

Project STARBIOS2 (Structural Transformation to Attain responsible BIOSciences) (Horizon2020 No 709517)

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**THE JOINT-OPEN LABORATORY AND THE OPEN SCIENCE APPROACH FOR THE COVID-19 EPIDEMICS
AT THE TOR VERGATA UNIVERSITY**





Opening Science

The Evolving Guide on How
the Internet is Changing
Research, Collaboration and
Scholarly Publishing

Figures

book.openingscience.org

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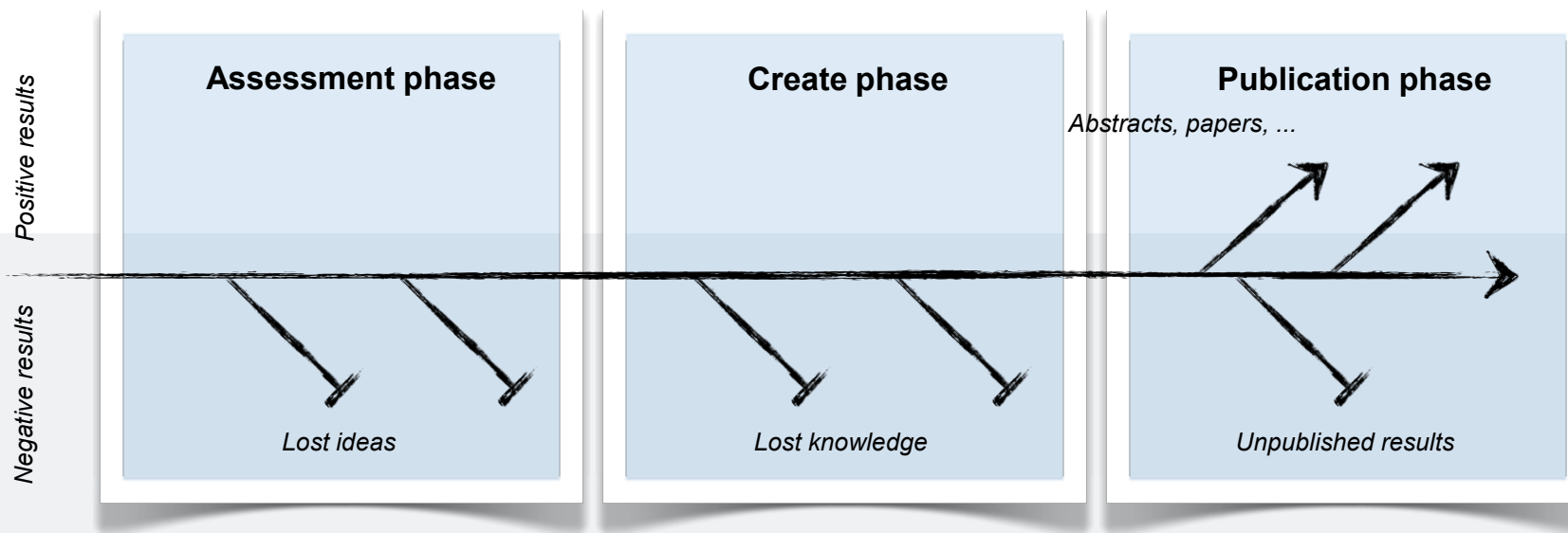


Science and society co-evolve!

