

Marie Skłodowska-Curie: **an inspiration to follow** Marie Skłodowska-Curie: **sledimo navdihu**



EUROPEAN RESEARCHERS' NIGHT

REPORT ON IMPACT ASSESSMENT

Branko Lobnikar¹, Boštjan Slak, Karmen Jereb, Urška Pirnat, Kaja Prislan
University of Maribor

Faculty of Criminal Justice and Security

Maribor, Slovenia, November 2018

 $^{^{\}rm 1}$ Lead researcher of WP3 program. Contact: branko.lobnikar@fvv.uni-mb.si



Marie Skłodowska-Curie: an inspiration to follow



EXECUTIVE SUMMARY

Report on impact assessment is a part of European Researchers' Night (ERN) project and consists of two surveys, i.e. Survey on the image of the researchers and Visitors' satisfaction survey of the European researchers' night event, carried out with the purpose of evaluating people's perceptions about researchers and science in Slovenia, as well as their satisfaction with the ERN events. In the first study, we assessed the public image of researchers and attitudes to science among the general public and among visitors of ERN. The results showed that respondents perceive Slovenian researchers as respected and respectful professionals, who are useful for society, organised, reasonable and future-oriented. Moreover, they believe that the most important attributes which should be represented among scientists are honesty, integrity and usefulness for society. Comparison between the samples showed that the actual characteristics were more positively evaluated among respondents after the ERN event. The analysis of attitudes toward technical and social sciences showed that people believe both have a positive effect on society, while majority of respondents are interested in the results that science produces. The second study which was also carried out among visitors of ERN event showed that the respondents were satisfied with the event and believe that the main purpose of such events is to promote a job of a researcher in general public. Consistently with these findings, the majority of them said that they would choose a profession of a researcher, which implies that people recognize the opportunities in science and respect the profession of a researcher.

I. SURVEY ON THE IMAGE OF RESEARCHERS

a. DESCRIPTION OF METHODOLOGY, INSTRUMENT AND SAMPLE

For the purposes of our study, which was to evaluate public perceptions about researchers and science on general, we created a questionnaire with several content categories. The questionnaire was a result of a review of past work at previous ERN events (2009-2017), and analysis of the available data on public perception of researchers and its evolution over time drawing upon existing studies and surveys.

A Twitter account was created for the purpose of popularizing the ERN event. In the period from May 1 to the beginning of the event, at the end of September, 5999 impressions were detected, and in this period, we recorded 299 views of twitter posts. A special Facebook page was also created to inform public about various events in the ERN project. Estimated number of people who were acquainted with the ERN and its objectives was as follows: 30.000 through e-mail news, 260 in primary and secondary school; event ERN 2018 reached in total 27.400 Facebook users, a special event called *Academic humour Slovenian style reached* 23.600 Facebook users, there was also 12.000 views of promo video of ERN event. There is an estimation that the event was noticed through various media channels about



Marie Skłodowska-Curie: an inspiration to follow Marie Skłodowska-Curie: sledimo navdihu



1.500.000 times.

For data collection, we used online-web surveying (link was provided on the project website, posters, and shared over social network profiles) and paper-and-pencil personal surveying in the various locations, based on common instructions provided by the coordinator. These two survey approaches were based on voluntary participation and resulted in a non-probabilistic convenient sample.

The aim of a study was to analyse general public opinion - prior and after the ERN event —in the cities and towns involved (Maribor, Izola, Koper, Ljutomer). The questionnaire included several question categories related to: public image of researchers and their job; public image of science and its potential impact on citizens' daily lives; interest expressed by young people for career in science; opinion on policies in the research field; evaluation of researchers themselves. In the questionnaire we also analysed perceived attributes and types of behaviour that can be (or not) a characteristic of a professional researcher. We described these characteristics in a form of an opposite pair. For each pair of opposing characteristics, respondents were asked to circle the symbol that in their opinion best describes a professional researcher. In the continuation of the survey, the participants were also asked to indicate what characteristics and types of behaviour that should or should not be characteristic for a professional researcher.

The study included 15 such descriptions, and for the first part (perceptions of actual characteristics) the Cronbach alpha coefficient of internal consistency was .88, and for the second part of the survey (the perceptions of desired characteristics) the Cronbach alpha was .90. Conclusively the data gathered with questionnaires was appropriate for further analysis.

In the second part of the questionnaire, we asked participants to evaluate some characteristics of science. For each pair of opposing characteristics, respondents were asked to circle the symbol that in their opinion best describes science, assessing the characteristics of engineering and natural science apart from social and humanistic sciences. The Cronbach alpha for these two parts of the questionnaire for Slovenian sample was .82 (for engineering and natural science) and .86 (for social and humanistic sciences).

At the end of the questionnaire², we also asked participants some additional questions, such as:

- a. Do you find scientific contents interesting?
- b. Would you ever decide for a researcher profession?
- c. Have you already attended events of the European Researchers' Night?
- d. Do you plan to attend any future events of the European Researchers' Night?

We also collected the data on participants' gender, education and age.

² The questionnaire is a part of this report; see Appendix I.



