

# Using social surveys to answer research questions

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## Outline

- Who we are
- Theoretical overview of strategies to design a good research question
- Where to find data to answer your research question
- Using online tools to do preliminary analysis

## Who we are

- Infra4NextGen project – Horizon Europe project 2024-28
- Research fellows affiliated with:
  - European Social Survey (City St George's University of London),
  - European Values Study (Universita degli Studi di Milano),
  - Gender and Generation Programme (Koninklijke Nederlandse Akademie van Wetenschappen/ Netherlands Interdisciplinary Demographic Institute)
- Work Package leaders (2-6) – the “engine room” of the project

## Today's goals

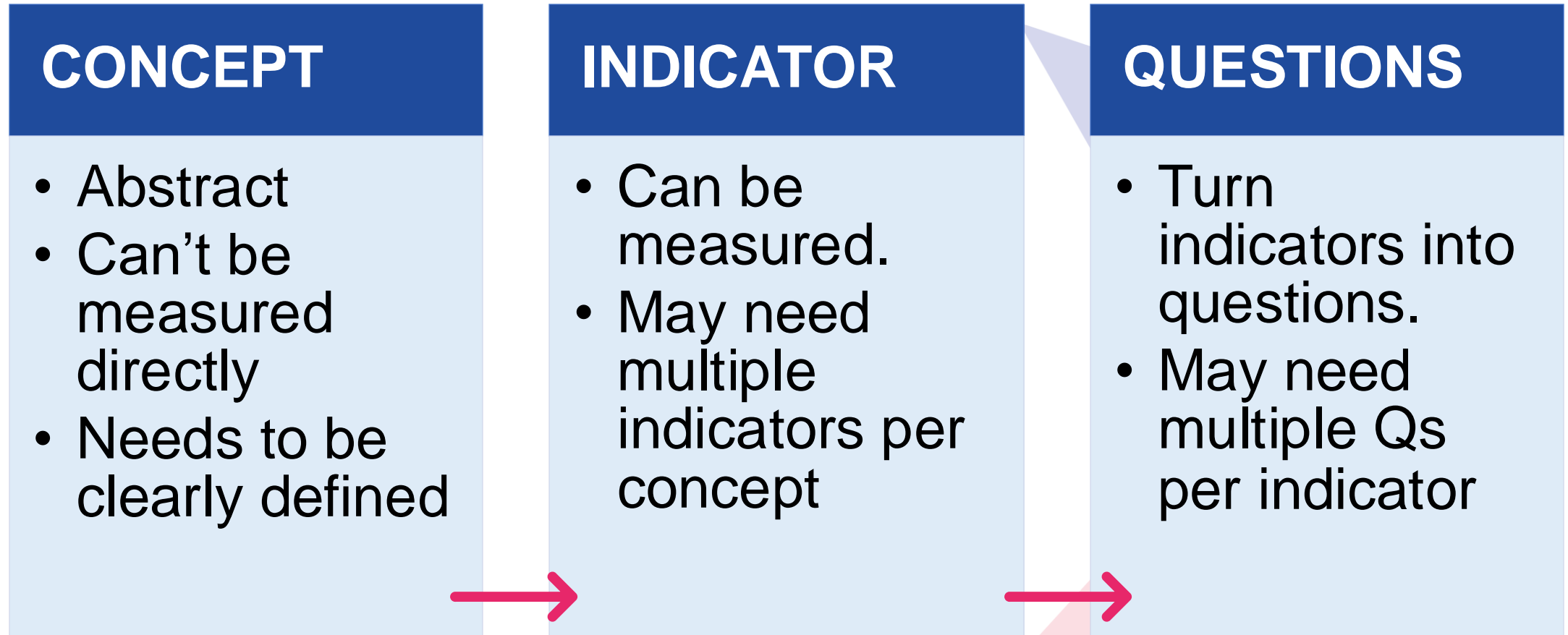
- Recognise if your question is too broad or whether it is specific enough
- Distill the question into concepts
- Look for indicators and items to link your concepts to existing data sources
- Do basic analysis using online tools

## Theoretical overview – how do we investigate the world?

- **Observation**: establish the need for a new explanation about a topic and identify potential clues to explain the phenomena
- **Explanation**: introduce a set of factors that account for how and why - a ***hypothesis***
- **Testing**: devise a way to test this hypothesis (under certain circumstances, something should occur)
  - If it does, explanation was correct;
  - If it does not, the explanation should be modified and tested again
  - **Replication** – under the same circumstances, the same outcome should be found

