

# EaPPLUS

Eastern Partnership +



## Webinar 6

### Internationalisation of RDI activities - Exploring the models of international innovation partnerships

*18 July 2019*

# Agenda

- **10.00-10.10 AM:** Introduction on the EaP PLUS project and the series of webinars
- **10.10-10.45 AM:** Presentation by Alexei Belotserkovsky on international partnerships
- **10.45-10.55 AM:** Conclusion
- **10.55-11.15 AM:** Q&A

## EAP PLUS

- Launched in September 2016 – 3 year long Coordination and Support Action dedicated to EU-EaP STI cooperation
- Builds on previous projects addressing the region (Inco Net EaP, Bilat, BSH...)
- Includes partners from all 6 EaP countries and from several EU MS

### 3 main objectives:

- Support EU-EaP Policy Dialogue
- Foster interaction between EU-EaP researchers & boost EAP participation in H2020
- Enhance the EU-EaP research-innovation partnerships

## EAP PLUS – RDI Webinars

- Six webinars on specific innovation related topics, exploitation paths and other horizontal issues important for the EU EaP RDI cooperation
  - Innovation strategies – April 2017
  - Innovation management – September 2017
  - Exploitation strategy in R&I collaborative projects – December 2017
  - Impact maximisation in R&I collaborative projects – May 2018
  - Engaging in academia-industry collaboration – February 2019
  - **Internationalization of RDI activities - Exploring the models of international innovation partnerships – July 2019**

# Speakers

## Alexei Belotserkovsky

Head of Intelligent Information Systems Department of the  
United Institute of Informatics Problems, Belarus



Professional background: Alexei is a national expert in space domain, space National Contact Point in Horizon2020 EU Framework Programme and Belarusian representative at the UN Committee on the Peaceful Uses of Outer Space (COPUOS). He received his PhD in 2006, and works in the field of color vision, image processing and pattern recognition. He has led several national and international R&D projects financed by INTAS, ISTC, FP7 as well as support and infrastructural actions such as "SCUBE-ICT: Strategic Cooperation in Ukraine, Belarus and EU in Information and Communication Technologies" and "CERES: Centers of Excellence for young REsearchers".





# The climate

## • PRIORITIES OF S&T IN THE REPUBLIC OF BELARUS FOR 2016 - 2020

1. Energy and energy efficiency, nuclear energy

...

2. Agro-industrial technologies and production

...

3. Industrial and construction technologies and production:

...

robotics, intelligent control systems;

...

optoelectronics and optical systems;  
electronic instrument technology, microelectronics,  
radio electronics, microwave electronics, electrical  
engineering;

....

high-speed and high-speed transportation systems  
and  
communications;

...

transport and logistics systems and infrastructure;  
perspective building technologies, constructions,  
materials.

4. Medicine, pharmacy, medical equipment:

....

technologies for the prevention, diagnosis and  
treatment of diseases;

...

pharmaceutical technology, medical biotechnology,  
drugs, diagnostic products and test systems;

...

5. Chemical technology, petrochemistry:

6. Bio and nanoindustry:  
nanotechnology;

7. Information and communication and aerospace  
technology:

development of integrated management automation  
systems

the processes and resources of organizations;

aerospace information technology;

means of technical and cryptographic protection of  
information;

bioelectronics, bioinformatics and information  
technology in

medicine;

electronic identification technology and systems;

**Information Society Development Technologies.**

8. Environmental management and deep processing

natural resources:

sustainable use of natural resources and protection

the environment;

technologies of exploration and geological surveying,

deep processing of natural resources.

9. National security and defense, protection from

emergency situations:

promising means and technologies to ensure national  
security and defense;

protection of the population and territories from  
emergency situations.





# The climate

- S&T AGREEMENTS

State Committee on Science and Technology  
**SCST**  
of the Republic of Belarus



**THE BELARUSIAN  
REPUBLICAN  
FOUNDATION  
FOR FUNDAMENTAL  
RESEARCH**

## СТРАНЫ СНГ / CIS COUNTRIES

1. Азербайджан / Azerbaijan
2. Армения / Armenia
3. Казахстан / Kazakhstan
4. Молдова / Moldova
5. Россия / Russia
6. Таджикистан / Tajikistan
7. Туркменистан / Turkmenistan
8. Украина / Ukraine

## ЕВРОПА / EUROPE

9. Болгария / Bulgaria
10. Великобритания / Great Britain
11. Венгрия / Hungary
12. Германия / Germany
13. Грузия / Georgia
14. Дания / Denmark
15. Италия / Italy
16. Кипр / Cyprus
17. Литва / Lithuania
18. Латвия / Latvia
19. Македония / Macedonia
20. Польша / Poland
21. Сербия / Serbia
22. Словакия / Slovakia
23. Турция / Turkey
24. Чехия / Czech Republic

