

METHODOLOGY OF THE CONCISE'S PUBLIC CONSULTATION

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Path of trust for better science communication

Organization:



www.concise-h2020.eu

VNIVERSITAT ID VALÈNCIA
ScienceFlows



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Comunicación y Sociedad



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consultores



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CONCISE PROJECT'S OBJECTIVES

- To gain a better understanding of how beliefs, perceptions and knowledge of science- and technology-related issues originate among EU citizens.
- To review the existing structural obstacles that scientists and other R&I stakeholders, including policymakers, currently face when attempting to communicate science successfully.
- To evaluate the existing models for teaching science communication to communicators and scientists in Europe, and to analyze how to elaborate an action plan, including recommendations and the issues that should be explored.
- To enable active citizen participation in science research processes, in line with the concept of responsible research and innovation (RRI), by employing a public consultation methodology.
- To gauge the positive or negative perceptions of a selection of science issues held by the EU citizens participating in the public consultations





METHOD FOR DATA COLLECTION

Citizen consultations

CONCISE explored between **September and November 2019** the opinion of **497 European citizens**, in 5 countries (Italy, Poland, Slovakia, Spain and Portugal). Partners used a detailed **common protocol** that included a closed discussion script on:



Vaccinations



Alternative and
complementary
medicine



GMOs



Climate change

All of them are burning issues on the science-related political agenda.

SAMPLE CRITERIA

Gender

♀ 51% female
♂ 49% male

🌐 Immigrant population from outside the EU: 5%
Impaired people
14% (Disability statistics, Eurostat, 2011)

Educational background

- 🎓 University: 28.5%, Eurostat 2016
- 🏫 Secondary and tertiary/non-tertiary: 37.5%, Eurostat 2016
- 📖 Less than primary, primary and lower secondary: 34%, Eurostat 2016

Cultural minorities: according to Turton and Gonzalez (1999), in Europe there are cultural identities and ethnic minorities such as the Kvens, Jews, Tatars, Romani and Gypsies, among others.

Turton, D., & Gonzalez, J. (1999). *Cultural identities and ethnic minorities in Europe*. Universidad de Deusto.



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RESEARCH QUESTIONS

- 
1. How citizens are informed on science related-topics
 2. Reliability of sources and channels on science information
 3. Proposals from citizens for improving Scicomm

GATHERING QUANTITATIVE DATA



The consultation should be carried out in a single day and the four topics should be discussed. In each of the consultations a total of 100-ish citizens participate. They were organized in subgroups of 8-10 people and the different discussions carried out in parallel. Besides the debates, they participated in three quantitative activities about:

Activity 1: Reliability test of headlines.

Activity 2: Trust ranking of sources.

Activity 3: Frequency ranking of sources.



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QUANTITATIVE ACTIVITIES

sinc **HEALTH**

Science | Health | Earth | Technology | Innovation | Society | Opinion | Visual

EPIDEMIOLOGY

Vaccines against this disease have saved 20 million lives

Why we should not lose the fear of measles

Measles infections have rebounded. After reaching historical lows in Europe in 2016, last year cases quadrupled with more than 20,000 people affected and 35 deaths. The loss of respect for the disease has propagated unscientific theories that question the importance of vaccination. But the virus does not rest.

[Share](#) | [Email](#) [Print](#) [in](#)

Verónica Fluiters 7/3/2018 08:00 CEST



LTH

The New York Times

Measles Cases Continue to Rise Around the World

Nearly a quarter of a million people in the Democratic Republic of Congo are thought to have been infected by measles in 2019 alone, the World Health Organization said.



Activity on the headlines.
With the support of the Science News Agency SINC

Each headline will be followed by four questions:

1. Please select the option that you find most appropriate. This headline presents the climate change/vaccine/GMO/CAM controversy in a _____ light.