## Steps in quantitative research

- Define the research questions
- Operationalise the concepts and find the indicators/ variables
- Consider the relation between variables
- Formulate the hypotheses
- Choose the items to illustrate the hypotheses
- [Select the sample to be tested]
- Collect data OR find it if already available
- Do the statistical analysis
- Write up and dissemination



## Operational definitions of key concepts

- What do the concepts in your hypotheses mean?
  - the abstract phenomenon, or construct, we want to investigate is transferred into a measurable variable.
  - the researcher's choice
  - the validity of the findings depends largely in it

### Example: What is a heritage language?

- a language that a person is familiar with from home, they speak it, or at least understand it (Valdes, 2001);

### OR

- the ancestral language of a person or group, regardless of whether the language is still used in the home (Fishman, 2001)



## Another example

- How would you operationalise religiosity? What items would you include on a scale that measures this concept?

### Examples:

What is your religion?

How often do you attend religious services?

Do you believe in god or another life force?

How important is spirituality in your daily life? etc.

=> a composite score of all these indicators will provide a better understanding of participants' religiosity than a single item

## How do we start a social research project?

- Theories, literature => **research questions**
  - Point of departure of the research
  - Should be clearly formulated
  - Should be based on previous literature
  - Concepts that you want to investigate
- Relationship between theory and research => **hypotheses**
  - Proposed explanation to the RQ
  - Not too broad, not too narrow
  - Always have clear and simple hypotheses
  - Better to have more, but simple Hs, than one complicated one

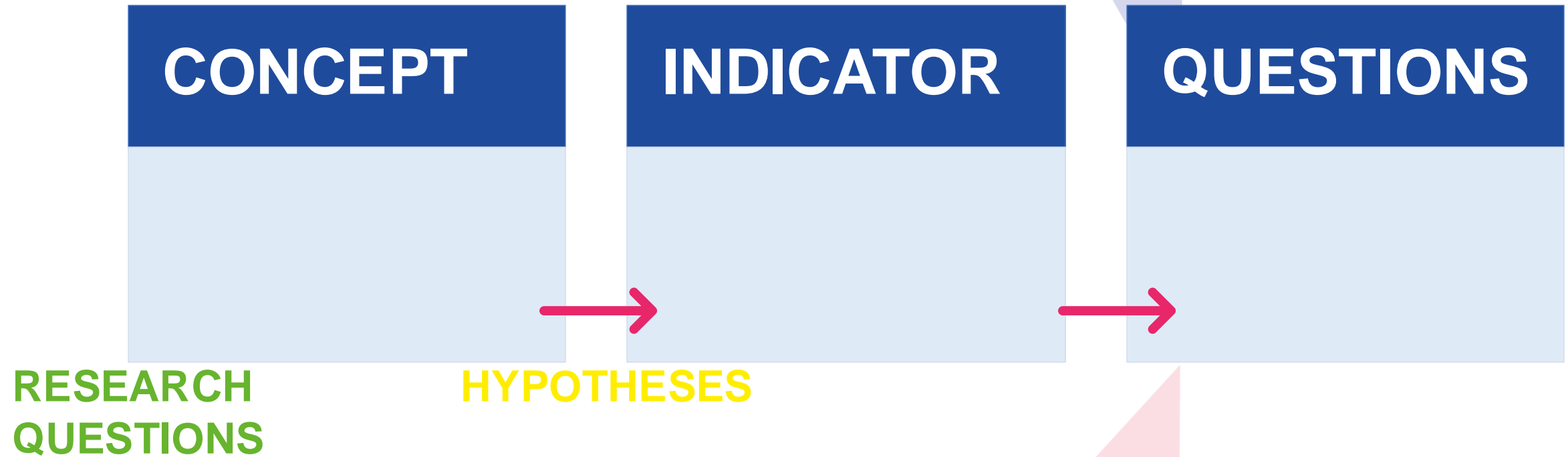
## FINER criteria for a good research question

- **Feasible** – can it be answered with available time, data and resources?
- **Interesting** – does it stir interest and engage stakeholders? Who are the stakeholders? Who benefits from answering this question?
- **Novel** – does it bring new knowledge or perspectives to the field of research?
- **Ethical** – can the research required to answer it be conducted responsibly?
- **Relevant** – does it address real-world issues or theoretical debates?

