BETTER Life

How to create good space for science communication at universities – socially engaged environmental studies

Aleksandra Ziembińska-Buczyńska
Silesian University of Technology, Poland

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Research Executive Agency (REA). Neither the European Union nor the granting authority can be held responsible for them.

Funded by the European Union

BETTER Life

WHY I'M HERE? ☺

Photo: M. Kończak

Aleksandra Ziembińska-Buczyńska
microbiologist, science communicator
working at the
Silesian University of Technology, Poland

E-mail: aleksandra.ziembinska-buczynska@polsl.pl

BETTER Life

Photo: M. Kończak

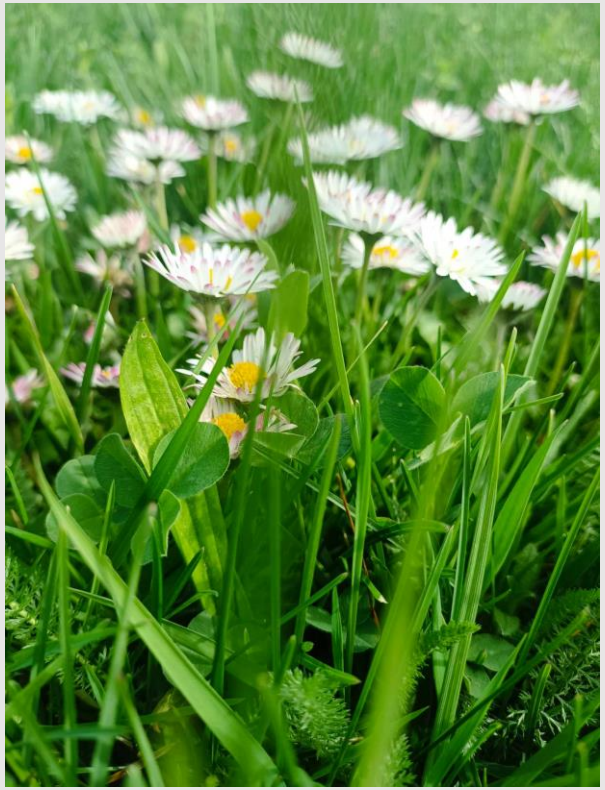
SCIENCE POPULARIZATION CENTRE SUT

an extra-faculty organizational unit of the Silesian University of Technology, Poland, which is promoting and popularizing science and research studies in cooperation with other University units and research centers in Poland and abroad

BETTER Life

ENVIRONMENT BIOTECHNOLOGY DEPARTMENT SUT

WHY LIFE SCIENCE IS GREAT FOR SOCIALLY ENGAGED PROJECTS?



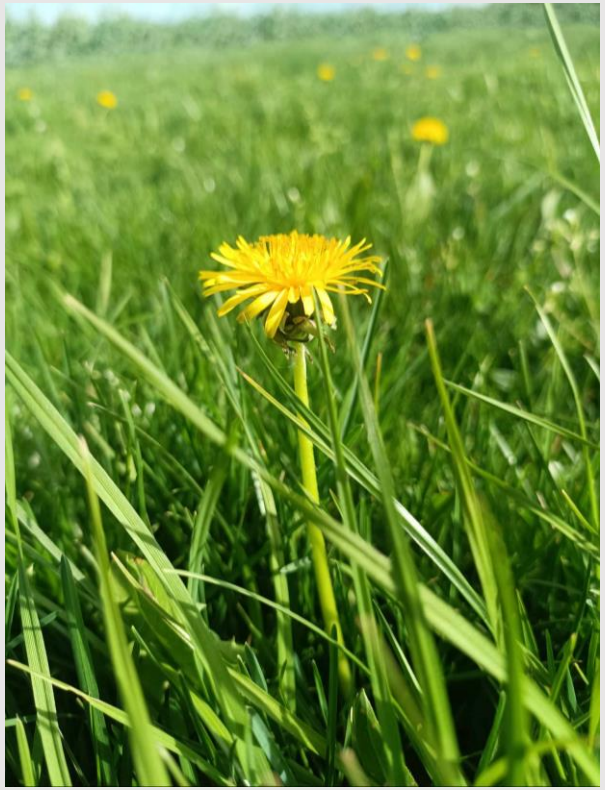


Photo: A. Ziembińska-Buczyńska

INSIDE COMMUNICATION

SCIENTIST

CRUCIAL, IMPORTANT, OBLIGATORY

SCIENCE DISSEMINATION

SCIENTIST

SCIENCE COMMUNICATION

OUTSIDE COMMUNICATION

SCIENTIST

SCIENCE COMMUNICATION AND POPULARIZATION ?

