

Research Bulletin 22/1 | Learning from Small Advanced Economies, to Drive 10X Performance

Dr David Skilling, Landfall Strategy Group

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Summary

The Department for the Economy's 10X Vision for a Decade of Innovationⁱ (published in May 2021) specified that key metrics will be developed for monitoring and benchmarking purposes.

This article distils insights and practices from other small economies with respect to the use of metrics in their economic strategy documents and related strategic policy reports. For example, the specificity of the metrics, how they are used in the policy design and decision-making process, and the use of international benchmarking.

The aim of this paper is to provide a solid international perspective on the design of the metrics for the 10X Economic Vision.

Introduction

The 10X Economic Vision specifies that key metrics will be developed for monitoring and benchmarking purposes, noting that:

"A bold and ambitious vision requires a unique and innovative set of metrics. While our vision strives for growth through innovation, we want this growth to mean something to everyone. We need to capture how this growth improves the standard of living and wellbeing throughout society, and what impact economic growth has on our environment. Suitable new metrics for our vision will be developed through a collaborative approach with stakeholders and those who are affected by our policy interventions."

"We are developing a core set of globally recognised metrics which will be used to assess how we are moving towards achievement of this vision. These are being designed so we can understand how we compare to the best in class economies on the international stage, and how our performance is improving against those exacting benchmarks."

“We will produce an annual monitoring report which will set out what has been achieved, what more needs to be accomplished and to ensure that those we compare ourselves against remain appropriate.”

This article will distil insights and practices from other small economies with respect to the use of metrics in their economic strategy documents and related strategic policy reports. For example, the specificity of the metrics, how they are used in the policy design and decision-making process, and the use of international benchmarking. The aim is to provide a solid international perspective on the design of the metrics for the 10X Economic Vision.

This note is structured as follows. The opening section provides some selected small economy case studies. The second part provides some overall perspectives on this experience, drawing out the key insights. The closing section discusses the implication for Northern Ireland as it develops metrics for the 10X Economic Vision.

International Case Studies

The countries focused on are Ireland, Scotland, and Singapore, with observations from other small economies to extend the analysis. These economies have similarities to Northern Ireland, and most of them are in the group of comparator small economies selected for 10X benchmarking purposes. They are small advanced economies and have developed economic strategies to strengthen or transform the structural performance of their economies over the past several years.

Republic of Ireland

Ireland has prepared multiple economic policy statements over the past decade, often framed as part of actions to recover from the global financial crisis. The two statements focused on here are the *Enterprise 2025* plan (an overall economic strategy statement, published November 2015) as well as *Future Jobs Ireland, 2019*.

The Enterprise Plan 2025, was an overall statement of economic strategy, together with several other accompanying and supporting strategy documents. ⁱⁱ Enterprise 2025 specified strategic priority clusters and is linked to both the skills strategy as well as innovation policy. The vision statement was: *Ireland - the best place to succeed in business – delivering sustainable employment and higher standards of living for all.*

Several targets were specified, under different thematic headings. For example, under ‘employment’, the ambition was to reach 2.180 million people in employment and an unemployment rate of 6% by 2020; and to sustain full employment over the decade to 2025. And under ‘investing for competitive advantage’, the ambitions were to restore competitiveness to rank in the top three of the most competitive small countries in the world; realise productivity growth across the economy to levels ranking amongst the top five EU

countries averaging 2.0% to 2.5% per annum over the long term; and contribute to the restoration of living standards to pre-recession levels through enterprise policies and maintain an above average position relative to the EU-19 average over the period to 2025.

There were a broad range of ambitions sketched out across a broad range of domains, from firm size to export performance and growth in priority areas of the economy. Some of these were framed in numerical terms, others in qualitative terms. However, the language used is one of ambitions rather than binding quantitative targets. The value of including the metrics was to add concreteness to the overall strategic narrative.

In 2019, Future Jobs Ireland was released, which outlined a medium term economic agenda.ⁱⁱⁱ Future Jobs Ireland 2019 established 26 ambitions under 5 pillars: embracing innovation and technological change; improving SME productivity; enhancing skills and developing and attracting talent; increasing participation in the labour force; and transitioning to a low carbon economy.

Across these 5 pillars, various targets were specified. For example: increased Gross Expenditure on Research & Development (GERD) from 1.4% to 2.5% of GNP by 2025; and substantial increases in the share of SMEs introducing product or process innovations and with marketing or organisational innovations. Timelines and departmental accountabilities are specified for these targets.

