

RESEARCH & INNOVATION HORIZON 2020 Marie Skłodowska Curie actions

EUROPEAN RESEARCHERS' NIGHT 2 016

FAWORIT 722562 DELIVERABLE 3 PERIOD 1 REPORT ON THE IMPACT ASSESSMENT

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The impact assessment study measures the changes in the social attitudes and public perception of researchers, focusing on the main target group, the 5–24 years old generation, prior to and after the events.

The report presents the socio-demographic characteristics of the participants and the general perception of the researcher relying on the qualitative and quantitative data collected during the impact assessment exercise:

- Prior to the event: secondary analysis of existing statistical data, of previous surveys and studies presenting the results and the data from the previous European Researchers';
- Short (omnibus) survey of a representative sample of the Hungarian population to assess the current situation;
- Contact sheets collected during the event;
- On-line survey after the event among the participants of the event;
- Semi-structured interviews conducted with MA, PhD students and early stage researchers from the field of social sciences and natural sciences.

Methodology

Contact sheets

- Covering a large group of attendants;
- Conducted in 2016 at 11 venues in Budapest and at 7 institutions in other major cities of Hungary;
- Collection and processing of a total of 3.895 feedbacks, on an anonymous and voluntary basis;
- Collection of basic socio-demographic data (gender, the age, the educational level, occupation, place of residence), e-mail addresses and phone numbers.

Omnibus nationwide survey

- Short questionnaire¹ (6 minutes long);
- Description of the attitudes of the Hungarian population towards science as a career, scientists in general and Marie-Curie fellows in particular.

On-line survey

- 15 minutes-ling survey, after the Event, through the e-mail addresses obtained through the contact sheets;
- Description of the socio-demographic characteristics of the attendants, allowing a better understanding of the public perception of researchers' societal role and the identification of the most effective activities;
- Comparison of the attitudes toward researchers and expectations of participants toward a researcher career within the Hungarian population and the participants of the Event;
- Collection and processing of 1.037 feedbacks (based on data in contact sheets);

¹ The 5 minutes long survey was the part of a so-called omnibus survey, and it is representative on the Hungarian population over 18.

Main social and demographical characteristics of responders

This section relies on the data collected through:

- The contact sheets (based on answers during event);
- The on line survey (1.307 feedbacks);
- The omnibus survey (1.000 feedbacks across Hungary);

Demographic and social characteristics of attendees

- Based on contact sheets: 56,4 % female, average age of attendees: 26,9, against 25,48 in 2015, most part aged 17 against 16 in 2015, about 50 % over 21 against 17 in 2014 61,9% (against 59,8% in 2015) students, most coming from the capital;
- Based on the omnibus survey: average age47,96, major part being graduated from school, 54, 8 % employed, 52,8 % living in town (different than the capital), making the event less accessible;

Age	Conta	ct sheets	Online survey		Omnib	us survey
	2015	2016	2015	2016	2014	2016
Mean	25,48	26,9	27,2	28	47,96	48,1
Median	21	22	22	23	39	48
Mode	16	21	17	17	71	59
Minimum:	2	2	10	10	18	18
Maximum:	77	81	74	75	89	88
Standard deviation		12,5		13,4		17,62
N Total Valid	2.938	3.895	615	1.022	1.000	1.000

Table 2.1. Age of responders

Source: "European Researchers' Night" Impact Assessment, Contact Sheets, Omnibus and Online survey 2016

Gender	Contact	sheets	Online	survey	Omnibus	survey
	2015	2016	2015	2016	2014	2016
Male	43,6	46,5	44,5	38,6	49,8	49,8
Female	56,4	53,5	55,5	61,4	50,5	50,5
Total	100	100	100	100	100	100
N Total Valid	2.940	3.897	631	1.035	1.000	1.000

Table 2.2. Gender composition of attendees

Source: "European Researchers' Night" Impact Assessment, Contact Sheets and Online survey, 2015

Table 2.3. Highest educational level of attendees (%)

