EaPConnect
Eastern Partnership Connect

Connecting Research & Education communities in the Eastern Partnership

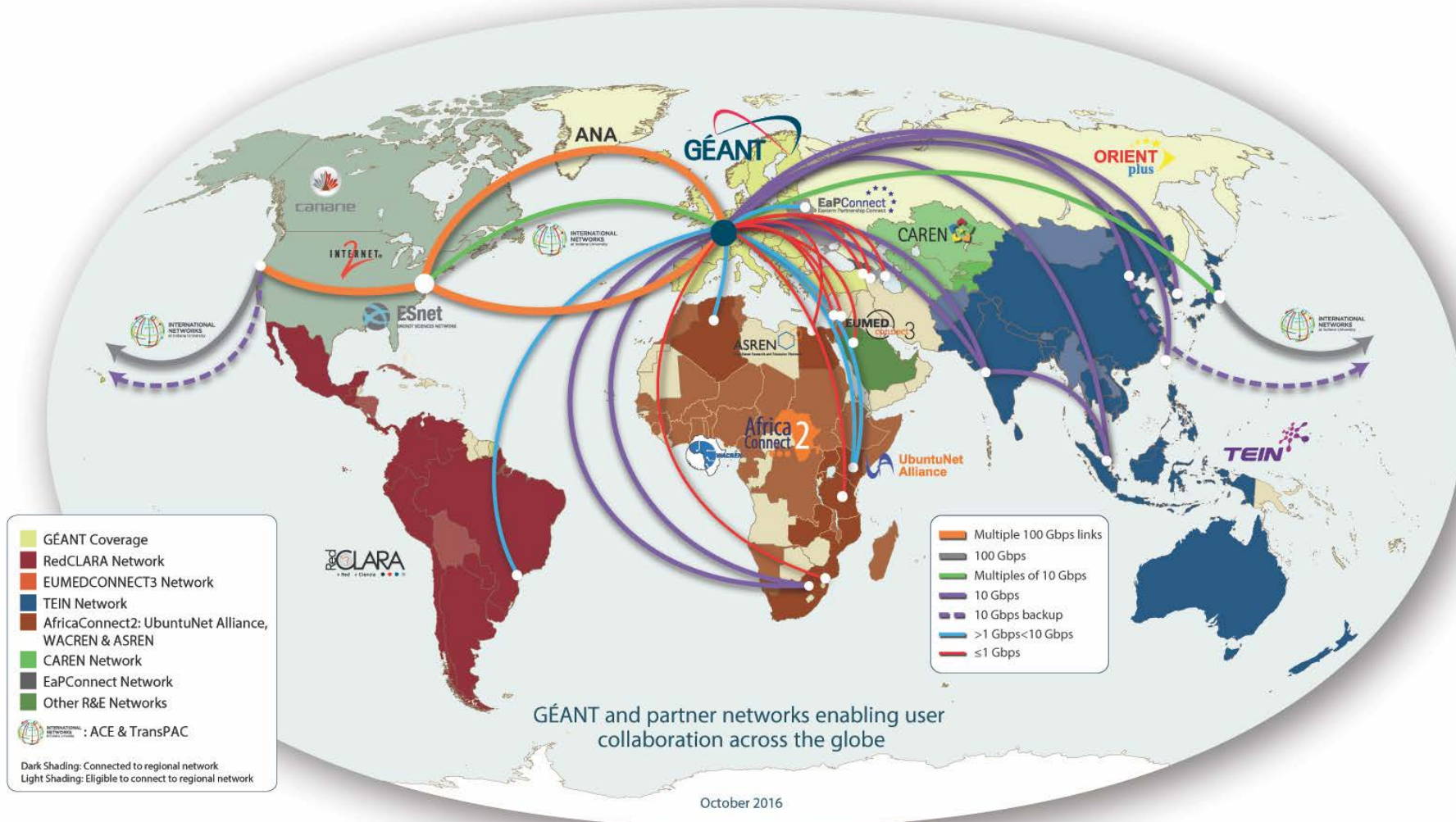Maria Minaricova, EaPConnect Project Manager