Marie Skłodowska-Curie: an inspiration to follow Marie Skłodowska-Curie: sledimo paydibu



Data collection was carried out in two time frames. The first data collection took place one week before the ERN event, which took place on 28 September 2018. For this purpose, we used the online version of the questionnaire, and people were invited to participate through various social networks (FB, Twitter), as well as by personal e-mail invitations, where we used the snowball method. The second part of the study was carried out on the day of the ERN event. The participants of the event were, after the visit, personally invited to answer the same questions as we asked the participants in the first part of the study. In this way, we could compare the responses of the first and second groups of respondents, and thus assess the impact of the ERN event on their opinion on science and researchers. Although the same participants were not involved in both surveys, this method of carrying out the research is still the most optimal for assessing the impact of the event on the attitude towards scientists and science.

In Slovenia, 883 respondents participated in the survey, 365 (40 percent male) in the first round of a survey (before ERN event), and 518 (37 percent male) after the ERN event. Approximately one-third of a Slovenian sample has a secondary school level of education, approximately 27 percent have either BA or postgraduate level of education, 10 percent have a primary school. 72 percent of respondents have never participated at the European researchers' night, 15 percent participated once, and the rest of a sample participated twice or more times. 47 percent of a Slovenian sample stated that they would like to participate at next ERN event.

b. **RESULTS**

As part of the European Researchers' Night project, a survey was conducted on the image of researchers in Slovenia and the way the residents of Slovenia see the importance and position of science in Slovenia. In the following paragraphs results about the perceptions of Slovenian respondents about scientists/researchers and science are presented. We asked respondents to evaluate certain characteristics that might or may not be typical for professional researchers in Slovenia. For each pair of opposite characteristics, respondents circled the symbol (ie. <<, <, o, >, >>) that in their opinion best describes a Slovenian professional researcher (researcher as an occupation). Table 1 shows the evaluation of respondents from first round of survey (before European Researchers' Night event).



Marie Skłodowska-Curie: an inspiration to follow





Table 1: Opinion on the characteristics of a Slovenian professional researcher – before the European Researchers' Night event³

A Slovenian researcher is:	<< very %	< partly %	neither one nor the other %	> partly %	>> very %	
Useful for society	59,1	27,7	5,2	5,2	2,7	Useless to society
Modest	7,9	30,1	45,2	12,3	4,4	Presumptuous
Popular	4,1	32,1	43,3	16,7	3,8	Weird
Organised	30,5	36,0	20,9	9,6	3,0	Distracted/Disorganised
Future-oriented	53,6	28,2	12,4	4,4	1,4	Focused on the past
Rich	2,7	10,4	48,9	30,8	7,1	Poor
Warm	6,9	25,6	51,5	13,2	2,8	Cold
Respected in the environment	9,3	43,7	29,1	15,1	2,7	Not respected in the environment
Willing to help people	21,8	35,3	32,5	9,1	1,4	Indifferent to people
Diligent	46,2	39,8	11,3	1,6	1,1	Lazy
honest, with integrity	30,6	38,8	24,2	5,2	1,1	Dishonest, corrupt
Respectful	25,9	41,5	29,0	2,8	,8	Disrespectful
working independently	29,2	36,9	19,4	10,3	4,2	Dependent on others
Responsible	38,9	40,0	17,2	2,8	1,1	Irresponsible
Influential	6,4	33,0	32,1	23,7	4,7	With no influence

From the results we can observe, that the majority of respondents before the European Researchers' Night event evaluated Slovenian researchers as very useful for society, future-oriented and diligent. They assessed researchers also as partly to very organized, respected in the environment, respectful and reasonable. One-third of respondents see researchers as influential, while one third evaluated researchers as neither with nor without influence in Slovenian society. The researchers are perceived as not rich or poor and the same dichotomy is observed for attributes warm and cold. Moreover, researchers were evaluated neither popular nor weird and neither modest nor presumptuous.

We conducted the second round of a survey with the same questions after the respondents attended the ERN event. The perceptions from this group of respondents are presented in table 2.

³ Data collected from 20. to 27. September 2018



Marie Skłodowska-Curie: an inspiration to follow Marie Skłodowska-Curie: sledimo navdihu





Table 2: Opinion on the nature of Slovenian professional researcher − after the European Researchers' Night event⁴

A Slovenian researcher is:	<< very %	< partly %	neither one nor the other %	> partly %	>> very %	
Useful for society	49,0	38,7	6,4	5,3	,6	Useless to society
Modest	10,2	35,7	43,0	9,0	2,1	Presumptuous
Popular	11,9	37,3	35,7	13,1	2,0	Weird
Organised	42,8	39,3	13,0	2,9	1,9	Distracted
Future-oriented	62,9	24,4	7,7	2,9	2,2	Focused on the past
Rich	4,3	22,4	52,1	16,1	5,1	Poor
Warm	12,7	29,9	47,7	7,6	2,0	Cold
Respected in the environment	25,7	38,1	21,6	12,0	2,6	Not respected in the environment
Willing to help people	36,3	40,0	18,1	4,5	1,2	Indifferent to people
Diligent	46,9	36,9	10,7	4,1	1,4	Lazy
Honest, with integrity	32,9	44,6	16,8	3,7	1,9	Dishonest, corrupt
Respectful	36,5	41,0	17,2	3,9	1,4	Disrespectful
Working independently	33,4	42,6	15,6	6,3	2,1	Dependent on others
Responsible	48,9	36,0	10,6	3,3	1,2	Irresponsible
Influential	20,2	34,2	32,3	9,3	3,9	With no influence