## АЗИЯ / ASIA

25. Бангладеш / Bangladesh
26. Вьетнам / Vietnam
27. Индия / India
28. Индонезия / Indonesia
29. Иран / Iran
30. Катар / Qatar
31. Китай / China
32. Корея / Korea
33. Лаос / Lao P.D.R.
34. Монголия / Mongolia
35. Пакистан / Pakistan
36. Сирия / Syria
37. Япония / Japan
38. Саудовская Аравия / Saudi Arabia
39. ОАЭ / United Arab Emirates

## АМЕРИКА / AMERICA

40. Венесуэла / Venezuela
41. Куба / Cuba
42. США / USA
43. Эквадор / Ecuador

## АФРИКА / AFRICA

44. Египет / Egypt
45. Судан / Sudan
46. Южная Африка / South Africa



Agreements for scientific  
and technical cooperation had been  
concluded with 46 countries.





# The climate

## The Decree No. 8 of The President of the Republic of Belarus “On the Development of the Digital Economy”

The document creates unprecedented conditions for the development of the IT industry and provides a serious competitive advantage for the country in creating a 21st century digital economy.

- State and Joint R&D Infrastructures

**HTP**  
BELARUS

**INFOPARK**

**GREAT STONE**  
industrial park

TECHNOPARK  
SCIENCE & STARTUP  
POLYTECHNIC  
BUSINESS  
Научно-технологический парк БНТУ  
**ПОЛИТЕХНИК**



# The place and the player

- Member of RU-BY State Union
- 3<sup>rd</sup> country for Horizon2020: unable to participate in SME and several other calls
- MSCA, ERASMUS+
- Member of UN and several Committees:
  - significantly important for COPUOS and IAEA
- Strategic location for Eastern Europe Central Asia region:
  - Eastern Partnership
  - Cross-border Cooperation Programmes



# Your strategy

- It is not scalable
  - Country level
  - Organizational level
  - Personal level

...but





# Your strategy

- do not keep yourself along



- Info days
- Clusters
- Initiatives
- Consortia
- ...

# Your strategy

- do cross checking



- Example for calls:

ICT <-> Space <-> Climate

- Example for Infrastructures:

Cultural Heritage -> Resources ->  
-> PRACE -> GÉANT -> EaP ->  
-> EaPConnect



# Your strategy

- find infrastructure





# Your strategy

- What When Where How



# Your strategy

- Catch a train



- it could be a case
- it is the case if you pass all above
- we have passed
- we have got the case



# Successful Story: International Innovation partnership

## 15 years of S&T and RI cooperation

- more than 100 partners across Europe:  
Austria, Armenia, Belarus, Belgium, Bulgaria, UK, Hungary, Germany, Greece, Denmark, Israel, Cyprus, China, Ireland, Island, Spain, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Moldova, Netherlands, Norway, Poland, Portugal, Russia, Romania, Serbia, Slovakia, Slovenia, Turkey, Ukraine, Finland, France, Croatia, Montenegro, Czech Rep., Sweden, Switzerland, Estonia
- EaP (Armenia, Azerbaijan, Georgia)
- Africa (Nigeria)
- China
- USA



# Successful Story: EU Innovation partnership



## TRANSFER OF KNOWLEDGE

"Combined study of nanostructured magnetic materials" (NANOMAG-LAB)



*FP7-ICT Strategic Cooperation in Ukraine, Belarus and EU in Information and Communication Technologies*



*FP7-INCO Reinforcing cooperation with Eastern Partnership countries on bridging the gap between research and innovation for inclusive and secure societies.*



*ERA-NET Enhanced Pedestrian Routing and Navigation as well as Walkability Assessment of Pedestrian Ways*



*BMBS COST Action Applications of MR imaging and spectroscopy techniques in neuromuscular disease: collaboration on outcome measures and pattern recognition for diagnostics and therapy development*



## *TEMPUS IV Projects*

- Fostering the Knowledge Triangle in Belarus, Ukraine and Moldova
- Centers of Excellence for young REsearchers



