

# **Illustrating European Science Diplomacy**

## ***Preliminary results from S4D4C: Using Science for/in Diplomacy for addressing global Challenges***

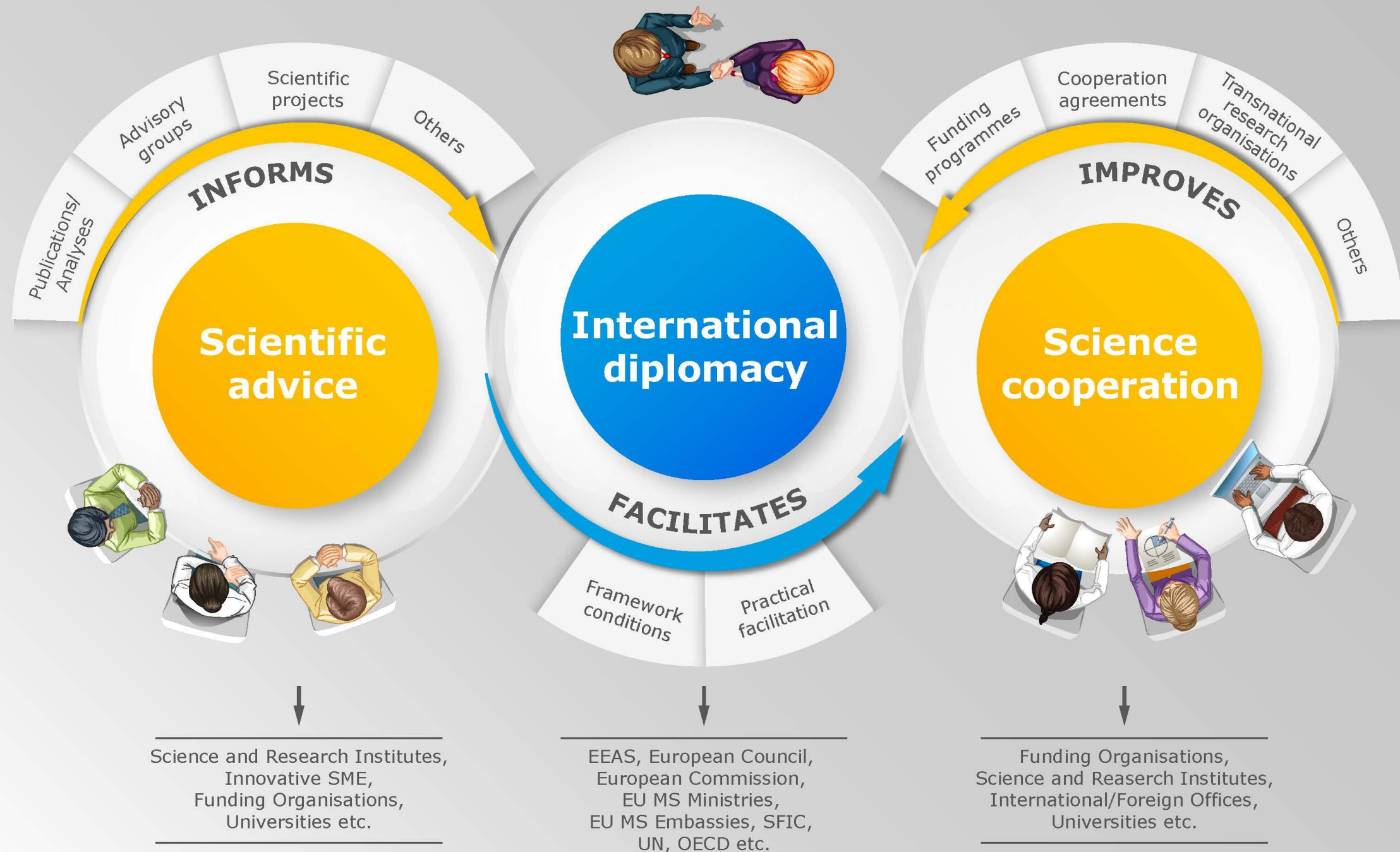
Workshop: Scientific Diplomacy - Towards the construction of a national concept  
Buenos Aires, Argentine Republic  
June 06, 2019

Elke DALL

Centre for Social Innovation, S4D4C coordinator  
& Contributions from several project partners



## EU Science Diplomacy



## Am I a science diplomat?



**Science  
Research  
Innovation**

**Foreign policy  
Diplomacy  
Internat. Relations**

## **Am I a science diplomat?**



**Contributor to peace, prosperity, stability, security**  
**Mediator / integrator**  
**Partner in tackling global challenges**  
**Developer (assisting countries in STI development)**  
**Competitor (strengthening EU competitiveness)**  
**Knowledge based actor (e.g. accessing STI capacities outside Europe)**  
**Partner of mutual beneficial co-operation**  
**International collaborator (strengthening markets)**  
**Contributor to EU policies, objectives and interests**



## “Informal” evidence



**Carlos Moedas** ✓  
@Moedas

Folgen

"We need science to bring Order to Disorder".  
[ec.europa.eu/commission/2016-2019/science-diplomacy](https://ec.europa.eu/commission/2016-2019/science-diplomacy) ...  
#Sciencediplomacy @ERC\_Research  
#Opentotheworld @FedericaMog

01:34 - 27. Okt. 2016



**Carlos Moedas** ✓  
@Moedas

Folgen

6/ My priorities: Open to the world. To remain competitive means to engage more in science diplomacy & global collaboration  
#ERAofInnovation

06:02 - 22. Juni 2015



**Carlos Moedas** ✓  
@Moedas

Folgen

Science diplomacy has an important role to play in addressing shared challenges that transcend national borders and can only be solved through cooperation. Read my interview with @UfMSecretariat  
#OpenToTheWorld

[ufmsecretariat.org/interview/interview-carlos-moedas](https://ufmsecretariat.org/interview/interview-carlos-moedas) ...