CRUCIAL, IMPORTANT, NON-OBLIGATORY, BUT...

SOCIO-ECONOMIC ENVIRONMENT

SCIENCE TO BUSINESS COMMUNICATION

BUSINESS

SOCIETY

SCIENCE POPULARIZATION – WHAT'S THAT?

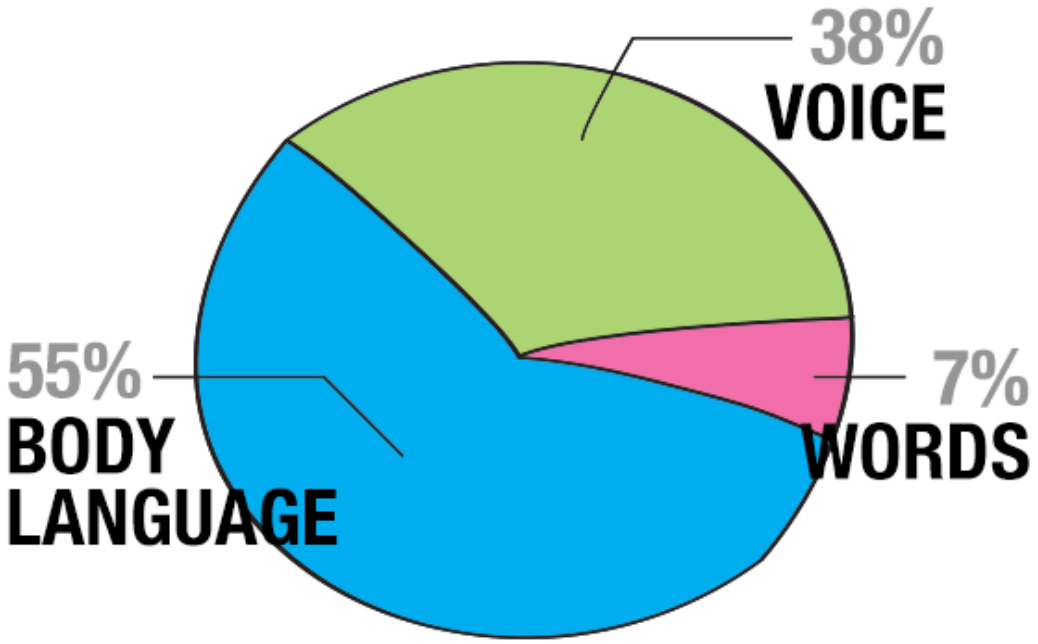
- presents science to a wide audience
- interests and encourages to the independent exploration of knowledge
- encourages the non-scientific recipient to scientific activities (citizen science)
- supports formal education, fills the gap in formal and informal learning (but does not replace it!)
- educates a knowledge-based society
- an educated graduate must be able to take part in the public debate, for which both substantive knowledge and communication skills are needed

WHAT IS SCIENCE COMMUNICATION AND HOW TO START PERFORM IT EFFECTIVELY?

- Why and to whom I want to speak of "my science"?
- Which part of “my science” is important to the recipient?
- How to tell about "my science" interestingly? (clear and to the point, form, language, time, preparation!,)
- Importance of take home message

SCIENCE COMMUNICATION - DO SCIENTISTS NEED IT?

BETTER Life



Mehrabian & Ferris' research results of communication during a presentation.
"Inference of Attitude from Nonverbal Communication in Two Channels"
The Journal of Counselling Psychology 31,
S. 248-252, 1967

BETTER Life

WHO IS THE AUDIENCE FOR SCIENCE COMMUNICATION AND POPULARIZATION?