## *ERA-NET Electric Mobility Europe*

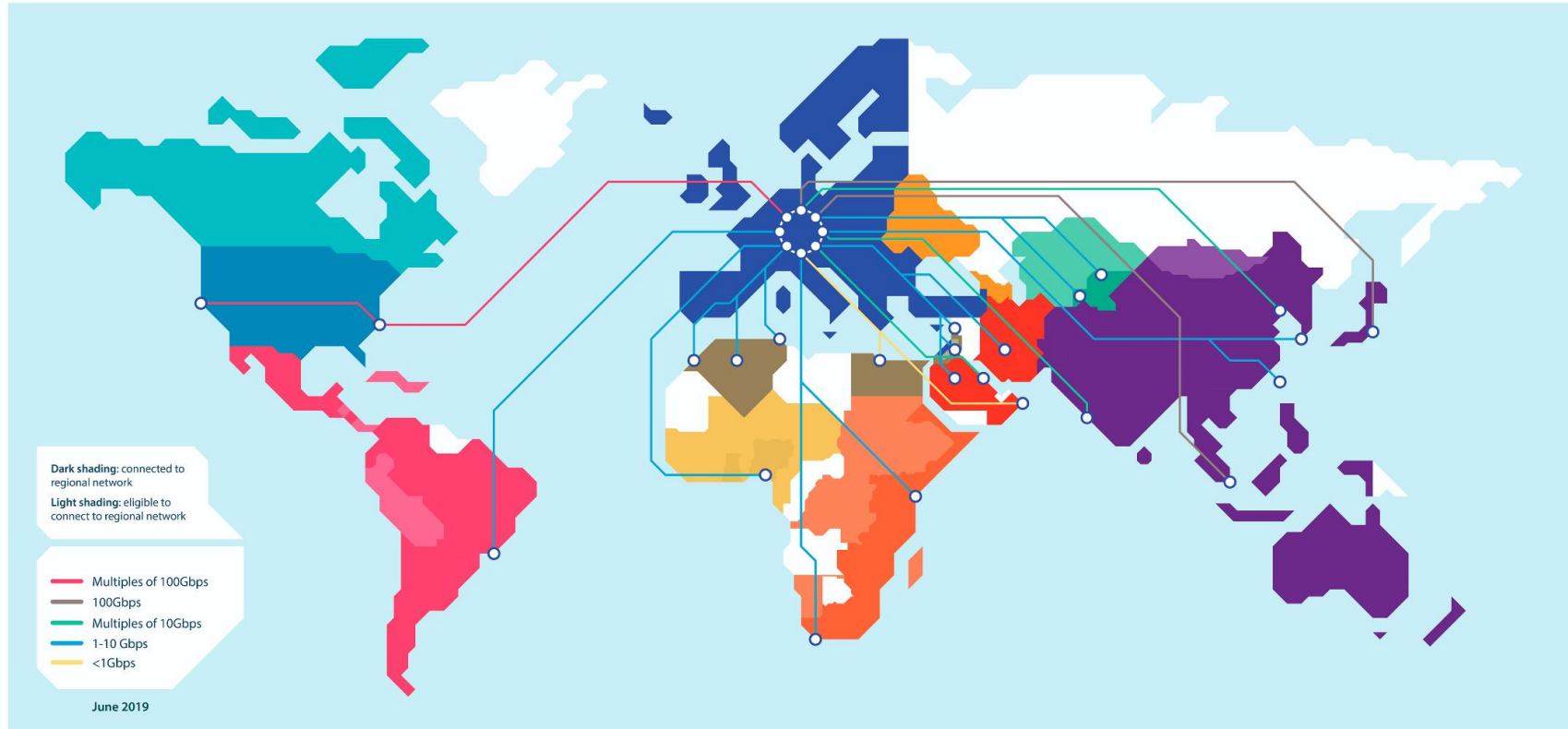
*Planning Process and Tool for Step-by-Step Conversion of the Conventional or Mixed Bus Fleet to a 100 % Electric Bus Fleet*





# Successful Story: “the train we’ve gained”

## AT THE HEART OF GLOBAL RESEARCH AND EDUCATION NETWORKING



# Successful Story: EU Connectivity Partnership



*FP7-INFRASTRUCTURES* Baltic GRID: Second Phase



*FP7-INFRASTRUCTURES*

- GÉANT3 (GN3)
- GÉANT3plus (GN3plus)



*FP7-INFRASTRUCTURES* Linking European and Chinese Research Infrastructures and Communities



*FP7-INFRASTRUCTURES* Integrated Sustainable Pan-European Infrastructure for Researchers in Europe



*H2020* THE GÉANT PROJECT (GN4-2)



