EUROGEO: An International Leader in Geographical Education

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Abstract
EUROGEO was first established as a non-profit organization in 1979. At the beginning, the principal aims were to advise and to promote the European dimension in geographical education and teaching about the countries of Europe as a contribution towards the development of a European citizenship. Forty-five years later, EUROGEO has evolved into a significant global organization, providing advanced insights, innovations, theories, methodologies, and educational resources in the field of geography, particularly those based on geospatial information, thus promoting geographical competencies for lifelong learning to address the future of geographical education in Europe and beyond.

Keywords
EUROGEO, Geography education, Teaching the Future, European Education Area

1 Background 1979-2002

EUROGEO, the European Association of Geographers, is a membership-based association legally based in Belgium. It is a European scientific and professional society and the main geographical organization for European geographers, either in education (from school education to higher education), in research, in geo-media, or as professionals in companies, governments or NGOs. It operates mainly within Europe but increasingly beyond due to its increasingly international and global scope. Membership of EUROGEO is open to those interested in geography, both individuals and organizations, like geography departments, companies, and associations.

The principal aims of the European Association of Geographers (EUROGEO) are to advance the status of geography by:

- organizing events and activities for members
- undertaking research about and for geography
- producing publications for members
- supporting geographers in their jobs and careers
- identifying and promoting good practice
- supporting the teaching of geography
- co-operating with such bodies as the European Union, the Council of Europe, the United Nations, the International Geographical Union (IGU) and other relevant geographical and academic organizations
- lobbying at international, European and national level
- providing a forum for the discussion of matters of common interest to geographers
- giving advice on geography
- making recommendations to decision makers

EUROGEO was first established in 1979 under the name of European Standing Conference of Geography Teachers Association (ESCGTA). Since 1980 and until the mid-1990s (Annex 1), its main activities have consisted of a Plenary Conference, held every two years in Brussels, and a Bulletin published between conferences with financial support from the European Commission and the Council of Europe (De Lázaro 2013; De Lázaro 2015). In

the beginning it was an association of associations. One of its main driving forces from the beginning was Professor Henk Meijer from the University of Utrecht, elected President of the ESCGTA. The secretariat was held by Jean-Pierre Vandenbosch (President of the Belgian FEGEPRO, *Féderation des Proffeseurs de* Géographie). Other relevant geographers who played important roles in its early days were Andrew Convey (University of Leeds), Hugo Heim (University of Basel), Kirsten Herbard-Jørgensen (University of Roskilde), and José Estébanez (representing the Spanish Royal Geographical Society, one of the eight founding members of the IGU in 1922).

In 1994, when other European countries became members, the association took the name of its bulletin, EUROGEO: European Network of Geography Teachers´ Associations. The principal aims of that organization were to advise and promote the European dimension in geographical education and teaching about the countries of Europe as a contribution towards the development of a European dimension in education. Members were geography teacher associations and geographical associations from around Europe, as geography is a European-born scientific discipline (De Miguel 2019). Presidents of these associations or their representatives attended the bi-annual meetings that were originally organized and funded by the European Commission in Brussels.

In 1999 a successful application was made for a European Minerva Project.Euro.Geo, to produce materials that promote European citizenship through the use of information and communications technologies (ICT) to teach geography in schools. The project was funded between 2001 and 2004. At that moment, the status of geography was seriously under threat across Europe, so during the Liverpool meeting of EUROGEO in 2001, members of the association decided that this project would be very useful to disseminate information about the state of geography in Europe. So, the Euro.Geo project produced a web site, interactive maps of Europe, as well as teaching and training resources in different languages. At the same meeting in Liverpool in 2001, members of EUROGEO conducted a scoping study and decided that they needed to network with other organizations to get funding to promote geography education. As a result, EUROGEO started working with the INLT (International Network for Learning and Teaching geography, later based in Dublin, Ireland) and GEES (Geography Earth and Environmental Sciences), a UK national higher education geography subject network coordinated by Professor Brian Chalkley at Plymouth University, U.K. (Chalkley and Kneale 2011). Henk Meijer decided to stand down, so in 2002 and during the EUROGEO annual meeting held in Funchal (Madeira, Portugal), Karl Donert was elected president of the association. At the same meeting the application for HERODOT was agreed.

2 The Bologna process and thematic networks: HERODOT and Geocube, 2002-2009

The Joint Declaration of the European Ministers of Education, convened in Bologna on 19 June 1999, marked a significant milestone in the realm of European education. This declaration initiated what became known as the Bologna Process. It proposed a European Higher Education Area in which students and graduates could move freely between countries, using prior qualifications in one country as acceptable entry requirements for further study in another. It was based on two main aims: fist, the adoption of a system of easily readable and comparable degrees between the different countries of the European Union, based on the European Credit Transfer System (ECTS); and second, the adoption of a transnational system essentially based on two main cycles, undergraduate and graduate. The second cycle should lead to the Masters and/or Doctorate degree as in many European countries.

