**General information**

Programme

**Horizon 2020 Framework Programme**

Call

**Building a low-carbon, climate resilient future: Research and innovation in support of the European Green Deal (H2020-LC-GD-2020)**

See budget overview

Type of action

**IA Innovation action**

Open for submission

Deadline model

**single-stage**

Opening date

**22 September 2020**

Deadline date

**26 January 2021 17:00:00 Brussels time**

**Topic description**

Specific Challenge:

The active role of citizens and their direct involvement is essential to address climate change and other human actions harming the environment on land, air and sea. Changes in citizen’s and consumer’s behaviours towards more sustainable patterns can happen through education, awareness raising, citizen science, observation and monitoring of their environmental impacts, civic engagement and social innovation. It is essential to directly involve citizens and communities in contributing to climate action and protecting the environment, thereby encouraging them to change their personal behaviour and their mindsets, reducing their carbon and environmental footprint and taking action at the individual and collective level. This would lead to a more sustainable lifestyle and relationship to the environment.

A strong emphasis is placed on strengthening environmental awareness of the young generation through education and other forms of youth engagement. Pupils and students have the potential to become ambassadors for climate action, sustainable development and environmental protection by sharing their knowledge, experience and engagement with their families, local communities, public and private decision makers, as well as through communication and the use of social media. As recommended in the European Green Deal Communication[[1]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/%22%20%5Cl%20%22fn1%22%20%5Ct%20%22_self), schools, training institutions and universities are well positioned to engage with pupils, parents and the wider community on the changes needed for a successful transition to a green economy. A European competence framework is needed to help develop and assess knowledge, skills and attitudes on climate change and sustainable development. Related demonstration activities on for example nature-based solutions, biodiversity conservation, waste management, sustainable energy production and consumption, marine science, etc. will support the testing and the implementation of the framework.

Citizen science is a powerful tool for climate action, sustainable development and environmental protection through civic engagement. Citizen science should be understood broadly, covering a range of different levels of participation, from raising public knowledge of science, encouraging citizens to participate in the scientific process by observing, gathering and processing data, right up to setting scientific agenda and co-designing and implementing science-related policies. It could also involve publication of results and teaching science. Citizen science activities should be based on a robust scientific methodology ensuring the quality of the data collected and a fair representation of all stakeholders involved. Citizen science will help to raise awareness, to educate in science, to increase understanding of scientific processes and scientific literacy. It will also provide new tools and data for environmental monitoring, covering a broad European geography. Citizen science can strongly contribute to the delivery of environmental data with a significant potential for further broad use, including contributing to improving relevant European policies. It will have real-life impact through adaptations in citizen/consumer personal behaviours.

Initiatives should be coherent with the objectives of the European Green Deal, the European Climate Pact[[2]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#fn2) and the European Biodiversity Strategy for 2030[[3]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#fn3) to engage citizens and communities in action addressing climate change, sustainable development and environmental protection. The proposed activities will build on existing initiatives and practices that demonstrate at international, European, national, regional and local level innovation in teaching and learning methods and how to engage the wider community in the changes needed for a successful and just transition. For example, experience can be learned from the European Ocean Literacy platform[[4]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#fn4), the European Atlas of the Seas[[5]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#fn5), the Plastic Pirates initiative[[6]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#fn6), the citizen science platform[[7]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#fn7), the Horizon 2020 project TeRRIFICA[[8]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/%22%20%5Cl%20%22fn8%22%20%5Ct%20%22_self), Scientix[[9]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#fn9), School Education Gateway[[10]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#fn10), resources for nature-based solutions in education[[11]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#fn11), UNESCO experience in Education for Sustainable Development[[12]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#fn12), as well as cultural, creative and artistic activities as a tool for empowering citizens.

Scope:

Actions under this topic should address one the following two subtopics:

**Subtopic 1: Enabling citizens to act on climate change and for sustainable development through education**

Based on the recommendations of the European Green Deal Communication, actions will foster the development and implementation of a **multidisciplinary European competence framework within the context of lifelong learning for the development and assessment of knowledge, skills and attitudes of citizens and in particular young people on climate change and sustainable development**.

This framework shall be built on the best available research and rooted in the Council Recommendation on Key Competences for lifelong learning[[13]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/%22%20%5Cl%20%22fn13%22%20%5Ct%20%22_self), especially **natural science, technology, mathematics, as well as social, personal, entrepreneurial, citizenship and digital competences.** The participation of natural scientists, technology specialists, citizen science professionals and social sciences and humanities researchers is essential for the development of the framework. Taking into account **the natural resistance to individual behavioural changes and to collective changes in social practices, as well as the gender gap observed in attitudes towards ecology and sustainable practices,** contributions and practical knowledge provided by non-academic practitioners, NGOs and stakeholders, and international best practices, will be important.

The European competence framework will be **tested and validated through demonstration activities**, in particular in schools, training institutions and universities, as for example through the implementation of nature-based solutions (e.g. green walls, green ponds for natural water filtering, green roofs, air quality sensors, green mobility, etc.), actions for biodiversity conservation, education on natural disasters, waste management including marine and riverside litter, sustainable energy and food production and consumption, educational activities supporting the refurbishment of school buildings, etc.

Under this subtopic, **clustering activities** among the selected projects should be ensured through regular exchanges (e.g. meetings, peer-learning and peer-counselling activities, etc.) in order to share the educational outcomes on the competence framework, best practices and results of the different demonstration sites. To this end, proposals should earmark the appropriate resources for coordination activities accordingly. Each proposal should also reflect a balanced geographical representation of the demonstration sites **covering different regions in Europe**.