Educational level	Contac	t sheets	Online	survey	Omnibu	s survey
	2015	2016	2015	2016	2015	2016
Max. 8 years elementary	35,9	26	35,1	29,9	28,8	28,8
Vocational school	1,8	2,4	0,2	0,9	22,2	22,2
High school graduate	25,9	33,5	30	35,6	31,3	31,3
Graduate school	11,4	11,2	-	-	14,1	17,7
Higher education	22,1	23,9	34,6	33,6	3,6	
Other	2.8	3.0	-	-	-	-
Total	100	100	100	100	100	100
N Total valid	2.881	3.894	630	1.032	1.000	1.000

Source: "European Researchers' Night" Impact Assessment, Contact Sheets, Omnibus and Online survey 2015

Table 2.4. Residence of attendees – contact sheets

Residence types	Contact	sheets	Online s	urvey	Omnibu	Omnibus survey	
	2015	2016	2015	2016	2014	2016	
Budapest	57,7	37,3	55	39,5	18,1	18,1	
County capital	16,4	26,7	9,5	22,9	17,9	17,9	
Town	17,5	16,6	23,5	21,9	35	35	
Village	4,6	8,6	10,6	13,5	29	29	
Other	3,8	10,8	1,4	2,2	-		
Total	100	100	100	100	100	100	
N Total valid	2.940	3.900	631	1.033	1.000	1.000	

Source: "European Researchers' Night" Impact Assessment, Contact Sheets, Omnibus and Online survey 2015



Figure 2.1. Age of responders according to the online survey

Social background of attendees

- Inclusion of the "occupation" educator together with the educational level of the parents, since most attendees were expected to be students;
- o Based on contact sheets, indeed 58 % students, followed by 30,9 % employees;

Table 2.9. Occupation of the respondents – contact sheets (%)

Occupation	2015	2016
Student (high school, BA/BSc, MA/MSc)	59,8	58
Employee	30,2	30,9
Entrepreneur	4,9	4,5
Retired	1,2	1,6
Other	3,9	5
Total	100	100
N Total valid	2.891	3.895

Source: "European Researchers' Night" Impact Assessment, Contact Sheets, 2015,2016

Table 2.10. Occupation of the responders (%)

Occupation	Online survey 2014	Online survey 2016	Omnibus survey 2014	Omnibus survey 2016
Student (high school, BA/BSc, MA/MSc)	-	-	0,6	4,6
Employee	63	60,2	54,8	52,43
Employee (has subordinate)	11,5	15,2	-	3,11
Entrepreneur	12	11,1	5,1	4,85
Retired	4,6	4,5	31	29,5
Seasonal worker	1,1	1,1	-	-
Works in the household	1,4	0,9	-	4,8
Unemployed	2	2,7	-	3,7
Other	4,3	4,1	8,5	-
Total	100	100	100	100
N Total valid	349	597	932	993

Source: "European Researchers' Night" Impact Assessment, Omnibus and Online Survey, 2014, 2016

Table 2.11. Highest educational level of the responders' parents- online survey

Educational level	father (%)	mother (%)
Max. 8 years elementary	4,7	5,9
Vocational school	21,6	11,9
High school graduate	30	35,1
Higher education (university, post-graduate, or PhD)	43,7	46,3
Total	100	100
N Total valid	1.025	1.027

Source: "European Researchers' Night" Impact Assessment, Online Survey, 2016

Financial capacity of attendees

- Self-assessment of the financial capacity based on the selection of different options shown in the figure below (no reference to specific amounts of money since students unlikely to be aware of this regarding their parents);
- Comparison between the data collected in 2012 and in 2016;
- Percentage share of attendees considering themselves as average (needing to spare but reaching decent live standards) growing as from 2012, as shown in the figure below;





Source: "European Researchers' Night" Impact Assessment, Online Survey, 2012, 2013, 2014, 2015, 2016

Personal contact with scientific research

- Enquiry about researchers as family member, family friend, friend or acquaintance from the closest to the furthest;
- Reason for the significant gap in the comparison presented in table 2.13.: most responders being high school and university students have major opportunities to know researchers than other categories;
- Stability of such gap through the years;

Table 2. 13. Researchers in the responders' network (%)

	Omnibus survey		Online	survey
	2014	2016	2014	2016
A family member working as a researcher.	1,6	2,7	22	25
A family friend working as a researcher.	1,4	3,4	25,4	28,9
A friend working as a researcher.			30	32,8
An acquaintance working as a researcher.	intance 4,6 g as a cher.	6	62,1	67,2

Source: "European Researchers' Night" Impact Assessment, Omnibus and Online Survey, 2014, 2016

Professional aspirations after graduation

Professional plans and decision making

Information on the process of choosing a profession: significant majority on the family's side in decision-making with 83, 4% in 2015, 82,6% in 2016.

