



Project acronym: **VOLCANOES NIGHT III**

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Deliverable 3. Impact Assessment of Volcanoes' Night 2014 (PU) **"Project cycle- 1st reporting period"**

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The objectives of WP3 and this interim report are to assess the impact of the work performed throughout the awareness raising campaign (WP1) and the activities carried out during the Night (WP2) itself, in both quantitative and qualitative terms, and also to enable the successful organisation of Volcanoes' Night in 2015. Success was evaluated against the expectations (organisers, EU, public) with the overall long-term purpose of identifying the types of promotional methods and activities that proved to be the most effective towards the achievements of the project objectives.

Targeted audience of the event

As Volcanoes' Night III. was a regional wide Researchers' Night project, under which events were run in parallel in all the Canary Islands, the widest possible participation of people of all ages were encouraged, however, based on last-year experiences, specific groups of public were anticipated to take part in different activities. The local agendas were designed accordingly in a way that was hoped to facilitate the participation of certain groups (such as families with kids, employees working late-hours etc.). For this reason, fun activities targeting kids and/or families were organised as part of the preparatory actions (e.g. in schools, such in case of La Frontera and Yaiza) and/or during the early afternoon, while the later part of the evening (starting from 21:00) mainly focussed on adults, allowing the participation of late-workers (on the Canary Islands many people work until 20:00 on weekday afternoons).

Primary audience: the focus group included the local Spanish-speaking citizens of La Palma, Tenerife, El Hierro, Lanzarote, and for the first time, the population of La Gomera, Gran Canaria¹ and Fuerteventura. In principle, inhabitants of the seven targeted municipalities (one on each island) and their close vicinity (towns in approx. 30 minutes trip reach from the selected venues) were encouraged to participate in the event. These were namely: Los Canarios, Los Quemados, Las Indias, Mazo, Las Manchas, Puerto Naos, Los Llanos and Santa Cruz in La Palma; Puerto de la Cruz, La Orotava, San Cristobal de la Laguna in Tenerife; La Frontera and Villa de Valverde in El Hierro; Yaiza, Playa Blanca and Puerto del Carmen in Lanzarote, Hermigua, Santa Catalina and San Sebastian en La Gomera, Ingenio, Agüimes and Telde in Gran Canaria, Morro Jable, Jandia, Costa Calma and Pájara in Fuerteventura.

Secondary audience: visitors (mainly Spanish and English speakers) and foreign residents of the above-mentioned regions, and with minor importance, people living in further away from the venue (towns such as El Paso, Tifarufe in La Palma and Arrecife in Lanzarote, Santa Cruz in Tenerife, and Puerto del Rosario in Fuerteventura), which are all still in 45 minutes drive from the event venues.

Tertiary audience: population of mainland Spain and the Spanish speaking community of the world; generally people with special interest towards the topic. This group was targeted on an "informative level" during the awareness campaign.

¹ In Las Palmas de Gran Canaria, for some years, Researchers' Night have been organised as part of Our Future project, organised by C4D-UdG <http://spin.udg.edu/rn13/night/the-researchers-night-2014-in-las-palmas-de-gran-canaria/>

Tasks undertaken under WP3

- Identification of indicators and parameters for assessing the achievement of the objectives;
- Setting up questionnaires and guidelines for interviews conducted prior (online), during (paper) and after the event (by phone);
- Organisation of the collection of answers, on site and in some cases (e.g. teenagers, "core group") before and after the event;
- Data processing and drafting conclusions;

The evaluation methods used for collecting data on the impact of the event were focused on assessing the following:

1. "Best practice conclusions" for future events of the same kind, in particular Volcanoes' Night 2015;
2. Changes in the participants' understanding of the work of geoscientists and the impact of their work on Society – via an on-site survey and phone interviews (extra questions after the event).

Based on previous experiences², and in an attempt to reach the highest number of responses as possible, the evaluation of the night was planned to be based on a short questionnaire (only 2 pages, 10 scale questions) conducted during the event itself. To boost participation, towards the end of the NIGHT (after showing "*Volcanologist around the World*") a lottery was organised at each site³. Furthermore, the most enthusiastic participants (who had taken part in at least three core activities and provided their contact details) were contacted by phone after the event.

- At each event location, visitors were asked to take part in a 10-point questionnaire. As the agendas (the core programme elements) of the venues were almost identical (only the number and type of side and/or extra activities were different), the same survey was conducted at each location, and thus the results were evaluated on a common basis (except for cases when examining differences had importance)⁴. Collection of answers at all locations started around 20:00 (after "My Day" presentations of researchers ended) and continued towards the Science Cafés until the end of the programme. In total, 362 visitors filled in the in-situ survey, which represents 5, 57 % of the total estimated participation (Table 1).
- Those attendees, who participated at least three core activities (out of Excursions, Experiments, "My Day" presentations, Ask a geoscientist, Documentaries, "Science Cafés" "Volcanoes' around the World" and Exhibitions) were contacted for an interview by phone after the event, with an aim to assess how much their knowledge and interest in geology have improved, and also to see what they have learned about the work of geosciences. Altogether 23 people were interviewed this way.

The survey taken during the event focussed on collecting information to assess:

- Typology of visitors (age, gender, educational background and place of residence);

² In 2013, the number of collected answers remained lower than had been anticipated. This was partially caused by long interview times for extra questions. In 2013, 129 questionnaires were collected, which corresponded to app. 3, 25% of the total attendants (app. 4000).

³ Winners (the first 3-5 persons) received gadgets such as INVOLCAN Volcano Calendar 2014/2015, Volcano T-shirt, Documentary DVD.

⁴ Results of Grana Canaria are not representative due to the low number of answers (only 11, approximately 1,57 % of the attendees) collected.

- Initial awareness of people on popular science events, including previous Researchers' Nights;
- Most successful awareness raising methods and motivation for participation;
- Identifying the most interesting programme elements and general satisfaction of visitors (principally with the agenda and the selected locations);
- Attendees' satisfaction with researchers' behaviour (communication, encouragement etc.);⁵
- The initial and possible alteration of participants' opinion, in particular, regarding the public perception of the work of geoscientists;
- To measure any development in interest in geosciences;
- Public support for organising Volcanoes Night in 2015.

Furthermore, the posterior phone interviews left more room for individual expressions and thus served as a tool for collecting qualitative data on the impact of the night, as well as for gathering general comments and suggestions for the continuation of the event.

