

EARLY CHILDHOOD DEVELOPMENT



Community schooling



Social engagement

Progressive learning environments



Language arts



Environmental and horticultural education

Universal literacy



Technology



Interactive environments

SOCIAL INNOVATION



Accessible legal system



Community action



Improving indigenous communities



Political freedom

Social innovation leadership



Public spaces

International theatre network



Culture and arts integration

HEALTH CARE



Contemporary hospital services

Community sport



Park Land recreation

Ancillary health care



Accessible public spaces



Sporting culture



Healthy lifestyles

Aged care leadership



Access to medical services

Physical education



Elderly communities

FESTIVALS AND EVENTS



Music festivals



Community festivals

Public performance



Public performance



Sports culture



Cultural precincts



Public art

International festivals

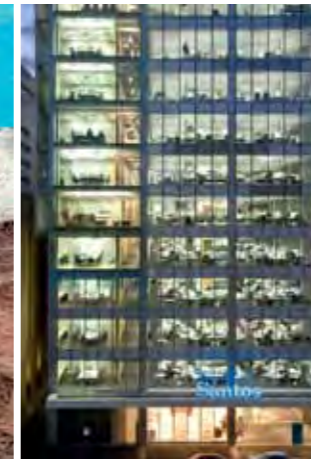


Major sports events



Performance

DEFENCE AND MINING INDUSTRIES



Defence and allied initiatives

Arts and mining industry integration

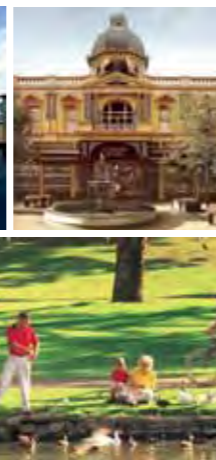
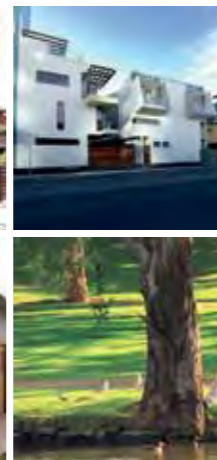
Unique environments

Commercial focus

Natural resources

Collins Class manufacturing

LIVEABILITY



History of leadership

Housing choice

Heritage buildings

Cultural precincts

Housing innovation

Beach lifestyle

Arts

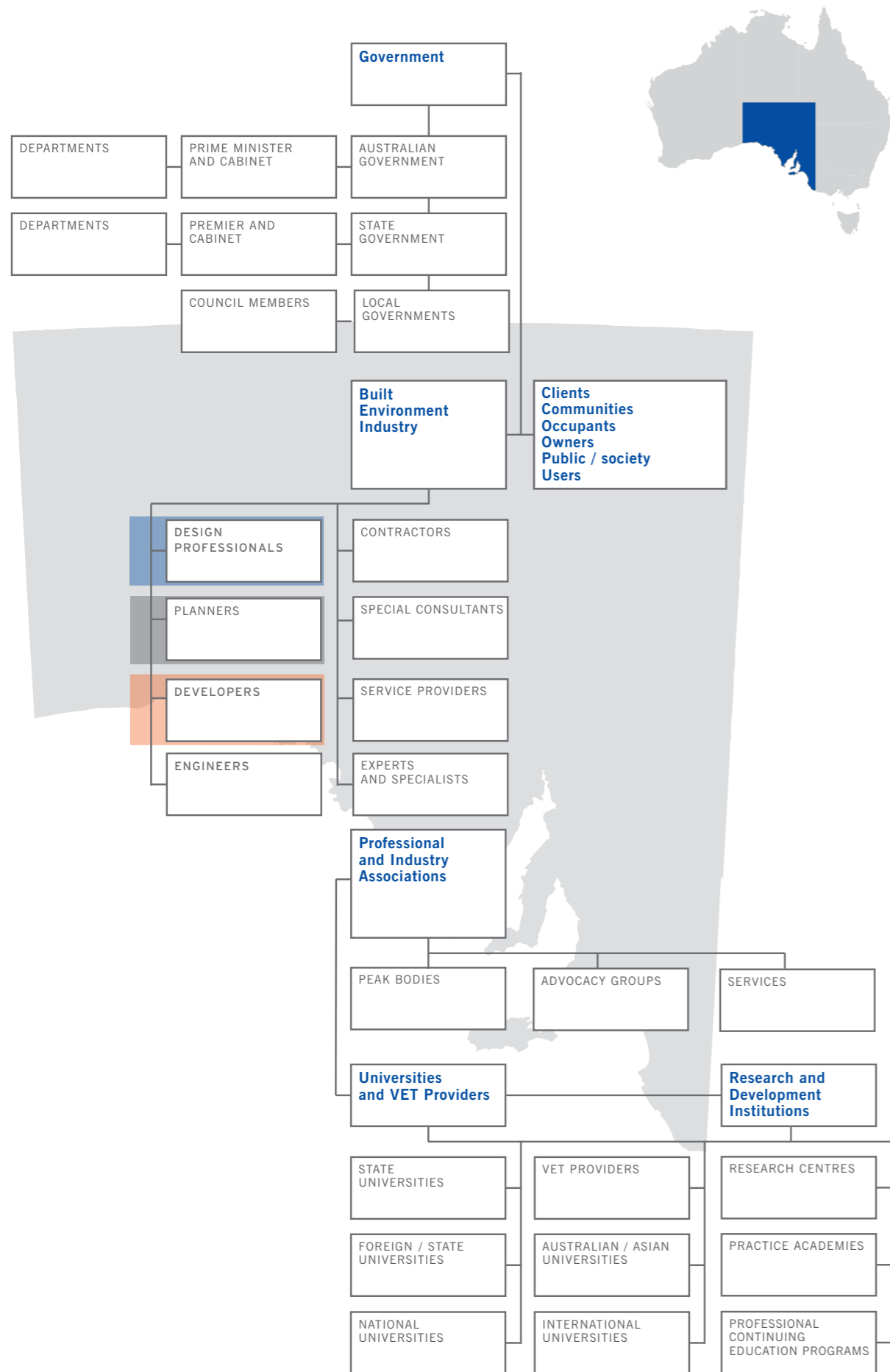
Accessible housing

Park Lands

University culture

Affordable housing

Progressive architecture



SA COLLABORATORS

A global ethic values creativity and innovation. It would accept that the quest for perfection is a natural, creative instinct. And that each person or group believes they can find their own 'paradise lost' in the creed they have chosen.

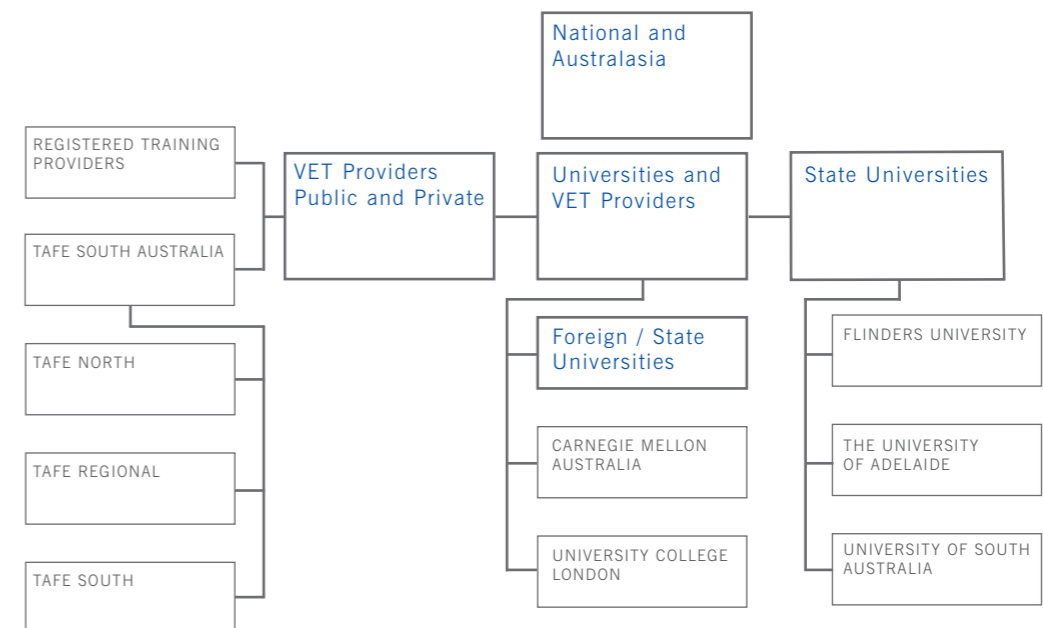
Her Highness Sheikha Mozah Bint Nasser Al-Missned of Qatar

Using integrated design as an instrumental approach in practice, innovations evolve from building bridges of mutual influence. Academia, government, industry, practice and professional organisations must be in shared dialogue from the very beginning and throughout the process. Transcending boundaries is necessary to ensure that the value of design improves the quality of life and the environment in every endeavour. A well conceived collaborative design process and engagement framework creates relationships between people and every aspect of place.

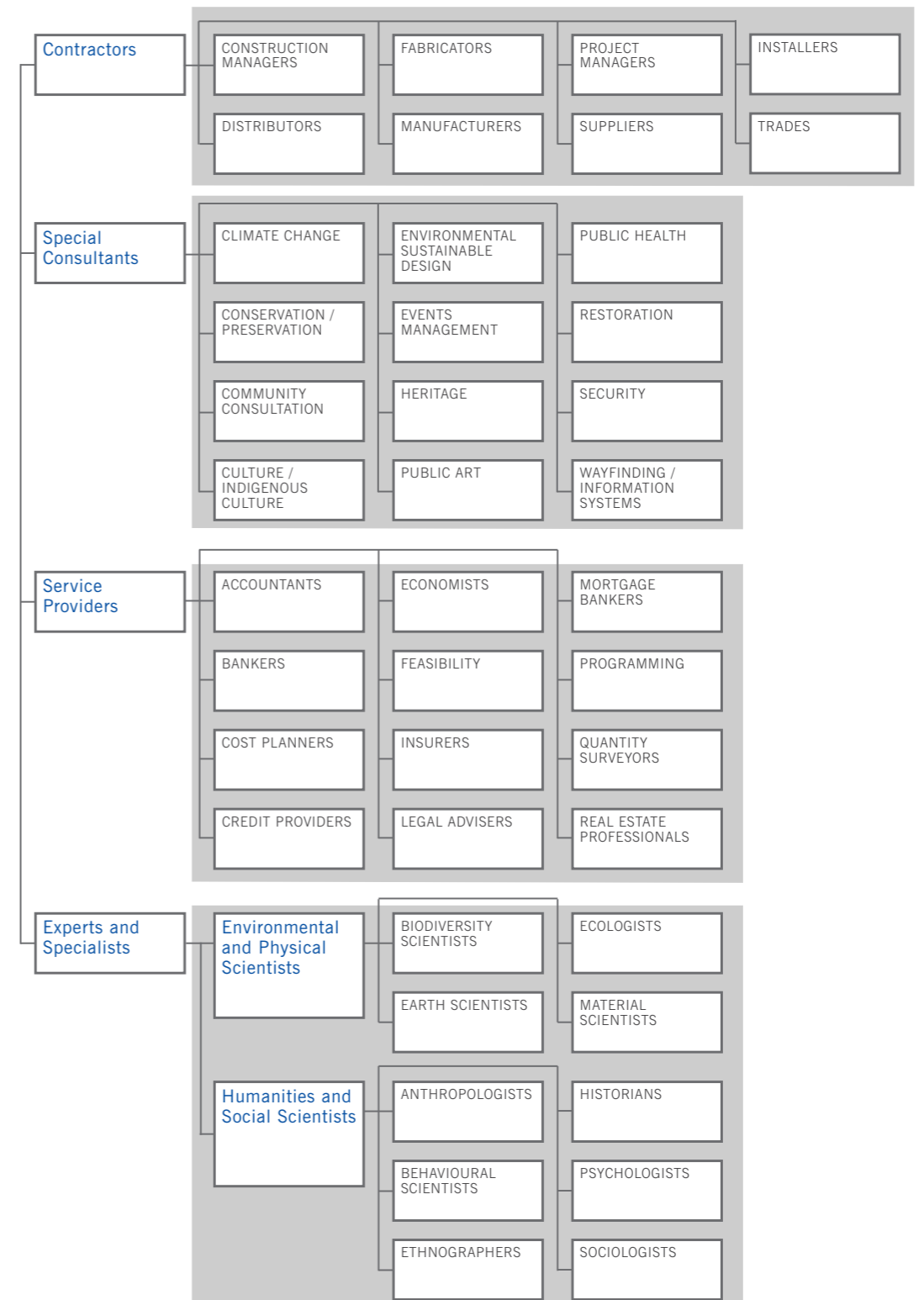
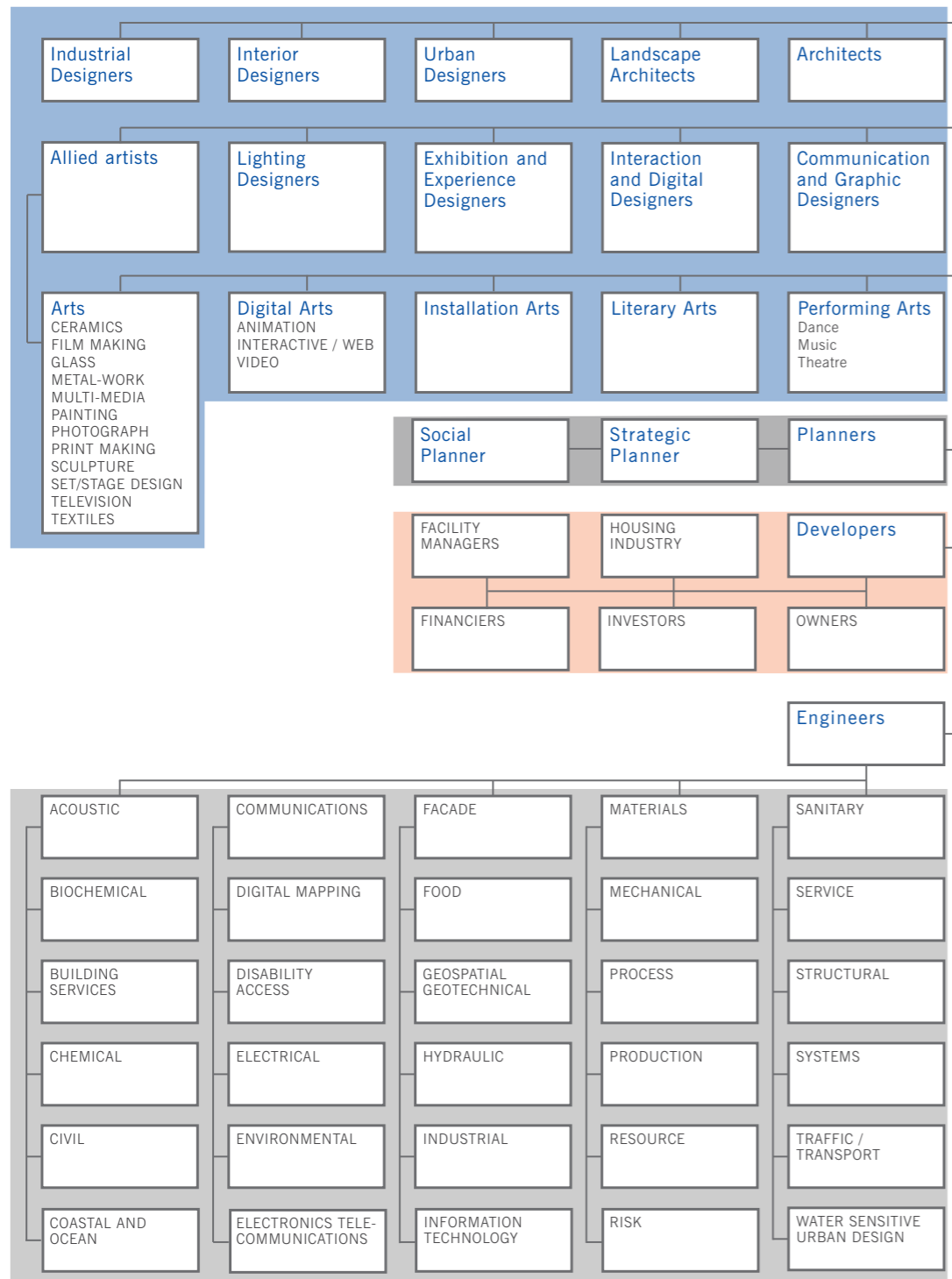
The previous section on distinctions demonstrates the complexity of challenges and wealth of opportunities inherent in any and all aspects of the environment. An Integrated Design Strategy and decision-making process requires deep collaboration between a vast array of stakeholders. It is important to first recognise all of the collaborators necessary to form an effective team.

