

Igniting the future

Strategic Direction 2000-2003

define
design
deliver



MINISTRY OF
RESEARCH, SCIENCE
& TECHNOLOGY
TE MANATŪ PŪTAIAO



It is a great time to be the Minister of Research, Science and Technology. Over the past year New Zealand has been no exception to the truism that the world is changing at an ever faster rate. For a start, we have had the first major change in government for nearly a decade. And the science and innovation system has been a great beneficiary of changes announced in the 2000 Budget.

For example, it included:

- the largest increase in Government investment to partner private sector R&D in the nation's history; and
- increases in most of the Government's major investments in research, science and technology.

And now, as the new Minister, I have the opportunity to launch a new strategic direction for the Ministry of Research, Science and Technology.

Before discussing the future of the Ministry I would like to consider the past. I want to recognise that in spite of some well-placed criticisms, especially earlier on, the Ministry's *Foresight Project* was:

- remarkably successful in putting the concept

of a knowledge society on the agenda for New Zealand; and

- the most visible success from the Ministry's 1997 strategic plan.

But it was really only a beginning. Great ideas are plentiful – but the real challenge is to turn a great idea into reality.

This is the challenge that the Ministry has set itself in this new strategic direction.

Igniting the Future has two main themes.

The first is that the work of the Ministry is not just focused on removing barriers to innovation. The Ministry will encourage and provide incentives to New Zealanders who want to innovate. Encouraging innovation fits closely with my aims as Minister.

The second theme concerns the Ministry's ability to deliver on what Government and New Zealanders expect from a public service organisation. This theme fits very closely with Government's aims to:

- rebuild the Public Service; and
- rebuild public trust in the Public Service through ensuring greater responsiveness.

The Ministry recognises the need for change signalled in this direction. I look forward to charting their successes over the period ahead.

Hon. Pete Hodgson
Minister of Research, Science and Technology

Technological change is affecting all that we do – how we live, work and play. We can't ignore these changes, but we can choose how to get the best from the new opportunities these changes provide. This is the challenge we face in our development as a knowledge society. The Ministry of Research, Science and Technology has a key part to play.

Our work affects research and innovation throughout New Zealand.

What we do, and how well we do it, can make a difference to the lives, environments and enterprises of New Zealanders.

Igniting the Future sets a new strategic direction for the Ministry. It provides a set of beacons to guide us over the next few years. These beacons don't describe precisely what we must do and by when. Rather, they highlight some broad areas to focus on so that we can make a valuable contribution to New Zealand's progress in the new century.

Our new strategic direction builds on our achievements of the last three years, and lines

up some significant challenges for the years ahead.

It emphasises the actions needed to inspire and assist people to make the knowledge society happen.

It emphasises partnership, as we can only make a real difference if we work closely with many others in the community.

And it highlights feedback and learning - we need good information and the flexibility to change what we are doing along the way. We will reflect these situational changes in the more detailed planning of our annual strategic business plans.

The Ministry faces many challenges, but I am confident we will meet them. We have

top quality people, extensive networks and a clear Government mandate. We also have enthusiasm, skills and systems, and have shown, over the last few years, a willingness to take on tough challenges in spite of our relatively small size.

I invite you to work with us in igniting New Zealand's knowledge future.



