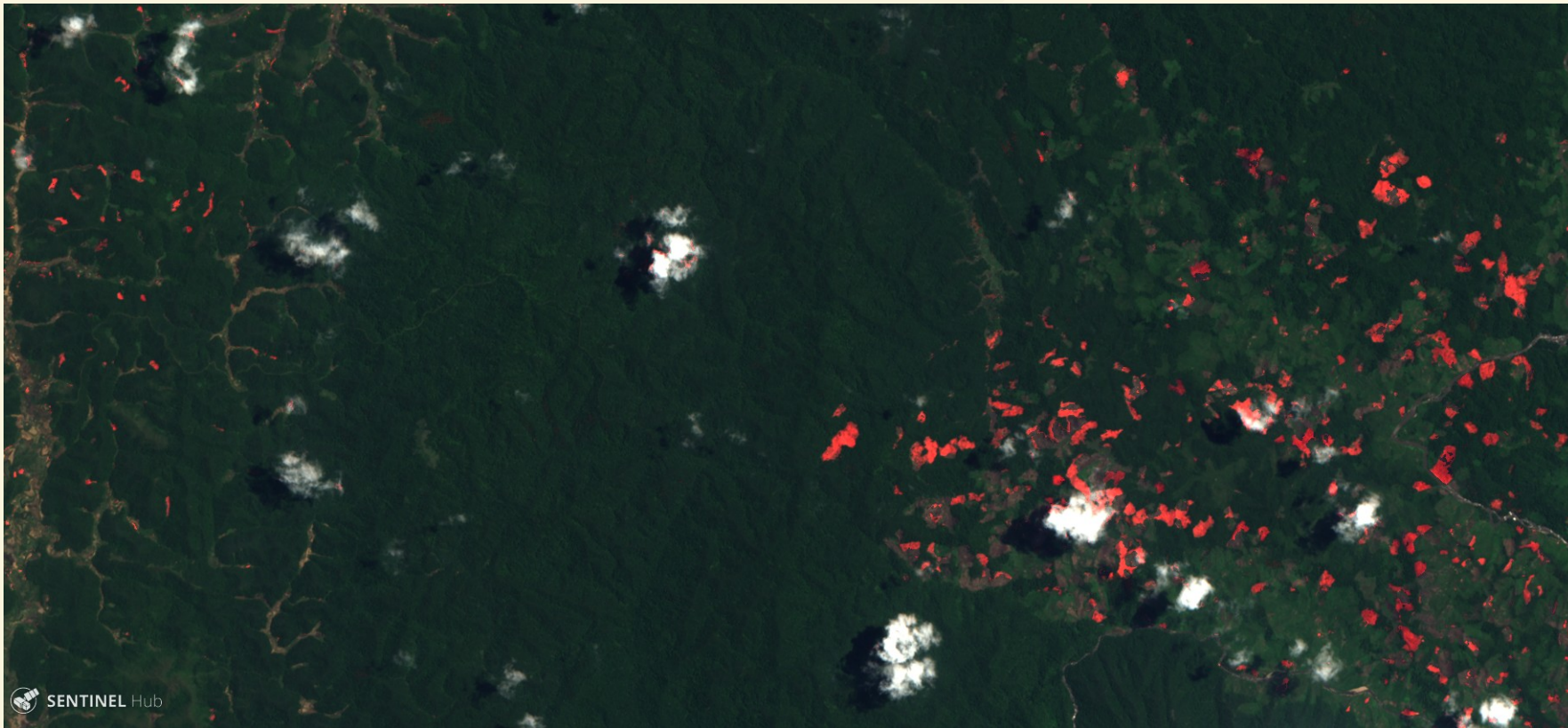


Forest cut temporal detection

A sentinel-Hub temporal script

A list of forest cuts detection with direct access to the Sentinel-hub temporal image is available at the end of this slide.



By [Nicolas Karasiak](#).

Description (1/2)

Forests are essential for wildlife, biodiversity and to fight climate change. 🌲 🌳

In order to map forest cutting from one year to another, this script compares :






- the mean ndvi of the **3** previous months from the selected image
- to the mean ndvi of the **3** same months but from the previous year

If the NDVI decreases above 0.25, it is certainly a clear cut. Pixel will be highlighted in red. The more the difference between the **2** years is high, the more the red is opaque.

Description (2/2)

As the aim of the script is to represent the forest cutting, it will color in red the pixel where cuts have been detected.