The illustrations that follow identify the collaborators and stakeholders involved in decision-making processes for the built environment. Currently, design professionals do not occupy a central role in the process, but must be elevated to work in a complementary way with planning and development industries with and on behalf of the government. Similarly, universities are marginalised and yet education and research activities are vitally important to practice and must be integrated.

Bringing these agents of change together within an integrated design process to act as a collective body results in a synergetic outcome. This avoids repetition and time loss, increases chances for durable solutions and strengthens the degree of satisfaction with the end product.



COLLABORATORS: The built environment industry



From little things, big things grow.

Songwriters Paul Kelly and Kev Carmondy, 2001

DIRECT EXPERIENCE LEARNING

South Australia is rich with examples of integrated design practices, processes and programs. Their character and qualities need to be studied for their value as positive precedents and learning experiences. Varied in approach, each offers education, research or practice paradigms demonstrating principles of integrated design.



ROYAL INSTITUTION OF AUSTRALIA, THE SCIENCE EXCHANGE

As a national hub for science learning and communication, the The Science Exchange is host to the Australian Science Media Centre Inc. an independent service providing evidence-based expertise for journalists researching science-based stories. Given the billions of dollars of infrastructure investment in the state, such a model is needed for design and the built environment to inform decision making. It can also inform reporting in various spheres of influence (local, national and international) and support public engagement.



YALUMBA SUSTAINABLE VALUE CHAINS

Thinking with the end consumer in mind and with a concern for environmental sustainability, Yalumba exemplifies an Integrated Design Strategy otherwise known in the wine industry as a highly successful value chain. Analysing every aspect of their business from production to consumption has added value, increased productivity, improved quality and ultimately prosperity. Such a process is based on early and continuous communication and collaboration with respect for the experience and expertise of every contributor.



EARLY CHILDHOOD DEVELOPMENT

Combining models of care, education and service has earned South Australia's approach to early childhood development a national and international reputation. Such an approach to learning through direct experiences — mind, body and soul — places relationships and the environment at the centre of a child's world. South Australia's early childhood education stimulates exploration and creative self-expression in non-linguistic forms of communication common to design.



ABORIGINAL CULTURE

A profound reflection on traditional Kurna culture would inspire South Australia back to the future. A culture based on touching the earth lightly, based on the relationship with the land and the rhythm of light, based on an attitude of living within one's means, and communicated and celebrated through dance, images, song and story, and directions and values, could guide us economically, environmentally and socially.

ADELAIDE CENTRAL MARKET

One of the great 'atmospheres' of Adelaide is the Central Market and it is thus one the most authentic and memorable places. Developed organically over time and not necessarily 'by design', the Central Market is accessible and inviting to all cultures, social classes and generations, and therefore, 'democratic' and socially inclusive. At the same time, it offers a vibrant and full sensory experience and defines a great public space.



NORTH TERRACE / NORTHERN LIGHTS

Common to other significant urban boulevards and streets, North Terrace offers a pedestrian experience that highlights the impressive cultural institutions of the city. Recently developed quality graphics, landscaping and public art, encourages activity and 'learning' for people of all ages. The Northern Lights projections are a 'brilliant' attraction that promote extended hours of use, turning the buildings 'inside out' and bringing the past to the present.



JAMFACTORY CONTEMPORARY CRAFT + DESIGN

JamFactory represents an incomparable model of holistic education and creative production with the highest quality focus on craft and material. The apprentice / intern / residency program attracts international artists who contribute to its global commercial success. This combines with complementary opportunities for advancing independent careers. Its mission is founded upon, fosters and, above all, values the exchange of ideas and knowledge in every aspect of its operation.



SA MUSEUM AND ART GALLERY COLLECTIONS AND RESEARCH PROGRAMS

Containing several world-renowned collections, both the museum and art gallery embed and benefit from diverse and high quality research in order to maintain pre-eminent status. Research programs are led by international post-doctorates and directly impact the quality of exhibitions while contributing to the advancement of knowledge. This example of 'practice-based use-inspired' research secures more research funding for SA Museum than other institutions of its type combined.



MUSEUM OF ECONOMIC BOTANY ADAPTIVE-REUSE AND EXHIBITION — ADELAIDE BOTANIC GARDENS

This adaptive re-use was undertaken by a multi-disciplinary team of experts with an understanding of the relationship between history and opportunity. Leaving the handsome heritage exterior untouched, the interior shell was brought to its former glory through colour, light and traditional display cabinets which work in perfect harmony with the exquisite contemporary 'installation' by Khai Liew. The curator's influence in the design process has generated an experience for visitors of all ages.





INTEGRATED

DESIGN

EXPLORED

PRINCIPLES OF INTEGRATED DESIGN

... he views the world as a system of systems where each system conditions the others and is conditioned by them. Carlo Emilio Gadda tried all his life to represent the world as a knot, a skein of yarn; to represent it without in the least diminishing its inextricable complexity, or to put it better, the simultaneous presence of the most disparate elements that converge to determine every event.

Italo Calvino, *Six Memos for the next Millennium, On Multiplicity* 1988

Integrated design surpasses the increasing complexity of the design and building process itself, and the growing list of experts and professionals involved, the rapid evolution of building and energy saving techniques, the introduction of new materials, and changing information and communication technologies. Integrated design acknowledges this evolution to manage and direct this complexity to a higher level of decision making. Based on a systemic approach, the aim is to incorporate complexity as a positive lever to enhance and produce more responsive design solutions, which can be fully understood and enhanced by all stakeholders.

Such a model is based on nine principles. While these principles are presented in a sequence, in an Integrated Design Strategy, they are not intended to be treated as well-determined stages in the process. Some occur in parallel, others in sequence, others are reinforcing each other. All are part of a cyclical dynamic process, collectively managed.

As a foundation and prerequisite to all and any integrated design principles, a culture and the following conditions and procedures must be established and agreed upon:

- mutual respect and trust
- mutual benefit and reward
- collaborative decision making and innovation
- early goal definition
- early involvement of key participants
- intensified planning
- open communication
- appropriate technology
- organisation and leadership.



VISION

Design solutions have a long-lasting effect and fundamentally alter the context in which they are implemented. Therefore, a consistent and long-term vision is paramount. The development of a vision not only demands a sophisticated understanding of the present situation but also a clear and profound view of its true sustainability. This requires reasoning, critical reflection and lateral thinking. Moreover, it requires strong political leadership grounded in an ethical values system, the power of persuasion, and the ability to listen to and understand the divergent opinions of others.



CONSULTATION

The role of experts and professionals in the process is crucial to translate a vision — often abstract — into tangible and operational models. They can visualise implementation strategies and develop communication strategies with all stakeholders. Experts and professionals must be consulted to form the brief, before all other parties are affected by a possible realisation. Such consultation provides the opportunity for all stakeholders to comment, state their goals and contribute to the initial vision on the basis of evidence and expert knowledge. The goal must be to create a solid and reliable platform for discussion and develop a strategy for implementation that is broadly supported and owned by all the parties involved. It should identify conflicts of interest, and differences in value systems and of approaches, incompatibilities and misunderstandings. It should build confidence and prepare a common ground for active collaboration.

COLLABORATION

Collaboration in an integrated design approach is vital to bring all stakeholders to the table, not as opponents with divergent and conflicting goals to realise, but as allies, who seek to share a common vision for mutual benefit. Such an integrated team, formed as early as possible in the process, will strengthen the conviction that, by collaborating, not only will all parties be rewarded but also the ultimate outcome of their efforts will be better, highly satisfying and qualitatively superior outcomes. This synergetic aspect should be a driving force behind the total design process.

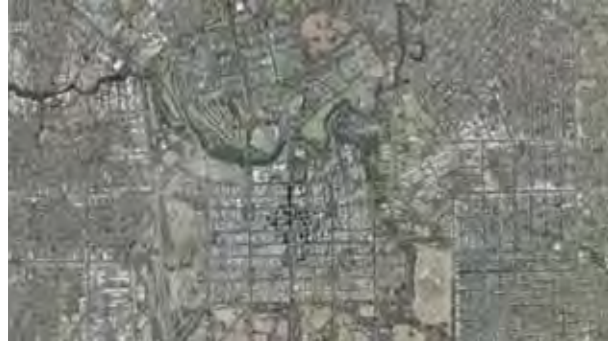
INNOVATION

It is generally acknowledged that innovation is a necessity for steady and healthy economic growth. Integrated design thinking is a driving force for innovation. A design process based on collaboration is the cradle for creating an environment where new ideas can be formed and developed. It is precisely the confrontation of different stakeholders in a positive collaboration that gives rise to unknown and unfamiliar views and opportunities, providing for new, creative and far-reaching solutions to problems considered too complex to solve.

EVALUATION

Integrated design processes are not linear but are fundamentally cyclic and dynamic. As such, temporary results are to be evaluated regularly against the set goals and the overall vision. Feedback from these evaluations is important to adjust trajectories, improve decision making and optimise the final result. This relies on a 'satisficing strategy', a term first used by Herbert Simon (1957) to indicate that human beings usually do not know the relevant probabilities of process outcomes. A satisficing strategy attempts to optimise the use of all the cognitive steps to meet the set goals and maximise the results.