However, note that some of these targets are very high-level – and a single government agency will not be able to deliver these. For example, under improving SME productivity, the target is *'Future Jobs Ireland will target an annual average increase in multifactor productivity (which captures how efficiently we use our labour and other resources) in the domestic sectors of the economy by 1% per year to 2025'*. This is a very high-level target and cannot be cleanly or directly linked to specific policy interventions.

Singapore

Singapore periodically produces updated economic strategy statements, exercises often undertaken in response to an external crisis. These statements are produced through a structured process, involving Ministers, senior officials, business, unions, and academics. The most recent example came from the 'Committee for the Future Economy' (CFE), released in February 2017.^{iv} The overall goal was expressed as:

'Our collective efforts will allow us to grow by 2-3% per year on average, exceeding the performance of most advanced economies. Together, we can build a value creating economy that is open and connected to the world, offering a multitude of opportunities, with sustainable wage growth and meaningful careers for all Singaporeans.'

However, this is a statement of strategic direction rather than containing an array of specific numerical goals or targets.

Many of the specific recommendations to lift growth and productivity were organised around sectors. 'Industry Transformation Maps' were prepared for 23 sectors (domestic as well as externally oriented), subsequently organised into six clusters.^v There are specific goals and initiatives to strengthen the performance of these areas of the economy. These clusters are still being developed, with ongoing upgrading of policy initiatives.

In March 2022, the Singapore Government revealed a Singapore Economy 2030 statement.^{vi} This contained a series of thematic priority areas, such as growing new engines of growth in services as well as manufacturing activity. These are largely defined in a qualitative way. However, one element of this statement was a Trade 2030 strategy, which included a goal *'to grow our export value from S\$805 billion to at least S\$1 trillion, and double our offshore trade value from US\$1 trillion to US\$2 trillion'* (from 2020 to 2030).

There are additional, more specific policy statements; for example, the Research and Innovation strategies that guide policy and resource allocation in these spaces.^{vii} These contain funding targets, as well as statements as the desired characteristics of the innovation ecosystem. But these are generally informal, qualitative targets.

Overall, these economic strategy statements articulate some high-level targets that inform decision-making, can express what is important, and identify strategic policy priorities.

Scotland

Scotland has issued multiple economic policy statements over the past decade. The Scottish Government released an updated economic strategy on 1 March 2022.^{viii} This is a heavily qualitative document, with ambitious statements of aspiration, but with no specific numerical targets or benchmarks.

'Our ambition for 2032 is for Scotland to be successful. Success means a strong economy where good, secure, and well-paid jobs and growing businesses have driven a significant reduction in poverty and, in particular, child poverty. It means a nation of entrepreneurs and innovators, with resilient supply chains and competitive advantages in the new industries generated by technological change, scientific advance and our response to the climate and nature crises. It means a society in which everyone can participate in economic success, in every community and in every region. Our vision is to create a wellbeing economy: a society that is thriving across economic, social, and environmental dimensions, and that delivers prosperity for all Scotland's people and places. We aim to achieve this while respecting environmental limits, embodied by our climate and nature targets.'

There are no formal quantitative targets. For example, under the programme for building 'entrepreneurial people and culture' it notes that:

'Our approach is therefore threefold. First, we will seek to dramatically increase the total number of new businesses created in Scotland – of all sizes and across all sectors. Second, we will seek to achieve a step change in the percentage of Scottish start-ups and existing mid-sized businesses that grow to scale. Third, we will seek to build entrepreneurial mindsets right across the economy – in start-ups, scale-ups, SMEs, large corporates, and government.'

The commentary contains some international benchmarking on a range of measures (productivity, entrepreneurial activity, number of top-ranked universities) against both the whole UK and the OECD, to strengthen the case for the priority areas for policy focus. And there is a comprehensive listing of policies and actions that will be undertaken to make progress, including through a large number of more specific strategies (energy, skills, infrastructure, etc.). However, there are no hard targets.

This has also been the case in previous versions of economic strategies, such as a Covid-19 recovery statement. Other documents such as the Sustainable Growth Commission, commissioned by the SNP not the Scottish Government, included some high-level economic targets (convergence to the per capita income level of the median small advanced economy).

Other Economies

Economic strategy statements from middle income and higher growth economies tend to have sharper quantitative targets, although these generally still focus on core economic measures.

A few examples to consider are Dubai Plan 2021, the Dubai Industrial Strategy 2030, and the Abu Dhabi Economic Vision 2030.^{ix} These documents tend to specify areas for focus (e.g., diversification, improved skills, new growth sectors), and to include high level economic targets. For some (not all) of the measures there are specific targets. In general, these have focused on strategic direction, highlighting key policy priorities, and so on. Although there are sometimes high-level targets, in general, they are not highly detailed measures that are targeted by the strategy (or that are monitored on an ongoing basis).

