

Competition against the gender gap in science and technology

266 female students from 28 provinces have participated in the 4th edition of the RedeSTEAM contest

Six school teams from Valladolid, Málaga, Granada, Cádiz, Murcia, and Alicante took home the awards in the fourth edition of RedeSTEAM, the Redeia competition aimed at inspiring scientific and technological vocations among girls aged 14 to 16.

In addition to the jury's award, this edition included —for the first time ever— a people's choice award in each challenge category.

The award ceremony will take place on 16 October during Redeia's Sustainability Conference in Madrid.

Madrid, 15 September 2025

A total of 266 female students in 3rd and 4th years of Secondary Education and equivalent vocational training participated in the 4th edition of **RedeSTEAM**. The students, from 54 schools across 28 provinces (in 16 autonomous communities), took part in the **Redeia competition, which seeks to foster female talent and promote scientific and technological careers among girls aged 14 to 16**. The ultimate goal is to narrow the persistent gender gap in STEM (science, technology, engineering, and mathematics).

This year's contest invited participants to present proposals addressing real-world challenges in three categories: affordable and clean energy, digital transformation for social innovation, and climate and ecosystems in balance. Each proposal had to apply STEAM disciplines to the solution. **A total of 66 projects were submitted this year, compared to 40 last year.**

The winning projects include proposals for creating healthy living spaces for older people while reducing energy consumption; improving household energy efficiency and lowering the environmental impact of construction; preventing mobile phone use during school hours; and facilitating mobility and autonomy for people with visual impairments. The initiatives also focused on producing paper from waste generated by removing invasive algae (offering a sustainable alternative) and enhancing waste identification and sorting in recycling.

The six winning teams **will receive their awards on 16 October at the Redeia Sustainability Conference** in Madrid. As part of the prize, the winning students will travel to Madrid with their teacher to participate in immersive workshops designed to spark STEAM curiosity, and strengthen their technical and scientific vocations. Schools will also receive STEAM lab and classroom equipment and material worth €3,000.

The contest continues to expand year after year. Since its first edition, **it has already enjoyed the participation of 679 students from 121 schools across Spain.**

Six winning projects in the 2025 edition

A total of 54 schools registered for RedeSTEAM this year, compared to 45 in the previous edition. The 66 projects submitted were first evaluated by an independent jury made up of three women with scientific and technological backgrounds and expertise in STEAM disciplines. The top four projects in each category advanced to the second round. However, this year, five projects competed in two categories due to ties in the first round. The 14 finalists –from 13 provinces and seven autonomous communities– were then reviewed by a second jury of five experts, following the same evaluation criteria.

As a new feature this year, one of the two winning projects in each category was chosen by popular vote, held online from 1 to 11 September. The professional jury awarded the other prize in each category based on factors such as innovation and creativity, the application of STEAM curricular content, impact and feasibility, and communication skills. It also considered aspects like the clarity in problem definition, research depth, and project planning.

For the **‘Affordable and clean energy’ challenge** category, the public chose ***TermoRural***, by the group RuralMakers from IES Pinar de la Rubia (Valladolid). On the other hand, the jury awarded ***EcoSmart Home***, by the group ‘Steam-Girls Benalmádena’ from IES Benalmádena (Málaga).

In the **‘Digital transformation for social innovation’ challenge**, the people’s choice was ***APPIUM***, by the group ‘Alibaba y las 4 programadoras’ from La Asunción School (Granada). The jury award went to ***Smart Cap: una gorra sonora*** (Smart Cap: a sound-enabled cap), by the group ‘Astaronde quieres llegar’ from IES Astaroth (Rota, Cádiz).

Lastly, in the **‘Climate and ecosystems in balance’** category, the public awarded the prize through a popular vote to ***Alga Paper***, by the group ‘Sirenas del Mar Menor’ from Nuestra Señora del Carmen School (La Unión, Murcia). Meanwhile, the jury awarded ***Cinta transportadora de reciclaje que usa visión artificial*** (recycling conveyor belt using artificial vision), by the group ‘Oriolanas’ from IES Gabriel Miró (Orihuela, Alicante).

Encouraging female talent in STEAM

According to data from the 1st Observatory on Women and STEM, only 1% of Spanish female secondary school students consider pursuing a degree in technology, and just 5% in engineering —compared to 30% who expect to study health sciences. RedeSTEAM aims to foster interest among girls aged 14 to 16 in STEAM disciplines linked to Arts and Humanities, encouraging them to choose scientific and technological careers while also helping close the gender gap.

RedeSTEAM was created within the framework of the 'STEAM Alliance for Female Talent. Girls taking up science,' initiative of the Ministry of Education, Vocational Training, and Sports, which Redeia has joined to help build an education and training system free of gender stereotypes, and promote real, effective equality in a diverse, inclusive society.

Find out more information about the winning projects in [this link](#):