In this context, the proposal to the European Commission to establish a Socrates-Erasmus Thematic Network for Geography was successful, and the HERODOT network, Network for Geography in Higher Education (2002-2005), was formed and resulted in the only thematic network focused on geography. Its second phase took place between 2006 and 2009, HERODOT II: Thematic Network for Geography Teaching and Training. In both cases, HERODOT and HERODOT II, the network was coordinated by Liverpool Hope University. Karl Donert, also the president of EUROGEO, led this coordination, thus reclaiming the original essence of EUROGEO as an international association continuing to promote networking opportunities among geographers in Europe and beyond.

The conditions of HERODOT funding for thematic networks forced EUROGEO to network across all Socrates/Erasmus countries. It had at least one partner in all 33 eligible states. In total, the HERODOT network grew to more than 230 member universities from 55 countries. Networking with the American Association of Geographers (AAG), the International Geographical Union (IGU) and its Commission on Geographical Education (IGU-CGE), or the Southeast Asian Geography Association (SEAGA) was also significant in this phase, so scholars from outside Europe and specifically from the U.S, Canada, Australasia and Latin America participated regularly in the thematic network, contributing actively to meetings and workshops and submitting chapters for publication by the network. The legacy of the extensive HERODOT network is nowadays still visible in the list of EUROGEO member organizations list[1].

Through its activities, the thematic network influenced higher education courses, curricula, systems, and structures as a network for geography in higher education. HERODOT members carried out a Tuning methodology aimed at the design of compatible and comparable degree programmes that were relevant to society and had built-in mechanisms for maintaining and improving the quality of higher education. HERODOT allowed an analysis of the state of geography formally and informally to encourage the mobility of geography students and academic staff across Europe, following the guidelines of the Bologna Process.

The network was organized into four pillars of work: i) citizenship, culture, place, and identity; ii) promoting 21st-century Geography; iii) innovative teaching, focusing on teaching in Europe and about Europe; and iv) employability and lifelong learning. The network worked on standards to improve the quality of learning and teaching geography in higher education. Along this line, a report was carried out for the Tuning project, based on information provided by the analysis of a questionnaire answered by institutions and associations in the HERODOT network. This report also identified the competencies considered essential for the new profile of a European geographer (Donert 2007). Several orientations were proposed to help European geography departments design a new European training system to improve curriculum development and to promote the quality and innovation of geographical higher education through active methodologies, problem based-learning, professional internships at governments, companies, or NGOs.

HERODOT also highlighted the key skills of geography for employability, based on GIS and geoinformation. HERODOT recommended that geography undergraduate and graduate courses should increasingly incorporate geospatial technologies such as GIS to ensure that European higher education students are spatially literate. Using GIS reflected the best practices involved in the changes, undertaken after the implementation of the Bologna Process. These recommendations have been incorporated into university programs over the following years (De Miguel and De Lázaro 2016).

In order to improve geography knowledge, HERODOT created an application called Geocube ("the world of geography at your fingertips"), to describe the work of geographers

[1] https://www.eurogeography.eu/membership/

and of the discipline of geography to explain the world in which we live. Geocube is an attractive online resource and a book (Donert 2009) about geography, based on the principle of Rubik's Cube, addressed to a general audience, but particularly to raise awareness of the significance, relevance, and importance of geography among decision makers and education ministries of European countries.[2]

The greatest intellectual legacy of HERODOT was the 12 books publishing the reports, the conference proceedings, and the outcomes of such a huge collaborative project, many of them widely cited in the geographical education literature (Donert and Charzyński 2005; Donert 2007; Donert, Charzyński, and Podgórski 2007; Donert and Wall 2008; Donert 2009b; Donert 2010; Attard 2010), as well as several articles assessing international collaboration in geography education (Donert et al. 2011, 2008; Higgitt et al. 2008) as an expression of the practice of the UNESCO and IGU-CGE key concept "international understanding" (De Miguel 2020).

One of the final HERODOT meetings was held collaboratively with EUROGEO at its conference in Liverpool in September 2008. At this meeting the future of the association was redefined with support and advice from the AAG, establishing revised statutes and individual and organization membership levels. These new statutes were also endorsed at the following EUROGEO Conference held in Aylvalik in May 2009. Finally, the new statutes and the new legal nature of EUROGEO, as an international not-for-profit association under Belgian law and run by a Board composed by volunteer members, referred to in Dutch as "IVZW," were published in the Belgian Official Gazette on September 1, 2009, with its registered office in Flanders. This marked the beginning of a new stage for EUROGEO.

3 The European Higher Education Area: Reinforcing transnational networks for the future of European geography education, 2009-2015

Two of the greatest lessons learned from HERODOT were the need for the renewal of university training for geography teachers, and the emerging importance of geospatial technology. The first need was also highlighted by the European Union in 2010, the year of the official creation of the European Higher Education Area (EHEA), which supported student mobility and mutual recognition of diplomas (like teacher qualifications), quality assurance in higher education, and the implementation of the Erasmus+ program for lifelong learning.

Second, the increasing availability of GIS, Remote Sensing, GPS, and other derived products in the beginning of 21st century profoundly transformed geographical research, levering the fundamentals of quantitative geography to suggest new disciplines like neogeography or Geographical Information Science (GISci). This has opened an academic debate about the role of Volunteered Geographic Information, the contribution of GIS users in a range of non-academic, non-experts or non-professional contexts, and the rise of Citizen Science based on GIS. Notable milestones of this period included release dates of ArcGIS Desktop 8.1. (2000), Open Street Map (2004), Google Maps and Google Earth 3.0 (2005, after Keyhole acquisition), and ArcGIS Online (2012) as GIS in the cloud.

