

**TOWARDS AN INTEGRATED SYSTEM OF TERTIARY
EDUCATION**

A DISCUSSION PAPER

Malcolm Skilbeck

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FOREWORD

The literature of the past decade on diversified higher education has raised many questions, and provided few answers, as to the appropriateness of the current structure of the binary system and the respective roles of the two sectors in the system. The introductory text for a 1994 conference of the German Federal Ministry of Education and Science on “Diversification in the Tertiary Sector – new Developments in the EU’s Member States”, while very supportive of the role of the Fachhochschulen, nevertheless raised many questions on the future of the Non-University Sector (NUS) including, *inter alia*, such fundamentally important ones as the justification for the continuing low level of NUS autonomy. A 1997 follow-up programme of the Council of Europe on “Developing Non-University Higher Education” similarly raised a further set of questions for consideration. The accompanying text on “The dilemmas of a binary or multiple higher education” made cogent comments on, among others, such topics as “academic drift” and two-way cross over between the two strands of the binary system and how tenable is the much quoted “separate but equal” concept.

The 1998 report of the Review Group on DIT’s application for establishment as a university recommended “that there would be further examination by the Government of the future of the higher education system”. It noted that “this issue could be addressed through an appraisal and clarification of the current binary structure, further differentiating the binary system into a cascade system which recognises the distinctive and complementary nature of the different systems and their programmes”. Finally, Professor Malcolm Skilbeck in his report, *The University Challenged*, noted “The establishment of the second tier, alternatives to universities, strongly encouraged and recommended by the OECD at the beginning of the ‘90s (OECD, 1991) has had some unanticipated or at least unplanned-for consequences. First, in many countries the development of a sector which might seem to alleviate some of the pressures for volume growth being experienced by universities was met by scepticism or downright hostility from that quarter (OECD, 1997b; Rhoades, 1990). Instead of being valued as elements of a complementary sector with which fruitful partnerships might be formed, these institutions have often been treated as rivals, competing for scarce resources, drawing away certain categories of students, and claiming a status for which it was asserted they were not adequately prepared. Second, as noted above, the second section institutions have generally not been content to remain a kind of junior or lesser partner. Similarly, the policy emphasis on ‘teaching only’ has been widely challenged and many of these institutions now claim a research role, especially applied or industry-related research.”

Professor Skilbeck concluded that:

“The existence of different, often overlapping, sectors, of study programmes and routes pose many questions for policy makers and institutions:

- Are the roles assigned to universities and non-university institutions as clearcut and stable as policy directions, resourcing and the different internal structures seem to suggest?
- Are the institutions able to define and maintain clear distinctions about their missions and the educational and research facilities and services they offer, given the overlapping and drifting that occur?
- Is research selectively preferable to a policy that seeks to strengthen the capability of all institutions?
- Should the boundaries become more permeable, in respect of entry requirements, courses, qualifications, and areas of concentration?
- How do governments and regulatory authorities propose to maintain or change the boundaries as tertiary education becomes ever more widely available and flexible in delivery?
- Can a policy of ‘equal but different’ be sustained over time?
- What are the reasonable requirements of students and the community at large for information and advice about the kinds of provision, access to them, the standards and standing of the programme and awards on offer?
- How can better articulation be achieved such that students enrolling in one kind of programme or institution do not find themselves at a dead end on completion?
- Is there need to provide common or core curricular elements and to ensure that all key competences and learning strategies feature in all study programmes at least of initial degrees and other qualifications?
- Are synergies and other complementarities being pursued both horizontally within tertiary education and between the secondary and tertiary levels?”

The present work is a significant additional contribution by Malcolm Skilbeck to the ongoing discussions about the future shape and role of the whole Higher Education Sector in Ireland and he is to be congratulated for his insightful comments on a subject of major national importance. I would like to acknowledge the financial support of the Atlantic Philanthropies for this project.

Brendan Goldsmith
President, DIT

PREFACE

This paper has been prepared as a contribution to discussion, debate and reflective analysis on future directions of tertiary or higher education in Ireland. As one who has studied and written about Irish education at different levels and over many years, I was pleased to receive an invitation last year to prepare a discussion paper elaborating the concept of a ‘cascade’ system of tertiary education, mooted in the Nally Report. In accepting the invitation, I stressed that my interest lay both in carrying forward topics already current in Ireland and in building on trends and movements in the international environment. In both instances, they have as their focus changing patterns of tertiary education in the broader context of public policy issues, notably the part to be played by tertiary education in achieving national development goals. While such a focus is but part of the purpose and role of educational institutions, it has grown in significance as expectations of higher education and research have increased.

It must be emphasised that in again raising issues for the future of Irish education, I do so as a great admirer of all that has been achieved. This paper is in no sense a plan or blueprint; rather it is a set of observations and suggestions designed to draw out one of the several future scenarios deserving of consideration in the emerging policy debate on the future of tertiary education. While there may be some who wish to maintain the status quo, forces both within the country and in the international environment have already combined to ensure a culture of continuing change. The challenge is to face the issues squarely and to demonstrate that tertiary education in all its forms and manifestations is capable of strategic innovation and creative problem solving.

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TOWARDS AN INTEGRATED SYSTEM OF TERTIARY EDUCATION IN IRELAND

1. EXECUTIVE SUMMARY

This discussion paper is set in a context of a tertiary education sector in Ireland which has not only experienced rapid expansion but has had to change fundamentally in response to a changing national and international environment. A focus in all areas of the tertiary sector on greater depths of knowledge and competence, on higher skills levels and on national requirements for longer term research and development strategies is reflective of and yet responsive to a transformed national economic climate. Irish society as a whole is profoundly affected by the international climate of globalisation and by a wide array of cultural, social and economic change forces affecting education. At all levels and regardless of particular settings, education is under acute pressure to demonstrate creativity and flexibility, and to achieve higher levels of quality, effectiveness and efficiency. There is no reason to doubt the capability, provided the will is exercised.

In that context this paper, which extends and is complementary to my earlier report *The University Challenged, A Review of International Trends and Issues with Particular Reference to Ireland*, proposes a more fluid, flexible, integrated, unified system of tertiary education, which would enable the system to respond more effectively to current and future national development priorities. The key findings are summarized below.

The Binary System of Higher Education

- As argued in this paper, the concept of binary (as a duality of functions within national borders) in light of these trends and developments, no longer captures present realities and is a poor prognosis for likely futures.
- In practice, there is very considerable convergence toward sector norms together with a steady erosion of the major boundary through academic creep and various policy changes. The potential yields of diversity and mission concentration are smothered in a policy environment which is losing a sense of overall direction and purpose and in institutional confusion of status and recognition with level of awards on offer. Funding diversity is more often funding inequity; structural diversity, as distinct from targeted programme diversity, is rightly criticised as an unnecessary constraint on creative leadership and entrepreneurial management. A sharp dividing line, once functional, is seen now by its critics as an unnecessary rigidity which inhibits creativity and innovation while not preventing academic drift. The issue, then, is whether diversity might best be achieved through maintaining, or by abandoning, the binary line. The binary distinction, however its merits may be extolled in the abstract, is not working in practice and efforts to sustain it are inconsistent with the kind of socio-economic environment and the national priorities which are sought. It has become an unnecessary impediment.

