

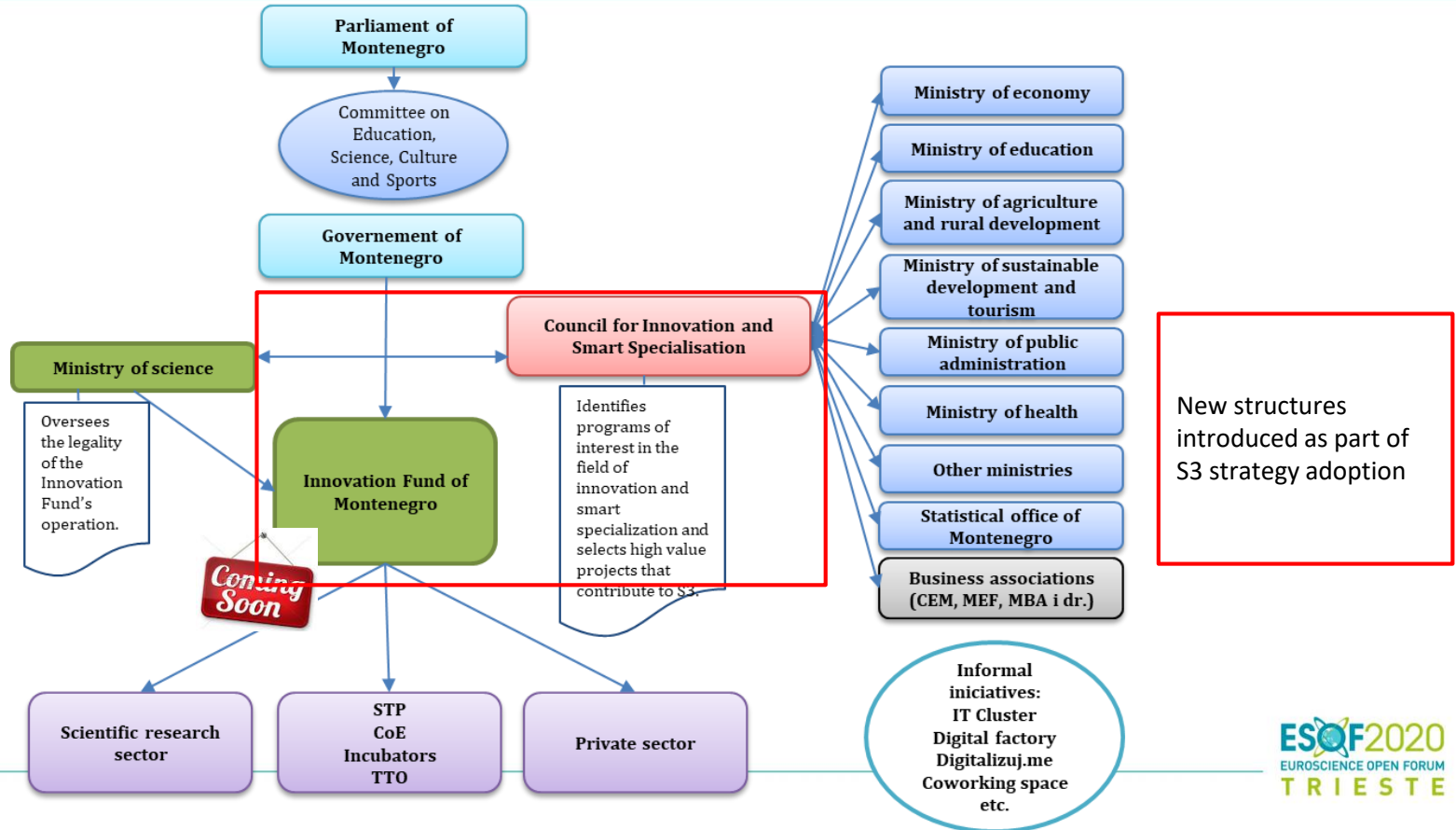
WBC-RTI European Roadshow:
Advancing R&I ecosystems in the Western Balkans with regard
to their ERA integration