As integrated design processes are concurrent and multi-levelled these evaluation moments executed by all team members allow for introducing knowledge and expertise in every stage of the process and simultaneously on all levels, not only in segregated mono-disciplinary fragments at moments when it is considered needed.



PARTICIPATION

Participation in design processes is often misunderstood. Traditionally it is based on what Foqué (2010) calls ‘the asymmetry of knowledge’, meaning that, in participatory design processes. Some of the stakeholders have expert knowledge and others have only popular or superficial notions of the problems at stake. A desired situation is based on ‘symmetry of knowledge’, referring to ‘a balanced decision-making process based on both respect for the knowledge of the specialist and willingness to share this with the other’. It is the basis for interdisciplinary collaboration but also acknowledges the importance of the contribution of the local communities and so-called non-professionals. Well organised participation allows multiple voices to be heard and involved in the design and results in outcomes which not only accommodate a wide range of stakeholders and users, but allow for a better understanding and identification by these stakeholders with the design solution.

COMMUNICATION

Communication during the design process not only involves written language and/or speech, it covers the total spectrum of media, such as drawings, physical models, computer animations, photographs, calculations, diagrams. The effective use of such media involves education and training. Moreover, the various stakeholders — government, professional associations, advocacy groups, the built environment industry, educational institutions and community groups — use their own professional language and terminology. It is essential that all participants are aware of the possible semantic differences during the communication process and have the willingness to listen and attempt to ‘translate’ the messages from other parties into their own vocabulary. Citizens and their elected representatives, and the general media who seek to engage in non-technical non-professional language must be engaged, but not patronised, in terms that enable them to share the new understanding with others. By doing so, open sharing will be encouraged, fostered, promoted, and supported, without the fear of inferiority or irrelevance.



EDUCATION

Implementing an Integrated Design Strategy implies an educational dimension, including basic design education. Participants will learn and understand the essence of the process as evolving in time but also in content, referring back to the substance itself of the vision, its various elements, relationships, interactions and context. Moreover, participants should be able to interpret, read and understand the different models and techniques used during the entire process; they should seek to understand and speak a common language. An open debate about the qualities of the environment is the first step toward a better informed point-of-view.

DEMONSTRATION

An element in the educational process is learning by example — from demonstration and precedent studies. Non-designers often find it difficult to envisage design solutions in a real context. Therefore, it is extremely useful to share design solutions with non-experienced stakeholders, to analyse them together, examine their strengths and weaknesses, and discuss lessons learned. Case study analysis is a direct tool to build design knowledge and to understand how designers cope with complexity and to what extent a vision is realised within a given context. Direct experience of place is irreplaceable as a demonstration of design value.

REQUIREMENTS OF INTEGRATED DESIGN

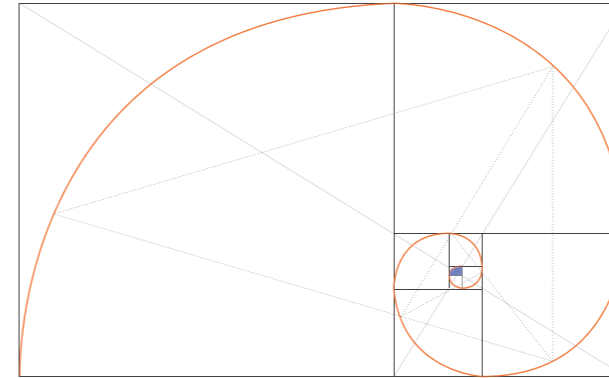
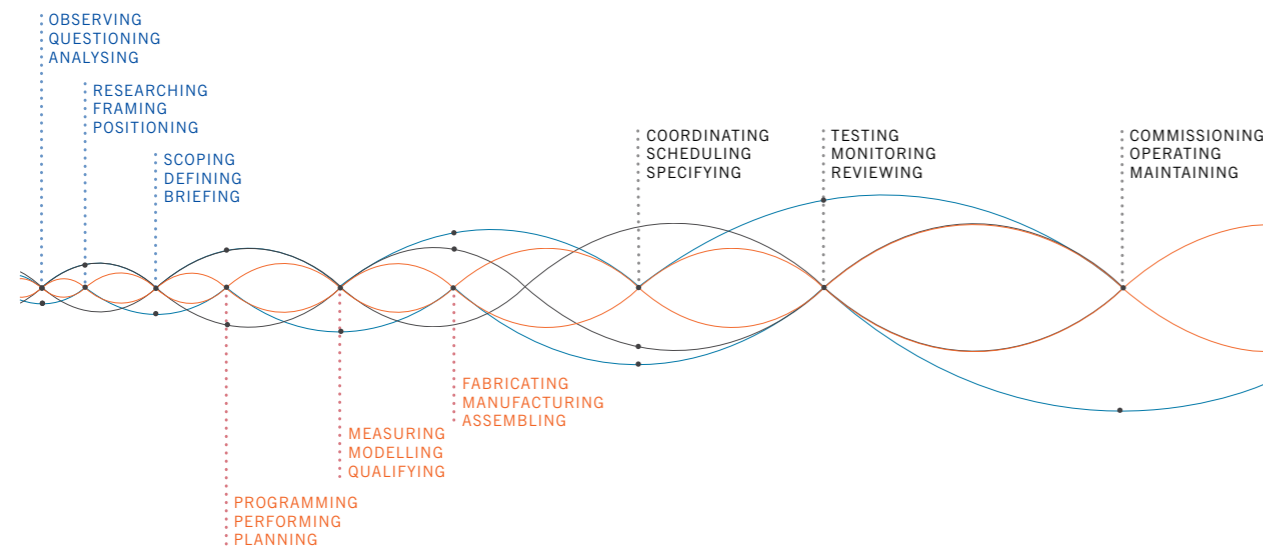
Design Thinking and Your Organisation: begin at the beginning; take a human centered approach; fail early and often; get professional help; blend big and small projects; share the inspiration; budget to the pace of innovation; find talent anyway you can; design for the cycle.

Tim Brown, CEO Ideo, *Change by Design*, 2009

An integrated design process relies on a chain of nine requirements, which are conditional for a consistent process. Each requirement consists of a triad of elements defining that requirement, forming the core of an integrated design process.

Integrated design requirements, while universal in character, establish the foundation for the domains of action and specific recommendations for an Integrated Design Strategy for South Australia. Expressed as a triad of elements to integrate, each requirement is a necessity in and of itself but also as a collection of nine.

The design process illustrated below articulates all required activities for designing, developing and delivering any project as a series of contiguous and parallel actions.



DISCIPLINES

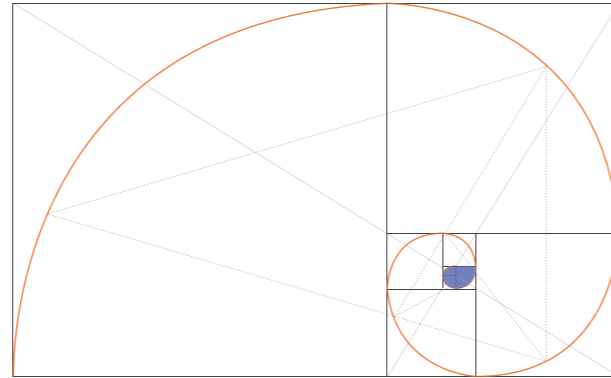
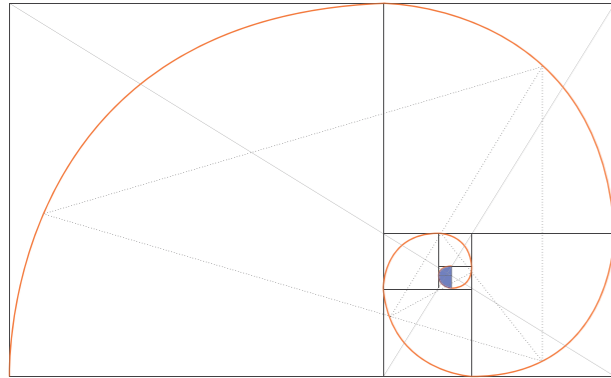
DESIGN — PLANNING — DEVELOPMENT

Professional and specialist knowledge and experience is a condition for a robust integrated design and build process. All three domains have their own expert knowledge but only the confrontation and integration of these separate knowledges will produce synergy and a successful result.

The term **development** refers to the totality of measurements and actions needed to improve the socio-economic situation of a region, city, town or neighborhood. It covers a broad spectrum of aspects, from land management, transport systems, real estate, ecology, landscape conservation and cultural heritage to aspects of education, public health and safety. **Planning**, in general, refers to the organisational process of creating a plan and/or strategy to realise certain goals in time and space. It is a process with long-range, intermediate and short-term perspectives for accomplishing a certain purpose with realistic expectations.

The awareness that natural resources are limited dictates that sustainable development in urban planning is of utmost importance. Wheeler (1998) defines sustainable urban development to be 'development that improves the long-term social and ecological health of cities and towns'. According to Wheeler a sustainable city should include 'compact, efficient land use, reduced automobile use but with better access,

efficient resource use, less pollution and waste, the restoration of natural systems, good housing and living environments, a healthy social ecology, a sustainable economy, community participation and involvement, and preservation of local culture and wisdom'. In architectural terms planning refers not only to the organisation of the design process over time but also to the way space is organised to accommodate functional needs. Matthew Frederick (2007) calls it a crucial skill for an architect and identifies the difference between a space planner and an architect. 'A space planner addresses the functional problems of fitting a building on its site; an architect is also concerned with the meaning of a site and its buildings. A space planner creates functional square footage for office workers; an architect considers the nature of the work performed, its meaning to the workers, and its value to society.' In other words 'an architect imbues the experience of space with poignancy, richness, and beauty'. This difference highlights the holistic character of design activity and of architectural design in particular and its relevance to development and planning in general. Design accounts for all aspects of the 'condition humaine' in order to create optimal physical conditions for well-being on all levels within a given context. In the words of Eliel Saarinen, 'Always design a thing by considering it in its next larger context — a chair in a room, a room in a house, a house in an environment, an environment in a city'.



QUALITIES

BUILDING COMMUNITY — CREATIVITY AND INNOVATION — EXPANDING OPPORTUNITIES

To initiate the design process in an integrated way, to explain the characteristics, working methods and benefits of such an approach to the community who will be the subject of the intervention, creates an atmosphere of goodwill. It is important to stress that individual contributions are valuable and to be taken seriously and that public input is an essential factor in decision making. As the process evolves, it will bind the community, building a true spirit of engagement and enhance coherence between its members. It will lead to a better understanding of the problems at stake and the solutions commonly developed, resulting in a certain pride and ownership of the outcome.

It is generally accepted that creative behaviour, leading to innovation, is directly related to open mindedness, imagination and the ability to relate things that at first glance are seemingly unrelated. To make the familiar alien and the unfamiliar normal is a known technique to increase the finding of innovative solutions. Involving all stakeholders in a parallel process, through an Integrated Design Strategy, will establish such a creative platform and lead to innovation. By doing so, one creates a multiplication of opportunities a community could not have envisioned.

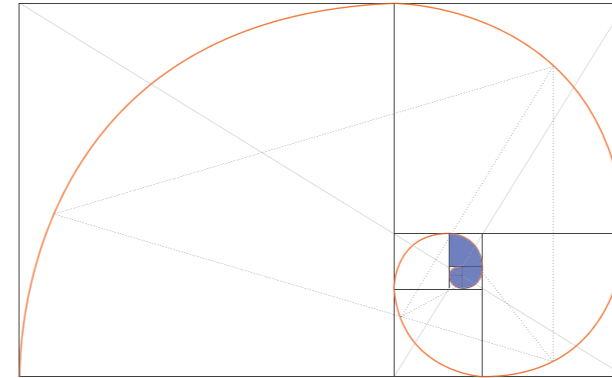
ROLES

GOVERNMENT — INDUSTRY AND PROFESSIONAL ASSOCIATIONS — UNIVERSITIES

Governments in democratic societies are elected and are the legal representatives of the people. They are responsible for the common good of a country, land, province or region. They should develop their policy instruments on the basis of a clear vision for the future and engage in its realisation. It is their role to set both long- and short-term goals, and provide for the necessary means and strategies to realise these goals, create favourable climates and involve all stakeholders.

Industry is an important economic factor contributing to a large extent to the growth and success of a country and to the prosperity of its citizens. It provides not only for the production of goods and services, employment and added value but is also a cradle for innovation and development of new products through research and development. The building industry, for instance, offers the necessary means to materialise an envisaged, planned and designed urban development.

