school syllabi, and that as such, they have to start from first principles on entering third level college. This is not the situation in the UK, Scandinavia and a number of other countries, and has implications for the pace and depth which third level courses can adopt. A NCAD/NCCA Working Party was set up to consider this situation and to make proposals. This process is now completed. In the medium-to-long term the industry would greatly benefit from implementation of the Working Party's recommendations.

Proposal 8 **For the design industry to more pro-actively support the design education sector on an on-going basis.**

It behoves the design profession and industry to invest more time and resources in supporting the third level education of design students, given that the medium to long-term survival and growth of the sector will be dependent on the calibre of talent entering the sector. The colleges have expressed the need for greater professional and industry support in a number of key areas:

- student internships/work experience (six month to one year placements as part of a degree course);
- factory visits and visits to design consultancy practices;
- guest lectures and presentations to students on specific topics;
- post-grad. research projects;
- independent assessment of students work;
- college-industry joint projects, and
- graduate placements via a milk round type process.

The industry representative organisations (IDI, GDBA, ICAD, IBEC and ISME) have a key role to play in mobilising and channelling such support. The support of Enterprise Ireland, possibly by way of financial contribution for student placements, and the Design Resource Centre would also be important in identifying suitable companies and projects.

Proposal 9 **Industry representative organisations to pro-actively seek to improve industry cohesion and to foster closer relationships with the state development agencies and the education sector**

There are in the region of 6,000 people working in design practices and design in industry. However, the vast majority of these people are not members of any of the industry representative organisations. Fundamental to improving cohesion, both within and between, design practices and industry, is that the design organisations become truly representative of those working in the sector. A major recruitment drive will need to be undertaken to expand their respective memberships. Allied to this, such organisations will need to consider how they intend to support and sustain the interest of their members.

The state development agencies should strengthen and deepen the support available to the design sector (Proposal 2). Equally, it is up to the representative organisations to engage with the state agencies in ensuring that the needs and requirements of the industry are clearly understood and addressed on an on-going basis, and in ensuring that their members are aware of , and partake in, appropriate support measures. To date, this level of interaction has not taken place. It is crucial that the representative organisations take the initiative and foster closer relationships with the support agencies.

In respect of the proposals made in the education and professional training area, it will be equally important that the very significant contribution that the sector can make is effectively harnessed and channelled through the representative organisations.

It will also be important for the representative organisations to consider how they intend to operate in concert with each other, and how effective, inter-organisation communications can best be achieved.

Proposal 10 **Design practices need to develop their businesses in a more considered and planned manner and to support development initiatives aimed at strengthening the overall position of the design sector.**

1. Seek to develop the business in a structured and planned manner

The average size of Irish design consultancy practices was found to be 10–12 people, but many employed less than this number and a few employed around the 20 mark. An area of some concern to owner-managers is the daunting task of developing the business to the next level, particularly having regard to the fact that most of them do not have any professional, business, or management qualifications. But design practices must recognise the need to engage in a constructive business planning and development process, rather than continue to drift and grow the business in an incremental and opportunistic way. Those practices that need assistance with this process should seek external advice and guidance, possibly availing of Enterprise Ireland's support initiatives in this area (ie Management Development Programme, Mentor scheme etc).

2. More effective networking

Design practices need to network more effectively, both within their own design area and with other design disciplines, so that they are better able to pool resources and propose for large-scale design assignments on a consortium basis. Equally, design practices should be more pro-active in identifying international design consultancies with particular sectoral expertise, which they can then call on, when proposing for work that requires in-depth sectoral expertise. As previously noted, Irish consultancies have not tended to form such alliances and have lost out to international design firms. The combination of, an international firm with specific sectoral expertise and a local firm with local knowledge, represents a stronger proposition. The Design Resource Centre, together with the industry representative organisations, should organise a programme of events to facilitate improved networking. Design practices should seek to support and benefit from such initiatives.

3. Professional development

Design practices also need to review their own internal skill base and seek to address their particular training and professional development needs by participating in the CPD courses. While design practices have invested in new technology, there has not been the same level of commitment in developing IT skills. More training in this area is needed and should be done alongside the CPD programme. Support for, and co-operation with, the Training Needs Assessment Study and the Design Education Working Party will be important, in order to ensure that the work undertaken is relevant to the needs of the industry.

Within the past three years, the number of non-design professionals recruited by design practices has significantly increased. This is considered to be a very healthy sign and indicative of a maturing sector.

In addition to the development of particular skills within the organisation, there may be an opportunity for some of the larger firms to develop and build up sectoral-specific expertise.

4. Communicate the value-added case more convincingly

One of the functions of the Design Resource Centre will be to research and promote the value-added case for design to the various audiences. It is in the interest of design practices that they support the DRC in this endeavour and that they seek to improve their own capabilities in presenting the case for design to the business community and their clients.

The success, or otherwise, of the proposals outlined in this report will depend, to some extent, on the degree to which design practices assert themselves and pro-actively support and participate in the proposed measures. The national and international climate for design is burgeoning, and Irish design practices are well positioned to benefit from such trends. However, they should now take control of their own destiny and seek to influence, as far as they can, the constructive and positive support of the sector.

Proposal 11 **Manufacturing companies need to consider more fully the inherent strategic importance of design as a driver of product differentiation and the role that proper design management can play in delivering greater efficiencies and cost savings.**

The value-added case for design and the ground-breaking work being done in this area internationally is outlined later in this report. Increasingly, design is being recognised as a key driver of product differentiation and competitiveness. Allied to this, the benefits that effective design management can have in unleashing operational efficiencies and cost savings is also gaining universal acceptance and credence.

1. Commit to having a detailed design audit undertaken

The manufacturing sector now needs to re-evaluate their use of design, their pan-organisational approach to design management, and the role that design plays in their strategic business planning process. To assist them in this process, it will be necessary that a rigorous 'design audit' be carried out, either using in-house expertise, or, seeking the input of external specialists.

We recommended above that Enterprise Ireland should strengthen and deepen its Design Advisory Services to industry, including the provision of a comprehensive Design Audit Service, either by recruiting appropriately qualified personnel, or, via a panel of design specialists. In support of this service, we recommended that the Design Resource Centre seeks to develop appropriate diagnostics, analytical tools and procedures etc, which will be crucial in underpinning the integrity, consistency and robustness of such an audit. Once this service is operational, we believe that manufacturing companies would benefit greatly from participating in the scheme, and should be proactively encouraged to do so.

2. Design strategy and management

The design audit should be followed by the formulation of a 'design strategy' for the organisation, one that is properly integrated into the overall business strategy. The full benefits of design will only be realised when it is an integral part of the strategic and business planning process. The management of design, at the various levels, within the organisation, should seek to exploit the value-added, in both the hard areas of design - engineering, technical and process/systems design- and the softer, or more creative elements of design - aesthetic design and graphic/brand design.

3. Interface with the rest of the design community and support sectoral development initiatives

Designers in industry tend to operate very much in isolation to the rest of the design community with very little collaboration or networking between the two groups. However, implicit in the many proposals outlined above is the need for the manufacturing sector and the design consultancy sector to interface more effectively for the overall betterment of design in Ireland. We would strongly urge the manufacturing sector to partake in the many joint-initiatives proposed and support important measures such as – the documenting of evidence on the value-added case for design; the contact programme to be organised by the DRC and the industry representative organisations; the Training Needs Assessment Study; the Design Education Working Party investigation, and support measures for the education of design graduates at third level.

Conclusion

We believe that the above strategies and measures are required, if the potential inherent in the Irish design sector is to be fully realised and exploited. Their implementation will require pro-active support on the part of government and the development agencies, and significantly greater involvement and energy on the part of the industry representative organisations. But it is of the utmost importance that design consultancies and manufacturing companies with in-house design, begin to interface more effectively for the betterment of design in Ireland.

In the following Schedule A, we summarise the strategies and measures, outlined above, that are required to support the attainment of the stated strategic objectives and vision. The six strategic objectives are set-out across the page, while the measures supporting each objective are contained in the boxes underneath. To the left of the page we indicate the organisations or agencies which we consider to be best positioned to drive each initiative.

Schedule A Summary of Strategies and Measures

Strategic objective	1. Recognition and promotion of the strategic, cultural and economic importance of Irish Design: • Government & policy making level • Business leaders level	2. Industry and support infrastructure • To unify and strengthen the cohesiveness of Design Sector • To ensure support provided is done in an efficient, effective and economical manner	3. To strengthen and develop design businesses: • Design excellence • Business effectiveness	4. To internationalise and maximise export potential	5. To ensure skill base and expertise of Irish Design Sector are current and in-keeping with the needs of the market place and capable of managing and growing the business	6. To ensure that the education of design is in keeping with the requirements of industry
Agencies involved Government	Measures (1A) Government to consider: – formulating a National Policy on design and its role in fostering and championing a 'Creative Ireland Inc' environment; – the national proposition and image that Ireland Inc should seek to project internationally; – national design innovation and creativity flagship projects; – the setting up of a Design Promotion Unit to examine the Governments own use of design; – integration of design management into Strategic Management Initiative (SMI)	Measures (2A) Support design initiatives to be undertaken by Enterprise Ireland, and DRC, and work in close partnership with DRC on National Design Issues.	Measures	Measures	Measures	Measures
Dept of Education & HEA						(6A) Initiate Design Education Working Party at third level to address 'Design Education needs beyong 2000'. Prepare integrated national third level response. (6B) Introduction of design education into primary & secondary levels (NCAD/NCCA Design Working Party Report)

Strategic objective	1. Recognition and promotion of the strategic, cultural and economic importance of Irish Design: • Government & policy making level • Business leaders level	2. Industry and support infrastructure • To unify and strengthen the cohesiveness of Design Sector • To ensure support provided is done in an efficient, effective and economical manner	3. To strengthen and develop design businesses: • Design excellence • Business effectiveness	4. To internationalise and maximise export potential	5. To ensure skill base and expertise of Irish Design Sector are current and in-keeping with the needs of the market place and capable of managing and growing the business	6. To ensure that the education of design is in keeping with the requirements of industry
Agencies involved						
Enterprise Ireland	(1B) Support Design Resource Centre in promoting the value-added case for design to industry leaders: – Irish SMEs – multinationals	(2B) Maintain close working relationship with the DRC and the relevant industry representative organisations	(3A) Undertake a promotional/ awareness programme highlighting the nature and extent of the support that design consultancies may be eligible for in the business and professional development area as an internationally traded service (Enterprise Ireland) (3B) Focus and promote the Business Development Programmes to the design consultancy sector in order to support them in the professional development of their businesses. (3C) Strengthen and deepen the Design Advisory Support Services in relation to: – design audit – individual company counselling – advanced products programme (3D) Research and investigate feasibility of the commercialisation of an expanded design forecasting service.	(4A) Design Consultancies - undertake a promotional /awareness programme highlighting the nature and extent of the support that the sector may be eligible for in the marketing area as an internationally traded service (4B) Seek to become the conduit for market intelligence on international design export opportunities (liaising closely with DRC) (4C) Work with design sector in focused trade initiative along the lines of BDI - select number of niche design sectors in which Irish designers have distinctive competence, research and target potential buyers in selected foreign markets, bring Irish designers and foreign buyers together. (4D) Design Promotion Programme- target selected multinationals located in Ireland and present design capability, working with IDA and DRC. (4E) Prepare a comprehensive promotional plan to showcase and promote Irish design.	(5A) Undertake a detailed Training Needs Assessment for the design sector (design, technical, marketing, business skills), and prepare a National Training Plan addressing the lacunae in the skill base at a design and business/commercial level (5B) In interim, support and work with industry representative organisations to develop and implement CPD courses	(6C) Support the placement of design students in industry on 'internship programmes' by: – identifying, requesting companies to take students – by providing financial contribution to wages
IDA Ireland	(1C) Present the Irish design capability to prospective multinational companies (1D) Design Promotion Programme with Enterprise Ireland and Design Resource Centre to sell design services to multinationals in Ireland and where possible back up-stream to their Group structure					(6A) Initiate Design Education Working Party at third level to address 'Design Education needs beyong 2000'. Prepare integrated national third level response. (6B) Introduction of design education into primary & secondary levels (NCAD/NCCA Design Working Party Report)