*EaP* Eastern Partnership Connect



## GN4-3 in numbers



39 Partners, 42 Countries  
157 FTEs (average per year over project duration)  
500+ registered contributors

GN4-3/GN4-3N total EC funding: €128M



9 Activities, 34 Tasks  
124 Deliverables  
32 Milestones

GN4-3 : Jan 2019 – Dec 2022

GN4-3N: Jan 2019 – Dec 2022

## GN4-3 is more agile

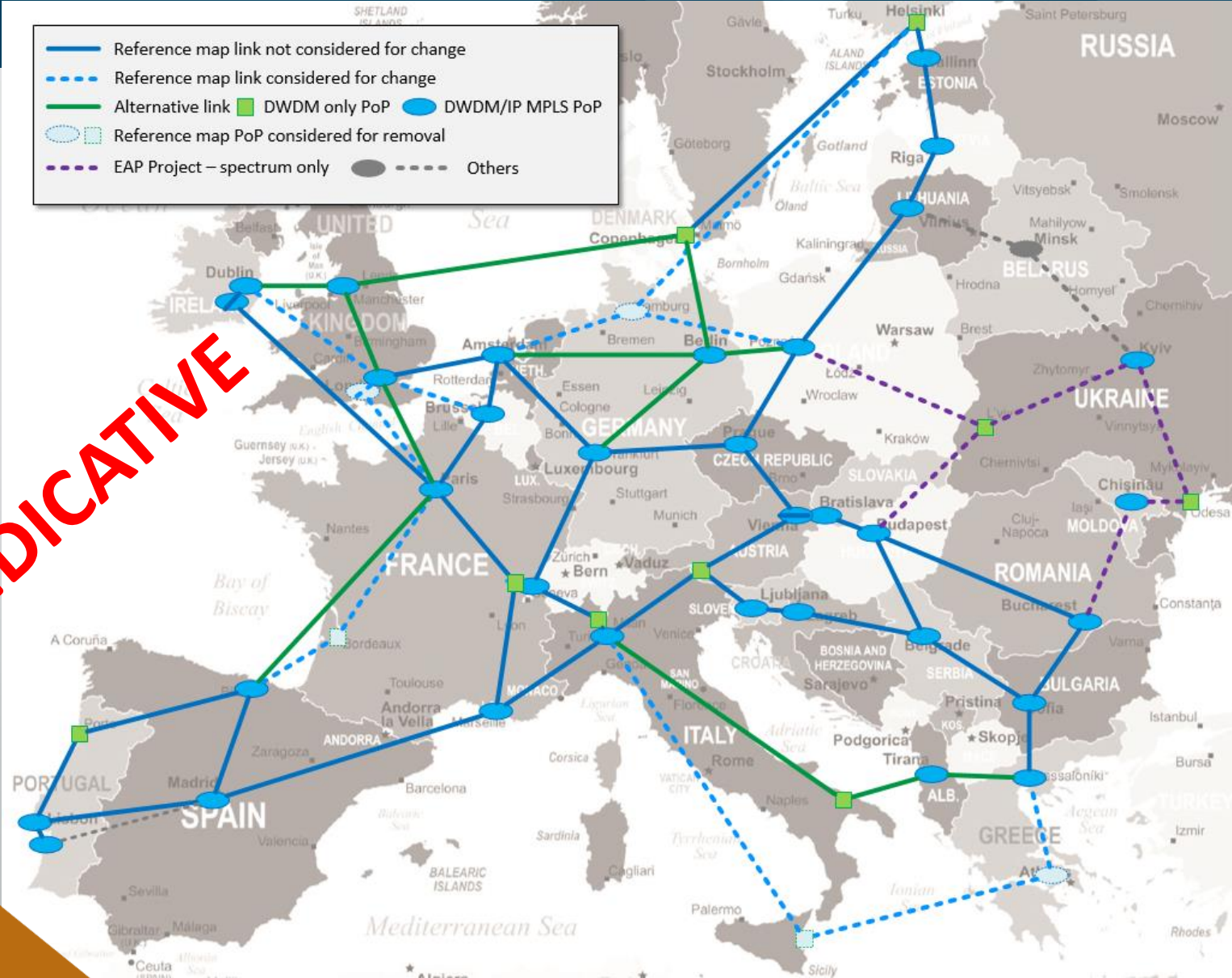


- WP5 T2 supports the **incubation of new ideas or potentially disruptive T&I technologies** that are considered sufficiently mature
- WP6 enhances the existing and/or create new services/products/tools through the **assessment, validation & implementation of relevant network technologies & services.**
- WP6 builds & maintains consensus in the GÉANT community on a future direction for architectures for orchestrating & automating deployment of network services, and on the necessary monitoring and management platforms to support both the services & their underlying network infrastructure(s).