06:34 - 9. Feb. 2019



**Science Europe**  
@ScienceEurope

Folgen

.@Moedas at #ICRI2018 "Research Infrastructures are assets for science diplomacy". Watch the live stream here:  
[youtube.com/watch?v=rU4L4H...](https://youtube.com/watch?v=rU4L4H...)

#ResearchInfrastructures #OpenScience  
#ScienceDiplomacy



01:08 - 13. Sept. 2018

## “Formal” evidence

- Lisbon strategy and commitments
  - making Europe the ‘most competitive and dynamic knowledge-based economy in the world’ has an international dimension (European Council 2000: 2)
  - called for a ‘Europe of Knowledge’ (European Commission 1997, 2003)
  - Knowledge was proposed to be the ‘fifth freedom’ of the internal market (Europ. Commission 2008, Council of the EU 2008)
- Global strategies – Inclusion of knowledge policies (expansion to all DGs and EEAS)
- Science strategies – Externalization of knowledge politics (“open to the world”)

## “Practical” Evidence

- Science and technology attachés
- Dedicated service of the Commission providing science knowledge for EU policy making: Joint Research Centre - EU science hub
- 3<sup>rd</sup> largest share of EU budget is dedicated to research and innovation
- A range of external funding instruments: Partnership Instrument, Instrument contributing to Stability and Peace, The Development Cooperation Instrument, the European Neighbourhood Instrument...
  - Funding for PRIMA, SESAME (= poster children of EU Science Diplomacy)
- Project calls under Horizon 2020 and expected under Horizon Europe
  - For Science Diplomacy specifically
  - For other relevant topics (i.e. EU-CELAC relations)



- **S4D4C** : “Using science for/in diplomacy for addressing global challenges” (Horizon 2020 supported; 2018-2020)
- **S4D4C orientations:**
  - S4D4C **research orientation**: analyzing the interfaces between EU (and MS) science policy and EU (and MS) foreign policy
  - S4D4C **policy orientation**: producing policy guidance, understanding and improving governance and increasing efficiency of interfaces
  - S4D4C **skills orientation**: piloting training activities and providing knowledge resources, contributing to a better preparation of EU science diplomats



## **ENG-GLOBALLY-01-2017 - Strengthening Europe's position in the global context: science diplomacy and intercultural relations**

- How to better prepare and employ 'science diplomats' remains a particularly unexplored research area... It should analyse where science diplomacy can have the biggest impact and how it can be instrumental in strengthening EU capacities and strategic awareness and in **establishing better mechanisms so as to anticipate events early and to swiftly identify common responses.**
- Research under this topic is expected to impact the foreign policies of the EU and its member states and provide enhanced coordination between them and between the EU and its international partners.

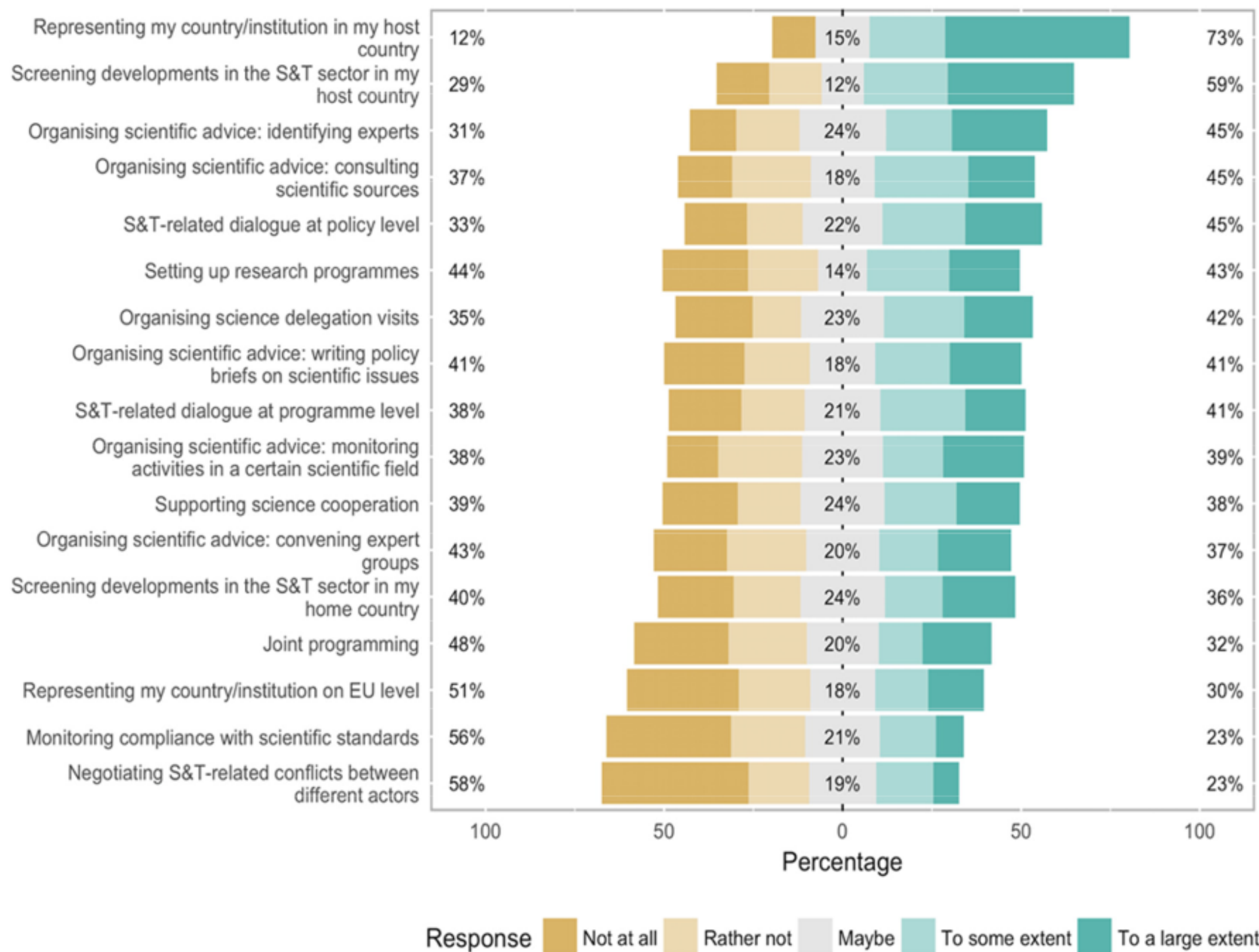
## Who we are: Research – Practice – Training



