

# **ACADEMIC COMMUNITY: ATTITUDE TOWARDS OPEN SCIENCE, SOCIAL CONTEXT OF THE SCIENCE SYSTEM TRANSFORMATION IN POLAND**

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# LEVELS OF IMPLEMENTATION IN POLAND (SOME REFERENCES)

## ❖ Ministry of Science and Higher Education

- ❖ has announced the priority of introducing the open access to published research results based on public funding. The action will comply with the communication and recommendation released by the European Commission on July 17, 2012.

## ❖ Digital : Libraries, Repositories, Platforms

- ❖ appr. 101 Digital Libraries, Repository of Centre for Open Science
- ❖ AMUR: first Polish repositories. A. Mickiewicz University. 2010
- ❖ Polish Scholarly Bibliography (PBN)
- ❖ INFONA: national IT platform of information and knowledge resources

## ❖ Organizations and associations introducing OS ideas

- ❖ ICM: CeON Center of Open Science, Digital Center , The Modern Poland Foundation (free textbooks )

## ❖ OA Journals

- ❖ Dozen of scientific journals. Virtual Library of Science

# POLISH GATEWAYS TO GREY LITERATURE

- **Infona**: integrated platform of access to scientific information in Poland – a diversity of research documentation forms, from institutional repositories and thematic domain repositories for textual content up to multimedia resources (final product of national strategic project *SyNaT*); beyond grey content, substantial body of structured data ([www.infona.pl](http://www.infona.pl)) - developed and operated by ICM
- **Digital Libraries Federation** : association of digitized (in large part, archival) resources from academic, municipal and regional libraries ([fbc.pionier.net.pl](http://fbc.pionier.net.pl)) – operated by Poznan Supercomputing and Networking Center
- **National Central Repository of Academic Dissertations**: in the course of launching – developed by ICM

# MOTIVATION BEHIND SURVEY

- ❖ Increasing demand for Open Science in Poland
- ❖ Insufficient level of public discussion about Open Science
- ❖ Lack of surveys dedicated to Open Science issues
- ❖ We could only infer that readiness to accept and support open models in science is still limited

# SURVEY DESIGN

## ❖ Online survey

### ❖ Four thematic groups of questions: Open Science (general issues), Open Access, Open Data, Science 2.0

- ❖ 36 questions (attitude, practice, knowledge)
- ❖ 9 demographic questions

### ❖ Questionnaire addressed to over 24K Polish scientists holding at least PhD degree

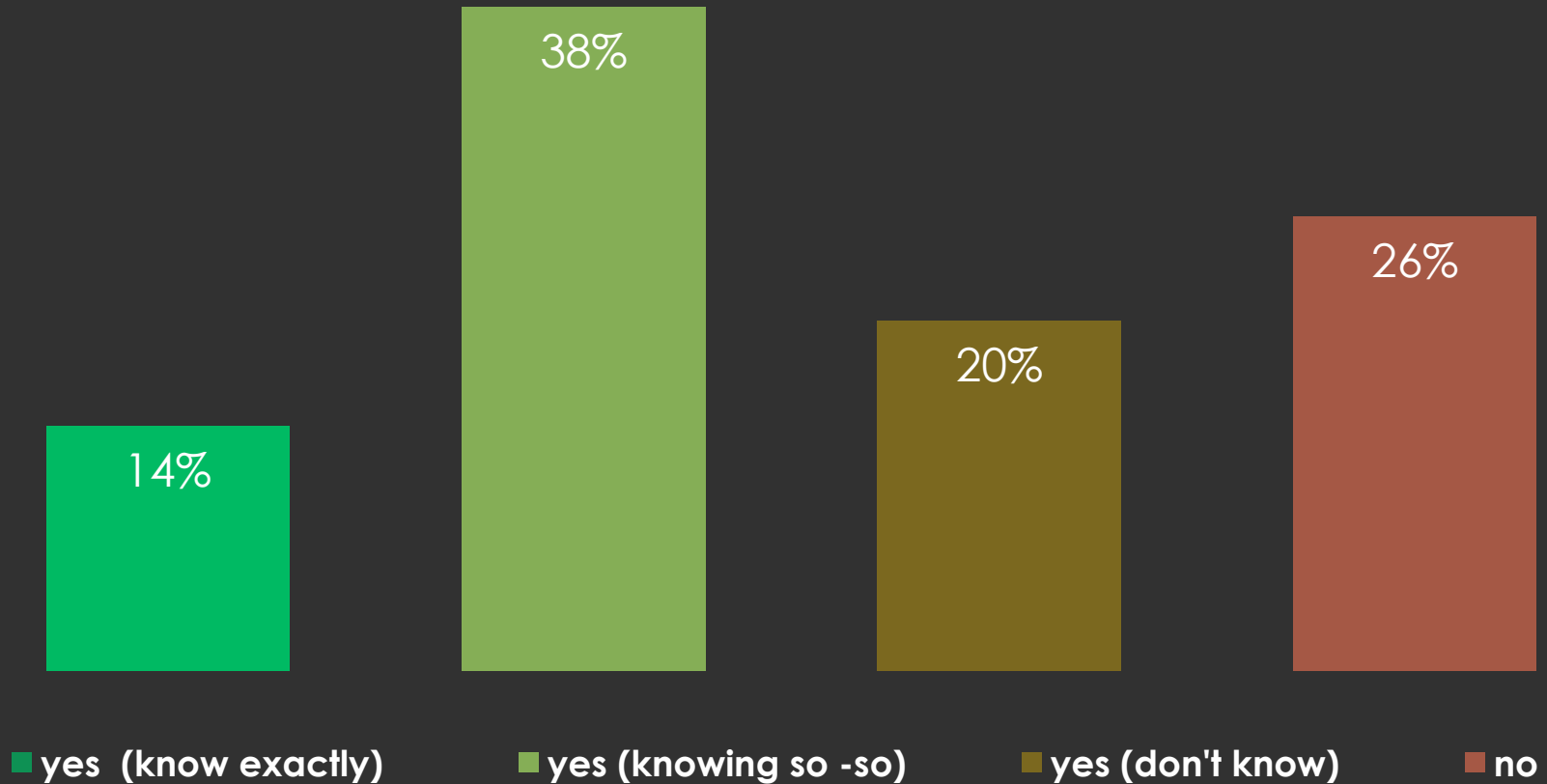
- ❖ 849 completed
- ❖ 456 drop out (after starting )

