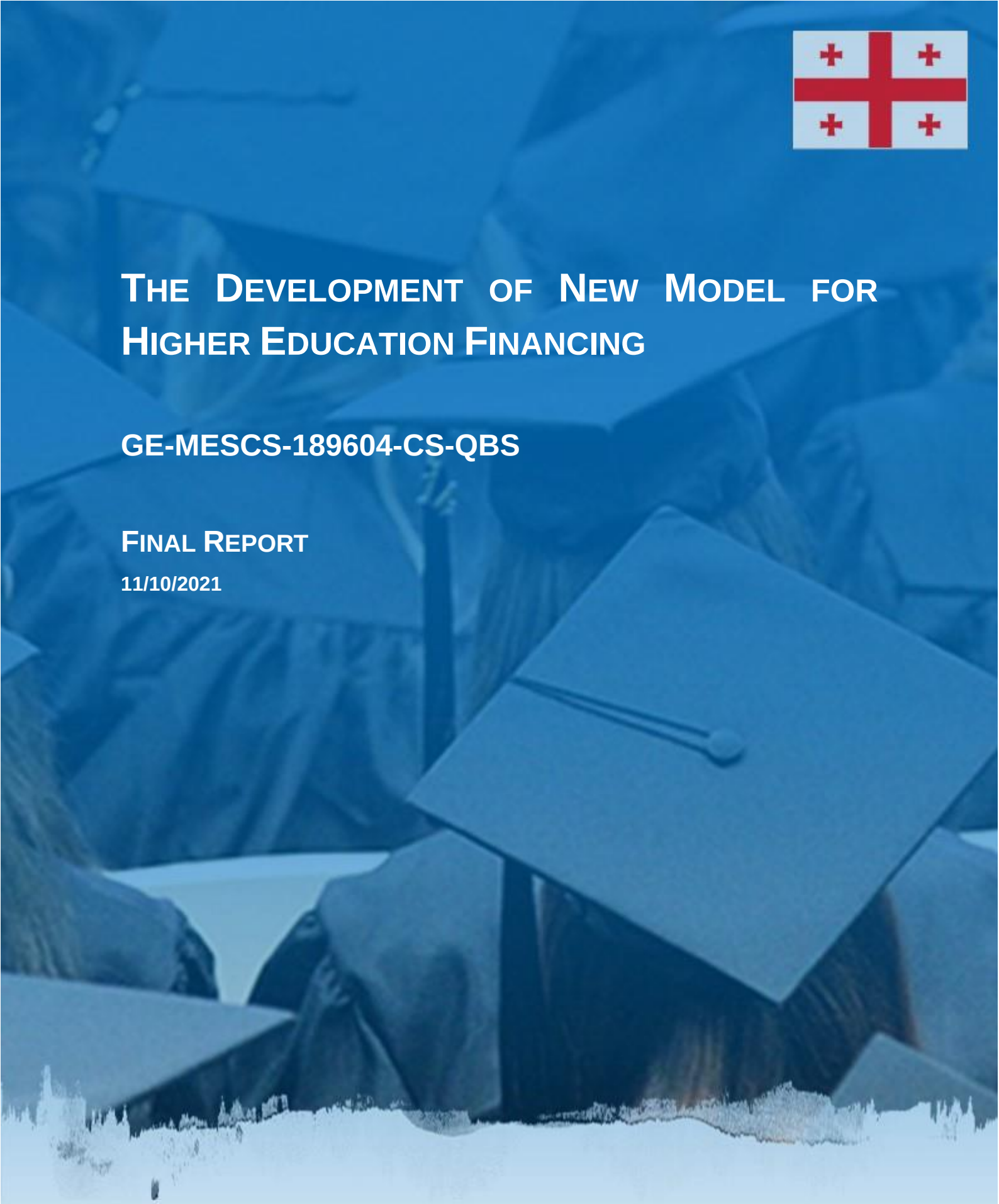

THE DEVELOPMENT OF NEW MODEL FOR HIGHER EDUCATION FINANCING

GE-MESCS-189604-CS-QBS

FINAL REPORT

11/10/2021

ibf INTERNATIONAL CONSULTING

GCSD

MINISTRY OF EDUCATION, SCIENCE, CULTURE AND SPORT OF GEORGIA

THE WORLD BANK

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TABLE OF CONTENTS

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Project title:	The Development of New Model for Higher Education Financing
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TABLE OF ACRONYMS

ATSU	Akaki Tsereteli State University
CIF	Competitive Innovation Fund
DAR	Draft Assessment Report
ECTS	European credit transfer system,
FTE	Full-Time Equivalent
GDP	Gross Domestic Product
GEL	Georgian Lari
GITA	Georgian Innovation Technology Agency
HAE	Higher Arts Education
HAEI	Higher Arts Education Institutions
HE	Higher Education
HEI	Higher Education Institution
LEPL	Legal Entities of Public Law
MCSY	Ministry of Culture, Sports and Youth
MES	Ministry of Education and Science (before 2021, Ministry of Education, Science, Culture and Sports - MESCS)
NCEQE	National Centre for Educational Quality Enhancement
NVAO	Dutch-Flemish Accreditation Organisation
PBF	Performance-based funding
QA	Quality Assurance
RDI	Research, Development And Innovation
SMART	Specific, Measurable, Achievable, Realistic and Targeted
STEM	Science, Technology, Engineering And Math
TAFU	(Shota Rustaveli) Theatre and Film University
TSMU	Tbilisi State Medical University
WB	The World Bank

THE DEVELOPMENT OF A NEW MODEL FOR HIGHER EDUCATION FINANCING IN GEORGIA[1]

1. INTRODUCTION

The World Bank-funded Project: "The Development of a New Model for Higher Education Financing" is being implemented under the third component of the World Bank's Innovation, Inclusion and Quality Project (I2Q) – *Strengthening financing options and promoting internationalization in higher education*, and its first sub-component, which aims at developing new options for higher education financing. The project aims at analysing the information on financing of higher education in Georgia, identifying the strengths and weaknesses of Georgia's current higher education financing system and providing advice on developing new models for HE financing, including core funding and performance-based funding options as complementary funding elements to support the country's strategic objectives referred to at Paragraph 7.3.

According to the World Bank, good funding models should promote sustainability (stability and continuity), legitimization (fairness and transparency), and autonomy of higher education institutions (HEIs).[2] These objectives inform the proposals for reform of the funding system currently used in Georgia and the introduction of the performance-based model proposed in this report.

This report, and the research and consulting work underpinning it, focusses on

- The system of funding by vouchers in Georgia, and
- The development of a performance funding model.

The high-level objectives of the reforms proposed in this report are to improve the effectiveness and efficiency, the quality of the student experience and the outcomes, including labour market relevance, of the publicly funded higher education system in Georgia. In doing so, this will improve its competitive position regionally and internationally.

To achieve these positive outcomes requires a general funding base for the higher education institutions (core funding)-

- that follows the principle that "funding follows the student" based on the total number of students registered in the HEIs at a fixed time in the academic year,
- that provides for equity in that all students receive a measure of support.
- which is reasonably predicable and stable year on year, and
- which applies consistently across all types of publicly funded HEIs

The effectiveness and efficiency of the HE system will be further improved by the introduction of a model of performance-based funding that will require the HEIs to deliver agreed levels of measurable performance against national objectives set by the Government of Georgia.

1 This report should be read in conjunction with the Draft Assessment Report submitted to the MES and the PMU in August, 2021.

2 World Bank. 2014. "Higher Education Financing in Latvia: Analysis of Strengths and Weaknesses." Washington D.C. https://www.izm.gov.lv/lv/media/3919/download; p50-51.

Appendix 1 contains a glossary of terms used in the report.

The current funding of universities in Georgia through vouchers shares many of the key characteristics of "core" funding, including in particular the concept of "funding follows the student". It is also the funding that the higher education institutions can expect to receive each year, although the actual amount varies depending on student numbers. It is this funding which, in the terms of the World Bank, provides fairness and transparency as it is allocated according to a transparent system. It also provides, to a limited extent, stability and continuity. However, it has limitations which disqualifies it for the term "core funding" as is generally understood internationally and discussed later in this report.

Four Higher Arts Education Institutions (HAEI) on the other hand, receive only a small proportion of their funding through vouchers with the main funding coming from the Ministry of Culture, Youth and Sport (MCYS) through so called Programme Funding based on negotiation as well as on a historical basis.

Performance based funding stimulates organisations to perform better on specific tasks of their mission. It also allows for the allocation of resources to the institutions that make most productive use of them, while encouraging underperforming ones to improve their performance and improve the efficiency of the system overall. Successful PBF models are based on effective models for assessment and provide enhanced transparency and accountability both within HEIs, to the government and the public.

Funding by reference to performance can be allocated in two distinct ways. Either option can promote better performance. The first is to make a portion of the core funding currently received by the HEIs conditional on the institution reaching performance indicators agreed with the Ministry of Education and Science (MES). The second approach is to provide for a separate stream of additional funding that is allocated according to a PBF process. The process for both is the same in all important respects – the difference between the two PBF options relates to what funding is identified as PBF, not the process. Both options are explored in this report.

The third element in a comprehensive funding model is a funding stream that is dedicated to promoting innovation in the higher education system. This element should be competitive and tightly focussed on a small number of areas where the MES wishes to see innovation to support national objectives. To have optimal impact a competitive innovation fund (CIF) should also require a high level of collaboration across HEIs and have the engagement of external stakeholders, with a contribution from them either in cash or in kind. The introduction of a CIF in Georgia is being considered under a separate project and therefore is not considered further in this report.

This report does not propose any changes to the Students' Social Support Programs or the competitive research grants which are funding streams for very specific purposes and should be retained in a reformed funding environment. However, in due course their operation and impact should also be reviewed.

Private higher education institutions make an important contribution to the Georgian higher education system. This sector does not form part of the terms of reference of this review and the proposals for reform do not impact on the current funding of these HEIs. Any change to their current funding would be subject to consultation with the MES.

However, the proposals for reform are likely to be of interest to private HEIs and may have implications for them in the longer term. While the report recommends a transition from a voucher model to a core funding model, it is the case that the essential process elements of the voucher model will be retained. This would apply to private as well as public HEIs. The transition period should be used for further deepening the policy dialogue with the private HEIs regarding their access to public funding in the

reformed environment and promoting strategic collaboration with them. Agreement should be achieved towards serving the national priorities and government objectives, for promoting quality education and regional development, aligning the program outcomes to the labour market's needs as well as ensuring equal access to HE programmes for disadvantaged groups.

2. THE GEORGIAN HE FUNDING SYSTEM – SOME CHALLENGES[3]

Chapter 3 of the Draft Assessment Report set out a detailed analysis of the current funding system for higher education in Georgia (3.10 focusses on HAEIs). A key challenge for the Georgian higher education system is that the level of public funding is considerably less than is necessary to ensure a high-quality higher education experience for students and outcomes for Georgian society and the economy. In addition, there are a number of other challenges in the current funding system. These include:

- The model does not provide the universities with core funding.
- Universities are obliged to increase the student intake to maximize funding, which is not the best way to solve their financial problems[4]. This can have particularly negative consequences for HAEIs where the quality of teaching is directly dependent on individual work or work with small groups of students.
- Students who secure the State Grants/voucher can keep these until the end of their studies even if they do not perform well during their studies. That also leads to the problem of student overflow in "prestigious" programs (and unemployment as a result) and student shortage in some, future oriented and strategically important fields (like STEM).
- An issue, particular to HAEIs, is that while applicants go through internal exams and national exams, the internal exams performance "rate" is not taken into account in the State Grant assignment and only the national exam defines the % of the state grant.
- HEIs try to balance costs between high-cost programs (practice-based or project-based learning) and low-cost programs by artificially enlarging the student enrolment in programs such as Law or Arts History. However, this is not an option available to HAEIs.
- HEIs get financed through State Educational Scholarships/Grants and student tuition fees for Bachelor's and Master's Programs but there is no reliable instrument for funding doctoral education.
- While funding is provided for priority programs, there is no compatibility between the priority fields identified by the MES/HEIs and the actual needs of the country, as well as the labour market trends, which increases structural unemployment. Instead of supporting educational fields with a limited number of students, the priority programs support the largest programs without proper justification. There are also inconsistencies in how the priority funding applies as regards the universities funded by the MES and the HAEIs funded by the MCSY which do not receive this form of funding.
- The existing mechanisms for need-based financing for vulnerable student populations is insufficient and do not ensure their access to high quality Higher Education.

3 For detailed information, the DAR's Chapter 3 ANALYSIS OF THE CURRENT FINANCING SYSTEM FOR HE IN GEORGIA to be consulted; particularly – sub chapters: 3.8, 3.9, 3.10 and 3.11.

4 This is not common for HAEIs due to the specialised training programmes, for example the State Conservatoire. Most programmes at HAEIs aspire at quality of teaching which limits the number of students per HAEIs and Private HEIs are not getting funding from MES through Priority Programmes budget line, they are not eligible for this funding.

