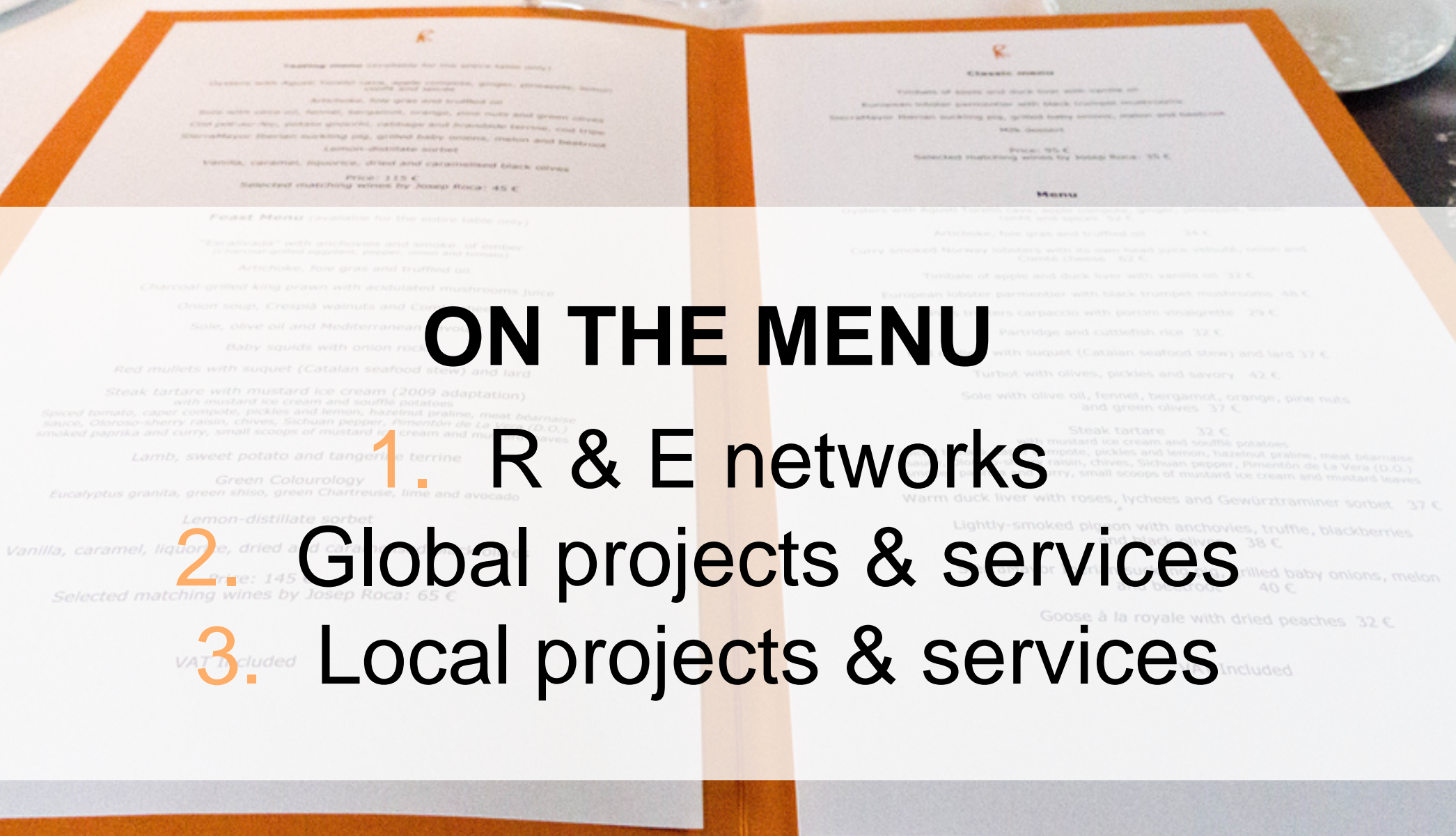


Research & Education networks: Taking the distance out of distance education

**Domen Božeglav, ARNES,
domen@arnes.si, @domenbozeglav**

A close-up photograph of a large collection of hats, likely in a store or market. The hats are arranged in several rows and columns. They vary in color, including shades of brown, tan, grey, and black. Some hats have patterns like plaid, stripes, or checks. The hats are mostly fedoras or similar styles with a wide brim and a dark band. The background is slightly blurred, showing other items and possibly people in a shop setting.

