



# RESIF: an example of national data integration, presented at the Iberian coordination meeting

8 March 2018

**Orfeus**

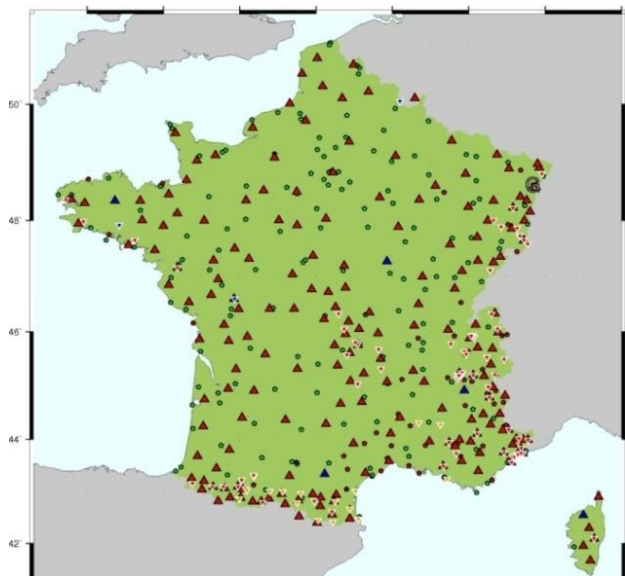
**EDIA**  
European Integrated Data Archive

## ❖ Field instrumentation

- Permanent seismic BB network
- National permanent Strong motion network
- Mobile BB equipment
- Permanent GNSS stations network
- Mobile GPS
- Mobile gravity
- Superconducting gravimeter observatory

## ❖ Data access

- Coordinated Information system



## ❖ Organisation and partners of the RESIF Consortium

- 9 Research organisations
- 9 Universities
- >30 laboratories and observatories
- >130 researchers and engineers involved (strongly or partly) with running the infrastructure

## ❖ What the reorganisation and enhanced structure have provided

- A new vision
- Enhanced teamwork
- Strong improvement of cooperation between partners
- Additional funding : 9.3 Meuros + regular support for specific programmes

## ❖ **Phase 1: 4 independent datacenters**

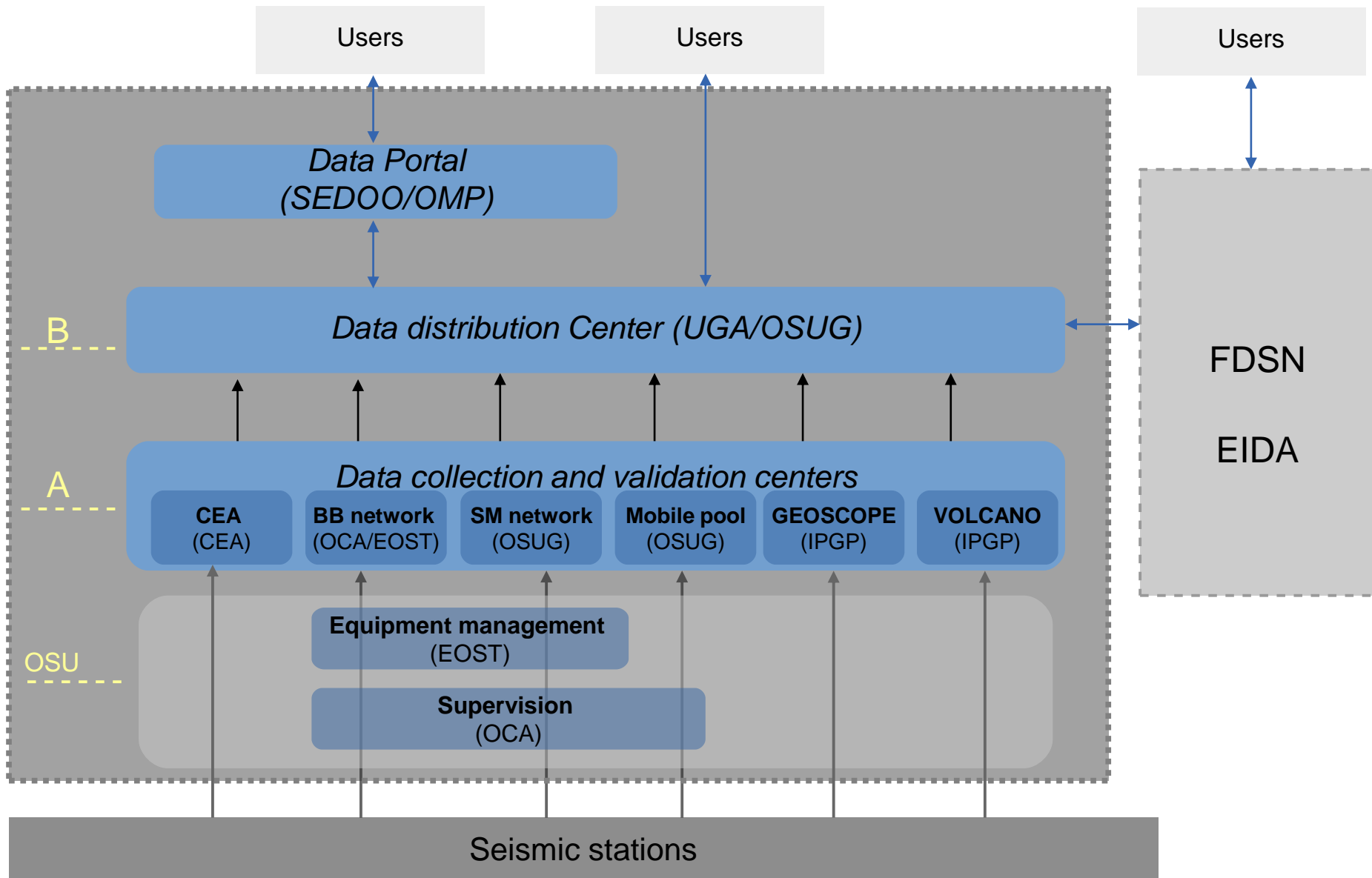
- Distribution of 'institute' data (ww or regional networks).
- Efficient distribution of GEOSCOPE data
- Fairly efficient distribution of SM data (national network)
- Fairly efficient distribution of mobile data (national facility)
- Heterogeneous quality of distribution of everything else