An Integrated System of Higher Education

In place of the rigidities and disfunctions of binary or bifurcated system of highly regulated institutions, what is proposed in its place is a series of moves, over time and through a wide array of specific arrangements, toward a more integrated tertiary system; a system, moreover, which recognizes the value of a variety of players, public and private, formal and informal.

- Two kinds of objection (to an integrated system) have been raised. The first is that a university or university college ‘cannot’ (or should not) be cross-sectoral, that a large body of sub-degree work is ‘inconsistent’ with university status. The existence of strong, well regarded cross-sectoral universities in other countries (and in Northern Ireland) is a sufficient counter argument. Many highly regarded universities already engage in large amounts of sub- or non-degree work, for example in their contributions to continuing education, mid career professional development, and provision of short course qualifications. Second, that the university is sui generis, has some essence or immutable quality which distinguishes it from all other forms of or arrangements for higher learning. By contrast, in this paper it is argued that it is no longer possible to adopt an essentialist definition of university: there are in existence far too many diverse institutions to suppose that one particular model sets the standard for all
- It would be a natural – if misplaced – assumption by many that an integrated, cascade system would result in dominance by the existing universities and a hierarchy of status, recognition and resources. This, indeed, is very much the present situation, whereby universities appear to enjoy degrees of freedom, power, prestige and influence beyond even the largest and strongest institutes of technology. The challenge in moving toward new structures is to redress existing imbalances and solve present problems as much as it is to create a smoothly functioning new system.
- In interrelating all, or most of the public sector higher education institutions within a single framework of tertiary education, the goal is to facilitate, not inhibit, distinctiveness of institutions, their mission, programmes, staffing, funding, mode of operation, while linking them together under an enlarged, reconstituted university umbrella.

The Institutes of Technology in Dublin and Waterford

- Taking, first, the aspirations of some institutes (notably the Dublin Institute of Technology (DIT) and the Waterford Institute of Technology (WIT)) in an integrated, cascade system - is there a case for establishing them as innovative, cross-sectoral, technological universities? There are effective, well regarded cross sectoral universities with which they might be compared, using rigorous benchmarking procedures. Thus the argument that the profiles of DIT and WIT do not correspond to that of existing Irish universities is more a claim for maintaining the status quo than a recognition of the need for innovation and change in Irish society. The argument that ‘mission drift’ would lead to a serious loss of resources from technician training needs close attention and should be considered against the trend toward a more highly skilled, knowledge-based economy where more not fewer graduates will be needed, more resources invested in research and there will be greater demand for innovative, creative multi-skilled people.

The Other Institutes of Technology

- A substantial realignment of the sector could take one of several directions familiar in other national systems: amalgamation of smaller institutions, particularly those threatened by significant enrolment declines, into larger institutes of technology; close working partnerships between the institutes and universities to build large, strong regional higher education networks – in Cork, Limerick, and Galway, for example; association of institutes with universities, in the form of recognised or constituent colleges. It is not the purpose for the present paper to make institution-specific recommendations but to raise the more general issue of affiliations and credit recognition

Establishment of New Universities

- Establishment, in time, of two more universities (DIT and WIT) as cross-sectoral institutions with a very clear industrial and technological mission would introduce a new kind of university, thereby diversifying the ‘standard’ model and challenging traditional assumptions about the nature of a university education. Were amalgamation or close working partnerships between institutes and universities in Cork, Galway and Limerick to occur, this diversity of mission and operation would be further enhanced as powerful new structures were created. Close partnerships, extending over time to amalgamation between large institutes of technology and regional universities would thus in introducing another kind of diversity, concentrate a massive array of resources for regional development.
- Establishment of the Dublin and Waterford Institutes as universities, or in the latter case as the basis of a new university, and the other changes in a cascade system already mentioned would initially increase costs, since there would have

to be trade-offs, including industrial negotiations. But, on the model of a nationally integrated, university-based system, there would be considerable scope for rationalisation and for economies of scale over time.

A Continuing Dialogue

- Relating tertiary education to a rapidly changing society and economy which sets high value on applicable knowledge, techniques and skills, and the practical outcomes of disinterested inquiry, is a constant challenge. The approach taken in this discussion paper assumes a readiness to think creatively about ways of strengthening this relationship even if structural change on a considerable scale and over time is entailed. Continuing analysis of issues confronting tertiary education and an open dialogue among the many interested parties are a necessary prelude and accompaniment to structural change.

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‘The best way to predict the future is to invent it’
(Douglas Adams, author of *The Hitchhiker’s Guide to the Galaxy*)

‘Traditional sector-based planning of higher education is no longer adequate and has to give way to approaches based on programmes and courses often cutting across sectors or institutions’ (OECD (1991) *Alternatives to Universities*, p.82)

2. SCOPE AND PURPOSE OF THE INQUIRY

This paper has been prepared as a contribution to discussion, debate and reflective analysis on future directions of tertiary or higher education in Ireland. There are good reasons at this time for taking stock of progress, achievements and issues to resolve, as a basis for moving forward. During the decade-long period of spectacular economic growth, with concomitant transformations of many established societal institutions and values, education at all levels has been singled out as a major factor in sustaining growth and promoting change. The tertiary sector has experienced rapid expansion and, often under acute pressure, has responded to demand in the short term for higher skill levels, and to national requirements for longer term research and development strategies to underpin future growth and well being.

There are now calls from several quarters for an intensification of efforts, to achieve both greater depths of knowledge and competence and considerably higher levels of educational participation for young people and adults alike. Yet, despite system-wide reforms and individual initiative by institutions and groups, the dual or binary system of tertiary education is under increasing strain. While it may be seen as a workable compromise, it falls short of the comprehensiveness and coherence that are needed as a foundation for the knowledge society and for a better quality of life for all people. The interest expressed in some quarters in a more coherent or integrated system, embracing all parts, reflects a concern over duplication, gaps and inadequate articulation in the face of increasing need for a more highly educated population. On the other hand, the problem of mission drift will, if it remains unchecked, lead to a wasteful and inefficient use of scarce resources and a dilution of intellectual energy. Drift occurs in both directions across the binary line, a consequence of opportunistic competition which could be exacerbated over the next decade as school leaving cohorts become smaller and increasing rates of research funding experienced in recent years are scaled back.

Ireland has now entered what is widely seen as a critical phase in economic and social development. Perhaps less well appreciated is that the pulse of education reform needs to be quickened if the country’s highly ambitious socio-economic goals are to be achieved.

The significant slowdown in the exceptional rates of growth, together with weaknesses in the global economic outlook have been signaled in recent government reports as a serious challenge and a test of the country's readiness to invest in its own long term future. Public as well as private resources will be much more constrained than in recent years. At the same time, there are unmet demands – for infrastructure, for equity, and for a more fully inclusive system of lifelong learning. Yet the aspirations are of the highest order, placing Ireland in the forefront of the global drive towards knowledge intensity and improved quality of life [1].

While tertiary education has a multiplicity of goals, purposes and values, including the quest for knowledge independent of specific applications and uses, there is a very clear challenge to become closely and effectively engaged with these changes and prospects. This means that all institutions and parts of institutions, including those which already have well defined roles in vocational and professional education, applied research and industry partnerships and consultancy, need to demonstrate a clear understanding of and responsiveness to the changing environment and changing socio-economic needs. In doing so, they must act in the spirit of dispassionate inquiry that is a necessary condition of the growth of knowledge and its effective application in solving problems and analysing issues.