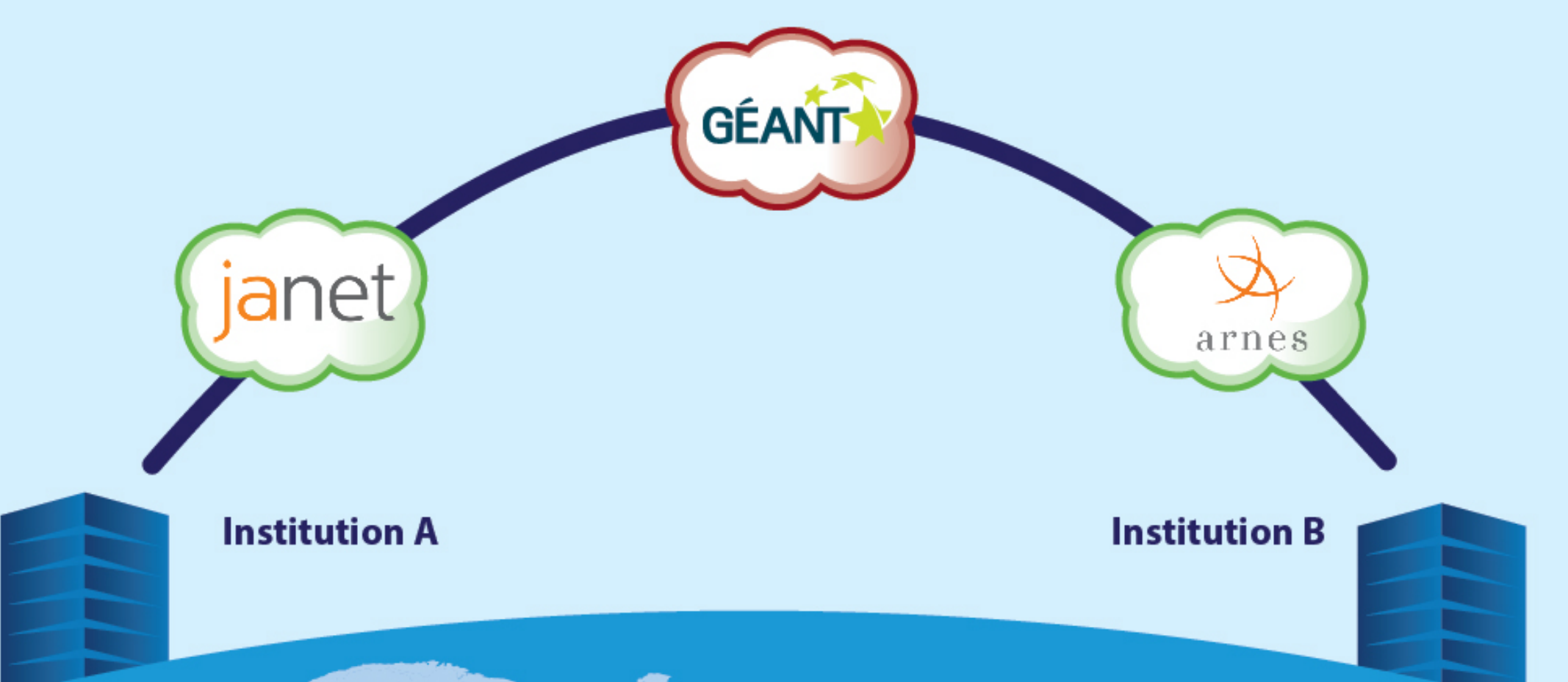
Who is this guy ...