# GN4-3N: Current View (Including some of EAP)

INDICATIVE



## Other locations not on footprint

Location	Example Lease	Spectrum/Fibre
Israel	2X 100G	YES
Cyprus	2X 10G	YES
Malta	1X 10G	YES
Turkey	2X 100G	YES
Luxemburg	2X 100G	YES
Montenegro	2X 10G	NO
Macedonia	2X 10G	NO





# Eastern Partnership Cooperation: EaPConnect

- helping EaP NRENs to be at the heart of their R&E communities
- facing societal challenges in EaP countries



Digital  
Security



Climate change



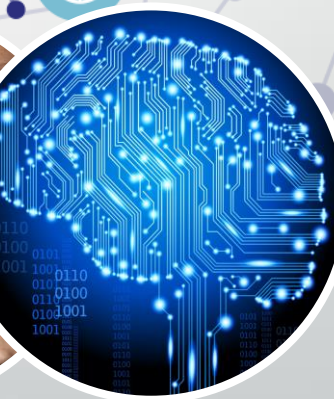
Cultural loss



Digital economy



Healthcare



Brain drain

# Eastern Partnership Cooperation: EaPConnect

- researchers & students need tailor-made internet networks to...



Exchange data securely,  
reliably & cost-effectively



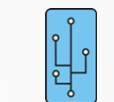
Participate in  
international  
collaborations