It would be strange if a national system of education and institutional structures which have themselves experienced continuing change throughout their history, were to retain their present form as these global transformations occur and as the country launches itself into a new trajectory of development. The strains and anomalies that have arisen over time are one indicator, but perhaps more pressing is the dependence of the national development agenda and the future well-being of the Irish people on highly effective, adaptable and creative educational institutions and processes. There are good reasons to take up the cue given some years ago in the report of the Nally Committee when it introduced the concept of a cascade rather than a bifurcated or fragmented system [2].

This paper aims to contribute to the policy debate by identifying issues arising in the present structure together with possible directions for consideration in mapping the future development of tertiary or higher education in Ireland.

3. THE EXISTING TERTIARY SYSTEM

Frequently referred to as a binary system, tertiary or higher education in Ireland is in fact more complex and varied than that term might suggest. While there are two major sectors designated higher education (presumably because both offer degree level programmes of study), there is an expanding third sector of post-school education which in some respects is part of or provides opportunities for tertiary education. The colleges of education offer degree level programmes and over the years have made significant contributions to educational research and scholarship. There is a thriving sector of private colleges providing study opportunities to degree level over a range of social science, humanities and professional subjects. An outgrowth of the secondary and post-

secondary vocational sector, other colleges are also providing study opportunities at degree level. The British Open University, with a long-established base in Northern Ireland has a strong presence in the Republic through the large number of students it enrolls. Irish students are also enrolled through distance education in programmes of the US-based University of Phoenix. Looking ahead, it is possible to envisage a larger and still more varied array of providers, both public and private, national and international, global and corporate, campus-based and virtual, and using the validation mechanism being put in place by the National Qualifications Authority of Ireland. Assuming that the Bologna process remains on track, it can be anticipated that the overall number and proportion of students on degree programs will substantially increase over the coming decade not merely by the conversion of diplomas to degrees but by institutions seizing the opportunities of a potentially large adult education market.

Of course, a distinction needs to be made between institutions with the authority to award degrees and those whose degree level students receive their awards through a separate qualifications authority, or in a franchising arrangement. The distinction is even sharper when account is taken of the level of degree available (bachelor, master, doctor) and the nature and scale of research in universities, by comparison with institutions teaching at bachelor and perhaps master level and undertaking little if any research.

In acknowledging this distinction, we should not overlook historical trends. Doctoral programmes, for example, once rare or non-existent in many universities, have expanded to their present scale only in recent decades and research as a major component of universities is a relatively modern phenomenon. Research in Ireland can be expected to grow in the technological sector and is already strong in some colleges of education. The proportion of students proceeding to a degree in the institutions of technology has increased, to the point where more than 50% on average for the sector are proceeding to initial (or more advanced) degrees, while in some the figure is considerably higher. At the Dublin Institute of Technology 65% of wholetime students are enrolled in first degrees, with the percentage rising to more than 70% of the total body undertaking either initial or advanced degrees and rising to in excess of 80% if those students pursuing add on degrees are included [3]. There has been a marked growth in transition, whereby students across the country completing certificate courses proceed to a diploma, and those completing a diploma to a degree. Competitive bidding for research funds is already providing a channel for institutions other than universities to embark upon research projects. A further consideration is qualifications of staff: while differences between other tertiary institutions and universities are marked, there is an overall increase in staff holding degree qualifications up to and including research-based master and doctor degrees. This trend can be expected to intensify.

4. KEY ISSUES

Increasing rates of participation in degree programmes is a global phenomenon which is resulting in major changes in systems and institutions [4]. So-called mission or academic drift is widespread, as institutions respond to demand and seek new avenues of activity.

There is a tendency in Ireland for different kinds of institutions, not only universities, to provide more advanced programmes and to increase the proportion of enrolments in higher level qualifications. Is this mission drift in a negative sense, i.e. failure to maintain focus, or is it a manifestation of two fundamental trends: responsiveness to individual demand for advanced qualifications, reflected in very large increase in numbers and proportion of students completing upper secondary education and enrolling in tertiary level study; and responsiveness to social demand for higher levels of competence and knowledge? If the trend toward degree level programmes results in serious shortages at, say, technician level, there would be cause for concern, but it is difficult to challenge students and families wishing to attain the benefits degrees confer. Skill shortages have a variety of causes and it is not clear that the growth of degree level studies as such is significant in this regard.

Convergence is one feature of institutional development in a system where all have the authority and freedom to provide degree level programmes and to undertake research. Diversity, however, is another feature, when the content and level of degrees vary, where in some institutions there is a substantial array of non degree courses, and where research funds and performance are very unevenly distributed both across and within sectors.

Whatever the merits of sharp sectoral divisions and of sector-based differentiation - of funding, freedom of action, type of education and training provided, staff and status – these divisions and distinctions are now far from clear cut and many have become disfunctional. Moreover, several key differences within the separate sectors have widened over time, while those between them have tended to narrow, for example scope and scale of operations and research intensiveness. Attempts that might be made to reaffirm sectoral distinctions and to curb so-called mission drift may have had success had they been vigorously pursued before the regional technical colleges became institutes of technology and had Ireland continued on its earlier path of low growth, high unemployment and limited access to education beyond secondary schooling. That time has passed long since.

Instead of seeking to preserve or re-affirm a structure that has largely outlived its original purpose and usefulness, it would seem of greater benefit to the country to identify significant growth points and opportunities and to build structures through which existing weaknesses and disfunctions can be addressed.

There are several structural issues to address:

- *Further improving access* and raising levels of tertiary participation by school leavers [5];
- *Improving pathways for learners*, strengthening national articulation of courses and study programs between institutions and across sectors (a challenge to the National Qualifications Authority but also to departments and faculties within institutions)
- *Reducing costly duplication* of courses across institutions and sectors, and *developing* inter-institutional *partnerships* and more cost effective forms of technology-based delivery (receiving relatively little attention at present but a task

- for the HEA once responsibility for the institutes of technology is transferred from the Department of Education and Science);
- Defining a reasonable *balance, nationally*, between levels and types of *programmes* – from apprenticeships and technician education, taught degrees, research degrees, adult and continuing education (Responsibility is divided and there does not appear to be a forum for overall strategic analysis);
 - Increasing opportunities for *part-time study* especially for adult learners (the White Paper on Adult Education, and the expansion of the adult literacy service are steps in this direction; the need for greatly enhanced career-long professional development and lifelong learning for all have yet to be adequately addressed although the Back to Education Initiatives, the rapid growth in student numbers within vocational colleges, and the establishment of the National Adult Learning Council in 2002 are important recent moves in this direction) [6];
 - Drawing out the *educational implications and consequences of strategic public policy initiatives* – as in the National Development Plan – and systematically relating them to the diverse missions, values and procedures of tertiary education institutions (this tends to occur at the initiative of individual institutions and representative co-ordinating bodies, and not as itself a national priority);
 - Constructing a *more fluid, flexible integrated, unified system of tertiary education* as a means of addressing present anomalies and disfunctions and achieving greater overall education effectiveness and impact (this is a national policy issue to which the present debate over the future of tertiary education aims to make a contribution).
 - Actively preparing for the *digital revolution* in course delivery and extended opportunities for learning.