Strategic objective	1. Recognition and promotion of the strategic, cultural and economic importance of Irish Design: • Government & policy making level • Business leaders level	2. Industry and support infrastructure • To unify and strengthen the cohesiveness of Design Sector • To ensure support provided is done in an efficient, effective and economical manner	3. To strengthen and develop design businesses: • Design excellence • Business effectiveness	4. To internationalise and maximise export potential	5. To ensure skill base and expertise of Irish Design Sector are current and in-keeping with the needs of the market place and capable of managing and growing the business	6. To ensure that the education of design is in keeping with the requirements of industry
Agencies involved Design Resource Centre (DRC)	(1E) Promote an awareness of the value of design, aimed at: – Gov / Agencies (support Dept. of ET&E). – Industry leaders (with support from Enterprise Ireland) – Consumers – Media (Ireland and abroad) (1F) Assist in the development of a 'Creative Ireland' proposition and identity.	(2C) Develop a reservoir of relevant design information for the benefit of the design community to include inter alia: – comprehensive database of design companies and designers in Ireland – current trends in design – new technology in design – case studies on the value of design While minimising overlap with information resources provided by Enterprise Ireland, ensure complementarity and sharing of information. (2D) Together with Enterprise Ireland and representative organisations, seek to improve cohesion and networking by way of a Contact Programme interfacing: – design practices with buyers of design in Ireland - workshops and seminars – design practices from different disciplines - inter-disciplinary networking	Design Excellence (3E) Increase design capability and capacity by: – developing 'tools and programmes' to enable business, education and the public sector use and manage design more effectively – providing advice on new design-related technology	(4F) Support Enterprise Ireland in the internationalisation of Irish design services. (4G) Act as a catalyst in supporting design practices in proposing for international design assignments and encourage cross-disciplinary networking	(5C) Assist the IDI where appropriate in the development of CPD courses (5D) Support Enterprise Ireland in undertaking the Training Needs Assessment Study and in the preparation of a National Training Plan	(6D) To foster and encourage a greater interaction between the industry and the design education sector: – internship programmes – labour force requirements – post-grad research work (In co-operation with Enterprise Ireland, IBEC, ISME and the colleges) (6E) Work closely with Design Education Working Party on design education needs and responses.
Institute of Designers in Ireland (IDI), Graphic Design Business Association, ICAD	(1G) Work closely with DRC in uplifting capacity and capability of members in presenting the case for design to clients in the business community (1H) Reinforce the value-added case for design and promote to industry members. Encourage the up-take on Design Audit Service.	(2E) Work closely with the DRC in the programme of events, workshops, seminars, etc, targeted at designers.	(3F) Develop and promote series of CPD training courses/workshops/seminars in consultation with Enterprise Ireland and DRC, and seek to get formal accreditation for such courses.		(5E) Support Enterprise Ireland in undertaking the Training Needs Assessment Study. (5F) Develop and implement CPD programme (in consultation with Enterprise Ireland and DRC)	(6F) Work closely with Design Education Working Party on Design Education needs and response; and encourage members to support student work experience placements. (6G) Support the placement of design students on internship programmes in industry by identifying and encouraging suitable companies to take students
IBEC & ISME	(1H) Reinforce the value-added case for design and promote to industry members. Encourage the up-take on Design Audit Service.					(6G) Support the placement of design students on internship programmes in industry by identifying and encouraging suitable companies to take students

Strategic objective	1. Recognition and promotion of the strategic, cultural and economic importance of Irish Design: • Government & policy making level • Business leaders level	2. Industry and support infrastructure • To unify and strengthen the cohesiveness of Design Sector • To ensure support provided is done in an efficient, effective and economical manner	3. To strengthen and develop design businesses: • Design excellence • Business effectiveness	4. To internationalise and maximise export potential	5. To ensure skill base and expertise of Irish Design Sector are current and in-keeping with the needs of the market place and capable of managing and growing the business	6. To ensure that the education of design is in keeping with the requirements of industry
Agencies involved Design Education Sector		(2F) Attend and participate in appropriate fora and initiatives, seek to improve networking with design community			(5G) Support Enterprise Ireland in undertaking the Training Needs Assessment	(6H) Participate in Design Education Working Party of third level colleges involved in design with a view to: – agreeing design education needs beyond 2000 – preparing a national integrated response
Design practices/ consultancies	(1I) Seek to improve the capacity and the capability in articulating/ presenting the case for design to business community / clients.	(2G) Need to network more effectively both within own design area and with other design disciplines - actively participate in and support contact programme organised by DRC/industry representative organisations etc.	(3G) Proactively engage with, and seek support of, State Development Agencies in relation to improving design and business effectiveness (3H) Need to prepare business development and export marketing plans (3I) Invest in technology and in-service training (CPD) (3J) Continue to invest in complementary skill areas - marketing, business, etc. (3K) Need to develop skill and sectoral specialists - possibly via alliances.	(4H) Proactively engage with, and seek support of, state development agencies, in relation to internationalisation of one's business. (4I) Network and collaborate with each other regarding export development initiatives via synergistic relationships.	(5H) Support and co-operate with Training Needs Assessment Study (5I) Commit to CPD of staff	(6I) Support and co-operate with Design Education Working Party investigations (6J) Invest more time and resources in supporting third level education of design students (via DRC)
Irish SMEs Manufacturing Service	(1J) Support DRC in compiling evidence data and case study material on the value-added case for design	(2H) Participate in/and support contact programme of events to be organised by DRC/industry representative organisations.	(3L) Commit to having detailed design audit undertaken. (3M) Develop mechanisms for integrating design more fully into the strategic/business planning process		(5J) Support and co-operate with Training Needs Assessment Study	(6K) Support and co-operate with Design Education Working Party investigations (6L) Invest more time and resources in supporting third level education of design students (via DRC / Enterprise Ireland / IBEC)

4. International Trends and Opportunities

Introduction

A review of design sector trends and developments internationally was undertaken in order to place the Irish design sector into a wider market context. This work involved the development of profiles for design sectors throughout Europe, by means of desk research and one-to-one interviews with key industry informants.

The key findings of this research are now presented under the following headings:

1 *Design Expenditure & Employment (EU)*

2 *Design Associations & Bodies*

3 *Design Sector Initiatives*

4 *Financial Investment & Payback*

5 *UK Exports of Design Services*

6 *Apparent Market Opportunities*

7 *Government Intervention & Support*

Design Expenditure & Employment (EU)

It is estimated that, within the EU, the overall, per annum, spend on 'Research and Development' is of the order of ECU 90 billion (IR£70 billion). Of this R&D spend, some 54% is financed directly by industry, approximating to ECU 48 billion (IR£37 billion). Within this total, the estimated spend by industry on 'design' as a percentage of R&D is approaching 20%.

For 1994, the total value of the European design service industry was forecast at ECU 8.2 billion (IR£6.4 billion) in terms of fee earnings. Some 36% of this spend was on graphic communications, 24% on product development and 40% on environmental design (interior and retail design).

This total market value increased from an estimated ECU 7.3 billion (IR£5.7 billion) spend in 1993, representing a growth in the market of 12%. By the year 2000, expenditure on design by governments, cities, multi-nationals and small firms is forecast to rise to more than ECU 12 billion (IR£9.4 billion) representing an estimated growth over six years of 46%.

The 1994 spread of design spend within the EU is presented in Table 4.1 on a country-by-country basis. Where countries have an established reputation in specific areas of design competence, these are also identified.

Table 4.1
Design Services Expenditure (Fees), 1994

Country	IR£bn	Established Market/Reputation
United Kingdom	1.7	corp. identity, packaging, retail, leisure design
Germany	1.6	product dev, public/Instit design, urban/civic
France	0.5	luxury goods, fashion, corporate/brand comms
Spain	0.5	retail, transport, identity
Italy	0.5	furniture, fashion, consumer goods
Netherlands	0.4	graphic communication
Denmark	0.4	furniture & domestic goods
Ireland	0.2	
Belgium	0.2	
Portugal	0.2	ceramics
Greece	0.1	leisure, furniture
Luxembourg	0.1	
Europe Total	6.4	

Available information indicates that there are some 10,000 design companies within the European Union. The typical design company in the EU is small. Many have only two or three employees, and the largest have usually less than 25 staff. In the UK, however, the average design consultancy employs around 15 to 20 people and there are a number of very large UK design businesses employing in excess of 100 designers, such as, Cambridge Consultants, Enterprise Identity Group and Wolff Olins. In addition, it is estimated that at least 150,000 designers are employed in-house by manufacturing companies. Additional country profile information relating to the value of the design market and employment can be referred to in Appendix 4.1.

In summary, the European design services industry is experiencing considerable growth and is now (in 1998) estimated to be worth in excess of ECU 10 billion (IR£7.8 billion) (based on 1994 forecasts). The two major markets in Europe (1994) for design services expenditure are: (1) the UK (IR£1.7 billion); and (2) Germany (IR£1.6 billion). Taken together, the UK and Germany account for about 50% (IR£3.3 billion) of the total 1994 European market value.

Design Associations & Bodies

In Europe, the design industry is supported by an institutional framework of more than 300 'major' professional societies, design promotion agencies and learned bodies at regional and national level.

Design Bodies Reviewed

Twenty-four major European design associations and organisations were identified and reviewed in this study. These are now listed below in order of appearance under their respective country headings, and are profiled in more detail in Appendix 4.2.

Table 4.2
European Design Associations & Bodies

Country	Design Organisations
Austria	Austrian Design Institute
Denmark	Danish Design Centre Institute for Design Consultancy
France	Reseau Francais des Centres de Design
Germany	German Design Council German Design Centres (13 regional bodies) International Design Centre
Netherlands	Netherlands Design Institute Association of Dutch Designers
Italy	Association for Industrial Design Domus Academy
Norway	Norwegian Design Council
Portugal	Portuguese Design Centre
Spain	State Agency for Design Promotion Association of Professional Designers
Sweden	Swedish Industrial Design Foundation
UK	UK Design Council British Design Initiative Design Business Association Business Link Design Directorate (N. Ireland) Scottish Design Council Welsh Design Advisory Service

Main Aims

Design development organisations focus largely on SMEs and have the following main aims:

- promote the concept of design;
- position the economic significance of the design industry;
- integrate design into SMEs;
- promote awareness of design as a competitive tool;
- stimulate the application of industrial design;
- facilitate design’s contribution to cultural development;
- promote and reform design education;
- promote awareness of national design in export markets;
- promote professional integrity;
- represent professionals’ interests to government/education.

Additional information on each of the above activity areas is presented in Appendix 4.3.

Main activities

In order to achieve the above aims, design development organisations were found to undertake a range of activities as follows:

– Training programmes;

– Education courses;

– Information services;

– Promotion and awareness;

– Design management consulting;

Funding

Typically, design development organisations are non-profit-making and can be partly, or wholly, state-funded, or they may be totally self-financing. For example, the Institute for Design Consultancy (Denmark) received IR£230,000 in 1997 directly from government for the establishment of the institute. This level of funding was also provided for 1998 and was to represent 50% of this Institute's total income for the year. The balance of income is to be secured via paid design management consultancy services to SMEs.

Likewise, the Netherlands Design Institute receives its core funding from the Dutch government, as does the UK Design Council, which receives IR£5.9 million 'grant-in-aid' annually.

Design Sector Initiatives

Design sector initiatives throughout Europe include annual conferences, exhibitions, product research and design awards highlighting the use of design as a key competitive tool for SMEs. Studies into the economic and commercial effectiveness of design are being carried out (for example, in Portugal and the UK) with the UK government-sponsored 'Creative Industries Taskforce' currently examining the value and potential of design to the UK economy.

Further information on country specific design sector initiatives can be referenced in Appendix 4.4.

Table 4.3
Design Sector Initiatives

Selected Countries	Selected Sectoral Initiatives
Finland	Pro-Finnish Design Exhibition
Italy	'Trianalie' Design Showcase 'Compasso D'Oro' Design Competition
Portugal	Design Effectiveness Survey – Institute of Quality
Spain	Eurodesign Market Convention
Sweden	European Academy of Design Conference
UK	Government-Sponsored Creative Industries Taskforce Design Museum's Two Year Research Programme RSA Student Design Awards/Exhibition Design Council Millennium Products Initiative Design Council Creative Britain Workshops

Design Education

It has been estimated that some 180,000 students are enrolled in design courses in Europe at any one time. 30,000 of these graduate each year with most of the graduates finding employment.

Throughout Europe, design awareness and education is supported by an institutional framework of more than 300 major professional societies, design promotion agencies and learned bodies operating at regional and national level and whilst patterns and standards of design education and training vary from country to country, there has been an overall expansion of interest in design as a subject of study.

In recent years, there appears to be a developing awareness of the need to provide applied art students with business and marketing skills and with in-company experience. Research findings indicate that the UK has the largest design education infrastructure in Europe. There is some collaboration between European design centres and UK universities.

Further information on country specific education courses can be referenced in Appendix 4.5.

Financial Investment & Payback

Based on the scale of expenditure on design, companies across Europe clearly believe that design contributes strongly to competitiveness. In 1994, for example, ECU 8.2 bn (IR£6.4 bn) was spent on design royalties and fees. The Netherlands Design Institute predicts that expenditure on design by governments, cities, multinationals and small companies will rise to more than 12 bn ECU (IR£9.4 bn) by the year 2000.

Studies carried out in Holland, Norway, Sweden and the UK which evaluated the effectiveness and payback of design investment, found that investment in design development is a profitable commercial strategy. Such investment not only pays back quickly but also delivers better business and competitive performance and positioning through improved sales, higher profit margins and/or lower manufacturing costs.

Further information on country specific investment policies can be referenced in Appendix 4.6.

Table 4.4
Financial Investment & Payback Summary

Country	Organisation	Project	Main Results
Netherlands	Erasmus University	Competing by Investing in Industrial Design	• Investment recouped many times • Better product & business performance • Better profit & sales
Norway	Norwegian Design Council	Hidden Assets: Industrial Design as a Competitive Factor	• Increased sales • Revitalised business • Increased business • Competence • Short repayment periods
Sweden	Government & Swedish Industrial Design Foundation	"100 Hours of Design"	• 80% of the product development projects launched were profitable
UK	Design Council	Design & The Economy	• 85% of design projects recouped investment • Of these, 47% paid back the total project costs in one year or less • Sales increased by an average of 41% • Well-implemented design projects pay back quickly

UK Exports of Design Services

In the last decade, design consultancy exports from the UK have risen from Stg£175 million (IR£194m), to Stg£358 million (IR£397m). With the British government firmly behind promoting design expertise, this figure is expected to rise significantly (Source: Design Export News/October 1997).

In addition, retail, interior and corporate consultancies increase British exports not just in fees earned but also via the specification of British materials and products used in interior fit-outs around the world. If this was also taken into account, it would greatly increase the above export figure.

Between 1992 and 1995, there was a 68% rise in the number of surveyed UK design consultancies earning more than 40% of turnover from overseas organisations. Half of the design consultancies in the survey claimed that overseas business was essential for their survival. (Source: Design in Britain 1997–98/Design Council – extracted from Design Council report: UK Design Consultancies and Overseas Business, 1995).

