COMPONENT 7.4: School adaptation – Promoting green skills and sustainability in universities

1. Description of the component

|  |
| --- |
| **Policy field:** *Social policy, Skills, Education and Training, Environment*  Goal:  The European Green Deal, the Geen Deal, set out the European Union’s objectives for the green transition, including the targets for reaching net-zero emissions by 2050. Climate change and biodiversity loss require decisive and ambitious action in a number of policy areas. These include education and training for graduates who will support Europe’s transition towards a fairer, more inclusive and sustainable way of living and working. Sustainability should not only be part of education and training itself, including inclusion in curricula and professional development of educators, but should also be taken into account in investments in the buildings, infrastructure and operation of educational institutions.  The green transition is also undergoing change and acceleration due to the new geopolitical and energy market realities that accelerate the clean energy transition and work to increase the EU’s energy independence from unstable fossil fuels. REPowerEU is the European Commission’s plan to make Europe independent from Russian fossil fuels well before 2030, in light of Russia’s invasion of Ukraine. The REPowerEU plan sets out a series of measures to rapidly reduce dependence on Russian fossil fuels and fast forward the green transition, while increasing the resilience of the EU-wide energy system. The Czech Republic is also responding to this situation in the context of economic and energy measures.  This green transition boosts the demand for new skills at all levels and will require large-scale upskilling and reskilling of the workforce. There is a significant transformation of the economy in the area of sustainability, including going away from fossil fuels. The areas of renewable energy use, energy efficiency and storage capacities, diversification of energy sources, etc. These changes bring significant changes in the labour market and increase the number of green jobs, with the need for a sufficiently high-quality qualification. It is therefore necessary to focus on strategic changes in education to ensure a sufficiently skilled workforce for new technologies and green skills, for the development of innovative solutions and for research. To equip students with the competences needed to shape a more sustainable economy and society, learning needs to be transformative and interdisciplinary.  Changes in study disciplines and programs will make it possible to use learning outcomes on the ground for the green transition. This will allow graduates to be directly involved in practice where the knowledge acquired will need to be applied. Synergies between technological change in the economy, together with education, contribute to the green transition and to the achievement of the Union’s 2030 climate targets, in particular in the area of climate neutrality and increasing the resilience and sustainability of the energy system as well in Czech Republic.  The aim of the upcoming reform is therefore to support the revision of existing study programmes in order to enrich them with themes of green transformation or the emergence of new curricula and lifelong learning courses, where graduates are equipped with knowledge of green education and thus a skilled workforce in dynamically evolving fields related to the green transition. At the same time, emphasis will also be placed on the green transition of universities themselves. Therefore, there is also a need to integrate the green transition and sustainability into the policies and strategies of universities. Only public universities funded from the state budget are eligible to submit their projects.    Reforms and investments:   * Reform 1: Transformation of universities to adapt to changing needs of the labour market * The objective of this reform is to adapt the learning offer of public universities to the increasing need of the labour market for experts in the fields related to the green transition. The reform shall launch at least 90 study programmes, following a call for proposals targeted at public universities. The expanded learning offer shall consist of 20 new study programmes, 50 new courses added to existing study programmes, and 20 new lifelong learning courses, including lifelong learning courses leading to micro-credentials. All programmes launched as part of this measure shall foster green skills education and have defined learning outcomes in line with the European Skills, Competences, Qualifications and Occupations (ESCO) framework. * The reform shall be completed by 31 December 2025. * **Investment 1: Sustainable and Green Transition Strategies** * The measure aims at supporting public universities in the development of strategies for the sustainable and green transition. At least 20 public universities shall adopt a Sustainable and Green Transition strategy, which shall establish the vision, priorities and objectives of the universities in the medium- and long-term in the area of green transition, including green skills education. * The investment shall be completed by 31 December 2024. * **Investment 2: Establishment of strategic partnerships** * The aim of this investment is supporting public universities in the establishment of strategic partnerships with third parties relevant to the green skills education, for example businesses, research institutions or social organisations. It aims to increase the quality and relevance of the new or adapted study programmes under Reform 1, by allowing the universities to involve practitioners in the design of the new courses. At least 20 strategic partnerships shall be formed.   *Flagships: Reskill and upskill*  Estimated costs:  The estimated resources from the National Recovery Plan amount to CZK 1 000 000 000, including related implementation costs. |

Component 7.4 *Adaptation of school programmes - Fostering green skills and sustainability in universities*  addresses strengthening human capital at several levels associated with an individual’s learning path, which the Czech Republic considers to be one of the country’s very important objectives in terms of long-term resilience and transformation not only in terms of educational processes. In order to meet the objectives, it is necessary to kick-start the immediate changes to the existing structure, which is dedicated to reform and investment in the project.

