





IL PUBBLICO SIAMO NOI

Nuove sfide e nuovi modelli
per la comunicazione della scienza

Paola Rodari, Sissa Medialab, Trieste

Dal passaggio di informazioni al dialogo alla
partecipazione

La questione dell'esperto

La questione della fiducia

L'immaginario e le altre dimensioni della
comunicazione e dell'apprendere

RRI

Nuovi metodi





Trasmissione
Dialogo
Partecipazione

Dall'alfabetizzazione scientifica
alla cittadinanza scientifica

Deficit model

Personne sono ignoranti e spesso ostili

Più informazione = più consenso





Brasil 2015

Mais benefícios

Posição intermediária

Mais malefícios

Não sabe/Não respondeu

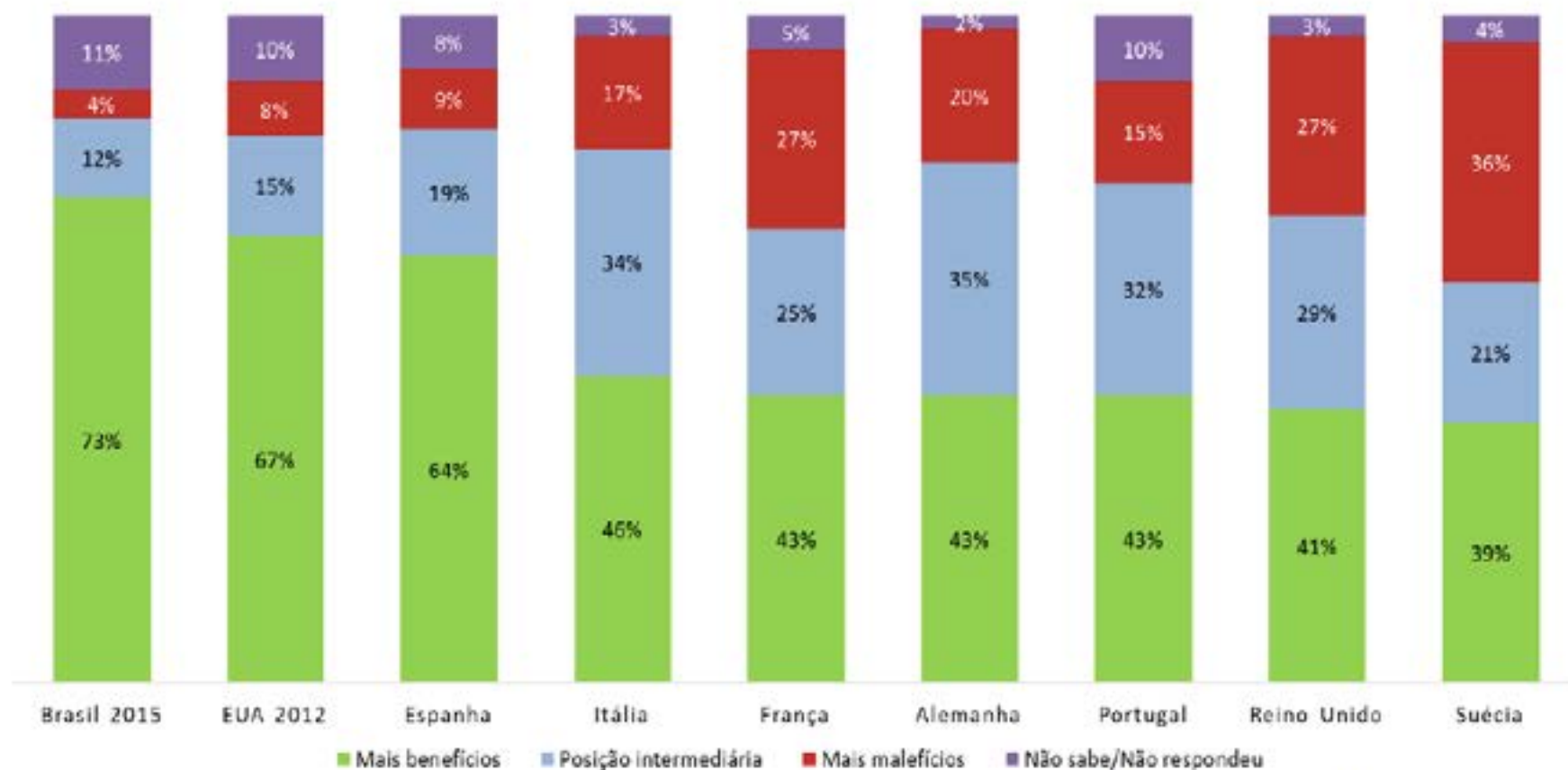


Gráfico 8. Comparação entre a percepção sobre benefícios e malefícios da C&T, por país. 2015.

