



European Cooperation Opportunities and Funds in the Field of Science Education

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Abstract

This paper presents the main current European programme managed by the European Commission in the field of education and training as well as the funding available for specific actions. Examples of initiatives already funded by the European Commission in the field of science education are provided.

The Political Framework

Europe 2020 is the growth strategy of the European Union that aims to creating the conditions for a smarter, sustainable and inclusive growth.

Five key targets have been set for the European Union to achieve by the end of the decade focusing on:

1. Employment (75% of the 20-64 year-olds to be employed).
2. Research and development (3% of the GDP to be invested in R&D).
3. Climate change and energy sustainability (greenhouse gas emissions 20% - or even 30%, if the conditions are right - lower than 1990); 20% of energy from renewables; 20% increase in energy efficiency
4. Education (reducing the rates of early school leaving below 10%. At least 40% of 30-34-year-olds completing third level education)
5. Fighting poverty and social exclusion (at least 20 million fewer people in or at risk of poverty and social exclusion).

The Europe 2020 strategy also includes seven main priorities such as innovation, the digital economy, employment, youth, industrial policy, poverty, and resource efficiency.

In May 2009, the European Council adopted their Conclusions on the strategic framework for European cooperation in education and training (ET 2020). These conclusions provide for a strategic framework to support Member States in further developing their educational and training systems. The conclusions set out four strategic objectives for the framework:

1. making lifelong learning and mobility a reality
2. improving the quality and efficiency of education and training
3. promoting equity, social cohesion and active citizenship
4. enhancing creativity and innovation, including entrepreneurship, at all levels of education and training

Introduction to the Erasmus+ Programme

Erasmus+ is the new EU programme for education, training, youth and sport that replaces the Lifelong Learning Programme, Youth in Action as well as five other international programmes starting from 2014.

The general aim of the Erasmus+ Programme is to contribute to the achievement of the objectives of the Europe 2020 Strategy, as well as of the objectives of the strategic framework for European cooperation in education and training (ET 2020), including the corresponding benchmarks.

The specific objectives of the Erasmus+ Programme are to:



- improve the level of key competences and skills, with particular regard to their relevance for the labor market and their contribution to a cohesive society;
- foster quality improvements, innovation and internationalization of education and training institutions;
- promote the emergence of a European lifelong learning area and support the modernization of education and training systems, in particular through enhanced policy cooperation, better use of EU transparency and recognition tools and the dissemination of good practices;
- enhance the international dimension of education and training;
- improve the teaching and learning of languages and to promote the EU's broad linguistic diversity and intercultural awareness.

The current annual priorities of the Erasmus+ Programme are to:

- develop basic and transversal skills (e.g. entrepreneurship, digital skills and multilingualism); promote student-centered pedagogical approaches and develop appropriate assessment and certification methods, based on learning outcomes;
- enhance the application of Information and Communication Technologies (ICT) in teaching and learning, through the support of learning and access to open educational resources (OER), as well as support ICT-based teaching and assessment practices;
- promote transparency and recognition tools, so as to ensure that skills and qualifications can be easily recognised across borders;
- support the development of improved funding approaches for skills development.

In addition, there are specific priorities as regards:

- higher education: the focus should be on the modernization of Europe's higher education systems;
- vocational education and training: the focus should be on the development of partnerships between education and employment (in particular companies and social partners), the development of short-cycle post-secondary or tertiary qualifications in accordance with the European Qualifications Framework (EQF) and address potential growth areas or areas with skills shortages;
- school education: the focus should be on the attainment of young people, particularly those at risk of early school leaving and with low basic skills, including through high quality and accessible Early Childhood Education and Care (ECEC) services. In addition, priority will be given to projects aimed at revising and strengthening the professional profile of the teaching professions;
- adult education: the focus should be on the reduction in the number of low-skilled adults by providing information on access to lifelong learning services, such as information on the validation of non-formal and informal learning and career guidance, and by offering tailored learning opportunities to individuals.