The limitations are essentially :

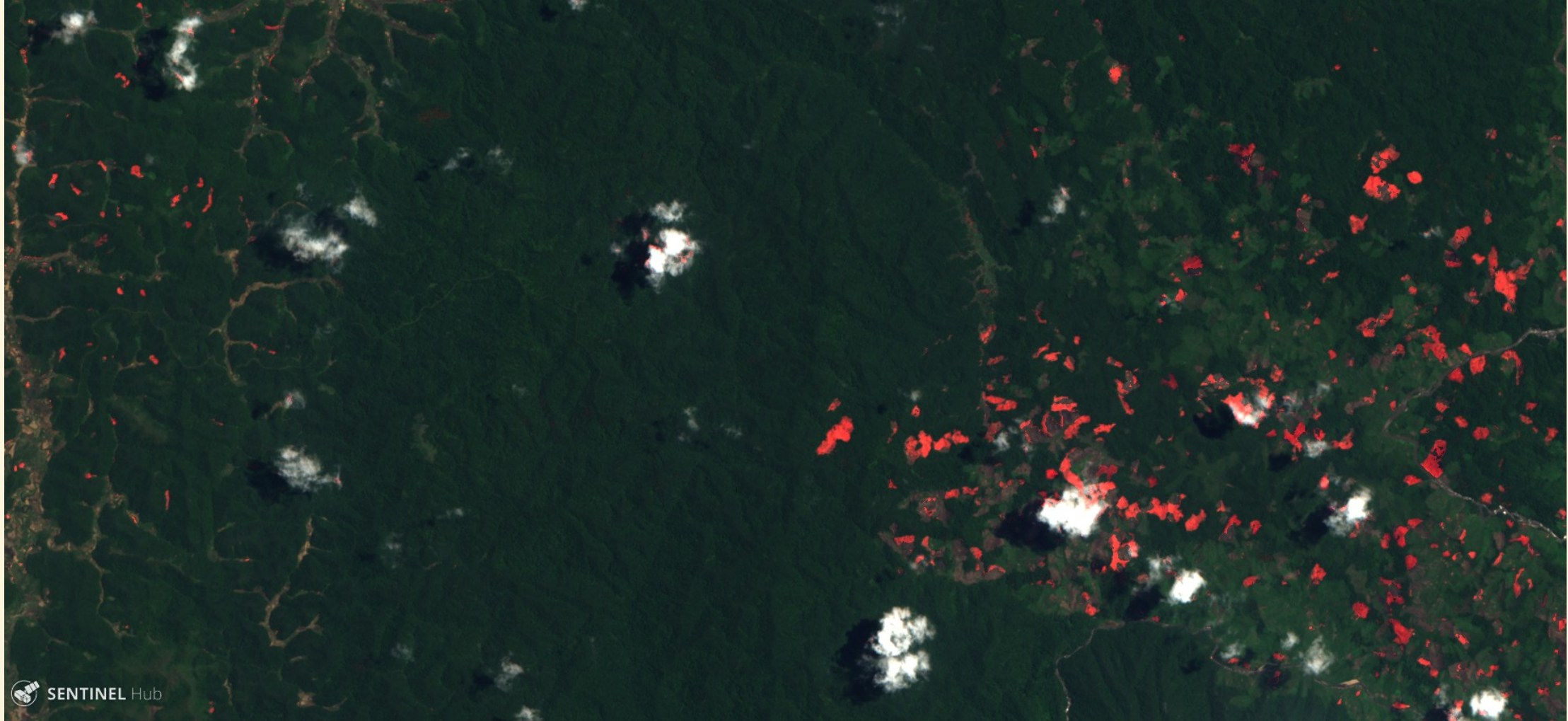
-  can't work if no uncloudy pixel is available in the last **3** months
- to avoid confusion between forests and crops   this script keeps only pixels where $NDVI > 0.7$ for each of the 3 months from the previous year
-  cuts can be confused with sooner/later phenology (e.g. drought)
- when the cut is less than 3 months or is followed by crops (and ndvi stays high)
For these reasons, it is **advised to use summer images** .

Madagascar S2 image from 2017-09-03



Used as reference to map forest clearcutting for summer 2018.

Magascar, forest clearcutting detection (in red)



Madagascar, 2018-11-27

Bouconne, temperate forest near Toulouse (France)



Raw Sentinel-2image (2017-08-14)

Bouconne, forest cuts detection



Forest cuts detected are in red (2018-08-04)