More detailed approaches are contained in Malaysia's various 5-year plans and the Saudi Arabian plans for economic transformation. But these are not particularly useful models for Northern Ireland, with very different governance approaches and political contexts.

Common Observations on the Role of Metrics

There are several observations of common characteristics across this international small advanced economy experience in terms of the way in which metrics are included.

Quantitative v Qualitative Focus

As would be expected, national economic strategy statements commonly provide a view on the current state of the economy, the emerging challenges and opportunities, and the way in which the economy seeks to position itself to achieve better economic (and other) outcomes. They are statements of strategic direction, which specify overall objectives and aspirations and the policy priorities required to deliver this.

In general, these statements are heavy on the strategic narrative rather than the detailed metrics that were suggested in the main 10X Vision document. Quantitative measures are often used to frame/calibrate the current environment and emerging issues – as well as to specify the high-level objectives.

It is less common to have a battery of specific targets or performance metrics that will be targeted. In some cases, there are accompanying dashboards of metrics – but these are of secondary importance to the Strategy – and are primarily for the purposes of policy-makers. And there may be lists of specific actions that are to be taken (e.g., Ireland’s Action Plan for Jobs), but not targets.

A recent development are wellbeing frameworks, where more significant investment is made to develop new metrics and frameworks to capture national performance against a broad range of outcomes (economic, social, and environmental). New Zealand is perhaps the most developed example of this approach (note also the OECD’s Better Living Framework). These wellbeing approaches have invested more in metrics than in strategic policy statements; but often do not specify targets or the broad strategic direction.

High Level vs Detailed Measures

It is standard to use measures such as improvements in per capita income or productivity, or increased exports, employment, etc. Narrower statements, e.g., innovation policy, employment strategies, may include finer-grained metrics. But in general, the target measures contained in economic strategy statements are not highly detailed.

Active vs Passive Metrics

Metrics are included in statements of economic strategy for at least a couple of reasons. This can be viewed as a choice between active and passive metrics.

Passive metrics are those that are included to support the storyline in the strategy, or that are included as high-level goals. Performance monitoring can sometimes be done against these high-level metrics, for example, to measure the extent of convergence towards per capita income targets.

In contrast, active metrics are those that are included to guide specific policy-making decisions. These measures are incorporated into the policy or budget process to shape the scale and prioritisation of

various interventions. However, there are few examples of detailed indicators that include causal intervention logic, with progress on lower-level metrics (or policy interventions) leading in a direct manner to higher-level outcomes.

As noted above, wellbeing frameworks have an aspiration to guide policy-makers towards improved overall wellbeing outcomes – with the aim of forcing policy-makers to consider the impact of choices on multiple dimensions of wellbeing, and the associated trade-offs. However, there is little evidence that this more complex approach with more detailed metrics leads to improved decision-making or outcomes.^x

The international experience shows that passive metrics are much more common in economic strategy statements: the use of relatively high-level measures as outcomes, with ongoing performance tracking, but in a way that is not tightly connected to the decision-making process. The focus on passive measures in economic strategy documents reflects the assessed difficulties in linking policy actions and improved metrics. The causal flow between actions and outcomes is frequently messy, operates with a lag, and is influenced by a range of other factors.

Overall, metrics tend to be less active targets than more passive performance benchmarks. Metrics feed into policy design and decision-making only in a very informal manner; it is the broad strategic narrative that is more important in supporting policy choices.

Use of International Benchmarking

The use of international benchmarking varies widely in economic strategies. It is common for there to be international benchmarking in the descriptive or 'problem diagnosis' parts of the document on a range of dimensions. And there are also examples of explicit international benchmarks in the statement of the overall aspiration. For example, for a time, New Zealand had an aspiration to move into the top half of the OECD in terms of per capita income; and Scotland's Sustainable Growth Commission work suggested an aspiration of the median per capita income level of the small advanced economy group.

Overall Comments

Overall, national economic strategies prioritise high level objectives over detailed metrics. It may be that there are separate action or implementation plans, with a series of specific policies/actions and associated target metrics. And metrics will often be used as part of the problem diagnosis in the strategy document. But these are generally 'scaffolding' for an overall strategic narrative rather than being a central part of the economic strategy.

