

LA NOCHE DE LOS VOLCANES VOLCANOES' NIGHT DIE NACHT DER VULKANE LA NUIT DES VOLCANS

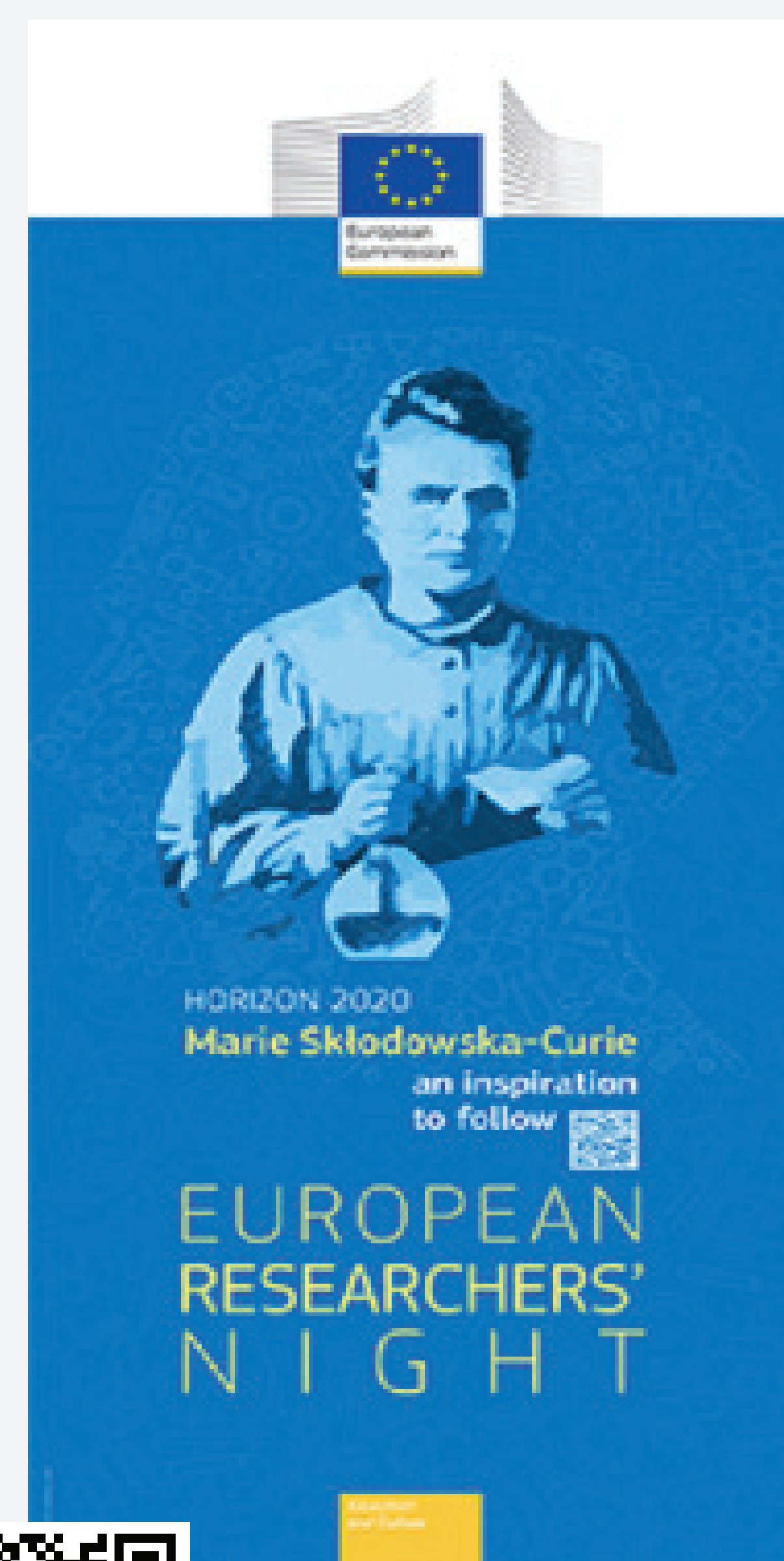
LESSONS LEARNT FOR VOLCANOES' NIGHT I-II-II, A MARIE CURIE RESEARCHERS NIGHT PROJECT SERIES FOCUSED ON GEOSCIENCES