Fonte: Pesquisa sobre percepção pública da C&T no Brasil (CGEE, 2015).



ROSE
THE RELEVANCE
OF SCIENCE EDUCATION

<http://roseproject.no/>

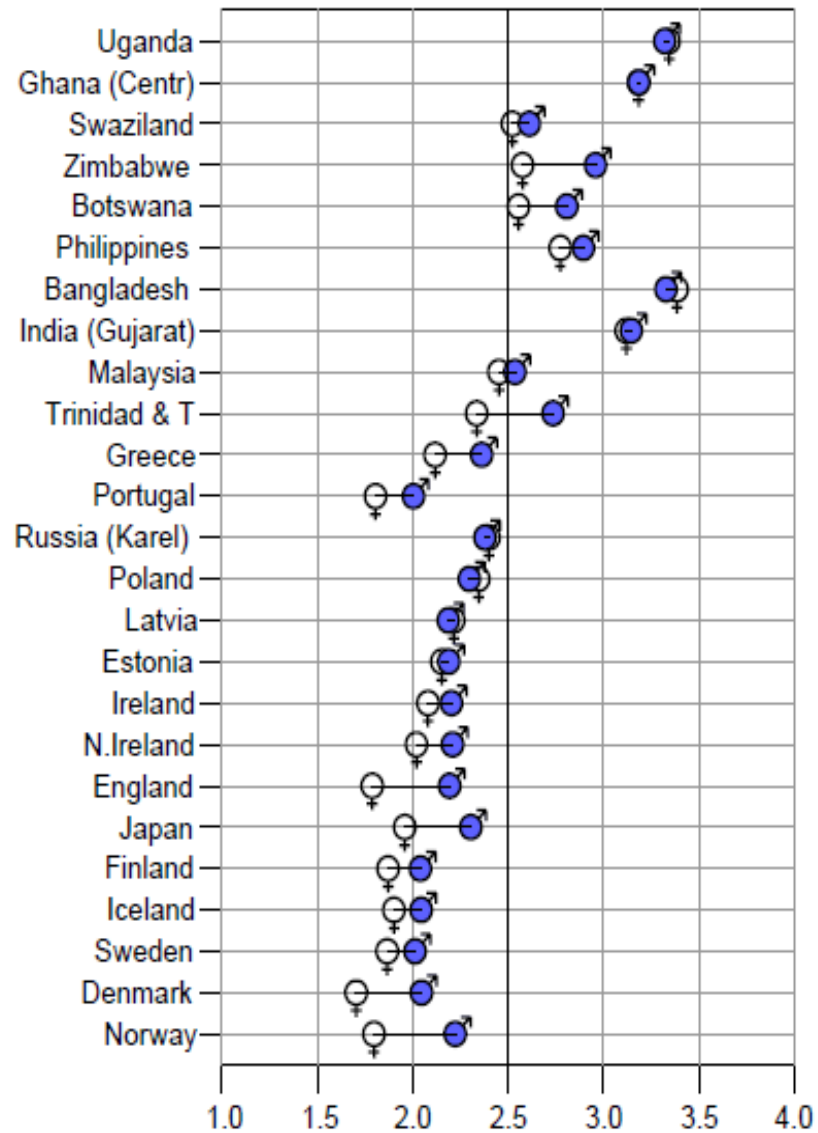


Figure 3. I like school science better than most other subjects. See caption 1 for diagram explanations.