Table 3.1. Guidance and assistance in decision making for the years ahead – online survey

	2014 %	N of respond	2016 %	N of responses
Family members	83,4	789	82,6	1.020
Teachers at my school	55,7	758	56,6	1.003
Friends, classmates	49,3	761	50,4	994

Source: "European Researchers' Night" Impact Assessment, Online Survey, 2014, 2016

Qualities of "the perfect job"

- Comparison with similar data collected during previous editions;
- Stability in answers such as answers were: "loving it and doing it without constraint; benefit people; provide notoriety; interesting and diverse", while however in 2016 compared to previous years, consideration for but the stability of the job and time for private life;
- Stability and high salary most important characteristics in 2016, followed by private life and other considerations already present during the previous years;
- Worth noting however that responders to on line survey (partially basing the results) are aged above 40, and that for students high salary is only at the 4th place of considerations;

Figure 3.1. Characteristics of the ideal profession



Source: "European Researchers' Night" Impact Assessment, Online Survey, 2013, 2014,2015, 2016

Characteristics		Impor	tance	
		2 nd	3rd	4 th
I always have time for my private life.	7,6	9,3	10,9	12
I can gain notoriety through my work.	1,7	2,4	2,8	2
I can improve my skills and knowledge.	4.9	4	4,2	3,6
My work to benefit people	5,1	4,3	4,2	5,3
I can travel and get to know new people and places.	2,9	3	2,6	3,5
I am my own boss.	8	6,4	8,8	7,2
I love what I do and not work out of constraint or routine.	12	14,8	9,7	10,3
a stable job	19	16	17,5	13,9
flexible working time	5,8	8,3	6,4	6,9
chances of mobility, upgrade	6,1	5	4,7	5,6
my work is interesting and diversified	8,2	8,1	11,5	9,9
l can earn much.	18,9	18,3	16,7	19,8
Total	100	100	100	100
N Total Valid	1.000	1.000	1.000	1.000

Table 3.2. Characteristics of the ideal profession (%) – omnibus survey

Source: "European Researchers' Night" Impact Assessment, Omnibus Survey, 2016

Research and scientists

The social representation of the researcher

- Request to indicate the relevant characteristics of the researcher figure;
- Relying on online surveys (2016 and previous years since 2012);
- Permanence of the "clever, cultivated, perseverant, hardworking, and busy person" characteristics during the years;
- Some differences worth noting as shown in the figure below;

Figure 4.1. Characteristic traits of the researcher (%)



Source: "European Researchers' Night" Impact Assessment, Online Survey, 2013, 2014, 2015, 2016; Omnibus 2016

- Familiarity of scholars (not well-known according to figure above);
- Most famous:
 - Szentgyörgyi Albert, doctor and pharmacologist, Nobel-prize holder (90 % through the years);
 - Bolyai János, famous mathematician (89% in 20165and ~64% before);
 - Herman Ottó, the famous polyhistor, (84% in 2016 and 60,3% before);
 - Öveges József, famous teacher, who also had a TV and radio scientific programmes, Vízi E. Szilveszter, medical scientist and former-president of the Hungarian Academy of Sciences, Also Csányi Vilmos (an ethologist) and Charles Simonyi (IT specialist, businessman, and hobby astronaut) not really well-known, despite their presence in the mass-media;
- o Relative stability of the ranking through the years;



Figure 4.2. Notoriety of Hungarian scientists (%)

Source: "European Researchers' Night" Impact Assessment, Online Survey, 2013, 2014, 2015, 2016 Omnibus Survey 2016

Prestige ranking of professions

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- Listing of professions based on responders' preferences (all surveys);
 - Limited differences observed with the 2012-2015 results collected:
 - Lawyer preferred in 2013, while economist preferred in 2014, followed during both years by actor and physician (2014),
 - Engineer, economist, physician and lawyer permanent amongst the most preferred ones;