Montenegro's R&I ecosystem

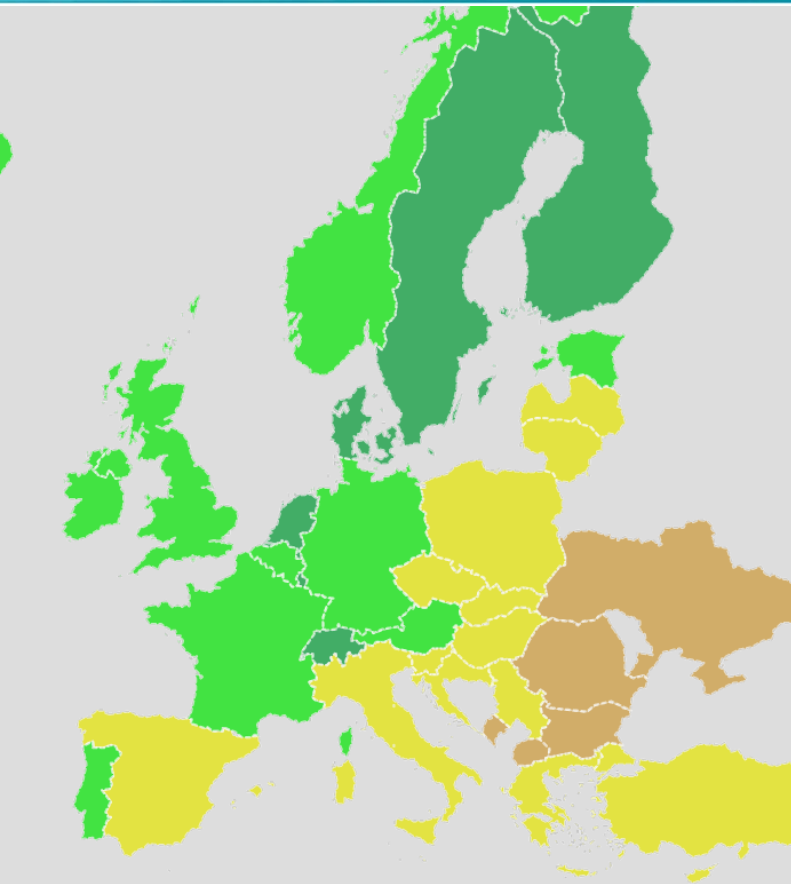
Branka Zizic, General Director for Innovation
and Technology Development

