1. Introduction

The development of a qualifications framework for design is being funded as part of the Victorian Government’s commitment to “Developing Victoria’s Design Capabilities”. Design has been identified as one of five strategic capabilities essential to Victoria’s emergence as an Innovation Economy.

The government has a vision of a creative, innovative and enterprising state, and aims to position Victoria as a leading international centre of design. With design highlighted as a strategic capability, it is the government’s intention to foster a design culture within Victoria. Initiatives are underway to:

- improve linkages across design, industry, education and research
- enhance the quantity and quality of design education; and
- promote the value of design to industry and the community.

Design is viewed as being of fundamental importance to an innovation economy. It is inherent to the form, functionality and interface of products and services. It is a vital step in transforming ideas into practical and commercial realities, and plays a critical role in shaping the underlying competitiveness across a range of industry sectors.

Activities to foster a design culture within Victoria include: the introduction of the Premier's design awards, an international biennial design event; and a range of initiatives to strengthen the State’s design education, research and training infrastructure. The education and training component includes professional development for TAFE and secondary teachers in design and innovative thinking, and the development of a qualifications framework for design.

2. Scope

This project aims to develop a comprehensive framework offering a range of design-related qualifications, pathways and job related outcomes. The framework is to provide an overarching context for design-related education and training programs across diverse industry sectors. The framework will draw together a comprehensive bank of existing design related units and competencies across post-compulsory education and training - senior secondary, and vocational education and training – that can be selected and structured in accordance with qualification requirements from AQF I to VI. The framework will enable a diverse set of combinations of competencies, permitting learners to select or to customize a design-related qualification or pathway specific to their interests and needs.

It is envisaged that some new competencies and qualifications specific to the framework itself, may also need to be developed.
3. Statement of Requirements

3.1 Services
The project is envisaged as having two major stages:

Stage 1: Refinement of concept proposal
This stage will consist of three critical components:

(a) an investigation of various options for a framework, including a detailed examination of the advantages and disadvantages of each of the respective models.

(b) an investigation of a range of issues related to the framework development, with an accompanying recommendation regarding implementation or not, for each of the following:
   - the possible development of a suite of generic ‘design’ qualifications specific to the proposed framework for design;
   - the possible development of new competencies or new qualifications to address gaps identified by the VET mapping, and/or to strengthen design capabilities and pathways;
   - the possible development of industry specific qualifications with a design emphasis;
   - the possible development of generic units of competence in design, similar to the ANTA generic standards developed for cross industry competencies such as customer service;
   - how existing qualifications, including senior secondary and those in Training Packages, are to be best ‘located’ within the proposed framework;
   - possible customisation of existing qualifications to strengthen design capabilities and/or pathways, and to enable their incorporation within the framework;
   - how best to present the framework in such a way as to ensure ease of use for all existing and prospective students.

(c) identification of those features of other design-related VQA projects to be incorporated into the new framework. Stage One will be required to take account of all related projects outlined in Section 5.
Stage 2: Framework Development
This stage will develop the full detail of the model for Victorian Qualifications Framework for Design selected under Stage 1, and is to include:

- framework for endorsement by the VQA Board
- course documentation and accreditation submissions for any qualifications / new competencies developed for the purposes of the framework
- guidelines for the framework catalogue and supporting documentation as necessary

3.2 Contextual parameters
Of the options to be considered in Stage 1 (a) above, approaches to be considered are to include:

- existing qualification frameworks such as the template models used by the Victorian Certificate of Applied Learning (VCAL) and the Certificates in Vocational Studies

- existing curriculum framework models such as the South Australian Curriculum, Standards and Accountability (SACSA) Framework, in particular the design and technology learning area

- the model of the Certificate IV in Applied Design for Industry, building upon the existing template approach to develop a suite of further design related qualifications specific to the framework - diploma, advanced diploma, associate and vocational degrees - for cross industry application.