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ABSTRACT

Volcanoes' Night I-II-III has been an European Researchers Night (ERN) project series funded by the European Commission's FP7 and H2020 programs between 2012-2015. The objective of the project was to use volcanoes as a background against which the role of geoscientists could be explained to the public. The scope of Volcanoes' Night was exclusively dedicated to geoscience, and in this respect it stands out among all other ERN projects, which are always more general in scope. The impact of the project was carefully assessed via surveys and social studies during its lifetime, and an Impact Assessment Report was submitted to the EC after the conclusion of each of the three contracts. The conclusions from the Impact Assessment studies can be used to synthesize methodological recommendations for other organizations that may consider the organization of similar public outreach actions for geosciences in the future.

European Researchers' Nights (ERNs) are a pan-European series of events funded by the European Commission, organized on the last Friday of every September since 2005. ERNs mobilize scientific, academic and research organizations with the aim of giving the public the opportunity to meet researchers in an informal setting. The overall objective of ERNs is to achieve better awareness among the general public concerning the importance of science in everyday life and to combat stereotypes about researchers. The longer-term strategic objective of ERNs is to encourage young people to embark on a scientific career.



VOLCANOES' NIGHT PROJECT CONSORTIUM:

La Palma Research Centre (LPRC)
Instituto Tecnológico y de Energías Renovables, S.A. (ITER)
Instituto Volcanológico de Canarias (INVOLCAN)
Consulta Europa Projects and Innovation S.L. (CE)

COLLABORATORS:

City Councils

- Fuencaliente
- Puerto de la Cruz
- La Frontera
- Yaiza
- Pájara
- Hermigua
- Ingenio
- Almagro
- Ciudad Real
- Piedrabuena
- Argamasilla de Calatrava
- Olot

Island Government of

- La Palma
- Tenerife
- La Gomera
- El Hierro
- Fuerteventura
- Gran Canaria

OTHER PARTNERS:

- Consorcio Rehabilitación de Puerto de la Cruz
- Sodepal
- Mancomunidad del Sureste Gran Canaria
- Geo-Parque El Hierro
- Museu dels volcans de Olot
- Volcanic Area of La Garrotxa Natural Park

...among many others. For a full list of partners, collaborators and participating scientists, visit: www.nochedevolcanes.es

APPROACH

Volcanoes Night is based on three thematic work packages interacting with and complementing each other.



Promotion and awareness raising for the project, creating links with collaborators.



The organisation of the actual **Nights**, managing the activities at the different sites.



After the events, the collected data is analyzed and put into context to understand the **impact of the action**.

