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The Modernisation of Higher Education Institutions procedure in Bulgaria: Lessons for education programming

Interim Evaluation

OECD

The Modernisation of Higher Education Institutions procedure in Bulgaria: Lessons for education programming

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Foreword

This report is an output under the OECD's agreement to support the Evaluation Plan of Bulgaria's Programme "Education" 2021-2027.

Thomas Weko was the lead evaluator and author of this report. Zhasmin Avetisyan conducted significant research and analysis and contributed as co-author to several sections of the report. Cassie Hague led and coordinated the process, offering support and editorial guidance throughout and co-authoring some sections of the report. Administrative support was provided by Pirkko Kokkosalo and Christina Mitrakos. Rachel Linden coordinated the report's production.

The report was prepared with oversight from Elizabeth Fordham, Deputy Head, and Paulo Santiago, Head of the Policy Advice and Implementation (PAI) Division within the Directorate for Education and Skills at the OECD, under the leadership of Andreas Schleicher. The authors are grateful for the oversight provided by the OECD's Education Policy Committee (EDPC).

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Executive Summary

This report provides an evaluation of Bulgaria's "Modernisation of Higher Education Institutions" procedure, which ran between 21 August 2020 and December 31, 2023. The procedure was co-financed by the European Social Fund (ESF), European Regional Development Fund (ERDF), and the national budget and implemented under the Operational Programme "Science and Education for Smart Growth" 2014-2020 (OPSESG). The primary goal of this report is to derive lessons from this completed activity to inform the implementation of higher education initiatives under current and future European funding programmes.[1]

In summary, the evaluation finds that the Modernisation of Higher Education Institutions procedure, with a total funding of BGN 52 million (EUR 26.6 million), was broadly responsive to key needs within Bulgaria's higher education system and aimed to drive much-needed changes in its higher education institutions (HEIs). Its efforts to drive change were partially successful. It expanded the availability of continuing professional development in HEIs, widened the adoption of digital technologies, stimulated the adoption of competency-based programmes, and encouraged HEIs to recognise the benefits of collaboration in curriculum and teaching.

However, statutory and funding provisions created challenges for effective implementation. Fewer, clearer priorities could have reduced the administrative burden and by concentrating grants towards the achievement of fewer aims, may have led to more systemic impact. Addressing a broad range of priorities within one activity introduced complexity throughout the activity's lifecycle, from the assessment of applications to performance reporting. While diligent adherence to ESF administrative procedures ensured transparency and impartiality, more in-depth and sustained input from higher education experts and stakeholders might have prevented some implementation challenges. There is much to be learned from the experience of the Modernisation activity that can be used to strengthen the higher education activities of both current and future education programming in Bulgaria.

1 Overview

Key findings by evaluation criteria

This section provides the key messages of this report under the evaluation criteria of relevance, coherence, effectiveness, efficiency, sustainability, and EU added value.

Relevance

- The main aims of the Modernisation activity — advancing digitalisation, competency-based education, internationalisation, collaboration in the development of joint degree programmes, and the professional development of academic staff — were closely aligned with key objectives of Bulgaria's Strategy for the Development of Higher Education in Bulgaria 2021-2030 and built on other national (e.g. the National programme for development "Bulgaria 2020") and European initiatives.[2] For example, Modernisation aimed to contribute to the broader goal of establishing a competency-based approach in higher education[3] (Ministry of Education and Science, 2021[1]), helping to develop competency profiles for each specialty that reflect the demands of digital transformation, mobility, and a dynamic labour market. It also promoted key competencies, such as foreign language proficiency and digital literacy among academic staff, and aimed to strengthen graduates' abilities in critical thinking, teamwork, leadership, and problem-solving. In addition, the procedure supported the objective of improving education in modern digital technologies and strengthening links across disciplines[4], including the development of hybrid disciplines that bring together expertise from multiple academic fields. It also aimed to reinforce university-business cooperation[5], particularly through industry involvement in curriculum development and contributed to the expansion of digital learning, e-learning platforms, and interactive educational resources. While relatively small in scale, representing only 3% of total public HE institutional revenues, Modernisation contributed to many of the objectives set in the Strategy[6].

Coherence

- The Managing Authority developed the Modernisation activity with careful adherence to ESF and national procedural guidelines, as outlined in decrees issued by the Bulgarian Council of Ministers and applicable across government. These processes ensured strong transparency and fairness in application, evaluation, and project selection. While the planning and design of the activity included formal public consultations, there were limited opportunities to incorporate specialised higher education expertise beyond these processes. As a result, the procedure could have benefited from more expert advice, particularly around the conditions, constraints, and opportunities that would surround the implementation of the Modernisation procedure. There was some incoherence between Bulgaria's policy framework and key activities of the Modernisation activity, and more expert advice may have prevented both this incoherence and the resulting difficulties in the implementation of key project activities.

Effectiveness and efficiency

- The Modernisation procedure included a broad and heterogenous set of priorities and project activities. Its wide scope, combined with the Managing Authority's commitment to an impartial process of assessing and selecting proposals, led to the adoption of a methodology that relied on quantitative indicators and mathematical formulae to assess proposals. This effectively minimised opportunities for partiality. However, the reliance on mostly quantitative indicators weakened the connection between the assessment process and the procedure's broader quality-orientated goals. Incorporating more qualitative indicators could have facilitated a broader assessment of the overall logic and quality of project proposals.
- The activities to which beneficiaries committed themselves in their project proposals were, in some cases, slower to be implemented than anticipated and some of the most important planned activities (e.g. mobility) were eventually carried out below initially planned levels. Beneficiaries unanimously reported that project implementation was aided by the attentive support of Managing Authority staff, and that implementation problems arose instead from impediments posed by the legal and budget framework within which they worked, as well as by the difficulty of adapting their projects to new and unanticipated challenges and opportunities. In addition, the COVID-19 pandemic limited the ability of beneficiaries to implement planned activities as originally envisioned, constrained mobility and face-to-face collaboration, and necessitated adjustments to working methods which posed additional challenges for both planning and execution of the Modernisation activities.
- Monitoring data were collected to ensure that the funds provided to beneficiaries were correctly spent and to monitor the achievement of performance indicators agreed between the Managing Authority and beneficiaries. Performance data measured levels of activity, such as the number of persons engaged in training, or the preliminary result of activities (course completion, advancement to further training etc.). However, plans were not made for the creation, collection, or retention of data about the outcome of project activities to be used for evaluation, such as surveys of training participants or assessments of learning gains. This makes it more difficult to evaluate the outcomes of the Modernisation procedure.
- It is possible to reach some tentative assessments of the procedure based on interviews with higher education project managers and academic staff who implemented projects. Together their comments suggest Modernisation was only partially successful in achieving its most ambitious aim of transforming HEIs through collaboration in the development of degree programmes and the adoption of competency-based teaching and learning. In contrast, the Modernisation activities achieved their fullest success where the country's policy landscape posed no impediments to their implementation. For example, where activities helped to advance initiatives already underway in HEIs, such as digitalisation of educational content and integration of the cloud environment or provided HEIs with an opportunity to offer services and supports like training and mobility programmes, which are often under-provided relative to demand from faculty.

Sustainability/EU added value

- The sustainability of some Modernisation activities remains a challenge, as fewer than half of newly developed joint programmes are expected to continue long-term. While support for professional development and mobility brought meaningful benefits, particularly for smaller universities, further adaptation may be needed to ensure their longevity. However, even when activities did not continue, they contributed to positive shifts in collaboration across institutions, and EU funding played a key role in enabling the scale of implementation for certain initiatives, such as competency-based and joint programmes.

Promising practices

The project demonstrated several promising practices that could be built upon in future initiatives.

Public participation and feedback: The procedure provided *ample opportunities to submit public comments* on the methodology and criteria for selection of beneficiaries, as well as the guidelines for applicants, with detailed written feedback provided to all commenters.

Expanded professional development for academic staff: There was an important *expansion of professional development opportunities* for academics that focused on enhancing language and digital skills, beneficial to their responsibilities as teachers and researchers. These skills are crucial in an increasingly digital teaching and learning environment.

Investments in digital infrastructure: The project supported investments in technologies ranging from cloud computing to the acquisition of specialised software. This helped to *expand the capacity of HEIs for digitally-enhanced teaching and research,* laying some foundations for longer-term digital transformation.

Inter-institutional collaboration: The project made an important start in demonstrating the feasibility and mutual benefit of collaboration between *HEIs in sharing responsibility for curriculum development and teaching*. This approach allowed universities to form partnerships through which they can share expertise, resources, and best practices.

Competency-based curriculum design: Moving towards a *competency-focused redesign of curriculum and pedagogy* aligned with the skill demands of professional practice and proved attractive to students, instructors, and employers.

Lessons and recommendation

The experience of the Modernisation procedure is the basis for two sets of recommendations and action steps at the end of this report to further strengthen procedures in higher education, both for Programme “Education” and future educational programming and policy-making in Bulgaria.

- The first set of recommendations are made across the sequence of steps involved in launching a procedure, including: (1) identifying the focus and scope of the activity; (2) engaging experts and stakeholders; (3) identifying evaluation needs; (4) developing the selection criteria and methodology; (5) establishing a supportive implementation environment; and (6) learning throughout the life of the activity.
- The second and final set of recommendations are related specifically to two upcoming higher education activities within the current ESF+ funded Programme "Education" (2021-2027). The report notes that the “Access to Higher Education” procedure (as presently planned) is a comparatively simple activity with a narrow scope of well-understood tasks, and likely to be well-served by a competitive procedure. Conversely, it suggests that the upcoming PE “Strengthening the Competence Approach in Higher Education” (Competence) activity may be more appropriate for a direct award procedure, owing to its scope and complexity. However, both activities would benefit from incorporating key lessons from the Modernisation procedure, including, among others, improving the depth and span of consultation, reducing the scope of tasks included within the procedure, and designing the activity with evaluation in mind.

Definitions

This section outlines how a number of key terms are used in this report:

Programme – An Operational Programme (OP) is a document that outlines how a member state will use European Structural and Investment Funds (ESIF) resources within a specific programming period. It serves as a detailed plan for implementing the strategic objectives set forth in the broader National Strategic Reference Framework (NSRF) and the Partnership Agreement with the European Commission. Under its partnership agreement with the European Commission, Bulgaria is implementing ESF+ via three national programmes with a total of EUR 2.6 billion in ESF+ (EUR 3.14 billion with national co-funding).

Programming period – The duration of an agreed European Social Fund (ESF) programme typically aligns with the EU's multiannual financial framework (MFF) and can vary depending on the specific programme and its objectives. Operational Programmes typically have a duration of seven years. The current programming cycle covers 2021 to 2027, following the EU's MFF.

Programme "Education" 2021-2027 – Programme "Education" (PE) is the Programme for the period 2021-2027 agreed between the Bulgarian Government and the European Commission, with a budget of nearly EUR 1 billion (ESF+ and national co-funding). It was preceded by the 2014-2020 Operational Programme "Science and Education for Smart Growth" (OPSESG).

Procedure – Operational Programmes are implemented through grant procedures, i.e., protocols governing project application and selection financial management, monitoring, and evaluation. An announcement of a grant application procedure for the submission of grants through the selection of project proposals initiated the "Modernisation of higher education institutions" procedure.

Project – Projects are the discrete units of work that are implemented under the scope of a procedure. They are specific, time-bound initiative designed to achieve particular results that contribute to the broader goals of an Operational Programme. The procedure "Modernisation of Higher Education Institutions" under OPSESG funded a total of 17 projects.

Activity – Each project is comprised of a number of activities. Activities are funding initiatives undertaken to achieve the programme's goals. All or part of the activities under one procedure can be implemented in a project. Modernisation of Higher Education Institutions was a procedure initiated under OPSESG with the aim of achieving its higher education goals under Priority Axis 2 on "Education and Lifelong learning" (Executive Agency "Programme Education", 2020[2]).

Grant-making process – The term "grant-making process" is used in this report to describe the entire sequence of actions that takes place following the approval of an Operational Programme – from initial conceptualisation of a competitive procedure to the completion of each project within the procedure.

Managing Authority – The national body that manages an Operational Programme (OP) is typically referred to as the Managing Authority. Following adoption of PE, the Bulgarian Managing Authority was renamed to Executive Agency "Programme Education". The Executive Agency is a second-level budget spending unit to the Ministry of Education and Science and is structured in six directorates with territorial units in 11 regional cities.

Beneficiary – An entity or organisation that directly receives funding from an Operational Programme to implement a project or activity. Beneficiaries can include public or private institutions, such as universities, research institutes, non-profits, or other stakeholders tasked with carrying out specific initiatives under a grant procedure.

2 Introduction, Background and Context

This report provides an evaluation of Bulgaria's "Modernisation of Higher Education Institutions" procedure (BG05M2OP001-2.016) (henceforth, Modernisation), which ran between 21 August 2020 and December 31, 2023. The project was co-financed by the European Social Fund (ESF)[7], European Regional Development Fund (ERDF), and the national budget and implemented under the Operational Programme Science and Education for Smart Growth 2014-2020 (OPSESG).

The report is provided under the agreement for the OECD to provide support for the evaluation plan of Bulgaria's Programme "Education" (2021-2027), which is co-financed by the European Social Fund Plus (ESF+) and developed according to the requirements of Regulation (EU) 2021/1057.[8] Whilst this report evaluates the Modernisation procedure that took place under the previous programming period, its focus is forward-looking: it aims to provide interim lessons to inform the design and implementation of future programming, including the higher education activities under Programme "Education" (2021-2027).

To that end, the report provides an independent, external, and focused assessment of how the Modernisation procedure was designed and implemented, and the results it achieved. The findings aim to take stock of Modernisation's achievements and limitations, so that this experience can be drawn upon in designing and implementing current and future ESF+ supported procedures for the country's higher education system.

The report contains four parts. Part 1 presented an overview of the key findings. Part 2 provides the background and context for this evaluation, outlining basic features of the Bulgarian higher education system that are relevant to the evaluation. It also provides an overview of the Modernisation procedure and outlines the evaluation method and evidence used in this report. Part 3 presents findings relevant to each stage of the Modernisation procedure, from its planning and design to its implementation and outcomes. Part 4 provides a conclusion and recommendations for future higher education activities within PE and for future programming.

The Evaluation Context

This section outlines some of the main features of Bulgaria's tertiary education landscape that are relevant to understanding the Modernisation procedure and its objectives, as well as the higher education activities that are planned for the current programming period 2021-2027.

The higher education landscape in Bulgaria

About half of Bulgaria's universities are small and Bulgaria lacks practice-focused institutions

Bulgaria is home to 51 tertiary education institutions, including 38 public and 10 private universities and specialised higher education institutions (HEIs) and three independent colleges (NSI, 2024[3]). As of 2024,

the Council of Ministers has designated twelve public HEIs as “research institutions”. Additionally, there is a notable presence of very small and specialised institutions. Nearly half of public institutions enrol fewer than 2 000 students, provide only a few programmes of study, and undertake little research activity — yet all host doctoral study (PhD) programmes. Bulgaria does not have a distinctive network of institutions focused on practice-based, professional learning, which are known elsewhere as polytechnics, universities of applied science, or *Fachhochschulen*.

Bulgaria has made substantial investments to modernise its tertiary system and strengthen its research sector

Since transitioning to a market-based parliamentary democracy, Bulgaria has renewed and strengthened its tertiary education system through substantial investments and the adoption of innovative policies. It has steadily increased tertiary attainment, improved the research and innovation performance of institutions, and worked to better align educational provision to labour market demands. Informed by European norms and international best practices, Bulgaria’s policy framework now gives tertiary institutions greater intellectual and managerial autonomy, uses transparent and performance-focused budgeting, and provides students with robust information to help them make informed study choices.

Bulgaria’s reform strategy for tertiary education has placed a strong emphasis on improving research and development to enhance international competitiveness and industry partnerships. For example, under OPSESG Priority Axis 1, Research and Technological Development, Bulgaria invested ESF, ERDF, and matching national funds of approximately EUR 200 million in six Centres of Excellence and ten Centres of Competence. These Centres focus on establishing collaborative research and innovation in areas of national priority, bringing together universities, public research institutes, and firms. These reforms aimed to address persistent challenges in research capacity within HEIs, some of which struggle to meet international research standards. For example, 25 institutions with low research intensity account for only 2.7% of the country’s Web of Science publications, reflecting a fragmented research sector (European Commission, 2024[4]). To strengthen it, Bulgaria has allocated EU and national funding to support shared infrastructure for technology transfer and start-up incubation.

Equitable access remains an issue and skills mismatches have made it difficult for employers to find workers with the right skills

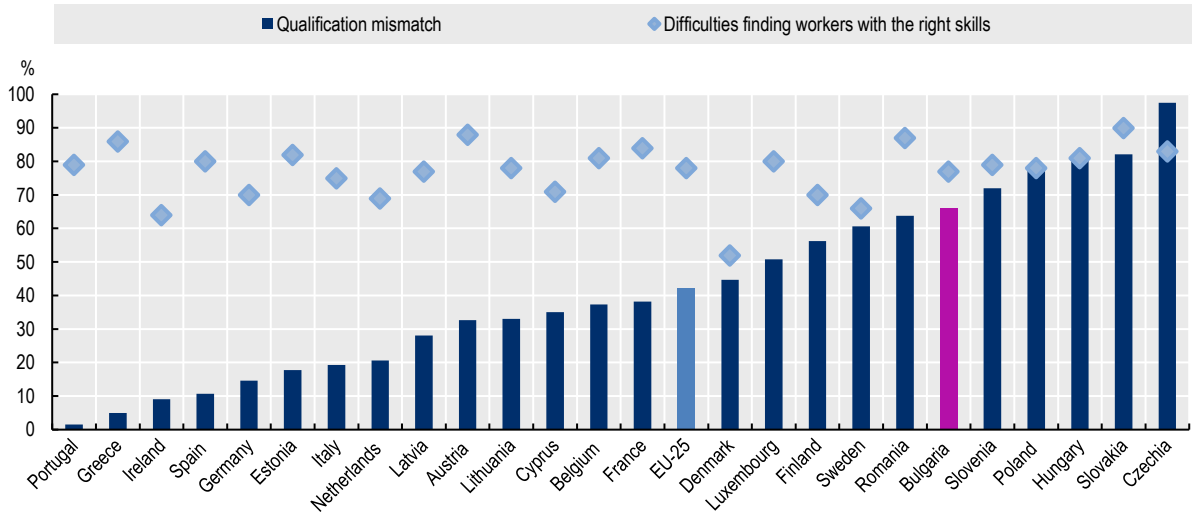
While tertiary attainment has improved, it still falls below EU and OECD averages. In 2023, 30.5% of Bulgaria’s 25–64-year-old population had completed tertiary education, compared to 37% in the EU and 41% in the OECD countries (OECD, 2024[5]). Inequality in access to higher education is also more pronounced in Bulgaria than in some other countries, especially for disadvantaged and ethnic minority groups. For example, 80% of working-age adults whose parents hold a tertiary degree also have one themselves - a rate higher than the OECD average of 72%. In contrast, only 5% of those whose parents have not completed an upper-secondary qualification attain a tertiary degree, well below the OECD average of 19% (OECD, 2024[6]).