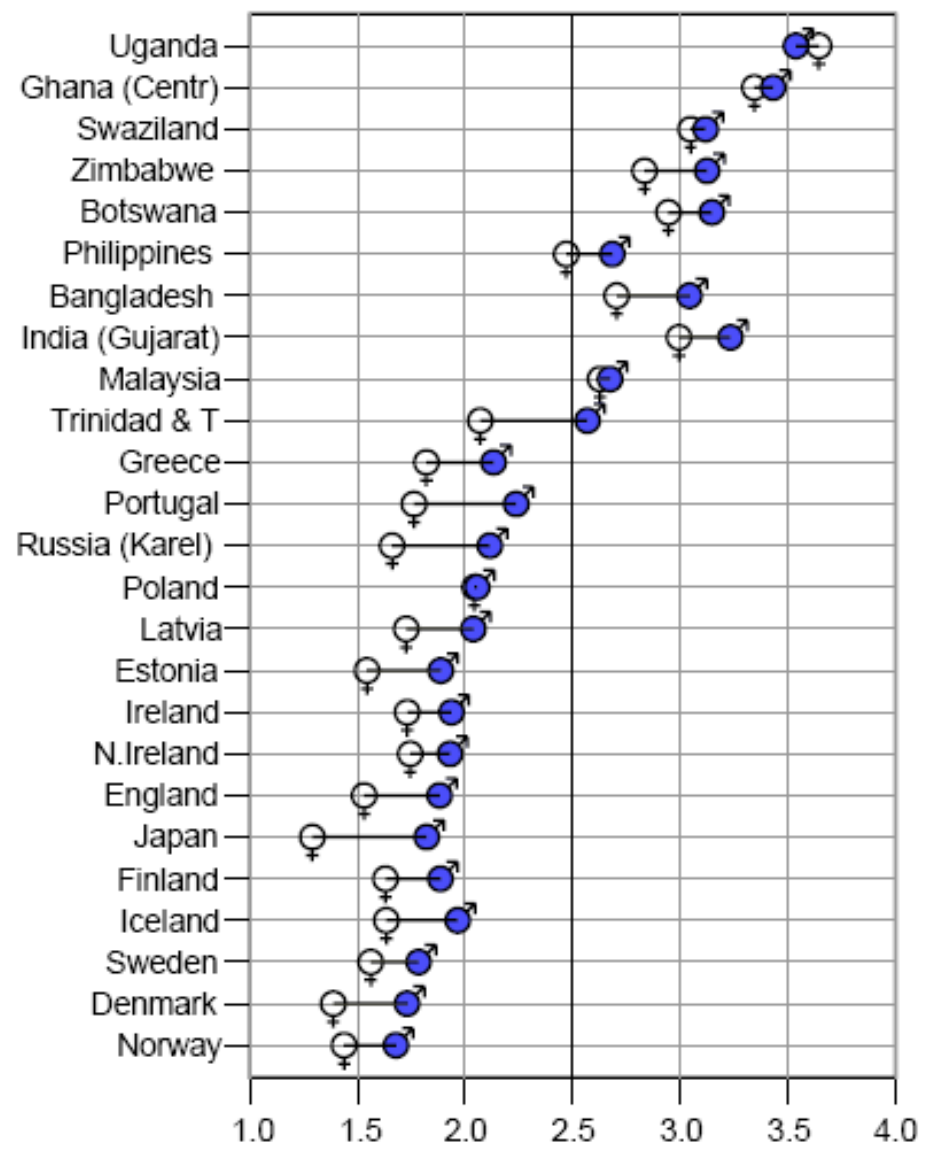


Figure 5. I would like to become a scientist. See caption 1 for diagram explanations.