## **Who are science diplomats? What are their goals?**

Source: S4D4C survey “needs assessment”, 2018, 130 respondents

- International collaboration for scientific purposes  
(83% of respondents: highly or rather important)
- Developing partnerships for addressing global challenges  
(69% of respondents: highly or rather important)
- Strengthening the international competitiveness of their  
country/the EU (68% of respondents: highly or rather  
important; more important in EU countries: 75%)



## **LAC perspectives on science diplomacy**

Source: S4D4C survey “needs assessment”, 2018, 15 respondents, selection from answers to issues, challenges, usefulness of the concept

- El concepto está trascendiendo y ganando actores.
- .. es útil para reconocer que podemos con la ciencia hacer diplomacia y resolver muchos problemas
- Seria las nuevas generaciones entender más sobre el termino y su participación en este tema
- It is helpful in the way one can apply and link deductively the science diplomacy theoretical frameworks and concepts on daily basis, to its own practical activities
- ... it is not an easy task to pursue, sometimes, the interest of science and foreign policy at the same time. In several occasions, there are conflicts between such positions and an operator of science diplomacy must be ready to deal with these possible internal conflicting interests.



## Vision for Science Diplomacy

An important role for science diplomacy is to build bridges between science, technology and innovation practices, national and regional interests, as well as global challenges.

We firmly believe that:

- (1) Science diplomacy is often not fully exploited at all levels of governance, and especially at supranational levels;
- (2) More explicit science diplomacy strategies at national and supranational levels would allow for a more effective alignment of interests and a more efficient coordination of resources.



<https://www.s4d4c.eu/s4d4c-1st-global-meeting/the-madrid-declaration-on-science-diplomacy/>

## Benefits of Science Diplomacy

- Endeavours to address global challenges
- More productive and sustainable international relations
- Evidence-informed foreign policy
- Better conditions for scientific activities due to the contribution of foreign policy agendas
- Improved interfaces between science and public policies

## Principles to foster Science Diplomacy worldwide

- Value for citizens
- Methodological diversity
- Demonstrable impact
- Evidence-informed
- Collaboration and inclusion
- Capacity building
- Independence of science

**Sign**  [s4d4c@fecyt.es](mailto:s4d4c@fecyt.es)

Support the declaration: send your name, affiliation and motivation to sign to [s4d4c@fecyt.es](mailto:s4d4c@fecyt.es) or [contact@s4d4c.eu](mailto:contact@s4d4c.eu) !

<https://www.s4d4c.eu/s4d4c-1st-global-meeting/the-madrid-declaration-on-science-diplomacy/>

## Networks and Dialogue

A truly global community of science diplomacy scholars and practitioners met on the occasion of S4D4C's 1st Global Meeting, which took place **12-14 December 2018** at the headquarters of the Ministry of Foreign Affairs in Madrid.

Speakers and attendants of the conference came not only from **Europe**, but also from **Canada, China, India, Korea, Mexico, Panama and the U.S.**



# Network mapping

Lead author: A. Elorza, I. Lacunza



## New stakeholders



CIVIL SOCIETY



PRIVATE  
SECTOR



GOVERNMENTAL



SUPRANATIONAL  
ORGANISATIONS

**To showcase the realities of  
science diplomats**

**To bring the abstract concept of  
“science diplomacy” to life**

We want to add a perspective to  
the global conversation about  
science diplomacy



## State-of-the-Art Report

- No one-size-fits-all science diplomacy approach
- National specificities result of given political and administrative cultures but also respond to the distinct political self-understandings and foreign policy ambitions
- Concept utilized and coined both by practitioners as well as academics and covers a broad range of different aspects and activities
- Capable of projecting current, pervading and empirically traceable trends in modern societies and in a globalized world
- No clear-cut definition or conceptual framework yet

### Full report:

[https://www.s4d4c.eu/wp-content/uploads/2018/08/S4D4C\\_State-of-the-Art\\_Report\\_DZHW.pdf](https://www.s4d4c.eu/wp-content/uploads/2018/08/S4D4C_State-of-the-Art_Report_DZHW.pdf)