In addition, the Design Council's 'Design Export Survey 1997' which surveyed more than 2000 British design consultancies found that 69% export their services overseas. The United States is the most popular export destination for UK design consultancies (26%), followed by Benelux (25%), Germany (22%), France (16%), and Scandinavia (13%). In terms of consultancy type, the high export achievers are offering structural packaging (43%), furniture design (38%) and product design (23%).

Apparent Market Opportunities

Market growth

The European design market grew at a compound rate of 25% between 1982 and 1989, but went into recession at the turn of the decade. In 1991, the majority of private sector clients cut back sharply on design spending and, in 1992, the European design market declined in value by some 5% to just under ECU 7.3 billion (IR£5.7 billion). Recovery is now underway and, looking ahead to the year 2000, it is estimated that industrial expenditure in Europe on product, graphic and environmental design fees could reach in excess of ECU 12 billion (IR£9.4 billion).

Market supply

In Europe, the majority of design services are supplied by design consultancy firms, reflecting a trend in all but the largest of European companies to replace in-house design departments with contracted services. In many cases, staff levels of major European corporations have been reduced, with large full-service design departments being replaced by small design management units which are responsible for buying in design skills from external consultants.

Market opportunities

General Observations

Industry forecasts indicate that expenditure on the design of products and services for an ageing European population is expected to grow sharply, as will demand for design input into multimedia products and services, according as these are developed for Europe's high capacity computer and telecommunications networks, now expanding so dramatically.

The role of 'technology', for small countries that lack natural resources, has been identified as a key success factor for countries such as Finland, as well as the capability of SMEs to deliver 'high-tech' and innovation-based services.

The burgeoning New Media sector, worldwide, has been identified as presenting a major opportunity for design input, as well as information technology-based appliances, computer-related equipment and telecommunications. In the New Media sector, consolidation is anticipated, resulting in a demand for more strategic skills from external design consultancies, as the market matures.

Further general information on selected countries can be referenced in Appendix 4.7.

Specific Opportunities

Immediate opportunities for Irish design consultancies will derive from marketing the sector's niche skill areas as set out below. Significantly, however, it is envisaged that major opportunities will be identified as a result of the process of internationalisation itself - ie, as a result of the implementation of the development strategies as specified in Section 3 of this report. In advance of implementation, however, specific international opportunities for the Irish design sector are apparent. These niche areas, in which Irish designers exhibit particular and marketable design skills and expertise are:

(a) **Multimedia design** – website architecture, website interface design, software interface design (eg computer-based training software) and computer animation and on-screen graphics

(b) **Design for the music and entertainment sector** – packaging design for music labels, set design for gigs and shows etc;

(c) **Food and drink packaging** – on-pack graphic design;

(d) **Knitwear, apparel and woven textiles design;**

(e) **Tourism and leisure:**
– identity and graphic design
– giftwear design
– environmental and interior design.

The opportunity presented by each of the above areas is now discussed below:

(a) Multimedia

Within the multimedia sector, the specific areas of opportunity for Irish designers have been identified as:

– website architecture;
– website interface design;
– software interface design (eg, Computer-based training software);
– computer animation and on-screen graphics.

Specific target markets providing multimedia opportunities for Irish designers are the USA (specifically, West Coast USA) and the EU. Within the EU, the research indicated that the UK, Germany and Holland represent the prime target markets. These countries have an advanced multimedia industry, including significant multimedia R&D activity.

(b) Music and entertainment

In the music and entertainment industries area, Irish designers should be introduced to international record producers specialising in the development of new (up and coming) musical talent. The key target markets providing opportunity for Irish designers are the UK (London) and the USA (New York).

(c) Food and drink packaging

Within the food and drink packaging sector, the specific area of opportunity for Irish designers is in the provision of on-pack graphic design skills.

The opportunities in this area would exist worldwide in markets where Ireland can offer a credible alternative to established UK design suppliers. Prime targets initially would be multinational food and drink companies, based in the UK and in the rest of Europe.

(d) Knitwear, Apparel and Woven Textiles Design

In the area of fashion and textile manufacturing, Ireland has established skills in the design of knitwear, women's wear and woven fabric. Whilst specific geographic markets for these design skills are difficult to nominate (without further research), it should be noted that Irish knitwear manufacturers have already established significant export markets in the UK, US, and Japan. In addition, Irish woven fabric manufacturers have established significant export markets for their products in the UK, US, Japan and Germany, whilst Irish women's wear manufacturers export significant product volumes to the UK. As strong demand for Irish produced products exists in these markets, this may indicate significant opportunities for Irish fashion and textile designers to export their skills directly.

(e) Tourism and leisure

Within the tourism and leisure sector, the specific areas of opportunity for Irish designers have been identified as:

– giftware design;
– graphic design;
– interior and architectural design.

In this area, the study indicated that the emerging tourism markets, such as Eastern Europe, could provide important opportunities for Irish graphic designers, whilst more mature tourism markets, such as the EU and the USA could provide opportunities for Irish interior designers and Irish giftware designers.

Additional Opportunities

In addition to the areas of opportunity specified above, there was considerable discussion in the workshops with respect to the potential opportunities for Irish designers to network with companies located in Ireland (Irish and non-Irish) which trade internationally. Examples of such companies, as provided by workshop participants, included: the Smurfit Group; Glen Dimplex; Waterford Crystal; Kerry Foods; Guinness; Intel; Dell Computers; Microsoft; Heinz; Irish Pub Company; and the major Irish construction companies. It was felt that, not only should the overseas operations of such companies be targeted as prospective clients, but that, there was significant potential for Irish designers to avail of the international offices of Irish companies to gain initial market contacts and footholds.

Summary – Potential Impact on Export Value

The burgeoning demand for professional design services, which has been experienced throughout the EU (including in Ireland and the UK), appears to be part of a strong global trend.

Taking account of this market growth, and, assuming implementation of the development strategies recommended in this report, the consultants would expect that the Irish design sector has the potential to increase export earnings to IR£100 million by the year 2003. This would represent cumulative growth (from the current 1998 export earnings of approximately IR£38 million) of some 150% over the five year period.

Government Intervention & Support

Government activity in Europe has been strongly evident since the mid-1980's, with considerable upgrading and revision of policy supporting design in the early to mid-1990's. In order to bolster competitiveness on domestic and international markets, SMEs have been targeted to encourage the development and integration of design strategies.

Design promotion centres/councils have been established, or upgraded, and product design promotions and exhibitions have been organised by government agencies in international markets.

National networks of design counsellors have been established in some countries and grant-aid for design development provided, including the subsidisation of designer fees.

Governments have assisted in the promotion of design as a distinct subject in secondary schools, and state agencies have led by example, by applying design concepts and processes internally, including in Government Ministries.

Table 4.5
Government Intervention & Support Summary Table

Country	Initiative
Denmark	Product design promotions. State agency internal use of design. Upgrading status of Danish Design Centre. Visual identity programme for Ministry. Design optional subject in primary and secondary schools. 4 ministries – 1994 Danish Design Policy. Danish Design Centre Exhibitions abroad. Design profession initiatives – education/CAD. 1997 Institute for Design Consultancy (IDR) set up.
France	Ministry of Culture, Ministry of Industry, Ministry of Research – responsible for design.Special fund (FIACRE) set up to encourage creative activities.10 Regional Design Promotion Centres set up.
Germany	German Design Council responsible for design.
Greece	Government Development Schemes – Product design. Applied Research Programmes. Modernisation of legislation governing the protection of copyrights and industrial property.
Holland	1993 Netherlands Design Institute set up. Number of funds set up. Government subsidies to assist design studio start-ups.
Ireland	Enterprise Ireland is the statutory body for the promotion of design in Ireland (formerly Irish Trade Board).
Italy	A number of bills before Parliament.
Portugal	Steering Plan for Industrial Design Awareness. Portuguese Design Centre promotes design concepts and practices. Incentives and financial support for design development.
Spain	Industrial Design Promotions Plan. Specialised consultants who provide advice to managers. State Agency for Design Promotion.

Government policies and initiatives are discussed in further detail in Appendix 4.8.

5. Profile of the Design Sector in Ireland

Packaging Design · Gillian Murphy

Introduction

In order to understand and profile the design sector in some detail, a questionnaire based survey was undertaken. The high level findings from this research are presented below. A more detailed review of the survey findings is also provided in tabular format (see Appendix 5.1).

The design sector in Ireland splits broadly into two distinct groups:

1. professional design companies/practices that provide a design advisory service in either a single specialist design area, or across a number of different design disciplines.
2. manufacturing businesses with either in-house design departments, or the requirement to buy-in design, by engaging the services of free-lance designers, or professional design practices.

For the purpose of reporting our survey findings we have grouped certain sub-sectors together as follows:

– **Visual Communications** includes corporate identity/graphic design, advertising (design component), front-end multimedia design and production, communication delivery systems and design management;

– **Environmental Design** includes architectural design, interior design, exhibition design, and TV, stage and set design;

– **Product Development** includes product design and prototyping for consumer and industrial products, across a range of sub-sectors such as fashion and textiles, furniture and furnishings, consumer and industrial products.

Professional Design Companies/Practices

346 design companies/practices were identified and issued with a structured questionnaire for completion. Approximately 83% of these design practices are located in the Dublin area, 4% in the rest of Leinster, 9% in Munster, 3% in Connaught and 1% in Ulster. Replies were received from 59 companies/organisations which represented 17% of the total sample size.

1. Employment

We have endeavoured to estimate the potential total employment levels for the sector as a whole. In this regard, we sought the views of a number of industry experts who are well-informed in respect of the sectors within which they operate, and in addition we interviewed by phone a number of those companies/practices that had not returned questionnaires.

There are 350 – 400 design consultancy practices in Ireland. Similar to other European countries, design practices are small enterprises employing on average 10–12 people each. They employ in the region of 3,700 people, which represents 0.2% of the labour force. Of the 3,700 people, approximately 69% are involved in visual communications, 29% in environmental design and 2% in product development.

Growth in employment of designers

There has been a significant increase in the numbers employed in design practices in recent years. We estimate that in the region of 2,000 additional staff have been recruited by design practices within the past three years, which means that the sector has more than doubled within this period. This surge in staffing levels has been experienced right across all design sectors. This trend is considered to be more reflective of the growth of the sector as distinct from high turnover of staff. Discussions with industry experts have confirmed this development.

Of the total recruited by design practices, approximately 63% were designers and the remainder were sales/marketing/key account executives, or administrative staff. This reflects the trend on the part of design practices to recruit people in other operational areas of the business to support and complement the design expertise.

Profile of designers

Just under half of all design sector employees are designers, with product design displaying the highest proportion of designers (65%) than that of any other categories. At the other end of the spectrum, advertising, which is incorporated into the visual communications grouping, has a low proportion of designers employed, with a total of about 25%. Other professionals, which include sales & marketing professionals, client support executives, copywriters, photographers, illustrators and desk-top publishers represent over a third of all employment, while those in administrative positions represent about 20% of the total.

Approximately 60% of those employed in design consultancy practices are male and the remainder female. The majority of employment in the sector (89%) is of a permanent full-time nature. The age profile of those employed is relatively young, with over 80% being in the 20 to 40 years age category.

Employment levels

The environmental design area has the highest average employment level per company at 13 employees, while visual communications companies have an average of 12 employees. Product design/development companies are slightly smaller, with an average employment level of 8.5.

From a more detailed sub-sector analysis of the data, the advertising sector has the highest, per company, employee levels, with each company employing an average of 31 people. This reflects the mature state of the advertising sector in Ireland. Graphic design companies, on the other hand, have an average employee level of slightly under 10.

As a result of analysis of the estimated industry employment figures, we conclude that the graphic design/corporate identity, advertising and interiors sectors constitute the three largest employment areas in the design sector in Ireland, representing 87% of the design workforce.

In summary, the size of Irish design practices are similar to other European countries, where the average design consultancy employs around 15 to 20 people. The exception is the UK, where the industry is somewhat polarised, with a large number of small practices and a small number of large design companies.

Retention of design staff

Overall, the retention of design staff is good, with the majority of design consultancies/businesses retaining their employees for an average of between 1 and 5 years. Thus, it would appear that the high level of recruitment as noted above is reflective of growth in the sector, as distinct from a high industry turnover of staff..

2. Value of the sector

Given the diversity of the businesses operating within each of the design sectors under review, it is inevitable that incomes earned are derived from a myriad of different service areas, some directly related to design services, while others may be more tangential.

Turnover

We estimate that the total value of the design consultancy sector, based on the aggregate turnover/revenues generated, is in the region of IR£220 million, which represents 0.5% of GDP in respect of 1997. It would appear that the sector has experienced significant growth in the past three years, with an estimated 37% being reported by the companies surveyed (see Table 5.1).

The largest sector is Visual Communications which represents 78% of total design income, followed by Environmental Design at 20% and Product Design Consultancy at just 2%. The individual sub-sectors experiencing the greatest growth rates were, multimedia, at 353%, and architecture, at 90%, while the advertising and product design sectors only grew by 23% and 25% respectively.

Table 5.1
Income by sector, 1995–1997

	Total income			% growth over last 2 years	Estimate of overall sectoral value
	1995 £m	**1996 £m**	**1997 £m**		**1997 £m**
Visual communications	24.8	25.4	32.2	30	170.5
of which advertising design	*15.1*	*15.2*	*18.7*	*24*	*43.1*
Environmental design	3.4	5.0	6.5	90	44.6
Product development	0.8	0.9	1.1	37	4.9
Total	**29.1**	**31.3**	**39.8**	**37**	**220**

The overall sectoral value of £220 million was derived by adopting a number of different approaches, including, a questionnaire based survey; telephone interviews with those companies that did not respond to the survey; analysis of Central Statistics Office (CSO) data; and discussions with a number of key sectoral players.

