

The SUSTAIN project

SUSTAIN (Supporting Science Teaching Advancement through Inquiry) Comenius multilateral network

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Abstract

With its focus on problem-solving and critical thinking, inquiry-based science education (IBSE) is well-suited for teaching Education for Sustainable Development (ESD) at school. Like IBSE, ESD gives explicit attention to developing young people's creative ability to problem solve and imagine new scenarios through the active learning processes of conceptualising, planning, acting and reflecting. It provides the space for critical thinking to be combined with the creative act of interpreting images of the future. This dimension helps students to develop skills necessary for democratic engagement.

In response to the 21st century global challenges highlighted by the economic, social and environmental crisis, ESD is taking shape in schools. To ensure that ESD becomes more widespread and brings about the desired awareness among pupils, teacher professional development is paramount: it is essential to provide teachers with appropriate and cutting-edge tools and learning materials for ESD.

During 3 years, the SUSTAIN network (11 CPD providers in 10 EU countries, with extensive experience in IBSE) will develop, through collaborative work on 3 cross-cutting ESD topics, an innovative IBSE-based "toolbox" on ESD for teachers and teacher educators, which can be used and adapted to local contexts in most European countries. The project partners will form 3 working groups on 3 major ESD topics, and develop IBSE-focused teaching and training tools and activities, which will be presented in 3 European workshops, and then made available for transfer/exploitation through 3 handbooks published on the network website. The foundations of this collaborative work will be laid during a kick-off meeting, and cooperation deepened at a working seminar. A follow-up seminar will prepare the editorial work on the handbooks. An initial conference on ESD will provide up-to-date insight on the field by invited experts, while a final conference will disseminate the project to a wider audience.

The objective of SUSTAIN

Developing teachers CPD, classroom activities and IBSE resources for ESD (Education for Sustainable Development)

To help pupils to understand "the changes caused by human activity to the natural world and of our responsibility as individual citizens", teachers should be able to convey "an understanding of the fundamental concepts of science and an interest in sustainable development, which have become keys to active, responsible citizenship."

SUSTAIN will build upon a well-established network of continuing professional development (CPD) providers who have already begun to link IBSE-based activities with **citizenship, ethics and responsibility issues**.

SUSTAIN wants to build on this to explore the way IBSE can contribute to developing ESD: connecting teachers and pupils with real life and contemporary science; introducing topical issues related to science and technology as they are debated in society; applying inquiry skills to issues of sustainability; opening the schools to the great diversity of ESD actors.

[The principles of the project](#)

What does ESD need to be reinforced/ deepened that can be provided by Inquiry-based science Education (IBSE)?

- **ESD strongly benefits from scientific understanding**
- **ESD supposes a cross-disciplinary approach**
- **ESD seeks the active involvement of all stakeholders (school leaders, teachers, pupils, the school board, administrative and supportive staff, parents, scientists, NGOs, the local community and business) in the actions conducted at school**
- **ESD must be oriented towards action**

RESULTS

The resources produced by the topic groups are available!

You can download them here:

[Food in ESD](#)

[Energy](#)

[Everyday objects](#)

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