Description of the current situation

To the knowledge of the project team, prior to 2012, no investigations had been carried out on the public perception of the work geoscientists (at least not in the framework of Researchers Nights, and consequently no statistical information is available for comparison at European level). From this perspective, Volcanoes' Night 2012 (Fuencaliente, La Palma) was a pilot episode in Europe. In 2013, organizers carried out a short pre-event survey (only 5 questions) in order to have an accurate picture on the situation at that time. In total, 479 questionnaires were collected.⁶ Results showed that on the Canary Islands, there is already an existing interest towards the topic of geology and volcanology. Almost two-third (63, 05%) of the repliers scored much (4) or very much (5) on a 1-5 scale on the statement *'to what extent would you say you are interested in geology & volcanology?'* Similarly, the public perception of geoscientists is high, the absolute majority, three quarters of the responders stated that their work is useful for Society (76, 03%). Moreover, in addition to their professional work, 44, 2% of responders believed that geoscientists play important role in contributing to sustainable development or, through the governing ethical standards, their work reflect the importance of social values (32, 99 %). Interestingly, most people (73, 9% of the responders) assumed that key motivation why scientists dedicate themselves to carry out geological research is the urge for exploration of new knowledge, whilst 11, 27% think that most important driver is the push for helping solve social problems.

In addition to this rather broad survey, in 2014 a special effort was made to assess the attitude of teenagers towards science and in particular geosciences. During the first two weeks of June, just before schools closed down for summer, a short online survey of 5 questions had been conducted among secondary school students and high-school graduates, ages of 13 – 19. In total, 221 answers were collected. The majority of the responders was an inhabitant of Tenerife (50, 68 %), Gran Canaria (31, 22 %) living in a small (2 – 10 thousands people) or medium sized town (10 – 50 thousands persons). Girls and boys participated in the survey in almost equivalent numbers (51, 13 % and 48, 87 %).

⁵ Evaluation of researchers' performance was based on the answers of the „Core Group“, altogether 39 people (representing 10, 77 % of the responders).

⁶ The majority of the people, who filled in this pre-questionnaire (females and males in almost equivalent numbers) belonged to the age groups 35-44 (29, 23%), 45-59 (27, 35%) or 25-34 (20, 88 %).

Results show that, only one third of the adolescents were familiar with the initiative of Researchers' Night, and 95 responders from this group stated that they had heard about Volcanoes' Night before having taken part in the survey.

The vast majority, 80, 54 % of the students believed that sciences are important or very important for the development of society (marked four or five on 1-5 scale). At the same time, every second responders (48, 87 %) considered that the work of scientists useful for society, while 37, 10 % deemed that their work primarily fascinating. Only 26 adolescents (11, 76%) had a negative attitude towards their work, positioned it as boring or stated that (s)he is not interested the topic.

Less than half (43, 89 %) of the teens thought that (s)he possessed sufficient (4) (or very sufficient = 5) level of information and stimulation in his/her background to apply for a scientific career at university. Yet, only every fifth of the scholars found geosciences attractive enough (scored four or five on 1-5 scale) to consider choosing a profession of this field.

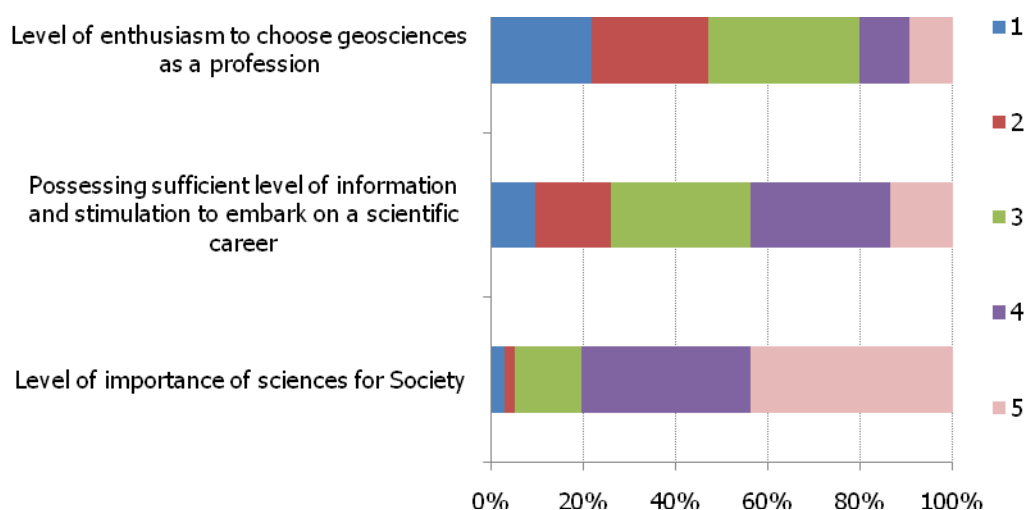


Diagram 1: Results of the pre-event survey (Total = 221; Where 1 = not at all, 5 = very much)

In order to see the situation as clearly as possible, and to maximise the understanding what kind of problems teenagers may face when deciding to apply for a scientific career at university, a short survey was conducted⁷ among secondary and high school teachers to see their opinion on this matter. In total 18 teachers answered (13 women and 5 men, ages of 34 – 59, teaching biology, natural sciences, physics, chemistry and technology). 8 of them had never heard about Researchers' Night neither Volcanoes' Night before participating in the survey. 11 teachers considered that the current curricula of secondary and high schools only little or moderately (marked two or three on a 1-5 scale) encourage students to opt for a research career. At the same time, only 6 of them stated the current social and economic situation has a great (4) or very much (5) influence on students when making a scientific career choice. 11 teachers believed that students are fairly (scale 3) interested in sciences', all while 14 of them stated that students not at all (scale 1)/little (scale 2) or only moderately (scale 3) understand that importance of science in our everyday life.

⁷ The survey was conducted online, in June, together with the student questionnaire.

