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EU4Digital – EaPConnect in the changing landscape

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Eu4Digital Steering Committee, 25 October 2022

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eapconnect.eu

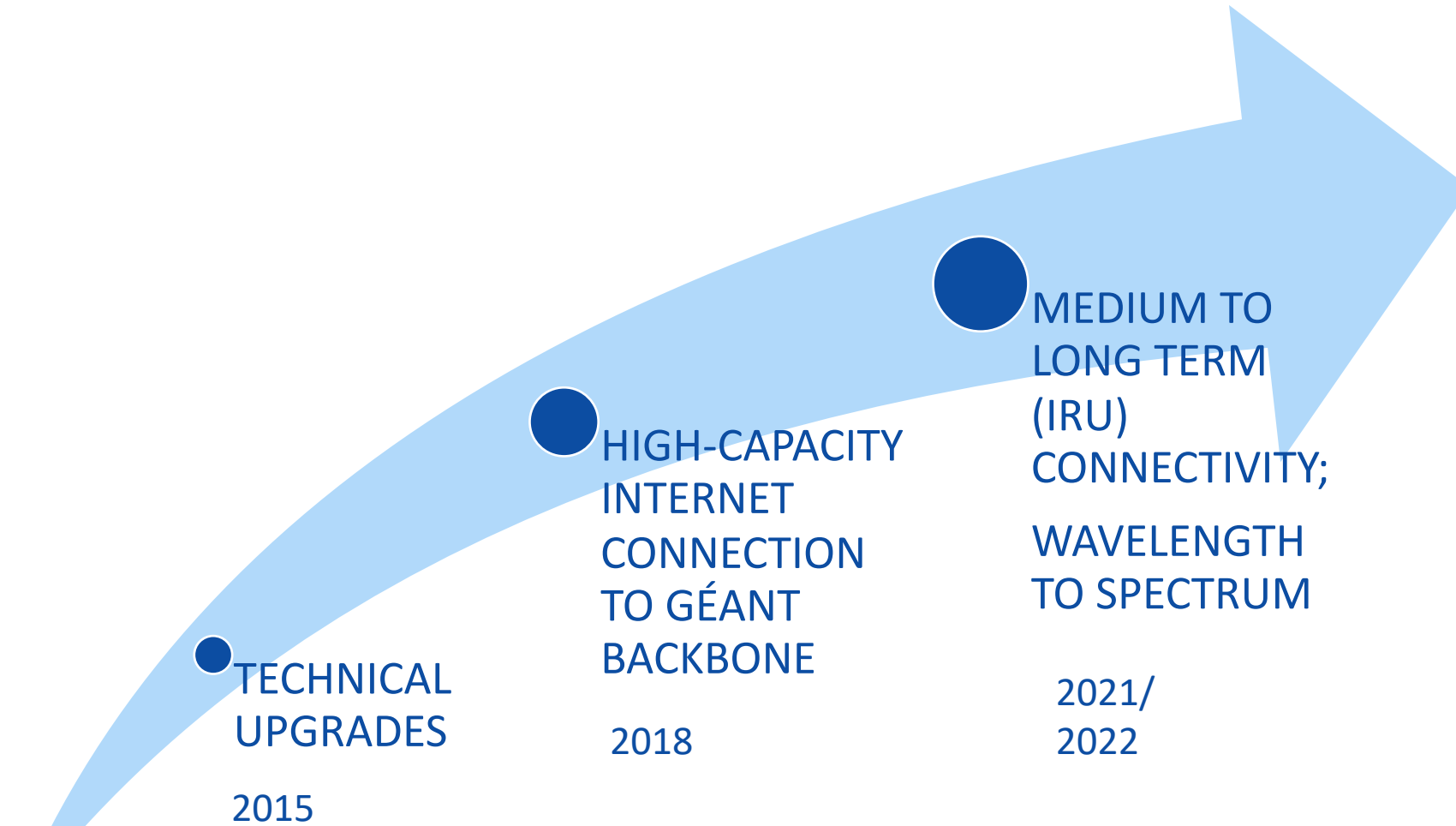|	
Budget:	**Budget** 1st Phase – €13M 2nd Phase - €10.5M (95% EU funding from DG NEAR)
Duration:	60 months (2nd phase) 1st phase: July 2015 until February 2021 2nd phase: started in July 2020 for 5 years
Website:	https://eapconnect.eu/
Coordinating Partner:	GÉANT
Beneficiaries:	• GRENA (Georgia) • ASNET-AM (Armenia) • RENAM (Moldova) • URAN (Ukraine) • AzScienceNet (Azerbaijan)
European Associate Partners	• GARR (Italy), GRNET (Greece), DFN (Germany, PSNC (Poland), LITNET (Lithuania)

Connect   **Integrate**   **Strengthen**

SO1: Extend network infrastructure (digital highways) to scale-up scientific exchange across borders

SO2: Increase the use of services implemented under EaPConnect and offer new services to enhance international cooperation in R&E.