The respondent after attending ERN event evaluated Slovenian researchers as very useful for society (49%), another 38% respondents perceive researchers as party useful for society. Almost two third of respondents see Slovenian researchers as very future-oriented, more than 80 percent of them evaluated researchers as partly to very diligent, more than 76 percent see them as honest, with high level of integrity. The same percent of respondents evaluated researchers as indepented workers, who are willing to help people. Almost 85 percent of respondents evaluated Slovenian researchers as partly to very responsible, but they think they do not have a strong influence in society.

In order to determine whether the ERN event significantly influenced the assessment of the characteristics of Slovenian researchers, we compared the mean values of both groups of respondents. We performed a comparison using t-test statistics. The result are presented in table 3.

⁴ Date of data collection: 28. 9. 2018



Marie Skłodowska-Curie: an inspiration to follow Marie Skłodowska-Curie: sledimo navdihu





Table 3: Comparison of opinion on the character of Slovenian researcher: before and after ERN event (t-test)

	,					
			N	Mean	Std. Dev.	t-test/p
1.	Useful for society vs. useless to	before ERN	364	1,65	,989	No diff.
	society	after ERN	514	1,70	,852	NO dili.
2	NA adapt va maaavaantuura	before ERN	365	2,75	,926	2.88
2.	Modest vs. presumptuous	after ERN	512	2,57	,871	.004
2	Danielania institut	before ERN	365	2,84	,885	4.56
3.	Popular vs. weird	after ERN	512	2,56	,930	.000
4	One of the district of	before ERN	364	2,19	1,067	5.53
4.	Organised vs. distracted	after ERN	514	1,82	,905	.000
5.	Future-oriented vs. focused on	before ERN	362	1,72	,940	2.29
	the past	after ERN	509	1,57	,914	.022
_	Diele a a a a	before ERN	364	3,29	,851	5.73
6.	Rich vs. poor	after ERN	514	2,95	,871	.000
7	Warmus cold	before ERN	363	2,79	,856	3.90
7.	Warm vs. cold	after ERN	511	2,56	,879	.000
8.	Respected in the environment	before ERN	364	2,58	,948	4.50
	vs. not respected in the environment	after ERN	509	2,28	1,053	4.50 .000
9.	Willing to help people vs.	before ERN	363	2,33	,961	6.00
	indifferent to people	after ERN	513	1,94	,909	.000
40	Dill. I. I.	before ERN	364	1,72	,813	NI III
10.	Diligent vs. lazy	after ERN	512	1,76	,899	No diff.
11.	Honest, with integrity vs.	before ERN	363	2,07	,924	NIliff
	dishonest, corrupt	after ERN	513	1,97	,906	No diff.
12	Daniel diamental	before ERN	359	2,11	,851	3.09
12.	Respectful vs. disrespectful	after ERN	512	1,93	,901	.000
13.	Working independently vs.	before ERN	360	2,23	1,105	3.06
	dependent on others	after ERN	512	2,01	,967	.000
1.1	December 1 inner an analytic	before ERN	360	1,87	,871	2.57
14.	Responsible vs. irresponsible	after ERN	511	1,72	,869	.010
4.5	to florestial consists and in fl	before ERN	358	2,87	1,000	6.44
15.	Influential vs. with no influence	after ERN	514	2,42	1,035	.000
					•	

Legend: << very (1) < partly (2) o neither one nor the other (3) > partly (4) >> very (5)

As we can observe from the table above, only three variables (characteristics) did not show statistically significant differences. For all other descriptions and attributes, statistically significant differences were found, where the respondents who visited the ERN event were more favourable to the positive characteristics of Slovenian researchers. Although it should be emphasized that we compared the answers of two different groups, the survey was conducted at a similar time (the first group responded directly before the ERN event and the other immediately after the event took place) so that the differences can be attributed primarily to the impressions respondents got at the ERN event.

We also asked both groups of respondents (before and after the ERN event) about their opinion on what the actual characteristics of Slovenian researchers should be. The results of the responses of the first group of respondents, which we interviewed just before the ERN event, are shown in the table below.



