



# CONCEPT OF “SCIENCE WITH A MISSION”

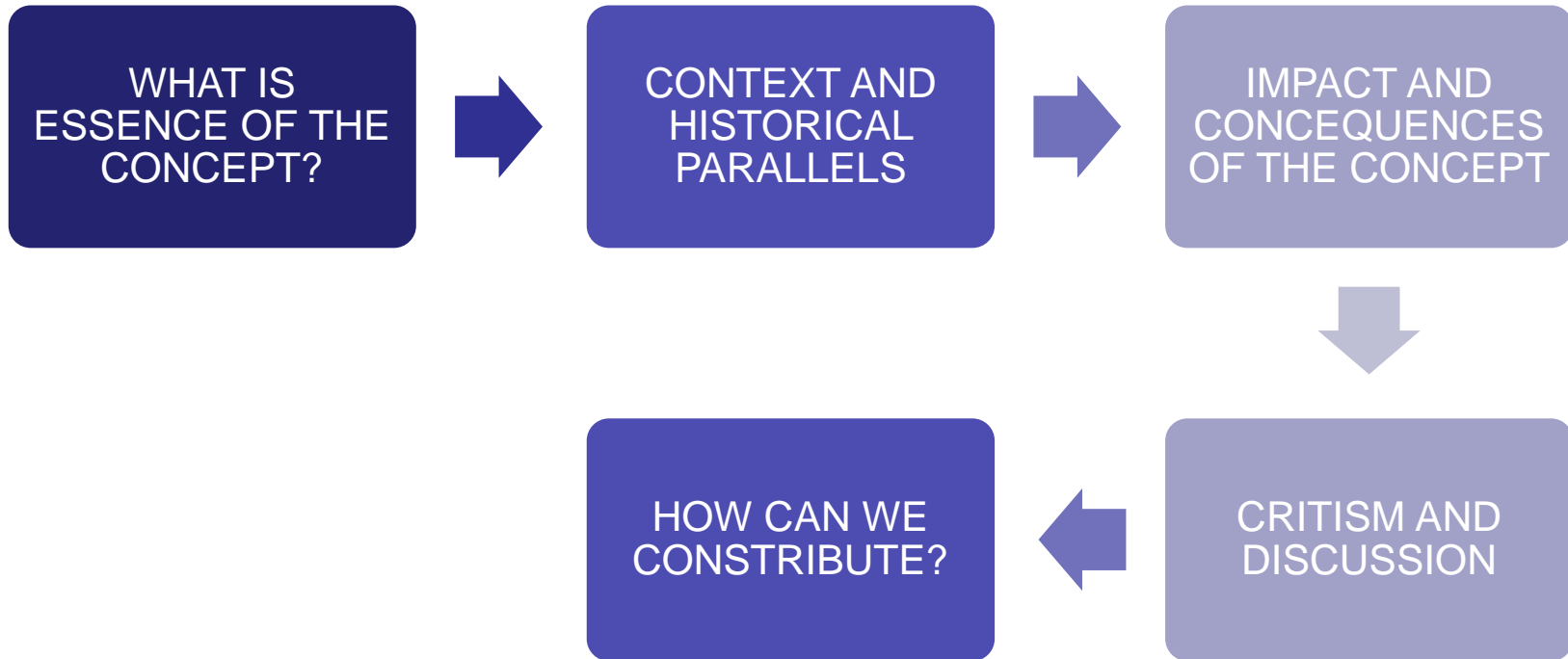


**Students' Mobility Capacity Building in Higher Education in Ukraine and Serbia / MILETUS**

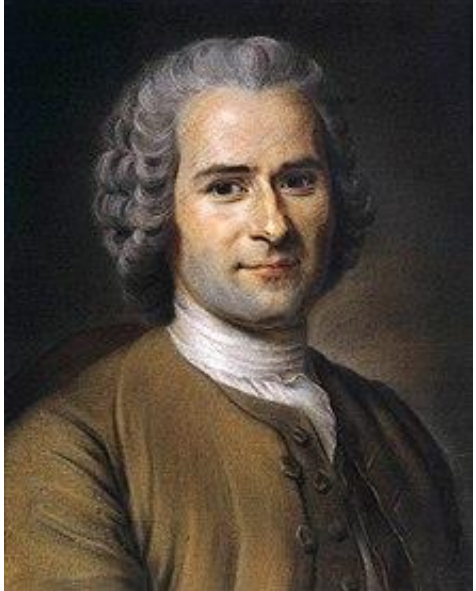


Co-funded by the  
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of the European Union