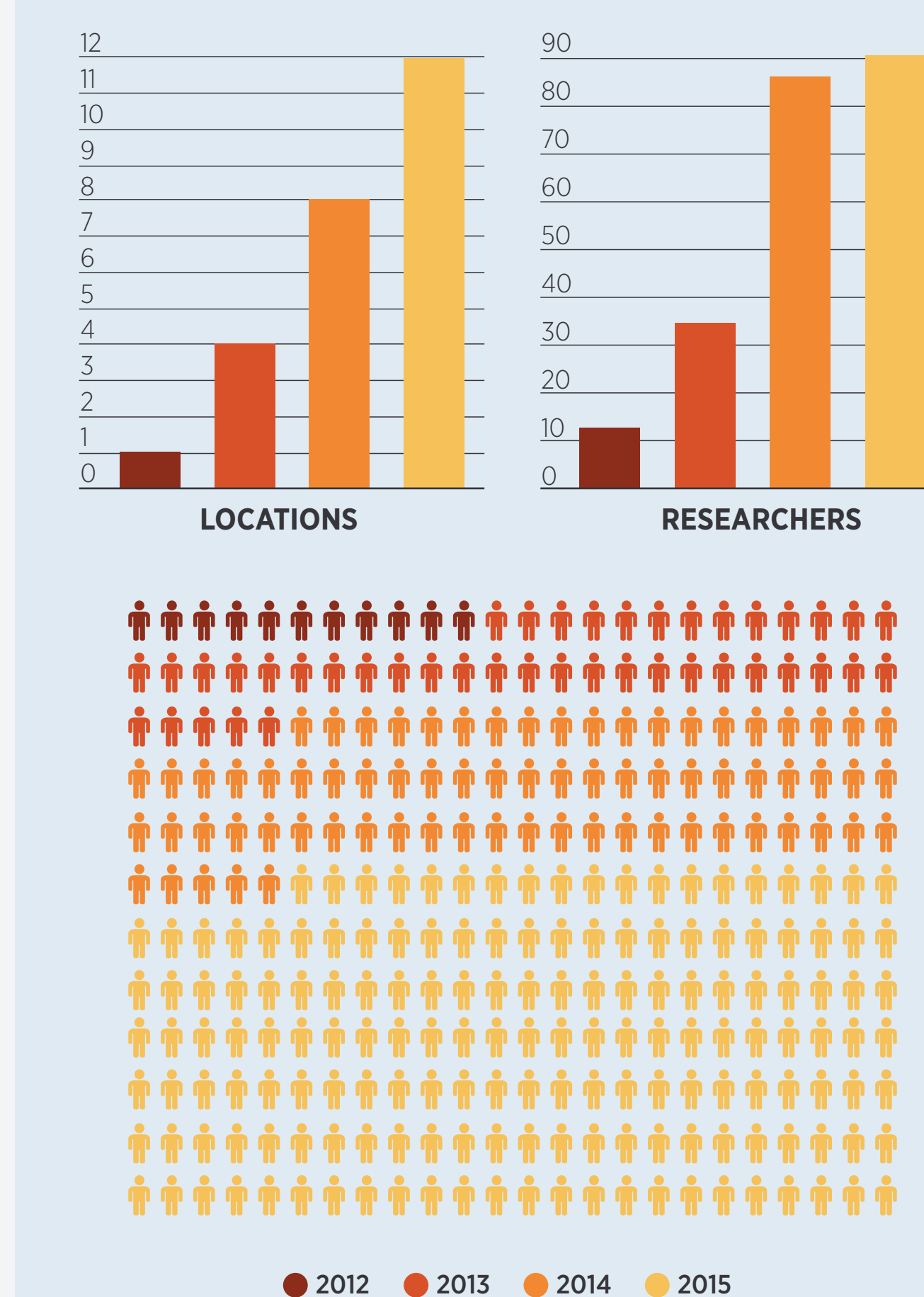
RESULTS

The impact of the project was carefully assessed via surveys and social studies during its lifetime, and an Impact Assessment Report was submitted to the EC after the conclusion of each of the three projects. According to an on-site survey undertaken in 2015, 78.5% of responders reported that their initial understanding of the work of geoscientists improved as a result of the activities organized during the event. In an attempt to reach the highest number of responses as possible the evaluation of was based on a short on site questionnaire. Also, as an additional help for the qualitative analysis participants who had taken part of at least three core activities and provided their contact details were contacted the phone after the event.