Increase knowledge &  
opportunities even in remote  
areas



# EaPConnect – what is it about?



**€13.7M**  
(95%)

European Commission  
co-funded project

1 July - 30 June  
**2015 2020**

5-year project



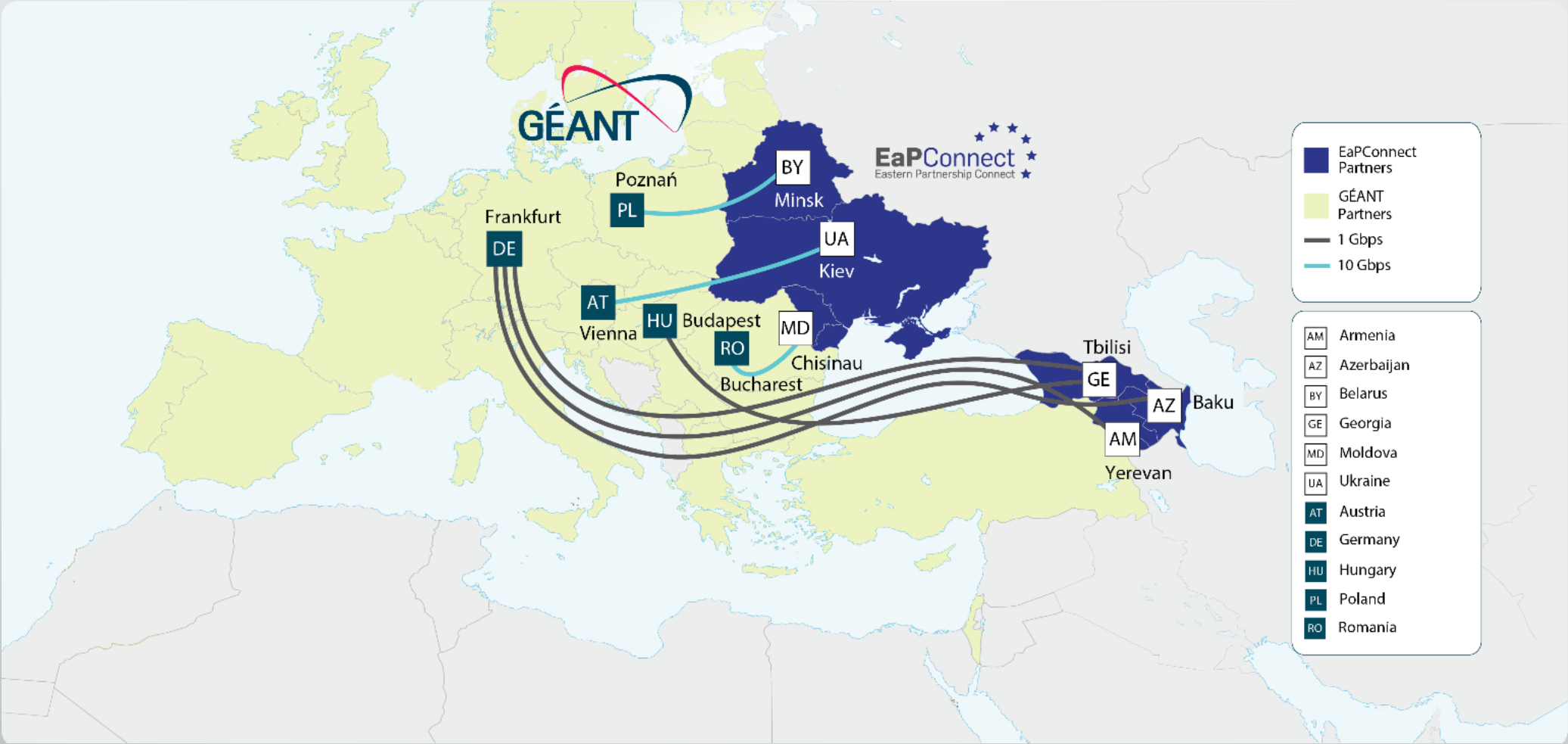
Reduction of  
digital divide



Support of the  
science, research and  
education sectors

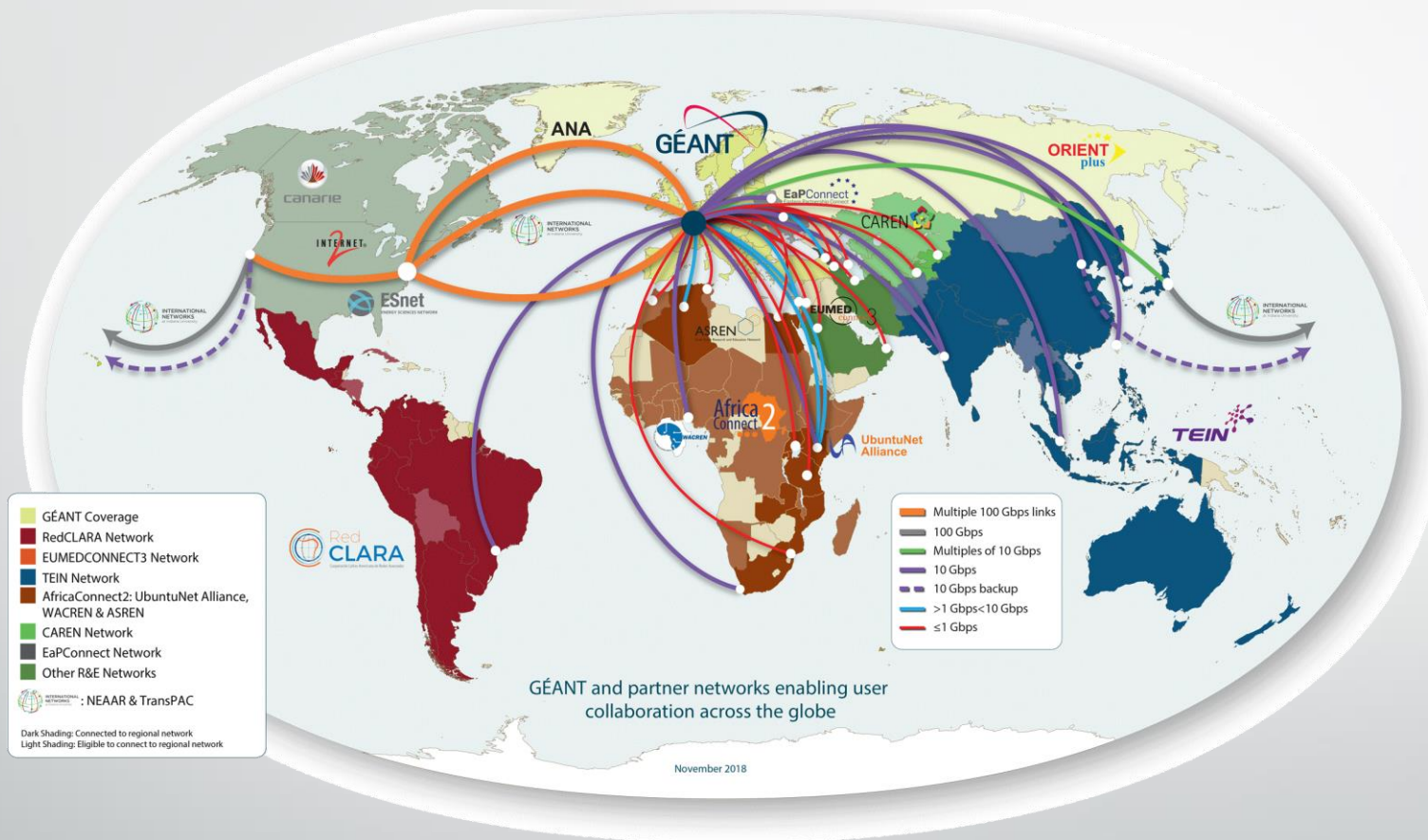


# Strengthening connections within the EaP region





# Strengthening connections with the rest of the world and other infrastructures





# Raising visibility of partners & services at EaPEC events

YEREVAN, ARMENIA  
25-26 SEPTEMBER 2019

**4TH EASTERN PARTNERSHIP  
E-INFRASTRUCTURE  
CONFERENCE**

**EaPEC**

**2019**

[WWW.EAPCONNECT.EU/CONFERENCES](http://WWW.EAPCONNECT.EU/CONFERENCES)