Ministry of Science, Montenegro

Montenegrin Innovation System

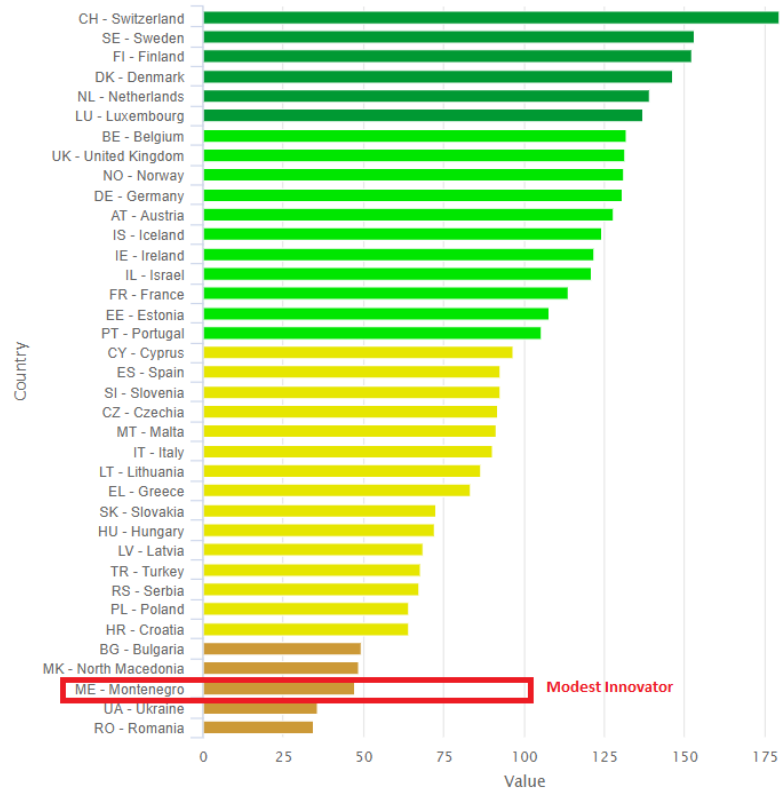


European Innovation Scoreboard 2020



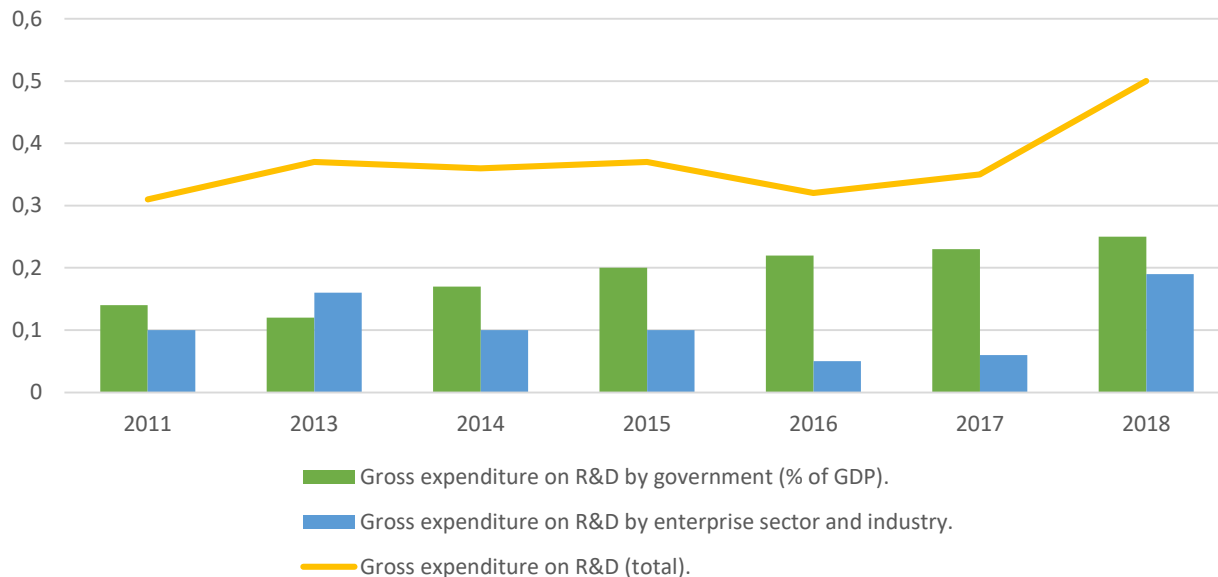
Innovation index

Source: European Innovation Scoreboard 2020



R&D indicators - Montenegro

R&D key statistics



Long staggering
Growth path started

Global Innovation Index 2019

Montenegro ranked 45 out of 129 countries

Positive sides

ICT infrastructure 47

Creative results 26

Human capital and research 56

Negative sides

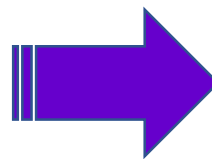
Market sophistication 83

Business sophistication 62 (where clusters 86,
patent creation 93, high tech imports 98);

Results of knowledge and technology 79 (where
knowledge impact 80, knowledge diffusion 107)