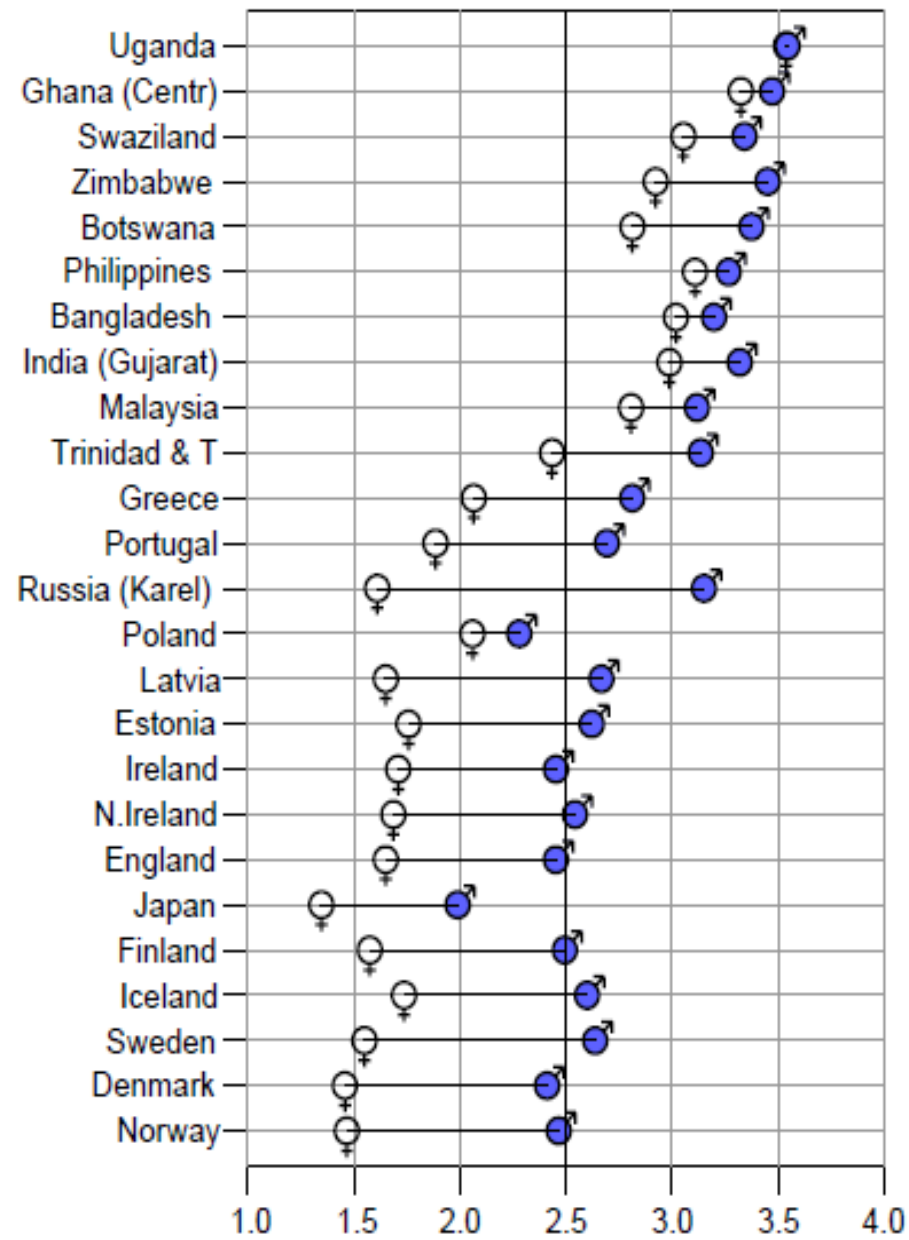


Figure 6. I would like to get a job in technology. See caption 1 for diagram explanations.

Ipsos MORI
Social Research Institute



March 2014

Public Attitudes to Science 2014

Main Report

Sarah Castell, Anne Charlton, Michael Clemence, Nick Pettigrew, Sarah Pope, Anna Quigley, Jayesh Navin Shah and Tim Silman



Special Eurobarometer 419



Percepção Pública da C&T no Brasil 2015

wissenschaft : im dialog

über uns projekte trends & themen forum wissenschaftskommunikation medien



Wissenschaftsbarmeter 2015

Eine repräsentative Meinungsumfrage

PUBLIC PERCEPTIONS OF SCIENCE, RESEARCH AND INNOVATION

REPORT

PewResearchCenter

NUMBERS, FACTS AND TRENDS SHAPING THE WORLD

FOR RELEASE DECEMBER 11, 2015

Public Interest in Science and Health Linked to Gender, Age and Personality

BY Brian Kennedy AND Cary Funk



http://ec.europa.eu/public_opinion/index_en.htm

Le persone sono interessate a S&T?

Quanto si sentono informate riguardo a S&T?

Da dove prendono le informazioni?

Di quali fonti di informazione si fidano S&T?

Pensano che l'impatto di S&T sulla società sia
più positivo o più negativo?

.....

2010 Food related risks; Rare diseases; Mental Health; Science and scientists; Biotechnology; Chemicals in products

2011 Climate change; Environment

2012 Cyber security; Food security and quality; Civil protection; Patient involvement; Water; Journalists and social media