Evaluation of facts & figures

Media evaluation

Volcanoes' Night III. was the third distinct Researchers' Night project on the Canary Islands, and the very first event of its kind targeting the whole region, all the seven islands of the Canary archipelago. Consequently, efforts were used to raise the awareness of the regional media. Short project notices indicating the date, locations and the main programme elements were placed in regional online and offline magazines and on *Planeta Vivo Radio* already starting from middle of June. The highest media attention of course was reached in September (during the last three weeks before, and a week right after the event), when a series of press releases, articles, radio and TV interviews were published or projected. In total:

- approximately 100 notices in regional and local online and offline magazines;
- around 20 banners published on collaborators website;
- 5 264 hints on project website (unique visitors);
- 211 likes on Facebook;
- 73 tweets;
- 13 radio announcements on Planeta Vivo Radio (on Sundays between 01 June and 21 September);
- 35 radio interviews/talks about the projects with project organisers & participating scientists on Radio Cadena SER, Cadena COPE, Candena ECCA and on Radio Televisión Canaria (RTVC) etc.;
- 14 major printed articles in local and regional newspapers such as: Diario de Avisos, El Día, El Apuron, Canarias 7, La Provincia etc.;
- 9 announcements/feedback on national/regional TV before and after the event;
- 10 big road banners;
- 675 posters and 16 000 flyers, and 14 500 detailed agenda were distributed.

This awareness campaign estimated to have reached virtually the entire population of the region (2 million people).



Examples of promotional material and media appearance (La Palma)

For more details on the awareness raising campaign and means of promotion used, please see D1.

Number of collaborators and sponsorship

In order to facilitate project implementation, and also to be as cost efficient as possible, project partners took all potential efforts to gain sponsorship (including in-kind contributions) for the event, and at the same time, raise awareness about the project. Work under this domain started already during the negotiation stage (from the middle of May). Among others, organisers got in touch with the Canary Islands Government, the governing bodies of all islands (Cabildos), research and professional associations, and last but not least local players such as shops and restaurants etc. Series of emails summarising the project objectives were sent out, and as a consequence, several local meetings were held in each island (with different Cabildos, Municipalities, bars and restaurants among others). In total, 35 different entities contributed directly or indirectly (e.g. by providing free or discounted service) to the implementation of the project. Detailed list of collaborators are available on the project website.⁸

Web statistics

During the awareness campaign, the project website constantly served as a reference point and thus was always referred to in all promotional actions. As a result, during the last two weeks prior to the event (15-30 of September), 3499 visits were realised, and people visited 11 633 pages. Geographical and language data show well-balanced results in reaching the different target groups. 93, 97 % of the visits were realised from Spain, though the site also attracted visitors from other European states, so as well from different countries of South-America and the U.S.

Social Media

In order to maximise the visibility of the project, similarly to past years, the popular Facebook site of INVOLCAN/ITER (over 18 000 followers from all over the world) was used to promote the event. Throughout the summer, regular entries and event related news were published. As a result, news on the projects created 10 000 interactions, received 211 likes and 73 tweets. In addition, 73 7000 search results were realised in Google for: *"la+noche+de+los+volcanes"*.

Number of participants & competition entries

Qualitatively, in total (together with side events and exhibitions), approximately 6500 people estimated to participate at the event at 8 locations as follows:

1. Fuencaliente, La Palma: 600 visitors;
2. Puerto de la Cruz, Tenerife: 3000 visitors;
3. La Frontera, El Hierro: 300 visitors;
4. Yaiza, Lanzarote: 300 visitors;
5. Hermigua, La Gomera: 400 visitors;
6. Ingenio, Gran Canaria: 700 visitors;

⁸ This number does not include individual (mainly foreign) researchers taking part in the "Scientific Poster sessions" (44 persons).

7. Pájara, Fuerteventura: 1000 visitors;
8. Almagro, Ciudad Real: 250 visitors.

Drawing competitions: 891 drawings from 19 schools;

Writing competitions: 98 entries from 7 schools.

For more details on the number of participants/activities please see D 2.

Material exhibited

As all the events venues are located in an outermost region, materials providing information about research and educational possibilities & programmes offered by the EU, as well as exhibitions presenting success of national and regional projects supported from European sources had a special importance. In total, 20 different types of European publications were displayed in Spanish (some copies in German and in English as well), each of them, depending on the location, in dozens & hundreds of copies. Furthermore, 10-55 different scientific project posters were presented.

Detailed statistical analysis of the on-site survey

Typology of visitors

The analysis is based on 362 questionnaires (5, 57 % of the total estimated participation) collected in-situ as follows:

Venue	Number of responders	% of local attendees
La Palma	41	6,83
Tenerife	141	4,70
El Hierro	35	11,67
Lanzarote	42	14,00
La Gomera	32	8,00
Gran Canaria	11	1,57 ⁹
Fuerteventura	60	6,00
Total	362	5,57

Table 1: number of collected questionnaires by sites.

Results of the on-site survey show that, similarly to the past years, there was no significant difference between the participation ratio of genders. Men and women were equally interested and took part in the event (as an overall figure: males 48, 82 %, females 51, 18 % of the responders¹⁰). There was, however, slight surplus in favour of women in all venues (52,38 – 60 % of the local responders) except for Tenerife and El Hierro, where men presented in little majority (both locations 53,33 % of the local responses).

Age distribution of participants was, however, much more diverse and results show¹¹ significant differences among the different locations. The participation of the youngest (< 14 ages – primary school students) was the highest in La Gomera and Las Palma (15, 63 % and 9, 76 % of the local responders), all while teenagers represented the majority of the participants in Tenerife (26, 67 % of the local responders). On the other hand, it is highly notable that participation ratio of the younger generation remained somewhat low, consequently the majority of the responders in the two most “rural” locations (Fuencaliente in La Palma and El Hierro) belonged to the age groups of 45-59 (29, 27 % and 41, 18 %) or were over 60 years old (17, 07 % and 17, 67 %). This figure must be improved in 2015, e.g. by the direct involvement of primary and secondary schools (even if situated in other locations than the main venue).

Similarly to past years, a considerable variance was, however, identified in the educational background (*highest educational attainment*) of the participants. Although, the event primarily promoted the involvement of locals of all age groups, regardless their scientific background (and this message was stated several times throughout the awareness raising campaign), on all islands the majority of the responders (46, 47 % as an overall figure) had a university degree. Yet this figure is lower than last year, when the vast majority of the total responders (59, 69 %) marked university as the highest educational attainment. Again, there were disparities among the different venue locations. The ratio of participants with university

⁹ Results of Grana Canaria are not representative due to the low number of answers collected.

¹⁰ Figures based on 340 responses, representing 93, 92% of the total responders.