# OVERALL COMMUNITY ATTITUDE

Open Access, Open Data, Science 2.0

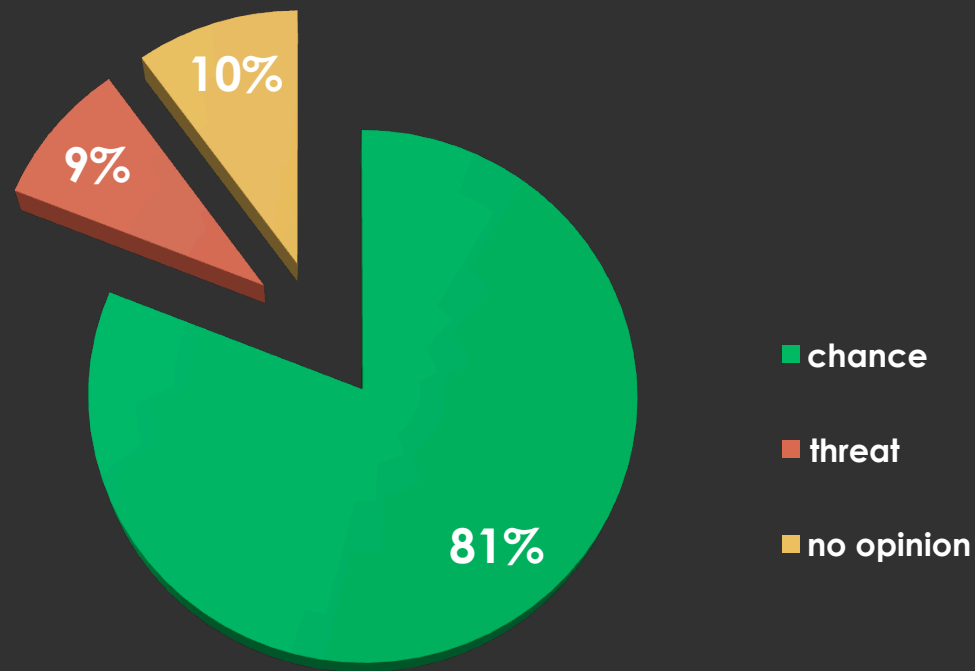
# OPEN SCIENCE

Q: Have you ever met up with the concept of Open Science ?



# OPEN SCIENCE

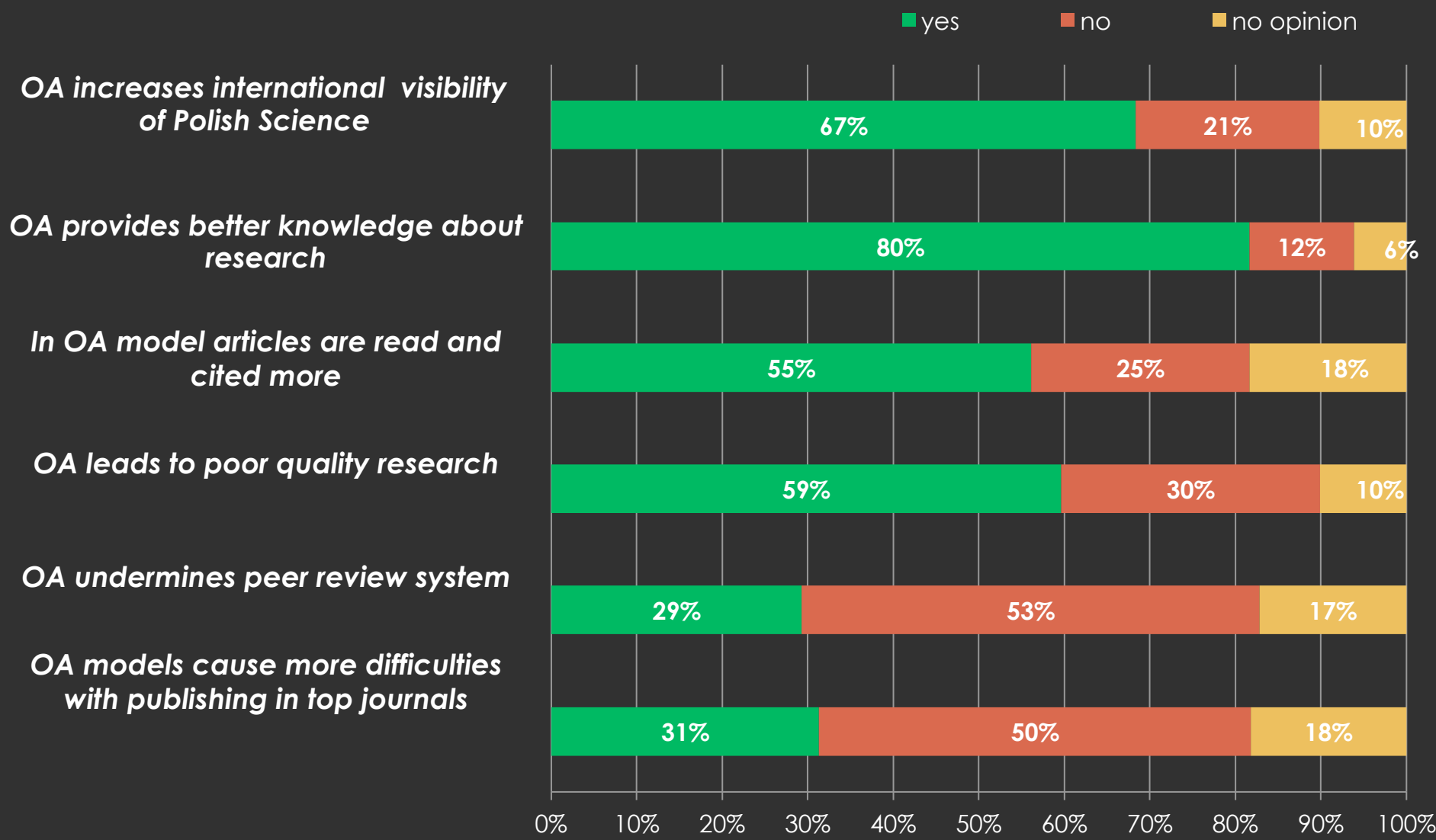
Q: Do you think Open Science is a chance or rather threat for the development of your research field ?