ON THE MENU

1. R & E networks
2. Global projects & services
3. Local projects & services

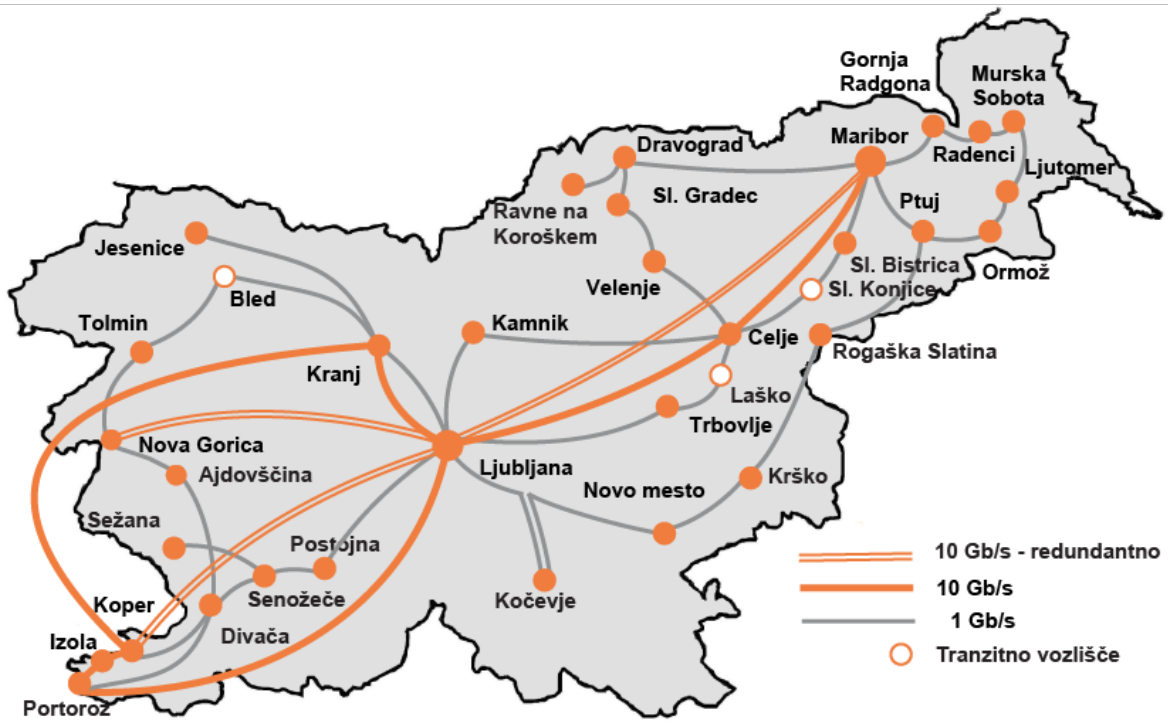
1. What are (National) R&E
Networks - NRENs?