The importance of GISci was quite evident in higher education, but not so much in school education, due to deficiencies in computer equipment, but especially due to the lack of training of geography teachers and the absence of geoinformation and geo-data management/processing in geography curriculum, in different countries worldwide and also in Europe, as noted by the IGU-CGE itself (Whewell et al. 2011) despite the Lucerne

[2] http://www.geo-cube.eu/

Declaration recommendation, or the results of several international comparative studies (Bednarz and Van der Schee 2006; Milson, Demirci and Kerski 2012).

In this context, the HERODOT II network was succeeded by the “digital-earth.eu: geomedia in schools” network, coordinated by the University of Salzburg and funded by the European Commission Comenius program, for a duration of three years (2010-2013) and involving more than 50 institutions interested in geography education. The network aimed to promote the use of digital technologies in geography learning, known as "geo-media," which involves the visualization of geographic/geolocated information such as geodata, and geo-located images, from various digital sources, facilitated by Web 2.0, mobile devices, virtual globes, web-based GIS, etc. Such geographical information, or geoinformation, facilitates an approach to teaching and learning at a range of scales, local to global, and contributes to the European Digital Agenda 2020.

The network was organized into four working groups, each specialized in one of the key aspects considered essential to promote geography teaching and learning: i) data, tools, technologies, and geoinformation; ii) learning and teaching with "geo-media" and geoinformation; iii) teacher training and capacity building in "geo-media"; and iv) school curriculum developments.

Within the project, teacher training was promoted through the establishment of 17 innovation centers in Europe with the designation of "European Centers of Excellence". The Centers, located in 15 EU countries, reinforced the transnational network for European geography education and disseminated the theories, pedagogies, and best practices of “digital geographical education” (De Miguel and De Lázaro 2012; De Miguel and Donert 2014).

Almost simultaneously with digital earth.eu, EUROGEO participated in the SPACIT (Spatial Citizenship) Comenius project (2011-2014). “Spatial Citizenship” is about learning how to navigate this world in respect to i) the physical world; ii) the meanings attached to physical objects and environment, and iii) the power relations involved in the production of meaning (Gryl, Jekel and Donert 2010), and this approach has been later enlarged (Shin and Bednarz 2019). The Spatial Citizenship project was centered around the need to establish an active, constructive, and participative European identity. The Spatial Citizenship approach stems from the fact that the use of technologies and geoinformation is argued from the perspective of our everyday lives and the differences of individual/collective appropriation of space that are the basis for participation in collective decision-making. It is therefore relevant for democratic processes from local, urban, and regional planning to nature conservation. SPACIT networked ten partners from the European Union with the U.S. National Council for Geographic Education and provided a competence model for Spatial Citizenship education and an online training course.

In addition to digital earth.eu and SPACIT, EUROGEO participated in a broad network of 57 partners (including schools, universities, companies, NGOs, National Authorities, Research Centers, Associations and Adult Education providers from 18 European countries), called “School on the Cloud” (2014-2016). It aimed to explore new dynamic ways to educate by exploiting the opportunities arising from “Cloud” environments, and particularly Web-GIS through four different themes: i-teacher (innovative teacher), i-learner (innovative learner), i-leader (innovative leader) and i-future (innovative future). In this case, the network went on to evaluate such future developments as they related to education and cloud technology and examined future scenarios for “Education on the Cloud” (Koutsopoulos and Papoutsis 2015). Other relevant networks and projects on European geography education were iGUESS (Introducing GIS Use in Education in Several Subjects), Piri Reis (Turkish Geography network), Geo-skills+ and i-Use.

The last milestone of this period, which has endured for more than a decade, is the development of actions related to GeoCapabilities. This was initially launched with a pilot

study in 2011, funded by a grant to the American Association of Geographers (AAG) from the U.S. National Science Foundation but grounded on the concept of (geographical) powerful disciplinary knowledge (Lambert, Solem and Tani 2015). Later in 2013 and funded by the European Commission, a Comenius project initiative (GeoCapabilities 2) was developed through a process of international collaboration involving considerable original research and pilot testing with teachers and teacher educators related to the IGU-CGE, to the U.S. National Center for Research in Geography Education, to the Institute of Education (UCL), to the Geographical Association, and of course, to EUROGEO. The third phase GeoCapabilities 3 (2018-2021), was funded by means of a European Commission Erasmus+ project. As we have previously expressed, GeoCapabilities and the powerful geography movement may to cultivate 'spaces of hope' among the next generation of geography teachers and students (De Miguel 2024).

4 Erasmus+ and the role of geography education on key competences for lifelong learning (2015-2024)

In March 2014, the European Union launched a new Erasmus+ program (2014-2020), later extended from 2021 to 2027. Under the Erasmus umbrella, all previous educational programs (Socrates, Lifelong Learning, Comenius, Leonardo, Minerva, etc.) were unified into a single program under three actions: Key Action 1 (individual mobility), Key Action 2 (cooperation for innovation), and Key Action 3 (support for policy reform). Beside this, Jean Monnet actions of excellence in European education were established. One of the basic priorities of the Erasmus program was supporting individuals in acquiring and developing basic skills and key competencies for lifelong learning. Thus, the program has been structured into five components: higher education, school education, vocational education and training, adult education, and youth education (non-formal).