SO3: Strengthen EaP NRENs' position in the national R&E ecosystems

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- 5 countries connected
- 10 x greater capacity
- 700 000 users
- 300 institutions

MEDIUM TO LONG TERM (IRU) CONNECTIVITY;

WAVELENGTH TO SPECTRUM

2021/ 2022

HIGH-CAPACITY INTERNET CONNECTION TO GÉANT BACKBONE

2018

TECHNICAL UPGRADES

2015

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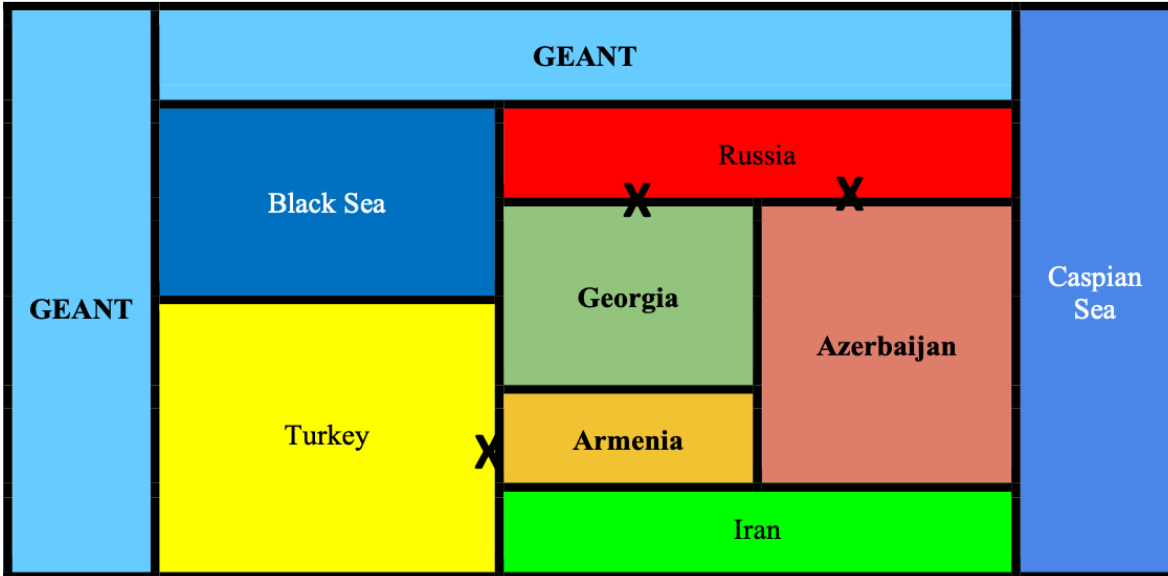
Impact of the war against Ukraine:

- Price increase

- Disruption to the supply chain

- Reduced market competition

✓

Solidarity

Good will

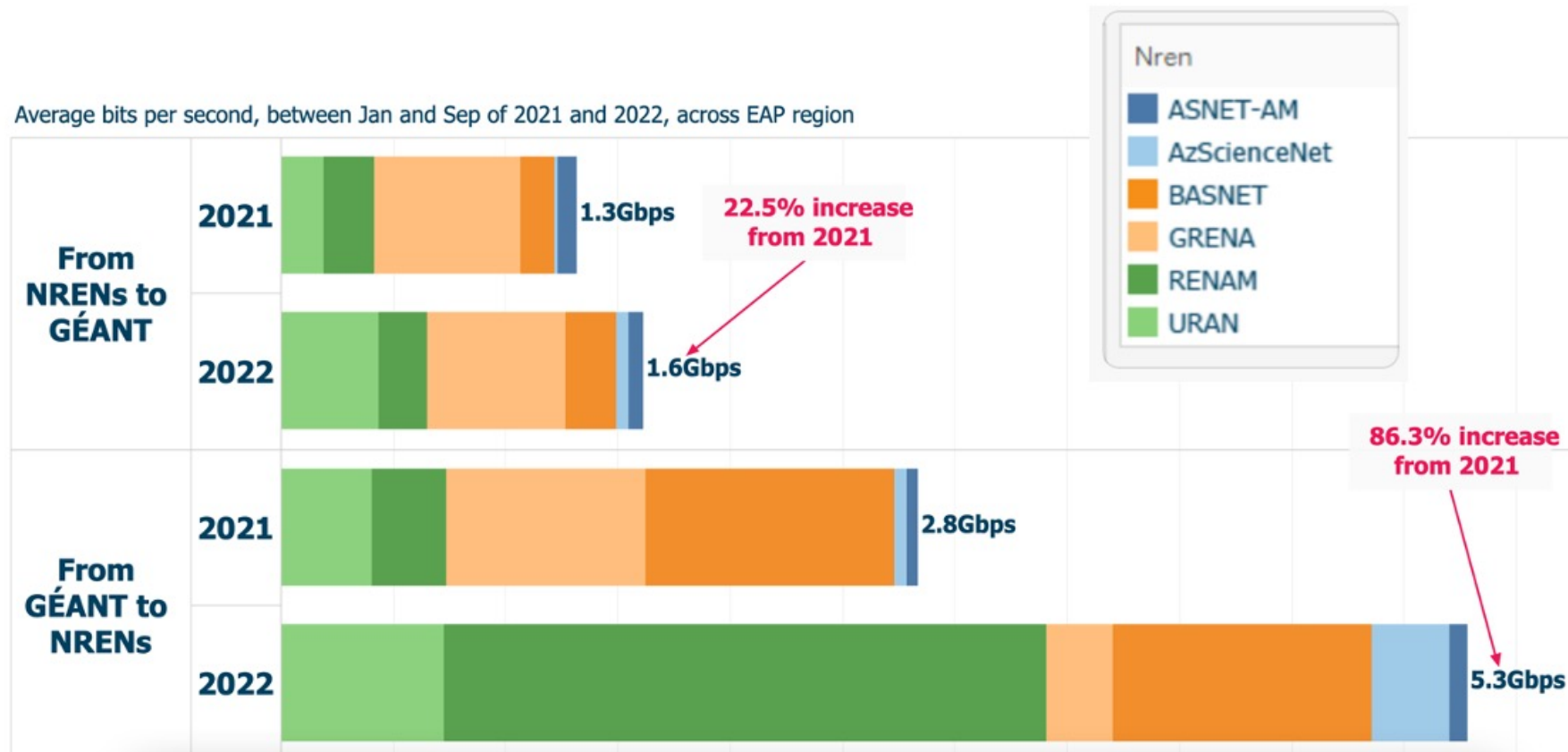Professionalism

Working together

Opportunities for national suppliers

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EaPConnect – global impact of the war against Ukraine

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Before August 2022

Contracted services that were in use				
NREN	AzScienceNet (Azerbaijan)		ASNET-AM (Armenia)	
	Primary connection	Backup connection	Primary connection	Backup connection
Service	3Gbps Frankfurt-Baku	1Gbps local Internet backup	2Gbps Frankfurt-Yerevan	1Gbps local Internet backup
Supplier	TransTelecom	TransTelecom	TransTelecom	GNC-Alfa

	AzSciencenet		ASNET-AM	
	Primary	Backup	Primary	Backup
Supplier:	Azertelecom	Azertelecom	Procurement in progress	Telecom Armenia
Planned service	10Gbps Frankfurt-Baku	3Gbps	10Gbps, Frankfurt-Yerevan	2Gbps
Contract status	signed/implemented	signed/implemented	Procurement in progress	Signed/implemented

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Average bits per second, between Jan and Sep of 2021 and 2022, across EAP region

From NRENs to GÉANT
- 2021: 1.3Gbps
- 2022: 1.6Gbps

22.5% increase from 2021

From GÉANT to NRENs
- 2021: 2.8Gbps
- 2022: 5.3Gbps

86.3% increase from 2021

Nren
- ASNET-AM
- AzScienceNet
- BASNET
- GRENA
- RENAM
- URAN

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Please note that it includes BASNET traffic up to 18/03/2022 (suspension date)

https://map.geant.org/

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NREN	R&E	R&E % of market	Universities/HE	Universities/ HE % of market	Government	Health	Cultural	Futher education	Higher education school	Secondary schools	Other	
ASNET-AM	✓	45	✓	90	✓		✓				✓	
AzSciencenet	✓	90	✓	40	✓		✓					
GRENA	✓	62	✓	50	✓	✓	✓			✓	✓	
RENAM	✓	80	✓	72	✓	✓	✓	✓	✓			
URAN (pre 24/02/2022)	✓	10	✓	35	✓	✓	✓	✓	✓		✓	
Total												336

