# Fellowships for graduates from Central- and Eastern Europe (CEE)

## for advanced qualification

Deutsche Bundesstiftung Umwelt

# Contents



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# Foreword

Alexander Bonde

For more than 25 years the countries of Central and Eastern Europe (CEE) have been at the centre of the international funding activities of the German Federal Environmental Foundation (Deutsche Bundesstiftung Umwelt, DBU). The fellowship funding began in 1996, when Professor Maciej Nowicki, the Polish Minister of the Environment from 2007 to 2009, was rewarded with the German Environmental Award. The prize winner used his prize money to establish a German-Polish fellowship programme in environmental protection, which became a model for other CEE countries. Furthermore it was the basis for the DBU's current transnational fellowship programme in Central and Eastern Europe.

Following its successful start in Poland in 1998, the fellowship programme was established in the Baltic republics of Estonia, Latvia, Lithuania and in the Kaliningrad Oblast from 2002/2003 on, and subsequently in Czechia. In the following years it was extended to Hungary, Romania and Bulgaria and in 2008 to Slovakia. Since 2009 applications are accepted from Albania, Bosnia-Herzegovina, Croatia, Kosovo, Montenegro, North Macedonia, Serbia and Slovenia. In 2017 Ukraine was added as a partner country.

The programme aims to provide fellowship holders with professional qualifications and to familiarise them with the German language and culture. Furthermore it wants to create an active network of German and as well as Central and Eastern European experts in all areas of environmental protection and nature conservation. This is intended to remove obstacles to cross-border cooperation. Over the years, international funding has helped to establish close relations and a solid basis for joint commitment to European environmental protection.

Alexander Bonde
General Secretary
German Federal Environmental Foundation

# DBU – we support innovation

The German Federal Environmental Foundation (Deutsche Bundesstiftung Umwelt, DBU), in accordance with its foundation goals and mission statement, supports innovative, exemplary and solution-oriented proposals for the protection of the environment, with special consideration of the needs of small and medium-sized enterprises.

Funded projects should achieve sustainable effects in practice, give impulses and lead to a »multiplier effect«. It is the objective of the DBU to contribute to the solution of current environmental problems, in particular, which result from unsustainable business practices and lifestyles. The DBU sees the crucial challenges primarily in the areas of climate change, biodiversity loss, unsustainable use of natural resources, and harmful emissions. The funding topics are linked both to current scientific findings on the Planetary Boundaries and to the United Nations' Sustainable Development Goals.

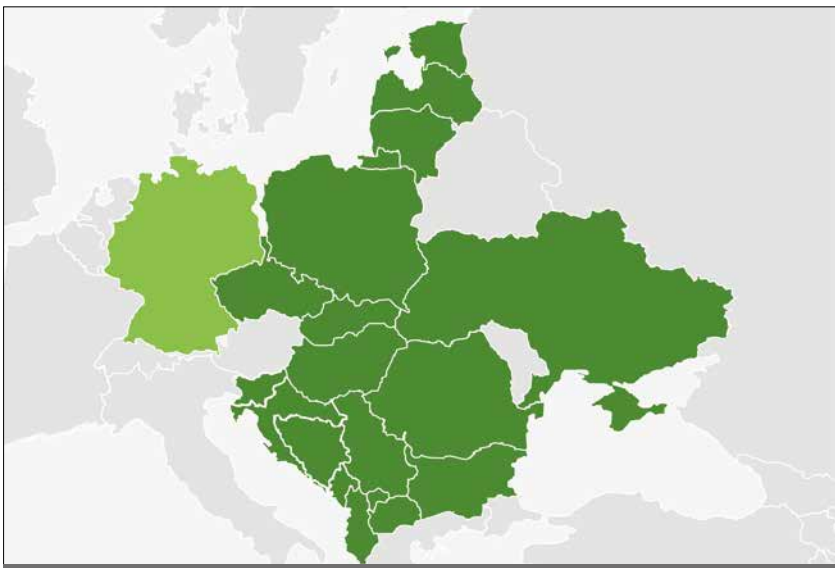
# Our aims for the CEE Fellowship Programme

The DBU awards up to 60 fellowships per year for advanced scientific and/or professional qualification in all fields of environmental protection and nature conservation. Highly qualified graduates of all disciplines from the countries of Central and Eastern Europe (CEE) are welcome to apply. The DBU fellowship covers a 6–12 months stay at German host institutions: universities, research institutes, companies, environmental and nature protection agencies and authorities, NGOs, associations, etc.

