

Maximising the Contribution of the Post-Compulsory Education and Training System to the Achievement of Welsh National Goals

A review of systems for monitoring and improving the effectiveness of post-compulsory education in Wales

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I. Executive Summary:

The purpose of this report is to recommend a process by which the Welsh government can monitor and assess the effectiveness of its post-compulsory education and training (PCET) system, with the goal of improving its performance and positioning the PCET system to make its maximal contribution to the achievement of high priority Welsh goals.

The current processes in Wales for monitoring and evaluating its PCET system are not unlike those of other countries. The most critical and serious deficiency in the current system, however, is its inability to provide government with what it most needs to know – specifically, a clear holistic picture of the contribution of each institution towards the achievement of the most important Welsh priorities and how the PCET system, overall as a system, is performing and how well it is advancing the country towards its desired objectives. Without this information, neither the government nor the institutions can make informed or evidence-driven decisions about the effectiveness of their policies or programs.

The report offers two key strategies, expressed in 10 specific recommendations, to redress this deficiency.

First, that a performance instrument be developed that evaluates the contribution of individual institutions and the system as a whole in six domains reflecting the highest priority Welsh objectives.

These domains are:

- i) widening access to PCET education;
- ii) enhancing economic impact;
- iii) improving research and innovation;
- iv) maintaining sustainable institutions and system;
- v) learning value added; and
- vi) the promotion of the Welsh language and culture.

These six areas are critical and essential to achievement of the goals the Welsh government has articulated of greater economic prosperity, more jobs and a civil, robust and resilient Welsh society.

Second, it is recommended that the Tertiary Education and Research Commission for Wales (TERCW) be mandated to manage this performance monitoring process. The main annual deliverables from TERCW would be:

- i) the preparation of brief individual institutional reports to provide the institution and government with a holistic assessment of the performance of each PCET institution in the six domains identified above, and

- ii) a system-wide report that provides an assessment of the contribution and progress of the PCET system as a whole to key Welsh goals, and recommends on the basis of that analysis, policy, funding or program changes to maximise, accelerate and advance the contribution of the PCET system to these key Welsh objectives.

These recommendations are immediately implementable as elements of this monitoring system are already in place. Also, because of the proposed architecture and process for the annual performance monitoring and evaluation process, they also assist the TERCW to satisfy and discharge the principal functions and responsibilities mandated to it. Finally, and most importantly, these recommendations if implemented redress the most glaring and serious deficiency in Wales' current performance monitoring and improvement system as it would provide government and institutions with the evidence base to determine the effectiveness of the PCET system, inform decisions necessary to improve the effectiveness of the system and maximise the contribution of each institution and the system as a whole to the most important Welsh objectives.

II. Preamble:

I was commissioned by the Cabinet Secretary for Education to undertake a review of the way Wales monitors and assesses the effectiveness of its post-compulsory education and training (PCET) system. As indicated in the Terms of Reference, the review is to consider the mechanisms now used to monitor and evaluate performance of institutions in the PCET system and the effectiveness of these processes. In addition, the review is to suggest how an improved monitoring and evaluation process can be better aligned with and advance the five principles of the Well-Being of Future Generations Act, particularly in light of the government's response to the recent Hazelkorn Report. Finally, and perhaps most importantly, the review is to include recommendations for the introduction and use of a new publicly accessible monitoring and evaluation process for the PCET sector that leads to an improvement in this system and optimises its contribution to the achievement of Welsh national goals.

This review is to include consideration of mechanisms that can be used in all of the components of the PCET system including the university sector, the further education colleges, apprenticeship providers and adult learning centres. The complete Terms of Reference for this review are provided in Appendix 1.

My analysis began with desk research -- reviewing a wide range of documents that describe how Wales currently manages and reviews its PCET system, particularly, several recent reports and actions by the Welsh government on several elements of its PCET system. These include the Hazelkorn Report, the Diamond Report, the Well-Being of Future Generations Act and consultation and feedback documents related to these from a variety of organisations currently involved in the PCET system, including from the National Union of Students Wales and the University and College Union

Wales. In addition, I reviewed the websites of relevant organisations such as QAA (Wales), Estyn, Universities Wales, Colleges Wales, and the Higher Education Funding Council for Wales (HEFCW). In an initial visit to Wales (October 2017) I met with a host of individuals knowledgeable and engaged in the Welsh PCET system. On the basis of these interactions I drafted a consultation and discussion paper (hereafter referred to as the “discussion paper”) that provided background, discussed several significant issues, and provided some initial impressions, inclinations and suggestions about what a useful and doable monitoring and evaluation system for the PCET system might look like. That discussion paper is attached as Appendix 2. This earlier discussion paper is a natural and helpful companion to this final report and to the specific recommendations provided herein. Readers should consult that earlier discussion paper for a lengthier discussion of some of the issues and observations that underlie the specific recommendations made in this final report. This final report focusses more directly on the specific issues and questions posed in the Terms of Reference and a set of recommendations proposing the design of a process and instrument to monitor and evaluate the performance of the Welsh PCET system.

In a second visit to Wales (January 2018), I again met with relevant key informants and players in the PCET system, including an opportunity to meet with the leaders of Welsh colleges and Welsh universities, to receive feedback and advice on the initial thoughts and suggestions described in the discussion paper.

I thank all of those who met with me for their time and their generous contribution to my education and this report. Despite differences of opinion they may hold, what comes through loudly and clearly in all of these interactions is the high quality of people in the Welsh PCET system – in the institutions, government and agencies – their passionate and dedicated commitment to post-compulsory education and the students in it, and their willingness to consider how the Welsh PCET system could be improved and do an even better job of helping students and Wales achieve their goals.

I provide this final report in that spirit – as an analysis and set of recommendations offered to best monitor, and improve the effectiveness of the PCET system in Wales.

III. The current system:

As I suggested in the earlier discussion paper, the issues and dynamics that I have encountered in Wales are not materially different from those evident in other jurisdictions that are also considering how to monitor and evaluate the performance of their postsecondary systems.

I would draw the same general conclusion about the system Wales currently uses to monitor PCET. As is the case in many other jurisdictions, the current system consists of a hodgepodge of different organisations and agencies that regulate, monitor and inspect different elements of the PCET system. This includes government itself, Estyn that inspects institutions in several sectors of the PCET system and HEFCW, through the Quality Assurance Agency, for monitoring and evaluating the universities. These

various reports typically make their way to government. This reporting mosaic is not unlike what one sees in other jurisdictions. Estyn, HEFCW and the QAA are well established organisations, with well-defined processes, that are well understood and discharge their monitoring and evaluation mandates professionally and with discipline.

I have no doubt that a comprehensive review of all of the reports demanded of a PCET institution in any given year would reveal some redundancies and duplication. But these are second order issues and, if nothing else, the commissioning of this report may be taken as the opportunity to streamline and simplify the current monitoring systems. However, the primary and more important issue is what is missing in the current monitoring and evaluation processes.

