

# Flash floods in Sardinia, Italy

Sentinel-1 CSAR IW acquired on 20 November 2020 at 17:21:56 UTC

...

Sentinel-3 SLSTR RBT acquired on 27 November 2020 from 21:08:36 to 21:50:55 UTC

Sentinel-3 OLCI FR acquired on 01 December 2020 from 09:44:56 to 09:47:56 UTC

Sentinel-1 CSAR IW acquired on 02 December 2020 at 17:21:56 UTC

Author(s): Sentinel Vision team, VisioTerra, France - [svp@visioterra.fr](mailto:svp@visioterra.fr)

Keyword(s): Emergency, natural disaster, coastal, river, flooding, rain, precipitations, erosion, sediments, Mediterranean Sea



[3D Layerstack](#)

Fig. 1 - S3 SLSTR (27.11.2020) - A large storm crossed the western part of the Mediterranean Sea in late November.

[2D view](#) [3D view](#)

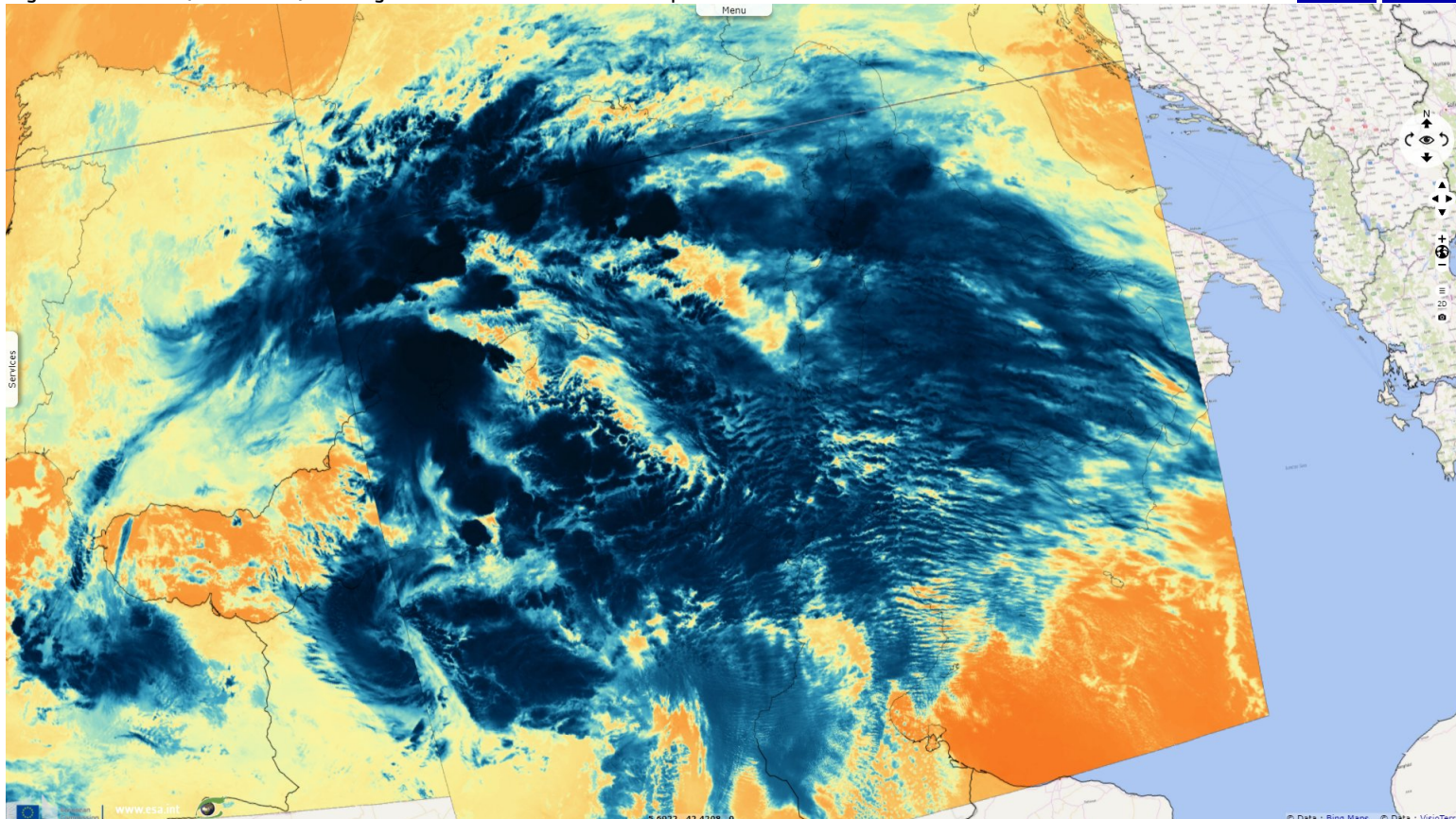


Fig. 2 - S3 SLSTR (28.11.2020) - Its caused intense precipitations in Sardinia.