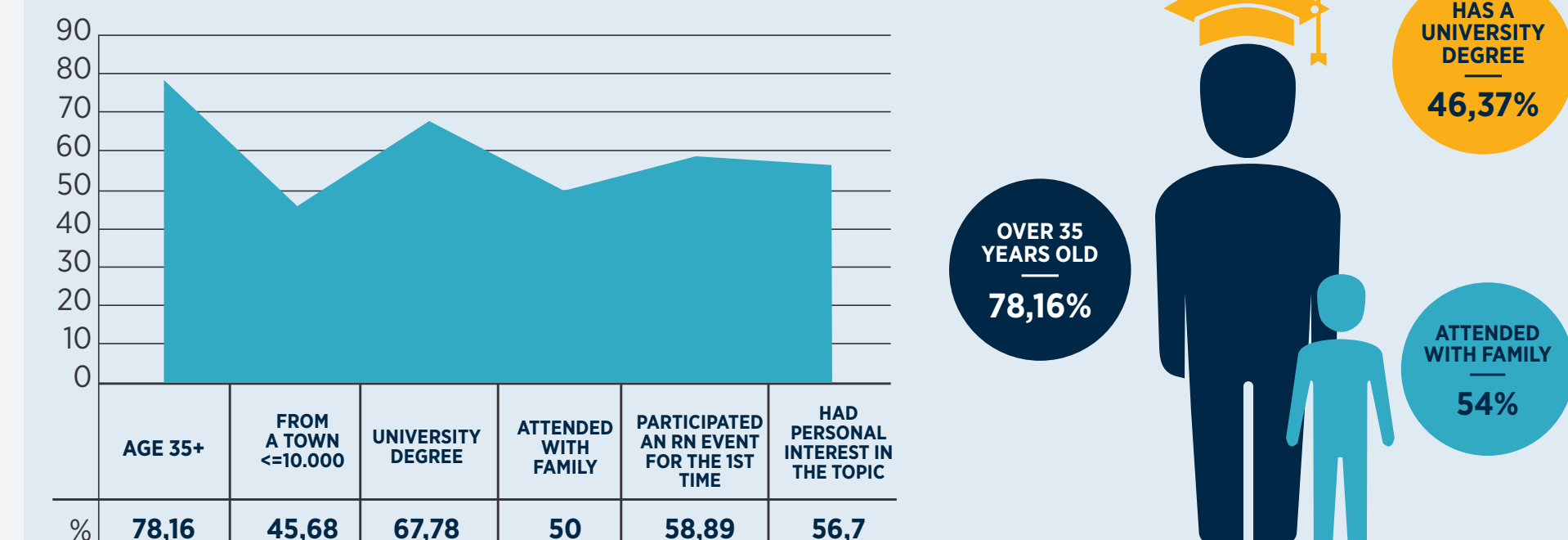
The analysis is based on 377 questionnaires collected in the seven Canary Islands (in-situ).

EVOLUTION OF VOLCANOES' NIGHT

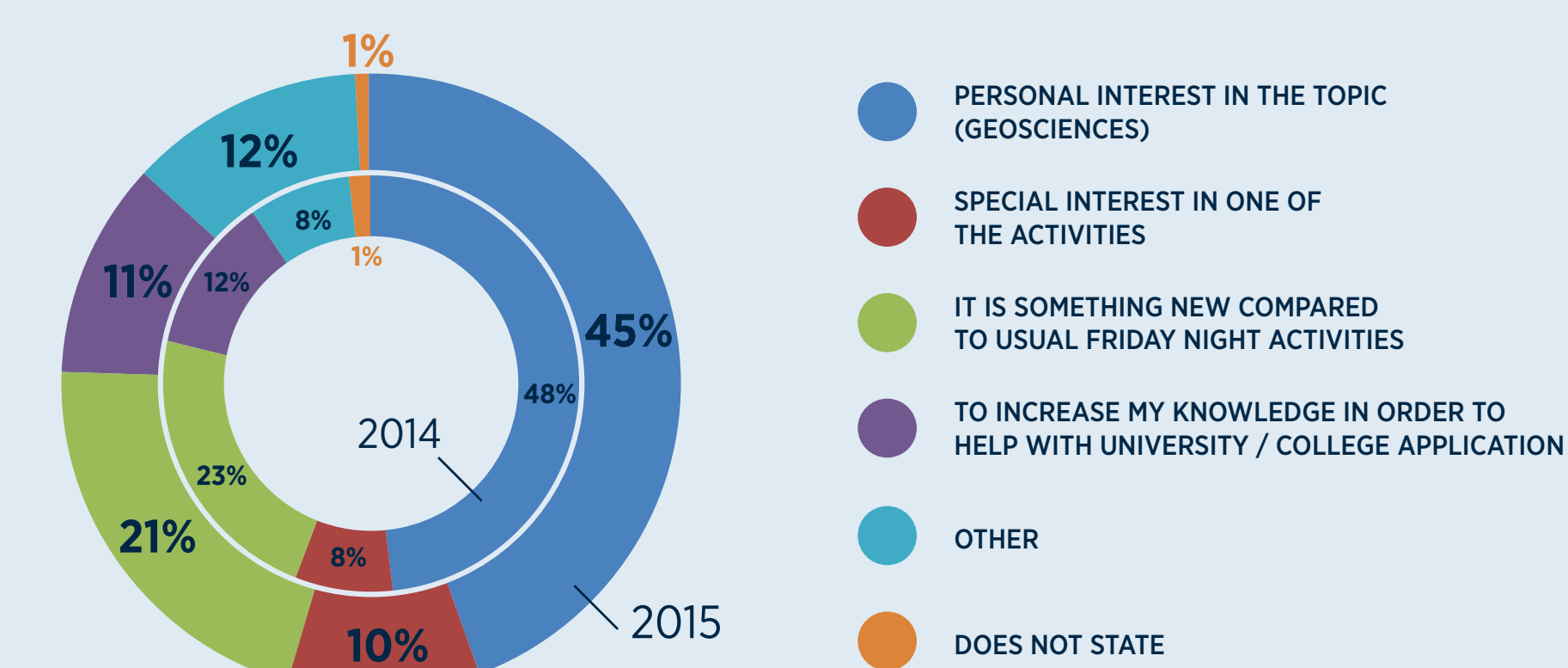
During its four years of EC funding, the geographical coverage of Volcanoes' Night expanded substantially from a **single location in 2012** (Fuencaliente de La Palma, Spain) to a **dozen locations in 2015**, mobilizing multiple scientific organizations, researchers, and public authorities for engagement with the public. The last EC-funded project, Volcanoes' Night III, which was organized in 2014 and 2015, engaged approximately **21,000 visitors** through its outreach activities, which included experiments, science cafés, volcano movies, My Day presentations, excursions, science workshops and more.