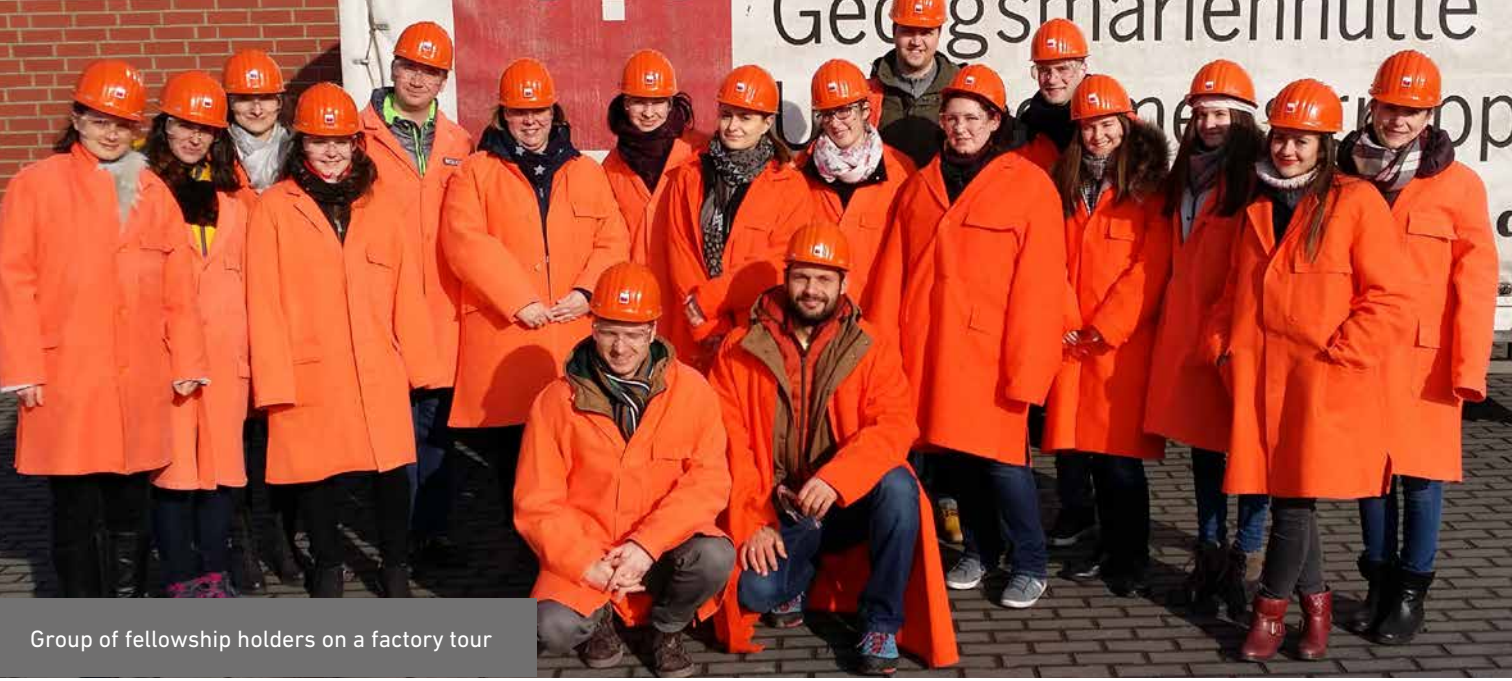
During the fellowship practical solutions for current environmental issues are developed. After their stay in Germany the alumni are well qualified to tackle these issues in their home countries thus assuring efficient knowledge transfer. Working closely together in an international context helps to breakdown existing barriers. The acquired contacts will create a strong Europe-wide network of highly committed environmental experts.