- There are no efficient and sustainable financing mechanisms for the development of research in the HEIs, as the funding allocated for the research grant programs is limited (and only selected research universities can benefit due to the high competitiveness of the selection process).
- The four specialised HAEIs depend on State (MCSY) funding on an annual basis allocated to each institution based on long established agreements. It forms the largest part of their revenue, from 50% to 80% as per stakeholder estimation. The institutions however must cover the tuition fee of 2,250 GEL for all programs at undergraduate level, cannot raise it or differentiate the fee by programme.
- While there is an Education Management Information System under the LEPL of the MES, which provides data on a number of areas such as registration of HEIs, programmes and students, it is not a complete data collection system and due to the different methodologies used by HEIs in data collection and analysis the information provided by them cannot be treated as entirely accurate or reliable.

Some of the key challenges facing HEIs in a regional context include increasing their role in achieving regional development goals and strategic objectives set by regional authorities or the central government, including cooperation with the local government, business sector and community organisations and employers' collaboration with HEIs.

3. SUMMARY OF RECOMMENDATIONS

The following are recommended as the key elements of the future funding model for higher education in Georgia. Recommendations 1 to 5 refer to reforms to the current public funding model based on vouchers and programme funding. Recommendation 6 to 8 refer to the introduction of a performance-based funding as a second pillar of an overall funding system. Recommendations 9 and 10 refer to implementation.

1. Increase the overall level of funding to the higher education system, aiming over time towards 3% of GDP.
2. In the case of the public HEIs, reform the voucher system by changing it from a model of scholarships to a model that funds universities based on the total number of students registered in the HEI at a specific time in the academic year. In effect, this means extending the essential elements of a voucher system to all eligible students and creating a core funding model as understood internationally.
3. Introduce a differentiated model of funding which reflects the different cost of programmes/fields of study.
4. Put in place measures to mitigate the effects of annual variation in student numbers in order to ensure stability of funding for the universities.
5. Provide financial resources to universities to support equity of access to, and participation in, higher education by under-represented groups such as those from lower socio-economic backgrounds, ethnic minorities or those with disabilities.
6. Introduce performance-based funding (PBF) by allocating it either –
    a. by making a portion of core funding available subject to a PBF model, or
    b. by providing additional funding as a separate fund to be allocated through a PBF model.
7. The introduction of a PBF model can be done in parallel with any of the other reforms.

8. The terms of performance agreements, including the performance indicators, should be the subject of dialogue with the universities and the HAEIs (MES and MCYS respectively) with indicators of performance chosen that are appropriate and relevant to the individual institution.
9. The new funding model should be applicable to all public institutions and disciplines, including higher arts education. The current funding provided to the MCSY funded HAEIs would remain in place as funding reform is implemented with change occurring only to ensure that at the end of the process the funding model of the HAEIs is fully comparable with the MES funded universities.
10. As the scale of reform proposed is very substantial and as resources are limited, it is recommended that the reforms be implemented in phases over time. What is done in each phase depends on priorities set by the MES and on the level of additional funding that is available in any year.

4. OBSERVATIONS AND LESSONS FROM INTERNATIONAL MODELS

Six funding systems were reviewed as part of this project. All countries would be considered small nations although they vary in population size and in other respects (see Table 1 below). The group includes both high, middle and low-income countries.[5] They all utilize a combination of core and performance-oriented funding. Some countries also operate a competitive innovation or development funding process. Some countries have operated this funding model for several years allowing lessons to be learned, while others are more recent adaptors.

Table 1 Comparison across the Six International Countries with Georgia

	Population (2021)[6]	GDP[7] (USD)	% GDP Government expenditure on education[8]	Government Expenditure on tertiary as % GDP (2015)[9]	% GDP Gross expenditure on R&D[10]
Estonia	1.35m	31bn	5.0%	1.3%	1.4%
Finland	5.5m	269bn	6.4%	1.5%	1.77%
Georgia	3.9m	17bn	3.5%	0.38%	0.30%
Hong Kong	7.5m	365bn	3.8%	1.04%	0.86%
Ireland	4.9m	388bn	3.5%	0.7%	1.15%
Latvia	1.8m	34bn	4.4%	0.7%	0.63%
Netherlands	17.1m	907bn	5.2%	1.2%	2.16%

The Appendix contains the summary of Higher Education funding models reviewed which is also contained in the DAR.

[5]https://ec.europa.eu/eurostat/statistics-explained/index.php?title=GDP_per_capita,_consumption_per_capita_and_price_level_indices
6 https://www.worldometers.info/world-population/population-by-country/
7https://data.worldbank.org/indicator/NY.GDP.MKTP.CD
8 https://data.worldbank.org/indicator/SE.XPD.TOTL.GD.ZS
9https://www.oecd-ilibrary.org/docserver/69096873-en.pdf?expires=1625403024&id=id&accname=guest&checksum=1CC33E9487FC9DFAED3112D86EAF1796, p287; https://ourworldindata.org/grapher/government-expenditure-on-tertiary-education-by-country?tab=table&country=~GEO
10https://data.worldbank.org/indicator/GB.XPD.RSDV.GD.ZS?locations=EE. Includes both capital and current expenditures in the four main sectors: Business enterprise, Government, Higher education and Private non-profit. R&D covers basic research, applied research, and experimental development.

4.1 OBSERVATIONS

In each of the countries reviewed, public funding models of higher education including core or basic, performance-based and competitive innovation funding can take different forms even though the same terminology is used. There may be considerable variation in the content and goals included in performance agreements and the way these goals are set. There are also considerable differences in the way the performance agreements or compacts are coupled (or not) with public funding to institutions and the extent to which there is a reward/sanction component.[11] While public funding is the primary source of funding, it does not constitute the total funding which each HEI receives. The DAR establishes that HEIs in Georgia already present a financial model that also has diversified revenue sources.

Competitive innovation or development funding also varies in design and operation. This is usually additional funding. It may exist as a single funding program or may operate as different individual targeted initiatives which the government may introduce from time to time. Table 4 provides a summary of the different approaches.

Invariably, HEIs would like all public funding to come within the ambit of core or basic funding, in other words as guaranteed funding. This would provide much-needed stability to allow planning. However, institutions have found the introduction of performance agreements and the process of dialogue between themselves and the ministry or government agency to be a positive experience, engendering a shared understanding of issues and objectives. Others have found the requirement of institutional targets helps them to be more strategic. Ultimately, the design of performance-based funding and competitive innovation funding depends upon their place within the broader policy agenda, and the overarching governance and funding of the higher education system.

Similarities in terminology may cause confusion when comparing approaches. Core or basic funding is usually based on student numbers. Some countries refer to student vouchers but this is simply the mechanism by which core or basic funding is paid. Similarly, PBF or CIF funding can operate in different ways. These differences highlight the fact that funding models can be developed in different ways, using approaches that work best for the particular country and for its institutions. No single model fits all countries.

The main objective of core or basic funding is to provide stability for the system and to institutions. It is usually related to the number of students enrolled per institution. In some countries there is a competitive element because institutions compete for the number of students they attract; the more students, the more money. In contrast, the objective of PBF and Competitive Innovation Funding is to better align higher education activities with national policy priorities and to use them as incentives.

What policymakers may wish to achieve depends upon the challenges and context of the particular country. Having a national strategy or agreed set of policy objectives is vital in order to set out the goals to be achieved. The DAR refers to these issues in respect of Georgia.

Countries invariably stress the importance of quality and relevance to society and/or the labour market. Some countries have specific national goals or objectives for their higher education system. For example, Finland has specific objectives with regard to student completion levels. It has also embedded national strategic objectives directly in its funding formula rather than having a separate fund for that purpose. Ireland has been strongly focused on equity and widening participation and has recently introduced a competitive element with regard to examples of good practice.

11 European Commission. 2014. “Performance Agreements and Their Relationship to Funding in Higher Education.” In - *ET2020 Country Workshop The Hague 25-26 September 2014*. http://ec.europa.eu/assets/eac/education/experts-groups/2014-2015/higher/performance-agreements_en.pdf.

Each funding model is continually reviewed sometimes by way of an international review such as by the WB or other organization. The duration of each model is usually 3 to 5 years to enable the target actions to be successfully achieved.

What model of core or basic funding is used?

All countries use the concept of core or basic funding to provide on-going stable funding to their higher education institutions. Core or basic funding is determined by student numbers. While the term voucher is sometimes used, this is a figure of speech. Money is paid directly to the institution on the principle that money follows the student. Core funding is provided to each institution to cover education, research and knowledge dissemination and is to be used by each institution as befits its institutional strategy and mission. This helps develop institutional strategic capacity and ownership of the outcomes.

Latvia includes research activity in its core funding model. Finland uses an expanded formula as the basis for funding institutions. In Ireland, Hong Kong and the Netherlands (under its 2012 model), a portion of core funding (as defined above) is available subject to a PBF model. Other countries have a separate PBF fund.

What model of performance-based funding is used?

A performance-based element is included in all the models used by the six countries, although the way the process operates varies. Notably, performance funding constitutes only a relatively small proportion of total funding.

Two models of PBF are commonly used. In Ireland, Hong Kong and the Netherlands (under its 2012 model) performance-based funding is a sub-set of core funding, whereas in Latvia and Estonia, PBF is a separate funding stream. Finland uses an output-based formula to allocate all public funding to HEIs; in this respect, the entire funding model could be said to be performance-based.

All six countries operate some form of performance-oriented agreement, sometimes referred to as contracts or compacts.[12] Agreements are both a funding tool and a strategic planning instrument which form the basis of a dialogue between the ministry and the institution about national priorities and institutional goals. The process constitutes an important method of forging a closer relationship and common understanding and purpose. It also encourages a sense of ownership in the process, with institutions encouraged to set their own goals and targets. An international peer review panel is often involved in this process.

A key difference with each system is the emphasis placed on the goals, the choice of indicators used, the balance between quantitative and qualitative indicators, and the extent to which institutions can choose the most mission appropriate measures. Ireland and the Netherlands – the latter under both of its formats – enable institutions to identify indicators and targets best matched in line with its own mission, strengths, and profile within the context of national objectives. This allows each institution to develop an agreed contribution to national objectives; it is deliberately not a one-size-fits-all set of targets.

Notably, systems and priorities change over time. Modifications may occur because of criticism from within, political changes or changing circumstances, e.g., a financial crisis or pandemic. New priorities or different issues come to the fore of the policy and political agenda. The Irish system has had two System Performance Frameworks, 2014-2016 and 2018-2020; a new version is anticipated. Each one set out slightly different objectives for PBF covering knowledge and skills, internationalisation, research and innovation, equality of opportunity, quality of learning, and institutional governance and

12 Vught, Frans A van. 2018. “Performance Contracts: A New Tool in Higher-Education Governance.” In Assessing Quality in Postsecondary Education. International Perspectives, edited by Harvey P. Weingarten, Martin Hicks, and Amy Kaufman. Montreal and Kingston: McGill-Queen’s University Press.

leadership.[13]The Dutch system has also undergone significant changes over the years, and now operates a quality-oriented system rather than a performance-oriented system.

Increasingly, the tendency is to reduce the number of indicators or to at least prioritise the objectives and goals. In its current system of quality agreements, the Netherlands has decided to focus on education alone and not to incorporate research or valorisation in the agreements.

Are there financial consequences to PBF?

All six countries under consideration in this report have a funding model with a performance-oriented element. However, the proportion of total funding to HEIs related to, or contingent upon, performance is relatively small. This is due to concerns about destabilizing institutions with sudden or frequent changes in their allocation. This also suggests HEIs can be responsive to relatively small amounts of funding.

Explicit financial consequences also differ; the threat of sanctions may be sufficient to encourage university action. In the first Dutch model, for example, institutions competed for 2% of the public higher education teaching budget that was awarded based on the quality of the development plans submitted by institutions. An additional 5% of the teaching budget was made conditional up-front on having a performance agreement and, for the next period on reaching quantitative targets, specific to each institution, related to teaching and agreed in the plans. That scheme has been replaced by Quality Agreements which puts more emphasis on qualitative assessment and there are fewer financial repercussions.

In Ireland, 2% of funding was withheld from three institutions in 2016 pending delivery of an acceptable program of remedial actions, and this was subsequently released following satisfactory responses. Instead, the strategic dialogue process itself serves as an important basis for negotiation between the Higher Education Authority and the institutions. Because the reports are publicly available, visibility is itself a driver of behaviour.

In Hong Kong, universities are ranked according to their performance. An institution may be able to keep their "at risk" funding, lose all or some of the "at risk" funding" or gain some additional funding over and above the "at risk" element. Any outstanding funds are redistributed in the form of permission to enroll more students.

Finland and Estonia both emphasize student completions on time. There is an onus on the HEIs to ensure students complete along with benefits for students who complete their program on time. This may take the form of mitigation of their tuition costs or student loans, respectively.

How is performance assessed?