Marie Skłodowska-Curie: an inspiration to follow Marie Skłodowska-Curie: sledimo navdihu





Table 4: Opinion on desired characteristics of professional researchers in Slovenia – before the European Researchers' Night event⁵

A Slovenian researcher should be:	<< very %	< partly %	neither one nor the other %	> partly %	>> very %	
Useful for society	85,4	11,2	2,0	,6	,9	Useless to society
Modest	15,5	34,1	43,7	5,5	1,2	Presumptuous
Popular	28,8	33,2	33,8	3,6	,6	Weird
Organised	73,5	18,9	6,5	,3	,9	Distracted
Future-oriented	76,0	15,8	7,0	,3	,9	Focused on the past
Rich	14,2	37,5	42,5	5,6	,3	Poor
Warm	23,6	39,2	35,7	1,5		Cold
Respected in the environment	65,4	24,0	9,2	1,2	,3	Not respected in the environment
Willing to help people	57,9	30,6	10,7	,9		Indifferent to people
Diligent	75,1	20,4	4,1	,3		Lazy
Honest, with integrity	86,9	10,1	2,4	,3	,3	Dishonest, corrupt
Respectful	72,8	18,5	7,5	,9	,3	Disrespectful
Working independently	74,7	19,0	6,0	,3	74,7	Dependent on others
Responsible	89,9	8,1	1,8	,3	89,9	Irresponsible
Influential	36,1	43,6	17,9	2,1	,3	With no influence

Results indicate the most desirable or appropriate characteristics of Slovenian researchers are as follows: to be useful for society, future-oriented, diligent, honest - with integrity, respectful and working independently. Among less important features are being warm, rich, modest, or influential. If we highlight only the three most important features, then we can say that the respondents expect that the researchers in Slovenia will be responsible, honest, with integrity, and useful for society.

We also asked the second group of respondents who participated at the ERN event, which are in their opinion the most desirable characteristics of Slovenian researchers. The results of the answers are shown in table 5 below.

⁵ Data collected from 20. to 27. September 2018



Marie Skłodowska-Curie: an inspiration to follow





Table 5: Opinion on desired characteristics of professional researchers in Slovenia – after the European Researchers' Night event⁶

A Slovenian researcher should be:	<< very %	< partly %	neither one nor the other %	> partly %	>> very %	
Useful for society	83,9	12,3	1,4	1,2	1,4	Useless to society
Modest	29,9	29,5	32,8	5,3	2,6	Presumptuous
Popular	36,5	32,4	26,8	3,1	1,2	Weird
Organised	76,1	18,2	2,9	1,4	1,4	Distracted
Future-oriented	80,4	12,9	3,7	1,6	1,4	Focused on the past
Rich	16,8	24,4	51,6	4,1	3,1	Poor
Warm	36,4	29,6	30,0	2,6	1,4	Cold
Respected in the environment	67,5	23,7	6,1	2,0	,8	Not respected in the environment
Willing to help people	69,5	19,5	8,4	1,6	1,0	Indifferent to people
Diligent	73,0	19,7	4,9	1,6	,8	Lazy
Honest, with integrity	73,0	20,1	4,3	1,2	1,4	Dishonest, corrupt
Respectful	69,9	23,4	4,9	,6	1,2	Disrespectful
Working independently	63,9	24,2	9,0	1,8	1,2	Dependent on others
Responsible	15,1	2,3	,6	1,4	15,1	Irresponsible
Influential	45,1	32,5	18,9	2,1	1,4	With no influence

The participants at the ERN event perceive the following characteristics of Slovenian researchers as the most important: to be useful for society, future-oriented, well organized, diligent, honest and with high integrity. Respondents believe that Slovenian researchers should be neither rich nor poor, while modesty and popularity are not so important. By their opinion researchers in Slovenia should have moderate influence in society.

We also asked respondents to evaluate characteristics of science in Slovenia. For every nine pairs of the opposite characteristics, respondents circled the symbol that in their opinion best describes science in Slovenia, assessing the characteristics of engineering/natural science as well as social science. In table 6 the results of the evaluation of engineering and natural sciences in Slovenia are presented.

⁶ Date of data collection: 28. 9. 2018



Marie Skłodowska-Curie: an inspiration to follow Marie Skłodowska-Curie: sledimo navdihu





Table 6: Perceptions of engineering and natural science in Slovenia

	<< very %	< partly %	neither one nor the other %	% partly >	% very >>	
Interesting	38,3	42,9	12,3	4,5	2,1	Boring
Useful for society	55,2	35,4	6,9	1,9	,6	Useless to society
Contributing to the development of Slovenia	53,9	33,6	8,5	3,0	1,0	Having no influence on the development in Slovenia
Provides good opportunities for individual's career	31,9	37,4	21,2	6,8	2,7	Not interesting for individual's career
Well paid activity	11,5	29,5	37,7	15,8	5,6	Poorly paid activity
Future-oriented	46,5	39,6	10,4	2,7	,8	Focused on the past
Useful in everyday life	34,5	40,2	20,3	4,1	,9	Useless in everyday life
Having an important impact on politics	8,3	20,3	36,8	19,7	14,9	Having no impact on politics
Respected in the environment	19,5	42,1	24,6	11,8	2,0	Not respected in the environment

Respondents believe that natural and technical science in Slovenia strongly contributes to the development of society, is very useful and future-oriented. They also believe that it is partially to very useful also in persons' everyday life. Respondents think that being a professional researcher is neither good not poorly paid job, but more than two-thirds of respondents also think that being a professional researcher in the field of natural or technical science represent a good opportunity for an individual's career. More than 80 percent of respondents perceive natural and technical science as an interesting activity.

In the same way as presented above, the respondents also evaluated social and humanities science in Slovenia. Results are presented in table 7.