IV. What is missing in the current system and most needed in a new process?

The current performance monitoring system is fragmented. Every assessment now conducted reveals one part of the picture, typically in one particular aspect of an individual institution. The critical piece missing, though, is any process that puts together the various pieces to provide government and the public with a holistic, clear and meaningful picture of:

- The overall performance of individual institutions
- The performance of the overall PCET system, and
- Progress towards high priority public goals

These are nontrivial deficiencies. A government cannot make informed and useful decisions about individual institutions unless it sees the whole picture of the various ways that the institution is contributing to the set of goals that are most important to the government, students, the public and the institution itself. One cannot appreciate the trade-offs an institution is making or the effectiveness of the strategies an institution is pursuing unless one gets a holistic picture of the overall organisation. Looking at enrolment counts or graduation rates alone or the results of a quality assessment review (no matter how thorough) do not provide the full institutional picture. Similarly, a government cannot possibly assess the effectiveness or adequacy of its policies, regulations, practices and programs intended to reform its PCET system unless it is provided with a clear ongoing analysis of the progress the PCET system as a whole is making towards the achievement of defined, high priority national goals.

As I discussed in the earlier discussion paper, Wales is fortunate and was prescient in having already presented their vision of what a future prosperous Wales would look like. This is an essential piece missed by many governments; not so for Wales. The Welsh government also appreciates that a contribution from the PCET system is essential to achievement of these goals. The missing piece in the current monitoring system is a process for tying together the various pieces of information already collected, done in an efficient way, to monitor the contribution of the Welsh PCET institutions and system to achievement of these objectives.

The remainder of this report describes a relatively simple and efficient performance monitoring system that gives government the information it needs to monitor, assess and enhance the contribution of PCET institutions and system to the achievement of national goals it has defined.

Recommendation 1: Wales should develop a performance monitoring and management system that provides a comprehensive and holistic assessment of the contribution of individual PCET institutions and the PCET system as a whole to the achievement of Welsh national goals.

V. What areas of activity should the performance monitoring system measure?

As discussed in the earlier paper, while one could measure almost anything in the PCET system (and some performance management systems attempt to do just that), a useful and meaningful performance management system should measure the few things that matter most to government. In its Well-Being to Future Generations Act, the Welsh government has identified its seven well-being goals:

- a prosperous Wales;
- a resilient Wales;
- a healthier Wales;
- a more equal Wales;
- a Wales of cohesive communities;
- a Wales of vibrant culture and thriving Welsh language; and
- a globally responsible Wales

The Act also clearly makes it clear that public bodies in Wales are under a duty to monitor, manage and report their activities that are aimed to achieve these objectives.

As discussed in the earlier discussion paper, it is difficult to design a performance instrument at the level of discourse used in the Act. However, there are six domains of performance specific and relevant to the PCET system that are implicit and instrumental to the achievement of these goals. I recommend designing a performance instrument that monitors and measures performance and achievement in these six high priority domains. They are:

- Widening access
- Economic impact
- Innovation & research
- Institutional sustainability
- Learning value added
- Promotion of Welsh language and culture

These six domains are not mutually exclusive. Rather, some are inter-dependent and some, like economic impact and research/innovation for example, are inextricably linked.

Widening access: The PCET system is instrumental to producing the highly skilled and educated workers demanded by today's economy and workplaces. This includes people across the PCET system – everything from a critical need for more people in the trades to doctoral level students. So, a key goal is more people in Wales with a PCET education (higher participation and attainment rates). Equally, if not more, important however, is the need to widen access to provide everyone with an equitable opportunity to attend and to succeed in PCET. This is especially relevant for individuals and groups currently under-represented in the PCET system; in some ways it is these individuals and groups who receive the greatest economic and social gain from a PCET education

Economic impact: Wales, like every other government I know, is looking to its PCET system to drive economic growth and prosperity and to give its citizens the skills and education to exploit and benefit from an increasingly knowledge-based economy. These are primary reasons governments support public education. Institutions within the PCET sector have the capacity and means to have economic impact in different ways. For all, it is the production of graduates with the skills and knowledge to support, attract and create good jobs. The reliable and steady supply of highly educated human capital – talent – is a major magnet for industries and companies. Talent is a major determinant of global economic competitiveness. This is true across the PCET spectrum -- apprentices and Ph.D.'s alike. PCET institutions also generate economic impact through the application and creation of new knowledge, and the support of innovative products and services. Institutions also drive economic impact by their activities in the local and regional communities they are in. The specific ways in which an institution can and will drive economic growth and prosperity will differ depending on the mandate, mission, character and location of the institution. But, every institution should be able to demonstrate what and how much economic benefit it is supporting and promoting.

Innovation & research: The nature of today's economy underscores the importance of innovation and research to a socially vibrant and economically prosperous society. Innovation and research includes not only the creation of new knowledge but also the capacity to absorb and use innovation and research findings produced elsewhere. The analysis of the state of innovation and research in Wales and how it might be enhanced is the focus of the Reid Report. That report reviews the innovation and research ecosystem in Wales, and discusses how different PCET institutions could enhance their innovation and research performance. This analysis will be helpful to guide the specific indicators selected to monitor and improve innovation and research performance. Depending on the institution, its activities, efforts and goals in innovation and research may emphasise application or creation of new knowledge. Again, while institutions

within the PCET system may differ in terms of how they contribute to increased innovation and research, all should be expected to make a contribution.

Institutional sustainability: The central theme of this report is that the government should monitor and assess the contribution of PCET institutions to high priority Welsh goals. Realistically, it is very hard for institutions to focus on national goals if they are consumed with simply keeping their institution viable, covering their salary commitments or paying the electrical bill. This issue, as discussed in the earlier discussion paper, speaks to the importance of a PCET system that is populated by sustainable institutions capable of delivering their academic mission. Similarly, it serves no one – students, the public, the institution or government – to have an institution fail. The best way to ensure institutional sustainability is to continually monitor the financial health of an institution and assess whether it is using its resources, or has sufficient resources, to contribute in the ways expected of it.

Some will argue that the domain of institutional sustainability is unlike the others included in this list of six because it is an enabling or necessary condition to achieve goals, rather than a goal in and of itself. This is a fair argument. But, the importance of remaining sustainable is so critical to the capacity of an institution and system to deliver on goals that it merits inclusion in an overall performance monitoring and assessment exercise.

Learning value added: As discussed in the earlier discussion paper, perhaps one of the most important things one would want to monitor, evaluate and improve in its PCET system is whether students are learning what they need to know to be able to do to succeed in life and work. This requires institutions and a system to articulate the knowledge and skills they expect graduates to have and, most importantly, to measure whether that knowledge and skills are being acquired.

Institutions do a good job of evaluating acquisition of knowledge – i.e. content. But, as argued in the discussion paper, the emerging and likely more important area or learning to measure is whether students are acquiring a set of basic cognitive skills (sometimes called transferable, or life, or generic skills) such as an appropriate level of literacy, numeracy, critical thinking etc. that are critical to navigate personal and professional lives. There are a host of quality assurance exercises in the PCET sector; Wales has its fair share. These processes often measure inputs into the learning process and whether institutions are employing practices that portend better learning. The most informative and progressive exercises, however, are those that directly measure the acquisition of the skills and competencies that have been identified as important for jobs or life. And, as discussed in the earlier discussion paper, a value-added or learning gain approach is the appropriate perspective to take on these measurements given the diversity of institutions and learners in the PCET system.

Some exciting and innovative approaches to measuring value-added learning are taking place in the UK and elsewhere. Wales has the opportunity to position its PCET system

as an innovative, leading and progressive system if it incorporates direct measures of skills in its performance monitoring framework and that is the recommendation made here.

