



Design
Institute of Australia

**Design Institute
of Australia**

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ICSID

International Council of
Societies of Industrial Design

ICOGRADA

International Council of
Graphic Design Associations

IFI

International Federation of
Interior Architects/
Interior Designers

Submission by the Design Institute of Australia

As the national peak body representing professional designers, the Design Institute of Australia (DIA) is vitally interested in Research and Development in this country. The DIA is the organisation working for the future of the design professions in Australia. It is the only multidisciplinary organisation of designers in Australia.

Since 1947 the Design Institute of Australia has been actively improving the community recognition and status of designers. It's a professional body for designers run by designers. It also has a charter of community responsibility.

Working through its State Branches and National Council the DIA promotes the value of design and designers to industry, business, government and the community.

It provides a vibrant networking base on a state, national and international level. Through its international affiliations it links its members with designers in over 40 countries.

The DIA has members practising in all fields of design, and the institute's Constitution lists the following disciplines:

- a. Industrial Design
- b. Interior Design
- c. Interior Architecture
- d. Graphic Design
- e. Visual Communication
- f. Multimedia
- g. Exhibition and Display Design
- h. Textile Design
- i. Fashion Design
- j. TV, Film and Theatre Set Design
- k. Design Management
- l. Design Education
- m. Jewellery Design
- n. Furniture Design
- o. Interior Decoration
- p. Architecture (practising in Interior Architecture/Design)

Members of the DIA are professional designers, developing, innovating and creating in the commercial world, generating wealth through the creation or advancement of a significant portion of this nation's intellectual property. A number of these design disciplines are actively involved in Research and Development, either for their own companies, or in a service capacity to client companies.

Industrial Design

Industrial Design members of our institute, in particular, develop and prepare products for manufacture with particular emphasis on those aspects that relate to human usage and behaviour.

They explore solutions to meet marketing, manufacturing and financial requirements and arrive at the optimum design of a product. They consider both functional and aesthetic aspects and pay particular attention to ergonomics, those factors that relate to ease of use and human behaviour.

They prepare models and prototypes to demonstrate and test products. They prepare drawings and illustrations of products to assist in the decision making process and support marketing efforts.

They select components and materials, resolve assembly and manufacturing details and produce digital and documentary instructions for others involved in the manufacturing process. They organise and oversee tooling to prepare for production and develop and oversee subsequent adjustments and refinements to the product.

Industrial designers often work as part of a product development team. While other specialists such as electronics designers and mechanical engineers work on circuit boards and mechanical mechanisms the industrial designer may be working on the overall structure of the product, its appearance and the way in which the user will operate it.

It is common for industrial designers to be employed within manufacturing companies. For manufacturers the development and maintenance of product lines is a core requirement rather than an occasional need. Many industrial designers, however, work for businesses that consult to manufacturing companies, especially those businesses that don't maintain internal research and development facilities.

Being a relatively young profession, our designers have not widely promoted their benefits, yet Australian designers are amongst the best in the world – many having practiced overseas before returning home to continue their profession here.

Australian designers have coupled their professional training with Australian resourcefulness to develop products which are leaders in their class, which tap into worldwide markets, and which generate ongoing returns on the intellectual property developed.

Industrial Designers are a vital part of the research, DESIGN and development spectrum, and should be consulted closely and at length during the inquiry's public hearings.

In addressing the specific questions outlined in the inquiries terms of reference, this submission will limit itself to the Committee's third question;

- **What steps need to be taken to better demonstrate to business the benefits of higher private sector investment in R&D?**

It has been a consistent frustration for industrial designers for decades, that Australian Industry, where it does seek to develop or improve, will imitate or licence overseas products rather than to develop their own. This is in spite of paying lip-service to Australian innovation and resourcefulness.

Unfortunately for Australian industry, design has been largely missing from public industry policy in this country since the demise of the Industrial Design Council of Australia through lack of funding in the 1980's. This has left Australian industry on its own to discover the competitive advantages of the application of design. However, Australian industry, being strongly self-reliant, has not widely sought out external services, or employed design staff.

In other industrialised nations, such as the United States, improving product development processes are a proven way to increase business growth and profitability and give companies an edge over competitors. Australian companies are generally behind when it comes to improving these processes, as it is not seen as a real priority.

Having a product development strategy is not seen as vital to the business planning process in this country. By streamlining processes, companies save both time and money and benefit from increased profits by introducing products to market quicker.

Australia needs to redress this imbalance and ensure companies are aware of the bottom line benefits of better product development management. If the benefits of R&D or R,D&D (Research, Design and Development) are known, management tools are provided to maximise positive outcomes, and a range of funding alternatives and options are readily available, the uptake of R,D&D in Australia will follow.

Government and industry associations need to create the environment in which R&D will naturally blossom.

It is evident that Australian companies largely do not understand the significant advantages of focused R,D&D.

Clearly Australia's entrepreneurial and manufacturing sectors need to be made aware of the benefits of innovation, become committed to Research, Design and Development (R,D&D), and be provided with the resources and management tools to achieve successful outcomes from their investment.

One organisation is making Australian industry aware of the positive outcomes of innovation and design – the Australian Design Awards.

The Australian Design Awards (ADA) were established by the Industrial Design Council of Australia, which was founded in 1957.

Since 1991, the Australian Design Awards program has been a division of Standards Australia, Australia's leading Standards, business systems and conformity assessment company, with operations throughout Australia and internationally. Standards Australia is committed to improving quality of life through its support of excellence in professional product design.

The 2002 Australian Design Awards were presented at the Sydney Convention & Exhibition Centre in Darling Harbour in conjunction with a public exhibit at designEX/COMFIA.