2013 Cyber security; Antimicrobial resistance; Responsible research and innovation; Biodiversity; Chemicals; Air quality

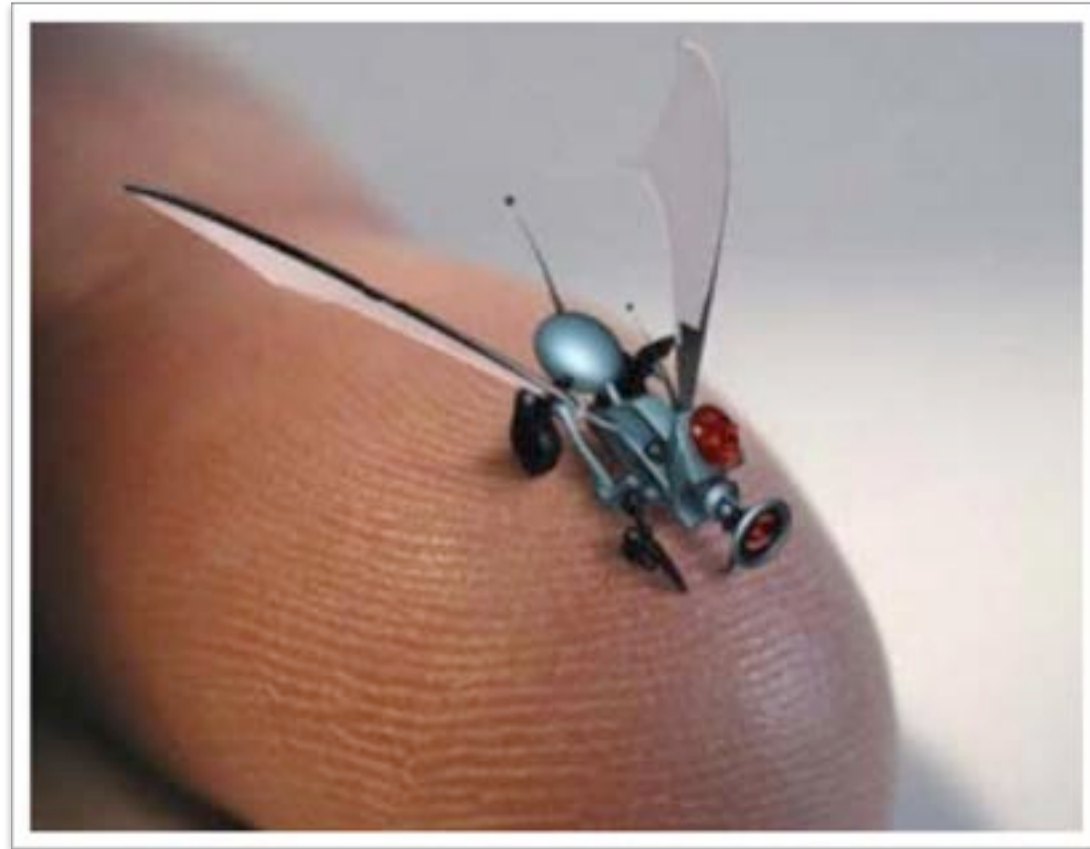
2014 Climate change; Public perceptions of science, research and innovation; Attitudes of Europeans towards the environment; Cyber security; Patients rights

2015 Public opinion on future, innovation, science and technology; Journalism and social media; Data protection; Patients' rights in cross-border healthcare in the European Union;



Le persone non hanno solo conoscenze, ma anche

opinioni,
interessi,
motivazioni,
attitudini,
valori,
emozioni









“Dialogue does not remove authority or expertise from science; it locates scientific developments in a wider social context and enables the inclusion of a wider range of relevant expertise with regard to the application of such developments”

Jackson, R., Barbagallo, F. & Haste (2005), H. Strengths of public dialogue on science-related issues, *Critical Review of International Social and Political Philosophy* .

Deficit model (trasmissivo)

Dialogue model (dialogico)

Participation (partecipativo)

	Deficit	Dialogue	Participation
Main Focus	Public ignorance and technical education	Dialogue, engagement, transparency, building trust	Direction, quality and need for sociotechnical change
Key Issues	Communicating science, informing debate, getting the facts straight	Re-establishing public confidence, building consensus, encouraging debate, addressing uncertainty	Setting science and technology in wider cultural context, enhancing reflexivity and critical analysis
Communication style	One-way, top-down	Two-way, bottom-up	Multiple stakeholders, multiple frameworks
Model of scientific governance	Science-led, 'science' and 'politics' kept apart	Transparent, responsive to public opinion, accountable	Open to contested problem definitions, beyond government alone, addressing societal concerns and priorities
Sociotechnical challenge	Maintaining rationality, encouraging scientific progress and expert independence	Establishing broad societal consensus	Viewing heterogeneity, conditionality and disagreement as a societal resource
Overall perspective	Focusing on science	Focusing on communication and engagement	Focusing on scientific/ political cultures
Emphasis	Content	Context	Content and Context
Aims	Transferring knowledge	Discussing implications of research	Setting the aims, shaping the agenda of research
Ideological contexts	Scientism; Technocracy; Rhetoric of the knowledge economy	Social responsibility; Culture	Civic science; Democracy

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1/2
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D'EUROS

DES
PROJETS
DE PARISIENS

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VOTE
DES PARISIENS

...EN QUELQUES MOTS...