## Showcasing NRENs, GÉANT & e-infrastructures

350+ participants over 3 conferences

- Researchers, students, policy makers, NGOs etc.

## Each project partner takes a turn 'in the spotlight'

- TV, radio, press & online media coverage
- Host gains contacts with ministries, institutions



EaPEC 2018: Chisinau, Moldova

EaPEC 2017: Minsk, Belarus

EaPEC 2016: Tbilisi, Georgia

# Supporting partner services development

**EaPConnect**  
Eastern Partnership Connect

**CULTURE WITHOUT BORDERS**

**DIGITISATION HAS A SIGNIFICANT ROLE IN CULTURAL HERITAGE:**

- MASS DIGITISATION
- TEXT RECOGNITION
- ONLINE ACCESS

**SUPPORTS:**

- PRESERVATION OF ORIGINAL OBJECTS
- EASY ACCESS FOR EDUCATION, RESEARCH AND COMMERCE

**GEANT**

**EaPConnect**  
Eastern Partnership Connect

**GEANT CLOUD SERVICES**

Connecting Research and Education to the Cloud

The benefits of the GEANT Framework Agreements:

- Accessible
- Compliant
- Cost Effective

Reduced Network Traffic costs

Single Sign-on

For more information visit [clouds.geant.org](https://clouds.geant.org)

**GEANT**

**EaPConnect**  
Eastern Partnership Connect

**SECURITY WITHOUT BORDERS**

**MANAGE YOUR RISKS  
MITIGATE DDOS ATTACKS  
COMPLY WITH REGULATIONS**

**ENTERPRISE SECURITY ARCHITECTURE:**

- HUMAN ORIENTED
- BUSINESS ORIENTED
- COST EFFECTIVE
- RE-USEABLE CONCEPT

**GEANT**

**eduroam**

**Get connected, wherever you are**

Over 1 billion authentications across 90 countries

[www.eduroam.org](https://www.eduroam.org)

**GEANT**

# Growth of eduroam



**642%**  
Coverage increase



**639%**  
International usage increase



- Providing roaming access for researchers and students across campus and when visiting participating sites
- Providing an equivalent Erasmus+ experience for students from / visiting EaP countries
- Raising prestige of EaP countries, reducing the digital divide in the user experience



# Connecting arts teachers, students and performers

## LoLa supports harmonious cross-border collaboration

- Geographically distributed musicians, actors, dancers work together in real time
- Connected by advanced R&E networks
- No distortion or delay
- Used in Europe, North America - now also in Armenia, Azerbaijan & Belarus
- For teaching, masterclasses, rehearsals & performances