Marie Skłodowska-Curie: an inspiration to follow





Table 7: Perceptions of social science and humanities science in Slovenia

Table 71 Creeptions	or social s	ciciice ai	ia mamamicie	5 50.01.00	510 4 61	114
	<< very %	< partly %	neither one nor the other %	% partly >	% very >>	
Interesting	32,1	39,9	16,4	7,2	4,4	Boring
Useful for society	38,4	38,6	13,5	7,2	2,4	Useless to society
Contributing to the development of Slovenia	30,8	38,3	19,2	8,2	3,5	Having influence on the development in Slovenia
Provides good opportunities for individual's career	16,2	32,3	30,4	14,6	6,6	Not interesting for individual's career
Well paid activity	7,8	26,5	36,9	19,9	8,9	Poorly paid activity
Future-oriented	24,1	37,3	26,0	9,0	3,6	Focused on the past
Useful in everyday life	26,4	38,5	22,3	9,2	3,5	Useless in everyday life
Having an important impact on politics	18,5	32,8	28,4	14,0	6,4	Having no impact on politics
Respected in the environment	14,3	29,0	32,4	16,7	7,6	Not respected in the environment

If we compare the opinions about humanities and social sciences with the answers about the perception of natural and technical sciences, we can see that the respondents assessed social and humanities sciences less favourably. Although the majority of respondents still believe that social sciences are useful for society and contribute to the development in Slovenia, the share of respondents who agree with these statements is much lower than it is true for the engineering and natural sciences. We can see that also in table 8 below, where the t-test analysis is presented.



Marie Skłodowska-Curie: an inspiration to follow Marie Skłodowska-Curie: sledimo navdihu





Table 8: Comparison of opinions on natural sciences and technical sciences with social sciences and humanities in Slovenia

		Mean	N	Std. Dev.	t-test/p	
Interesting vs. boring	engineering and natural science	1,89	884	,930	-5,49/,000	
	social science and humanities science	2,12	884	1,076	-5,49/,000	
Useful for society vs. useless to society	engineering and natural science	1,57	881	,753	-11,56/,000	
,	social science and humanities science	1,97	881	1,010	-11,567,000	
Contributing to the development of Slovenia vs. having influence on the	engineering and natural science	1,64	874	,840	-14,38/,000	
development in Slovenia	social science and humanities science	2,16	874	1,058	-14,56/,000	
Provides good opportunities for individual's career vs. not interesting for individual's career	engineering and natural science	2,11	875	1,015	-12,65/,000	
	social science and humanities science	2,63	875	1,117	-12,657,000	
Well paid activity vs. poorly paid activity	engineering and natural science	2,74	878	1,036	F 69/000	
,	social science and humanities science	2,95	878	1,064	-5,68/,000	
Future-oriented vs. focused on the past	engineering and natural science	1,72	878	,819	-16,15/,000	
•	social science and humanities	2,31	878	1,047	-10,137,000	
Useful in everyday life vs. useless in everyday life	engineering and natural science	1,96	876	,893	-7,50/000	
, ,	social science and humanities science	2,25	876	1,056	-7,30/000	
Having an important impact on politics vs. having no impact on	engineering and natural science	3,11	880	1,144	12 72/000	
politics	social science and humanities science	2,57	880	1,131	-12,73/,000	
Respected in the environment vs. not respected in the environment	engineering and natural science	2,34	874	,991	-9,58/,000	
,	social science and humanities science	2,75	874	1,126	-9,56/,000	

Based on the comparison between views about technical and social sciences we can conclude that social sciences are perceived as less attractive, useful and influential. In all nine descriptions, statistically significant differences were observed, and in all nine cases, natural and technical sciences were described more positively, however beliefs about social sciences are generally also positive and favourable.

Finally, we asked respondents if they find scientific contents interesting. The vast majority - 87 percent of respondents believe that this is true and slightly more than a half of them would choose the researcher profession for their career. Slightly less than a half of respondents would also like to attend another/next ERN event.



Marie Skłodowska-Curie: an inspiration to follow Marie Skłodowska-Curie: sledimo navdihu



II. VISITORS' SATISFACTION SURVEY OF THE EUROPEAN RESEARCHERS' NIGHT EVENT

a. DESCRIPTION OF METHODOLOGY, INSTRUMENT AND SAMPLE

For the purposes of this study, we created a short survey⁷ about visitors' satisfaction with the European Researchers' Night event. Qualified interviewers (a paper-and-pencil personal surveying) invited ERN event participants to fill out the survey. Participation in the survey was voluntary and the participants were assured anonymity and confidentiality of their answers. Satisfaction with the events survey was implemented as personal paper-and pencil filling in on sites. The final analysis included 473 respondents, of whom 59.7 percent were females. The survey was conducted in eight locations in Slovenia, where the ERN event took place, on the 28th of September 2018. The distribution of respondents by individual places is shown in the table below.

Table 9: Which site of the European Researchers' Night did you visit?