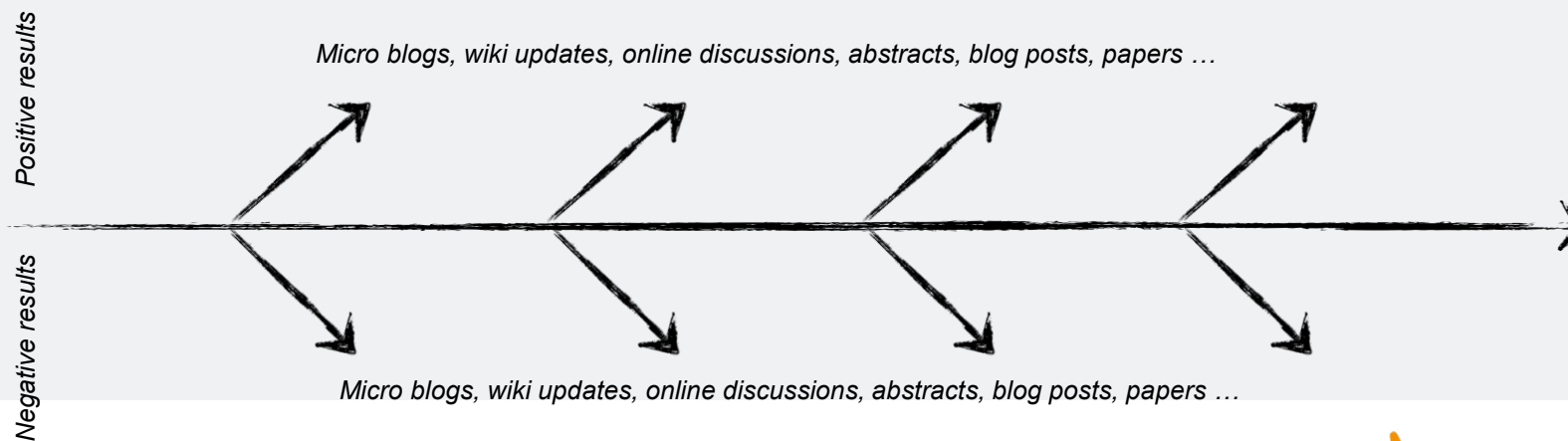
- This **creates uncertainty about the future** of research and innovation
- **dilemmas about decisions** to take to cope with this uncertainty
- **RRI anticipates and assesses** potential implication and societal expectations for sustainable research & innovation
- **COVID-19 pandemics accelerate this co-evolution and represent an pilot experiment:**
 - COVID-19 is an emerging, rapidly evolving situation
 - Defeating COVID-19 requires unprecedented action and collaboration