5. RELATING STRATEGIC DIRECTIONS TO NATIONAL PRIORITIES

While each of the above issues requires elaboration in any comprehensive review of future educational directions, for the purposes of the present discussion paper, it is the relationship between national development priorities and tertiary education that needs to be drawn out a little further.

Needless to say, national development priorities are not the only source of direction and purpose for education; some people strongly contest the emphasis they receive in contemporary educational policy making. There is, however, a necessary conjunction to be established between such priorities and the claims of the untrammelled quest for knowledge and understanding, personal growth and development and the virtues of civic society. Exploring their interplay is a continuing task for educational institutions, teachers, researchers and students and must feature in any structural and other policy changes that may be made. While it is not possible to pursue this wider agenda within the confines of the present inquiry, there are good reasons to give it close attention in the current debate..

All tertiary institutions have a symbiotic relationship with the economic and social progress of the country. They depend on a productive economy for their survival and

financial viability. Equally, they are a main source of high levels of human capital and applicable knowledge. It is reasonable to ask how well their goals and strategic directions do or might match national priorities. Conversely, national policy needs to treat tertiary education as a vital investment in future growth. Forging new models of learning, drawing deeply from the academic well while actively participating in the construction and reconstruction of the new economy and the renewed society is a common purpose of all tertiary institutions and a common interest between them and the broader domains of public policy.

What are the national priorities that have been declared and how closely do the goals and strategies of tertiary institutions match them? While there can be endless debate about the sources of national priorities and the authority for stating them, to say nothing of how they are to be interpreted and implemented, for our purposes here one principal source is the national government and the authority is that vested in ministers and the parliament. The key government document setting forth public goals and priorities with financial implications is *Ireland National Development Plan 2000-2006*. Several other publications and reports dealing with industrial policy, social goals and the role of education are also highly relevant. Those available up to the year 2001 have been reviewed for their implications for the universities by Skilbeck. [7]. Conclusions drawn in that publication, together with more recent public statements, are also relevant in considering how tertiary education can serve as an engine of national development.

What stands out in the body of material just referred to is, first, the need for ever higher levels of knowledge and practical capability as international economic competition intensifies and Ireland responds through new kinds of investment, product and process innovation, expansion of the service sector and other changes which require higher levels of human capital, a greater concentration on research and innovation, and well balanced regional development [8].

This demand is matched by a forecast need, in the current slowdown of economic growth, for further improvements in productivity – with associated requirements for innovation and leading edge investment. Industrial policy formation, which has been a prominent driver in the boom years of the 90s, is characterised in the early years of the present century by a shift from almost exclusive reliance on a combination of inward investment and existing levels of human capital toward innovation and the requirement for yet higher levels of education, creativity, flexibility and openness to new ideas and ways of doing things [9]. Achieving the potential for continuing economic growth and social development will require not only a more highly educated workforce and higher levels of investment in R&D and other kinds of innovation. Equally important is a mentality that accepts the need to balance present consumption with savings and investment for future growth. This is an aspect of the human capital debate that is frequently ignored in the focus on innovation, knowledge, skills, and competences. Social and cultural norms, values, lifestyle and people's expectations are no less important than measured educational attainment and research outputs.

National priorities are not of course merely a matter of sustaining economic growth. Ireland has a rich cultural legacy – in literature and language, music, the arts, science, historical and archaeological scholarship, philosophy and religion. A much admired facility in human relations, language, quickness of mind, humour, social bonding and cross-national engagement are equally vital parts of this dynamic and successful society. But the country also suffers from a history of severe inequality, widespread deprivation and continuing pockets of poverty and neglect. New issues to address have emerged: dislocations arising from processes of rapid change; immigration; changing international relations and others. Commitment to steering education and research toward ever closer engagement with national priorities requires that institutions take a much broader view than simply serving the economy. This is, however, a difficult issue in practice since there must be choices among numerous priorities and needs; on the other hand, in educating students and in their scholarship and research, institutions should be enriching experiences and widening horizons, not reinforcing compartmentalised knowledge and myopic outlooks. Amongst other changes, this requires a broadening of vocational training – not only generic skills but more humanistic and socially sensitive study as integral parts of vocational and professional training.

To summarise, Ireland's declared and implicit national priorities require a much more highly educated population – in terms of knowledge, understanding, insights, attitudes, skills, expectations and values. Whatever the field, whether agriculture, manufacturing, industry, human or financial services, rural or urban, high tech or low tech, it is the enhancement of human competence and social sensitivity together with the deepening of understanding that is the encompassing target. Structural change while necessary is not in itself sufficient.

Notwithstanding the regard for learning and a highly sophisticated literary, artistic and intellectual culture, Ireland suffers from historically low levels of average educational attainment and makes inadequate provision for adult, continuing, part time education including the upgrading and updating of professional qualifications. The universities, for example, have served elites and professional leaders well but have been less successful in widening opportunity. Other institutions, as a result, are often seen as of lower social esteem. It might seem paradoxical, therefore, that the rise of the Celtic tiger has so often been attributed to the very high levels of education of the Irish workforce. The paradox can be explained through a closer analysis which indicates, first, that a considerable range of factors, not only educational levels, was responsible, second, that the major growth spurt of the 90s did not require large numbers of highly educated Irish people since a relatively small number of key personnel – many imported and working in multinational companies – were able to steer and lead a workforce exercising on average considerably lower levels of skill and receiving relatively modest remuneration by international standards; third, pockets of expertise were quickly developed by quick witted people and some labour market gaps filled through imported expertise. For the years ahead, it has been claimed that these conditions and characteristics no longer apply and that both in quantitative and qualitative terms there must be a very considerable enhancement of human capital within Ireland and large improvements in productivity in the workforce [10].

The goals and strategic directions commonly pursued in the institute of technology sector correspond closely to the national needs and priorities briefly sketched above but with more visible weighting toward economic, business and industrial needs. Profiles continue shifting in the direction of meeting individual and social demand for higher levels of knowledge and competence in the workforce as demonstrated in the increasing number of students enrolled in higher level study programmes. While there is a continuing, employer-led demand for lower levels of educational attainment and professional competence, that market is diminishing. However, its requirements must still be met.

6. A BROADER AGENDA

National priorities, while focused in many public policy documents on conditions for economic growth, are no less social and cultural in character and import. Individual growth, freedom of choice and the capacity for a fulfilling personal life are of the utmost priority in a democratic society. Such considerations are not always prominent in either policy debates or in institutional strategic planning. Tertiary education in practice is often sharply focused on specialist knowledge and career preparation while research and scholarship depend on an intense concentration on specific topics and problems. Institutional and systemic restructuring, in a context of national priorities must address the full range of educational values and purposes. The cascade or torrent must nourish the whole culture and not just those with louder and more authoritative voices.

Ireland's relatively low standing, internationally, in rates of upper secondary education completion and tertiary participation require attention, through much more focused and effective access and equity programs. The country's need to raise the overall level of educational attainment will require great effort at all stages, from preschool to higher education. Improved access is a key target and a wide array of programs including partnerships with schools and community groups, special entry arrangements, various student support schemes both pedagogical and financial and staff development is now accepted as an integral part of any tertiary institution's profile.