	Frequency	Percent	Valid Percent	Cumulative Percent
Europark Maribor	213	45,0	45,1	45,1
Salon of Applied Arts Maribor	46	9,7	9,7	54,9
The Centre of Experiments Maribor	1	,2	,2	55,1
Archaeological Park Simonov zaliv (Izola)	22	4,7	4,7	59,7
UP Faculty of Health Sciences Koper	18	3,8	3,8	63,6
Backyard of the Pretorian Palace and the UP Rectorate Koper	33	7,0	7,0	70,6
The Galeb Building, UP FAMNIT Koper	4	,8	,8	71,4
Franc Miklošič Gymnasium Ljutomer	135	28,5	28,6	100,0
Total	472	99,8	100,0	
Missing S value	1	,2		
Total	473	100,0		

The average age of the respondents was 18.18 years (S.D. 15.05), the youngest respondent was eight years old, while the oldest was 83. The distribution of respondents according to their status is shown in the table below.

⁷ The questionnaire is in Annex 2



Marie Skłodowska-Curie: **an inspiration to follow** Marie Skłodowska-Curie: **sledimo navdihu**



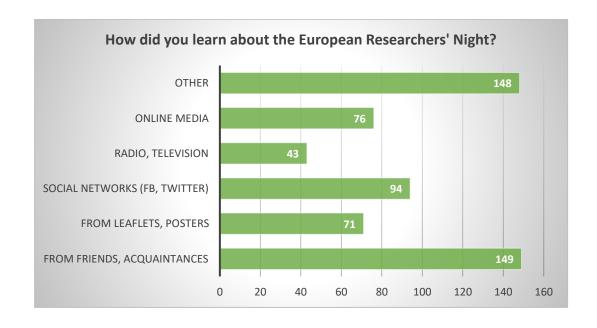


Table 10: Status of respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Pupil	33	7,0	7,1	7,1
Unemployed	9	1,9	1,9	9,0
Student	125	26,4	26,7	35,7
Retired	23	4,9	4,9	40,6
Secondary school	128	27,1	27,4	67,9
Employed	150	31,7	32,1	100,0
Total	468	98,9	100,0	
Missing Value	5	1,1		
Total	473	100,0		

b. RESULTS

The figure below shows the answers of the respondents on where they learned about the ERN event. Most of them learned about the event from acquaintances, many participants attended the event, because it was organized in the place where they came for a different reason, while the records in social networks and in the media were also an important source of information about the event.



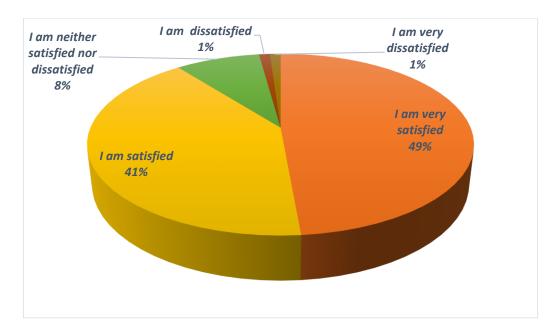


Marie Skłodowska-Curie: an inspiration to follow Marie Skłodowska-Curie: sledimo navdihu

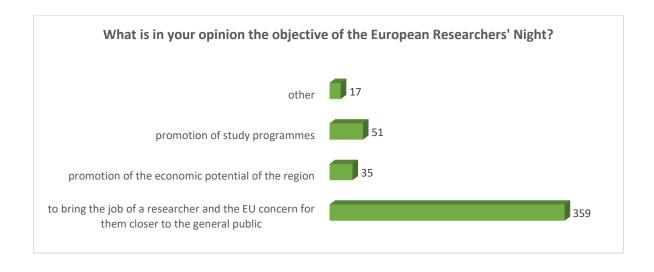




We asked participants to evaluate their satisfaction with the programme of the ERN. The results of the answers to this question are shown in the picture below; we can conclude that 90% of the respondents were satisfied with the content of the event, whereas almost half of them were very satisfied.



Participants were also asked, what was, in their opinion, the objective of the European Researchers' Night? They had to choose between several offered answers, and the results are shown in the figure below. The vast majority chose the answer: "To bring the job of a researcher and the EU concern for them closer to the general public."





Marie Skłodowska-Curie: an inspiration to follow Marie Skłodowska-Curie: sledimo navdihu



At the end of the questionnaire, we asked the participants of the survey the same question as in the first survey, i.e. whether they would choose the profession of a researcher for their professional career. The vast majority, 65%, answered affirmatively, which is consistent with the findings from the first survey.

CONCLUDING REMARKS

In this report we presented the results of two surveys, i.e. Survey on the image of the researchers and Visitors' satisfaction survey of the European researchers' night event, carried out with the purpose of evaluating people's perceptions about researchers and science in Slovenia, as well as their satisfaction with the ERN events. Both studies were conducted among respondents from Slovenia. In the first study we assessed the public image of researchers and science among the general public (prior to event), and among visitors of ERN (after the event). The results showed that respondents perceive Slovenian researchers as respected and respectful professionals, who are useful for society, organised, reasonable and future-oriented. Moreover, they believe that the most important attributes which should be represented among scientists are honesty, integrity and usefulness for society. Comparison between the samples showed that there are differences in the general opinion of the two samples on what are the desired characteristics, while the actual characterises were more positively evaluated among respondents after the ERN event, which indices that the event itself had an impact on views about the quality of Slovenian research field. The analysis of attitudes toward technical, natural and social sciences showed that people are more favourable of technical and natural sciences, however social sciences were evaluated as having positive effect on society as well. With this study, we also determined that people are interested in the results that science produces and that slightly less than half expressed their intentions to attend future ERN events.

