

# Technical Operations & Projects



**JIVE**

Joint Institute for VLBI  
ERIC

# ~~Current~~ in progress hardware

0.8 100 Gbps

19 FlexBuff

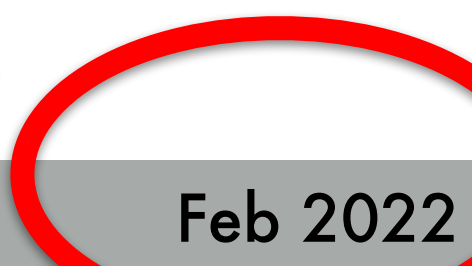
**3.x Mark6**

25 Mark5

1012 SFXCcores

*Kunming:*

- import from outside EU
- expensive list price (30k€)
- investigate tax exemption





24 October 2022!

and no VAT

Within .NL JIVE has the status of  
*International Organisation*  
and there is a **procedure** to **import**  
goods **without 21% VAT!**

# Current hardware

0.8 100 Gbps

19 FlexBuff

**4 Mark6** ↑

25 Mark5

1012 SFXCcores

*Mark6#3*  
*configured as FlexBuff*



# UK FlexBuffs?

*use same  
(red-tape abundant)  
procedure*

# Current hardware

0.8 100 Gbps

**19 FlexBuff =**

4 Mark6

25 Mark5

1012 SFXCcores

*Westerbork:*  
- replaced FlexBuff  
- doubled the storage

# Projects



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# Projects: PAST



Horizon2020  
European Union Funding  
for Research & Innovation

**start:** 1 Feb 2019

**end:** now() + 7 days

**see:** Aard Keimpema

**impact:** EVN Newsletter #64  
January 2023



<https://www.evlbi.org/evn-newsletter/january-2023/escape-overview>



# Projects: PRESENT



Horizon2020  
European Union Funding  
for Research & Innovation

**start:** 1 Mar 2021  
**end:** 28 Feb 2025  
**see:** Bob Eldering



**OPTICON  
RadioNet  
Pilot**

## **WP3: Seamless performance**

- JA2.1 New proposal tool for multiwavelength/multi facility proposals;
  - Main effort UniManchester; (JIVE: Ilse v Bemmel/Bob Eldering)
- JA2.2 multi wavelength/facility time domain astronomy
  - Prototype "EVN" plugin for TOM Toolkit (JIVE: Bob Eldering)



**start:** 1 Mar 2023  
**end:** 28 Feb 2027  
**see:** Aard/Mark/  
Ilse/Des

# "RADIO BLOCKS"



## **WP4: Data transport and correlation**

- develop modules for GPU VLBI correlation (Mark Kettenis, Aard Keimpema)
- VDIF decoding, delay tracking, coherent dedispersion, ...

## **WP5: Data processing toolkit for advanced radio astronomy**

- fringe fit task ported to Python Dask framework (Des Small)
- simulations, Bayesian approach for optimising calibration and parameter extraction (Ilse v Bemmelen/Des Small)