

European Researchers' Night



D2.1. Researchers at school activities (Circular Science)



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PROJECT DETAILS

Project name	G9 GO FOR THE MISSIONS!
Project number	101061455
Project acronym	G9MISSIONS
Call	HORIZON-MSCA-2022-CITIZENS-01
Project starting date	Fixed date: 1 April 2022
Project duration	24 months
Project coordinator	University of Cantabria

DELIVERABLE DETAILS

Technical report	WP2. D2.1
Nature	Report





1. OBJECTIVES

Under the name G9Missions. Go for the Missions! researchers from the institutions that integrate Group G9 of Universities show the human side of science with a diverse programme focused specially on disseminating how their work is related to the 5 missions of the: five European research and innovation missions of the European Union that aim to deliver solutions of the great societal challenges facing our world.:

- Adaptation to Climate Change: support at least 150 European regions and communities to become climate resilient by 2030
- Cancer: working with Europe's Beating Cancer Plan to improve the lives of more than 3 million people by 2030 through prevention, cure and solutions to live longer and better.
- Restore our Ocean and Waters by 2030
- 100 Climate-Neutral and Smart Cities by 2030
- A Soil Deal for Europe: 100 living labs and lighthouses to lead the transition towards healthy soils by 2030

All of the 5 mission will contribute to the goals of European Green Deal, Europe's Beating Cancer Plan and Sustainable Development Goals (SDG).The programme called Circular Science will address schools with these specific objectives:

- **To enhance** the recognition of researchers in pupils
- **To encourage** young people to embark on scientific careers and demystify science
- **To promote** STEAM learning and Inquiry-Based Science (IBSE) methodology and Problem Based Learning (PBL)

2. TARGET GROUPS

Circular Science addresses schools, teachers and groups of pupils and students. Pupils from all the areas of influence of the partners, specially from rural areas and from a very young age (6-18 years old, Generation Alpha and Z) will be the target of the activities. The name Circular Science refers to the fact that researchers go back to their schools where they studied encouraging them to embark on science completing the cycle again.

3. CIRCULAR SCIENCE

The activities of this programme will be carried out throughout the whole school year and it is expected more options to be added to the initial list of activities that have been recently presented.

Innovative methodology is necessary in schools to spark the students' motivation. For this reason, part of our activities includes Problem Based Learning (PBL) and Inquiry-Based Science Education (IBSE) methodologies, two inspiring ways of learning science through stimulating





active thinking. Researchers have been informed about these two methodologies and they are planning activities according to them.

The schools that participate in activities related to all the 5 missions will be awarded a certificate at the end of the school year and the students will receive some science stickers.

Once the activities are finished, pupils will be encouraged to participate in the contest “ONE MISSION, ONE PURPOSE: WHAT CAN I DO”. They will have to write a short essay about their feelings, what they have learned about the missions. Some of these essays will be chosen to create the “Mission book”. This publication will be distributed in future events to make visible both the researcher work and the engagement of the young students to the missions.

4. ACTIVITIES BY LOCATIONS

Schools distributed in the provinces of Cantabria, Asturias, Zaragoza, Huesca, Teruel, Badajoz, Cáceres, Cuenca, Guadalajara, Ciudad Real, Albacete, Islas Baleares, Álava Vizcaya, Guipúzcoa, Navarra have been offered a full programme of activities

In some places these activities have already started after the main event on September 30th and in other provinces the programme was presented in October. In order to engage pupils in an attractive way different format of activities will be offered: hands-on experiments, informal talks, games, quizzes, escape rooms or contests. Although onsite activities will be preferred, online options will be also considered specially on far areas.

The online training “Science with hook, how to involve teachers and pupils” developed on 24th May addressing researchers from all provinces of the consortium helped them to design engaging and interactive experiments activities. Educative material for teachers will be also considered by researchers to prepare the activity and the science contents before going to the schools. The whole video of this training can be visualized on YouTube: [G9MISSIONS Training Ciencia con gancho involucrar a docentes y alumnado - YouTube](#)

The total of activities is shown in this table:

	University	Number of activities
1	University of Cantabria (UC)	13
2	University of Castilla-La Mancha (UCLM)	11
3	Public University of Navarre (UPNA)	16
4	University of Oviedo (UNIOVI)	51
5	University of the Balearic Islands (UIB)	9
6	University of Extremadura (UEX)	20
7	University of Zaragoza (UNIZAR)	36
8	University of País Vasco (UPV)	16
	Total	172





4.1 University of Cantabria (UC)

The Scientific Culture and Innovation Unit of the University of Cantabria (UC) has prepared a programme of activities addressing primary and secondary schools of the province of Cantabria. The registration can be made in the form on the website.