[3D view](#)

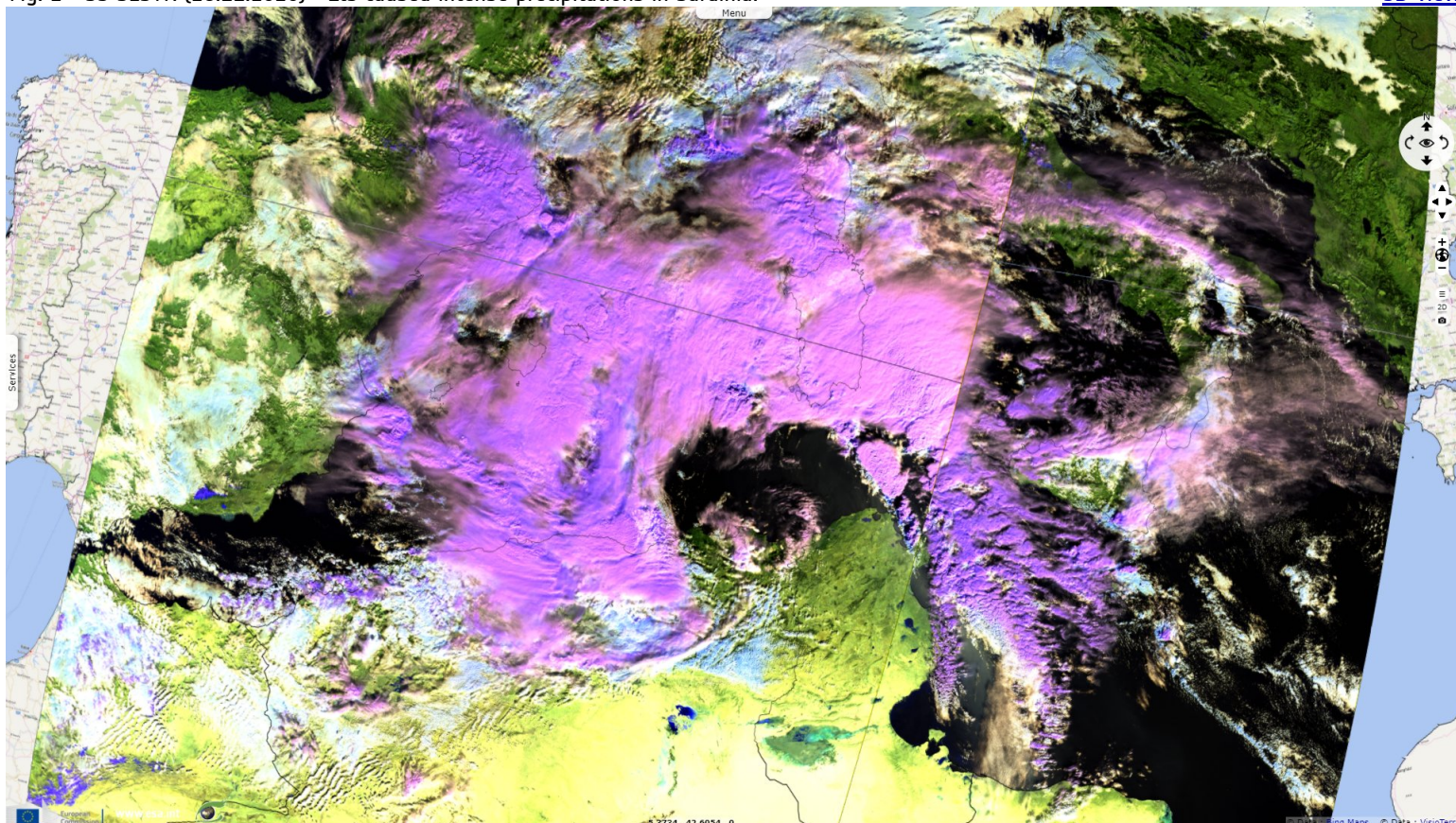