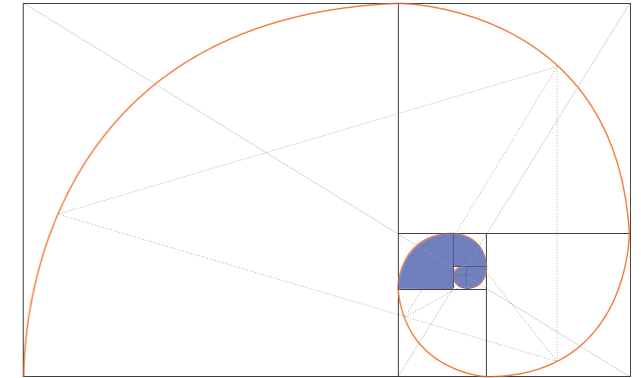
Professional associations are the bodies that group individuals with respect to their expertise and knowledge as practitioners, such as architects, engineers, lawyers and medical doctors. They bear high responsibility towards the public interest and therefore membership of a professional association is regulated by legal requirements and professional certification. Professionals have experience to cope with unexpected situations and can act in a problem-solving context, which seeks creative but satisfying solutions.



SYSTEMS

SOCIO-CULTURAL — ECONOMIC — ENVIRONMENTAL

Integrated design involves and penetrates the several systems upon which society is built and functions. Moreover, it operates in the interfaces between systems and seeks solutions that span and relate to such systems, creating synergy and global progress. It integrates the socio-cultural dimension into the economic system and translates environmental parameters into possibilities. It makes clear that aspects such as cultural habits and values are vital aspects to integrate, as are art, craft, gastronomy, heritage, leisure and sport activities, nature and resources. The multi-layered nature of society becomes an asset rather than an obstacle and solutions become more global and sustainable in the long term.

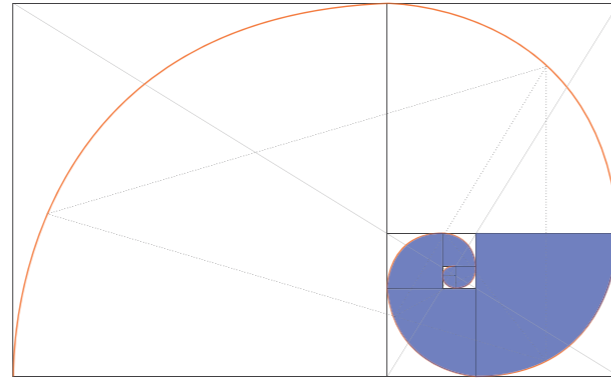
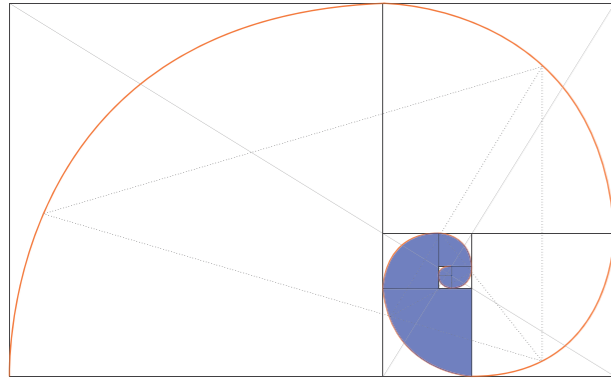


EXPERTISE

CLIENTS — CONSULTANTS — CONTRACTORS

Clients, consultants and contractors have specific expertise enhancing the quality of the dialogue and communication during the building process and all contribute to the success of the design outcomes.

The client must be considered an expert regarding the program of needs, the socio-cultural values to respect, and aspects such as the subtleties of a neighbourhood network. Consultants, such as architects, engineers, interior designers, landscape architects and urban planners, bring professional knowledge and experience. Contractors contribute technical expertise and knowledge of state of the art building technology.



PROCESSES

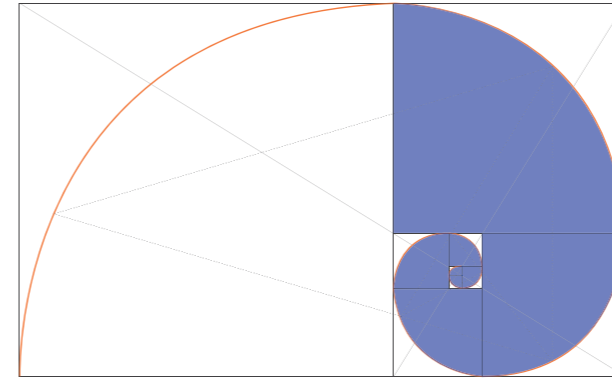
EDUCATION — PRACTICE — RESEARCH

An integrated design approach is founded on an evidence base developed through research. An adequate design education should provide for environmental literacy. It will value the importance of analytical and synthetic thinking in parallel and enhance a critical approach to problem solving. This education must be research and practice-based at the same time. New findings and insights must reach directly into practice and to educational programs. Reciprocally, innovation generated in practice offers exceptional learning material and triggers new research areas. The processes of education, research and practice are intertwined and mutually enriching.

METHODS

BUSINESS — DESIGN — ENGINEERING

Design is an activity that, by producing ideas, concepts and models, attempts to solve a particular problem. A product may need to be fabricated, assembled and produced. Moreover, it needs a market to become truly operational and usable. Design and production are two complementary processes and intrinsically bound to a realistic business model. An integrated design approach acknowledges this field of tension and operates within it. Insight into production methods during the design phase may not only improve the design qualities as such, but may directly influence the production costs and attract investment. Insight into the market, its needs and possibilities will define the economic boundaries in which the design/fabrication process must operate. The specific methodologies of design, production and market behaviour provide for a subtle balance and prevent unrealistic and unsuccessful design outcomes.



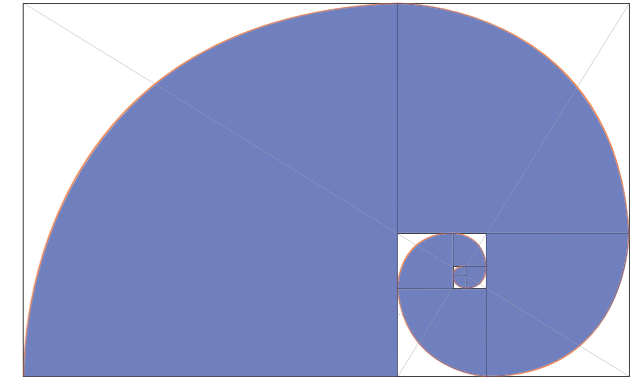
KNOWLEDGES

ART — DESIGN — SCIENCE

In their specific methodological approach, art, design and science are a way of inquiring about the world as it appears to the human being.

Foqué (2010) states: 'Where science tries to answer the question how things are and design tries to answer the question how things could be, both challenge the physical world. Art on the contrary transforms reality by giving it new meaning, raising the physical to the metaphysical. The scientific method is based on the true or false test of the hypothesis put forward in an explanatory model. The essence of design, on the contrary, aims at developing as many hypotheses as possible; they are not explanatory but exploring, the testing is essentially contextual and seeking 'best' possibilities. The essence of art is the act of creating hypotheses themselves. Testing in a traditional way is senseless, as art is defined by maintaining its state of hypothesis' .

Art, design and science create their own specific knowledge, which are complementary and inform a global worldview. An Integrated Design Strategy should build on all three approaches and the knowledge they generate, allowing for a better understanding of the complexity of the design context both on an epistemological as well as on a pragmatic level.



CULTURE

TRADITION — CHALLENGE — CHANGE

The ultimate goal of an integrated design approach is to instigate an emancipatory movement within the community at large through constructive engagement. The media play an important role in this process and it is essential to provide for a variety of types, presenting different voices and reporting from different perspectives including that of the citizen / consumer. Media diversity increases critical thinking, enhances public debate, raises common consciousness, and strengthens personal involvement in the realisation of a global vision.

Such a process must be embedded in its historical, environmental, and socio-economic perspective to cause a significant culture shift. It must build on local tradition and heritage, embrace present challenges and prepare for expected change in the future. By doing so, it will guide the community in a conscious way from the past through the present towards the future and prevent fatal errors along that trajectory.



DIRECTIONS
FOR SA

IMAGINE THE FUTURE

Native societies did not think of themselves as being in the world as occupants but considered that their rituals created the world and kept it operational.

Marshall McLuhan, *Probes*, 2003

SA CULTURE AND THE BUILT ENVIRONMENT

Bruce Mau, one of the world's pre-eminent designers, and founder of The Institute Without Boundaries, opened his exhibition, Massive Change, with this question: 'Now that we can do anything, what will we do?' In a similar fashion, with the future in mind, the opening question posed in the first residency partner workshop was: 'How do you imagine South Australia in 2020, 2050?' Our imagination about the future is vital to forming a vision that drives the way in which we make decisions and our priorities in achieving that vision.

Any intervention in the built or natural environment demands respect and understanding of contemporary but also desired culture, particularly in relation to collective values. Such an investigation later leads to our ability to design environments with authenticity and integrity, essential for any community. Self reflection as a process to appreciate the positives and overcome the negatives is essential for building confidence and identity for South Australia.

The values, perceptions, assets, best, worst, challenges, inhibitors, influencers and needs of South Australia listed on the next page, are indispensable considerations to form an overarching program for the design of all places, space and services in South Australia. Furthermore, our understanding of the totality of these issues and the relationship between each and all of them is the foundation for an integrated design approach to render solutions that are both culturally sensitive and appropriate for the place and time.

South Australia's **imagined future** — expressed as both cultural and built environment aspirations — determined the domains of action and ultimately the recommendations of this report.

SOUTH AUSTRALIA'S IMAGINED FUTURE CULTURE

- Intelligent by design
- Creative and innovative
- Animated, Australian, authentic
- Connected and mobile
- Competitive and entrepreneurial
- Community orientation and values
- Model for sustainable living
- Destination for discovery and opportunity
- Balanced and diverse culture and lifestyles

SOUTH AUSTRALIA'S IMAGINED FUTURE BUILT ENVIRONMENT

- Cultural identity and vitality through design
- High quality public spaces and public life
- Urban intensity and vibrant communities
- Creative centres and corridors as conduits
- Human-centred environments and places
- Housing affordability, diversity, innovation
- Environmental design for health
- Activated and culturally significant parklands
- Heritage as living history

VALUES

- Creative pursuits
- Diversity of experience
- Economic stability
- Environmental sustainability
- Future for children
- Heritage (built and cultural)
- Lifestyle balance
- Privacy
- Regard for nature

IDENTITY / PERCEPTION

- Apathetic
- Artistically dynamic
- Class conscious
- Conservative
- Environmentally conscious
- Insecure
- Multicultural
- Politically progressive
- Provincial mindset

ASSETS

- Arts and cultural events
- Climate
- Education
- Ideas incubator
- Landscape / nature
- Natural resources
- Political leadership
- Size for collaboration
- Stability

BEST

- Aged care
- Barossa region
- Early childhood education
- Food and wine culture
- Primary health care
- Recycling scheme
- Renewable energy
- Social innovation
- Torrens Land Registration

WORST

- Abandoned urban plots
- Aboriginal impoverishment
- Car dependency
- Class divisions
- Design under-valued
- Lost opportunities
- Urban sprawl
- Social inequity
- Youth unemployment

CHALLENGES

- Ageing population
- Attracting / retaining talent
- Ecological footprint
- Environment
- Housing diversity
- Identity
- Isolation / location
- Workforce development
- Water

INHIBITORS TO CHANGE

- Abundance / scarcity paradox
- Developer driven planning
- Local, city, state disconnect
- Fear of change
- Finances
- Lack of follow-through
- Media divisiveness
- Regulation and zoning
- Risk aversion

KEY INFLUENCERS

- Premier and Cabinet
- Development industry
- Land Management Corporation
- Dept Planning and Local Government
- Dept Transport, Energy and Infrastructure
- Department of Treasury and Finance
- Australian Government funding
- State finance and funding
- Market expectations

NEEDS

- Big picture thinking
- Business investment
- Certainty
- Confidence
- Commitment to action
- Design quality
- Entrepreneurial attitude
- Joined up solutions
- Public transport

FINDINGS

One of the basic requirements is the need to dwell, and one of the central acts is the act of inhabiting, of connecting ourselves, however temporarily, with a place on the planet which belongs to us and to which we belong. This is not, in the tumultuous present, an easy act, and it requires help: we need allies in inhabitation.

Charles Moore, *In Praise of Shadows*, foreward, 1993

These findings derive from the previous chapters, The Residency and The Context of South Australia. Distilled as a series of lists, the information in this section forms the domains of action and recommendations based on precedents, best practices and specific conditions in the state.

Strategic partners and collaborators (left) — For South Australia to advance an integrated design agenda, public and private partnerships must be formed with strategic collaborators. Lists focus on creative and innovative activities while others support education, research and practice.

Strategic research (below) — Mapped directly to South Australia's imagined future, the listed research areas form the beginning of a research road map to support the nine recommendations.

Strategic models and references (following pages) — To achieve best practices, global and national models serve as both a knowledge base and valid comparisons for South Australia. The listed references — global, national and industry are sourced from more than 200 possible examples and chosen as exemplars and for their applicability to the context of South Australia.