Researcher	Activity	Age	Mission
José Luis Moura Berodia & Silvia Sipone	Scape room sustainable mobility	11-14	1. Adaptation to climate change
Francisco Conde Oria	A trip to the future of Cantabria's tourism	15-18	4. Climate-neutral & smart cities
Rafael Granero Belinchón	What is maths for?	13-18	2. Cancer beating plan
Ana Belén Marín Arroyo	Trip to the Prehistory	12-18	1. Adaptation to climate change
Pablo Albella Echave	Light as cancer therapy	12-18	2. Cancer beating plan
Cristina Campos	Greentour project: Circular economy and sustainable tourism	16-18	1. Adaptation to climate change
Ana Fernández	Kairos project: how can we improve the food industry in Spain?	16-18	1. Adaptation to climate change
Jara Laso & Sandra Ceballos	Neptunus project: The sustainability of the fish sector: from your boat to your plate	3-18	1. Adaptation to climate change 3. Restore our ocean and waters
Guillermo Díaz Sainz & María Margallo	Greentour project: Circular economy for the fishing sector	16-18	1. Adaptation to climate change 2. Cancer beating plan 3. Restore our ocean and waters 4. Climate-neutral & smart cities 5. A soil deal
Tamara Llano & Alberto Coz	Waste recycling	16-18	1. Adaptation to climate change
Javier Díez Sierra	Climate change: Where are we from and where are we heading?	16-18	1. Adaptation to climate change
Francisco García	The quality of water in the space	12-18	3. Restore our ocean and waters
Alberto Arteché González	Fighting cancer with physics: from photons to protons	12-18	2. Cancer beating plan





4.2 University of Castilla-La Mancha (UCLM)

A total of 11 activities are offered by researchers of the University of Castilla-La Mancha (UCLM). Teachers of the provinces of Ciudad Real, Albacete, Cuenca, Toledo and Guadalajara can send an email to the Scientific Culture and Innovation Unit of the UCLM to apply,

Researcher	Activity	Age	Mission
Manuel Esteban Lucas-Borja	The big fire problem	6-18	1. Adaptation to climate change
José María Herranz de la Casa	The importance of communication to increase commitment to the circular economy	6-18	1. Adaptation to climate change
Christian Gortazar	Emerging diseases that threaten wildlife	6-18	1. Adaptation to climate change
Inmaculada Carrasco Monteagudo	Social economy and economic recovery	6-18	1. Adaptation to climate change
María Teresa Baeza Romero	High air pollution inside homes	6-18	1. Adaptation to climate change
Jorge Enrique Zafrilla Rodríguez	Forced labor in China: trade war and human rights	6-18	1. Adaptation to climate change
Pablo L. Higuera Higuera	Is it possible to obtain raw materials without harming the environment?	6-18	1. Adaptation to climate change
Diana Rodríguez Rodríguez	Atmosphere, a chemical reactor with its own cleaning system	6-18	1. Adaptation to climate change
María Ángeles Tobarra Gómez	What can you do to mitigate climate change?	6-18	1. Adaptation to climate change
María Ángeles Cadarso	Taking care of the planet or taking care of people?	6-18	1. Adaptation to climate change
Octavio Armas Vergel	Population, water, biodiversity, energy and food.	6-18	1. Adaptation to climate change





4.3 Public University of Navarra (UPNA)

Public University of Navarra (UPNA) will offer activities specially to the last courses of school of Navarra. Teachers can apply for any of them through the website of the Scientific Culture and Innovation Unit.

Researcher	Activity	Age	Mission
María Isabel Zudaire Ripa	Epigenetics: How the environment modulates our genome	15-18	2. Cancer beating plan
Francisco Javier Falcone Lanas	Manufacturing 4.0: The Digital Industrial Revolution	15-18	4. Climate-neutral & smart cities
Humberto Bustince Sola	Artificial Intelligence	15-18	1. Adaptation to climate change 2. Cancer beating plan
María Napal Fraile	Climate Change... Does it have to do with me?	15-18	1. Adaptation to climate change 3. Restore our ocean and waters 4. Climate-neutral & smart cities
Francisco Javier Sanz Morales	Geology of Navarra, from landscapes to rock	15-18	5. A soil deal
Jorge Poveda Arias	The truth about transgenic crops	15-18	1. Adaptation to climate change
Ignacio Irigoyen Iriarte	Workshop on Circular Economy	15-18	1. Adaptation to climate change 3. Restore our ocean and waters 4. Climate-neutral & smart cities 5. A soil deal
Iñigo Virto Quecedo	Soil quality, quality of life	15-18	5. A soil deal
Iñigo Virto Quecedo	Growing CO ₂ : Climate Change and the use of land	15-18	1. Adaptation to climate change 5. A soil deal
Javier Marcos Álvarez	Renewable energy	15-18	1. Adaptation to climate change
David Astrain Ulibarrena	Energy system & environmental impact.	15-18	1. Adaptation to climate change 5. A soil deal
M ^a Cruz Arzamendi Manterola & Inés Reyero Zaragoza	Biomass and biofuels	15-18	1. Adaptation to climate change 5. A soil deal
Andrea Navarro Puyuelo & Inés Reyero Zaragoza	Obtaining synthetic fuels & other chemical compounds from unconventional natural gas and biogas	15-18	1. Adaptation to climate change
Iñigo Virto Quecedo	We are what we eat: from the Green Revolution to Agroecology	15-18	5. A soil deal
Rosa María Canals Tresserras	Reflecting on the human footprint on climate and ecosystem biodiversity	15-18	1. Adaptation to climate change
María Napal Fraile	Hidden diversity	15-18	5. A soil deal





4.4 University of Oviedo (UNIOVI)

A wide range of activities dealign with hte 5 missiosn will be offered by the Scientific Culture and Innovation Unit of University of Oviedo throughout the whole year. Teachers can show their interest by filling the form on the website of the univeristy.