James Buwalda
Chief Executive



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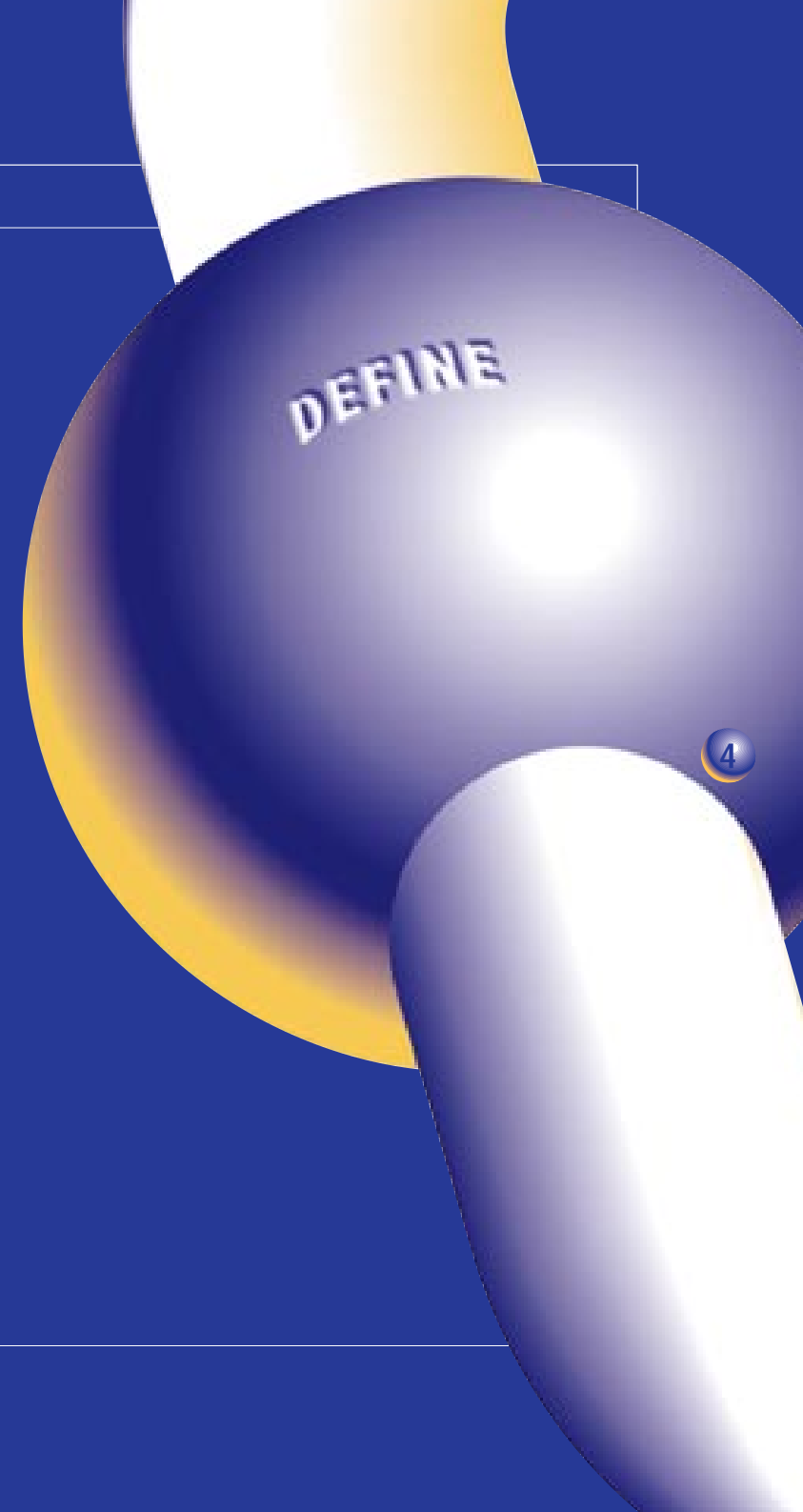
MORST TODAY

A catalyst for change

During the past three years New Zealanders have moved from asking: what is a knowledge society and should we become one, to asking how do we become a knowledge society? In response the Ministry of Research, Science and Technology (MoRST) is shifting its main emphasis from analysis and awareness-raising to action. In doing so, we will:

- build on the networks, policy and organisation frameworks developed over the past three years
- link with the new Government's goals for a knowledge society
- respond to feedback from stakeholders; and
- create a framework flexible enough to respond to today's fast changing environment.

In this section we **define** the situation MoRST operates in and describe the factors we have taken into account in creating this Strategic Direction.



MoRST is a focused, Government agency of around 45 people which:

- provides the Government with high quality research, science and technology (RS&T) policy advice. This supports the Government's role in investing in Vote Research, Science and Technology
- develops initiatives that help the Government to "grow an inclusive, innovative economy for the benefit of all"
- advises the Government on science issues affecting New Zealand; and
- negotiates, manages and monitors contracts on behalf of the Minister with the agencies that directly invest in research and innovation.

Building on recent achievements

MoRST's achievements over the period covered by the last strategic plan give us a sound basis to work from. Over the period 1997-2000 we:

- helped to introduce the concept of a "knowledge society" to New Zealand
- ran the *Foresight Project* which generated new research and innovation strategies for 140 commercial and community groups
- developed new priorities for the Government's RS&T investments, including designing the New Economy Research Fund
- evaluated the impacts of the Government's RS&T investments, and identified benefits flowing from these investments
- promoted and supported research and innovation in other Government departments; and
- researched why New Zealanders have quite a low understanding of how RS&T affect their lives, and introduced the *Science and Technology Promotion Programme* to improve this understanding.

SCIENCE AND TECHNOLOGY PROMOTION PROGRAMME

The cornerstone of science and technology promotion is that people who value research and innovation are more likely to develop and adopt new products, practices and processes. The goal is for business leaders, parents and children to all have a greater appreciation of the value that science and technology contribute to our everyday life – an essential step on the road to becoming a knowledge society.

The "WOW" brand is a Ministry initiative to encourage people to switch on to science and technology.

MORST TODAY

Linking with Government goals

The Government elected in November 1999 has set out a new direction for developing New Zealand. RS&T, and its effective stewardship by MoRST, will be important in making progress towards these goals:

- growing a strong, inclusive economy for the benefit of all
- restoring trust in Government and providing strong social services
- improving the level of education and skills among New Zealanders
- protecting and enhancing the environment
- closing the social and economic gaps between Māori and Pacific people and other New Zealanders; and
- strengthening national identity and following the principles of the Treaty of Waitangi.

A consultative approach

MoRST surveys its stakeholders each year to find out how we are performing at meeting their needs. Our performance is also formally assessed by the State Services Commission and the Education and Science

Select Committee of Parliament.