To the extent that increased and more equitable participation in higher education is a function of tertiary institutions (it is no less a function of primary and secondary schooling) much is beginning to be achieved with younger students. Excellent community outreach programs exist, such as those conducted by the Dublin Institute of Technology for inner city youth [11]. The issue is, however, even more serious for adults in that historically low levels of school completion mean that in the age range 25-60 years there is a very large number of adults with low levels of formal educational attainment. Since Ireland will need to draw fully on the talents of adults, including the present workforce, very high priority should be given to continuing, adult education, professional up-skilling and renewal of qualifications. This need, which extends beyond professional training to broadly based lifelong learning, cannot be met except through the combined efforts of voluntary bodies, industry and the formal educational institutions.

While there are increasing numbers of students enrolled in part-time courses, tertiary institutions are not as a whole doing everything possible to increase opportunities for adults – through year long study opportunities, delivery by distance education, partnerships with employers and so on. There is still an assumption in many parts of the tertiary education sector that the norm is full time study by young adults – or if part-time, then through apprenticeships and similar job-related training, or as incidental to mainstream activities. There is a continuing need for the present provision but to go beyond it – to address the no less important need to open the doors to the whole adult population. Fees are an issue and they have been raised and debated in other contexts. However, leaving aside the fees issue there is a great deal to be done in enabling and encouraging much higher levels of adult participation, not just by institutions and government but by employers and industry-based incentive schemes.

Does the close alignment of goals, strategic priorities and study programs to the labour market and national development priorities militate against claims by academic institutions to be intellectually autonomous, engaged in a quest for knowledge through independent, disinterested inquiry? Can an overtly service role, with dependence on external determinants of need and direction rest comfortably with deeply rooted ideals and established forms of academic freedom? There is an issue here, since it is one of the functions of critical inquiry to question and to analyse, not simply adopt or adapt; research that is critical and independent will not be exclusively applied but will include fundamental research, scholarship in the humanities, and forms of inquiry that challenge the status quo whatever the field or nature of authority.

These characteristics and values are part of what is widely understood to distinguish broad-based higher education and wide-ranging research from more narrowly prescribed professional training and practically useful research. Can the two co-habit comfortably – within a single institution or is it necessary to differentiate institutions along such lines? In Ireland today, both the universities and many of the institutes of technology and the colleges of education are demonstrating by their action that there can be complementarity and co-habitation. There is now a considerable blurring, such that these different orders of activity can no longer be assigned, respectively, to universities and technical-vocational institutions.

Broadening the agenda raises the issue of teacher and teaching including the roles of the teachers' colleges and university faculties of education. Traditionally, training centres for primary and secondary school teachers and, increasingly, agencies for educational research and consultancy, the purpose of their degree programmes has largely been preparation for school teaching and the further professional development or in-service education of school teachers. This has broadened to include administrators, managers, future researchers, community workers and others. An issue which can only be raised but not pursued here is the development and enhancement of teaching competence across the tertiary sector as a whole. No institution at present and no substantial part of any institution appears to have a primary responsibility for research on tertiary teaching and learning and the improvement of practice. Quality reviews will reveal problems and weaknesses to address but will not of themselves serve to effect improvements.

Although in this discussion of ‘broadening the agenda’, only some of the relevant issues have been raised, they point toward the varied concerns that a full scale review would need to encompass. Structural change aimed at a more integrated national system of tertiary education would be inadequate unless it also resulted in discernible progress in addressing such issues.

7. MOVING TOWARD A CASCADE OR INTEGRATED SYSTEM

Cascade: A waterfall; usually a small fall; especially one of a series. Also in transferred and figurative use.

The Shorter Oxford English Dictionary on Historical Principles.

In introducing the concept of a cascade, the Nally Report did more than raise a question about the appropriateness of a bifurcated system of tertiary education. The metaphor serves a dual purpose in alluding to a continuous flow or movement and a serial relationship. Whatever system is in place needs to avoid stagnation and fixity; it should be dynamic and forward looking. Since it is a system that is being invoked, the relationship of the component parts to one another is of vital concern – they cannot be self-contained, isolated, discontinuous.

So far the metaphor of a cascade can be generative, but where does it lead in considering the future of tertiary education? One fundamental and decisive shift, internationally, that has occurred over several decades is *volume increase*. What in the past has been small, selective, has become very large; tertiary education as pointed out in a twelve nation review by the OECD, has become a universal institution with ever increasing levels of participation as continuing education beyond school becomes the norm. The cascade has become a torrent. Another decisive shift has been the *elevation of the social and economic service roles*. Once dominant only in the technological sector, they are now key policy considerations

for all universities (which of course have always been involved in the education of the ‘noble’ professions) [12]. The torrent is being channeled, to irrigate social and economic affairs of the whole nation – and beyond.

Neither of these demand-side developments, by itself, requires the abolition of binary line distinctions, but both are powerful contributors towards their progressive dissolution. Binary systems reflect simpler, more self-contained, more ordered and stable cultural formations when the pace of change was much slower and the scale of operations was quite small.

An environment in Irish higher education that fosters a well integrated system of institutions grounded in both shared and differentiated missions and characteristics might seem to foreshadow the end of the binary system. Its replacement requires careful consideration. Diversity - of mission, structure, organisation, profile and funding – is valued and is in principle attainable within a binary system. Indeed it is often presented as both its *raison d’etre* and its supreme virtue. In practice, however, there is very

considerable convergence toward sector norms together with a steady erosion of the major boundary through academic creep and various policy changes. Funding diversity along present lines is funding inequity; structural diversity is commonly criticised as an unnecessary constraint on creative leadership and entrepreneurial management. A sharp dividing line is seen by its critics as an unnecessary rigidity which inhibits creativity and innovation while not preventing academic drift. The issue, then, is whether diversity might best be achieved through maintaining, or by abandoning, the binary line. The binary distinction, however its merits may be extolled in the abstract, is not working in practice and efforts to sustain it are inconsistent with the kind of socio-economic environment and the national priorities which are sought. It has become an unnecessary impediment. It has been suggested that the binary system could be reinvigorated, that the institutes in particular could re-focus their work on regionally-based industrial development. This is an attractive idea, but such a focus is no less apposite for the universities – and the institutes as already noted, are producing quantities of graduates, many with no specific regional orientation.

8. IMPLICATIONS OF A CASCADE SYSTEM FOR IRELAND'S HIGHER EDUCATION INSTITUTIONS

As discussed earlier, despite Irish higher education being described as binary, there are in fact four distinct categories of public institution (post-secondary/ tertiary) together with private colleges to be considered in developing an integrated system. The major emphasis of this paper is on the binary line between the technology and the university sectors. While attention is required to all of the categories and indeed to all forms of post-secondary education in a more comprehensive review, the implications of a cascade system are here drawn mainly for the institutes of technology and their relations with universities. Further work would be required in order to consider implications for all types of tertiary and post-secondary institutions. However, it is clear that there are trends and movements which affect all categories and that in any restructuring that may occur relationships involving universities will be pivotal.

8.1 Implications for the institutes of technology sector

The institutes of technology, while all having a broadly applied character in a range of commercial, industrial and professional fields, vary greatly in scale. The largest by far, the Dublin Institute of Technology has some 10,000 full-time students, followed by Cork and Waterford with some 6,000 full-time students each. Blanchardstown has fewer than 1,000, while several are in the range of 3,000 to 5,000. Together, they provide reasonable coverage of the whole country. The institute sector has grown in scale and strength from its regional college origins and identified closely with national priorities especially for a highly skilled workforce.