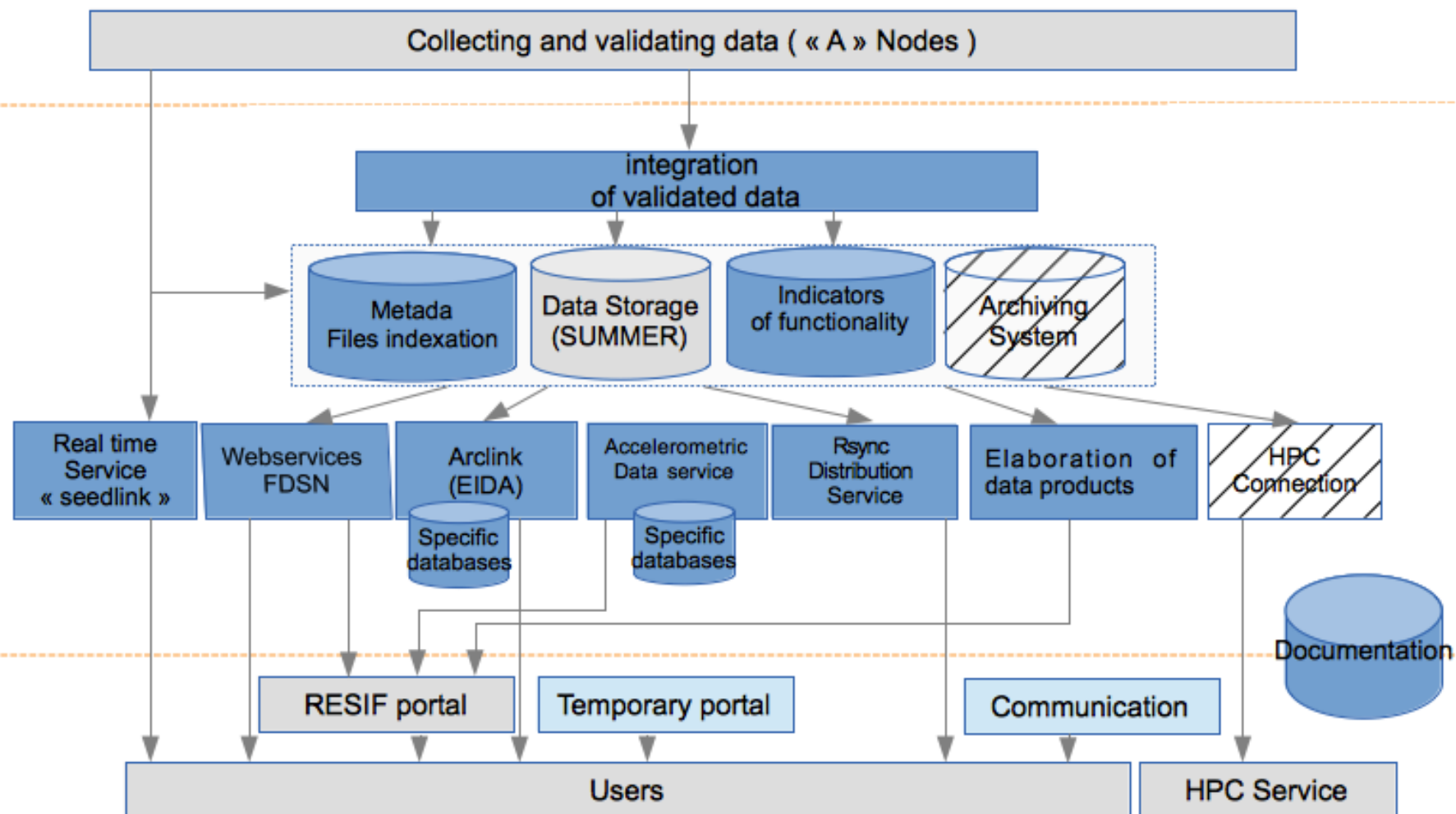
## ❖ **Phase 2: 4 federated data centers**