Thanks to the agreement reached at the end of 2022, the EU’s support for transition will now be increased with additional funding *for the Recovery and Resilience* Facility (RRF) under the *REPowerEU* initiative. To help Member States implement the RRF and its REPowerEU component, the European Commission has published guidance on the recovery and resilience plans (within the Czech Republic the *National Recovery Plan*). In one of the main points of this guidance, the Commission strongly encourages Member States to **invest in equipping the workforce with the skills needed for this industrial transformation.**

On 16 June 2022, the ***Council of the EU adopted a Recommendation on learning for the green transition and sustainable development***. The Recommendation is a key policy statement highlighting the key role of education and training in delivering on the objectives of the European Green Deal. This Recommendation calls on EU Member States to encourage and support learning policies and programmes for the **green transition and sustainable development. Students and pupils of all ages are to acquire the knowledge necessary for a more sustainable way of life, acquire the skills needed in the changing labour market and take active steps to ensure a sustainable future.**

The need to improve skills is accentuated across EU strategic documents and is also mentioned in the *Green Deal Industrial Plan for a net-zero age (*third pillar). The industrial and energy transition, including the environmental dimension, is also addressed in a number of strategies at the national level of the Czech Republic (see below the European and strategic context). The green transition boosts the demand for new skills at all levels and will require a large-scale upskilling and reskilling of the workforce.

Among other things member states are recommended to:

* establish learning for the green transition and sustainable development as one of the priority areas in education and training policies and programmes.
* invest directly in reskilling and upskilling especially in green skills and technologies.
* provide learning opportunities in formal, non-formal and informal settings.
* support and enhance teaching and learning for the green transition and sustainable development by providing infrastructure, digital tools and resources and building in particular on the new European Competence Framework on Sustainability (GreenComp)
* provide fact-based and accessible information on the climate, environmental and biodiversity crisis, and its drivers.
* help educators to take part in professional development programmes related to sustainability.

There is therefore a need to integrate the green transition and the EU REPower area into education programmes, teaching and training practices, as well as policymaking and strategies of education institutions, not least to include sustainability and the resulting necessary investment planning measures for university infrastructure development.

2. Main challenges and objectives

(a) Main challenges

Achieving the objectives set out in the *European Green Deal* and REPowerEU will require not only a significant amount of investment finance, but also a number of additional measures. European industry has been shown to identify trends and standards and is becoming more and more digitised. It produces high-quality and innovative products that are used worldwide. Europe has world-leading scientists and researchers who continuously develop breakthrough solutions or improve existing technologies. The zero-emission industry is growing significantly globally, to the extent that demand often exceeds supply. The number of related jobs in the power generation sector is expected to more than double by 2030.[[1]](#footnote-2) However, the COVID-19 pandemic has shown that at the same time industry is facing many challenges, ranging from high inflation, labour shortages, demographic changes to supply chain disruptions. This will require much more quality graduates in sustainability-related disciplines and sectors.

In 2019[[2]](#footnote-3), there were already 4.5 million green jobs in the European economy, compared to 3.2 million in 2000. As a result, demand for quality workers can be expected to continue to rise sharply. At the same time, the Czech Republic does not have the tools to build up the **strategic capacity of higher education study programmes with high innovation and economic potential** with sufficient speed (or even in advance).

The EU is taking action to address the skills challenges of the green and digital transitions through its overarching framework – **the European Skills Agenda**.

The global climate challenge requires a global response. Europe wants to lead by example and deliver on ambitious climate targets, support growth and competitiveness. **It is therefore necessary to promote the full involvement of universities in the evolving green and digital transitions**. The **EU has set itself the objective of equipping more young people and lifelong learners with the digital skills and skills needed for the green transition and ensure the development of green solutions through technological and social innovation. It can only achieve this goal if the higher education sector realises its full potential.**

Evaluation of the fulfilment of the **State Energy Policy of the Czech Republic** within the SWOT analysis evaluation of ageing of highly qualified specialists, the conclusions declared trends in the rapid development of technologies in the energy sector

<https://www.mpo.cz/dokument158059.html>

**Government Policy Statement**

***in the area of education outlines its focus (among other objectives) also on sustainability and technological progress, as well as clear reaction on ongoing trends in economy. As goals for high education are stated:***

By the end of 2024, we will adjust the system of financing higher education institutions so that it takes more into account the quality of teaching and education in professionally oriented study programmes.

We will support flexible forms of education and recognition of prior learning outcomes. In cooperation with universities, we will support the expansion of the offer of professional bachelor's programmes so that they better reflect the needs of the labor market.

Based on predetermined criteria, we will support selected institutions in their pursuit of excellence to be top research universities with secured long-term institutional funding. We will strengthen the possibility of their strategic management.

Also following up State programme for environmental education, education and awareness-raising and environmental advice for 2016-2025. This is a key strategy involving the entire education system. 3.3.2 – Following the example of foreign universities, to motivate higher education institutions to developprogrammes incorporating environmental principles and principles of education for sustainable development within the operational and education practice of schools. Also to create motivational categories and programmes for EEA and VUR at universities, short-term internships of Czech university staff in foreign universities. Strategic area 5: Educational objectives and relevant topics of EEA and EP – to support the practical application of individual relevant topics in teaching, including research, evaluation and support of examples of good practice, to propose an overall analysis of legislation.