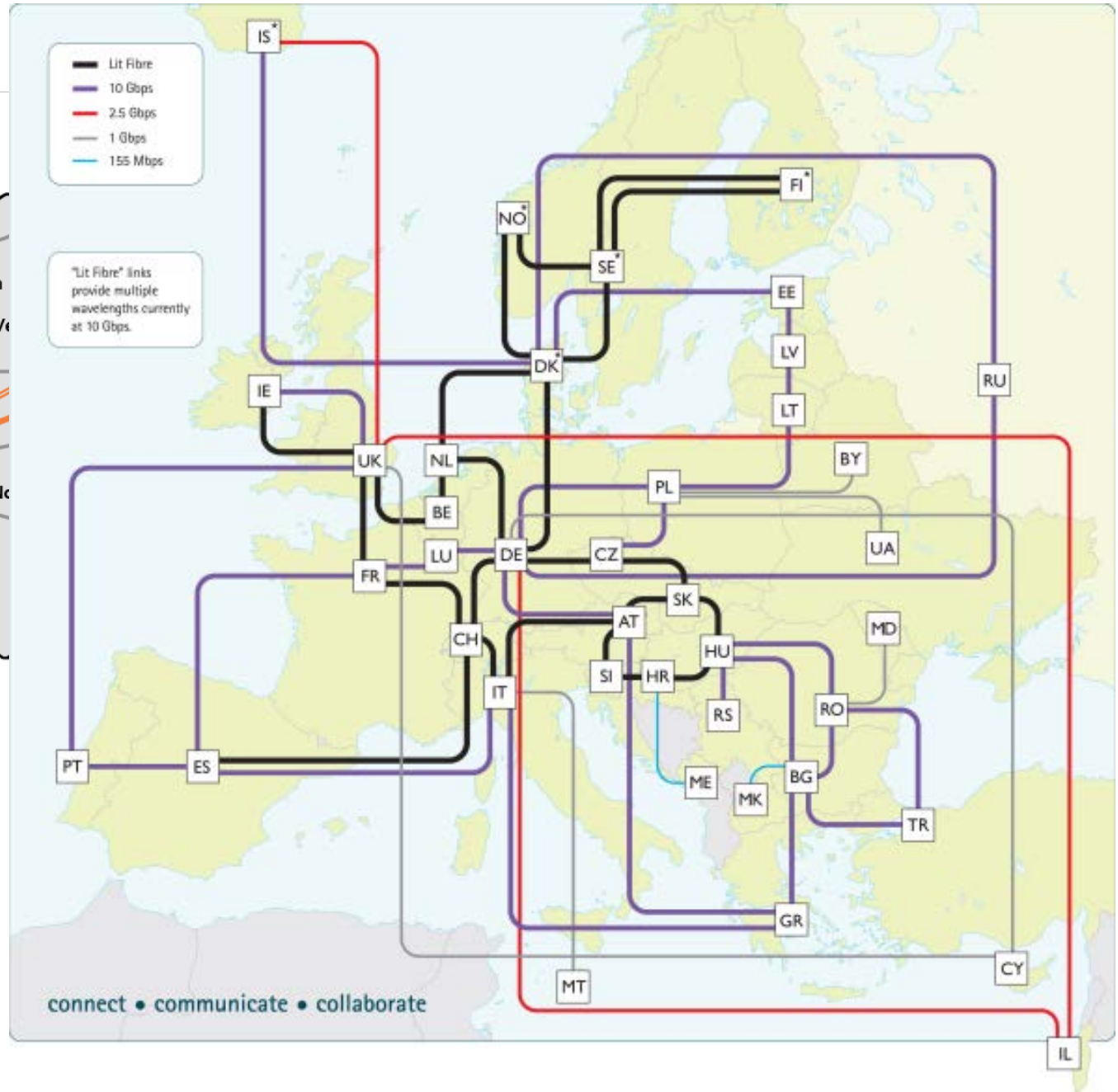
How your data travel ...

-  National R&E networks
-  Regional R&E networks










How are R&E networks organised?