- social-economic environment
- media

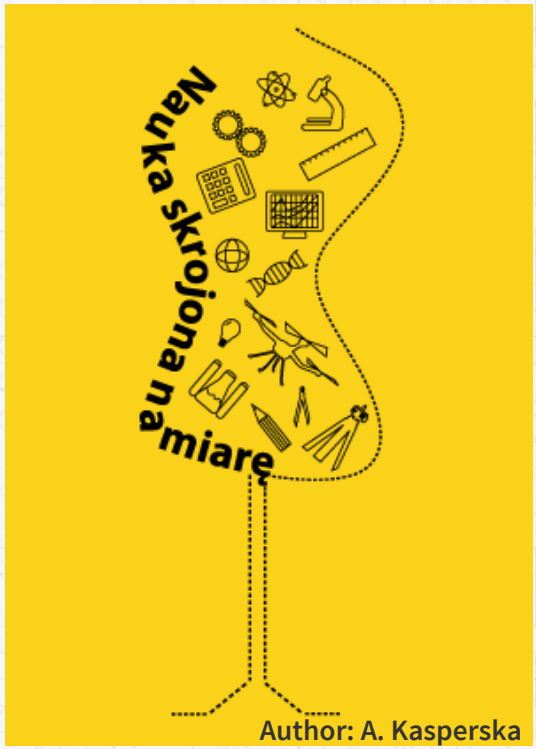
Photo: SUT archive

SOCIALLY ENGAGED SCIENCE - EXAMPLES

- lifelong learning activities (of various „size”)
- original initiatives
- citizen science projects