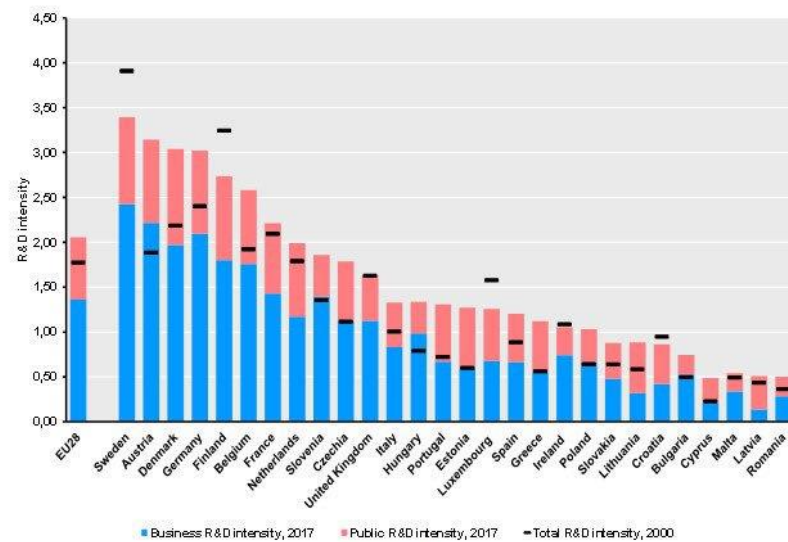




## n.b. European – national – regional

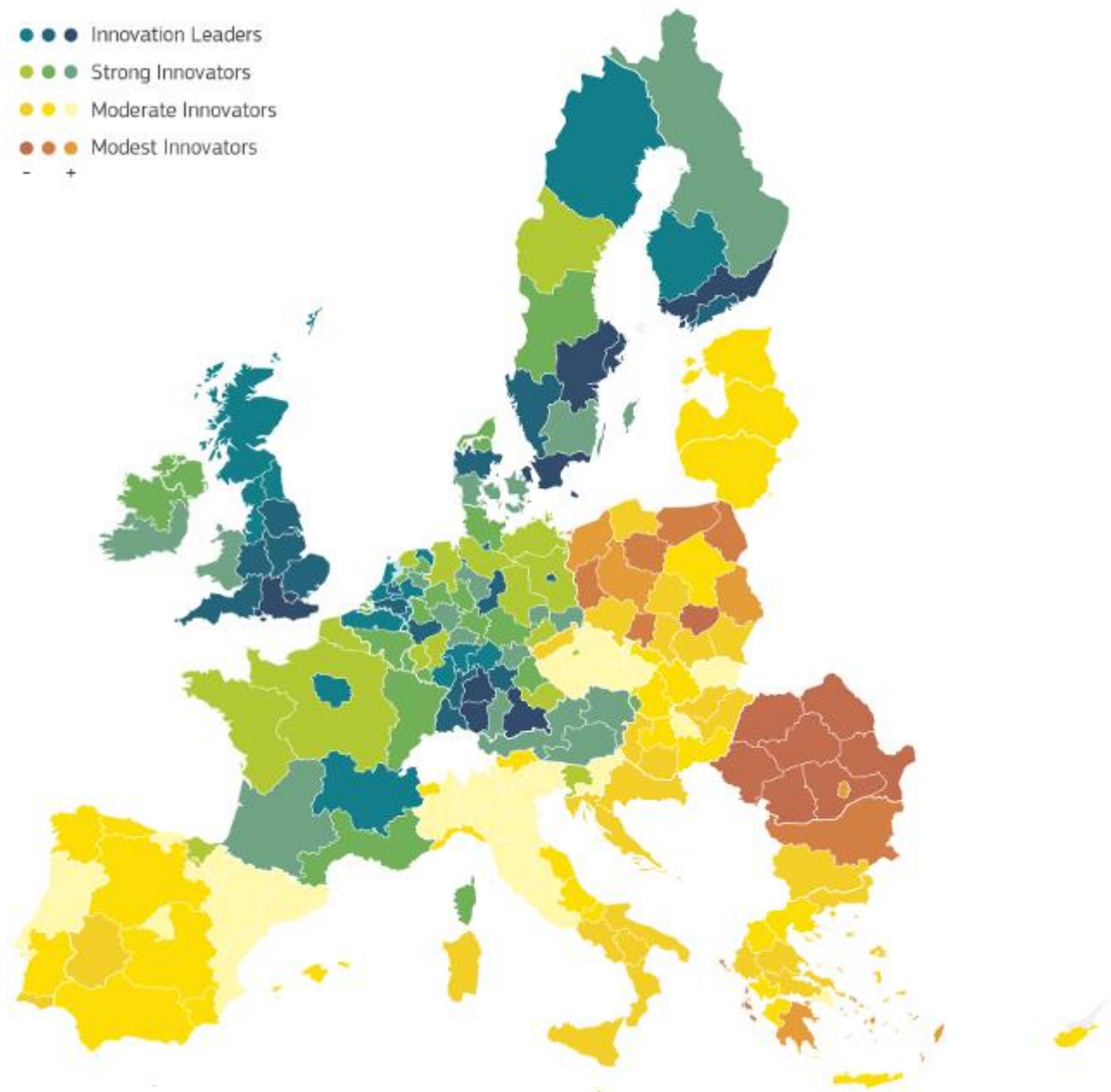


### Public, business and total R&D intensity 2017 vs. 2000



1

[http://europa.eu/!WV73qk,  
pic.twitter.com/3ukYOmXkdt](http://europa.eu/!WV73qk,pic.twitter.com/3ukYOmXkdt) (2019)



[https://ec.europa.eu/growth/industry/innovation/facts-figures/regional\\_en](https://ec.europa.eu/growth/industry/innovation/facts-figures/regional_en) (2017)





*„Competences and needs of staff members (especially in foreign policy) linked to science diplomacy should be assessed and appropriate training should be offered.“*

## S4D4C Science Diplomacy Workshops

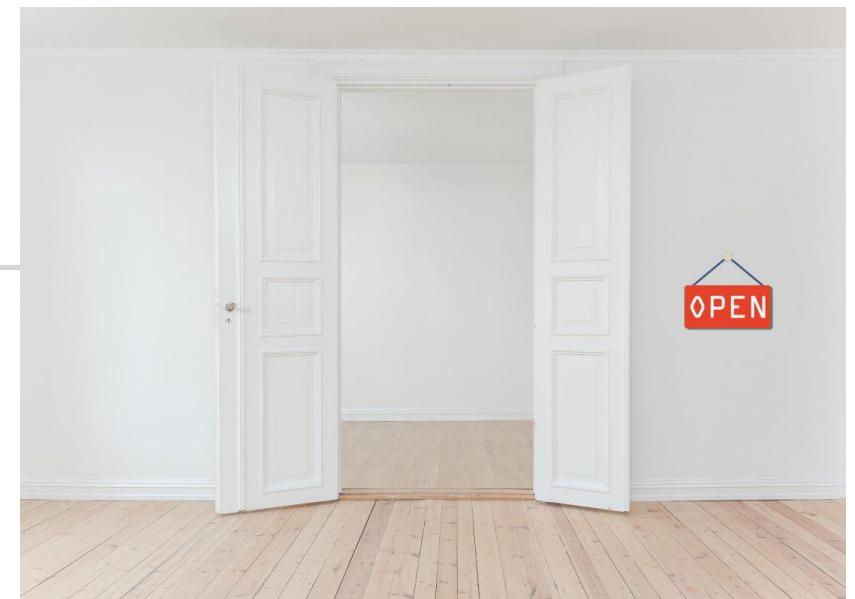
### Curriculum

1. Background
2. What is science diplomacy?
3. Who are the science diplomacy stakeholders?
4. How does the European Union practise Science Diplomacy?
5. Which national, regional and thematic approaches of science diplomacy exist?
6. What set of skills do I need to be a good science diplomat?
7. Hands on! Which are good examples where science diplomacy has proven to be successful?