There is also a considerable scope to modernise study programmes, adopt innovative pedagogical practices, and better align graduate capabilities with the emerging skill demands of the labour market (see Figure 2.1). Skills shortages and mismatches are among the biggest challenges that employers in Bulgaria face, with 77% struggling to find workers with the right skills – an issue common across EU countries. Low participation in adult learning (9.5% in Bulgaria compared to 39.5% in the EU in 2022) and weak digital skills (35.5% compared to 55.5% in the EU in 2023) further limit employability and productivity (European Commission, 2024[7]). A 2023 EU-wide survey found that almost 80% of Bulgarian SMEs reported skills shortages not allowing them to conduct general business activities effectively (European Commission, 2023[8]). These shortages are worsened by a demographic decline —Bulgaria’s working age population (15-64 years old) shrank by 19.1% between 2011 and 2021.

One factor contributing to these challenges is the relatively traditional approach to teaching and learning in Bulgaria's tertiary system. Instruction has largely focused on classroom-based methods that emphasise the acquisition and reproduction of theoretical knowledge rather than practical competencies. Study programmes have been structured around long-standing academic disciplines, without wide-spread emphasis on developing the competencies needed for professional practice. Pedagogical approaches like problem-focused and project-based learning are not yet commonly used, and digitally enhanced teaching and learning methods remain modestly used. HEIs currently also offer limited continuing professional development to help academic staff build or renew their digital and pedagogical competencies.

Figure 2.1. Bulgaria has a higher qualifications mismatch than many other EU countries

Share of qualification mismatch and employers facing difficulties finding workers with the right skills



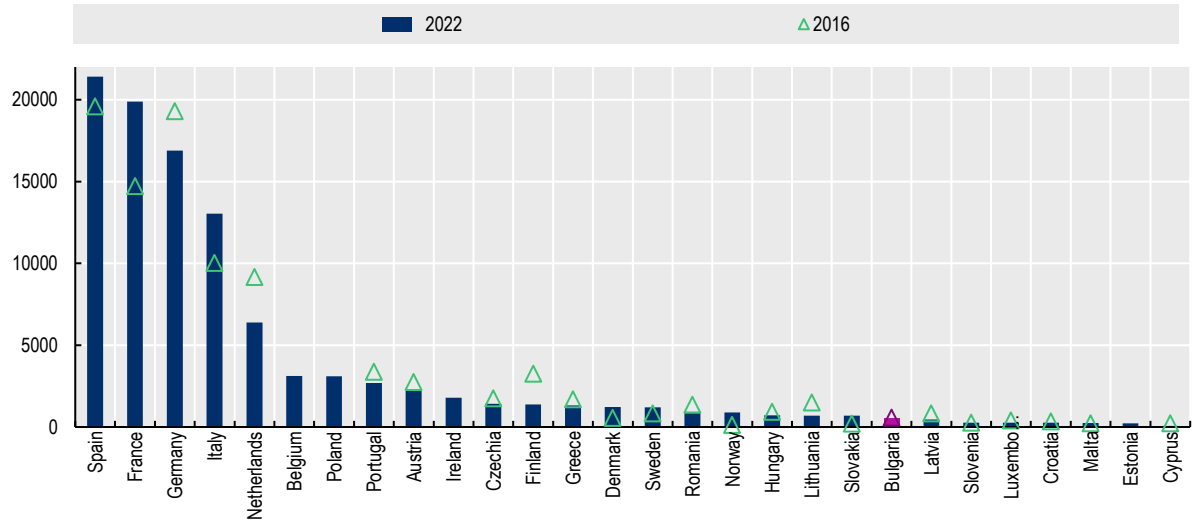
Note: Countries are ranked in ascending order of the share of qualification mismatch. Qualification mismatch refers to the extent to which each employee's education attainment level matches the modal education attainment level for each occupation in each industry.
Source: CEDEFOP (2024[9]), *Skills matching: European skills index*, https://www.cedefop.europa.eu/en/tools/european-skills-index/skills-matching; European Union (2023[10]), *SMEs in Europe struggle to find workers with the right skills: European Year of Skills*, https://year-of-skills.europa.eu/news/smes-europe-struggle-find-workers-right-skills-2023-11-07_en

Bulgaria's higher education system remains relatively underdeveloped in terms of internationalisation

In the view of the government's *Strategy for the Development of Higher Education*, the system is insufficiently internationalised, with limited mobility and participation in international research networks for both students and faculty. While many Bulgarian students pursue degrees abroad —9.1% of all tertiary students in 2022 (OECD, 2024[6]) —short-term credit mobility remains low (see Figure 2.2). Fewer than 5% of students participated in exchange programmes such as Erasmus+ in 2021, below the EU average of about 10% (European Commission, 2024[11]). Faculty mobility is also limited, with Bulgaria ranking among the lower-performing EU countries in terms of staff participation in international teaching or research exchange schemes. Limited institutional partnerships further constrain Bulgaria's position in global academic networks. Collaboration among tertiary institutions, and firms has also been largely absent from the Bulgarian landscape, with few joint research projects or industry-linked international initiatives.

Figure 2.2. Credit mobility among Bulgarian undergraduate students remains low

Credit mobile students (at least 3 months abroad) of bachelor's students 2016-2022



Note: Only credit mobility under EU programmes (i.e. ERASMUS or other EU programmes) are included. Countries are ranked in descending order of the total number of credit mobile students for 2022. Data for Belgium, Poland, Ireland, and Estonia is missing for 2016.
Credit mobility refers to the process through which students study abroad for a period of time while earning academic credits that are recognised by their home institutions.
Source: Eurostat (2024[12]), *Credit mobile graduates (at least 3 months abroad) by education level, type of mobility scheme, type of mobility and sex*, https://doi.org/10.2908/EDUC_UOE_MOBC01

ESF and ESF+ operations in higher education – including the Modernisation procedure and the planned Strengthening the Competence Approach in Higher Education procedure – aim to address these challenges. They seek to promote deeper collaboration in education, and the development of curriculum and pedagogy that cultivate skills that are adapted to the emerging needs of Bulgaria's economy.

The "Modernisation of Higher Education Institutions" procedure

This section provides an overview of the "Modernisation of Higher Education Institutions" procedure, including its objectives and scope of planned activities, funding level, and the evaluation criteria and methodology used to assess and rank proposals for competitive grants.

Objectives and Design of the Procedure

Modernisation was one of six procedures under OPSESG (2014-2020) aimed at improving higher education in Bulgaria. Its objective was "to achieve a dynamic match between the supply and demand of specialists with higher education by introducing a competency model, multi-disciplinarity and interdisciplinarity in the training of students, including through the wide application of digital transformation of education" (EAPE, 2020[13]).

Modernisation was designed to support three groups of activities for higher education institutions (HEIs):

1. **Modernisation of educational documentation** (which specifies qualifications, curricula, and schedules for programmes in selected fields) so that it reflects the adoption of a competency model, multi- and inter-disciplinarity, digital education content, and electronic resources and cloud technologies in education.

2. The **professional development of academic staff** through training in world languages and digital technologies, short-term exchanges and sharing lecturers among partnered tertiary institutions.
3. **Career guidance** for students, and **outbound mobility** for students, including post-graduate, PhD and post-doctoral, as well as young scientists, researchers, and scientists.

Within these three groups, the Modernisation procedure further specified a total of 15 eligible activities. For example, the modernisation of educational documentation included the activities below, with numbers 1-3 focusing on the development of the educational programmes using interdisciplinary content and competency-based framework, while 4-6 address the technological infrastructure needed to support these programmes through digital tools, resources, and equipment.

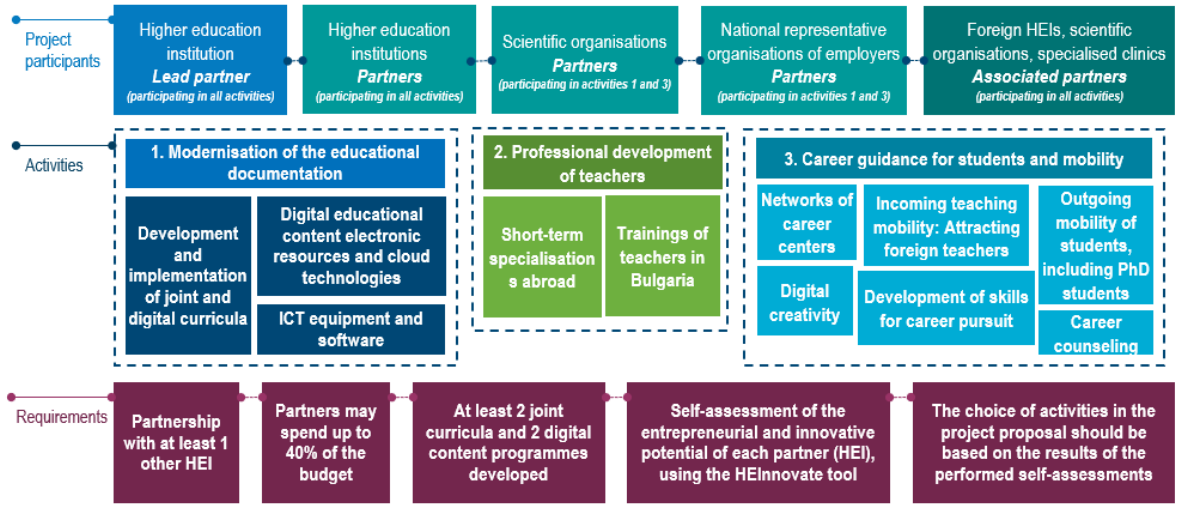
1. Development and implementation of joint curricula with partner foreign or Bulgarian universities and/or the industry, with the issuance of joint diplomas.
2. Development and implementation of joint curricula for training in a foreign language with the associated international or national partners.
3. Development and implementation of programmes with digital educational content, including for distance learning.
4. Creating digital educational content to facilitate continuous intellectual engagement and enable electronic distance learning.
5. Implementation of digital educational content, electronic resources, and cloud technologies in the actual educational and teaching processes, including setting up virtual universities, labs, or classrooms to improve learning environments.
6. Purchase of software and/or ICT equipment necessary for the development and implementation of digital educational content and programs and for the implementation of cloud technologies in the educational process.

To ensure broad impact across the tertiary system, HEIs were allowed to participate in one project proposal as a lead candidate and in no more than five as a partner (EAPE, 2020[13]). Joint project activities were planned in direct collaboration with the partner HEI or scientific organisations, and the aim was to ensure that activities addressed specific needs and aligned with the capacities of the participating HEIs. The Modernisation procedure also aimed to encourage greater educational collaboration by incentivising HEIs to share their human, financial, and material resources in unprecedented ways. To achieve this, proposals were required to include at least one Bulgarian HEI partner and develop at least two joint programmes and two programmes with digital educational content, including for distance learning (EAPE, 2020[13]).

National representative organisations of employers and employees could also participate as partners in project proposals for some activity groups (see Figure 2.3**Error! Reference source not found.**). Foreign universities, foreign scientific organisations, and foreign specialised clinics were eligible as associate partners, meaning that they could participate in the implementation of the activities, but could not access grant funds. Planned project activities also needed to be addressed to the needs of the partner universities or scientific organisations involved in their implementation.

To target innovation and collaboration in areas of highest national priority, potential beneficiaries were invited to focus their proposal on “priority professional fields,”[9] including but not limited to medicine and economics. They were also required to demonstrate how the proposed activities would improve their ranking in these fields in the Bulgarian University Ranking System (EAPE, 2020[13]), which assesses factors such as research performance, teaching quality, and labour market relevance (https://rsvu.mon.bg/#/).

Figure 2.3. Overview of the Modernisation activity, including project participants, activities, and requirements



Source: Executive Agency "Programme Education" (2021[14]), *Round-table meeting between the EIT community and key Bulgarian national stakeholders.* https://sf.mon.bg/?go=news&p=detail&newsId=990

Funding of the Modernisation Procedure

The Modernisation procedure was funded at about EUR 26.6 million, of which 85% (EUR 22.9 million) was provided by ESF fund, and 15% (EUR 4.1 million) came from national co-financing (EAPE, 2020[13]). The maximum grant amount for projects ranged from around EUR 1 million to 2.6 million, depending on whether institutions had fewer than or more than 5 000 students and PhD candidates, respectively.

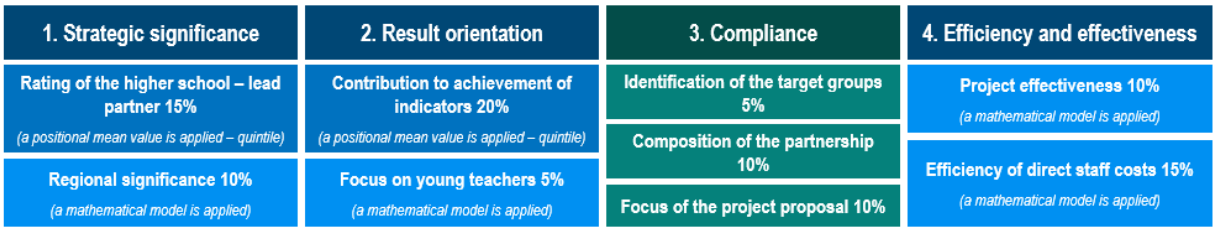
Application Criteria, Evaluation, and Selection

A draft methodology and criteria for selecting projects under the Modernisation procedure was published for written public comment. The Monitoring Committee, the body responsible for the review and approval of proposed procedures within the OP, approved the procedure in May 2020 (EAPE, 2020[13]). The final "Guidelines for Applicants" were published on 21 August 2020, with an initial deadline for submission of proposals of 23 November 2020, later extended to 14 December 2020. Applicants had the opportunity to request clarification on the guidelines until three weeks before the application deadline, with questions and responses published on the Managing Authority's website (http://opnoir.bg).

A total of 35 project proposals were submitted in EUMIS system, followed by two stages of assessment by the Managing Authority: first, administrative compliance and eligibility evaluation, and second, a technical and financial evaluation (EUMIS, 2020[15]). Administrative compliance and eligibility were assessed against 17 and 35 criteria, respectively. The technical and financial evaluation of the project proposals was based on four "assessment levels" (i.e. groups of criteria): strategic importance, results orientation, compliance, and effectiveness and efficiency. Each "assessment level" contained two to three criteria and was assigned a 25% weight in the overall evaluation of the project proposal (see Figure 2.4).

Figure 2.4. 75% of the technical and financial evaluation is based on criteria using positional mean values and mathematical models[10]

Each criterion weights 25% of the overall evaluation of project proposal



Source: Executive Agency "Programme Education" (2020[16]), Methodology and selection criteria for the operation "Modernisation of higher education institutions", https://sf.mon.bg/?go=committee&p=records

For example, the "strategic significance" criterion had two sub-criteria: "Rating of the candidate higher education institution" and "Regional significance" (EAPE, 2020[16]). The first was based on the institutional rating derived from the Bulgarian university ranking system, which also guides annual state funding allocations. By linking future funding to an institution's established performance, this approach increases the likelihood that institutions already receiving funding will secure additional support, which in turn, may improve the likelihood of achieving result indicators. While this may provide greater funding stability, it also raises some questions. For instance, effectiveness, a key measure of impact, carries less weight than institutional rating, which may not fully reflect a project's broader implications. The emphasis on young teachers as part of the result orientation criteria—despite their relatively small share of academic staff—may not align with institutional needs, especially given the aging faculty workforce in Bulgaria.

The second sub-criterion, regional significance, measured the share of direct eligible costs that are directed to activities outside the territory of Sofia city (see Box 2.1). Both sub-criteria were operationalised using quantitative indicators, with mathematical formulas applied to calculate project points objectively. Project proposals scoring above 60 points were eligible for funding.

Box 2.1. Example of a criterion used to evaluate and select project proposals

The share of direct eligible costs allocated to activities outside Sofia is calculated using the formula:

> *Σ = (value of the direct eligible costs that relate to the main units of the applicant and the HEI partners located outside the city of Sofia/the total value of the direct eligible costs of the project) * 100*

Based on the extent to which a project meets this criterion, the evaluation committee members assign a score from the rating scale (see Table 2.1), with a maximum of ten points for *regional significance*.

Table 2.1. "Regional significance" criterion and fulfilment requirements

	Degree of fulfilment of the criterion	Scale for evaluation
1.1.	More than 60% of the direct eligible costs of the project are for activities aimed at higher education institutions located outside the city of Sofia.	10
1.2.	Between 30% and 60% of the direct eligible costs of the project are directed to a higher education institution(s) located outside the city of Sofia.	5
1.3.	Less than 30% of the direct eligible costs of the project are directed to a higher education institution located outside the city of Sofia.	1

Source: Executive Agency "Programme Education" (2020[17]), Instructions for technical and financial appraisal of projects for the selection of project proposals "Modernisation of Higher education institutions", https://sf.mon.bg/?go=committee&p=records

At the conclusion of the review in March 2021, 17 project proposals were approved for funding, with each project receiving a grant amount ranging from BGN 0.8 to 5 million, depending on the total number of active students and PhD students at the applying higher education institution (EAPE, 2020[13]). Contracts with successful applicants were established by mid-July 2021, enabling beneficiaries to begin activities and expenditures. All activities were to be completed by 31 December 2023. Beneficiaries submitted technical and financial reports twice a year, the former containing evidence of progress in achieving agreed activity and results indicators,[11] such as the number of joint study programmes established, or training activities completed. The Managing Authority also carried out intermittent on-site inspections and documentary checks of submitted reports.

The higher education activities and procedures of Programme "Education"

This report aims to inform the higher education activities that will take place under the current Programme "Education" 2021-2027 (PE), as well as future educational programming. While its evaluation is principally applicable to activities undertaken through competitive procedures, a number of its findings are relevant to activities carried out through designated beneficiaries. This section provides a brief overview of these upcoming activities, noting their similarities and differences with Modernisation.

PE is the operational programme for the period 2021-2027 agreed between the Bulgarian Government and the European Commission, with a budget of nearly EUR 1 billion (ESF+ and national co-funding). Within the area of tertiary education, two PE activities have started at the time of writing in late 2024, and two, in italics, are *planned* (see Table 2.2).