LIFELONG LEARNING ACTIVITIES

The Third Age University of Technology



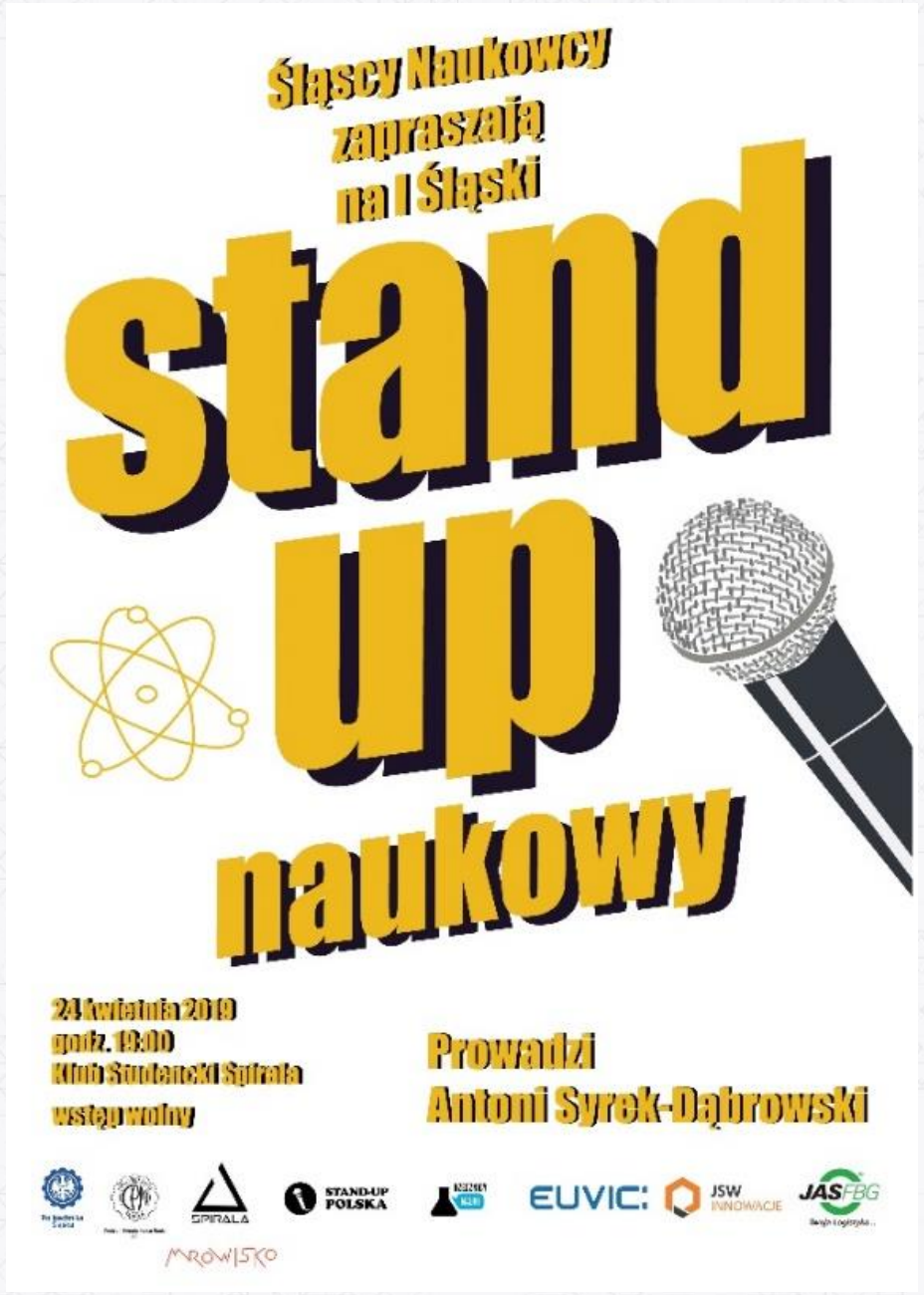
Tailor made science

Junior and Senior University of Technology

BETTER Life

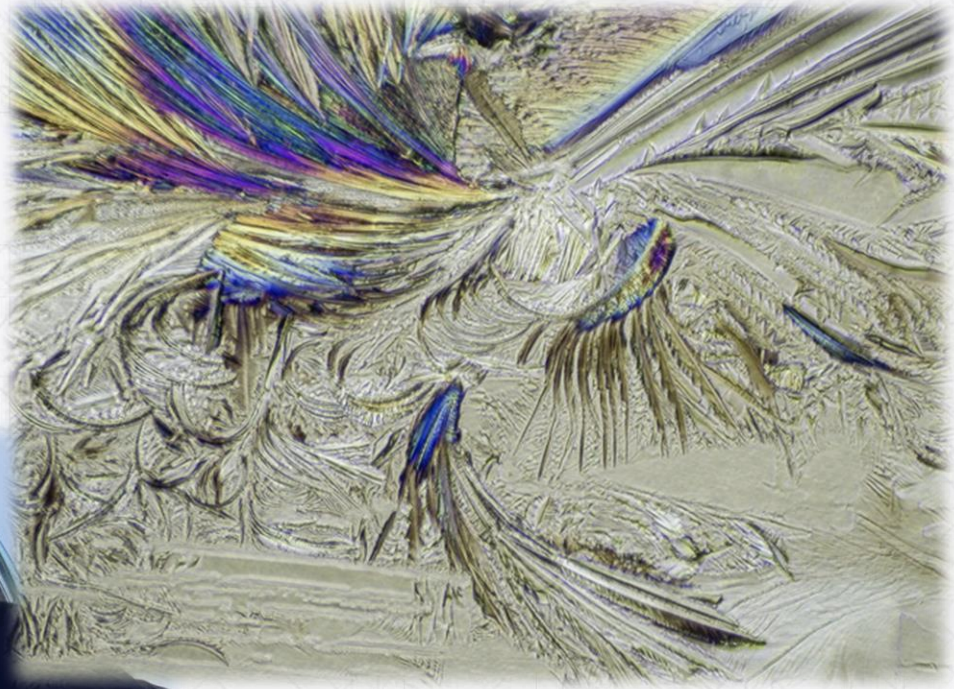
RESEARCHERS' NIGHT AT SUT

BETTER Life



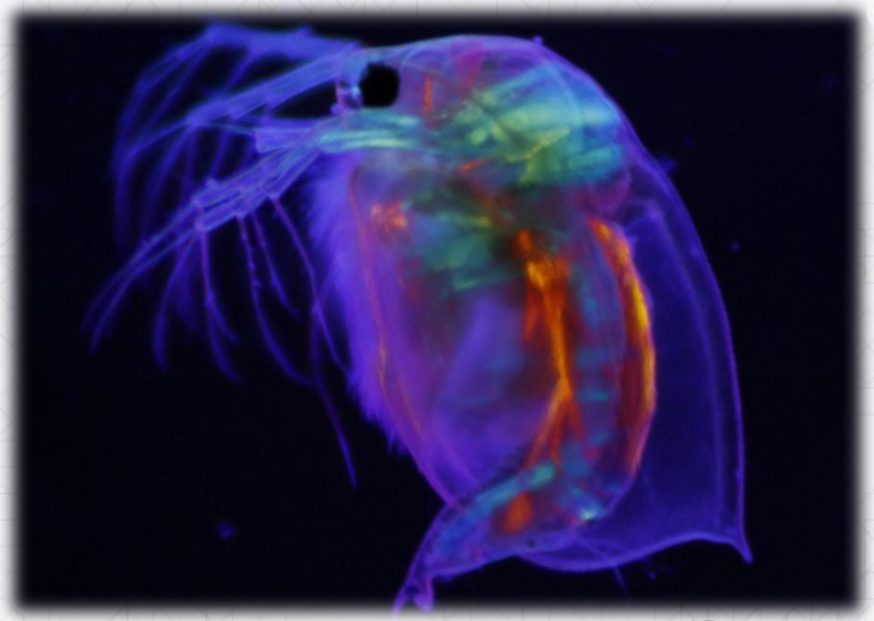
EXAMPLES OF ORIGINAL INITIATIVES

BETTER Life



Waterlife – exciting and beautiful „Kingdom”
Author: Magdalena Bartkiewicz, Ph.D.