The Structure of Erasmus+

In order to achieve its objectives, the Erasmus+ Programme implements the following Actions:

KEY ACTION 1 – MOBILITY OF INDIVIDUALS

This Key Action supports:

- Mobility of learners and staff in higher education, VET, school education, adult education
- Mobility of young people and youth workers
- European Voluntary Service Events
- Joint Master Degrees.



- Master Student Loan Guarantee.

KEY ACTION 2 – COOPERATION FOR INNOVATION AND THE EXCHANGE OF GOOD PRACTICES

This Key Action supports:

- Strategic Partnerships aimed to promote innovation, exchange of experience and know-how between different types of organisations involved in education, training and youth.
- Knowledge Alliances between higher education institutions and enterprises which aim to foster innovation, entrepreneurship, creativity, employability, knowledge exchange and multidisciplinary teaching and learning;
- Sector Skills Alliances supporting the design and delivery of joint vocational training curricula, programmes and teaching and training methodologies, drawing on evidence of trends in a specific economic sector and skills needed in order to perform in one or more professional fields;
- Capacity Building projects to support organizations, institutions and systems in their modernization and internationalization process.

KEY ACTION 3 – SUPPORT FOR POLICY REFORMS

- Structured Dialogue meetings taking the form of meetings, conferences, consultations and events promoting the active participation of young people in democratic life in Europe and their interaction with decision-makers.

JEAN MONNET ACTIVITIES

The Jean Monnet Activities support:

- Jean Monnet Modules that are short teaching programme in the field of European Union studies at a higher education institution.
- Jean Monnet Chairs that is a teaching post with a specialization in European Union studies for university professors or senior lecturers.
- Jean Monnet Centers of Excellence that is a focal point of competence and knowledge on European Union subjects.
- Jean Monnet Support to institutions and Associations that enhance teacher and training activities on European Union subjects.
- Jean Monnet Networks that foster the creation and development of consortia of international players (HEIs, Centers of Excellence, departments, teams, individual experts, etc.) in the area of European Union studies.

SPORT ACTIONS

- Collaborative Partnerships, aimed to combat doping at grassroots level, to fight against match-fixing, to contain violence and tackle racism and intolerance in sport.
- Not-for-profit European sport events, granting individual organizations in charge of the preparation, organization and follow-up to a given event.

Eligible Countries for Participation in Erasmus+

The 28 Member States of the European Union, the EEA/EFTA countries (Iceland, Liechtenstein, Norway), as well as candidate countries (Turkey, Switzerland, the former Yugoslav Republic of Macedonia) can fully take part in all actions of the Erasmus+ Programme.

The following countries can take part in certain Actions of the Programme, subject to specific criteria or conditions:

- Eastern Partnership countries: Armenia, Azerbaijan, Belarus, Georgia, Moldova, Ukraine



- Southern Mediterranean countries: Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestine, Syria, Tunisia
- Western Balkans: Albania, Bosnia and Herzegovina, Kosovo, Montenegro, Serbia
- Russian Federation

Some Actions of the Erasmus+ Programme are open to any Partner Country of the world.

Eligible Applicants for Erasmus+

Eligible applicants for submitting proposals in the framework of the Erasmus+ Programme are:

KEY ACTION 1 – MOBILITY OF INDIVIDUALS

- Students in higher education institutions, recent graduates.
- VET organizations; coordinators of national VET consortiums.
- staff members of adult education organizations
- public or private organization active in the field of youth.

KEY ACTION 2 – COOPERATION FOR INNOVATION AND THE EXCHANGE OF GOOD PRACTICES

Private or public organization established in an eligible country

For Capacity Building projects, only the following organizations are eligible: non-profit organizations, associations, NGOs, national youth council, public bodies.

KEY ACTION 3 – SUPPORT FOR POLICY REFORMS

Non-profit organizations, associations, NGOs, national youth council, public bodies.

JEAN MONNET ACTIVITIES

Higher education Institutions holding an Erasmus Charter for Higher Education (ECHE).