## Hypotheses

- Proposed explanation and reformulation of the RQ
- **Purpose:** to organise the project and provide its structure
- Suggest the **relationships** between concepts/ constructs and indicators, which can be proved or disproved
- Should not be too broad, nor too narrow
  - Don't try to explain everything in one hypothesis; keep reformulating them until they become manageable

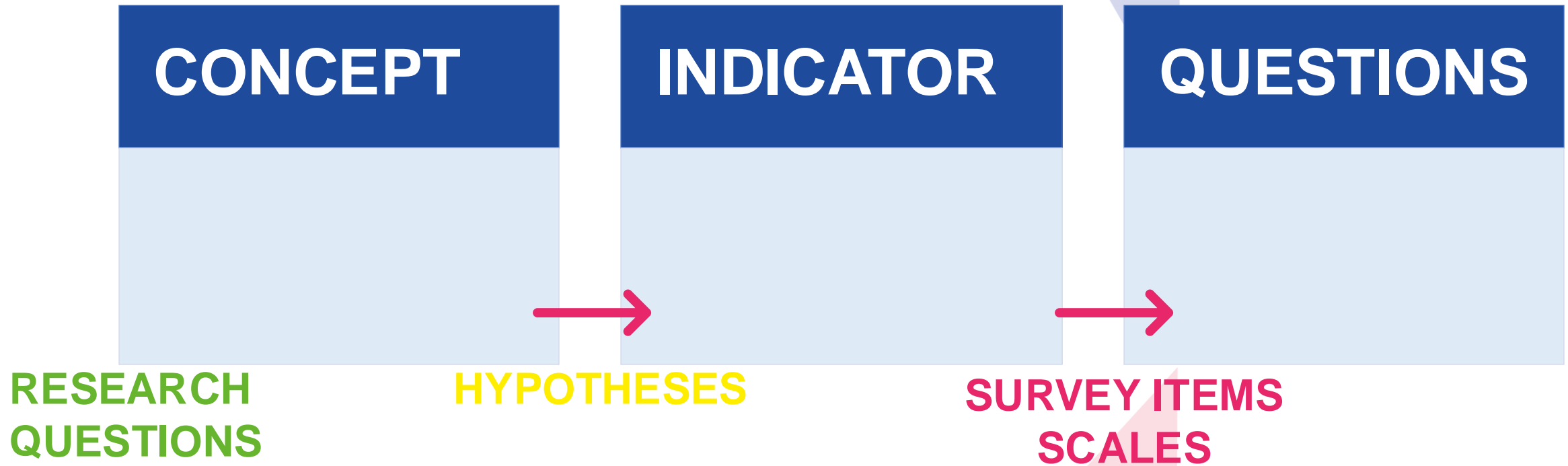
Remember this?



## Types of hypotheses

- The null hypothesis  $H_0$ 
  - there is no effect of the manipulation of a variable on another variable
- The alternate hypothesis  $H_1$ 
  - changes in one variable lead to changes in another
- We test a hypothesis by finding evidence to reject  $H_0$

Remember this?



## Scales or composite scores

- A particular concept can be investigated using one single item or indicator in a survey, or multiple ones to form a scale
- Why single item:
  - Not enough space in a survey to add multiple ones
  - Good clear indicator for the concept
- Why multiple:
  - Helps comprehension of more complex items
  - Make more valid measures
  - Increase reliability
  - greater precision
  - summarise the information from multiple variables into one



## Scales - Likert

- Existing scales (or indicators) for some concepts have been tested for validity and reliability - we don't need to reinvent the wheel
  - The inventory of items, items banks, previous surveys in that field
- Assess levels of acceptability, appropriateness, importance, agreement, support/opposition, probability, desirability, participation etc.
- Odd or even number of choices depending on whether you want to force the respondents to choose a side
- Including a “Don't know” option or allowing people to skip questions

## Self-esteem Scale (Rosenberg 1965)

Instructions: Below is a list of statements dealing with your general feelings about yourself. On a scale from 1 to 4, where 1 is SA and 4 is SD, how much do you agree or disagree with each statement?

1. On the whole, I am satisfied with myself.
2. At times, I think I am no good at all.
3. I feel that I have a number of good qualities.
4. I am able to do things as well as most other people.
5. I feel I do not have much to be proud of.
6. I certainly feel useless at times.
7. I feel that I'm a person of worth, at least on an equal plane with others.
8. I wish I could have more respect for myself.
9. All in all, I am inclined to feel that I am a failure.
10. I take a positive attitude toward myself.