# ROADMAP FOR THE WORKSHOP

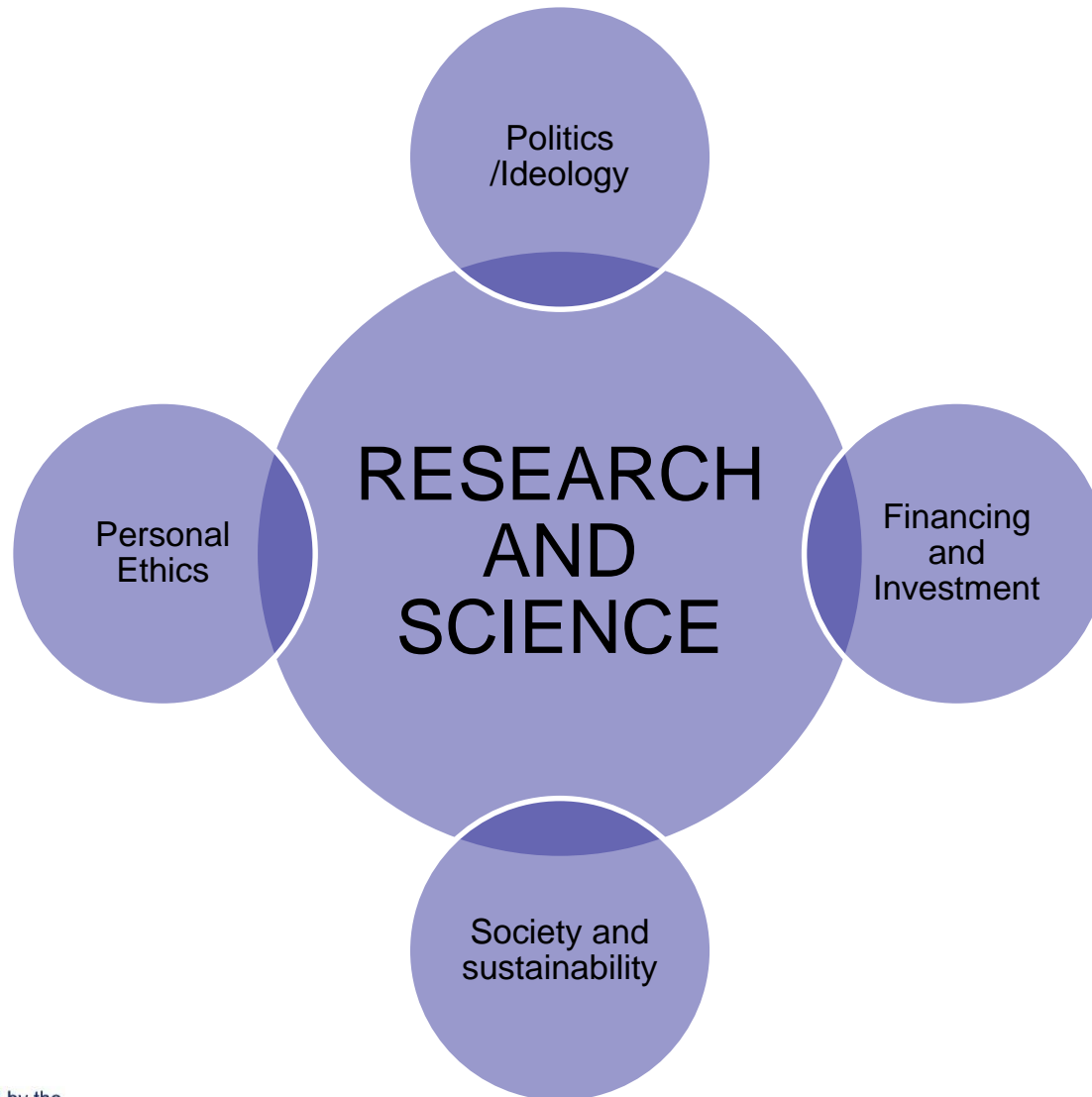


# EXPECTED RESULTS : UNDERSTANDING CONCEPTUAL DEVELOPMENT OF THE ROLE OF SCIENCE



Co-funded by the  
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# “SCIENCE WITH A MISSION”