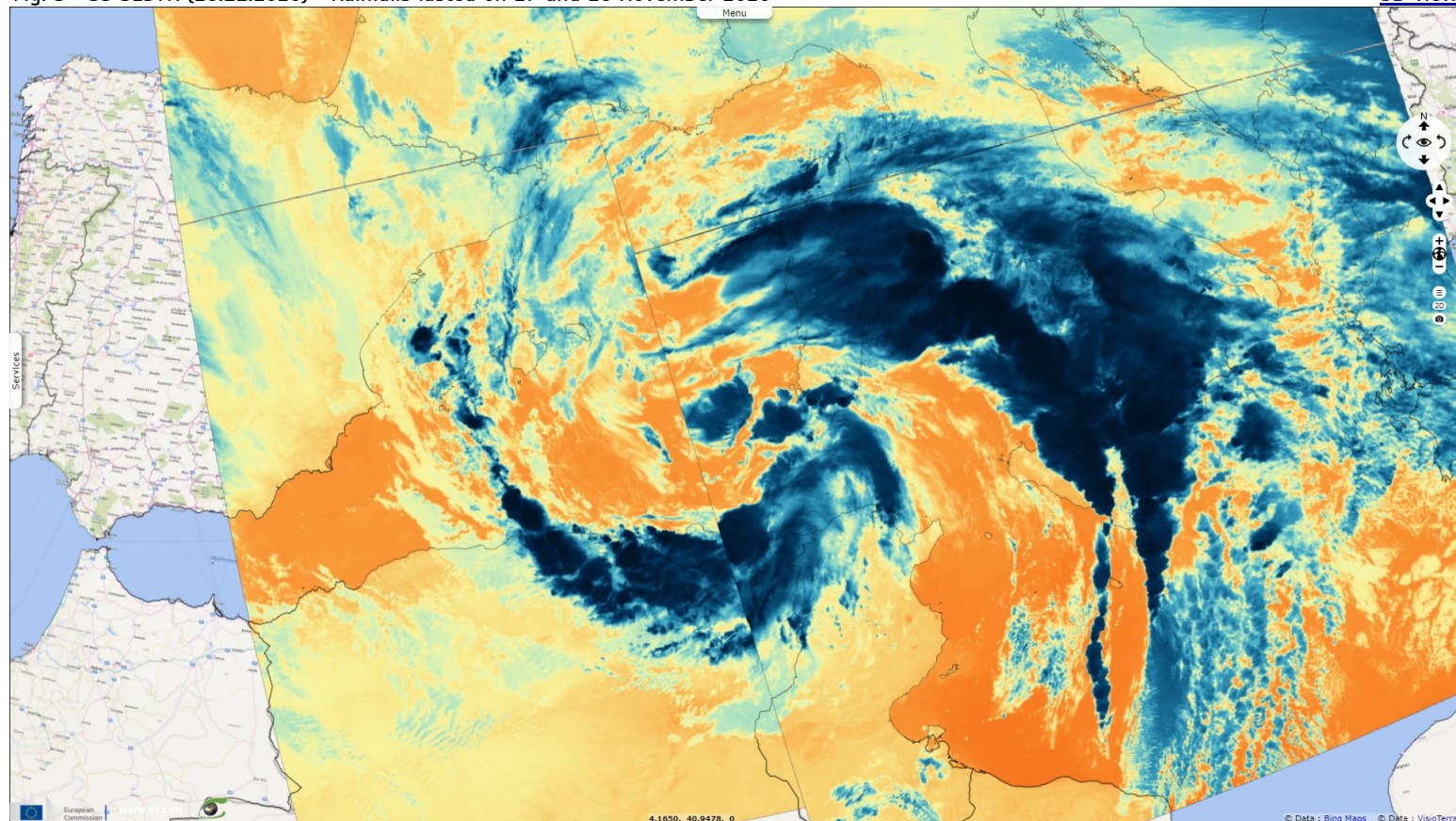