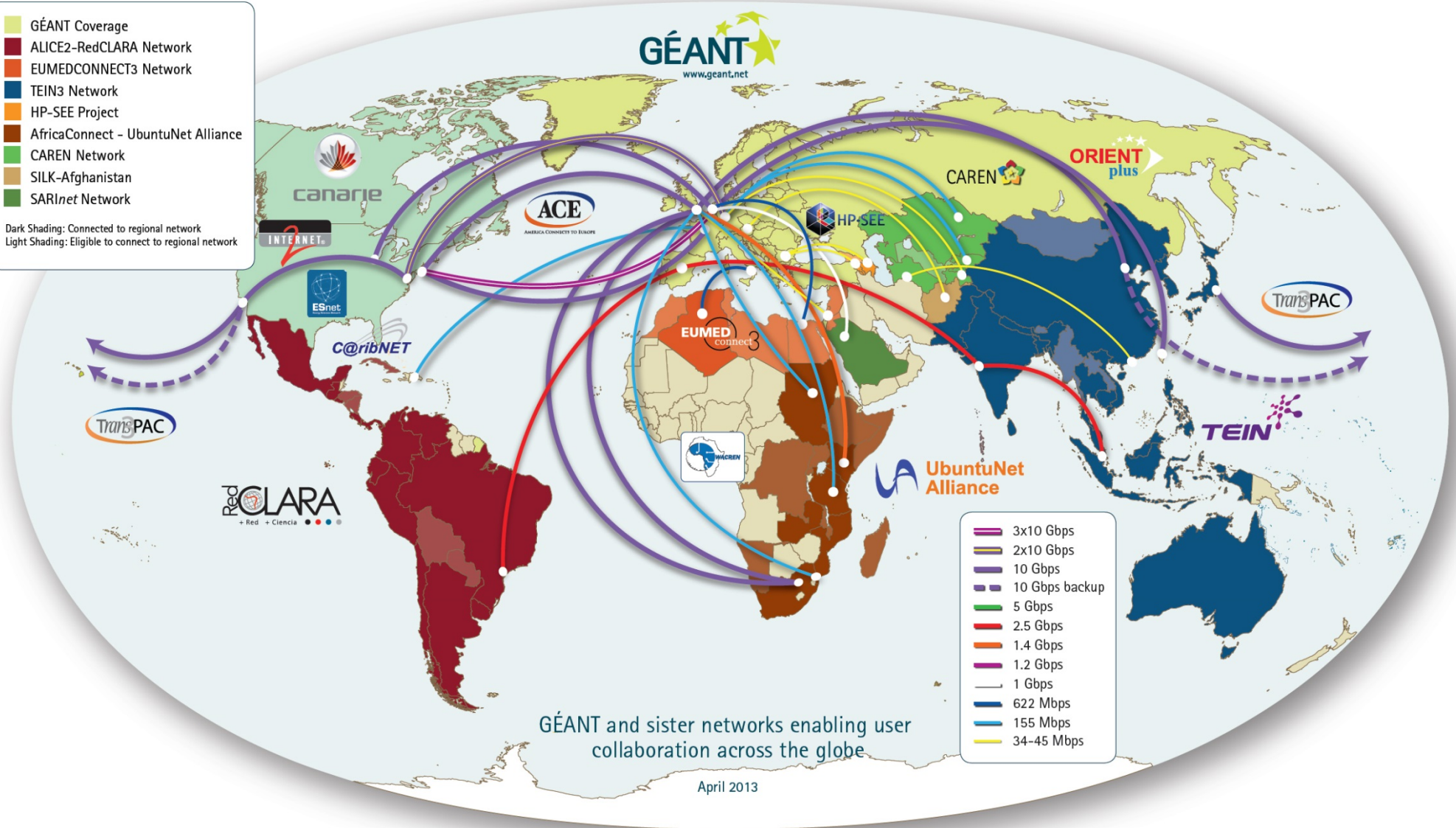


How are R&E networks organised?



GÉANT At the Heart of Global Research Networking

-  GÉANT Coverage
 -  ALICE2-RedCLARA Network
 -  EUMEDCONNECT3 Network
 -  TEIN3 Network
 -  HP-SEE Project
 -  AfricaConnect - UbuntuNet Alliance
 -  CAREN Network
 -  SILK-Afghanistan
 -  SARINet Network
- Dark Shading: Connected to regional network
Light Shading: Eligible to connect to regional network



2. Talking global

Supporting Global Collaboration

Big data



Source: CERN



Radio astronomy

Environmental monitoring and disaster recovery





E-health and biomedical sciences



But what about the **E** in R&E networks?



Tele-medicine



ShanghAI Lectures

The UNINETT research network **GÉANT**

- Nationwide, high capacity (1-10 Gbps), open and resilient network
- IPv6 and multicast enabled
- 15 + 5 year IRU agreement on dark fibre and wavelenghts
- More than 70 POP
- Established hybrid network infrastructure between the four major university cities
- 40 universities and university colleges
- > 200 institutions
- 250.000 users
- Equipment on NREN level
 - Juniper, Cisco, (HP)
- Equipment at campus level
 - Cisco, HP, (Alcatel)

Forskningsnettlet (IP-topologi) Status 1. november 2008

UNINETT

BREZZIČNI DOSTOP DO INTERNETA
 ZA IZOBRAŽEVNE IN KOLABORATIVNE ORGANIZACIJE

Prepost: odprite prenosnik in že ste povezani.

Uporaben: do interneta lahko dostopate na domači organizaciji in v organizacij v Sloveniji. Evropski program zagotavlja varno povezavo.

Campus Best Practice



2. Talking Local

(What **YOUR** local NREN can do for you)

IT services for education

Connectivity

Cloud (servers, services)

Multimedia

Middleware services (AAI)