We are in constant touch with the Minister of Research, Science and Technology, purchase agents, research users and providers, and Māori organisations. A series of workshops has also allowed MoRST's staff to contribute to this strategic direction. Through these consultations we have identified a need for us to:

- further address low rates of private sector investment in RS&T
- tackle the low status of science and decline in science and technology skills
- further address low public appreciation of RS&T
- improve links within the innovation system (see diagram page 7)
- respond to the distinct communication and policy needs of Māori
- enhance the way we implement and evaluate our policies and programmes
- clarify our policies, structures, concepts and communication; and
- create a positive environment for growing ideas at MoRST.

THE KNOWLEDGE SOCIETY

The term "knowledge society" recognises the key role of knowledge – the creation, sharing and use of it – in ensuring the prosperity and well-being of a society's people. New Zealand's move to create a knowledge society will need to:

- use research and innovation to add value to our traditional industries
- overcome barriers of distance from global markets; and
- create new knowledge-based businesses.

A photograph of a woman with dark hair, wearing a light-colored top, working on a garment in a fashion studio. She is looking towards the camera. The background shows shelves with various items and a chandelier.

Fashion is an example where New Zealand is making a mark in the world – adding value to raw materials with knowledge and imagination.

MORST TODAY

Working in a dynamic environment

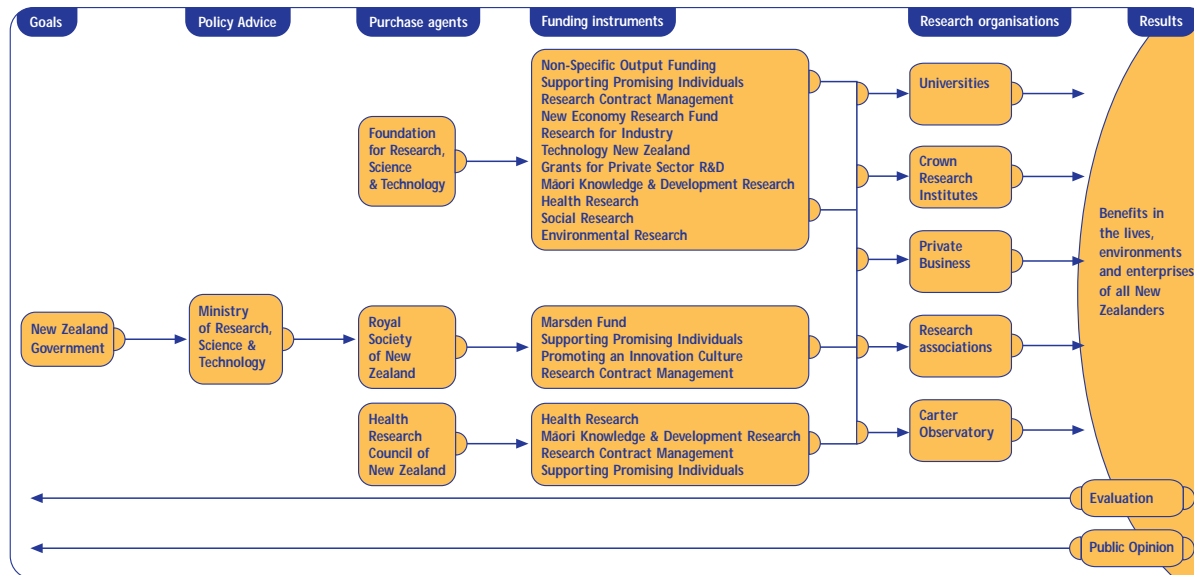
MoRST operates against a backdrop of ever changing opportunities and challenges, such as:

- the rise of the global knowledge economy
- the unprecedented speed of technological change
- quantum leaps in communications technologies
- a growing awareness of environmental issues

- new materials and production techniques being developed
- unresolved debates over genetic modification and other technologies; and
- issues of ownership and distribution of knowledge.

The strategic direction set out in this document provides a clear direction for MoRST but allows us flexibility to respond to new situations.

