

Report of international investigation for the
National Advisory Council on Innovation:

THE FEASIBILITY OF A NATIONAL SYSTEM FOR RANKING COMPETITIVENESS

Rough Draft

Why a National System for Ranking Competitiveness?

The objectives of a national system for ranking competitiveness would include the following:

To measure the progress of policies and the implementation of policies by government and other social agents, over time;

To establish where South Africa leads and trails its competitors and comparators, in order to draw policy lessons and help set policy agendas; and

To encourage South Africans, and especially leaders of the major South African constituencies—labour, business, government, and community—to achieve a common understanding of the meaning of competitiveness, the key ingredients for competitiveness in South Africa, and our key strengths and weaknesses. Such a common language should contribute to the achievement a higher level of policy coordination.

Examples Strategies of International and National Competitiveness

Social Strategies

The origins of the Irish National Competitiveness Council lie in the history of tripartite agreements that have supported economic policy since 1986. In 1985 the Irish government decided that the condition of their economic system was so dire that unless major reform was instituted the International Monetary Fund would be forced to intervene. Ireland had entered an inflationary spiral based on rising wages and rising taxes. Unemployment reached close to 20%. Emigration of skilled young people reached tidal wave proportions.

The first “national agreement” essentially comprised of a commitment by unions to reduce their wage demands if the government reduced its personal income taxes to compensate for the “real” wage cut. Since the first national agreement in 1986, Ireland has had four further national agreements. The agreements, managed by the National Economic and Social Council of Ireland (NESC), have contributed substantially to Ireland’s subsequent economic success. The NESC consists of representatives of

government, labour, and capital, plus some chosen experts, and is chaired by the office of the Taoiseach (the Prime Minister), which also oversees the implementation of the agreements. More recently, representatives of “community interests” were added.

The 1997 national agreement entailed the Partnership 2000 programme, which included the establishment of a National Competitiveness Council (NCC). The National Competitiveness Council (NCC) consists of 16 members appointed by the Minister of Enterprise, Trade and Employment, including 6 employer and 2 trade union representatives at CEO or General Secretary level, experts, a senior representative of the Department of Enterprise, Trade and Employment and five other economic ministries, a senior representative of the Taoiseach (the Prime Minister) and the chief executive of Forfás (Gaelic for development). Rather than the NESC, Forfás—the National Policy and Advisory Board for Enterprise, Trade, Science, Technology and Innovation—hosts the National Competitiveness Council. Forfás is the government’s primary industry and innovation policy research centre. Also, with the extension of the last national agreement to community representatives, a fourth party, the NESC focused more on social issues, while Forfás was considered more suitable to host an economic policy process.

The purpose of the National Competitiveness Council is to prepare an annual report on Irish economic competitiveness, with policy recommendations to be considered by the NCC, and submitted with their endorsement to the Taoiseach. At first there was a single report, but more recently the report has been divided into a rankings report and a smaller volume on policies and recommendations. The current version of the report, with the separate policy recommendations volume called the “The Challenge Report” is more effective than a report where the policy recommendations are swamped by extensive statistical presentations.

The council sits four times each year, and the Taoiseach attends one of the meetings. The chair of the council is a top business-person, and frequently represents the council in presentations to government or in other forums. All members of the council are unpaid except for expenses.

The competitiveness report is the core responsibility of the NCC, but it also has subcommittees on matters of key concern, such as telecommunications, energy, and regulation in general. It also conducts research on some selected issues such as infrastructure and over-55s.

The **U.S. Competitiveness Council** was established in 1989 after critical reports revealed, during the Reagan Administration, that countries such as Japan and Germany were a threat to U.S. economic leadership. The perception of economic vulnerability caused a great deal of concern across the nation. A series of workshops convinced different stakeholders that the nation had to find a way to compete more effectively, and that working collaboratively on matters of competitiveness was in everybody’s interest. The Council was formed as a bi-partisan organisation that would be able to speak to the broad spectrum of people across the United States, on a win-win basis, on national issues before they became major crisis. The mission of the Council is to help the United States stay economically competitive and to maintain its leadership position in the world market, thereby, enhance the quality of life of all Americans.