Pre-Covid era

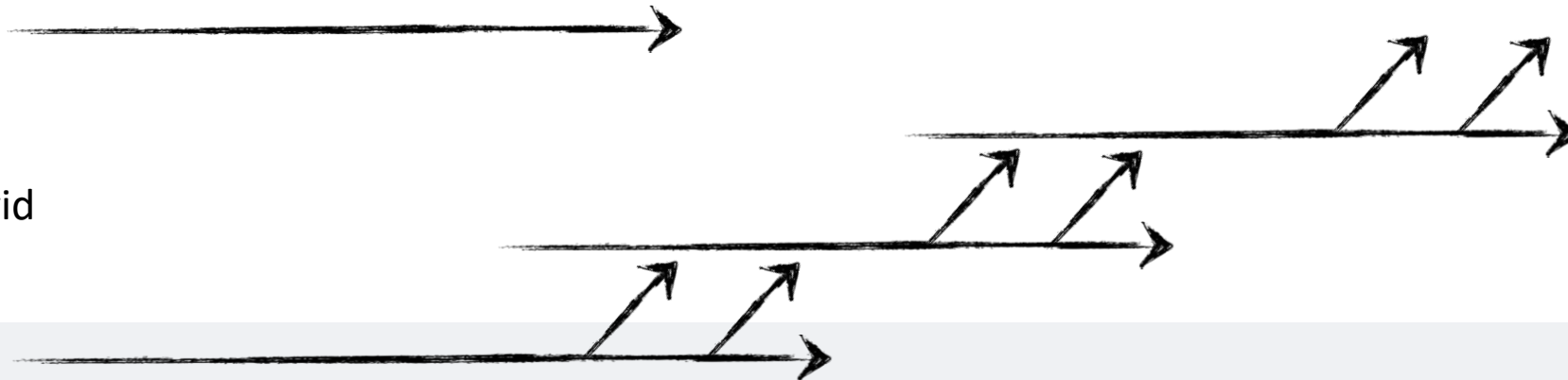


Covid era

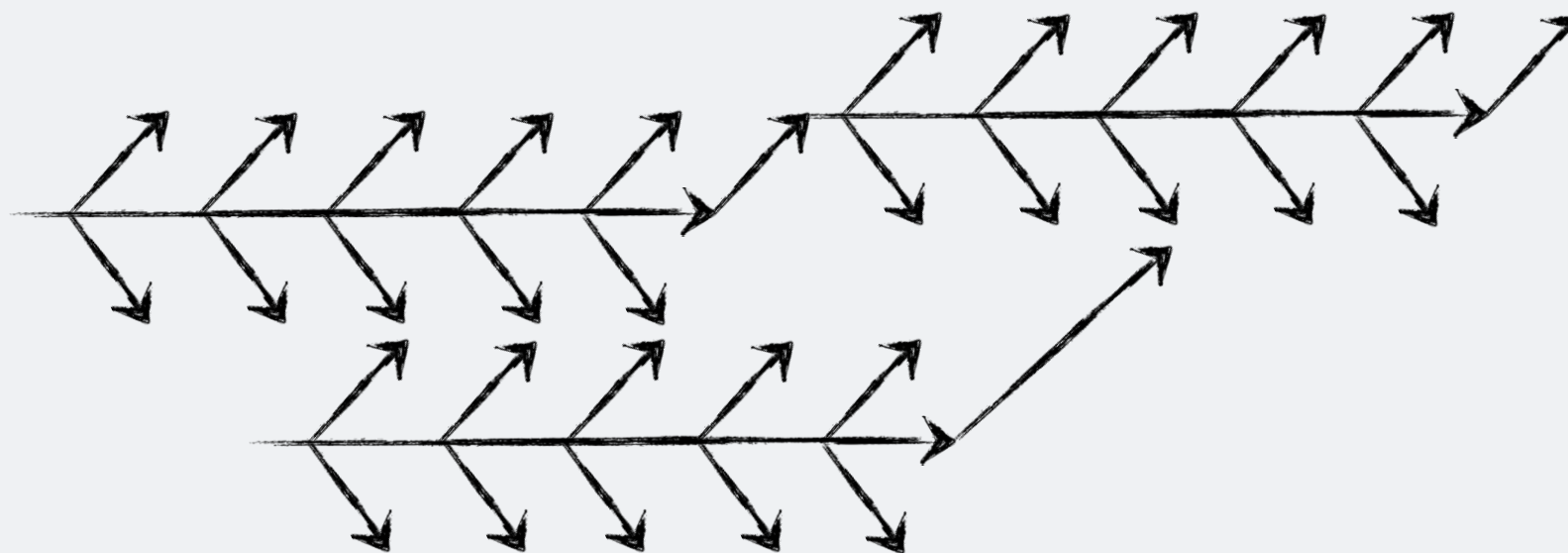




Pre-Covid



Covid era





Taking care of the future...(Now Covid era)

- **We are all societal actors!**
 - Researchers
 - Policy makers
 - Industry representatives
 - Citizens
- We share the responsibility to work together to ensure processes and outcomes **align with our values, needs and expectations.**



“Open Lab” in transition

- Cooperative practices in scientific production
- Trans-disciplinarity
- Diversity of sites where research is carried out