Assessment of institutional performance varies. In the Netherlands and Ireland, institutions are evaluated by an independent panel against their own stated mission and targets. Both versions of the Dutch system involve an international peer review process. The new Dutch process has put the Dutch-Flemish Accreditation Organisation (NVAO) into the role of moderating the process. It chooses the international panel. The change reflects a noticeable shift in approach and tone between the first model which was operated by the ministry. Ireland uses an international peer review team appointed by the Higher Education Authority.

In Finland, negotiations are held directly between the HEIs and the ministry at the beginning of each new funding cycle. The amount of money an institution receives is governed automatically through this standard formula system (which is distinct for universities or universities of applied sciences). There is

13https://hea.ie/funding-governance-performance/managing-performance/system-performance-framework/

an annual review process, and depending upon performance over the previous three years, HEIs can lose a proportion of their funding.

In Hong Kong institutions are evaluated against themselves using the four criteria for each of which three qualitative descriptors at 'low', 'medium' and 'high' were available. Marks are awarded and these marks are used to rank the institutions against each other. The other systems do not use a public ranking.

How is performance funding allocated?

In the Netherlands a successful evaluation results in the award of a performance contract and conditional funding. The quality of the submission is used to determine the allocation of selective funding particularly in respect of the national objectives. The original Dutch version permitted institutions with a plan judged as "excellent" to receive 2.5 times more budget than institutions of the same size with plans judged as "good". The current version has limited financial consequences.

In Hong Kong, a ranking is used to reallocate funding (expressed as student numbers) that has been top sliced. However, only gross differences between institutions are used to reallocate funding. There is not a precise formula linking position in the rankings with funds allocated. An institution may keep "at risk" funding, lose all or some of the "at risk" funding" or gain some additional funding over and above the "at risk" element.

How is competitive innovation funding organised?

Competitive innovation or development funding has been introduced to further incentivise institutional actions to meet particular national objectives. In contrast to PBF which is a mechanism for funding public institutions, CIF is additional funding and may be available to private institutions which are accredited and recognised by the government.

In Finland, strategic actions are embedded directly within the overall funding model whereas in Ireland there are several separate, targeted funding programs. In Ireland, some targeted actions – such as the Springboard initiative started in 2011 and the Human Capital Initiative Program introduced in 2020 to encourage education and training programs for upskilling and reskilling[14] – are available to the private sector. Depending upon the funding program and/or its objectives, institutions may be required to provide matching funding by way of staff time or facilities or investment from a partner business/industry if the project aims to strengthen employability or innovation through closer links between higher education and industry.

In Finland, the Netherlands, Ireland and Hong Kong there is additional funding for research usually operated by the respective research funding agencies. These programs have a different purpose than might otherwise be considered part of innovation funding.

Data and Public accountability

The funding systems rely on good systems of data collection and agreed parameters. In Finland, the information management system has been operative since the 1980s. The system is also open to public scrutiny; this means each institution knows the performance of other institutions in the system.

In Ireland, all the information, including institutional submissions and the decisions of the international panel, are publicly available. The reports contain the performance agreement reached between the Ministry and each HEI; a self-assessment report on its performance by each HEI; the report of the peer review panel on the performance of each HEI as well as the response of the HEI to the report and the

14https://www.education.ie/en/Learners/Information/Upskilling-and-Training-options/Springboard.html; https://hea.ie/skills-engagement/human-capital-initiative/

final conclusion as to whether, and to what extent, a funding penalty is imposed. There is also the potential for a report on the entire HE sector setting out its performance against national objectives – as is done in Ireland.[15] In addition, the Irish system uses a national employer survey and graduate tracking system.

This is also the situation in the Netherlands and Latvia – and is seen to be one of the virtues of the system as well as to aiding internal resource allocation. In Latvia, all institutional data is subjected to independent international audit.

Overall, systems that use publicly available data and publish the results for public access engender trust as well as help overcome any concerns about the use of public funds or possible bias, etc. This is important for institutions to have trust in the system as well as society.

4.2 LESSONS

Funding can be a powerful motivator of institutional behaviour and performance. It can help ensure that the higher education system delivers the outcomes sought by society. Successful implementation depends upon the appropriate design and having the conditions in place for the system to operate efficiently and effectively.

The following lessons emerge from the international examples:

- Trust revolves primarily around having clear objectives, the establishment of operational guidelines, clarity around possible outcomes, and understanding of the process and evaluation process. There should be clarity around data sources and definitions. In practice this requires early publication of the terms of reference and consistency, without changes during the process. That PBF usually accounts for a relatively small percentage of institutional funding highlights the importance of trust being at the heart of the process. There are particular benefits for small countries, wherein in the, context of negotiating a performance agreement, all the main stakeholders can fit easily in one room, and people know each other.
- Funding design should take account of the country's current educational and institutional culture and its strengths and weaknesses. It should complement other revenue streams – such as tuition fees or student vouchers, competitive innovation funds, and research and knowledge transfer revenue, etc. It should also recognise educational, infrastructural, and pedagogical differences between disciplines, types of institutions, particularities of their student cohort, geographic position in the country, etc. Articulating and agreeing the principles and process that underpin the funding design with all the key stakeholders and applying them in a transparent way can help build trust and confidence in the funding system.
- Adequate differentiation between institutional missions and goals: Performance indicators should be adapted to the mission of different types of institutions. If performance-based funding accounts for a large share of funding, and if the goals and indicators are applied to all institutions independently of their profile and specificities, then performance-linked funding may have adverse results (for instance, encouraging similar or identical behaviour and reducing differentiation).[16]
- Process: Developing the methodology and implementing the process puts additional requirements on both those managing the process and the HEIs. There are additional administrative and data

15 The Higher Education Authority publishes a report at the end of the process; see for example: https://hea.ie/assets/uploads/2018/01/Higher-Education-System-Performance-2014-17-report-1.pdf; A description of the process is available here: https://hea.ie/funding-governance-performance/process/; A copy of the Compact Agreement between the HEA and HEIs is available here: https://hea.ie/assets/uploads/2018/01/Higher-Education-System-Performance-2014-17-report-1.pdf; Comprehensive information about each HEI's performance under the compact is available here: https://hea.ie/funding-governance-performance/managing-performance/strategy-and-performance-dialogue/

16OECD. 2020. "Resourcing Higher Education." Paris: Organisation for Economic Co-operation and Development. https://doi.org/10.1787/735e1f44-en. p91

collection and analysis requirements. For the institutions, there is the additional necessity to develop an institutional strategic plan, road map for implementation, and process for monitoring and reporting on progress.

- Peer Review should be, and be seen to be, independent from the ministry and or the government agency in charge of funding. Preferably, it should be international. In establishing the panel, it may be desirable to consult with relevant stakeholders (HEIs, employers and students), particularly in relation to desirable panel competencies and capabilities. All efforts should be made to avoid any suspicion of conflict of interest or bias, or a situation where the recommendations of the panel are subject to political or administrative adjustment.
- Stability in funding: Consistency in the methodology, the process, the indicators, and the funding work best to engender confidence in the process. If the funding consequences of performance-linked funding are clear and transparent everyone will be clear about the implications. Core or basic funding should be the mainstay for the cost of delivery with the level of performance-linked funding accounting for a small proportion.[17]
- Choice and number of indicators: The choice and meaningfulness of indictors is vital because indicators are a driver of institutional behaviour. This can be positive if they are well aligned with national priorities and institutional missions but problematic if there are too many indicators or if they are not well aligned with desired outcomes.[18]It is important to keep the number of indicators to a minimum, and to balance quantitative and qualitative indicators, providing sufficient space for institutions to articulate their mission in narrative terms. On the other hand, picking only a handful of indicators carries difficulties associated with isomorphism and homogeneity.
- Accountability balanced with institutional autonomy: The objective should be to balance national objectives and public accountability with institutional strategic decision-making and responsibility. Institutional autonomy refers to the "a degree of self-governance, necessary for effective decision making by institutes of higher education regarding their academic work standards, management, and related activities".[19]
- Institutional capacity and capability: HEIs require the appropriate governance structures and strategic leadership capacity to oversee and implement a performance-based model. It requires having an institutional strategic plan well-aligned to its mission and with clear priorities and the capacity to implement the plan – because that is what they are being assessed against. This necessitates having institutional research capability to collect data according to national protocols and the data analytic capacity to aid decision-making.
- National Higher Education Information Management System: It is vital that whichever funding model is chosen that there is a national higher education information management system, with agreed and well-described and agreed data definitions. This ensures that all institutions are treated equally and fairly. Having a national system for graduate and employer feedback, and to process track graduates is also important.

17 OECD. 2020. "Resourcing Higher Education." Paris: Organisation for Economic Co-operation and Development. https://doi.org/10.1787/735e1f44-en. p91
18 Hazelkorn, Ellen. 2020. "Indicators and What They Measure." In Paper for the Quality Board for Icelandic Higher Education.
19http://portal.unesco.org/en/ev.php-URL_ID=13144&URL_DO=DO_TOPIC&URL_SECTION=201.html

5. SUMMARY OF KEY OBSERVATIONS RELATING TO HIGHER ARTS EDUCATION

The higher arts education sector of Georgia, offers BA, MA and PhD level arts/creative skills training in the fields ranging from Visual Arts, Theatre, Film and Music to Cultural Heritage Restoration. In 2021 there are four specialised public HAE institutions that provide a wide spectrum of artistic/creative skills training and another nine HE providers are delivering some arts/creative training programmes.[20] Their specificities are reflected in the overview of the programmes and revenue streams summarised in the

Table 2 below.[21]

Table 2 Higher arts education Georgia financing model 2021

<table>
<tr><th colspan="4">Higher arts education Georgia 2021 (activities and revenue by %)</th></tr>
<tr><td colspan="2">Type of institution
N programmes[22]</td><td>Higher Arts institutions - 3 in Tbilisi + 1 regional in Batumi

65 programmes (89% practice & lab-based)</td><td>6 Public (MES[23]) & 3 Private HEI[24]
14 programmes (5 at a private institution)
(24 % practice /lab-based)</td></tr>
<tr><td rowspan="2">Academic activities</td><td rowspan="2"></td><td>Programme funding MCSY and Adjara MECS[25] -
50 – 80% of annual revenue</td><td>none</td></tr>
<tr><td colspan="2">MES - B.A. and M.A. State student vouchers – 2 - 11% of annual revenue
(25 MA at HAE; 5 MA at other public HE institutions in 2021) tuition fees – 10 - 40% of annual revenue</td></tr>
<tr><td rowspan="3">RDI</td><td>PhD</td><td colspan="2">Tuition fees[26] - 10 PhD programmes (6 PhD at HAE and 4 at other public HE institutions in 2021)</td></tr>
<tr><td>National or</td><td colspan="2" rowspan="2">10 – 40% of revenue deriving from research and project-based funding.
Examples include fundamental Research Grants; project grant on arts incubation; Tempusproject, ERASMUS+ projects; pre-acceleration projects; EU-national funded projects[27]</td></tr>
<tr><td>Competitive grants and donors</td></tr>
</table>

20 Shota Rustaveli Theatre and Film State University of Georgia, the Tbilisi State Academy of Fine Art, the v. Sarajishvili Tbilisi State Conservatoire and the Batumi Art Teaching University
21 Estimations based on data collected via MCSY and MES.
22 Data by National Center of Educational Quality Enhancement Aug, 2021
23 Ministry of Education and Science priority programme funding, none in arts identified.
243 In 2021 there are nine institutions National Centre for Educational Quality Enhancement (NCEQE) – 6 public HE and 3 private institutions
25 Ministry of Culture, Sport, and Youth and Adjara MECS for the specialised Higher Arts Education institutions.
26 Some HE Universities, not arts training providers, have special policies for attracting new generation of academic staff by offering them paid PhD positions, e. g. TSMU, TSU. This is aimed to balance out the high average age of academic staff. Consultation process, Public HE institutions, 31 May, 2021
27 Detailed into in DAR 2021, P. 91

- The HAE sector of Georgia is characterised by a highly centralised form of professional arts training which serves an established vision of social needs such as nurturing artistic talent and integrating arts training in the HE sector. The fact that public institutions with a regional focus have introduced new Arts Education programs indicates that the need for professional training at tertiary level is growing and there are regional gaps.
- SMART specialisation is indicated for only one specialised HAE institution and even there understanding is limited regarding how serving the regional focus also means a closer focus on specific arts disciplines or level of training.[28] The level of collaboration and synergy among higher arts education providers and the creative industries or the public sectors needing skilled graduates appears out of sync.
- At least one HAE institution reports to have conducted tracer studies but comparative data and aggregated data per arts discipline across all providers is not compared to data from the national statistics or specialised surveys regarding the needs of the cultural sector or the creative industries. HAE institutions are thus not directly influenced by labour market needs assessment.
- Research activities and collaboration with other organisations in Georgia and internationally are not common. Internationalisation in terms of international programmes of learning or research activities is considered in need of development. Synergies with HE internationally and locally in new areas such as innovation are emerging but lack specific focus in terms of resources allocated.[29]
- Cultural and creative industry priorities and opportunities to engage with research and innovation activities at local, regional or international level are not advanced although there is recognition of the fact that they reflect the sustainable development goals (SDG) of Georgia and its regional context.
- The current cultural strategy and smart specialisation priorities are not fully embedded in the HAE strategic development goals which limits the institutional capacity to absorb additional funds.

