

EvoKE & EuroScitizen: bridging the gap between research and practices to foster evolution literacy in Europe

Xana Sá-Pinto¹, Evangelia Mavrikaki², Rita Ponce^{3,4}, Rianne Pinxten⁵, Tamara Milosevic⁶, Joelyn de Lima⁷, Uroš Savković⁸, Gregor Torkar⁹, Susana Ambrósio¹, Szymon M. Drobnik¹⁰, Anna Beniermann¹¹, Héloïse Dufour¹², Tania Jenkins¹³

- 1 – CIDTFF, Department of Psychology and Education, University of Aveiro, Portugal.
 2 – Department of Pedagogy and Primary Education, National and Kapodistrian University of Athens, Greece.
 3 – Instituto Politécnico de Setúbal, Escola Superior de Educação, Portugal.
 4 – ICNOVA – iNOVA Media Lab, Portugal.
 5 – Antwerp School of Education, Didactica Research Group, University of Antwerp, Belgium.
 6 – Transversal Skills and Career Center, The Swiss Federal Institute of Technology (EPFL), Lausanne, Switzerland.
 7 – The Teaching SupportCenter & The Center for Learning Sciences, The Swiss Federal Institute of Technology (EPFL), Lausanne, Switzerland.
 8 – Institute for Biological Research “Siniša Stanković” – National Institute of the Republic of Serbia, University of Belgrade.
 9 – University of Ljubljana Faculty of Education, Kardeljeva pl. 16, SI-1000 Ljubljana, Slovenia.
 10 – Institute of Environmental Sciences, Jagiellonian University, Krakow, Poland.
 11 – Humboldt-Universität zu Berlin, Department of Biology, 10099 Berlin, Germany.
 12 – Cercle FSER, France.
 13 – Department of Biology, University of Geneva, Switzerland.

EvoKE is a transdisciplinary research network that aims to contribute to a world where people understand evolution and use scientific knowledge and skills to address societal problems. EvoKE builds on the success of the EuroScitizen COST Action which leveraged the strengths of academic and non academic stakeholders to develop approaches to improve evolutionary literacy. EuroScitizen and EvoKE events fostered effective transdisciplinary and international collaborations resulting in a network, with 315 members – researchers in evolution, science education and communication, educators in formal and non-formal contexts and science journalists – from 36 countries. These members joined their complementary expertise to produce scientific knowledge essential to understand and address the problem of low evolution literacy in Europe. Research from this network shows that European university students accept evolution but lack substantial knowledge about it (<https://bit.ly/4aMjAY1>), that many European curricula and textbooks do not include key concepts in evolution (<https://bit.ly/4aLbWxo>; textbook

analysis submitted) and that, after engaging in effective educational activities, elementary school students learn about evolution (<https://bit.ly/4c5szo4>). The network co-constructed resources including (but not limited to) courses, books and guidelines for developing and evaluating citizen science projects (<https://bit.ly/4c6bk6m>), to empower researchers to do science communication (<https://bit.ly/3yDhH2j> and <https://bit.ly/4bzy3rr>), for museum staff to develop and assess exhibitions (<https://bit.ly/3Kr41tV>) and for educators to teach about evolution (<https://bit.ly/3VaQ7WN>) and assess students' evolution understanding and acceptance (<https://bit.ly/3Kq3l8n>). Resources are freely available on-line (<https://shorturl.at/msFHX>) and are being used to empower researchers, teachers and educators in non-formal contexts to further contribute to public evolution literacy in Europe. The produced knowledge is also being used to inform changes in the curricula, textbooks and other educational resources and teacher training actions.

FIGURE 1
 Infographics produced to present the results of the curricula analysis to diverse educational stakeholders and promote policy changes to foster public literacy in evolution.