¹¹ Evaluation is based on 352 answers, representing 97, 24 % of the total responders.

degree were highest in El Hierro and La Palma (56, 25 % and 52, 63 % of the local responses), all while in two newly involved venue locations (where Volcanoes' Night were first organised this year), namely in the island of La Gomera and Fuerteventura the division of the attendees' educational background were the most well balanced (Diagram 2).

As for the nature of the event, the night was characterised as a family programme. Every second participant attended with family members (50, 93 % of the responses, as an overall figure¹²), except for El Hierro and Tenerife, where people were rather accompanied by friends (Diagram 3).

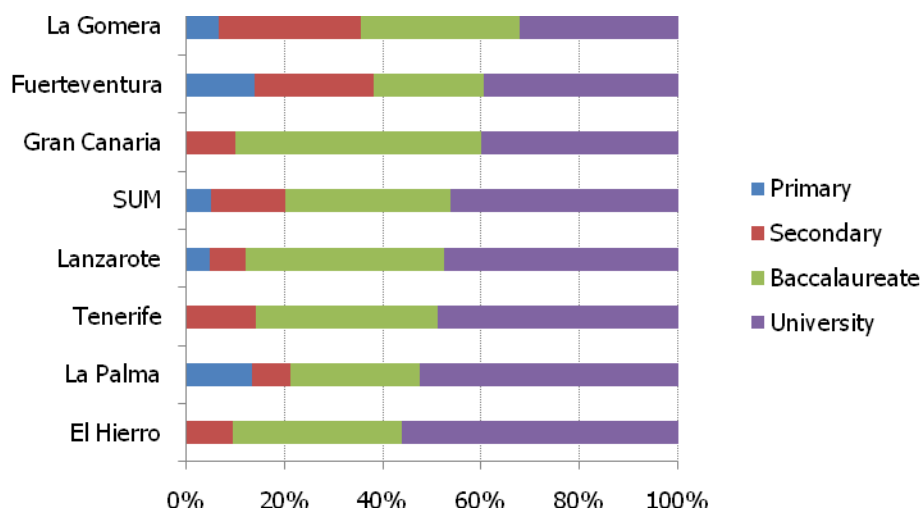


Diagram 2: Highest educational attainment of responders (SUM total = 340 responses)

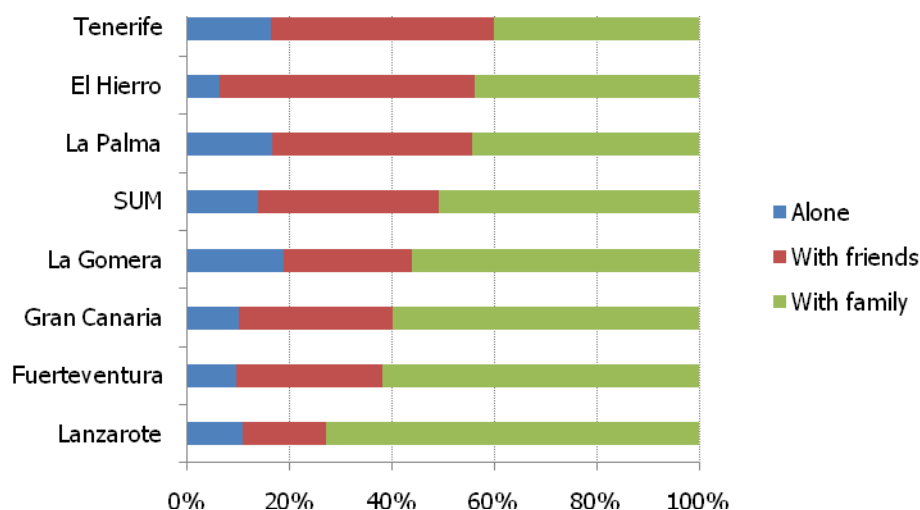


Diagram 3: "I came..." (SUM total = 216 responses)

¹² Evaluation is based on 216 answers, representing 59, 67 % of the total responders.

In line with the settlement structure of the islands¹³, the majority of the attendees were residents of a small (< 10 thousands people, 49, 4 % of the total responders) or medium sized (10-50 thousands, 34, 34 %) towns. "Outsiders" (visitors from exterior the venue towns) mainly came from neighbouring towns such as Valverde in case of El Hierro, Los Llanos, El Paso and Santa Cruz in case of La Palma, and Arrecife in case of Lanzarote.

To sum it up, a typical Volcanoes' Night III participant was over 35 years old (61,08 %), who lives in a small (less than 10 thousands of inhabitants: 49, 4 %) or medium sized (10-50 thousand residents: 34,34 %) town, has a university degree (46,47 %), having had an initial personal interest towards the topic before participating (48, 03 %¹⁴), and attended a Researcher's Night event for the very first time (82, 78% of the total responders¹⁵).

Reasons for participation and most successful awareness raising methods

Similarly to last year, responders claimed "*personal interest in geosciences*" (58, 65 %) and the novel feature of the event (22, 57 %) as the key motivation factors for their involvement. The rest of the participants attended "*to increase his/her knowledge*" in order to help with future studies (12,34 %) or were especially interested in one of the programme elements such as activities organised for kids, telescopic observation, wine tasting or one of the talks (7, 87 %). Among those, who marked "*Other reason*" as a rationale for participation (7, 87 %) the main reason for attending was to accompany relatives (kids, nieces etc.) or in case of Puerto de la Cruz causality (passing by). The novelty of the event was especially considerable in the island of Fuerteventura and Tenerife (30, 65 % and 27,21 %), while in La Gomera 26, 47 % of the local responders considered their attendance as a good opportunity to increase his/her knowledge of the field (Diagram 4).