(b) Objectives

Public higher education institutions in the Czech Republic are ready to provide education for socially and economically needed professions in the above-mentioned areas. At present, however, not only the necessary curricula are often lacking, in the context of a dynamically evolving international context and technology development, but also adequate material and technical equipment to ensure the necessary quality of teaching (there is a lack of adequate teaching aids of a specific nature). As there is need to teach new technologies, new environmental conceptions and programs, there is also need for appropriate equipment to ensure such education (par example in the area of clean energy sources hydrogen power cells can be the case. On one side you can demonstrate to students virtual way of functioning of those cells, yet they need to work on real products as well)

As part of the upcoming reform (calls), cooperation between universities and employers, including the public sector, could be encouraged. Regional innovation hubs, financed by state and local subsidies, have their own agenda, which is only intermediate in the relationship between EIH and employers. High-level universities therefore have neither the incentive nor the means to directly engage in agile networks with employers. However, if curricula are developed and consulted with potential employers, this will lead to more precise targeting of programmes and better employability of graduates. EIs also have networks of cooperating secondary schools, international partners in the public and private spheres, as well as local and national private and public employers, and are thus well placed to reach out to students, i.e. future specialists, which the Czech Republic urgently needs to make the transition to a more sustainable society, whether with new technologies or with the overall societal changes linked to the Green Deal agenda.

Promoting education of all ages to acquire the knowledge, skills and attitudes necessary for a more sustainable way of life, to change consumption and production patterns, to adopt healthier lifestyles and to contribute – both individually and collectively – to a more sustainable economy and society is crucial. Therefore, both the development of new study programmes and the revision of existing curricula should be developed, but also lifelong learning courses should be developed.

Changes in the functioning of universities are an integral part of the changes that need to be made. These can be both infrastructure changes and internal higher education projects and the setting up of a “Green Deal Roadmap” by which the university will define its own strategy and internal functioning for the green transition. Such a document can act as an overarching act for revising and developing curricula, LLL courses, supporting internal projects supporting sustainability and green transition, or a plan for building and infrastructure investments.

These initiatives should not only translate into educational activities but should also include the updating and renewal of the material and technical equipment of universities. Anyhow, the use of funds within this component should not aim at financing measurements indicated in road map, yet only those related with map creation. Transforming the energy intensity of university operations, sustainable management, and the achievement of the Sustainable Development Goals (SDGs)[[3]](#footnote-4) goes far behind the scope of this component and will not be financed from it. Within the component only technical equipment directly connected and necessary for programme provision is possible to finance (e.g. replacement of plastic fillings of distillation and absorption columns by more environmental friendly materials can be done in education process, however we mix up two different things. In this case money from RRF will not be used for the purchase of different materials, yet for description of future reality of universities. In this case it should include for example transfer from less efficient and environmentally friendly refrigerants to less harmful ones such as ammonia or carbon dioxide or isobutane).

Investing in more sustainable universities can help not only achieve these objectives, but also raise awareness of the environment and climate action among learners and the wider public, thus ensuring the third role of universities.

The aim is to create an umbrella document on which all parts and actors of a higher education institution can rely and which clearly determines how the school will act not only on a one-off basis, but in the long term, as it is precisely to ensure continuity of processes that is essential for a green transition it is necessary not only to make the necessary changes, but also to determine what needs to be done to ensure that they operate and remain operational in the long term, as well as to ensure long-term operation.

Such a plan should be usable both for university and faculty management, as well as for interest (e.g. student) associations and individual learners – enabling everyone to participate in the processes without distinction (thus promoting increased accessibility).

As a related measure, a **mechanism should be set up to support strategic disciplines** which currently do not have sufficient qualitative or quantitative parameters, but which are nevertheless essential for future competitiveness. This requires reform steps in the area of university funding based on relatively robust evidence-based policy. In this area, which includes not only the education segment but (in particular) predictions of labour market developments, it will be necessary to provide an analytical basis for decision-making and to model the principles of financial mechanisms.

As mentioned above, it is appropriate to involve practitioners in the process, whether in the form of traineeships for learners or as partners to teach and ensure the transformation processes described above, in order to shape change. Such action is also linked to the objectives **of the Ministry of Universities’ Strategic Plan for the period from 2021** onwards, namely priority objective 1: develop competences directly relevant to life and practice in the 21st century, possibly with the sub-objective of promoting the professional profile of graduates. The next appropriate step is international cooperation and the sharing of good practice, a step again linked to another concept paper of the Ministry of Education and Training, namely the **Strategy for the Internationalisation of Higher Education as of 2021**.