Promotion of Welsh language and culture: The government has been clear in its desire to preserve, promote and enhance Welsh culture and the use of the Welsh language. Everyone I have spoken to acknowledges the importance of this goal and supports its objective to sustain the distinctive character of Wales. The Well-Being to Future Generations Act makes it clear that public institutions are to report on their activities to help achieve a thriving Welsh culture and language. Given the high priority accorded to this goal, it is appropriate to monitor and assess the contribution of PCET institutions to this objective.

Recommendation 2: The performance monitoring, assessment and management process and instrument should assess the contribution of individual PCET institutions and the overall PCET system in six domains:

- Widening access
- Economic impact
- Innovation and research
- Institutional sustainability
- Learning value added
- Promotion of Welsh language and culture

VI. The role of the TERCW in the performance monitoring process.

The government is moving to establish a Tertiary Education and Research Commission for Wales (TERCW). Although I appreciate that the principal functions for the TERCW are still under consideration, my understanding of its proposed mandate and principal functions indicate it to be the right vehicle for managing the performance measurement process.

I propose that the TERCW be charged to provide two key annual deliverables.

First, for each institution in the PCET system, it would be responsible for assembling an institutional report that describes the contribution of each institution to the advancement of the goals identified as the six domains above. In my view, each report need be no more than 3 or so pages in length. As will be discussed later, many of the indicators needed to demonstrate a PCET institution's contribution are already collected and reported. The TERCW institutional report, however, would add value to these fragmented reporting mechanisms by presenting a holistic picture of the institution's activities and performance in these six high priority goals, including the balance between these domains of activity the institution has adopted to maximise its overall contribution.

Second, the most important deliverable of the TERCW would be to provide an annual report to government that describes the contribution of the PCET system as a whole to the high priority Welsh objectives as defined above. This would provide government with the data, information and evidence it needs to assess the progress being made and the effectiveness and impact of the framework, policies, regulations and programs in the PCET system. This system view is what is missing now and, in its absence, the government and institutions cannot monitor and assess performance towards key goals. This system-level report allows for a determination of the adequacy of the direction and rate of progress and change.

The combination of the institutional reports with the system wide evaluation provides government and the institutions with critical information they need to determine the effectiveness of the PCET system and to improve it.

As reviewed in the discussion paper, one of the purposes and positive outcomes of a good performance monitoring and evaluation process is that it promotes change. One of the powerful levers of change is public disclosure. Government has already flagged its commitment to openness of data and information. Therefore, it seems sensible that the TERCW make these reports public.

Recommendation 3: The TERCW should manage the performance monitoring and evaluation process described in this report.

Recommendation 4: The TERCW should work with the PCET institutions to assemble on an annual basis a brief institutional report that describes the contribution of each PCET institution to achievement of the high priority goals the government has identified by reporting in the six high priority domains described above.

Recommendation 5: The primary and most important deliverable of the TERCW is an annual report to the Welsh government describing the overall contribution of the PCET system to the achievement of the high priority goals the government has identified by reporting the system-level performance in the six domains described above.

Recommendation 6: The institutional and the system-wide reports should be public.

The recommendations above, aside from providing an annual performance monitoring and evaluation assessment of issues that matter most to Wales, also have the important benefit of positioning and assisting the TERCW to discharge the principal functions that form the core of its proposed mandate. For example:

First, a major motivation for creating the TERCW is the desire for greater collaboration and alignment – a joining up -- among the various sectors of the PCET system, all

components of the PCET system considered equally. This is a laudable and important objective. The primary deliverable I propose for the TERCW, an annual system level report, would force thinking about how the various elements of the PCET system are, or could better be, coordinated, aligned, and collaborative. Thus, the proposed performance process drives the TERCW to engage in exactly the integrative, joining-up, thinking that is at the core of its mandate.

Second, it seems likely that Wales will go the route of other jurisdictions, such as Scotland, to a policy framework in which institutions will negotiate outcome agreements with government. It seems logical for government to delegate their part to the TERCW. These outcome agreements (or performance contracts) should focus on areas that are of greatest significance to Wales. The development of institutional reports in the six domains above is a natural and necessary precursor step to the negotiation of these performance contracts since they will provide the evidentiary basis for appreciating, monitoring and assessing the performance of individual institutions. So, since the TERCW is likely to be responsible for negotiating these outcome agreements, it will necessarily have to construct individual institutional reports of the type I propose here.

Third, it seems likely that the TERCW will be charged with collecting and analysing the data in the PCET sector and of forming effective working relationships with PCET institutions to ensure accountability, alignment and clear communication between the parties. The performance monitoring and evaluation process I recommend for the TERCW accomplishes exactly these goals.

Finally, for the TERCW to be effective, it must also form an effective and useful relationship with the government. Nothing could do a better job of fostering a productive and useful TERCW-government relationship than creation and joint analysis of the annual system-wide report I recommend above as a primary TERCW deliverable.

VII. The selection of indicators.

Section V describes the six priority domains on which the performance monitoring and assessment process and instrument should focus. It is necessary, though, to then agree on the specific measures, or indicators, that would index performance in these areas.

All institutions in the PCET system should be expected to report in all six domains. These six domains would also be the template for the system-level annual report to government. As reviewed in the earlier discussion paper, however, given the diversity of institutions within the PCET system, and the diversity of mandate and focus of even the institutions within one of these sectors, a useful and sensible performance system tailors the specific indicators within each of these domains to the differentiated mission and mandate of the individual institutions.

In addition, again as discussed in the earlier paper, the best indicators:

- measure outputs and outcomes, not inputs

- where relevant, allow for a comparison of the performance of Wales against other relevant peer jurisdictions and competitors
- use direct, not proxy or surrogate measures
- are validated
- where relevant, pay attention to, if not attempt to align with, measures used in the compulsory education sector

I recommend that to create the slate of indicators for an institution, the institution should be asked to recommend one, two, but no more than three specific indicators that they regard as the most relevant and informative indicators of their performance in each of these domains.

Mindful of the features of the best indicators described above, the TERCW should convene a panel of experts to assess the appropriateness and credibility of the indicators proposed by an institution and, after negotiation with the institution if needed, approve them. The panel should include knowledgeable individuals currently in, and others outside, of PCET institutions, including some from government.

Recommendation 7: The TERCW should convene a panel of experts to review and approve the specific indicators proposed by institutions for their institutional reports.

It seems quite likely to me that several, or perhaps all, institutions within a sector (e.g. further education colleges or universities) would propose a common set of indicators they would all use. The more sharing of indicators the better, but always mindful and respectful of the need to tailor the indicators to the distinctive mission and mandate of the institution.

It also seems likely to me that some of the indicators that will be proposed are already collected and reported for institutional purposes, government, or the Higher Education Statistics Agency. Therefore, data collection to populate these institutional reports need not necessarily require any additional effort on the part of institutions.

Many of the data that will be proposed as good indicators are already audited or validated by outside bodies. For those that are not, it would be the responsibility of the TERCW to assure the accuracy and validity of the data provided.

Recommendation 8: The TERCW expert panel should encourage, but not require, the use of common indicators. The requirement to report specific indicators need not create any additional bureaucracy or work given reporting that is already done in Wales.

Recommendation 9: If not already audited or validated by some other body, it is the responsibility of the TERCW to assure the accuracy of the information provided by the institution.

As discussed in the earlier paper, a system report differs from individual institutional reports. The panel of experts should agree on a set of indicators, again no more than three in each of the domains discussed above, that are the most informative, credible and useful measures to monitor and evaluate the performance of the PCET system as a whole.

Recommendation 10: The panel of experts should decide on a set of indicators that will be used to create the annual system wide report.