Photo: K. Pawlusińska, E. Solecka
The Fisherman and the Goldfish;



BacteriART - how to tell a story with bacteria?

Citizen science – when non-professional participants contribute to data collection to advanced scientific research

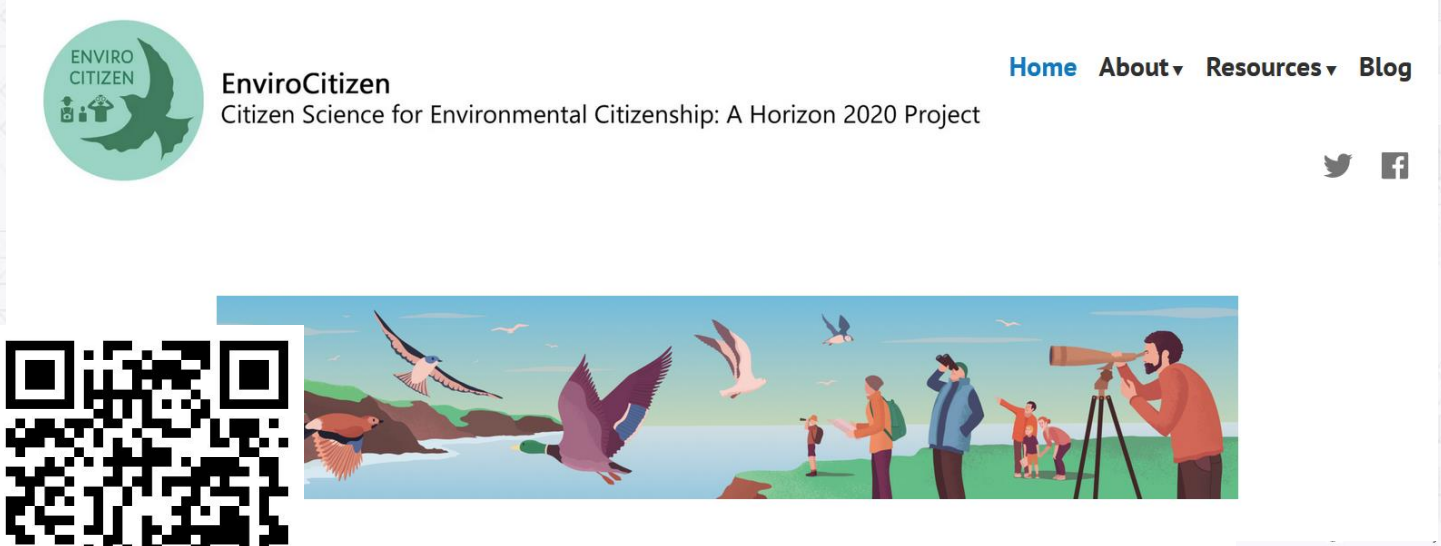
- STAGE 1: identifying the problem
- STAGE 2: determining if citizen science is the right approach
- STAGE 3: designing the project
- STAGE 4: building the community
- STAGE 5: managing the data (planning, collecting, assuring, analyzing, describing and preserving, integrating)
- STAGE 6: evaluating the project