- Positive
- Negative
- Neutral

2. Would this headline encourage you to click on it and read further?

- Yes
- No

3. Would you 'like' the headline?

- Yes
- No

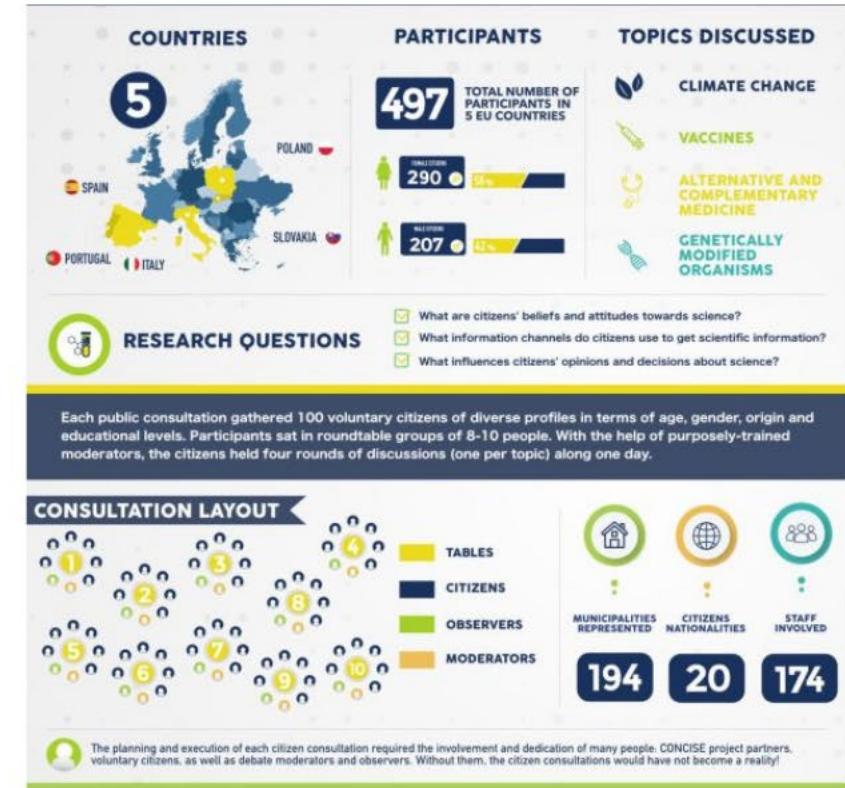
4. Would you share this content with your contacts?

- Yes
- No

CONCISE DATA ANALYSIS METHODOLOGY



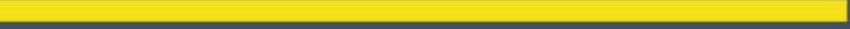
DATA FROM THE PUBLIC CONSULTATIONS



Schrader,S. (1991). Does information and communication technology facilitate 'codification' of knowledge? *Industrial and Corporate Change*, 9, 361-376.

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QUANTITATIVE AND QUALITATIVE APPROACHES



3500 
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**CONTENT
ANALYSIS**
-
**QUALITATIVE
APPROACH**