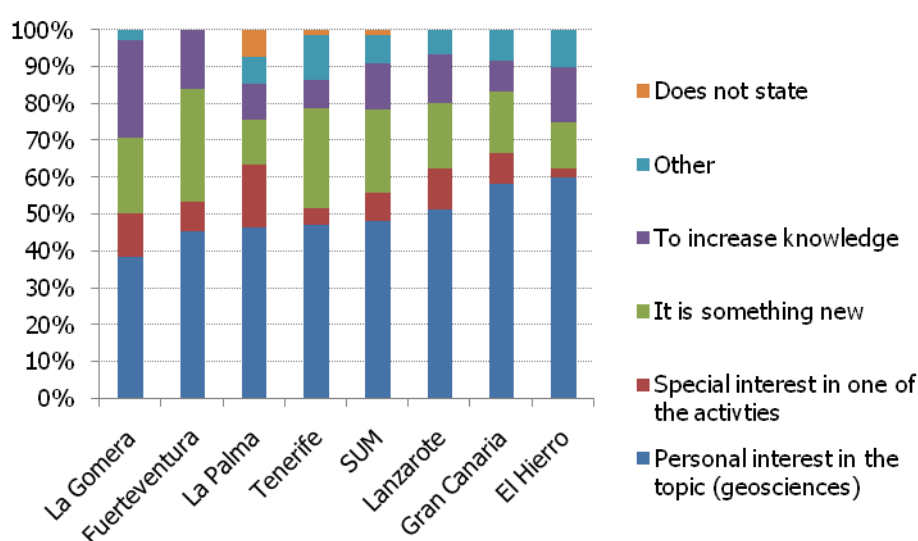


Diagram 4: Reasons for participation (Sum total = 381 responses)

Concerning the awareness raising methods, results¹⁶ show that the common way of local advertising (fiestas and other events are normally and principally advertised via posters and leaflets, especially in rather rural locations such as Fuencaliente, La Frontera and Hermigua)

¹³ In the region, the population of all municipalities but the two capitals (Las Palmas and Santa Cruz de Tenerife) and San Cristobal de la Laguna is below 100 thousands inhabitants.

¹⁴ Total = 381 responses.

¹⁵ Evaluation is based on 360 answers, representing 99, 45 % of the total responders.

¹⁶ Total = 418 responses.

played the most important role in reaching the audience. As an average (overall figure for all venues), every fifth of the attendees received information about the event for the first time via posters and leaflets distributed in public places such as libraries, bus stations, bars and restaurants, tourist offices etc. (21, 53 % of the total responses, a very similar figure of 2013 – 18,57 %). Spreading the word through personal contacts (“chitchatting”) also raised a great awareness towards the upcoming event and increased the number of attendees on all islands (as an average figure 17, 46 % of the responders heard about the night from friends and/or family members – a bit less than 2013 – 23,57 %). As third, alternative channels such as direct emails, pre-event questionnaires, through work etc. proved to be helpful in reaching the inhabitants (12,92 %).

In 2014, the first three most effective means of promotion (overall level) remained the same as past years (yet again their order have changed): 1) Posters/flyers, 2) through Family/friends and other alternative personal channels and 3) Facebook (11,48 % of the total responses, less than half of the figure of 2013 – 26,43 %).

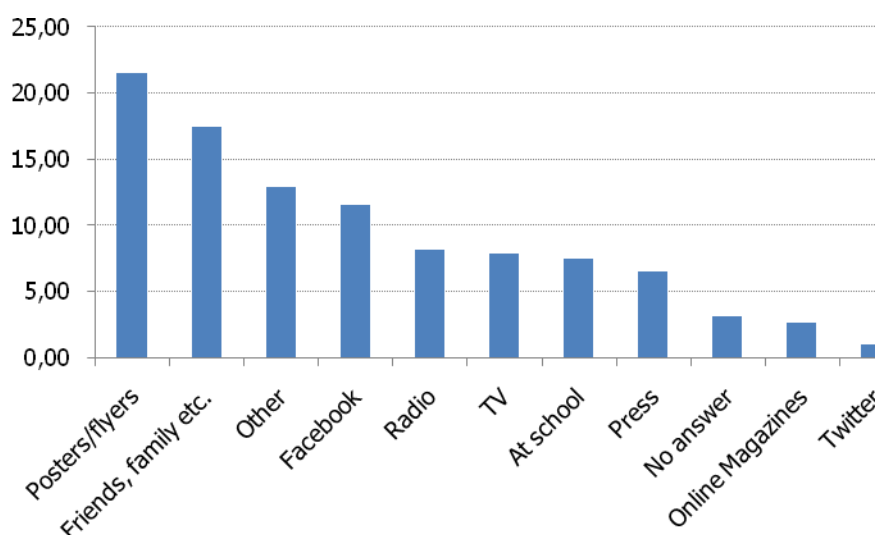


Diagram 5: From where did you first hear about Volcanoes' Night III.?¹⁷

Naturally, the importance of different promotional methods varied from venue to venue. On smaller islands interviews and ads broadcasted through the radio (national, regional and local channels) turned out to be a very useful way of promotion. In the islands of La Palma, El Hierro and Fuerteventura around tenth of the attendees (10, 29 – 13, 21% of the local responders) heard about the event for the first time on the radio. In addition, in Fuerteventura the role of television was significantly high in reaching the public (13, 24 % of the local responders). Table 2 summarises the most useful means of promotion at a venue level.

¹⁷ 3, 11 % of the repliers did not answer the question.

	I.	II.	III.
La Palma	Posters/flyers	Press	Radio
Tenerife	Posters/flyers	Other	Family/friends
El Hierro	Posters/flyers	Family/friends & Facebook	Radio
Lanzarote	Posters/flyers	Family/friends	TV & Facebook & At school
La Gomera	Family/friends	At school	Press & Posters/flyers
Gran Canaria	Facebook	Family/friends	Other
Fuerteventura	Family/friends	TV	Other
SUM	Posters/flyers	Family/friends	Other

Table 2: Most successful means of promotion.

Most popular programme elements and satisfaction of visitors

Unlike past years, when around a third of the responders (28, 68 %¹⁸) participated in five or more programme elements, in 2014¹⁹, the majority of the visitors, except for La Palma, only attended few activities. As an overall figure 57, 35 % of the total responders only took part in one or two programme elements, and only 11, 47 % in five or more. In La Palma, every third person (29, 27 %) was present at more than five actions.

Out of the core activities²⁰, the mostly visited actions were (overall figure for all venues):

	2013	% of the responders	2014	% of the responders
I.	Documentaries	46,51	Documentaries	48,24
II.	Exhibitions	44,96	Ask a geoscientist	26,76
III.	Ask a geoscientist	35,66	Exhibitions	28,88
IV.	"My day" presentations	22,36	Volcanoes' around the World	22,65

Table 3: Most visited activities 2013 and 2014.

¹⁸ 2013. Figure are based on 129 responses, representing 3, 65 % of the total attendees (approx. 3500 – 3800 people).

¹⁹ Evaluation is based on 340 answers, representing 93, 92 % of the total responders.