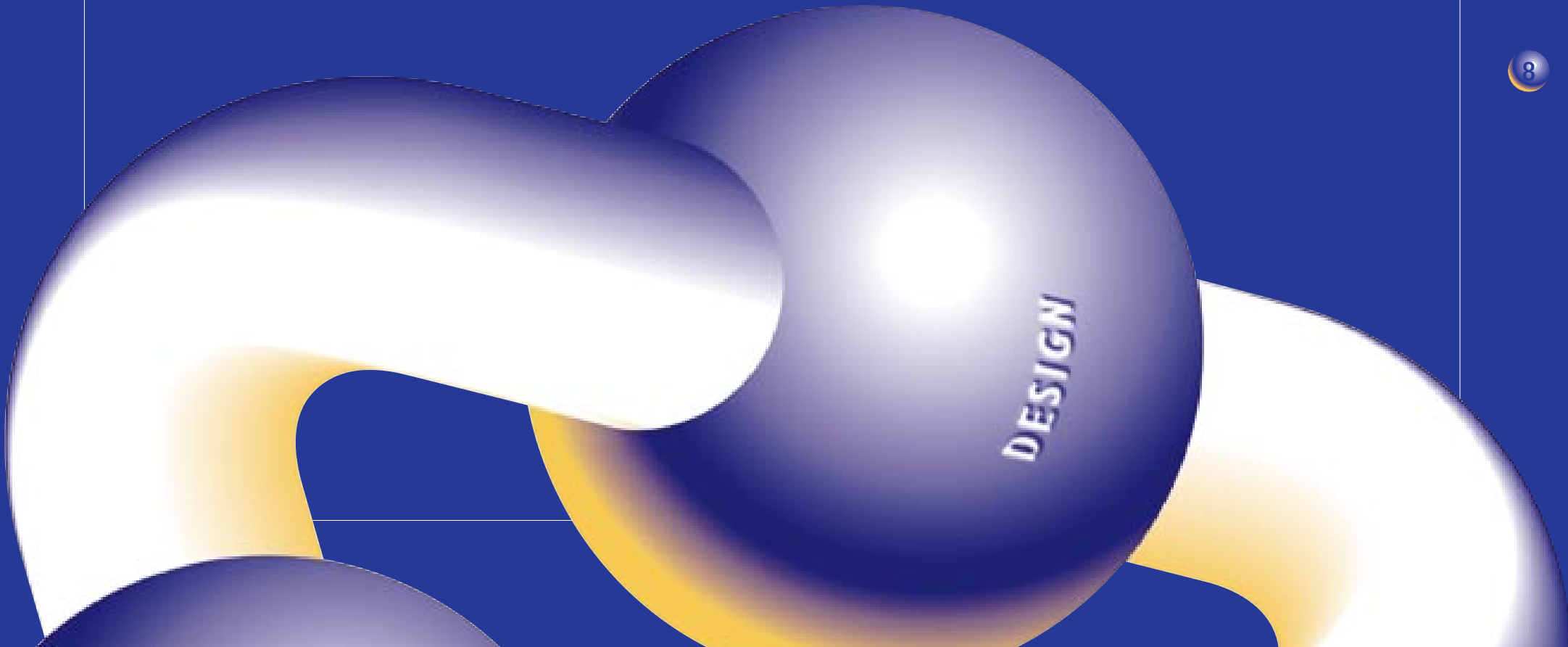
Where does MoRST fit in the Government-funded part of New Zealand's innovation system?



Our strategic direction is built on a commitment to turn the knowledge society ideals into reality. This will require us to work more closely with a wide range of groups in the community and in the public sector. We also need to focus more on action – defining, designing and delivering policies that improve New Zealanders' lives, environments and enterprises through research and innovation. MoRST will need to exert an influence out of proportion with our small size. This is a significant challenge, but one we are ready for after laying the groundwork over the last few years.

OUR STRATEGIC DIRECTION

Our mission defines a clear direction for everything we do. **To inspire and assist New Zealanders to create a better future through research and innovation.** This mission sets out how we will help the Government achieve its goals. It builds on our earlier mission – by moving on from promoting the **concept** of a knowledge society to **action** that will help turn this concept into reality.



OUR STRATEGIC DIRECTION

Interpreting our mission

inspire – refers to MoRST’s leadership role of encouraging people to recognise the benefits of research and innovation and, in turn, support and invest in it for themselves.