One of the changes from the previous period is that now there is less funding for networks and more for projects, which involve fewer participants (no more than 10), but are more intensive in contributing to a number of horizontal priorities, especially in Key Action 2. These priorities include, in addition to the acquisition and development of basic skills and key competences for lifelong learning, among others:

- social and gender inclusion
- digital transformation
- support to educators and professional development
- European cultural heritage
- environment and climate change education
- democratic life and civic engagement

In this way, geography and geographical education, due to its character as a social science and its interdisciplinary nature, have benefited from the priorities of the European Commission Erasmus+ program, so that since 2015 EUROGEO has led or participated in 43 Erasmus+ projects (out of the total 54, See Appendix 2), mostly from Key Action 2 (KA2), but also others from prestigious calls such as Jean Monnet, Key Action 3 (KA3), Horizon 2020, and Horizon Europe. It has also favored the fact that the European Commission itself has reinforced the spatial dimension of social issues after two important milestones of the year 2015: the Conference of the Parties (COP) Paris Agreement within the United Nations Framework Convention on Climate Change and the Sustainable Development Goals set by the United Nations General Assembly. Thus, the priorities of the Erasmus program have coincided with the three major challenges of geographical education in the Anthropocene that have been

outlined in a previous chapter (*The Discipline of Geography and Geography Education*) of this Handbook, as well as on the occasion of the Centenary of the International Geographical Union (De Miguel and Donert 2022): sustainability and climate education, (European) citizenship for global understanding, and digital geographical education.

But what is the role of geographic education in key competencies for life-long learning? Paradoxically, the new edition of the European Council Recommendation on Key Competences for Lifelong Learning (Council of the European Union, 2018, updating the previous one from 2006) or the subsequent LifeComp, the European Framework for Personal, Social and Learning to Learn Key Competence (Sala et al. 2020) do not hold geography in very high regard as a science or as a school discipline. A comparative table of competencies from both EU documents (Table 1), confirm that geography is not explicitly mentioned in either of the two, unlike others such as history, which is considered the main discipline for acquiring citizenship competence.

Table 1. Connection between key competences and LifeComp.

EU Key Competences	LifeComp
Literacy competence	Self-regulation
Multilingual competence	Flexibility
Mathematical competence and competence in science, technology and engineering	Wellbeing
Digital competence	Empathy
Personal, social and learning to learn competence	Communication
Citizenship competence	Collaboration
Entrepreneurship competence	Growth mindset
Cultural awareness and expression competence	Critical thinking
	Managing learning

The lack of a spatial EU key competency clashes with the evidence of the importance of spatial intelligence and spatial thinking (De Miguel 2021; De Miguel and De Lázaro 2024). Therefore, it has been necessary for EUROGEO to develop and promote, through European projects, a definition of competencies specific to geography, as well as pedagogies, resources, piloting, and teacher training. The geographical competencies are related to the eight key competencies identified by the European Union, but especially to competence in science and citizenship due to the bridging role the discipline of geography plays between natural and social sciences. This also includes digital competence based on geospatial technologies, as well as green competence, which we will discuss later.

In summary, EUROGEO has played a pivotal role in defining and disseminating six key and cutting-edge concepts in geographical education (Table 2)[3], which are closely related to those addressed by organizations such as IGU-CGE, AAG, NGCA, Geographical Association, and SEAGA. Furthermore, EUROGEO has actively fostered the development of research and assessment methodologies, the design of innovative pedagogical practices, the creation of teaching materials, and the implementation of training courses and activities. These efforts have been undertaken through projects conducted both since 2015 and preceding years. They clearly demonstrate that digital education, green education, and European citizenship

[3] Explanation of acronyms and details of these projects can be found at https://www.eurogeography.eu/projects/

education have been central pillars of our work and will continue to shape the future of EUROGEO and trans-European geography education.

Table 2. Geographical education topics addressed by EUROGEO projects.

Key topics in geographical education	*EUROGEO PROJECTS*
International education and global understanding	EURO.GEO, HERODOT, PIRI REIS, V-GLOBAL.
Digital geographical education and geospatial skills	IGUESS, DIGITAL-EARTH.EU, I-USE, MY STORY MAP, TELL YOUR STORY, GEOSKILLS+, SCHOOL ON THE CLOUD, L-CLOUD, D3, GODIGITAL, DALDIS, DIGI-PATH, SMART VILLAGE, TOGETHER, BIOMAPS, HUMAN, MYGEO.
Spatial thinking	GI-LEARNER, GI PEDAGOGY.
Powerful geography and geocapabilities	GEOCUBE, GEOCAPABILITIES, EAT
Spatial and European citizenship	SPACIT, REPLAY, SYNOPSIS, TIMELESS, FROM ARCHIVE TO ALIVE, GEODEM, YOUTHMETRE, EVALUE, TCI, STEAME, INFRA4NEXT
Geographical education for sustainable development and climate change education	SEACHANGE, SMILE, SEED, BALANCE, RIDE AND SMILE, ONLIFE, GEOLAND, TEACHING THE FUTURE, MY ECO-TRACK, GIS-T, GEA, RE3PRIS, CRISEPAC