- Federation of the four datacenters via a 'joint' netdc
- Situation approximately as above: some of the four datacenters were subcritical in size and/or had other priorities than data distribution with international standards

## ❖ **Phase 3: 4 data centers, out of which one with a data distribution function**




- New architecture designed by the engineers of the four centers: Separation between data collection/validation and data distribution
- Choice of data distribution center based on national competition (international evaluation committee, site visits, external reviewers). Two proposals, and fierce competition
- Construction phase 2012-2017
- Operation phase 2018 –
- (note: Paris data distribution shutting down now that Operation phase has started)








- ❖ **Scientific executive group (4 people, meetings upon necessity)**
  - Composed of key scientists from 2-4 organisations
  - Manages budget request for the whole system
  - Oversees technical evolutions
  - Directed by a scientists not in the data distribution node
  - Ensures a coordinated participation in EIDA and FDSN (general issues)
  
- ❖ **Technical group (meetings ~1 time / month + joint training)**
  - Composed of engineers from the four sites
  - Technical homogenization and coordination, software developments, ...
  - Ensures a coordinated participation in EIDA and FDSN (technical)
  
- ❖ **Scientific consultation committee (meeting ~1 time / year)**
  - Helps to establish priorities from a user perspective
  - Discusses the long term evolutions of the system





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## WELCOME TO THE RESIF SEISMIC DATA PORTAL

The RESIF Seismic data portal offers access to data from permanent and mobile seismic networks operated by French research institutions and partners. The user can obtain access to the data via web based tools on this portal or the european EIDA portal, or by direct data requests to the RESIF Data Centre. RESIF encourages all users to acknowledge the data providers and the RESIF data centre, following the [recommendations](#) on this portal

### NEWS

**Maintenance on the Network infrastructure the March 5th 2018 at 10:00**  
*Added or modified March 01 2018 by ARNEODO GrÃ©gory*  
Due to Network maintenance and upgrade, on Mars 5th 2018, from 10:00am to 17:00pm Paris time : - RESIF FDSN webservices can be unavailable - Data retrieval through web portal interface can be inoper [...]

**YV (RHUM-RUM) data released**  
*Added or modified December 20 2017 by LECOMTE Catherine*  
Data of the RHUM-RUM (Réunion Hotspot and Upper Mantle - Réunions Unterer Mantel) temporary experiment are now publically available. In the RHUM-RUM project, 57 German and French oc [...]

**Web Portal - Service downtime on November 30 2017**  
*Added or modified November 30 2017 by ARNEODO GrÃ©gory*  
Due to server maintenance on November 30 2017, from 14:30 to 15:30 Paris time : - Resif Web Portal (<http://seismology.resif.fr>) will be down.

