



# Report from the OpenRTX Hackathon

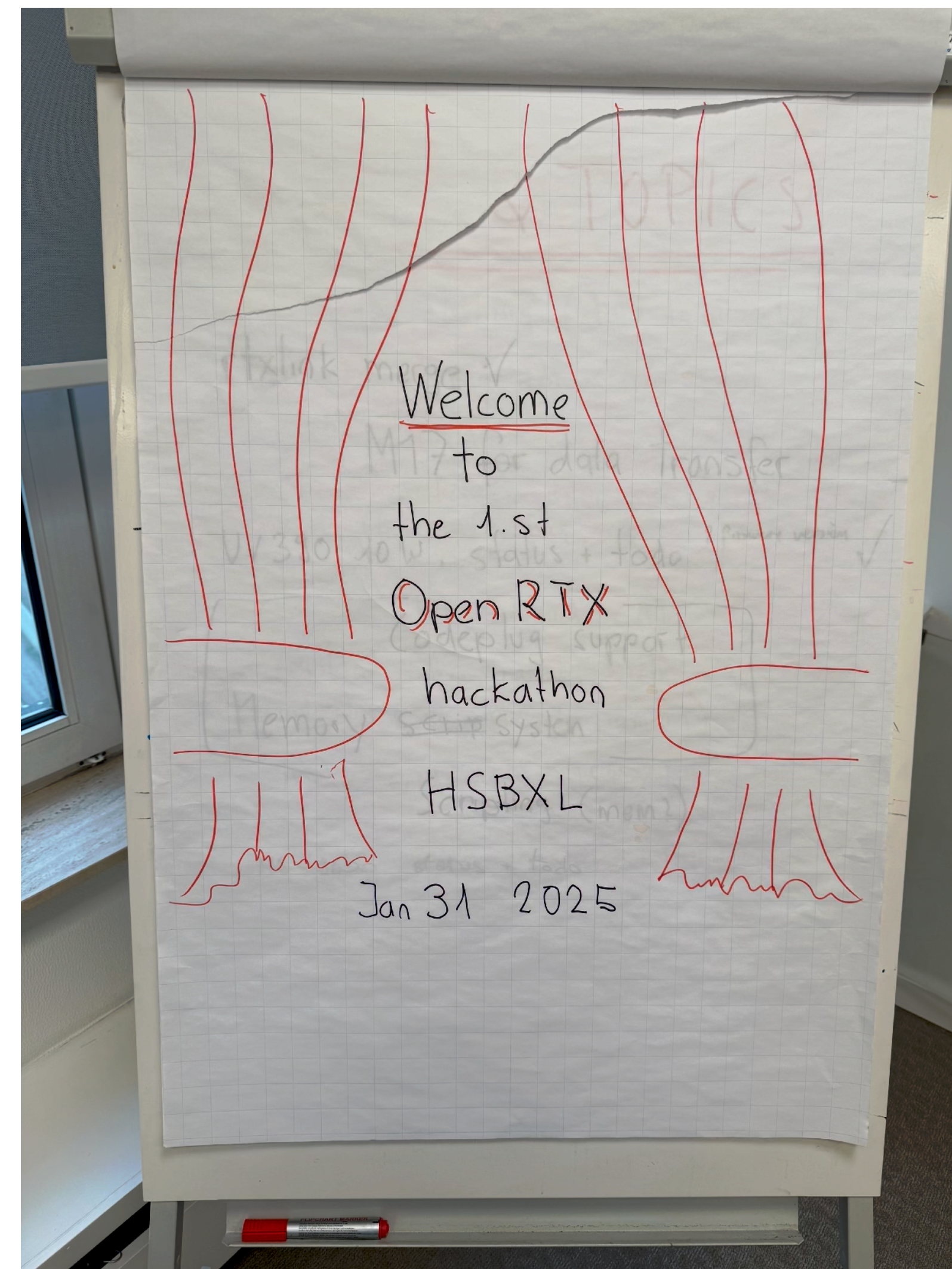
**31.1.2025 HSBXL / 1.2.2025 FOSDEM Bruxelles**