CODEBOOK



**LEXICAL
ANALYSIS**
-
**QUANTITATIVE
APPROACH**

KEYWORDS 1 TO 100



KEYWORD 1	YES F=4143
KEYWORD 2	VACCINES F=249

**INDUCTIVE
APPROACH**

- MICRO**
- MESO**
- MACRO**

LEVELS OF STUDY



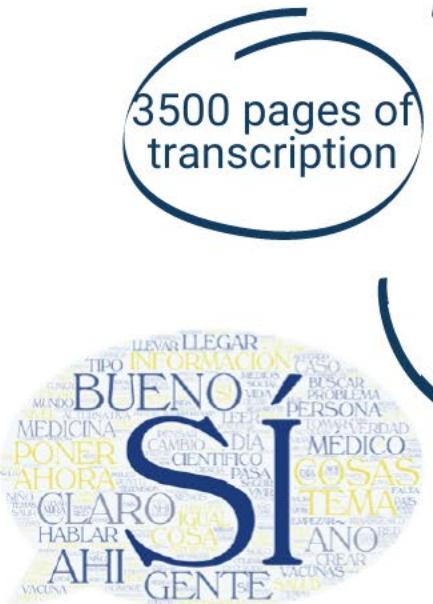
Sept-Nov 19

Transcriptions

Quantitative report

Qualitative report

Nov 20



T LAB
Lexical analysis quantitative approach

NVIVO
Content analysis qualitative approach

In-depth qualitative discourse analysis

- Micro-level of study
- Meso-study level
- Macro-level of study

ITALY	POLAND	PORTUGAL	SLOVAKIA	SPAIN
Misleading 285	Misleading 62	Misleading 173	Misleading 121	Misleading 239
Lack 96	Overload 23	Lack 144	Lack 70	Lack 114
Overload 45	Lack 13	Overload 59	Overload 31	Overload 28

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Quantitative

[KEYWORD IN ENGLISH]	[Keyword]	[F]
Yes	Si	4.143
Good	Bueno	1.912
Sure	Claro	1.499
People	Gente	1.399
Information	Información	1.384

[KEYWORD IN ENGLISH]	[Keyword]	[F]
Television/TV	Televisión	354
To Start	Empezar	354
Level	Nivel	350
Man	Hombre	346
To Like	Gustar	345

[KEYWORD IN ENGLISH]	[Keyword]	[F]
To Go Out	Salir	260
To Live	Vivir	255
Own Name	Nombrepropio	253
To Vaccinate	Vacunar	249
Spain	España	247

Qualitative codebook

Citizens	• Friends
• Colleagues	→
• Acquaintances	→
• Strangers	→
• ...	→
Communications	• Experts
• Journalists	→
• Opinion leaders	→
• ...	→
Politicians	→
Organisations	• Civil society
• Companies	→
• Governmental	→
• ...	→

“...My friends use homeopathy and it works for them. So I decided to give it a try. [] I don't believe anything that is written by a private company. How can I know why they wrote one particular piece of information? If there are other interests behind, they won't tell me [...]”



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QUANTITATIVE OUTCOMES. T-LAB SOFTWARE