VIII. Concluding argument for the proposed new process.

I propose a simple performance monitoring process that gives Welsh PCET institutions and the government what it most needs and what is most lacking in the current performance monitoring process. Specifically, a comprehensive holistic annual review and evaluation of the contribution of individual PCET institutions and the PCET system as a whole to the most important Welsh goals.

I propose that the newly-created TERCW manage this performance monitoring and evaluation process. Aside from responsibility for assuring the preparation of the individual institutional reports, the primary and most important deliverable of the TERCW would be an annual assessment of the contribution of the PCET system as a whole system to the advancement and achievement of Wales` highest priorities and expectations of the PCET system. A TERCW with these responsibilities would support and fulfill the major motivation underlying the creation of a TERCW – specifically, to promote and assure greater alignment, collaboration and cooperation among the different sectors within the PCET system. Equally, a TERCW charged with managing the performance monitoring and evaluation process suggested in this report would, by fulfilling this role, be shaped and assisted to satisfy the specific principal functions the TERCW was create to satisfy.

A performance monitoring and assessment process as proposed in this report is eminently implementable with little delay, creates little additional administration or bureaucracy and minimises any additional data collection or reporting burden on the institutions.

Most importantly, the proposed process gives the Welsh government and its institutions what it most needs to know – how the various policies, programs, practices and activities that are in and that regulate the PCET system are accomplishing the desired effect of achieving the goals and objectives that promote the kind of economically and socially prosperous, progressive, civil and robust society Wales desires. Further, if the direction or rate of progress to these goals is deemed inadequate, the reporting process proposed provides important information for improvement to guide amendments to current policies and practices.

IX. Summary of recommendations.

Recommendation 1: Wales should develop a performance monitoring and management system that provides a comprehensive and holistic assessment of the contribution of individual PCET institutions and the PCET system as a whole to the achievement of Welsh national goals.

Recommendation 2: The performance monitoring, assessment and management process and instrument should assess the contribution of individual PCET institutions and the overall PCET system in six domains:

- Widening access
- Economic impact
- Innovation and research
- Institutional sustainability
- Learning value added
- Promotion of Welsh language and culture

Recommendation 3: The TERCW should manage the performance monitoring and evaluation process described in this report.

Recommendation 4: The TERCW should work with the PCET institutions to assemble on an annual basis a brief institutional report that describes the contribution of each PCET institution to achievement of the high priority goals the government has identified by reporting in the six high priority domains described above.

Recommendation 5: The primary and most important deliverable of the TERCW is an annual report to the Welsh government describing the overall contribution of the PCET system to the achievement of the high priority goals the government has identified by reporting the system-level performance in the six domains described above.

Recommendation 6: The institutional and the system-wide reports should be public.

Recommendation 7: The TERCW should convene a panel of experts to review and approve the specific indicators proposed by institutions for their institutional reports.

Recommendation 8: The TERCW expert panel should encourage, but not require, the use of common indicators. The requirement to report specific indicators need not create any additional bureaucracy or work given reporting that is already done in Wales.

Recommendation 9: If not already audited or validated by some other body, it is the responsibility of the TERCW to assure the accuracy of the information provided by the institution.

Recommendation 10: The panel of experts should decide on a set of indicators that will be used to create the annual system wide report.

X. Appendix 1.

Terms of Reference for a Review of Systems for Monitoring and Improving the Effectiveness of Post- Compulsory Education in Wales

1. Consider the ways in which the activities and performance of the post-compulsory education sector are monitored and evaluated by Welsh Government and its agencies, including Estyn and HEFCW, which discharges that responsibility through arrangements made with the Quality Assurance Agency (QAA).
2. To consider the effectiveness of current arrangements for the monitoring of post-compulsory education in Wales judged by reference to other UK nations, relevant international comparators and research evidence.
3. Work with people in the post-compulsory education sector in Wales to consider how current activities and future plans can be aligned with the five principles of the Well-Being of Future Generations Act. The five principles are as follows:
 - look to the long term;
 - focus on prevention;
 - deliver an integrated approach to achieving the 7 well-being goals;
 - work in collaboration with others to find shared sustainable solutions; and
 - involve diverse populations in decisions that affect them.
4. Consider recommendations for the introduction and operation of an annual publicly accessible system for reporting on, monitoring, evaluating and improving post-compulsory education in Wales.
5. Consider how the post-compulsory education sector in Wales continues to ensure high quality outcomes for students within a sector that is internationally successful for innovation and research.
6. To consider whether there may be a need for legislation and new or reformed institutional arrangements to take forward future arrangements proposed in the light of this review.

7. Comment on how the current systems for monitoring and evaluating post-compulsory education can be aligned with the Well-Being of the Future Generations Act (2015) goals and the development of a post-compulsory education strategy in-keeping with the Welsh Government's response to the Hazelkorn Report. The seven well-being goals are as follows:

- a prosperous Wales;
- a resilient Wales;
- a healthier Wales;
- a more equal Wales;
- a Wales of cohesive communities;
- a Wales of vibrant culture and thriving Welsh language; and
- a globally responsible Wales

XI. Appendix 2.

Review of Systems for Monitoring and Improving the Effectiveness of Post-Compulsory Education in Wales

Preliminary Discussion Document for Consultation

Harvey P. Weingarten

I have been asked by the Cabinet Secretary for Education to undertake a review of the way Wales monitors and assesses the performance of its post-compulsory education and training (PCET) system. This review is to include consideration of the mechanisms used in the university sector, the further education colleges, apprenticeship providers and adult learning centres. The Terms of Reference for this review are provided in Appendix 1.

I began this exercise by desk research -- reviewing a wide range of documents that describe how Wales currently manages and reviews its PCET system, particularly, several recent reports and actions by the Welsh government on several elements of its PCET system. These include the Hazelkorn Report, the Diamond Report, the Well-Being of Future Generations Act and consultation and feedback documents related to these, from a variety of organisations currently involved in the PCET system, including from the National Union of Students Wales. In addition, I reviewed the websites of relevant organisations such as QAA (Wales), Estyn, Universities Wales and the Higher Education Funding Council for Wales (HEFCW). These reports and sites provide me with an education on PCET in Wales and form the context and background to the specific review I was commissioned to conduct.

My consideration of these documents was enhanced by a trip to Wales in October 2017 where I met with a host of individuals knowledgeable about and engaged in the Welsh PCET sector. These discussions provided me with perspectives and views of the Welsh system at more visceral and in-depth levels than could be gleaned by desk research. I learned a lot from these discussions. I thank all of those who met with me for their time and for their contribution to my education.

The Terms of Reference for this review asks a set of specific questions about how performance of the PCET system is currently assessed, the effectiveness of these evaluations, how a future performance monitoring and evaluation regime can be designed and aligned with future goals of the Welsh government, and how a performance monitoring system can lead to improved quality of PCET in Wales. I will need to address these questions directly in my final report. However, before making specific commentary on these issues, I thought it was important for me to air, and to get a fix from those in Wales, on some of the overarching issues that are associated with these questions and are relevant to the design of a performance monitoring and evaluation tool that would serve Wales well. These are the items I raise in this discussion document and on which I seek your commentary, feedback and advice.