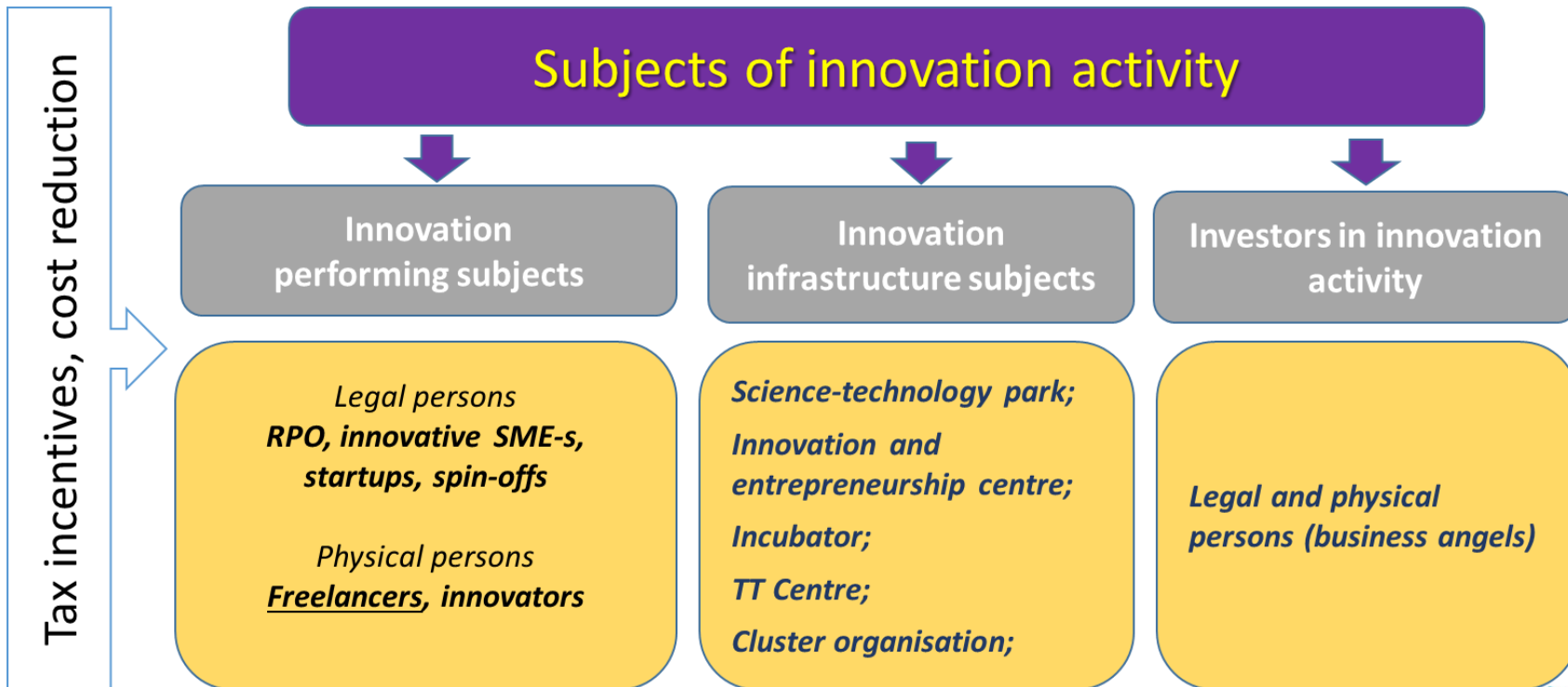
Areas of improvement:

mechanisms for knowledge and technology circulation
inside the country and at the international level, increase
of no of people, increase of capital



New laws in the field
of innovation

Legal changes 2020



R&I funding overview

GRANTS FOR INNOVATION PROJECTS

business
academia
validated start-ups
(from 2018)

PRE-ACCELERATION PROGRAMME FOR START-UPS

S3 & SDG priorities
From 2019

START-UP EARLY DEVELOPMENT SUPPORT

S3 & SDG priorities
From 2020

INNOVATION VOUCHERS

companies introducing
process innovations

INNOVATIVE PROJECTS IN CREATIVE INDUSTRIES

HORIZON 2020

EUREKA

business
academia

COST

academia

CENTERS OF EXCELLENCE

academia
business
public sector

NATIONAL RESEARCH PROJECTS

academia

DOCTORAL FELLOWSHIPS

Academia
(from 2018)

H2020 Hop-on Call

academia
(from 2018)

6 new funding
Instruments
introduced in the
past 3 years

Infrastructure



**Science-Technology Park of Montenegro
- Podgorica, expected: end 2021**

Coming soon:

Cluster Organisations in S3 – New Cluster Policy – 2020
Technology Transfer Centre at national level – Roadmap
under preparation 2020
Open infrastructure – regional portal