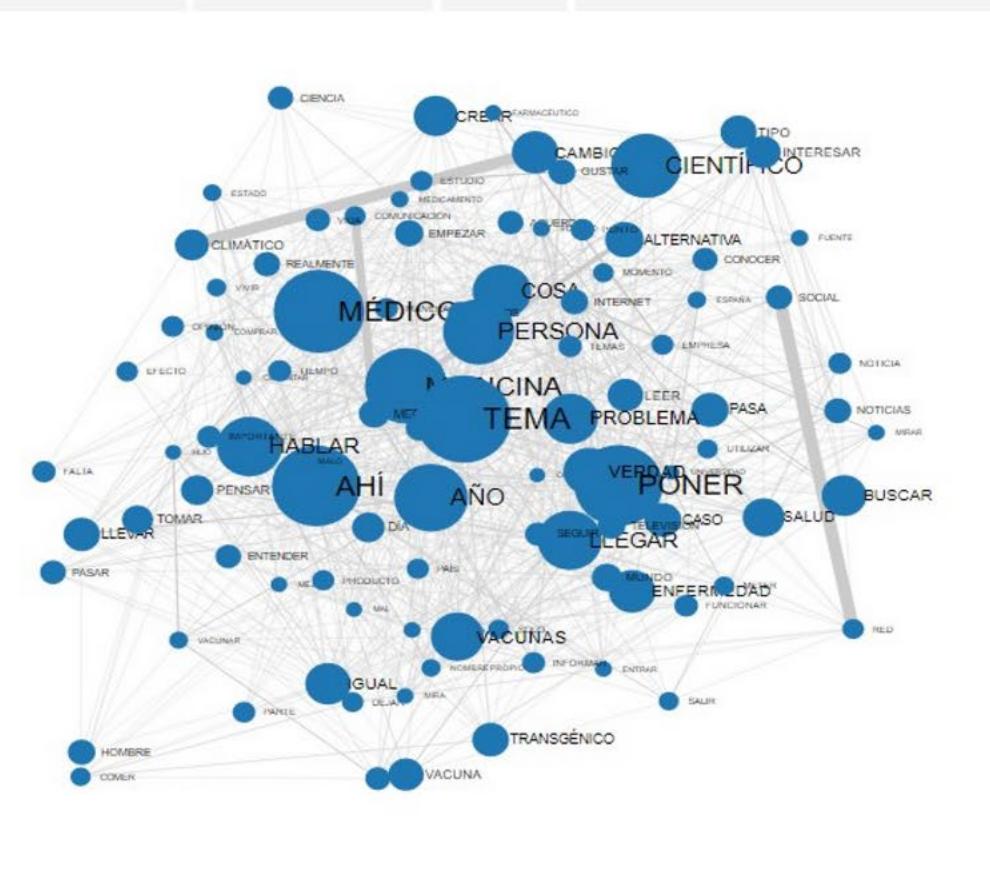


Wordcloud – Most frequent keywords
(the first 100)

[KEYWORD IN ENGLISH]	[Keyword]	[F]	[KEYWORD IN ENGLISH]	[Keyword]	[F]	[KEYWORD IN ENGLISH]	[Keyword]	[F]
Yes	Sí	4.143	Television/TV	Televisión	354	To Go Out	Salir	260
Good	Bueno	1.912	To Start	Empezar	354	To Live	Vivir	255
Sure	Claro	1.499	Level	Nivel	350	Own Name	Nombrpropio	253
People	Gente	1.399	Man	Hombre	346	To Vaccinate	Vacunar	249
Information	Información	1.384	To Like	Gustar	345	Spain	España	247
Stuff/Things	Cosas	1.222	Internet	Internet	344	State	Estado	243
Now	Ahora	1.124	News	Noticias	338	Bad	Malo	241