Trieste, Italy, 21-23 October,  
2019 hosted by TWAS – The  
World Academy of Sciences

Vienna, Austria, 25-27  
November, 2019 hosted by  
DA – Vienna School of  
International Studies



## **'Open Doors'**

### **Researchers -> Embassies**

1. learn how embassies, science policy and funding agencies work; how you can partake in the policy making process;
2. network and build lasting relationships with science diplomacy stakeholders, policy makers as well as fellow scientists at a European and global level;
3. exposed to the daily routine of a political and diplomatic mission;
4. present and analyse science diplomacy cases;
5. identify future areas for EU science diplomacy activities;
6. generate and discuss different training opportunities for current and future science diplomats;
7. have open discussions about how to foster EU and MS science diplomacy;
8. join us in raising awareness about the importance of science diplomacy for the EU and its Member States (MS);
9. learn about funding and career opportunities.





**Networks  
and dialogue**



**Governance  
framework**



**Knowledge  
resources**



**Trainings for  
science diplomats**

## **Building on nine empirical case studies**

Infectious diseases, water science diplomacy, cyber security, food security, large-scale flagships, open science diplomacy, SESAME synchrotron, research standards/integrity, science advise



## **The emergence of food security as a global concern**

### **Our case study: EU-Africa relationships**

- Africa remains the most food insecure region of the world;  
current era of '**agricultural diplomacy**' towards food security in Africa, with major actors such as the African Union, the EU, the USA, Brazil and China

### **The SD dimensions of Food Security**

- International networking in FS research as a cooperation policy purpose (**diplomacy for science**)
- FS links to issues of stability, conflict prevention, health, well being, migration (**science for diplomacy**)
- FS as a market issue for EU/Africa relationships (**science for diplomacy**)

## Organizational landscape

- **Many involved stakeholders:** multiple DGs (e.g. food security/EU-Africa: DEVCO, AGRI, RTD, directorates at EEAS (Africa, multilateral challenges), EU Delegation to the AU, IOs, other stakeholders, e.g. joint EU-Africa Research and Innovation Partnership on Food and Nutrition Security and Sustainable Agriculture FNSSA)
- **Complex picture:** Segmentation: between EC and EEAS; between DGs; within DGs, between EEAS DGs; H2020 on agriculture is designed and funded 80% by DG AGRI; main relations between EU and AU are not diplomatic, but in “high level policy dialogue” (HLPD)

## Not only organizational initiatives, also social practices

- **Established roles:** cf. Science and technology attachés in EU African delegations: “Science attachés” have played a key role over a certain period by building networking resources, but because of budget cuts, there is no S&T attaché in Ethiopia any more
- **Established ways of working:** example of “boundary people” (ie. DGs search heads of science organizations, as they are not only great scientists but also already involved in science policy)

## **Frictions**

- excellence / relevance
- geographical / thematic
- official diplomats / sectorial diplomats

## **No clear & shared understanding of what « science diplomacy » is or should be**

- E.g. no agreement on what kind of sciences should be fostered: many DGs take part in this issue area but each has its own rationale and aims/standards for success (development impact vs. academic excellence)
- Reluctance of some non-diplomatic players in endorsing the notion of “science diplomacy”

## **Asymmetrical science diplomacy awareness**

- Strong and explicit foreign policy concerns in the formulation of some topics in Horizon 2020 (e.g. food security cooperation with Africa)
- The diplomatic concerns are more held by DG RTD and DG AGRI actors than by EEAS: science policy actors more aware of diplomacy issues than diplomats of science issues
- In the implementation, there is not really a clear and continuous channel through which EU funded research affects or fuels EU foreign policy

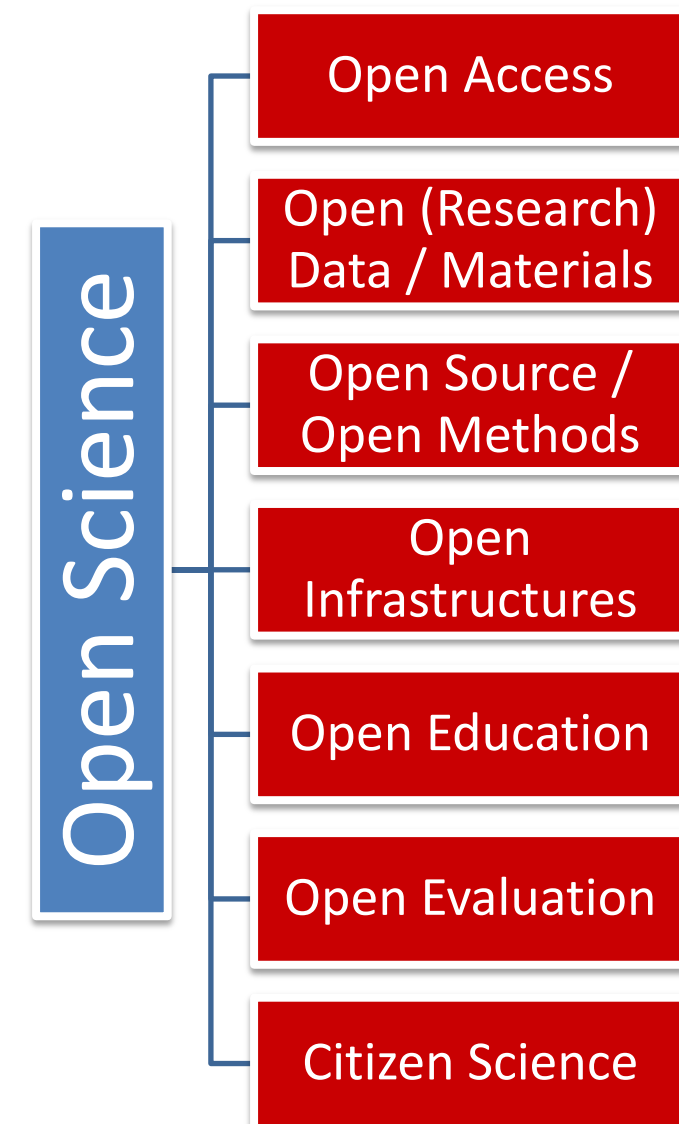


## Case Study: Open Science Diplomacy

**Open science is the idea that scientific knowledge of all kinds should be openly shared as early as is practical in the research process.**