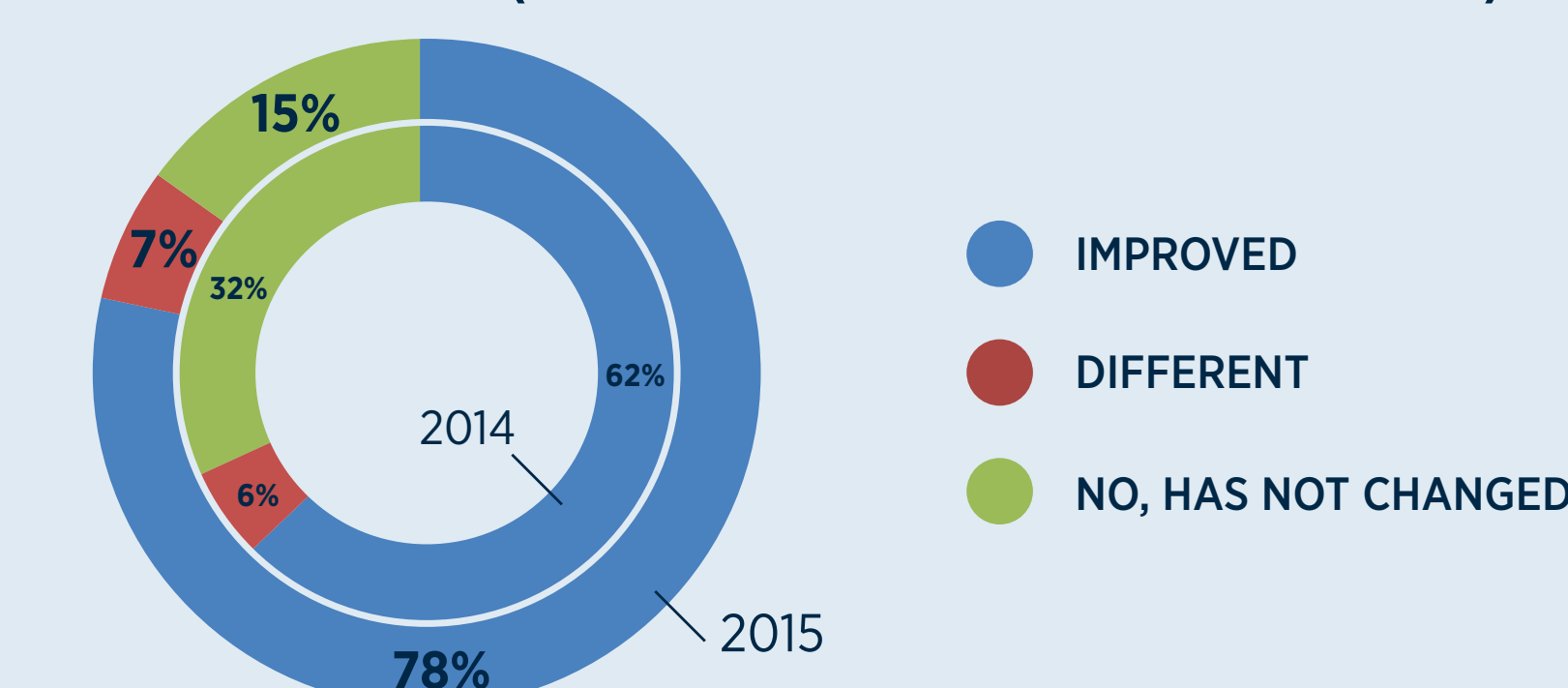
THE TYPICAL VISITOR