# OPEN ACCESS

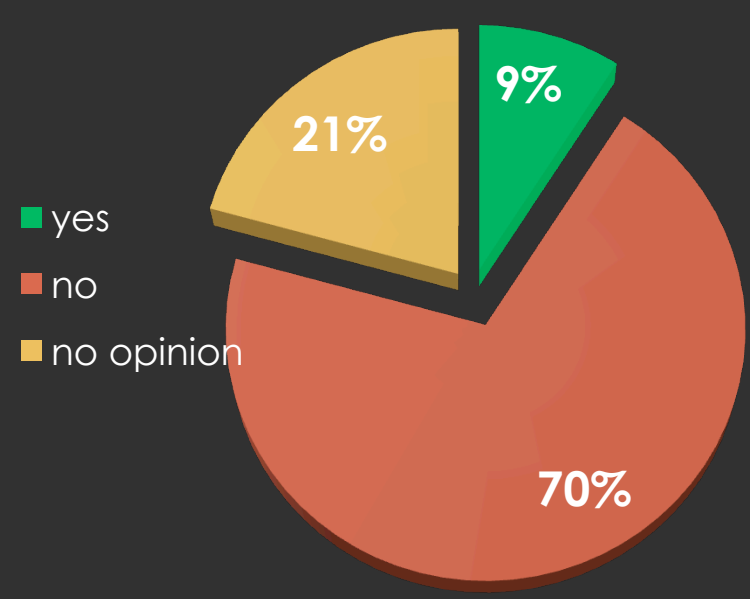
## ADVANTAGES/DISADVANTAGES



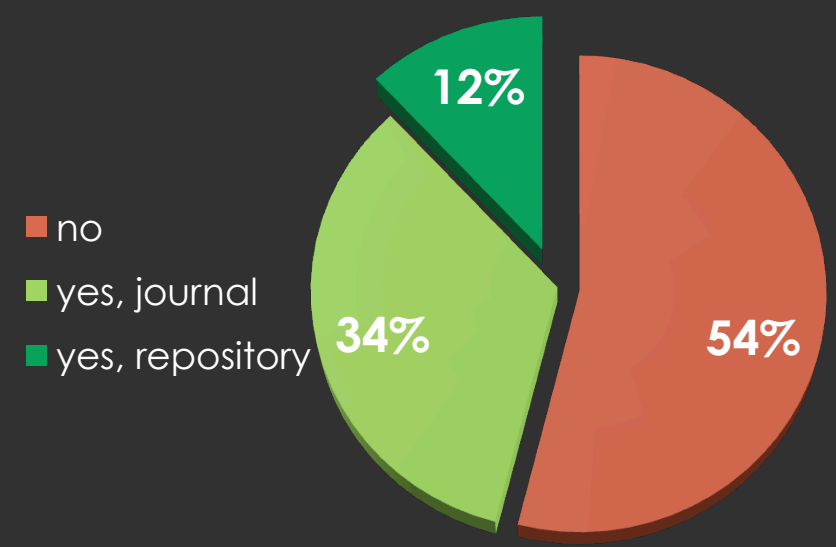
# OPEN ACCESS

## READINESS FOR OA/ PUBLISHING IN OA

Q: Do you think Polish scientists are ready for Open Access models?