**Innovation Entrepreneurship Centre
Tehnopolis – Niksic, since 2016**

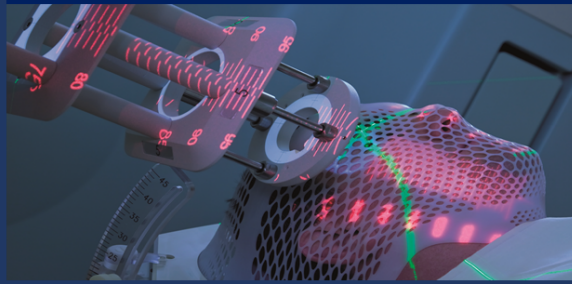


Significant support from EU - IPA

Large Research Infrastructure – macroregional initiative SEEIST

MULTI-DISCIPLINARY RESEARCH WITH HEAVY IONS

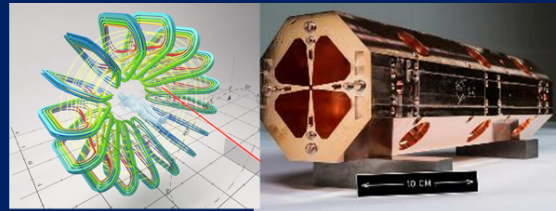
- Pre-clinical (medical, radiobiology)
- Clinical, including clinical trials
- Industrial research (microelectronics)
- Material research
- Ultra-high dose rates (FLASH)



Cutting-edge innovative and novel research in any of these topics driven by novel technological opportunities Complementary to all existing facilities

BREAKTHROUGH IN TECHNOLOGY

- Multi-ion synchrotron (beyond presently used p and C-ions)
- More compact and much cheaper Superconducting synchrotron
- Superconducting gantry
- Higher beam intensity, faster extraction; Real time imaging



Will make cancer treatment with ions accessible to a large fraction of the European population and bring back Europe the lead position in this field

SCIENCE DIPLOMACY

- Declaration of Intent signed at CERN in October 2017 by 8 SEE countries
- MoC signed by 6 Prime Ministers of the SEE Region in July 2019, at the Summit of Berlin Process, Poznan
- Political support by the Swiss Government to establish SD roadmap



With the strong supporting consortium of 18 European research centers and clinics the SEE region is trying to revive its technological tradition

Intensive political and diplomatic work of the inter-Governmental Steering Board of SEEIIST

1st Meeting January 2018, Sofia

- Election of Chairperson: Dr. S. Damjanovic, Minister of Science of Montenegro



2nd Meeting March 2018, Tirana

- Project selection: Facility for Tumour Therapy and Biomedical Research with Protons and Heavier Ions; Draft Memorandum of Cooperation approved



5th Meeting June 2019, Sarajevo

- Distribution of tasks for the Preparatory Phase



6th Meeting September 2019, Budva

- SEEIIST obtained a legal status as a Swiss Association



3rd Meeting July 2018, Skopje

- Distribution of tasks for the next Preparatory Phase of the Project



4th Meeting November 2018, IAEA, Vienna

- Coordinator of the Preparatory Group elected



7th Meeting January 2020, Ljubljana

- Preparation of Convention for the establishment of SEEIIST



8th Meeting will be held in Switzerland

under the patronage of the Swiss Federal Department of Foreign Affairs - FDFA



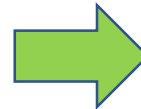
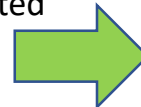
Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Strong political
leadership
of SEEIIST

SEEIST – Science Diplomacy initiative

No matter where SEEIST will be located, benefits across the whole Region:

- Treatment of patients
- Involving the local industry
- Powerful digital networks and big data handling with distributed centres across the region
- Building innovative capacities in the SEE region in a cutting edge field such as Hadron Therapy and related fields
- Opportunities for education, training and employment of talented young people
- Reconciliation through collaboration



Horizon Europe - Widening

EU Economic and Investment Plan for the WB ?



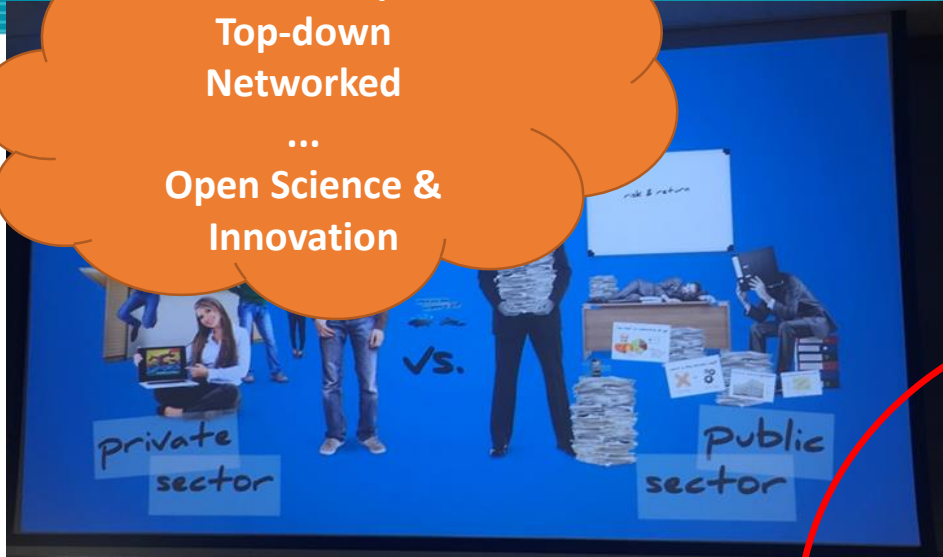
- Initial EU support – 1M €, ISF
- IAEA support – 0.5 M €
- Applied to H2020 – INFRA
- Applied to H2020 – MSCA