The issues and dynamics that I have encountered in the Welsh environment do not seem to me to be materially different than those one would encounter in other jurisdictions that are also

exploring how to monitor and evaluate the performance of their postsecondary systems. Nevertheless, the context and environment for any performance monitoring and assessment tool is different in different jurisdictions, and the same is true for Wales. I am also highly mindful of the perils of making assumptions about a jurisdiction when one comes from a different one.¹ So, the primary purpose of this document is to seek your feedback and commentary on some preliminary observations, impressions and issues that arise from what I have learned so far.

Why this initiative now?

Wales has made an impressive statement about its aspirations for the future. The goals it seeks for its citizens and country are captured in the Well-Being of Future Generations Act that articulates a set of attributes it hopes will characterise Wales in the future. The Welsh government has recognised, and has been quite articulate about the fact that the performance and outputs of its PCET system² – through the highly educated students it graduates, the research and innovation it spawns and the communities and regions it supports – are essential to achieve the robust and vibrant economy and civil society the Act describes.

Even beyond these appropriate and lofty motivations for monitoring and assessing the contributions of its PCET sector, it is only natural that a government and the public would want to know how a publicly supported sector – such as the Welsh post-compulsory system – is performing. The effective stewardship of public funds is an expected role for government. Added to this, governments are under increasing scrutiny and accountability for the effective use of public funds. There is no way for a government to discharge these stewardship and accountability requirements (and there is no escape for them) without some evaluation of how the public funds they provide to public institutions are used and the outcomes they achieve.

What is the purpose of performance monitoring and evaluation?

Typically, there are several motivations, not necessarily mutually exclusive, for a government to use a performance monitoring and evaluation tool.

The first, as noted above, is to hold institutions accountable for the public funds they receive and the public role they enjoy in society. Although not usually the desire or intention of governments, this motivation sometimes may lead to blaming-and-shaming reports (the field day for some media) and institutional rankings.

The second is to inform other decisions the government must make, particularly in areas such as resource allocation, funding, capital grants etc. We all say that we want government and other policy groups to make evidence-based decisions and it impossible to understand how they could make such decisions in the absence of evidence. A well-designed performance monitoring and assessment tool provides decision makers with relevant and meaningful information upon which to base decisions.

¹ I am equally quite cognisant of the benefits and advantages of asking for a report like this from someone who is not immersed in the domestic context and environment.

² For clarity, in this document, I use the term "system" to refer to the entire PCET system (as opposed to the compulsory system) which includes all of the various types of institutions within it (e.g. further education colleges, universities, apprenticeship providers etc.) and the term "sector" to refer to these different components of the PCET system (e.g. apprenticeship providers only or universities only).

The third motivation for the design and use of a performance monitoring and assessment tool³ is to engage in an ongoing process of continuous improvement. Simply put, the goal is to receive the maximum contribution of each element of the system and measuring the contribution of each of these elements allows one to make decisions and mid-stream adjustments that allow each institution and the system to perform optimally.

The clear sense I get is that this latter consideration is motivating the government's desire for a performance assessment tool. If nothing else, the title of the contract given to me clearly states this purpose for the exercise. The performance tool may ultimately be used to inform other policy and funding decisions but the underlying rationale is to design something that is useful to both governments and institutions to improve their performance and output and effective use of their resources.

If I am correct in identifying this purpose as the dominant motivation for the exercise, then one might as well acknowledge at the front end that regardless of the vocabulary used – improvement, better outcomes, greater effectiveness and efficiency etc. -- one purpose of the performance assessment exercise is to drive change in the PCET system. There appear to be two ways that performance tools can drive change. The first is by tying performance to funding. This is an effective lever; the evidence suggests that institutions will respond to the funding and financial incentives. The cautionary note here is that this strategy is so effective that one must be very careful to select the right indicators because institutions will adapt to maximise their performance on the measures taken that influence funding.

Some may argue that recent changes to the way Wales funds some of their PCET institutions, by linking more of its public funding to students and reducing the support of institutions by direct grants, minimises the opportunity for the government to exploit this funding lever. I would argue that although these policies may change the route by which public funds make their way to institutions, the government still maintains a considerable amount of control via this indirect funding because, if nothing else, government maintains the right to regulate tuition and fees (and other policies related to student financial aid) and requires institutions who wish to have their students eligible for public funding to adhere to this regulatory regime.⁴ I also note that there is discussion of a possible liberation of funds, the so-called Diamond Dividend, which may arise as a result of changes to the financial aid system. I am sure there will be many calls for the use of these funds, especially to support a research and innovation agenda. Should such a dividend actually become manifest, I recommend that the government reserve all or part of it as a war chest specifically to drive desired changes in the PCET sector and design its performance instrument to measure whether the allocation of these funds is promoting the desired changes and outcomes.

The second effective lever for change in higher education is public disclosure of performance. This strategy may be as effective in driving change as funding. The government has already signalled its intention to make public data such as those to be obtained through any PCET performance measurement exercise.

³ I understand that the current language is to call such instruments 'transparency tools'.

⁴ I appreciate that this policy change to have more public funding follow students instead of direct institutional grants creates other dynamics that influence the behaviour of institutions.

The point here is that performance measurement is an empty exercise unless it is also tied to practices and policies, such as funding or public disclosure, that drive change. It seems sensible to consider what strategies the government is prepared to use to drive change in these early discussion stages of development of the performance assessment instrument.

Who is to be assessed?

The PCET sector in Wales consists of universities, further education colleges, apprenticeship providers, adult learning centres and other elements. These institutions provide an array of credentials. In some cases, a credential may be the domain of only one type of institution (e.g. only universities offer baccalaureate degrees) and in other cases several different types of institutions may offer the same credential (e.g. Sixth Form).

It is difficult to imagine a common performance assessment tool that would be used in all of these sectors. For example, the elements and indicators one might incorporate into a performance instrument for apprenticeship providers would likely be quite different from the slate used to evaluate universities. Some of these institutions have a very clear primary mandate, e.g. graduate a certain number and type of apprentices or graduate a certain percentage of students enrolled in sixth form⁵. Other roles, such as graduate education, might be unique to universities and so any indicators related to this function would be applicable and relevant only to institutions in this sector. Even within something like the university sector, the breadth of outcomes expected of them – undergraduate programs, graduate education, and research -- suggest a broader slate of performance indicators. And, given the diversity of institutions in this sector, not all of the indicators one might wish to use for even just this one sector would necessarily be equally applicable or of equal weighting to all of the universities.

The essential point is that creation of a performance instrument requires clarity around the mandates and expectations of the various institutions in the PCET sector because the particular things measured at any institution or within one sector must be consistent with the mandate and expectations of that sector and institution. Wherever such lack of clarity exists, it must first be resolved before a sensible and useful performance tool can be designed.

I am left with several questions around the issue of who is to be assessed:

1. Is the development and implementation of a performance monitoring and assessment tool seen to be of equal priority in all of the sectors that comprise the PCET system? The answer to this question guides future work to actually create the instrument.
2. Are the expectations of some of the sectors in the PCET system so clear and distinct that it will be easy to customise a set of performance indicators for that component of the PCET system?

Who will manage the performance assessment process?

The Hazelkorn Report has led the Welsh government to consider the creation of a Tertiary Education and Research Commission for Wales (TERCW).

The structure and role of the TERCW, although technically perhaps beyond the remit of the charge given to me, is relevant because it is the body that as currently conceived would be responsible for the management of the PCET performance process.

⁵ And, by implication, it will be easy to arrive at a set of indicators to evaluate performance.