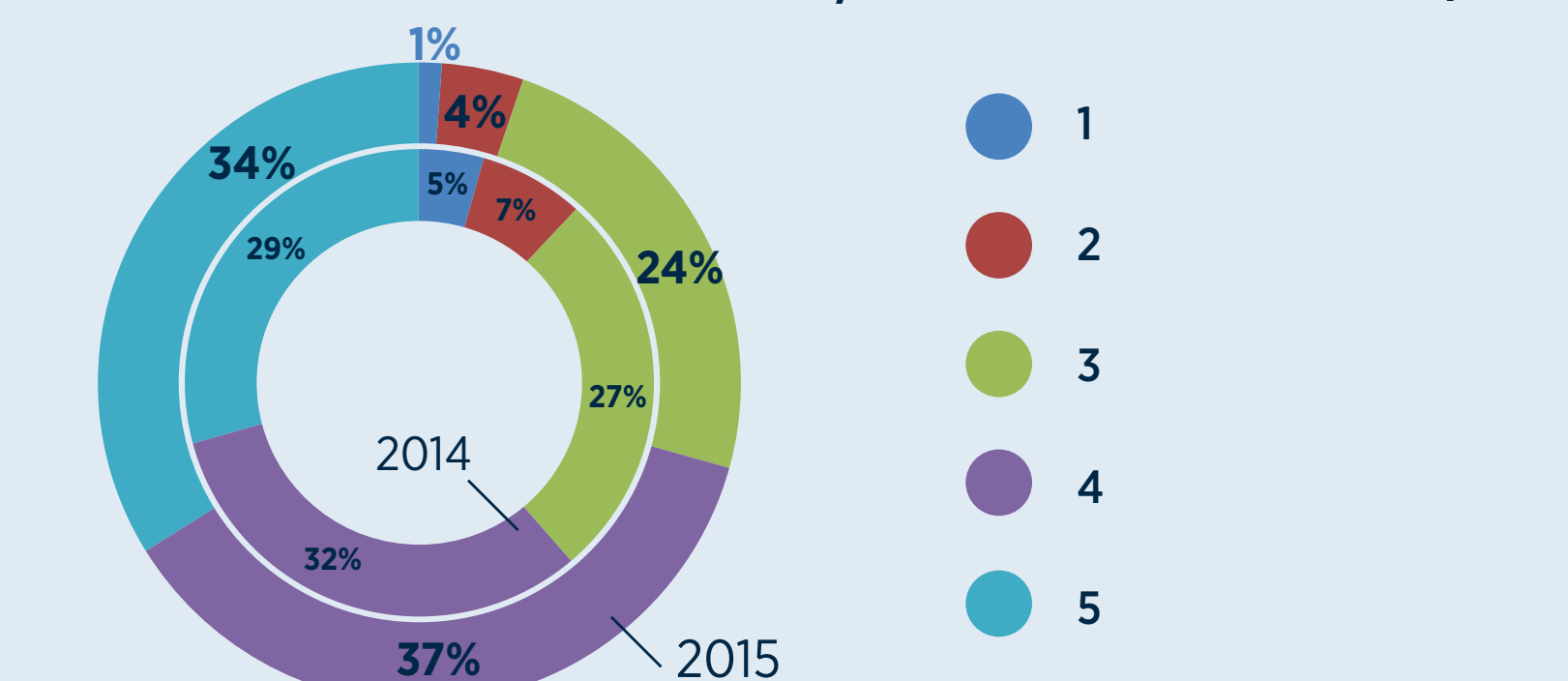
WHY DID YOU DECIDE TO ATTEND?