**FDSN Webservices downtime on November 9th 2017**  
*Added or modified November 14 2017 by ARNEODO GrÃ©gory*  
Due to system migration and upgrade, on November 9th 2017, from 09H00 to 11H00 Paris time : - RESIF FDSN webservices will be unavailable Update 10:45 am, Paris time - Services restarted

**Following the passage of IRMA and Maria : data unavailable from Guadeloupe and Lesser Antilles**  
*Added or modified September 25 2017 by Catherine Pequegnart*







### LATEST EVENTS

**▲ NEW GUINEA, PAPUA NEW GUINEA**  
*February 28 2018 - RESIF\_2018*  
Latitude : -6.13 ° Longitude : 142.5 °  
Magnitude : 6.30 mw Depth : 10 Km  
[Download this event](#)

**▲ WEST OF MACQUARIE ISLAND**  
*February 27 2018 - RESIF\_2018*  
Latitude : -60.3 ° Longitude : 150.8 °  
Magnitude : 6 mw Depth : 10 Km  
[Download this event](#)

**▲ CERAM SEA, INDONESIA**  
*February 26 2018 - RESIF\_2018*  
Latitude : -2.72 ° Longitude : 126.8 °  
Magnitude : 6.09 mw Depth : 17 Km  
[Download this event](#)

**▲ NEW GUINEA, PAPUA NEW GUINEA**  
*February 25 2018 - RESIF\_2018*

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 Seismic data Seismic networks Citing data Organization Support			
You are here : Home > RESIF digital objects identifiers			
code			
FR	10.15778/RESIF.FR	RESIF; (1995): RESIF-RLBP French Broad-band network, RESIF-RAP strong motion network and other seismic stations in metropolitan France; RESIF - Réseau Sismologique et géodésique Français. <a href="http://dx.doi.org/10.15778/RESIF.FR">http://dx.doi.org/10.15778/RESIF.FR</a>	<a href="http://data.datacite.org/application/x-datacite+xml/10.15778/RESIF.FR">http://data.datacite.org/application/x-datacite+xml/10.15778/RESIF.FR</a>
RA	10.15778/RESIF.RA	RESIF; (1995): RESIF-RAP French Accelerometric Network; RESIF - Réseau Sismologique et géodésique Français. <a href="http://dx.doi.org/10.15778/RESIF.RA">http://dx.doi.org/10.15778/RESIF.RA</a>	<a href="http://data.datacite.org/application/x-datacite+xml/10.15778/RESIF.RA">http://data.datacite.org/application/x-datacite+xml/10.15778/RESIF.RA</a>
MT	10.15778/RESIF.MT	National French Landslide Observatory Facility and RESIF Datacenter; (2006): French Multidisciplinary Observatory of Versant Instabilities; RESIF - Réseau Sismologique et géodésique Français. <a href="http://dx.doi.org/10.15778/RESIF.MT">http://dx.doi.org/10.15778/RESIF.MT</a>	<a href="http://data.datacite.org/application/x-datacite+xml/10.15778/RESIF.MT">http://data.datacite.org/application/x-datacite+xml/10.15778/RESIF.MT</a>
CL	10.15778/RESIF.CL	Corinth Rift Laboratory team and RESIF Datacenter; (2013): CL - Corinth Rift Laboratory Seismological Network (CRLNET); RESIF - Réseau Sismologique et géodésique Français. <a href="http://dx.doi.org/10.15778/RESIF.CL">http://dx.doi.org/10.15778/RESIF.CL</a>	<a href="http://data.datacite.org/application/x-datacite+xml/10.15778/RESIF.CL">http://data.datacite.org/application/x-datacite+xml/10.15778/RESIF.CL</a>
ND	10.15778/RESIF.ND	New Caledonian Seismic Network and RESIF datacenter; (2009): The New Caledonian Seismic Network; RESIF - Réseau Sismologique et géodésique Français. <a href="http://dx.doi.org/10.15778/RESIF.ND">http://dx.doi.org/10.15778/RESIF.ND</a>	<a href="http://data.datacite.org/application/x-datacite+xml/10.15778/RESIF.ND">http://data.datacite.org/application/x-datacite+xml/10.15778/RESIF.ND</a>
G	10.18715/GEOSCOPE.G	Institut de Physique du Globe de Paris (IPGP) (1982): GEOSCOPE, French Global Network of broad band seismic stations. Institut de Physique du Globe de Paris (IPGP). Seismic Network. <a href="http://doi:10.18715/GEOSCOPE.G">http://doi:10.18715/GEOSCOPE.G</a>	<a href="http://data.datacite.org/application/x-datacite+xml/10.18715/GEOSCOPE.G">http://data.datacite.org/application/x-datacite+xml/10.18715/GEOSCOPE.G</a>
WI	10.18715/antilles.WI	Institut de Physique du Globe de Paris- IPGP (2008): GNSS, seismic broadband and strong motion permanent networks in West Indies. Institut de Physique du Globe de Paris - IPGP. Seismic and GNSS Network. <a href="http://doi:10.18715/antilles.WI">http://doi:10.18715/antilles.WI</a>	<a href="http://data.datacite.org/application/x-datacite+xml/10.18715/antilles.WI">http://data.datacite.org/application/x-datacite+xml/10.18715/antilles.WI</a>