# Formal requirements for your application

- citizenship of Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Czechia, Estonia, Hungary, Kaliningrad Oblast, Kosovo, Latvia, Lithuania, North Macedonia, Montenegro, Poland, Romania, Serbia, Slovakia, Slovenia, Ukraine
- residence in one participating CEE country at the time of application
- proposal of an environmental relevant and applied topic
- above-average (good to very good) degree of one participating CEE country (master's degree or diploma; a bachelor's degree is not sufficient)
- all disciplines are eligible
- at the time of application, the degree should generally not have been completed more than five years ago
- sufficient knowlegde of the German language; needs to be proven at the beginning of the stay at the host institution
- we especially fund persons without prior study experience in Germany
- PhD students are admitted, as far as the doctoral project/PhD study is not already completed during the funding
- funding cannot be used for studies in Germany



Participating countries in the CEE Fellowship Programme



Group of fellowship holders on a factory tour

# Our services for you

- funding period: 6–12 months
- monthly grant: 1,250 €; exempt from taxation and social security contributions in Germany
- health, accident and liability insurance
- several weeks of intensive German language course in Osnabrück
- fellowship seminars for mutual exchange
- invitation to important events of the DBU, such as the German Environmental Award
- networking between fellowship holders and alumni
- yearly meetings of alumni in their home countries

Initially, a grant is awarded for 6 months. The funding period can be extended to a maximum of 12 months after positive review of the interim report, successful completion of the fellowship and good progress in German language skills.

# Your application

The application takes place via an online tool in German or English and is possible twice a year. The application deadlines are the same in all countries – annually on 5 March and 5 September. Exact information on the selection interviews and contact persons (country coordinators) in the individual countries can be found on our homepage at

**https://www.dbu.de/2600.html**

Requests, for example by e-mail, are possible at any time.

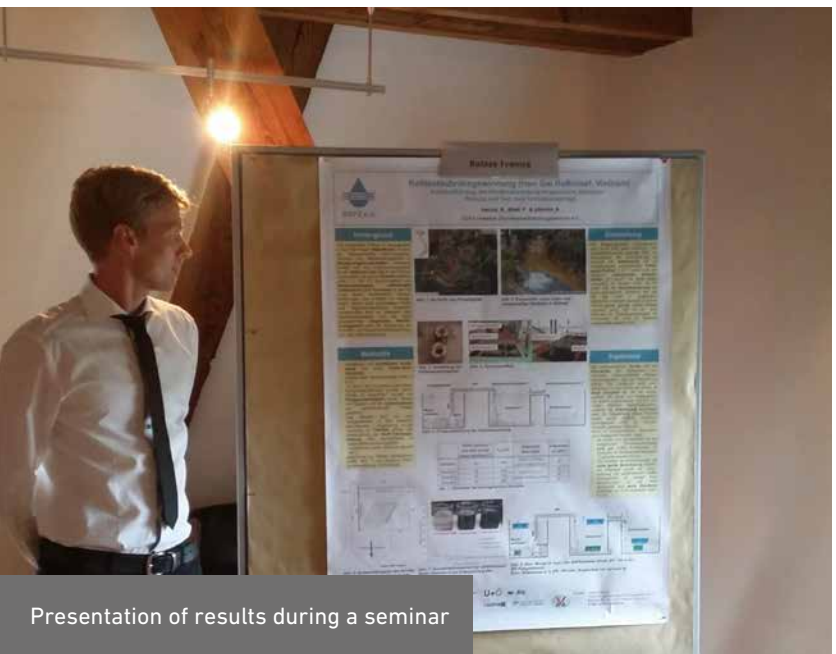
The following documents are needed for online application in German or English:

- resume
- description of a topic of environmental protection or nature conservation you would like to work on in Germany and which is of environmental relevance for your home country, the EU or globally. The project proposal should be at least three pages long. For further information, please refer to our FAQs at https://www.dbu.de/2578.html
- copies of university certificates (master, diploma, bachelor), if necessary with translation and breakdown of the individual study results
- written statement by an academic advisor/ supervisor in the home country
- German and/or English language certificate if available

Fellowship holders at the introductory seminar in Osnabrück

# The selection process

After the review of the application documents, the DBU will invite the best for an interview in German or English. The dates and locations will be announced in good time. A selection committee and the DBU office will decide on the awarding of the fellowships.