- a credit points model along the lines of the National Qualifications Framework used in New Zealand, but in this case specific to one sector only
3.3 Outputs

Specified outcomes of Stage 1
The consultant will provide a written report and a presentation to the Steering Committee on the:

- various options investigated for a framework in Stage 1 (a), including a detailed examination of the advantages and disadvantages of each of the respective models
- findings and recommendations related to areas of consideration and investigation identified in Stages 1 (b) and (c)
- details of the optimal approach identified for the Victorian Qualifications Framework for Design
- rationale underpinning the selected approach to the Victorian Qualifications Framework for Design
- a comprehensive overview of implications arising from the implementation of the framework, including issues such as maintenance

Specified outcomes of Stage 2
The consultant will provide the following documentation to support the Victorian Qualifications Framework for Design and implementing all the recommendations from Stage 1 as endorsed by the Steering Committee:

- schematic representation of the Victorian Qualifications Framework for Design
- guidelines for the framework catalogue, including pointers to course selection, pathways and articulation cross industry and between senior secondary, VET and higher education
- endorsement submission to the VQA Board if deemed necessary
- course documentation and accreditation submission(s) as necessary
4. Other projects of direct relevance
This project will occur concurrently with, and be informed by a number of existing projects already funded by the VQA. These are:

**Certificate IV in Applied Design for Industry**
This is a post trade qualification consisting of three strands - design, cross industry and specialist industry skills. A common template is being trialed in three industry areas - Furniture/Metal Fabrication, Automotive, and Building & Construction. If successful, the Certificate IV could be extended into a number of other industry sectors, as well as being incorporated into the overall qualifications framework.

**Mapping of Current Design Provision in VET in Victoria**
This mapping encompasses a broad range of design related courses and qualifications, and their constituent modules and units. It also includes the identification of commonality between courses / qualifications and modules/units; current trends in design perspectives and practices; and examples of best practice in design related education and training. On completion, it is planned that an analysis of enrolment and completion patterns will also undertaken separately.

**Design Initiative for Years 10, 11 & 12**
This project is reviewing the current provisions and associated pathways of design and design related subjects at years 10, 11 & 12. It will also examine the feasibility of a more coherent set of design offerings at the senior secondary level, with the potential for eventual integration into the proposed Victorian Qualifications Framework for Design. In addition, a specific initiative is being developed to encourage a general appreciation of design amongst students in the senior secondary years.

**Other relevant initiatives:**
Over and above VQA-funded projects, there are a number of other projects of which the framework development will need to be mindful:

- new curriculum development initiatives under the OTTE-managed Innovation Development and the New Product Development Funds;
- professional development in design and innovative thinking for teachers in the secondary and TAFE sectors. It will be critical that the evaluation of recent pilots, and any new subsequent set of professional development initiatives informs the framework development;
- the work of the two Centres of Excellence - Lab3000 (Digital Design) at RMIT and Automotive/Aerospace at Docklands;
- the various Specialist Centres which have been established, most especially those with a keen design interest, for example Sustainability in Building and Construction at Holmesglen Institute of TAFE;
- design-related work of the Department of Innovation, Industry and Regional Development (DIIRD), most recently a major design industry research project commissioned by DIIRD.
5. Additional information

5.1 Conceptions of design

An all encompassing definition of design informs this development. It is acknowledged that the concept of design has undergone significant revision and broadening in recent years, and now has a multiplicity of meanings. Contemporary definitions of design are generally very inclusive. For example, the Commonwealth Tertiary Education Committee Working Party on Design Education has defined design as ‘that decision making process by which humans determine in advance of production, the forms of environments, objects and communication.’ *(Educating by Design* CREATE Australia, pp14, 1996).

The field of application is equally broad. A design ‘product’ can be an environment such as a built environment (architectural interior, landscape), an object or product (such as a ceramic, textile, or industrial product) or communications (such as visual or graphic communications or information systems). *(Educating by Design* CREATE Australia, pp17, 1996).

As opposed to the rather limited parameters of the past - with design seen as an addition to a basic, otherwise practical product - design is now taken to be about problem solving in an innovative and creative way. Good design anticipates or frames the very nature of the problem itself. While the outcomes of design in terms of functions are specifiable in advance, its outcomes in terms of form are not. The design process is one in which a range of solutions can be devised for a particular brief or problem, depending on the context. The design approach is an open-ended process requiring a high degree of thinking, conceptualisation and creative application.

Good design then strikes an optimum balance between competing demands, making use of technology in an appropriate manner. It is environmentally responsible and takes account of people, culture and the resources available so that the result is appropriate to the needs and wants of the client and user. Successful design solutions require an understanding of the interrelationship between the physical, psychological and environmental factors affecting a particular object or idea. *(Educating by Design* CREATE Australia, pp19, 1996)