(C) National and European strategic context

The European context:

* Digital Education Action Plan
* Council Recommendation on learning for the green transition and sustainable development
* The European Skills Agenda
* A European strategy for universities
* European Climate Pact
* European Pact for Skills/Skills Pact

National strategy:

* Government Programme Statement 2023
* Digital Education Action Plan
* Education Policy Strategy 2030, that states one of goals: "The aim of education for sustainable development is to equip citizens **with competences**  (knowledge, skills and attitudes)  **to** act socially and **environmentally** responsibly (behaviour that is responsible towards nature and people)."
* Innovation Strategy of the Czech Republic 2019-2030: The Country For The Future
* National Research and Innovation Strategies for Smart Specialisation of the Czech Republic 2021-2027 (National RIS3 Strategy)
* State Energy Concepts
* State programme for environmental education, education and awareness-raising and environmental advice for 2016-2025

The Strategic Plan of the Ministry for Higher Education for the period from 2021The Internationalisation of Higher Education Strategy for the period from 2021 Global Development Education Strategy and Global Context Outreach

The ***Council Recommendation on learning for the green transition and sustainable development*** underlines the need for learning for the green transition and sustainable development. Promoting education of all ages to acquire the knowledge, skills and attitudes necessary for a more sustainable way of life, to change consumption and production patterns, to adopt healthier lifestyles and to contribute – both individually and collectively – to a more sustainable economy and society is crucial. This will contribute to building the skills and competences that are increasingly needed in the labour market in the future. It is crucial to understand the interlinkages between the global challenges we are facing, including the climate crisis, environmental degradation and biodiversity loss, all of which have an environmental, social, economic and cultural dimension.

The societal challenges the EU is currently facing are also addressed in the ***European Strategy for Universities. These challenges*** include the green and digital transitions. Higher education institutions should play a key role in addressing them, as they connect education with research and innovation and public service. They thus have a unique potential to contribute to the post-pandemic recovery and shaping a sustainable and resilient society, and to contribute to the digital and green transitions.

The ***European Skills Agenda*** also announced support for the development of a core set of green skills for the labour market with a view to creating a generation of environment-aware professionals and integrating environmental and climate concerns into general education, higher education and vocational education and training, as well as in research. Europe needs highly competent professionals to support the green transition and to be a world leader in sustainable technologies.

The ***European Pact for Skills*** ***[[4]](#footnote-5)***supports 14 large-scale partnerships to equip the workforce with the necessary skills for the transition to a carbon-neutral and digital economy. Partnerships promote coordinated action by businesses, workers, public authorities, social partners, education and training providers and employment services. So far, more than 1000 members have signed up, including large multinationals, SMEs, local training providers and chambers of commerce. Together, they pledged to help 6 million people upskill and reskill.

It is in the common interest of all the Member States of the European Union (EU) to exploit the full potential of education and culture as a driver for job creation, economic growth and deepening social cohesion, as well as people’s awareness of their European identity in all its diversity. On 18 February 2021, the Council **of the EU adopted a resolution on a strategic framework for European cooperation in education and training towards the European Education Area and beyond (2021-2030)**. This is an important document forming the overarching document for European cooperation in education and training for the period 2021-2030. The Resolution on Strategic Education and **the Communication on a new European Research Area for Research and Innovation** call for education and training policies and investments to be focused on an inclusive green and digital transition to achieve resilience and prosperity in the future.

The ***European Climate Pact*** invites individuals, communities and organisations to participate in climate action and building a greener Europe by offering opportunities to learn about climate change, develop and implement solutions, and connect with others to multiply the impact of those solutions. The Education for Climate Coalition aims to create a community led by students and teachers, together with their schools and networks and other educational actors, to learn from as many relevant experiences as possible, and bridge fragmentation between education sectors, domains and people.

***The 2023 Government’s Programme Statement***

Aĺso outlinesIncrease support for lifelong learning based on partnership between the state, employers and trade unions. We will adapt the legislative framework for lifelong learning and set the roles and responsibilities of partners in the system. In cooperation with employers and their sectoral councils, the implementation of the **National System of Qualifications** and the fundamental strengthening of inter-ministerial cooperation in this field, including with regard to the connection with the National Professional System. It also foresees the promotion of flexible learning pathways and the recognition of prior learning outcomes. In cooperation with universities, declares support for broadening the range of professional bachelor’s programmes to better reflect the needs of the labour market. Adapting study programmes, creation new ones or broader offer of green skills through LLL courses significantly contribute to better educated and prepared employees able to adapt the labour market needs

*Cooperation with practice is a central condition for the implementation of professional study programmes also according to Government Regulation No. 274/2016 Coll. on Standards for Accreditation in Higher Education. The aim of the reform is to support education and training systems in taking action for ecological transition and sustainable development, so that learners have access to quality education on sustainability, climate change, environmental protection and biodiversity, with due regard to environmental, social and economic aspects.*

*Given the proportion of the population undergoing tertiary education, it is necessary to strengthen* ***profiling of university study programmes****. At the same time, it is necessary to create sufficiently robust mechanisms to support students who have the ambition and potential to pursue a career in R&D&I in the future.*

The reform will also support partnerships across all disciplines and with external actors, including businesses, research institutions, civil society organizations, etc.