Level of exports

There would appear to be a higher instance of design consultancy practices exporting their services than previously considered to be the case. Almost half of all practices surveyed reported that they sell their services in markets outside Ireland. In this regard, earnings from foreign markets represented 17% of their turnover for 1997. If this propensity to export is reflective of the sector as a whole, then it would equate to exports of IR£38million for the total sector.

Over half of all ‘Visual Communication’ consultancy practices engage in exporting their services, with a wide range of countries (UK, USA, EU, and Eastern Europe) being cited. Within this category, the sector with the highest propensity to export is multimedia. In more recent years, the large architectural and interior design practices have been proactive in seeking out major construction and refurbishment projects in Russia and Eastern European countries. An additional spin-off effect of this trend is that, increasingly, many of these practices are endeavouring to source the interiors, fittings and furniture etc in Ireland, which augurs well for the manufacturing sectors involved. All the product design practices have overseas clients, with the UK being the main market.

Table 5.2
Value of exports

	Survey		Extrapolations	
	Income £m	**% Exported**	**Sectoral value £m**	**Assumed export level for sector**
Visual communications	32.2	16	170.5	27.3
of which advertising design	*18.7*	*18.0*	*43.1*	*7.8*
Environmental design	6.5	14	44.6	6.2
Product development	1	79	4.9	4
Total	**39.7**	**17**	**220**	**38**

3. Business profile

Legal structure

The overall preferred legal structure of Irish design businesses is that of a limited company, which represents 59% of the sector. The sole trader status follows, with a representation of 31%, which is reflective of the fact that many of the graphic design and interior design businesses in question are very small operations. Partnership structure represents only 10% of the sector, with Architectural firms being the dominant group.

Age profile of design businesses

The visual communications sector is relatively young, with almost 90% of its businesses formed since 1980. Within that grouping, all of the multimedia businesses have been set up since 1990, which reflects the youthfulness of this particular area. The substantial advances in technology over the last 10 years have been a key driver in the growth of the visual communications sector in general and the multimedia area in particular.

Similarly, product design businesses are particularly young, with over 75% formed since 1990. At the other end of the spectrum we find that those businesses involved in the interiors, architecture and exhibition areas are comparatively mature. Almost one third of these businesses were formed before 1980, while almost 70% were formed before 1990.

Business alliances

Within the visual communications area, the advertising and design management sectors have both formed partnerships/alliances with other industry players. 40% of advertising companies form part of an international advertising group, which enables them to draw on international expertise and resources as required. Design management businesses, by the nature of their work, are motivated to form project based working partnerships, primarily with marketing consultancies. The multimedia sector, which also shows a high rate of business alliance formation, is comprised of many individual components such as infrastructure developers, content providers and communication enablers, which, by their nature, require strong alliances with other links in the supply chain.

Approximately 40% of graphic design/corporate identity businesses have formed business alliances in a bid to provide a more comprehensive service to clients. Some of the sectors with which they have worked closely include publishing, interior design, advertising, marketing, public relations, product and web-site design.

Other sectors (such as interiors) do not show a high level of industry networking/linkages. Fewer than one third of the interiors businesses have formed business alliances.

Irish design practices are still losing business to UK-based design firms on major, multi-faceted, design projects, because of their inability to form consortia, which is a prerequisite in being able to provide a seamless design solution across a range of design areas.

4. Use of design-related technology

The principal type of hardware and software dedicated to design are outlined in Table 5.3. It should be noted that the survey responses in this regard were mainly from the visual communications sector.

Table 5.3
Investment in technology

	Design practices/consultancies
Principal type of hardware dedicated to design	• Macintosh • PC (pentium) • Silicon Graphics workstations • Unix workstations
Principal type of software dedicated to design	• Photoshop • CAD • Quark Express • Illustrator • Unigraphics • Intergraph EMS • Sculpt 3D

Macintosh is the design standard in the design practices/consultancies. The three principal types of software used by design consultancies are Photoshop, Illustrator and Quark Express. Approximately 80% of design consultancies that responded to the survey indicated that they had invested in design-related technology in the last four years, compared to 59% of manufacturing companies.

5. Services and client type

Services

In addition to their core business, many graphic design and design management companies also provide services such as marketing consultancy, market research, new product development and website design.

Advertising companies also provide such services as marketing, strategic marketing, web design, media advertising, promotions, PR and market research.

Multimedia companies also indicated that they provide many extra services to supplement their core business. Some of these additional services include web training, on-line marketing, web management and software writing.

Product development companies provide extra client services, such as prototyping, model making, materials research and market trends.

Finally, environmental design companies provide a wide range of extra services, including the following: product testing, technical research, consumer research, furniture audits, planning & building strategy, strategic urban design, sustainable design research and interior design.

Within the domestic Irish market, 73% of design consultancy business is undertaken for indigenous companies. The remaining 27% of business which stems from multinational organisations is primarily conducted by product, graphic and multimedia design companies.

6. Education & training

Education

In the architectural area, which is the only design area with professional qualifications attached, the majority of designers have a bachelors degree in architecture. The majority of these degrees come from University College Dublin and the Dublin Institute of Technology. However, there is a significant amount of senior staff who possess primary and post-graduate degrees from international educational establishments. Some examples of these include: Middlesborough Polytechnic; Rice University, USA; and, AA, London.

In the visual communications area, there is a large proportion of graduates with degrees in visual communications or graphic design and advertising. The degrees in visual communications are mainly awarded from the National College of Art & Design (NCAD); Dublin Institute of Technology; Dun Laoghaire Institute of Art, Design and Technology; and Limerick Institute of Technology.

Some of the international educational establishments in the visual communications area include Victorian College of the Arts, Australia; Bristol Polytechnic; Manchester Polytechnic; Ravensborough College, Kent; West of England School of Art; and the School of Visual Arts, New York.

The product development area is comprised of design personnel with qualifications in industrial design. The predominant degree in this area is the Bachelor of Industrial Design awarded jointly from NCAD and the University of Limerick.

Training

Senior staff in architectural firms have undertaken courses in CAD and other technical areas; courses under the CPD (continuing professional development) programme, and courses in the area of health & safety at work. The vast majority of these courses are provided by the Royal Institute of Architecture in Ireland (RIAI).

The product development companies did not indicate that they undertake training courses on a regular basis, but the following courses were undertaken: time compression, miscellaneous CAD courses and Advance 3D courses.

The courses undertaken by the visual communications companies include the following: MBA Design Management, University of Westminster; Team Role Play, Multimedia, Arthouse; DBA professional practice, DBA, UK; Advanced photoshop, Design Council, UK; Internet training, Irish Times.

We can conclude that while the nature of in-service training courses are varied, depending on the sector, the level of training is not, in all instances, in keeping with the changing needs of the industry. Many companies seemed to have no explicit training policy and the training needs of staff would appear to be undertaken on an ad-hoc basis.

Manufacturing Companies with In-House Design Departments

Sample size

Altogether 468 manufacturing companies were identified and issued with a structured questionnaire. Replies were received from 87 of the companies, which represented 19% of the total sample size.

1. Background

Product development (manufacturing companies of consumer or industrial products)

The product development design area is made up of manufacturing companies which are engaged in either fashion & textiles, furniture production, or consumer/industrial product design and production. In all, 73 responses were received in this category which are clustered into a number of sub-sectors as follows:

- clothing and textile design and manufacture
- furniture design and production
- design and production of consumer products and industrial products.

The predominant trend amongst product development companies is that the manager in charge of the design function reports directly to the managing director of the organisation. However, in a number of instances, the design manager reports to the technical, or production manager, which reflects a slightly different type of management structure. This reporting relationship was more prevalent in industrial design, as distinct from consumer design businesses.

It would appear that the vast majority of product development companies receive the impetus, or inspiration, for the design brief from their own Irish company office/management. A small number indicated they also received ideas from international agents and distributors, but very few received it from an international parent company, which reflects the point raised above that the majority of these organisations are indigenous companies.

Visual communications

The visual communications design area essentially comprises those companies which engage in multimedia design and production. In all, 11 responses were received in this category. They differ from the multimedia companies in the previous consultancy section, as many of them actually produce a product, instead of solely providing a service. Some of the products they produce include e-mail solutions, web hosting & security, educational software, CD roms and computer games. The main market sectors which are served by the visual communications area include, software, electronics, financial services, telecommunications and education.

The majority of these companies are indigenous product manufacturers. However, there are a number of multinational companies providing visual communication products or services.

In terms of reporting relationships, the companies were asked to whom does the manager in charge of the design function report within the organisation. The majority report to the managing director, or general manager, perhaps reflective of the flat structure in place in most multimedia companies and the relative importance placed on multimedia/software design, as a critical part of the overall product proposition.

Almost all of the visual communications companies indicated that the impetus with respect to design originated internally within the organisation – from their own Irish company or management. However, some of the companies noted that they also receive input from their international parent company, while some others specified the customer as being one of the origins of their design brief.

Environmental design

Of the 87 respondents to the questionnaire, 3 have been categorised as being in the broad environmental design arena. These are essentially operations with in-house design departments, specialising in the design and production of TV, stage and film sets, and include RTE and TnaG. The third company is an animation company producing animated feature films, commercials and multimedia products. All are essentially servicing the entertainment sector.

In two of the cases, the manager in charge of design reports directly to the managing director or equivalent, while the other design manager reports to the head of presentation. All three companies receive the impetus for the design brief from within their respective organisations.

2. Employment levels

Growth in employment of designers

As with the design practices, the manufacturing companies have been recruiting designers quite heavily. Within the past three years, the number of designers employed by manufacturing companies has more than doubled. Again, this up-lift was experienced right across all sectors. This trend would strongly support the view that the manufacturing sector is increasingly more aware of the benefits and value-added attached to employing a dedicated, in-house, design capability. Allied to this, these companies have stated that they will have a requirement to continue to recruit designers over the next three years, at a rate equivalent to 2.5 designers per company over the three year period. Extrapolating this to industry level would equate to approximately 1,100 designers over the three years, or roughly 360 per annum.

Overall, the total employed by the respondents amounted to 8,776. Of this figure, designers account for 372, which represents a proportion of just over 4%. On average each company employs between 4–5 design staff. If one applied this figure to the total 470 companies that were identified as having a significant design input, then it would equate to the equivalent employment of about 2,100 to 2,500 designers.

Profile of designers

The profile of designers within the manufacturing sector is not dissimilar to that of design consultancies. There is a slightly stronger female representation in industry at 48%, with the remaining 52% being male. Again 84% of all designers are in the 20 to 40 years age category. The predominant employment pattern is permanent, full-time, which relates to about 73% of designers in industry.

Employment levels

The product development manufacturing sector is by far the largest in terms of employment, employing almost 6,000 people in total. This figure represents the total number of employees in the sector. The number of designers actually employed is understandably far lower at 246.

The environmental design area represents the next largest employer. However, this sector includes the national television company, RTE, which enhances the figure significantly. Designers in this sector account for 3% of the total number employed.

Visual communications is the smallest design area in terms of employment with a total figure of 496 in respect of survey respondents. However, designers represent 14% of the total employed, which is the largest proportion of designers from the three design areas.

Retention of design staff

The design function in manufacturing companies appears to be relatively stable, with over 72% retaining design staff for between 1 and 5 years and the remaining 28% staying for more than 5 years. The product development sector shows the highest staff retention figures, with a third of respondents indicating that design staff remain with the organisation for a period of more than 5 years.

3. Value of design

Turnover

Unlike the design consultancy sector, in which it was possible to estimate the economic value of the sector based on the aggregate turnover/revenues generated, the same approach cannot be adopted in the manufacturing/production sector, as income is earned from the sale of a product, albeit with design being an integral part of the overall manufacturing process. Nevertheless, it is interesting to note that the combined turnover of the 64 companies that responded to the question was IR£737 million, which is roughly equivalent to 1.75% of GDP.

Level of exports

The number of manufacturing companies exporting is high, at 76, which represents 87% of the survey respondents. Most of the visual communications companies, which are essentially involved in the production of multimedia and communications products, also export. The remaining category, which comprises broadcasters and animation production, also engage in exporting, by virtue of the fact that the programmes they produce are broadcast outside of Ireland.

Understandably, the UK is the most common destination for the exports of the manufacturing companies in our survey. The EU, as a whole, is also a significant market for Irish exporters. 'Other Europe' which includes those countries which are not member states of the EU (Eastern European countries, Switzerland, etc) does not show a high frequency rate, with only 19 respondents exporting to these countries. North America shows a relatively high level of exports, with 46 of the companies. CIS/Middle East, South Africa and Australia/New Zealand all show relatively low frequency levels.

Table 5.4
Export markets and frequency

Sector	UK	EU	Other Europe	US/ Canada	Asia & Japan	CIS & Middle East	South Africa	Australia & New Zealand
Visual communications	6	6	4	5	1	2	1	
Environmental design	3	3	1	3	1		1	1
Product development	55	40	14	38	15	8	2	4
Total	64	49	19	46	17	10	4	5

Design costs

In the manufacturing sector design is generally regarded as a separate cost centre, with an average spend per company, per annum, on design of IR£220k. The environmental design area (ie set and stage design and production) had the highest annual cost, while the product manufacturing sector had the lowest, at IR£110k per company. In comparing the costs of design to company turnover, the costs associated with running the design departments represented on average 1.8% of their turnover for 1997.