Open Science is

- an only recently emerged international science policy arena (OECD, G7, ...)
- with few institutionalized rules and procedures
- heterogenous actors
- dominated by domain specific priorities
- built on long standing grassroots and bottom-up engagement
- changing the modus operandi of the global science system



# Open Science

**A systemic change in the  
modus operandi of science  
and research**

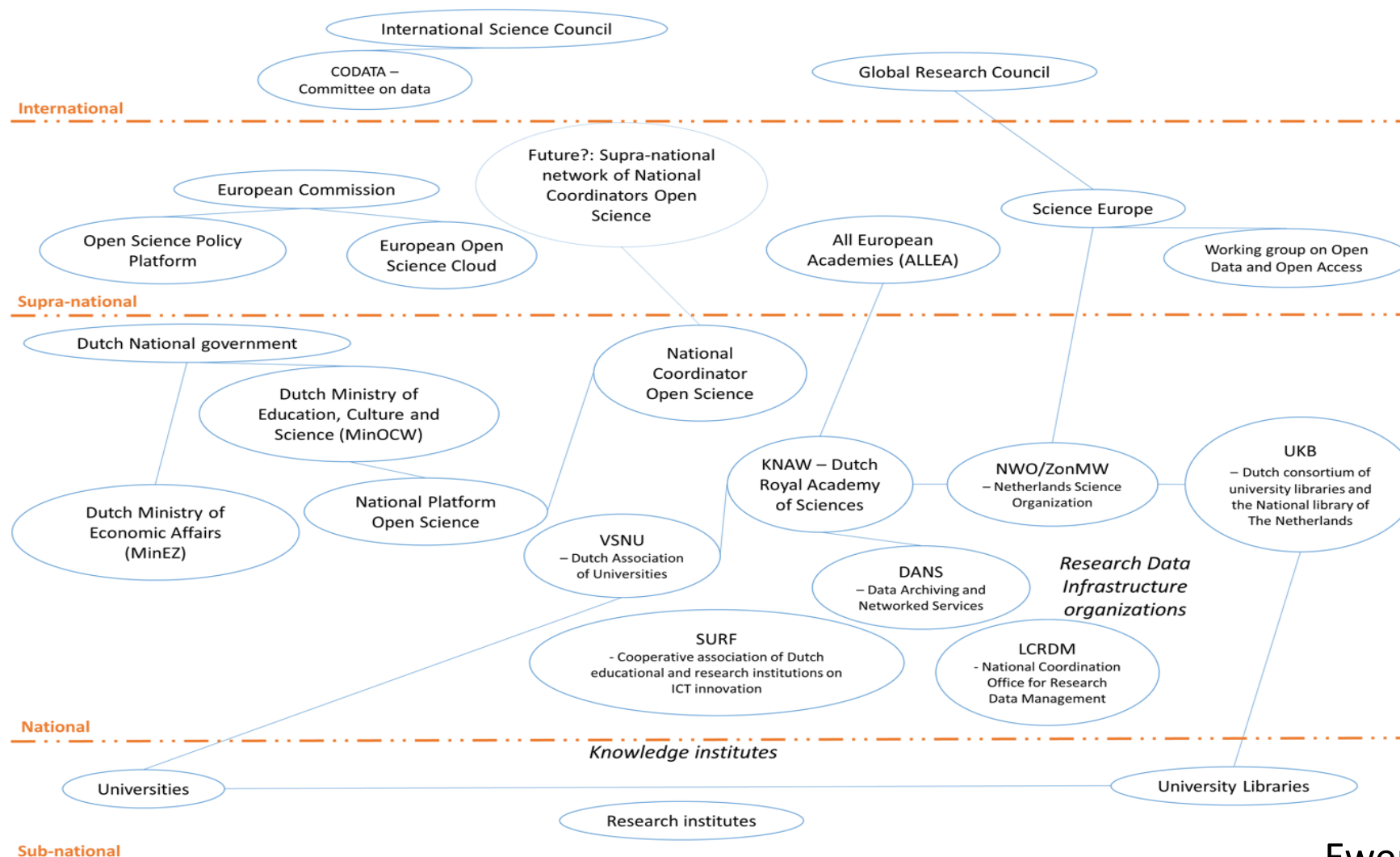
**Affecting the whole  
research cycle and its  
stakeholders**

***"As I see it, European success now  
lies in sharing as soon as possible,  
(...). The days of open science have  
arrived."***

Commissioner Carlos Moedas  
Open Science Presidency Conference  
Amsterdam, 4 April 2016