Services for end users

More on: „www.arnes.si“



NREN as knowledge provider



Connecting knowledge

Services

Internet access

Web, email, servers

Network services

NREN as knowledge provider

Annual user conference aimed at universities and schools

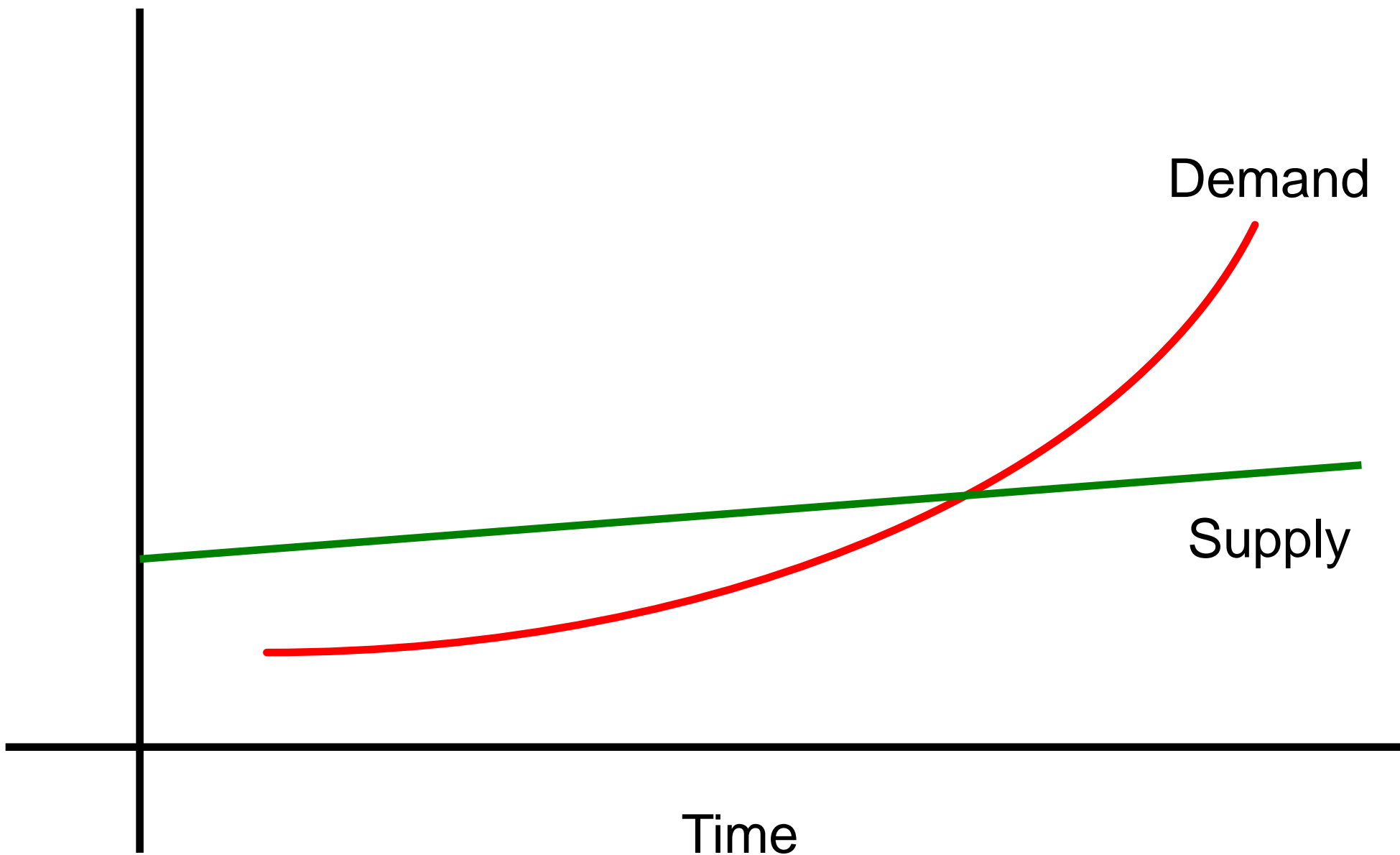


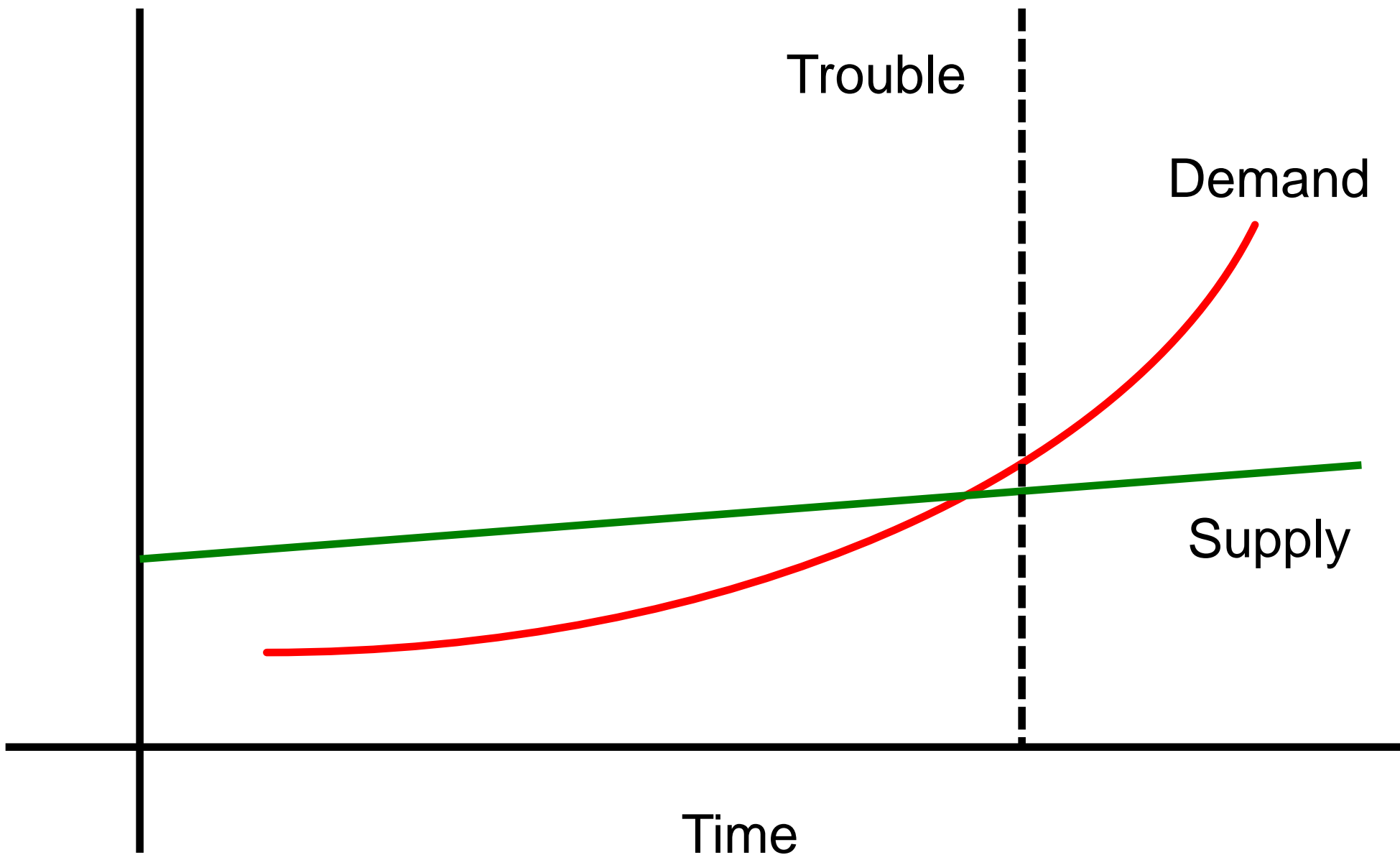


Experts on new technologies



Safer Internet Use





Our very first „guerrilla“ MOOC



NASTAVITVE

Skrbnišтво ocen

Poročilo
ocenjevalca

Poročilo o izidih

Pregledno poročilo

Poročilo
uporabnika

Uvozi

Izvozi

Nastavitve ocene
predmetaMoje nastavitve
poročila

Črke

Lestvice

Kategorije in
postavke

Skrbnišтво predmeta

Zamenjaj vlogo v...

Nastavitve mojega
profila

Poročilo ocenjevalca

Poročilo ocenjevalca

Priimek ▲ Ime



Davor Zup

00001.MTS - Predvajalnik VLC

Qdri Predvajanje Zvok Šlika Pognapis Orodja Pogled Pomož

Priimek ▲ Ime

Davor Zup

03:42 / 30:42

V primeru, da je seznam predvajanja prazen, odpre pogovorno okno

Biggest challenge?



A few ideas





Now it's your turn. How can we assist you?

THANK YOU!

www.geant.net, www.arnes.si

Domen Božeglav, domen@arnes.si, [@domenbozeglav](https://www.instagram.com/domenbozeglav)