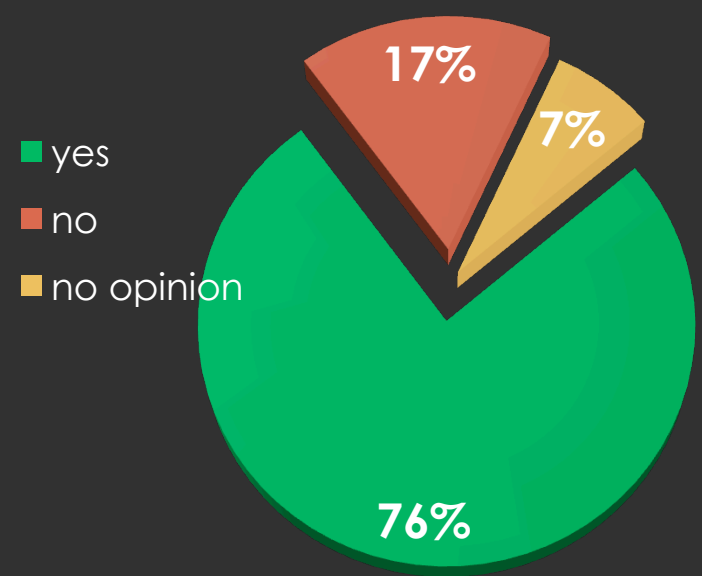
Q: Have you ever published scientific work in Open Access mode?



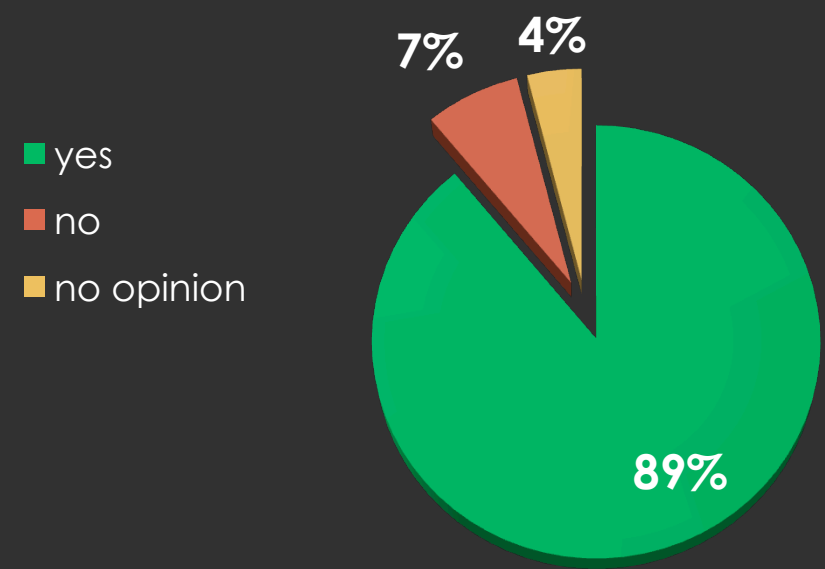
# OPEN DATA

## SHARING DATA ( OBLIGATION)/ BENEFICIAL FOR DISCIPLINE

Q: Do you think scientists should obligatorily share scientific data based on publicly funded research ?