Presentation of results during a seminar

# Your stay in Germany

The DBU can assist in finding a host institution in Germany. However, the initiative of the applicant is very highly appreciated. The commitment of a host institution is not required at the time of application. The supervising institution can also be searched for with the help of the DBU after a successful selection procedure. The German host institutions integrate the fellowship holders into their ongoing projects and guarantee professional supervision.

There are two starting dates per year for the fellowships: early in February (for the September application deadline) and in the middle of August (for the March application deadline). The fellowship begins with an introductory seminar for all new fellowship holders in Osnabrück, at which important organisational matters for the stay in Germany are clarified. This is followed by an intensive German language course in Osnabrück lasting several weeks. Accommodation for the fellowship holders during the introductory seminar and the intensive German language course in Osnabrück is organised by the DBU.

# Your obligations as a fellowship holder

The DBU accompanies and supports the fellowship holders throughout the entire fellowship period. At the fellowship seminars, the participants present their projects and results and have the opportunity to network with each other. Personal initiative, e.g. in organising further events/seminars, is very much welcomed and supported by the DBU.

No work permit is required for the fellowship period in Germany. However, some countries require a visa to enter Germany. The fellowship holders themselves apply for visas in their home countries in good time.

The fellowship holders are responsible for organising their own accommodation at the location of their fellowship. In most cases, the host institutions provide assistance in finding accommodation.

By accepting the fellowship, the recipients commit themselves to concentrate on their project and not to accept any gainful employment or additional fellowship. If the fellowship stay is interrupted, altered or prematurely terminated, the DBU must be informed immediately.

The fellowship holders commit to participate regularly in the seminars, to submit reports, to update their data in the online communication platform, to improve their German language skills and to report any changes relevant for granting.

It should be noted that the DBU reserves the right to cancel the fellowship if the recipients makes false statements or conceals important facts and changes. Furthermore, the fellowship can be cancelled, if the recipient does not deal with the topic of the fellowship or violates the instructions of the host institution.

## Further information and contact

All current information on the Fellowship Programme for CEE Countries, FAQs and the contact persons in the individual countries can be found on the internet at **https://www.dbu.de/2600.html**

You are welcome to send further questions by e-mail to:

**Dr. Nicole Freyer-Wille**
n.freyer@dbu.de

**Dr. Alexander Bittner**
a.bittner@dbu.de

**Constanze Fuhrmann**
c.fuhrmann@dbu.de

# Examples of successful projects

## Environmental pollution by microplastics

**Špela Korez (Slovenia)**

The progressing environmental pollution by plastic debris is one of the dominant topics in environmental and social politics. Scientists and politicians are called upon to identify potential hazards and to develop solutions.

In the frame of my DBU fellowship I documented the temporal development of microplastic pollution at the coast of Slovenia. In cooperation with the Alfred Wegener Institute in Bremerhaven, I compared the current microplastic load at Slovenian beaches with a former study from 2012. In 2017, there were distinctly less microplastic particles at the investigated beaches, which indicates both a higher environmental awareness of visitors, but also effective cleaning of the beaches.

During my fellowship, I gained versatile experience, which positively influenced my professional career and personal development. I have mostly performed my fellowship project independently, which taught me to structure and communicate my plans clearly. The interdisciplinary seminars organised by the DBU were very helpful, not only to improve my German considerably.

## Use of waste wood for sustainable house construction

**David Decky (Czechia)**

High-value engineered wooden products are widely considered to be building material of the future with positive carbon sequestrating effects. Recovering of existing wooden mass already present in the consumer-cycle in a cascading manner would increase resource efficiency. Nowadays demolition waste is considered as a burning fuel. The reuse of the load-bearing wooden parts (beam, rafters, etc.) makes the waste a valuable resource for new construction projects.