5 The global impact of EUROGEO in geography and geographical education.

EUROGEO is an undisputed international leader in geographical education. Its influence has been growing steadily since its inception, particularly notable in its leadership within the HERODOT project. However, its impact has become truly global since 2015, and particularly since 2019 when Rafael de Miguel was elected president of EUROGEO and increased his activity at the United Nations, and involvement with academic colleagues from China, India, and Latin America. This association not only maintains partnerships with over 300 geographical entities, mostly university departments, but also with the thousands of geographers who have participated in its 32 conferences to date. These geographers continue to benefit from EUROGEO's feedback through subscriptions to the EUROGEO newsletter and engagement with its social media platforms. EUROGEO's reach extends to geographers from around the world.

There are three main vectors through which EUROGEO plans to continue to exert its global impact and influence on the future of international geographical education: i) its collaboration and partnerships with other geographical societies and related entities, like ESRI; ii) its direct involvement in international organizations; and iii) its contribution to scientific research in geography and geographical education through publications.

Geographical societies, the IGU and the IGU-CGE

From the early times, EUROGEO has collaborated with various European geographical societies, as these were initially the participants in the early congresses held in Brussels. Even today, EUROGEO maintains a close relationship with many national geographical societies: the Spanish Royal Geographical Society, the Geographical Association in the UK, the French

National Committee of Geographers, the Flemish Association of Geography Teachers, the Italian Association of Geography Teachers, the German University Association for Geography Didactics (HGD), the Royal Dutch Geographical Society, the Portuguese Association of Geography Teachers, the Hellenic Geographical Society, the Bulgarian Geographical Society, the Turkish Association of Geographers, among others. Outside of Europe, with SEAGA in South-East Asia, with RedLageo in Latin America, with Canadian Geographers (Canadian Association of Geographers, Canadian Geographic Education, The Royal Canadian Geographical Society) and specially with the American Association of Geographers (AAG). EUROGEO has also been supporting EGEA, the European association of geography students, and partner of The Anna Lindh Euro-Mediterranean Foundation, a regional network of civil society organizations dedicated to promoting intercultural dialogue in the Mediterranean area.

Second, EUROGEO has had a strong connection with the IGU, particularly with its Commission on Geographical Education. Evidence of this can be found in the IGU International Charter on Geographical Education of 1992, which recognized ESCGTA (EUROGEO's former name) as one of the relevant organizations for its promotion, two years before our name changed and took the Bulletin's name. Two chairs of the IGU-CGE have been prominent members of EUROGEO: Lea Houtsonen, during the early stages of HERODOT, and Joop Van der Schee, during the implementation years of digital-earth.eu.

Additionally, EUROGEO's Vice-President, Daniela Schmeinck, was part of the Steering Committee of the IGU-CGE from 2012 to 2020. She was also a distinguished member of the organizing committee of the 32nd International Geographical Congress in Cologne in 2012 and the IGU-CGE Symposium in Freiburg the same year. Both she and the current EUROGEO President, Rafael de Miguel, have been involved with their respective teams (Germany and Spain) in the International Geography Olympiad (i-Geo). Moreover, the two distinguished chairs of the IGU-CGE enlisted Rafael de Miguel to review the "history" of the Commission itself (Graves and Stoltman 2015). Finally, the members of EUROGEO's board of directors have been the most loyal participants in the IGU-CGE symposia, attending uninterrupted since 1996, when EUROGEO's current Secretary-General, María Luisa de Lázaro, attended the Symposium held in The Hague.

In 2005, a memorandum of understanding was signed between the IGU and EUROGEO, to increase synergies between the organizations in international geographical education. Some of these outcomes were the 2013 Joint Declaration, the consultation for 2016 International Charter, and the 2016 International Year for Global Understanding Map Competition with ESRI. Before the proclamation of the IGU International Charter on Geographical Education of 2016, three important additional documents have been introduced to reinforce the international collaboration in geography education (De Miguel 2020): i) a Joint Declaration on Geographical Education in Europe was signed by IGU-CGE, EUROGEO, and EUGEO in Rome, 2013; ii) an International Strategy for Geography Education was presented in 2014 at the EUROGEO Conference held in Malta and later at the IGU Regional Conference held in Krakow; and iii) the International Declaration on Research in Geography Education which was proclaimed at the IGU Regional Conference held in Moscow in 2015 in a joint session with EUROGEO ("IGU for School, School for IGU").

This regional conference also marked the growing collaboration between the IGU and EUROGEO in subsequent IGU congresses (Beijing 2016, Quebec 2018, Istanbul 2021 online, Dublin 2024), particularly highlighted in the extraordinary Centennial Congress in Paris in 2022. At this event, the chapter on geographical education in the commemorative book (De Miguel and Donert 2022) was authored by EUROGEO, and Rafael de Miguel delivered the keynote address at the IGU-CGE Symposium in Rennes. Additionally, the President of IGU, Mike Meadows, inaugurated the EUROGEO 2021 Conference, which was also held online due to the global pandemic. EUROGEO has consistently supported all initiatives of the IGU, for

example, the Joint Declaration of the international geographical societies on the climate and biodiversity emergencies.