Most members of the Council are leading business people, and academics and government are also represented. The Council is funded by private and public sources.

The **World Economic Forum's (WEF) Global Competitiveness Report (GCR)** has its origins in 1979 when Professor Klaus Schwab decided to develop an initial set of comparative indicators for the then fairly small number of members of the WEF. The report was contracted to Prof Stefan Garelli at the IMD in Lausanne. In 1996 the report was handed to Harvard University, under the leadership of professor Jeffrey Sachs. Later, professor Michael Porter became more involved in the GCR. From 2000, the rankings were split into ratings of Current Competitiveness (CCI) under Professor Porter, and Growth Competitiveness (GCI) under Professor Sachs.

The report is an adjunct to the convening activities of the WEF—it is sold “at cost”, not at a high price like the IMD report. It is presented at meetings of the WEF. The WEF is willing to convene and arrange sponsors for meetings at a regional or national level at which the findings of the GCR are presented.

One notable national process is in Colombia, where the Colombian performance in the GCR is discussed at a meeting between the Colombian Cabinet and the private sector, including the trade unions, every 6 months. WEF officials present findings to the meeting. At the end of each meeting, the Government makes a pledge to deal with 2 of the competitiveness issues highlighted in the discussions, and at subsequent meetings the Government reports back on implementation. The Colombian process was devised by Marta Lucia, who is now the Colombian ambassador to France. The Colombian model was shared with Ecuador, who have now implemented a similar system.

Competitiveness targeting for the **European Union** has its own roots. In the current era, EU members are operating within an “open method of coordination”. This means that several of the elements of closer coordination within Europe are voluntary—in a sense, Europe is moving towards a more differentiated system where countries can choose to be more integrated on some issues, and less on others (e.g. the adoption of the Euro). Still, the existence of a monetary union still means the need for a high level of coordination of economic policy. EU members see the value of competitiveness ranking systems as helping EU countries see where they may be falling behind other members of the EU, or where they can learn from other countries.

There are at least three competitiveness benchmarking systems in operation or under development in the EU: one on innovation capacity in the DG Research, under the Research and Intergovernmental Cooperation Directorate; one is under the Competitiveness, Economic Analysis and Indicator directorate of the DG Research; and a third is the European Competitiveness Report put out by the DG Enterprise. A fourth project is an innovation trend chart and scoreboard, also under the DG Enterprise. The motivation for EU ratings systems is a notion that the EU is falling behind its major rivals, i.e. North America and East Asia, in term of competitiveness, and that economic performance will suffer if this is not remedied. That there are several overlapping projects probably indicates poor coordination or rivalry within the EU or the Commission.

Methodologies

The GCR has two broad definitions of competitiveness. The Current Competitiveness Index is prepared under the supervision of Professor Michael Porter at the Institute for Strategy and Competitiveness at the Harvard Business School. The definition of competitiveness in the Current Competitiveness Index (CCI) is not unrelated to conventional definitions of productivity. "A nation's standard of living is determined by the productivity of its economy, which is measured by the value of goods and services produced per unit of the nation's human, capital and natural resources.... The central challenge in economic development then, is how to create the conditions for rapid and sustained productivity growth.... The microeconomic foundations of productivity rest on two related areas: (1) the sophistication with which companies or subsidiaries based in the country compete, and (2) the quality of the microeconomic business environment." Many of the microeconomic variables are measured in the nationally conducted surveys as microeconomic reform is more difficult to measure on a consistent cross-country basis using hard data than macroeconomic conditions. The identification of the variables and the weighting of the variables is based on the Porter diamond, but the underlying "formula" or "function" is not made explicit in published versions of the report.

The indicators used are largely soft data drawn from the annual survey of business leaders undertaken in each country by "partners" to the World Economic Forum. The same survey is used to provide the soft survey data for the Growth Competitiveness Index, the other major index of the *Global Competitiveness Report*. The questionnaires are compiled at Harvard, but the survey contracts are managed at the WEF head office in Geneva.

A manager of the CCI project indicated that they would like to use more hard data, but that suitable hard data¹ was inaccessible for many developing countries. A manager of the GCI project argued that with regard to issues like government institutions and corruption it was not possible to use hard indicators. In any case, he said, some of the hard data reported by developing countries and countries in transition was suspect.