During my DBU fellowship at the Fraunhofer Institute for Wood Research, Wilhelm-Klauditz-Institut the level of chemical infestation of the deconstructed wood was assessed and mechanically removed. Unpolluted pieces were qualitative assorted and used to produce testing specimen for the determination of relevant material properties. Finally I produced and tested lab-scale layered specimen with varying ratios of new-to-recovered wood.

During my whole stay in Braunschweig I felt like at home and I made some (hopeful) lifelong friendships. The atmosphere at the institute was the most energetic I have ever experienced.

## Reconstruction works in the historic gardens of Berlin

**Noemi Beszedes (Hungary)**

Gardens play an important role in the fight against climate change. In modern European capitals, the issue of preserving and maintaining public gardens is a major concern for city authorities. They are a constantly changing and growing ecosystem that needs to be protected in order to preserve biodiversity.

During my DBU fellowship at the Technical University of Berlin, I analysed reconstruction work in the historic gardens of Berlin. The important aspect was a cultural anthropological perspective in relation to the identity and cultural memory of public monuments in urban parks. In addition to the methods of German historic preservation practice, I also examined the different layers of political ideologies that have gained space in these green areas and analysed their influence on the identity and public memory of the Berlin citizens.

After DBU Stipendium, I have continued my career in the field of international relations, I am dealing with public diplomacy issues concerning culture and heritage. I am also teaching art history in higher education institutes.

## Trends of Bulgarian bird populations

**Aleksandar Zarkov (Bulgaria)**

Population of common breeding birds in Europe and Bulgaria have declined significantly in recent decades, posing a serious threat to biodiversity. This process is caused by climate change, habitat change and habitat loss.

My DBU fellowship aimed to assess the impact of some biological characteristics (such as migration strategy and weight) on bird population development. Based on data from the National Programme, which monitors changes in the breeding populations of common bird species in Bulgaria, I found that the bird populations in agricultural areas and in cities decreased the most.

My supervisor at the University of Marburg helped me to structure and implement my ideas. The friendly and fruitful environment in his international group also supported my work to become succesful.

During my fellowship I made some contacts with scientists from several institutes in Germany, which I use in my ongoing project. Currently, I am working on my PhD project in close collaboration with my colleagues from the university of Marburg.

## Control of potato beetles without pesticides

**Enikö Lörincz-Besenyei (Romania)**

Continuously growing world population and climate change are challenging the agriculture. Arable land is a limited resource and extreme weather conditions bring new pests. Potato is a very important cultivated plant with a lot of pests and diseases such as the potato beetle. Pesticides used to control the pests and diseases have a negative impact on both the environment and human health.

In the frame of my DBU fellowship at the Julius Kühn Institute, I worked on increasing the potato's resistance to the potato beetle and other pests. Initially, I used classical gene manipulation methods to produce somatic hybrids with resistance to potato beetles. Subsequently, I used the new genome editing method CRISPR/Cas to introduce genes from the wild relatives of the potato into cultivated potato plants.

Now I´m working on developing a virus based genome-editing tool that would be beneficial to improve potato production in extreme weather conditions.

## From DBU fellowship to DBU project funding

**Vladimir Volkov (Kaliningrad Oblast)**

During my DBU fellowship I stayed at the University of Applied Sciences Eberswalde to research instruments and practical examples for the development of Green Startups at universities in Germany. During my visit to the Hanover Fair I got to know my future DBU project partner ANiMOX GmbH from Berlin.

At first I was there for a fellowship stay in which we carried out first experiments on the sustainable utilization of fish waste. The results were so encouraging that my university start-up Biotech in Kaliningrad, together with ANiMOX GmbH and the KSTU Kaliningrad, applied for and received approval for a DBU funding project.

Within the framework of this project, a competence centre for the recycling of animal waste was established in the Kaliningrad area. We have developed innovative processes for obtaining protein hydrolysates from animal by-products such as fish residues. These proteins are suitable for human consumption and can, for example, be mixed into soups.