The 2002 Australian Design Award of the Year - the world's first random access slide loader enabling round the clock operation of image analysis cancer detection systems, the SL50 - presented by this standing committee's chair, the Hon. Peter McGauran, Minister for Science.

Aims of the Australian Design Awards

The aim is to present to the Australian public and the world the best examples of Australian product design and the high quality of design expertise available to manufacturers in Australia and internationally.

The ADA program is dedicated to:

- improving the awareness of the importance of product design to industry and the general public;
- promoting the benefits of professional product design in manufactured goods;
- demonstrating how important product design is to the link between invention and the commercial success of products;
- promoting innovation and a culture of design in Australia.

Mission Statement

To promote to industry and the general public the benefits of professional product design in the development of manufactured goods. Adding value by recognising and rewarding excellence in product design.

Australian Design Awards, a division of Standards Australia, has encouraged excellence in Australian product design for over 40 years.

Working closely with Australia's design community, the mission of ADA is to promote the benefits and value of professional product design in the development of manufactured goods.

The results have been impressive. Australian product design is now recognised as world class, and the Australian Design Awards continue to play their part in maintaining this high standard and encouraging a culture in which innovative design is fostered. It focuses on successful commercial outcomes.

This submission recommends that the Australian Design Awards be specifically consulted in the public hearing phase of this inquiry. The ADA is ideally placed to promote the commercial benefits to company and country, and the return on investment in design and development.

Further, the Australian Design Awards presentation event should be nationally televised, elevating the status of industrial innovation and design, and exposing innovation as a key economic driver for success.

Beyond the presentation of a compelling case to invest in R,D&D, a training programme and training organisation already exists to fill the next need – to empower Australian industry to develop better products faster.

PD-Net <http://www.pd-net.net>

QMI Solutions, a joint state and federally funded technology diffusion organisation based in Brisbane, has been educating companies in product development management since 1995. In July 2000, with specific AusIndustry funding and support, it launched PD-Net, the product development network with custom developed training materials.

PD-Net has been partnering with State-based organisations throughout Australia since 2000, to deliver the Proseed program, Axseed workshop and quarterly seminars. PD-Net, helps companies develop better products faster by increasing awareness and providing education in global best practice new product development.

The future of PD-Net is currently under review after completion of the initially funded programme. The specifically developed materials and the training staff already exist, but may be lost if additional funding is not provided.

However, this programme, to achieve significant benefit, needs to become available to the total manufacturing community, delivered to a majority of companies in this category, and delivered in a way which is effective yet convenient for busy Small to Medium business operators as well as large corporations.

The programme needs to be continually offered in a single, highly visible location in each of the major cities in Australia. The programme needs a home.

One proposal for such a home, is to have Design Centres in each state capital.

Australia's Proposed Design Centres

Australia is well regarded internationally for the quality of innovation originating in our land. Many innovations of our modern world have been born of this country – from the Xerox process to the Black Box flight recorder, fingerprint scanning and gene shear technology.

There is, however, little recognition of the achievements and benefits of Australian innovators by the public at large, and by our captains of commerce. There is also a sad gap in our ability to convert innovation into industry. To turn concepts into capital. The vehicle for this commercialisation of innovation is a quality blend of design and marketing.

The vision of the Design Centres in each state capital and major manufacturing centres, is to create permanent centres of design which will clearly display the benefits of good design, and also create a vibrant, visible nucleus of design and product development in each major region.

The public face of the centres would be a Public Gallery showcasing qualities and values of the best in design of everyday artifacts and celebrating our industrial past. This display will be a compelling exhibition of the power of design. Not just showcasing the end product, but also the development process, the innovators and designers behind the products, and also the economic gains made by investing in good design.

Visiting exhibitions, such as the annual Australian Design Awards shortlisted products, and home-grown exhibits such as the annual design Institute of Australia Design Awards, could tour the centres and become features in each city's calendar. While the gallery would be the public face of the centres, the heart would be a living catalyst for design in the region. This facility should become an active centre for the promotion of innovation - of quality, sustainable design solutions - a centre of inspiration for our future.

The centre could be home to the offices of industry associations, and key stakeholders in innovation. The Design Institute of Australia, the Licencing Executives Society, and the associations of Ergonomists, Patent Attorneys, and key groups of intellectual property lawyers, innovation management consultants, and specialists in design areas such as Eco-design. Each centre could also seek strategic alliances with the entire spectrum of stakeholders of Australia's industrial development and design education.

The centre could offer internships and scholarships for design students, as well as provide a public link between those wishing to employ designers and the talent pool of available designers. A designer database with searchable on-line portfolios of work would increase the access of industry to design to improve its application in the world of business.

We would look to model these centres on successful overseas models, such as the Business Design Centre in the United Kingdom www.businessdesigncentre.co.uk

The Centre for Design needs to be a support mechanism for enterprising small companies, providing appropriate support to assist them to develop the innovations they might otherwise have passed over. To assist in the incubation of ideas.

Much of Australia's commerce and industry is comprised of small to medium enterprises. These companies are often the most innovative and responsive to market needs. However, these same companies have little spare capacity to devote to the development of innovative product. They are in need of 'innovation angels'. Multidiscipline think tank teams and innovation angels would also be available to guide business through the innovation maze. Financial advisors could be available to assist with company structures, seed funding, and capital raising.

We see the centres being the focal point for a focused and dedicated specialist library, with direct access to librarians trained specifically in the identification and location of innovation related resources and current thinking in product innovation and commercialisation. High speed internet connection to worldwide resources such as Patent Databases and technology sites would be provided for business to access.