Tbilisi, Georgia
6th October 2016

GÉANT

www.eapconnect.eu

EaPConnect project

- **European Commission co-funded** project of €13M – a partnership between European Union and Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine

- Creates a regional eInfrastructure - **high capacity** and **very reliable** internet network **dedicated to research** & **education**

- Connection to pan-European GÉANT network enables:
  - scientists, students and academics to **engage** in **global collaborative projects**
  - brings Eastern partnership countries closer to EU

  - **Coordinated by GEANT** in **collaboration** with the **EU National Research and Education Networks** (NRENs)

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GÉANT At the Heart of Global Research and Education Networking

GÉANT and partner networks enabling user collaboration across the globe

Legend:

- GÉANT Coverage
- RedCLARA Network
- EUMEDCONNECT3 Network
- TEIN Network
- AfricaConnect2: UbuntuNet Alliance, WACREN & ASREN
- CAREN Network
- EaPConnect Network
- Other R&E Networks
- : ACE & TransPAC

Dark Shading: Connected to regional network
Light Shading: Eligible to connect to regional network

- Multiple 100 Gbps links
- 100 Gbps
- Multiples of 10 Gbps
- 10 Gbps
- 10 Gbps backup
- >1 Gbps<10 Gbps
- ≤1 Gbps

October 2016

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Networks · Services · People
www.geant.org

Funded by the European Union

Why cooperate with Europe?

- Universities and researchers work internationally
  - In Europe we have created an e-infrastructure that helps our users to do the most advanced research and teaching
  - Together we can innovate and bring the most advanced ICT capabilities to our researchers
- Economy of scale
  - Sharing International and intercontinental bandwidth (expensive)
  - Buying services together (buying power)
- Need to coordinate standards and practices
  - So interworking within Europe is as seamless as possible

EaPConnect and other eInfrastructures
- Essential for modern R&E activity.

Researchers
all over Europe need to collaborate

- Science needs advanced experimental facilities
- Large-scale research facilities are expensive and need to be shared e.g. CERN, ESA
- Based all over the world

Education
needs connectivity and services too

- Empower students and professors to access knowledge from many sources
- Ensure up-to-date materials
- Individualise education – tailors it to the needs of students
- Prepare students for the future
- Facilitate student exchanges at all levels

Supporting the growth of EaP
Enabling access.

EaPConnect
Eastern Partnership Connect

A connection to GÉANT enhances the ability of Eastern Partnership members to:

Collaborate	• Collaborate more effectively with European researchers
Participate	• Participate in EC funded projects
Access	• Access research instruments across Europe • Work on high profile projects which require high bandwidth
Share	• Receive and offer expertise in networking

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EaPConnect network: Benefits

- Very high quality network connectivity:

    - equal opportunity for access to resources throughout Europe

    - enables researchers, academics and scientists throughout Europe to collaborate **regardless of geographic location**
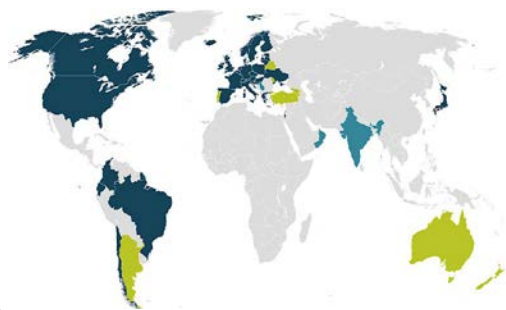
User services:
Mobility, Trust and Identity

eduroam

Open your laptop and be on-line

REFEDS
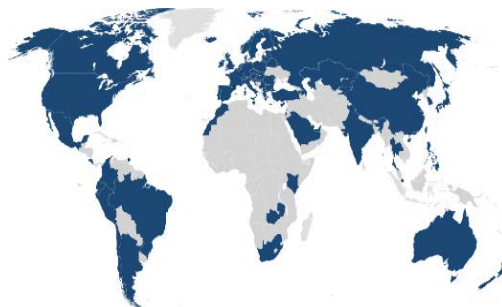
Supports Identity Federations Worldwide