The Growth Competitiveness Index (GCI), prepared under the leadership of professor Sachs at the Centre for International Development at Harvard, rests on a definition of the environment conducive to medium term growth in an economy: "the ability of a country to achieve sustained high rates of growth in GDP per capita". The GCI is said to be based on the growth analysis of professor Robert Barro, also an economics professor at Harvard, who pioneered cross-country growth studies. The underlying approach is macro-economic sustainability, measured in hard indicators. Again, the formula or growth function underlying decisions about the choice of variables and their weighting in the indices is never made fully explicit, though the architecture of the construction of the indices is transparent. About two-third of the indicators incorporated in the GCI index itself are hard indicators and about one-third are soft indicators. The

¹ In the various discussion reference was often made to "hard" and "soft" data, to opinion surveys, and to quantitative data. The distinctions are not simple. Hard data usually means objective quantitative data collected by official agencies, and soft data usually means opinion surveys commissioned or managed by the rankings agency. But, where there is objective quantitative information collected by commissioned survey it could be called either "hard" or "soft". Most of the commissioned surveys have such small sample bases that quantitative data probably is soft; whereas some of researchers who use soft data question the validity of some of the "hard" data reported by developing countries or countries in transition. Even the GDP data of some OECD countries, such as Italy, is virtually guesswork, according to John McArthur of the CID.

The fact that there are two perspectives, and that the CCI and GCI indices are essentially contracted out to academics at Harvard, contribute to the fact that the indices change frequently, and are not really suitable for use in longitudinal studies of the performance of a particular country and in the performance of particular policy variables for an individual country.

However, there are about 180 raw variables (as opposed to indices) presented in the GCR report, and some of these have been used over a long period of time, and are susceptible to longitudinal analysis. A problem with these variables is that they are constrained by the need to collect the identical indicator from about 80 countries annually, which leads to a lowest common denominator approach to indicator selection. For example, as an indicator for education, enrolment in tertiary institutions is not an ideal measure of human resource development, but it is the only measure available from a wide enough group of countries.

This is an important rationale for preparing national reports where appropriate data can be selected as far as possible, along with the criticism voiced by some that the international reports are too dependent on opinion surveys. As the 2001 Irish Annual Competitiveness Report stated, much of the data used by the international publications tends to be opinion data collected in surveys, and in some cases the quantitative data used are arguably not appropriate for ranking.”²

The methodology of the Irish **National Competitiveness Council** was initially influenced by the World Economic Forum and the IMD reports, but the NCC felt that the international reports were too optimistic about Ireland, and paid insufficient attention to “future competitiveness” issues. The NCC report is constructed in a fairly subjective way in that the indices are chosen with a view to what are generally agreed to be the key challenges for Ireland, and the comparator countries are chosen amongst those which Ireland would like to compare itself against.

The current set of categories consists of: economic performance; internationalisation; capital efficiency; education; productivity; non-labour enterprise costs; taxation; and science and technology as the eight main categories. Additional categories covered are information society; transport infrastructure; environmental protection; regulatory and government efficiency; and quality of life, all of which are special current areas of focus in Ireland.

While the survey currently uses about 200 underlying indicators summarised into 11 factors, the management of the survey would like to reduce the number of indicators to 60-70 indicators and 6 or 7 factors. This reflects a tension common to all surveys of this kind, where there is a multiplicity of stakeholders; the tendency is for the mission to expand and become a little fuzzy at the edges, in order to maintain consensus of the governing group. For example, the current Irish system has a factor for “non-wage enterprise costs, as well as a factor for transport costs. It is probably inevitable that with pressure from the expert management for simplicity and clarity and from the stakeholders for inclusiveness, the system will tend to gradually expand and become fuzzy, and periodically contract when the project is refocused.

² National Competitiveness Council, *Annual Competitiveness Report 2001*, December 2001 Forfás.

Almost none of the data used by the Irish NCC is survey or opinion data. Practically all the data is “hard” data and it is generally obtained from standard sources such as the OECD and the World Bank. The management of the NCC say that soft data is not needed, hand the choice to limit the indicators to hard data was informed by the desire to maintain trust in the system from all stakeholders. A major vulnerability of the WEF and IMD systems is their dependence on opinion survey data, sometimes of suspect quality.