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## Data collection

- Before embarking on collecting data on your own (resource intensive), consider using data already available
  - <https://www.europeansocialsurvey.org/data-portal>
  - <https://europeanvaluesstudy.eu/>
  - <https://www.eurofound.europa.eu/en/surveys/european-quality-life-surveys-eqls>
  - <https://issp.org/>
  - <https://www.ggp-i.org/>
  - <https://www.gesis.org/en/eurobarometer-data-service/about>
- <https://ukdataservice.ac.uk/>
- <https://www.data-archive.ac.uk/>
- <https://www.britishelectionstudy.com/>

## Steps in quantitative research

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## Links

### SEARCHING DATA:

- I4NG Inventory of survey items (ESS, EVS, GGS, ISSP, EQLS, Eurobarometer) <https://tool.infra4nextgen.eu/inventory.html> (WIP)
- Gesis Search <https://www.thesis.org/en/services/finding-and-accessing-data>

### EXPLORING DATA:

- ESS Data Portal <https://ess.sikt.no/en/>
- E-next gen tool <https://tool.infra4nextgen.eu/> (WIP)
- EVALUE <https://www.atlasofeuropeanvalues.eu/maptool.html>

### TRAINING RESOURCES:

- GGS Teaching Datasets <https://www.ggp-i.org/ggs-teaching-datasets/>

# INVENTORIES OF SURVEY ITEMS

- **Aim:**

- To produce a document enumerating previously used survey items
- A comprehensive inventory of cross-national survey data relating to each of the five NextGen EU pillars corresponding to WP 2-6

- **Surveys to review:**

- European Social Survey (ESS)
- European Quality of Life Survey (EQLS)
- Generations and Gender Survey (GGS)
- European Values Study (EVS)
- International Social Survey Programme (ISSP)
- *Eurobarometer*



**European Quality of Life Surveys (EQLS)**



European *Values* Study 

**Eurobarometer**

# INVENTORIES OF SURVEY ITEMS

## Issue

- Although these research infrastructures have extensive data and documentation publicly available, there is no central searchable repository of items for all.

## Task

- Locate all items asked cross-nationally and identify the ones most pertinent to the objectives of each pillar

## Outcome

- An inventory for each pillar



## INVENTORIES OF SURVEY ITEMS

3,287 items (RI Surveys) + 7,447 items (Eurobarometer) = 10,734 items

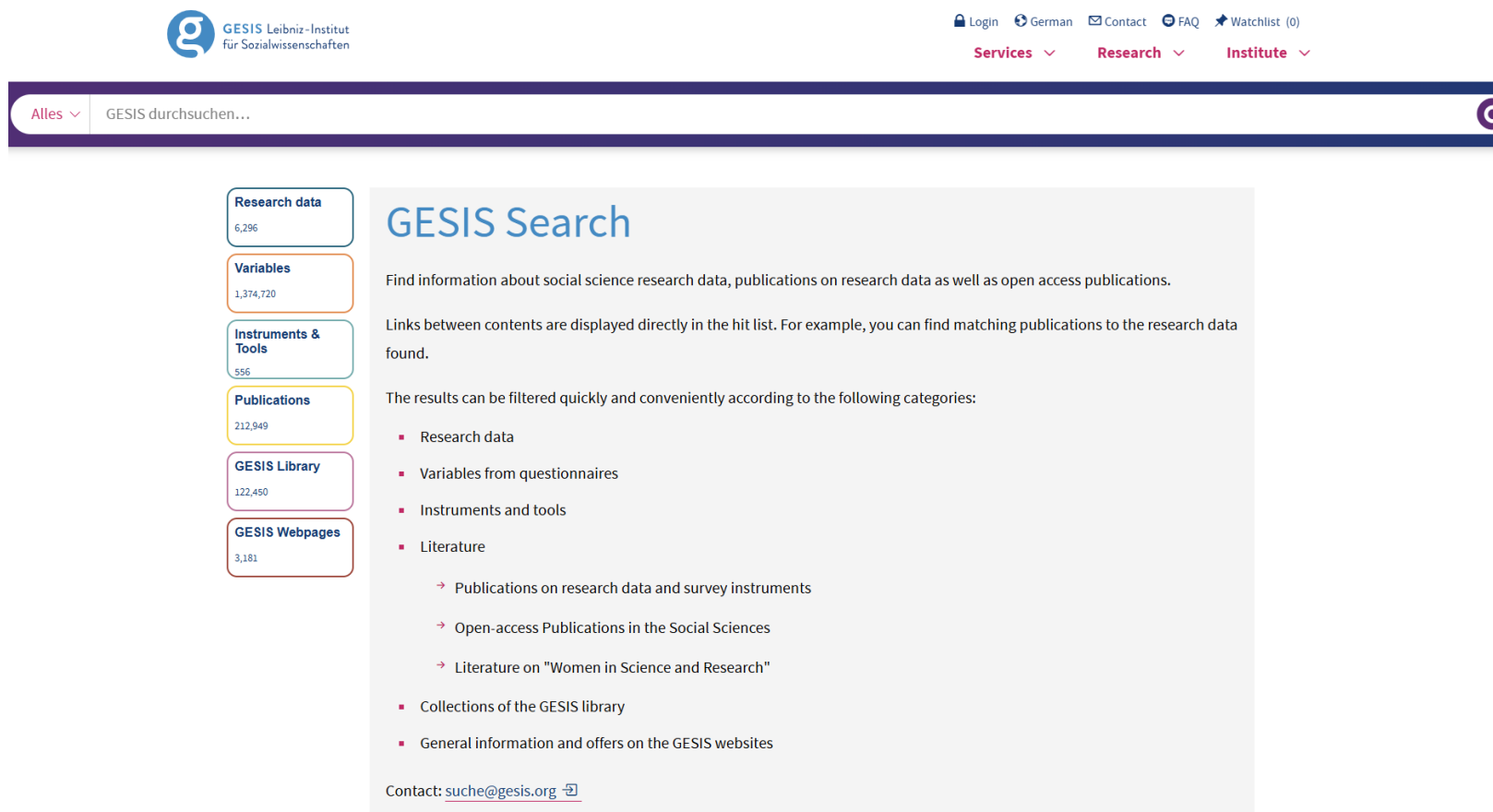
Survey	Green	Digital	Equal	Healthy	Strong
EQLS	9	18	64	158	258
ESS	38	35	391	221	551
EVS	28	9	233	44	441
GGS	4	2	203	189	375
ISSP	90	98	302	238	758
Eurobarometer	2,194	609	1,601	1,450	3,379
<b>Total</b>	<b>2,363</b>	<b>771</b>	<b>2,794</b>	<b>2,300</b>	<b>5,762</b>

