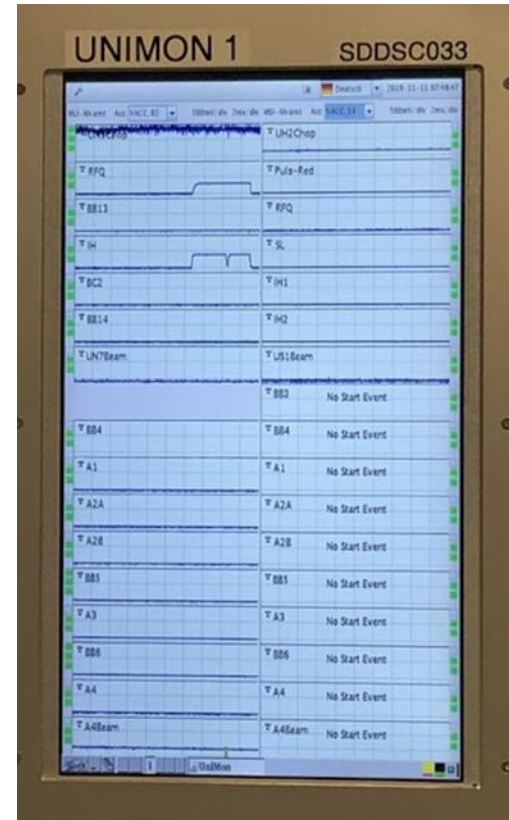


# UNIMON

## What is UNIMON:

- Live display of UNILAC rf signals:
  - Chopper
  - Buncher
  - RFQ, IH, Alv and ER a.o.
- Provides fast view on active and inactive rf signals
- Presentation on fixed displays



## Upgrade plan:

- Replacement of old DAQ ADC hardware (FEBEX from EE) with microTCA system
- Upgrade to latest FESA release
- Change of orientation of displays
- Switch to White Rabbit timing
- Keep old system until new one is ready

## Parallel task:

- Move of complete system from main control room console to LSB after next beam time  
Requires:
  - main responsible organiser (Linac RF or BEA?)
  - determination of a new rack location
  - complete careful move of cables
  - organizing of rack space, LAN and WR timing

## Software Status:

- DAQ readout of 80 channels available (1kHz – 5MHz)
- Triggered readout ( tested with simulated WR timing), via backplane connection (FTRN/ADC)
- Test-GUI and FESA class working

## Hardware Status:

UNIMON hardware is installed within the Unilac console:

- 2U MTCA system with AM G64 CPU
- 4 x IOXOS 3117 - 20Ch FMC ADC
- 2 x AFC V3.1 FMC Carrier
- Next: Fair Timing Receiver Node (FTRN)
- Prototype of adaptor box

## Open Issues:

- White Rabbit FOL connection (done yesterday 😊)
- Unclear state of WR timing domains
- Movement planning, so far no contact to LRF
- Adaptor box design and production

## Efforts (estimated):

<b>Task</b>	<b>Duration</b>	<b>Man power</b>	<b>Costs</b>
Preparation of adaptor box:	3 - 6 months	0.25 FTE	10k€
Installation HKR:	1 week	0.02 FTE	1k€ (cables, adaptors etc)
Movement to LSB:	3 months	0.25 FTE	5k€ (rack, cables, adaptors etc)
Programming ADC gateway	2 months	0.25 FTE	
Programming FESA and GUI:	3 months	0.25 FTE	

UNIMON 2022 ready in mid 2022, but dependent on move to LSB.