Table 2.2. Planned and ongoing higher education activities under PE (2021-2027)

Activity	Launch date	Deadline for submission of project proposals	Type of procedure	Planned Funding Level
Support for the Development of Project-based Doctoral Studies	January 2024	April 2024	Competitive procedure	BGN 58.7 million (EUR 30.01 million)
From Higher Education to Employment	May 2024	September 2024 (with grant contracts signed in December 2024)	Direct award	BGN 169.4 million (EUR 86.61 million)
Access of vulnerable, disadvantaged, and non-pedagogical staff to Higher Education	*December 2024/ January 2025*	*March 2025/July 2025/ November 2025*	*Competitive procedure*	*BGN 35.7 million (EUR 18.25 million)*
Strengthening the competence approach in higher education	*September 2025*	*December 2025*	*Competitive procedure*	*BGN 202.01 million (EUR 103.29 million)*

Note: The conversion is based on exchange rates as of January 2025 and may fluctuate over time.
Source: Compiled by the evaluation team after reviewing the Indicative Annual Work Programmes of Programme "Education" 2021-2027, published on website of Executive Agency "Programme Education", https://sf.mon.bg/?go=page&pageId=514

Access of vulnerable, disadvantaged groups, and non-pedagogical staff to higher education

The "Access to Higher Education" procedure is planned as a competitive procedure, with schools and non-profit legal entities eligible to apply (EAPE, 2024[18]). Beneficiaries are expected to support the preparation of successful university applications for non-pedagogical staff and students from hard-to-reach or underdeveloped areas, as well as from vulnerable and marginalised groups (EAPE, 2024[18]). This will be achieved through information campaigns, outreach, training, and assistance with applications to higher education institutions, as well as mentoring and tutoring. Though the "Access to Higher Education" procedure is planned to be carried out through a competitive grant process, it is different to Modernisation in several respects: in its target population, objectives, activities, planned beneficiaries, and planned level of funding.

Strengthening the Competence Approach in Higher Education

As presently planned, the "Strengthening the Competence Approach in Higher Education" procedure (henceforth the Competence procedure) is substantially similar to Modernisation in its objectives, target population, and beneficiaries (HEIs). Its planned activities closely mirror those of Modernisation (see Box 2.2), with two key differences: the addition of recognition of prior learning, and the exclusion of career advising and graduate tracking, which will be continued under a different procedure "From higher education to employment". The funding level for the Competence procedure is envisioned to be approximately four times higher than that of Modernisation, with spending planned to rise from EUR 26.6 million to 103.3 million, the implications of which are discussed in Part 4.

Box 2.2. Planned activities under the Strengthening the Competence Approach in Higher education operation

- ***Expanding of Competency-Based and Flexible Education***: Introduce joint, interdisciplinary programs between HEIs and employers, leading to shared resources and joint diplomas. Validate prior non-formal and informal learning to expand flexible learning pathways.
- ***Digitalisation of teaching and learning:*** Develop digital programs, educational content, and digital libraries to modernise teaching and learning at HEIs.
- ***Mobility and Professional Development***: Support short-term mobility for students and lecturers, with a focus on vulnerable groups, and provide training to enhance digital and foreign language skills. Attract international lecturers, scientists, and practitioners to enrich academic programmes.

Source: Executive Agency "Programme Education" (2024[19]), Indicative Annual Work Programme for 2025, Programme Education 2021-2027, https://sf.mon.bg/?go=page&pageId=514

Evaluation Approach

This section briefly outlines the criteria used to evaluate the Modernisation procedure, the evaluation questions that it poses, and the sources and limits of evidence used to address these questions.

Evaluation Criteria

The OECD and Bulgaria have agreed six criteria to be applied in the evaluation of Programme "Education" activities, the first five of which are criteria set out in the European Commission's Better Regulation Guidelines.

Relevance: To what extent do activities respond to clear needs and priorities in the Bulgarian system, and target the most significant barriers preventing positive transformations in Bulgarian education? To what extent do they leave important priorities unaddressed?

Coherence: What are the synergies and inconsistencies between Operational Programme activities and the other programmes, policies, practices, actors, and national and European strategies that form the Bulgarian education system, as well as between the different elements of specific programmes and procedures?

Effectiveness: How successful has the activity been in achieving or progressing towards its objectives and desired outcomes and impact?

Efficiency: What is the relationship between the resources used and changes generated?

EU added value: Has the activity introduced changes that might not have happened without EU's support and cooperation?

Sustainability: What is the likelihood that the effects of the policies and programme will last beyond the implementation period?

Some of these criteria assume a larger role in evaluating specific phases of the procedure, as Table 2.3 illustrates.

Table 2.3. Evaluation criteria and different stages of the procedure

	1. Design of Activities, Selection Criteria and Process	2. Selection criteria and process	3. Implementation	4. Monitoring and Reporting	5. Outcomes
Relevance	X				
Coherence	X	X	X		
Effectiveness		X	X	X	X
Efficiency		X	X	X	X
Sustainability					X
EU-added value					X

Evaluation Questions

The evaluation questions for this report were designed to allow an exploration of the Modernisation procedure according to these evaluation criteria and to form a perspective on how the relevance, effectiveness, coherence, efficiency, sustainability, and EU-added value of future procedures could be improved:

1. To what extent did the Modernisation procedure identify relevant and valid priorities to address needs and priorities in the Bulgarian higher education system? (Evaluation criterion: relevance)
2. To what extent did Modernisation's selection criteria and methodology achieve a balance between rigour and impartiality, and the identification of projects with a sound logic and close alignment to its objectives and to the policy and regulatory environment? (Evaluation criteria: coherence and effectiveness)
3. To what extent were beneficiaries able to achieve the objectives of the Modernisation procedure? What factors contributed to these outcomes? (Evaluation criteria: effectiveness)
4. What evidence collection and reporting strategies were required of beneficiaries in the Modernisation procedure? To what extent was monitoring and reporting able to meet the needs of the Managing Authority for technical and financial compliance while avoiding unnecessary burden on beneficiaries? To what extent were peer learning and beneficiary feedback used in the procedure? (Evaluation criteria: effectiveness, efficiency)
5. Do the activities of beneficiaries appear to be sustainable, and did ESF support permit achievements that otherwise would not have occurred? (Evaluation criteria: sustainability, EU-added value)

These questions were agreed at the outset of the evaluation and were further developed in the preparation of this report to increase attention to the coherence and efficiency of different elements of the procedure. For example, the refined questions gave more emphasis to assessing the coherence between different elements of the Modernisation activity procedure and with existing policy and operational priorities.

Underlying each of the five questions is a broader consideration: what are the implications for the higher education procedures of the current ESF+ Programme "Education" and future programming in Bulgaria and how could procedures be strengthened in the future?

Evaluation Evidence: Research design and data collection methods

The evaluation takes a realist approach. Realist evaluation seeks to understand what works, for whom, in what contexts, and how, and examine how a programme's outcomes are influenced by the context in which it takes place (Pawson and Tilley, 1997[20]). For this report, this means aiming to understand how the

Modernisation procedure worked in the Bulgarian context and to identify the factors that can explain observed changes in practice, behaviour, attitudes, and outcomes.

To provide understanding of diverse perspectives within the Bulgarian higher education system, data collection methods included a strong focus on in-depth qualitative interviews. These included: (1) an in-depth review of programme documentation, and related evidence; (2) an online focus group with seven beneficiary institutions; (3) sixteen online and in-person semi-structured qualitative interviews; (4) site visits to three beneficiary institutions, which provided an opportunity for document reviews and interviews with key groups involved in the project; and (5) review meetings to discuss findings with key stakeholders. Details of each of these can be found below.

1. In-depth review of programme documentation and related evidence and desk-based research

This included an analysis of Bulgarian legal and policy planning documents (e.g. the Higher Education Act and Strategy for the Development of Higher Education in Bulgaria), the previous Operational Programme *Science and Education for Smart Growth 2014-2020 and Programme Education 2012-2027*, draft and final documents for the Modernisation of Higher Education Institutions (e.g. “Guidelines for Applicants” under the project proposals selection procedure BG05M2OP001-2.016). Beneficiary financial and technical monitoring reports, agreements. procedural guidelines were also reviewed to understand the design and implementation process.

2. Focus group with HEIs

An online focus group was held on 11 June 2024, while representatives from all seventeen projects that received funding under Modernisation procedure were invited to participate, only seven projects, including project managers and coordinators, attended. The purpose of the focus group was for beneficiaries to assess and share their experiences and perceptions of how future procedures could be designed and administered. Topics of discussion included the extent to which the modernisation priorities and activities addressed pressing difficulties and opportunities in the higher education landscape, participant views of the most important impact of the projects in their institution, lessons learned during implementation. The session also explored how procedures could be strengthened to enhance relevance, efficiency, and effectiveness and provided a platform for collaborative reflection to inform future programme iterations.

3. Interviews with public officials, NGOs, and HEIs

Sixteen semi-structured interviews were carried out between March and November 2024, using both videoconference and in-person formats. The interviews engaged a range of stakeholders, including staff from the Executive Agency; current and former Ministry of Education and Science officials; the National Agency for Evaluation and Accreditation; Ministry of Labour and Social Affairs; a national research center, and representatives of business and nongovernmental organisations. Interviews were also conducted with rectors, administrators, and academic staff of higher education institutions that received (and failed to receive) Modernisation grants. The OECD took a purposive approach to sampling, identifying key informants to interview according to their knowledge, experience, and role in the programme.

4. Site visits to a sample of institutions

Site visits were conducted at three institutions - a small, medium, and large-sized institution - selected to reflect diversity in size, location, specialisations of institutions, and experiences with the modernisation procedure. This sampling approach allowed the OECD to consider how contextual factors influenced the experience of beneficiaries. Each visit lasted half a day and involved in-depth discussions with each of the key groups carrying out activities within the projects. These included project managers and coordinators

overseeing implementation, financial and administrative staff responsible for financial and technical reporting, and a wide range of academic staff who led or participated in mobility opportunities, training, digitalisation initiatives, the development of competency-based programmes, and joint degree programmes. These visits provided an opportunity to gather qualitative insights into project implementation, including institutional challenges, successes and contextual factors shaping project outcomes.

5. Meetings to discuss emerging findings

To ensure the accuracy and relevance of the evaluation's conclusions, the evaluation team held two meetings with the Executive Agency "Programme Education" in October and November 2024. These meetings aimed to review the emerging findings before finalising the report. The first meeting, held in October 2024, also included representatives from the Higher Education Directorate of the Ministry of Education and Science.

Limitations

The findings of this report are subject to several limitations that provide important contextualisation for the results and recommendations. One limitation concerns the sampling of grant applicants, as the review did not conduct interviews with all 35 grant applicants or non-applicants. While interviews were carried out with a majority of beneficiaries, and one unsuccessful applicant, the evaluation primarily reflects the perspectives of funded institutions. This limited engagement with unsuccessful applicants restricts insights into the challenges or barriers they faced during the application process, or the potential lack of interest or alignment with the priorities of their HEI. As a result, this evaluation may not fully capture the inclusiveness and accessibility of the procedure.

Another key limitation is the lack of compiled high-quality outcome data upon which to base the evaluation. Beneficiaries were responsible for reporting on activities, e.g. the number of people who participated in mobility and training activities. However, they were not always required to collect or report evidence on the outcomes of their activities, such as the skills participants acquired, how these skills were applied in teaching and research, or broader institutional improvements. Data on participation in activities like mobility and training were available, as well as information about the immediate results of some training and mobility activities, e.g. "98% of students enrolled in courses in a foreign language taught jointly with foreign higher education institutions supported by the procedure have gone into a higher course." Other activities in which individuals participated, such as digital training, lacked comparable measures.

Potential response bias also presents a challenge. The evaluation relied on interviews with administrators, academic staff, and other key participants directly involved in the programme. These stakeholders often have a vested interest in the programme's success, which may have influenced their responses. The absence of perspectives from students or external observers could lead to findings that reflect an overly positive view of the activities. However, different sources of data were triangulated to compare and contrast different perspectives and offset the limitations of any one data collection method.

3 Main findings

Part 3 provides findings for each stage of the procedure's lifecycle. It begins with the objectives and design of activities, before moving on to discuss the selection criteria and assessment processes used for Modernisation. It then examines the implementation of projects, followed by monitoring, reporting, and learning processes during the Modernisation procedure. Lastly, it discusses the outcomes of beneficiary projects.

1. Objectives and design of activities

This first section of Part 3 provides findings relevant to the first stage of the Modernisation procedure: the setting of objectives and design of activities, examining their relevance and internal and external coherence, in particular.

1.1. Modernisation was well aligned with national and institutional needs and priorities, with very few areas left unaddressed

The evaluation found that the Modernisation procedure was well-aligned with national and institutional needs and the key priorities outlined in Bulgaria's strategic plan for higher education.

1.1.1. The Modernisation activity was aligned to all of the key priorities outlined in Bulgaria's strategic plan for higher education

The Modernisation procedure was an ambitious attempt to address important priorities and needs in Bulgaria's higher education system, aligning closely with national strategies and external recommendations. It aimed to modernise and digitalise teaching by shifting from traditional, theory-heavy approaches towards a competency-based education model (Government of Bulgaria, 2021[21]). This shift responded to assessments of the system pointing to the need for re-organisation towards greater collaboration and shared use of resources among HEIs.

These priorities are central to *Bulgaria's Strategy for the Development of Higher Education in Bulgaria 2021-2030*, which outlines goals to improve higher education quality by updating curricula, improving teaching methods, and accelerating digitalisation. The plan envisions achieving these reforms through strengthened collaboration among HEIs, businesses, professional organisations, and the government in areas such as curriculum development, practical training, and career counselling (Government of Bulgaria, 2021[21]). The Modernisation procedure supported these goals[12] by advancing the use of digital learning tools and promoting the use of a competency-based approach to education and encouraging inter-institutional collaboration through the development of joint degree programmes (Ministry of Education and Science, 2021[1]). These efforts aimed to directly contribute to the Strategy's vision of a more interconnected, digital, and collaborative higher education landscape.

1.2. A broad focus combined with modest and institutionally-focused funding constrained opportunities for Modernisation to have systemic and strategic impact

The evaluation found that the Modernisation procedure addressed nearly all priorities outlined in the strategy, ensuring that few areas of relevance were entirely overlooked. However, resources and efforts were spread thinner by the attempt to address multiple priorities simultaneously, which limited the depth with which each priority could be addressed.

1.2.1. A range of interviewees suggested that there were few opportunities to consolidate Modernisation's diverse goals and maximise the benefits of limited resources for more strategic impact

Viewed in comparison to other ESF+ activities, and the total revenues available to the Bulgaria's public higher education institutions (HEIs), the funding of Modernisation was modest. With a total budget of BGN 52 million (EUR 26.6 million), Modernisation was equivalent to one-quarter of the planned Competence procedure within Programme Education 2021-2027, and just below 3% of total public HEI revenues during the 2020-2021 biennium. This limited both the number of participating institutions and the scale of grants relative to institutions' total operating budgets.

Modernisation was designed as a competitive grant programme with HEI beneficiaries, meaning that it could not make targeted investments in non-governmental consortia that have proven in the past to be highly impactful for Bulgaria's higher education system – such as the Open Society Institute-Sofia and Sirma Group Consortium, developers of the Bulgarian University Ranking System. Furthermore, because the programme supported a wide range of activities – from digitalisation and competency-based education to internationalisation – no single activity could command a large pool of spending. This dispersion of resources further constrained its potential for large-scale impact.

Beyond direct financial impact on its immediate beneficiaries, European programming can have indirect impacts and influence systemic change by signalling policy priorities to an entire sector or community, identifying what sort of reforms are sought, and setting expectations for best practices. The design of a procedure - through its calls for proposals, evaluation methodology and criteria, and funding allocations - can reinforce a shared vision of what innovations governments hope to see. Modernisation supported a diverse range of activities with a multitude of indicators. Whilst it funded important and needed initiatives, it could have done more to focus the attention of the higher education sector on a shared vision of "modern" competency-oriented and interdisciplinary education.

Given its limited scale, the Modernisation procedure could not have been expected to address additional areas. However, there may have been some opportunities to maximise impact in this area. For example, while the procedure supported collaboration in the higher education sector, it may have further benefited from stronger incentives for sustained, multi-institutional partnerships such as the development of regional consortia focused on specific thematic priorities to address priorities at a larger scale (and with greater efficiency). In a number of higher education systems, initiatives such as graduate tracking, the acquisition of/training for digital technologies, and pedagogical support are coordinated through national or regional consortia, ensuring broader access, and reducing duplication of effort (see Box 3.1).

Box 3.1. Multi-institutional partnerships and regional consortia in scaling up higher education initiatives

In many OECD countries multi-institutional partnerships and regional consortia have been one effective method of scaling up initiatives.

Graduate tracking and labour market alignment

In countries like Austria and Italy, national consortia have been developed to track graduate outcomes and align higher education with labour market needs. For example, the *ATRACK Consortium* in Austria (2022-2027) involves 35 higher education institutions and aims to continue and expand a graduate tracking system. It includes standardised data collection, uniform data cubes, and fact sheets, updated every two years. The system, coordinated through Statistics Austria, helps ensure that institutions are aligned with labour market demands by sharing data on employment rates, skills gaps, and job market trends. Similarly, *Alma Laurea* in Italy conducts annual graduate surveys on behalf of its member universities, collecting data to provide insights into graduate outcomes and making it accessible to its members. For Bulgaria, establishing a similar graduate tracking system could help algin higher education with labour market needs, reduce duplication, and ensure that students acquire the skills that are in high demand by employers.

Digital technologies in higher education

In Germany, the Higher Education Forum on Digitalisation (*Hochschulforum Digitalisierung*) brings together universities, policymakers, and experts to enhance digital teaching, infrastructure, and skills across HEIs, as part of the country's broader digitalisation strategy alongside initiatives like the Federal Digital Agenda and the Ministry of Education and Research (*BMBF*). Similarly, Ireland's *National Forum for the Enhancement of Teaching and Learning* supports HEIs in advancing digital education by providing resources, conducting research, and supporting knowledge-sharing. Although not exclusively focused on digital technologies, the forum plays a crucial role in improving digital teaching practices. For Bulgaria, adopting this approach could improve digital literacy and access to technology in smaller HEIs, reduce costs, expand digital skills training, helping to create a more efficient and interconnected digital education system.

Pedagogical support networks

Portugal's *INOV-NORTE Consortium*, focused on the northern region of the country, involves six HEIs to promote pedagogical changes aligned with contemporary national and international trends. The consortium fosters inter-institutional cooperation for the exchange of best practices, modernises teaching infrastructure, and the develops new training initiatives for educators. It impacts around 4,550 students and 1,000 teachers, with funding from Portugal's Recovery and Resilience Plan. For Bulgaria, a similar regional consortium could enhance pedagogical practices by sharing resources and supporting smaller institutions in adopting modern teaching methods without duplicating efforts.