Serviced offices could be provided for start-up companies, and 'hotelling' facilities - desk, phone, fax, computer - with current leading edge software - printer and internet connection - would also be provided to assist innovators in spending time away from the office in this atmosphere of innovation, and with inspiration and dedicated assistance.

Flexible meeting facilities would be provided to allow groups of two to three, up to the provision of seminars and case study presentations. Independent Boards of Management could be established to provide experienced business input and specialist innovation enterprise managers.

The centres would also exist in the virtual world of the internet – linked via an innovation portal, serving as an aid to innovation, information and technology transfer, a facilitator of communication, a conduit for outcomes to find the market, and also as a public reference and education site on innovation topics.

Links with universities would be forged with key skill development units being provided at each centre. It is also proposed that a bursary system be formulated to sponsor doctorate students to develop their theses through working and researching at the centre. Retired designers, engineers, and product managers would be encouraged to contribute their experience as 'innovation angels', to improve the quality of thinking by balancing life experience with youthful inspiration and channelling the creative energy to beneficial outcomes.

A single Australian Design Centre was recommended by the National Design Review, conducted in 1995, in response to a previous inquiry into Innovation in Australia by the predecessor of this standing committee. This has become a tenet of the Design Institute of Australia's Strategic Plan since that time. However upon review it would be far more effective to have centres in every hub of industry.

The Charter

The Design Centres Charter is proposed to be;

To promote the value of design to the community and to facilitate responsible and efficient use of design to improve the world, aesthetically, economically and socially.

This Charter will be used as a standard against which all potential programmes will be measured for their effectiveness, and social and economic responsibility.

The broad objectives of the Australian Design Centres, under the Charter are;

- Raising the awareness amongst the industrial, commercial and general communities of the benefits of design and its ability to enhance global competitiveness.
- Facilitating and encouraging interaction between designers, educators and Australian Businesses and improving accessibility of design services.
- Actively assisting the implementation of design through a Think Tank.
- To provide the tools and to achieve greater commitment from Australian businesses to utilise our wealth of professional design capability.
- To create highly visible centres for design in key centres of Australia.
- To provide a central focus to unify the image of the design industry.
- To create a targetted bank of design knowledge and information and development resources, including case studies of the real design experiences.
- To generate humanitarian design projects in a spirit of social responsibility.
- provide salable solutions to the world.

Implementation Strategy

Whilst planning is in train, our first challenge is to locate suitable locations for the design centres, and to fund their design, fitout and initial operation. Funding will also be required to establish the most appropriate trading entity, to research the world's existing design centres and benchmark the Australian centres to formulate operational strategies, and to plan the establishment and staffing of the centres. One of the first tasks will be to produce and promote the initial round of industry information seminars to promote the practical nature of the centres as the first contact with both designers and industry.

Following this launch a strategy to make each centre self-funding - in fact to become a net contributor to design programmes - would be implemented. It is our aim that within five years of opening, the centres will be entirely self-sustaining and generating their own funds for new initiatives. Their flow on multiplier, however will far exceed the inputs.

Income is proposed from a range of activities. There would be a fee for service for the facilities of each centre, being only marginally more than cost recovery. Programmes developed for the centres could be income generators outside of each centre. Functions

held at a centre would generate funds, as would serviced offices, meeting and seminar rooms. Each centre could have a gallery, a shop, and obtain commission on designs sold through the gallery, and royalty on the sale of own-developed product. One-on-one consulting by design centre staff could be provided. These services would need to be designed so as not to conflict with commercial aspects of private design firms. The centre could also house the secretariat of the various design associations, contributing to cost recovery plus a surplus for furthering the centre's Charter.

Concluding remarks

Not since the days of 'The Inventors' television program on ABC television over three decades ago has Australia as a nation taken its ability to innovate seriously. Where it has attempted to progress at all, Australian business has tended to take the easy road of imitation or licencing. The new age of industry is in the creation of wealth through innovation – developing new income generating property – intellectual property.

The traditional approach to Research & Development has been typically TECHNOLOGY DRIVEN. However experience shows us that the majority of commercial successes are MARKET DRIVEN. This is the successful application of technology to create a desired product. It is this approach, combined with the targeted skills in new product development which defines INDUSTRIAL DESIGN.

In our company design is paramount. We can have the very best technical outcome from R&D but without good industrial design we are unable to sell our products. As a result of our approach to design, our company has doubled in size in the last 5 years and exports to many countries around the world.

Michael Agustin
Managing Director Lumascope Lighting Industries Pty. Ltd. Queensland.
mpa@lumascope.com.au

Some Australian businesses know the way to commercial success. We have the necessary talent, resources and opportunities already. What is needed is to show the way to the remainder of business who do not know the way, or are hesitant for whatever reason.

Many of the glowing commercial success stories of our country are very public and are lauded in the popular press as well as trade press for their achievements in the national and international arena:- the fashion industry, including our fashion models; the film and television industries; the wine industry; tourism; education; biotechnology, etc

Australia has designed and builds motor vehicles which are being exported to the USA and badged as American. Where is the public recognition of that success? Let us publicly show the way for Australian Industry, and praise our industry successes too. Australian manufacturing industry needs its own champions – to tell their stories, and lead others to their own success, through Research, Design and Development..

