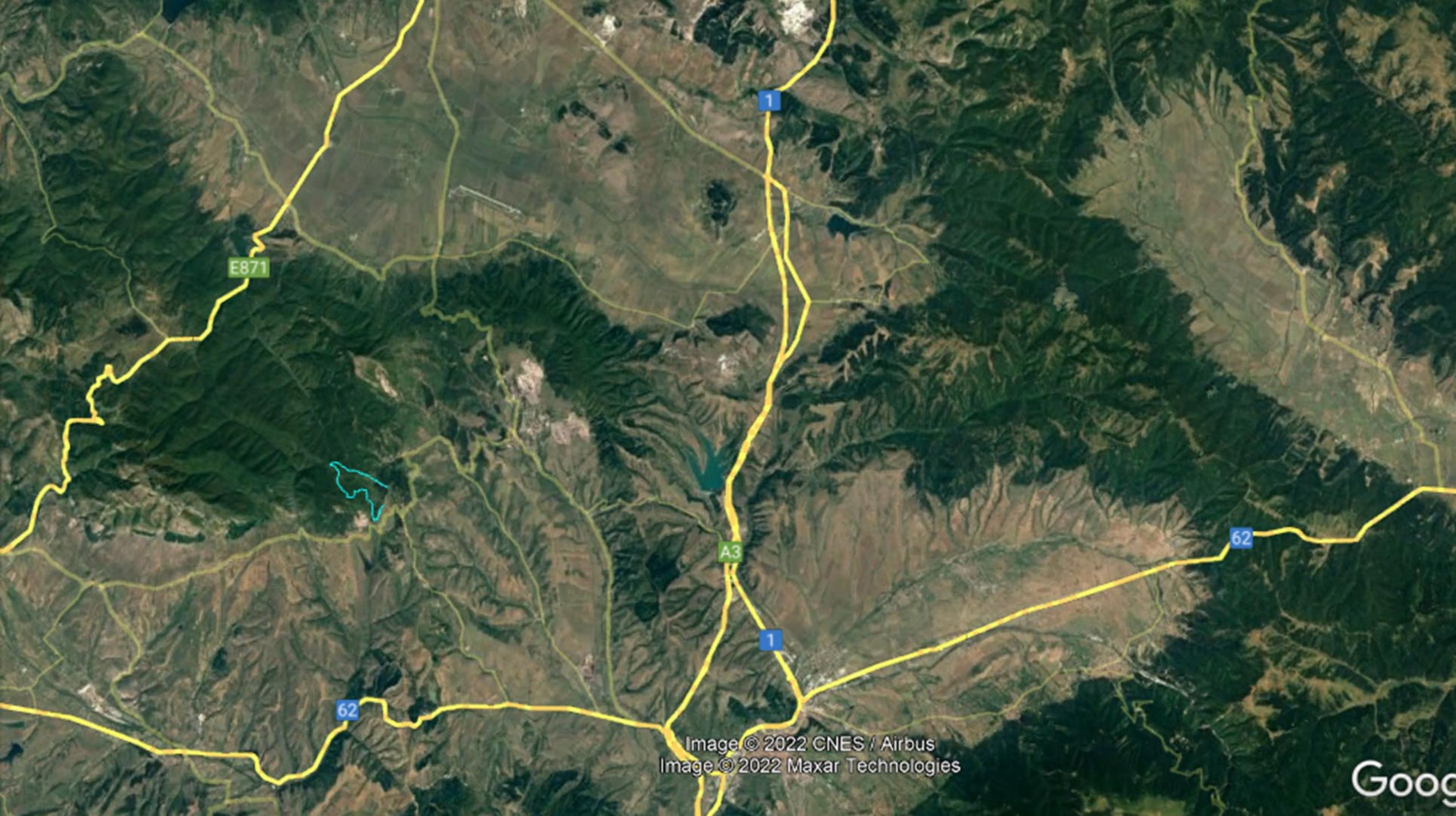


# **Monitoring permeability of defragmentation facilities on Struma Motorway, Section 1, Rila-Verila-Kraishte Pilot Area**