²⁰ Excursions, Experiments, „My Day“ presentations, Ask a geoscientist, Documentaries, „Science Café“, Volcanoes' around the World and Exhibitions.

Certainly, there were slight differences among the different locations. Table 4 lists the three most visited activities for each island.

	I.	II.	III.
La Palma	Volcanoes' around the World	Documentaries	Ask a geoscientist
Tenerife	Documentaries	Exhibitions	Volcanoes' around the World
El Hierro	Documentaries	Ask a geoscientist	Exhibitions
Lanzarote	Documentaries	Exhibitions	Ask a geoscientist
La Gomera	Documentaries	Ask a geoscientist	Volcanoes' around the World & Excursions
Gran Canaria	Documentaries & Ask a geoscientist	Exhibitions	Volcanoes' around the World & "My Day" presentations
Fuerteventura	Ask a geoscientist	Documentaries	"My Day" presentations
SUM	Documentaries	Ask a geoscientist	Exhibitions

Table 4: Most visited activities (venue level, 2014).

Besides the core programme, Live Concert and various cultural activities were organised to maintain the interest of the audience. Around every third and every fifth person took part in these leisure activities.

Among the various side activities, the most visited were: Telescopic Observation in the island of Lanzarote (61, 54 % of the local responders attended) and the Wine Tasting organised in Tenerife (21, 54 % of the survey repliers participated).

The majority of the participants found the offered programme satisfactory. The overall contentment with the activities²¹ was fairly high at all locations (as an overall figure 81, 44 % of the survey responders declared his/her opinion as completely satisfactory or satisfactory: 5 or 4 on a 1-5 scale). In general, visitors were also rather satisfied with the selected locations and the schedule of the activities (4-5 = 77, 46 % of the responses)²², however, personal interaction with participants and comments show that the schedule of some activities made it difficult to attend by some people (e.g. was in conflict with working hours/or too late etc.).

²¹ Evaluation is based on 361 answers, representing 99,72% of the total responders

²² Evaluation is based on 355 answers, representing 98,07% of the total responders

According to survey results, participants found the programme so as well the location & schedule of the activities the most satisfactory in the island of Fuerteventura (90% and 88, 33 % of the local responses)²³.

The level of satisfaction with researchers' performance, similarly to last year, was measured based on the feedback of those repliers, who participated in at least 3 core activities (out of *Excursions, Experiments, "My Day" presentations, Ask a geoscientist, Documentaries, "Science Café", Volcanoes' around the World and Exhibitions*), in total 39 people, 10, 77 % of the total responses).

Around a three-quarter (76, 32 %) of this "core group" were very satisfied (scale 5) or satisfied (scale 4) with how much scientists encouraged the involvement of the participants during their performance. The very same proportion considered that the proposed activities helped them a great scale (4-5) to understand geological science better. 81, 58 % found the way how scientists communicated (using a simple but comprehensible language) very satisfactory (5) or satisfactory (4). These figures are somewhat lower than the ones related for the same topic in 2013. Last year, 92, 31 % of the "core group"²⁴ marked 4 or 5 on the way how scientists communicated (which was a significant, 28, 02 % increment compared to the first year event, 2012). Similarly, in 2013, 83, 08% of the mentioned group scored 4 or 5 on the question how much the researchers encouraged the participation of the audience (which was considerable improvement compared to 2012, when only 57,14 % of a similar group voted for 4 or 5).

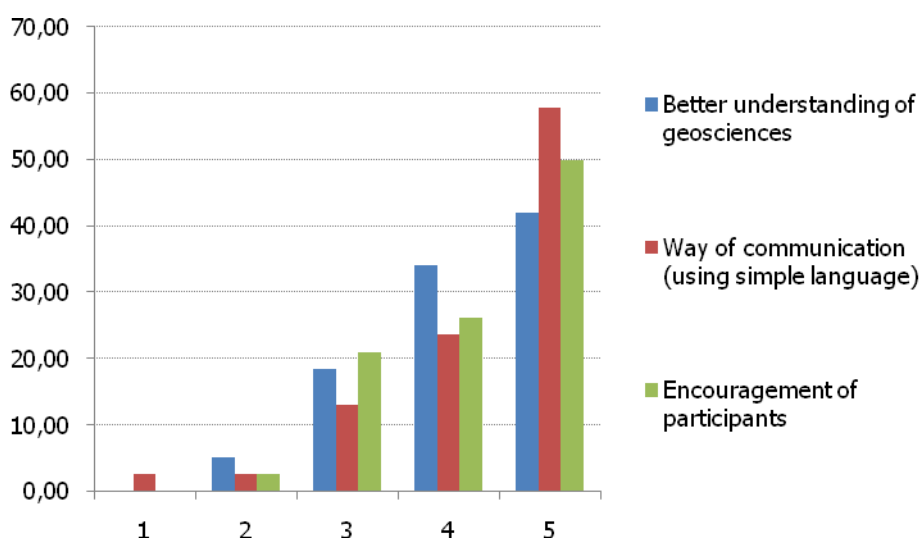


Diagram 6: Level of satisfaction with researchers' performance (question number 7 of the on-site survey).

Impact of the NIGHT on public's opinion regarding the topic and the perception of geoscientists

Almost two-third (61, 85 %) of the survey responders²⁵ declared that his/her initial belief about the work of geoscientists has improved or has changed (e.g. by being better informed

²³ Based on 60 answers, 100 % of the local questionnaires.

²⁴ Attendees, who participated in at least 3 core activities (out of *Excursions, My day presentations, Ask a Scientist, Documentaries, Volcanoes' Around the World*; in total half of the responders, 65 person were asked.

²⁵ Evaluation is based on 325 answers, representing 89, 78 % of the total responders.

about their job, 6, 15%) after participating at the event.²⁶ In this regard, the impact of the night was the most visible in Fuerteventura, La Palma and Lanzarote were around three-quarter of the responders marked improvement his/her opinion (Diagram 7).