Researcher	Activity	Age	Mission
Isabel Quirós González	Amazing science stories	9-13	2. Cancer beating plan
Eduardo Cires Rodríguez	My first herbarium	13-17	1. Adaptation to climate change 5. A soil deal
Salvador Beato Bergua	I'll trade Climate Change for Global Change: Geography	6-12	1. Adaptation to climate change 5. A soil deal
Salvador Beato Bergua	A yew told me: the magic of Asturian geography	6-12	1. Adaptation to climate change 4. Climate-neutral & smart cities 5. A soil deal
Eduardo Cires Rodríguez	Photography & science	6-12	1. Adaptation to climate change 5. A soil deal
Víctor Manuel García Suárez	Computers and materials of the future	13-17	1. Adaptation to climate change
Ana Belén Soldado Cabezuelo	Chemistry and diet: quality and safety in the food chain	13-17	1. Adaptation to climate change 4. Climate-neutral & smart cities
Yaiza Potes Ochoa, Eduardo García Antuña, Claudia García González y Cristina Cachán Vega	Would you like to be a researcher? Discover the scientific world	13-17	2. Cancer beating plan
Carlos López Fernández	How to act in case of earthquakes, floods and landslides	13-17	1. Adaptation to climate change 4. Climate-neutral & smart cities 5. A soil deal
Pedro González Menéndez	A world tour through science	13-17	2. Cancer beating plan
Yuri Álvarez López	The secrets of telecommunications: from smartphones to satellites	13-17	4. Climate-neutral & smart cities
Salvador Beato Bergua	Geography. La Palma eruption: volcanism,	13-17	1. Adaptation to climate change





Researcher	Activity	Age	Mission
	hazards and opportunities		4. Climate-neutral & smart cities 5. A soil deal
Santiago Cal Miguel	The molecular language of cells	13-17	2. Cancer beating plan
José Manuel López García	Use of animal models in biomedical research	13-17	2. Cancer beating plan
Lorena Salgado Fernández, María García Álvarez, Rubén Forján Castro	What is the health of our soil after a fire or mining activities? X-rays from the sky with drones.	13-17	1. Adaptation to climate change 4. Climate-neutral & smart cities 5. A soil deal
Jose M Rico Ordas	Hot-cold: What does the future hold for planet Earth with climate change?	13-17	1. Adaptation to climate change 3. Restore our ocean and waters 4. Climate-neutral & smart cities 5. A soil deal
Xose Antón Suárez Puente	Cancer an precision medicine: genomics, molecular biology and bioinformatics.	13-17	2. Cancer beating plan
David Gallinar Cañedo	Geographical research	13-17	1. Adaptation to climate change 3. Restore our ocean and waters 4. Climate-neutral & smart cities 5. A soil deal
Javier Fernández Mateos	Molecular cooking: deconstructing a tumour	13-17	2. Cancer beating plan
Álvaro Fernández Fernández	How do cells recycle?	13-17	2. Cancer beating plan
Mario López Gallego	Engineering and marine renewable energy	13-17	1. Adaptation to climate change 3. Restore our ocean and waters
Mario López Gallego	Engineering for sustainable development	13-17	1. Adaptation to climate change 3. Restore our ocean and waters





Researcher	Activity	Age	Mission
			4. Climate-neutral & smart cities 5. A soil deal
Candela Cuesta Moliner	Studying trees in a lab!	13-17	1. Adaptation to climate change 4. Climate-neutral & smart cities 5. A soil deal
Lourdes Marcano Prieto	Nanorobots to cure diseases	13-17	2. Cancer beating plan
Carlos Cabo Gómez	3D models to study forests	13-17	1. Adaptation to climate change 3. Restore our ocean and waters 4. Climate-neutral & smart cities 5. A soil deal
Belén García Soler	A day in the life of a biomedical scientist	13-17	2. Cancer beating plan
Víctor Manuel de la Prida Pidal	35. Aplicaciones de los nanomateriales en la vida cotidiana	13-17	1. Adaptation to climate change 2. Cancer beating plan 3. Restore our ocean and waters 4. Climate-neutral & smart cities 5. A soil deal
José Manuel Costa Fernández	Chemistry an nanotechnology in healthcare: applications and challenges	13-17	2. Cancer beating plan
Francisco Blanco Álvarez, Antonio Marqués Sierra y Francisco Javier Iglesias Rodríguez	The circular economy in our world	13-17	1. Adaptation to climate change 3. Restore our ocean and waters 4. Climate-neutral & smart cities 5. A soil deal
Francisco Javier de Cos Juez	Light pollution, the silent threat.	13-17	1. Adaptation to climate change 4. Climate-neutral & smart cities
José Manuel Fernández Colinas	Hydrogen for Net-Zero	13-17	1. Adaptation to climate change