5.2 Rationale for a framework

The organisation of work has undergone dramatic changes over recent decades. Part of the effort of vocational education and training is in constantly meeting the challenges that this presents. This involves new ways of organising and delivering knowledge and experience for learners. There have been, and continue to be profound shifts in Australian industry and its occupational structures, with new forms of work and changing conceptions of work skill.
Occupational profiles have broadened and merged. There is more emphasis on the ability to acquire new knowledge, beyond an initial specialisation. Workplaces are increasingly characterised by collaborative and multidisciplinary approaches to accessing and applying knowledge. The area of design provides a dramatic illustration of these developments. The distinctions between disciplines are constantly under negotiation, with design embracing multidisciplinary approaches more than most. As part of these changes, the historical division between what is perceived as the aesthetic dimension of design and its functional aspects has narrowed. The separation between the manual and conceptual aspects of design are being reappraised. As part of the promotion of design thinking in practical industry applications, the framework will seek to foster exchange and shared understandings between those who conceive of a product or process, and those who construct it. Finally, there is the highly fragmented nature of the design sector itself, extending cross-industries and with a marked representation of very small enterprises.

All this calls for new models of learning and skills development, and a framework approach is considered to offer distinct advantages. Within a framework approach, design will take on the capacity of a primary organising principle for a course of study, with specific qualification outcomes as appropriate. Design becomes a vocational emphasis in its own right, much more than specific industry approaches would seem able to currently allow. The framework will enable the utilisation of a diverse range of design related competencies from various Training Packages. In this way the framework can be taken as a distinct enhancement of design offerings under Training Package arrangements. The framework will provide a cohesive point of reference for an otherwise highly diverse and fragmented industry.

The relevance of design is spilling well over professional boundaries also. Everybody is, or can potentially become involved in the design process. All members of the community are now being encouraged to recognise these skills and to apply them. Education about design is crucial; an understanding of design and its functions also needs to be integrated through all levels of education and training. The aim of the Qualifications Framework for Design is to help to engender a ‘critical mass’ capable of changing how design is applied and perceived. In doing so, it is hoped to enrich those capabilities best suited for rapid and creative adaptation in times of complexity, uncertainty and change.

The framework will serve as an important focus for innovative approaches to the teaching of design. Links between the design community, educators and trainers, and business will need to be forged, and new applied learning experiences devised.
A qualifications framework has also been chosen for its capacity to accommodate the interests and needs of diverse learners. In the case of design, the prospective target group includes:

- people interested in a career in design, such as senior secondary students, who are uncertain of the range of options available or with only a very general appreciation of design itself and of its career opportunities and associated pathways planning;

- people with an established career / occupation in an operative, technical or management area wishing to supplement or upgrade their current abilities with specific design capacities;

- people with a vocational qualification, possibly in a trade area, who are interested in exploring small business opportunities, entailing competencies in design but also in small business, marketing, entrepreneurship, etc;

- people engaged in design work seeking to enhance their existing skills or progress onto further design occupations, either in the industry of their current employment or in a different industry sector altogether.

5.3 Proposed key features of the framework

The principles to be incorporated into the framework are:

1. Ongoing learning – the process of acquiring knowledge or skills throughout life through education, training, work and general life experiences. The framework will emphasize the centrality of the learner, and initiatives which cater for the diversity of learner needs.

2. Futures thinking – this will involve learners in developing and demonstrating knowledge, practices and dispositions that lead to the identifications of possible, probable and preferred individual and shared futures.

3. Applied and interdisciplinary learning - which converts content-related learning into action learning within a vocational context. Learning environments cross traditional institutional and organizational boundaries to enable the development of new knowledge and practices.

4. Customisation - the process of tailoring a program to meet the individual’s specific requirements.
The framework will foster:

- the integration of design thinking/design sensibility into practical industry applications
- the development of knowledge and skills so that those who conceive of a product/process/system and those who implement it have shared understandings about design
- the development of career pathways to specialised occupations
- the provision of conversion programs for those with knowledge and skills in complementary trade areas
- provision of continuing professional development, enhancing existing occupational capacities through a design orientation.

The framework will unify approaches to the dynamic and diverse area of design-related learning, both within and across industries. Through the framework communication that assists collaboration across areas will be advanced, the integration of manual and conceptual aspects of design made more explicit, and a repertoire of thinking skills and creative dispositions fostered.

The aim is to develop a vertically and horizontally integrated framework. The qualifications framework will have a strong emphasis on enabling design related education and training pathways between the secondary, vocational education and training and higher education sectors. Not only should the framework provide a coherent approach to design related learning within an industry, but it should also encourage exchange and pathways across industries. A shared design language and literacy will be enunciated.

It is anticipated that the qualifications framework for design will also incorporate knowledge and skills that support the realisation of design capability, such as relevant technical and business/entrepreneurial competencies. This will address the common problem of design practitioners being unable to readily acquire key business skills critical to the overall success of their enterprises.