The **U.S. Competitiveness Council** defines competitiveness as “the capacity to increase real income of all Americans by producing high-value products and services that meet the test of the world markets.” The Council is proud that this definition has remained unchanged since its establishment in the 1980s.

The Council uses hard-data to compile its report. The latest report carries, for example, 57 indicators and 100 charts. The hard data is obtained from sources such as The US Department of Commerce, Bureau of Economic Analysis, US Census Bureau, US Department of Labour, Bureau of Statistics, OECD Economic Outlook, US Patents and Trademarks Office, US Small Business Administrators etc. The 2001 report of the Council reveals that the council used soft-data only twice. The Council used the *School and Staffing Survey of 1993-1994* when in the development of a chart that shows a percentage of Maths and Science Teachers without a major or certificate in the class subject they taught. The Council also used the *Current Population Survey Labor Force Statistics* to develop a chart showing a percentage of under-utilised workers. It did, however, use two Regional Opinion Surveys to collect the data for its Clusters of Innovation Survey.

The U.S. Competitiveness Council publishes an annual report currently organised into the following four themes or questions: (1) What drove U.S. prosperity in the 1990s?” (2) Where did the Economic Performance of the U.S. Fall Short? (3) What could cause U.S. leadership to be challenged? (4) “What should be the U.S. Competitiveness priorities?”

These questions are themes which aid in selecting and organising U.S competitiveness indicators and competitors.

The Council has used the following 13 indicators to develop the theme “What drove U.S. prosperity in the 1990s?”. They are the (1) rise of the U.S. economy in the 1990s, (2) the growth of labour, capital investment, and productivity, (3) the expansion of the workforce, (4) the decline of unemployment, (5) the rise of capital stock, (6) Increased investment in Information Technology; (7) Increase in productivity, (8) the Impact of Information Technology on productivity, (9) the rise of investment opportunities due to increased innovation; (10) increased entrepreneurial activities due to increased innovation, (11) Increased risk capital, (12) fiscal discipline; and the (13) expansion of U.S Global Market.

N.B.: Indicators for themes (2), (3), and (4) to follow.

The Council uses the report to benchmark the country historically and against others. Once the report is published, the analysts look for trends and use them to communicate to the larger constituencies where the country is coming from and where it is headed.

At the beginning the United States used to benchmark itself internationally. Currently, the process has evolved into regional benchmarking. Regional competitiveness is now one of the major foci of the Council. The Council's foci also include: strengthening the U.S Innovation system; upgrading of the workforce; and benchmarking national economic performance.

Once a report is released its findings are disseminated through various channels to various members affiliates. The Council also holds some briefings with various committees in the White House and key constituencies throughout the country. The Technology Forum is used to disseminate information to various decision-makers their the support staff. The staff are responsible for preparing a range of documents and presentations for the Council representatives.

The **European Union** has at least three competitiveness indicators. Some rely on “hard data” which are obtained from Eurostat, but the tendency is to also undertake specific surveys, which today are generally administered by e-mail. Some EU officials hold the view that cultural differences make it difficult to use what might be considered standard indicators—for example, while creating business spin-offs is acceptable for academics in Northern Europe, in Southern Europe it is generally believed that the job of an academic is to teach and research.

Generally in the EU, the project is framed by the member states, by representatives of the relevant Ministers. They are sometimes assisted by experts.

Management

The GCR is managed in Geneva by a staff of two. They oversee the production of the CCI and the GCI at Harvard, and they also subcontract the opinion surveys to “partners” in the countries in the study. In South Africa the current partner is Business South Africa, but there is an indication that the WEF would prefer to use a more neutral agency outside of the business community for a more objective and representative result.

The reports are edited at Harvard, and then finally edited in Geneva. The artwork and proofs are prepared in Cambridge MA, in the vicinity of Harvard, for convenience, but the product is distributed by the Geneva office. Publicity is arranged by the Geneva staff of two economists, who write the press briefs themselves, and identify key journalists for special briefings.