eduGAIN

Interconnects Identity Federations around the world

Trusted Certificate Service
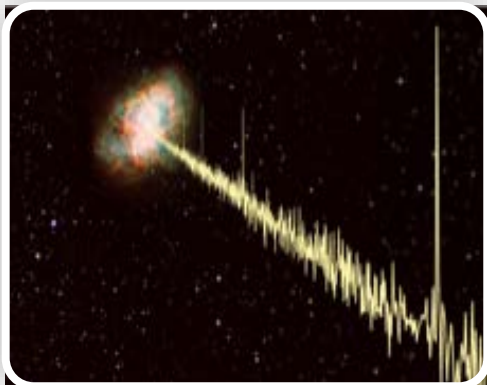
digicert®

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Benefits for the region

- Supports applications with high societal impact, such as **telemedicine** and **environmental monitoring**

- Increased participation in **Horizon 2020** projects and other global R&E collaborations

- **Bridges the digital divide**

- Helps bring the EaP countries closer to the EU

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Big Big Data

Radio Astronomy — Pulsar Research

Next Generation DNA Sequencing

8K+ Video Distribution Testbed

Centralized Imaging for Large Scale Population Imaging Studies

Jungle Computing and Multi-Model Multi-Kernel Simulations

Climate Modeling for Scientist and Decision Makers

Beneficiaries of EaPConnect

Armenia	**IIAP NAS RA** The Institute for Informatics and Automation Problems of the National Academy of Sciences of the Republic of Armenia
Azerbaijan	**AzScienceNet** The Institute of Information Technology of Azerbaijan National Academy of Sciences
Belarus	**UIIP NASB / BASNET** The United Institute of Informatics Problems National Academy of Sciences of Belarus
Georgia	**GRENA** The Georgian Research and Educational Networking Association
Moldova	**RENAM** The Research and Educational Networking Association of Moldova
Ukraine	**URAN Association** The Association of Users of Ukrainian Research and Academic Network

What does this mean in practice?
EaP NRENs delivering

- connect universities and research institutions in each country

- connect to GÉANT (data access to international project)
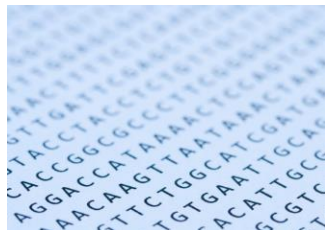
- deploy new services

- Participate in international collaboration projects –

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Supporting the growth of R&E Communities
- *transforming how researchers collaborate*

EaPConnect will deliver real value and benefit to society by enabling research communities to transform the way they collaborate on ground breaking research

Together with Europe's NRENs, GÉANT connects 50 million users in 10,000 institutions across Europe

Health and Medicine | **Energy** | Environment | **Particle Physics**
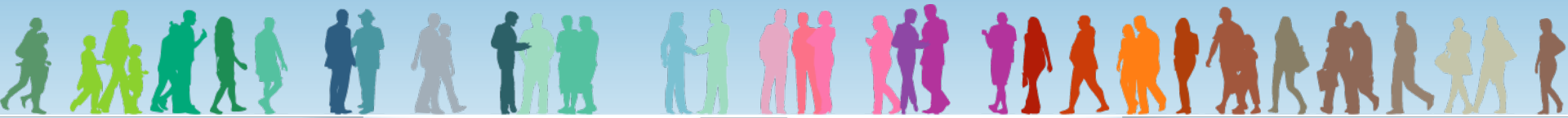**Radio Astronomy** | Arts & Education | **Society**

How can I connect?

To benefit from the EaPConnect infrastructure, prospective users should contact their local NREN to find out how to join the project

Country	NREN	Website
Armenia	**IIAP NAS RA**	www.iiap.sci.am
Azerbaijan	**AzScienceNet**	www.azsciencenet.az
Belarus	**UIIP NASB**	www.uiip.bas-net.by
Georgia	**GRENA**	www.grena.ge
Moldova	**RENAM**	www.renam.med
Ukraine	**URAN**	www.uran.ua

Thank you for listening – questions?

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