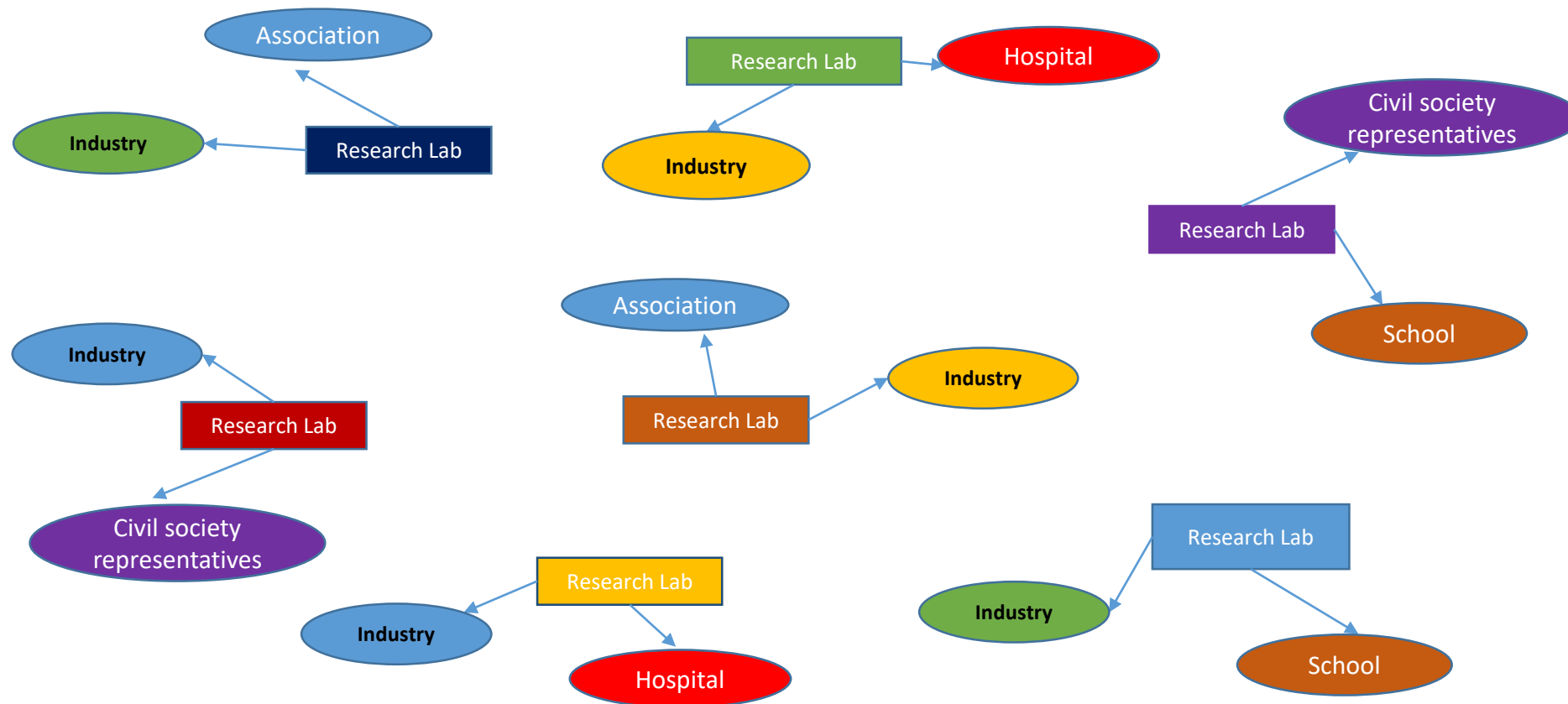


Increasingly “context Covid driven” research

- **Many actors control research quality** (not only peers)
- **Science is held accountable** by a wider range of actors
- **Expectations that science should have economic impacts**
- **Policy-makers leading and steering the research process**
- **Bureaucratization of research** (more regulation and standardization)
- **Focus on relationships between universities, governments, industries...**
- **More competition for research funding** (and less time to prepare the call)