4. Use of design-related technology

Overall, investment in technology for design purposes, by manufacturing companies with in-house design is not very high, with only 59% of manufacturing companies surveyed indicating that they had invested in design-related technologies, within the previous four years. This view is further reinforced by the survey feedback whereby some respondents indicated that the questions regarding 'design-related technologies' were not applicable to their businesses, others did not answer the questions relating to technology investment at all, while others indicated that, while they did invest in technology, it was not specifically dedicated to design.

The majority of manufacturing companies with in-house design departments use standard hardware platforms. There is, however, a considerable preference towards PC based hardware, rather than the MAC versions, which is the industry norm in the design consultancy field.

Table 5.5
Forecasted design-related investment in technology, 1998

Sector	Number of respondents	Amount (IR £'000)
Visual communications	9	536
Environmental design	2	80
Product development	37	662
Total	48	1,278

Forecasted design related investment in technology by 48 manufacturing companies alone, indicated a projected investment of IR£1.3 million in 1998, which is equivalent to an average of IR£27,000 per company.

Thus, while it would appear that both design consultancies and manufacturing companies are investing in design-related technology, the main weaknesses in this area relates to, firstly, lack of independent information on hardware and software sufficient to inform the investment decision, and secondly, inadequate training of staff to fully exploit the potential inherent in the technology.

5. Education & training

Education

The education and training qualifications of personnel within the manufacturing companies vary enormously.

The respondents from the visual communications sector listed a wide variety of courses undertaken, with a heavy weighting towards graduates from computer science and science backgrounds, as distinct from pure design backgrounds.

Environmental organisations have a high concentration of ex-National College of Art & Design and DIT degrees/diplomas graduates. The Senior College Ballyfermot is also represented by an animation production company within the environmental design category.

The knitwear, apparel and textile design companies, which form part of the product design category, mainly recruit graduates from the National College of Art & Design, Limerick Institute of Technology and the Grafton Academy. While there is a high level of educational attainment within this particular sector, there is a higher proportion of employees with diplomas rather than degrees.

The furniture design sector would appear to have a relatively low level of graduates, with those that are employed, usually having either a broad design educational background, or no academic design background at all. The Furniture College at Letterfrack, which provides the main furniture design training in the country, was mentioned by a number of respondents in this sector.

The product design category shows a wide variety of educational backgrounds, with graduates recruited from many disciplines, including engineering, science and design. Some of the design courses/colleges which are mentioned by the respondents include the following: Diploma in design, Grafton Academy; Royal College of Art & Design, London; NCEA, Limerick; Scottish College of Textiles; National College of Art & Design.

The level of educational attainment in design department of manufacturing/production companies is generally quite high, with the possible exception of the furniture sector, which appears to have a comparatively lower level of third level graduates employed.

Training

The companies which fall within the product development category, cited a number of different types of training courses which their senior design personnel generally undertake. CAD/CAM and general IT based training programmes are predominant amongst these companies. However, courses in such areas as World Class Manufacturing, innovation and R&D management, problem solving and management skills were also noted.

These courses are provided by a number of different institutions, including: Lectra Systems, the Institute of Technologies, AMT Ireland and the Irish Management Institute.

The visual communication companies also send senior personnel on CAD type courses, but also use more specialised computer courses, such as the animo system course run by Ballyfermot Senior College, intershop training by Intershop plc and NT system administration training by Microsoft.

6. Profile of Design Education in Ireland

Introduction

The availability of qualified designers with the prerequisite skills and experience is fundamental to the development of design, in its many guises, in Ireland. For this reason we surveyed third level colleges involved in design education with a view to profiling the provision of design education in Ireland and identifying critical issues for address. The information provided in this section has been derived from the educational survey, and, where appropriate, supplemented with the views expressed by the educationalists and industry practitioners who attended the five workshops.

1. Overview of the design education provision in Ireland

Overall, there are 18 educational establishments in Ireland providing 47 design courses. The courses vary significantly in terms of the nature, or application of design covered, with courses focusing on design for the furniture, fashion & textiles, ceramics, architecture, visual communications and multimedia sectors. Of the 47 courses, 10 are classified as certificate courses, 15 are diploma courses, 16 are degree courses and 6 are post-graduate, or masters courses.

Tables A6.1 to A6.4 in Appendix 6.1 provide a complete summary of the design educational establishments, the individual courses provided and the approximate first year intake. All information included in these tables has been provided by the individual educational establishments.

The courses have a combined intake of approximately 1,380 students per annum. However, we estimate that the number of students entering the job market each year to be somewhat less than the 1,380 due primarily to the following two reasons. Firstly, some students, having undertaken a certificate or diploma course, choose to progress to degree course instead of taking up employment immediately. Secondly, there will be an inevitable reduction in student numbers as they progress through college caused by a variety of reasons. In all, we estimate that approximately 1,000 students enter the job market each year.

2. Design Educators

The output of the educational survey shows that 45% of academic staff are classified as full-time and 55% are classified as part-time staff. The design educational establishments have an average student-lecturer ratio of 16:1.

Approximately 42% of design lecturers provide consultancy to industry. In our opinion, most, if not all, of these individuals engaged in design consultancy services are part-time lecturers.

Notwithstanding this apparently high cross-over at individual lecturer/designer level, concerns were raised during the workshop sessions with regard to the lack of real interaction between educational establishments, design professionals and manufacturing companies, particularly with regard to curricula development in keeping with industry's needs.

3.Employment success

Over 50% of graduates obtain employment within the 6 month period immediately after leaving college. Another 23% go on to seek further education. This includes those students who wish to complete post-graduate courses, and also those who have completed either certificates, or diplomas and wish to then study for a further one or two years to attain a degree. The proportion of graduates who are neither employed, nor seeking further education, is relatively low at 4.2%. This reflects well on the design education sector as a whole as it highlights the employability of design students upon graduation.

The majority of Irish design students (84%) who are employed, take up employment in Ireland rather than overseas. The proportion of students employed at home actually increased in 1997, which may well be due to the current buoyancy of the Irish economy.

4. Design Courses

CAD provision

Computer Aided Design (CAD) skills are regarded by educationalists and industrialists alike as being essential for the young graduate in today's employment market. The views of educationalists are varied in attitude towards CAD, but overall there is a general consensus that CAD is vital to the development and success of the Irish design sector.

The general shift in emphasis between technology-driven and traditional design methods is noted by the educationalists. CAD is seen as a tool which will allow faster realisation of design concepts. This is a highly important aspect for designers, as buyers of design are becoming increasingly more sophisticated and demanding of the designer.

There are, however, some more negative opinions on the implications which CAD may have on design. For instance, the possibility of easy solutions, which do not challenge creativity, may transpire, which could, potentially, lead to a fall in the standards of Irish design. Another viewpoint is that CAD is of declining importance, as future design will refocus on the fundamentals eg usability and emotion. The overall cost of CAD is also a concern to some educationalists, as there is an inherent cost of keeping the hardware/software up-to-date. In addition, there is the cost of training the lecturers in the teaching of the subject.

The view was expressed that CAD should be taught as a stand-alone separate subject, within the overall course and not merely as one topic within a related subject area. This opinion was conveyed by almost 65% of the colleges, which is an encouraging proportion.

Student exchanges within the EU

Educationalists believe it is critically important to expose Irish students to international ideas and cultures. The student exchange programmes which are currently being provided allow students to experience design from another perspective, while also enabling the student to form contacts and links with overseas design companies. It should be noted, however, that there was significant consensus, on the part of those educators and designers alike who took part in the workshops, that design students need greater exposure to the real world by way of: more structured work placements, visits to design businesses/factories and guest lecturers from professional designers.

Business studies provision

Many educationalists, along with industry experts, believe that the level and nature of business modules, which are taught to students on design courses, are insufficient to satisfy the needs of modern design businesses. This issue has already been explored in detail in Section 2 of this report.

5. Links with industry

An effective and coherent interface between educational establishments on the one hand, and design businesses and manufacturing industry on the other, is vital to the success of the sector as a whole. Colleges are eager to develop greater linkages with industry and the design profession to the ultimate benefit of all parties. This is an area of considerable frustration for design educationalists, who are mindful of their responsibility in turning out design graduates whose skills are in keeping with the needs of industry, but currently have no mechanism to foster such a relationship.

Written correspondence and phone conversations would appear to be the most favoured modes of communication between the educational establishments and industry. Other more interactive forms of communication, such as regular meetings with representatives from industry, are virtually non-existent.

Another interesting factor to emerge is that design colleges do not appear to get involved with the annual milkround, the recruiting process whereby companies seek to recruit students prior to graduation.

When asked what additional means of contact educationalists would like to foster with industry and design practices, a number of colleges expressed the desire to have more project-based links with companies.

6. New developments in design education

There is a general consensus among design educationalists that the internet will play a pivotal role in the delivery format of courses in the future, with a possibility of formal links being made with other European countries. Course notes could also be made available on the world-wide web, to allow students to access lecture notes, discussion papers, etc.

Some of the colleges also indicated the possibility of setting up multimedia modules, or courses, in the near future, in recognition for the increase in the demand for such courses, as new media becomes more mainstream and more integrated into the design proposition as a whole.

In recent years, the Irish Clothing Industry is reported to have invested heavily in CAD/CAM systems. As a consequence of this development, a number of the fashion and textile courses indicated that they intended to introduce CAD/CAM training as a new subject area.

Design management is also noted as an area which warrants more attention, particularly within the context of degree and post-graduate courses. This is a field which will be in increasing demand in the future, as companies seek to engage professional design managers to manage all of their design needs.

There is also an increasing trend to involve external examiners (for Degree Courses) from reputable design colleges abroad, in the assessment of students' work. This is seen as an important development in benchmarking Irish students against their foreign counterparts and a vital part of Ireland's Education feedback mechanism.

Apart from these new design areas which the educational establishments are proposing to develop, a number of colleges are also looking to change the format of the courses with the introduction of modular structures currently being examined.

7. Gaps/Weaknesses in design education

Below, we summarise the main gaps and weaknesses which exist in design education in Ireland as reported by design educationalists:

Low level of design appreciation prior to third level

To date, design has not been on the educational agenda at primary and secondary level. As a consequence of this, students entering design courses have a low level of design understanding and appreciation. This has implications for the pace and scope of design courses, particularly in the first year. The same situation does not prevail in other European countries, such as Scandinavia and the UK, where design is introduced to school curricula at primary level.

There is insufficient time to develop design maturity while on design courses

As most of the design courses on offer are focused on particular areas of design, graduates tend not to receive a well-rounded design education, which subsequently restricts their flexibility and the transferability of skills between design fields. Support for a general design qualification, at least at foundation level, was noted. Also, the need for longer courses was put forward, comprising general foundation modules followed by specialisation. This, it was felt, would allow students to develop greater design maturity.

Lack of practical work experience and exposure to design application in industry

The dilemma facing students seeking employment without any prior work experience was noted, and it was generally agreed that opportunities for students to gain work experience as part of their design course was of the utmost importance. Respondents noted the frustration experienced in trying to organise job placements on a course-by-course basis. One or two exceptions, notably the Industrial Design Degree course at the National College of Art & Design, organise work placements as part of the curriculum. In the case of the Industrial Design course, students spend six months, from March of their third year, at a work placement, either in a design consultancy, or within manufacturing industry. For fashion students in the NCAD, students are encouraged to work for an eight week period as part of a Fashion Industrial Placements Programme.

Insufficient CAD/CAM and other specialist technology training and support

Some, but not all, of the respondents lamented the lack of access on the part of colleges to up-to-date CAD/CAM and other specialist technologies and software. It was felt by colleges that the students lost out as a consequence. Allied to this, the importance of lecturers keeping their IT/technology skills up-to-date was highlighted. Many respondents felt that additional funding would alleviate the situation considerably. While it was underlined that CAD skills are important to the Irish design industry, there is a view that design education should ‘stick to fundamentals’ and not be tempted to focus on ever-changing technological skills and requirements. Some educators feel that students must be aware of CAD, though not necessarily highly skilled.

Need for greater emphasis on the commercial aspects of design and on entrepreneurship

Again, while most design courses have some business-related subjects, the need for students to further develop their business/commercial/entrepreneurial skills within the context of a design course was emphasised. Increasingly, employers are seeking designers with sound commercial ‘nous’ who can “hit the ground running” from a very early stage. The introduction of business modules into design courses is clearly a ‘top of mind’ issue for most design educationalists.

8. Future development of design courses

Design course development

CAD related developments

CAD based development should be encouraged, ensuring that students use CAD more creatively. It is felt by design educationalists that CAD should become a more central component of design courses in all years of the course and at all course levels. This is reflective of the general opinion that CAD is set to play a pivotal role in the future of design and, subsequently, in the future development of design courses.

Business modules

The need for more business/management modules as an integral part of design courses has been addressed by some colleges. These modules range in subject matter but the predominant areas include marketing, business strategy, project management, costing and production/operations management.

Post-graduate courses

Other design course developments involve the introduction of post-graduate courses to supplement existing structures. This is a vital progression, if the needs of the design industry are to be satisfied. There is a view held by members of the design industry that Irish design graduates are not fully prepared to enter the workforce on leaving university/college. There is scope for students to either focus more on a particular aspect of design, or broaden their horizons, by looking at various design types. The latter could be achieved by undertaking an “MBA in design”, if one was made available.

Upgrading courses

The upgrading of diploma courses to degree level was another method suggested to develop design courses. In light of the new Institute of Technology status awarded to the old RTC’s, many of the colleges are now seeking to have the accreditation associated with their certificate/diploma courses upgraded. Other colleges indicated that design course development is achieved on an ad-hoc basis, with the initiative left to individual faculties and departments.