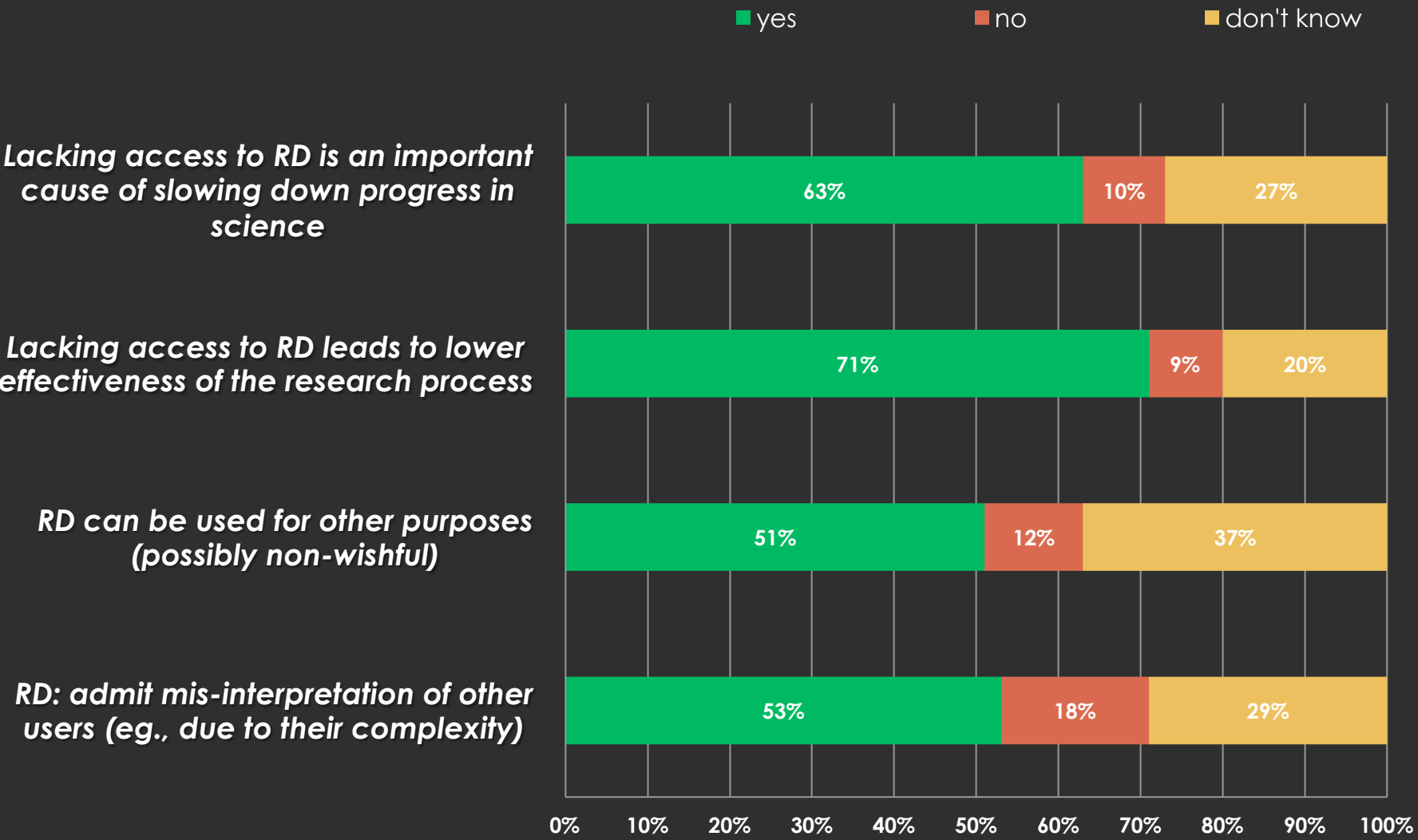


Q: Do you think sharing data from research work is beneficial for your discipline ?



# OPEN DATA

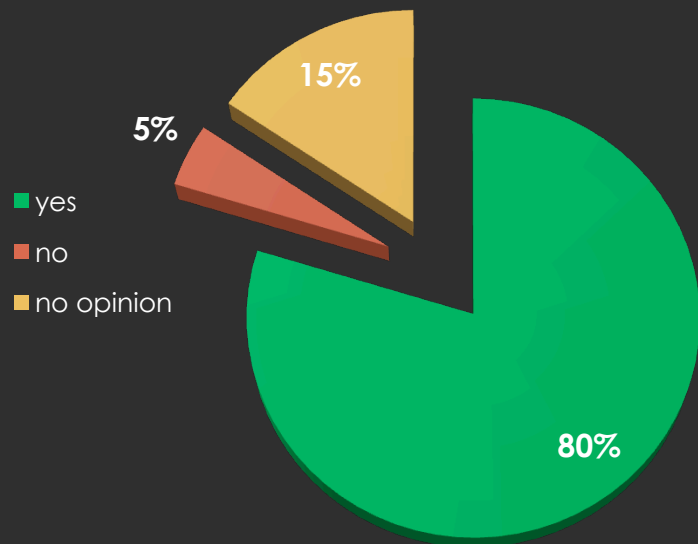
## ADVANTAGES/DISADVANTAGES



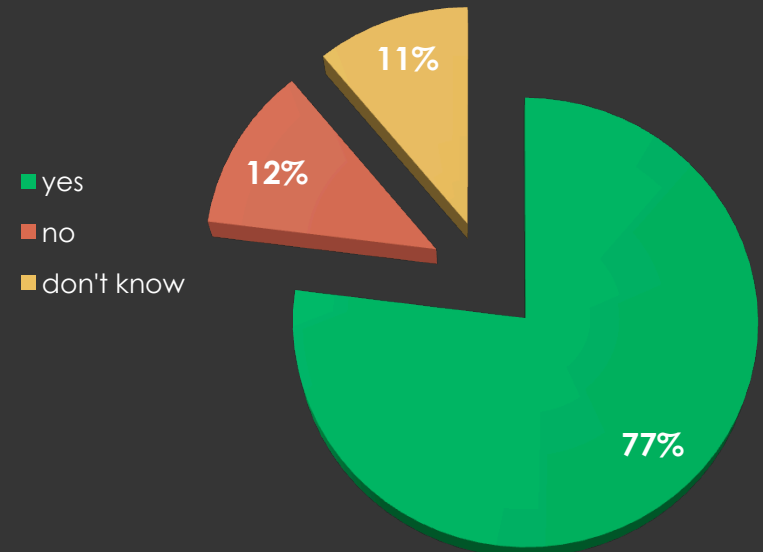
# SCIENCE 2.0

## BENEFICIAL / READINESS TO PARTICIPATE

Q: Do you think social network platforms could be beneficial for science ?



Q: Do you think you will join any social network platform dedicated to your research field ?



# ANALYSIS OF THE ATTITUDE: LINEAR REGRESSION MODELS

Four Models

# PRELIMINARIES

❖ Attitude toward Open Science could be discussed in three aspects:

❖ Cognitive, Behaviour, Affective

❖ Presumptions:

❖ These three aspects of the attitude would depend on independent variables (predictors): sex, age, discipline etc.

❖ The aspects would also mutually interfere with each other

❖ Selected hypotheses:

❖ Participating in international research projects will positively affect the knowledge, behaviour and opinion about Open Science