28 An ongoing project 'Designing a creative cluster ecosystem in Georgia' funded by UNESCO aims to support LEPL Creative Georgia in creating a new regulatory framework and an action plan to support a growing creative economy where creativity, innovation, culture and ICT are interconnected.https://en.unesco.org/creativity/activities/designing-creative-cluster-ecosystem-georgia

29 The roles of design thinking for circular and green economy, the value of arts and creative training for the Green Deal and relisient societies agenda of the EU are just two examples.

6. REFORM OF THE CURRENT FUNDING MODEL FOR HE IN GEORGIA

6.1 INTRODUCTION

At present, entrance by a student to a university in Georgia (other than a higher arts education institution) is determined by performance in the Unified National Examination for undergraduate studies or the Post Graduate Examination for post graduate studies. These examinations are administered by the National Assessment and Examination Center (LEPL). Scholarships are awarded to the best performing students to the extent of 100%, 70% or 50% according to the level of achievement in the examination. The scholarships are referred to as "vouchers". In theory, students can take their voucher to a higher education institution (HEI) and the discipline/programme of their choice. In practice, the voucher payment is made directly to the HEI by the MES. This model provides transparency and objectivity in the award of public funding to students and to HEIs. It is, in international terms, a model based on the principle that 'funding-follows-the-student' with student demand shaping the size and discipline mix of the HEIs. As such, it conforms with some of the characteristics of "core" funding, but it has limitations that disqualify it for that term as understood internationally.

In practice, the voucher given to a student is a scholarship awarded to the best performing students. As the funding available for these scholarships is limited, at present only a minority of students receive a voucher. Some students are funded through the priority programme funding and others from the Student Social Support Programme. The remaining students who pass the examination and wish to enter university pay a fee to the university which is generally equivalent to the full voucher value of 2250GEL. Students in receipt of less than a 100% voucher pay the balance as a fee. In the case of the public universities this fee (2250GEL) is fixed by the Government and has remained at this level for approximately 10 years. Private universities can, and do, charge higher fees.

In the case of HAEIs, the institutions themselves also administer entrance examinations for potential students. The public funding of the HAEIs is also different in that the Ministry of Culture, Sports and Youth (MCSY) provides grants to four HAEIs based on historical funding agreements. This forms the largest share of their funding – from 50% to 80%. The institutions also receive a 2% to 11% of public funding through the voucher system. Overall, this combined funding is substantially less than is required to provide a high-quality arts education. It should however be noted that the funding model for HAEIs is closer to a core funding model as understood internationally than the model applying in the MES funded universities.

6.2 WEAKNESSES IN THE CURRENT VOUCHER FUNDING MODEL

In 2017, the Unified Strategy for Education and Science for 2017-2021 was developed by the MES and approved by the Government of Georgia. In the overview of the current situation and challenges, the weaknesses of the existing funding model are described as follows -

Despite the fact that the existing funding system has played a positive role in transparent and efficient spending of state resources, it still cannot provide a precondition for raising the quality of teaching and research. The real expenditures of higher education exceed the state's expenditures. All vouchers are of equal value, despite the actual expenditures of educational programs. At the same time, the upper limit of the tuition fee has been defined for the state universities. The voucher is the main source of income for universities (except of HAEIs), as a result, the voucher system causes a number of negative consequences: forms unhealthy governance systems, fails to ensure accessibility and does not create

the possibility of improving teaching and research quality, stability necessary for institutional development. Funding of priority programs fails to change the situation significantly either. Therefore, it is necessary to develop a new model of higher education financing based on the best international experience. (Unified Strategy for Education and Science for 2017-2021, page 28)

Paragraph 2 sets out a number of challenges in the HE funding system based on this assessment and feedback from consultations held as part of this project. The following weaknesses are identified as areas where reforms would substantially improve the effectiveness and efficiency of the higher education system.

1. The current funding model provides no general public funding for the universities. This is highly unusual as it is common practice internationally for governments to provide some funding for all student places. In most cases this funding does not cover the full cost of higher education and it is common for students to pay an additional sum in the form of fees. The lack of a general funding base for universities is a fundamental flaw in the funding model and confirms that the higher education system in Georgia is chronically underfunded and has, in practice, no core funding.
2. The provision of scholarships (vouchers) as the main source of public funding almost certainly benefits students from financially better off backgrounds. Experience in other countries clearly shows a strong correlation between the level of private resources devoted to the education of children and their performance academically. It is unlikely that this advantage is outweighed by the current needs-based funding in Georgia.
3. As identified in the World Bank Report "Technical Assistance to Support Reforms to the Higher Education Financing System in Georgia" (WB 2018)[30] all vouchers are of equal value, regardless of which discipline/ programme a student chooses. The model therefore does not provide for the significant differential costs of programmes – for instance those that are laboratory based and therefore require expensive equipment. Specialised study fields such as higher arts education programmes or programmes that have an element of field work and those that have clinical practice, as in the case of medicine, dentistry and veterinary, are other areas requiring a differentiated funding approach.
4. HEIs need a reasonable level of stability in the form of core funding in order to plan ahead and be strategic, a funding model based exclusively on a "funding-follows-the-student" principle runs the risk of creating instability in the funding of HEIs as funding could fluctuate widely from year to year depending on student behaviour.
5. The amount paid to a HEI through the voucher system fails to take account of early non-completion by students or students taking time out for personal or work-related reasons.
6. Programme funding is not being used for the purposes intended and its allocation across the HEIs fails the test of transparency and fairness. In a 2019 audit, the State Audit Office of Georgia identified a significant number of shortcomings in the programme – the lack of alignment between the priority fields funded and government priorities, including labour market trends. This was the original key objective of the funding and the fact that it no longer applies fatally undermines the rationale for the continuation of the programme. Other shortcomings included the fact that the number of the priority programmes increased 3.5 times without any sound basis from the priorities originally identified and only quantitative criteria were considered with no regard to qualitative criteria or outcomes and high dropout rates.

30Vossensteyn, H., Andghuladze, N., Kutateladze, N., & Bassett, R. M. (2018). *Technical Assistance to Support Reforms to the Higher Education Financing System in Georgia. Final Report*. Retrieved from https://documents1.worldbank.org/curated/en/895021551184190719/pdf/Report-on-Georgia-Higher-Education-Funding-Reform.pdf

6.3 PROPOSED REFORMS TO THE FUNDING MODEL

This report proposes the following reforms to the current funding model:

1. Increase the overall level of funding to the higher education system aiming over time towards 3% of GDP.
2. In the case of the public HEIs, reform the voucher system by changing it from a model of scholarships to a model that funds universities based on the total number of students registered in the university at a specific time in the academic year. This is a core funding model as understood internationally.
3. Introduce a differentiated model of funding which reflects the different cost of programmes/fields of study.
4. Put in place measures to mitigate the effects of annual variation in student numbers in order to ensure stability of funding for the universities.
5. Provide financial resources to universities to support equity of access to and participation in higher education by under-represented groups such as those from lower socio-economic backgrounds, ethnic minorities or those with disabilities.
6. Introduce performance-based funding (PBF) by allocating it either –
    a. by making a portion of current funding available subject to a PBF model, or
    b. by providing additional funding as a separate fund to be allocated through a PBF model.
7. The new funding model should be applicable to all institutions and disciplines, including higher arts education. The current funding provided to the MCSY funded HAEIs would remain in place as funding reform is implemented with change occurring only to ensure that at the end of the process the funding model of the HAEIs is fully comparable with the MES funded universities.
8. As the scale of reform proposed is very substantial and as resources are limited, it is recommended that the reforms be implemented in a phased way over time. What is done in each phase depends on priorities set by the MES and on the level of additional funding that is available in any year.
9. The introduction of a PBF model can be done in parallel with any of the other reforms.
10. The terms of performance agreements, including the performance indicators, should be the subject of dialogue with the universities and the HAEIs with indicators of performance chosen that are appropriate and relevant to the individual institution.

Increase the overall level of funding

Effective reform of the current funding system in Georgia requires a higher level of financing than is currently allocated by the Government. There are strong arguments in favour of this. For instance, as noted in the World Bank report[31], Georgia spends a comparatively lower proportion of GDP on higher education than is the norm in the region. The funding situation seriously limits the capacity of Georgia to meet its strategic vision, address skills needs and meet its social and economic objectives.

31 Vossensteyn, H., Andghuladze, N., Kutateladze, N., & Bassett, R. M. (2018). *Technical Assistance to Support Reforms to the Higher Education Financing System in Georgia.* Final Report. Retrieved from https://documents1.worldbank.org/curated/en/895021551184190719/pdf/Report-on-Georgia-Higher-Education-Funding-Reform.pdf

Introduce core funding

Introduce a model of core funding to the universities, as understood internationally, by providing funding on the basis of the total number of registered students i.e., students registered in a university at undergraduate and masters level at a specific date each year. This funding should be provided to the universities as a block grant. This means that while the amount of funding is determined by the number of students and the discipline mix (see paragraph on differentiated programme funding below) the university can decide on its internal allocation.

The objective is to provide public funding according to the total number of registered students in public universities rather than, as at present, provide funding only to a select group of top- performing/elite students by way of vouchers/scholarships (and to some additional students though the programme funding or needs based funding). This reform conforms with the principle that "funding follows the student". It would have a significant and important impact on Georgian higher education and Georgian society and would help to:

1. Improve the amount and the stability of resources available to universities enabling better planning and overall quality improvement.
2. Improve social equity by providing support to all students enrolled in university programs.

The number of registered students would be set by the Government at national and university level and determined with reference to a review carried out by the quality assurance agency. Universities would receive funding per registered student. While universities would be permitted to charge additional fees to students, the level of such fees would be set by the MES. Universities would not be permitted to enrol additional fee-paying students over the cap.

This same model should also be applied to the HAEIs, resulting in a consistent model of funding across all higher education institutions. (As already noted, the current model of funding of HAEIs is already more consistent with a core funding model).

Introduce differentiated programme funding

It is best practice internationally, to provide funding allocations to HEIs that are rationally derived based on clear criteria, equitable between institutions and relatively predictable and stable over a three-to-five-year funding horizon, allowing institutions to plan and manage resources. A key element in such allocations is that they reasonably reflect the relative costs of different disciplines and levels of study. Aligning the funding allocated to HEIs with the actual cost of programmes is usually achieved by carrying out a unit costing process. Appendix 2 sets out in some detail the concept of unit costing. In summary, unit costs are most often used to set a number of price tariffs or rates of funding-per-student which provide the basis for a block grant allocation. Such a unit costing exercise for the Georgian HE system would reveal the relative costs of each programme and allow for differentiated support to be given reflecting those differentials. Such an exercise would also give to the MES a more accurate understanding of the cost of higher education. which could inform further budgetary decisions at Government level.

An example of relative costs is provided in the following table relating to the Irish higher education system.

University Sector

	FTE	Taught Masters	Research	Non-Lab based	Fieldwork	Lab based	Clinical Medicine	Veterinary/ Dentistry
Undergraduate and Postgraduate Diplomas	1.00			1.00	1.30	1.70	2.30	4.00
Masters Taught (60 credits)	1.00	1.50		1.00	1.30	1.60		
Masters Taught (90 credits)	1.50	1.50		1.00	1.30	1.60*		
Research EU (60 credits)	1.00		3.00	1.00	1.30	1.60*		
Research Non-EU (60 credits)	1.00		2.00	1.00	1.30	1.60*		
Research EU (90 credits)	1.50		2.00	1.00	1.30	1.60*		
Research Non-EU (90 credits)	1.50		1.33	1.00	1.30	1.60*		

*maximum weighting allowed is 4.80

It is recommended that a unit costing exercise be carried out for the HE system in Georgia at the earliest opportunity. However, given the current limited capacity of the Georgian HE system to provide and analyse the data that would be necessary to conduct an effective unit cost process, an interim solution is needed. The figures in the Table could be applied in Georgia as, while actual costs of programmes would vary considerably between Ireland and Georgia, it is likely that the relative costs would be more broadly comparable. However, a conservative and simpler approach is recommended as an interim measure by acknowledging that lab-based programmes and those requiring clinical placements, labs, studios or production facilities (e.g., arts and engineering) cost more than those that have no such requirements. As an interim, it is recommended that the voucher value of programs that are lab-based should have a value 1.5 times the standard voucher value and those that require clinical practice should be set at twice the standard value.

Ensure stability in funding

A model of funding based on the principle that funding follows the student with open recruitment by universities up to stated limits can lead to competition for students and a situation where the more successful universities, in student recruitment terms, attract students at the expense of other, less successful universities. The number of students attracted to a university will change each year depending on student choice, potentially very significantly. The potential for instability in the universities is therefore very real as universities cannot have any certainty about the level of funding that will be available to them year on year. There are a number of ways in which this instability can be moderated. It should be emphasised that the aim is to control the **pace** at which changes occur not to **prevent** changes.