Teaching skills development

CAD/technology training

The colleges expressed the wish to develop teaching skills in a number of ways, but many indicated that the CAD/technological areas were particular areas for targeting. The need for staff to keep up-to-date in CAD is recognised by the majority of respondents as being highly important and an integral part of the design education process. It was also noted that in-service seminars/courses should be made available for staff who wish to be trained in multimedia design.

Further formal education

Design staff should have the opportunity to continue their education by completing a postgraduate course such as an MA. This would allow the teaching skills of lecturers to be further enhanced by broadening their knowledge base. A good model is the NCAD's MA Study Programme, where staff (both full-time and part-time) are encouraged to undertake a Masters Degree free-of-charge, on a part-time basis.

Resource development

Resource development is an area which did not receive positive feedback from the responding colleges. Many colleges replied that they did not have any plans in place to develop resources in line with the industry-based requirements. Respondents made the following suggestions:

Corporate sponsorship/partnerships with industry

There was a view arising from the survey findings that resource development could take the form of corporate sponsorship. This would not only satisfy a need of the college in the form of resources, but would also encourage industry to have a much more active role in the development of design courses. This corporate sponsorship/partnership with industry initiative could take the form of simple sponsorship of projects or could be an interactive form of placements for design students.

Technological/CAD development

A significant number of responses indicated the desire to apply resources to the development and maintenance of hardware/software used for computer aided design. The Irish Garment Technology Fund and LECTRA Systems have provided funds/equipment for the NCAD. Similarly, the H.E.A. and Shima Seiki have provided funds/equipment for the Limerick Institute of Technology.

Educational establishment earnings

An issue was raised concerning the use of facilities by colleges to generate additional income in order to supplement the existing annual budget. For example, colleges may be in a position to lease their CAD/CAM equipment to companies which are engaged in related design areas.

7. The Added-Value Case for Design

Introduction

The economic justification, or business case, for investing in design is an argument strongly defended by the design community, and one which is gaining significant credence at Government and policy levels in developed countries. But what is the added-value realised from design, and how does design improve competitiveness?

This section will seek to understand the impact and influence that design can have in improving a company's competitive position. Firstly, the added-value case for design is presented at a macro level, drawing on research undertaken in a number of other European countries. Secondly, we address the issue of the added-value case for design at a micro level, by considering the way in which design was used by three different Irish companies to improve their competitiveness. In this regard, we outline, with the support of the companies involved, three Irish case studies, as follows:

- Fragrances of Ireland – Innisfree perfume;
- John Rocha at Waterford Crystal;
- Waterford Stanley – range oven.

The added-value case for design at a macro level

It is not unusual to read, or hear, commentary along the lines .....“design is clearly an activity that makes a valuable contribution to a nation's economy”....... “the work of designers adds to the output of the economy and generates employment and profits”...... “well-designed products and services are valued by consumers and enhance the competitiveness of industry”........ However, turning these general statements into hard empirical data is a difficult task.

Within a pan-European context, design activity is not measured by government statistics and there have been few attempts by researchers, to date, to measure the scale of business investment in design. Pockets of research have been undertaken by a number of national design development agencies (particularly in the UK and Norway), economic and research organisations and academic institutions. However, much of the research being undertaken is still on-going. Below we highlight some of the findings emanating from the research undertaken to date.

The importance of design to business success

"Approximately 68% of the UK's large manufacturing businesses consider strong design strategies to be 'very important' to business success and while 92% of small businesses believe that design can produce a competitive edge for the company, half of them believe that design is also an expensive drain on resources"

"In 1995 the survey found that just 42% of large businesses considered design to be an essential component of their work. By 1997 the figure had risen to 69%."

(Design Awareness and Behaviour Study, 1995 and 1997, by Opinion Leader Research.)

The above results suggest that, notwithstanding the fact that the UK Government, through the Design Council, has been proactively promoting the value and importance of design to industry competitiveness, the message is only very slowly beginning to register, and there is still some considerable way to go.

While no similar survey has been carried out in Irish industry, it is likely that not dissimilar results would emerge.

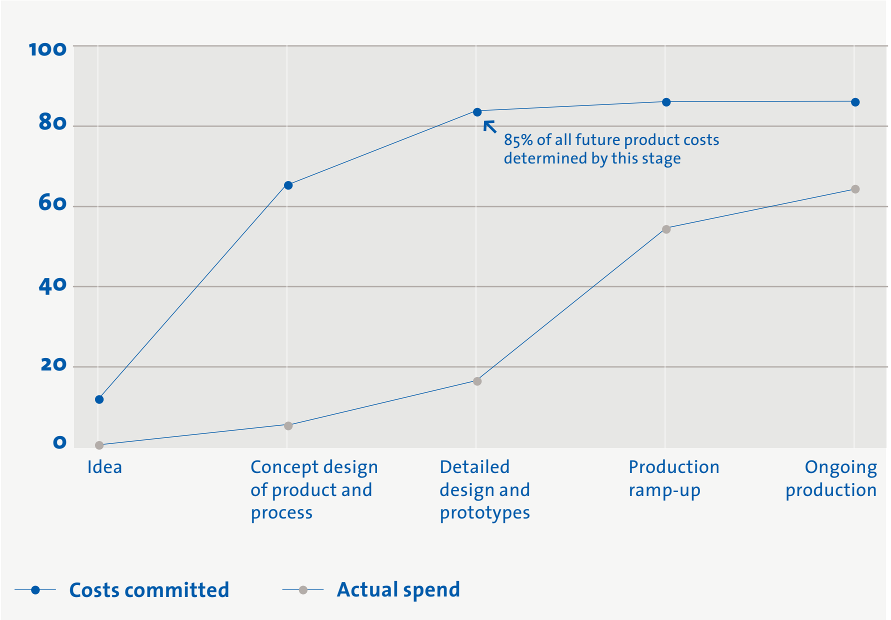
Design – cost and quality

"The design of a product dictates its cost – the impact of early work has far-reaching financial effects. Thus, the earlier the designer is involved in the process, the better."

The Design Council, UK

The design phase of NPD absorbs very little resources (under 15%), but commits most of the costs of a new product (about 85%); it creates the 'architecture' of the production activity. The design phase determines both direct and variable overhead costs and in the long term also the fixed costs (see diagram 7.1). It is therefore the main product cost driver.

Diagram 7.1
The design of a product dictates its costs:
the impact of early work has far-reaching financial effects



Source: UK Design Council

It is not generally appreciated that the source of productivity improvements lies in the product's design, which largely dictates the scope of the manufacturing process. By setting the features (technology and aesthetics), design determines customer acceptability and appeal. Through analysis and solution of problems and through detailing, design dictates the product's level of reliability and quality.

"Investing in design is much cheaper than investing in production machinery".
According to estimates by Dataquest Inc., a product change that costs $1,000 at the design stage can cost up to $10 million during production

Source: Paper by Rajendra S Sisodia in the Journal of Business Strategy, Volume 13, Issue 6, 1992.

Supporting the above two pieces of research, dramatic cost-savings have been made by a process called 'design for manufacturing and assembly', a system developed by two British academics. The process calculated the economic implications of design decisions and has reportedly cut the assembly time of IBM printers by 90%, and reduced Ford's manufacturing costs by $1.2 billion. According to Ford, design decisions are ten times more effective than production planning decisions in reducing costs and improving quality.

The Design Agenda,
Rachel Cooper and Mike Press, 1995

Commercial returns of investing in Design
"The development of new and improved products, packaging etc using professional product, engineering, industrial and graphic design expertise, can be an excellent commercial investment".

Open University/UMSIT Design Innovation Group

A study carried out by the Open University/UMSIT Design Innovation Group on the commercial impact of investing in design, shows that the investment produces fast returns in the great majority of cases. The analysis was based on a survey of 221 product, engineering, industrial and graphic design projects in UK manufacturing companies that had received a small Government subsidy to employ a design consultant. The key results of the study are as follows:

- around 90% of the implemented projects made a profit, the average payback period being 15 months from product launch;
- 48% of the implemented projects recovered their total costs, including tooling, within a year, or less, of market launch;
- the average cost of the successful projects was around £60,000; those that failed cost an average of only £8,300;
- where comparisons with a previous product were possible, sales increased by an average of 41%;
- over 40% of the sales resulting from engineering design and engineering/industrial design projects opened up new home markets;
- other benefits identified ranged from reduced manufacturing costs and improvements in a company's external image to savings in stock.

Table 7.2
Costs and payback of implemented projects

Type of design expertise	Mean total project cost*	Mean payback period from launch	Percentage profitable
Product design	£54,100	15.9 months	97%
Engineering/Industrial design	£64,000	15.0 months	86%
Graphics/Packaging	£37,900	11.5 months	100%

*Including all research, design, development, tooling, marketing, etc.

Some of the projects did not succeed, but the loss in those that failed was generally small, as most of the failures occurred prior to production starting. It is worth noting from the research findings, that of the projects that failed, the single largest cause was inadequate briefing of the design consultants. In other words, the company did not adequately communicate the nature and scope of the design brief to the design team, and/or the design team did not fully appreciate or understand what was expected of them.

Growth through design

Design has a significant impact on growth. Based on research carried out by the UK Design Council, an increase of one-third in in-house design, by British manufacturing industry, is associated with a rise in growth rate of total manufacturing output, by 0.3% a year, and the growth rate across the economy as a whole, by 0.1% a year.

Source: Design Council Report:
Contribution of design to the UK economy, 1997

A 1995 DTI/TEC National Council report found that in the engineering sector, the average company had introduced just 3% of its product range within the last 5 years. For the top quarter of companies this figure rose to 15% of the product range, while the top 10% of companies had introduced a staggering 62% of their product range within the last 5 years.

Source: DTI/TEC National Council report:
Manufacturing business, after Cranfield School of Management.

Breakthrough or incremental innovation?

"Incremental innovation is faster, cheaper and less risky".

A Chief Executives Handbook,
Design and Business Performance, DTI

The risk of failing to meet your targets is much higher when your project involves innovative techniques, or technologies that extend the frontiers of a company's experience. Should one seek a major breakthrough or go for smaller incremental innovations?

Based on years of working with industry, the advice of the UK Design Council is that one should always know ones ultimate goal and be dedicated to making steady progress in all of the key components or technologies. Continuous and systematic innovation is faster, cheaper and less risky. The smaller the increments, the easier they are to manage and the more successful their outcome is likely to be. The company will be able to introduce new models more quickly and more cheaply, by incorporating only a small, but nonetheless significant, change each time. This helps to outpace competitors also and will make it easier to charge premium prices by being first out with a new concept.

Innovation and increased profitability through design – European evidence

"Hidden Assets – Industrial Design as a Creative Competitive Factor" is a Norwegian research project, undertaken on five medium-sized export manufacturers, competing in the international marketplace. The companies that participated in the project were:

- **Tomra:** manufacture "reverse vending machines" for recycling bottles and cans
- **HAG:** develops, produces and markets chairs which encourage variation and movement for people who sit while they work
- **Hamax:** manufacturers of international sports and leisure wear
- **Stokke:** manufacturers of furniture
- **Gorud Industrier:** manufacturer of finished goods made of steel and other metals

The report documents how these five companies have obtained unique competitive advantage through the use of industrial design, which proved to be a profitable investment. The project was initiated by the Norwegian Design Council in 1991 and the research results were presented in June 1995. The Foundation for Research in Economics and Business Administration carried out the project, with the financial support from the Ministry of Industry and Energy and a number of other organisations.

The research results showed that companies which strategically employ industrial design in a long-term perspective, achieve excellent results. All five companies used professional industrial designers. Management actively participated in making the co-operation between the company and designer work effectively. Good design was considered to have been a decisive factor for success in the five companies, resulting in unique products, increased sales, employee enthusiasm, new markets and more customers. In addition, the companies mastered new areas of competence and achieved a better foundation for making decisions regarding product and business development.

In the period from 1988 to 1994, successful design contributed to a quadrupling of Tomra's sales. In 1994, HAG experienced a sevenfold increase in profits. Hamax developed a new children's bicycle seat which generated a 50% increase in sales, over two years. Exports now account for 93% of Stokke's sales, while Grorud Industrier has been awarded new international contracts.

The five companies studied also reported surprisingly short repayment periods for their investments in product development, where design was an important factor.

EU Community Innovation Survey

According to a preliminary research study, using databases compiled by Norway's Central Bureau of Statistics as part of the European Union's Community Innovation Survey, 'Design equals Profitability', researchers from the STEP Group (Studies in Technology, Innovation and Economic Policy), were able to pinpoint firms that spend more on design and correlated their expenditures with the firms' profitability and innovation levels, as measured by the percentage of sales generated by new or modified products. According to Keith Smith of the STEP Group, design expenditures turned out to be one of the best predictors of innovation.

Summary

The above research into different aspects of the value of design serve to illustrate the nature of the research being undertaken by different organisations in different regions and the contribution that design can make to business competitiveness and economic wealth. In an Irish context, no research work of any scale has been undertaken to ascertain, firstly, the attitudes of Irish business to design, and secondly, to assess the contribution that design makes to the Irish economy, particularly the manufacturing sector. Overleaf we outline, at a business level, the role that design played in the context of three well-known Irish products.

The added-value case for design at a micro level

We have attempted to present the added-value case for design through a number of case studies of Irish companies. In this regard, we have appraised and documented, with the co-operation of the companies involved, three major Irish design investment initiatives, across different industry sectors. In each case, the companies selected have recently invested in a design programme with a view to delivering marketing/sales objectives. The cost-benefit is assessed and, the relationship between design input and enhanced sales or business activity considered.