Fig. 3 - S3 SLSTR (28.11.2020) - Rainfalls lasted on 27 and 28 November 2020

[3D view](#)



On 28 November 2020, Copernicus Emergency Management Service has been [activated](#) regarding flash floods in Sardinia: "On 27 November 2020 a deep cyclone brought heavy rainfall along the Eastern part of the Sardinia region. The most affected areas are Orgosolo and the town of Galtelli (Nuoro). Many rivers have already reached their historical flood peaks and local authorities have reported low-level flooding, the interruption of a provincial road and some landslides."

Fig. 4 - S3 OLCI (30.11.2020) - The soils have been eroded, causing mud flows.

[2D view](#)

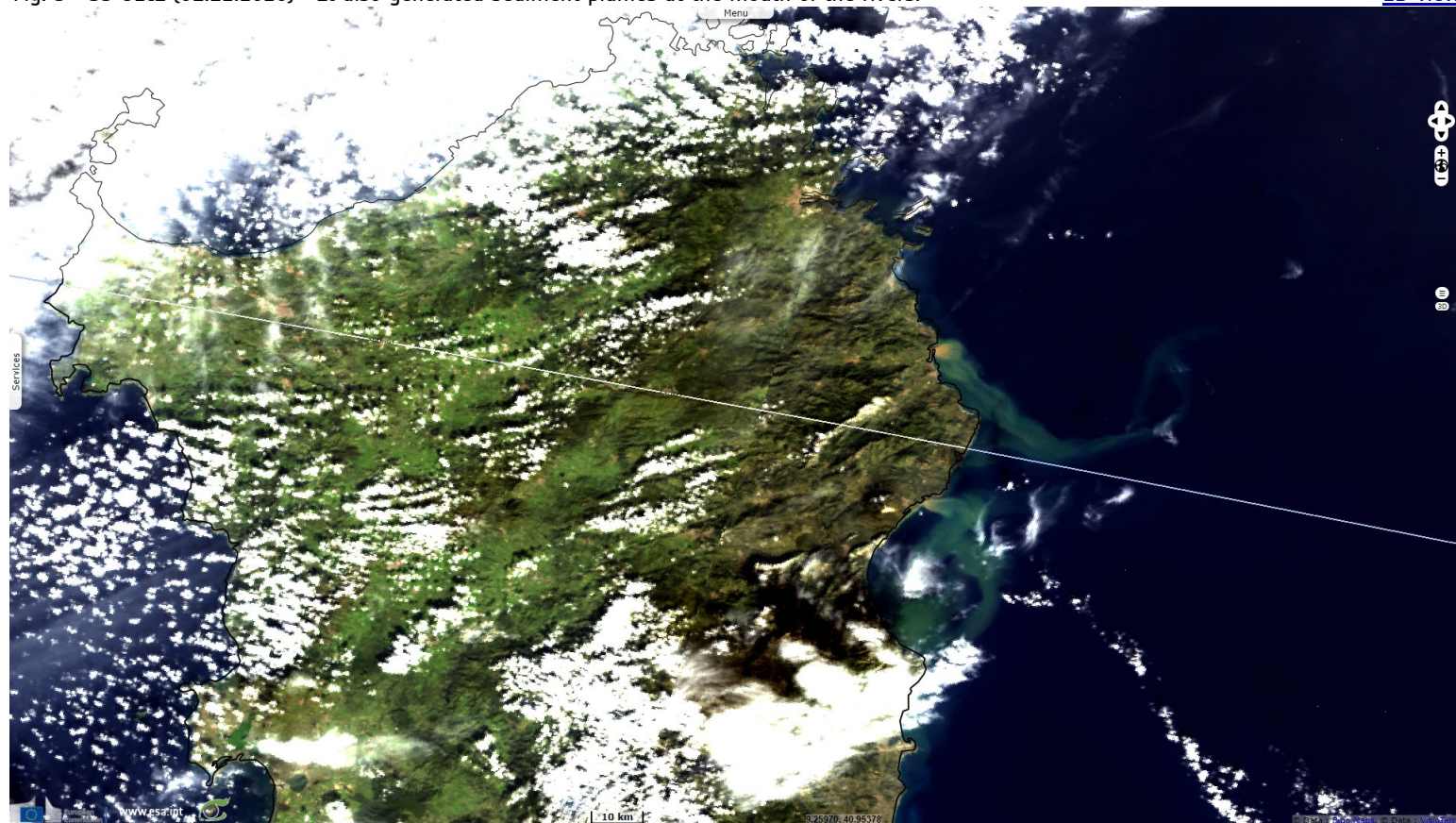


Floodlist [added](#): "Three fatalities were reported in the municipality Bitti in Nuoro Province. Flood waters and mud swept through the streets of the town of Bitti. Heavy rain also caused landslides in the area. Roads, bridges, houses and vehicles have all been damaged or destroyed. Around 40 people were evacuated."



Fig. 5 - S3 OLCI (01.12.2020) - It also generated sediment plumes at the mouth of the rivers.