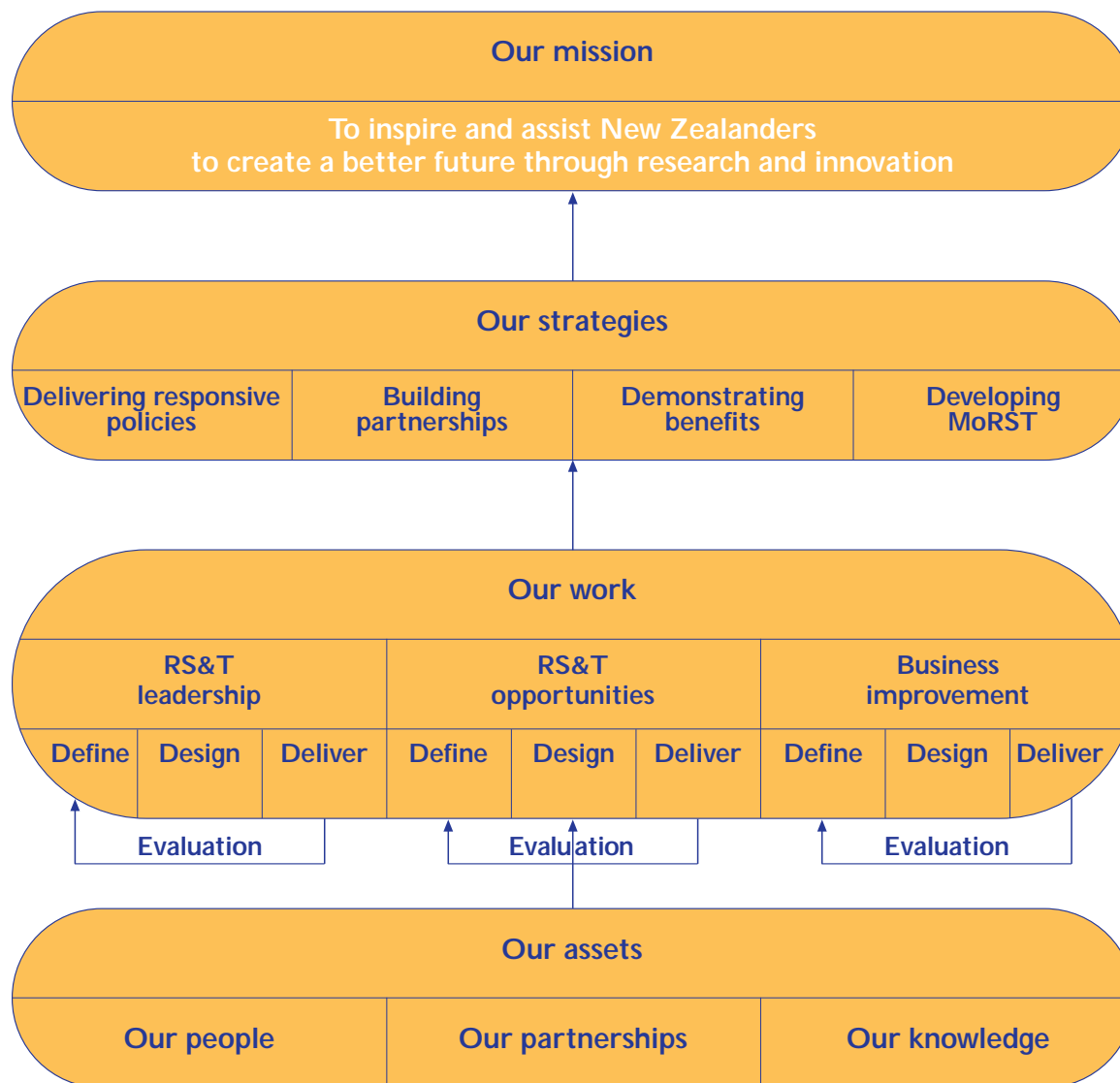
assist – refers to the need for policies and structures to make the advantages of research and innovation accessible to New Zealanders.

New Zealanders – recognises that research and innovation policies affect the lives, environments and enterprises of all New Zealand people. We also recognise the distinct policy and programme needs of Māori.

create – denotes the fields in which MoRST operates – research, science, technology and innovation – as fundamentally creative ones. A research environment that fosters creativity is needed.

better future – refers to measurable gains in social, environmental, economic and innovation terms.

research and innovation – means the range of activities that includes research, basic and applied science, business research and development and innovations in products, services, systems and processes across all areas of public and private enterprise.



OUR STRATEGIC DIRECTION

MoRST has four key strategies to inspire and assist New Zealanders to create a better future through research and innovation:

MoRST's work programme, human resources, knowledge management and performance reporting will be progressively aligned with these four strategies from 1 July 2000.

We will align Government's research and innovation policies with needs in the community.

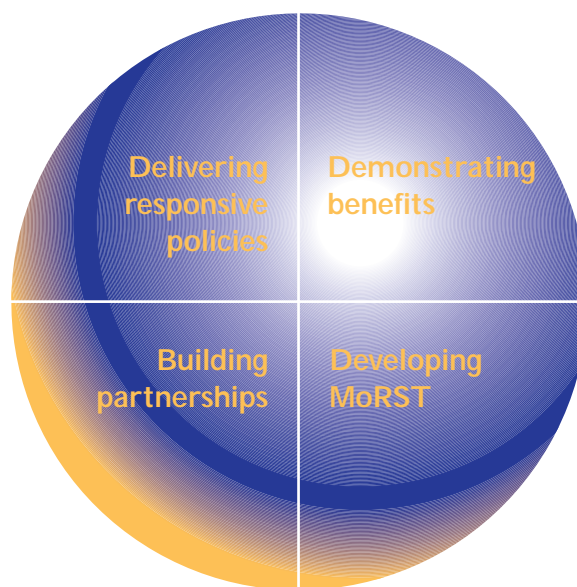
Some of the policy areas we will focus on are:

- building technological capability to boost economic growth
- understanding social systems to improve social well-being; and
- increasing knowledge of our environment and natural resources, to support sustainable development.

We will involve New Zealanders, New Zealand industry and international partners in research and innovation.

In particular, we will develop ways of working more closely with:

- community groups
- the education and health sectors
- businesses
- other government departments and agencies
- researchers; and
- international groups.



We will show New Zealanders how research and innovation improve our lives, environments and enterprises.

People in New Zealand have a low appreciation of how research and innovation can benefit them. We will work to overcome this by creating new ways of:

- communicating the benefits of research and innovation
- involving New Zealanders in setting future agendas for research and innovation; and
- providing better assurance that risks and ethics issues associated with new technologies have been adequately addressed.

We will build our capability to define, design and deliver world class research and innovation policies.

We will pay particular attention to:

- improving our understanding of research and innovation, and its implications for New Zealand
- implementing new research and innovation policies in ways that deliver more benefits to New Zealanders; and
- building partnerships with a wider range of groups in the community and especially with Māori.