SOUTH AUSTRALIA STRATEGIC PARTNERS

- Adelaide Thinkers in Residence Program
- Arts SA
- The Australian Centre for Social Innovation
- Capital City Committee
- Climate Change and Sustainability Division
- Commissioner for Renewable Energy
- Land Management Corporation
- Social Inclusion Unit
- University City — University of Adelaide, Flinders University, University of South Australia, Carnegie Mellon University, University College London

SOUTH AUSTRALIA STRATEGIC COLLABORATORS

- Built environment industry and professional organisations
- Constellation SA / Wine Innovation Cluster / AusStage
- Common Ground / Housing SA / Housing Trust
- Film industry and theatre sector
- JamFactory Contemporary Craft and Design
- Royal Institution of Australia, Australian Science Media Centre
- SA Museum and Art Gallery collections / research
- UniSA Centre for Sustainable Design and Behaviour
- Woods Bagot + Arup / Hassell / Woodhead

SOUTH AUSTRALIA BUILT ENVIRONMENT RESEARCH FUTURE

- **Design and decision tools** modelling, visualisation, 4D simulation tools and technologies
 - **Population / urbanisation** total quality of life measures; evidence based design criteria
 - **Built environment performance** carbon, energy, total building and environmental performance measures
 - **Climate change / transport** integrated infrastructure and land use; integrated space and transport models
 - **Practice, procurement** procurement, collaborative practices; integrated project delivery methods
 - **Industry innovation** off-site fabrication; unitised construction; green manufacturing for building
 - **Energy, waste, water** renewable energy supply and whole systems applications and models
 - **Culture** consultation / participatory processes
 - **Lifestyle** living models for demographic change; environmental design for healthy client / user / society needs
- Built environment research reliable data sets including integrated data management tools and increased analytical capacity
 - New modes and methods / processes for inter-disciplinary and inter-sectoral collaboration
 - Networks and international collaborative projects

FINLAND | Demand and user-driven innovation policy

Thematic areas

Mitigation of climate change / energy efficiency and bio fuels
 Sustainable consumption / bio-products, re-cycling
 Clean water and air
 Transport / smart systems, sustainable transport systems
 Health and well-being / preventive health care, electronic solutions
 Security and safety
 Productivity of public service / e-government

Policy tools

Challenging goals
 Public-private cooperation
 Public sector as forerunner
 Recommendations and labelling
 Regulation
 Research and foresight
 Standardisation

IRELAND | Government policy on architecture: Delivering quality within the built environment

Policy on architecture

- promote and support high standards of design and construction in building works
- develop an organisational framework to facilitate the application of knowledge and skill
- ensure that architectural heritage is conserved and maintained to a high standard
- foster the demand for high quality architecture in the community as a whole
- promote the concept of sustainable development
- encourage innovation in architecture

Strategy for architecture: the need for evidence and research capacity

- develop research structure and capacity
- research in architecture
- research partnerships

Leading by example

- match architectural expertise to built environment challenges
- translate new standards into practice
- the role of the state in building procurement
- foster creativity and innovation
- the state as custodian of architectural heritage
- develop new knowledge and skills

Architecture and the wider environment

- support sustainable place-making in the planning process
- make best use of the built environment resource
- support architectural quality

Developing the demand for quality

- develop a partnership strategy
- opportunities at local level
- the school curriculum and teacher education
- opportunities in third level and further education
- buildings as educational resources

Implementation and review

- establish benchmarks and organisational measures to support quality
- measures to support integrated action

SWITZERLAND: ETH | Future cities: stocks and flows

People urban sociology
Energy low energy, landscape ecology
Water water infrastructure, integrated construction
Materials digital fabrication, adaptive re-use
Capital urban economies, territorial organisation
Space transportation infrastructure, spatial density

AUSTRALIAN DAVOS CONNECTION | Accessible cities

- Create a compelling vision for cities to guide all policy development. Integrate policies aligned with that vision.
- Ensure community engagement in that vision.
- Invest in research and deployment of new technologies.
- Establish transformative and holistic systems-based approach to infrastructure design and funding.
- Establish effective governance structures.
- Establish a systematic program for the reduction of travel demand.
- Price infrastructure appropriately.
- Invest in key skill areas.

AUSTRALIAN GRATTAN INSTITUTE | The Cities We Need: Operational systems

Energy generation, transmission
Water supply systems and waste
Food provision systems — local, global
Transport mobility systems — people, goods
Business + Commerce regulation, markets, trade
Communication broadband, phones, wireless
People + Services education, health, safety

AUSTRALIAN GREEN BUILDING COUNCIL | Green Star Communities Framework:

Principles

Enhance liveability
 Create opportunities for economic prosperity
 Foster environmental responsibility
 Embrace design excellence
 Demonstrate visionary leadership and strong governance

COUNCIL OF AUSTRALIAN GOVERNMENTS | Built environment priorities

affordable housing
 climate change adaptation
 healthy places and spaces
 integrated land use and transport
 sustainable communities

COUNCIL OF AUSTRALIAN GOVERNMENTS

Criteria for capital city planning systems

- provide an effective framework for private sector investment and innovation in the urban infrastructure
- integrate across all functions and government agencies with input from all levels for evaluation and review cycles
- identify priorities through independent, expert advice on the objectives and implementation of planning systems
- emphasise world-class design and associated architectural integrity
- provide for nationally significant infrastructure now and in the future with hierarchy of short-, medium- and long-term plans
- provide effective implementation arrangements including performance measures
- strengthen domestic and international connections
- support and facilitate economic growth, population growth and demographic change
- include effective mechanisms for consultation and engagement with stakeholders, experts and the wider community

Analysis / challenges / drivers

Adversarial culture, risk avoidance
 Conservation practices, resistance to change
 Disconnected research, development, innovation
 Faster, less costly construction; compromises on quality
 Fragmented knowledge network, no communication infrastructure
 Globalisation (competition) change in world order
 Governance models
 Regulation increase
 Shifting values, owner demands
 Technology advances and evolution

Ten Issues facing the profession (Phil Bernstein, Vice President, AutoDESK)

Productivity field vs. shop, outcomes: time, money, quality
Globalisation supply chain, working at distance, competition
Sustainability scope vs. results, evolving standards
Workforce leadership training, global workplace, gender / family
Complexity formal / stylistic, performance, delivery model
Collaboration joint and several outcomes, digital / virtual, transactional vs. integrative
Analysis rapid inference, outcome engines, integrated insight
Fabrication thinking to making, rapid prototyping, mass customisation
Standards code alignment, building performance
Representation building information modelling and beyond, representative vs. performative

Built environment industry imagined future

Agreed and effective environmental accounting
 Broad community engagement in a sustainable future
 Case-based knowledge, evidence-based design, performance-based outcomes
 Data-enabled, expertise-driven, highly integrated decision making processes
 Design value recognised and relevant throughout the project life cycle
 Increased capacity of industry through integrated seamless collaboration
 Profitable and rewarding industry investing in research and development
 Responsive built form meeting client / community / owner demands and needs
 Skilled and capable workforce with continuous learning
 World class exchangers of knowledge, methods, processes

Levers for innovation

Collaboration — sharing culture, risks and rewards
 Communication infrastructure, knowledge network
 Connected research, development and innovation
 Continuing professional development, education, training
 Diverse and capable supply chain with value chain linkages
 Enabling and harmonised regulatory environments and legal frameworks
 Enabling innovative tools and technologies: (building information modelling)
 Increased off-site manufacturing and digital fabrication
 Integrated governance models and criteria-based government procurement
 Integrated urban planning; legislative reform

Australian built environment industry recommendations to the federal government

Establish an organisation similar to the UK's Commission for Architecture and Built Environment
 Establish an organisation similar to the UK's Constructing Excellence
 Establish common performance metrics for the industry
 Improve Australian Government procurement guidelines
 Support industry-wide and government use of building information modelling
 Develop a national industry education and training action plan
 Establish cooperative built environment research and develop a research roadmap
 Develop a zero emissions assessment tool
 Support pilot projects to demonstrate the benefits of new technologies and ways of working

To solve Australia's unique and complex problems we must think critically. The creative arts, social sciences and humanities inspire this kind of thinking.

Senator the Hon Kim Carr, Minister for Innovation, Industry, Science and Research

The preceding distinctive findings, assessment, models and references give rise to defining **domains of action** from which recommendations will be distilled. These domains of action directly address global, national and local challenges by examining the leverage points that exist or can be created to advance sustainable transformation. They involve the different stakeholders in the built environment including academia, government, industry and the public.

Domains of action establish the necessity of an integrated design approach, its intrinsic value and the need to raise awareness of quality and ethical conduct. Different stakeholders in the design process must be constructively engaged and recognised. Government, regional and city agencies must be encouraged to develop integrated and consistent guidelines and processes, which allow for appropriate time to enable integrated design processes. Seeking advice from professional designers and promoting emerging talent is essential to benefit from both new ideas. This is an investment, not a cost.

1 THE BUILT ENVIRONMENT AND THE ROLE OF THE GOVERNMENT

The built environment is the true expression of how human beings organise and manifest themselves as a distinct species, culturally, intellectually, naturally, physically and socially. This complex whole can be seen as a dynamic system in constant change. It is the living memory of human history. The design, planning and development of the built environment — the human habitat — is crucial to the prosperity of a nation or state and the well-being of its citizens. Therefore, it must be the prime domain of action to initiate change based on well-defined integrated design strategies.

Beyond doubt, the South Australian Government has a key role to play in providing the necessary framework for enhancing the quality of life of its citizens. It should do so with a long-term perspective and on the basis of a comprehensive and global best practice vision that can be embraced by key stakeholder groups, and having regard to their expertise, involvement and commitment.

The government has the legitimate authority and responsibility to review and develop relevant policy instruments to establish innovative ways for future development. It can endorse, facilitate and support best design practices at all levels and scales by first of all developing a clear vision for the future of the built environment, and then providing leadership and incentives for investment. It has an important exemplary role, ensuring that public assets can add value to cultural heritage, sustainable living and urban development.

2 POSITIONING SOUTH AUSTRALIA

It is a given that South Australia has committed to an extraordinary program of investment in infrastructure both at the state and national level. This represents a challenge but also a great opportunity. If undertaken in an integrated and visionary way, it can leverage South Australia to a level of absolute excellence in sustainable living, an exemplar to other states and nations. It can position South Australia as an international leader in integrated design by its commitment and focus on the quality of the built environment based on healthy, safer and more sustainable communities, now and into the future.

South Australia's history and richness as a multicultural 'Brilliant Blend' society, with leading programs in social inclusion and innovation, arts and festivals, university communities, and internationally recognised art and museum collections, is particularly poised for creativity and innovation in the built environment. South Australia's history as a 'free state' should be manifest in the physical expression and experience of the built and natural environments thereby establishing its evolving identity.

3 ADELAIDE AS A MODEL FOR SUSTAINABLE DESIGN, PLANNING DEVELOPMENT

The Government of South Australia has acknowledged the need for a master plan approach by developing The 30-Year Plan for Greater Adelaide. It has also recognised the importance of urban planning and the specific position of Adelaide as central to that development. The implementation of an Integrated Design Strategy in Adelaide can therefore be a model for the entire state. The design of the built environment and the accompanying infrastructure can provide successful strategies for the benefit of South Australians and can generate further action.

It is clear that such an approach has an impact on the State Reform Agenda, especially with regard to long-term goals such as an ecologically balanced South Australia and an attractive vibrant capital city. Furthermore, this requires serious advocacy by the State Government at the Council of Australian Governments meetings, where a nationally coordinated approach to the strategic planning of Australia's capital cities has been addressed. Presentation of a clear qualitative plan of action based on an integrated design approach will undoubtedly be an asset in allocating funding. This calls for immediate and urgent action.

4 STRATEGIC PLANNING AND INTEGRATED INFRASTRUCTURE

Strategic planning is key to the successful implementation of new processes and to the acceptance of change. An integrated design approach is a prerequisite for such a strategy — as global and local challenges and problems are of an unprecedented complexity and transcend the boundaries of traditional disciplines. Critical factors must be defined and prioritised; decisions must be made in careful consideration of all parameters identified.

Such a model of a holistic approach, based on evidence and research, interdisciplinary knowledge and best practice can guarantee a consistent and continuous plan of action throughout the different phases of the process, from analysing the needs, defining the problem and developing a strategic approach to the exploration and development of possible solutions and their implementation and evaluation. It necessitates a global and integrated 'master plan' at state, regional and urban levels.

5 INDUSTRY AND PRACTICE CULTURE

The key to the future of both built environment industries and practices — data-enabled, expertise-driven and highly integrated — is collaboration. However, to expand its relevance and leverage its strength, an established knowledge base is needed characterised by open exchange within the industry and between design practices, educational institutions and research entities. To maximise the impact of the industry, a collaborative culture is paramount.

A collaborative design and building industry, adept at grafting design thinking to and issue or program of almost any scale, will drive innovation and have an impact far exceeding the current boundaries of any one discipline or any one sector of the industry. By significantly changing the ways knowledge and methods are shared, the industry can have an impact that is increasingly powerful. Holistic ways of working, inherent to design, should be stimulated with expanded input, diversified collaborators and a focus on the challenges facing society.

To enable change, we need to model current leading edge design practices that, together, form a broad constellation of methods, tools and ways of working which are transferable to any processes within government. An understanding of new ways of working will instigate a cultural shift, enabling the industry to find common ground and the government to adopt integrated strategies for massive added value.