Global Development Education Strategy and Global Context Outreach

The objective of Global Development Education (GRV) is to support people’s ability to understand, in a skilled and objective manner, global, regional, and local political, economic, social, environmental and cultural processes, including their interlinkages and the interconnectedness of their impacts. The main focus in the area of GRV will be on more effective integration of global development topics and a critical understanding of the global context in both formal and non-formal education, including relevant methodological and didactic support for teaching staff. Awareness of global and development issues, including the ZRS ČR, to the professional and the general public will also be enhanced.

The ***Digital Education Action Plan*** provides a vision for high-quality, inclusive and accessible European digital education and training and underscores the importance of digital technologies as powerful enablers for the green transition whilst, at the same time, facilitating a move towards sustainable behaviour in both the development and use of digital products.

**The National Research and Innovation Strategy for Smart Specialisation of the Czech Republic 2021-2027 (National RIS3 Strategy)** sets out cross-cutting priorities such as ‘People and smart skills’ and strategic objective C ‘Improving the availability of qualified people for research, development and innovation’. Specific objective C.1 is then focused on ‘Improving the capacity of the education system to prepare people for research, development and innovation’ and specific objective C.2 is on ‘Skills development for smart specialisation, industrial transformation and entrepreneurship’.

One of the pillars **of the Czech Republic’s Innovation Strategy 2019-2030: The Country For The Future is also** the areas of The Country for Technology: Polytechnical education and The Country for Investment: Smart investment.

One of the strategic priorities of the **State Energy Concept** is also to support research, development and innovation to ensure the competitiveness of the Czech energy sector and to promote education, with a view to the need for generational renewal and the improvement of the quality of technical intelligence in the field of energy.

**The Ministry’s strategic intention for higher education and the** related **internationalisation strategy** also constitute key conceptual materials of the Ministry of Education, which set out plans for the development of higher education and which were developed in cooperation with relevant actors in the field of education (National Accreditation Authority for Higher Education – NAO, higher education representation, etc.). These strategies are a guideline in selected objectives which are essential for the development of higher education. These include, for example, increasing the accessibility of universities, as well as education enabling the acquisition of competences and knowledge directly needed for life and practice in the 21st century, or strengthening the role of universities as effective, accountable and inclusive public organisations, in addition with a direct influence and an important role for wider societies, whether at local (regional) or national and international level.

**The State Programme for Environmental Education,** Education and Education and Environmental Advice for 2016-2025 is a key national strategy for environmental education and education (EVVO) and environmental guidance (EP), which defines in a structured way the vision, objectives and measures (and tasks in the action plans) involving regions, municipalities and cities, schools, including universities, in addition to public authorities; specialised facilities for EVVO and the EP, such as ecological education centres and environmental advice centres, other bodies set up by the public administration as well as private, non-profit organisations, educational and research institutions, museums, zoos, botanical gardens, forestry institutions, libraries or churches etc. The EVVO and EP JUs provide methodological support for the development of EVVO and EP concepts of regions and cities, as well as support for evaluating the impact of all forms of EVVO and EP at all levels.

(D) Prior efforts

While across the EU many Member States have made good progress in implementing learning policies and programmes to support the green transition and to promote learning for sustainable development, it is necessary to continue and intensify efforts in this regard. Policy and practice for this kind of learning should be further stimulated and supported. It is necessary to recognize the need for interconnected learning across the environmental, economic and social pillars of sustainable development, while placing a specific focus on the environmental pillar.

The Ministry of Education, Youth and Sports has long supported the efforts of universities to take various steps in the field of green transition, e.g. in the form of energy-saving adjustments. It also presented examples of good practice in the context of the Czeducon conference, for example in cooperation with universities. Since 2021, it is also part of the obligation for universities to carry out an energy audit in subsidy calls. Green transition and SDG-related activities are also repeatedly supported under centralised development programmes (CRP).

3. Description of the component reforms and investments

a) Description of the reforms and investments

Transforming universities to adapt to new forms of learning and changing labour market needs (reform complementary to the reform in component 3.2.).

* Launch of *the next round Calls for Project Proposals under the National Recovery Plan for Universities 2022-2024* (new specific objective D)
* The way universities are financed to strengthen the weight of the quality coefficient and the redefinition of its content

