

*Output Class 17: Engineering Processes, Systems and Products*

- a The development of flexible manufacturing processes, systems and products, appropriate to the scale of New Zealand industry, which allow quick cost-effective adaptation to changing inputs and consumer needs.
- b The development of processes, systems and products to improve reliability, availability (up time) and the productive life of products and processing plant.
- c Processes and systems for improving productivity, including appropriate quantitative quality measurements.

*Output Class 18: Computing and Electronic, Communication and Instrumentation Processes, Systems and Products.*

- a New and improved sensors and sensing technologies including biosensors; especially for use in manufacturing, processing and environmental monitoring.
- b New and improved signal processing for industrial control and automation.
- c New and improved processes, systems, and products for automated or precise inspection.
- d New and improved processes, systems and products for the moderation of energy consumption in industry.

*Output Class 19: Construction*

- a New and improved products, processes and systems that minimise the lifetime cost of building and construction in New Zealand.
- b Architecture which minimises the use of energy in both the construction and use of buildings.
- c Products, processes and systems which improve indoor environments for living and working to enhance the health and efficiency of the buildings' occupants.
- d Products, processes and systems that improve building safety for occupants, including safety in the face of seismic hazards.
- e Identification of the factors the building and construction industry must consider when building for the changing population mix and distribution in New Zealand.
- f Improved management systems for building and construction processes.

*Output Class 20: Commercial and Trade Services*

- a Development of new information about international trading patterns and opportunities (including in services and tourism) and cultural and economic conditions relating to markets in countries of existing and potential new trading partners.
- b New and improved technologies and processes for improved managerial communication, problem solving and decision making in both quantitative and qualitative dimensions.
- c Development and implementation of new and improved processes, systems and products for measurement related to quality conformance and competitiveness in products and services.
- d Identification of economic, social and cultural factors which limit or enhance successful participation of identifiable groups in commerce and trade, particularly for groups which are currently under-represented.

*Output Class 21: Energy*

- a Investigation and development of energy sources, including waste products, which are safe and environmentally sustainable alternatives to traditional sources.
- b New and improved processes, systems and products for increased efficiency in the production, storage, conservation and use of energy, emphasising research into energy planning and the allocation of resources, and the reduction or mitigation of the environmental consequences of energy production and use.
- c Investigation, specification, quantification and development of information bases of indigenous energy reserves; efficient processes for accessing this information.

*Output Class 22: Transport*

- a Efficient and effective integration of the management of all modes of transport, both nationally and internationally.
- b Enhancement of safety in transport of people and goods.
- c Integration of transport planning into social, environmental and economic planning and processes in a changing society.
- d Development and adaptation of transport technologies specifically suited to New Zealand's unique transport features and requirements.
- e Accessible description and analysis of patterns and trends in New Zealand transport.

*Output Class 23: Information and Communication Services*

- a The adaptation and exploitation of existing and emerging information and communication technologies of particular relevance to New Zealand.
- b Development of new and improved processes, systems and products for maintaining privacy, security and confidentiality of information transmitted via electronic networks.

*Output Class 24: Urban and Rural Planning*

- a Integrated planning and resource management systems for social, economic and environmental conditions to ensure the sustainable development of human settlements.
- b Planning methodologies which both enable and respond to the adaptation of communities to environmental, economic and technological change; improved processes appropriate to New Zealand for participation by individuals and groups in planning and resource management.
- c Identification of natural and physical resources and their sustainable use within rural and urban areas.
- d Hazard mitigation in rural and urban areas, in both new and existing developments.

*Output Class 25: History, Society and Culture*

- a Description and analysis of the origins and relationship to Iwi development of Maori social, cultural, political and economic issues through to present times.
- b Description and analysis of the origins and development of the distinctive features of New Zealand society and culture, including those of its sub-groups and communities.
- c Description and analysis of the history and likely future of human settlement in New Zealand including the role of various groups in society and their interaction with each other, the natural environment, economic development and social change.
- d Description and analysis of demographic and social trends showing the changing nature of the New Zealand family and society as a whole.