

9th CEF Networks Workshop

On the 11th and 12th of September, 2017, 39 representatives from research networking institutions from five continents met to discuss their experiences in designing and operating Customer Empowered Fibre (CEF) Networks and to formulate major guidelines for further research and experimental development in networking. The host of the meeting was the CESNET association and presentations selected by CESNET covered many interesting new developments in research networks worldwide.

The presentations were focused on building of **innovative, flexible, open, power and cost efficient optical networks** supporting advanced network applications. Time/frequency transfer is taking place in multiple networks and many networks are also involved (or plan to be) in quantum agenda. Some **networks** are built (or do support) for live labs/nodes where users can bring their own equipment.

Presentations are available at:

<http://www.cesnet.cz/cesnet/events/cef2017/?lang=en>

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Participants appreciated presentations and:

> **recommended organisation of next CEF Networks workshop**

> **recommended R&E Networks and experimental facilities to:**

- provide **R&E** Networks services as worldwide instrument supporting research in various fields of science and upgrading competitiveness of research and innovation teams
- gain and maintain access to all layers of their network, including fibre and photonics
- utilize multidomain spectrum sharing/alien waves as it represents an opportunity. However it needs cooperation, collaboration and commercial and/or contractual issues are complicated still.
- CBFs are very useful and upgrades to actual technology should be considered
- support disaggregation and openness on optical layer to bring savings in optical network, to avoid vendor lock-in and allow network architecture based on R&E Networks requirements without unwanted HW or SW. Careful consideration and intensive testing is recommended.
- use one fibre footprint for experimental and production traffic, if feasible
- enlarge user group of services not available on the market, e.g. in field of metrology, sensing and quantum technologies. Ensure also new or experimental applications are supported in R&E Networks.
- collaborate with vendors on scientific and pilot projects
- collaborate actively with new projects and provide information on how R&E Networks can help and provide new services