



H2IDEA

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FERI



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H2idea is a nationwide competition aimed at secondary school students (secondary schools, technical schools, vocational schools), in which students in groups of 2-5 under the supervision of a teacher/mentor prepare a project (technical, IT or process), the result of which will be part of the hydrogen economy or will have a direct impact on the development of this sector of the economy. H2idea is a community initiative that aims to promote hydrogen energy among young people.

The main organiser of the competition is TÜV SÜD Polska Sp. z o.o., based in Warsaw, as well as partners Local Government of the Wielkopolska Voivodeship, the Energy Institute, the Hydrogen Technology Cluster and the Empiria and Knowledge Foundation and the company Polowiec i Wspólnicy Sp. J.

The main objective of the competition is:

- a. development of self-confidence, indispensable in adult life
- b. development of imagination, perceptiveness
- c. sensitivity to market needs (new products, services)
- d. acquiring the ability to work as part of a team
- e. stimulating technical imagination, developing ingenuity and fostering creative thinking
- f. seeking innovation and fresh ideas, inspired by green technologies.

During their work on the Project, teams should demonstrate their skills in particular in:

- a. looking for ideas - what can be changed, improved, invented across the supply chain and value of the hydrogen economy,
- b. gathering information - how it can be done, with what material, with what tools, in what order,
- c. analytical work - on the basis of the information gathered, carry out an analysis of the market, competition, technology, SWOT analysis,
- d. conceptual work - the design of a technical, IT or process solution, by definition innovative,
- e. preparing presentations and, if invited, presenting their work to a panel of experts,
- f. learning to apply their knowledge in practice, developing their ingenuity and resourcefulness.

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The elements of the Project should be:

- a. an introduction outlining the design issue with justification,
- b. basic market analysis (customers, competitors), available technical solutions,
- c. presentation of the project (technical, IT or process) with justification of the innovativeness of the solution, its impact on the economic sector, on the environment.
- d. What changes have been made and why, or why the presented concept was invented. A comparison with existing products with a related application.
- e. The presentation of the project should be as detailed as possible and the project itself should be ambitious and feasible in the formula proposed by the team. It should be innovative, have a positive impact on the environment and produce tangible results once implemented.
- f. a brief description of the workflow (division of tasks, barriers and how to mitigate them).

TÜV SÜD Polska's initiative, gives young people the opportunity to actively participate in the country's energy transition.

The multidisciplinary nature, encompassing physics, chemistry, mathematics and computer science, is key to developing innovative solutions for RES. It is an excellent opportunity for students to develop their skills and competencies in these areas, as well as to understand and put into practice ideas related to the hydrogen economy. The competition provides an excellent platform for creative thinking, problem solving and teamwork.

It is also an opportunity for young people to gain knowledge, skills and experience in green hydrogen. By participating in this competition, participants have the opportunity to actively engage in creating the future and influence the shaping of sustainable energy development. Building competencies in the hydrogen economy is key to achieving the Sustainable Development Goals, and H2idea provides a platform where young people can develop their skills and contribute to this important process for future generations.

The H2idea initiative is a vitally important action for our future and for building an informed society that is capable of taking innovative solutions in the field of energy and, further, climate and curbing galloping climate change. By engaging young minds and their ability to think critically, we are able to accelerate the development of the hydrogen economy and achieve a sustainable and zero-carbon future energy system.

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H2idea is not only a competition, but also an educational platform that promotes and develops knowledge about the hydrogen economy. It gives students the opportunity to learn about this dynamic sector, as well as to be inspired and collaborate with other participants. It is an investment in a future in which young people play a key role as innovators and leaders of change.

Building competences in the hydrogen economy is essential to address the challenges of the energy transition and ensure sustainability. H2idea is an initiative that encourages young people to get involved in building a hydrogen future. By developing skills and creativity, participants become key players in shaping the hydrogen economy and contribute to building a better future for us all.