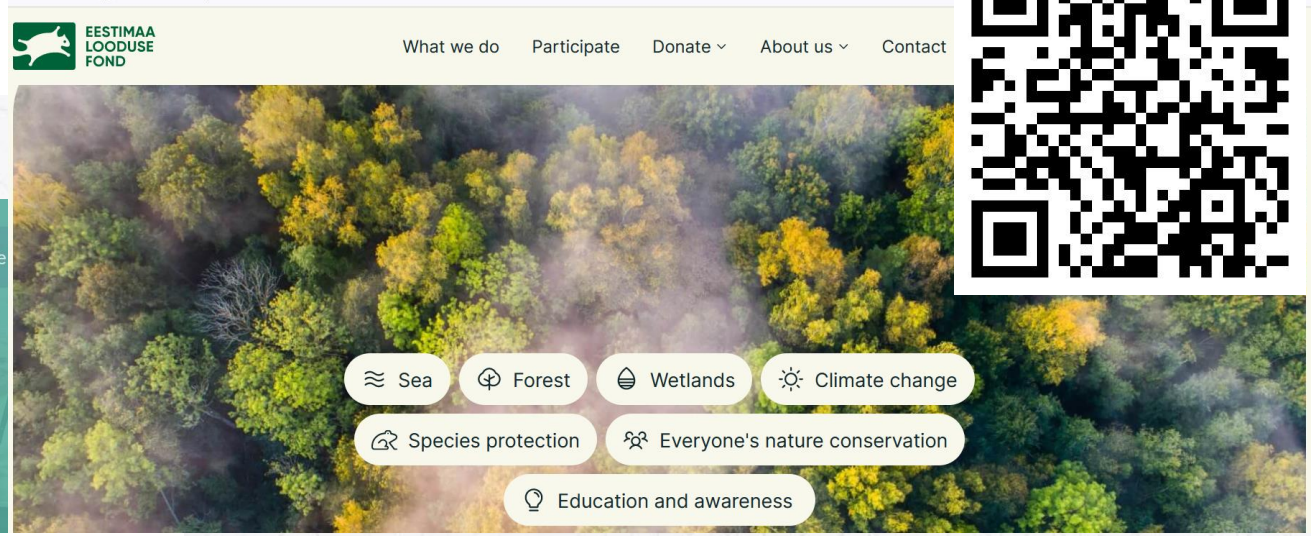
TAKE ACTION

- Present the results to the decision-makers
- Provide feedback to the participants

See the details: Fraisl et al., 2022, https://doi.org/10.1038/s43586-022-00144-4

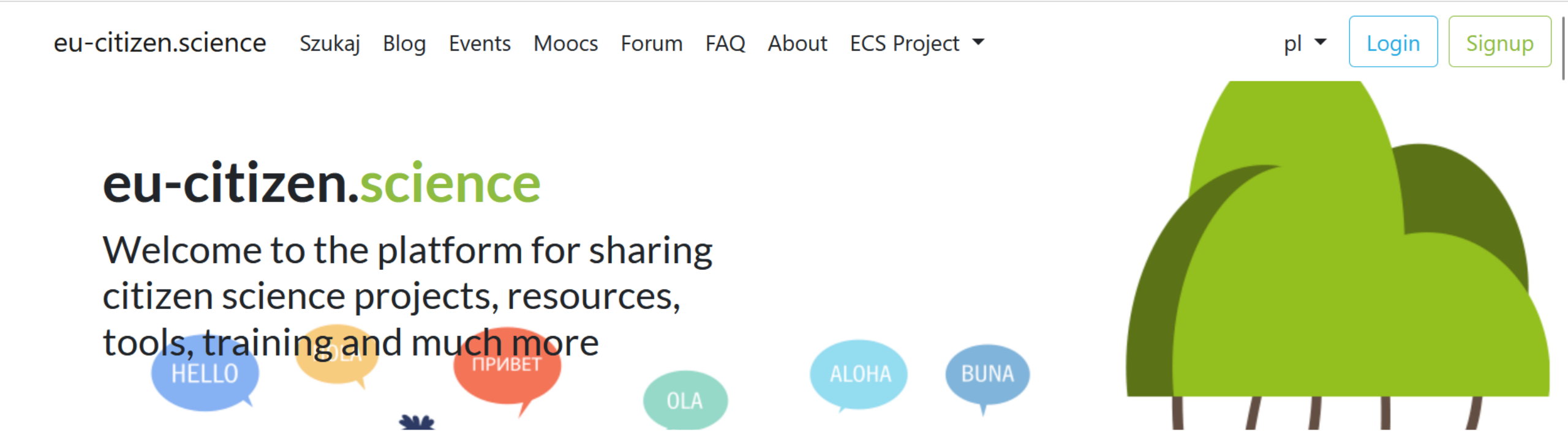
THE EXAMPLES OF THE CITIZEN SCIENCE PROJECTS





BETTER Life

CITIZEN SCIENCE PROJECTS TOOLBOX



HOMEWORK ☺

- **Think how your reseach can be:**
  - presented essentially in 3 minutes (see slide 9)?
  - engaged in citizen science project (see slide 16 and QRCode)?

BETTER Life

THANK YOU

Contact me: aleksandra.ziembinska-buczynska@polsl.pl