Researcher	Activity	Age	Mission
			4. Climate-neutral & smart cities
Ramón Rubio García	48. Keychain Round Ods	13-17	<ol style="list-style-type: none"> 1. Adaptation to climate change 2. Cancer beating plan 3. Restore our ocean and waters 4. Climate-neutral & smart cities 5. A soil deal

4.5 University of les Illes Balears (UIB)

The Scientific Culture and Innovation Unit of University of Illes Balears (UIB) offers through the University Orientation and Transition Program (PORT-UIB) a series of activities addressed to students of primary and secondary education. The conferences, visits and workshops are adapted to the diverse age groups.

Researcher	Activity	Age	Mission
José Miguel Mulet	Chemophobia and sustainable development	15-18	<ol style="list-style-type: none"> 3. Restore our oceans and waters. 5. A soil deal.
José A. Pérez Montiel	Can we stop climate change without giving up on economic growth and/or social welfare?	15-18	<ol style="list-style-type: none"> 1. Adaptation to climate change 4. Climate-neutral & smart cities
Joana M. Petrus Bey	"Made in Ocean", life in blue	15-18	<ol style="list-style-type: none"> 3. Restore our oceans and waters.
Joana M. Petrus Bey	Borders, walls and conflicts in the present world	15-18	<ol style="list-style-type: none"> 1. Adaptation to climate change
Ivan Murray Mas	The ecological footprint on the Balearic Islands	15-18	<ol style="list-style-type: none"> 1. Adaptation to climate change
Ivan Murray Mas	How has changed the landscape of the Balearic Islands? Using GIS to find out	15-18	<ol style="list-style-type: none"> 1. Adaptation to climate change
Bartolomé Deyá Tortella	Sustainability and circularity in tourism: an unavoidable challenge	15-18	<ol style="list-style-type: none"> 1. Adaptation to climate change 4. Climate-neutral & smart cities
Miquel Àngel Coll Ramis	Technology and tourism: geolocation and smart tourism management	15-18	<ol style="list-style-type: none"> 4. Climate-neutral & smart cities
Maria Antònia Jiménez Cortés	First contact with the UIB	9-12	<ol style="list-style-type: none"> 1. Adaptation to climate change





Researcher	Activity	Age	Mission
Francisca Maria Molinos Homar			3. Restore our oceans and waters. 4. Climate-neutral & smart cities 5. A soil deal.

4.6 University of Extremadura (UEX)

Talks and workshops promoted by the Science Communication Unit of the University of Extremadura in the framework of science outreach activities will be carried out in primary and secondary schools. Hereby, we include 20 talks related to the contribution of the 5 missions in Horizon Europe, which will be held in schools around Extremadura. These talks are part, as well, of an overall programme of science dissemination at schools.

The procedure of developing the programme is the following: we have asked schools and teachers to register in Circular Science project by means of a participation form, indicating the knowledge area they are interested in. These requests have been distributed among university researchers in order to carry out a match process of demands with volunteer researchers. This assignment has been made by the Science Communication Unit.

Researcher	Activity	Age	Mission
Carmen Pro Muñoz	Earthquakes in Spain? Where?	13-17	5. A soil deal
Josefa Díaz Álvarez	Artificial Intelligence applied to health, cybersecurity and video game	12-17	4. Climate-neutral & smart cities
Beatriz Marín Díaz	Research in Cancer - Woman in science	12-17	1. Cancer beating plan
Karmele Mendoza Pérez	Women researchers and research with a gender perspective in Extremadura	12-17	1. Adaptation to climate change 2. Cancer beating plan 3. Restore our ocean and waters 4. Climate-neutral & smart cities 5. A soil deal
Nielene María Mora Diez	The chemistry around us	16-17	1. Adaptation to climate change
Juan Morillo Barragán	From geometers to global positioning satellite systems	12-17	4. Climate-neutral & smart cities
Sara Morales Rodrigo	La dehesa: unique ecosystem, biodiverse and... ours!	12-17	1. Adaptation to climate change 5. A soil deal