## Networks

## ▼ Permanent

CL (39 stations)  
 FR (109 stations)  
 G (51 stations)  
 GL (17 stations)  
 MQ (14 stations)  
 MT (11 stations)  
 ND (7 stations)  
 PF (43 stations)  
 RA (229 stations)  
 RD (12 stations)  
 WI (14 stations)

## ► Temporary

## ► Virtual

## Description

Stations (109)

Data availability

Comments

**Network :** FR**Description :** RESIF and other Broad-band and accelerometric permanent networks in metropolitan France

**Abstract :** The FR network code embraces most of the permanent seismic stations installed in metropolitan France and operated by academic research institutes and observatories. In 2014, it includes 1) about fifty broadband stations of the RLBP (Réseau Large Bande Permanent) network, 2) about forty short period stations of the historical RêNaSS (Réseau National de Surveillance Sismique) network, 3) six broadb...  
[\[More\]](#)

**Type :** Permanent**Stations :** 109**Start date :** 1994-01-01**Restricted status :** open**Alternate code :** RLBP**Contact(s) :** FR@resif.fr**D.O.I. :** <http://dx.doi.org/10.15778/RESIF.FR>

**Citation information :** RESIF; (1995): RESIF-RLBP French Broad-band network, RESIF-RAP strong motion network and other seismic stations in metropolitan France. RESIF - Réseau Sismologique et géodésique Français. Seismic Network. doi:10.15778/RESIF.FR

**Export :**

XML

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<publisher>RESIF - Réseau Sismologique et géodésique Français</publisher>

<publicationYear>1995</publicationYear>

- <contributors>

- <contributor contributorType="DataManager">

<contributorName>RESIF Information System</contributorName>

</contributor>

- <contributor contributorType="Distributor">

<contributorName>RESIF Data Centre</contributorName>

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- <contributor contributorType="HostingInstitution">

<contributorName>Université de Grenoble Alpes</contributorName>

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- <contributor contributorType="DataCurator">

<contributorName>Ecole et Observatoire des Sciences de la Terre - EOST</contributorName>

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- <contributor contributorType="DataCurator">

<contributorName>Observatoire de la Côte d'Azur - OCA</contributorName>

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- <contributor contributorType="DataCurator">

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EPOS (and ORFEUS-EIDA) recommended licence: CC4.0:BY

- Obligation to acknowledge the data producers → DOI simplest tool
- Waiver for responsibility if problems in data

## ❖ Numbers:

- 2014: 6 permanent networks (240 stations)
- **2018: 11 permanent network (632 stations)**
- 2014: 20 temporary networks
- **2018: 44 temporary networks (1499 stations)**

## ❖ Advantages

- Coherent national strategy for funding
- No great difficulty in funding, because support by all and benefit for all
- Improvement of data quality due to more efficient procedures and new equipment
- Better use of human resources
- Shared technical knowledge
- Shared participation in EIDA and FDSN

## ❖ Disadvantages

- Takes time to cooperate

- ❖ **Don't make the same mistakes that we (in France) made in the past**
- ❖ **Be ambitious**
- ❖ **Cooperate**
- ❖ **Build strong links between engineers**
  - **Cooperative projects**
  - **Training**
  - **Workshops**
  - **Participation in scientific workshops**