

Chapter 2

Science Education Funding in Europe and the Inspiration for Chain Reaction

Josephine Booth
Sheffield Hallam University, UK

Eleanor E. Byrne
Sheffield Hallam University, UK

ABSTRACT

This chapter aims to introduce the policy perspective of the relevant European funding stream, tracing the evolution of the science with and for society call from the first Framework Programme through to Horizon 2020. It also introduces the Pupil Research Initiative (PRI) and how the Chain Reaction project built upon PRI's legacy, using its successes to inform a project that was relevant across Europe. The chapter highlights the key aspects of the chain reaction project, for example the Pupil Research Briefs (PRBs) and Express Yourself Conferences, and how these were adapted, and in the case of the PRBs, expanded upon to be more relevant to different partner contexts and the needs of their education systems and curricula.

INTRODUCTION

This chapter will introduce the Chain Reaction project, starting with the evolution and purpose of the European Commission (EC) funding stream that financed the project. The second part of the chapter will discuss the rooting of the project concept and design in a successful past project, putting together the consortium that delivered Chain Reaction and an overview of that delivery.

DOI: 10.4018/978-1-5225-5439-4.ch002

A BRIEF HISTORY OF EUROPEAN COMMISSION FUNDING: FROM POLICIES TO PROJECTS

In 2000 the Lisbon European Council set the EU the target of becoming the most competitive and dynamic knowledge-based society in the world, by adopting strategies to offer tailored education and training, promote employability, and to foster social mobility and inclusion.

Economic sustainability is at the core of the European Union. The European Commission (EC) has a series of benchmarks that aim to give an overview of progress in meeting its strategic goal of “smart, sustainable and inclusive growth” (*Europe 2020: A European strategy for smart, sustainable and inclusive growth*, 2010, p8) by 2020 and these run through many of the communications and plans produced by the EC (e.g. *Joint Report of the Council and the Commission on the implementation of the Strategic Framework for European cooperation in education and training*, 2012). In pursuing this aim it is recognised that science, innovation and technology play a key role in the evolution of knowledge based societies and the implications for people of all ages with the need for “new basic skills, including entrepreneurship, science and technology” (*Making a European Area of Lifelong Learning a Reality*, p12). Also the possibility of growing human capital via building networks across Europe for both knowledge and science. 2004’s *Innovation Management and the Knowledge-Driven Economy* underlines the importance of innovation and supporting public awareness initiatives to build citizens’ trust and confidence to “foster competitiveness in companies and well-being in our societies” (p11). The report also identified the need for structures and schemes to promote innovation in Europe and also to encourage EU cohesion and the spread of good practice via members working together.

As mentioned above, there are a number of reports and communications from the EC and other organisations on the need for citizens to be positive towards science and to have an understanding of science and scientific rationale. This understanding is necessary to be able to engage with the world at large and to provide the skills they need to live in today’s knowledge society and to make informed choices. Additionally, as science and technology are recognised as being at the core of socio-economic development (OECD, 2006) it is therefore vital that there are enough people trained and educated to a sufficient level to ensure progress these areas. However it has been found that few young people see science as a subject to pursue. The relative numbers of students taking science subjects at university are falling, with this being seen particularly acutely in relation to girls (OECD, 2006).

It is then unsurprising that the EC has been funding projects to support and advance scientific research and innovation across member countries and beyond since 1984. As *Europe 2020 - A European strategy for smart, sustainable and inclusive growth* noted, greater research capacity in combination with resource efficiency improves competitiveness and helps to create jobs.

Known as Framework Programmes for Research and Technological Development or Framework Programmes and frequently abbreviated to FP, these funding streams set up by the European Commission have had various specific objectives and actions over their consecutive funding timeframes, with FP1-6 lasting five years each, and FP7 in place for seven years. The most recent and ongoing Framework Programme at the time of writing is FP8 - known as Horizon 2020, which covers 2014-2020. The Framework Programmes have evolved over this time, each building on the previous agendas and outcomes, with aims and objectives and funding shifting to reflect changing needs and priorities of society and the economic context in Europe.

19 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:
www.igi-global.com/chapter/science-education-funding-in-europe-and-the-inspiration-for-chain-reaction/226318

Related Content

Utilizing Technology to Engage in Statistical Inquiry in Light of the Standards for Mathematical Practice

Christine Browning and Dustin Owen Smith (2015). *Cases on Technology Integration in Mathematics Education* (pp. 205-226).

www.irma-international.org/chapter/utilizing-technology-to-engage-in-statistical-inquiry-in-light-of-the-standards-for-mathematical-practice/119144

Using Reason Racer to Support Argumentation in Middle School Science Instruction

Marilyn Ault, Jana Craig-Hare, James D. Ellis, Janis Bulgren, Isa Kretschmer and Bruce B. Frey (2016). *Improving K-12 STEM Education Outcomes through Technological Integration* (pp. 399-431).

www.irma-international.org/chapter/using-reason-racer-to-support-argumentation-in-middle-school-science-instruction/141198

Expanding CSP Through Afro-Indigeneity and Pan-Disability: An Inclusive Equity STEM Interrogation

Alexis Padilla and Johana E. Thomas Zapata (2026). *STEM Education and Culturally Sustaining Pedagogies: Research, Practices, and Critical Reflections* (pp. 41-82).

www.irma-international.org/chapter/expanding-csp-through-afro-indigeneity-and-pan-disability/387469

Coding, Computational Thinking, and Cultural Contexts

Libby Hunt and Marina Umaschi Bers (2021). *Teaching Computational Thinking and Coding to Young Children* (pp. 201-215).

www.irma-international.org/chapter/coding-computational-thinking-and-cultural-contexts/286051

Teaching from the Margins Reshaping Engineering Education For Latinas Through Rightful Presence and Culturally Sustaining Pedagogy

Marina Lambrinou and Qi Shi (2026). *STEM Education and Culturally Sustaining Pedagogies: Research, Practices, and Critical Reflections* (pp. 113-140).

www.irma-international.org/chapter/teaching-from-the-margins-reshaping-engineering-education-for-latinas-through-rightful-presence-and-culturally-sustaining-pedagogy/387471