6 HOUSING AND LIVING SOLUTIONS

At the most fundamental level, people engage architecture and landscape in the places they call home. People's choices are made with many different criteria. A change in attitude and behaviour across a market of vast numbers of housing units can have a profound impact.

Housing issues are critically important in South Australia, from the planning scale to the materials and assembly level. Addressing issues of urban growth, housing availability and transportation are critical to the imminent growth of Adelaide. Housing construction must also be a focus, with volume building, efficiency measures and integration of technologies discussed. Market issues such as public adoption of sustainability, the driving forces for demand and cost pressures, are important to make improvements to housing efforts.

Creating greener built environments can positively impact public health, productivity and profitability. Commercial development will continue to be an important issue for South Australia: the projected population growth anticipates strong growth. There is robust adoption of green practices in the urban core and in new construction, with more limited uptake in the renovation market. Public policy has been a strong driver in the market, especially related to commissioning of green star rated buildings. Projects require stronger business case or evidenced-based knowledge to inform their decision to adopt green practices.

7 BUILT ENVIRONMENT RESEARCH, DEVELOPMENT, INNOVATION

Built environment research is an area of inquiry that builds on knowledge generated by many disciplines ranging from architecture, engineering, environmental and physical science to the humanities and social sciences. The integration of these disciplines defines BE research and the challenges around which relevant disciplinary knowledge converges. Again, these challenges can be quite diverse: from adaptation to climate change, urbanisation and supporting infrastructure like water and energy supply to community development, human mobility, security, etc. The strength of built environment lies in its relevancy and centrality to many aspects of our lives, socially, economically and environmentally.

Built environment research is very much a practice-driven enterprise and, as a result, it encompasses a broad range of knowledge generators from academic researchers to design professionals, allied artists, engineers and manufacturing experts. In this respect the BE research sector, unlike many other research sectors, stretches across institutional and occupational boundaries and in doing so challenges traditional notions of the place of research activity. However, it is precisely because of its scope that BE researchers and their industry and professional partners are better placed to engage with Australia's innovation agenda with an emphasis on practice-based use-inspired research.

8 EDUCATION AND LEARNING ENVIRONMENTS

Perhaps the most influential settings in a child's development are the places where they learn — schools, outdoor spaces and places of informal learning. Creating healthy and vibrant learning environments can have both physical and psychological benefits and can also function as sources of learning themselves — architecture as pedagogy about living sustainably within our environment.

Educational settings are important places to teach both environmental values and the positive impact of design on the public's health and well-being. Healthy schools can reduce environmental risk while enhancing current and future performance of their students. Institutions are seeing high performance buildings as a way to declare commitment to forward-thinking principles and achieve distinction in the marketplace. Environmental literacy can be increased through the construction, use and maintenance of green education environments.

9 CULTURAL EVOLUTION AND SOCIAL INNOVATION

Engagement plays an essential role in transforming a society to be more sustainable. Education is pivotal in changing perception and inspiring action in the built environment, especially when it is considered as more than a one-way delivery method. Educational models should engage sharing of information and an iterative process of exchange. When education is considered in a broader context both inside and outside the classroom, a diversity of opportunities for education to inform and inspire change.

Promoting the value of integrated design in the community, and endorsing best design practice in local governments, industry and the tertiary sector is vital for improving the quality of the built environment. Moreover, the government can instigate multidisciplinary working groups, where architects, urban planners, investors, developers, neighbourhood representatives, users and other stakeholders can meet, exchange ideas, discuss opportunities and formulate action-oriented proposals with performance-based outcomes.

RECOMMENDATIONS

RECOMMENDATIONS INTRODUCTION

Imagine a world where an Integrated Design Strategy delivers outstanding design quality that is responsive and sustainable; where all communications throughout the process are clear, concise, open, transparent, and trusting; where decisions and processes are performance driven and value based; where all stakeholders are involved from the initiation of the project; where outcomes are inspired and visionary...

Norman Strong, FAIA, *Report on Integrated Practice, 2006*

FOUNDATION: MODELLING AN INTEGRATED DESIGN APPROACH

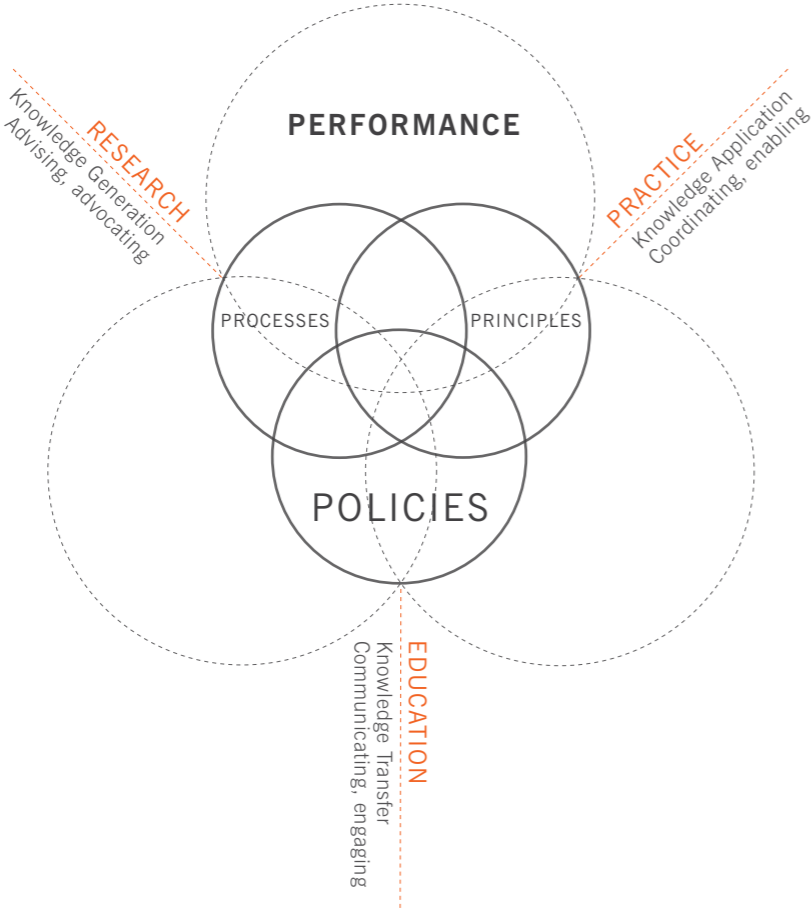
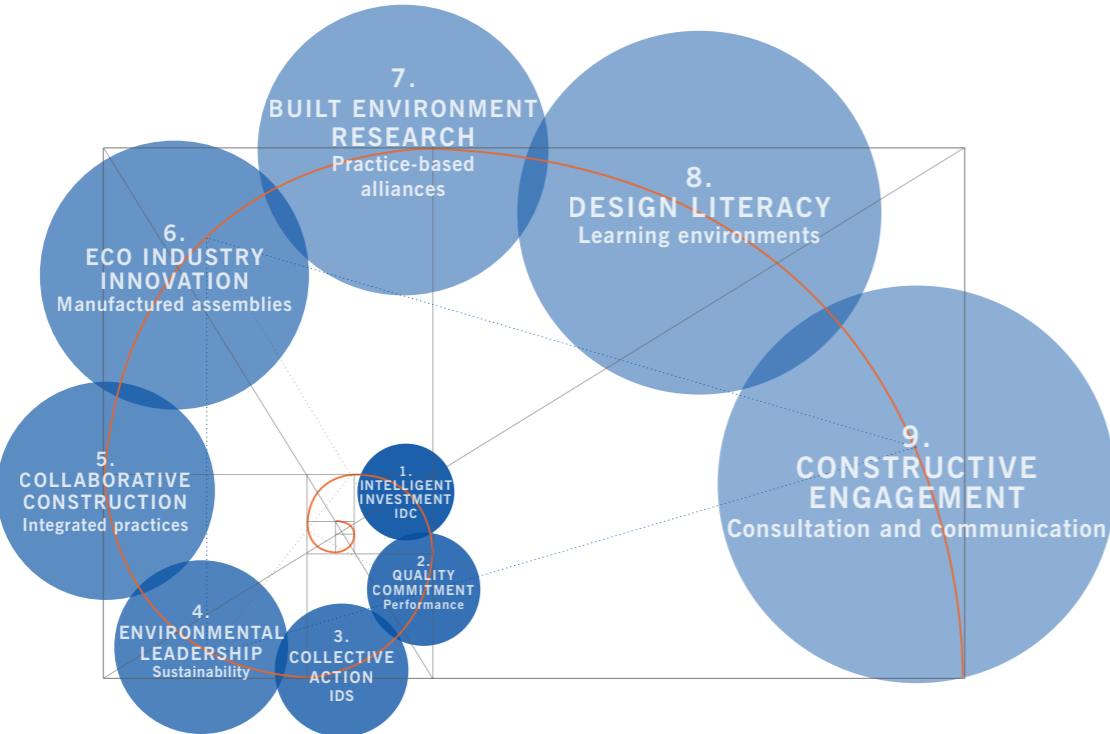
During the last stage of the residency, a series of draft recommendations were presented to numerous, diverse stakeholder groups as well as the residency partners. This consultation process led to changes, significant refinements and validation of the final set of nine recommendations. Multiple perspectives representing the diverse stakeholders served to determine the priorities and establish connections throughout.

Ultimately, recommendations were formed to be actionable, meaningful, relevant and transformational. However, all recommendations should be understood and undertaken with respect to existing strengths in South Australia. An Integrated Design Strategy is a process of optimisation, and therefore an incremental approach that, in its first phase, embraces and complements, enhances and enables current systems. Change is inspired, not imposed, by building upon good practices from within government and in the private sector — and identifying agents of change and champions in the process of reform. Consensus building and relationship strengthening is fundamental to the success of all recommendations.

While each recommendation is necessary to achieve a comprehensive Integrated Design Strategy for South Australia, the first recommendation — an Integrated Design Commission (IDC) with a Commissioner and Government Architect — is conceived to support the design, development and delivery of all recommendations. With a mission based on a model of 'intelligent investment' which integrates design, planning and development as a design-led vision, the IDC relies upon all recommendations. At the same time, it is expected that recommendations are adopted and developed by the widest array of stakeholders to encourage a plurality of approaches and broad ownership.

While the recommendations are numbered as a matter of reference, their adoption need not be sequential. Any may be launched immediately and in parallel, yet each is dependent on the success and progress of others to realise an integrated strategy. Constructive engagement as recommendation #9, in particular, should be equal in priority to recommendation #1.

The IDC must establish integrated design decision-making processes, develop guiding principles for integrated practices, and define policies leading to value-based outcomes. All recommendations must be founded equally on research as an evidence base, on education as a knowledge base, and on practice as a performance base as illustrated left.

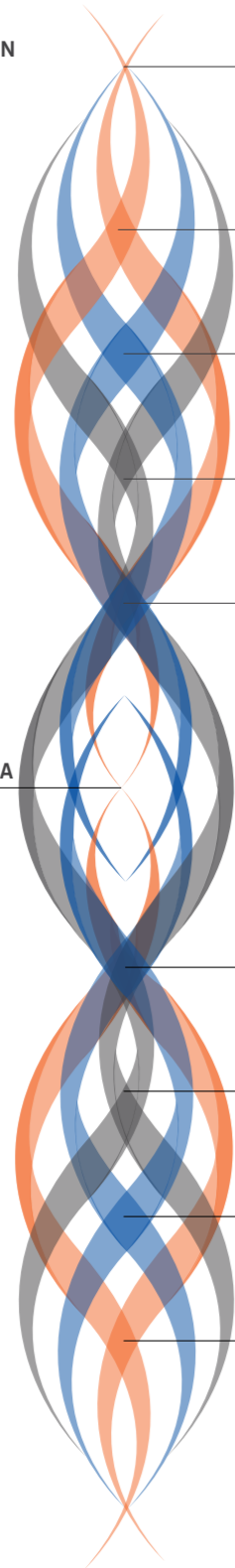


SOUTH AUSTRALIA'S STRATEGIC PLAN

Creativity and Innovation
Building Communities
Expanding Opportunities
Improving Well-Being
Attaining Sustainability
Growing Prosperity

INTEGRATED DESIGN STRATEGY FOR SA

Economic Development Board statement
30-Year Plan for Greater Adelaide principles
State Reform Agenda policy priorities



1. INTELLIGENT INVESTMENT

Robust program of infrastructure investment
Economic growth and competitiveness
SA — The Entrepreneur State

2. HIGHEST QUALITY COMMITMENT

Social and regional benefits from economic growth
Healthy, safe and connected communities
Strengthening communities / people, places

3. COLLECTIVE ACTION

Productivity through innovation and value-chains
World class design and vibrancy
Vibrant Adelaide

4. GLOBAL ENVIRONMENTAL LEADERSHIP

Coordinated action plan for water security
Climate change resilience and carbon efficiency
Green South Australia

5. COLLABORATIVE CONSTRUCTION

Positioning SA as a leader in renewable energies
Environment and natural resource management
Renewable energy: a key economic sector

6. ECO-INDUSTRY INNOVATION

Raising workforce participation
Affordable living and housing diversity
Skills for all

7. BUILT ENVIRONMENT RESEARCH

Planning for population growth
Heritage and character enhancement
Engaging older and younger South Australians

8. DESIGN LITERACY

Education and training system for the 21st century
Accessibility and social inclusion
Early childhood development

9. CONSTRUCTIVE ENGAGEMENT

Efficient and effective public sector
Community engagement
Information for citizens

PROPERTY COUNCIL OF AUSTRALIA SA ADELAIDE 2036

Governing the central city for communities of SA
Designing the central city to unleash potential
Moving people to and around the central city
Building the central city as the state's business hub
Boosting the residential population of the central city
Creating and marketing a dynamic central city

FRAMEWORK: CREATING THE DNA FOR INTEGRATED DESIGN IN SA

The foundational recommendation, described as intelligent investment, calls for the creation of an Integrated Design Commission (IDC) with a Government Architect. The IDC is the organisation to support all other recommendations in relation to the Economic Development Board Statement, The 30-Year Plan for Greater Adelaide and the State Reform Agenda as illustrated left.