Who would have thought that my DBU fellowship would develop into an international DBU funding project? I am very much looking forward to further development.

## Sustainable design in architecture

**Olivia Jorgji (Albania)**

The construction sector still has a very high energy consumption, which makes it an important influencing factor in the achievement of ecological goals in addition to its economic importance. It is therefore important to understand and quantify the existing options for increased sustainability in the building sector.

My DBU fellowship at the Fraunhofer Institute for Building Physics aimed at analyzing the feasibility of energy-efficient refurbishment of existing residential buildings in Albania, taking into account the environmental impact and the costs of implementation. I used LCA (Life Cycle Assessment) to estimate the environmental impacts of a building in all its life cycle phases, from material production and the use phase to end-of-life processes. Buildings undergoing renovation can significantly improve their energy standard and thus their environmental impact.

The research results provide a good basis for further studies in this field. The methodology of Life Cycle Assessment can also support the achievement of environmental objectives for the socio-economic context outside the EU.

## Biodiversity in agricultural landscapes in Estonia

**Riho Marja (Estonia)**

Biodiversity in the European agricultural landscape has been declining for at least five decades. The main reasons for this are the increase in the use of pesticides and fertilizers, changes in land use with the loss of meadows and mechanization.

In my first DBU fellowship I investigated the effectiveness of Estonian agrienvironmental measures on the biodiversity of plants, bumblebees and birds at the University of Göttingen. I found that both controlled organic farming and structured landscapes have a positive impact on biodiversity.

Later, I returned to the same workgroup with an alumni fellowship to create a pollinator database. It was both times a very successful collaboration: I learned a lot (statistics and scientific methodology), I published a scientific paper and I found many good friends with whom I still communicate even years later.

At the moment, I work in the Estonian Environmental Agency. My main topic is related with environmental indices, analyses and reporting the state of environment for the general public.

## Drought research for climate change adaptation

**Lívia Labudová (Slovakia)**

Climate change is a very topical and often discussed issue. Most people »only« think about the warming of the earth. But climate change has many effects, so we have to look at and explore the term »climate change« in a complex way. One example is drought research, i.e. the monitoring of the frequency and intensity of droughts. The results of this research can contribute to better adaptation to extreme weather conditions and to reduced vulnerability of landscapes and ecosystems.

As part of my DBU fellowship at the University of Trier, I analyzed changes in the frequency and intensity of droughts in a given period as a consequence of climate change. I also considered adverse effects on ecosystems (biodiversity etc.) and population (health and socio-economic factors). I have worked on two temporal levels – the daily and the monthly level. The results achieved have led to the establishment of a regular drought monitoring system throughout Slovakia.

## Energy efficiency of Lithuanian court buildings

**Tadas Kancevičius (Lithuania)**

Energy-efficient renovation or construction reduces greenhouse gas emissions in buildings. Increased energy independence and reduced costs are also very advantageous for the public sector with its large building stock. Lithuania has a large untapped potential for energy savings in public buildings. For example, the average age of court buildings is around 90 years.

During my DBU fellowship at kplan AG I developed practical solutions for old and new building projects in order to increase the energy efficiency of Lithuanian court buildings. I first researched the current literature, visited new buildings in Germany and then carried out simulations and modelling.

Now I am working in the National Court Administration as the main advisor to the Asset Management Department. Here I am responsible for the renovation of the court buildings as well as for new construction and conversion projects. I successfully apply my knowledge, which I deepened during my stay at kplan AG, in my daily work.

## Climate issues and their particularities in youth work

**Nataliya Dyman (Ukraine)**

Melting glaciers, rising temperatures, acidification of the oceans. Climate change is a global problem. An important issue in this context is adaptation to the consequences of climate change. One way to implement adaptation measures is Education for Sustainable Development (ESD).

