This international study investigates the processes and strategies being pursued by new HEIs across OECD and non-OECD countries to develop research. It has three objectives: 1) to provide guidance for institutional decision-making about the strategic management and organisational issues and challenges required to grow research capability and capacity; 2) to make recommendations for institutions and policymakers to enhance the participation of all higher education institutions (HEIs) as partners in a nationally balanced socio-economic strategy; and 3) to focus specifically on higher education institutions established post-1970, henceforth referred to as new HEIs.

The book identifies some of the main issues and challenges facing new HEIs, and discusses how they are being addressed. A number of key questions are pertinent to this investigation:

- To what extent has the institution identified research priorities or responded to national priorities? What structures, policies, procedures, resources and strategies has the institution used/introduced to help develop and encourage the growth of a research environment and profile?

- How does the institution balance the scholarship of teaching with the scholarship of research? How has the institution balanced the different demands of basic vs. applied research, individual vs. collaborative research, department vs. institution research priorities, postgraduate vs. staff research, etc.? Does the institution have a formal model for allocating resources internally between various research activities?

- What role have research centres or units played in promoting/developing research? Has the institution an affiliation to a technology or business park? To what extent have these centres or links played a role in the research and development strategy?

- To what extent have professional, personnel, industrial relations or human relations factors impacted on the research processes, procedures, strategies and/or structures? To what extent has the institution introduced or used personnel or incentive policies or procedures? What other (unofficial) practices have been adopted, and how have they worked? How has the institution coped with tensions stemming from the development of the research strategy?
EXECUTIVE SUMMARY

- To what extent has government policy or strategy facilitated or hindered the development of an institution’s research strategy or ambitions? To what extent have existing collaborative partnerships or networks helped or hindered the institution’s entry into research at a national level?
- To what extent has the institution learned from, adopted or adapted the experiences of other institutions? What particular difficulties has the institution experienced/faced in developing and encouraging research?
- To what extent do new HEIs share a common set of issues that transcend national boundaries or circumstance because of their status as late-developers and newcomers? If Governments desire a greater contribution from higher education to economic and social development, then what actions and policy instruments would be helpful to this process?

Chapter 1 offers an overview of higher education in the post-WW2 decades and in particular looks at the growth of tertiary participation through a mixture of new and (expanded) old institutions. It identifies the global and national challenges which face higher education institutions in order to learn how new HEIs, in particular, are responding to and share their “good practice” experiences. Chapters 2 to 5 provide an in-depth analysis of the many issues confronting the institutions that took part in the study (henceforth called participant HEIs), focusing on the strategic, organisational and managerial choices they are making. The study concludes that the outcome depends on many factors, including decisions taken by institutions themselves but also by government. Drawing on case studies, Chapter 7 offers recommendations for higher education managers while Chapter 8 focuses on policy recommendations. There is a need to bridge the gap between government policy and institutional aspirations and strategies.

New higher education institutions

Higher education has long been recognised as contributing to the social, cultural and intellectual life of society by improving the level of human capital. In recent years, national competition for greater shares of the global economy has led governments around the world to think much more strategically about the economic significance of academic knowledge production and dissemination. Many governments are currently reviewing the structure of their higher educational system, institutional missions and funding. Their focus is on resource allocation for research and development, the formation of human capital through education and training, and the necessary management and institutional arrangements thereof. In turn, the status and prestige of individual institutions is being determined by the quality and quantity of their research. HEIs are reorganising themselves to meet these new challenges.
While all institutions are under pressure to expand their academic output within tighter financial constraints and calls for greater accountability, new HEIs are particularly vulnerable. Many new HEIs were established or grew up in the post-1970s, in response to government initiatives for the massification and democratisation of higher education, labour market demands and other socio-economic factors. Over the years, advances and innovation in knowledge and the professionalisation of disciplines compelled institutions to offer postgraduate programmes and strengthen their research capabilities. Today, they offer comprehensive higher education underpinned by growing expertise in research, development and consultancy.

To some observers, these developments represent a breakdown in national higher education systems through a process of convergence or dedifferentiation – the tendency towards uniformity and decreasing levels of diversity. Newer institutions are often accused of adopting the accoutrements of traditional universities by actively copying their research profile and teaching programmes. Governments have reacted differently; some have created a unitary university system while others have chosen to retain the binary divide as the key policy instrument determining differentiation and diversity. In either case, many new HEIs believe they face “barriers to entry”, experiencing all the disadvantages of starting late from a poor base, and competing against the strength of established providers who have built up a firm relationship with policy makers and dominant groups. Tensions have arisen between institutional mission and government policy.