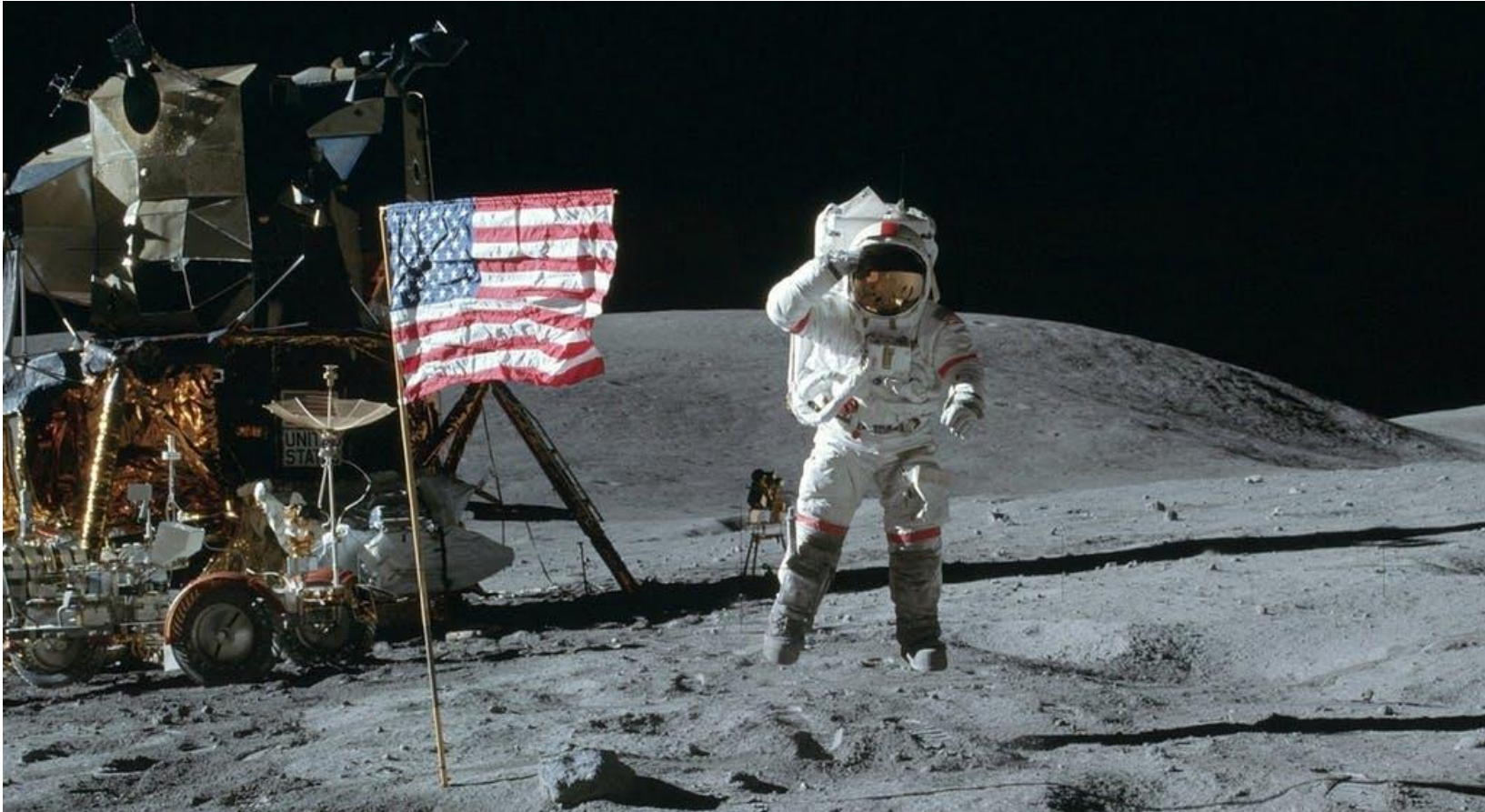


WHY?



“WE CHOOSE TO GO TO THE MOON”.

Apollo Program (1961-1972). July 20, 1969. \$25,4 billion



- 2019 is the 50th anniversary of the first moon landing, which has captured the public imagination with the famous images of man's first steps on the moon. We tend to forget that this feat required many different sectors to collaborate and innovate together, and government instruments to fuel bottom-up experimentation on a vast scale. Their pooled resources and talents – and the capturing of the public imagination — led to innovations that far outlived the mission itself. Process matters!



Mariana MAZZUCATO

# “WE CHOOSE TO GO TO THE MOON”



John F. Kennedy Moon Speech – Rice  
University Stadium, September 12, 1962

<https://youtu.be/g25G1M4EXrQ>

- This year's space budget is three times what it was in January 1961, and it is greater than the space budget of the previous eight years combined. That budget now stands at \$5,400 million a year--a staggering sum, though somewhat less than we pay for cigarettes and cigars every year. Space expenditures will soon rise some more, from 40 cents per person per week to more than 50 cents a week for every man, woman and child in the United States, for we have given this program a high national priority--even though I realize that this is in some measure an act of faith and vision, for we do not now know what benefits await us....