The hard data is generally bought by the WEF through Harvard, from international organisations such as the World Bank and the IMF. The WEF would not attempt to assemble its own sets of hard data from national sources. Only the soft data is collected from each country through an annual survey. The data is owned by the WEF and held in Excel files in Geneva. There is a desire to digitise the historical datasets for broader use and wider applications.

The **Irish National Competitiveness Council** does not operate under statute. Neither is the NESCC, nor the “national agreements”—the Irish do not seem very legalistic about political arrangements. Even the key 3-yearly national agreement is a “gentleman’s agreement”. The work of the council is delegated to Forfás which is a semi-autonomous

government agency responsible for real economy/industrial policy research. It provides policy advice to government on a range of issues from the European Monetary Union through electronic commerce, to skills development. Forfás host several policy groups like the National Competitiveness Council. Forfás also hosts several key Irish implementation agencies such as IDA-Ireland which promotes foreign investment, and Enterprise Ireland which supports small and medium domestic companies. Forfás also conducts the evaluation of government programmes for government.

The research generally simply draws together existing data from international organisations such as the OECD into relevant groups to form the indices which the Irish call “factors”. The work is done in house by the NCC group at Forfás, but they are able to draw on the capacity of other relevant Forfás units where needed. (Here there is clearly an advantage in the centralisation of real economy research in one agency, which. For a small country, yields significant economies of scale.)

The NCC meets to consider the report and to approve it, at which point it is delivered to the Taoiseach for implementation. The agenda of the NCC is set by its members, and changes in the programme are decided by the committee.

The Competitiveness Report is launched by the Taoiseach each December, surrounded by a powerful media campaign.

The **U.S. Competitiveness Council**, which started with a staff of 10-15 members, now has a staff of 30 members led by a President and 2 Executive Presidents. The role of the staff is to give research and management support a 30-member Executive Council that is constituted out of 50 country’s most prominent non-profit organisations professional societies, and trade associations. The Council has a general membership of 118 and 38 affiliates.

Looking back into the history and performance of the competitiveness ranking organisations, the Council the interviewees indicated that they learned a number of lessons that could be valuable to South Africa. The lessons are, among others:

- Council started with a small (*sic*) staff of 10-15 members;
- It has never been able to address all the competitiveness challenges that faced the country;
- It has not been successful in bring all the stakeholders together to deliberate on the various competitiveness challenges;
- Its focus has at times seemed too narrow;
- Some of the recommendations lacked specificity;
- Not all recommendations fit all the levels. The recommendations should be tailored to fit the level to which it is addressed;
- The organisation should not strive to do everything by itself. Some work should be commissioned to others;
- It is imperative, in negotiating with different stakeholders, to utilise a win-win approach;
- The emphasis should be on competitive advantage rather than on competition especially at the regional level.

The US Competitiveness Council will happily collaborate with South Africa on areas of mutual concern and interest.

The **European Union** projects are managed by the Commission in the relevant DG, under the supervision of representatives of the relevant national Ministers. Sometimes surveys are outsourced, but a lot of work is done in house, either in Eurostat or in the DG concerned.

Further Comments

Discussions with professor Sanjaya Lall at Oxford University provided further valuable guidelines that should inform the development of a competitiveness ranking system. Professor Lall is a renowned development economist, specialising in technology issues. Lall is currently preparing an index that measures the competitiveness of the manufacturing sectors of a large group of countries. The report will be published by UNIDO this year. Lall recently published a critique of the World Economic Forum's global competitiveness report.³

Lall suggests that it is very difficult to have an overall measurement of a country's competitiveness, and that it is more appropriate to examine the competitiveness of a particular sector, but he does not deny the value of a careful national ranking system. He suggests that one should choose a small number of indices (what the Irish call "factors") as carefully as possible, and should choose as few indicators as possible to comprise each index. He also believes that it is possible and desirable to use hard data only for indicators, from internationally standardised statistical systems.

His approach in the UNIDO project had been to choose 5 indices based on 4 indicators each. The indices and indicators are carefully selected to represent the key components of the development of a manufacturing sector in a developing country, for example, rate of value added and rate of export of high and medium technology products.