**Transnational Experience Exchange Workshop  
Dupnitsa, Bulgaria, 11-12 May 2022**

**Elena Tsingarska, Petko Tzvetkov, Emilia Vacheva**





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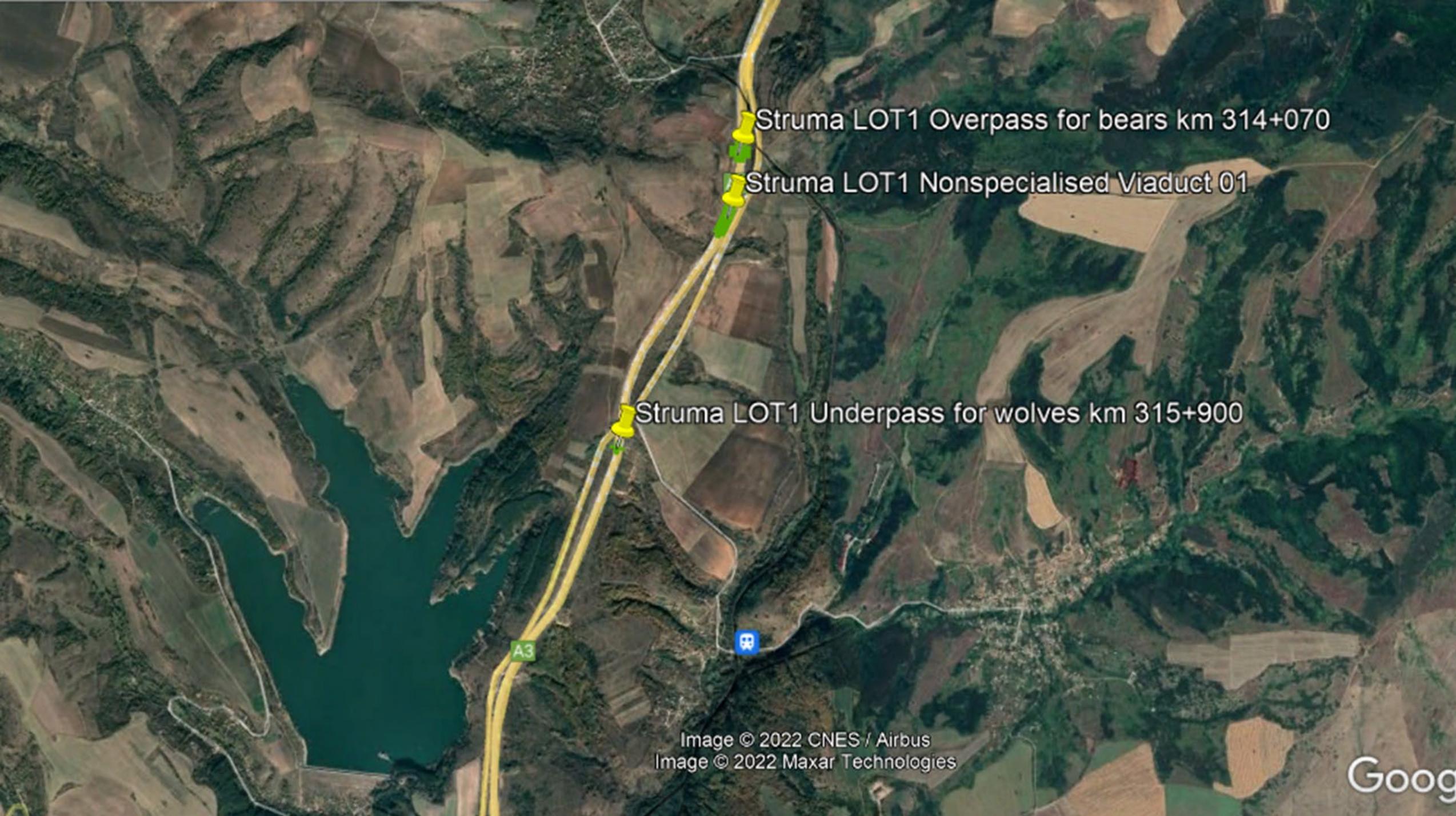
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Image © 2022 Maxar Technologies

Goog



Struma LOT1 Overpass for bears km 314+070

Struma LOT1 Nonspecialised Viaduct 01

Struma LOT1 Underpass for wolves km 315+900

A3

Image © 2022 CNES / Airbus  
Image © 2022 Maxar Technologies

Goog

# The facilities - Overpass



Petko Tzvetkov, BBF

# The facilities - Viaduct



# The facilities - Underpass





# Methods of monitoring

- Tracking on mud and snow
- Camera traps



# Tracking on mud and snow



# Tracking on mud and snow



# Tracking on mud and snow



# Tracking on mud and snow

Species recorded:

Golden jackal - *Canis aureus*

Fox - *Vulpes vulpes*

Badger - *Meles meles*

Hare - *Lepus europaeus*

Otter - *Lutra lutra*

Cat - *Felis sp.*



# Camera trapping



# Camera trapping

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Results from nine camera traps:

- Three camera traps on the overpass
- Four camera traps in the viaduct
- Two camera traps in the tunnel
- Photo, video and photo+video modes were tested



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# Camera trapping - the overpass



# Camera trapping - the viaduct



# Camera trapping – the underpass



# Camera trapping – species recorded

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- Golden jackal - *Canis aureus*
- Fox - *Vulpes vulpes*
- Badger - *Meles meles*
- Hare - *Lepus europaeus*
- Stone marten - *Martes foina*
- Domestic cat - *Felis catus*

# Thanks for your interest!



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