# Open Science International Staff Week UC3M

The interest of science shops for universities: The case of the UC3M-INAECU Science Shop





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### INTRODUCTION

### There are different ways of conducting science: TRADITIONAL SCIENCE and CITIZEN SCIENCE



PERSPECTIVE: Traditional science

- The researchers define the topic to study
- Citizens do NOT participate in the knowledge production process
- The scientific findings reach the citizens by the dissemination process (they are passive actors)
- The community **has little chance** of interaction with researchers
- Science FOR society

### INTRODUCTION

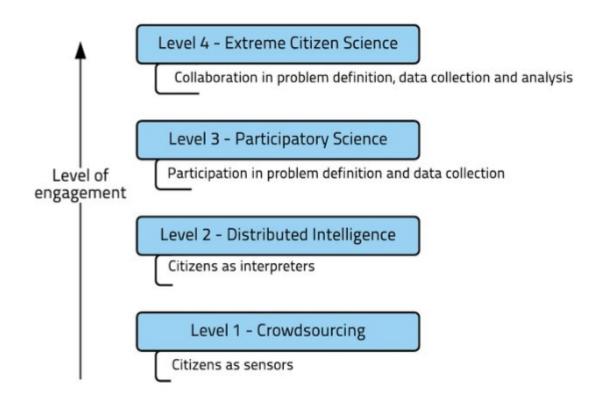


Figure adapted from Haklay (2013)

PERSPECTIVE: Citizen science

Citizens can participate in all stages of the research project

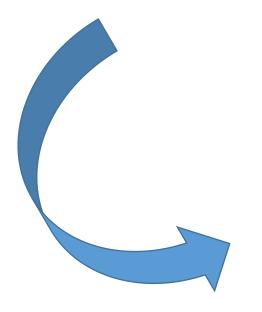
In this new perspective, the university can play an important role, because it can interact with citizens within its missions: teaching, research and knowledge transfer activities.

This new vision of research will allow the empowerment of citizens

Science WITH AND FOR society (SWAFS)

## Science shop as a case of citizen science

Within the Citizen Science perspective, the Science Shops promote the relationship between researchers and citizens



A Science Shop provides independent, participatory research support in response to concerns experienced by civil society.

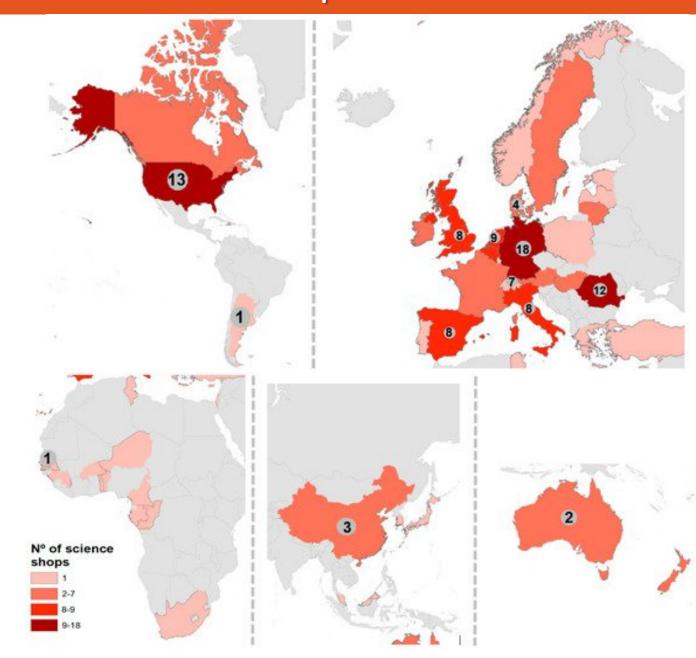
(Living Knowledge- International Science Shop Network)

### CITIZEN SCIENCE: science shop

Since the first science shop, which emerged in the Netherlands in the 70s, many others have been created worldwide later. Europe leads these entities in almost all countries

In Spain, one of the recent initiatives is the Science-Shop UC3M-INAECU

Numbers of Science Shop by country



### The UC3M-INAECU Science Shop

SciShops.eu Project "Enhancing the Responsible and Sustainable Expansion of the Science Shops Ecosystem in Europe"

