



ACADEMIA EUROPAEA

The Academy of Europe

FROM KNOWLEDGE TO ACTION APPLICATION

Title:

Bridging generations and sparking curiosity: shaping the future of science in Europe

MAE/YAE Investigator(s):

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Category:

From Curiosity to Career

Problem (max. 50 words):

The number of governmental decisions that are not based on scientific evidence is increasing, a problem recognized across Europe. This is rooted, at least, in the decreasing interest in undertaking a science career and the lack of engagement of the society and the younger generations in science.

Unmet Need (max. 50 words):

Strategies to make science attractive to youngsters have been proposed at undergraduate and high-school level, and to some extent in primary education. However, the 10–15 age range is underserved, coinciding with the first major drop in scientific curiosity. Addressing this phase is essential to sustaining long-term engagement with science.

Project Description (max. 200 words):

Curiosity fades early. Many students disengage from science due to a lack of role models and meaningful exposure. Focusing on Life Sciences, a comprehensive gap analysis across diverse European contexts will identify key factors during early secondary school and inform a roadmap of targeted interventions. Our project is structured around three interconnected blocks:

1. Intergenerational bridges. We aim to bring together secondary school teachers and university trainees to design curiosity-driven science experiences, from classroom workshops to short-term lab internships. As proof of concept, we will test two independent hands-on workshops centered on genetics applied to human health and agriculture. Each workshop will be supported by videos and resources illustrating real-life relevance. Their impact on student engagement will be assessed to inform scalability. These actions will also reinforce teaching, leadership, and communication skills of early-career researchers.

2. Mentoring. Our cascade mentoring model will link PhD students, undergraduates, and younger students through a “Mentoring Toolkit”, with special focus on female role models.

3. Community building. A PhD-led workshop series on career development and wellbeing together with a pan-European AE Trainee Community for peer support. The output will produce a peer-reviewed publication on the model’s impact and an open-access resource package.

Hypothesis (25 words):

Sustained contact of students with life sciences before high school will eliminate the current gap in educational programs and improve engagement with science and scientists.

Implication for Practice (50 words):

The proposed strategy should provide policymakers the basic framework to implement a wider and continuous contact of students across educational levels with life sciences, and the perspective of making impact offering a framework to reimagine science engagement across generations and disciplines in Europe with benefits transferred to the society.

Implication for Research (50 words):

By implementing this proposal, we aim to reduce the intergenerational gap in science engagement and generate data to impact future educational planning. It will also open new avenues to explore inclusive models of scientific training, laying the groundwork for future AE mentoring and outreach strategies.