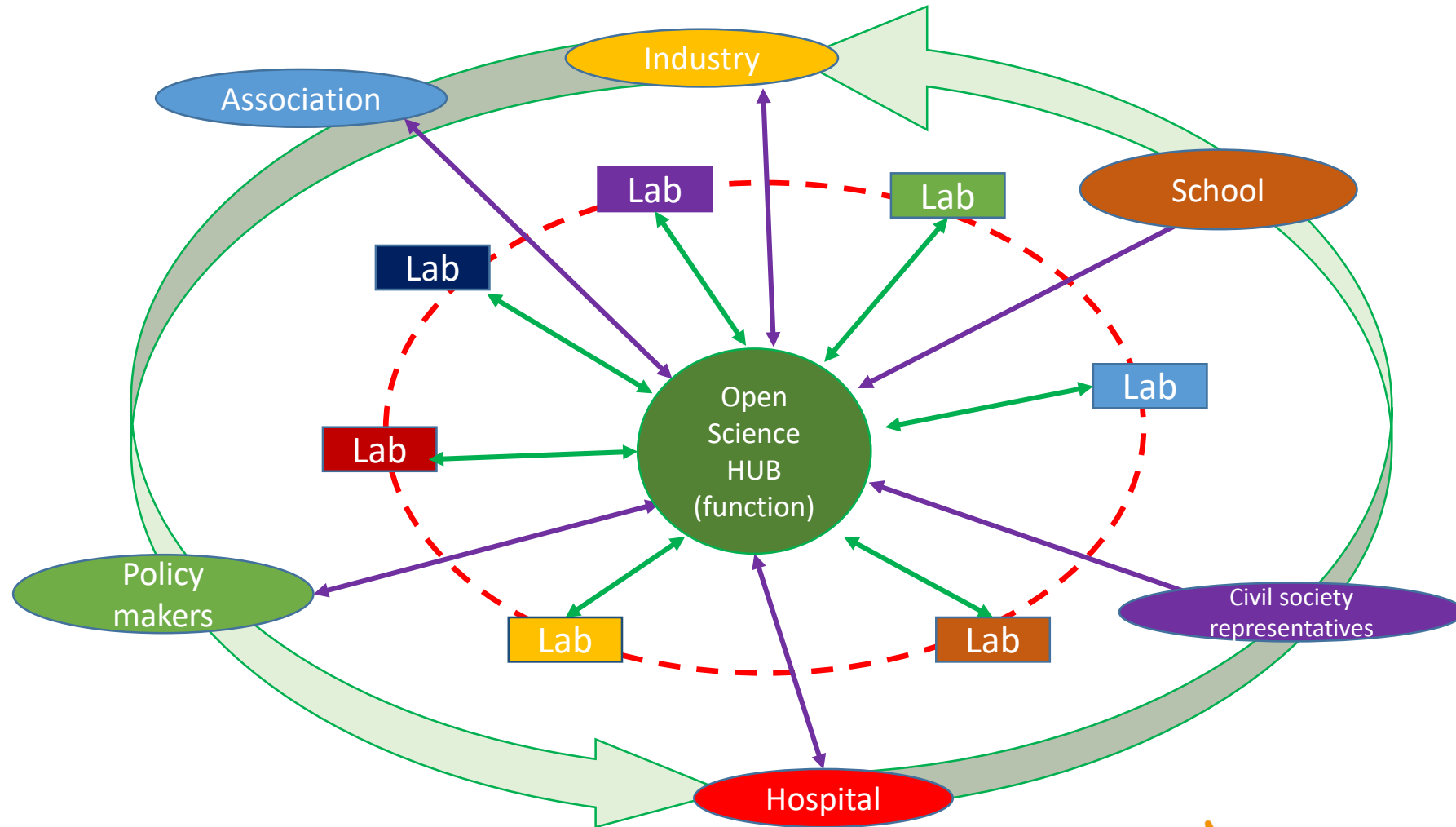


Small laboratories - linear organization



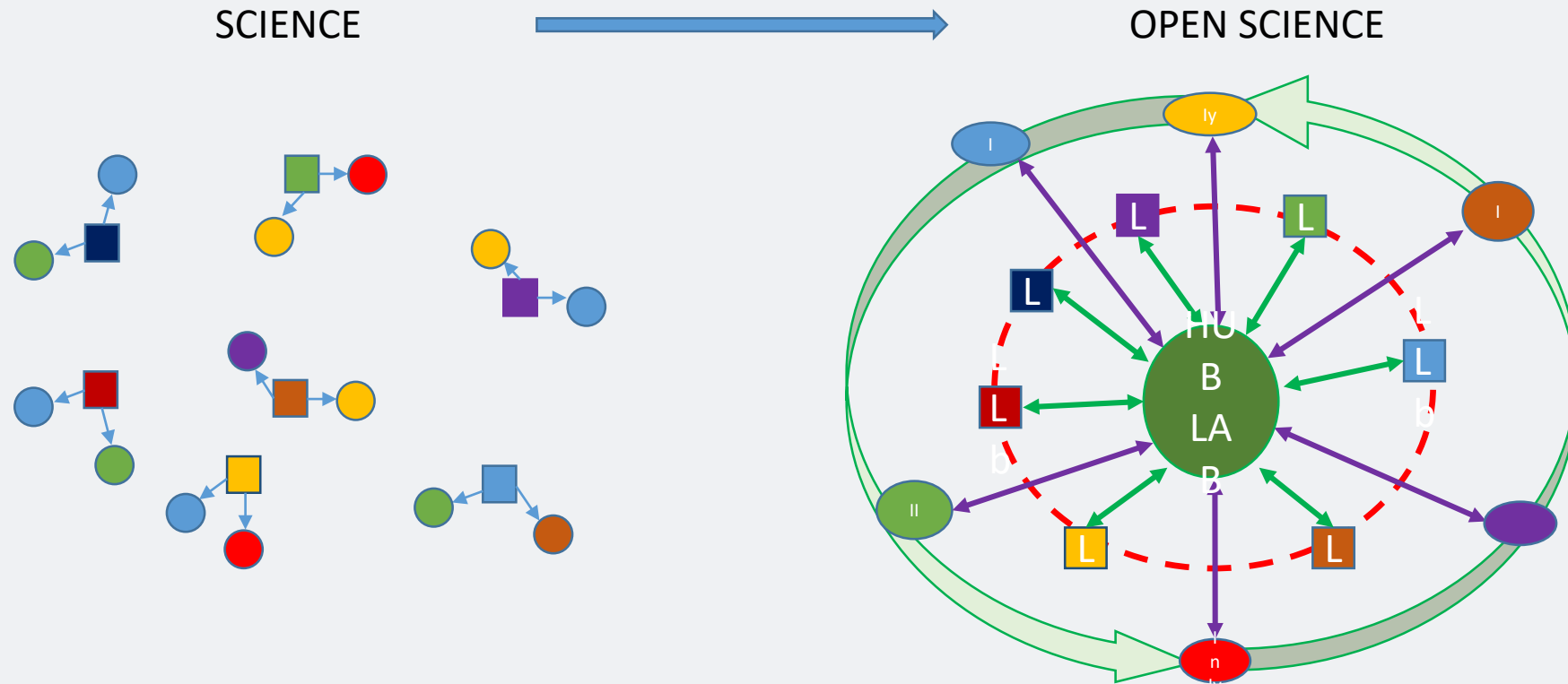


Open Laboratory – circular and dynamic organization





Create and support an open innovation ecosystem





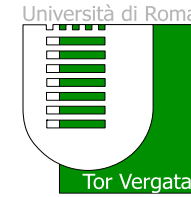
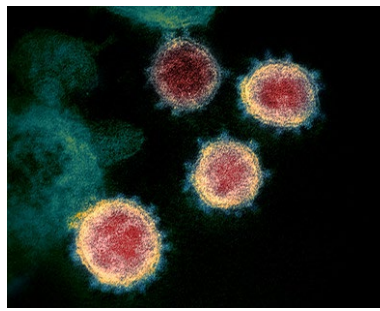
Global Health 2035: 4 Key Messages for now in the Covid-19 Era

A **grand convergence** in health is achievable within our lifetime

The **returns from investing in health** are extremely impressive

Fiscal policies are a powerful, underused lever for curbing non-communicable diseases and injuries

Progressive pathways to **universal health coverage** are an efficient way to achieve health and financial protection

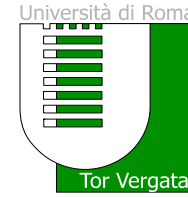
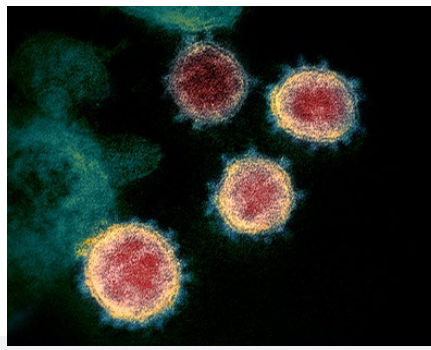