One approach is to provide funding to a university on the basis of the average funding that would have been made available to it in each of the preceding three years if no moderator was applied. This will allow universities to grow and benefit from that growth over time while avoiding sudden, destabilising reductions in funding for other universities. See the worked example below. The example uses the money amount and only for the first semester in each year as this allows for comparison with the first semester in the fourth year, 2020/21.

An alternative approach is to limit the change in funding for each university to plus or minus 2% (it can be more) of the overall increase (or decrease) in the total budget for the sector in that year.

The best approach to be applied in Georgia will depend on local circumstances, government decisions on the overall funding available and on modelling of alternative approaches.

Example of moderator based on first semester funding of a selection of universities

	2017/18	2018/19	2019/20	2020/21 Actual	2020/21 Moderated 3-year average
TSU	7053775	6519612	6464787	6495625	6679391
ISU	2332825	2153975	2140762	1981462	2209187
GTU	857425 873400	873450	820575 868091		
TSMU	2543100	2485737	2845181	2739712	2624672
ATSU	423212 376812	439587	420587 413203		
TAFU	47137.5	40500	40275	44662.5	42637.5

Provide funding on the basis of the number of retained students

The risk in providing funding based on enrolment figures is that early non-completion is not factored into the funding paid to a HEI. This can be addressed by making a funding allocation to the HEIs based on retrospective, audited student numbers. This means a census count would be taken at a late stage in the academic year (March). This March census date would mean that there was very little, if any, funding in the system in respect of student non-completion.

6.4 EQUITY

There are two distinct aspects to supporting equity of access to, and participation in, higher education by under-represented groups such as those from socially or financially disadvantaged backgrounds, ethnic minorities or those with disabilities. There is the financial support that students will need to cover fees, accommodation and other costs. This is often provided by governments through maintenance grants and/or assistance with fees. This is not within the remit of this project and report.

The second aspect relates to the fact that students from disadvantaged backgrounds, even when they overcome the barriers and actually access higher education, experience difficulty fully participating in it and achieving the outcomes they are capable of. It is good practice for universities to provide additional supports to such students to overcome these barriers. Supports include lower student/lecturer ratios, additional teaching, mentoring etc. These supports, however, are resource intensive and as such are often relegated to low priority, especially where resources are already very stretched. It is recommended that the funding model contain specific targeted funding as a contribution towards these costs. The optimal approach would be to provide an additional amount per student who is identified as part of a disadvantaged group. The amount involved would be a proportion of the standard funding provided for each student in a non-laboratory subject.

6.5 IMPLEMENTATION

This scale of reform proposed in this report is very substantial and, as resources are limited, can be implemented only in a phased way over time. What is done in each phase depends on priorities set by the MES and on the level of additional funding that is available in any year.

While the team recommend reform of the current system, including changing the current voucher system from a scholarship model of public funding to a core funding model, the voucher system itself should be reformed in the interim period -

- by allocating voucher funding once a year, instead of twice at present, immediately improving funding stability for universities, and
- by providing funding on the basis of students who are retained in their HEI beyond a specific date (March each year is proposed).

It should be noted that allocating voucher funding once in an academic year does not interfere with the mobility of students. Nor does it require additional funding. However, it would result in some short term impact on the HEIs if mobility leads to an increase in students in a HEI in the second half of the academic year.

The following is proposed as a phasing plan to the more fundamental reforms proposed. A key informing principle to the approach outlined is the desirability of expanding student support as quickly as possible. Although the actions are set out in numerical order, this need not reflect a chronological order as the various elements can be implemented either sequentially or simultaneously depending on the availability of resources.

1. Gradually, and in a planned way, increase the funding allocated to universities. The current system of funding by way of vouchers can continue to be used in a transition period. (As noted earlier, any change to the voucher based funding for private HEIs is a matter for discussion with the MES). The number of students, including those who are already in the system, who receive vouchers should be increased annually (as resources allow) so that over a period of (for example) five years all students who qualify for a place in a university receive funding equal to the full voucher value. At the end of the transition period, universities would then receive a standard payment (2,250GEL) for each registered student and the voucher/scholarship model would have transitioned to a core funding model.
2. In addition -
   - Maintain the standard payment at the current voucher value until the transition is fully achieved.
   - By the end of the transition period a full unit costing exercise should have been completed and core funding allocated that more accurately reflects the actual cost of programmes.
   - To avoid excessive demand on national budgets, a limit should continue to be placed on the overall number of students in the public universities.
   - The current priority funding should be used to fund the first extension of the voucher system, allowing for an immediate significant increase in the number of students supported.
3. Phase in differential funding for places according to the comparative cost of programmes. An important element in the implementation of a differentiated model of funding is the reliability of the data provided by the HEIs to the MES regarding the number of registered students in each discipline. To mitigate risks, it is recommended that regular audits of the data provided be conducted either by the internal audit service of the MES/MCSY or the State Audit Office.
4. The introduction of a PBF model can be done at any time in the phased development of core funding. It can be applied to the current public funding, provided mainly through vouchers, and to any increase in public funding as reform is implemented. Given the current scholarship nature of the voucher system, there should be a clear stipulation that it is the total received by a university by way of vouchers that is subject to PBF. It has no implications for the funding of an individual student.
5. The following will also be required in the course of implementation –
   - The development of a clear project plan for the reforms, defining the short- medium- and long-term targets and a road-map for transition, including indicators of institutional responsibilities.
   - Modelling of the impact of the reforms in the case of universities and higher arts education institutions.
   - The carrying out of a unit cost exercise.
   - Close on-going consultation with the HEIs to ensure a full understanding of the nature and effect of reform and a high level of participation by them.

- An exercise to establish the reasonable additional extra costs to a university of supporting students from disadvantaged backgrounds.
- An exercise to establish the level of moderator required to support reasonable funding stability.
- Put in place a system for auditing student numbers, including the system for identifying students from disadvantaged backgrounds who qualify for an additional funding allocation.

6.6 ISSUES OF CONCERN

Two issues of particular concern have been raised in the course of consultation on these proposals – their impact on competition and the fact that a voucher relates to an individual student (in a sense it "belongs" to the student).

The current voucher system was introduced to create competition between public and private HEIs and thus improve quality. While it can be contested whether the competition which resulted actually improved quality, the fact is that the proposed model of core funding will continue this competition among the public HEIs as they compete for students. Such competition is positive, especially as it can increase the number of students that the system accommodates (up to a fixed limit). But competition, per se, does not improve the quality of outcomes; see earlier the discussion on how unregulated competition can actually be harmful. The key to quality outcomes is adequate resources combined with a rigorous internal quality assurance system backed up by a strong and effective external QA review.

As to the issue of the voucher being a student's to use as she or he wishes, there is no change in practice. As already noted, the voucher system operates on the basis of performance in the Unified National Examination with the best performing students receiving a voucher to cover all or part of their fees. This voucher can be used by them to access the institution and course of their choice – funding follows the student. The funding is made available directly to the HEI.

In the core funding model proposed, a student will continue to express a preference for an institution and discipline. Fulfilling that preference will continue to depend on the results in the Unified National Examination. A HEI will receive a standard payment for each registered student – funding will follow the student. The key difference is that all students will benefit and the HEIs will receive a certain level of resource for each student.

7. PERFORMANCE-BASED FUNDING

INTRODUCTION

In this section, we set out some models of performance-based funding. Any of these models can be implemented with the base or core funding reform outlined earlier. Two distinct approaches are explored.

In the first, which we describe as a "hold back" model, a proportion of the core funding is held back – that is the payment of a proportion of the public funding given to a HEI is made conditional on that HEI meeting performance indicators agreed with the MES and set out in a performance agreement. This model in effect penalises a HEI that does not meet its performance agreement.

The second model operates by the MES/Government earmarking a specific amount of funding to be allocated to the HEIs exclusively on the basis of performance. In discussions with the MES a preference has been expressed by the Ministry that the amount involved in such a model would be the funding currently provided as priority programme funding and this approach is explored. This model in effect rewards those HEIs that meet their performance agreements.

7.1 CONTEXT

In looking to international benchmarks when developing a performance-based funding model for higher education institutions, it is important to be aware that there is little capacity for direct translation of a system from one country to another. There is also considerable risk in attempting to do so. The circumstances of the higher education system, and the country concerned, are essential factors to be considered. The policy context in which the institutions operate, including the objectives of government generally and specifically with respect to higher education and research are of central importance. The Inception Report for this project sets out in some detail the particular circumstances that apply in the case of Georgia. It also set the context within which a performance-based funding model is to be developed as one element in a more wide-ranging HE financing reform.

7.2 GENERAL ISSUES RELATED TO THE ASSESSMENT AND MEASUREMENT OF PERFORMANCE IN HIGHER EDUCATION

The MES, by proposing to establish a performance-based funding model in Georgian public universities, is very much in line with a strong, national and international trend towards assessing and measuring performance in higher education. For instance, in recent years, higher education has become subject to many types of league tables (or rankings), which claim to measure performance. Many of these have obvious problems methodologically in terms of the scope of what and how they measure. Nevertheless, the phenomenon of performance measurement and ranking in higher education is here to stay and the outline of international practice earlier in this report underlines that. The challenge for higher education is to develop better ways to measure and assess performance. Such approaches should support the overall purpose of higher education, value and strengthen diversity between institutions, and create real and meaningful opportunities for institutions to benchmark themselves against peers and improve performance.

The growing trend for better assessment is being driven by students, by business, by governments and by universities themselves. This trend represents both a threat and an opportunity for Georgian higher education. A threat in the sense that increasingly it can be expected that decisions about where

students choose to study, where staff choose to work, and where funding flows, will be driven not by tradition but by evidence of performance. If the Georgian system does not have a way to demonstrate its successful performance it will risk being left behind. An opportunity, in the sense that if the Georgian system can put in place a system that measures performance appropriately, and if the HE sector can continue to improve its performance, then Georgian Higher Education can improve its competitive position regionally and internationally and continue to develop.

7.3 Objective of Performance Based Funding

The over-arching objective of introducing a performance funding model into the Georgian system of higher education financing is to enhance the performance of the Georgian higher education institutions and to better align their activities, and outputs, with the objectives of the Government of Georgia for the social and economic development of the country. Relying on a balance between Government steering through the MES, the academic freedom of the HEIs and their autonomy to manage their internal affairs, the overall higher education system can deliver optimal outcomes for Georgia and its people.

Within this over-arching objective the Government of Georgia has set the following strategic objectives[32] that inform the proposals and recommendations in this report.

1. Develop high-quality and labour market relevant higher education, including student learning outcomes
2. Build RDI quality and knowledge transfer capacity
3. Expand international mobility and collaboration
4. Strengthen regional engagement and development
5. Improve access to higher education for underrepresented groups of the population

7.4 Principles of Approach

The following principles, based upon the review of practice in the benchmark countries, should underpin whichever model of performance-based funding that Georgia implements.

1. The performance evaluation process should provide for institutions meeting national objectives in ways that are coherent with their own history and mission. To evaluate institutions using performance measures common to them all would drive homogeneity, run the risk of gaming and be counterproductive to the aim of mission differentiation among the HEIs.
2. The ground rules must be established at the outset and adhered to. These include clarity on the beginning, middle and end point of the performance cycle, definitions, descriptors and the assessment and implementation process.
3. There must be recognition that while some aspects of institutional performance are discernible in the short (1 to 2 year) term, many are not.
4. Where institutional performance is dependent on matters outside of the control of the HEI then this must be taken into account.
5. Because much of the evaluation is concerned with mission and strategy, qualitative judgments will be required.
6. A peer review process is required. This must be, and be seen to be, credible, expert and objective. The reward/penalty structure must incentivise performance without destabilising any individual HEI or the system overall.

32 Adapted from the Draft Assessment Report, Op. Cit., p12, 16-17, 21-22,

7. Reduction of administrative and bureaucratic requirements should be achieved by -
    a. Re-use of existing evaluation outputs for the HE system, e.g., accreditation or quality assurance reviews and reports. In the interests of clarity, it is emphasised that such processes are separate from a PBF process and act only as sources of information to support the process.
    b. Use of such data as is available and common to all institutions e.g., EMIS; the National Science Foundation Grants Management Unified System (GMUS); GITA data on, for instance, start-up industries and Georgia's National Intellectual Property Center for data on patents and licences.
    c. Use of probing/analytical self-evaluation reports by the HEI's themselves as one of the bases for evaluating performance.