More in-depth information about the quality of the ERN event and attitudes of people towards such events as ERN were gathered with the second study which was also carried out among visitors of ERN event, but by a separate survey. We learned that most of the visitors got acquainted with the event through social contacts (friends, social networks, media), but social media in general proved to be by far the most useful information sharing platform. With this study, we were also able to conclude that the participants of the event are very satisfied with the content of the ERN event and that the vast majority would choose the profession of a researcher. The event, as demonstrated by the participants incited interest in science and recognition of career opportunities in the research field. Above all, the respondents agreed that the main purpose of such events is the popularization of research work and the reduction of the gap between the work of researchers and their image in public. Considering also the results from the first study these expectations were realized and the purpose of the ERN events was achieved.



Marie Skłodowska-Curie: **an inspiration to follow** Marie Skłodowska-Curie: **sledimo navdihu**





APPENDIX 1: QUESTIONNAIRE

As part of the European Researchers' Night project, a group of co-workers at the Faculty of Criminal Justice and Security of the University of Maribor⁸ is conducting a short survey on the image of researchers in Slovenia and the way the residents of Slovenia see the importance and position of science in Slovenia. We kindly ask you to share your opinion. It will not take up more than 5 minutes of your time. Your participation in the survey is voluntary and anonymous. The results will be presented in aggregated form only; therefore, it will not be possible to derive your answers.

1. Below are some characteristics and types of behaviour that can be or are not characteristic for a professional researcher in Slovenia. For each pair of opposite characteristics, please circle the symbol that in your opinion best describes a **Slovenian professional researcher** (researcher as occupation). The symbols have the following meaning:

<<		<	0			>	>>
Very	•	•	neither one	nor the oth	ner	partly	very
Slovenian researcher is	(circle one	symbol fo	r each pair)				
useful for society	<<	<	О	>	>>	useless to	society
modest	<<	<	0	>	>>	presump	tuous
popular	<<	<	0	>	>>	weird	
organised	<<	<	0	>	>>	distracted	b
future-oriented	<<	<	0	>	>>	focused o	on the past
rich	<<	<	0	>	>>	poor	
warm	<<	<	0	>	>>	cold	
respected in the environment	<<	<	o	>	>>	not respe	ected in the ent
willing to help people	<<	<	0	>	>>	indifferer	nt to people
diligent	<<	<	0	>	>>	lazy	
honest, with integrity	<<	<	0	>	>>	dishones	t, corrupt
respectful	<<	<	0	>	>>	disrespec	tful
working independently	<<	<	0	>	>>	depende	nt on others
responsible	<<	<	0	>	>>	irrespons	ible
influential	<<	<	0	>	>>	with no ir	nfluence

2. Below are some characteristics and types of behaviour that should or should not be characteristic for a professional researcher in Slovenia. For each pair of opposite characteristics, please circle the symbol that in your opinion best describes what a **researcher** (professional researcher) **SHOULD BE LIKE**. The symbols have the same meaning as presented above.

A Slovenian researcher SHOULD BE (circle one symbol for each pair)

useful for society	<<	<	О	>	>>	useless to society
modest	~	<	0	>	>>	presumptuous
popular	~~	<	0	>	>>	weird
organised	~<	<	0	>	>>	distracted
future-oriented	~ <	<	О	>	>>	focused on the past
rich	~<	<	0	>	>>	poor
warm	~<	<	0	>	>>	cold
respected in the	~<	<	0	>	>>	not respected in the
environment						environment
willing to help people	~ <	<	0	>	>>	indifferent to people
diligent	~<	<	0	>	>>	lazy
honest, with integrity	~<	<	0	>	>>	dishonest, corrupt
respectful	~<	<	0	>	>>	disrespectful
working independently	~ <	<	О	>	>>	dependent on others
responsible	~<	<	О	>	>>	irresponsible
influential	~~	<	0	>	>>	with no influence

⁸This version of a questionnaire, translated to Slovenian language, was used in Slovenia.