SPORT ACTIONS

Any non-profit organization or public body established in an eligible country

Grants awarded by the Erasmus+ Programme

The maximum grant awarded for the different actions is:

- KA2, Strategic partnerships: 150.000 euro per year
- KA2, Knowledge Alliances: 700.000 euro for a 2-year project, 1.000.000 euro for a 3-year project.
- KA2, Sector Skills Alliances: 700.000 euro for a 2-year project, 1.000.000 euro for a 3-year project.
- KA2, Capacity Building projects: 150.000 euro covering maximum 80% of total eligible costs
- KA3, Structured Dialogue meetings: 50.000 euro
- Jean Monnet Modules: 30.000 euro covering maximum 75% of total eligible costs
- Jean Monnet Chairs: 50.000 euro covering maximum 75% of total eligible costs
- Jean Monnet Centres of Excellence: 100.000 euro covering maximum 80% of total eligible costs
- Jean Monnet Support to institutions and Associations: 50.000 euro covering maximum 80% of total eligible costs.
- Jean Monnet Networks: 300.000 euro covering maximum 80% of total eligible costs
- Sport Action: 500.000 euro covering maximum 80% of total eligible costs



Further informations on the Erasmus+ Programme is available on the European Commission's website at: http://ec.europa.eu/programmes/erasmus-plus/index_en.htm

Examples of successful projects in scientific field funded by the former funding programmes addressed to Education, Training and Youth fields

- **Chemistry Is All Around Network**
The Chemistry is All around Network project funded by the European Commission in the framework of the Lifelong Learning programme Comenius Subprogramme aims at stimulating the interest of pupils towards the study of Chemistry. It also intends to create a network of science education institutions.
Website: <http://chemistrynetwork.pixel-online.org/>
- **Chemistry is All Around Us**
The Chemistry is All Around Us European funded by the European Commission in the framework of the Life Long Learning Programme KA 1 Subprogramme aims to identify the best strategies to implement Lifelong Learning of scientific subjects, with a focus on Chemistry identified as an exemplary case study.
Website: <http://chemistry.pixel-online.org/index.php>
- **Goerudio - Managing Learning process in science education**
The Goerudio project, funded by the European Commission in the framework of the Lifelong Learning Programme - KA4. aims to explore and exploit the results of existing projects and experiences addressing the promotion of scientific knowledge at all level of education.
- **Eco Task**
The Eco Task project, funded by the European Commission in the framework of the Lifelong Learning Programme - Grundtvig Multilateral Partnership has the aim to identify and analyze awareness-raising methods on the topic of environmental protection. Best practice in the field will be transferred in the countries involved in the project.
Website: <http://ecotask.eu/>
- **ClimaTIC**
The ClimaTIC project funded by the Socrates Minerva Programme aims to promote transnational cooperation between schools in the field of science teaching.
Website: <http://www.ulg.ac.be/cifen/inforef/projets/climatic/>
- **EnergeTIC**
The EnergeTIC project funded by the Life Long Learning Programme KA3 aims to promote transnational cooperation between schools in the field of energy savings.
Website: <http://labo-energetic.eu/fr/projet1.html>
- **Edu Robot**
The Edu Robot project funded by the Socrates Minerva Programme aims to train students from technical schools on an efficient use of the methodologies used for transnational collaboration in the research sector, focusing in particular, on the sector of robotics.
Website: <http://edurobot.edulife.com>
- **Hippocrates**
The Hippocrates project funded by the Lifelong Learning Programme, Leonardo da Vinci Sub-Programme, Development of Innovation (DOI), The project provided trainers who work in the health sector with the necessary skills for knowledge management.
Website: <http://www.hippocrates.fadgradenigo.it>
- **Happy**
The Happy project funded by the Lifelong Learning Programme, Leonardo da Vinci Sub-Programme, Development of Innovation (DOI), The project has the aim to promote an holistic



approach in the delivery of home care assistance through the training of doctors and nurses who work in the field.

Website: <http://heppy.projectize.eu/>

- EUR-EAU Action

The EUR-EAU Action project funded by the Socrates Minerva Programme aims to experiment the use of technology in distance learning in the learning sectors of chemistry and biology at secondary school level.

Website: <http://www.ulg.ac.be/cifen/inforef/eureau>