Source: University of Vienna (2022[22]), *ATRACK Consortium: Graduate Tracking in Cooperation with Statistics Austria*, https://qs.univie.ac.at/en/analyses/graduate-tracking/atrack-consortium-2022-2027/ (accessed on 6 February 2025); Usher and Marcucci, (2011[23]), Survey of graduate tracking systems around the world, https://msdjournal.org/wp-content/uploads/unesco2011-1.pdf; ACEEU (2023[24]), National digitalisation strategies and digital teaching in Higher Education in Germany, https://www.aceeu.org/projects/update/id/298(accessed on 6 February 2025); Media&Learning (2022[25]), DAAD leads consortium to launch new Digital Education Hub for Europe, https://media-and-learning.eu/subject/higher-education/daad-leads-consortium-to-launch-new-digital-education-hub-for-europe/ (accessed on 6 February 2025); Universidade Catolica Portuguesa, (2024[26]), *Universidade Católica joins new Centre of Excellence for Pedagogical Innovation in the North Region*, https://www.ucp.pt/clil/universidade-catolica-joins-new-centre-excellence-pedagogical-innovation-north-region, (accessed on 6 February 2025).

1.3 The design of activities followed European Commission and national guidelines and partnership principles, yet more sustained and specialised expert advice was needed at key points

The evaluation found that the design of activities and procedures benefited from the involvement and broad oversight of working groups and committees, following common practices in programme design. However, the process sometimes lacked sustained advice from highly specialised experts, which could have enhanced decision-making. Strengthening expert involvement beyond what is required by national and European guidelines, as well as clarifying what is expected of expert advice, may be important for future initiatives.

1.3.1. All research participants agreed that Modernisation was developed with careful adherence to EC and national ESF guidelines and broad partnership principles

The EU Common Provisions Regulation (CPR) requires commitment to a partnership principle in the management of ESF+ funds. Bulgaria has created Thematic Working Groups (TWGs) to guide the preparation and approval of Operational Programmes. These groups ensure that objectives align with strategic operations, output and result indicators, target groups, and territorial initiatives. TWGs involve all relevant government bodies and select civil society actors, ensuring that ESF+ activities are complementary and not duplicative. Consequently, they tend to be large bodies, with membership primarily drawn from government officials and legally-recognised advisory organisations. For example, the TWG for the development of PE 2021-2027 included 71 members—57 from government, and the remaining 14 from official advisory bodies, such as the Council of Rectors, Bulgarian Academy of Sciences, and Bulgarian Industrial Association (Ministry of Education and Science, 2021[27]).

While the TWG sets programme objectives, monitors enabling conditions, and analyses national and sectoral priorities, its functions are limited to the preparation phase. The group's role ends once the programme is officially approved by the European Commission (Ministry of Education and Science, 2021[27]). As a result, the TWG is not intended to provide ongoing expert advice to the Managing Authority or the Ministry of Education and Science during the design and implementation of the project activities that follow programme approval.

The CPR requires establishment of a Monitoring Committee, following adoption of the Operational Programme. The Committee is responsible for providing oversight during programme implementation. It reviews progress, assesses performance, approves selection criteria and evaluation plans for proposed activities in the operational programme, meeting typically twice a year (EAPE, 2023[28]). The Committee, like the TWG, is a large body (of 58 members, in the case of the PE Monitoring Committee) that is drawn from a range of public bodies and statutorily recognised advisory organisations (e.g. Council of Rectors, Bulgarian Academy of Sciences, National Council of the Bulgarian Industrial Capital Association).

While the Monitoring Committee for OPSESG played a crucial role in overseeing programme implementation, its ability to provide detailed review and guidance on specific procedures was constrained by the extensive agenda and large membership. The Committee's agenda covered a wide set of priorities, ranging from support for vulnerable youth to innovation and technology transfer, and a workload of more than 170 proposed activities within the programme. This extensive workload limits the time the Committee can allocate to the detailed review of individual procedures. The scope of activities the Monitoring Committee oversees - combined with the diverse and broadly representative composition of its membership – makes it challenging for it to provide very in-depth, detailed, and continuing review of multiple aspects of procedures, including Modernisation.

1.3.2. Many interviewees suggested a need for more sustained and specialised expert advice at key moments

The common practices used in programme design (which were also used in the case of Modernisation) are valuable in ensuring broad input into the development of activities. However, in practice, they sometimes lack depth and require additional targeted, structured and sustained efforts to engage expert advice. This challenge in not unique to Bulgaria but can be observed in many countries where consultation mechanisms, while inclusive, may not always capture the most specialised insights needed for effective policy-making.

For example, some interviewees noted that they were not always able to allocate their most knowledgeable experts to contribute to the work of the TWG or did not view in-depth preparation for meetings as part of their remit. Additionally, when asked whether they consulted within their organisations before advising on higher education priorities, many indicated that they did not – often because such activities fell outside their formal roles and responsibilities.

Given that Bulgarian officials tend to work within clearly defined responsibilities, there may be a need to foster a more collective understanding of the role and scope of expert advice in shaping higher education policy and European programming. The Managing Authority could support this by structuring requests for input through well-defined questions, requests for individuals to consult other experts in their organisations and sectors or providing brief questionnaires that stakeholders could more easily circulate among relevant colleagues. Additional strategies, such as structured expert panels, could also help capture the more tacit knowledge of those providing advice and allow it to be applied, for example, to understand how conditions in the sector may affect the implementation of projects

2. Selection of projects

This section provides findings relevant to the second stage of the Modernisation procedure: the call for, assessment and selection of project proposals, examining their coherence, effectiveness, and efficiency in particular.

2.1. The diversity of Modernisation's goals and activities contributed to complexity and reduced efficiency in project application, assessment and selection

The evaluation found that Modernisation's broad scope added value by addressing a wide range of national and European priorities. However, this broad scope also introduced complexity, making the application and selection process less efficient. Streamlining objectives and processes could enhance clarity and improve overall efficiency in the future.

2.1.1. Interviewees saw the varied strands of activities within the Modernisation procedure as a source of complexity rather than seeing significant synergies between them

Modernisation combined a diverse set of goals and activities into a single procedure. Interviewees felt this approach was partly a decision of expedience and practicality, reflecting the view of the Managing Authority that it could not simultaneously manage multiple higher education procedures. It was also based upon an implicit theory of action that bundling together diverse set of activities would create synergies, leading to larger modernising changes than separate initiatives. This would appear to be a reasonable assumption. However, beneficiary HEIs reported that the varied strands of activities and their budget interdependencies were a source of complexity and perceived few significant synergies among them.

Many interviewees suggested that more opportunities for structured public discussion on design possibilities for the procedure would have been helpful, such as focusing on a single priority (e.g.

digitalisation) or separating strands of activity and assigning distinct criteria and funding streams among which applicants could choose (e.g. choosing between competency-based education, digitalisation, professional development, and internationalisation). Stakeholders were provided with opportunities to receive, review, and submit written comments on a number of key documents, such as the methodology and criteria for the selection of successful projects and these opportunities were acknowledged and appreciated by stakeholders (see 2.2.3 below). However, a wide range of beneficiaries and stakeholders perceived that they did not have enough opportunity to engage specifically in discussions that shaped the focus of the Modernisation procedure before definitive decisions were taken.

HEIs also reported that the diversity of activities within Modernisation, when combined with its mathematically-based scoring methodology, made it difficult for them to anticipate how partners and activities they had chosen would influence the score received by their proposal. This was particularly the case for result indicator 2.9 (EAPE, 2020[13]), which required applicants to specify how their project, when implemented, would increase Ranking System coefficients for each of the study fields for all of the participating higher education institutions in an application.

The diversity of activities within Modernisation also had important consequences for the Managing Authority and its procedures. It compelled the Managing Authority to develop some generic assessment criteria, such as “institutional rating”, “effectiveness” and “efficiency of direct personnel costs”, that could be applied across a range of dissimilar activities. As explained below, this made it more challenging to assess the logic and quality of project activities proposed by potential beneficiaries.

2.2. The Modernisation application process and evaluation methodology were transparent and impartial, but more use of qualitative indicators could have further prioritised the content and logic of proposed projects

The evaluation found that the Modernisation application process and assessment methodology were fair, transparent and impartial. However, a greater emphasis on qualitative criteria could have provided deeper insights into the relevance and coherence of proposed projects. This could further strengthen the focus on quality and ensure an even more rigorous prioritisation of projects in future assessments.

2.2.1. The evaluation criteria and methodology were transparent and impartial, but required little subject matter expertise and judgment for their implementation

The Modernisation procedure carefully followed ESF procedural guidelines, set out in decrees issued by the Council of Ministers and applicable to the whole of government. This ensured a very high level of transparency and due process in application, evaluation, and selection of proposals. Proposals were evaluated, in part, using extracts from the *HEInnovate* tool, incorporating self-assessments by participating HEIs. These self-assessments were accompanied by justifications and supporting documentation, intended to help align project activities with institutional needs and contribute to the outcome indicators set in OPSESG, such as increasing the share of 20–34-year-old graduates engaged in programme activities and improving student progression in digitally supported courses.

The approach used to define the scope of the activities and establish the assessment and ranking methodology had more mixed results. Bulgaria is marked by low levels of trust and widespread concerns about corruption and favouritism (Thürk and Bailer, 2023[29]). The Managing Authority was committed to developing an evaluation methodology that was rigorous, transparent, and impartial. Adopting a methodology in which 75% of scoring was indicator and formula-based provided them with a means by which to achieve these aims and minimised the need to rely upon potentially subjective expert judgments to reach decisions. However, this gain in transparency made it more difficult to focus assessment on the quality of proposals.

The assessment process included some criteria to evaluate the quality of proposals such as the requirement to show how planned projects related to identified needs. However, interviewees suggested that the process of application and scoring retained a strong emphasis on quantitative indicators, particularly for joint programmes. The reliance on formulae based on quantitative indicators limited opportunities to closely assess the details of the intervention logic underpinning proposed projects.

For example, beneficiaries were asked to propose activities leading to the digitalisation of educational content for two programmes. However, the Committee responsible for assessing and ranking project proposals under the procedure was comprised of government civil servants and did not have access to leading experts in digitalisation. The substance, logic, and value-added aspects of these digitalisation tasks were not therefore subject to close assessment. As a result, beneficiaries received little guidance on how to focus their digitalisation efforts and shape them so that they contributed to a broader vision of digitalisation in higher education in Bulgaria. For some instructors "digitalisation of content" merely meant converting lecture notes into digital format, without any deeper engagement with the quality or relevance of the digital content.

For future procedures, the Managing Authority could consider giving greater focus in the assessment procedure to qualitative criteria, including the proposal fit with: (a) current or emerging labour market demand for graduates in new programmes and the alignment of competences developed to employer demand; (b) complementary competencies in the collaborating programmes; (c) capacity-building to show how beneficiaries will expand their competencies for effective delivery of projects and d) expected enrolment demand. Focus could also be given to requiring potential beneficiaries to develop a clear theory of change showing how their project intends to create impact in the targeted priority areas. Strengthening the assessment criteria in some of these areas would not only ensure procedural compliance but also strengthen the assessment of the programme's impact in meeting institutional and labour market needs.

2.2.2. Some interviewees perceived a gap between the way indicators were defined and the way in which they were measured.

Some of those who participated in the research felt there could have been more correspondence between the concerns underlying the use of certain criteria and the way they were operationalised. For example, Bulgaria has large regional disparities in higher education attainment, in the geographical distribution of HEIs and study programmes, and in the capacity of its HEIs to nurture regional development. These disparities have been the focus of the National Map of Higher Education in Bulgaria. One might expect a criterion of "regional significance" to evaluate the impact of proposed projects in mitigating these regional disparities.

Instead, "regional significance" was calculated based on the share of direct eligible costs in the proposal that were allocated to activities outside the territory of Sofia, given that half of the HEIs are concentrated in the city. The score was determined by the quartile location of the proposal to all other eligible proposals (see Table 2.1). This methodology, while impartial and quantitative, did not directly address how well the projects would tackle the regional disparities in higher education or contribute to regional development. Whilst regional development was not a specific objective of the procedure, it is a national and European priority.

A different methodology could have required applicants to demonstrate how their project proposals, if implemented, would specifically reduce regional imbalances in the availability of study programmes and contribute to regional economic development and social well-being. Such an approach may have led to more targeted and regionally focused project proposals that were better linked to the regional significance criterion. It would have also required further use of expert judgment, allowing consideration of the quantitative and qualitative aspects of the proposals and their impact. This would have shifted the balance between ensuring impartial, data-driven evaluation and aligning proposals with national priorities and objectives of the activity (and programme). In future procedures, particularly with much larger funding

amounts at stake, carefully reflecting on these trade-offs – and others like them – in a public deliberative setting could support activities to more directly advance key national priorities for higher education.

2.2.3. Written consultation on draft selection criteria and support during the application and assessment processes were key strengths of Modernisation

Beneficiaries expressed appreciation at being provided a public comment period on draft criteria, information provided at the beginning of the application process, and a process to pose questions during the application period. The Managing Authority provided a well-structured and well-documented opportunity for the public to submit written comments on the draft selection criteria for Modernisation (and later on the draft guidelines for applicants), which were posted to its website. Comments from 11 stakeholders were received, and questions and responses together totaled 47 pages. The application process itself was well-organised, with a well-understood system in place for addressing questions. An initial information event provided useful guidance that helped participants navigate the application process more effectively.

> *Besides simply publishing the selection criteria and draft guidelines documents, the Managing Authority also held an online presentation open to everyone to clarify the methodology and expectations and held information days before the launch of the procedure. To avoid conflicts of interest, the Managing Authority refrained from discussions with certain universities, as they could have influenced the criteria, but they had the opportunity to submit their written comment. – Public official.*

As this quotation suggests, potential beneficiaries were provided with an opportunity to submit written questions about application guidelines and to be provided with written public responses available on the Managing Authority's website. This opportunity was widely used. A total of 30 questions were submitted, and the answers provided were highly detailed, totaling 45 pages. HEIs submitting ineligible proposals were provided with an opportunity to appeal and received highly detailed written feedback.

One in five of the proposals submitted failed to meet initial administrative compliance and eligibility requirements. The number of proposals rejected due to ineligibility was relatively high, suggesting that clearer guidelines and checklists may be needed in the future to prevent the submission of ineligible proposals, which would save time for both the applicants and reviewers. However, those that failed were provided with highly detailed feedback about the basis for their disqualification. Applicants were provided with an opportunity to appeal this decision, and a window of opportunity to make limited (non-substantive) corrections to their application (EAPE, 2020[13]).

A total of 28 proposals were provided with a full review, with 7 falling below the minimum threshold of 60 points, and another 21 scoring above this level. Owing to a limited pool of funding, the 17 most highly ranked proposals were funded, and four "reserve" project proposals were waitlisted. Proposals that received a full review but failed to achieve 60 points were provided with standardised written feedback noting only that they had failed to achieve 60 points. Providing indication of the areas in which they underperformed and how may have been useful to avoid discouraging future participation and improve the quality of future applications.

2.2.4. The complexity of evaluation methodology was burdensome for both applicants and reviewers

The wide scope and diversity of activities within Modernisation made both the application process and the subsequent management of the projects more complex and less efficient. Proposals were partly assessed on how well they contributed to achieving 25 detailed indicators outlined in the operational programme and elaborated in the Modernisation procedure. The large number of detailed indicators contained with the proposals presented complexity for applicants to navigate and respond appropriately; however, the

operation nonetheless elicited 35 applications. The complexity of the process and the large number of applications prompted the Managing Authority to extend the proposal application period to four months.

The Managing Authority went to great efforts to explain the criteria used for the assessment of proposals and provided an 80-page "Guidelines for applicants" guidance document. However, beneficiary HEIs reported that the complex, indicator-based mathematical formulae methodology still made it difficult from them to calculate how best to assemble a successful proposal. For example, the application instructed beneficiaries to estimate how the creation of joint programmes would impact their Bulgarian university ranking score average, which proved challenging. Even applicants at research universities, endowed with strong administrative capabilities that small institutions might lack, found it difficult to fully plan how best structure a proposal to both respond to institutional needs and optimise their prospects for success. Clearer and more understandable scoring criteria may have further encouraged a greater number of high-quality project proposals.

3. Implementation of projects by beneficiaries

This section provides findings on the implementation of activities under the Modernisation procedure, examining their coherence, effectiveness, and efficiency in particular.

3.1. Implementation was hampered by an insufficient enabling environment, though aided by high levels of collaboration, problem-solving, and support from the Managing Authority

The evaluation found that the Modernisation activities were slower to be implemented than anticipated, due in part to disruptions resulting from the COVID-19 pandemic. Some key activities, such as the development of joint study programmes or student mobilities, were completed below planned levels. Beneficiaries unanimously reported that, while project implementation was aided by the attentive support of Managing Authority staff, challenges arose from the legal and budgetary constraints, as well as difficulties adapting their projects to new and unanticipated challenges and opportunities.

3.1.1. Some key activities of Modernisation could not be implemented without changes to the regulatory framework

The Modernisation procedure required HEI beneficiaries to collaborate with one another in the development of new joint study programmes. While the Higher Education Act did not explicitly forbid Bulgarian HEIs to jointly award degrees, amendments introduced details that created unanticipated restrictions. At the time successful projects were announced and contracts were agreed, the Act did not authorise joint degree arrangements, forcing beneficiaries to proceed slowly, in the face of legal uncertainty about what arrangements would be permitted. Amendments to the Act were adopted during the implementation period but established unanticipated restrictions on the number of collaborating institutions (two) and how they could collaborate (each having to deliver alternating semesters of instruction, starting with the coordinating institution). This forced beneficiaries who had created joint master's programmes – typically completed within two semesters (i.e. an academic year) - with many partners to terminate some of their established collaborations. Interviewees suggested that although consultation and stakeholder dialogue took place, it did not identify this inconsistency between key activities of the Modernisation procedure and the legal and funding instruments necessary for their implementation.

3.1.2. The lack of coherence between project activities and the policy environment was reported as the principal reason for substantial delays and shortfalls in key activities

This lack of coherence was also cited as the main implementation challenge by almost all of the interviewees, particularly in relation to the legal, budgetary, and programmatic framework within which activities were supposed to be implemented.

When national authorities aim to use ESF funds in ways that stimulate innovation and modernisation, some activities they propose may need to lead or drive change, albeit in a careful and calculated way. Among the varied activities contained within Modernisation, some, such as career guidance for students and professional development for academic staff were activities that could easily be carried out within the existing policy framework. Others, such as collaboration among HEIs in the development of innovative, joint study programmes, were leading change in the country's legal and funding arrangements.