Recommendations;

In response to this inquiry the Design Institute of Australia makes the following recommendations;

A. That The House of Representatives Science and Innovation Committee INQUIRY INTO BUSINESS COMMITMENT TO RESEARCH&DEVELOPMENT make an all-party unanimous recommendation to the House to;

- 1. Support the national televising of The Australian Design Awards Presentation event to give Australian business the strongest possible message that investment in innovation is a key component of commercial success.**
- 2. Provide funding to the DIA to establish the network of Australian Design Centres in each state, where;**
 - Australian Design Award winning products can be exhibited**
 - industrial innovation education and training can be conducted**
 - a visible resource and support infrastructure can be centred**
 - new ideas can be fostered, generated and incubated**
 - all key players in the innovation process can meet and cooperate.**
- 3. Provide funding to the Design Centres to engage QMI Solutions to expand its PD-Net programme to be delivered to all industry, nation-wide – using the newly established network of Australian Design Centres.**

B. In addition to the above recommendation we implore that the next phase of public hearings provide the DIA with the opportunity for private meetings with the committee.

Each state of Australia has a branch of the DIA and we will be pleased to arrange a meeting schedule to fit with that of the Science and Innovation Committee.

This response to the INQUIRY INTO BUSINESS COMMITMENT TO RESEARCH& DEVELOPMENT by The House of Representatives Science and Innovation Committee has been prepared on behalf of the Design Institute of Australia by;

Robert Geddes FDIA
Director and National Coordinator of Industrial Design Practice Groups
International Bodies sub-committee, ICSID Liaison *

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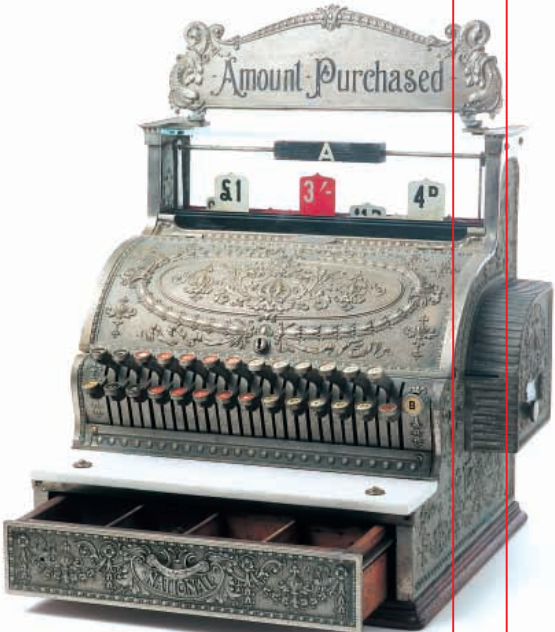
* DIA is an accredited member of ICSID, the International Council of Societies of Industrial Design.

Business Success By Design

What design can do for your
business and how to work
effectively with designers



Design
Institute of Australia



www.dia.org.au

Why Design is Good for Business



Designers bring human and cultural values to business problems, values that sell products and services, create demand and inspire customer confidence and loyalty.

Design is a planning process. It produces the best solution based on the stated business objectives and the information and resources available. It uses a methodical procedure to ensure that solutions are well thought out and all the known criteria for success are considered.

Just as a business plan is the first step to business success. A design brief is the first step to project success. A design brief spells out the criteria that a project must meet. Design does not leave business success to chance.

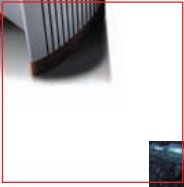
Design is a strategic tool used to gain market advantage by companies operating at an international level. Their products, their branding, their promotion and their business premises are all designed to maximise customer acceptance of the goods and services they have to offer and to optimise the day to day operation of their business.

The benefits of design are also available to national and local businesses. The process can always be tailored to the resources available.

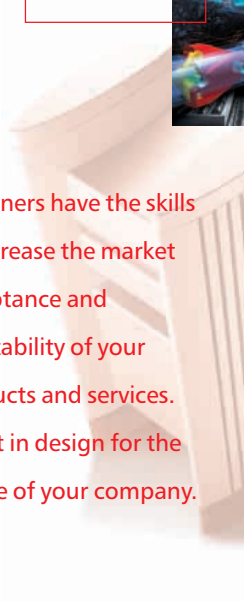
Professional designers provide a balance of technical and subjective skills that match the business needs of many industry areas. Whether you manufacture furniture, provide banking, build cars or sell wine there is a design professional who can help you improve your business.

Design skilfully bridges technical and marketing requirements to put sizzle into a product, desire into a promotion or confidence into an interior.

David Robertson FDIA
National President



Designers have the skills to increase the market acceptance and profitability of your products and services. Invest in design for the future of your company.



What is a Designer



A designer is a business professional who develops solutions to commercial needs that require the balancing of aesthetic and technical requirements. A designer can be said to be both technician and artist.

A designer plans things for manufacture or construction. The difference between a designer and a craftsperson or artist is that designers usually develop things that have requirements set by others and will ultimately be produced by others. An essential part of design is the preparation of plans and instructions that will allow for the accurate production of the design by others.

Rational Creativity

The requirements that a designer works to are usually both objective and subjective. The objective requirements are easy to understand. They're technical and business requirements that allow for measurement and direct comparison. How much will it cost? What is the best material? When can it be finished by?

It's the subjective, creative side of design that's hardest to explain and hardest for most people to understand. The aesthetic side of design relates to fashion, human behaviour, emotion and cultural influences such as the cultural meaning of symbols.

Designers are immersed in the visual language of their culture and industry specialisation. This is an important part of what you pay them for.

Approach design with an open mind. There are times when you should 'like' what the designer is presenting to you, but there are also times when what you require from a designer is something that will differentiate your business, make it noticed, make it stand out. You may not immediately like it but it may be what you need. Just as the designer listened to you



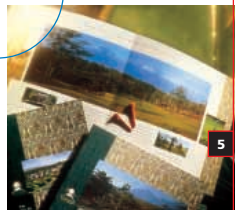
during their briefing, listen to your designer's reasons for their design. Keep an open mind. Their expertise may be offering your business something new.