<https://tool.infra4nextgen.eu/inventory.html>

## INVENTORIES OF SURVEY ITEMS: NEXT STEP

- Item repetitions
- Direct links to the sources to download data and materials
- Cronos items (ESS) to be added
- Automatic classification (with AI) of the content of each item
- Boolean operators in the search bar
- Table export
- Constant update with new survey waves

# GESIS SEARCH



**GESIS** Leibniz-Institut  
für Sozialwissenschaften

Login German Contact FAQ Watchlist (0)

Services Research Institute

Alles GESIS durchsuchen...

**Research data**  
6,296

**Variables**  
1,374,720

**Instruments & Tools**  
556

**Publications**  
212,949

**GESIS Library**  
122,450

**GESIS Webpages**  
3,181

## GESIS Search

Find information about social science research data, publications on research data as well as open access publications.

Links between contents are displayed directly in the hit list. For example, you can find matching publications to the research data found.

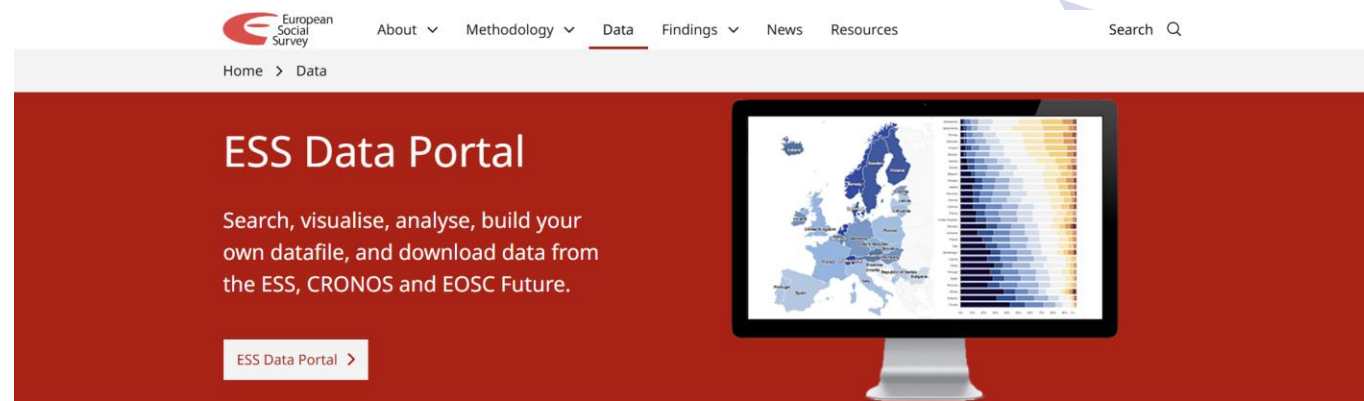
The results can be filtered quickly and conveniently according to the following categories:

- Research data
- Variables from questionnaires
- Instruments and tools
- Literature
  - Publications on research data and survey instruments
  - Open-access Publications in the Social Sciences
  - Literature on "Women in Science and Research"
- Collections of the GESIS library
- General information and offers on the GESIS websites

Contact: [suche@gesis.org](mailto:suche@gesis.org)

<https://www.gesis.org/en/services/finding-and-accessing-data>

# ESS DATA PORTAL



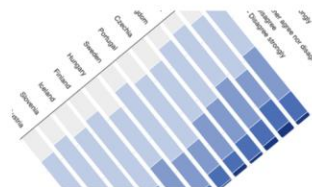
## Dive into the data



### Trust in politicians?

Do europeans have trust in politicians? See the results in the European Social Survey.