Responsible Research and Innovation

«**The dialogue between science and the rest of society has never been more important.** After ten years of action at EU level to develop and promote the role of science in society, at least one thing is very clear: we can only find the right answers to the challenges we face by involving as many stakeholders as possible in the research and innovation process. **Research and innovation must respond to the needs and ambitions of society, reflect its values, and be responsible**».



*MÁIRE GEOGHEGAN-QUINN,
European Commissioner for Research,
Innovation and Science*

*««Science in Dialogue - Towards a European Model
for Responsible Research and Innovation», 2012*

science show



Demostration / laboratorio



Inquiry based learning

science café





**Discussion
game**



**Hands-on
exhibits**



**Hands-on
exhibits**



**Tinkering e
attività maker**





Innovation skills

Pensiero creativo e divergente

Capacità di collaborare

Capacità di risolvere problemi

Capacità di prendere rischi

future

An exhibition
debating
Genetic
Modification



foods

An exhibition
debating
Genetic
Modification





**Dialogue
exhibits**



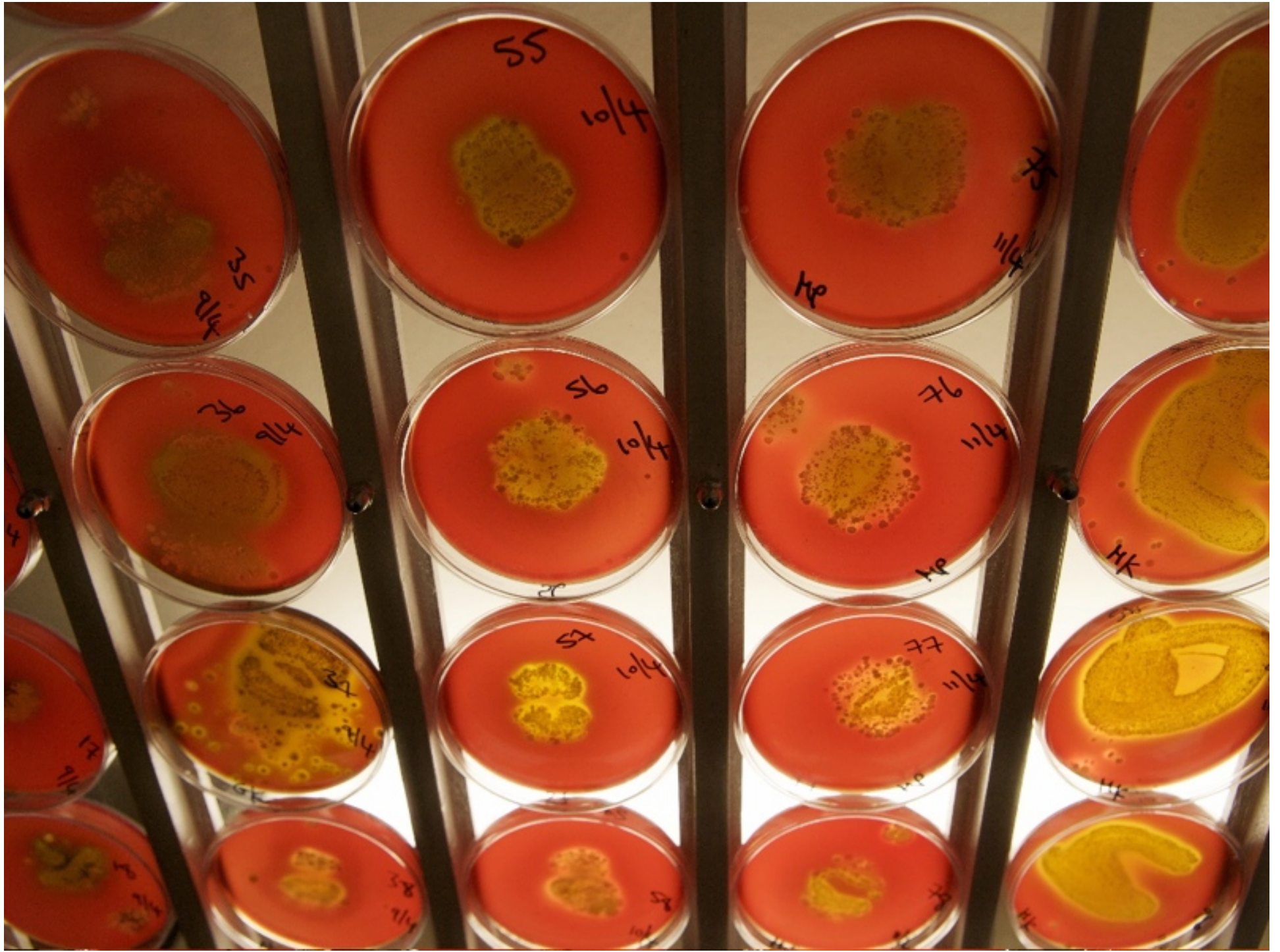


Should the police use flying CCTV?
The police have been using flying CCTV for some time. This is a new technology that allows the police to see what is going on from a high angle. This is a new technology that allows the police to see what is going on from a high angle.



Art & Science





V&A

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Giornalismo dei giovani

“Jota primordiale”

Una rivista di scienza progettata e realizzata da bambini di 9-12 anni



“Dove mi butto?”