OUR STRATEGIC DIRECTION

Our Values

We will promote the following values within MoRST:

We will be responsive

- Our stakeholders will know we are here to serve and will contribute positively
- Our stakeholders will want to talk to us because they know we are listening

We will be well informed

- We will value knowledge and the skills of acquiring, analysing and applying it

We will be committed to our mission, strategies and values

- Our people will understand how their role and activities contribute to the mission

We will communicate clearly

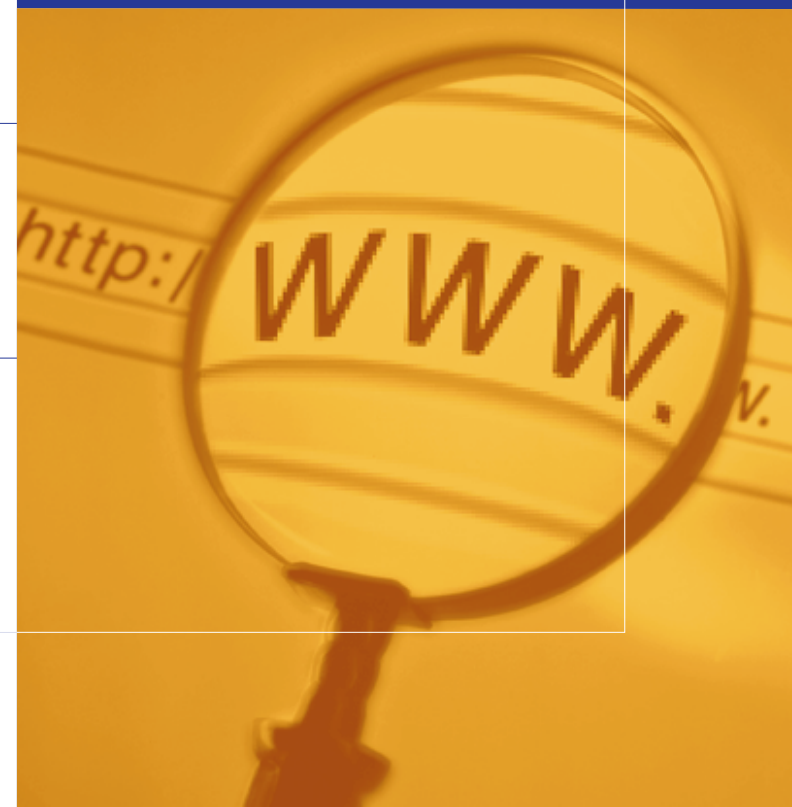
- Our style of communication will clarify our message, not complicate it
- We will be responsive to the communication preferences of stakeholders

We will value and respect differences

- We will model innovation as well as promoting it
- We will recognize and value different ways of working and differing perspectives

E-GOVERNMENT STRATEGY

E-Government is the Government's vision for moving the public sector into the knowledge age. New media technologies will provide New Zealanders with ready access to Government information and services. MoRST, in association with the State Services Commission and working with other government agencies, will help implement the E-Government vision as part of our Business Improvement initiatives.





PUTTING IT INTO ACTION

This section sets out how MoRST will be internally organised to **deliver** on the direction outlined. MoRST will have three equally valued areas of work: RS&T Leadership, RS&T Opportunities and Business Improvement. We will broaden the way we work in these three areas by applying a model that seeks to **Define, Design, and Deliver** each of the work areas.

Define – we need a well-structured, objective and defensible understanding and evaluation of each issue.

Design – we identify, evaluate and recommend workable options to address the issue.

Deliver – we implement these solutions to maximise the impact and then evaluate the results.

PUTTING IT INTO ACTION

MoRST will have three equally valued areas of work:

RS&T Leadership (our core business)

This is the policy work MoRST will mainly be known for. Its quality and relevance will depend on taking a medium-term view (3-5 years) of research and innovation in New Zealand and the role the Government can play.

Work areas will include:

- defining RS&T policy issues
- designing RS&T policies
- delivering community involvement in RS&T
- global links
- Māori development
- RS&T issues – economic
- RS&T issues – social
- RS&T issues – environmental; and
- managing Vote RS&T.

RS&T Opportunities

From time to time the Government's key goals will generate short-term and immediate policy opportunities for RS&T. MoRST will address a small number (3-5) of these opportunities at one time.

For our core business to provide the resources to work on these opportunities, we will need flexible and responsive processes and systems.

Initial opportunities include:

- providing leadership and direction for research and innovation
 - moving towards an economy based on high-technology, high value products and services
 - achieving better outcomes from public investments in RS&T
 - developing a culture where research and innovation are understood and valued; and
 - building partnerships with Māori.
- Over time, new opportunities will be identified.

Business Improvement

We need to continually improve core systems and services to meet current and future work demands on our organisation. This can be achieved through:

- building and developing the capability of our people; and
- capturing and improving knowledge and learning.

For example, we will:

- improve our information management system
- improve our staff development and performance management systems
- develop a relationship management plan; and
- develop an effective communication strategy that supports us in pursuit of our mission.