In the case of the Modernisation procedure, whilst changes did take place to the regulatory framework, the process of change hampered effective implementation and created risks for beneficiaries. Higher Education Act legal provisions enabling the recognition of joint programmes were introduced only halfway through the process —one year after the programme started. This delay left participating institutions in a difficult position, as they were tasked with developing joint programmes without legal clarity, which substantially delayed their collaborations. Every beneficiary that met with the OECD evaluation team identified this legal uncertainty as the single most important impediment to implementing their contracted activities.

For example, a draft amendment to the Higher Education Act initially posed a major barrier to joint study programmes, since it required students to be present at the institution providing instruction, meaning that students would have to move between locations (e.g. Plovdiv one semester, and Sofia or Burgas the next). The amendment to the Act (Article 42a), as enacted in 2022, removed this residency requirement but introduced new constraints. It designated one collaborating institution as the "coordinating institution" and mandated that "the first period of the tuition…[is] carried out by the coordinating higher school." Beneficiary institutions noted that this new legislative language deprived partners of the opportunity to decide for themselves how best to sequence instruction based on their respective areas of expertise and availability.

On the other hand, non-statutory changes proved easier to achieve. Although the country's higher education accreditation policies did not initially contain procedures to authorise joint study programmes, the National Evaluation and Accreditation Agency (NEAA) was able to act quickly to modify its procedures, creating guidelines for their authorisation. In future projects, ensuring that legal and regulatory frameworks are consistent with the objectives of activities from the outset would be essential to avoid similar implementation delays and challenges. Box 3.2. provides some international practices around the regulatory arrangements surrounding the establishment of joint degrees.

Box 3.2. International practices on joint and new degrees

International practices on joint degrees

In the Netherlands universities have significant autonomy is establishing joint degree programmes. There are no special or additional legal requirements for the institutions with respect to joint programmes - two or more partner HEIs are jointly responsible for meeting the legal criteria to award the degree. The collaborating universities or the collaborating UAS [universities of applied science] have for instance the responsibility to acquire accreditation from the National Accreditation Agency (NVAO) for the joint programme and they also have the responsibility to meet the macro efficiency requirements, meaning they must provide evidence of student enrolment demand to receive ministerial approval to offer the programme.

International practices for study places and new degrees

Countries vary in how they regulate the creation of new degree programmes and the allocation of study places. In some systems, universities have greater flexibility to introduce new degrees in response to emerging skills demands, provided they meet national accreditation standards. In Finland, for instance, universities have the autonomy to propose and launch new degree programmes. This autonomy is balanced with a responsibility to align these programmes with societal needs and national higher education objectives. The process of introducing new degree programmes in Finland is characterised by:

- **Labour market analysis**: Universities conduct assessments to ensure their proposed programmes are aligned with current and projected labour market demands.
- **Institutional capacity evaluation**: Higher education institutions must demonstrate they have the necessary resources and expertise to deliver high-quality education in proposed field.
- **Demonstration of societal need**: Universities are required to justify the societal relevance and demand for new programmes.
- **Alignment with national objectives**: Proposed programmes must contribute to Finland's higher education goals, including increasing the proportion of young people with tertiary qualifications.

This demand-driven approach allows Finnish universities to be more agile in adapting to economic and technological changes while maintaining high educational standards.

Source: De Boer (2017[30]), *Joining Forces: Collaboration in Dutch Higher Education*, https://ris.utwente.nl/ws/portalfiles/portal/21779203/de_Boer_2017_Netherlands_Consolidated_National_Experiences_Report.pdf (accessed on 6 February 2025); OECD (2023[31]), The future of Finland's funding model for higher education institutions, *OECD Education Policy Perspectives*, https://www.oecd.org/content/dam/oecd/en/publications/reports/2023/09/the-future-of-finland-s-funding-model-for-higher-education-institutions_c2e89e78/3d256b59-en.pdf; University of Helsinki (2023[32]), The Board of the University of Helsinki: Ensuring the prerequisites for studying is essential for Finland's success, https://www.helsinki.fi/en/news/higher-education-policy/board-university-helsinki-ensuring-prerequisites-studying-essentialfinlands-success (accessed on 6 February 2025).

3.1.3. Implementation difficulties also arose from COVID-19 disruptions, and from institutional inflexibilities and sometimes overly-ambitious collaborations

It is important to recognise that the COVID-19 pandemic coincided, in part, with the period in which beneficiaries were to implement their project activities. Some activities, such as international mobility, were directly affected by the pandemic, with travel being postponed and planned activities with partner universities cancelled. Other activities were indirectly slowed by COVID-induced restrictions and illnesses.

However, the pandemic also provided an impetus in relation to some areas of the procedure, in particular around the importance of digitalising the educational curricula.

In addition to the pandemic's impact, some HEIs acknowledged that their project choices contributed to difficulties they experienced during implementation. Specifically, projects that involved large, complex partnerships with a large number of collaborators across a wide range of study fields proved particularly challenging. For example, one project involved collaboration between eight universities and three employer bodies to develop 17 cooperative programmes. This large scale created substantial coordination and communication costs with partners, making the implementation process more difficult and time-consuming. In the future, it may be reasonable to limit the number of possible collaboration partners or require that applicants demonstrate the feasibility of partnering with multiple institutions. Although collaboration between more than four partners is likely to be difficult to manage, the feasibility of partnerships will depend on the size, capacity and working practices of each institution. Rather than imposing arbitrary limits, requiring potential beneficiaries to develop a clear plan showing how large partnerships will be managed to minimise complexity and maximise added value may discourage overly ambitious collaborations.

3.1.4. Guidance and advice by Managing Authority staff was highly valued by beneficiaries and judged by them to be an important assist to implementation

Some beneficiaries expressed frustration with the inflexibility of the rules under which they had to manage their project activities (e.g. not being able to reallocate funding when COVID-19 prevented or delayed certain mobilities). However, all beneficiaries interviewed during evaluation fact-finding reported that from Managing Authority technical and financial experts provided knowledgeable and helpful support throughout the implementation of their activities.

> *"Despite challenges, the university is satisfied with the communication with the technical and financial experts at the Managing Authority. These experts were responsive throughout the project, assisting with report preparation and the execution of activities. The university recommends that the Managing Authority adopt more frequent in-person meetings with beneficiaries to address challenges and minimise the risk of non-compliance."*
> *- Project Manager*

This quotation illustrates the Managing Authority's key role in supporting beneficiaries. Their technical and financial officers were recognised for their responsiveness and expertise, which helped beneficiaries navigate complex requirements, especially in report preparation and activity implementation stages. However, the relatively rigid administrative rules still posed challenges and introducing more flexible procedures may have further strengthened implementation and beneficiary satisfaction.

3.1.5. Successful project implementation required a potentially unsustainable level of commitment from academic staff

For the academic staff in beneficiary institutions, developing joint programmes and transitioning to competency-based programmes were time-consuming activities, adding substantially to their existing workload. Although these activities required a substantial time commitment, academic staff were only infrequently able to obtain workload reductions through course releases or reduced administrative responsibilities from the institutions in which they worked. Instead, each of the successful projects relied heavily upon a keen sense of professional commitment on the part of academics. Asked why they took on this responsibility, a typical response was:

> *"There has been a large deficit in the number of mathematics teachers with strong informatics training. My colleagues and I have had good history of collaboration with the field of practice, and we really wanted to reach and help teachers across the country, and we now have two master's programmes started and in operation."*
> *– Professor who has developed a joint programme*

This quotation reflects the high level of personal dedication required by academic staff to overcome the challenges of developing and implementing joint programmes. While the commitment of these staff was crucial to project success, it also points to the potentially unsustainable nature of relying on such dedication. It shows the importance of providing academic staff with appropriate support, whether through direct compensation, adjustments to their workloads, or recognition in promotion processes. The Managing Authority may not be able to mandate such arrangements, which relate to the internal procedures of each institution. However, it could facilitate further discussion of how different institutions have approached the challenges of workload in learning events for beneficiaries (see Section 4), as well as integrating attention to such issues into any guidance provided to beneficiaries.

3.2. Competition for funding within and between HEIs was sometimes an impediment to the implementation of jointly-developed programmes

The evaluation found that annual state funding for public HEIs sometimes posed a barrier to the successful implementation of joint programmes. Addressing this challenge would require further input of the Ministry of Education and Science to carefully plan the trade-offs required to make sustainable changes to the Bulgarian higher education landscape

3.2.1. According to HEIs that met with the OECD evaluation team, higher education funding frameworks made some forms of collaboration more challenging

The Ministry of Education and Science allocates a fixed number of study places to each public university for each of its study fields. This allocation is guided by the National Map of Higher Education in Bulgaria, a methodology that aims to ensure that regional balance and labour market alignment governs the opening, closure, and scale of study programmes. Beneficiaries reported that the National Map did not initially consider enrolments needed to launch their new programmes. As a result, they struggled to gain additional study places, with uneven success. Where there was not an allocation of additional study places for newly-created programmes, beneficiaries reported that they faced enrolment competition with existing programmes inside their own institution, which sometimes delayed or even prevented the launch or continuation of joint programmes.

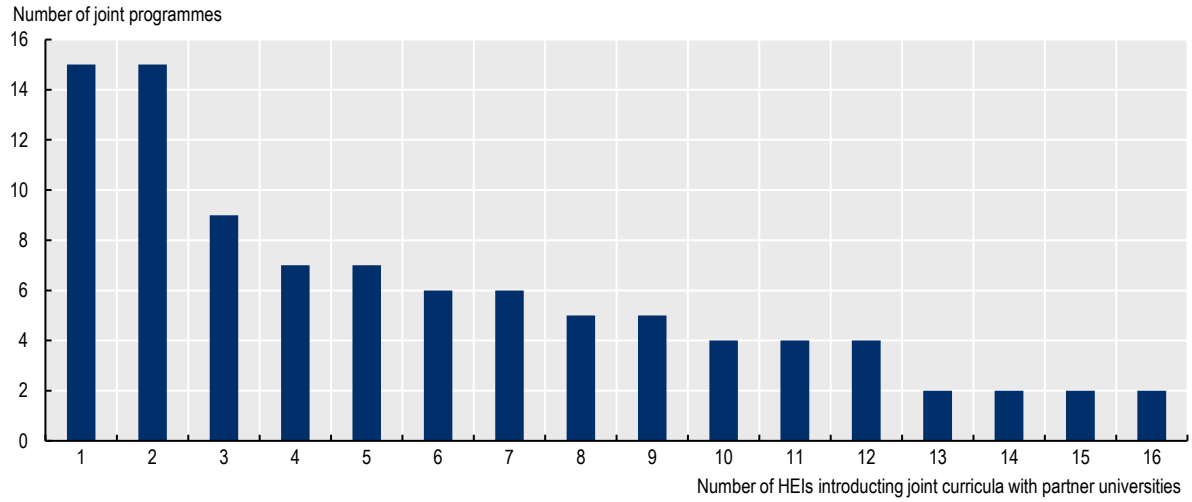
Beneficiaries also shared varying experiences with the sharing of state funding and tuition revenues for joint programmes with other Bulgarian HEIs. In some instances, all decisions about the allocation of funds among partners were quickly resolved in the contract agreed at the start of their project, with state subsidies and tuition revenues allocated based upon enrolment numbers. However, in other instances, beneficiaries reported that competition between public HEIs for state funding sometimes impeded collaboration in the development of joint programmes, or their continuation once developed. For example, in one project with three cooperating HEIs, a partner HEI reported that the lead or “coordinating” institution retained all funding associated with state-funded study places allocated to five new jointly-developed programmes. In another instance, the coordinating institution of a jointly-developed study programme reported that their partner institution had discontinued collaboration after the development and launch of the study programme, using the jointly-developed study content to provide the programme as their own offering, capturing all enrolment revenue.

In response to these challenges, amendments to the Higher Education Act adopted in 2022 established a framework for sharing public funding among collaborating institutions. The new law stipulates that state funding for instruction must be “provided though the coordinating higher school and disbursed to the higher schools carrying out the tuition depending on their duties laid down in the agreement signed between them.” However, this requirement for institutions to negotiate agreements about the allocation of public funding may continue to burden educational collaboration. This approach is more burdensome compared to simpler methods of allocation, such as credit-based funding, which directly links educational activity to resources.

Under the programme framework, grant funds covered travel, accommodation, and other mobility-related costs for Bulgarian students and scholars. However, they did not extend to reimbursing costs incurred by partner institutions outside Bulgaria, such as faculty time or administrative expenses. As a result, international partners only participated on voluntary basis, with Bulgarian HEIs relying on goodwill and pre-existing international relationships (see 4.1.4 and 4.1.5 below on outcomes of the mobility activity).

In addition, inconsistencies emerged between the country's budgetary process and guidelines calling for beneficiary HEIs to collaborate in the creation of new study programmes. Beneficiaries were required to create at least two joint study programmes as part of their projects. The number of the new joint programmes per beneficiary ranged from the minimum of 2 to 15, with some beneficiaries establishing the full 15 programmes (see Figure 3.1). Altogether, this resulted in a total of nearly 100 planned curricular collaborations. The scale of these commitments underlined the need for stronger alignment between regulatory feasibility, funding processes, and the ambitious targets set by Modernisation.

Figure 3.1. Larger universities planned to introduce up to 15 new joint programmes, while smaller HEIs met the minimum requirement of 2



Source: Executive Agency "Programme Education" (2021[14]), *Round-table meeting between the EIT community and key Bulgarian national stakeholders.*

Addressing these challenges is not primarily within the Managing Authority's control and requires careful system-level planning. This includes consideration of how to manage potential competition with established offerings and support sustainability. If modernisation is the goal, some level of disruption to established practices may be necessary to align the system with evolving educational and societal needs but this needs to be carefully managed and guided at a central level.

If future programming aims to create sustainable new programmes, relying solely on competition and market forces to attract student numbers may be ineffective. New programmes often need initial support to establish themselves and build visibility before they can compete with long-standing programmes. Providing temporary funding for the new programmes during their initial phases may allow them to establish a solid foundation.

One approach could be for the Ministry to allocate study places specifically for newly established programmes, committing to this over the duration of the beneficiary contract (e.g. two years). Since actual enrolments in new programmes may fall short of projections, institutions receiving excess funding could be required to adjust future allocations by reducing study places accordingly.

3.3. Beneficiaries were slowed by administrative inflexibilities but achieved agreed targets sufficiently well to avoid financial penalties.

The evaluation found that administrative inflexibilities created delays for beneficiaries, making implementation more challenging. However, they successfully met their agreed targets, ensuring compliance with requirements.

3.3.1. Limited flexibility, burdensome contract modifications, and procurement difficulties slowed implementation

The interdependencies between different spending categories introduced complexity to project management, particularly for the most complex projects, which required managing up to 1 500 line-items-already a challenging task. As highlighted below by beneficiaries, they were required to exhaust funds in one category before being able to resources in another. This rigid structure prevented them from reallocating surplus funds to cover deficits in other areas of the project budget. This was further complicated by disruptions caused by COVID-19, including changes or cancellations of planned student mobilities. With mobility funds left unspent, HEIs were unable to fully unlock these funds and redirect them toward other pressing needs, such as software purchases, limiting their flexibility in adapting to emerging priorities.

> *"It was not possible to adjust mobility plans…We had some expenses, but they were tied to specific budget categories—mainly hardware, software, and training. There was no flexibility to adjust the allocated percentages. Since mobilities could not take place, we were unable to reallocate those funds to other needs. In the end, we spent less than half of the budget... Once the contract was in place, it was difficult to make any changes or reallocate resources." – Project manager (HEI)*
>
> *"The process for reallocating funds between budget lines (from those with surpluses to those with deficits) was overly complicated, requiring a burdensome administrative procedure that included requests, reviews, and approvals. Simplifying this mechanism would enhance the project's financial management." - Financial expert (HEI)*

Beneficiaries consistently shared the view that minor contract modifications with *de minimis* or no financial implications were burdensome, consuming staff resources and introducing project delays. For instance, changing the location of a mobility within the same country, such as from Madrid to Barcelona, necessitated significant paperwork, even though unit travel costs per mobility participant for the two destinations were equivalent. Similarly, updating a participant's personal information involved amending five different documents, including entries in the EUMIS system, as well as in the interim and final reports.

In addition, beneficiaries relied on public procurement to assist with the implementation of planned project activities. While this often proceeded without incident, some universities also faced challenges.

> *"The university faced challenges in conducting procurement procedures, including unjustified claims of irregularities. For instance, there was a complaint regarding the procurement of ICT equipment. Although the university successfully appealed and had the financial correction revoked, this process took two months and froze the verification of the second interim report, further delaying project implementation." - Technical officer (HEI)*

When procurement actions faced formal contestation, the process could become mired in administrative law and review procedures that could sometimes take up to six months to resolve. During these delays, the project could not progress as planned, which further impacted timelines.

3.3.2. ...however, non-fulfilment of indicators by beneficiaries were infrequent and beneficiaries did not experience financial risk that deterred ambitious project planning

Although delays occurred in the implementation of the activities – due, as explained above, in part to the legal constraints for joint programmes and COVID-19 disruptions affecting academic staff trainings and mobilities - all HEIs met the majority of their targets, and no reductions in the grant awards were reported to the OECD evaluation team. As determined by EU and national rules, if beneficiaries failed to achieve contractually agreed targets related to the objectives of OPSESG, such as agreed numbers of participants in training, reductions in the grant award (known as "financial corrections") were to be applied based on the degree of non-fulfilment. For example, for projects achieving between 80-89% of a target value, a 5% financial correction was to be applied, while for projects achieving target values of 90% or above, no corrections were to be applied. These incremental adjustments allowed for small shortfalls to be accounted for, ensuring that projects largely met their overall target indicators. Given the difficult conditions under which beneficiaries implemented their planned activities, this policy provided an important margin of flexibility for beneficiaries, balancing accountability for expenditure with supporting realistic and ambitious project planning.

4. Monitoring, reporting, and learning

This section provides a brief review of how monitoring and reporting functioned in the Modernisation procedure, and what scope of learning activities were undertaken, examining their effectiveness and efficiency in particular.

4.1. Reporting and evidence collection procedures were burdensome, which created efficiency challenges

The evaluation found that reporting and evidence collection were time-consuming and sometimes inefficient. Optimising these processes could improve efficiency and free up more time for project implementation.