In shifting their profile towards more advanced study and moving to develop a research profile, many institutes of technology are laying claim to a different, more senior role and

set of relationships in a future system of tertiary education. This claim gives rise to several questions:

- In which ways and how far have they progressed along this path?
- In their present form and with existing educational and research profiles, do any of the institutes more nearly resemble a university than they do other institutes of technology?
- Would the national interest best be served by encouragement and support for a continuing upward trajectory or by a declaration that the binary system remain intact?

These questions can only be addressed in a preliminary way here, not least because of the assumptions underlying them and divergent opinions held by interested parties. In considering progress of any institution along the path towards ultimate university status either as a free standing institution or in some kind of collegiate relationship, at least four criteria merit consideration:

- The scale and scope of university level courses and awards;
- Academic attainments of students at entry;
- Qualifications of staff;
- Research and scholarly output.

Other considerations also arise, including financial viability, implications for the system as a whole and suitability of academic resources and environment. There is an overriding if seldom clearly articulated ‘national interest’ issue: what kinds of institutions does the country need – and how many?

Careful appraisal is required in applying these criteria. Before considering them, it is necessary to dismiss two kinds of objection that have been raised. The first, already discussed, is that a university or university college ‘cannot’ (or should not) be cross-sectoral, that a large body of sub-degree work is ‘inconsistent’ with university status. The existence of strong, well regarded cross-sectoral universities in other countries (and in Northern Ireland) is a sufficient counter argument. Those who are sceptical should perhaps be ready to study these institutions and assess their academic worth rather than indulging in *a priori* judgement. Two other considerations are relevant. First, many highly regarded universities already engage in large amounts of sub- or non-degree work, for example in their contributions to continuing education, mid career professional development, and provision of short course qualifications. Second, it is no longer possible to adopt an essentialist definition of university: there are in existence far too many diverse institutions to suppose that one particular model sets the standard for all.

A second objection, often implicit rather than overtly stated, is that because resources are limited, further competition by adding to the number of universities or university colleges will mean less for all. This zero sum argument ignores the opportunity (and need) to diversify funding sources and the increasing capacity (and need) for further investment in education as the economy continues to grow – although as already mentioned, there is also increasing competition for the outcomes of economic growth.

The above considerations aside, what factors in the changing tertiary education environment are relevant in considering evolution toward a more integrated structure, a cascade system?

Availability of degree level programs in a higher education institution is a relevant consideration, more especially when the institution has the authority to award its own degrees. Of the institutes of technology, only the DIT has this authority, which it has been exercising over an increasing number and range of programs. However, all institutes of technology and other colleges are or could become degree providing institutions (through HETAC, the Higher Education Training and Awards Council), up to doctoral level.

Academic attainment of students at entry. Universities normally have higher formal academic entry requirements than non-university institutions. This difference is most apposite for direct entry from school or after a gap year, mature age entrants may have to satisfy other criteria instead or in addition. The academic profile of students at entry continues on an upward incline and in some institutes and parts of institutes is merging with university entry requirements.

Qualifications of staff are expected to fit specific characteristics of subjects, so great variety is the norm. But a single test, widely accepted now, is research training or scholarship as testified by a higher (research) degree usually at doctoral level but often at masters level. Since this criterion has come into play only relatively recently in the history of universities, there are eminent academics who do not meet it. Also, when universities are created or evolve from antecedent, non-university institutions, it may be several decades before attrition together with staff development and recruitment policies take full effect. What is important, then, is the trend, and institutional policies of recruitment and staff development. In several institutes of technology, staffing policies are now giving greater weight to higher levels of formal qualification, usually in conjunction with industrial, commercial or public sector experience.

Research and scholarly output have become a major factor not only in differentiating university from non-university institutions, but in distinguishing ‘research intensive’ from ‘research informed’ universities. Receipt of infrastructure funding and grants has given universities already in existence a substantial head start over those that aspire to becoming research active. As with the upgrading of staff qualifications, it takes considerable time and sustained effort to develop a substantial research profile and solid infrastructure when building on pre-existing non-university institutions. It is the trend, the direction, rate of development, and potential over time that are important.

In Ireland today, no clear, definite line obtains between universities and several non-university higher education institutions; no single criterion distinguishes one from the other. There is however, a constellation of factors that help to sustain a bifurcation. Sometimes the distinction is made on administrative and financial grounds – control, autonomy and costs. At other times, it is governed by policy considerations such as avoidance of academic drift (or creep) and maintenance of a viable, well recognised system of technical and vocational education geared to a particular range of industry

needs. There are legislative, administrative and financial differences, but the question to address is whether these are appropriate given the developments taking place in the institutes and in the wider society.

Whatever the forces at work, there is, historically, a general upward movement worldwide whereby many highly distinguished universities have grown out of non-university institutions. Whether this is designated academic drift (or creep) or a form of natural social evolution is less important than an appraisal of what is in the best interests of the community, the institutions and the students and staff.

Perhaps the question most in need of an answer in considering their future development is not what the institutes themselves want, but what kind of institutions would be of most value and use to the country.

Taking, first, the aspirations of some institutes (notably the Dublin Institute of Technology (DIT) and the Waterford Institute of Technology (WIT)) in an integrated, cascade system - is there a case for establishing them as innovative, cross-sectoral, technological universities? There are effective, well regarded cross sectoral universities with which they might be compared, using rigorous benchmarking procedures. This benchmarking should include the contributions that institutions are making to national development and specifically, the benefits of the multi-levels of academic operation. In Australia, institutions worthy of study include the Royal Melbourne Institute of Technology University, Swinburne University, and Victoria University of Technology – and there are others. Thus the argument that the profiles of DIT and WIT do not correspond to that of existing Irish universities is more a claim for maintaining the status quo than a recognition of the need for innovation and change in Irish society. The argument that ‘mission drift’ would lead to a serious loss of resources from technician training needs to be considered against the trend toward a more highly skilled, knowledge-based economy where more not fewer graduates will be needed, more resources invested in research and there will be greater demand for innovative, creative multi-skilled people. It appears that existing and anticipated demand for technicians can be met by the combined efforts of DIT, WIT and the institute of technology sector as a whole. Cross-sectoral institutions are as capable of providing high quality apprenticeship and technician education as single purpose institutes of technology.

Whether Ireland would benefit from a different kind of university, with the kind of profile DIT and WIT have developed is a matter of judgment. In this discussion paper, emphasis has been given to the upward trend in human capital requirements and societal expectations and needs, for which more advanced levels of education and research will be required. Elsewhere, the author has argued for more diversity and variety in Irish universities (13).

While this courses of action which DIT and WIT have been pursuing may have its critics it has the merit of systematically and assiduously addressing the high level education and R&D needs of the country in a period of rapid, pervasive change. As they have endeavoured to re-position themselves, many difficulties have arisen and there remain

unresolved issues and serious structural impediments to the realisation of their goals. These should continue to be addressed since they constitute a barrier to the flexibility and innovativeness in learning and teaching that is being sought. Perhaps the best investment they can make in their own future is to add to the already substantial resources and practical arrangements for staff development with targeted recruitment to further strengthen major growth points. Since breaking the mould is a key message, and it is a new kind of worker and active citizen that the knowledge economy and knowledge society requires, it is human capital formation within the institutions themselves that will best set future directions for growth.