The TERCW, as currently described, is at arm's length from government, responsible for a wide swath of functions in all of the PCET system ranging from long-range strategic planning, to resource allocation, to performance monitoring and evaluation. Any one of these roles is a significant undertaking. While I appreciate the motivation to bring the entire PCET sector under one roof, it is hard to imagine how one organisation could discharge them all well without creating a monster organisation with several distinct divisions corresponding to its different responsibilities, particularly given the range and diversity of institutions within the PCET sector. I appreciate the hope that bringing the entire PCET system under one management organisation might increase collaboration among the various components of the PCET system. But this is an untested assumption (albeit a potential positive benefit of the TERCW); sharing letterhead may or may not bring greater collaboration and harmonisation within the PCET system. But, as currently described, the TERCW presents a nontrivial administrative and bureaucratic burden and the fear is that the necessary complexities of such an organisation might lead it to serve none of the elements of the PCET system particularly well.

The more material question about the TERCW is its relationship to government. As currently conceived, the Welsh government would delegate to this buffer body considerable authority, not the least of which is resource allocation and system performance assessment. The fundamental question for the Welsh government is whether it is really prepared to give up management and steering of the system to this third party and what advantages it sees in doing so?

The government delegation of management of higher education to an arm's length third party works in some countries but it requires great discipline on the government's part. If the government continues to intervene in decisions like resource allocation, or is prepared to accept direct petitioning from PCET institutional leaders to it, then the rationale for a buffer body is completely undermined.

The other reality is that at the end of the day the government, not a third-party buffer body like the TERCW, wears issues and problems of its public education system. If institutions go bankrupt, fail to deliver on their academic missions, perform poorly, or face some scandal, the public and the institutions will turn to government for blame and for the fix. Governments, not the third parties, are those ultimately held accountable and if the PCET system fails to achieve the goals and outcomes expected of it, the government is held accountable. This is why many governments are not prepared to give up certain key decisions to a third party, even though in some cases the third-party body might contain individuals who are more expert and knowledgeable about higher education than might be the case in government.

If the government is committed to the concept of a TERCW as currently described then it should be prepared to operate at a system level, set overarching and broad policy that steers the system to achievement of these goals, and stay away from any engagement or decisions at the institutional or process level. Such a government would focus on whether the PCET system as a whole is achieving desired goals and outcomes and be silent on instructing or telling institutions how they might achieve these goals. The processes, actions and use of resources to achieve goals become the remit of TERCW, not government. This is a hard philosophy and modus operandi for many governments to adopt and, frankly, my sense is that the Welsh government, like many other governments (like mine) is not there. With respect to performance monitoring and assessment, it makes sense to me that a body other than government itself would manage this process and report results – it does not need to be the government that runs this process. But this does not mean that this same body must be the same one that allocates

resources and makes resource decisions. The general point is that the Welsh government should consider the advantages and disadvantages of a third party body like the TERCW. Specifically, the government must decide which roles, functions and responsibilities it is prepared to delegate to any third party like the TERCW and then be disciplined to operate at the right levels given the roles and responsibilities it has kept for itself.

What kinds of indicators?

System versus institution focus:

Performance monitoring and evaluation systems are of two kinds: those that focus on the performance at a system level and those that focus on the performance of individual institutions within a system. The particular indicators that are woven into a performance measurement tool, and the architecture of the tool itself, differ between these two perspectives.

A good example of performance reporting at a system level is the OECD Education-At-A Glance. This publication reports on the performance of the country as a whole; there is no mention or indication of the performance of individual institutions. Of course, the data OECD reports represents the aggregation of information from institutions within the country's system but the focus is how the jurisdiction as a whole is performing and how it compares to the performance of other peer jurisdictions. The performance assessment of the provinces in Canada conducted by the Higher Education Quality Council of Ontario (HEQCO) is another good example of a performance assessment focussed on overall system performance, not that of individual institutions

(http://www.heqco.ca/SiteCollectionDocuments/HEQCO_Canadian_Postsecondary_Performance_Impact2015.pdf).

There are many examples of performance tools focussed at the institutional level. These would include those available in the media (Times Higher Education globally, US News & World Report for the USA, Maclean's in Canada etc.) and the Research Excellence Framework and the Teaching Excellence Framework in the UK.

While the specific comparison groups and the motivation for conducting the performance assessments differ in the two schemes, these two approaches can be related. Many of the indicators applied at the individual institution level, such as enrolment, graduation rates and research performance, among other things, can also be applied to compare systems within or across countries. The performance of a system may be measured by a simple roll up of the performance of the individual institutions in the system.

But these two approaches are not the same. For example, simply because individual institutions might be achieving their individual goals does not mean that the system as a whole is achieving public goals, or at least not optimally. For example, institutions might engage in predatory recruiting practices, competition, or the opening of satellite campuses that improve their individual performance but that compromise performance of the overall system. Assessments of individual institutions provide readers with better information that is relevant to their selection of institutions at which to study and governments (or a TERCW) with how individual institutions are performing. System assessments provide information to governments as to whether the policies they have adopted are working to move their higher education system toward desired goals and how its system competes internationally.

My sense from reading the various reports and from discussions with people from Wales suggests to me that the thinking is on an institution-focussed performance exercise. This is perfectly sensible⁶. But, given this focus, there are several important considerations that will influence design of the instrument and the specific things measured.

1. The specific indicators used to assess the performance of an institution must be aligned and customised with the distinctive mission, mandate and expectations of each of these institutions. This means that the slate of performance indicators for different sectors within the PCET system need not be the same. Similarly, even within a sector, the specific slate of indicators used, or the weightings of each of these indicators, need not be the same for all institutions. This means, as noted before, that there must be clarity, alignment and agreement at both government and institutions about the mission, mandate and expectations of individual institutions⁷. For a performance assessment system to work and be useful such clarity must exist. In my experience, this clarity does not always exist and when it does not a purposeful and intelligent conversation is needed between government and the institution to provide such clarity.
2. Consistent with the argument above, the performance assessment tool must respect the diversity of institutions. Institutions in the PCET system differ not only on mandate and mission, but also on the nature of the students they enrol, the regions they are in etc. For example, let's assume that one of the goals set for the PCET system is to increase the graduation rate of students with a PCET credential. One could set a target graduation rate that would be expected of all institutions in the PCET system. But, such a common target would ignore that different institutions enrol students with different capacities, backgrounds etc. and into programs that differ from one institution to the next (for example, would one expect the same graduation rate for students in apprenticeship and engineering programs?). The point here is that indicators must be tailored to specific institutions and must be cognisant and accommodate the different starting points and issues within each institution. This suggests that the better performance measures or targets are those that acknowledge starting conditions and distinctive dynamics. This is especially important in measuring the academic quality or performance of institutions (more on this later).
3. Wales has been engaged in a considerable amount of reflection about appropriate indicators to be used in the compulsory sector. The compulsory and PCET systems are different, but they are not unrelated. Consideration should be given to the degree to which performance indicators in the compulsory and post-compulsory sector can or should be aligned.
4. Wales does not exist in a vacuum. Although performance measures should be relevant and meaningful to particular national goals and objectives for Wales, the performance instrument must also accommodate the reality that Wales must be in a position to compare itself to other relevant jurisdictions. This is particularly critical for institutions, like some of the Welsh universities that attempt to compete globally. And, surely the indicators selected must allow Wales and Welsh institutions to accommodate and align with performance measurement expectations and exercises in the UK. This speaks to

⁶ For some purposes, Wales will need to report at the system level. This means someone must be responsible for aggregating the institutional data to generate the system level data. This will be the role of government or, if it wishes, the TERCW if the government delegates this role to it.