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# OpenRTX @ HSBXL

**With developers from Italy,  
Switzerland, Germany,  
Belgium, France**

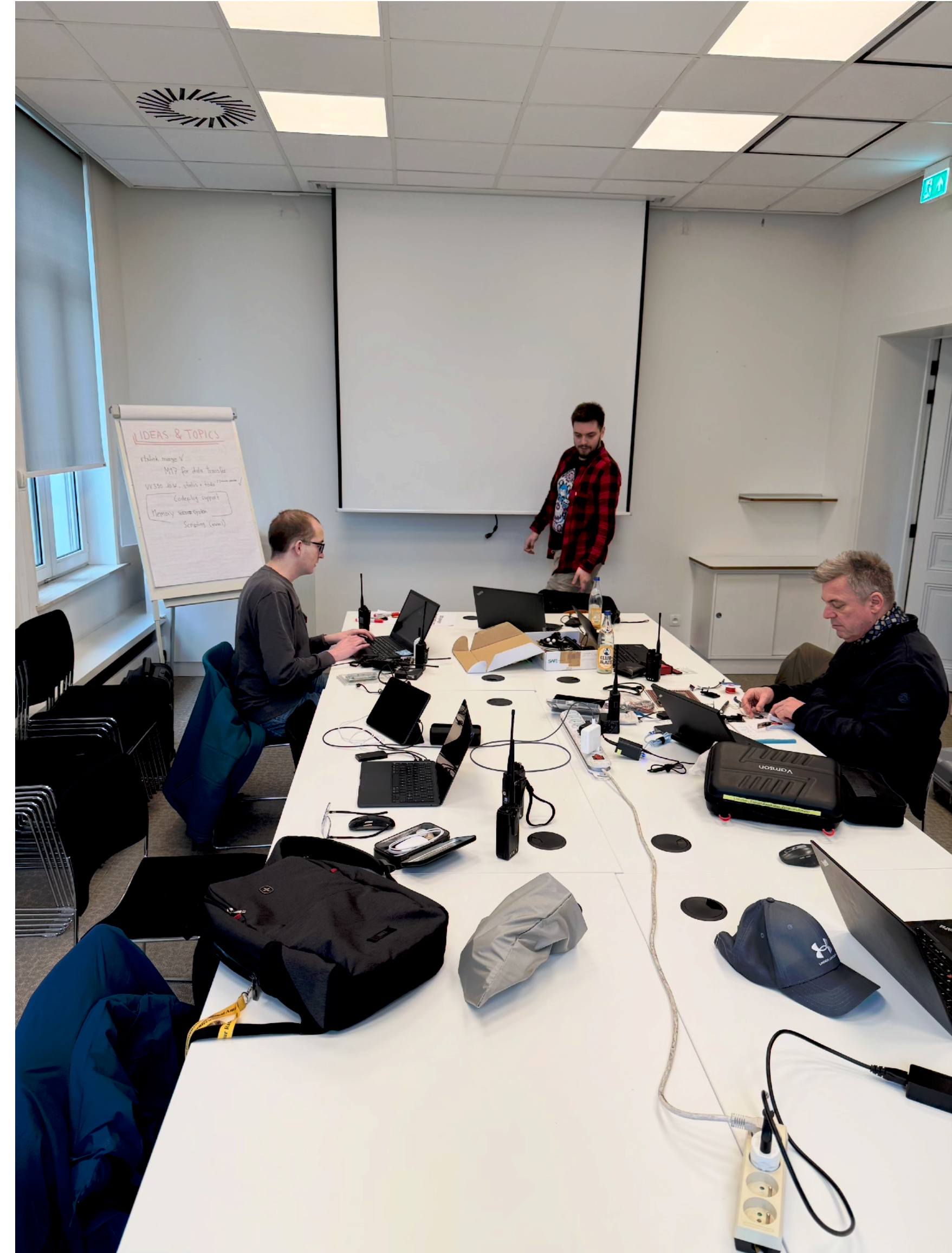






# Sorting out Topics

What to discuss, what to address next



# Ideas and Topics Covered

## List collected at start of hackathon

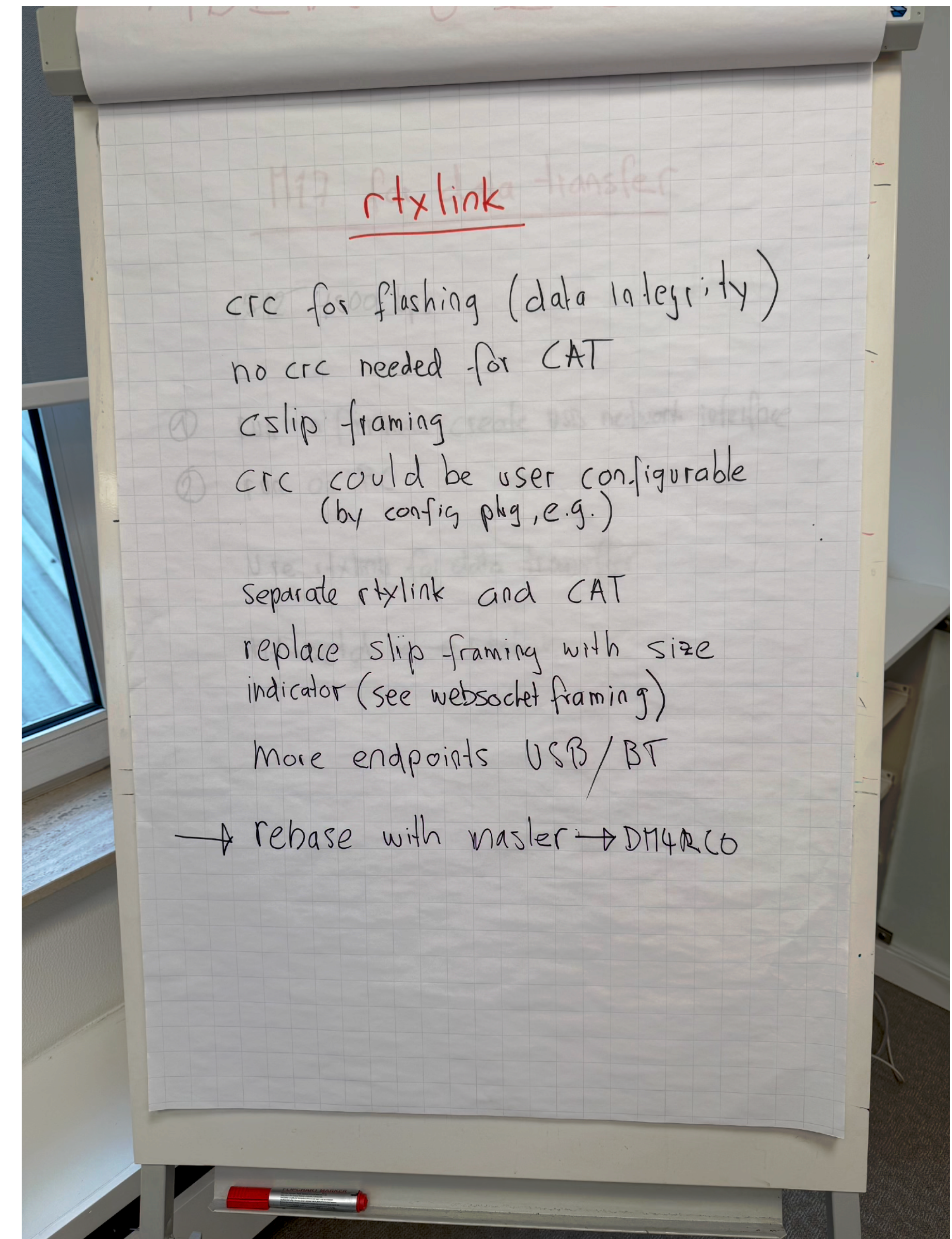
- Merging the rtxlink branch to the master branch
- A new CAT interface that goes along with rtxlink
- Status of UV-390 10W and TYT MD-9600 radios
- M17 for data transfer
- Scripting OpenRTX
- Codeplug / Memory-System



# rtxlink branch

## Merging to master

- rtxlink continues to diverge from the master branch
- merge? rebase?
- It was decided to rebase rtxlink with master for now, as there are more pressing issues in master





# A new CAT Interface

## To complement rtxlink

- rtxlink ensures data integrity
- Uses SLIP framing and CRC
- A bit to complex for simple CAT operations
- The new CAT interface is simply text oriented like e.g. Yaesu or Kenwood do it
- Can switch to rtxlink mode
- Multiple endpoints where possible





# UV-380 and UV-390 10W

**„It's complicated“**

- They differ only by two reversed GPIO pins, PA and backlight
- No way to detect model in software
- It was decided to provide two firmware images

# **TYT MD-9600**

**„It’s complicated, too“**

- We need to collect more data about the various hardware revisions
- Other than that, no news.