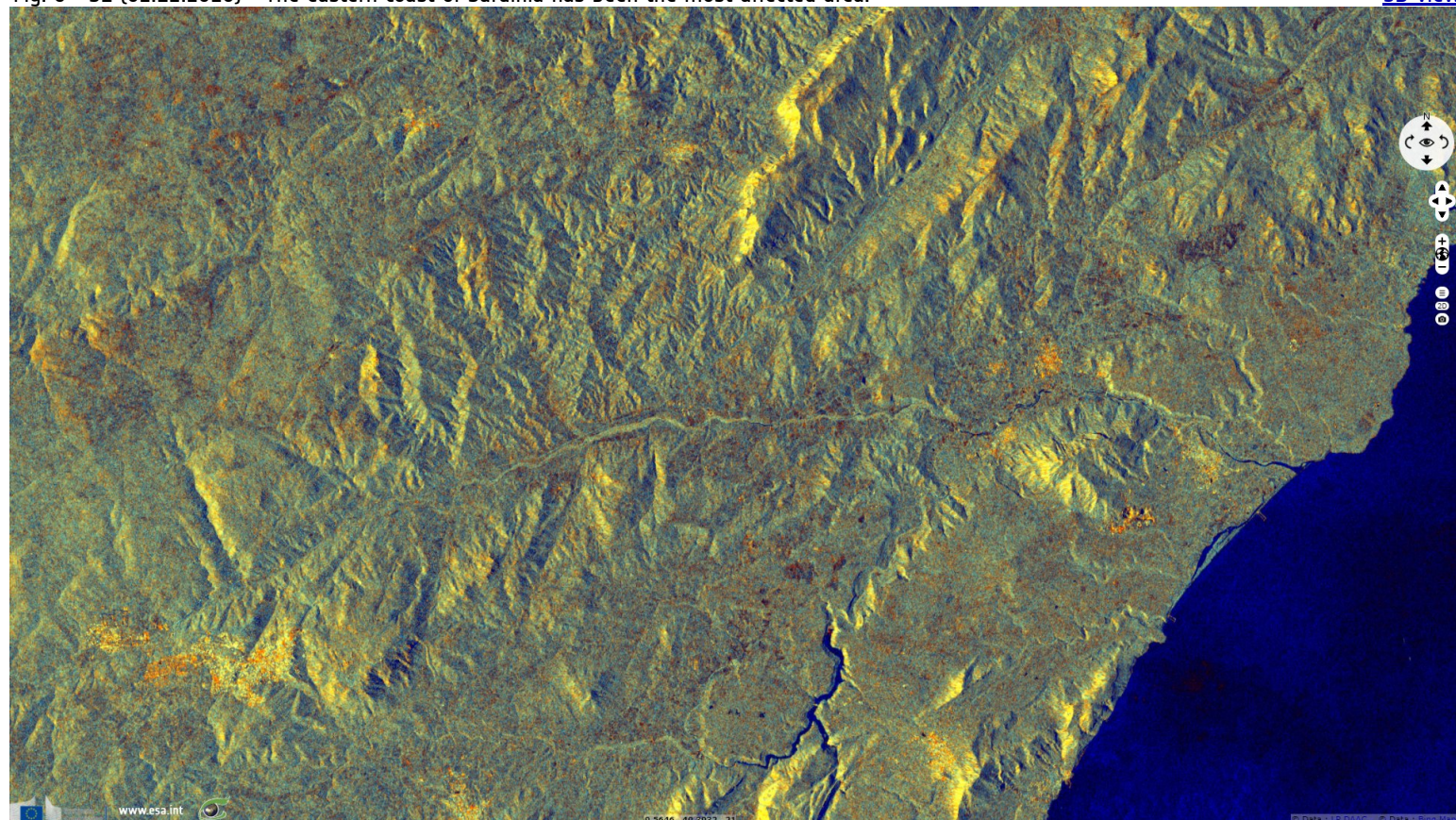
[2D view](#)



*"Italy's Civil Protection said that the increase in the level of the reservoir of the "Pedra 'e Othoni" dam, on the Cedrino river, prompted the evacuation of residents in the municipalities of Onifai, Galtelli and Orosei. Other evacuations were carried out in the municipalities of Oliena, Posada and Torpè."*

Fig. 6 - S1 (02.12.2020) - The eastern coast of Sardinia has been the most affected area.