We intend to review systems and processes continuously to ensure we can offer the Government and the public high quality services. Supporting the new “E-Government” strategy will be an initial priority.

PUTTING IT INTO ACTION

Our critical assets These assets underpin our ability to do our job in ‘defining’, ‘designing’ and ‘delivering’ all three areas of business.

Our People

What we have

- well qualified staff
- strong policy analysis
- passion and enthusiasm

Where more work is needed

- initiatives to become more of a ‘learning organisation’
- recruiting or developing greater public policy experience
- recruiting or developing greater technology policy experience
- implementing the human resources performance management process
- implementing the human resources competency model

Our Partnerships

What we have

- excellent personal networks
- credibility in Government
- Māori responsiveness strategy
- functional information website

Where more work is needed

- developing a formal relationship management plan
- developing a robust, Ministry-wide communication plan
- enhancing MoRST’s Māori responsiveness
- contributing to E-Government initiatives

Our Knowledge

What we have

- policy capability
- technical knowledge
- information technology system
- library

Where more work is needed

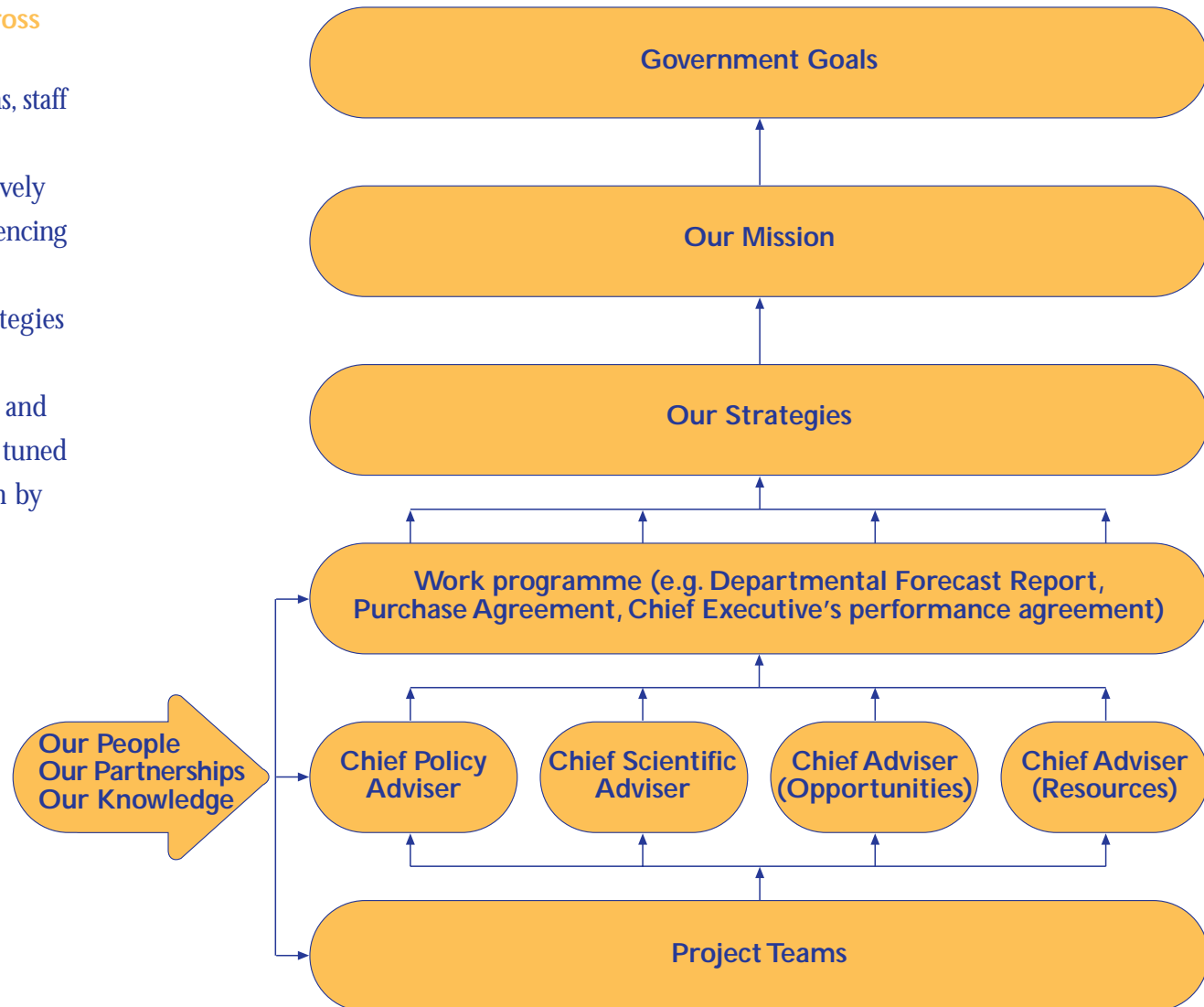
- continuing professional skills development
- contracting or recruiting specialised technical skills as new issues arise
- developing a formal ‘knowledge management system’
- developing formal ‘environmental’ scanning processes

PUTTING IT INTO ACTION

How will the direction be applied across MoRST?