EUROGEO at the Council of Europe and at United Nations

The second vector of global impact involves EUROGEO's participation in supranational bodies, specifically at the Council of Europe and in the United Nations. Since 1987 EUROGEO has had participatory status in the Council of Europe, regularly attending the conference of International NGOs. During his presidency of EUROGEO, Karl Donert has been Vice Chair of the Democracy, Social Cohesion and Global Challenges Committee (2015-2017) and Vice Chair of the Education and Culture Committee (2017-2020). Similarly, EUROGEO has participated in activities related to the European Landscape Convention, and currently remains engaged in the Conference of NGOs. At the Council of Europe, EUROGEO has been working in raising awareness of the importance of geographical perspectives in decision making at national and European level, and to highlight the potential of geographical education to contribute to the European citizenship and to promote the three missions of this institution: democracy, human rights, and the rule of law.

Moreover, EUROGEO participated at the European Union Committee of the Regions and at the European Parliament activities for the dissemination of the YouthMetre project to raise awareness about the role of geospatial education in enhancing youth participation in dialogue with decision makers and their involvement in civic life. Currently, EUROGEO holds significant international influence in geographical education, with Karl Donert serving as a member of the Education for Climate Community Advisory Group. Education for Climate Coalition is the flagship initiative of the European Commission to support teaching and learning for the green transition and sustainable development.

In 2015 and 2016, EUROGEO was a stakeholder organization in the UNEP, “Eye on Earth” and “Geo for All” initiatives. Besides this, Karl Donert helped prepare a position paper on climate change and led a Council of Europe stakeholder workshop on the impact of climate change on human rights at the COP21 conference in Paris. EUROGEO was one of more than 50 international NGOs lobbying for the inclusion of human perspectives in the debates leading to the 2015 COP21 Paris Conference and Agreement on Climate Change.

In 2015, Rafael de Miguel joined the UN-Habitat “General Assembly of Partners” and UN-Habitat advisory committee “Habitat Professionals Forum” for the preparation of the New Urban Agenda proclaimed at the 2016 United Nations Third Conference on Housing and Sustainable Urban Development. In 2017 UN ECOSOC granted EUROGEO special consultative status for United Nations. Since then, EUROGEO President, Rafael de Miguel has participated regularly in four UN structures, like UN-Habitat, UN DESA Commission for Social Development, UN ECOSOC NGOs Committee, and UN-GGIM (Committee of Experts on Global Geospatial Information Management).

In this way, EUROGEO has succeeded in becoming the voice of all geographers worldwide in this globally impactful organization, advocating for the role of geography and geographical education in achieving the Sustainable Development Goals. EUROGEO's lobbying efforts for geography at the United Nations have been acknowledged in writing, as several position statements have been made during the plenary sessions of the UN Habitat Governing Council, the UN Commission for Social Development, and the UN High Level ECOSOC Segment, which have subsequently been published in their records. The work of EUROGEO in toponymy has also been recognized by the United Nations Group of Experts on Geographical Names (UN-GEGN).

EUROGEO publications

Third and last, but not least, EUROGEO's global impact in geographical education is evidenced by its two scientific publications, the *European Journal of Geography,* and the book collection *Key Challenges in Geography*, published by Springer. This is in addition to our contribution to the editorial committee of the IGU-CGE journal (*International Research in Geographical and Environmental Education*) and our collaboration in editing some of the books in the same IGU-CGE editorial series (Demirci, De Miguel and Bednarz 2018).

Fifteen years after the creation of the *European Journal of Geography*, more than 300 articles have been published, many of them on geographical education, but also on other key topics concerning physical and human geography and GIS science, involving 95 professors and researchers who served as reviewers. The journal is now indexed at SCOPUS (Q1) and at DOAJ, and it has applied recently for the Web of Science ESCI indexation.

The book series at Springer is both indexed at SCOPUS and at the Web of Science Core Collection (Clarivate Book Citation Index). Established in 2019, to date 16 books (around 300 chapters written by over 500 geographers) have been published, experiencing exceptionally high dissemination and impact, with over 125,000 downloads. As with the journal, the book Series publishes research works on any geographical topic, not just geographical education, although this is one of the relevant topics (De Miguel, Donert and Kousopoulos 2019; Bourke, Mills and Lane 2022; Kidman and Schmeinck 2022; De Lázaro and De Miguel 2023; Klonari, De Lázaro and Kizos 2023).

6 The European Education Area and the future of geography education

All this intellectual heritage accumulated by EUROGEO over almost half a century, including projects, networks, conferences, collaborations, participation in institutions, training activities, and publications, as well as international awards and recognition, together with reflections on the centenary of geographical education (De Miguel and Donert 2022), with the reading of the 70 year history of the IGUI-CGE (Graves and Stoltman, 2015) or with the insights from the American Road Map for 21st-Century Geography Education (Bednarz, Heffron and Huynh 2013), allows a comprehensive understanding of the evolution of international geographical education, enabling us to look towards the future.