Whether the course profile in these and other institutions (universities included) is sufficiently flexible and adapted to the broad, changing spectrum of high level employment is a question that should be put. The long-standing view that science and technology needs are not being sufficiently met (in many countries, not only Ireland) comes hard up against the interests and capabilities of students which do not always match the declared national needs.

DIT and WIT are but two of the country's fourteen institutes of technology but both, and especially DIT, stand apart to some extent because of their profile and scale of operations. For WIT there is the additional consideration of a strong local campaign for a 'university in the south east', fortified by the identification in the recently announced spatial strategy of the southeast as a major growth corridor (14). For DIT, substantial profile changes in teaching and research, in staffing policies and in internal organisation of the past few years have given a definite semblance of university-type activity, increasingly across the whole institution.

It is not the purpose of this paper to consider in depth the changing profiles of the whole technology sector, other than to underline an upward movement – in qualifications, research and consultancy, staffing – more apparent in several institutes, only beginning in others. It may be argued that if DIT were to apply for and succeed in attaining university status and if a new university of the southeast, incorporating WIT were to be established, the technology sector would be considerably weakened. This contingency has been used as an argument for retaining and endeavouring to reinforce the binary line. It could equally well be used to consider moving over time toward a substantial realignment of the sector. Such realignment could take one of several directions familiar in other national systems: amalgamation of smaller institutions, particularly those threatened by significant enrolment declines, into larger institutes of technology; close working partnerships between the institutes and universities to build large, strong regional higher education networks – in Cork, Limerick, and Galway, for example; association of institutes with universities, in the form of recognised, affiliated or constituent colleges. A national technological university has also been mooted. This is another kind of conceivable structure but one which could be extremely difficult to establish and operate given the diversity – and imbalance – of constituent parts and regional competition for resources and investment. The national spatial strategy provides an impetus for re-thinking the regional character and impact of whatever structural changes may be made.

Of particular interest, therefore, and in the context of the earlier discussion of national priorities (section 4 above), is the idea of very strong regional centres or clusters of tertiary institutions, comprising either fully amalgamated institutions or a variety of associations and affiliations. Smaller institutes, instead of feeling imperilled, for example, by student enrolment projections, would thereby become vital contributors to major regional development strategies, in association with a range of partners, or in a new amalgamated organisation.

8.2 Implications for the university sector

It would be a natural – if misplaced – assumption by many that an integrated, cascade system would result in dominance by the existing universities and a hierarchy of status, recognition and resources. This, indeed, is very much the present situation, whereby universities appear to enjoy degrees of freedom, power, prestige and influence beyond even the largest and strongest institutes of technology.

Establishment, in time, of two more universities (DIT and WIT) as cross-sectoral institutions with a very clear industrial and technological mission would introduce a new kind of university, thereby diversifying the ‘standard’ model and challenging traditional assumptions about the nature of a university education. Were amalgamation or close working partnerships between institutes and universities in Cork, Galway and Limerick to occur, this diversity of mission and operation would be further enhanced as powerful new structures were created. Close partnerships, perhaps extending over time to amalgamation between large institutes of technology and regional universities would thus, in introducing another kind of diversity, concentrate a massive array of resources for regional development. Recognition of other institutes through a model of university colleges or affiliates would overcome isolation and the disadvantages of disproportionately small scale and a limited range of operations in a system characterised overall by larger, multi-purpose institutions. A similar effect might be achieved by amalgamation of several institutes as a basis for a third, technology-focused university, although there would need to be a recognisable affinity among the constituent institutions to overcome the rivalries and conflicts often arising through those amalgamation which are part of a national reform strategy rather than a natural outgrowth of partnership and collaboration built up over time.

9. A VISION FOR THE FUTURE AND WAYS FORWARD

In *The University Challenged*, it was suggested that the Irish universities are faced with new demands, opportunities and challenges, due in part to the numerous developments they themselves had initiated but very much in the context of massive changes in Ireland and its relation with the world over the past decades. Since that report was published, there has been no diminution in the rate and scale of change and, indeed, from several sources it is evident that the role of higher education is becoming more rather than less complex as the institutions gear their activities increasingly to societal demands and needs.

The University Challenged, however, addressed only part of the higher or tertiary education landscape. It did not take into account the institutes or technology, the colleges of education, the emerging vocational colleges, or the private sector of higher education colleges. Since the institutes of technology are extending the range of their work to initial and higher degrees, and to research, the vocational colleges are beginning to provide opportunities for degree level study, the private colleges are recruiting a considerable volume of students on degree programs, and the colleges of education function almost as specialist universities, the landscape of higher education is now extensive and varied.

Looking ahead, it is not difficult to envisage further diversification of providers since as the national qualifications system becomes fully operational any group or organisation able to satisfy the specified criteria will be able to provide opportunities for degree level study. Rising fee levels in the public sector would provide more equal competitive conditions for private providers. The current World Trade Organisation investigation into cross border trade in education could lead to increased scope for off-shore providers offering flexible, part-time study opportunities through distance education. As in the United States, business corporations could act as educational providers (to so-called ‘corporate quality universities’). Digital technology is already facilitating where it is not driving new opportunities for tertiary level education which are being taken up by both public and private providers.

Already, then, for higher education in Ireland there is a multitude of providers, public and private, local and international and operating under a varied array of legislative and regulatory requirements and procedures, and there is scope for more.

Competitiveness, cooperation and globalisation are critical considerations as institutions of all kinds seek to position themselves. Competition, national and international, can be expected to continue to intensify, regardless of specific demographic trends; cooperation for example in the form of alliances and partnerships both cross-sectoral and international is a necessity not a possible option. Globalisation is both a threat due to cross-border competition (to single institutions and to relatively small national systems) and an opportunity – to reach out, and through alliances become part of strong, multinational and multi-lateral educational enterprises. To globalisation should be added the development of the European Higher Education Area, post Maastricht. In addition to the existing partnerships and programs, the Bologna Declaration and its aftermath are leading towards a possible single Europe-wide standard for a first, three year degree and has implications for all kinds and levels of degrees. The European Research Area is another example of a widening landscape of opportunity, which will require new partnerships and new modes of operation. Tertiary institutions not able to participate fully in these developments – by virtue of designated status, funding, inadequate scale of operations – will be seriously disadvantaged.

As argued in this paper, the concept of binary (as a duality of functions within national borders) in light of these trends and developments, no longer captures either present

realities or likely futures. Although at the time of the Nally Report, several of these developments were scarcely visible or merely incipient, the publication in 1998 of the OECD report *Redefining Tertiary Education* had drawn attention to OECD-wide trends towards universalisation of tertiary education and therefore to the need for reconsidering existing national structures, legislation, funding arrangements, management, course provision, teaching and learning. While Ireland did not participate in the thematic, multi-country review that preceded publication of *Redefining Tertiary Education*, the trends and issues identified by the OECD in the mid 90s have very strong echoes here.

The Nally Report, in its brief commentary on possible future developments in tertiary education used the term ‘cascade’ as a suggestion that the binary system needed to be rethought. Such rethinking was not part of its remit but the need for it arose from the Committee’s finding that the Dublin Institute of Technology belonged clearly to neither the institute of technology sector nor to the university sector, but that it was moving clearly and definitely in the direction of a university. It was expected that, over a 3 to 5 year period, several important aspects of the Institute, not consistent with university status, would be addressed. In its consideration of the Nally Report, the Higher Education Authority, however, sought to reaffirm the value of a technology sector in which DIT would play a leadership role.