Researcher	Activity	Age	Mission
Jesús Díaz Álvarez	Chemistry as the basis of interdisciplinarity	12-17	1. Adaptation to climate change 2. Cancer beating plan 3. Restore our ocean and waters 4. Climate-neutral & smart cities 5. A soil deal
Beatriz Gómez Martín	Thermography: a scientific world of myths and realities	12-17	4. Climate-neutral & smart cities
Guillermo Rey Gozalo	The importance of the sound environment	12-17	4. Climate-neutral & smart cities
Fco. Jesús Morán Domínguez	The fascinating world of microorganisms	14-15	2. Cancer beating plan
Clara Contreras Ameduri	Taking flight: women and bird protection in the origins of citizen science. H2020 European project: EnviroCitizen - Citizen Science for Environmental Citizenship	12-17	1. Adaptation to climate change
María Teresa de Tena Rey	The Geological Heritage of Extremadura	12-17	5. A soil deal
María Isabel Rodríguez Cáceres	Research in Analytical Chemistry	12-17	3. Restore our ocean and waters
Eduardo Cuerda correa	Lastest developments in cancer research	12-17	2. Cancer beating plan
Miguel Ángel Durán Vinagre	Physical activity and healthy lifestyle habits as a predictor of healthy living	8-12	2. Cancer beating plan
Jesús Sánchez Martín	Recreational Science: surprise and knowledge in elementary school	8-12	1. Adaptation to climate change 2. Cancer beating plan 3. Restore our ocean and waters 4. Climate-neutral & smart cities 5. A soil deal
Alfredo Álvarez García	The story of cold: a war against gases	12-17	1. Adaptation to climate change
María de Guía Córdoba Ramos	New healthy foods	12-17	1. Adaptation to climate change 2. Cancer beating plan
José Manuel Vaquero Martínez	Climate change watchers	12-17	1. Adaptation to climate change





4.7 University of Zaragoza (UNIZAR)

36 activities (27 talks, 7 experiments and two documentaries) will be organized by the Scientific Culture and Innovation Unit of the University of Zaragoza and its three campuses in Zaragoza, Huesca and Teruel. Of these 36 activities, 17 are adapted to both Primary and Secondary, that is, they will be duplicated, which represents a total of 34 talks; Another 3 will be presented only to Primary and 16, only to Secondary. All this represents a total of 51 activities.

On the other hand, 75% of the activities will be face-to-face, while the remaining 25% will be dissolved online, to reach students in rural areas of Aragon. Teachers can register through a form on the website of the university.

Researcher	Activity	Age	Mission
Miguel Ángel Saz Sánchez	Trees that tell stories.	9 a 17	1. Adaptation to climate change
Óscar García-Izquierdo Gango	Wireless electric vehicle charging, the charging of the future.	9 a 17	4. Climate-neutral & smart cities
Alejandra González Loyola	Engineering, a fundamental tool in the fight against cancer	13 a 17	2. Cancer beating plan
Gabriel Lozano Berges	Physical exercise, our warrior to fight sedentary lifestyle and obesity	9 a 17	4. Climate-neutral & smart cities
Nacho de Blas Giral	Emerging diseases, climate change and globalization	9 a 17	1. Adaptation to climate change
Alberto Anel Bernal	Immunotoxins: bullets against cancer made in Aragon	13 a 17	2. Cancer beating plan
Alicia Otero García	In the future we will all be vegetarians?	9 a 12	5. A soil deal
Ana Asión	Screening of the documentary Luz de gas (2022)	13 a 17	4. Climate-neutral & smart cities
Inés Mármol Peguero	The extent of the power of diet to prevent cancer	13 a 17	2. Cancer beating plan
Cristina Nerín	Relationship between plastics and food	9 a 17	4. Climate-neutral & smart cities





Researcher	Activity	Age	Mission
Ricardo López Gómez	Food and molecules. The science that eats.	9 a 17	5. A soil deal
Paz Comech Moreno	Energy and sustainability	9 a 17	4. Climate-neutral & smart cities
Andrea Ariño Bizarro	Connect your senses with the McGurk effect	13 a 17	4. Climate-neutral & smart cities
Katia Fach Gómez	Does the law help curb climate change?	9 a 17	1. Adaptation to climate change
Susana Cebrián Guajardo	A universe of radiation	13 a 17	4. Climate-neutral & smart cities
Maria Martínez Pérez	Dark matter hunters	9 a 12	4. Climate-neutral & smart cities
Ana Grilló Méndez	The R's of the circular economy and clothing	9 a 12	4. Climate-neutral & smart cities
Samuel Barrao Simorte	City weather	9 a 17	1. Adaptation to climate change
Jorge Bielsa	Money is not everything	13 a 17	4. Climate-neutral & smart cities
Luis Vicente Casaló Ariño	Why does the citizen behave environmentally?	9 a 17	1. Adaptation to climate change
Susana Lorán Ayala	Food safety. Environmental and food contamination	13 a 17	4. Climate-neutral & smart cities
Pedro José Miana Sanz	Green and recyclable math	9 a 17	4. Climate-neutral & smart cities
Jesús Ángel Betrán Aso	The soil, food source ... and more	13 a 17	5. A soil deal