The case studies which have been chosen are as follows:

1 Fragrances of Ireland – the repositioning and re-launch of its Innisfree brand of ladies perfume;

2 John Rocha at Waterford Crystal – the design and development of a new complementary contemporary range of crystal;

3 Waterford Stanley – the re-design and re-positioning of the Stanley kitchen stove;

The information provided is considered under the following headings:

1 *company background;*

2 *description and performances of the product and the situation before the introduction of the design investment programme;*

3 *the objectives and rationale for change;*

4 *the nature and scope of the design strategy – changes and improvements undertaken;*

5 *the performance of the product afterwards with due regard to key performance indicators;*

6 *outcomes and key factors underpinning success;*

7 *the future for the product.*

Fragrances of Ireland case study

"To create a perfume which involves emotion and intuition is to perpetuate our sense of wonder before the beauty of nature."

Book of Perfume, Elizabeth Barille & Catherine Laroze

1. Company background

Fragrances of Ireland Ltd is a small Irish company, located in the Garden of Ireland at the foot of the Wicklow Hills. It was established in the early 1980s with a vision of "building brands" in the tourist and Irish domestic markets. The company sells a range of body care products under the 'Naturally Irish' label, a food range under 'Taste of Ireland' and perfumes under the following four brand names:

Innisfree – the essence of Ireland – a perfume and eau de toilette for women, originally launched in the early 1980's and targeted at the tourist sector. The brand underwent minor packaging changes in the early 1990's with a view to re-invigorating the brand, which proved unsuccessful. In 1996 the decision was taken to significantly change the design and image of the Innisfree brand, with a view to re-positioning it as an Irish brand with international appeal.

Connemara – a second brand launched in 1987 and also aimed at the female tourist market. Products include eau de toilette and soaps.

Patrick – a fragrance for men, launched in 1985, also targeted at the tourist giftwear sector.

Inis – the energy of the sea – a fragrance for both men and women, launched in June of 1998. The intention is to develop a range of sea-based personal care products, aimed at both an Irish and international audience, and marketed under a brand which has strong Irish roots.

Fragrances of Ireland does not get involved in the actual production of its products, which it sub-contracts to qualified perfumers. Instead, it focuses its energies and creativity in the areas of product and brand development. The company also cultivates lavender locally and extracts the oils for use in its perfumes and beauty products.

This case study focuses on Innisfree, a brand which has undergone significant change, in terms of design, in the last 10–15 years.

2. Product before the new design initiative

Innisfree, was originally conceived as a traditional, ethnically orientated brand and positioned to compete in the Irish tourist market. In this regard, it was sold in Irish tourist and giftwear stores, such as Avoca Handweavers, Kilkenny Design and Dublin Duty Free. In the early 1980s, the brand experienced very fast growth, primarily due to the fact that, while the product was well received by its target audience, there was very little competition in this particular sector of the market.

However, after some years of modest growth and increased competition, sales began to fall-off in the early 1990s. The management of Fragrances of Ireland realised a change was necessary to arrest the declining market share position, and believed that revisiting the packaging design of Innisfree was necessary.

3. The objectives and rationale for change

After nearly ten years of using the same packaging, Management considered that the image of Innisfree was dated and that some modernisation was needed. In 1995 the decision was made to modernise the packaging. However, the level of change undertaken was purely incremental, with no significant change to the overall product.

In total, approximately IR£30,000 was invested in the new packaging. The results were somewhat disappointing, with no significant improvement in sales. Management continued with the new packaging for one year, until 1996, when they reached the conclusion that a complete overhaul of the design was necessary, in order to prevent the product's demise.

The primary objective of the 1996 design initiative was to "bring Innisfree from a product to a brand, and so greatly widen its appeal and sales". The wider appeal of Innisfree, playing on the latent need internationally for things that are meaningful and which Ireland appears to encapsulate, had, in the opinion of Management, already been proven with the success of such brands as Baileys Irish Cream and the current fascination with, and upsurge of interest in, Ireland generally.

4. The nature and scope of the design strategy

Assessment of the strengths and weaknesses of the current product

Peter Sellers, the creative director, together with David Cox, the managing director, did a critical analysis and overview of Innisfree, from which came a fuller brand concept. The initial design brief arose from the output of this work.

Development of a clear design brief

A preliminary step was to set out in a design brief exactly where they wanted the product to be positioned and how they wanted the product to look. The brief was designed to bring Innisfree from a product to a brand.

The design brief set out the objectives and aspirations for the brand and the imagery underpinning its personality:

- ".......the new Innisfree will encapsulate and mirror the unique emotional experience that is in the WB Yeats poem, "The Lake Isle of Innisfree". In a world that is so uncertain and dramatically changing, that which means something is increasingly important to people. To listen to our hearts, to realise what is really meaningful, is very compelling "....while I stand on the roadway, or on the pavement gray, I hear it in the deep heart's core".
- In an increasingly developed and frenetic world, we should be drawing on the peace and calm of nature shown in the poem to help us establish our priorities in the world.
- "....And I shall have some peace there, for peace comes dropping slow..."
  "I hear lake water lapping with low sounds by the shore"
- Innisfree will convey the purity of the spirit of Ireland, that is in its land and people. It is aspirational " I will arise and go now", reflecting a desire and need to build a better world and to be in harmony with nature and each other".

Guidelines for the packaging were outlined and included:

- "....should reflect nature and Ireland. It should be up-lifting, not sombre and should emphasise six components:
- Innisfree is out of Ireland, reflecting purity of spirit (the essence), naturalness, greenness, fertility, renaissance, romantic and medieval and new life;
- the aspirational element of the poem, moving onto a higher (spiritual) level/plane of enlightenment;
- wonder, beauty, peace and calm (harmony) of nature;
- listening to one's heart;
- the perfume itself;
- the poem must also be used for inspiration, and in particular "I hear it in the deep heart's core" must appear on the bottle, which is heart shaped. "I will arise and go now, and go to Innisfree" must appear on the carton. The poem should also be printed fully and appear inside the box".

Worked closely with the designer

The managing director and the creative director had a clear vision of what the product should stand for, and worked closely throughout the whole process with the chosen design company. They wanted Innisfree to encapsulate the unique emotional experience that is the WB Yeats poem, "The Lake Isle of Innisfree", while using the strong Irish icon of the shamrock and the up-lifting colours (green, lavender and gold against a white background). While the original Innisfree was aimed at the tourist market, the design team now wanted a product with wider appeal, but also bought by Irish people.

Market research

Because of the size of the company and the limited resources available, Fragrances of Ireland were not in a position to test the reaction of consumers by way of focus groups. Instead, they primarily relied on their own experience and feel for the market.

Product transformation

On this occasion the whole product was changed, including the bottle, lid, volume and the actual fragrance itself, which is based on lavender scent. The only part of the original Innisfree product which remained was the name. The design team was forced to source the bottle in France, as there are no such capabilities in Ireland, while the fragrance was developed in consultation with a UK perfumer, Arthur Burnham, with the close involvement of management.

With regard to the packaging, the preliminary story-board drawings were carried out by an Irish designer. They were then sent to a finishing artist in the UK for further work. However, management felt that the finished prints looked too polished and decided to use the initial "unfinished" drawings which gave a much fresher and more natural and rugged look to the product. It was decided to print extracts from the poem on the bottle, reinforcing the heritage of the brand.

The commercial strategy and associated point-of-sale material was developed by David Cox and Peter Sellers, with strong use of the visual/photographic medium, reflecting the values as stated in the design brief. Product testing and sampling was undertaken at Dublin airport, targeting visitors to Ireland and the international traveller.

Product promotion and launch

Traditionally, Fragrances of Ireland have not invested heavily in product launches, due to the fact that their core market, being tourists, do not reside in this country. The main form of above-the-line advertising has been advertisements in the Aer Lingus in-flight magazine, Cara.

However, because the intended positioning of Innisfree in the market place was one of wider market appeal, a launch and promotional plan was put in place. The product was launched jointly by the Minister for Housing and Urban Renewal and the Chief Executive of the Irish Trade Board. Other public relations coverage included articles in Image Magazine, the RTE Guide and The Irish Times, television publicity on The Late Late Show and other media interest stimulated by the lavender fields story. The objective of this strategy was to create as much interest as possible in the brand locally, in the most cost effective manner.

5. The performance of the product after the design initiative

A new price reflected a more premium position as a result of the new packaging and design, while also enabling management to recover some of the design costs incurred. The 30% increase in the recommended retail selling price resulted in a gross margin increase of 5%. Sales of Innisfree doubled within the first year, which ensured payback of the £35,000 invested in the design project within 12 months. Innisfree is now the best selling perfume on Stena Line ferries between Ireland and the UK (apart from the ubiquitous CK1), and also at Shannon Airport, outselling international perfume brands.

Because of the strength of its new livery, the new brand has a wider appeal, communicating widely and satisfying management expectations. Earlier this year a prestigious UK retailer expressed an interest in listing the brand. Eventually, management would like to see their brands sold in some of the main US stores, but are mindful of the challenges and resources involved, in attempting to do so on a go-it-alone basis.

The growth of Innisfree has been impressively organic, with only a limited advertising budget. Fragrances of Ireland are confident they have created a classic international perfume brand which, with time, the necessary support and lucky breaks (!), will see it go all the way to the top.

The success of the Innisfree brand, to date, has encouraged Fragrances of Ireland to develop and launch ‘Inis – the energy of the sea’ in June 1998, a unisex fragrance to offer a complementary but different representation of Ireland. It is hoped that this product will provide the critical mass to compete effectively in the international perfume and lifestyle market.

6. Outcomes and key factors underpinning success

Having successfully gone through the process of re-developing and re-positioning Innisfree, management believe that, in order to create a successful design concept, there are a number of key factors worthy of comment:

- it is necessary to have a clear vision of what you want to communicate;
- it is necessary to have a clear focus on what it is you want to achieve, decide on the objectives and state them clearly;
- it is essential to draw up a clear and concise design brief to inform and inspire the designer, and discuss it fully with the appointed designer, so that he/she fully understands the brief and can modify the brief, where necessary, afterwards;
- follow and stay close to the design process and have confidence in your own judgement and experience, while being firm about achieving the original vision;
- where possible, use new technologies in order to speed up the design process , but without undermining the integrity of the overall design concept; and lastly,
- have a personal affinity and understanding with the design company.

7. High level cost-benefit assessment

The design and development of the new brand has boosted sales and transformed the balance sheet and energy of Fragrances of Ireland, while also improving the brand's standing in a wider marketplace.

8. The future for Innisfree

The long-term vision for Innisfree (and Inis – the energy of the sea) is that they will sell alongside well known international brands such as Calvin Klein, Chanel etc. It is hoped that both brands will become internationally successful perfume brands and quoted as examples of the excellence of Irish design. The way forward for Fragrances of Ireland is to grow organically and, perhaps, if the opportunity arises, develop some form of international alliance with a major distributor. The company expects the branding and design of Innisfree to last for the foreseeable future, with only minor tweakings and modifications envisaged.

John Rocha at Waterford Crystal case study

1. Company background

Waterford Crystal has produced exquisite hand crafted crystal since 1783. It is the most prestigious and best selling crystal globally and, with sales in excess of IR£150 million in 1997, guarantees its position as the world leader in the premium crystal end of the market, with an estimated market share of 40% in the US premium crystal sector alone. It is a global brand, with dedicated distribution companies from Canada, to Japan, to Australia and Pan Asia. Traditional Waterford Crystal is sold under three different brand names – Waterford Crystal, Marquee and Vintage – each positioned at different price points in the 'traditional crystal sector', with the Waterford Crystal range itself positioned at the top end of the market.

This case study considers the development by Waterford of a new contemporary crystal wear range, co-branded 'John Rocha at Waterford Crystal', which was designed and developed by fashion designer John Rocha, in partnership with Waterford personnel. This was a new departure for Waterford, who were seeking to develop a new range, to be marketed under a new brand, with a completely different positioning in the crystal wear market.

2. Product before the new design initiative

The crystal produced by Waterford has been, and continues to be, of a traditional design characterised by a heavy cut. This is mainly due to the fact that the US market, which represents about 65% of crystal sales, favours this style of cut as compared to the European market, which is characterised by a more simple cut.

The three traditional brands within the Waterford portfolio, to a large extent, covered the market for traditional crystal at the different price points. However, Waterford did not have a product targeted at the more contemporary end of the market. The vision for the new range was to begin to address this gap.

3. The objectives and rationale for change

Waterford realised that there was an opportunity to contemporise the Waterford product, by developing a brand which continued to possess the high quality of Waterford crystal, but one which would be radically different in terms of its style and image, appealing more to the contemporary European consumer. Waterford's understanding of the crucial role that new product development plays in generating sales (30–40% of Waterford's sales are derived from products developed within the previous two years) provided a suitable platform from which to develop the new range and brand.

The brief was to marry the essence of Waterford with the minimal styles that are the hallmark of all John Rocha's design.

The brand's marketing objectives were as follows:

- Recruit to the brand, younger, style-conscious consumers;
- Contemporise Waterford Crystal;
- Achieve new distribution for the brand;
- Create profitable incremental sales opportunities.

4. The nature and scope of the design strategy

Waterford wanted to involve a designer with the new brand, both to add a new design impetus to the product and also to raise the profile of the brand. After considering a number of different options it was decided to commission John Rocha. Waterford feel this was the correct decision for the following reasons:

- John Rocha has a high international profile as a fashion designer, he is recognised for his uniqueness and distinctiveness of style, which was felt to be transferable to other design areas;
- his unique and creative style, which is characterised by its simplicity and minimalist feel, are qualities ideally suited to the creation of a contemporary range of crystal;
- he was committed and wanted to be involved in every part of the design process, embracing not only design concept development, but also the technical glass blowing process, packaging, promotion and merchandising of the product. This has ensured continuity in the design aesthetics and underpinned the integrity of the brand .