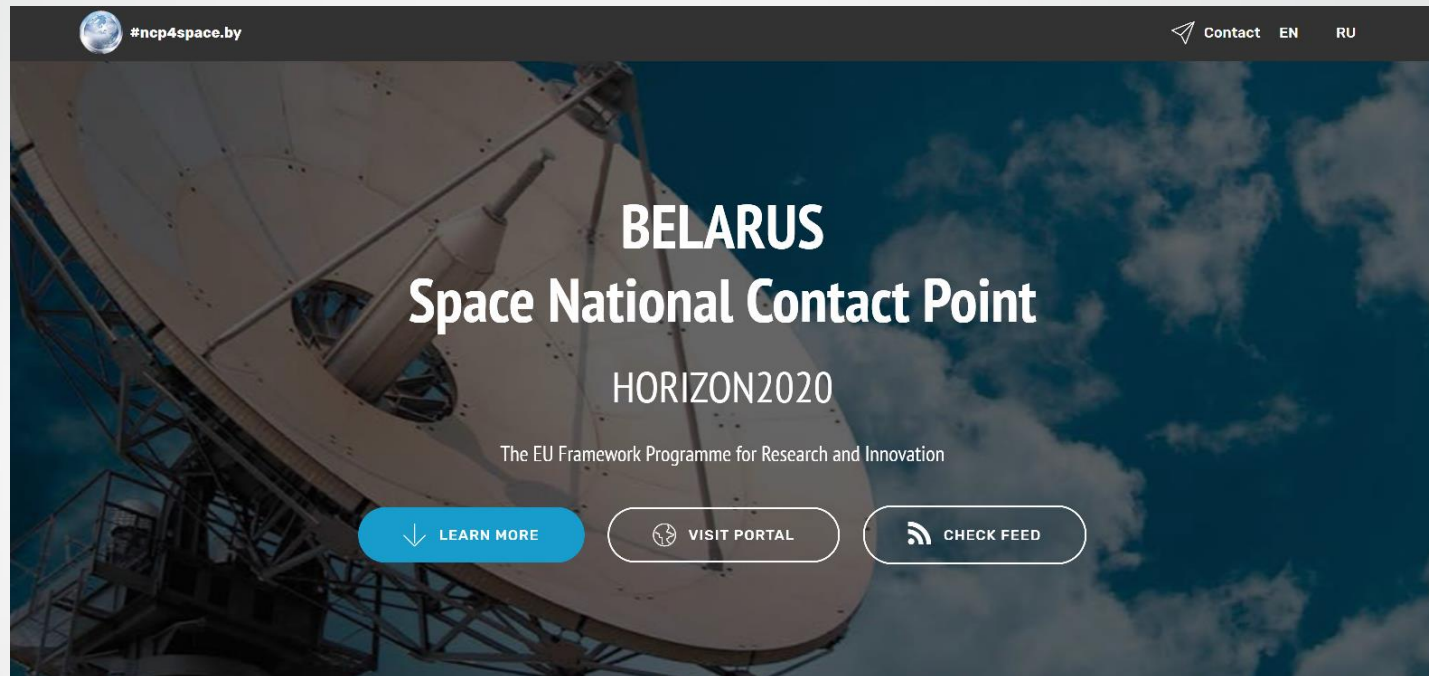
<https://www.youtube.com/watch?v=WLPmduqdqhs>



- connectivity as a service supports science as a service
- ...which needs corresponded infrastructures
- ...which interconnect and communicate with each other
- ...so to provide ecosystem and working instruments



# "Space nut"



## United Institute of Informatics Problems

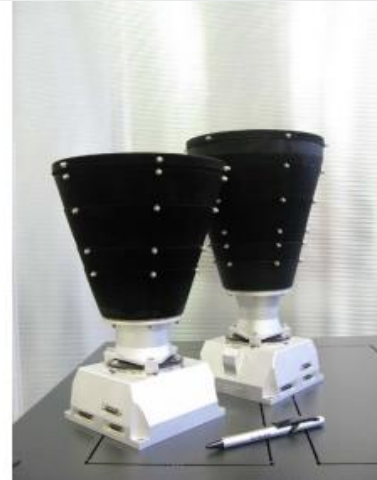
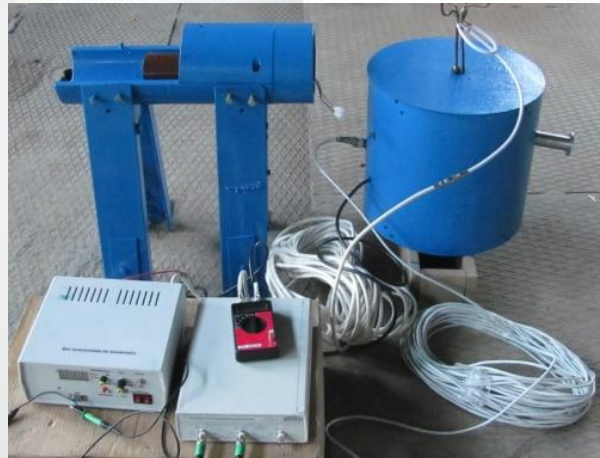
Head Executor carried out the scientific and organizational support of the National Space Programme

## Geo-Information Systems

National Operator of the Belarusian Space System for Earth Remote Sensing



# Cooperation under national space subprogramme and RU-BY space programmes



## NATIONAL LEVEL | SPACE SUBPROGRAMME 7

Generic space development

**The exploration and use of outer space for peaceful purposes"**  
under State Programme "High technologies and equipment"  
(2017-2020)

## SPACE EDUCATION

Airspace education Center

## STATE APPLIED RESEARCH AND INNOVATION

## Joint Russian Belarusian Space Programmes

- Cosmos-BR
- Cosmos-SG
- Cosmos-NT
- Monitoring-SG
- Nanotechnology-SG
- Standardization-SG
- Technology-SG



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Thank you!  
Any questions?