Researcher	Activity	Age	Mission
Beatriz Moya García	Living cities: how can they learn to interact with us?	9 a 17	4. Climate-neutral & smart cities
María Pilar Rivero Gracia	We rescue our Heritage	9 a 17	4. Climate-neutral & smart cities
José Manuel Nicolau	Let's take care of planet Earth and its waters. It's our house.	9 a 17	3. Restore our ocean and waters
Marcela Garzon y Adanays Calvo	Microscopic observation of cells of our defenses (immune system) and cancer cells	13 a 17	2. Cancer beating plan
Alejandro Andres y Jorge Paul	DNA isolation	9 a 17	2. Cancer beating plan
Elena Dolader, Patricia Esteban y Sergio Redrado	Isolation and cultivation of environmental microbes related to infections in cancer	9 a 17	2. Cancer beating plan
Ondrej Kratochvíl	Act for change, improve your neighborhood MAP with us!	13 a 17	4. Climate-neutral & smart cities
Conchita Martinez Perez	Math to share secrets	13 a 17	4. Climate-neutral & smart cities
Lorena Montesino Redondo	4D printing of liquid crystal elastomers	13 a 17	4. Climate-neutral & smart cities
Sara Besos Ramo	Polymers in everyday life	13 a 17	4. Climate-neutral & smart cities
Beatriz Latre Morales	The chemistry in our lives	13 a 17	4. Climate-neutral & smart cities
Miguel Ángel Saz Sánchez	In the footsteps of the past	13 a 17	1. Adaptation to climate change





4.8 University of País Vasco (UPV)

The Scientific Culture and Innovation Unit of the University of País Vasco offered lectures and talks to students from 8 to 17 years old between September 28 and October 4, 2022, in the context of the activities of the European Researchers' Night. Thus, the missions that were addressed in 2022 were mainly “1. Adaptation to climate change” and “4. Climate-neutral & smart cities”. The Circular Science lectures that will address the remaining missions will be given from spring 2023 onwards by researchers in schools. These new activities will be added to the existing ones and will be included in the web site.

Researcher	Activity	Age	Mission
Gotzon Aldabaldetrekue	Secrets of telecommunications	13-17	4. Climate-neutral & smart cities
Sofía Ruiz De Gauna & Marta Fernández Andrés	Ingenious telekas	13-17	4. Climate-neutral & smart cities
Teresa Campos López	Archeology and other realities, do you dare to discover them?	14-15	1. Adaptation to climate change 4. Climate-neutral & smart cities
Koldobika Martín Escudero	The local energy community: Guzman case study	16-17	1. Adaptation to climate change 4. Climate-neutral & smart cities
Saioa Gómez Zorita	Vegetarian diet useful in climate change	13-17	1. Adaptation to climate change 5. A soil deal
M.Mirari Antxustegi & María González	Biogas: turning our garbage into an energy source	16-17	1. Adaptation to climate change 4. Climate-neutral & smart cities
Cristina Peña Rodríguez, Amaia Mendoza & Asier Elejoste	Plastics: good or bad?	12-15	1. Adaptation to climate change 3. Restore our ocean and waters
Raquel Esteban	Plants to the rescue of humanity	10-11	1. Adaptation to climate change





Researcher	Activity	Age	Mission
Gema Varona Martínez	David vs. Goliath: Why restorative justice makes sense for climate change accountability?	13-17	1. Adaptation to climate change 4. Climate-neutral & smart cities
Jose Maria Etxabe Urbieto	Noise pollution in cities	12-13	1. Adaptation to climate change 4. Climate-neutral & smart cities
Jose Maria Etxabe Urbieto	Sea pollution: microplastics	10-11	1. Adaptation to climate change 3. Restore our ocean and waters
Miryam Criado González	Natural polymers for the sustainable development of new materials	16-17	1. Adaptation to climate change
Lydia Vázquez Jiménez	The myth of Europe in literature and art: reflection on the imaginary of female consent in Europe	16-17	1. Adaptation to climate change 3. Restore our ocean and waters
Julen Castillo Apraiz & Unai Tamayo Orbegozo	Creating entrepreneurs towards sustainability through higher education	16-17	1. Adaptation to climate change 4. Climate-neutral & smart cities
Kanika Rajain	Applications of Mathematics in “Real Words”.	16-17	1. Adaptation to climate change 4. Climate-neutral & smart cities
Dae-Jin Lee	Visualizing climate change through data	14-15	1. Adaptation to climate change 3. Restore our ocean and waters

5. PARTICIPATION

A total of 107 researchers from the 8 universities will be involved in the different activities. Special effort has been made to involve female researchers and promote gender equality in science. In addition, universities have contacted with Marie Curie fellows to engage them in this type of activities.

The results are reflected in the following table:





	University	Number of researchers (including Marie Curie)		Number of researchers (only Marie Curie)	
		Male	Female	Male	Female
1	University of Cantabria (UC)	9	7	0	0
2	University of Castilla-La Mancha (UCLM)	6	4	0	0
3	Public University of Navarre (UPNA)	8	7	0	0
4	University of Oviedo (UNIOVI)	28	28	0	0
5	University of the Balearic Islands (UIB)	5	3	0	0
6	University of Extremadura (UEX)	8	11	0	0
7	University of Zaragoza (UNIZAR)	17	22	0	0
8	University of País Vasco (UPV)	15	25	7	11
Total		96	107	7	11

6. COMMUNICATION TOOLS

This chapter describes all the communication tools produced in order to reach the following objectives:

- Create awareness of the EU Missions and their objectives as well as how the G9 Universities research aligns with them.
- Inspire young students to pursue science careers through close contact with researchers from different specialties.
- Reach as many schools and high schools as possible, specially those in rural areas with fewer opportunities of engaging with science researchers.
- Ensure that the outcomes of Circular Science initiative are widely disseminated to the target audience.
- Create synergies with international groups to spread the initiative outside along different Countries withing the European Union.