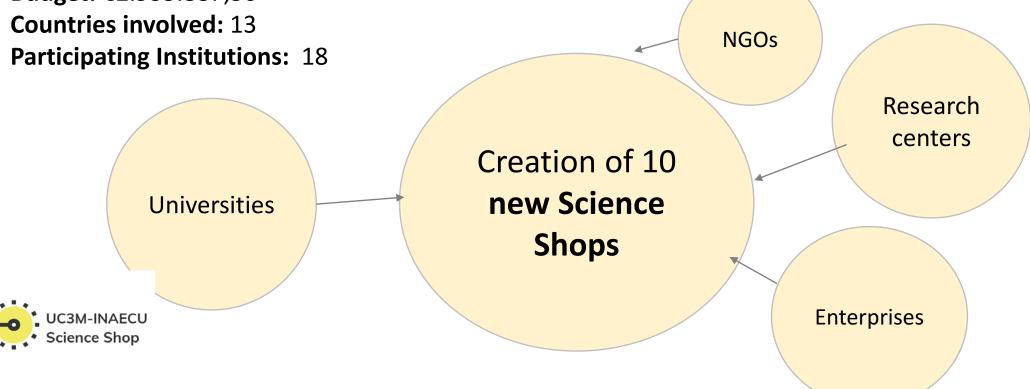


**European Programme:** Horizonte 2020

Call: H2020-SwafS-2016-1. Participatory research and innovation via Science Shops

**Duration:** 30 months (2017-2020)

**Budget:** €2.935.887,50

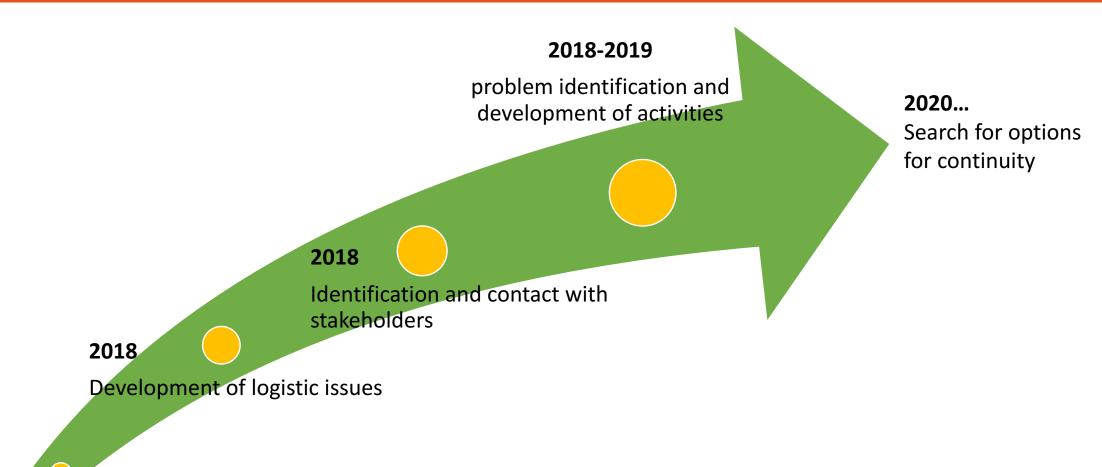


## The contribution of science shops to university

- Direct communication with the citizens.
- > Forum for discussion.
- Know the citizens problems and needs of the local communities.
- Promoting the scientific and social recognition.
- Offer solutions to the citizens.
- Creation of synergies.