Complete list of keywords related occurrence frequencies

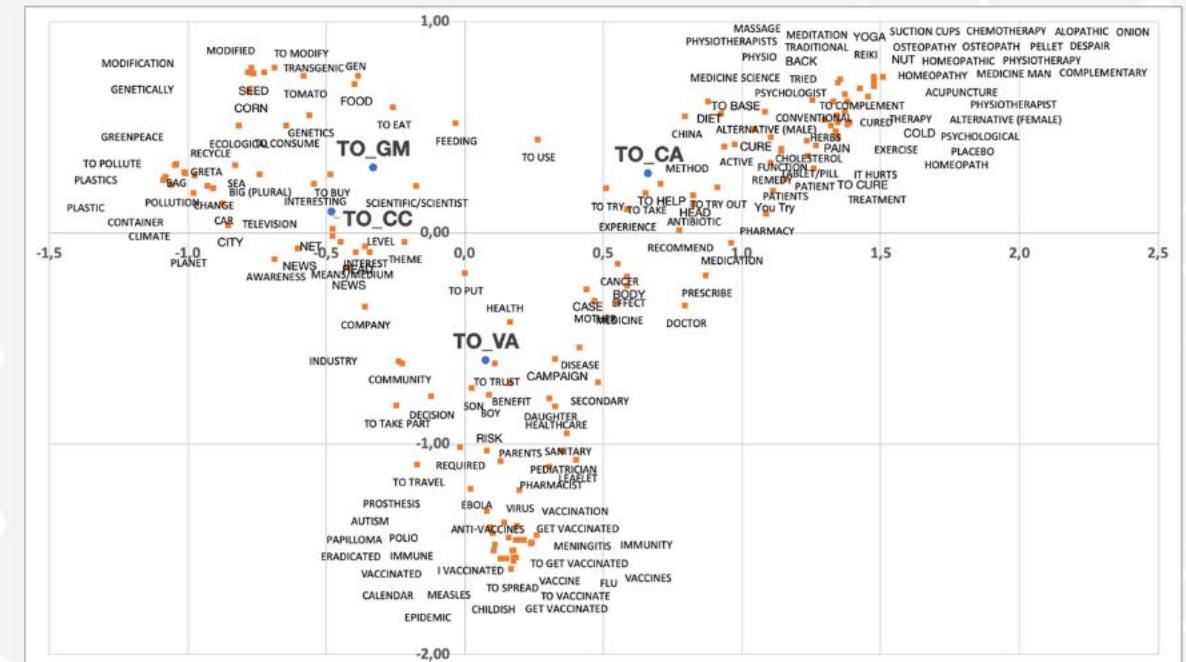
QUANTITATIVE OUTCOMES. T-LAB SOFTWARE



Co-occurrence method (the first 100 keywords, [the most frequent keywords] excluded)

Correspondence analysis

They allow evaluating the proximity / distance relationships - that is, of similarity / difference - between the objects considered



QUALITATIVE OUTCOMES. N-VIVO SOFTWARE

OBJECTIVE 1: HOW CITIZENS ARE INFORMED. Channel/source of information.

349 media

151 TV

- [10La2, 2 24 horas, 1 Euronewa, 1 Andalucía TV, 4 Antena 3, 1 Discover Channel, 7 La Sexta, 1 TVE; television programs: 4 Aquí la tierra, 4 Redes, 2 Agrosfera, 2 Equipo de investigación, 1 Boticaria García, 1 Documentos TV, 3 El escarabajo verde, 1 Maestros de la costura, 1 La botica de la abuela]

48 newspapers

- 48 newspapers [3 La Vanguardia, 2 El País, 1 20 minutos, 1 El Mundo, 1 Levante, 1 Las Provincias, 1 suplemento de ciencia La Vanguardia, 1 suplemento de ciencia el País]

27 radio

- [1 Radio Nacional, 1 A ciencia cierta, 1 Cadena Dial, 1 Cadena Ser, 1 Radio Klara]

15 magazines

- [2 Muy interesante, 2 Mètode, 2 National Geographic, 1 Discovery salu, 1 MIT Technology Review, 1 Natura, 1 Semanal XL]

12 documentaries

- [1 La pesadilla de Darwin]

204 traditional media

145 digital media

11 Books

- [1 Gener, 1 GenÉtica, 1 La biología de la creencia, 1 Los genes que comemos, 1 Morir joven a los 115 años, 1 Sapiens, 1 Transgénicos sin miedo, 1 verdad incómoda]

145 Digital media

- **105 Social networks** [11 Facebook, 7 Instagra, 24 twitter, 8 whatsApp, 11 YouTube]
- **83 Internet** [1 23andme.com, 1 España 2030, 1 Google académico, 1 actualidad.rt.com, 1 despertares.org]
- **8 digital press** [1 yourNews.es 1 Diaria medico, 2 eldiario.es]
- **3 scientific podcast** [cienciaes.com, mix.io]
- **2 Blogs** [1 Tomates con genes]

IN-DEPTH QUALITATIVE DISCOURSE ANALYSIS



Micro level of study: we identify the internal properties of the speeches through elements of verisimilitude, arguments, values and rhetorical figures in the debates.



Meso study level: we locate the differential discourses; that is to say, the consensus / dissent, the redundancies and the silences. We also try to identify dominant and avant-garde narratives.