The review of the four proposals on international geographical education futures -in the previous handbook two decades ago (Gerber 2003)-, shows that some of them remain relevant while others have become less relevant. Lifelong learning, and geospatial technologies-based geography education are still seen as important while self-directed learning and intercultural geographical education have lost their appeal. Today geography educators would rather talk about blended or service learning and conduct research on global understanding and spatial citizenship as they are more integrative concepts.

In these two decades, the world’s geographical space, societies, and education itself have changed so much (perhaps more in these 20 years than in the entire second half of the 20th century) that the current challenges of geographical education are different, but also new and unexpected ones arise for the second quarter of the 21st century, like artificial intelligence (AI).

From EUROGEO's perspective and concerning the future of transnational geographical education in Europe, it is vital to consider the European Education Area (EEA), as member states of the European Union have given part of their sovereignty to establish and implement common policies, including education. The EEA initiative structures collaboration between EU member states and stakeholders to build more resilient and inclusive national education systems. The EEA was launched in 2020 and its strategic framework highlights the priorities

for 2030 of "supporting the green and digital transitions in and through education and training", "making lifelong learning a reality for all", and "improving quality and equity", in any case through key competencies. In other words, three of the four main international challenges addressed in the previous chapter of this Handbook (*The Discipline of Geography and Geography Education*) are, in one way or another, elevated to top priorities on the educational agenda of the European Union in this third decade of the 21st century: digital geographical education, geographical education for sustainable development, and geographical competencies. The fourth focus topic, geography education for global understanding, is also categorized under "EEA in the world and international cooperation." This initiative aims to foster educational collaboration with third countries and regions worldwide, aligning with EU geopolitical priorities and promoting mutual understanding.

The green and digital transitions are the central focus of the European Union's agenda for the next decade. Both the shift towards an environmentally sustainable, circular, and climate-neutral economy and the move towards a more digitalized world will have significant social, economic, and employment impacts. Without ensuring that all citizens acquire the necessary knowledge, competencies, skills, and practices to adapt to these changes, achieving a socially just transformation of the EU will be impossible. And for this, geographical education plays an important role, as demonstrated by EUROGEO, who has had the opportunity to implement geographical projects based on the key documents and platforms stemming from EEA, like DigComp, the Digital Competence Framework (Vuorikari et al. 2022) and GreenComp, the European sustainability competence framework (Bianchi et al. 2022), or the Education for Climate Coalition. We consider this is a golden opportunity to get quality geography education at the center of the curriculum due to the unique nature of the discipline, especially when dealing with complex challenges. The goal is to give teachers and students the key concepts, tools, and explanations needed to understand the fast-changing nature of society. It is also a goal to create transformative education based on responsible action focused on spatial citizenship, thus contributing to the achievement of the Sustainable Development Goals. For this same reason, EUROGEO expresses the desire to collaborate even further with the IGU and its structures, and specially the IGU-CGE and i-Geo, the U.S. National Council for Geographic Education (NCGE) and the UN specialized agency for education (UNESCO). EUROGEO also seeks more connections with geographers from the Global South, particularly Africa.

Beyond the EEA, EUROGEO believes that there are several future lines of research and concern in geographical education that will continue to drive innovation and research. One is spatial thinking, closely linked to digital geographical education, geo inquiry-based learning, and simple GIS-related tools such as StoryMaps that enable the development of student creativity. A second abiding interest that will continue to drive geography education is the idea of powerful disciplinary (geographical) knowledge and powerful geography. Knowledge that is powerful will provide active and responsible citizens the understandings of significant topics in the present world such as the Anthropocene, global and climate change, geopolitics and new world order, and spatial and cultural identity.

A third area driving EUROGEO is the idiosyncrasy of the changing European geography: demographic decline, the challenge to be the first carbon-neutral continent, strategic autonomy and geopolitics, populism and the risk to liberal democracies, integration of an increasingly multicultural society due to immigration, the European spatial divide (with the north more developed than the south, and the west more than the east). These issues and conditions will continue to make geography education more important. Another driving force in the coming years for EUROGEO is artificial intelligence and its connections with the green and geospatial topics explained in Table 3.

Table 3. Integration between geographical education for sustainability, web GIS and AI in the teaching practice of geography.

Teaching approach (Key aspect)	Theoretical contents (Improve what exists)	Apply theory with skills (Do better things)	Research and transform with practices and values (Do things differently)
Sustainability	Educating About Sustainability	Educating using concepts related to sustainability	Educating for sustainability in transformative actions
Web-GIS	Teaching and learning about web GIS	Teaching and Learning with Web GIS	Research and visualize in web GIS to understand and transform
Geographic science	Geographical Thinking	Spatial Thinking	Spatial Citizenship
Teaching practice	Reproductive	Enriching	Transformative
Artificial intelligence	Teaching and learning about AI	Teaching and learning with AI	Using AI to learn how to learn
Responsibility	Teacher	Teacher	Teacher/Student (interaction)

All these concerns need to be helped by institutional initiatives such as reforms in geography teacher education, improved in-service professional development, and enhanced assessment practices and greater data collection on student performance. Overall, EUROGEO will continue to advocate for geography to ensure its central role in the curriculum.