Working For You and Your Customer

Designers must balance the needs of their employers with the needs of the intended users of the design. These are often the employer's customers. If the design doesn't meet the needs or desires of the end user, rather than just the commissioner of the work, then sales will be compromised.

In addition designers must reconcile their own standards of aesthetics, quality and ethics with the requirements of the intended commercial purpose of their work. Both designer and client should also consider community values and constraints.

**A business professional
who balances aesthetic
and technical
requirements to satisfy
the human and business
needs of a project.**



Why Use a DIA professional



Full professional members of the Design Institute of Australia are identified as Members (MDIA) or, in recognition of services to the design industry, Fellows (FDIA) and Life Fellows (LFDIA).

In its role as a professional body the DIA

- sets minimum standards of ability that a full Member must possess and
- sets standards of professional behaviour that all members must adhere to.

DIA membership standards and the required skill level of a full Member are based on the guidelines of the international design bodies (IFI, ICSID & ICOGRADA).

To join the DIA with Member status (i.e. be entitled to use the letters patent MDIA), a designer must satisfy the DIA Membership Committee that they possess an appropriate balance of education, professional experience, ethics and professional ability.

They must also have a minimum of three years of professional experience with a recognised individual, firm or business providing specific involvement in their area of design.

When you employ a Member or Fellow of the DIA you can be assured that they are capable of providing professional design services.

DIA Designer Referral Service

As a service to industry the DIA maintains a database of designers and their areas of specialisation. Potential customers looking for design assistance are directed to three designers with expertise in the required area. Only DIA members who are full professional Members or Fellows are included in this database.

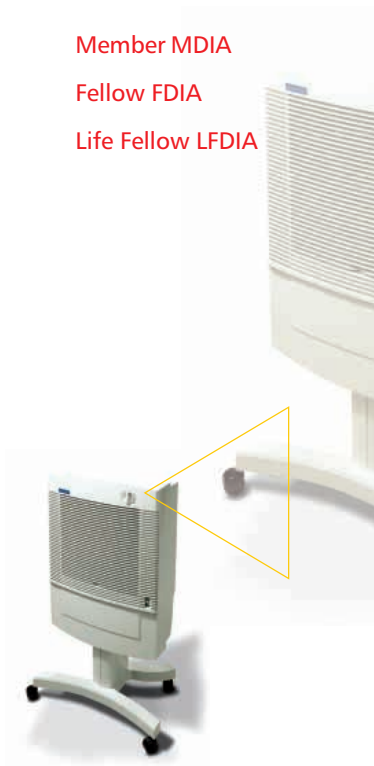


Look for the letters that indicate a designer is a recognised professional member of the DIA

Member MDIA

Fellow FDIA

Life Fellow LFDIA



What Types Of Designers Are There?



There are design specialists available with the knowledge and skills required to address most business needs.

The design professions are differentiated by the types of things they design, the differences in technical, aesthetic and procedural skills that each area requires and the sort of customers or clients they work for.

The design of a restaurant requires different skills, tools and techniques than the design of an air conditioner. But the process of design remains very similar. Both professionals will consider the aims and constraints of your project, generate concepts and winnow them for appropriate solutions. Then refine the chosen solution, document it for production and monitor its implementation.

The fields of design listed on the facing page indicate those that the DIA has traditionally represented, some of which are outlined in more detail on the following pages.

New Technologies - New Design Professions

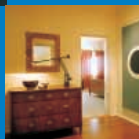
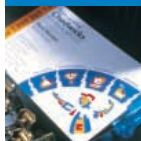
With the advent of computers there has been a rapid change in the tools used for design and the nature and range of products and media that designers design for.

New design fields are emerging that are already providing important areas of specialisation for designers. While these usually draw on skills from older design disciplines such as graphic and industrial design, they are significantly differentiated by new technical, procedural and client requirements.

Some of the emerging design areas are listed on the opposite page.

The DIA represents members practising in all fields of design including:

- Industrial Design
- Interior Design
- Interior Architecture
- Interior Decoration
- Graphic Design
- Visual Communication
- Textile Design
- Exhibition and Display
- Fashion Design
- Design Management
- Design Education
- Furniture Design
- Jewellery Design
- TV, Film & Theatre Set



DIA professionals also provide design services in many new media design disciplines:

- Multimedia Design
- Web Design
- Digital Environment Design
- Digital Animation Design
- Digital Game Design
- E-commerce Design





Industrial Design

Industrial designers develop and prepare products for manufacture with particular emphasis on those aspects that relate to human usage and behaviour.

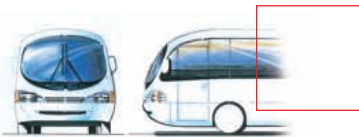
They explore solutions to meet marketing, manufacturing and financial requirements and arrive at the optimum design of a product. They consider both functional and aesthetic aspects and pay particular attention to ergonomics, those factors that relate to human behaviour and ease of use.

They prepare models and prototypes to demonstrate and test products. They prepare drawings and illustrations of products to assist in the decision making process and support marketing efforts.

They select components and materials, resolve assembly and manufacturing details and produce digital and documentary instructions for others involved in the manufacturing process. They organise and oversee tooling to prepare for production and develop and oversee subsequent adjustments and refinements to the product.

Furniture Design

Furniture design could be considered to be a specialist area of industrial design. However the specific ergonomic knowledge that a furniture designer must apply and the specialised construction methods that undergo constant change in the industry make this a large area of specialisation. Furniture design has a rich history of styles and precedents and a close relationship with fashion that makes practise in this area distinctly different.





Textile Design

Textile designers plan and prepare patterns, weaves, prints, textures and illustrations for fabrics and other materials that require the development of patterned surfaces.