4.1.1. Despite simplification efforts, both HEIs and the Managing Authority faced a heavy administrative burden related to reporting

The introduction of simplified cost options represented a positive development, particularly in alleviating the need to report spending by highly granular categories, such as human resources and staff management. This simplification allows institutions to allocate funds more flexibly while ensuring that key personnel, including both the management team and academic staff involved in the development of joint programs, are appropriately funded. However, this information was still printed out and stored at the HEI in order to comply with potential expenditure verification reviews by the Managing Authority.

Both technical and financial reporting also continued to place a heavy burden on both the Managing Authority and participating higher education institutions.

> *"One of the main difficulties in executing and reporting on the project was the significant administrative load on the team. For example, during the preparation of the technical reports, the process of proving the completion of activities (such as developing curricula, implementing mobility programs, and delivering goods and services) required a large volume of documentation. Each interim report was accompanied by at least two mandatory financial documents, each of which demanded additional supporting materials. This extensive documentation process consumed a lot of time and delayed the entire verification process, which could take months for each report." – Administrative team working on the project implementation*

This quotation illustrates the extensive reporting requirements. Projects required up to fourteen files per reporting cycle, with the most complex projects requiring the submission of nearly 70. These biannual technical reports documented progress on project activities, such as development of curricula, implementation of mobility programmes, and delivery of software. Beneficiaries had to provide detailed evidence (e.g. certificates verifying training completion and micro-level data on mobility participants). While this helped the tracking of results, the volume of documentation - particularly for mobility- was demanding. Minimal changes in mobility destinations that had no cost implications were subject to reporting requirements. which added to the burden, especially given the time needed to plan international mobilities. HEIs had to submit four separate documents for financial reporting and three additional documents for technical reporting, all aimed at providing evidence of training execution. Each interim report was accompanied by at least two mandatory financial documents, each of which demanded additional supporting materials.

While the Managing Authority now uses simplified costs options, and the number of requested documents has decreased in recent years, challenges remain. It is reasonable that monitoring should impose some burden on beneficiaries, but it is important that this results in high-quality usable data that can be compiled and analysed to bring insight into not just whether activities met their targets but also how they were perceived, whether they were associated with any changes in practices and how they can be improved in the future. From the perspective of HEIs, administrative requirements often shifted the focus away from improving educational outcomes, while for the Managing Authority complex procedures have led to unwanted delays, which reduces their capacity to play a supportive role for beneficiaries.

4.2. There was a lack of learning both during and after the implementation of supported projects

The evaluation found that learning opportunities during and after project implementation were limited. Monitoring focused on compliance rather than improvement, and there were few structured opportunities for peer learning amongst beneficiaries. Strengthening these elements could enhance the effectiveness of future procedures and programmes.

4.2.1. Monitoring and evidence collection supported financial and technical compliance, but not learning and improvement

The Modernisation procedure required beneficiaries to report on activities and provide evidence demonstrating the fulfilment of contracted performance indicators, such as the number and profile of academic staff completing training activities, or the number of courses with digitalised content. This reporting successfully ensured the provision of essential information for confirming compliance with regulatory requirements. However, beneficiary reporting was not sufficient to generate insight into how to improve funded activities.

Beneficiary reports often confirmed that targets were achieved (e.g. 120 lecturers have received a certificate for successfully completing an upskilling programme, achieving 100% of the educational indicator). While these achievements demonstrated progress, the reports offered little detail on the depth of skills acquired, or how these skills were applied in teaching or professional settings. Some beneficiaries also consistently described data collection and reporting on performance indicators as an exercise focused primarily on compliance rather than promoting learning and improvement. To address this, future procedures could collect information, such as feedback from academic staff on the usefulness and quality of training, data on how digitalised content is integrated into teaching practices, and evidence of sustained collaboration between institution following the completion of projects.

Some HEIs are already working to better understand programme outcomes by gathering feedback from participants in training and mobility activities. For example, one university surveyed its academic staff about

their language training needs before the start of the programme. After the training, it conducted a follow-up survey to identify any emerging issues and gather quick insights on participant satisfaction (e.g. the likely usefulness of the training in teaching practices, the effectiveness of the learning environment, and potential areas of improvement in language training offerings).

Similarly, other beneficiaries reported using surveys to gather feedback from participants in mobility programmes. These efforts, while limited to ad hoc questionnaires, helped fill critical information gaps and supported institutions in reflecting on the design and refining future training activities. However, the data collected through these surveys have not been systematically analysed, nor have the findings have been consolidated into a report, and the evaluation team were not able to access the data. These efforts could have been built on to adopt more standardised surveys and establish mechanisms for sharing and publishing data.

In many countries, beneficiaries are required to distribute pre- and post-surveys, and more advanced methods, such as tracking student progression, completion rates, or labour market outcomes, may also be used to offer further insights. For example, more innovative approaches could draw on models like Kirkpatrick's four level evaluation framework, which assesses not only student satisfaction but also learning outcomes, behavioural changes, and broader impacts (Smidt et al., 2009[33]; Andreev, 2022[34]). Using a mix of quantitative surveys and qualitative group interviews could help institutions move beyond activity tracking to better understand the real effects of the project activities. For Modernisation, these steps could have allowed institutions to better evaluate training outcomes, exchange best practices, and improve programme design, potentially fostering more learning and improvement across the higher education system.

4.2.2. Modernisation did not contain beneficiary peer learning during implementation or feedback at the conclusion of the activity.

In many OECD jurisdictions, grant programmes are designed to provide opportunities for beneficiaries to share their experiences with one another. These exchanges are sometimes organised to permit beneficiaries to share research findings or expert knowledge with one another, accelerating the growth of scientific insight, such as meetings among beneficiaries of the international Collaborative Research in Computational Neuroscience grant programme (UMN, 2024[35]). In other cases, as in the EU Horizon grant programme, web-based shared learning events are organised during the life of grants to permit beneficiaries to jointly raise practical administrative details, such as, how to amend grant agreements (European Union, 2023[36]). Grant programmes are organised to facilitate end-of-grant learning, permitting beneficiaries to reflect on their experiences, identify lessons learned, and share valuable input to public officials for improving future grant cycles. These peer learning and feedback opportunities could strengthen the impact of procedures grant-supported projects, fostering improvement and more effective future initiatives. Implementing similar mechanisms within grant programs can facilitate the exchange of practical insights, address common challenges, and contribute to the overall success of funded initiatives.

5. Outcomes, sustainability, and EU added value

This section provides an overview of key outcomes from the activities under the Modernisation procedure, noting, where possible, the sustainability and EU-value added derived from Modernisation.

5.1. Modernisation achieved substantial results when building on local practice and needs, but faced more challenges when striving for innovation

The evaluation found that Modernisation was most effective when building on existing strengths, while introducing new approaches proved more challenging. Although not all joint programmes are expected to

continue, beneficiaries saw clear benefits in collaboration. The procedure also broadened professional development opportunities, which participants rated highly. Mobility support was beneficial mostly for smaller universities with limited international connections.

5.1.1. Monitoring data provides limited evidence about the outcomes and impact of activities, but interviewees shared clear views on what aspects of the procedure were most effective

As noted above, the monitoring data collected for the procedure does support conclusions about whether activities have translated into improved practices to support student competencies, digitalisation or teaching quality. However, it is possible to reach some tentative assessments of the activities based on interviews with higher education managers and academic staff who implemented projects. Together their comments suggest that Modernisation was only partially successful in achieving its most ambitious objective of transforming HEIs through collaborative degree development and the adoption of competency-based teaching and learning. Modernisation achieved greater success where the country's policy landscape did not hinder its beneficiaries' work. It helped advance initiatives that were already in progress at HEIs, such as digitalisation. The procedure also succeeded in providing services and supports that were in high demand but under-supplied due to budgetary limitations in the HEIs, like training and mobility opportunities for academic staff. These areas were particularly valuable because they addressed significant gaps in professional development support for teaching staff.

Digitalisation, training, and mobility initiatives are likely to be the most sustainable of Modernisation's areas of focus as the evaluation team heard that these most closely align with the personal and professional interests of academic staff. These activities helped enhance staff skills, and interviewees felt that they improved their teaching practices, and yielded tangible benefits, such as greater career mobility or improved instructional capabilities. Academic staff found these initiatives personally beneficial, and voiced appreciation for their provision. Academic councils and rectors, who set institutional budget priorities are responsive to the wishes of academic staff, and interviewees felt they may be able to find space within institutional budgets to continue some aspects of these activities. The perspectives of beneficiaries suggest that the Modernisation activities did help address some important gaps in HEIs and could lead to these activities becoming part of institutions' long-term priorities, continuing after the end of projects.

By comparison, institutional collaboration in the development and offer of new study programmes and competency-focused programmes are two innovations that are disruptive to current practices and generate fewer benefits to individual academic staff. These innovations have weak ties to institutional budgets, so without the stimulus of ESF funding, neither innovation may have been implemented or scaled. While the prospects for the sustainability of joint programmes is currently modest, their EU value-added is comparatively high. If students and employers recognise the relevance and quality of competency-based programmes, institutions may be motivated to adopt and scale them, particularly if they see long-term benefits for their academic reputation and employment outcomes.

5.1.2. While fewer than half of new joint programmes will likely continue, beneficiaries reported positive views about the feasibility and benefit of educational collaboration among Bulgarian HEIs

Interviewees suggested that fewer than half of the new joint programmes appear likely to enroll students in the 2024-2025 academic year. However, beneficiaries indicated that even joint programmes that did not persist produced an important result. The experience of working in collaboration with another HEI to develop a joint degree programme has demonstrated to them the potential feasibility and benefit of educational collaboration with other Bulgarian HEIs. The procedure involved the planned development of nearly 100 joint programmes (see Figure 3.1), with total enrolment of more than 2 500 students over the period of the project. Based on interviews with beneficiaries, it is possible to estimate that about half of the

joint programmes were inactive at the end of the 2023-2024 academic year, and some of those may not continue to enroll students in 2024-2025 academic year. Programme sustainability varied from one beneficiary to another. For example, one university reported that many of its newly launched collaborative degree programmes continued to enroll students in 2024, but that about a quarter of its planned collaborative programmes never started. Another university noted that only one out of seven joint programmes it developed was operational by the third quarter of 2024.

As noted in this report, there were many impediments to the successful achievement of agreed targets, including faculty planning on the part of HEIs themselves, as well as legal and budgetary impediments they faced. Conversely, in cases where collaborating institutions were connected to one other through professional practice, responding to a pressing need identified by external stakeholders, and had good evidence of student demand, successful and persisting programmes have been established. For example, the National Centre of Infectious and Parasitic Diseases, the Medical University of Plovdiv, and the Medical University of Sofia were able to jointly respond to the need for a growing number of qualified professionals to run medical diagnostic laboratories. Together, their microbiologists, immunologists, and parasitologists developed a master's degree programme. The programme trains students to manage medical laboratories to meet strong labour market demands, growing from an initial cohort of fewer than 20 students to a projected 120 students in the 2024-2025 academic year. Focusing proposal applications on these elements – alignment with professional practice, stakeholder needs, and evidence of demand – rather than on the number of programmes to be developed, could help improve the quality and the long-term impact of such activities.

Efforts to establish collaboration in the development and delivery of academic programmes produced an intangible but important outcome: new collaborative mindsets within the Bulgarian higher education system. Administrators and instructors in beneficiary institutions acknowledged that prior to Modernisation, Bulgaria HEIs collaborated primarily in research, but not in their education missions. However, the experience of working closely on the development of shared instruction has left beneficiaries with a positive outlook on how their distinct competencies and expertise can be combined to offer a shared study programme. They also recognise that accreditation policies and the Higher Education Act now provide some (albeit limited) scope to the future collaborations.

> *"We have research collaboration among universities but did not have experience of joint education. With this project we saw it could be done, and though there are difficulties they can be overcome." - Professor*

These changes in thinking are likely to have lasting effects. For example, though the grant period has ended, one beneficiary reported that they are continuing their efforts to implement collaborations that they were unable to complete within the grant's timeline. In addition, there are also spillover effects from the Modernisation procedure, which shows the unintended positive outcomes that extend beyond the initial scope of the project. In another university, a department that was not originally involved in the Modernisation project activities shared with us that, based on the experience of colleagues, they are now considering developing joint programmes applying competency-based approach.

> *"We in the Geology Department are now planning to develop joint programmes implementing a competency approach." – Professor*

This reflects the broader influence of the project and suggests that this may continue to grow within HEIs, fostering further collaboration and innovation across departments.

5.1.3. Beneficiaries provided strongly positive assessments of competency-based education initiatives and digital education initiatives

Two areas of focus within the Modernisation procedure - the establishing of competency-based programmes and the integration of digital technologies - were critical to the success of its principal goals. These areas will also be central to the planned Competence activity under PE.

The design of a competence-based approach to curriculum[13] and teaching received strong support from partner business organisations, academic staff, and students. Seen from the vantage point of business partners and higher education instructors, adopting a competency orientation to curriculum and teaching was an excellent opportunity to ensure alignment between the skills needed in the workplace and the competencies university curriculum and teaching aim to develop. Instructors reported that competency-based programmes were particularly attractive to students, helping them to clearly see the link between what they were learning and the skills they would use in their professional lives.

Study programmes with preexisting connections to industries and professions, such as biology and the biopharmaceutical sector, were able to draw upon and deepen these collaborations further. For example, one collaboration led to the development of a new Master programme in Medical Diagnostics, involving multiple institutions, including universities in Sofia, Plovdiv, and Pleven to ensure broad and interdisciplinary approach.

> *"The timing was perfect for this programme. Public health had been neglected, and there was a growing need for well-trained specialists in clinical immunology and epidemiology. The COVID-19 crisis highlighted the importance of qualified professionals in medical diagnostic labs, and this programme helped meet that" - Professor*

The redesign of study programmes through the adoption of competency-based curriculum and pedagogy also extended beyond natural sciences and engineering to other domains. However, beneficiary reports do not provide sufficient data to measure the extent of changes adopted or the impact of those changes on the skills acquired by learners (see the section above on monitoring practices).

The second area of focus, the integration of digital technologies, was a required element of grant proposals. After the selection of project proposals and the awarding of contracts, the Managing Authority initially estimated that approximately one hundred study programmes would benefit from "the introduction of digital educational content, including distance learning" (EAPE, 2020[13]). In practice, beneficiaries appear to have implemented digital technologies in a wide range of ways; some of which were innovative and consequential, and others of which were not.

For example, Sofia University, in collaboration with six other universities, established a cloud platform to provide shared access for students and academic staff to learning resources for their collaboratively-developed courses. In contrast, some HEIs used digitisation funding primarily to acquire new software and focused on digitising physical learning resources. The evaluation team also heard that some digital content created under Modernisation was not shared with other universities due to concerns over intellectual property and a lack of guidance contributed to this. This reluctance to share educational materials limited the potential positive impact and spill-over effects that these resources could have generated across institutions. The absence of quantitative data and the diversity of digitalisation initiatives undertaken by beneficiaries effectively prevents any systematic assessment of the scope and impact of digitalisation activities. However, compiling learning and providing clearer guidance on managing issues of intellectual property may help ensure that digital educational content is shared effectively in the future, balancing intellectual property rights with the broader goal of fostering collaboration and resource-sharing among universities.

Box 3.3. Country practices on incorporating the competence model in higher education

An example from Portugal highlights the integration of key competencies through the *Portuguese Network for Critical Thinking in Higher Education (CrithinkNet)*, involving over 130 teachers from 45 institutions. Led by the University of Trás-os-Montes and Alto Douro (UTAD), the network equips students with the critical thinking skills needed to tackle global challenges. Supported by the Erasmus+ project, Crithinkedu and the *OECD Fostering Critical and Creative Thinking in Higher Education* project, it offers regular training, research, and events like the *Interinstitutional Critical Thinking Day*.

The UK's *Teaching Excellence Framework (TEF)* is another example of a structured approach to improving higher education by evaluating and rewarding excellence in teaching, learning, and student outcomes. Its goal is to encourage HEIs to exceed basic quality standards and deliver outstanding educational experiences. It focuses on **student experience** (i.e. teaching quality, support services, and the overall learning environment and **student outcomes** (i.e. academic performance and post-graduation prospects).

Table 3.1. HEIs are awarded one of four ratings: Gold, Silver, Bronze, or Requires Improvement, based on the evidence they submit and their performance against national indicators

Teaching Excellence Framework categories	
Gold	The student experience and outcomes are typically outstanding.
Silver	The student experience and outcomes are typically very high quality, and there may be some outstanding features.
Bronze	The student experience and outcomes are typically high quality, and there are some very high-quality features.
Requires improvement	The provider was assessed in TEF, and no rating was awarded. Improvement is required for a TEF rating.

TEF integrates the competence model in higher education through:

- **Incentivising competency excellence**: Motivating institutions to go beyond basic quality standards, encouraging them to focus on competence development, including critical thinking, problem-solving, and collaboration, which are essential for addressing global challenges.
- **Competency-focused evaluation:** Evaluating institutions based on student outcomes, with a focus on key competencies. It encourages universities to ensure that students not only succeed academically but also acquire critical life skills that prepare them for real-world challenges.
- **Tailored educational practices:** Encouraging HEIs to adapt teaching methods to meet the needs of diverse student groups, fostering an inclusive learning environment to ensure that all students develop the necessary competencies.
- **Evidence-based competency tracking**: Using data, such as student feedback and academic outcomes, to monitor and improve institutional performance. By tracking the development of key competencies, institutions can ensure they meet the demands of an evolving labour market.

This provides a structured approach to improving teaching and aligning practices with competencies, as well as supporting continuous development and evidence-based improvement in the sector.

Source: Saroyan, (2022[37]), "Fostering creativity and critical thinking in university teaching and learning: Considerations for academics and their professional learning", OECD Education Working Papers, No.290, OECD Publishing, Paris https://doi.org/10.1787/09b1cb3b-en; Universidade Lusofona (2024[38]), *Launch: Portuguese Critical Thinking Network*, https://www.ulusofona.pt/en/event/portuguese-critical-thinking-network- (accessed on 7 February 2025); Office for Students (2022[39]), Regulatory advice 22: Guidance on the Teaching Excellence Framework (TEF) 2023, https://www.officeforstudents.org.uk/media/77d4955c-4165-4f8f-94cf-315544b6cf25/ra22-tef-framework-guidance-final.pdf (accessed on 7 February 2025).