Too many indicators, and you start creating redundancies. For example, you would expect a high level of correlation between an indicator of patent registration and an indicator of private sector R&D expenditure. Beyond a certain minimum number of indicators, additional indicators are redundant, and make the ranking exercise more complex.

With an exercise that is too complex you also risk introducing conflicting indicators. For example, the World Economic Forum assumes that while government has a role in providing services such as education and infrastructure, it also appears to adopt orthodox free market assumptions, for example that the percentage of government expenditure to GDP is an inverse indicator of competitiveness. Yet, if you study the government expenditure to GDP table, you will find no grounds for such an assumption.

Lall suggests that such contradictions are exacerbated by the fact that the WEF seems to assume that the same policies that are suitable for developed countries are also suitable for developing countries. In the latest version of the WEF report a distinction is made between "core" and "non-core" countries according to a technological criterion i.e. US patents per million population. Fifteen or more per annum and you are in. This

³ Sanjaya Lall, "Competitiveness Indices and Developing Countries: An Economic Evaluation of the Global Competitiveness Report", *World Development*, Vol. 29, No. 9, pp 1501-1525.

distinction, whatever its weaknesses, acknowledges the fact that appropriate measures for developed countries are not necessarily the same as those of developing countries. In the core countries innovation is considered most important technologically, while in non-core countries technology transfer performance is more important as an indicator of technology competitiveness. What the WEF also does for the overall Growth Competitiveness indicator is to give technology factors in general a greater weight for core countries than for non-core countries. This makes a step in the direction of acknowledging that different indicators and policies are relevant to different countries at different stages of economic development, though in many respects it might not take this far enough. Certainly, the Current Competitiveness Index does not attempt to distinguish between economies at different stages of economic development.

Also, Lall has decided simply to find the arithmetic average of the relevant group of indicators to establish the relevant index, rather than to make the exercise more complex through weighting the indicators, as the WEF does.

Conclusions and recommendations

Should we have a competitiveness rankings system?

It is certainly true that South Africa does not have a common economic vocabulary. When some people talk about competitiveness they mean economic growth and job creation. When others use the same term it connotes job loss and downward pressure on wages. Similarly the terms “productivity” or “trade” or “profit” are shrouded in a bitter history of conflict. It is also true that there is unlikely to be agreement on the main factors promoting competitiveness, and the main obstacles to competitiveness. Is the labour market too inflexible? Do large firms abuse their monopoly powers? Is management incompetent and colonial? Are banks, even unconsciously, biased against black clients? Both within government, and between government and its social partners, there is scope much higher quality discussion on issues relating to economic development. A well grounded competitiveness ranking system could greatly assist.

A better quality economic development policy discussion could lead to and then complement a more systematic process of prioritisation in government. Should most of our additional resources be going into primary education or secondary education or tertiary education? Should we be putting more money in R&D or in skills development? When we privatise Transnet, should we emphasis short-run income to government, efficiency of the transportation system, or the profitability of the new operator? And when we make such decisions, will most of the chattering classes understand why? A well devised competitiveness ranking system with well considered policy reports could help in respect of prioritisation and a greater understanding of priorities.

Thirdly, how do we want government’s achievements regarding of economic development to be measured? By the value of the rand? By the views of economically illiterate commentators? By callow and shallow currency traders in London? By vocal but ill-informed anti-globalisation activists? By dubious international competitiveness rankings systems purveyed by the economic equivalents of dependence inducing

psychologists? Or by criteria that really matter? Again, a well managed, national competitiveness ranking system could work.

On the down side, there are some potential pitfalls. Firstly, the concept of “competitiveness” is not universally loved. Some trade unionists see the term as a cover for union bashing; anti-globalisationists see it as a Trojan horse for international capital. It might be that we would need to find another suitable term, like “economic development”, or that unionists and anti-globalisationists would have to be persuaded that competitiveness means the ability to create wealth and jobs.

Another concern is that developing and maintaining such a rankings programme is quite a substantial undertaking. It can't be done except as a major project with at least two full-time high-quality staff, and significant resources at their disposal. We could probably get assistance from skilled professionals who have implemented such programmes in other countries (the Irish and the Americans, and others, would be willing to help, in principle). But technical assistance would mainly aim at transferring skills to key, longer-term, local professional staff. At a rough guess, it would cost a minimum of R2 million to R3 million per annum just for the basic system.