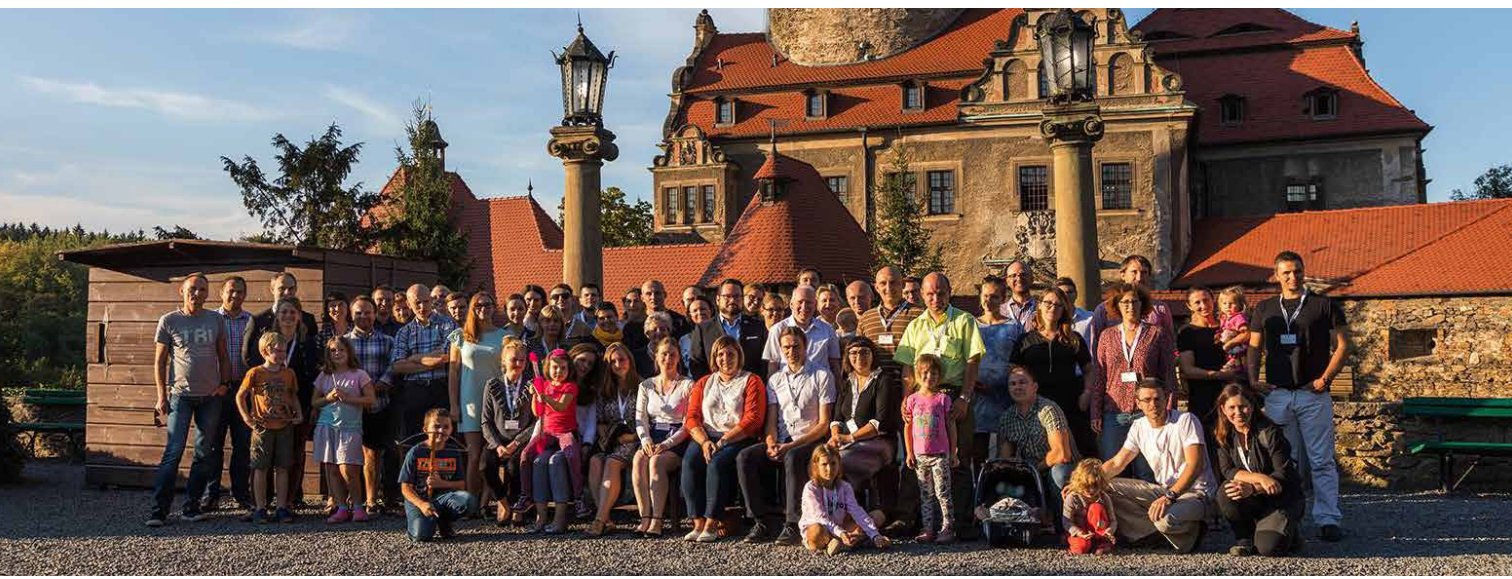
In Ukraine, pupils in formal education do not acquire enough background knowledge and skills to effectively participate in change processes related to climate change. It is therefore important to address the consequences of climate change in school and to lead young people to self-knowledge, self-development and independence. A conscious attitude towards nature should be encouraged in early childhood.

Therefore, the aim of my project is to provide progressive German experience in implementing ESD in the educational environment of Ukraine, taking into account local opportunities and national mentality.

# Alumni associations

Over the last 20 years, numerous alumni associations have been founded: Poland in 2001, Hungary and Czechia in 2008, Latvia, Bulgaria and Romania in 2009, Estonia and Lithuania in 2010, Slovakia and Serbia in 2012, Kaliningrad Oblast in 2015 and Ukraine in 2020.

In the fellowship programme the alumni associations have different functions. They provide information about the CEE Fellowship Programme and are represented on the selection committees. They also take part in the introductory seminar and thus support new fellowship holders in their first days in Germany. The alumni associations organise annual meetings and other meetings (e.g. regulars' tables) in their countries, which also serve to integrate returning fellowship holders into the association. In addition, they organise international professional events and maintain cross-border cooperation. The alumni associations also send representatives to important DBU events in Germany, e.g. the annual presentation of the German Environmental Award, the Week of the Environment at the German Federal President's residence, the annual international alumni workshop for the exchange between the alumni associations.



Group of Polish fellowship holders at annual alumni meeting