5.1.4. The project greatly expanded the availability of professional development in HEIs, and participants offered favourable assessment of its quality, though impacts are unknown

The Bulgarian state budget does not provide dedicated funding for continued professional development of academic staff, and institutional resources for such activities have been modest. As a result, few HEIs in Bulgaria have offered professional development through structured learning. Against this backdrop, Modernisation introduced a significant – though temporary – funding stream to support professional learning, including language instruction and training in the use of digital technologies. Under the project, academic staff complemented over 5 000 trainings, with more than the half focused on language competencies, a key identified need. Projects offered language training in both basic and advanced courses, each lasting 160 hours, allowing participants to complete up to 320 hours of language study. Similarly, digital training was offered at two levels: basic digital skills and advanced digital methods tailored for teaching and learning within a professional field. Each training module lasted 80 hours, allowing academic staff to participate in both, totalling 160 hours of digital training. Academic staff interviewed by the OECD evaluation team consistently offered positive assessments of training quality. However, it remains unclear whether the skills gained were substantial, lasting, or effectively applied in teaching. Some institutions have chosen to continue the training activities initiated through Modernisation out of local resources. This provides evidence of their perceived benefits and indicates that the initiative had some degree of sustainability.

5.1.5. Supporting mobility was most important for smaller universities without international networks…

The impact of the Modernisation's mobility opportunities varied widely among HEIs, primarily due to differences between mobility options provided by Modernisation and the EU-sponsored Erasmus+ programme, and the capacity of institutions to take advantage of the Erasmus+ programme. While Erasmus+ requires visiting scholars to obtain a formal invitation from a foreign host university, the Modernisation mobility opportunity relied upon institutional agreements between Bulgarian and foreign host institutions, without the need for prior academic connections. For institutions and academic staff without pre-existing international networks, mobility funding through the Modernisation procedure was an important benefit. However, for others, Erasmus+ was a more attractive option.

In Bulgaria's most research-intensive universities, many academic staff had already participated in international mobility programmes or had established international networks that are sufficient to obtain a formal invitation or agreement from a host institution outside of Bulgaria – a requirement of the Erasmus+ programme. In one such research university, administrators reported difficulties to achieve the level of mobility activity among academic staff to which they had initially committed in their contracted performance targets because it was already a well-established practice. This suggests a degree of duplication. However, in institutions with a modest international research profile the Modernisation mobility opportunities were met with enthusiasm. These opportunities provided international networking and learning experiences that were previously unavailable to their academic staff. Based on the assessments shared by beneficiary institutions, it appears that the short-term impact of the mobility funding was substantially greater for institutions with a modest research profile than for research-focused universities, and mobility support through Modernisation may boost future participation in the Erasmus+ programme among smaller universities. Future mobility funding – if implemented in the Competence procedure – would make better use of resources by targeting funding toward institutions with a low percentage of internationally mobile academic staff rather than distributed across all institutions.

5.1.6. …however, uptake was lower compared to Erasmus+, mainly due to its structure and less attractive financial offer

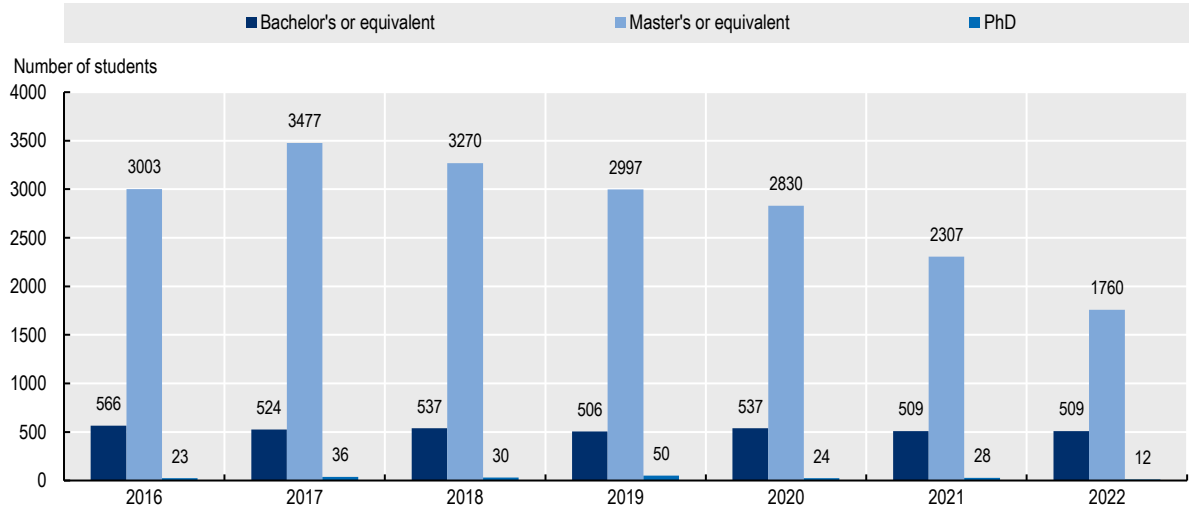
Between 2020 and 2022, almost 500 bachelor's, master's and PhD students participated in mobility opportunities under the Modernisation procedure, along with around 200 post-doctoral and early-career researchers. As academic credit recognition was universally required, all participating students received credits for their study periods abroad. Despite offering an additional international mobility opportunity—one that proved particularly valuable for professors in smaller universities—the uptake under the Modernisation procedure was lower than that of the well-established Erasmus+ programme. While participation and graduates in Erasmus+ also declined in recent years, in part due to COVID-19 disruptions (see Figure 3.2**Error! Reference source not found.**), it remained the preferred mobility pathway for many Bulgarian students.

One of the key differences between the two programmes was the structure of mobility opportunities. Erasmus+ offers both long-term (2 to 12 months) and short-term (5 to 30 days) mobility options, often requiring a blended learning component (European Commission, 2024[40]). In contrast, Modernisation primarily supported tailored short-term stays of up to three months, depending on the participant's status. This structure presented challenges for certain disciplines, particularly medicine. Medical HEIs reported that students and medical trainees could not afford to be away from their studies for three months, leading to a lack of candidates for outgoing mobility from these fields.

The two mobility programmes also differed in administrative complexity and financial conditions, with Erasmus+ perceived as more advantageous in both respects. Some universities cited financial considerations as a key factor behind the lower than predicted update. The funding allocated per mobility under the Modernisation procedure was lower than that provided by Erasmus+, and rising inflation in Bulgaria and across the EU further increased financial barriers. These factors made it more difficult for students and doctoral candidates to fully take advantage of the learning opportunities at partner institutions.

Figure 3.2. The number of credit-mobile graduates under Erasmus+ has declined in recent years

Credit mobile students (at least 3 months abroad) of bachelor's students 2016-2022



Note: Only credit mobility under EU programmes (i.e. ERASMUS or other EU programmes) are included.
Source: Eurostat (2024[12]), *Credit mobile graduates (at least 3 months abroad) by education level, type of mobility scheme, type of mobility and sex*, https://doi.org/10.2908/EDUC_UOE_MOBC01.

4 Implications for current and future education programming

This final part of the report summarises the evaluation's findings and conclusions about the "Modernisation of Higher Education Institutions" procedure and draws on them to offer some suggestions for future procedures under Programme "Education" 2021-2027 and beyond.

Conclusions

Relevance: The evaluation found that Modernisation was highly relevant to Bulgaria's national and institutional priorities. It addressed the key areas outlined in Bulgaria's strategic plan for higher education, with few areas left unaddressed. While the procedure was relevant to local needs, its broad focus combined with modest and institutionally targeted funding restricted its potential to achieve systemic and strategic impact in all areas. There could be opportunities to further streamline the scope of future procedures to ensure that resources are focussed on fewer goals.

Coherence: The evaluation found that whilst the Modernisation procedure was coherent with national strategy, more sustained and specialised expert advice at key moments could have further supported the alignment of Modernisation activities with the prevailing policy and regulatory environment.

Effectiveness: The evaluation found that Modernisation made positive achievements in certain areas, particularly when building on existing local practices and institutional needs (e.g. the digitalisation of educational content and integration of the cloud environment or services and supports like training for academic staff). Beneficiaries were generally successful in meeting their objectives and achieving their targets. However, in some areas, such as the development of degree programmes and the adoption of competency-based teaching, beneficiaries faced challenges such as regulatory constraints and institutional inflexibilities, which, along with the effects of the COVID-19 pandemic, sometimes slowed progress and limited Modernisation's ability to drive innovation and achieve long-term impact. Despite these challenges, beneficiaries reported positive views on the feasibility and benefits of collaboration between HEIs and with businesses. Key initiatives in professional development, competency-based education, and digital education were well-received. Opportunities for peer learning and feedback were largely absent and providing beneficiaries with opportunities to reflect and learn from each other could enhance the overall effectiveness of the programme.

Efficiency: The programme faced some efficiency challenges due to complex and time-consuming application, reporting and administrative procedures. While these processes ensured technical and financial compliance, they were burdensome for both beneficiaries and the Managing Authority, slowing down the overall pace of the procedure. Despite efforts to simplify some processes, modernisation's complex nature meant the Managing Authority needed to provide extensive explanations and guidance. However, most projects were eventually completed as planned and despite some delays, most beneficiaries avoided financial penalties.

Sustainability and EU added value: The sustainability of some of Modernisation's activities remains a challenge. Although many new joint programmes were developed, fewer than half are expected to continue in the long term. The support for professional development and mobility provided meaningful benefits, especially for smaller universities, but these initiatives may require further support and adaptation to ensure their longevity. Nevertheless, even when activities did not continue, interviewees reported that they have led to some changes in attitude, for example, to collaboration across institutions. The aspects of modernisation that aimed to drive innovation in the sector were also those aspects which featured the clearest EU added value. For example, whilst some institutions were already advancing digitalisation in teaching, the introduction of competency-based programmes and joint programmes was accelerated by the impetus of EU funding and would not otherwise have been possible at such a scale.

Promising practices

The project demonstrated several promising practices that could be built upon in future initiatives.

Public participation and feedback: The procedure provided *ample opportunities to submit public comments* on the methodology and criteria for selection of beneficiaries, as well as the guidelines for applicants, with detailed written feedback provided to all commenters.

Expanded professional development for academic staff: There was an important *expansion of professional development opportunities* for academics that focused on enhancing language and digital skills, beneficial to their responsibilities as teachers and researchers. These skills are crucial in an increasingly digital teaching and learning environment.

Investments in digital infrastructure: The project supported investments in technologies ranging from cloud computing to the acquisition of specialised software. This helped to *expand the capacity of HEIs for digitally-enhanced teaching and research,* laying some foundations for longer-term digital transformation.

Inter-institutional collaboration: The project made an important start in demonstrating the feasibility and mutual benefit of collaboration between *HEIs in sharing responsibility for curriculum development and teaching*. This approach allowed universities to form partnerships through which they can share expertise, resources, and best practices.

Competency-based curriculum design: Moving towards a *competency-focused redesign of curriculum and pedagogy* aligned with the skill demands of professional practice and proved attractive to students, instructors, and employers.

Lessons and recommendations

Informed by the experience of the Modernisation procedure, this section proposes a number of possible actions that could support the planning and management of future procedures and policy-making in Bulgaria (see Section 2). While some of these recommendations may assist the Managing Authority, others are aimed more broadly at the ministry, decision-makers, and stakeholders within the higher education sector in Bulgaria to support systemic improvements. Specifically, the reports suggest, among other actions, improving the depth and span of consultation, reducing the scope of tasks included within one activity, and designing the activity with a clear emphasis on evaluation and impact assessment from the outset.

The second section looks forward to two upcoming higher education activities within PE (see Section 3). It notes that the planned "Access of vulnerable, disadvantaged, and non-pedagogical staff to higher education" (Access to higher education) procedure is likely to be well-served by a competitive procedure. Conversely, current competitive procedures may be ill-suited to the upcoming "Strengthening the

Competence Approach in Higher Education" (Competence) procedure, although both activities could usefully incorporate key lessons from Modernisation.

1. Strengthening future procedures and policy-making

This section offers possible areas of action across the sequence of future procedures: (1) identifying the focus and scope of the activity; (2) engaging experts and stakeholders; (3) identifying evaluation needs; (4) developing the selection criteria and methodology; (5) establishing a supportive implementation environment; and (6) organising learning to support efficiency and sustainability.

1.1. Designing procedures with a more targeted scope to reduce complexity and achieve impact

The broad and diverse scope of tasks within the Modernisation procedure had wide-ranging consequences for the activity, increasing the complexity of management and reporting and dispersing attention and resources. Bundles of activities in future procedures could be selected to feature clearer synergies (e.g., advising and mentoring may be more related than competence-based education and international mobility). In addition, the number of tasks could be more proportionate to available funds.

Possible Action Steps:

- The Managing Committee or the Ministry could convene and meet with a Higher Education Technical Advisory Panel (see below), providing them with a briefing document describing what scope of tasks that are tentatively envisioned within a proposed activity, how they relate to one another, what synergies are anticipated and how they might be consolidated and scaled up in the future. The document could also include guidance on preparation, suggesting key discussion questions and encouraging participants to consult widely within their organisations. This document would provide a solid basis for an informed discussion and set the stage for subsequent presentation(s) to the Monitoring Committee.
- The early stages of procedure planning could include the development, discussion, and iterative improvement of a theory of change for the activity, showing how its elements intend to create outcomes and impact. If this occurred at an early stage, this would allow the theory of change to serve as an organising principle that guides the planning and alignment of different elements of the procedure, including requests for monitoring information.

1.2. Further engaging experts and stakeholders to improve coherence between the activity and implementing environment

While adherence to EC and national guidelines on planning and managing competitive activities within Operational Programmes is essential and brings important benefits like impartiality and transparency, there are areas where they could be supplemented. For example, they could be enhanced by inviting ongoing subject matter expertise and insight from the field – from people who will do the work of implementing projects within HEIs, and the people in public bodies responsible for policies and regulations that may hamper or advance the work of beneficiaries. This can help ensure that procedures are well-informed about any conditions and national policies that might impede planned activities. Transparency and impartiality in consultation are essential, and there are a range of action steps are possible that are consistent with these principles that could also improve the effectiveness and relevance of the planning process.

Possible Action Steps:

- As referred to above, a small (5-6 person) Higher Education Technical Advisory Panel – a group of impartial and independent experts – could serve as an ongoing thought partner and critical friend to staff developing higher education activities, focusing in particular on the interval between the adoption of the Operational Programme and the review of proposed activities by the Monitoring Committee. The group would contain a mixture of international and national higher education experts who bring programme evaluation, education research, academic management, and public policy/legal experience to the work of Programme "Education".
- Requests for Information (RFIs) could be used to learn from researchers, practitioners, and stakeholders across the country, soliciting their input with respect to specific questions, such as:
  - What factors are likely to promote or hinder the effective implementation of the (for example) mentoring and tutoring tasks we aim to support through the Access to Higher Education? How should those factors be considered when designing the activity?
  - According to research evidence and international experience, what (for example) mentoring and tutoring practices have been most effective in raising rates of university application and entry among "hard-to-reach or underdeveloped settlements, and vulnerable and marginalised groups"?
- Workshops could be convened with those who have carried out tasks similar to those envisioned for upcoming procedures (e.g. mentoring and tutoring), and those responsible for driving related policies and regulations. If needed, guidelines could be established for these workshops, and a process auditor could be used to ensure those guidelines are respected. Workshops could cover possible obstacles to implementation of future activities and how the policy and regulatory framework can evolve to better support the modernisation of higher education in the future.

1.3. Improving monitoring and evaluation with earlier and broader discussion of evidence needs, and innovations in data collection

Past methods of evidence collection have not always provided the Managing Authority with expert input on monitoring and evaluation sufficiently early in the development of a procedure. For example, there has not been occasions to vet proposed information collections with stakeholders prior to the opening of competitions. This means that those who respond to data requests do not have the opportunity to share their expert knowledge of their organisation's information systems and reporting capabilities. In the past, this had led to the collection of monitoring data that is not well-suited to supporting evaluation. It also risks leading to over-collection of data with beneficiaries required to provide more data than is useful and data simply being collected rather than being compiled or analysed.

Possible Action Steps:

- As early as feasible, the Higher Education Technical Advisory Panel and other evaluation partners could be requested to share views about evaluation evidence that is likely to be needed. This could be based on the preliminary design of an activity and its theory of change, with the panel invited to respond to a "first sketch" of a monitoring evidence collection strategy.
- A Request for Information (RFI) could be published that briefly maps out the design of a pending activity and its key tasks and objectives and invites respondents to identify what data should be collected to support its evaluation. Alternatively, a preliminary evaluation plan could be published, and responses invited, including suggestions for where evidence should be obtained, and what information should be dropped or added to the evaluation plan.
- Beneficiaries could be required to undertake more innovative monitoring and evaluation activities, such as incorporating long-term outcome tracking, including student progression, completion rates,

and labour market outcomes. This could involve not just using pre- and post-surveys, but also more advanced methods, drawing on evaluation models like Kirkpatrick's four level evaluation framework to assess learning outcomes, behavioural changes, and broader impacts. A mix of quantitative surveys and qualitative group interviews could also be encouraged to deepen insights into the effects of project activities.

1.4. Seeking selection criteria and methodologies that balance rigour and relevance

It is essential that the selection criteria and methodologies of competitive procedures be transparent, rigorous, and impartial – and able to identify high quality proposals that are closely aligned, or relevant, to the goals of the activity. The selection criteria and methodology employed for Modernisation fully achieved the first of these aims - transparency, rigour, impartiality. However, the latter less so, with focus on quantitative formulae only able to capture a limited indication of the qualitative strengths and logic models of proposals.

Possible Action Step:

- The scope of expert judgment that is used in the proposal assessment process could be widened, working with the advice of the proposed Higher Education Technical Advisory Group, and drawing upon the experience of other Managing Authorities. The Access to Higher Education activity, with its simple structure and clear aims, would be well-suited to this. This process will require a well-structured framework for the exercise of judgment, i.e., identification of appropriate panel members, developing a template containing criteria, rules of evidence and scoring, and a procedure for aggregating judgements and reaching decisions. The process could, as needed, contain external validation, such as a process auditor who is responsible for confirming that the selection process is faithfully followed in all respects. In addition, higher education agencies from OECD member countries who have developed system performance initiatives for higher education, such as Austria or Ireland, could be invited to participate in the process, or review the proposed process.

1.5. Establishing a more supportive and efficient implementation environment

To achieve greater efficiency in the use of ESF+ resources, it is important to seek further simplifications in financial management, reporting, and contract management within PE activities.

Possible Action Steps:

- A "Simplification Workshop" could be convened with potential beneficiaries, inviting the two to three principal administrative staff members from each beneficiary responsible for compliance with financial and technical reporting requirements. This workshop would provide an opportunity for the Managing Authority to share its own simplification ideas, while also soliciting simplification suggestions from those who are most knowledgeable about the process. Beneficiaries could also share practical suggestions, such as how to handle non-substantive contract modifications and how to automate document sharing or the compilation of data. Programme Education could consider inviting its counterparts in other ministries, such as Labour and Social Affairs, to join in these meetings to identify whether they and their beneficiaries have identified innovative ways to pursue further simplification. Likewise, their counterparts in other jurisdictions who have managed similar activities, such as the Ministry of Education, Science, Research, and Sport of the Slovak Republic, may helpfully share their experience of simplification in the administration of ESF+ funds.