[3D view](#)

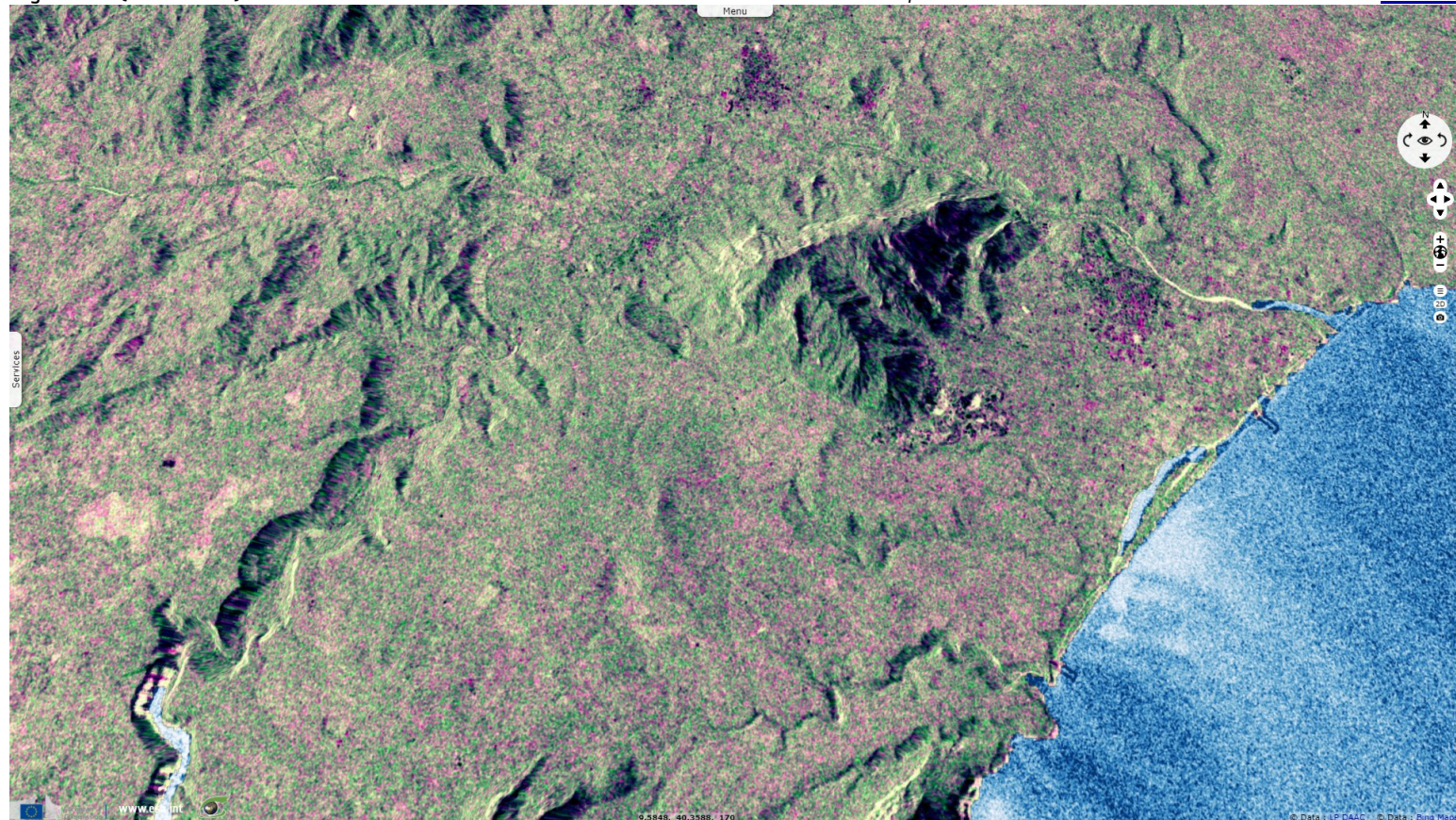


*"Flooding and severe weather including strong winds affected other parts of the island. Italian fire and rescue service, Vigili del Fuoco, said on 29 November that it had responded to over 300 interventions over the last 36 hours, including 100 in Cagliari, 85 in Nuoro, 51 in Sassari and 85 in Oristano. Over 250 people have been rescued in total."*



Fig. 7 - S1 (26.11.2020) - It increased the level of the reservoir of the "Pedra 'e Othoni" dam, on the Cedrino river.