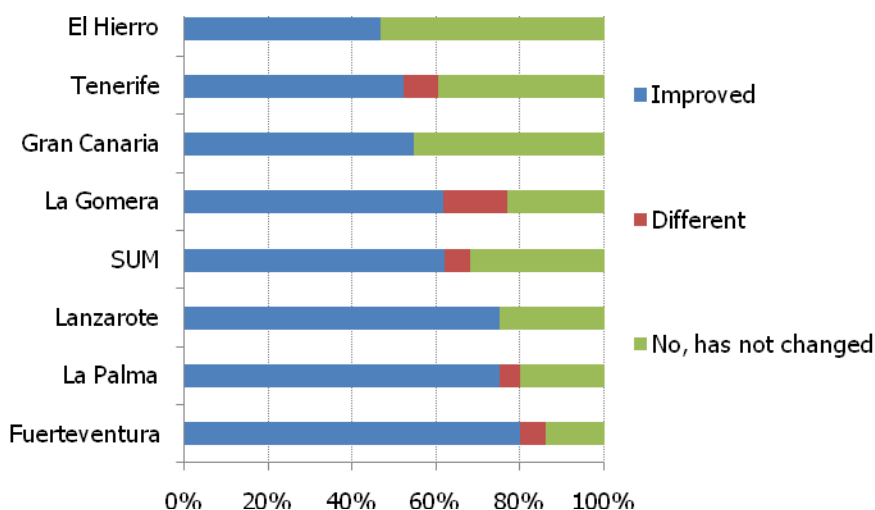


Diagram 7: "Has your opinion on the work of geoscientists changed after participating at the event?" (question number 8)

To the question (number 6) "To what extent would you say that your participation at Volcanoes Night III. has developed your interest in geosciences and volcanology", around two-third of the survey responders (61, 47%) stated that that much (4) or very much (5).²⁷ Again the impact of the event was exceptional on the island of Fuerteventura, where, 80, 77 % of the repliers has developed his/her interest in the topic with a great scale (4-5).

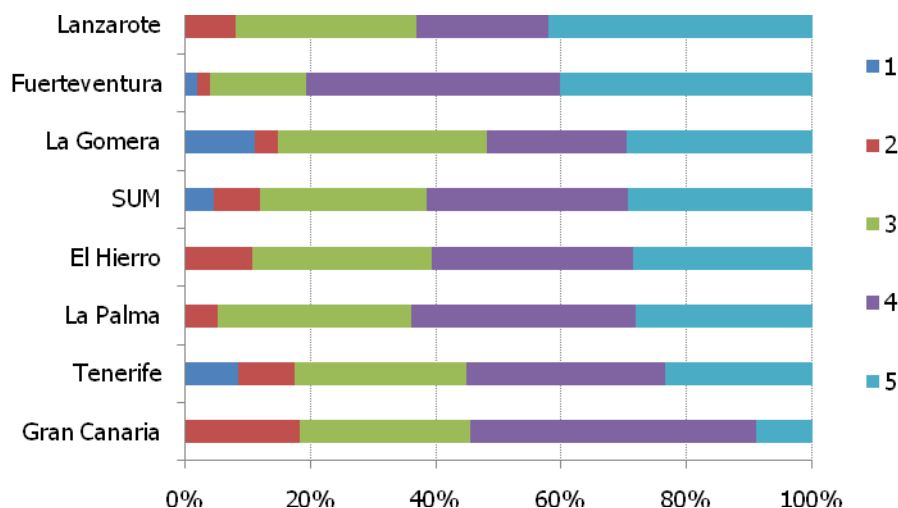


Diagram 8: "To what extent would you say that your participation at Volcanoes Night III. has developed your interest in geosciences and volcanology" (question number 6)

²⁶ These figures are almost identical to the results of 2013 (56, 59 % and 6, 2 %).

²⁷ 327 answers (representing 90, 33 % of the total responses).

Public support of such popular science events in the future

As part of the in-situ survey organisers consulted the participants if they had ever participated or had heard about this initiative before attending the event. Results show that for 82, 78 % of the total survey participants²⁸, attending Volcanoes' Night III. was the first time to participate in a Researchers' Night event, even though more than one third (36, 58 %) of this group already heard about the initiative before. Not surprisingly, there was remarkable difference in between the awareness level of inhabitants of different islands, where Volcanoes' Night had been or not yet been organised in previous years. Results clearly show, that people of La Palma, where Volcanoes' Night had been celebrated three times (since 2012), were the best informed about the Researchers' Night. There, only one third of the responders (31, 71 %) stated that (s)he heard about the initiative for the first time; and every third of the repliers (31,071 %) had already been participated an event before, the majority in Fuencaliente in previous years.). The residents of Tenerife, El Hierro and Lanzarote, where Volcanoes Night II. was organised in 2013, were also better informed (40 - 59, 52 %) about Researchers Night, compared to new the locations, where the vast majority of the attendees (La Gomera = 67, 74 % of the responders, Fuerteventura = 62, 71% of the survey participants) had never heard about the initiative before (Diagram 9).

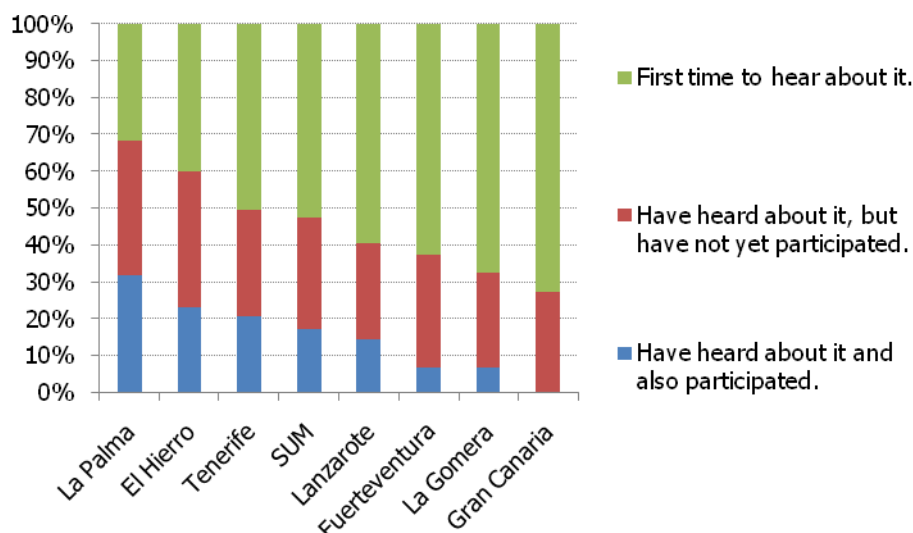


Diagram 9: Have you heard about Researchers' Night before?