- Many years ago the great British explorer George Mallory, who was to die on Mount Everest, was asked why did he want to climb it. He said, "Because it is there."
- Well, space is there, and we're going to climb it, and the moon and the planets are there, and new hopes for knowledge and peace are there. And, therefore, as we set sail we ask God's blessing on the most hazardous and dangerous and greatest adventure on which man has ever embarked.





**WHY?**



The interim evaluation of Horizon 2020 and the high level group chaired by Pascal Lamy found that the next framework programme for research and innovation would need to

- make it easier for citizens to understand the value of investments in research and innovation
- maximise the impact of investments by setting clearer targets and expected impact when addressing global challenges



# NEW 'SOCIAL CONTRACT' BETWEEN CITIZENS, GOVERNMENTS AND SCIENCE



Horizon Europe must be more than a science programme; it needs to be the cornerstone for a new '**social contract**' between citizens, governments and science.

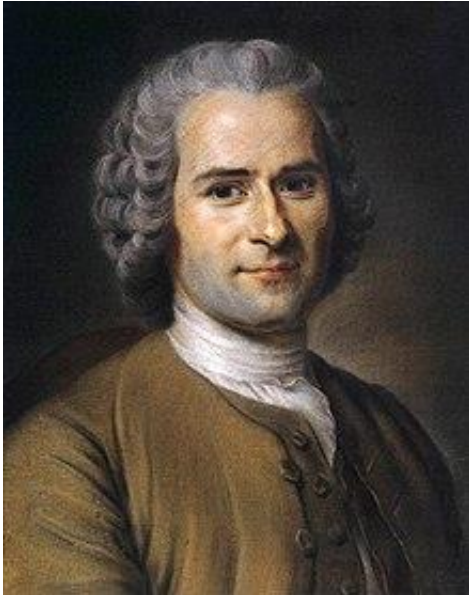
**Today, we need a new social contract between citizens, governments and science.**