The key objective of the Integrated Design Commission South Australia (IDC SA) is to advocate for the value of design and to advise on processes to achieve design excellence in the built environment through an intelligent investment approach. The IDC SA will accentuate the existing strengths of the state, within government, the private sector and professional organisations, by building on tradition, embracing local and global challenges, and leading change.

The role of the IDC SA — to enable, to connect, to add value — will be through new models of collaboration and inclusive and transparent decision-making processes. Constructive engagement through consultation with communities to raise public awareness of, and participation in, design is central to the IDC SA's work.

The IDC SA is intended to model equity and inclusivity across design disciplines and create a trans-disciplinary model of integration in depth and breadth, and not a hierarchy or bias of professions. The IDC SA models decision-making processes that engender trust among all stakeholders, while fostering mutual respect and understanding of all disciplines. Such a model of integrated decision making must be inculcated throughout the planning and development process with value placed on highest quality outcomes.

Design excellence will be achieved through leadership and recognition that solutions come from constructive partnerships between academia, government, industry, professional organisations and the community. The IDC SA's purpose is to provide education, supporting evidence and research, professional multi-disciplinary expertise, and best practice outcomes that will improve the quality of life for South Australians and enhance environmental sustainability.

The IDC SA assumes a whole-of-government approach in advocating for and advising on design, through advancing and integrating all targets defined in South Australia's Strategic Plan. The IDC SA will bring a high level of expert knowledge to improve understanding in the design, development and delivery of the built environment. It will facilitate the delivery of a series of locality based integrated design strategies to develop opportunities that encourage the highest design standards and design innovation in the system and services of government.

THE IDC WILL LEVERAGE EXPERTISE:

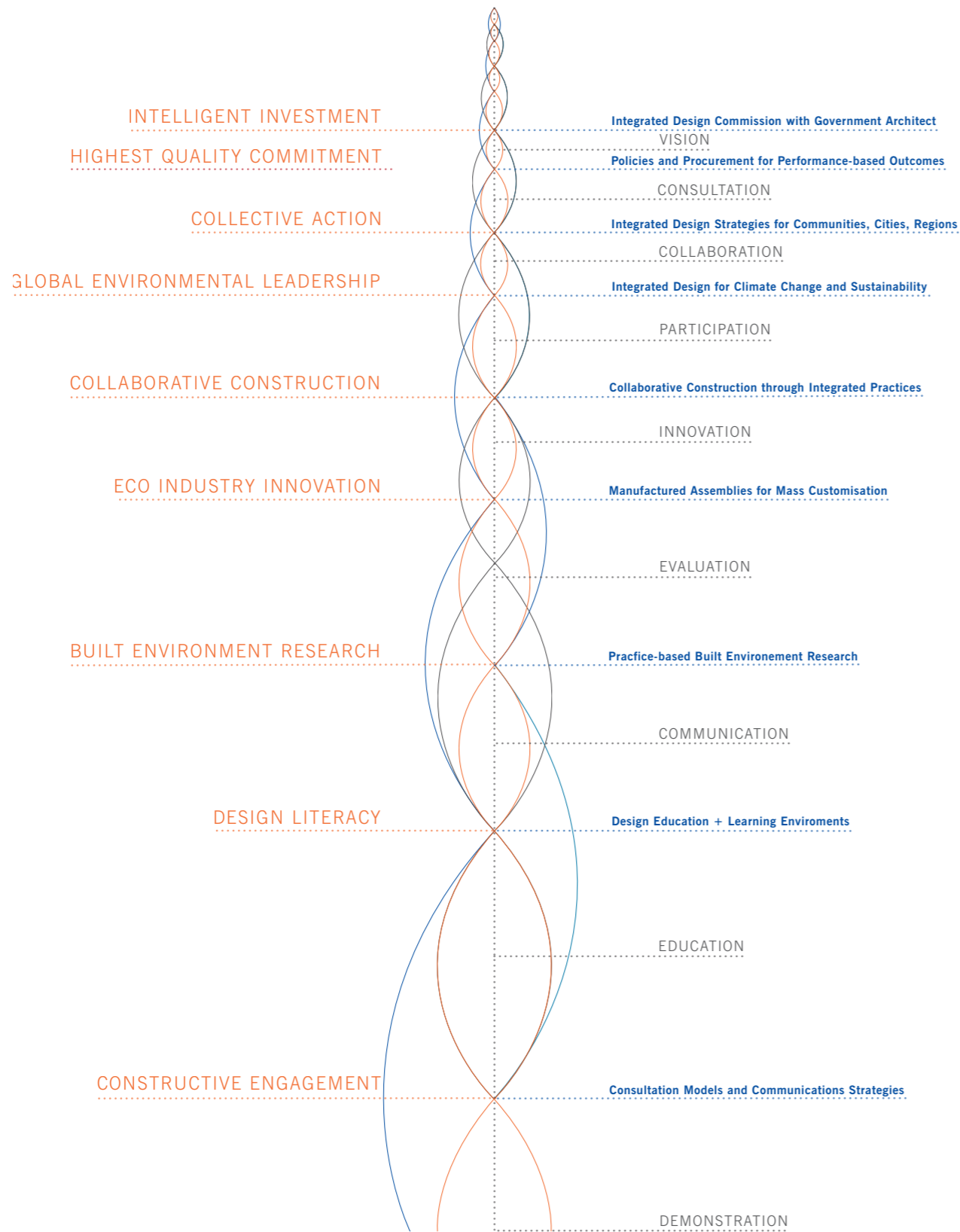
design professionals; allied artists / the arts; clients / communities / public; builders and contractors; developers and property sector; experts and specialists; engineers and consultants; environmental scientists; heritage specialists; human / social scientists; infrastructure aboriginal communities / Indigenous culture; owners / managers / users; people with disability planners; regulators; service providers; social planning / innovation / inclusion; sustainability consultants

DISCIPLINES OF DESIGN

Architecture, landscape architecture, interior architecture / design
Community development; urban design; urban planning
Heritage conservation / preservation / restoration; adaptive reuse
Regional planning and development; rural / suburban communities
Industrial design / product design; lighting design
Communication design / graphic design; interaction design
Exhibition and experience design / way finding / public art

RELATED ART AND DESIGN FIELDS

Cultural activities / events / festivals, environmental and public art, community-based programs
Arts: apparel / fashion, ceramics, filmmaking / television, glass, metal, multi-media, painting, printmaking, photography, sculpture, scene design, textiles
Digital arts and media: animation, interactive / web, video



RECOMMENDATIONS IN DETAIL

The principles informing an integrated design approach are intertwined and illustrate cyclical and iterative phases of a process — based on collaborative efforts, holistic and integrated thinking, and parallel actions. The model for integrated design decision making provides a robust and operational basis for a comprehensive approach in practice.

Integrated design principles and the nine recommendations are interconnected and inter-dependent. There is a direct relationship between the generation of a vision for future development and innovation as a result of implementing a vision. At the the same time, innovation occurring in academia, industry and society as a whole influences political action and establishes a momentum for further growth.

The relationship between **participation** and **communication** is undeniable and obvious. The several means of communication and the ability to understand and use media are paramount to a positive process involving all stakeholders. The development of a **vision** of the future based on **innovation** and supported by the different stakeholders can only be successful if generated from close **consultation** with professionals and beneficial parties and **collaboration** between all. This necessitates a climate of mutual understanding and respect among all stakeholders. **Education** in general, and basic design education in particular, is a foundation for the creation and evolution of such a culture. A knowledge base formed from case studies can **demonstrate** how an abstract vision can be realised and implemented, and illustrates the consequences of such a process.

Consistently iterative **evaluation** is crucial for the success of an Integrated Design Strategy. Research and evidence is at the core of the process, and the other eight principles come together into a dynamic action driven and creative process, providing for positive progress.

To achieve significant impact, a vision for future development must be transformed into a strategic plan outlining the methods and timing for realisation. In the first phase a solid and consistent vision would be built on the basis of consultation, collaboration, participation and ongoing evaluation, resulting in an agreed vision statement. It would be a basis for the development of a strategic plan. Important in this phase are collective action, quality commitment, global environmental leadership and intelligent investment. In the second phase, where the strategic plan moves into implementation, communication and innovation gain importance and with it the necessary platform for collaborative construction, built environment research alliances and a climate for eco-industry innovation. In the third phase, all nine recommendations work together, underlining the importance of environmental design literacy in combination with integrated design education and constructive engagement.

Such a global, multi-layered and integrated view, leading to the realisation at a political and policy level of an agreed vision, translates into a comprehensive model that forms the core of an Integrated Design Strategy. This is the starting point for the formulation of recommendations.

STRUCTURE OF THE RECOMMENDATIONS

Each recommendation is structured in four parts:

Foundation identifies conditions, domains or issues which are locally, nationally and globally relevant, revealing relationships between elements, and resultant new hybrid territories, with the potential for added value and impact.

Framework identifies elements in the design process from micro to macro scales, defined by harmonious and unified structures. It reveals co-dependency and interconnectedness of decision making to maximise beneficial long-term outcomes while defining new ways of working.

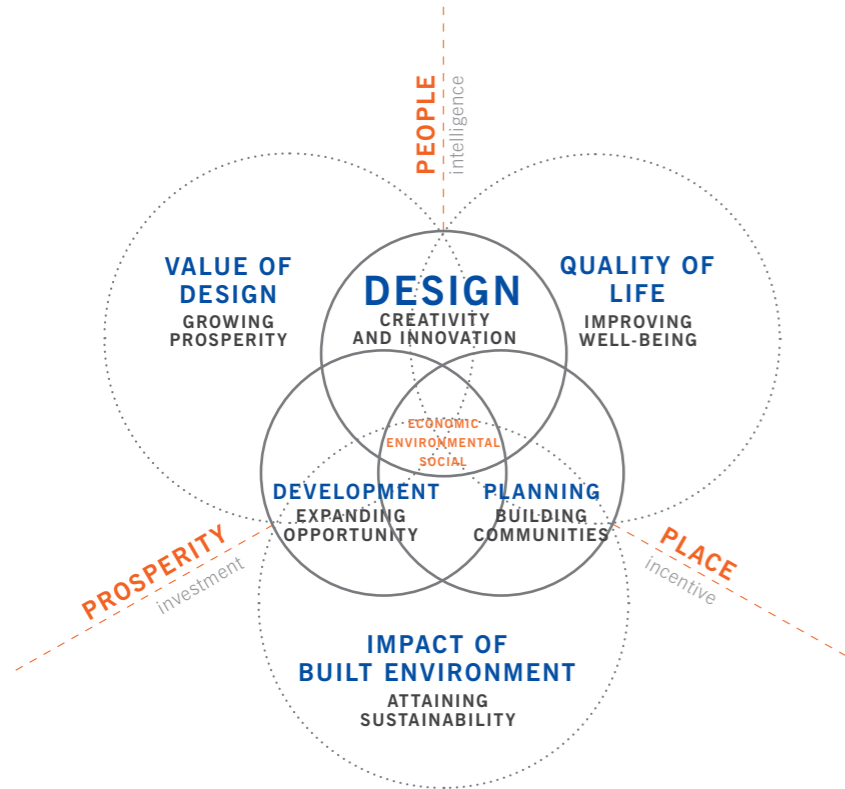
Recommendation relates to quadruple bottom line considerations — economic, environmental, social and governance — and holistic approaches used to achieve joined-up solutions centred on user needs, and based on foresight.

Strategies define opportunities and parallel actions through policies, principles and processes to support an integrated design-led strategy.