Textile designers develop fabrics used in furniture, soft furnishings, clothing, vehicles and products such as luggage. They can apply the same skills to the development of patterns for wallpapers, laminates and patterned plastics.

They design fabrics to satisfy marketing and manufacturing requirements. They balance aesthetic and functional aspects, they consider the nature of yarn types, thicknesses, weights and textures to produce fabrics to cost and production constraints.

They prepare design concepts and assess them for market viability. They resolve the concepts into artworks and instructions suitable for a variety of fabric production and printing techniques. They develop colour specifications and colourways for ranges of fabrics. They liaise with manufacturing and production personnel to prepare for manufacture.

Jewellery Design

Jewellery designers conceptualise, prototype and detail for manufacture items of jewellery such as rings, brooches, bracelets, necklaces, watches, glasses and ear rings. They have specialised knowledge of the metals, jewels, precious stones and other materials associated with personal adornment. They may develop designs for mass or batch production or they may develop special items to satisfy one-off commissions. They may also design other objects that use precious metals and jewelled decoration such as trophies, goblets, silverware and cutlery.





Interior Design

Interior designers plan and detail commercial and residential building interiors for effective use with particular emphasis on space creation, space planning and factors that affect our responses to living and working environments.

Good design can enable us to live and work more efficiently, comfortably, profitably, securely and pleasurably in a more aesthetically fulfilling and functional environment.

Interior designers plan space allocation, traffic flow, building services, furniture, fixtures, furnishings and surface finishes. They consider the purpose, efficiency, comfort, safety and aesthetic of interior spaces to arrive at an optimum design.

They custom design or specify furniture, lighting, walls, partitions, flooring, colour, fabrics and graphics to produce an environment tailored to a purpose.

Interior Decoration

Interior decorators plan and prepare building interiors for effective use with particular emphasis on furnishings, finishes and aesthetic presentation.

Interior decorators often work directly with the person who will occupy the space rather than working with other building or business professionals and must develop the skills to identify and accommodate another individual's taste.

They frequently have an extensive knowledge of historic furnishing styles and their relationship to architectural periods and employ a detailed understanding of the application and effect of colour and pattern.



Interior decorators plan, arrange and style the space, finishes and furnishings. They consider the purpose, efficiency, comfort and aesthetic of interior spaces to arrive at an optimum design.

They specify furniture, lighting, flooring, colour and fabrics to produce an environment tailored to a purpose.

Exhibition and Display Design

Exhibition designers design and organise the construction and installation of trade exhibitions, permanent shop displays, museum exhibits and interpretive displays. They use skills drawn from graphic, industrial and interior design to attract, inform and involve an audience in the subjects that their clients employ them to present.

TV, Film and Theatre Set Design

Set designers plan and manage the construction of sets for the presentation of theatre, TV and film productions. The design skills are closely associated with those of interior design and exhibition design. Set designers must understand the production requirements of the entertainment media that they're designing for and pay particular attention to methods of assembly and disassembly and strength and safety aspects.





Graphic Design/Visual Communication

Graphic designers develop and prepare information for publication with particular emphasis on clarity of communication and the matching of presentation styles to audience requirements.

The information they deal with not only requires a sound understanding of text based communication but also requires them to skilfully use the communication properties of symbols, colours and pictures.

They prepare concept layouts and mock-ups to discuss project details with clients. They prepare or subcontract diagrams, illustrations and photography. They resolve all communication elements into a final format to suit the required physical or digital media.

They select paper and other printing materials, resolve manufacturing details and produce instructions for others involved in the reproduction process. They organise and oversee proofs and colour separations to prepare for printing and liaise with suppliers who specialise in the many forms of digital and computer based information distribution mechanisms.

Multimedia Design

Multimedia is the production of digitally delivered information and promotional content that can include still and animated words and pictures, video and sound. Multimedia draws on graphic design skills as well as requiring skills that were previously the job of film, video and sound production technicians.

Web Design

Web design, initially largely the delivery of static graphic information is taking on all the complexities of multimedia as technology finds ways to deal with sound and moving pictures with fast web delivery



times. Core skills for web are graphic design and programming.

Digital Environment Design

The developing ability for businesses to solely interact with their customers digitally and the need in games and entertainment for realistic or fictional digital environments is opening up new industry areas. Skills in this area are coming from industrial design, interior design, graphic design, architecture and animation.

Digital Animation Design

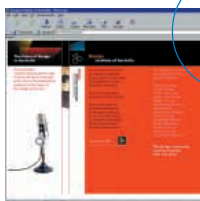
Digital technologies are creating a new golden age for animation. There seems no limit to the complexity and realism now possible. Industrial designers with their CAD modelling skills, graphic designers and illustrators with their visualisation skills are finding new employment in this area.

Digital Game Design

Games and entertainment are committed to delivery in a digital environment. These can take the form of boxed software for game machines and computers or be delivered solely on the internet. People from around the world now interact in shared artificial game environments. Once again the skills are drawn from product, graphic and interior design among others.

E-Commerce Design

The development of easy to use secure interfaces for doing business on the internet calls for designers with good technical communication design skills and programming skills.





Fashion Design

Fashion designers develop clothing, accessories, footwear and other items of personal apparel. They study the design and construction of clothing, its historical development and styles and the techniques and processes available for its manufacture. They rely heavily on illustration skills and the making of samples to communicate their designs.

Design Management

With the integration of design into the business planning process of many large national and international companies and the identification of design as a major factor in competitive advantage the management of design has become a specialisation in its own right.