❖ The higher age, the more negative tendency is observed in all the aspects

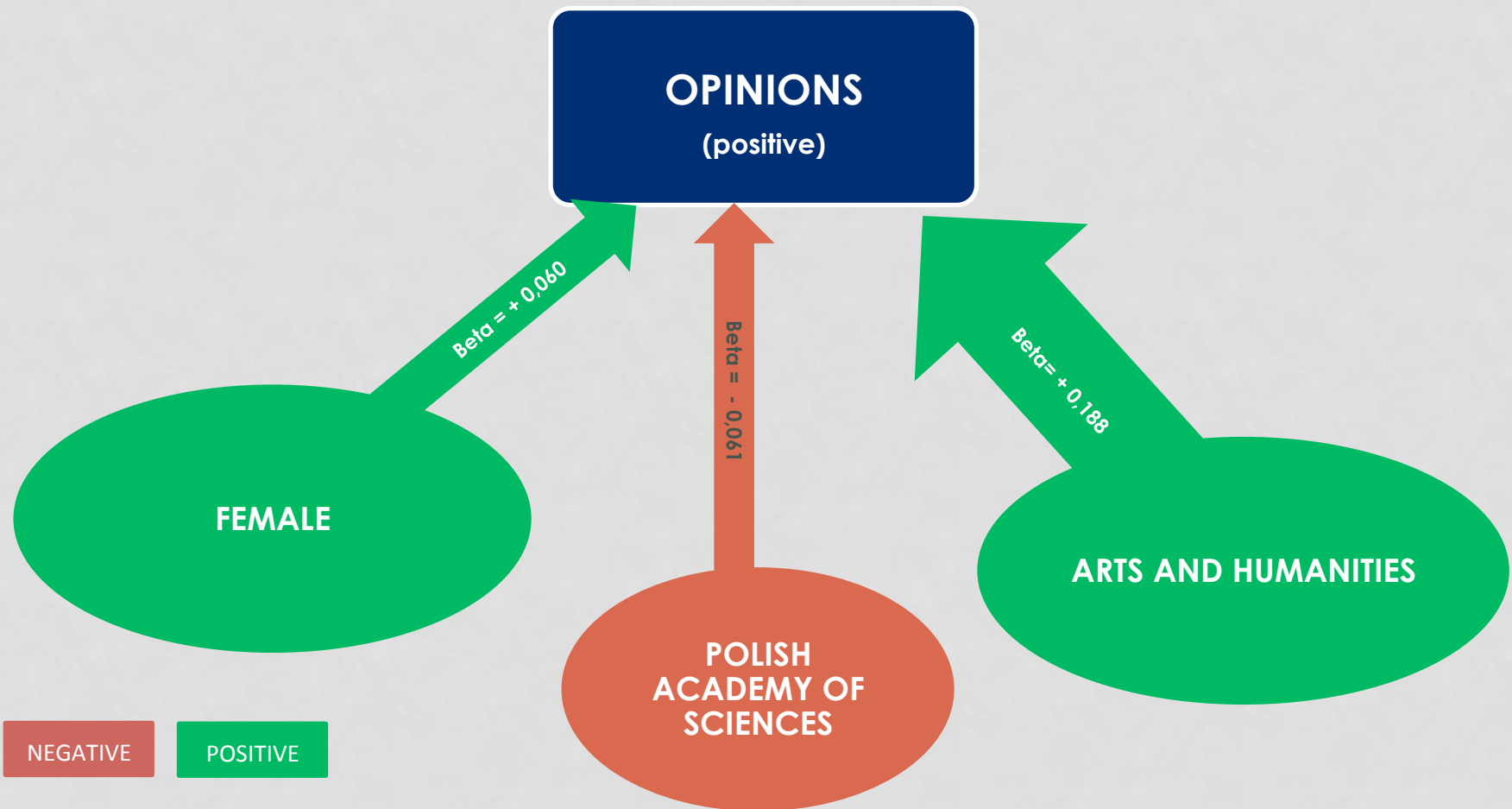
❖ Scientists representing life and engineering disciplines are more positive towards Open Science models than the others