# Main milestones of UC3M-INAECU Science Shop



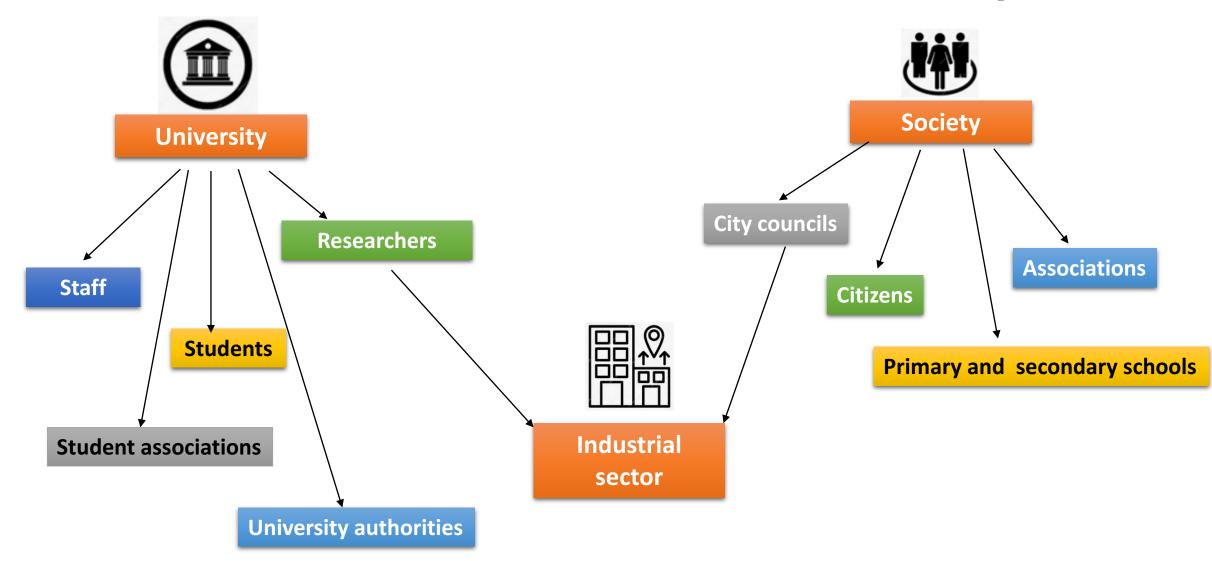
2017

Initial phase of the Project "Scishop.eu"



# UC3M-INAECU Science Shop stakeholders





# UC3M-INAECU Science Shop: activities





Participatory methodologies



Research projects



Dissemination activities

### Knowledge café events















Meetings with stakeholders to identify traffic and pollution problems in the urban areas of Getafe (September 2019)

### FOCUS GROUP AND CO-CREATION events









April 2019

Meeting with various stakeholders to identify problems related to traffic mobility in the municipality of Getafe and discuss proposals/solutions.



May 2019

Meeting with different stakeholders to discuss proposals on the reuse of empty lots in Madrid.

### Research Projects





EU Projects on Urban Mobility: Getafe Model City



Reuse of empty lots in Madrid (community uses)



Citizen mobility monitoring for urban planning through citizen science initiative

## A specific case of problem identification

#### Stakeholders involved

- Citizens
- Local authorities
- Organizations (neighbors, disabled, environmental, etc.)
- companies
- Technical staff (UC3M)
- Researchers (UC3M)
- NGOs

Problem identification: mobility of citizens in the city of Getafe

Transformation into a research question

Participatory meetings / activities with the different agents involved

Solution of the problem

Current phase

**Co-creation** of knowledge (Bottom-up perspective)





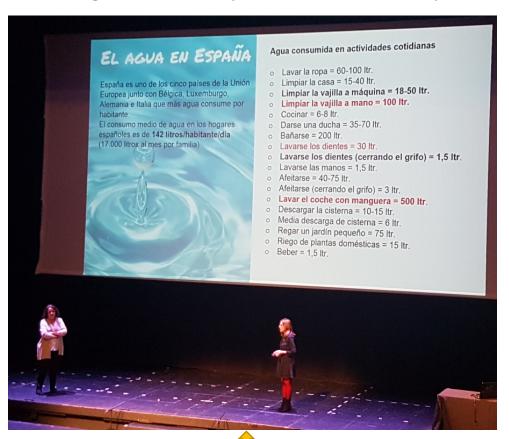
"European Researchers' Night"September (2018)

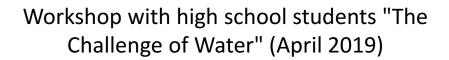


"European Researchers' Night"September (2019)



#### Training for secondary school teachers (September 2018)







Workshop in "Youth Speak Forum" (april 2019)





Workshop "Evolution of research on citizen science". INAECU Institute, Madrid (May 2018)

Workshop: How does science reach the citizen? INAECU Institute, Madrid (February 2019)



Activity with students during Solidarity Week (February 2019)









Info session with experts on traffic mobility (September 2019)

# Strengths and weaknesses of our Science-Shop

#### Strengths

- Broad knowledge of the local communities problems
- Close collaboration with municipalities
- Working with topics of interest to communities
- Support of the 'Scishops.eu' project
- Motivated work team

#### Weaknesses

- Funding until the end of the project
- Difficulty for involving certain stakeholders (lack of recognition)
- Dependence on political factors in the relationship with municipalities

#### **Opportunities**

- The Mattew Effect (the prestige and recognition of the University)
- Collaboration with more experienced European partners (possibility of mentoring and twinning)

#### **Threats**

- Strong dependence on the university facilities
- lack of mid-term financing

### **CONCLUDING REMARKS**

- > Activities in citizen science and especially in science shops can be very useful to strengthen university activities with their local communities.
- ➤ Science shops are rarely used in Spain for conducting research using the participatory community-based research methodology.
- > This knowledge generation process must provide a more social and participatory approach to science.
- The identification of questions and needs of the local communities is crucial in order to solve the identified problems.

# Staff Week Open Science UC3M

# Thanks for your ATTENTION!!

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