

### INFORMATIONAL PACK FOR POLICY MAKERS

**SENSE.STEAM** 



# LET'S TRAIN MORE CREATIVE SCIENTISTS AND ENGINEERS FOR EUROPE!





The future of Europe as a sustainable society while maintaining a competitive edge is highly dependent on it's capacity to harness science and technology in the benefit all citizens.

This imperative is intertwined with furthering the attractiveness and uptake of science, technology, engineering and mathematics (STEM) fields as educational and work-related training areas among the members of society.





We in the SENSE. project believe that such an effort shall specifically have its focus on two main issues:

- 1) Amplifying the participation of European citizens, especially women in STEM education
- 2) Making STEM education more accessible for European citizens through process-based (hands-on) educational methodologies.





# Join us in reshaping STEAM education by actively amplifying the participation of individuals (especially women and girls) through process-based, art-infused science educational methodologies.



In the EU, the ratio of young STEM graduates in relation to the total number of 20 to 29-year-olds is 17.4 per one thousand!

Among the STEM graduates, women are a minority in all EU countries without exception (comprising 34.1% of the STEM graduates in the EU). In computer science and ICT the relative presence of women among graduates is lowest: 21.4% throughout the EU.



Read more about the SENSE.STEAM manifesto



#### SKILLS NEEDED

Tackling the challenges Europe faces in securing a sustainable future and competitive society cannot be limited solely to the instrumental skills within STEM fields. It takes more than just the "handbooks" knowledge of methodologies in STEM fields to be able to comprehend and subjugate the problems Europe faces in sustaining a green and healthy society and a work-ready human resource.

We believe that Europe needs well-rounded education of its citizenry. STEM skills are integral as the foundation of broader capabilities that can be nurtured in individuals to establish a conscious relationship with context-specific challenges. From this perspective, the human senses are fundamental to developing a profound interaction with our surroundings, enabling us to deepen our understanding of and overcome societal, environmental and economic problems.





### 2. STE(A)M EDUCATION

STEM fields comprise the main areas of study and skills on which scientific and technological industries lay their foundations.

**Research** has shown that for the past two decades, the share of STEM programs graduates in relation to the total tertiary graduates has declined in Europe, even though the share of tertiary education graduates in total population has increased.

STEAM takes a transdisciplinary and holistic approach and integrates arts into STEM fields training, aiming to instigate creation, application and ingenuity in learners through artistic practices such as inquiry, critique, design, and innovation.





### See how can the SENSE. project benefit you

### ALONG THE 3 YEARS OF IMPLEMENTATION, SENSE. WILL CREATE TOOLS TO

Evaluate and structure practices, frameworks, and feedback methods that follow an interdisciplinary approach to STEAM. education

Create a user-friendly learning companion with demonstrations and a comprehensive user guide that will enhance your journey into the field of STEAM education.

Develop proven strategies tailored to various stakeholders that will illustrate how to create awareness, take initiative, and advocate for STEAM education within your communities.





## About SENSE. STEAM project: THE NEW EUROPEAN ROADMAP TO STEAM EDUCATION

SENSE. is funded by Horizon Europe, the European Union's research and innovation programme, compromising 17 members representing 14 European countries.

Members consist of formal and informal education institutions, research, businesses, policymakers and NGOs. Our partners specialize in areas including sustainability, gender sensitivity, digitization, health, work readiness, and arts and design.

Read more about our consortium []





### The aim & objectives of SENSE.STEAM project

THE AIM OF THIS PROJECT IS TO SUPPORT TOMORROW'S TEACHERS, EDUCATORS AND LEARNERS BY PUTTING FORWARD AN ART-INTEGRATIVE SCIENCE EDUCATION, GROUNDED INTO A SENSORY AND PARTICIPATORY APPROACH TO STEAM EDUCATION.

#### MORE PRECISELY, THE OBJECTIVES ARE TO:

- Create the praxis informed SENSE.STEAM educational model and pedagogy To establish the requirements for practical implementation of the SENSE.STEAM education model across Europe
- Transform current STEAM educational practises by mainstreaming social inclusion and spatial design as cutting cross issues
- Consolidate and disseminate findings into a Roadmap for Science Education

Read more about our practices 🛘





### How can I be involved?

At the heart of the SENSE. project lie 13 STEAM activity labs established across 12 countries. each lab is assigned to a cluster associated with one of the four EU thematic areas: European Green Deal, digitization, health, and work-readiness.

These STEAM Labs will be connected via a digital hub and together will form the STEAM Academy. This will be the backbone of a growing, open community of STEAM beneficiaries. Furthermore, two of these labs will grow further as two living STEAM academies through the real-world implementation of the new STEAM education roadmap for Europe developed throughout the project.

READ MORE ABOUT IT <u>HERE</u> OR YOU CAN CONTACT US AT <u>HVL-SENSE@HVL.NO</u>.





Become part of our journey to make scientific learning accessible and meaningful for everyone.

Together we can build a lifelong love for exploration to make SENSE. of the word around us.





### Learn more about us!

### **Helpful resources**

- ABOUT SENSE.STEAM: HTTPS://SENSE-STEAM.EU/
- ABOUT POLICY RECOMMENDATIONS: HTTPS://SENSE-STEAM.EU/POLICY-RECOMMENDATIONS/
- OUR PUBLICATIONS: HTTPS://SENSE-STEAM.EU/PUBLICATIONS/
- OUR NEWS: HTTPS://SENSE-STEAM.EU/NEWS-EVENTS/

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