

## Rationale

For the public survey "Promoting Social Inclusion and Shared EU Values through Formal and Non-Formal Learning"
July 2017

## Promoting scientific citizenship in informal learning environments

Curiosity is the key to being interested in other people, cultures and new issues. Curious individuals have a greater tendency to overcome their (worldview and other) biases, striving to make sense of surprising information. True curiosity about "the other" opens up conversations, promotes inclusion and helps discovering shared values.

Science is a system that produces and assesses knowledge based on clear rules and shared values, independent of culture or belief. Learning about science is thus a helpful way to introduce young people to such approaches, validating issues not based on authorities, but on critical thinking, common values and peer-validation.

Informal science learning institutions such as science centers and museums provide such experiences, with resources and in environments that inspire, engage and empower people for learning and discussing relevant scientific issues for Europe. With their focus on promoting curiosity and critical thinking, they support resistance to all forms of discrimination and indoctrination as stated in the Paris Declaration.

A current movement within the European science center and museum community focuses on providing access and engagement for science learning to all citizens, fostering social inclusion, equity and non-discrimination. They also position themselves more and more as trusted spaces where encounters between various sectors of society and open dialogue with diverse audiences can take place.

Informal science learning institutions also provide programmes that challenge teachers to adopt less traditional methodologies and activities, more suited to the development of skills – scientific as well as social, civic and intercultural competencies – that are extremely important for 21 century European citizens. Skills required by society are not set and change at a rapid pace. Science museums can enable learning processes that are useful to develop skills, thus equipping learners for life. They foster co-design of learning experiences, recognizing and valuing diversity of views and opinions.

As a conclusion: Science as a knowledge system based on shared values can serve as a bridge between different cultures and communities (similar to arts, music and sports). The European Union should capitalise on the value of science learning for promoting both critical thinking as well as social inclusion and the formation of resilient individuals that live and work with reason and empathy. Especially, it should value and support the role of science centers and science museums in bridging formal and non-formal learning, as they create learning environments that empower both young learners as well as their teachers and educators, while embracing diversity and social inclusion.

Written for Ecsite by Barbara Streicher, Association ScienceCenter-Network, Austria and inspired by Antonio Gomes da Costa. 'From Ear Candling to Trump: Science Communication in the Post-Truth World', Spokes #27, February 2017.