# Open Science Actors – example from the Netherlands (preliminary results / draft)



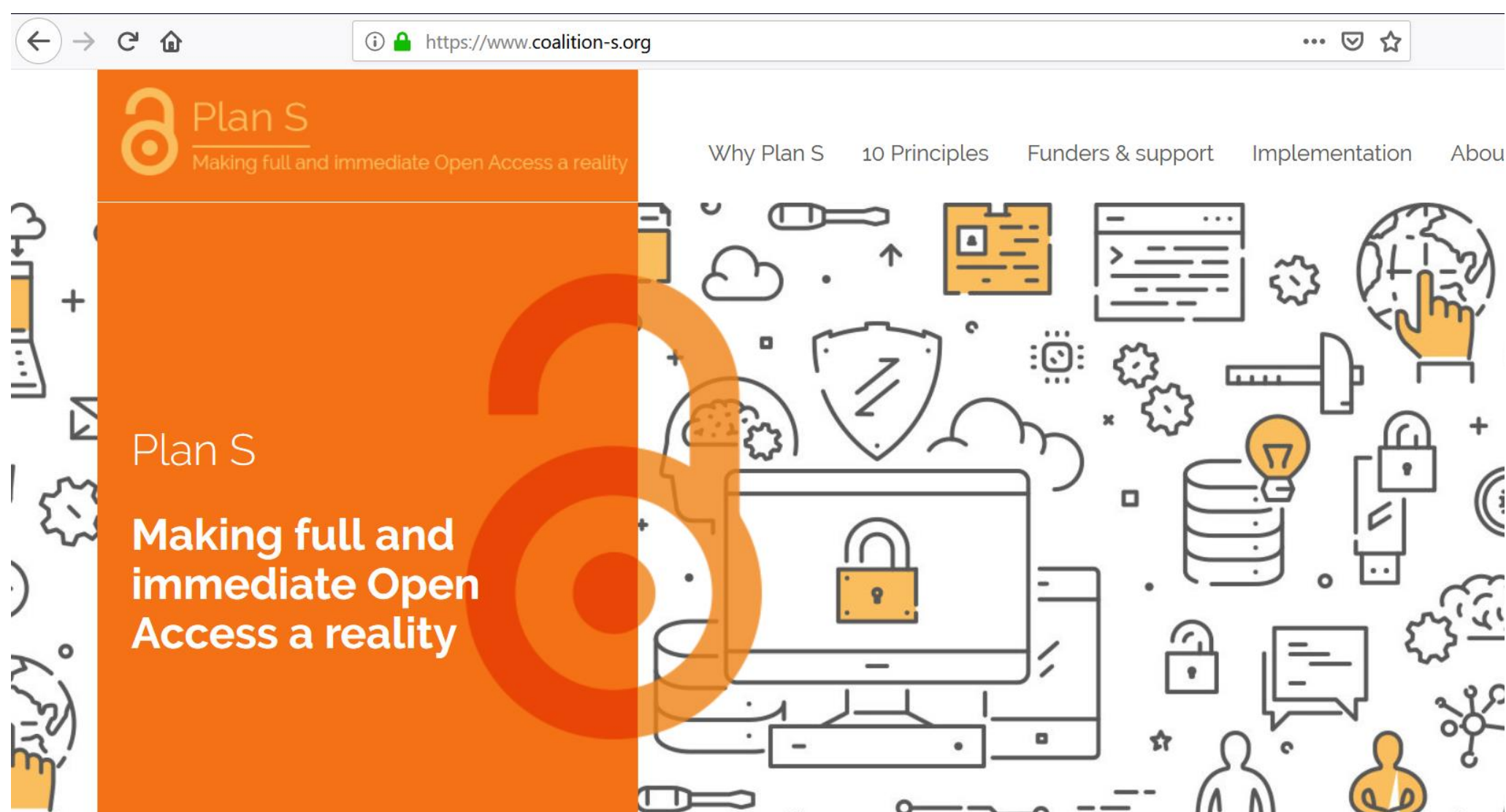
Ewert Aukes

Figure 3 Visualisation of the Dutch actor network on Open Science in a multi-level governance perspective.





## Shaping funding and publishing of research, promoting open access



**Aim** ⇒ Plan S revives the debate on achieving Open Access within a foreseeable timeframe



**Robert-Jan Smits**

EU's special envoy on open access

'I am still surprised that the transition to open access to publications takes such a long time. Don't forget that 90% of the public funding for research in Europe is allocated through the national funding agencies.'

If all these national funding agencies would say as a bloc, from now if you get a grant from any of us, you can only publish in open access journals, the transition is a fact.'

Horizon, maart 2018

**Status Quo** ⇒ signed by over 600 institutions, the goal of 100% Open Access is still a long way off



# Europe is currently taking the lead in the transition towards Open Access publishing with Plan S

## National European funders

Austria: FWF

Finland: AKA

France: ANR

Ireland: SFI

Italy: INFN

Luxembourg: FNR

Netherlands: NWO

Norway: RCN

Poland: NCN

Slovenia: ARRS

Sweden: FORMAS

Sweden: FORTE

UK: UKRI

European funders:

European Research Council

European Commission

## Charitable foundations

The Wellcome Trust

The Bill & Melinda Gates Foundation

Riksbankens Jubileumsfond

Compagnia di San Paolo

## Africa

National Science and Technology

Council, Zambia

## Asia

Government of India

## Middle East

The Higher Council for Science and  
Technology of Jordan

Supported by  
**China** (NSTL and NSFC)

Coordinated by: Science Europe



## **The international orchestration of support for Plan S**

Coordinated by Science Europe, supported by EC DG Research and special envoy Open Access has now formed as **international top-down science policy strategy**.

Supported mainly by regional actors from the science/research domain and their formal and informal networks, EU's push for international policy alignment is gaining momentum.

However, **traditional science diplomacy channels were only activated with the publication of Plan S in 2018**, and to date we see a lack of connections to other foreign relation actors. Such links would be necessary to foster a broader understanding of the socio-cultural and economic potentials and benefits as well as the limits of Open Access and even more, of Open Science.

Open Science is still a **highly marginal topic** in science diplomacy.

The topic may gain importance and urgency from issues arising due to new copyright, data protection and security legislations.