A final obstacle? There is the challenge of building a broad receptive platform in society. Can that be done simply and easily? Might it be the outcome of the Growth and Development Summit? Or is it just too difficult to achieve in a society that still seems to wallow in its history of bitter conflict? This is a difficult decision for technocrats and bureaucrats to take, and it should be considered at a political level. We may find some guidance in domestic responses to the Proudly South African campaign and the work of the International Marketing Council.

How should it be socially constituted?

The key idea behind a competitiveness ranking system in South Africa is to elicit a national discussion about economic policy priorities based on commonly accepted principles and information. That implies that there is a sufficiently representative group to act as the oversight board and the advocates of the findings and recommendations of the process. The term “representative” suggests tripartite at least, or in the current Nedlac form, quadripartite. The Irish NCC board has about seven business leaders, including the chair, two trade unionists, five experts, and two representatives of government, including the Taoiseach or his representative.

When asked why the trade unions were satisfied with two representatives, the managers of the NCC indicated that as the council always acted on consensus and had never had to vote on anything, and that the unions were not concerned that they would be outmanoeuvred. Is South Africa ready for this? Maybe not. Maybe it should be a more formally structured “representative” council. However, it should not fall into the Nedlac syndrome where business, labour, and increasingly government are represented by middle level bureaucrats, not leaders.

Is South Africa ready for a business leader, or a semi-retired business leader as in the case of Ireland, to chair the council? Perhaps not, but it is worth considering. Alternatives might be a suitably experienced, widely respected, senior, current or semi-retired academic or government leader.

Where should it be located in government? The National Advisory Council on Innovation is in many ways a good location, representing a wide constituency in government, business, and academia. It is currently a credible institution, and its future potential to become and even more credible institution is high. Reservations might be that NACI's brief is innovation, which is a key part of competitiveness, but not nearly the whole of it. Also, that NACI's composition leans towards the research and academic community more than to the private sector, and that labour and community interests are not represented. Also NACI is quite a small institution, and a big project could challenge it.

Another possibility is Nedlac. Nedlac has the tripartite/quadripartite structure, and is institutionally fairly substantial. It does seem to be making some progress in the implementation of the Proudly South African programme, though that is now semi or wholly autonomous. However, the resources of Nedlac are limited and the level of representation of the stakeholders in many of the activities of Nedlac leaves something to be desired.

There are other possible institutional homes—the NRF, the HSRC? There may be a hybrid solution, some suitable combination of institutions—NACI and the HSRC? The key consideration is that the governing body for the competitiveness ranking system should be very high level, and recognised, respected, and supported by key stakeholders, such as business, experts, labour and government. The Irish experience suggests that the presence of the Presidents office at a high level, and the President (Taoiseach) him- (or her-)self at one meeting a year, is a major plus.

What methodologies should it adopt?

The methodologies adopted in Ireland generally appear to be suitable for application in South Africa, obviously with the system tailor-made for our needs. Firstly, the definition. Unlike most definitions of competitiveness, the Irish definition has a strong human development component: “competitiveness is the ability to achieve success in markets leading to better standards of living for all”.⁴ The American definition is remarkably similar: “the capacity to increase real income of all Americans by producing high-value products and services that meet the test of the world markets.” Either would be a good working definition for our purposes, but perhaps the US definition is a bit too specific.

How should we choose the variables to study, and how many indicators and how many composite “factors”? The factors must be agreed upon by the governing council. The choice ultimately has to have an element of subjectivity in that they represent the issues which the council believes are key for the country's competitiveness, though this view would be informed by expert advice and inputs from such sources as the President's International Advisory Council on Investment. Managers of several of the ranking systems studied acknowledge that a ranking system for a country should be tailored to its needs. Professor Lall, the U.S. Competitiveness Council, and the Irish NCC are all quite explicit about it. The WEF study, in distinguishing between “core” and “non-core” countries indicates, however inadequately, that different countries at different stages of economic development should have different policy priorities, and therefore different

⁴ National Competitiveness Council, *Annual Competitiveness Report 2001*, December 2001 Forfás, p. 80.

indicators. There is no reason why such reasoning should not be extended to allow country-tailored systems. But these country tailored systems must use internationally accepted indicators; comparison would be impossible or meaningless otherwise.