# APPLIED ANALYSIS

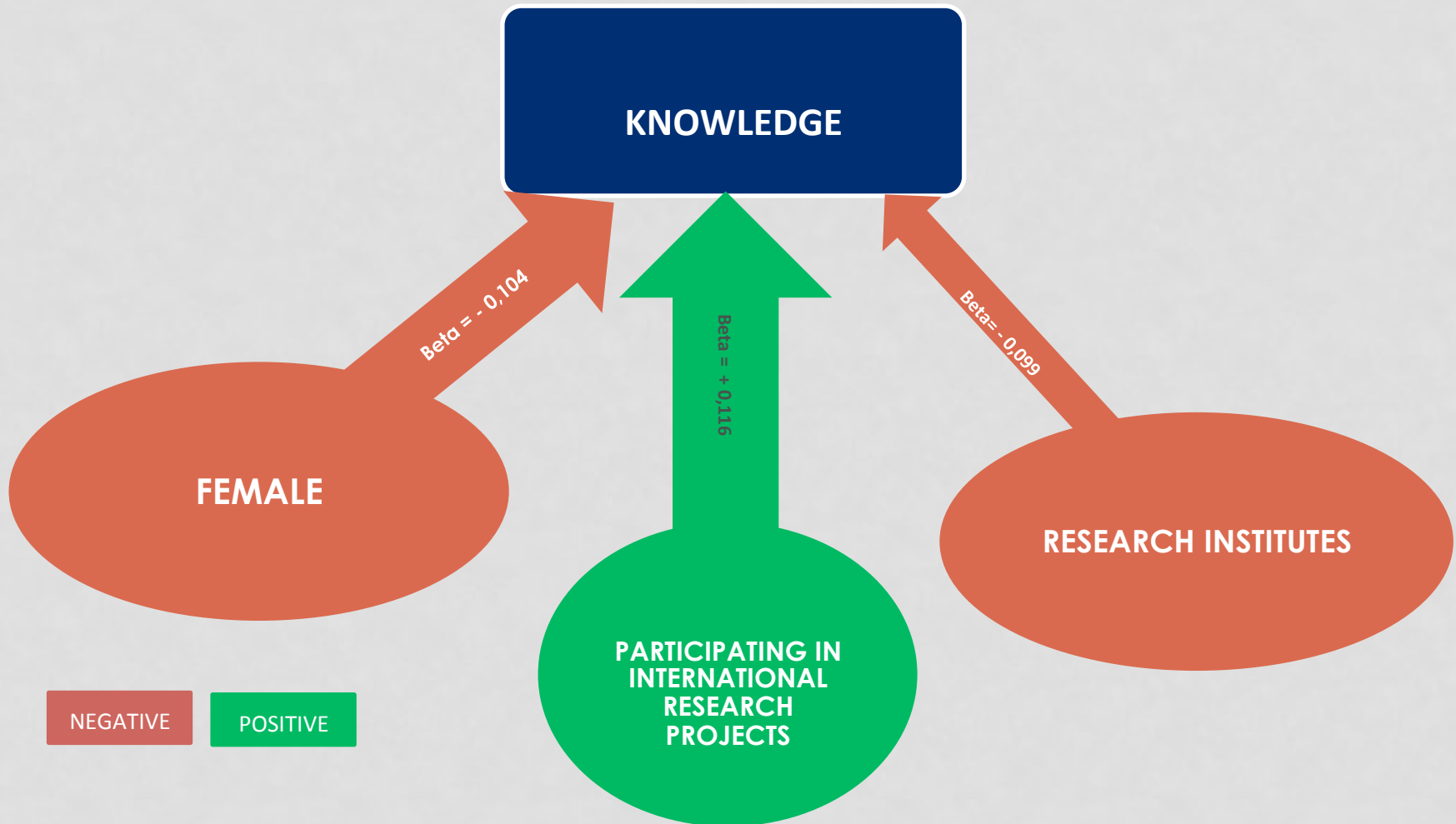
- ❖ Factor analysis: aiming to reduce the number of variables and to detect an underlying structure of the relationships between variables:
  - Variables that cover cognitive, behavioral and affective aspects of the attitude toward Open Science
  - Three dominating factors: knowledge(about OS), behaviour(publishing in OA), opinions(positive opinions towards OA)
  - Dominant factors were used as new dependent variables
- ❖ Four linear regression models were applied,using :
  - **Predictors:** Age, Sex, Discipline, Participation in international projects, Academic title/degree, Experience as research team leader, Type of institutions
  - **Dependent variables :** Knowledge, Behaviour, Opinions



