

# THE CHALLENGES OF THE NEW SCIENTIFIC EVALUATION IN AN OPEN SCIENCE WORLD:

a latinamerican perspective

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# CONTENT

- An Open Science World for evaluation
- From “Evaluation of Science” to “Science Evaluation”
- Challenges:
  - New objects of evaluation
  - Alternative and contextualized metrics
  - Measure of societal impact
  - Institutionalization and governance of open science
- Conclusions



# AN OPEN SCIENCE WORLD FOR EVALUATION

*"Open scientific knowledge also refers to the possibility of opening up research methodologies and evaluation processes."*

From the conceptualization of Open Science itself,

Its values concerning academic quality and integrity,

Technological infrastructure and identification of production,

Diversification of the forms of incentives,

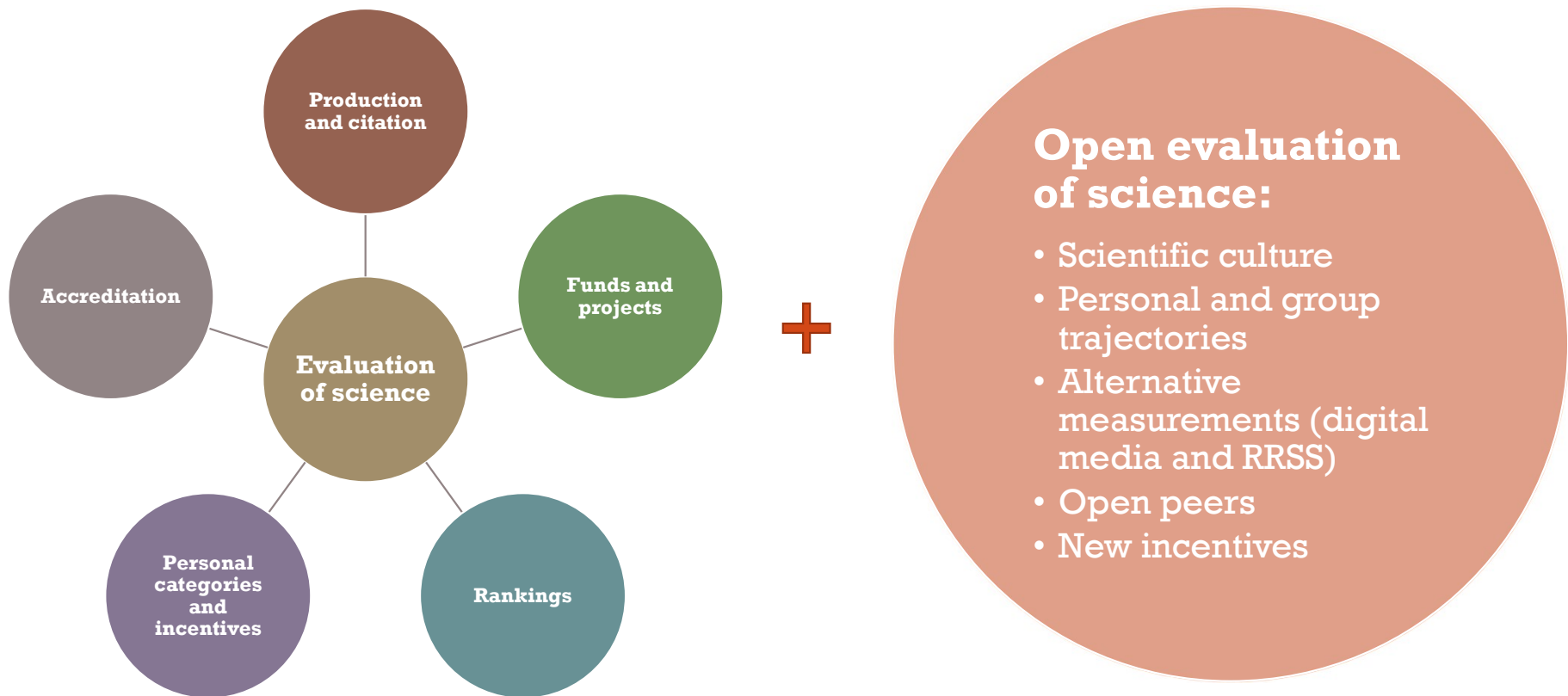
Recognition of the diverse scientific contributions to society in the quality of their results,

Innovation of evaluation methodologies, and

System for monitoring the development of Open Science.