Un blog di scienza progettato e
realizzato da ragazzi di 17-18 anni

Dove mi butto?

BLOG DI SCIENZA PER GIOVANI CONFUSI

SCIENCE
reporter



SARDEGNA
RICERCHE

Una sintesi sulla sintetizzazione

Posted on luglio 10, 2013 by Elisa Facen Video Rispondi

Chimica? La maggior parte di voi storcerebbe il naso. Chi ha voglia di bilanciare, ricordare a memoria i nomi di ossiacidi e sali, combattere con la mole... Ma se invece vi proponessero una chimica in cui si sintetizzano nuove molecole, e si lavora a contatto con macchinari degni di CSI? Oggi la ricercatrice **Claudia Fattuoni** ci racconta com'è il suo lavoro, e come lei sia arrivata a lavorare in un laboratorio di chimica organica alla cittadella universitaria di Cagliari.

Science reporter intervista Claudia Fattuoni



Search ...

ARTICOLI RECENTI

- ▶ Una sintesi sulla sintetizzazione
- ▶ Gli science reporter ospiti al Salone dell'Innovazione
- ▶ Storie ordinarie di menti straordinarie Episodio #3 Henri Becquerel
- ▶ Il dolore e la schizofrenia come lavoro
- ▶ Bizzarrie da scienziati #001

FACEBOOK

World Biotech Tour

Ragazzi delle secondarie come
Ambassador delle biotecnologie
ASTC, Biogen e MNST Milano







Citizen science



Level 1. Crowdsourcing.

Citizens gather or process data.

Level 2. Distributed intelligence.

Citizens interpret data.

Level 3. Participatory science.

Citizens participate in the definition of problems, challenges, objectives and in the collection of data.

Level 4. Collaborative science.

Citizens design, together with scientists, the research to be carried out. This research must have a direct impact on the immediate environment of the citizens and could motivate very specific actions in the city.