It is important to emphasize at this early point the importance of consultation with the higher education institutions as good practice. This is as much an issue of process as principle, Involving the HEIs from the outset, and throughout the process, is important to establish an effective model of performance funding and agreements underpinning it. The engagement of the HEIs will instil trust among them that this is not an exercise in increasing government control and an appreciation of the benefits that a performance funding model can bring in terms of -

- Clarity in the relationship between HEIs and the Government in terms of mutual expectations.
- Better alignment between national objectives and HEIs strategy and agendas with enhanced impact on social and economic development.
- Enhanced capacity for strategic development in HEIs.
- Empowering senior management in the HEIs to bring about change in their institution.
- Increased transparency and accountability within an institution and between institutions.
- Increased transparency and accountability to the government and the general public.

7.5 Identified Best Practice to be Incorporated into Planning for a PBF Model

In considering a system of performance-based funding, the project team reviewed systems in six jurisdictions as already noted (Estonia, Finland, Hong Kong, Ireland, Latvia and the Netherlands). They have implemented PBF models in their funding of higher education with varying degrees of success. Some of the specific issues that have emerged and which should underpin development of a system in Georgia follow:

- The Government should focus on a small number of national objectives which it requires the HEIs to address as part of a PBF model. If the objectives and related indicators of performance become very numerous, strategic focus is lost.
- The model should itself focus on a small number of essential indicators of performance in respect of each of these national objectives. These can be supported by a greater number of sub-indicators.
- Key indicators of performance should be set for the medium term, avoiding frequently changing them as this will seriously diminish impact.
- An overly simplistic and direct focus on performance outcomes can easily lead to perverse results e.g., simple universal targets to improve student retention may, taken in isolation, create incentives to reduce standards so as to reduce drop out. Other outcomes could lead to risk aversion, the stifling of innovation and the compromise of longer-term sustainability.
- Indicators should be selected on important aspects of performance that should be monitored – rather than on those that can be or are being monitored.

- Performance indicators will be only as robust, reliable and comparable as are the data and information systems on which they are based.
- System indicators should be linked to performance against the strategic objectives defined for the system.
- The costs of performance measurement should be reasonable and kept under review – otherwise it may become an industry in itself and one that can be hard to retreat from.

7.6 PERFORMANCE FUNDING MODELS

7.6.1 "HOLD BACK" MODEL OF PBF

The first PBF model we consider is one where the MES makes the payment of a proportion of the funding it provides to a HEI conditional on the performance of the HEI against agreed performance metrics. The assessment is based on the year prior to the year of assessment and the proportion of funding subject to potential hold back is a proportion of the funding in the year of assessment.

The first issue to consider is what proportion of funding should be made contingent on performance. It is important to strike a balance between effectiveness and institutional stability. The level of funding should be such as to mean that no institution could afford to ignore it. On the other hand, it should be of a scale that if it was applied to a HEI it would not destabilise the institution and prevent it from achieving its performance targets in subsequent years. It is worth emphasising again here that the purpose of a PBF model is not to remove funding from the HEIs but to encourage and support improved performance.

There is no fixed rule as to what proportion of core institutional funding should be targeted for performance assessment. Internationally, it is generally in the range of 3% to 7%. An issue specific to Georgia on this point is the fact that public funding for the universities is so low that 3% may in itself have so little impact that the universities can ignore it. The situation is different for HAEis with the funding provided by the MCSY. Over time, of course, as the funding system moves towards a core funding model the amount of public funding should increase. The precise proportion is something to be considered and modelled in an implementation phase. However, another aspect of performance funding also needs to be factored in – the damage to reputation if a university is cited as not meeting its performance targets. Whichever level of PBF is decided it should allow the model to be introduced with a significant, but manageable, potential impact on the funding of a HEI that fails to meet its performance targets while also incentivising the achievement of performance indicators.

7.6.2 A PERFORMANCE FUND TO REWARD GOOD PERFORMANCE

An alternative PBF model is to reward of good performance through a payment from a dedicated fund. A primary issue is to determine the scale of this fund. As has already been noted, in discussions with the MES a preference has been expressed by the Ministry that the amount involved in such a model would be the funding currently provided as priority or programme funding. This is a feasible option, but note that an alternative use of priority funding has been indicated earlier in this report – to increase the voucher funding. Setting this issue aside, the scale of the fund in the first instance depends on what is practical in the context of overall state finances. As a matter of good practice, the scale of such a fund and the payments from it should be such that no HEI could afford to ignore it and over a two- or three-year period an ongoing failure to secure such funding would have a marked impact on the institution's finances. However, the fund and payments to HEIs should not be so large as to create incentives for excessively hasty or radical change by any HEI that is aimed towards short term performance and financial reward but that may create long term problems.

Having decided on the scale of the fund the next issue is how to allocate it among the HEIs. An approach informed by practice internationally is to allocate a proportion of the performance fund to each of the national objectives according to the priority given to them by the government. Taking the strategic objectives of Georgia stated earlier and given the stated objectives of the MES as regards the outcomes they require from the higher education system, especially the focus on alignment with skills needs, the following allocation of a performance fund is proposed. It is emphasised that the relative proportions are entirely a matter for the MES and the Government to decide –

- Develop high-quality and labour market relevant higher education, including student learning outcomes – 40%
- Build RDI quality and knowledge transfer capacity – 20%
- Expand international mobility and collaboration – 15%
- Strengthen regional engagement and development – 15%
- Improve access to higher education for underrepresented groups of the population – 10%

In the case of each of the amounts of funding allocated to each strategic objective a proportion is allocated to each HEI equivalent to the overall proportion of core funding that that HEI would receive from the MES in the year of assessment. A simple example will illustrate. If the overall amount of the fund is 2m GEL then a HEI with 10% of voucher funding would have the potential to receive 200,000 GEL if its performance meets the required standard.

Failure to meet agreed performance targets would result in that HEI's funding going back into the fund and being allocated to successful HEIs.

7.7 Process for Developing a PBF

In order to develop an effective performance-based funding model, the following are necessary elements of the process -

- Clear policy directions from the Government as to strategic objectives and the related outcomes that are required of the higher education sector.
- The universities are given the opportunity to develop and propose their own targets and indicators in respect of the strategic objectives that they propose to address, having regard to their mission and existing strengths and strategic focus.
- A process of dialogue between each HEI and the MES, leading to a performance agreement. In the case of HAEIs the dialogue should be with the MCSY.
- A process for assessing performance and allocating funding to reward performance by those who meet or exceed performance targets and to penalise those who fail to meet targets.
- A process through which a HEI can avoid a funding penalty by taking steps to address areas of weakness in its performance.
- Effective systems for capturing and using data nationally to measure performance.

Each of these elements are addressed below.

7.7.1 Clear Policy Directions and Related Outcomes

As already noted, the following are identified as the strategic objectives of the MES in implementing a PBF model –

- Develop high-quality and labour market relevant higher education, including student learning outcomes.
- Build RDI quality and knowledge transfer capacity.

- Expand international mobility and collaboration.
- Strengthen regional engagement and development.
- Improve access to higher education for underrepresented groups of the population.

There is a risk that, by requiring all HEIs to address all of the objectives, this will overextend the capacity of some, or all, of them and weaken the impact of the PBF model. This could also undermine diversity as all HEIs pursue the same objectives. Accordingly, it is recommended that the MES should state that Strategic Objective 1: "Develop high-quality and labour market relevant higher education, including student learning outcomes" is mandatory for each HEI to address. In addition, each HEI is required to address not less than two other objectives having regard to their mission and current strengths.

Table 3 sets out recommended performance indicators for each of the stated strategic objectives. These are the indicators that the HEIs will use to guide their proposed performance agreements and subsequent self-evaluations. They will also be used in the assessment process outlined later. While some of these indicators will also be relevant to HAEIs, specific indicators of performance for those institutions should be agreed between them and the MCSY. As noted in 7.7.2 below, Phase 1 data collection should focus on the indicators highlighted in Table 3.

Table 3 Performance Indicators[33]

STRATEGIC OBJECTIVE	INDICATOR	DATA DESCRIPTION
1. Education: Develop high-quality and labour market relevant higher education, including student learning outcomes	Graduation rate - bachelors	% new entrants that successfully completed their bachelor programme
	Graduation rate – masters	% new entrants that successfully completed their master programme
	Relative Employment/unemployment - bachelors	% bachelor graduate unemployment 18 months after graduation (as appropriate to field)
	Relative Employment/unemployment - masters	% masters graduate unemployment 18 months after graduation (as appropriate to field)
	Students participating in internship/phases in work etc.	% students engaged in accredited/assessed internship/ work placements, field experience, collaboration with public/private sector or clinical placement
	Course advisory committee	% of courses in the university/HEI involving external stakeholders to advise on design, delivery and assessment with respect to relevance
	Stakeholder perspective on relevance and graduate attributes	Results from an Employer Survey on a 2-3 year cycle
	Graduate perspective on relevance and graduate attributes	Results from annual Graduate Survey – 1 year from completion/graduation
	Total number or percentage of students enrolled in specified study fields	Alignment with labour market
	Income from Continuous Professional Development/LLL	% university's total revenues that is generated from activities/services delivering Continuous Professional Development courses and training
	Teaching and Learning/Pedagogy	% academic staff with an accredited (30 credit min) certificate in Teaching and Learning

33 SOURCES: HTTPS://WWW.UMULTIRANK.ORG/ABOUT/METHODOLOGY/INDICATORS/; HTTPS://OP.EUROPA.EU/EN/PUBLICATION-DETAIL/-/PUBLICATION/93EC2EB0-B614-41DF-A894-56895A795A54 ; HTTPS://EUA.EU/DOWNLOADS/PUBLICATIONS/INDICATORS%20REPORT.PDF ; HTTPS://NSSE.INDIANA.EDU/NSSE/SURVEY-INSTRUMENTS/ENGAGEMENT-INDICATORS.HTML

2. Research & Knowledge Transfer: Build RDI quality and capacity	Books/Monographs	Number of University books/monographs published, International Standard Book Number (ISBN)
	Peer-Reviewed Publications	Number of peer-reviewed publications indexed in the Web of Science Core Collection[34] or Scopus[35]database, where at least one author is affiliated to the source university.
	Citation rate	Average number of times University's research publications are cited in other research published in the respective reference period, adjusted (normalised) at global level for the field of knowledge and the year in which a publication appeared.
	s, creative practice research/research-related Outputs	Number scholarly outputs in creative and performing arts (including performances, exhibitions, demonstrators, prototypes etc), relative to the full-time equivalent (FTE) number of academic staff
	Doctorate productivity	% doctoral students relative to number of academic staff (FTE)
	Post-Docs/Early Career Researchers	Number positions relative to total number academic staff (headcount).
	Competitive-earned Grants/Income	Competitive-earned grants/income from national and international funding agencies, research councils, research foundations, creative arts agencies, charities and other non-profit organisations.
	Research expenditure	Total expenditure on research activities as % of total expenditure
	Open Access Publications	% open access publications out of all publications of the university
	Collaborative funded research projects	Number of National and International collaborations, incl. joint research projects
	Co-publications with private sector	Number funded RDI projects with private companies
	Co-publications with public sector	Number funded RDI projects with public organisations

34 https://clarivate.libguides.com/woscc/coverage. WoS Core Collection includes Science Citation Index Expanded, Social Science Citation Index and Arts & Humanities Citation Index

35 https://www.scopus.com

	Graduate companies	Number of companies newly founded by graduates per 1000 graduates
	Patents, licenses, invention disclosures[36]	Number patents, licenses or invention disclosures assigned to (inventors working at) the university over the respective reference period & normalised
	Academic Staff Start-Ups/HPSU	Number of companies newly founded by academic staff as proportion of total academic staff (FTE)
3. Internationalisation: Expand international mobility and collaboration	International Students – bachelor programme	% students enrolled for at least 30 ECTS Credit
	International Students – master's programme	% students enrolled for at least 30 ECTS Credits
	Georgian student Outward Mobility	% students enrolled for at least 30 ECTS Credits
	International doctorate students	% doctorate degrees awarded to international doctoral candidates.
	International collaboration	% peer-reviewed publications with at least one affiliate author's address located in another country.
	International networks (activities)	Number of international networks of which member (externally funded)
	International academic staff	% academic staff (on a headcount basis) with foreign citizenship.
	Joint or Dual Degrees	Number and % accredited joint/dual degree programmes
	International Accreditation	Number and % programs with international accreditation

36 These categories can be divided into separate indicators

4. Regional Engagement**:** Strengthen collaboration with the private sector and engagement	Student enrolment in regional priority fields	Fields as determined by Smart Specialisation[37]
	Societal Impact and Public Engagement	Number activities, in all disciplines, organised for the public (e.g., seminars, lectures, workshops, performances, exhibitions), relative to the full-time equivalent (FTE) number of academic staff
	Student internships in the region	% students undertaking internship with an industry/business/cultural/civic organisations in the region (within a distance of 50 km from the university)
	Regional joint publications	% peer-reviewed publications with at least one co-author in industry/business/cultural/civic organisations in the region (within a distance of 50 km from the university)
	BA Graduates working in region	% BA graduates in employment (after graduation) in the region where the university is located (within a distance of 50 km from the university)
	MA Graduates working in region	% Masters graduates in employment (after graduation) in the region where the university is located (within a distance of 50 km from the university)
	Student degree theses or graduation projects with regional organisations	% students (bachelors/masters) involved in degree thesis or graduation projects (e.g., protoype, practice-based projects) in partnership with industry/business/cultural/civic organisations in the region (within a distance of 50 km from the university).
5. Widening Participation: Improve access to higher education for underrepresented groups of the population	Graduation rate from under-represented groups (bachelor)	% bachelor students from under-represented groups on long-first degree/UG program
	Relative bachelor graduate unemployment from under-represented groups	% bachelor graduate unemployment 18 months after graduation from under-represented groups
	Female post-doctoral researchers	Number positions relative to total number of academic staff (headcount).
	Female academic staff	% female academic staff as % of total number of academic staff (FTE)
	Contract academic staff	% part-time academic staff as % total academic staff (FTE)
	Mature Students	% total students on long-first degree/UG program

37 https://s3platform.jrc.ec.europa.eu/georgia

7.7.2 DATA COLLECTION AND SUGGESTED PHASING

Good strategic management of the HE system and institutions relies on several factors:

- Good HE management information systems, overseen by the Government and utilised by all HEIs in return for public funding.
- The choice of indicators should align well with Government priorities.
- The number of data points or indicators should be kept to a minimum in order to emphasize their significance, and to balance quantitative and qualitative indicators.
- Clarity and agreement by all stakeholders as to the data points or indicators, with agreed, well-described and clear data definitions that pertain to all HEIs. This ensures that all institutions are treated equally and fairly.
- Having a national system for graduate and employer feedback, and to track graduates is also important.