The Commission considers that proposals requesting a contribution from the European Union in the range of EUR 3 to 5 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

**Subtopic 2: Enabling citizens to act on climate change and for sustainable development through better monitoring and observing of the environment and their environmental impacts**

Actions in this subtopic will target the involvement of citizens in climate- and environment-related issues and domains, such as biodiversity, marine and freshwater pollution, water scarcity and sustainable transport and food production. They will focus on the active participation of citizens through citizen science, environmental observation and civic consortia. Projects should be conducted on a broad scale, i.e. in cooperation with businesses, civil society organisations, public authorities and existing initiatives (such as the Climate Adapt platform[[14]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#fn14) and the Covenant of Mayors[[15]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#fn15)), to ensure that these actions will lead to examples on how to engage the wider community in the effective behavioural changes and changes in social practices needed for a successful and just transition. The key component of this subtopic is to raise awareness, engage and empower citizens and consumers with concrete tools to monitor their impacts on the environment, to collect information enabling them to change their behaviour and to reduce their personal carbon and environmental footprint as user and consumer through individual and social innovation. Actions should include the development and/or improvement of devices (low-cost sensors, consumer apps, such as wearable sensors, a trusted user-friendly app with robust carbon footprint calculations, extreme weather community app, for the purposes of early warning, marine and freshwater litter watch) taking into account the interoperability and exchange of future and existing data collected. Attention should be paid to promoting gender-equal participation and deconstructing gender stereotypes.

The Commission considers that proposals requesting a contribution from the European Union in the range of EUR 3 to 5 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Grants will be awarded to proposals according to the ranking list. However, in order to ensure a balanced portfolio of supported actions, at least the highest-ranking proposal per subtopic will be funded, provided it attains all thresholds.

Expected Impact:

The project results are expected to contribute to:

**Subtopic 1:**

* a **multidisciplinary** European competence framework within the context of lifelong learning that will serve as a reference tool for the Member States, the public and private sector, stakeholders, and NGOs to help citizens to become engaged actors in the green transformation of society;
* The ability to assess the knowledge, skills and attitudes of citizens and in particular young people on climate change, sustainable development and environmental protection;
* specific **educational programmes**, **school curricula, trainings, networking activities and exchange of good practices in the area of climate change and education for sustainable development**;
* **enhanced engagement of the wider community**, including with the use of **digital media**, to make the behavioural changes needed for a successful transition **by undertaking consultations, testing and implementation of this framework in schools, universities, training institutions, municipalities, public authorities in cooperation with the private sector, teachers, trainers, students, pupils, parents;**
* the **large participation** of pupils and students, supported by scientists, educators and practitioners, in intergenerational dialogues and exchanges on climate action, environmental protection and behavioural changes for sustainable development;
* the **broad testing, dissemination and use of the European competence framework at concrete demonstration sites** (e.g. in schools, universities and identified education communities) and in **innovative activities** (e.g. incubators for citizen participation, informal youth city councils, **use of social media and digital tools**…).

**Subtopic 2:**

* the development or strengthening of citizen science initiatives to engage citizens in the active collection of environmental and socio-economic data through individual new or improved devices;
* the provision of personalized information to citizens and consumers about their environmental impact;
* a better monitoring of the environment (land, sea, air, etc.);
* behavioural change processes on the part of citizens, consumers and communities towards more sustainable patterns in reducing their carbon and environmental footprint, changing their consumption and lifestyle choices to achieve goals of a climate-neutral, sustainable Europe through concrete and targeted advice.

Cross-cutting Priorities:

[RRI](https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/ftags/rri.html#c,topics=flags/s/RRI/1/1&+callStatus/asc)
[Blue Growth](https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/ftags/blue_growth.html#c,topics=flags/s/BlueGrowth/1/1&+callStatus/asc)
[Open Innovation](https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/ftags/open_innovation.html#c,topics=flags/s/OpenInnovation/1/1&+callStatus/asc)

[[1]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#r1)https://eur-lex.europa.eu/resource.html?uri=cellar:b828d165-1c22-11ea-8c1f-01aa75ed71a1.0002.02/DOC\_1&format=PDF

[[2]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#r2)https://ec.europa.eu/clima/policies/eu-climate-action/pact\_en

[[3]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#r3)https://eur-lex.europa.eu/resource.html?uri=cellar:a3c806a6-9ab3-11ea-9d2d-01aa75ed71a1.0001.02/DOC\_1&format=PDF

[[4]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#r4)<https://webgate.ec.europa.eu/maritimeforum/en/node/4484>

[[5]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#r5)<https://webgate.ec.europa.eu/fpfis/wikis/display/AtlasOfSeas/>

[[6]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#r6)https://bmbf-plastik.de/en/plasticpirates

[[7]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#r7)https://eu-citizen.science/

[[8]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#r8)https://cordis.europa.eu/project/id/824489

[[9]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#r9)http://scientix.eu/

[[10]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#r10)https://www.schooleducationgateway.eu/

[[11]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#r11)https://oppla.eu/

[[12]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#r12)https://www.unesco.de/sites/default/files/2018-08/unesco\_education\_for\_sustainable\_development\_goals.pdf

[[13]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#r13)<https://ec.europa.eu/education/education-in-the-eu/council-recommendation-on-key-competences-for-lifelong-learning_en>

[[14]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#r14)https://climate-adapt.eea.europa.eu/

[[15]](https://ec.europa.eu/info/funding-tenders/opportunities/portal/#r15)https://www.covenantofmayors.eu/