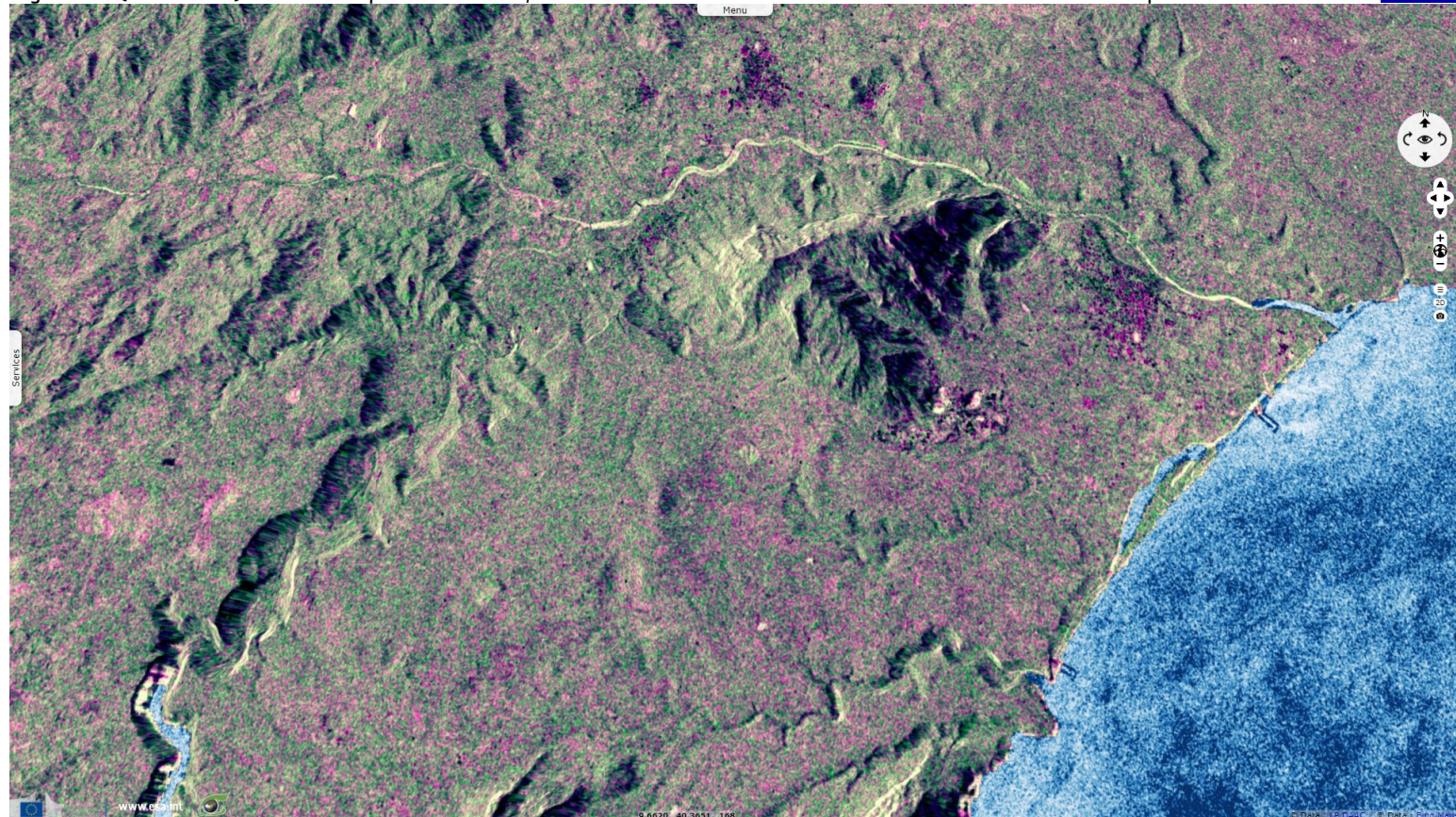
[3D view](#)



"Local meteorology organisation, Sardegna Clima Onlus, reported that many areas recorded more than 150mm of rain. Villanova Strisaili in the Province of Nuoro recorded 364.6 mm of rain in 36 hours to late 28 November."

Fig. 8 - S1 (02.12.2020) - The municipalities of Onifai, Galtelli and Orosei have been evacuated in case of a dam overspill.

[3D view](#)