**Research strategy, management and organisation**

Participant HEIs have identified the need to strengthen research capacity and capability as critical to their institutional mission and to their survival as an institution. Accordingly, all participant HEIs are busy devising a research strategy in order to grow research activity and to organisationally support and manage the research enterprise within the institution. While research is dependent upon the work of individuals, research activity is now a serious business for both faculty and their institutions. This is reflected in institutional priority setting activity, the establishment of a research office and graduate school, and an emphasis on sustainable research groups operating through centres and in partnerships with other institutions or organisations.

Given their academic and pedagogical focus and the expertise of their faculty, new HEIs are embracing a (non-hierarchical) continuum of activity, including: traditional academic investigation (whether basic, applied or strategic), professional and creative practice, and knowledge and technology transfer. They are questioning traditional definitions of research and scholarship, and
the metrics used in national and supra-national evaluation systems. Despite these concerns, institutional priorities strongly reflect national priorities and funding agency criteria. Strong preference is given to applied research, followed closely by research in domains particular to the HEI or region to enable them to develop a competitive advantage. Each institution is working out its own combination of research and scholarship along a spectrum from extremely research-led to extremely-teaching led.

Developing research is not without difficulty. Participating HEIs feel public or government funding is often “politically and historically decided” or weighted in favour of established universities and traditional academic research activity and outputs. Without alternative funding sources and greater autonomy, they feel vulnerable to priorities set by others. Identification of research priorities and the introduction of research allocation models have given rise to tension. Several participants mentioned morale problems while others have experienced industrial relations problems. In response, participant HEIs are developing a human resources strategy as an essential ingredient of their overall research strategy.

New HEIs as late-developers

Evidence from the case studies uncovers a common set of difficulties which act as “barriers to entry” inhibiting institutional progress and success. These factors include their relatively poor resource base and scale of production/activity and lack of undemonstrated capacity. Participants believe that government policy intentionally or unintentionally favours established institutions, reinforcing this imbalance. Their experience suggests that difficulties impeding the growth of research at new HEIs are not likely to be overcome by conventional means because capacity and capability take considerable time to build. Without active and selective use of policy instruments, new HEIs will find it increasingly difficult if not impossible to overcome problems of late development because “the pecking order of research activities is not easy to change”. This has implications for government efforts to move beyond the elite phase of higher education and to widen access to the knowledge society. There are lessons for institutions and governments.

Recommendations for institutions and government

Today, society is demanding more from higher education. In turn, the agenda of most HEIs has moved on from a desire to simply increase the general education level of the population and the output of scientific research; there is now a greater concern to harness higher education and research to specific
economic and social objectives. The study suggests it will be difficult for
government to reach its targets without fully embracing new HEIs within a
nationally balanced socio-economic plan as the traditional university sector
alone is neither capable nor appropriate. Success, however, depends on
change within institutions and within government.

All participant HEIs are making difficult choices, learning how public sector
organisation need to operate within a globally competitive market. With some
exceptions, they do not wish to become a research-intensive institution but
they do desire to intensify their research. Drawing on the case studies,
institutional strategies embrace the following characteristics:

- Investment strategy and realignment of budgets.
- Appropriate organisational structures, including formation of a graduate
  school.
- Performance indicators to benchmark against international standards and
  shape priorities.
- Priority-setting to preferentially support internationally competitive or
  niche fields.
- Research clusters and centres capable of winning external funding.
- Resource allocation and recruitment aligned to research priorities;
- Strategic alliances with other HEIs or industrial Partners.
- Endorsement of research strategy by senior management and boards of
  trustees.
- Wider definition of scholarship to recognise variety of faculty ability.

To enable new HEIs to meet their objectives, government actions and policy
instruments are critical to this process. In this way, government could
facilitate research and innovation across all HEIs while also supporting its
objectives for diverse institutional missions. Based on institutional
experiences, policy recommendations are grouped under three objectives.

- **Widen Access to the Knowledge Society**: remove legislative constraints and
  establish an investment fund as part of regional/spatial strategy.
- **Overcome Late-development**: provide “head start” or “catch-up” grants to
  build infrastructure, e.g. laboratories and research libraries, and strengthen
  management and leadership capabilities.
- **Benchmark to Support Diversity**: provide baseline research funding as part of
  negotiated contract between government and HEI, re-examine definitions
  of research and criteria/rules for competitive research, and recognise and
  reward improvement and potential.