|  |  |
| --- | --- |
| Invitation | The reform and investment goes beyond the mere awareness of the climate crisis and the development of related skills. Education should equip learners of all ages with the knowledge, skills and attitudes to take steps towards greater sustainability and to understand and participate in the decision-making processes necessary for the adoption of lasting structural change.  The European Skills Agenda announced support for the development of a core set of green skills for the labour market with a view to creating a generation of environment-aware professionals and green economic operators and integrating environmental and climate concerns into general education, higher education and vocational education and training, as well as in research.  As in line with this trend also Czech republic is facing need to create a generation of experts with an awareness of the environment who will be able to further integrate this issue into general and university education, we need to adapt the study programmes at universities to this, first of all.  In accordance with Regulation 2023/435 of the European Parliament and of the Council amending Regulation (EC) No 2023/435. 2021/24 on the RRF, as regards REPowerEU capils in the recovery and resilience plans, one of the objectives of this instrument is to support the green transition. This brings with it the necessary transformation of the labour market and the ensuing strategic changes in the field of education.  The aim of the reform is to respond to the challenges in the field of energy and, inter alia, in the context of the Czech energy and environmental strategies, in the context of the REPowerEU plan, which entail significant changes in the labour market and the necessary qualifications. Europe needs highly competent experts to support the green transition in order to achieve climate neutrality objectives.  **Reform and investment can also play a crucial role in developing the sustainable concept of functioning of universities and setting up processes with long-term overlaps and ensuring the continuity of these processes leading to green deal and sustainability concept adoption**. Whole-institution approaches to sustainability incorporating all areas of activity are not always sufficiently present. Such approaches may include teaching and learning, governance, research and innovation, as well as infrastructure, facilities and operations, and should involve learners, staff, as well as local and wider communities.  There is therefore a need to improve the conditions for universities to fulfil the so-called third role of universities, both at regional, national and international levels, in the form of their own environmental functioning, as well as the provision of practitioners and the development of international cooperation and the sharing of good practice. |
| Objective | The reform and investment aims to support education and training systems to take action for the green transition and sustainable development so that learners of **all ages (including the promotion of lifelong learning)** and from all backgrounds have access to quality, fair and inclusive education on sustainability, climate change, environmental protection and biodiversity, with due regard to environmental, social and economic aspects.  Given the share of the population undergoing tertiary education, the **profiling of higher education curricula** needs to be further strengthened. At the same time, it is also necessary to develop sufficiently robust mechanisms to support students who have the ambition and potential to pursue a career in R & D & I in the future.  The reform will also support the creation of partnerships across all disciplines and with external actors, including businesses, research institutions, civil society organisations, etc.  The sub-objective is also to increase investment in green and sustainable equipment, resources, and infrastructure to ensure an appropriate learning environment and to promote and improve teaching and learning for the green transition and sustainable development by providing the necessary infrastructure. Infrastructure in this context is the equipment for certain program learning, e.g., laboratory adjustment or equipment.  Finally, the aim of the reform is also to encourage universities to design, monitor and evaluate their sustainability strategies or integrate sustainability into existing processes and measures, namely strategic school development plans, higher education mission statements and strategies).  Another area is micro-credentials that may be offered by higher education institutions or recognised by means of recognition procedures in accordance with the so-called Lisbon Convention (Convention on the Recognition of Qualifications concerning Higher Education in the European Region, No 165, adopted in Lisbon on 11 April 1997).  **This form of learning should be designed to provide the learner with specific knowledge, skills or competences that respond to societal, personal, cultural or market needs.** The main objective is therefore to build a wider lifelong learning offer, provided in flexible forms, including to improve the availability and quality of open educational resources for informal learning.  Micro-credentials are specific **in that they define learning outcomes in relation to the National Qualifications Framework (**NQF) and the European Qualification Framework (EQF). At the same time, micro-credentials should be very closely linked to the European Credit Transfer and Accumulation System (ECTS). Quality assurance requirements as defined in the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) should also be applied to this form of education.  At the same time, it is proposed **to adapt the way universities are financed in order to strengthen the weight of the quality coefficient and to redefine its content**.  It is also necessary to establish a **mechanism to support strategic disciplines** which currently do not have sufficient qualitative or quantitative parameters, but which are nevertheless essential for future competitiveness.  Summary  In the **long term, the reform and investment aims to increase the number of highly skilled workers in the labour market in the area of the green transition**.  This long-term objective cannot be achieved in the short term of the Recovery and Resilience Fund, given that the development of new curricula and the implementation of innovation alone require time to implement, and the training of new staff will take typically five years or more.  The immediate objective for the implementation of the programme is therefore to initiate and accelerate transformation processes at the level of individual universities, i.e. to reform their internal organisation. Transformative projects will focus on completing capacity and modernising the educational offer of universities, thus enabling the subsequent achievement of the long-term goal in the longer term.  Higher education projects will lead to the following outputs, with the scope of activities (and the amount of support granted) tailored to the specific profile and needs of each university, considering inter alia, the list of priority sectors:   1. Development of new study programmes 2. Curriculum innovation 3. Development of lifelong learning courses 4. Developing sustainability strategies and green transition in universities 5. Adaptation of the way universities are financed 6. Establishing strategic partnerships |