Marie Skłodowska-Curie: **an inspiration to follow** Marie Skłodowska-Curie: **sledimo navdihu**





3. Please write down exact	ly three words t	hat co	me	to y	our i	mind	when hearing the word researcher.	
4. Diagramita davis avast	٠١٠ - امار مار - ار	L-4		.		:l	lean leaning the amount original	
4. Please write down exact	lly three words t	nat co	me	to yo	our i	nina	when hearing the word science.	
circle the symbol that in	your opinion be	est de	scri	bes	scie	nce i	each pair of opposite characteristics, please n Slovenia, assessing the characteristics of have the following meaning:	
<<	<	0					> >>	
very	partly neither	one n	or t	he o	ther		partly very	
ENGINEERING AND NATUR	AL SCIENCE in SI	ovenia	a is ((circ	e or	ne syr	mbol for each pair)	
interesting		<<	<	О	>	>>	boring	
useful for society		<<	<	0	>	>>	useless to society	
contributing to the developments	opment of	<<	<	o	>	>>	having no influence on the development in Slovenia	
provides good opportunit	ies for						not interesting for individual's career	
individual's career		<<	<	0	>	^		
well paid activity		<<	<	0	>	^	poorly paid activity	
future-oriented		<<	<	0	>	^	focused on the past	
useful in everyday life		<<	'	0	>	>>	useless in everyday life	
having an important impa	act on politics	<<	<	0	^	^	having no impact on politics	
respected in the environr	nent	<<	<	0	^	>>	not respected in the environment	
SOCIAL SCIENCE AND HUM	IANITIES in Slove	nia ar	e (ci	ircle	one	syml	ool for each pair)	
interesting		<<	<	0	>	>>	Boring	
useful for society		<<	<	0	>	>>	,	
contributing to the development of		<<	<	0	>	>>	having no influence on the development	
Slovenia		, ,	Ľ.	Ĭ			in Slovenia	
provides good opportunit	ies for	<<	<	О	>	>>	not interesting for individual's career	
individual's career			_	_			naarly naid activity	
well paid activity		<<	<	0	>	>>	poorly paid activity	
future-oriented		<<	<	0	>	>>	focused on the past	
useful in everyday life		<<	<	0	>	>>	useless in everyday life	
having an important impa		<<	<	0	>	>>	having no impact on politics	
respected in the environr	nent	<<	<	0	>	>>	not respected in the environment	
Do you find scientific contents in	eresting?	YES		NO		Why?	2	
Would you choose the researche	r profession?	YES		NO		Why?	?	
Have you already attended event	s of the European Re	esearch	ers' N	Nighti	•	NEVE	YES, ONCE YES, SEVERAL TIMES	
Do you plan to attend any future	events of the Europ	ean Res	earcl	hers' l	Night	?	NO YES	
We also kindly ask you to provide	some demographic	data, w	hich	will b	e use	d only	for statistical analysis.	
Gender (circle):	male	femal	е			How	old are you? years	
Education (circle):	a. primary school c. undergraduate ed	ucation	(coll				d secondary school d. postgraduate education (resident, MSc, PhD)	



Marie Skłodowska-Curie: **an inspiration to follow** Marie Skłodowska-Curie: **sledimo navdihu**





APPENDIX 2



European Researchers' Night 2018 Evropska noč raziskovalcev 2018

Marie Skłodowska-Curie: an inspiration to follow Marie Skłodowska-Curie: sledimo navdihu



A	Ų.	2
"a Propoleoni subbrator i	None in property of the	ngoloficetiju strept
Management-description po-		sout Roundon
Myhtprojectis Ausdralių ike l		make the Niprie
Strott-day on a ton, par	I MANUFACTURE NO. OFFICERS	

		_		
De	ar	Wis	ito	rs

We kindly ask you to fill in a short questionnaire. It is anonymous	. The results will support the preparation of the
event next year	

Dear visitors!							
We kindly ask you to to event next year.	fill in a short	questionnair	e. It is anonymous. T	he results	will support th	e preparation of the	
How did you learn ab	out the Euro	opean Researc	thers' Night? Multip	e answers	are possible.		
☐ from friends	, acquaintan	ces 🗆	from leaflets, poste	rs 🗆	social network	s (FB, Twitter)	
□ radio, television □ online media □ other:							
Which site of the Euro	opean Resea	rchers' Night	did you visit?				
MARIBOR:			IZOLA, KOPER:		LIUTON	LIUTOMER:	
☐ Europark Marib	or	□ Ard zaliv	chaeological Park Sin	nonov	☐ Sports and Education Centre Ljutomer		
☐ Salon of Applied	d Arts	□ UP	Faculty of Health Sc	iences	☐ Franc Miklošič Gymnasium Ljutomer		
1	The Centre of Experiments Backyard of the Centre of Experiments			an Palace			
Maribor		and th	e UP Rectorate				
		□ Th	e Galeb Building, UP	FAMNIT			
How would you evaluate the substantive programme of the European Researchers' Night?							
Lam very satisfied Lam Lam neither satisfied Lam						I am very	
	Si	atisfied	nor dissatisfied	di	issatisfied	dissatisfied	
Why?				1 1-2-1			
What is in your opin one answer)	ion the obje	ective of the E	uropean kesearcner	s Night? (Please mark on	iry	
,	e ich of a rei	searcher and t	the EU concern for th	om closer	to the general	nublic	
_	-			iem cioser	to the general	public	
□ promotion of the economic potential of the region □ promotion of study programmes							
□ promotion of study programmes □ other:							
Would you choose the job of a researcher? YES NO							
Do you have any comments or suggestions for us?							
Personal data:	Personal data: Gender: M F Age: years						
Status:							
□ pupil		☐ studen	t	□ second	ary school		
		E matter d		D. amelia		7	

Thank you for your cooperation. We wish you a lot of curiosity and discovering new things!