Indeed, we believe geography educators will have new, unexpected, and unknown challenges in the future. There is a growing significance of working with other disciplines on complex challenges both socially and educationally, in order to have a cross-cutting discipline. Connecting and networking with other disciplines and educational approaches to enable further developments will help to integrate the digital space with the real, physical, and social space, so to make geography even more powerful for education purposes.

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Annex 1. 34 EUROGEO Conferences 1979-2026

Year	City	Co-organiser	Conference Theme
1980	Brussels		*Migration*
1982	Brussels		*Tourism*
1984	Paris		*Regional Problems*
1986	Brussels		*Industry*
1988	Brussels		*Energy and Environment*
1990	Brussels		*Agriculture*
1992	Brussels		*Traffic and Transportation*
1994	Brussels		*Demography and Migration*
1996	Salzburg		*Geographical aspects from European countries.*
1998	Luxemburg	Luxembourg Geography Association	*Geography in Europe*
2001	Liverpool	Liverpool Hope University	*Teaching geography, skills and curricula*
2002	Funchal	APG, Association of Geography Teachers in Portugal	*Geography teaching in an enlarging Europe*
2004	Bled	University of Ljubljana, Slovenian Geography Teacher Association	*New developments in Geography*
2005	Torun	Institute of Geography, Nicolaus Copernicus University	*Changing Horizons in Geography Education*
2007	Stockholm	Stockholm University	*Geography for Society: Putting Bologna into Action*
2008	Liverpool	Liverpool Hope University	*Future Prospects in Geography*
2009	Ayvalik	Balikesir University	*Celebrating Geographical Diversity*
2010	Prague	Charles University	*Sustainable Geographies*
2011	Athens	National Technical University of Athens	*Geography: Your world – A European Perspective*
2012	Dublin	St. Patrick's University College	*Geography and Global Understanding: Connecting the Sciences*
2013	Bruges	Ghent University	*Geography: Linking Tradition and Future*
2014	Valletta	University of Malta	*The Power of Geography and the Role of Spatial Information*
2015	Ankara	Turkish Association of Geographers, Gazi University	*Communicating Geography: Serving our world*
2016	Málaga	University of Málaga, Royal Geographical Society, AGE	*Geographic Information: For a better world*
2017	Amsterdam	Utrecht University	*Challenges for geographical education*
2018	Cologne	University of Cologne	*Geography for all*
2019	Paris	EUROGEO	*Teaching Geography in challenging times*
2019	Ljubljana	University of Ljubljana, Slovenian Geography Teacher Association	*Hidden geographies*
2021	Madrid	National University of Distance Education, Royal Geographical Society	*Sustainable Development Goals for all*
2022	Mytilene	University of Aegean	*Re-visioning geography for sustainability in the post-Covid era*
2023	Krakow	Pedagogical University of Krakow	*Future-ready Geography*
2024	Porto	University of Porto	*Compromised geography: spreading a new world*
2025	To be determined		
2026	Tilburg	Fontys University of Applied Sciences	

Annex 2. 54 EUROGEO Projects 2001-2028

EURO.GEO	2001-2004
HERODOT 1	2002-2005
HERODOT 2	2006-2009
iGuess: GIS in several subjects	2008-2011
Digital-earth.eu: geo-media in education and training	2010-2013
PiriReis: professional association development	2011-2013
Spatial Citizenship	2011-2014
RePlay	2012-2013
iGuess2: GIS in several subjects	2012-2014
I-USE: statistics	2012-2015
GeoCapabilities 2	2013-2016
GeoSkills Plus	2013-2016
School on the Cloud	2014-2016
SMILE: Smart learning	2015-2017
SeaChange: ocean literacy	2015-2018
GI Learner: learning lines in spatial thinking	2015-2018
Tell Your Story	2016-2018
YouthMetre: empowering youth	2016-2018
My StoryMap	2017-2019
SEED: digital farmer	2018-2020
L-Cloud: leadership in Cloud based education	2018-2020
GeoCapabilities 3	2018-2020
FUTURE of ICT in education	2018-2020
MY-GEO: GIS in higher education	2018-2021
Hum@n: digital humanities	2019-2021
GoDigital: digital skills for employability	2019-2021
TIMELESS	2019-2021
D3: Developing Digital Data literacy	2019-2022
GI Pedagogy	2019-2022
DALDIS: assessment for learning	2019-2022
EVALUE: European Values in Education	2019-2022
SYNOPSIS: Digital cultural heritage	2019-2022
Ride and Smile	2020-2022
BALANCE	2020-2022
Smart Village	2020-2022
DIGI-PATH	2020-2022
GEODEM	2020-2023
EAT: Equity, Agency, and Transparency in Assessment	2020-2023
GEOLAND	2021-2023
TOGETHER	2021-2023
ONLIFE	2021-2023
BIOMAPS	2021-2023
My Eco-Track	2022-2023
From Archive to Alive	2022-2023
V-Global	2022-2023
Teaching the Future	2022-2023
GIS-T	2023-2024
TECCHED	2023-2025
GEA: Growing into Eco-conscious Adults	2023-2025
STEAME: Teacher Academy	2023-2026
CRISEPAC	2024-2025
Re3PRIS	2024-2026
Teaching Controversial Issues	2024-2026
INFRA4NEXT	2024-2028