| Implementation | The reform and investment will be implemented through the second round of *the call for proposals for projects under the National Higher Education Recovery Plan 2022-2024*, launched under sub-component 3.2.1. The second round of the call will focus on the **newly created specific objective D – Promoting green skills and sustainability in universities. The second round of the call will be targeted at all public universities. All criteria and guidelines will be part of the call.**  The MEYS shall establish a financial support programme providing funds for the implementation of selected university projects on the basis of the applications submitted.  This appropriation will be intended to cover the establishment and modernisation of study and lifelong learning programmes and, where appropriate, the equipment and infrastructure necessary for the implementation of these programmes.  The aim is to build the strategic capacity of higher education curricula with high innovation and economic potential and to adapt the way universities are funded in order to strengthen the weighting of the quality coefficient and the redefinition of its content.  Ministry closely cooperates with HEIS and support and methodological help will be provided as usual (and as it already happened), the Ministry on regular basis communicate the updates to HEIs (last meeting in March, the next is foreseen in June), e-mail communication via Ronaldo platform (platform of head of units and project professionals of HEIs). |
| Cooperation and involvement of stakeholders | Universities themselves are a key partner to ensure reform and will implement the reform directly. The design of the intervention respects the autonomy of universities and presupposes that the specific scope and focus of the activities of the individual schools will be adapted to their profile and needs, in particular taking into account the nature of their educational offer and the relevance of the curricula to the needs of the labour market. The design of the study programmes is the autonomy of HEIs, but SP must meet the accreditation criteria which include the cooperation with stakeholders.  In the field of lifelong learning, cooperation between universities and diverse actors (NNO or private sector) is possible.  Employers are the second group of actors strongly involved in the implementation of the reform. The involvement of employers and regional partners, including local and regional authorities, is also foreseen in the context of implementation at the level of individual universities.  Cooperation with practice is a central condition for the implementation of professional study programmes also pursuant to Government Regulation No 274/2016 on standards for accreditation in higher education. |
| Barriers and risks | The activities have been designed in such a way that they can be implemented within the existing legal framework and thus minimise external risks. A potential obstacle would be the low willingness of universities to participate in the implementation of activities if the administrative costs associated with participating in the programme were too high. We therefore consider it important to set up the funding mechanism and the conditions for support in a sufficiently flexible manner and with the least possible administrative burden on the beneficiaries.  In view of the interest of maximum efficiency and the fulfilment of the deadlines set by the implementation of the National Recovery Plan in the Czech Republic by the end of 2025 or at most by mid-2026, this call would be addressed within the already established methodological environment for reform 3.2.1, to transform universities in order to adapt to new forms of learning and to respond to changing labour market needs. The call would be launched under the above-mentioned reform as a new sub-specific D – Promoting “green skills” and sustainability in universities. This will avoid the need for major adjustments to the implementation framework (in reform 3.2.1, the Ministry of Education and Training has already issued a complete methodology, i.e. the environment is ready).  The limited administrative capacity of the MSMT is also a risk to the successful implementation of the reform. It is not possible to ensure the administration of the programme, as well as the evaluation and control of projects, within the Office’s existing capacities. It will therefore be necessary to ensure the allocation/creation of posts for the administration of the project (min. 2). |
| Target population groups and economic operators | Investment in public universities will have a direct impact on current and future university students. It will also have a direct impact on the functioning of universities, which can make it possible to set up greener, more respe ctful and cost-effective processes.  The impact will also be on the whole of the Czech society in which graduates will participate, and the effects are also foreseen on the labour market where graduates will seek employment.  The reform will have a direct impact on employers, especially in dynamically developing sectors currently facing a shortage of highly skilled labour in green education. |
| Total costs of implementation financed by the RRF for the whole period | CZK 1 000 000 000 |
| Compliance with State aid rules | Funds under this reform will be considered as public funds. The MŠMT shall ensure that any State aid granted in the context of this reform complies with the procedural and material rules on state aid applicable during the period in which the public support is granted.  The financing is in the form of a contribution in accordance with Section 18(3) and (4) of the Higher Education Act. Co-financing of projects by beneficiaries will not be required. Eligible expenditure may be both non-investment and investment, including sub-construction. New constructions or major renovations are prohibited.  The capacity created by universities will be an integral part of the state education framework predominantly financed by the State budget. |
| Indicate the period of implementation | 7/2023-12/2025 |