Euroscience open forum, Toulouse, France, 09-14 July, 2018

<https://www.esof.eu>

<https://www.youtube.com/watch?v=QbV8OZzKDRg>

# 'SOCIAL CONTRACT'



*Each of us puts his person and all his power in common under the supreme direction of the general will; and in a body we receive each member as an indivisible part of the whole.*

**Jean-Jacques Rousseau**  
***Du contrat social (1762)***

# NEW 'SOCIAL CONTRACT' BETWEEN CITIZENS, GOVERNMENTS AND SCIENCE



A social contract where citizens and scientists are at the heart of public policies. And where citizens and scientists are co-creators of these policies.

**A social contract that brings people closer to science.** Where Europeans feel proud of European Science.

We have proposed a budget of 100 billion euro for science and innovation in Horizon Europe. The biggest ever. And with that 100 billion euro we have three main objectives:

- Open Science
- Open Innovation
- Global Challenges

Euroscience open forum, Toulouse, France, 09-14 July, 2018

<https://www.esof.eu>

<https://www.youtube.com/watch?v=QbV8OZzKDRg>

# The European Union's next research and innovation programme

## Horizon Europe : 2021 - 2027, €100 billion



The planned programme is structured around three pillars: **open science, global challenges and industrial competitiveness, and open innovation.**

- The first pillar includes funding for fundamental research and grants for research mobility and infrastructure.
- The second pillar groups research into five clusters: health; inclusive and secure society; digital and industry; climate, energy and mobility; and food and natural resources.
- The third pillar is designed to enhance Europe's innovation output.



# Why do we need “Science with a Mission”?



Mariana MAZZUCATO

Mission-oriented policies can be defined as systemic public policies that draw on frontier knowledge to attain specific goals or “big science deployed to meet big problems” .

Missions provide a solution, an opportunity, and an approach to address the numerous challenges that people face in their daily lives.

Mission-Oriented Research & Innovation in the European Union  
*A problem-solving approach to fuel innovation-led growth*



## 5 CRITERIA OF A MISSION. Mission-oriented policy

- Be bold, inspirational, with wide societal relevance;
- Have a clear direction: targeted, measurable, and time-bound;
- Be ambitious but realistic research and innovation actions;
- Be cross-disciplinary, cross-sectoral, and cross-actor innovation;
- Drive multiple, bottom-up solutions.

Mission-Oriented Research & Innovation in the European Union. *A problem-solving approach to fuel innovation-led growth*







# Why is mission-led innovation so important?

EU Policy voice



- In its next research funding programme, [Horizon Europe](#), the EU is planning to launch missions in [five areas](#):
  - climate change adaptation,
  - cancer,
  - healthy oceans,
  - cities
  - soil/food.
- **€100 billion budget**

- The next European science and research funding programme, known as Horizon Europe, is designed to connect people with the achievements financed by their tax money, and to fix problems with innovation funding.

Carlos Moedas, the European Commissioner for Research, Science and Innovation.

<https://horizon-magazine.eu/article/horizon-europe-will-connect-public-european-science-carlos-moedas.html>





- **On 13 May 2019** the Commission launched a call for expression of interest for members of the 5 mission boards to help specify, design and implement missions for Horizon Europe.
- **On 4 July 2019** at the Informal COMPET Council in Helsinki, Commissioner Carlos Moedas announced the chairs of the Horizon Europe mission boards and received the second report on mission-oriented research and innovation - *Governing Missions in the European Union* (M.Mazzucato)
- The mission boards are expected to hold their first meetings in September 2019.