# NEW OBJECTS OF EVALUATION



It is a **contribution** to better **programming**.

For **social recognition** of the effort made and of the participating actors who carried it out.

**Thinking about doing**, to identify errors and problems that hinder action, **to perfect the intervention**.

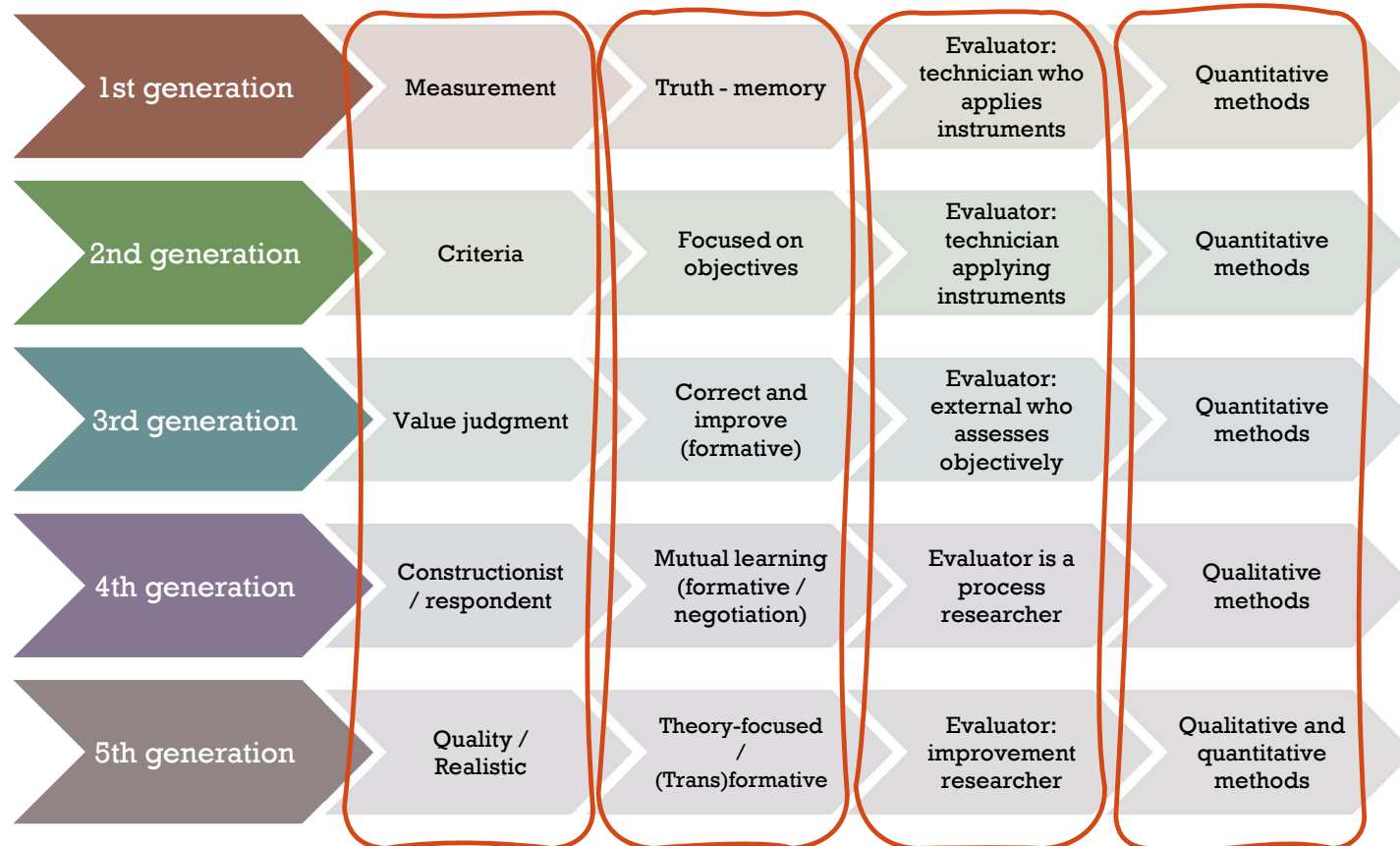
Permanent **learning process** to identify information for **decision making**.