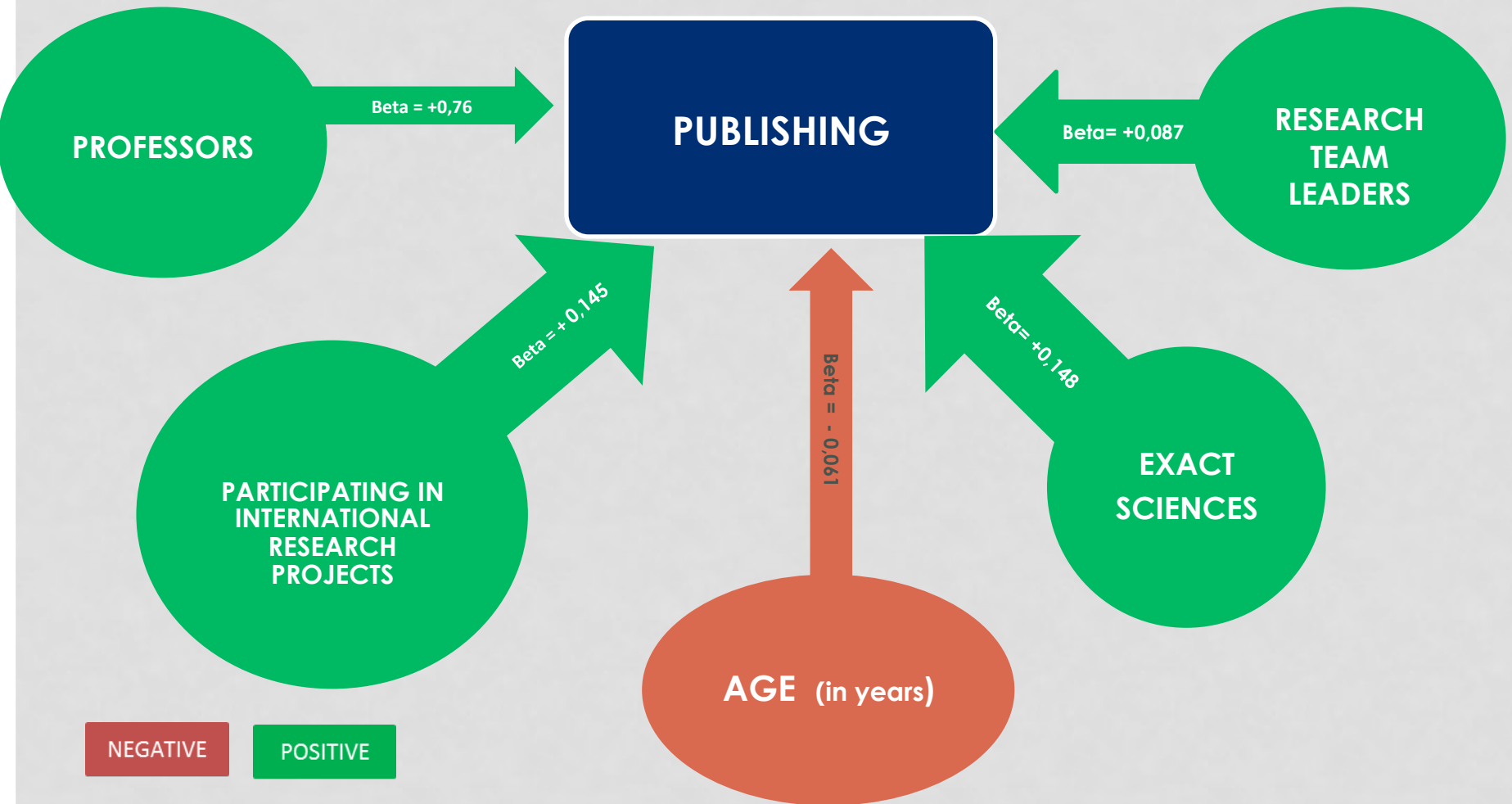
# MODEL 1: POSITIVE OPINIONS ABOUT OPEN ACCESS



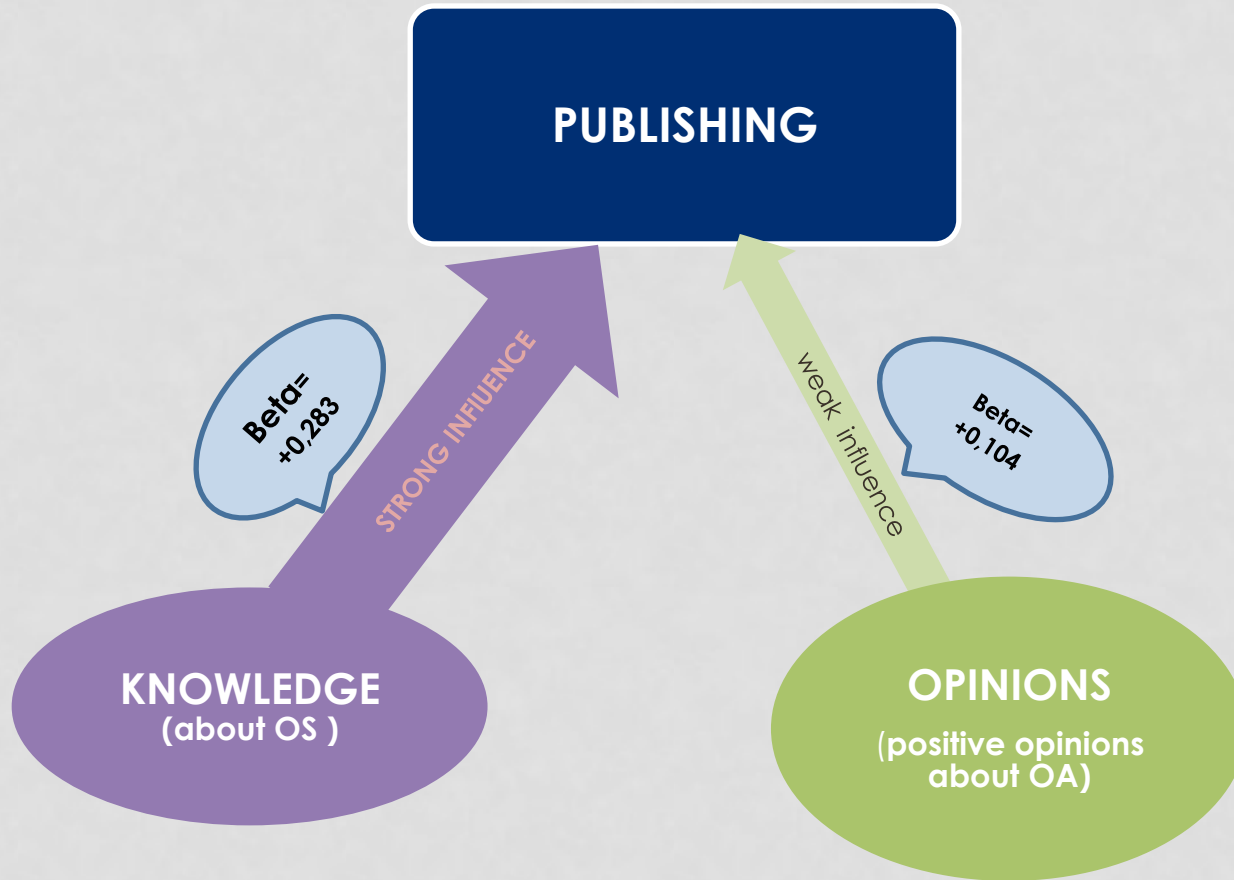
## MODEL 2: KNOWLEDGE ABOUT OPEN SCIENCE



# MODEL 3: PUBLISHING IN OPEN MODELS



## MODEL 3a : PUBLISHING IN OPEN MODELS



# CONCLUSIONS

- ❖ Open Science adoption is still limited in Poland. Still, Polish scientists consider Open Models as an important driving factor for the progress in whole science and in individual disciplines
- ❖ Strong Open Publishing promotion, the related systemic solutions and advantages for individuals contribute to the exposure of Open Access as the main aspect of Open Science. Other key aspects, incl. Open Data and Science 2.0, have still somewhat limited visibility
- ❖ Polish research community is splitted in their attitude towards various dimensions of Openness. Knowledge on Open Science as well as positive attitude towards Open Publishing are driven by factors whose majority is of international nature. Some local features referring to specific national research model can be observed, though.
- ❖ This report summarizes preliminary observations based on the conducted survey. More comprehensive analysis would still require some supplementary research, in particular of qualitative nature.

THANK YOU !

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