# M17 for data transfer

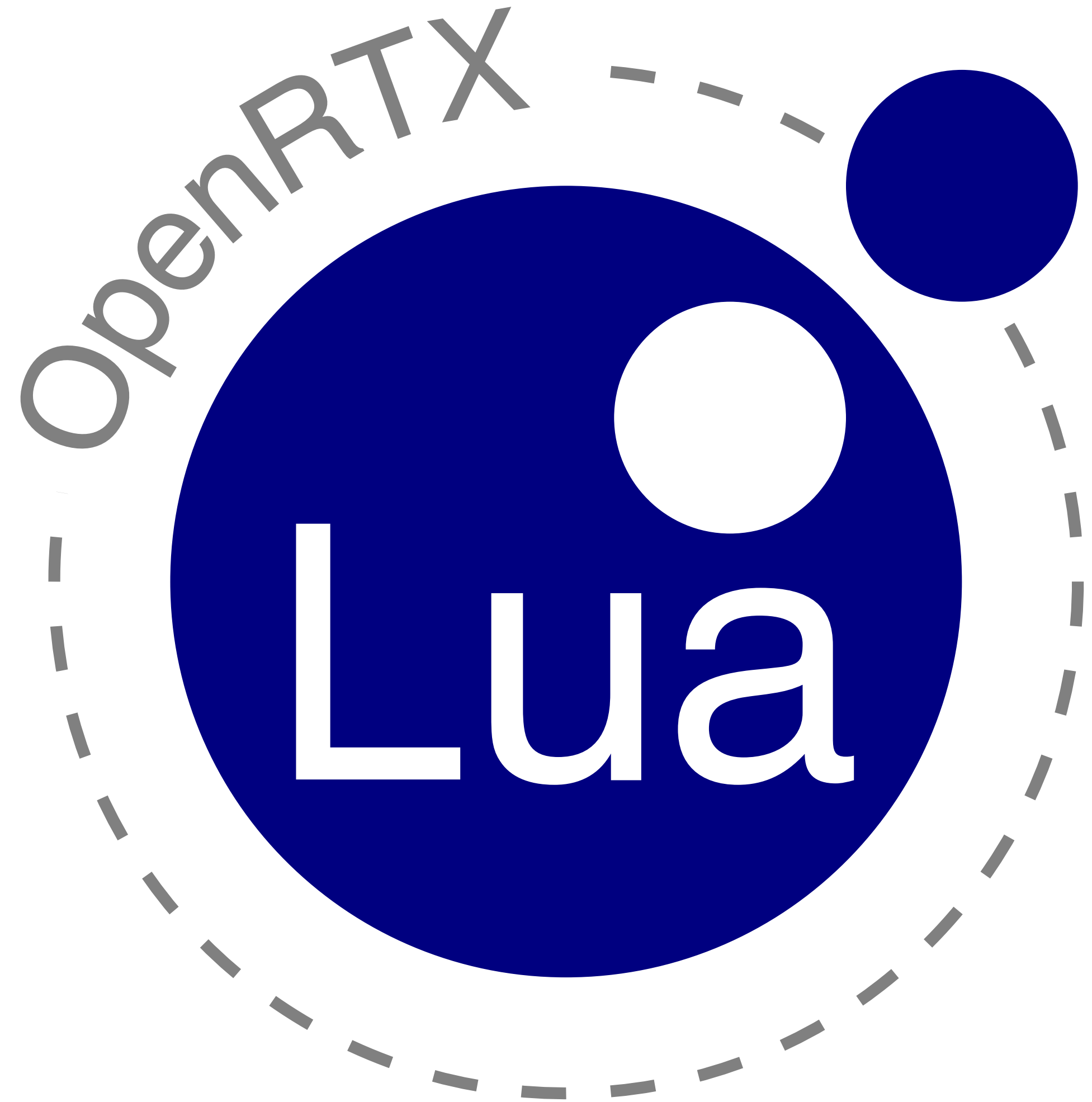
## It's binary anyways

- The idea is to bring M17netd by Morgan Dieport and rtxlink together.
- The M17netd daemon talks „rtxlink“ to use an M17 capable radio to transfer data over radio
- A MIT licensed rtxlink library will be provided for POSIX systems

# Scripting

## Adding Lua Scripting to OpenRTX

- Lua is fast and small
- Run a script at boot
- Expose OpenRTX to Lua
- Call Lua from OpenRTX
- Create an event system  
(independent from scripting)





# **A Memory System for OpenRTX**

**An Idea developed out of Codeplugs in DMR**

- Codeplugs?
- Memories like on commercial radios?
- Static files?
- We give SQLite a try and will gain tremendous flexibility