The system can be phased in over several years.

Given its strategic importance to Georgia, data collection should focus initially on information relevant to Strategic Objective 1: "*Develop high-quality and labour market relevant higher education, including student learning outcomes*". This would provide a good overview of all HEIs in Georgia.

Phase 1 Data collection should focus on student outcomes and relevance. Indicators highlighted in Table 3 above include:

- Student completion rates as a measure of quality,
- Students enrolled in specified or priority study fields,
- Involvement of external stakeholders (i.e., employers from the public and private sector, labour market specialists or analysts, etc.) in course advisory committees, and
- Students involved in internship or other work-based learning activity (both of which should be assessed.)

Phase 2 should focus on the development and implementation of both a Graduate Survey and an Employer Survey.

- These surveys will provide essential information about the relevance of the course content to the labour market, assessment on the quality and content of the curriculum, and provide a good status quo assessment of graduate employability.
- Developing these surveys will take time, and involve discussion with the key stakeholders. They should be operated across the entire system, including all HEIs, and be overseen by the Government.

7.7.3 HEI PROPOSALS FOR A DRAFT PERFORMANCE AGREEMENT

Having set out the strategic objectives and the underpinning indicators for performance, the MES should invite each HEI to set out, within a stated period (3 months), their proposals for a performance agreement to cover a period of three years.

The HEI should provide current baseline data for each relevant area i.e., it should provide as much data as is available relating to each of the areas it proposes as part of its agreement. These proposals and data form the basis for a subsequent dialogue, or negotiation, between each HEI and the Ministry.

This process of dialogue between the MES and the HEIs should respect and reinforce the complementary and diverse missions of the HEIs and their autonomy in managing their internal affairs. To this end, each institution in the first instance should identify which of the discretionary strategic

objectives it proposes to deliver to. In doing so, they will have regard to their particular mission, to where their current strengths are and how their strategic direction aligns with the chosen strategic objective. It is not expected that each HEI responds to all the objectives set. Such an outcome would not reflect the diversity among the HEIs in areas such as mission, discipline mix, focus on teaching versus research etc.

Each HEI should also set out how it proposes to measure its performance across the objectives identified and the target performance under each of the relevant indicators. The proposals made by the HEIs should be challenging, setting stretch targets for performance but which are realistic within the current capacities and likely resources, financial and otherwise, of the institution.

In advance of a formal dialogue with the HEIs, the latter should be given written feedback by the MES/MCSY on their proposals and an opportunity to submit amended proposals where necessary. In this feedback the Ministries should indicate where further data, clarity or correction is needed in proposals and baseline data, any weaknesses in the proposals and data and feedback on the extent of ambition shown.

7.7.4 DIALOGUE AND COMPLETION OF PERFORMANCE AGREEMENT

The proposals made by each HEI, including amended proposals, become the basis for a dialogue between the institution and the MES/MCSY. In the context of HAE the MES and MCSY would need to collaborate in the same process together and also encourage the collaboration among the public providers that include the four specialised HAE institutions currently supported by the MCSY as well as arts/creative programmes offered at four public funded universities and two other public funded institutions.[38]

In the negotiations a strong emphasis should be given to the institution's strategic plan, its coherence and completeness and on the metrics proposed by the Institution to monitor its own performance against its own plans. In addition to requiring HEIs to demonstrate alignment of their proposals with national objectives, the following should be placed on the agenda for these discussions:

- Distinctiveness of the institution's mission. The HEIs should be asked how they see themselves as distinct within the Georgian system.
- As regards the national strategic objectives, which objectives do they propose to address and how do these align with current mission and strengths.
- Its proposed performance indicators.
- Stakeholder Involvement in the Institution. Each Institution should be required to set out how it engages internal stakeholders such as staff and students and external stakeholders in its strategic and other planning and academic processes and in the development of its proposals for a performance agreement.
- How the institution currently monitors its performance overall and the performance of its individual schools and faculties and how it proposes to monitor its performance against a proposed performance agreement.
- How the HEI currently benchmarks its performance against other universities nationally and internationally – or how it proposes to do so in the future. In practice this will involve a HEI in identifying a range of institutions that match to a specific activity and benchmarking performance against that institution. It rarely involves benchmarking against a single

38 In addition to the Academy of Arts, University of Theater and Film, Conservatory, Batumi Art University, arts programs are also provided by the following higher education institutions: LEPL - Ivane Javakhishvili Tbilisi State University; LEPL - Georgian Technical University; LEPL - Ilia State University; LEPL - Akaki Tsereteli State University; Ltd. - University of Georgia; Ltd. - Caucasus University; Ltd. - Tbilisi Free University; A (A) IP - GIPA - Georgian Institute of Public Affairs; NNLE St. King Tamar University of the Georgian Patriarchate.

institution. The key focus here should be on how realistic the benchmarking exercise has been which in turn demonstrates the HEIs capacity for self-evaluation.

- Institutions should be required to demonstrate that they have explored opportunities for improved performance through participation in appropriate collaborative arrangements with other HEIs in the system from co-ordination of academic strategies for elimination of unnecessary duplication, for complementary offerings, for shared centres of excellence, shared infrastructure, shared student supports etc.

7.7.5 PERFORMANCE REVIEW GROUP

To support the putting in place of performance agreements, and the subsequent assessment of performance, the MES, in consultation with the MCSY, should put in place a Performance Review Group. This Group should be chaired by a senior official in the MES with responsibility for higher education with additional (max 6) independent individuals who have a proven capacity to probe and analyse institutional performance. One of these should be from Georgia, but have no conflict of interest that could arise, for instance, if the person had an on-going involvement with a Georgian HEI. This will bring local knowledge of the HE system to the process, additional to that of the MES official, and allow for learning at local level of the process. The remaining members of the Performance Review Group should be international experts. In line with earlier comments regarding consultation and buy-in from the sector, the higher education sector should have some input into the selection process of such individuals (in terms of desirable competencies and capacities). The process of agreement formation and subsequent assessment should be supported at executive level by the MES.

7.7.6 THE PERFORMANCE AGREEMENT

The process of dialogue with the HEIs should result in a performance agreement to be signed by the MES and the president of each HEI covering a three-year period and providing interim performance indicators for each year and final indicators for the end of the period. The following is an outline of the content of a performance agreement.

- Establishment of the agreement
    - Provides for the establishment of the agreement and its term and for the MES/MCSY to inform the HEI of any actual or prospective changes to policy.
- Performance funding framework
    - Sets out the Performance Funding Framework within which the MES/MCSY will allocate performance funding to Higher Education Institutions.
- Mission and Strategy Statement
    - Includes a statement of Higher Education Institution's mission and strategy and how the HEI proses to implement them. The HEI also agrees to inform the MES/MCSY of changes to its mission and profile.
- Development Plans and Objectives
    - Sets out Higher Education Institution's strategic intentions and objectives using standardised templates aligned to the published framework. These strategic intentions / objectives must align with the institution's own properly formulated strategic plan. Each institution is required to set out a description of their proposed approach to deliver on each of the strategic objectives they propose to address, with reference to the Framework. Each strategic objective should be accompanied by a description of the strategic initiatives, currently being implemented, or to be implemented over the three-year timespan of the agreement.
- Annual Compliance Statement

- The Agreement notes the various instruments and processes used to ensure accountability and good governance on the part of the HEI such as data returns, QA processes, financial statements etc. Where significant governance or compliance issues arise in relation to any of these, an institution may be deemed not to have met the minimum requirements of performance.

- Agreement
  - Contains confirmation of the agreement between the MES/MCSY and Higher Education Institution, to be signed upon conclusion of the strategy and performance dialogue process.
- Appendices
  - Where necessary, this includes additional material supplied by the higher education institution, including details of how objectives might be objectively verified.

7.8 ASSESSMENT

7.8.1 ASSESSMENT OF ENGAGEMENT

Assessment of the performance of each HEI against their performance agreement should be conducted annually and is described later. However, before the first such assessment there is an initial assessment exercise to be conducted – an assessment of the extent to which a HEI has engaged with the PBF process. This is an important step in the process as it is essential to ensure that each HEI engages with the performance funding process in a constructive and positive way. Otherwise, there is a risk that engagement will be indifferent and so ineffective. A key criterion here is the extent to which a HEI displays an appropriate level of ambition in its proposals, but an ambition that is reasonably capable of being realised in practice.

Table 4 sets out the criteria by which the proposals of each HEI are to be assessed. Categories 1 and 2 fall into the area where a funding penalty may be imposed.

Table 4 Assessment of HEI proposed performance agreement

CATEGORY	CRITERIA
4	The institution proposal is strongly ambitious. The ambition can be realised convincingly given the context, history and chosen strategy with the institution's associated measures. It is expected that the institution, in achieving the ambition, will strongly improve its position from the current situation or could consolidate its current strong position. Clearly visible and verifiable progress compared with the current situation can be expected by the next performance review. If an institution has already built up a clear-cut profile in recent years in combination with continually proven high quality, then maintaining the same high level will also be classified as ambitious.
3	The institution proposal is ambitious for the most part. The ambition can be realised it seems given the context, history and chosen strategy with associated measures. Visible and verifiable improvements over the current situation can be expected in most of the components by the next performance review.
2	The institution proposal falls short for the most part with respect to ambition and feasibility, given the context and history of the institution. Visible and verifiable improvements over the current situation can be expected only for a few components by the next performance review.

1	The institution proposal falls far short with respect to ambition and feasibility, given the context and history of the institution. Visible and verifiable improvements over the current situation cannot be expected by the next performance review. It is expected that the institution will not improve its position over the current situation with this formulation of the ambition.

7.8.2 ASSESSMENT OF PERFORMANCE

Once concluded, the outcomes of a performance agreement should be assessed annually. This assessment will be conducted by the Performance Review Group. It should be based upon a self-evaluation report completed by each HEI and following a formal meeting between each HEI and the Group.

Table 5 sets out descriptors to be used by the Group in making judgements on performance for the three categories of performance proposed.

Table 5 Descriptors for Judgement on Performance

LEVEL	DESCRIPTOR
High	Excellent progress against mission-coherent objectives is demonstrated through a robust, probing and analytical self-evaluation report and from other data sources. The institution demonstrates an excellent capacity to undertake peer scanning and benchmarking through a robust and probing self-evaluation report. The senior management team demonstrates an excellent understanding of the institution's position nationally and internationally and the ability to translate this understanding into enhanced institutional performance. The senior management team demonstrates an excellent ability to learn from past successes and failures and to translate that into policy decisions to meet current and future challenges.
Medium	Adequate progress against performance targets is demonstrated through a reasonably analytical and probing self-evaluation report and from other data sources. There is adequate understanding of progress against peer institutions demonstrated through a benchmarking process and reflected in a reasonably probing and analytical self-evaluation report. The senior management team demonstrates a developing ability and understanding of the implementation of benchmarking processes so as to enhance institution performance. The senior management team demonstrates that it is developing an ability to reflect on institutional performance and the underpinning decision-making processes that support enhanced institution performance.
Poor	No or little progress against performance targets is demonstrated through a descriptive self-evaluation report and no data supplied from other sources of information such as the QA process. No or little understanding of progress amongst peer institutions in the domains is demonstrated through poorly developed benchmarking techniques. No or limited ability by a senior management team to demonstrate a capacity to analyse and learn from the experiences of peer institutions. The senior management team displays no or a limited ability to reflect on institutional performance.