⁷ This is often referred to as the policy of "differentiation" in higher education.

the role of indicators that permit such international comparisons such as the Program for International Student Assessment (PISA), the Programme for International Assessment of Adult Competencies (PIAAC) or other such exercises like the increasing international use of the Collegiate Learning Assessment (CLA) tool for critical thinking⁸. As Wales attempts to improve its education system it may be important to check performance by using these kinds of assessments that allow for international comparisons of performance. The balancing act in the selection of indicators that capture national versus international goals is not easy but relates directly to the purpose of the instrument; specifically, is it to be biased to capture progress to Welsh national goals and desired outcomes or should it be skewed to capture Welsh performance versus that of other jurisdictions?

Inputs, outputs and outcomes:

Inputs are the resources that go into the PCET system and institutions, like dollars, the number and type of instructors and students. Outputs are things that are produced by the PCET system and its institutions like credentials, graduates, research publications. Outcomes are the benefits that result from the PCET system and its institutions like a more civil society, economic impact, happy and healthy citizens.

Ideally, a performance monitoring and assessment tool measures only outcomes; it should be irrelevant what processes or strategies a particular institution adopts as long as it produces desired and good outcomes. In practice, though, it is often difficult to come up with good outcome indicators, especially those that can actually be linked in some causal way to the contribution of the PCET system.⁹ The next best indicators are outputs. In my opinion, input indicators are to be avoided as much as possible.

Measuring learning (academic quality):

This exercise is directed to the development of a process to monitor and improve the Welsh PCET system. Examination of performance assessment tools in other jurisdictions reveals a plethora of things that can be monitored and measured by such instruments, everything from number of students, faculty and staff, to revenues from various sources, to expenditures of all kinds, to number of graduates, to labour market outcomes, etc. A quick review of the benchmarking exercise promoted by the OECD reveals the wealth of possible measures and indicators one could adopt. I am equally sure that at the present time the institutions in the Welsh PCET sector already report on many aspects of their behavior, performance and functioning.¹⁰

Yet, even though the subject of interest are education institutions, it is ironic how few performance monitoring and assessment schemes actually measure the quintessential role of educational institutions, i.e. academic quality and student learning. There is often measurement

⁸ Full disclosure, I am on the Board of Directors of the Council for Aid to Education that developed and disseminates the CLA.

⁹ But not impossible. What it means is designing the indicator that does capture the contribution of a PCET institution or sector relative to what one might have otherwise expected or is evident in those outside of that PCET influence (e.g. employment rate of PCET graduates versus those who do not hold a PCET credential).

¹⁰ Although I have not personally seen it I would not be surprised if, like other governments, there is some giant spreadsheet on some server in the Ministry that contains all of these data.

of the processes of learning (what courses, class sizes, type of pedagogical techniques used etc.) but these provide little evidence of the quality of the learning experience or of the skills and knowledge students acquire (although this does not stop many academic leaders of making untested assumptions and statements of what their students know, what they can do, and the skills and competencies they have acquired). Sometimes there are proxy measures of learning and academic quality (e.g. entering averages and graduation rates) but these are at best indirect measures of learning and it is often acknowledged that these measures can be gamed.¹¹

It is inconceivable to me that a contemporary performance monitoring system designed to improve a PCET system would not include clear and direct measurements of what students learn and the skills and competencies they have managed to acquire as a result of their post-compulsory education. Surely part of the motivation of the Welsh government in initiating this exercise is to ensure that its PCET system provides students with the skills and competencies required for them to get good jobs, contribute to a more robust and competitive economy and, in general, to contribute to a civil, progressive Wales with a quality of life its citizens expect and should enjoy. This means that some of the indicators in the performance monitoring instrument must measure directly and clearly the skills and competencies deemed necessary for PCET graduates to make such a contribution.

It is a time of considerable change in higher education. But, if there is one thing we know for sure, it is that, while in no way minimising or undermining the importance of students acquiring the knowledge and content they need to succeed, a contemporary, relevant and progressive education increasingly emphasises the importance of skills and competencies necessary to succeed in life and work -- such as critical thinking, problem solving, literacy, numeracy, communication etc. – and graduates students with these competencies and skills. The advocacy from the National Union of Students Wales (as do other government documents and consultation papers) makes the case for the significance of skills and competencies eloquently and forcefully.

Any such measurement of academic quality, skills measurement and what students learn must be designed in such a way to accommodate the reality that PCET institutions differ in terms of the students they enrol. Institutions that accept difficult or less prepared students cannot be penalised for doing so. This speaks to the importance of these measurements being “value added” ones, or in the vocabulary of the HECFE, assessing learning gains. The concept of value added measures is already embedded in Welsh thinking as reflected in the *Consistent measures for post-16 learning in Wales* consultation document.

I acknowledge the debates about the difficulties of measuring learning gain, but this task is not inherently any more difficult or impossible than measuring, for example, the quality of research. I also acknowledge that such measurements to be done well require resources but, in my opinion, it is a necessary investment well worth making. I would direct readers to a recent publication describing an approach for measuring directly the improvement in skills students

¹¹ Worse yet, in some cases the use of proxy measures can actually deflect from or minimise quality as institutions may engage in activities, such as the lowering of standards for degree completion or accepting only those students with high grades, that actually move the system further away from system goals.

acquire in postsecondary education¹² and to a forthcoming book that describes the various approaches one can take to measuring academic quality.¹³

Data accuracy:

No matter how meaningful and relevant the measures may seem to be, a performance monitoring and assessment instrument is useful only if the data and information it presents are accurate. If people do not have confidence in the accuracy of the data they will rightfully have a low opinion of the performance measurement exercise and have little confidence in any decisions or actions taken as a result of it. This speaks to the discipline, care and rigor with which the data populating the performance instrument are collected and confidence that the measures reported are accurate and truthful.

Best practice here is not to rely solely on the information provided by the institutions but to have another party assess or audit the validity of the institutional submission. The practice used currently by Estyn to train assessors who verify the accuracy of data reported to it is one that the government or TERCW might extend to performance monitoring of all sectors within the PSE system. Alternatively, the TERCW might conduct spot audits or visits to institutions to verify the information submitted. I appreciate again the resource demands of such data verification but it seems to me it is worth it if people are to have confidence in the exercise.

What to measure?

There is a logical chain to the development of a useful performance monitoring and evaluation tool. First, the jurisdiction identifies the goals and objectives it hopes to achieve. This is done typically by government that identifies these public goals. Once these goals and objectives have been clearly articulated, one then identifies appropriate indicators that allow for the monitoring and evaluation of the contribution of institutions, such as those in the PCET system, to achievement of these goals. The performance measurement exercise not only chronicles progress to goals but also identifies when mid-course adjustments in policy or action are needed if appropriate advances are not being made.

A performance tool could be designed that measures almost everything one could imagine measuring about the PCET system (and such performance evaluation strategies do exist in certain jurisdictions). This results in a vague, unhelpful exercise. The most valuable and useful performance tools are those that focus on the desired outcomes of the postsecondary system. A primary consideration in the design of a performance monitoring and evaluation tool, therefore, is clarity around what outcomes are most important. In short, the performance tool should measure what matters most, and that list should not be overly long.