OPINION CHANGE ABOUT THE WORK OF SCIENTIST (IN % OF THE RESPONDERS)



INCREASED INTEREST ON GEOSCIENCE (1-5) (WHERE 1 = NOT AT ALL, 5 = VERY MUCH)



PUBLIC SUPPORT FOR THE FUTURE

👍👍👍👍👍 86,98%

87.0% of the total responders and 85.6% of those who participated in a Researchers' Night event for the first time found the concept of Volcanoes' Night a useful or very useful scheme to bridge the gap between scientists and the public, marking 4 or 5 on a 1-5 scale.

All studies and reports are available for download from www.nochedevolcanes.es

RECOMMENDATIONS FOR THE FUTURE

EC funding for Noche de Los Volcanes / Volcanoes' Night ended on 1 December 2015. The project is currently in an official 5-year exploitation phase, during which our aim is to maintain information services, promote the organisation of similar events, and widely disseminate the scientific achievements of this project.

Volcanoes Night I-II-III have provided substantial visibility for this initiative and created the much needed links between the (geo)scientific community, the public and decision makers, which is a good basis for the exploitation of results after the EC-funded period.



The following improvements should be considered when organising a similar event in the future:

- **MORE HANDS-ON EXPERIMENTS:** these activities should be designed for direct engagement with the public so that participants can touch the equipment, and they can participate in the experiments as opposed to being mere observers. This could be managed by launching an internal "Call for Experiments" within the participating academic departments and research institutes to select research teams, whose experiments would be suitable to be presented to a greater audience. Young researchers and PhD students, including former and present Marie Curie fellows, could be especially interested in this opportunity of public outreach;
- **FINALISING THE EDUTAINMENT OPTIONS WITH THE AUDIENCE:** it would be desirable to engage with the public early on and the most appealing entertainment options. This is especially important in case of teenagers and children. With the help of community voting tools it should be possible to create an edutainment portfolio that has the highest potential in resulting in a good turnout.
- **MINIMISING SCIENTIFIC TALKS AND PRESENTATIONS:** scientific talks ("charlas") should be kept to a minimum, with the exception of "My Day" presentations, which often raised sufficient interest when they were formulated in a way that that combined science with the personal dimension of the scientist doing the work. Those scientific talks which are included should involve close interaction with the public, for example talks combined with experiments and quizzes and real-time surveys.
- **EXPANDING THE SCOPE WITH OTHER POPULAR SCIENTIFIC AREAS,** such as astronomy or robotics could mobilise a broader public community, who may not be interested in volcanology. Focusing on additional scientific disciplines could also bring in new researchers with fresh ideas and perspectives, and having access to more research facilities that could be of public interest.
- **INTEGRATING SPORTS & OUTDOORS ACTIVITIES AND COMPETITIONS:** sports science utilises core disciplines such as physics, biology and chemistry – including it in the event could add another attractive dimension which could offer a fun interface between researchers and the public which could generate more interest and bolster attendance. Outdoor activities such as excursions could be organised with a focus on family-wide engagement.

HOW TO ORGANIZE YOUR OWN RESEARCHERS NIGHT

WHO

Any legal entity from any Member State or Associated Country or an international European interest organisation can apply for funding.

WHERE

The NIGHT must be developed in the territory of at least one Member State or Associated Country to H2020.

WHEN

The Nights are held every year on the last Friday of September, call for application will be open during the autumn of 2017.