Design Education

Design education has become a major growth area in both secondary and tertiary education. The education of designers requires teachers and lecturers with knowledge in the many subject areas that designers must study as well as experienced designers in the respective design disciplines who are able to pass on the specifics of professional practise. Design educators may have qualifications in a design discipline or in one of the subjects that make up the curriculum. They may additionally have qualifications in teaching.



Professional designers bring to your project extensive training and a wealth of experience. Use their expertise and product knowledge to expand your ideas, solve problems, offer unique solutions, save time and money.





The Design Institute of Australia can refer you to designers with expertise in your project needs through its national Designer Referral Service.

When selecting a designer from referrals or by introduction from colleagues and business contacts you should be satisfied that the designer is a good fit to your project needs. You should ask to see the designer's portfolio and discuss with them their training and experience. Consider how their business scale and previous projects match your project size and requirements. You should feel comfortable that they're able to interpret your needs and your project brief creatively, technically and within your budget.

Some useful questions to answer -

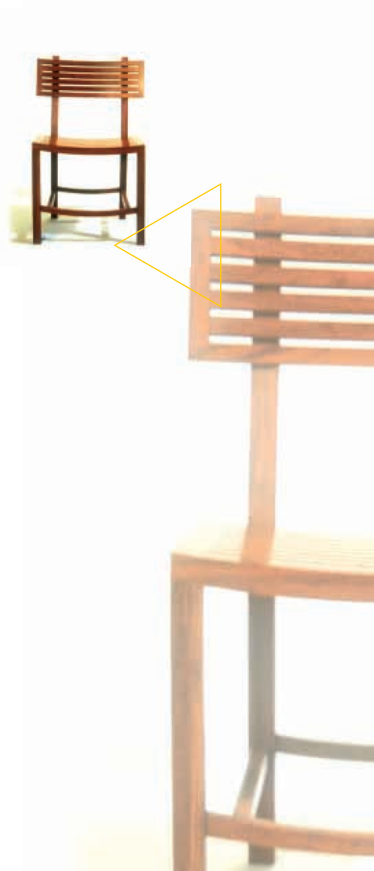
- do the requirements of the brief suit the designer's aesthetic and technical skills and experience?
- does the designer have the resources to satisfy your time and quality requirements?
- are the project complexities and management requirements suited to the designer's capability?
- does the designer demonstrate an ability to understand the needs of your industry or market?
- will the designer bring skills to the project team that will enhance market success?

Having first selected designers who match your requirements you should then ask for quotations to your written brief (see page 22). The responses you receive will be easier to compare if the project has a well thought out scope of work and is being costed by designers who meet your initial selection criteria.

Before the project starts you and the designer should agree in writing on the scope of work and the fees that the designer will charge you. See page 24 for various methods of determining fees.



Take advantage of the
DIA Designer Referral
Service for introductions
to designers with
experience in your
project area.





The Design Process

Design is a structured process that follows methodically from one stage to the next. In simple terms the stages are:

- The Brief
- Research
- Concept Solutions
- Design Development
- Documentation
- Implementation

In a simple project these stages can be lumped together but in complex projects it is common for these stages to be broken down into more detail or even commissioned one at a time.

Each design discipline has its own variations on the method of structuring projects. Your designer will be able to explain the structure suited to your business or project requirement. Each project will require time to be allocated differently depending on project aims and resources.

The design process usually requires input and interaction from a variety of people. This may be just the client and the designer but often includes the clients's staff, external subcontractors and suppliers, end users and the designer's staff. Successful design projects often require the integration of needs from many areas.

The brief defines the project stages and indicates the work that should be completed at the end of each stage. Efficient design projects complete and approve each stage sequentially. Revisiting completed stages (for example changing the concept later in the project) or requiring information to be completed out of sequence increases the time and cost of a project.



Managing The Design Process

Getting the best from the design process can be difficult for an employer not experienced in interacting with a creative service.

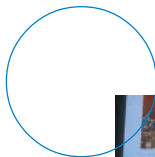
Taking the trouble to formulate a succinct project brief and being thorough in the selection process of a designer is clearly the first step.

Understanding that creativity can not necessarily be produced on demand is another key factor. Allow the designer to manage the creative process and the design staff. They have experience in the amount of latitude required at the concept stage before rational constraints are applied and a solution locked in.

Giving the design team plenty of time at the concept stage can work wonders for the project outcome. While designers will use their skills and experience to arrive at an appropriate solution in any time set a 'wonderful' solution may only evolve after investigating many less fertile options.

You should ensure that the design team has access to all the information that is relevant to the project. Make sure that your staff and stakeholders have made available information that may affect the project. It can be expensive and time consuming to alter project direction to meet criteria that have changed.

Pay particular attention to reviewing the project aims against the outcomes of each stage. As the client it will be your responsibility to approve the project direction at each review stage and approve the completed design for production.



The Importance Of a Good Brief



A brief is a document that defines a project by specifying the nature and extent of the work being requested and what the objectives and constraints of the project are.

A well written brief can save you money by enabling a designer to quote more accurately and will ensure a better project outcome by providing succinct information to review project outcomes against.

A brief will always contain:

- A short summary statement of the task
- A list of the primary aims of the project
- A list of the major requirements that must be included in the solution
- A statement of financial constraints
- A statement of time constraints.

A brief may also contain:

- The reasons why the project is being done
- The project stages or milestones required
- Market research information, end user information
- Previous project histories that have led to this brief
- Any other information that must be considered.

Example of a brief

Naval Radio Modem

Brief

Design a casing to house the electronics of a radio modem including the casing fascia, mounting accessories and finish.

Aims

- To meet the needs of the new military market
- To add a marine capable product to the range
- To commercialise R&D project 1234



Requirements

The casing is to be a modification of an existing modem chassis R18 with the design emphasis on eliminating previously identified design problems (see attached report) and adapting the structure to new dimensional constraints. There are also new control requirements to be incorporated into the control fascia. The fascia style is not constrained by existing product groups and is to suit the marine/military market.