Number of users in the connected institutions				
Armenia	**Azerbaijan**	**Georgia**	**Moldova**	**Ukraine**
47000	85000	88000	77000	434000
Total	731000			

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EapConnect – changing landscape: commonality of interests

	ASNET-AM	AzScienceNet	GRENA	RENAM	URAN
eduroam	v	v	v	v	v
eduGAIN	v	v	v	v	v
perfSONAR	v	v	v	v	v
IaaS/Virtual Machines	v	v	v	v	v
Cloud services	v	v	v	v	v
FileSender	v			v	v
Virtual private network					v
Digitisation of Cultural Heritage	v				v
LoLa	v	v		v	
CERT/ Cyber security	v	v	v	v	v
GÉANT TCS/ Trusted security certificates		v		v	
Videoconferencing/eduMEET		v	v		v
Virtual Private Network			v	v	v
Web hosting	v	v	v	v	v
Email hosting	v	v	v		
EOSC	v		v		

eduGAIN

Cloud Services

Cybersecurity
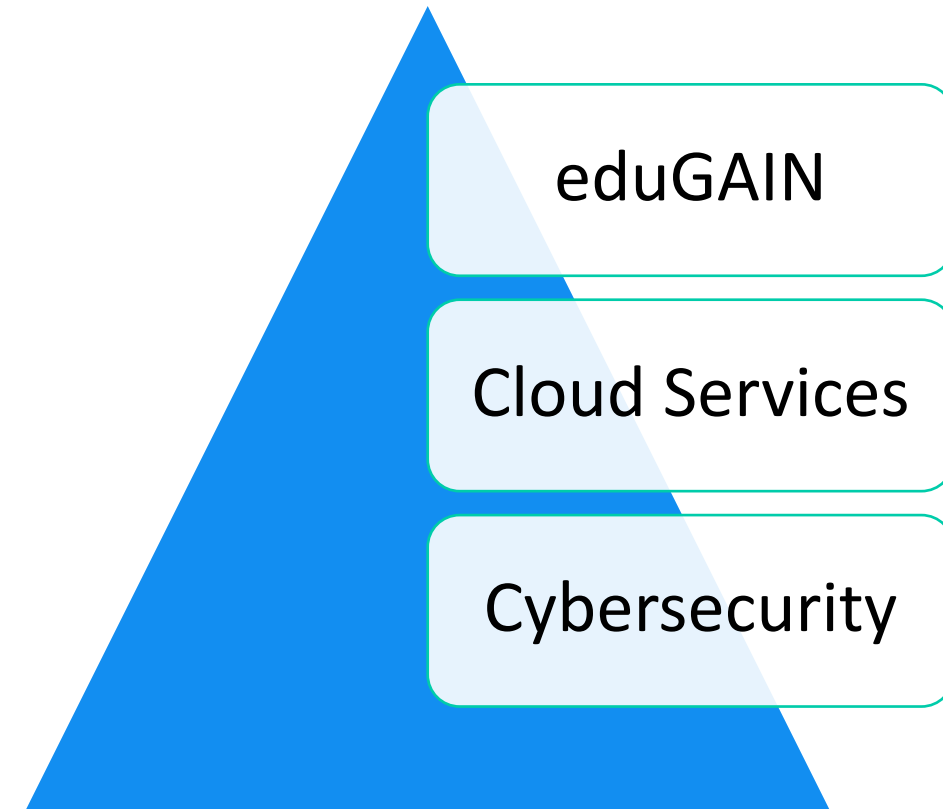
Special congratulations to AzScienceNet on becoming member of
the eduGAIN interfederation service

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Our ability to reach unity in diversity will be the beauty and the test of our civilization.

Mahatma Gandhi

VANTAGECIRCLE

thought in the world to face new challenges".

Tim Berners-Lee"

EOSC: 3 services developed by GRENA are being added to EOSC service catalogue

Euro HPC ASNET-AM setting up an HPC centre in Armenia

Data services: URAN supporting universities to ensure security of data and resilience of its Data Centre

Stakeholder alignment: RENAM – from students' dormitories to government initiatives in digital transformation

From connectivity to content: AzScienceNet – recommendations from EaPEC22

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Aim:

To increase the engagement between the Azerbaijani and European(global) together the R&E community

To raise visibility and strengthen connections with national policy and decision-makers and EU

160 attendees, 2000 viewings online

30 speakers

15 countries

3 National ministries

EC Delegation

DG NEAR

Welcome to
EaPEC 2022
BUILDING CONNECTIONS

28-29 SEPTEMBER 2022
BAKU, AZERBAIJAN

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Attended:

GRENA (host)

ASNET-AM

AzScienceNet

RENAM

URAN (unable to participate remotely due to heavy shelling earlier that week

Project partners:

GARR

PSNC

DFN

LITNET

GEANT

Other EU NRENS

DeiC (Denmark)

Cynet (Cyprus)

NORDUnet (represented by Norway)

Focus:

==Foresight and sustainability==

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Kharkiv University of Humanities
"People's Ukrainian Academy"

1972 educational entities (schools, universities and so on) were hit by bombings and shelling.
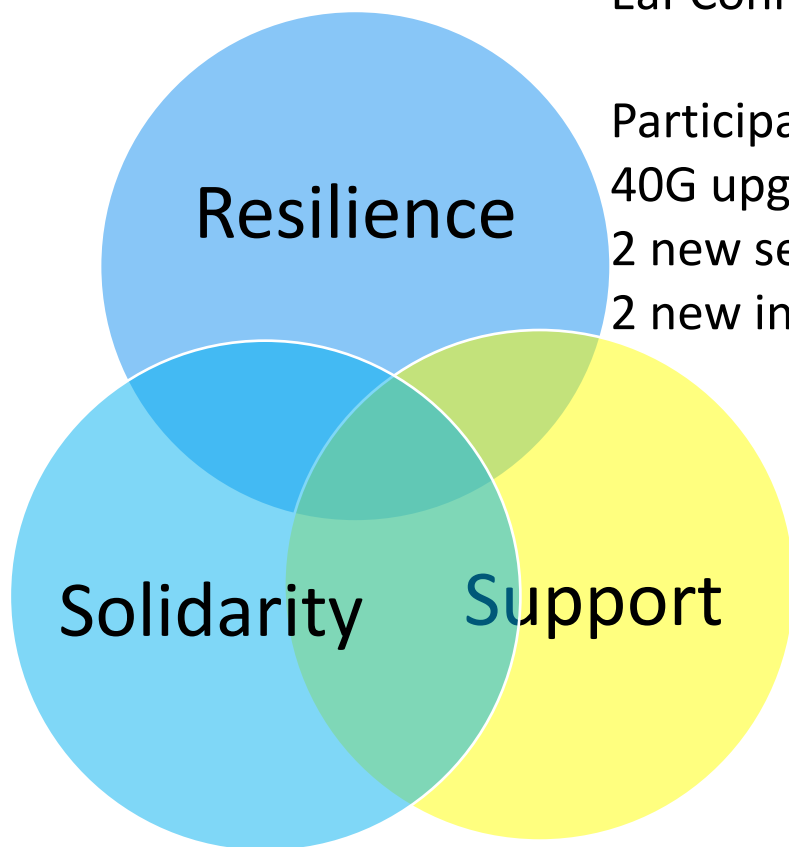
194 of them were completely destroyed.

Kharkiv is the second city in Ukraine by the density of science and education. Practically all Research and Education entities in Kharkiv are damaged.

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Resilience
Solidarity
Support

EaPConnect:

Participant in the project governance/events
40G upgrade to the backbone in Kyiv
2 new servers to build up the capacity of the Data Centre
2 new institutions in Kyiv added to the URAN network

1st INTERNATIONAL CONFERENCE "OPEN SCIENCE AND INNOVATION IN UKRAINE"
2022
#OSICU2022

UAScience.Reload

UKRAINIAN SCIENTISTS SUPPORT PROJECT

aims at raising global community awareness of the threats for Ukrainian scholars, and support those who are in need

Contact Info:
E-mail: info@uascience-reload.org, anastasiia.a.lutsenko@gmail.com
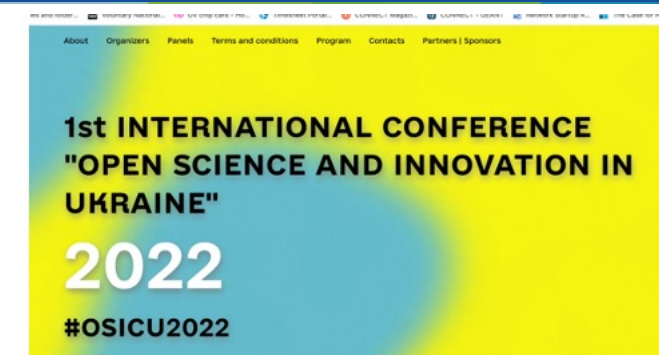Web: https://www.uascience-reload.org/

Vietsch Foundation (channel for financial support)

GEANT community: NORDUnet – secure data storage

Community collaboration group for coordinated efforts

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