Urgent need to **coordinate activities internationally** also on policy level: strategies, standards, legal frameworks, funding policies, infrastructures, collaboration – e.g. despite more strict data localization policies

International Open Science actors **wish for more support** of diplomacy actors in

- Providing the bigger policy picture and socio-economic context for negotiations
- Coordinating the sharing of costs and burdens sustainable maintenance (e.g. of data infrastructures)
- Assembling expertise for planning and negotiating the socio-economic factors (e.g. how to best bring together openness and IPR, setting ethical standards, ...)
- Aligning open strategies with other national and international activities

- 1. Establish a robust EU-LAC network**
- 2. Align and arrange cooperation around thematic clusters**
- 3. Enhance mobility of researchers in both directions**
- 4. Strengthen joint research funding incl. smaller EU/LAC countries**
- 5. Increase visibility and promote open access platforms**

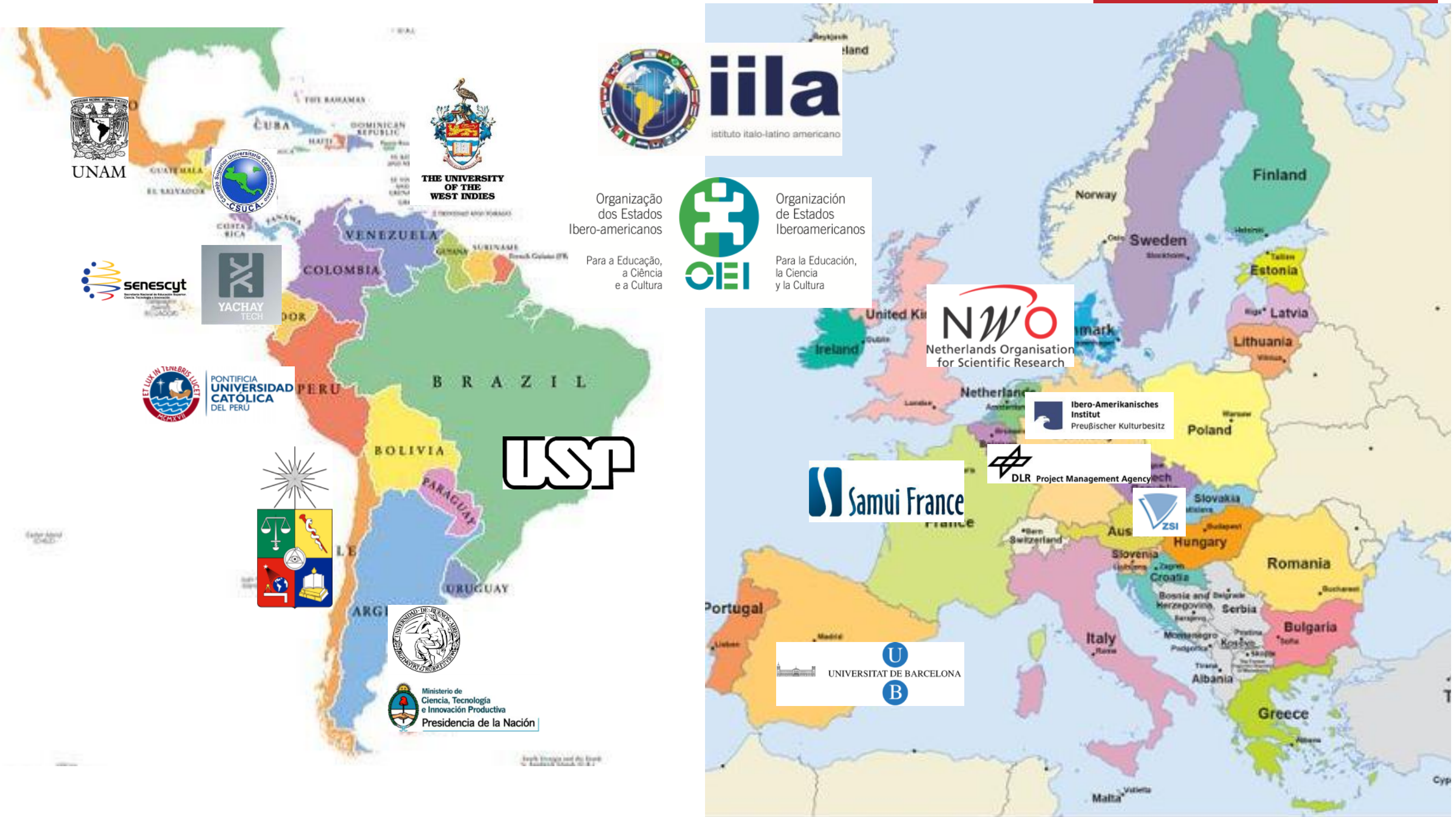
# What is EULAC FOCUS?



- Funded under call H2020-INT-SOCIETY-2014-2015
- Research and Innovation Action (RIA)
- 03/2016 - 11/2019
- Universities, Gov Research Agencies, Private Research Institutions, University Networks, International Organisations work together with the objective to:  
*“give focus to the **Cultural, Scientific and Social dimension of EU-CELAC relations**, with a view to determining **synergies and cross-fertilization**, as well as **identifying asymmetries in bi-lateral and bi-regional relations**”*
- 19 partner Institutions
  - 6 from the European Union
  - 11 from Latin America and the Caribbean
  - 2 international organisation



# Connecting, steering and strengthening





*„We propose to jointly (i.e. both practitioners and scholars) think in variable governance frameworks that can help deal with the complexity at hand.“*



*„A governance framework helps to navigate the multiple forms of interaction between S&T and foreign policy.“*

## **With special thanks for their contributions**

Katja Mayer, Philipp Brugner, Wolfgang Haider and Alexander Degelsegger, *Centre for Social Innovation*

Mitchell Young and Lucie Kadlecova, *Charles University*

Pauline Ravinet and Raphael Cos, *University Lille*

James Wilsdon, *University of Sheffield*

Maria Josten and Nadia Mayer, *DLR*

Tim Flink and Charlotte Rungius, *DZHW*

Viktor Holler, *Diplomatische Akademie Wien*

Ana Elorza and Izaskun Lacunza, *FECYT*

Peter McGrath and Sheila Perosa, *TWAS*

Ewert Aukes and Stefan Kuhlmann, *University of Twente*

# Thank you for your attention on behalf of ...

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 Université  
de Lille



*twas*

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