Reference Documents Attached

Modem Prototype Review 14.7.00
Series R18 Chassis Specification 7.8.99
Market Research Report - Marine Market 1999
Prototype drawing set 30.8.99

Items for Consideration

The following items are areas of concern in relation to the chassis -

- Incorporate a fixed input/output/rear panel in the new case.
- Unit to fit into a 1U rack height including any mounting details.
- Two units to fit side by side in a 19" rack.

Cost Constraints

Target cost, one set of casing parts = \$85
Maximum cost = \$95
Tooling budget = \$100,000

Project Milestones

Approved design - 31 May 2000
Production commences - 15 September 2000



The fee method used often depends on the project type and conventions in each industry.

The methods listed are not mutually exclusive and are often used in combination. Ask your designer to explain how they intend to charge and prepare a written agreement before the project starts.

Lump Sum Fees

Given a precise brief a fixed fee for each stage of a project can be quoted. In some instances all project stages are quoted before the project commences. In others the project is quoted stage by stage as the extent of the next stage is defined by the preceding one. The scope of work covered by the fee should be specified in a proposal or contract. Variations to the scope of work are charged on an agreed hourly basis.

Hourly Rate or Per Diem Fees.

Design fees may be charged on the basis of time expended using an hourly or daily rate. Hourly rates vary depending on a designer's skill, resources and experience. A design studio may apply different hourly rates for different parts of a project depending on the staff they assign to the work.

Percentage Fees

Design fees may be based on a percentage of the project cost where the agreed upon total expenditure includes all works and trades at their commercial value. Percentage fees may be calculated on a sliding scale depending on the project size and complexity.

Royalties

Royalties relate the designer's payment to the success of the design while reducing the initial cost to the client. An initial fee is usually agreed upon as a non-returnable advance on royalties. A royalty agreement should outline the royalty percentage, duration of agreement, method of calculation of the fee and the level of intellectual property or exclusivity negotiated.



Consultancy Fees

A consultancy fee may be paid to a designer engaged in a general advisory capacity. The scope and extent of services to be provided should be defined in advance. The consultancy agreement should be for a specified period of time with conditions of renewal and termination. If substantially increased services are required during a consultancy period then an increased fee is normally charged on a time basis.

Retaining Fees

If the client wishes to retain a designer for a period of time not only in a general advisory capacity or in connection with a series of projects, but also to act exclusively for the client in some market, region or capacity, a retaining fee may be negotiated. The fee will reflect the fact that the designer's activities are being limited. The scope and extent of services to be rendered should be defined in advance.

Cost Plus Percentage Fees

This method is based on an agreed percentage mark up on the cost of goods supplied. The designer 'sells' the goods to the client at cost, passing on all discounts and commissions to the client. The agreed percentage mark up is then applied to the cost.

Retail

The designer or decorator supplies furniture or furnishings at quoted retail prices. This method is based on the designer purchasing on their own account, applying a retail mark up and supplying the goods to the client at the marked up or retail price.

Commissions

In instances where the designer procures items such as artwork, object d'art, furniture, antiques and rugs from galleries and retailers an agreement may be reached that the designer's fee is the introductory commission paid by the gallery or retailer to the designer.

Taking Advantage of Our Professional Network



The DIA is a professional body for designers. Its purpose is to improve the status of its members, their recognition and influence in the community, and their professional wellbeing.

In addition there are classes of membership available to businesses who wish to associate with the design professions and educational organisations involved in the training of designers.

Corporate Membership

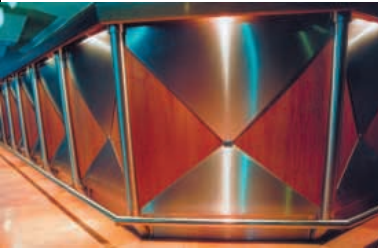
State based and national corporate membership is available to businesses who want to identify themselves with the design professions and the Institute. National Corporate members can nominate up to five, and State Corporate members up to two representatives to attend DIA state activities. These representatives can play active roles at State level but they do not have personal professional status in the organisation. They can be co-opted onto State Council if desired on a state by state basis.

Institutional Membership

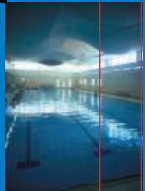
Institutional membership is available to Universities, TAFE Institutes and private training providers with government accreditation which provide courses in a design or associated design profession. The courses must be related to the educational requirements of the DIA.

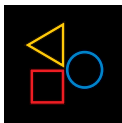
Sponsorship

The DIA generates design themed events across many discipline areas at state and national levels. These events are excellent opportunities to deliver information to the various design sectors. Contact the national office for information on planned events and opportunities.



Connect with the influential DIA national network of designers, design businesses and design educators.





Design
Institute of Australia

The design community working together with one voice

Industrial Design
Furniture Design
Interior Design
Interior Decoration
Interior Architecture
Exhibition & Display
TV, Film & Theatre Set
Graphic Design
Visual Communication
Web Design
Multimedia Design
Digital Environment Design
Digital Animation Design
Digital Game Design
E-commerce Design
Textile Design
Jewellery Design
Fashion Design
Design Management
Design Education

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*This brochure is illustrated with
DIA members' work and projects
entered in DIA award programmes.*



Design's legacy

*Each cover in this series features designs from the recent past.
These objects have significance as the forebears of modern designs.
They are the tangible evidence of key advances in the progress of man.
As iconic objects they have acquired symbolic meaning beyond their utility.*

ICARUS DESIGN