The consortium designed a join communication plan and every partner carried some extra actions to spread the initiative.





6.1 JOINT COMMUNICATION ACTIONS

The joint communication strategy included different actions to be carried out as a consortium such as:

- Information about the project and all its initiatives on the official **website** of the project and on the websites of each partner
- Promotion of activities through the consortium **social networks**.
- Publication of a joint press release that can be consulted on the [G-9 website](#)). Based on this information, each university has developed its own news to be sent to **local and national media**, with its corresponding **impact**. (Please check section 5.6. PRESS CLIPPING OF PARTNERS to find the links to the press releases published by each partner about Circular Science initiative.)
- Contact international alliances such as [Eunice](#) and [Unita](#) to offer some online activities to Schools in different European Countries outside the Spain borders.

In addition, the following recommendations were given to the partners to spread Circular Science:

- Publish the information about Circular science in their **webpages**
- Send **recruitment mails** to research staff
- Write informative **mails to teachers** of educational centers
- Publish the information in their **monthly newsletters** of activities
- Publish their own **Press release** at the beginning of the academic year
- Use their **social networks** to amplify the message
- Try to collaborate with other **European projects**

Due to their own particularities every partner carried out these activities differently.

6.2 COMMUNICATION ACTIONS BY PARTNER

6.2.1 University of Cantabria (UC)

During the European Research Night, UC included a section with 15 booths in which 15 researchers shared how their research addresses the 5 EU missions challenges. Interest in this group of people to spread the message during the school year was found so the opportunity of joining Circular Science was given to them creating the first set of activities to be offered from the UC.

A booklet with the initial offer and information about the missions was designed and published in the UC Night's webpage so Circular Science initiative is linked to this successful event. (See 5.3. DISSEMINATION MATERIALS)





UC contacted the Cantabria regional government and its Education division that kindly shared the booklet through e-mail with all the educational facilities in the community.

A press release was published on October the 28th through the University webpage. (See 5.6. PRESS RELEASES)

It is planned to publish the initiative in the UCC+I monthly newsletter next November the 1st.

Some European Projects had already express their interest in collaborating such as [Neptunus](#), [Kairos-Biocir](#) and [Greentour](#). Their researchers have already started visiting some schools and their lead will certainly show the benefits of joining efforts.

6.2.2 University of Oviedo (UOVI)

UOVI asked their researchers to visit the schools they used to attend when they were young students. The program was built up in collaboration with the Asturias regional government and the network Concejos con Ciencia and published in their webpage (See 5.4 CIRCULAR SCIENCE WEBSITES)

6.2.3 University of Extremadura (UEX)

E-mailing to schools sent in June with the explanation of the activity in the Framework of European Researchers Night with a registration form included.

During September, another participation form has been sent to researchers to match the requests received previously.

Finally, researchers and teachers agree on date, suitable student level and topics addressed.

6.2.4 Public University of Navarra (UPNA)

UPNA holds the initiative Circular Science as part of their ongoing project “Charlas de divulgación Científica” that has been a success since 2005 ensuring the school participation. Although the full program includes more than 40 talks we have selected the ones related to the EU missions for the current deliverable.

6.2.5 University of les Illes Balears (UIB)

The communication plan for the talks and workshops will be carried out in accordance with the University Orientation and Transition Program (Port-UIB), which depends on a Joint Commission Ministry of Education, University and Research - University of the Balearic Islands, made up of people from both institutions and whose aim is to identify shortcomings and aspects that can be improved in all matters related to information, communication, orientation and the transition to the University, especially aimed at secondary education centers.

UIB is working on the preparation of press releases, videos, posters, social networks and direct communication with the Primary and Secondary schools involved in this activity.

6.2.6 University of Castilla-La Mancha (UCLM)





The high schools in the region received an e-mail through the Castilla-La Mancha regional government with the offer and instructions for them to contact the University of Castilla-La Mancha. Their communication plan includes avoiding any cost of printing brochures so all the information is offered on their website (See 4.5 CIRCULAR SCIENCE WEBSITES)

6.2.7 University of País Vasco (UPV)

Students between the ages of 8 and 17 participated. These lectures and talks given by researchers were held between September 28 and October 4, 2022, in the context of the activities of the European Researchers' Night.

6.2.8 University of Zaragoza (UNIZAR)

The communication plan has been proposed in two directions.

- Internal communication, which has allowed us to collect the express participation of our researchers and which is detailed in this catalogue.
- External communication, which will make it possible to publicize this Circular Science offer to secondary schools and institutes in Aragon. This information will be made through the Department of Education of the Government of Aragon.

Likewise, society will also be informed of this activity through the media, with the corresponding press releases being sent, and notification through social networks. (SEE 4.6 PRESS RELEASES and 5.7 SOCIAL NETWORKS)

6.2.9 University of la Rioja

University of La Rioja as an associate partner supports the communication and dissemination campaign of the project with their own social media channels.