Implications for Northern Ireland

There are two sets of implications for Northern Ireland from this international experience. First, that there is value in the disciplined use of selected metrics in the economic strategy process; and second, that there are limits to the role of metrics that should be understood in the design of these processes.

Value from Metrics

The international experience suggests that there are several benefits from specifying metrics for the purposes of setting targets, tracking progress over time, and benchmarking outcomes across other economies.

They can be used to make the economic strategy more concrete, providing a sense of the desired characteristics of the transformed economy. This can help in a few ways: it can support in the public communications around the strategy; and it can help to align policy-makers and other relevant stakeholders both in terms of the priority goals and actions. For example, the 10X focus on innovation, inclusive growth, and sustainability – together with some accompanying metrics – helps to make the strategic direction of economic policy in Northern Ireland clear.

Specifying metrics that capture the goals and direction can also be valuable in calibrating the materiality of the aspiration. For example, it can show clearly the gap between the current state on measures of innovation, inclusive growth, and sustainability, and where we would like to be over the next decade. In other words, it can provide a sense of the scale of the policy challenge ahead.

Similarly, the process of specifying the aspiration in terms of metrics can help to calibrate the materiality of the policy interventions required to deliver against the aspiration: a highly aspirational goal likely requires more aggressive policy interventions. A mismatch between the ambition in the target and the proposed policy interventions will be more apparent when specific metrics are used.

Specifying metrics around these priority areas can also help to make the policy trade-offs clearer. Can all of the measures be achieved in parallel; and how are they to be sequenced and prioritised? The timelines for meeting these aspirations are important as well as the actual selection of the metrics.

Metrics can also provide a sense of whether there is measurable change in the target outcomes; and highlight whether there is a need for the policy approach to be adapted or strengthened in order to deliver the target outcomes.

International benchmarking, done well, can also be particularly useful in calibrating the appropriate levels of aspiration and intensity – although this is not done consistently across countries. International benchmarking is more common in the strategic narrative, identifying gaps in outcomes or policy settings with other similar countries.

Limits to the Use of Metrics

However, although the use of metrics has value in constructing high level targets and providing sharpness/clarity around strategic direction, the international experience also encourages caution in placing too much weight on specific metrics.

Indeed, even when metrics are referenced in the economic strategy, it is rare that there is an expectation that there is direct line of sight between policy actions and improved metrics. Linking specific interventions to the achievement of overall objectives is very demanding. And the international experience suggests that it is not realistic to develop a series of cascading indicators that all fit together coherently.

Outside of input measures (such as a commitment to increase R&D funding by the government, which the government can directly control), the causal logic flow (transmission mechanism) between policy measures and outcomes is messy, operates with lags, and is generally subject to many other factors outside the government's control. These are not linear, mechanical relationships.

Detailed action plans will commonly have more detailed target metrics associated with the policy interventions. But this is at a much more granular level of detail than in the strategic documents. And even here, the link between inputs and outcomes is directional rather than precise. Care should be taken not to 'over-engineer' these metrics.

Conclusion

The international experience shows that metrics are an important element of economic strategy documents. Carefully selected metrics provide concreteness to the economic strategy, provide a valuable way of calibrating the scale of the challenge and the aspiration, and help to scale the materiality of policy intervention that is required. Metrics can also be useful in communicating the strategic direction to stakeholders. This will be the case for 10X, with metrics to be selected around innovation, inclusive growth, and sustainability.

David Skilling, Landfall Strategy Group

For further information or queries please e-mail: david.skilling@landfallstrategy.com.

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- i [10X Economy - an economic vision for a decade of innovation | Department for the Economy](#)
- ii [Enterprise 2025 - DETE](#)
- iii [Future Jobs Ireland 2019 - DETE \(enterprise.gov.ie\)](#)
- iv [Report of the Committee on the Future Economy \(mti.gov.sg\)](#)
- v [Overview \(mti.gov.sg\)](#)
- vi [Speech by Minister for Trade and Industry Gan Kim Yong at Ministry of Trade and Industry \(MTI\)'s Committee Of Supply Debate 2022](#)
- vii [RIE2025 Plan \(nrf.gov.sg\)](#)
- viii [Scotland's National Strategy for Economic Transformation - gov.scot \(www.gov.scot\)](#)
- ix [2021-2030 - The Official Portal of the UAE Government](#)
- x For a recent discussion of the difficulties in applying wellbeing frameworks to policy interventions, refer to Parliamentary Commissioner for the Environment- (New Zealand), 'Wellbeing budgets and the environment: A promised land?', December 2021. [wellbeing-budgets-and-the-environment-report-pdf-225mb.pdf](#)