WHY THE COVID-19 TOR VERGATA JOINT-OPEN LABORATORY

Covid-19 knows no borders; neither should science. To deal successfully with the pandemic, it is imperative that the global scientific community collaborates. We need to share resources – experience, expertise, research infrastructure (including cyberinfrastructure) and data. We need to leverage national investments, pooling financial resources, investing in the capacities of developing countries, and aligning and optimising synergies between national research agendas. Perhaps most importantly, we need to reinforce global solidarity, strengthening the coordination and leadership efforts of the United Nations and regional bodies such as the European and African Union

In consideration that the Covid-19 Tor Vergata joint-open lab is an initiative of the UNESCO Chair in Interdisciplinary Biotechnology and Bioethics of the University of Rome Tor Vergata, we embrace the holistic vision of open science proposed by UNESCO – i.e. scientific collaboration rooted in open access, open data and a science open to society





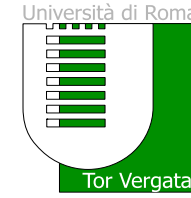
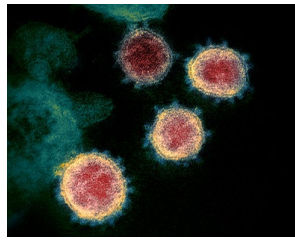
THE COVID-19 TOR VERGATA JOINT LABORATORY

**DEPARTMENT OF BIOLOGY, DEPARTMENT OF BIOMEDICINE AND PREVENTION SYSTEMS, DEPARTMENT EXPERIMENTAL MEDICINE ,
DEPARTMENT OF CLINICAL SCIENCES AND TRANSLATIONAL MEDICINE, DEPARTMENT OF CHEMICAL SCIENCES AND TECHNOLOGIES,
INTERDEPARTMENTAL CENTER FOR COMPARATIVE MEDICINE, ALTERNATIVE TECHNIQUES AND AQUACULTURE (CIMETA)**

SOL Group (Crylab, Diatheva, Personal Genomics)

CNR Montelibretti - Sapienza University - Roma Tre University - University of Naples Federico II - University of Brescia - University of
Edinburgh - Medical Research Centers UK - La Jolla Institute for Immunology USA, CIRCB, Cameroon, Somali National University

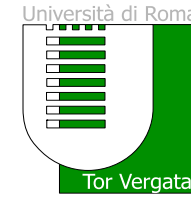
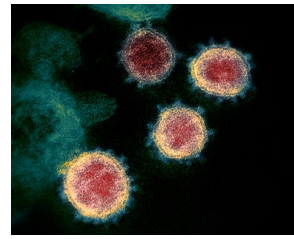




OBJECTIVES OF THE COVID-19 TOR VERGATA JOINT-OPEN LABORATORY

1. Freezing of all biological samples in course of infection and Covid (serums, plasma, urine, exhaled lung, peripheral blood cells, BAL, etc .;);
2. Development of research and technology transfer projects;
3. Participation in funding calls;
4. Strengthening and accreditation of university infrastructures (P3, Test laboratory, training room);
5. Conducting training courses on safety procedures for laboratory personnel involved in Covid activities;
6. Development of social projects in Rome and international cooperation in Cameroon and Somalia.





Tor Vergata P3 Joint-Open Laboratory

1. The **Tor Vergata Joint P3-Lab** is the research infrastructure for the SARS-CoV2 virus open to scientific and technological projects that require platforms with viable virus.
2. The **Tor Vergata Joint P3-Lab** is located in the same building in Via Montpellier 1, where Cryolab and CIMETA are located.
3. The **Tor Vergata Joint P3-Lab** is managed by a specific operational committee composed by 3 members (one virologist, one pathologist, one bio-engineering).
4. The **Tor Vergata Joint P3-Lab plan** is open to public and private collaborations to increase the knowledges, research and development in a Open science and RRI approaches.



The contribution of the STARBIOS2 consortium in the elaboration of Joint-Open Laboratory





THANK YOU!



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