Figure 4.3. Ranking of professions - online survey



Source: "European Researchers' Night" Impact Assessment, Online Survey, 2013, 2014, 2015, 2016

Table 4.5. Ranking	g of	professions	(%) – omnibus survey
			_	

Professions	Attractiveness			
	1 st	2 nd	3rd	4 th
Engineer	9,9	10,2	8,3	7,5
Political scientist	1,2	1,3	2,9	1,9
Teacher at secondary school	2,7	2,6	3,3	3,8
Doctor / Physician	14,9	13,3	13	15,4
Economist	8.2	6,7	7,7	6,8
IT specialist	11,6	9,3	8,9	10,7
Actor	8,8	11,3	10,5	9,5
Lawyer	15,9	14,5	17,7	16,8
Interpreter	2,9	3,2	2,6	2,2
Politician	6,7	6,9	5,5	4,3
TV star	8,5	10,8	11,3	11,8
Physicist	1,6	2,1	1,4	1,8
Research fellow	2,2	3,4	2,1	2,7
Baker / Confectioner	3	2,3	2,4	2,7
Carpenter	2	2,1	2,5	2,2
Total	100	100	100	100
N Total valid	1.000	1.000	1.000	1.000

Source: "European Researchers' Night" Impact Assessment, Omnibus Survey, 2016

- Data related to the visitors from previous years;
- Data available on the issue as from 2010 (16,7 % returning visitors in 2011) and as from then about 50 % returning visitors;



Figure 5.1. Participation at previous European Researchers 'Nights events (%)

Source: "European Researchers' Night" Impact Analysis, 2011, 2012, 2013, Online survey 2014, 2015, 2016

		2016
	%	Estimated
Heard about the RN	33,6	~3.311.280
Ever visited the RN	5,9	~581.475
Visited in 2016	4,4	~433.642

Source: "European Researchers' Night" Impact Analysis, Omnibus survey 2016

Information about the Event

- Request about knowledge regarding the event;
- Comparison with similar available data as from 2013;
 Between 2013 and 2015, most important source of information: Internet, followed by friends and school or university;
- Growing part of the educational institutions as source of knowledge about the event (probably due to the large part of students participating);

Table 5.2. Participation of respondents – how they were informed about the event – online survey 2013, 2014, 2015, & 2016

Channels of information	2013 – Mentioned	2014 – mentioned	2015 - mentioned	2016 - mentioned
School/university	180	401	316	534
Radio/television	100	126	95	111
Internet	320	488	383	648

Newspaper/magazine	68	57	35	60
Friends/acquaintances	234	369	296	489
Parents	47	68	77	95
Street posters/ads-columns	118	171	117	214
Other	44	40	43	76
Have not heard at all	1	0	3	6
N Total valid	503	800	631	1.031

Source: "European Researchers' Night" Impact Assessment, Online Survey, 2013, 2014, 2015, 2016

Programme preferences

- Request to select the three most preferred programmes according to their experience at the event;
- Clear preference for the scientific lectures although major participation of students;
- Activity most frequently appearing amongst the 3 preferred programmes presentation of modern-tech-equipment and inventions.

Table 5.3. Programme preferences of the Researchers' Night event 2016 – online survey

Programs	1 st	2 nd	3rd
Scientific lecture	557	122	92
Presentation of modern tech-equipment	113	186	163
Presentation of inventions	73	148	212
Games	106	87	91
Conversation with the researchers	61	186	100
Competitions	36	47	46
Exhibition	30	117	96
Theatre play	2	8	11
Professional counselling	5	19	34
Beer-drinking	3	6	15
Classical concert	1	4	11
Pop concert	2	4	4
Talk show	9	18	21

Source: "European Researchers' Night" Impact Assessment, Online Survey, 2016

Data protection policy

- Fairly, safe and undisclosed collection, use and storage of data during the impact assessment 2016;
- Collection and processing of data only for the impact assessment purposes in a compatible way with its objectives;
- Data collected kept secure from unauthorised access;
- Anonymous filling of contact sheets and online survey;
- Removal of sensitive data detected at the end of the exercise (December 2016).