7.9 "WIN BACK"

Where an institution has not met its performance targets in part or in full and is to be subject to a funding penalty, it is recommended that the institution concerned be given an opportunity to "win back" any withheld funding. This is consistent with the objective of a PBF model of enhancing performance rather than penalising HEIs. This "win back" process can be done through the preparation by the HEI of a revised plan for consideration by the MES within 6 months of the funding decision. In that plan the HEI should outline how it proposes to address any deficiencies noted in the assessment process. Where, after further engagement, the MES decides to continue to withhold funding, it will be allocated to the successful HEIs in proportion to their current level of MES funding.

7.10 PUBLICATION OF REPORTS AND RELATED DOCUMENTS

A well-functioning PBF model provides increased transparency and accountability to the government and the public as institutions are required to be more explicit about overall institutional performance across areas such as teaching, research and engagement, and specifically with regard to, inter alia, identified indicators. PBF can also provide increased transparency and accountability within the institution itself and across the sector as a whole. To achieve that, there should be maximum access to all documentation used in the process. Transparency also brings into play the issue of institutional reputation and the fact that, as much as funding, reputational risk is a significant driver of institutional behaviour in PBF model.

It is recommended that the following documents be published (including on the MES website) and available to any interested party.

1. A statement of national strategic objectives for the higher education system
2. A statement of the performance indicators
3. Proposals from HEIs for a performance agreement
4. Reports on institutional ambition from the Performance Review Group
5. Self-assessment reports from the HEIs
6. Reports from the Performance Review Group on each HEI annual assessment
7. "Win back" proposals from a HEI from which funding is to be withheld and the conclusion of the MES

It is further recommended that at the end of each three year cycle the MES should publish an overall review of the performance of the higher education sector in the assessment period. This report should indicate how the sector has responded overall to the PBF model. In the case of each of the strategic objectives the report should set out where the sector exceeded, met or failed to meet objectives. The report should also address generic issues in the higher education sector such as funding, governance, future growth and development and any alteration to the strategic objectives for the next three year-round.

7.11 Effective Systems for Capturing and Using Data Nationally to Measure Performance

The systems for collection and monitoring of data are an essential element in implementing a performance funding system. This is a particular challenge for the implementation of this reform in the Georgian higher education system as the systems for data collection and analysis are seriously under-developed.

Currently, there is not a strong culture or systems in place regarding information management in the HEIs or nationally. Such systems would include a student record system, which could capture a wide range of data on all students in the publicly funded higher education system. A staff database is also an important element of such systems which would capture a range of indicators about staffing within the institutions. Each of these systems at institutional level would feed into a national data base at the Ministry. A national system for recording and analysing feedback from students and other stakeholders, through for example student and employer surveys, is also a valuable tool. The fact that these systems are not yet in place should not delay the development of a performance-based funding model as they can be developed in tandem with the development of the PBF model itself. There is also already capacity within the HEIs to identify a range of qualitative and quantitative metrics that can support PBF and that can be further developed as the model is applied. The model itself will evolve and develop as data sources and capacity for analysis become more sophisticated.

7.12 Challenges, Risks and Mitigation Strategies

There are challenges and risks associated with the implementation of a PBF model, as with any new funding model. The model should therefore be introduced in a phased way along the following lines.

The first round of dialogue with the HEIs should be regarded as a developmental and learning stage for all involved in the introduction of this very significant process. Attention should be given to training of some or all HEIs, especially those with less experience and capacity in strategic planning.

The first round should focus on mission, profile and strategy and on agreeing a set of challenging but realistic interim and final targets together with the indicators of success and a clear means of verification of these indicators.

There is a risk that a HEI will not engage with the process, or do so in an uncommitted way. To encourage HEIs to co-operate fully with the process it is recommended that the assessment of ambition and realism outlined earlier be conducted with potential financial consequences.

Institutions, particularly financially vulnerable ones, which do not obtain their performance related funding may be at risk of further financial difficulty. This can be safeguarded against through the opportunity for institutions to “win back” the funding at risk if unsuccessful on first assessment as recommended.

However, if still unsuccessful, an institution could stand to lose up to 3% of its voucher related funding. It would be counterproductive to penalise a financially vulnerable institution for poor performance, particularly if that poor performance is caused or compounded by financial difficulties. In such a case, the MES should review the position of the institution within the system, taking account of the need to ensure accountability of institutions. A potential positive consequence of such review is that institutions might be guided towards further consolidation within the system.

Another risk is that homogenisation of the system may be driven through the proposed assessment criteria. However, if the performance of institutions is assessed in the context of their mission this risk is lessened. Also, the Performance Review Group will require careful briefing to ensure that they appreciate fully national policy and risks.

Creation of a situation of valuing what is counted but not counting the valuable is particularly relevant in relation to quality and quality improvement, since not everything that counts can be measured. This requires a careful selection of performance metrics, an assessment of their potential for unintended consequences and on-going review.

Insufficient attention to fundamental but less easily quantified or assessed purposes of higher education, such as those related to the expansion of capacities to know, to understand, and to be of service, in favour exclusively of more quantifiable measures.

Care needs to be taken that the PBF model is not so all encompassing or so exhaustive of a HEIs resources that it leaves no time or resources for addressing other elements of the institution's mission

It is likely that there will be unintended consequences of a PBF model once implemented. The impact of these can be greatly lessened if the MES keeps the operation of the system under regular review, keeps an open consultation channel to the HEIs and adopts a flexible, pragmatic approach as soon as problems emerge. An interim review should be conducted after the first year with a full review done involving the Performance Review Group at the end of the first 3-year period.

A key underlying risk is the current low level of public funding for the public HEIs. In this report the team has referred to this on a number of occasions and recommended increased funding. The risk is that without adequate funding the HEIs will be put under such financial pressure that the prospect of successful reform will be undermined.

8. INDICATIVE PHASING AND TIMEFRAME FOR PBF

Work should commence on the design of a performance funding model, and continue in parallel with the proposed reform of the core funding model. Incorporation of a performance element into public funding model for Georgian higher education will be completed over a period of years. The following is an indicative timeline. The dates are inserted purely to give a sense of the time between different phases. It can be longer or shorter as the project progresses.

- During 2021-2022, the Ministry of Education and Science (MES) will continue to develop the model of performance-based funding in consultation with the HEIs, other Government Ministers and external stakeholders. The Ministry will also identify the national objectives on which the system will be based.
- During 2022 the MES will conduct a series of seminars/workshops to explain the system to the HEIs, their management, staff and students and external stakeholders, including other Ministries.
- By end 2022 the MES will issue to the universities a statement of the PBF process and what will be required by them, as well as a statement of national objectives and performance indicators. In addition, the MES will issue to the universities a sample format of the agreement that the universities are expected to prepare.
- The process will commence in 2023 leading to the conclusion of performance agreements between the MES and the universities by the end of that year. The agreements will cover the period 2024 - 2026.
- In each subsequent year, from 2025, performance in the previous year will be assessed and funding allocations made accordingly. In this first cycle the allocations will be notional only.

APPENDIX 1. GLOSSARY

Benchmarks in higher education refers to the practice of a HEI identifying another HEI or a number of HEIs against which to compare its performance in one or a number of its activities.

Block Grant refers to the funding that an HEI receives as core or basic funding and which they are free to apply to their operations as they decide.

Centralized data system refers to the practice of Ministries with responsibility for higher education putting place in the Ministry or in an agency a system for collecting data on the HE system such as student numbers, the distribution of students across disciplines, staff numbers financial information etc.

Clinical placement and practice refer to placing students who require practical experience of particular practices to be placed in an actual work place where that practice is undertaken. A typical example arises in the case of medicine.

Competitive Innovation Funding (CIF) operates, inter alia, as targeted or earmarked funding, competitive or strategic funding, project-based funding or as part of what may be called an excellence initiative. All these instruments basically aim to support and incentivize innovation and change in curriculum, teaching and learning or research or to encourage particular national strategic objectives.

Core or Basic Funding refers to the amount of public funding that remains largely stable over a specific period of time. The overall amount of the block grant may be determined in different ways, for example on the basis of student numbers and/or through negotiation, incrementally on a historical basis, or via a funding formula.

Differentiated funding refers to the practice of providing public funding to HEIs which reflects the relative cost of delivery of academic programmes.

International mobility means the movement of students from their home country to another country to pursue either a module of a course or a full course. In the case of staff, it means the engagement of staff from a country other than their home country.

Internship means the position of a student or trainee who works in an organization, sometimes without pay, in order to gain work experience or satisfy requirements for a qualification

Open access publications refer to freely available, digital, on-line information and access to scholarly literature. It usually carries less restrictive copyright and licencing barriers than traditionally published works for both users and the authors.

Peer review means evaluation of scientific, academic, or professional work by others working in the same field.

Performance Agreements are contracts or compacts between government and individual higher education institutions which set out specific quantitative and/or qualitative goals that institutions will seek to achieve in a given time period, and which may be (but not necessarily) linked to institutional funding.

Performance-based Funding (PBF) refers to the practice of linking a percentage of institutional funding to outputs or outcomes normally stated in a performance agreement. It can be used simply as a mechanism to distribute money or to steer, incentivise or influence institutional activities or behaviour and/or increase the performance of universities. In many instances, funding is linked to specific policy goals.

Smart Specialisation advocates a place-based approach to focusing innovation investment on a few, carefully chosen priorities, where the impact can be greatest.

Unit Cost is the cost attributed to each programme in an HEI. See Appendix 2.

Voucher funding model refers to the practice of funding higher education through a notional “voucher” or fixed sum applying to each enrolled student on the basis that funding follows the student as currently employed in Georgia.

APPENDIX 2. UNIT COSTING IN HIGHER EDUCATION

Unit cost funding systems measure, monitor and communicate the relative costs per student or per graduate in different study disciplines. They can also make visible the full costs of research, some of which are often hidden and not fully funded. They are used to inform decisions about funding allocation, pricing of study programmes and of research bids, managing costs and admitting students. They can be used to determine the overall level of funding for higher education in the context of an agreed basic unit cost at a point in time, together with an allowed annual inflator or target investment growth factor, and a target student number derived from a target HE attainment level, participation rate or other measure of informed student demand.

In a system for grant funding at the level of HEIs, unit costs are most often used to set a number of price tariffs or rates of funding-per-student which provide the basis for a block grant allocation that reasonably reflects the relative costs of different disciplines and levels of study. The aim is to provide allocations that are rationally derived, equitable between institutions and relatively predictable and stable over a three-to-five-year funding horizon within which institutions can plan and manage resources. The block grant is usually the main element of a grant allocation system for HEIs that could also include grants to support strategic steering and performance improvement and a separate but inter-connected research funding system with prioritised, competitive and underpinning elements. Funders need to be able to see that their objectives are being supported by core, incentive and performance funding, all working together. Together with income from tuition fees and other services, these grants comprise the annual budget of the institution. A needs-based student support system in which there may be grants and loans for living expenses and tuition fees, often operates separately, to support access to programmes of study that is determined on the basis of academic merit.

It is possible to incorporate within formula funding some incentives in the form of above-cost-premiums to support for example growth in access or in priority labour market skills, or conversely to drive productivity in the form of a cost-minus-x factor. These premia/efficiency factors should be made explicit, and should be few in number if they are to influence behaviour. Unit cost funding formulas are essentially supply-side tools and should not be used to address demand side constraints – e.g., providing an above-cost STEM premium to increase STEM graduate output if the main constraint is a shortage of high-school applicants qualified in mathematics, is likely to be wasteful and ineffective.

A measure of relative international benchmarking can be incorporated by pegging tariffs to those of international comparator countries in relevant HE systems. This is particularly useful where there is some acknowledged anomaly in the home country cost structure that need to be addressed.

Measurement of Costs

Costs are attributed or tracked to some academic unit - a Faculty, Department, School and from there perhaps to programmes or student. At each level they can be divided by the number of units – usually full-time equivalent student numbers counted at a particular point in the academic cycle. An enhanced focus on outcomes can be demonstrated by taking the count of student numbers who persist until the end of their programme or of the academic year or who successfully complete a stage or graduate.

Direct costs of academic units (faculties etc.) will often account for more than 50% - 60% of overall costs. These direct costs will normally be allocated to study areas or to programmes or to teaching and research in proportion to academic time. Indirect costs such as the costs of academic and student support services, premises and estate costs, library and information services costs can next be allocated using rational drivers such as the proportion of square meters occupied by the unit, or in proportion to use of the service by students and staff of the unit. The remaining balance of overhead costs can be apportioned as a flat per student amount.

The most significant drivers of the direct costs of faculties or departments are academic time and class group size, reflecting staff: student ratios. Academic time profiles can be derived using ongoing surveys of statistically representative samples of staff or by periodic surveys of all staff. Recognising the need for normalisation and optimisation, costing systems can be designed to allocate academic staff time by harnessing already existing data harvested from systems such as timetables, payrolls etc. and combined with reasonable assumptions and norms for academic workload allocation and class group

size agreed with academic leaders. It needs to be decided also how often costs will be collected bearing in mind that their main function will be to inform stable cost relativities for funding.