## FROM “EVALUATION OF SCIENCE” TO “SCIENCE EVALUATION”

(Nirenberg, 2009; Pichardo, 1997)



# FROM “EVALUATION OF SCIENCE” TO “SCIENCE EVALUATION”



(Brousselle & Buregeya, 2018; Cuenca Muñoz, 2007; Guba & Lincoln, 1989)



# NEW OBJECTS OF EVALUATION OF SCIENCE

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Diversity of production and degrees of openness

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Alternative and contextualized metrics (beyond citation, ranking, certification, accreditation....)

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Societal impact ex ante and ex post: funds and projects

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Inclusive model for categories and incentives

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Encouragement of multilevel work (many disciplines and institutions)

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New forms of innovation and intellectual public property





## Society, Target groups and Science users

- Social science and humanities

## Social network users

- Data science and altmetrics

## Industry and small business

- Innovation and patentometrics

## Decision making

- Politics and policy analysis

## Scientific communities

- Networks, inter/transdisciplinarity and new ways of bibliometrics in data science (responsibly)

# ALTERNATIVE AND CONTEXTUALIZED METRICS





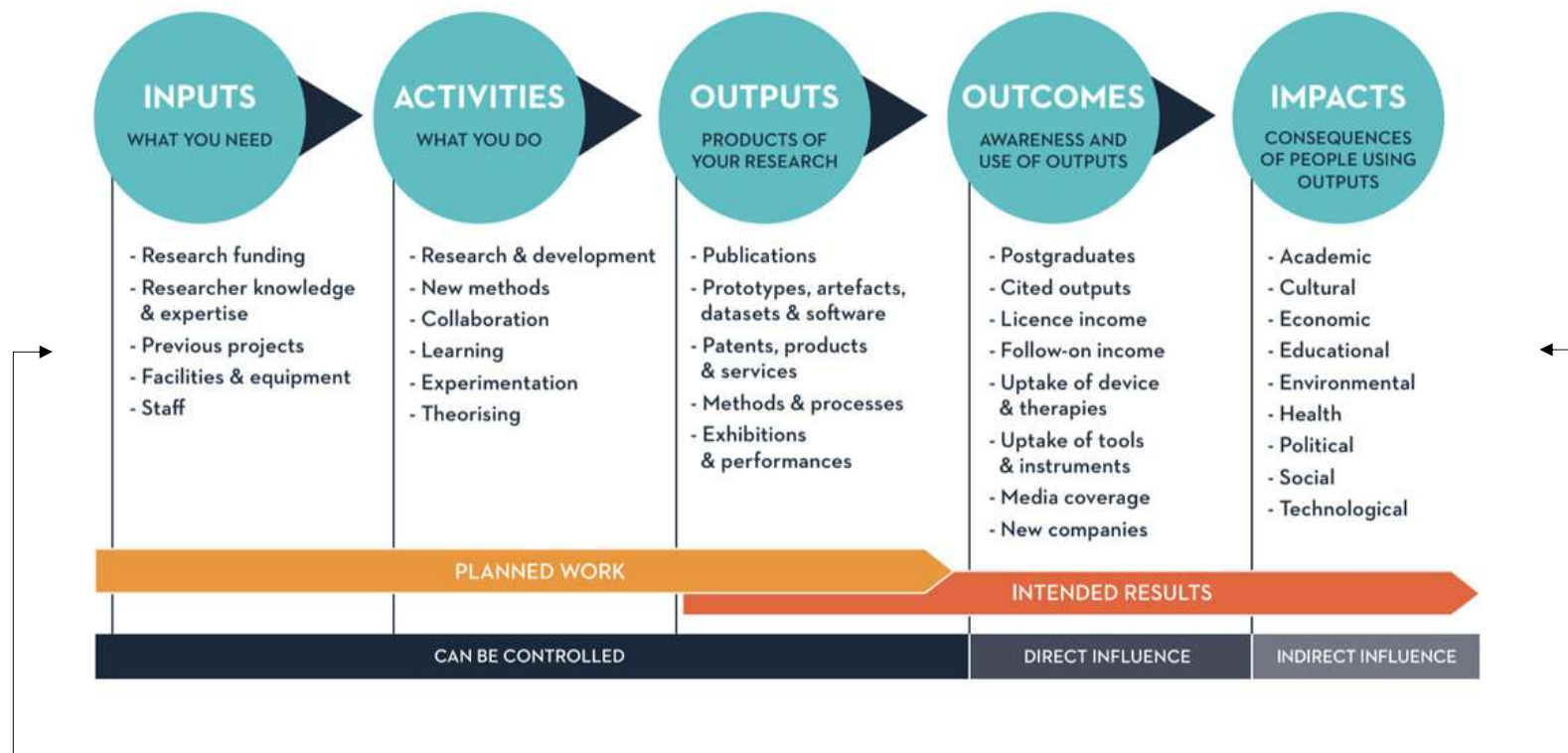
# MEASURE OF SOCIETAL IMPACT



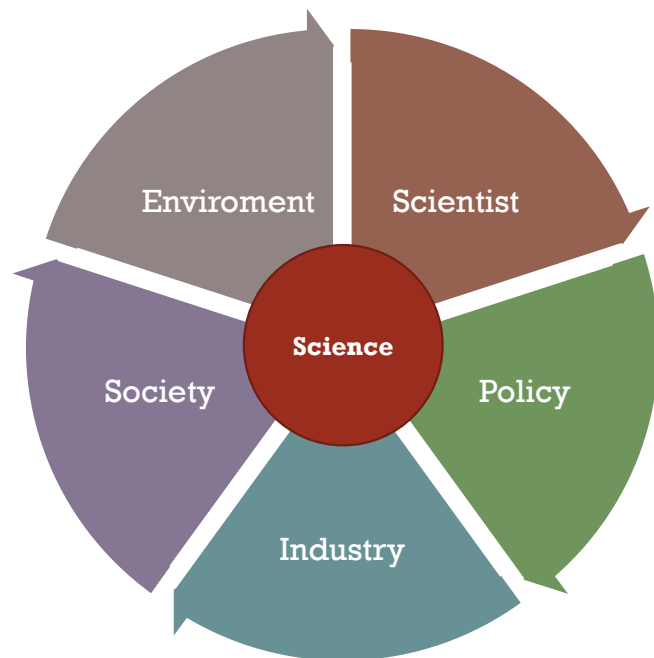
(UCD Research - Impact Toolkit)



# MEASURE OF SOCIETAL IMPACT



# INSTITUTIONALIZATION AND GOVERNANCE OF OPEN SCIENCE



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New aproches for Science policy

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Knowledge managment: CRIS,  
repositories and open monitoring

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Results planning and evaluation

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Capture the social and citizen demands

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New ways of recognition and value  
personal and group

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Contribution to ODS

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# GRACIAS

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