6.3 DISSEMINATION MATERIALS

To give a **visual identity** to the project, a logo and a corporate visual image were designed for Circular Science.





The chosen visual identity is made up of two main representative elements: on one hand, the characteristic N of the European Night of Researchers has been used, in a light blue color, traditionally linked to innovation and scientific advances as well as trust and fidelity.

On the other hand, a representation of the 5 logos belonging to the 5 missions of the European Union, showing the main theme of the NIGHT at one glance.

Once the visual image was created, all the following **dissemination materials** were designed:

- Social Network Headers
- PowerPoint templates for researcher presentations

The dissemination material will be used by the partners throughout the project. As G9Missions partners are beneficiaries of EU funding, the emblem of the European Union has been and will be present on all outreach materials/press releases/media contacts to acknowledge the support received under the EU program.

6.4 CIRCULAR SCIENCE WEBSITES

Circular Science is presented through the joint website of the G9MISSIONS project. This website is available in two languages: Spanish and English.

	Concept	Website
1	European Researchers' Night	https://nocheinvestigag9.es/
2	Circular science	https://nocheinvestigag9.es/en/circular-science/

Some of the partners include the information about Circular Science within their own Researchers' Night webpage. Others, instead, have created a new one within their university domain. Finally, in some cases the initiative has been incorporated as part of ongoing projects.

Please find the links to these web pages for each G-9 university below:

	University	Website
1	University of Cantabria (UC)	https://web.unican.es/nocheinvestigadores
2	University of Castilla-La Mancha (UCLM)	https://www.uclm.es/misiones/investigacion/uclmdivulga
3	Public University of Navarre (UPNA)	https://www.charlascientificas.com/
4	University of Oviedo (UNIOVI)	https://ucc.uniovi.es/promocion/semanaciencia/ciencia/virtual





	University	Website
5	University of the Balearic Islands (UIB)	https://seras.uib.cat/
6	University of Extremadura (UEX)	https://nocheinvestigadoresuex.es/ciencia-circular/
7	University of Zaragoza (UNIZAR)	ucc.unizar.es/noche-investigadores/2022/ciencia-circular
8	University of País Vasco (UPV)	https://www.ikertzaileengaua-ehu.org/

6.5 PRESS RELEASES

In this section we have compiled all the consortium press releases as well as the ones published by each partner mentioning the event Circular Science. More communications are planned at the beginning of 2023 including pictures of the activities.

	University	Press releases
1	University of Cantabria (UC)	https://web.unican.es/noticias/Paginas/2022/octubre_2022/G9-ciencia-circular.aspx
		https://web.unican.es/noticias/Paginas/2022/septiembre_2022/LNEI-2022.aspx
2	University of Castilla-La Mancha (UCLM)	https://www.uclm.es/es/global/promotores/organos-de-gobierno/vicerrectorado-de-investigacion-y-politica-cientifica/novedades/uclmdivulga/nocheg9/20221026ern
7	University of Zaragoza (UNIZAR)	https://escueladoctorado.unizar.es/es/noticia/charlas-ciencia-circular-unidad-de-cultura-cientifica
8	University of País Vasco (UPV)	https://www.ehu.eus/es/-/ciencia-circular-vuelve-a-acercar-al-personal-investigador-de-la-upv-ehu-a-la-escuela
		https://www.ehu.eus/es/-/la-noche-europea-de-las-y-los-investigadores-vuelve-a-despertar-la-ilusi%C3%B3n-por-la-ciencia
	G-9 Missions	https://nocheinvestigag9.es/el-personal-investigador-del-grupo-9-de-universidades-visitara-las-aulas-de-primaria-secundaria-y-cursos-preuniversitarios-con-motivo-del-programa-ciencia-circular/

6.6 SOCIAL NETWORKS

Although each G-9 University has different social networks dedicated to scientific dissemination and culture (Facebook pages, YouTube channels...) the maximum work of disseminating the project and all the activities associated with it has been carried out through from their official Twitter accounts. Next, each of them is linked and a count of the total followers is carried out with the intention of making an approximate calculation of the reach of said broadcasts.





We are and will be using the hashtags #G9Missions, #NIGHTSpain and #EuropeanResearchersNight to increase the awareness of Circular Science being the way the Researcher's Night keeps its activity through the whole academic year.

	University	Twitter User	Followers (october 2022)
1	University of Cantabria (UC)	@UCDivulga	2209
2	University of Castilla-La Mancha (UCLM)	@UCLMdivulga	2710
3	Public University of Navarre (UPNA)	@Cultupna	487
4	University of Oviedo (UNIOVI)	@UOdivulga	2250
5	University of the Balearic Islands (UIB)	@UIBuniversitat	20500
6	University of Extremadura (UEX)	@UExDivulga	4018
7	University of Zaragoza (UNIZAR)	@UCCUnizar	3014
8	University of País Vasco (UPV)	@upvehu	33200
	G-9 Missions	@Night_S_Team	236
	Total		68624