INTELLIGENT INVESTMENT

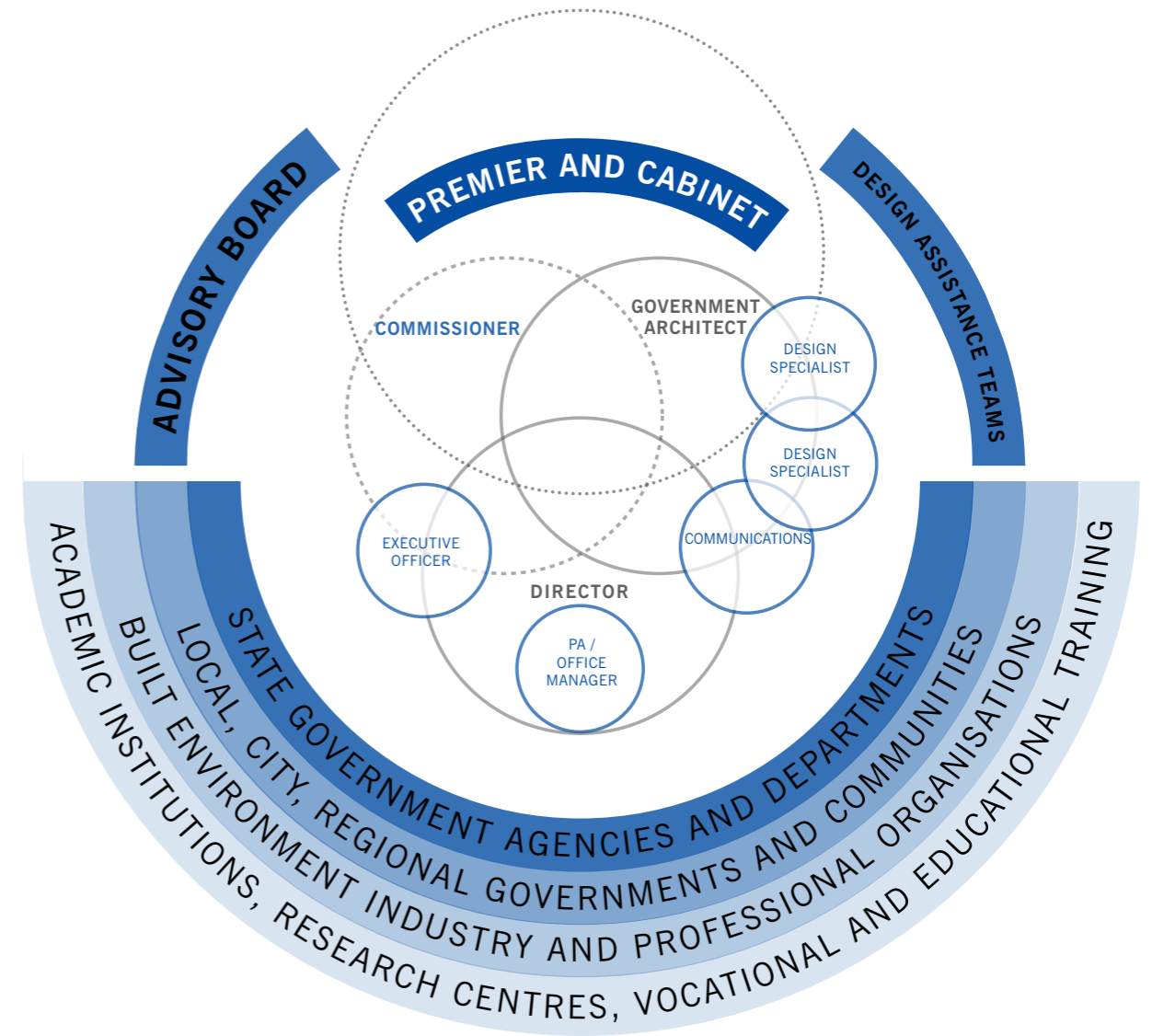
Design / Planning / Development

1. INTEGRATED DESIGN COMMISSION WITH A GOVERNMENT ARCHITECT

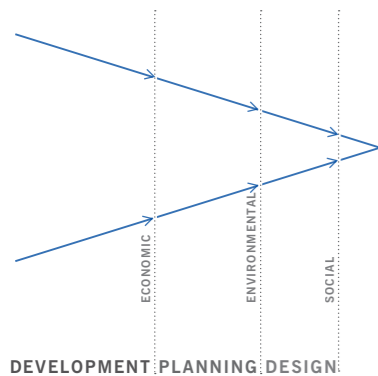


FOUNDATION

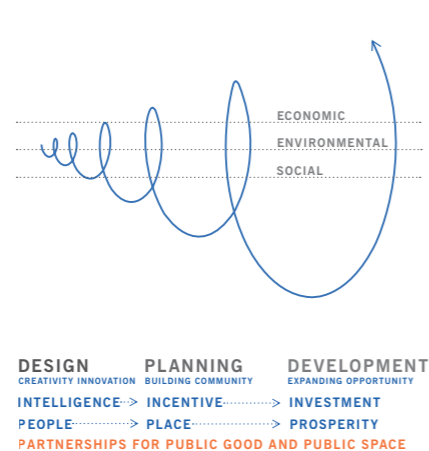
Integrated design is a process of intelligent investment based on the interdependence of design, planning and development activities to achieve mutually beneficial, long-term, life-cycle, performance-based outcomes with balanced consideration of economic, environmental and social parameters and values.



CURRENT PARADIGM



INTEGRATED DESIGN PROCESS



FRAMEWORK

Integrated design thinking drives creativity and innovation (design) for building communities (planning) and expanding opportunities (development). Integrated design intelligence provides incentives in the planning process to generate and support public-private co-investment. Integrated design processes create partnerships for public space, relating people, place and prosperity.

RECOMMENDATION 1

Create an Integrated Design Commission, attached to the Department of the Premier and Cabinet, with a Commissioner and Government Architect supported by a team of design professionals and a multi-disciplinary advisory board of experts responsible for independent advice, advocacy and review of built environment design, planning and development.

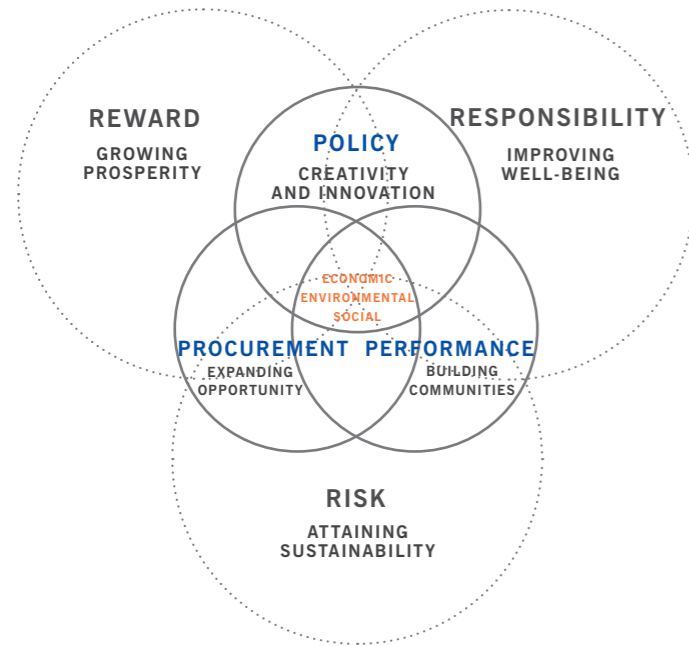
STRATEGIES

1. Establish a vision for the built environment to inform all policies based on a design-led approach and government-wide integrated decision-making processes for design, planning and development. Provide leadership in determining short-, medium- and long-term priorities for the allocation of funding for government projects in response to expert advice and assessment.
2. Create an investment model, based on economic, environmental and social values, that is applicable to all stakeholders in the process of designing, planning and developing the built environment. Develop a strategic plan to achieve design excellence. Establish incentives to attract the highest quality investment through public-private partnerships with emphasis on the public realm.
3. Embed design in and across all government policies as well the SASP targets, the 30-Year Plan for Greater Adelaide Principles, the Economic Board Recommendations, the State Reform Agenda and the forthcoming Integrated Infrastructure Strategic Plan.

HIGHEST QUALITY COMMITMENT

Creativity and Innovation / Building Community / Expanding Opportunity

2. POLICIES AND PROCUREMENT VALUING PERFORMANCE-BASED OUTCOMES



FOUNDATION

Integrated design pursues the highest quality commitment based on a shared social responsibility, environmental risk and economic reward model with performance based on valuing quality of life, procurement based on valuing design and policy based on valuing culture to create an affordable, liveable and sustainable world.

FIRMNESS / Structure

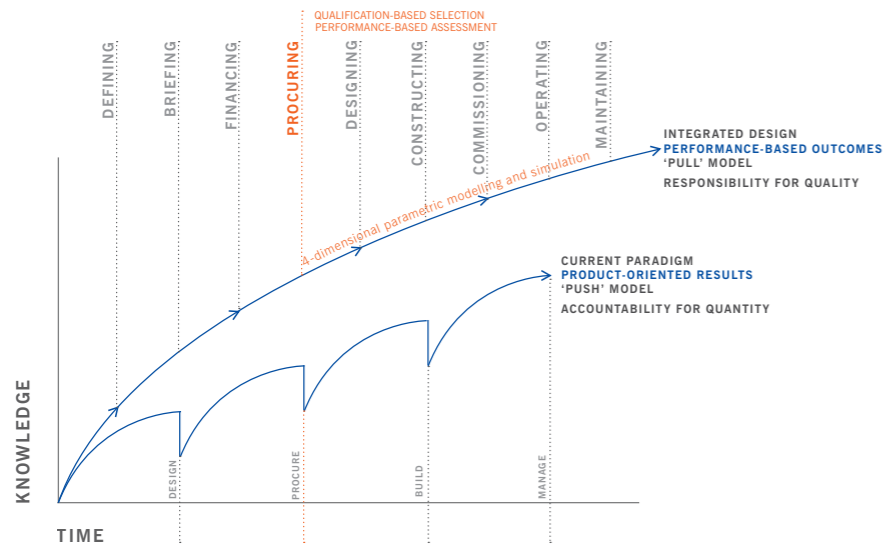
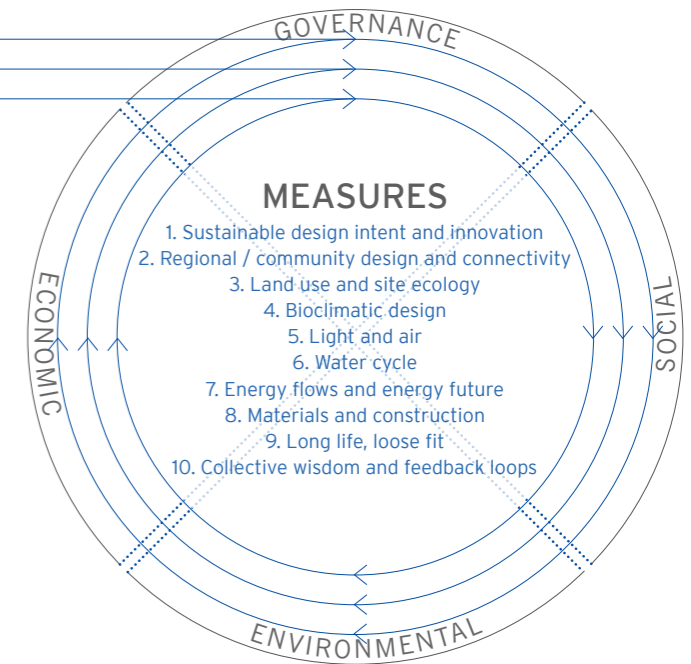
accessible, equitable, inclusive
adaptable, flexible, transformational
ecological, regenerative, resilient

COMMODITY / Function

affordable, liveable, sustainable
competitive, productive, profitable
durable, reliable, safe

BEAUTY / Aesthetic

authentic, beautiful, memorable
illuminating, imaginative, inspirational
convenient, efficient, intuitive



FRAMEWORK

Integrated design is a seamless collaborative process for mutually beneficial economic, environmental and social performance-based outcomes throughout the life cycle of a project and for the long-term value of the built environment. Integrated design is a communication process and a tool driven by human-centred needs and a responsibility for quality. Integrated design is based on performance criteria to determine qualification-based selection in the procurement process.

RECOMMENDATION 2

Develop policies and procurement practices valuing design excellence, based on performance measures that seek mutually beneficial economic, social and environmental outcomes. Ensure the provision of a regulatory environment and legal framework to achieve the highest quality outcomes that maximise innovation.

STRATEGIES

1. Determine and apply agreed quality of life performance measures across the built environment. Develop standards of design excellence using case-based knowledge and evidence-based design best practices in consultation with national and international leading experts. Develop a shared environmental risk, social responsibility, and economic reward model and a simulation platform for collaborative decision-making, evaluation and predictability.
2. Develop procurement guidelines / methods / policies to value design, expand opportunities, lead innovation and increase capacity in the creative industries. Qualifications-based selection criteria would consider success in achieving economic, environmental and social performance-based outcomes as well as success in creating productive collaborations.
3. Identify and commit to a diverse and relevant set of demonstration projects through which the future can be experienced and imagined. Exemplars should advance understanding of design-led processes and test performance measures.