[https://ec.europa.eu/info/sites/info/files/research\\_and\\_innovation/contact/documents/ec\\_rtd\\_mazzucato-report-issue2\\_072019.pdf](https://ec.europa.eu/info/sites/info/files/research_and_innovation/contact/documents/ec_rtd_mazzucato-report-issue2_072019.pdf)

# HOW TO IMPLEMENT MISSION?



- How to **engage citizens** in codesigning, co-creating, co-implementing and co-assessing missions?
- What are **the public sector capabilities** and instruments needed to foster a dynamic innovation ecosystem, including the ability of civil servants to welcome experimentation and help governments work outside silos?
- How can mission-oriented **finance** and funding leverage and crowd-in other forms of finance, galvanising **innovation** across actors (public, private and third sector), different manufacturing and service sectors, and across national and transnational levels?
  - *Governing Missions in the European Union* (M. Mazzucato)





- The future of science will shift the lines of authority of European science and create a new connection between the government, the individual and science.

Carlos Moedas

2  
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- First, Open Science and Open Innovation. These two pillars are the basis for a social contract where the scientist and the innovator are at the center.
- In a digital world, the innovator and scientist are at the heart of policy. **So first**, we have to boost ‘Open Access’ and ‘Open Data’ policies.
- Here our message is simple: if you receive public money, you must publish with open access. We cannot continue to allow people to publish where the only way to access the information is to buy it. One of the main rights of the taxpayer is access to the information.

Euroscience open forum, Toulouse, France, 09-14  
July, 2018 <https://www.esof.eu>

# ARE WE READY?



# ARE WE READY?

Open  
Science

Citizen  
Science

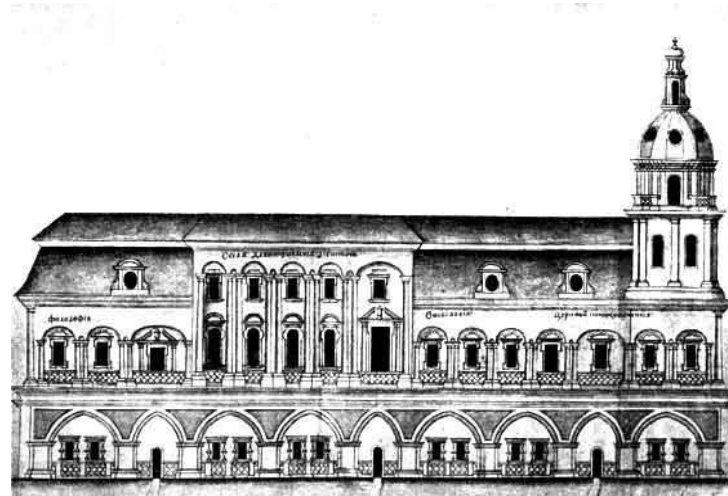
Science with  
a Mission

Open  
Innovation

Public  
Engagement



- EU Open Data Portal <http://data.europa.eu/euodp/en/data>
- Europa web page on Missions: <https://ec.europa.eu/info/node/71886/>
- Mazzucato, M. (2017) 'Mission-oriented Innovation Policy: Challenges and Opportunities', UCL Institute for Innovation and Public Purpose (IIPP) Working Paper Series, (IIPP 2017-01). Available at: <https://www.ucl.ac.uk/bartlett/public-purpose/sites/public-purpose/files/moipchallenges-and-opportunities-working-paper-2017-1.pdf> (Accessed: 12 February 2018)
- Mazzucato, M. (2018) Mission-Oriented Research & Innovation in the European Union MISSIONS. A problem-solving approach to fuel innovation-led growth. [https://ec.europa.eu/info/sites/info/files/mazzucato\\_report\\_2018.pdf](https://ec.europa.eu/info/sites/info/files/mazzucato_report_2018.pdf)
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- Mazzucato, M. (2018) The Value of Everything



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# Thank you for your attention!



Erasmus+

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