Product range

The initial range comprised 39 products. Simple classical lines, oversized sumptuous goblets, new cutting effects (olives and squares) form the signature of the collection, expressed in four suites within the range:

- Geo – simple lines, generous square cuts;
- Aegis – giftwear – completely uncut;
- Imprint – characterised by the 'thumbprint' oversized olive cuts; and,
- Signature – traditional diamond cutting in a new contemporary expression.

In all the collection took about two years to come to fruition. Before commencing any design, John Rocha learned the technicalities of blowing and cutting crystal from Waterford's mastercutters themselves. In creating the collection he exploited Waterford's renowned qualities (weight, purity, brilliant light refraction and product perfection) and married them to new expressions of both form and cutting.

Positioning

Market research has shown that traditional Waterford Crystal is purchased mainly by the 35 plus age category, with 90% of these sales made with the intention of using the product as a gift. The John Rocha at Waterford brand is specifically positioned to recruit a consumer that is presently outside Waterford's brand footprint. The consumer profile which the brand is currently targeting is as follows:

- Highly style conscious – self confidence in their choice of design;
- Recognise that the design is minimalistic;
- Purchasing for function – to use;
- Brand and advertising literate;
- Young;
- Professional;
- Disposable income without being flippant or slavish in purchasing brands for brands sake ... seeking value.

From these key psychographics emerged the three key positioning pillars of John Rocha at Waterford:

– "Designed by John Rocha" – pure, simple, elemental designs;
– "Crafted by Waterford" – product excellence, purity, weight, light refraction;
– "Made to be used" – functionality in design and priced to recruit the 'own' purchaser.

Brand identity - packaging and communications materials

John Rocha at Waterford has a unique brand identity and is distinguished from Classic Waterford via its extensive range of collateral and packaging. It has its own distinctive logo incorporating the seahorse design which is a registered trademark of Waterford Wedgwood plc, black wrapping paper and black tissue with the signature pattern, sealing 'signature' stickers, bags, POS material, such as the spiral bound catalogue, illustrating the complete range, along with product flyer/inserts. Black and white is also the identity for all creative, PR materials and displays.

Apart from the specialist design work performed by John Rocha and the technical people at Waterford Crystal, the design of brochures, point-of-sale and packaging materials was undertaken by Neworldesign and produced by Frank Nolan & Associates. In relation to the design of the boxes, Waterford went to specialist packaging design consultants in Switzerland, as they considered that the appropriate experience was not available in Ireland.

Pricing

John Rocha at Waterford is priced approximately 30% below mainline Waterford, so as to:

– recruit the younger consumer – to make the brand more accessible;
– compete with the 'style' retailer imported brands.

Heavier cut classic Waterford has a higher perceived value to Rocha minimalist style, which is reflected in its price premium.

Distribution strategy

The distribution strategy of the John Rocha at Waterford brand aims to widen the distribution base beyond the classic Waterford outlets. However, distribution remains exclusive and limited, with qualifying accounts having to satisfy certain criteria. The original plan was to distribute approximately 60% of the product through existing outlets, which were considered to have the right image and who were prepared to merchandise and support the brand as specified by the company, while 40% would be via new 'style' outlets that do not carry the Waterford range. Crucially, the range is not merchandised alongside the classic Waterford range, instead, ground floor and, where appropriate, exclusive window displays are sought.

Launch and promotion

The John Rocha at Waterford brand was launched in Brown Thomas, on May 20 1997. The exclusive use of this icon account for the launch ensured maximum media exposure and exclusivity, in the front window displays, underscored the event.

An extravagant party, hosted by John Rocha, was thrown, which successfully contributed to the brand hype and exposure. Waterford has estimated the value of free press generated as a result of the launch alone (which cost approximately IR£20,000) to be in the region of IR£175,000.

The promotional strategy adopted by the company is based on a bottom-up approach, with good media coverage at its core, as distinct from investing heavily in expensive advertising.

5. The performance of the product after the design initiative

The John Rocha at Waterford brand enjoyed sales of £1.2m in the calendar year 1997 alone representing an increase of 300% on the budgeted figure, and reported a profit for the year. This was achieved without any significant adverse affect on sales of the traditional Waterford brand.

At a corporate level the addition of the John Rocha range has helped to contemporise Waterford Crystal's corporate image, which is consistent with the objective set out at the beginning of the project.

In return for his very significant involvement in the new range, John Rocha is paid a royalty, based on a percentage of sales.

It was originally anticipated that sales of the brand in Ireland would primarily stem from the Irish/European consumer, but this has proven not to be the case, with sales figures showing a 50/50 split between Irish/European and US consumers.

6. Key factors underpinning success

Waterford consider the key factors underpinning the success of the John Rocha at Waterford range to be:

- ensuring that the product was right from a design (aesthetic and technical) perspective. This involved having a clear view of the target consumer group and selecting a designer with the talent and creativity to deliver on the design brief;
- having a well though through distribution strategy – in this instance it involved restricted and exclusive access to the range and a carefully controlled retail environment so as to ensure that the integrity of the brand is not undermined;
- effective promotion of the range within 'style door' stores, which reinforces the positioning of the brand as stylish, chic, urban, current etc. Allied to this was the careful selection of certain advertising media to hit the targeted consumers – bus t-sides and bus backs, tube station fly sheets, glossy magazines, and the colour supplements of quality newspapers .

Clearly the success of John Rocha at Waterford is founded on the logical and strategic approach adopted by management, whereby the design, product development, branding and marketing process was managed in a seamless and integrated fashion.

7. The future for the John Rocha at Waterford range

At present the John Rocha at Waterford range has 39 items, but there are plans to extend this in the future. New product introductions are a crucial driver in generating sales revenues – according to management 30% – 40% of sales come from products introduced within the previous two years. The development of new products is already underway and will focus on incremental growth segments – candlesticks, votives, ashtrays, paperweights etc. Allied to this the possibility of lighting and porcelain lines are also being explored.

Waterford Stanley Case Study

1. Company Background

Generations of master iron founders have worked the Waterford foundry on the banks of the River Suir since 1776. For over half a century traditional skills and craftsmanship have combined to produce Stanley Cookers and Stoves for world-wide markets. This case study examines the change in design (both product and aesthetic) of the Stanley Cooker (commonly known as a "range cooker") over the last 15 years. These cookers traditionally performed the following two functions within the home:

- a cooking function;
- a central heating system i.e. a central heating boiler heats your home and also provides a ready supply of domestic hot water.

2. Product before the new design initiative

The Waterford Stanley cooker was traditionally a very basic product with little attention paid to aesthetic design. The cooker was offered in one colour combination of brown and cream and could not be described as "user friendly". The product could only be powered by solid fuel and had the capacity to heat a small house, with a maximum limit of 6 or 7 radiators.

3. The objectives and rationale for change

During the 1960's and early 1970's Waterford Stanley had 95% of the domestic range cooker market. However, during the mid to late 1970's Irish companies were faced with the prospect of international competition. Companies such as Dedietrich, Francobelge, Tirolia and Bosky were expanding their export drive in search of new markets. These strong international competitors began to steal market share almost immediately with the consequence that, in 1982, Waterford Stanley went into receivership.

In 1983 Waterford Stanley was back in business, following a management buy-out and it was at this stage that the management realised the crucial importance of design to product competitiveness. The primary objective of their new design philosophy was to win back market share in Ireland and restore the company to profitability. Thus, the company embarked on a programme of continuous product and performance improvement, which has continued for the last 15 years.

4. The nature and scope of the design strategy

Waterford Stanley adopted a two-tiered approach to their design initiative:

- Mechanical/technical design – in terms of performance improvement;
- Aesthetic design – in terms of the look and user-friendliness of the product.

Firstly, the company realised that the core product needed re-design. This involved a major design push on the part of the in-house, design team which was responsible for mechanical design. The in-house, design team brought the product into the consumer age by significantly modifying its features, while retaining its traditional purposes - for cooking and for providing a domestic central heating system. The cooker was re-designed to heat up like a conventional cooker and reach cooking temperature within approximately 20 minutes. Push-button controls, slam-shut doors and electronic timers were just some of the new features which were added to the Stanley cooker to improve its "user-friendliness". The new system claims to offer traditional craftsmanship at its best, with modern technically advanced features. The system was made completely controllable giving the consumer a choice of options:

- Cooking, central heating and domestic hot water
- Cooking and domestic hot water
- Central heating and domestic hot water
- Domestic hot water only

The cooker was offered with a variety of fuel options (oil, gas and solid fuel models) to suit consumers. The power of the system was also increased dramatically, as the new model cookers were capable of heating a 3,000 square feet house with 25 radiators.

Waterford Stanley also wished to carefully examine the aesthetic component of the design process. To do this the company employed the services of, what was then Kilkenny Design, a professional design consultancy, which provided an aesthetic input into the whole product design. The cookers were made visually more attractive and offered in a range of different colours, so as to make them equally at home in an elegant contemporary apartment, traditional period cottage or farmhouse kitchen.

5. The performance of the product after the design initiative

The design initiative took place over an extended period of time, as the company was not designing a new product, but re-designing an existing product to suit modern market demands. Therefore, when examining the performance of the product after the design initiative, it is necessary to compare sales immediately before the design initiative began and current sales. Waterford Stanley had a turnover of £5m in 1983 compared with £28.5m in 1997. This shows the success which the company has had in expanding the market for range cookers.

6. High level cost-benefit assessment

Apart from the dramatic increase in turnover mentioned above, the company also doubled the added-value component of the production process over the last 15 years.

7. Key factors underpinning success

Waterford Stanley believe that one of the main factors of success is the level of awareness which the company has of its market. Waterford Stanley used an independent marketing consultancy company to examine the market landscape and make future projections on how the market will evolve. A separate market research company was commissioned to undertake extensive market research, in order to determine the consumers' perception of the company and its products. One of the results of this research was the discovery that the decision-making process for the purchase of a new kitchen has moved from the housewife, or homeowner of 20 years ago, to the architects and builders of today. This directly led to the company's policy of "influencing the influencers" by employing two full-time staff who are responsible for generating sales with architects and builders throughout the country.

The company is now very conscious of the fact that the range cooker has been transformed from being a common sight in the kitchens of rural Ireland to being a sought-after contemporary cooking and central heating device, which is now the centre-piece of any town-house kitchen.

Waterford realised the importance of spreading their risk by not being dependent on the rural community to buy their products and so began to push the products in urban centres. To position the brand at the upper end of the urban market Waterford Stanley did the following:

- opened sales/marketing office in Monkstown to increase the profile of the brand in the Dublin area;
- managed to showcase their products, along with other Irish suppliers, in a South County Dublin housing development, through a scheme which was promoted and sponsored by Enterprise Ireland, formerly the Irish Trade Board.

Another key success factor was the high investment in R&D which the company made since 1983. This goes hand in hand with the high level of quality which is apparent throughout the whole design process.

In terms of doing anything differently, the company cited the following:

- the company would streamline the product development process with the result of decreasing the time to market from two years to one year;
- the company would also increase the emphasis on the engineering component of design, with a focus on out-performing competitors in this regard.

8. The future for Waterford Stanley

Waterford Stanley are aware that the range cooking market is not set to increase significantly in the near future, and, in fact, the market is decreasing in the UK. This leaves Waterford Stanley with the challenge of how to grow the business further. In this regard a number of strategies are under consideration:

- extending the Irish market by designing smaller cookers to target first-time house buyers;
- strengthening their presence in the international markets that they serve, in particular seeking out joint-venture opportunities in boosting the position of the Waterford Stanley range in these countries;
- increasing public awareness of the Waterford Stanley products and changing the public perception of the brand by developing a strong corporate identity.

Summary

This section shows the impact and influence which design can have in improving a company's competitive position. Firstly, we presented the added-value case for design at a macro level, drawing on research undertaken in a number of European countries. This research clearly shows the contribution that design can make to business competitiveness and economic wealth. However, it should be noted that research and documentation pertaining to the value-added case is still at an embryonic stage. In an Irish context, no research work of any significance has been undertaken to ascertain, firstly, the attitudes of Irish business to design, and secondly, to assess the contribution that design makes to the Irish economy, particularly in the manufacturing sector.

For the purpose of this study, three case studies were undertaken which aimed to show the role that design played in the context of three well-known Irish products:

– Fragrances of Ireland – Innisfree perfume.
– John Rocha at Waterford – crystal;
– Waterford Stanley – range oven;

The case studies described how Irish companies can use design to add value and differentiate their products in order to give them a competitive edge. Waterford Crystal used the skills and vision of a well known designer, John Rocha, to create a new brand within the Waterford range. This enabled Waterford Crystal to contemporise their crystal range and recruit the younger consumer while maintaining the premium quality associated with the Waterford brand.

The Waterford Stanley case study shows how the company took an existing product (range cookers) which was suffering from poor public image and declining sales and transformed it into a fashionable product, sought by a completely new market.

Fragrances of Ireland used design to radically transform their 'Innisfree – the essence of Ireland' perfume product into a successful perfume brand which now competes alongside international perfume brands.

In each case, the company had recently invested in a design programme with a view to delivering marketing/sales objectives. The case studies show that these objectives have, in most cases, been achieved, and, in certain instances, been surpassed. They also serve to underline the growing importance of design in all stages of the production and distribution process, to the commercial success of products in an increasingly competitive and globalised marketplace.

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