MoRST's work programme, annual plans, staff recruitment, development policies and performance reporting will be progressively aligned with the strategic direction commencing 1 July 2000.

We already have various supporting strategies covering areas such as human resource management, information management and risk management. These strategies will be tuned to align with the new strategic direction by 30 June 2001.



PUTTING IT INTO ACTION

What changes will happen straight away?

From 1 July 2000, projects will become the basic work units at MoRST.

Four Chief Advisers will sponsor these projects in MoRST's three areas of business. They will set long-term directions, oversee the work programme, monitor and evaluate progress, and manage stakeholder relationships.

- Chief Policy Adviser and Chief Scientific Adviser – RS&T Leadership
- Chief Adviser (RS&T Opportunities) – RS&T Opportunities
- Chief Adviser Resources – Business Improvement

Project leaders will plan and organise work programmes, monitor and evaluate progress, and coordinate people and resources needed for each project. A project approach for managing our work will require flexible and overlapping teams, and therefore improved learning across these teams.

MoRST's existing Science, Policy and Resources groups will continue as 'home bases' for staff, reflecting their individual technical competencies.

Monitoring our progress

A strategy-focused organisation needs to know how well it is doing compared to the targets it has set. Across the four strategies, performance targets will be set and evaluated for each stage of the define, design, deliver framework.



We will evaluate the strategy by:

- identifying our current performance using stakeholder surveys (using quantitative and qualitative methods); and
- implementing a "balanced scorecard model" by 30 June 2001. The "balanced scorecard" approach identifies organisational learning needs, performance standards, stakeholder requirements and financial needs. They are driven by the strategic direction. Within each of these areas measures, initiatives and responsibilities will be evaluated.

We will use the scorecard to review our progress each year. These regular evaluations will enable us to re-focus our operations to achieve the strategies.

PUTTING IT INTO ACTION

Managing the risks Strategic change always involves risks. We have identified three major risks and how we intend to manage them:

What is the risk?	How is it being managed?
Stakeholders do not buy into the direction	<ul style="list-style-type: none">• The direction has been developed taking stakeholder feedback into account• The Chief Executive has been briefing counterparts in stakeholder organisations• The published direction will be distributed to a wide range of stakeholders after 1 July 2000• Annual stakeholder survey will assess satisfaction with results achieved by pursuing this direction
The direction is poorly implemented at MoRST	<ul style="list-style-type: none">• Staff have been highly involved in developing the direction through a series of workshops and their ideas have been incorporated in the direction• A scorecard model for organisational performance will provide incentives and guidance for staff to link their individual effort to MoRST's direction• Internal change promoters will champion the changes indicated in this direction
The direction is not used to guide day-to-day and year-to-year activities	<ul style="list-style-type: none">• MoRST's annual business plans will be aligned with the new strategic direction• We will report quarterly to the Minister on progress against the strategies in this direction

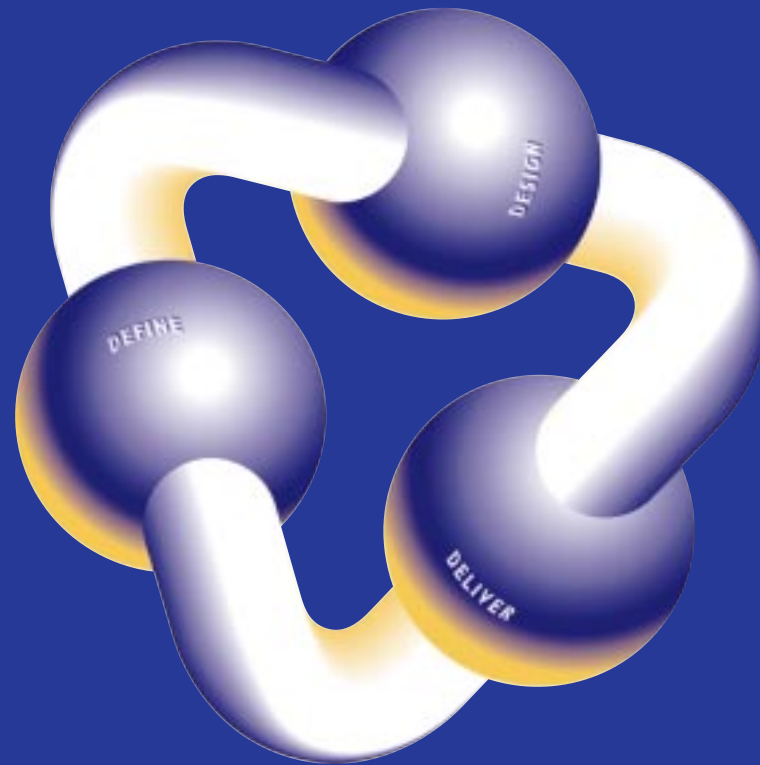
GETTING IN TOUCH

MoRST welcomes your enquiry about our programmes and policies for igniting New Zealand's future.

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