Whatever may be thought now about the value of a policy shift from a binary to an integrated system, DIT has been active and successful in strengthening its educational and research profile along the lines indicated in the Nally Report. The manner in which DIT has progressively raised the level of its academic work, its practical, career-focused approach, and its close alignment with industry and commerce give to the Institute a place in Irish higher education which is unique and very highly valued especially in the commercial and industrial worlds. In a period of extremely rapid economic growth and social change in Ireland, the Institute has sought to align its profile with national priorities for development and to gear its activities to the country’s social, cultural and economic needs. In this and in other respects it straddles the binary line; of features separately found in different institutions, it is only the DIT that combines them in a comprehensively cross-sectoral higher education institution. DIT could make an ideal model for pioneering the way forward.

Under present conditions and despite efforts by government over many years, it does not seem possible, even if it were desirable, to restrict the academic level of operations of the large number of institutions already in the field. Colleges and institutes are already offering advanced level programs, not only initial degrees but higher degrees as well. With competitive bidding for research funds, (although some institutions – notably the universities- have an enormous competitive advantage), in principle research, too, can be highly diffused including through research alliances and partnerships which might involve individuals or groups in any institution, or industry, or internationally. Similarly, the community service – consultancy roles are shared, they are not the prerogative or defining factor for any one type of institution.

Historically, it is clear that non-university institutions in many countries have looked progressively toward more advanced work and this is consistent with rising societal expectations and economic advance. Has the time not come for Ireland to take a further step forward in higher education policy, to address the numerous unresolved issues and tensions constructively and creatively, and to set new directions for synergistic development through a fully integrated, yet quite diverse system of tertiary education?

While interrelating all, or most of the public sector higher education institutions within a single framework of tertiary education –and fully acknowledging the roles performed by private providers - such a system should place strong emphasis on how to facilitate, not inhibit, distinctiveness of institutions, their mission, programmes, staffing, funding, mode of operation, while linking them together under an enlarged, reconstituted university umbrella. Consequential legislative, administrative, financial changes including institutional governance and management and the responsibilities of the Higher Education Authority and the Department of Education and Science would all have to be addressed. This is no mean task but no greater than the economic and infrastructural changes engineered in the country throughout the nineties. Much of the groundwork has already been laid in separate education studies, reports and initiatives. Missing, however, on the one hand are signals from government and anything resembling a collective will within the tertiary education community for collaborative reform – as distinct from competitive positioning.

There will be several objections to any proposal for structural, systematic change: that it will involve turbulence, create uncertainty, add to costs and generally be ‘too difficult’. These objections, while to be taken seriously, are not decisive either individually or collectively. There is already turbulence and great uncertainty, since tertiary education world-wide is undergoing change on an unprecedented scale. Ireland is no exception and the question is not turbulence or no turbulence, but how to steer and manage change to procure maximum benefit. The present trends in Ireland, if left to continue in a policy vacuum, would be toward increasing mission drift in the form of overlapping roles and costly duplication, unproductive competition for limited resources and especially for students, and a binary system which is not achieving its objectives, despite claims that it is ‘workable’. The future establishment of the Dublin and Waterford Institutes as universities, or in the latter case as the basis of a new university, and the other changes in a cascade system already mentioned would initially increase costs, since there would have to be trade offs, including industrial negotiations. But, on the model of a nationally integrated, university-based system, there would be considerable scope for rationalisation and for economies of scale over time.

The most serious objections to moves toward an integrated tertiary education system are ‘we would have too many universities’ and it would ‘all be too difficult’. Difficulties of institutional management and governance have increased and a common observation about system-wide and institutional management is that they have become more complex and demanding of (scarce) talent. This means that we need policies and procedures to bring forward highly capable managers and leaders in education and much greater use of policy instruments for governance and evaluating performance than have been in

evidence. Complexity and difficulty are not themselves reasons for avoiding action that may be highly desirable on other grounds; instead, they require leadership, courage and vision. As for ‘too many universities’, there is no measure of agreement on what counts as ‘too few’ or ‘too many’. The issue is not the number of universities, but what we understand by the term and what kinds of study, teaching, scholarship, research and partnerships do we wish to sustain – and how can we best do this?

For the Department of Education and Science, the Cromien Report (15) has already argued – as did the earlier OECD review of education in Ireland – for a much more strategic role, which would require, *inter alia*, transfer of administrative and financial responsibility for the institutes to the Higher Education Authority. From a national perspective, therefore, the question is the role of that Authority and its readiness to extend its present funding, policy and analytic functions to provide the necessary leadership for a fully integrated tertiary education system. In recent years, the Authority has produced an impressive array of strategic policy documents, reported comprehensively on the operations and, to some extent, the outcomes of university education, played a major role in the development of national research strategies and in other ways demonstrated a capacity for handling effectively the kinds of tasks that would need to be undertaken.

Where to from here?

The decision to place the Institutes of Technology under the aegis of the Higher Education Authority HEA, that is to constitute them as designated institutions, is an important first step.

It would be appropriate as a further step that the HEA would undertake an early review of the structure of the higher education system and I would hope that this paper might serve as a useful input to that review.

An issue in any review will be the state of preparedness of the individual Institutes of Technology for reconstitution into an umbrella-type university system, whatever form this might take. The evidence suggests that the institutes are at varying levels of evolution. Consideration of future roles and relationships would necessarily be on a case-by-case basis, but in the context of some clear national expectations.

Taking account of the considerable strides DIT has made since the Nally Review, there would appear to be a case for DIT to resubmit its application for university status as a first step in the overall restructuring of the higher education system. While the case for WIT, the other Institute of Technology to identify university designation as an objective, would not appear as well advanced, it may wish to seek agreement on the course of action necessary and progress to be made, prior to seeking university designation.

Restructuring on a phased basis would appear to be the inevitable course of action required. However, it would seem useful – if not necessary – to bring the various parties together in some kind of forum. The present paper is but one of several initiatives being taken to stimulate discussion. The process, once started, should continue in constructive

dialogue and further analysis of the issues in tertiary education now confronting policy makers, the institutions and the wider community.

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- [6.] The Department of Education and Science website includes the following 'Recent developments within the further education sector': Publication of the White Paper on Adult Education: *Learning for Life* (2000); expansion of the adult literacy service, an Adult Guidance service; The Back to Education Initiative (2002/03); The National Adult Education Learning Council (2002); Apprenticeships. In this listing there is no reference to tertiary level courses being provided through Vocational Education Committee colleges. See also National Development Plan 2000-2006, ch. 5. On flexible provision, see also *Report of the Taskforce on Lifelong Learning* (2002) Dublin. The Stationery Office.
- [7.] See Notes 1 and 4.
- [8.] These themes frequently recur; they are summarised in Dorgan, S. (2002) 'Is FDI necessary in post Celtic Tiger Ireland?' Speech to Dublin Economic Workshop Conference, Kenmare.
- [9.] Ibid.

- [10.] Department of Finance (2002) *Economic Review and Outlook*. Dublin. The Stationery Office.
- [11.] Dublin Institute of Technology Community Links programme.
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