1.6 Organising learning to support efficiency and sustainability

To achieve greater efficiency in the implementation of project activities, Bulgarian authorities could organise peer learning among beneficiaries who share with one another common difficulties and solutions in the technical management of their projects, e.g. “We are having initial difficulties in identifying and motivating industry bodies to partner with us in developing competency-based curriculum. What has worked best for you?” Structured learning at end of an activity is likewise beneficial, permitting incremental improvements in future grant cycles. Equally important, organised learning supports the sustainability of activities funded through ESF+. It permits beneficiaries to share their learning and achievements with others, creating a community of practice that can take initiatives forward based upon shared commitment and local resources when ESF+ funding ends.

Possible Action Steps:

- One or more peer learning workshop could be built into the proposed Programme “Education” activities. These workshops would allow beneficiaries to come together and focus on shared challenges within their projects. For example, they could discuss how to recruit, retain, and assess the effectiveness of mentors in the Access to Higher Education activity. The workshops would also allow beneficiaries to share achievements, such as how competency-based learning has helped students to see the link more clearly between curriculum competencies and the tasks of working life, and how this approach has accelerated students’ transitions to employment.
- Project managers who have implemented the digitalisation and competency-based education projects under Modernisation could be invited to participate in workshops on their respective areas of focus. This would allow them to share lessons and build on the accomplishments of Modernisation within the Competence activity.
- Learning events for proposal development could also be organised for institutions that that did not apply for Modernisation, and those that were unsuccessful, due either to their failure to meet eligibility requirements, or the inability to reach the threshold score for grant awards.

2. Upcoming higher education procedures under Programme “Education” 2021-2027

The Access to Higher Education procedure

The Access to higher education procedure is planned to be a competitive procedure, in which eligible applicants will be schools and non-profit legal entities. Beneficiaries will be required to “provide preparation for the successful application to universities non-pedagogical staff and students from hard-to-reach or underdeveloped settlements, from vulnerable and marginalised groups.”[14] This will be achieved through information campaigns, outreach, training, and assistance with applications to HEIs, as well as mentoring and tutoring.

This procedure is more focused than Modernisation for several reasons:

- It is focused on a single outcome, enrolment in higher education, and targets a clearly-defined population (i.e. it is expected to support 9 687 students and train 2 854 staff).
- The range of proposed activities is comparatively narrow.
- The proposed activities are well-known social interventions (outreach, counselling, mentoring) that can draw upon a substantial body of past practice, both internationally and within Bulgaria, such as the work of the Trust for Social Achievement.
- It does not require legal or regulatory changes to enable its implementation.

While Access to Higher Education would benefit from adapting some of the measures described above – such as the adoption of peer learning and feedback practices – its simplicity relative to other activities

suggests that a competitive procedure would remain generally adequate, albeit one that learns from the experiences of the modernisation procedure.

The "Strengthening the Competence Approach in Higher Education" procedure

As currently planned, the *Strengthening the Competence Approach in Higher Education* procedure is similar to Modernisation in its objectives, target population, and principal beneficiaries. Its activities resemble those of Modernisation, with a few exceptions: it includes recognition of prior learning and excludes career advising and graduate tracking. The funding level for the Competence procedure is also higher compared to Modernisation, with planned spending rising almost by four from BGN 52 million to BGN 202 million (EUR 26.6 million to 103.3 million).

Given its scale and diverse objectives, the Competence procedure will be far more complex to implement though a competitive procedure compared to Access to Higher Education. In light of this, it may be more effective to consider if it would be possible to amend the programme to enable a direct award to be used for Competence rather than the planned competitive procedure. Whatever option is chosen, it will be important that the Competence procedure incorporates key lessons from Modernisation. This includes, among others, reducing the scope of activities included within the procedure, improving the depth and span of consultation and peer learning, and supporting the early initiation of monitoring and evaluation planning.

References

ACEEU (2023), *National digitalisation strategies and digital teaching in Higher Education in Germany*, https://www.aceeu.org/projects/update/id/298 (accessed on 6 February 2025). [24]

Andreev, I. (2022), *The Kirkpatrick model*. [34]

CEDEFOP (2024), "Skills matching", *European skills index*, https://www.cedefop.europa.eu/en/tools/european-skills-index/skills-matching (accessed on 28 January 2025). [9]

De Boer, H. (2017), *Joining Forces: Collaboration in Durtch Higher Education*, https://ris.utwente.nl/ws/portalfiles/portal/21779203/de_Boer_2017_Netherlands_Consolidated_National_Experiences_Report.pdf (accessed on 6 February 2024). [30]

EAPE (2024), *Indicative Annual Work Programme for 2024, Programme Education 2021-2027*. [18]

EAPE (2024), *Indicative Annual Work Programme for 2025, Programme Education 2021-2027*. [19]

EAPE (2023), *Internal rules of procedure of the Monitoring Committee Programme "Education" 2021-2027*. [28]

EAPE (2021), *Round-table meeting between the EIT community and key Bulgarian national stakeholders*, http://file:///C:/Users/Avetisyan_Z/AppData/Local/Microsoft/Windows/INetCache/Content.Outlook/M8N9WAU6/Executive%20Agency%20Overview%20of%20SESG%20and%20Programme%20Education.pdf (accessed on 16 December 2024). [14]

EAPE (2020), *Conditions for Application under the Call for proposals BG05M2OP001-2.016 "Modernisation of Higher Education Institutions"*. [13]

EAPE (2020), *Instructions for technical and financial appraisal of projects for the selection of project proposals "Modernisation of Higher education institutions"*, https://sf.mon.bg/?go=committee&p=records (accessed on 17 December 2024). [17]

EAPE (2020), *Methodology and selection criteria for the operation "Modernisation of higher education institutions"*, https://sf.mon.bg/?go=committee&p=records (accessed on 17 December 2024). [16]

EUMIS (2020), *Evaluation criteria*, https://eumis2020.government.bg/en/s/EvalTable/Print?gid=61838c87-2278-464c-94e7-5a10bbd53388 (accessed on 5 December 2024). [15]

European Commission (2024), *2024 European Semester Country Report - Bulgaria*, https://economy-finance.ec.europa.eu/publications/2024-european-semester-country-reports_en (accessed on 20 January 2025). [7]

European Commission (2024), *Chapter 6. Internationalisation*, Luxembourg: Publications Office of the European Union, https://eurydice.eacea.ec.europa.eu/sites/default/files/2024-05/Chapter_6_Internationalisation.pdf. [11]

European Commission (2024), "Erasmus+: EU programme for education, training, youth and sport", *Studying abroad*, https://erasmus-plus.ec.europa.eu/opportunities/opportunities-for-individuals/students/studying-abroad (accessed on 6 February 2025). [40]

European Commission (2024), *European Research Council Datahub*, https://erc.easme-web.eu/#. [4]

European Commission (2023), *Flash Eurobarometer 529: European Year of Skills: Skills shortages, recruitment, and retention strategies in small and medium-sized enterprises*, https://epale.ec.europa.eu/system/files/2023-09/Skills_shortages_recruitment_retention_trategies_in_SMEs_fl_529_report_en_0.pdf (accessed on 20 January 2025). [8]

European Union (2023), "Horizon Europe Coordinators' Day: Grant Management (8 June 2023)", *EU Science and Innovation*, https://www.youtube.com/watch?v=xpVk77AP5tY (accessed on 30 January 2025). [36]

European Union (2023), "SMEs in Europe struggle to find workers with the right skills", *European Year of Skills*, https://year-of-skills.europa.eu/news/smes-europe-struggle-find-workers-right-skills-2023-11-07_en (accessed on 28 January 2025). [10]

Eurostat (2024), *Credit mobile graduates (at least 3 months abroad) by education level, type of mobility scheme, type of mobility and sex*, https://doi.org/10.2908/EDUC_UOE_MOBC01 (accessed on 30 January 2025). [12]

Executive Agency "Programme Education" (2020), *Operational Programme "Science and Education for Smart Growth 2014 - 2020 [Оперативна програма „Наука и образование за интелигентен растеж 2014 – 2020 г.]*, https://www.eufunds.bg/bg/opseig/node/527 (accessed on 17 January 2025). [2]

Government of Bulgaria (2023), *Registry of Active Students*, Ministry of Education and Science. [42]

Government of Bulgaria (2021), *Strategy for Development of Higher Education in the Republic of Bulgaria 2021-2030*. [21]

Media&Learning (2022), *DAAD leads consortium to launcg new Digital Education Hub for Europe*, https://media-and-learning.eu/subject/higher-education/daad-leads-consortium-to-launch-new-digital-education-hub-for-europe/ (accessed on 6 February 2025). [25]

Ministry of Education and Science (2021), *Internal rules for the activities of the Thematic Working Group on the developmento of the education programme for the programming period 2021-2027*. [27]

Ministry of Education and Science (2021), *Operational implementation plan of the Strategy for the DEvelopment of Higher Education in the Republic of Bulgaria 2021-2030*, https://www.strategy.bg/strategicdocuments/View.aspx?lang=bg-BG&Id=1492 (accessed on [1]

31 January 2025).

NSI (2024), *Educational institutions by type and kind of ownership*, https://www.nsi.bg/en/content/3544/educational-institutions-type-and-kind-ownership (accessed on 17 January 2025). [3]

NSI (2024), *Students enrolled by educational-qualification degree, citizenship, mode of attendance, sex and kind of ownership of the higher school*, https://www.nsi.bg/en/content/3390/students-enrolled-educational-qualification-degree-citizenship-mode-attendance-sex-and-kind-ownership-higher-school (accessed on 17 December 2024). [41]

OECD (2024), *Adults' educational attainment distribution, by age group and gender*, http://data-explorer.oecd.org/s/lj (accessed on 29 October 2024). [5]

OECD (2024), *Education at a Glance 2024: OECD Indicators*, OECD Publishing, Paris, https://doi.org/10.1787/c00cad36-en. [6]

OECD (2023), *The future of Finland's funding model for higher education institutions*, OECD Publishing, Paris, https://www.oecd.org/content/dam/oecd/en/publications/reports/2023/09/the-future-of-finland-s-funding-model-for-higher-education-institutions_c2e89e78/3d256b59-en.pdf. [31]

Office for Students (OfS) (2022), *Regulatory advice 22: Guidance on the Teaching Excellence Framework (TEF) 2023*, https://www.officeforstudents.org.uk/media/77d4955c-4165-4f8f-94cf-315544b6cf25/ra22-tef-framework-guidance-final.pdf (accessed on 7 February 2025). [39]

OSI-S (2024), *Rating of universities in Bulgaria 2024*, https://osis.bg/?p=4876 (accessed on 31 October 2024). [43]

Pawson, R. and N. Tilley (1997), *Realistic evaluation*, Sage Publications, https://www.torrossa.com/en/resources/an/5409538. [20]

Saroyan, A. (2022), *Fostering creativity and critical thinking in university teaching and learning: Considerations for academics and their professional leaning*, OECD Publishing, Paris, https://doi.org/10.1787/09b1cb3b-en. [37]

Smidt, A. et al. (2009), "The Kirkpatrick model: A useful tool for evaluating training outcomes", *Journal of Intellectual & Developmental Disability*, Vol. 34/3, pp. 266-274, https://doi.org/10.1080/13668250903093125. [33]

Southwestern University "Neofit Rilski" (2022), *List of Priority professional fields*, https://www.swu.bg/bg/studentsbg/scholarshipsbg/scholarsbg/185-studentscat/ssbgcat/459-listppabgart (accessed on 20 January 2025). [45]

Thürk, M. and S. Bailer (2023), "Perceptions of corruption and anti-corruption efforts in Bulgaria: Results of a national survey 2023", *Basel Institute on Governance Working Paper Series* 44, https://edoc.unibas.ch/94838/. [29]

UMN (2024), *2024 CRCNS PI Meeting*, https://crcns2024.umn.edu/ (accessed on 30 January 2025). [35]

Universidade Catolica Portuguesa (2024), *Universidade Católica joins new Centre of Excellence for Pedagogical Innovation in the North Region*, https://www.ucp.pt/clil/universidade-catolica-joins-new-centre-excellence-pedagogical-innovation-north-region (accessed on 6 February 2025). [26]

Universidade Lusofona (2024), “The event enables the development of key competencies for the global challenges of the 21st century”, *Launch: Portuguese Critical Thinking Network*, https://www.ulusofona.pt/en/event/portuguese-critical-thinking-network- (accessed on 7 February 2025). [38]

University of Helsinki (2023), *The Board of the University of Helsinki: Ensuring the prerequisites for studying is essential for Finland’s success*, https://www.helsinki.fi/en/news/higher-education-policy/board-university-helsinki-ensuring-prerequisites-studying-essential-finlands-success (accessed on 6 February 2025). [32]

University of Vienna (2022), *ATRACK Consortium: Graduate Tracking in Cooperation with Statistics Austria*, https://qs.univie.ac.at/en/analyses/graduate-tracking/atrack-consortium-2022-2027/ (accessed on 6 February 2025). [22]

Usher, A. and P. Marcucci (2011), “Survey of graduate tracking systems around the world”, *MsdJournal*, https://msdjournal.org/wp-content/uploads/unesco2011-1.pdf. [23]

World Bank (2021), *Higher Education in Bulgaria: Situation Analysis and Policy Direction Recommendations*, https://sf.mon.bg/?go=page&pageId=451. [44]

Notes

[1] The report is provided under the agreement for the OECD to provide support for the evaluation plan of Bulgaria’s Programme “Education” (2021-2027), which was developed, according to the requirements of Regulation (EU) 2021/1060.

[2] European guidance documents, such as the *Proposal for a Council Recommendation on key competences for lifelong learning – COM (2018)24* and the *Digital Education Action Plan – COM (2018)22*.

[3] This objective is included in the Operational plan for implementation plan of the Strategy under Activity 1.1: Establishing the competency-based approach as a priority in higher education.

[4] This objective is included in the Operational implementation plan of the Strategy under Activity 1.2: Enhancing the teaching of modern digital technologies and interdisciplinary links in curricula and programmes.

[5] This objective is included in the Operational implementation plan of the Strategy under Activity 1.3: Strengthening cooperation between higher education institutions, business, and the state in the discussion of curricula and programmes, practical training, and career guidance of students.

[6] The Modernisation procedure closely aligns with most objectives set out in the Strategy, which includes: Activity 2.3: Use of educational forms, methods and technologies tailored to the characteristics of the generation of students being trained; Activity 3.2 Ensuring financially efficient and high quality educational activities; Activity 4.2 Internationalising the social and educational environment in HEIs; Activity 4.3 Encouraging inward and outward mobility of teachers, students and administration; Activity 5.2 Creating conditions for enhancing research initiatives and research capacity of young teachers; Activity 6.2

Improving the organization of research activities in HEIs item; and Activity 10.1 Developing connectivity between HEIs.

[7] REGULATION (EU) No 1304/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 December 2013 on the European Social Fund and repealing Council Regulation (EC) No 1081/2006.

[8] REGULATION (EU) 2021/1057 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 June 2021 establishing the European Social Fund Plus (ESF+) and repealing Regulation (EU) No 1296/2013.

[9] A "priority professional field" refers to an academic or vocational area deemed essential for the country's economic, social, and technological development. These fields are identified by the government as requiring targeted investment, support, or promotion to address critical workforce needs, enhance innovation, or strengthen strategic sectors.

In Bulgaria, the list of priority professional fields is defined under Appendix No. 2 to Article 7 of Decree No. 64 of the Council of Ministers from 25 March 2016. It includes disciplines such as pedagogy, physical sciences, engineering, computer science, and biotechnology. These areas receive special attention in higher education policies, such as increased funding for student enrolment, scholarships, or research, to ensure sufficient skilled professionals are available to meet national priorities (Southwestern University "Neofit Rilski", 2022[45]).

[10] Positional mean values refer to statistical measures that describe the central tendency of a dataset by identifying the value that holds a specific position within an ordered sequence (e.g. median, quartiles) while mathematical models are structured representations of real-world phenomena, often expressed through mathematical equations, that allow for predictions or analysis based on a set of variables and assumptions.

[11] For example, the Activity group 1 on the “Modernisation of educational documentation” was expected to contribute to achieving the following key result indicators: 30 joint academic programs developed with partnering Bulgarian universities; 30 new programs incorporating digital educational content, including for distance learning; 30 joint foreign language academic programs created with foreign universities, research organizations, and specialized foreign clinics; 1,995 students enrolled in courses using digital educational content; 998 students enrolled in courses jointly taught by Bulgarian universities; 998 students enrolled in foreign language courses jointly delivered with foreign universities.

[12] The Modernisation procedure aimed to support a wide range of objectives set out in the Operational Implementation plan of Bulgaria’s Strategy for Higher Education 2021-2030, contributing significantly to almost all of the strategy’s key activities. Specifically, it aimed to advance Activity 1.1 by promoting a shift towards competency-based education, updating curricula, and integrating essential skills such as critical thinking and leadership. It also aligned with Activity 1.2 by fostering digitalisation and interdisciplinary teaching through digital content and the creation of hybrid programmes. Additionally, it supported Activity 1.3 by encouraging collaboration between HEIs and industry, particularly in joint degree programmes and practical training. Beyond these core activities, the procedure intended to contribute to Activity 2.3 by promoting innovative teaching methods, Activity 3.2 by ensuring high-quality educational activities, and Activity 4.2 and 4.3 by fostering internationalisation and mobility. Furthermore, it aimed to bolster Activity 5.2 and 6.2 by enhancing research capacity and supporting young researchers and contribute to Activity 10.1 by strengthening connectivity and collaboration among HEIs.

[13] The introduction of a competence-based approach in the development of curriculum in the Conditions for Application was defined as “development of a framework of competences (competence profile of a specialisation), which defines the “learning outcomes” (knowledge, skills and competences) that must be acquired and demonstrated by the learners after the completion of the learning process (what the learner knows, understands, and is able to do at the end of the learning process)”.

[14] The Ministry of Education and Science of Bulgaria defines vulnerable and marginalised groups as children at risk of dropping out or facing barriers to education, including those with low parental education, social exclusion, or disadvantaged positions in the labour market. Specific groups include Roma children, children with special educational needs (SEN), ethnic minorities, migrant and asylum-seeking children, victims of violence, and those who have dropped out or are at risk of dropping out of school. The National Strategy for Roma inclusion highlights Roma children as particularly vulnerable, with limited access to pre-school and low school continuation rates. These definitions inform policies for educational support, desegregation, and equal access to education.