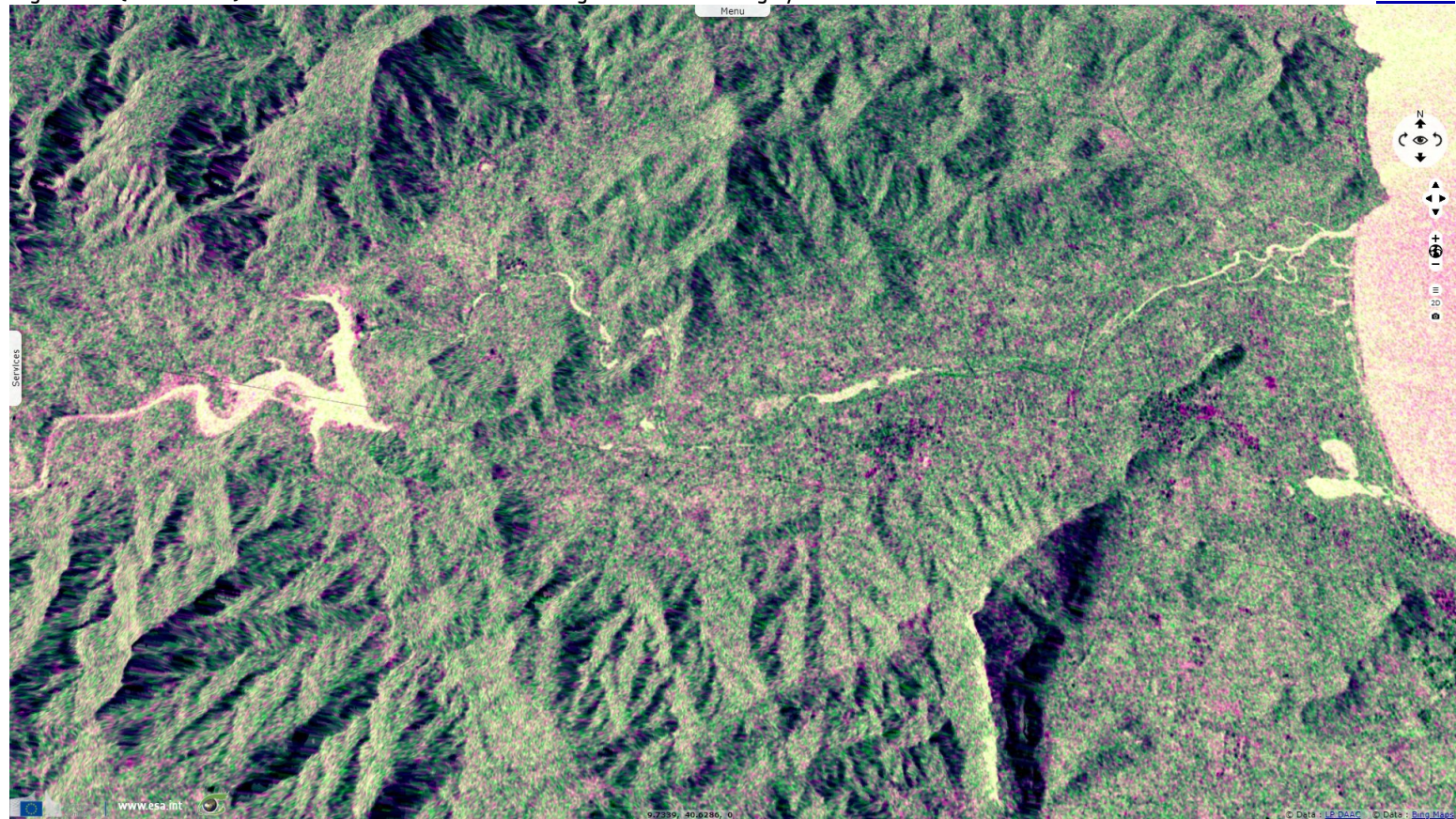


The Agenzia Nazionale Stampa Associata (ANSA) wrote on 30 November: "The chief prosecutor of the Sardinia city of Nuoro, Patrizia Castaldini, said Monday that an investigation into culpable disaster has been opened after flash floods claimed three lives in the area of the nearby town of Bitti on Saturday. Farmers' association Coldiretti told ANSA that one of its members was among the victims, adding that the damage to the island's agriculture sector amounted to many millions of euros."



Fig. 9 - S1 (26.11.2020) - The level of the reservoir lake Coghinas has also largely increased.

[3D view](#)















Sources - left: [ANSA](#), right: [Sardegna Clima Onlus](#).



Fig. 10 - S1 (02.12.2020) - Other evacuations were carried out downstream in the municipalities of Oliena, Posada and Torpè. [3D view](#)



*The views expressed herein can in no way be taken to reflect the official opinion of the European Space Agency or the European Union.  
Contains modified Copernicus Sentinel data 2020, processed by VisioTerra.*

More on European Commission space:							
More on ESA:				<a href="#">S-1 website</a>	<a href="#">S-2 website</a>	<a href="#">S-3 website</a>	
More on Copernicus program:				<a href="#">Scihub portal</a>	<a href="#">Cophub portal</a>	<a href="#">Inthub portal</a>	<a href="#">Colhub portal</a>
More on VisioTerra:				<a href="#">Sentinel Vision Portal</a>	<a href="#">Envisat+ERS portal</a>	<a href="#">Swarm+GOCE portal</a>	<a href="#">CryoSat portal</a>