Very similar ratio of the attendees (83, 84 % of the responders in 2014, 84, 5 % in 2013) and of those, who for the first time participated in a Researchers' Night event (83, 39 % in 2014 and 86, 44% in 2013) found the concept of Volcanoes' Night a useful or very useful scheme to bridge the gap between scientists and the public (marked 4 or 5 on 1-5 scale).²⁹ Finally yet importantly, seven but one person would recommend to other people to attend a similar event in the future.³⁰

²⁸ Figures are based on 360 responses, which represents 99, 45 % of the survey participants.

²⁹ Evaluation is based on 328 answers, which represents 90 61 % of the survey responses.

³⁰ Total = 332; 91,71 % of the responders.

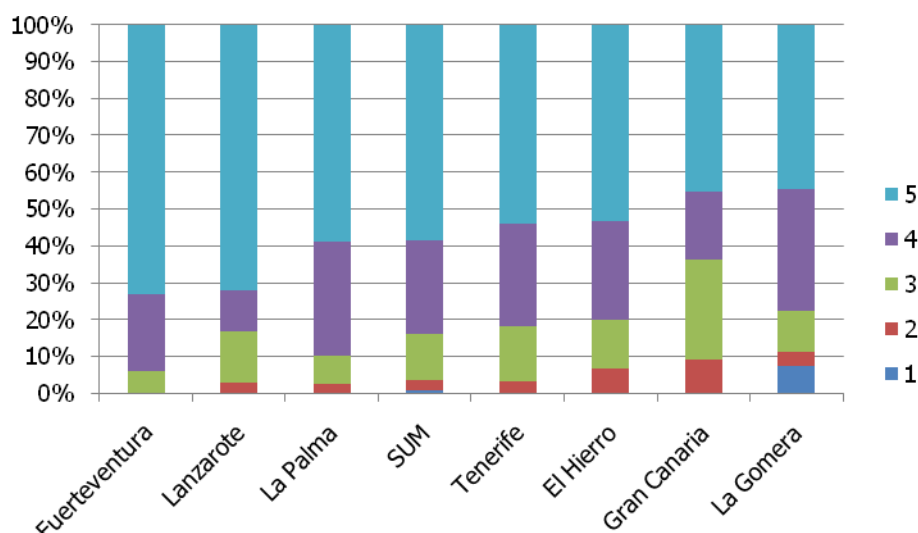


Diagram 10: "Do you find the concept of Volcanoes' Night useful?" (where 5 = 'completely' and 1 = 'not at all')

Evaluation of phone interviews with the "Core Group"

In order to better measure the impact of the event, especially regarding public understanding and acceptance of geosciences as well as the work of geoscientists, the most enthusiastic participants (who had taken part at least 3 core activities and provided their contact details) were interviewed via phone calls after the event. During the interviews participants were asked open questions leaving room for individual explanations, and for suggestions for improvement for Volcanoes' Night 2015. As a whole, 23 people took part in the interview (representing 6, 35 % of the total survey responders).³¹

Over three-quarter of the interviewees (19 persons) stated that after participating at Volcanoes' Night III. (s)he feels more (4 on a scale 1-5) or much more (5 on a scale 1-5) capable to take part in discussions about geoscientific issues. To the question "*What new did you learn about geosciences?*" most people mentioned that (s)he had learned a lot about the surrounding environment, the history of their island and about risk prevention. Investigation related to energy production and volcanic risk prevention was repeatedly mentioned in connection with the importance of geosciences and concerning the benefits that geoscientists could bring to society.

Some of the quotations without being exhaustive:

"What new did you learn about geosciences?"

"I learned things about the creation of the island of Fuerteventura that I did not know about." – J. M. Suarez, Fuerteventura.

"I've realized how advanced this science is and I learned how seismic risks are analyzed by volcanologists". – F.J. Garcia, La Palma.

³¹ Out of the 39 persons ("core group") 5 people did not want to take part in the interview, 6 numbers were wrongly indicated/did not exist while 5 numbers never answered the calls.

"I learned how scientists measure gazes; I learned a lot from the posters that were in the room and from the explanations of the speakers". – J. A. Delgado, Los Llanos, La Palma.

"I am Italian and did not know much about the island of Hierro, I really discovered a world that did not know about." – M. Beretta, El Hierro.

"I have learned many things about the island of Tenerife, especially on prevention, the value of the scientists, the history of the island and what can happen in the future." – V. R. Fernandez, Tenerife.

"I learned many details on how volcanoes are formed, and what to do in case of an emergency. I liked the participation of the students in lectures." – P. B., Tenerife.

"Everything was new for me, I loved the astronomy part with the laser. The explanation on conservation of ecosystems was amazing." – D. F. Salas, Lanzarote.

"I learned a lot about the ocean bottom, there was a lot of information that I did not know, it was interesting to see the volcanoes from the point of view of volcanologists." – M. Sanchez, Fuerteventura.

Can you think of any ways geology & volcanology can make our lives better? How?

"Yes, by doing research on energy production by volcanoes, and bring us knowledge about our geographical environment." – F. P., Fuerteventura.

"Yes, to determine how the power of volcanoes can be useful." – F. Munoz, Lanzarote.

Has the NIGHT made you think about the role or importance of geoscientists further?/Please name a few key benefits geoscientists bring to society.

"Of course, thanks to them we are more protected because it's them who have the knowledge." – C. Jordan, Tenerife.

"Yes, they can ensure prevention and help us to know our land better." – J. M. Cabrera, Tenerife.

"Yes, pretty much, it is more important than we think, especially on issues of security, and to inform people of the importance of knowing the land in which we live, the land of volcanoes." – O.D. Santos Medina, La Gomera.

"Yes, the results can be applied to daily life like for the prevention of risks, for example." – F. P., Fuerteventura.

"...their studies can be applied to the fields of building and exploitation of natural resources." – E. Gonzalez Franco, Tenerife.

As a whole, all of the interviewed persons were very positive about the event and found his/her participation well-worthy, and would offer to other people to attend a similar event in the future. Concerning the ways to improve next years activities, the following comments and suggestions were mentioned frequently:

- Better and more timely advertising; programme should be distributed well in advance prior the event;
- More compact programme so that one does not need to choose in between different activities;
- Involvement of local schools for the organisation of competitions, pre-activities related to the topic throughout the year;
- More interactive programme elements and activities requiring the direct involvement of the audience (children and adults as well);
- More science equipment and tools to be presented.