Direction of research and innovations?

Bottom-up
Top-down
Networked

...

Open Science &
Innovation

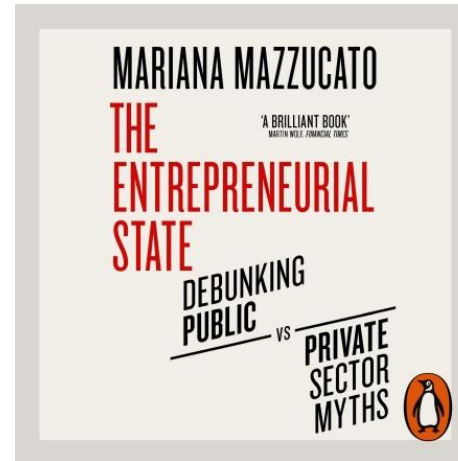


Smart Specialisation

+

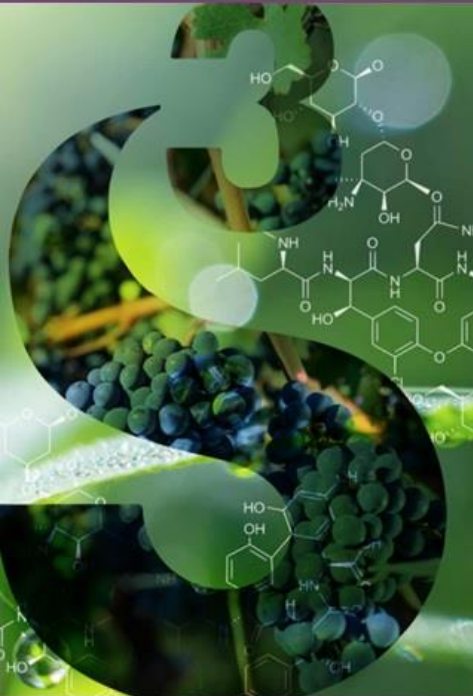
Role of the Council for
Innovations and S3

According to Mazzucato, responsible investments have a more predictable social value than economic one, meaning symbolic and financial dividends from investing into innovations can really change the world for the better... Instead of fixing problems that arise on the market (or happen to market) the state should act proactively and create “missions”



Smart Specialisation Strategy - S3.me

Strategic priorities



**Sustainable agriculture and
food value chains**



**Energy and
Sustainable Environment**



**Sustainable and Health
Tourism**

ICT

Montenegro – first EU
candidate country to
adopt S3 strategy (June
2019), validated by the
EC (December 2019)

Concluding remarks

- A research and innovation ecosystem under establishment
- Big steps ahead made accross the system
- Continuation of policies and budget allocation to be ensured
- Internal strategic networking, openness and collaboration make an impact
- Internationalisation to support and upgrade homework
- Foreign direct invesments to support technological transformation
- Public University needs to adopt open science and innovation accross its structures
- EU to decidedly support through Horizon Europe – Widening, EU Economic and Investment Plan for the WB, IPA Multiannual Financial Framework
- EU networking to be strenghtened (EIT, JRC...)

Thank You!

Contacts:

<http://www.mna.gov.me/kontakt>

<https://www.ntpark.me/kontakt/>

[https://www.tehnopolis.me/online/mne/kontakt-](https://www.tehnopolis.me/online/mne/kontakt-2/)

[2/https://seeiist.eu/contact/](https://seeiist.eu/contact/)

ESOF2020
EUROSCIENCE OPEN FORUM
TRIESTE

Euro
Science

Fondazione
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Trieste