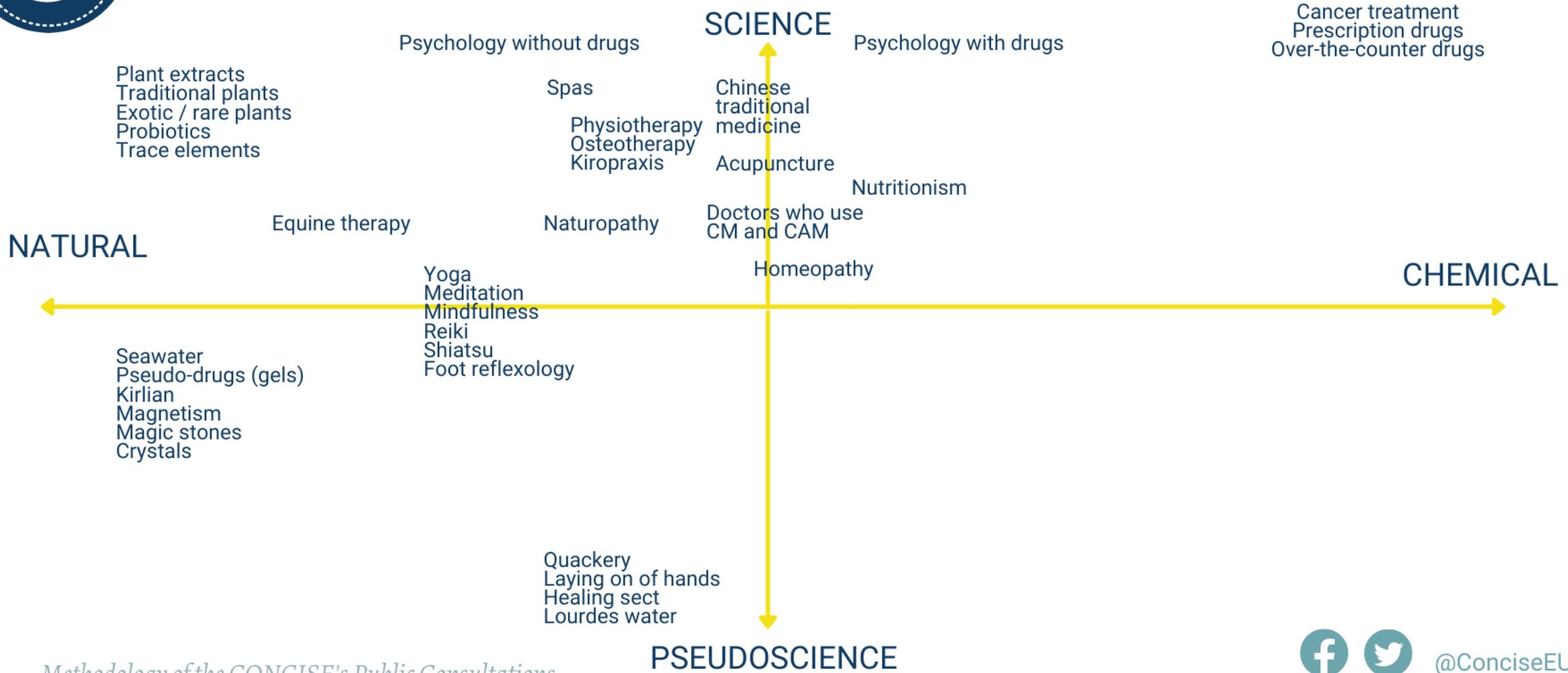
Macro level of study: contextual dialectic, between narratives, with a holistic view of the debates. For this, contextual information must be used.

IN-DEPTH QUALITATIVE DISCOURSE ANALYSIS



CAM

Complementary and Alternative Medicines- how citizens are informed



POLICY BRIEF RECOMMENDATIONS



<https://concise-h2020.eu/publications/>

CONCISE's Public Consultations



Communication Role on Perception and Beliefs of
EU Citizens about Science

Carolina Moreno-Castro, Isabel Mendoza-Poudereux &
Empar Vengut-Clement (Coords.)

BOOK PUBLISHED

Organisation & staging details of
5 CONCISE's consultations

Useful guidelines for developing
similar activities involving citizens

<https://concise-h2020.eu/publications/>

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Observe^a F
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Este proyecto ha recibido financiación del programa de investigación e innovación
Horizon 2020 de la Unión Europea bajo el acuerdo de subvención nº 824537.