4. Strategic autonomy and security issues

This chapter is not relevant to the component.

5. Cross-border and international projects

This chapter is not relevant to the component.

6. Green dimension of the component

This component supports the Green Agenda and REPowerEU. The study will take place in a modern environment with an emphasis on the use of green space, rainwater, grey water, modern heating and cooling of buildings, self-management of renewable resources, protection of biodiversity and the ecosystem, including the use of green roofs, will contribute to informal and non-formal education for students, teachers and all other persons working at the university in the field of green transients and opportunities to exploit natural resources.

The Education Policy Strategy of the Czech Republic 2030+ mentions the need to educate pupils and students in a way that takes into account the need for sustainable development and thus leads them to develop civic and social competences that will equip them with the necessary tools to live in a sustainable society.

The supported activities of individual projects will not affect existing water bodies, landscape water or water availability, nor increase the abstraction of surface water or groundwater, or affect the water regime. It does not foresee any impact on the existing waste water system or waste management.

Project activities and projects supported under this component must always comply with applicable national and European regulations, must not increase risks and must be in line with sectoral, regional and national strategies.

7. Digital dimension of the component

The reform is not primarily focused on digital technologies or digital infrastructures. However, individual project activities supported by the reform may include the necessary purchase of consumer electronics and IT using only available energy-efficient equipment, products and services on the market that do not result in a significant increase in energy consumption in line with the objectives of the National Energy Efficiency Action Plan, climate policy and the objectives of the National Energy and Climate Plan.

Project activities and projects supported under this component must always comply with applicable national and European regulations, must not increase risks and must be in line with sectoral, regional and national strategies, failing which support under the component will not be granted to its final beneficiary.

8. Application of the ‘do no significant harm’ principle

‘DNSH taxonomy criteria’ do not indicate, in the context of ‘Professional, scientific and technical activities’, a relevant link to the area from the point of view of Climate change mitigation, Climate change adaptation, The sustainable use and protection for water and marine resources, nor from the point of view of the protection and restoration of biodiversity and ecosystems.

9. Milestones, Targets and timeline

**Milestone:** Launch of a programme to support transformation of universities - Call under Specific Objective D – Promoting green skills and sustainability in universities

**Deadline:** Q4/2023

Verification mechanism: Published Call

Goal: Launch of new study programmes, new courses in existing study programmes and lifelong learning courses

* At least 20 bachelor, master and PhD study programmes developing green skills shall be accredited.
* At least 50 new courses (mandatory and/or optional) shall be added to the curricula of existing study programmes (Bachelor, Master and/or PhD-level).
* At least 20 new lifelong learning courses (including micro-credential forms) shall be created and offered by universities

**Deadline:** Q4/2025

**Verification mechanism:** Final report of the project

Goal: Adoption of new Sustainable and Green Transition Strategies by public universities – at least 20 new strategies

|  |
| --- |
| All universities supported within the component shall adopt new Sustainable and Green Transition Strategies. The strategies shall formulate the vision, priority areas, principles and goals, necessary to support universities’ green transition in the short- and medium-term, including green skills education. |

**Deadline:** Q4/2024

**Verification mechanism:** LIst of universities and strategies adopted

Goal: Establishment of strategic partnerships by public universities

Total number of 20 strategic partnerships established.

**Deadline:** Q2/2025

20 strategic partnerships between a public university and a third party developing green skills education shall be established.

**Verification mechanism:** Final report of the project – as part of final report, contract provision as enclosure will be requested

Timetable:

1. Launch of a Call for Schools T: 7/2023
2. Evaluation of project proposals T: 8-11/2023
3. Granting of an allowance for ALL for 2023 T: 12/2023
4. Granting of an allowance for ALL for 2024 T: 1-6/2024
5. Provision of a contribution to the Schools for 2025 T: 1-6/2025
6. Implementation of projects T:1/2024 – 12/2025
7. Evaluation of the achievement of the objectives of the Call T: 1-6/2026

10. Funding and costing

Funding is envisaged in the form of a contribution in accordance with Section 18(3) and (4) of the Higher Education Act. Qualified entities are public higher education institutions pursuant to Annex 1 to the Higher Education Act.

Co-financing of projects is not required.

In case of creation of new JUs/Innovation of existing PGs, condition of the maximum amount of contribution of an investment nature: Maximum investment contribution for infrastructure alterations and equipment of CZK 10 million per action or item, investment costs may amount to a maximum of 50 % of the total budget of a single university project.

The total amount does not include funds related to the financing of the staff involved in the administration of this component, including the provision of independent control at the level of the VK. There are 2 FTEs involved.

The allocation to the call amounts to CZK 960 000 000.

The initial allocation to the call is divided into one specific objective and 4 parts:

|  |  |
| --- | --- |
| Launch of call | 40 % |
| Development of new study programmes | 25 % |
| Developing sustainability strategies and green transition in universities | 25 % |
| Establishing strategic partnerships | 10 % |

The allocation is calculated at an average of 37 million/1 higher education, the actual amount will vary according to the specific projects.

**CZK 40 million is earmarked for the implementation of the component.**

2 FTEs for 3 years for the actual implementation.............................................. 6 milion CZK

10 FTEs for 2.5 years by expert panels......................................26 million CZK

Costs related to the implementation and implementation of the component... 8 million CZK

1. Commission communication of 1 February 2023 entitled ‘Green Deal Industrial Plan for a net-zero age’ (COM(2023)0062). [↑](#footnote-ref-2)
2. Based on Eurostat’s definition of ‘Employment in the environmental goods and services sector’, Eurostat data: ‘Environmental economy – statistics on employment and growth’, <https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Environmental_economy_%E2%80%93_statistics_on_employment_and_growth&oldid=583805#Development_of_key_indicators_for_the_environmental_economy>. [↑](#footnote-ref-3)
3. <https://sdgs.un.org/goals>. [↑](#footnote-ref-4)
4. <https://ec.europa.eu/social/main.jsp?catId=1517&langId=en> [↑](#footnote-ref-5)