Regarding the variables, the U.S. and Irish systems show that it is perfectly possible to use hard, essentially quantitative data almost exclusively. What this does is to limit the number of comparators to those countries which collect the relevant indicators in a reliable manner. The Irish cope with this problem by ranking themselves against different number of countries for different indicators, depending on who collects what amongst countries that Ireland would like to be compared against. When the indicators are summarised into “factors”, a formula normalises for the different number of comparators, so that it is still possible to say that Ireland ranks fifth amongst nineteen countries for capital efficiency, though each of the six indicators that make up capital efficiency is measured against a different number of countries. The technicalities are explained in the Irish report.⁵

Another useful precedent is that the Irish do not attempt to develop an overall composite indicator of competitiveness. What we can establish from their eleven factors is that the Irish are doing very well in respect of “internationalisation” for example (2nd out of 28), but not nearly so well in “education” where they feel they lie 16th out of 20.

There is no need for a national rankings system to conduct its own surveys or to generate indicators (though it may wish to influence the national system of statistics). Like the Irish NCC, South Africa could obtain all the relevant data from private or public international sources. Some of the key public sources used by the Irish are the OECD Economic Outlook, the EC Economic Data Handbook, the WTO International Trade Statistics, the UNCTAD World Investment Report, the IMF Financial yearbook, and the UNDP Human Development Report. Private sources are needed for some indicators, especially those in the factor “Non-labour enterprise costs” which focuses on communications and energy costs. On the telecoms side the NCC uses the consulting company Teligen which compares international phone tariffs.

This data must be collated and processed, and it is done in house in Forfás, in the Irish case.

How to select the comparators? Essentially, we should be choosing comparator countries that we believe we should be measured against, for a range of reasons. Essentially, we should choose middle-to-upper income developing countries and some of the junior developed countries that we feel are suitable for various reasons. In general, they should be countries that are relatively successful (Malaysia, not Myanmar, for example). They might be suitable because they are diverse (Brazil), natural resource based (Chile, Australia), making a transition from natural resources to manufactures and services (Malaysia, Finland), they have heavy, energy based industries (South Korea), they are conducting a successful economic reform (Mexico, Ireland), or political and economic reform (Poland) or that they are amongst the African success stories (Tunisia, Mauritius, Botswana) etc. Having selected an ideal set of thirty or forty, we would then need to establish how many of the countries concerned offer a sufficient number of indicators that are comparable with South African indicators. This lead to another round

⁵ National Competitiveness Council, *Annual Competitiveness Report 2001*, December 2001 Forfás, p. 82.

of selection before the final group of at least 30 is chosen. Remember, the Irish do not use the same number of countries for each indicator. Mostly there are 20-30 for each indicator, but for some the number is as small as 13.

How should it be managed?

The big question here is what is done in house, and what is outsourced. For the NCC in Ireland, Forfás provides the secretariat and the research management for the reports. Because they can draw on the varied capabilities of colleagues in Forfás, the permanent staff until 2002 has been no larger than two people, both economists. As the mandate of the NCC has broadened, it was recently agreed that three additional staff members should be recruited to the NCC function in Forfás. A commitment of at least two skilled staff members is probably the minimum required for initial success. But they will have to have both political and economic analytical skills, and they will have to be supported by a broader set of resources, either in the same organisation or outside.

Should the first report be a pilot?

When we initially entered this investigation, the predominant view was that the first round of the indicator should be a scaled down version with a set of indicators mostly in the innovation category. This might forestall initial political and bureaucratic debate, and might be more manageable in a short period of time on a limited budget.

However, the deeper we enter the subject, the more evident it is that there probably is no easy path to competitiveness ranking. If we attempt to do it on a small scale or without a full political process, we might doom it to peremptory condemnation and a very short life. On the other hand, seeking to build full support for a full-scale version might be a long road. Unless, a competitiveness ranking system is an outcome of the forthcoming growth and development summit, and the summit happens more or less on schedule.

Again, these issues need careful thought, and strategic action.

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