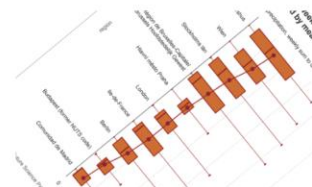
[Trust in politicians? >](#)



### Are you happy?

In CRONOS 2 you can see how people have answered.

[Goto the CRONOS 2 data >](#)



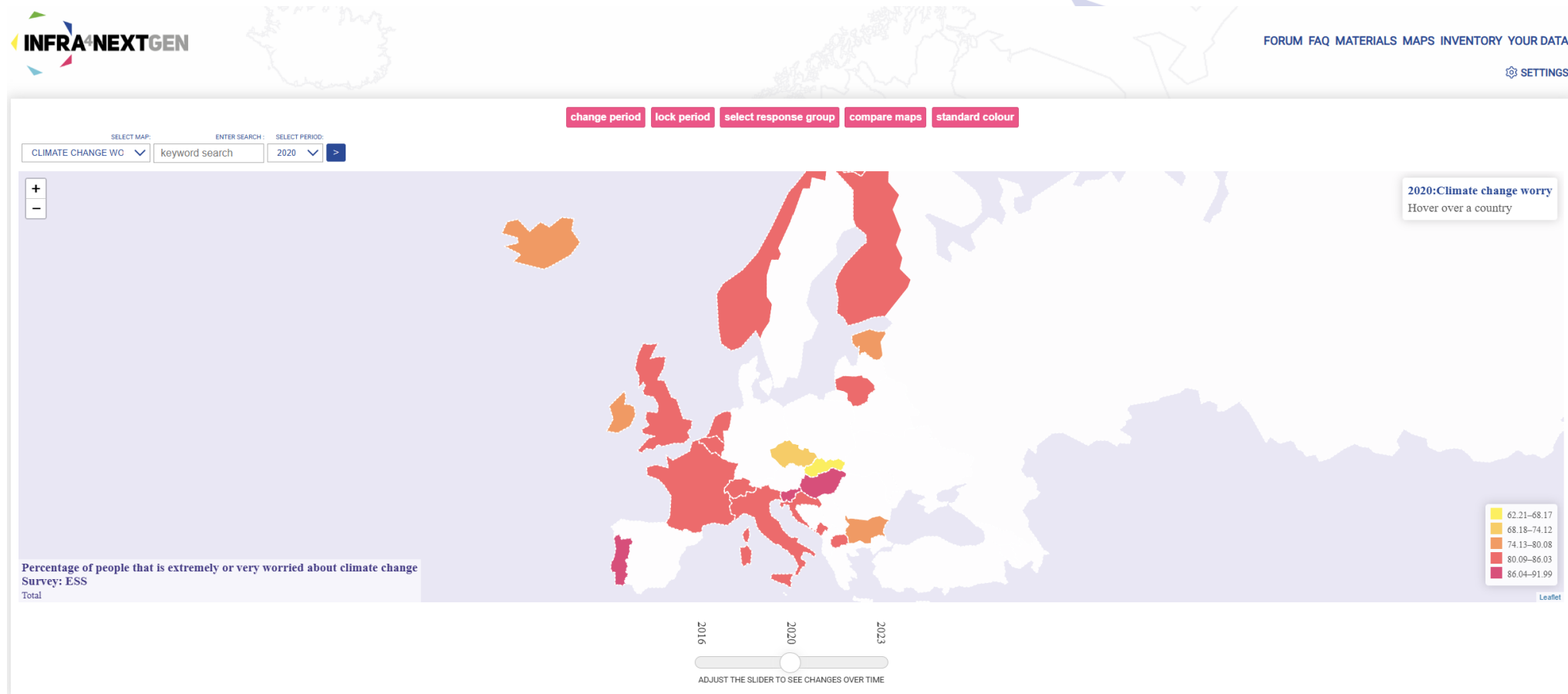
### Precipitation

In the EOSC data collection we can look at precipitation in the different regions.