Citizen Science

20 Projects to promote the city

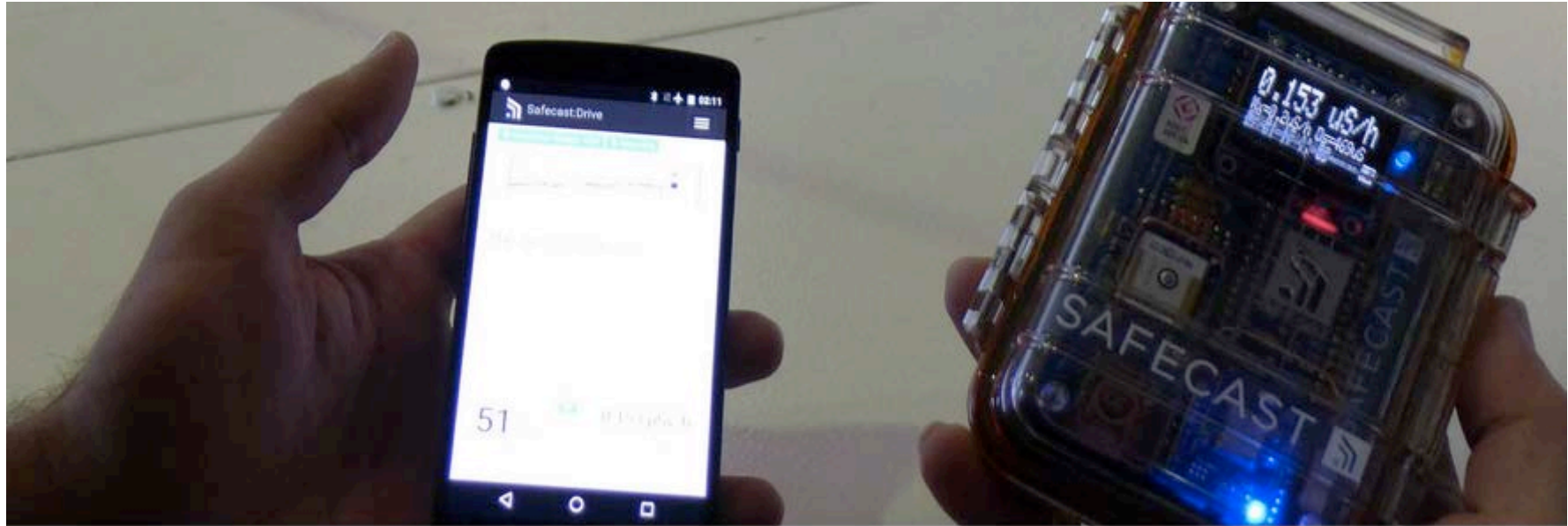


Ajuntament
de Barcelona



Project website:
www.floodup.u.b.edu
Contact email:
floodup2@gmail.com





Joint ICTP-IAEA Workshop on Environmental Mapping:
Mobilising Trust in Measurements and Engaging Scientific Citizenry

ICTP, Trieste - Italy

March 6-24, 2017

Living lab

LIVING LAB è un nuovo modo di far ricerca.
E' un ecosistema finalizzato alla co-creazione,
che integra ricerca
e processi innovativi centrati sugli utenti.



04:10:08–31:10:08

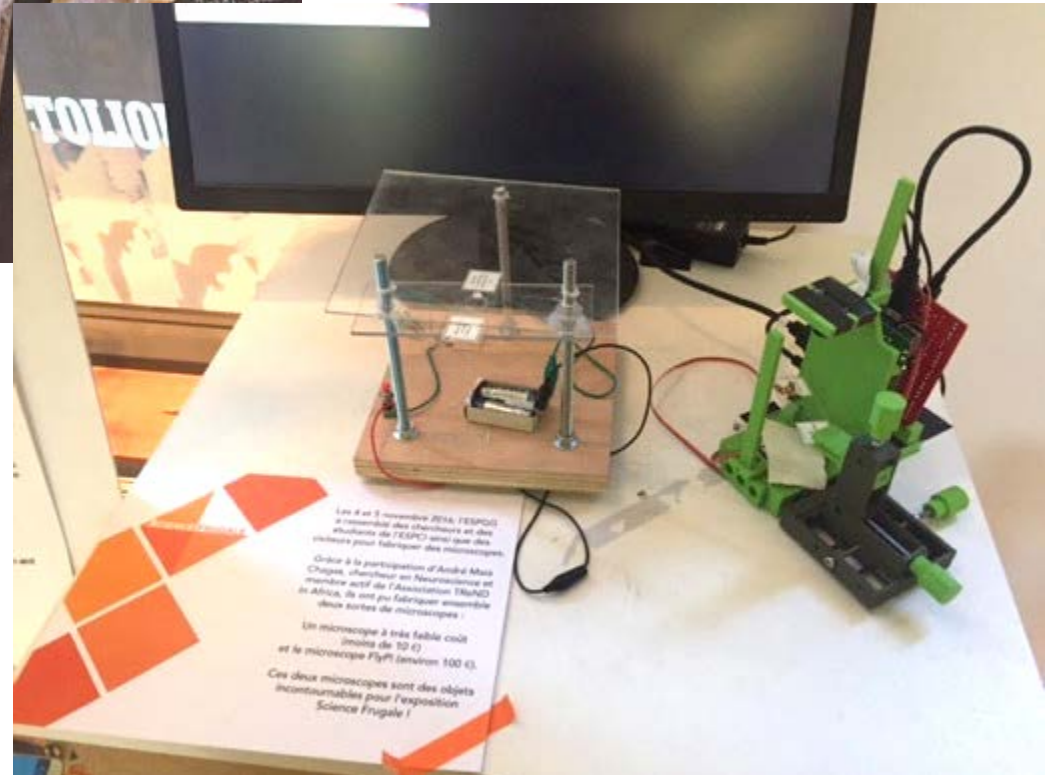
PAY ATTENTION!

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DOMANDE?