In its Well-Being of Future Generations Act, the Welsh government has identified its seven well-being goals:

- a prosperous Wales;
- a resilient Wales;

¹² Harvey P. Weingarten & Martin Hicks. Measuring the performance of the Ontario (Canada) postsecondary system: Measuring only what matters. Paper presented at the Bologna Process Researchers Conference. Bucharest, Romania, November 2017. <http://fohe-bprc.forhe.ro/>

¹³ Assessing quality in postsecondary education: International perspectives. Harvey P. Weingarten, Martin Hicks & Amy Kaufman (Eds.). McGill-Queens University Press, February 2018.

- a healthier Wales;
- a more equal Wales;
- a Wales of cohesive communities;
- a Wales of vibrant culture and thriving Welsh language; and
- a globally responsible Wales

This list identifies what matters most to Wales. The Act also clearly makes it clear that public bodies in Wales are under a duty to monitor, manage and report their performance to deliver the well-being objectives.

In some jurisdictions, development of a performance tool is greatly hindered by the fact that the government has not articulated the goals it has. It is problematic to develop a performance tool when there is lack of clarity about what one hopes to achieve. Wales has obviated this problem. The goals identified in the Well-Being to Future Generations Act, therefore, represent the touchstone, or the foundation, for the performance measurement and evaluation tool to be developed.

In principle, I think I could make an argument about how a PCET system contributes to each of these goals. But, the chain of assertions and assumptions this would require make it difficult for me to see how one could design a performance tool to identify the contribution of PCET institutions to the goals as identified in the Act. Instead, I suggest that if these goals are to be achieved, the PCET system would need to demonstrate a number of attributes and it is these characteristics that form the basis for development of a performance monitoring and evaluation tool.

Specifically, I suggest that to achieve the seven goals, Wales needs a PCET system that:

- Provides all students with equitable access and opportunity
- Graduates students with the knowledge and skills necessary to succeed in life and work
- Supports and enhances the communities they are in
- Creates the highly-qualified personnel, research and innovation that promotes and supports a competitive knowledge-based economy
- Contains sustainable high-performing institutions attractive to students

For me, it is easier to imagine designing a performance tool and to identify useful measures and indicators when thinking at this level, rather than trying to design a performance tool and selecting indicators around the vocabulary used in the Well-Being of Future Generations Act. I am comfortable with this approach, though, because I believe that the attributes and characteristics identified above would lead to the goals and outcomes identified in the Act. And, anyway, some of these goals, are key objectives driving some significant recent government actions or considerations such as implementation of the Diamond recommendations to result in more equitable access and creation of a single unifying buffer body to result in a more sustainable PCET system that graduates students with the skills and knowledge making them more job ready and productive.

The list above contains my high level current thinking about what domains or areas should be included in a performance tool for Wales. Of course, the whole point of this discussion paper is to get your feedback on this proposed list and for you to suggest any changes or modulation.

For completeness, the Act also identifies five principles to guide the work and actions necessary to achieve the seven Welsh goals. These include a long-term perspective, a focus on prevention, an integrated approach, working in collaboration for shared sustainable solutions, and the involvement of diverse populations. These principles are also very useful in shaping the design of the performance tool and how the process of performance measurement could be conducted, especially its charge to engage in long-term thinking.

Moving forward:

The design of a PCET performance monitoring and evaluation system is serious business. Done right, it has the capacity to improve the system and provide better returns to the public and students and to optimise the contribution of each and every institution in the PCET system to desired goals. Done poorly, it has the potential to create a bureaucratic and administrative headache of the highest order that results in no improvement, no progress to desired goals and frustration and heartburn.

Government, institutions, students and the public wants the former result from a performance tool, not the latter. There is no perfect performance monitoring and evaluation tool and there are no perfect indicators. But, one can develop an instrument that is useful and instrumental to the better outcomes all desire.

Aside from the issues discussed earlier in this paper, there are several other inter-related things necessary to get to this better state.

First, is time. A sensible instrument does not get designed overnight and even once developed its utility and effectiveness must be constantly monitored and, if necessary, the tool is amended. The exercise of designing a performance monitoring and assessment tool will take more time than the government wants but it must take less time than the institutions would like. At the end of the day, the government holds the hammer (an expression derived from the sport of curling, popular in Canada that means that in the end they have the authority to make things happen and impose what they want to see it happen). If the process of developing this necessary performance instrument moves too slowly, the tradition and modus operandi of governments is to simply design one themselves and mandate its use. Government must be satisfied with the genuine involvement and engagement of PCET institutions and their leaders for this not to happen.

Second, the best performance monitoring and assessment instrument will result from a genuine, collaborative and trusting engagement between government (or its delegated authority, the TERCW) and the PCET institutions. This means frank and open discussions about the purpose of the performance measurement exercise, how it will be implemented, what indicators to use, and how the data will be used. These conversations are not always pleasant. But there is no substitute for them.

Third, the right people. Some performance monitoring and assessment instrument will ultimately be designed and used. The people who design this instrument and who administer it must have a perspective, style and capacity appropriate to the purpose of the instrument. In my opinion, aside from an open-mindedness and high level of understanding of the diversity of PCET institutions, the complexity of higher education systems, and the difficult balancing of the roles and views of institutions versus governments versus students etc., the leaders of the performance regime must be data savvy, understand the role of evidence-based policy and

decision making, be sensitive to context and be appropriately suspicious of blind adherence to numbers.

Fourth, the right resources. The design of a good performance instrument, the measurement and reporting processes and analysis of what it all means and what to do about it takes not only people with the right talents and backgrounds, but also money. This is particularly true if the indicators one wants (because they are the right ones to index a particular outcome) may not yet be measured and resources will be needed to create the capacity to obtain them (this is often the case if one wants direct measures of what is learned).

In sum:

1. Government has a legitimate role, if not an obligation, to monitor and evaluate the performance of its PCET sector.
2. The primary purpose of this performance measurement exercise is to continuously improve the PCET system and to optimise the contribution of PCET institutions and of the PCET system to the achievement of identified public goals.
3. The performance monitoring and evaluation instrument must respect, accommodate and be customised to the distinctive mandates and missions of the various sectors and institutions within the PCET system. This requires clarity around the expectations of the various sectors and institutions in the PCET system.
4. Government should consider the respective roles of the proposed TERCW and of government itself in the performance monitoring and evaluation process, particularly with who controls the resources allocated to institutions.
5. The performance monitoring and evaluation instrument should be designed to assess the performance of institutions within the PCET system. It remains to be determined who will be responsible for aggregating the institutional data to capture overall system performance.
6. The specific indicators ultimately chosen for measurement should: respect the diversity of institutional mission and mandates; be considered in light of the compulsory system performance indicators; allow for comparison of Welsh performance to other relevant jurisdictions, especially, but not limited to, the UK, and; be designed to capture “value added” or “gain”.
7. To the largest extent possible indicators should measure outputs and outcomes and ignore inputs.
8. The measurement of what is learned is an essential component of any PCET performance measurement scheme.
9. Data collected must be reliable, verified and validated.
10. The Well-Being of Future Generations Act serves as the touchstone and foundation for decisions about what the performance monitoring and evaluation tool should measure.
11. The performance measurement instrument should focus on the domains of whether Welsh PCET: provides all students with equitable access and opportunity; graduates students with the skills and knowledge to succeed in life and work; supports and enhances the communities they are in; creates the highly-qualified personnel, research and innovation that supports a knowledge-based economy, and; is comprised of institutions that are sustainable, high-performing and attractive to students.