[Look at precipitation in European regions >](#)

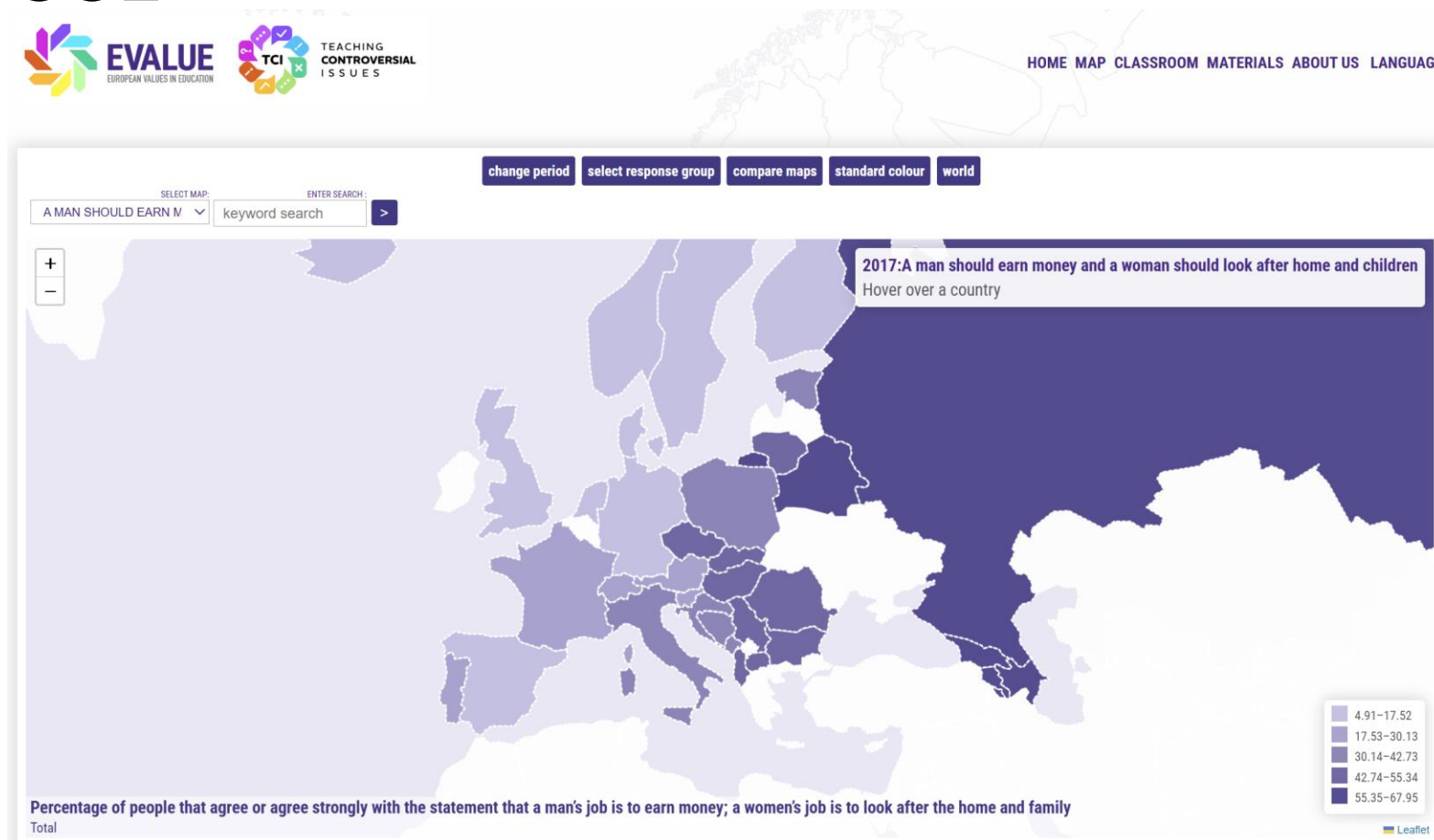
<https://ess.sikt.no/en/>

## E-NEXT GEN TOOL



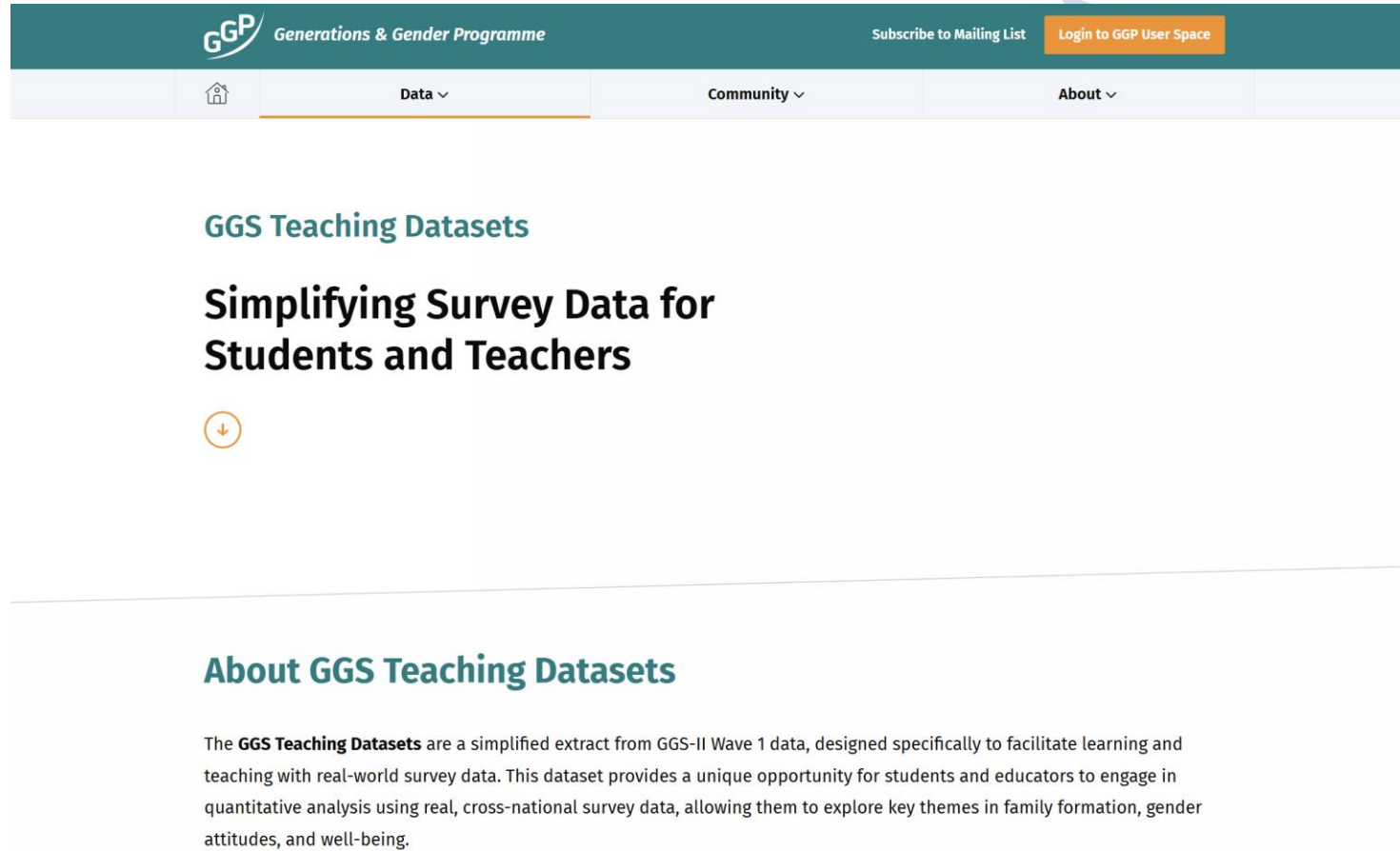
<https://tool.infra4nextgen.eu/>

## EVALUE TOOL



<https://www.atlasofeuropeanvalues.eu/maptool.html>

# GGG TEACHING DATASETS



The screenshot shows the GGP (Generations & Gender Programme) website. The header is dark teal with the GGP logo and name on the left, and links for 'Subscribe to Mailing List' and 'Login to GGP User Space' on the right. Below the header is a navigation bar with a home icon, 'Data' (selected), 'Community', and 'About'. The main content area has a teal heading 'GGG Teaching Datasets', followed by the subheading 'Simplifying Survey Data for Students and Teachers' and a download icon. A horizontal line separates this from the 'About GGS Teaching Datasets' section, which contains a paragraph describing the datasets as a simplified extract from GGS-II Wave 1 data.

GGP Generations & Gender Programme

Subscribe to Mailing List Login to GGP User Space

Home Data Community About

## GGG Teaching Datasets

### Simplifying Survey Data for Students and Teachers

↓

### About GGS Teaching Datasets

The **GGG Teaching Datasets** are a simplified extract from GGS-II Wave 1 data, designed specifically to facilitate learning and teaching with real-world survey data. This dataset provides a unique opportunity for students and educators to engage in quantitative analysis using real, cross-national survey data, allowing them to explore key themes in family formation, gender attitudes, and well-being.

<https://www.ggp-i.org/ggs-teaching-datasets/>

## Contacts

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I<sup>4</sup>NG [Infra4nextgen.com](http://Infra4nextgen.com)

