

# 9th MicroTCA Workshop for Industry & Research

1-3 December  
DESY, Hamburg

**Workshop start: 13:00**

# Introduction: 9th MicroTCA Workshop 2020

for Industry & Research

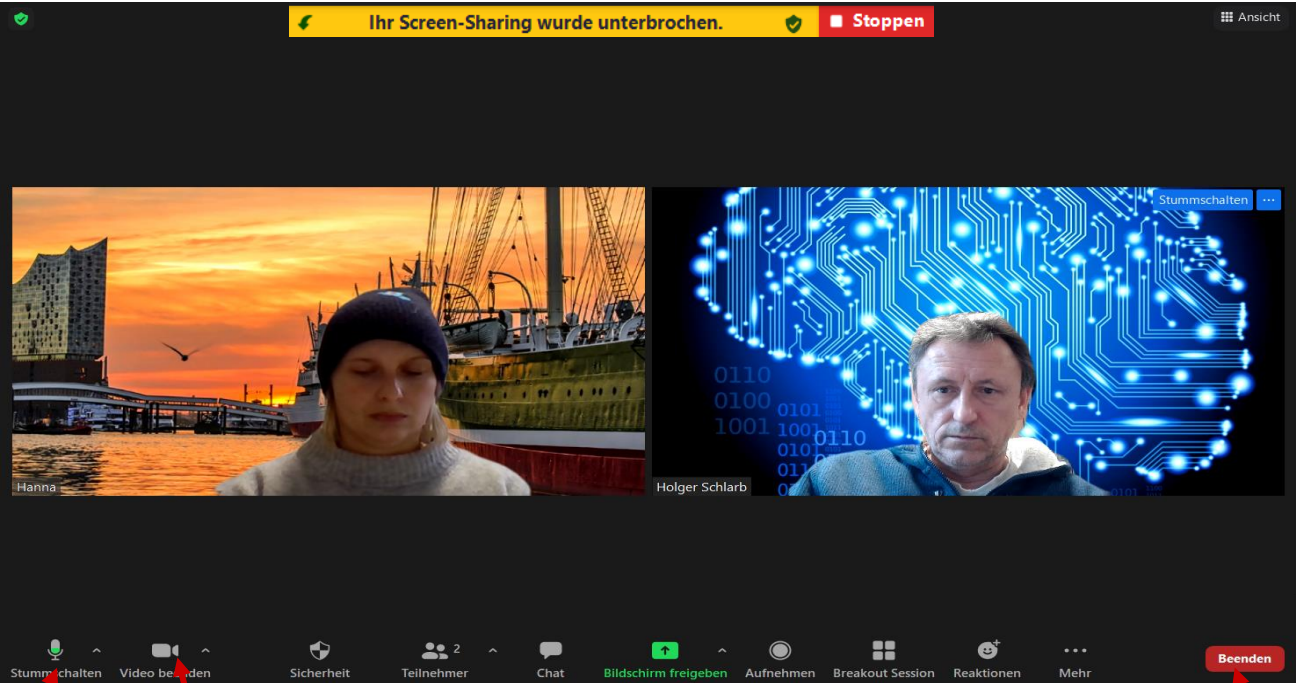
Holger Schlarb, Accelerator Beam Controls (MSK)/DESY  
DESY, 01.12.2020

# Info's ZOOM Meeting

Participants: please keep micro muted / video off

Speakers: please video on/ **green button** for slide sharing

Questions: use chat / **raise hand** / switch video & micro on



Micro

Video

Participants

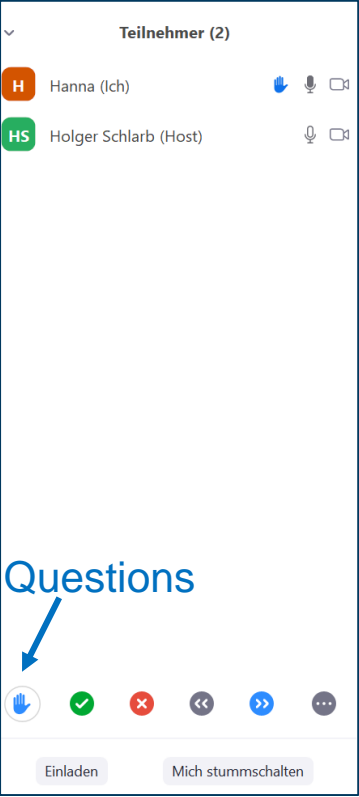
Chat

Screen sharing

Reaction

Exiting

## participants



For renaming First Surname (Inst.)

# Workshop program Tu / We / Th

Indico page: <https://indico.desy.de/event/27340/timetable/#20201201.detailed>

9 session with 44 talks: 13min + 2min Q&A (some 17+3)

**9th Virtual MicroTCA Workshop for Industry and Research**

1-3 December 2020  
Virtual Workshop via Zoom  
Europe/Berlin timezone

- Overview
  - Timetable**
  - Registration
  - Payment
  - Call for Abstracts
  - Contribution List
  - Participant List
- Support**
- ✉ [ws-mtca@desy.de](mailto:ws-mtca@desy.de)
  - ☎ +49 (0)40 8998 4557

## Timetable

< Tue 01/12 Wed 02/12 Thu 03/12 All days >

Print PDF Full screen **Detailed view** Filter  
Session legend

Session 1 Session 2 Session 3

13:00	<b>Introduction</b> <i>Virtual Workshop via Zoom</i>	<i>Holger Schlarb</i> 13:00 - 13:10
	<b>Welcome and DESY digital strategy</b> <i>Virtual Workshop via Zoom</i>	<i>Prof. Wim Leemans</i> 13:10 - 13:30
	<b>MicroTCA deployment at the European Spallation Source</b> <i>Virtual Workshop via Zoom</i>	<i>Henrik Carling</i> 13:30 - 13:45
	<b>Status of MicroTCA.4 in IHEP accelerators</b> <i>Virtual Workshop via Zoom</i>	<i>Ma Xinpeng</i> 13:45 - 14:00
14:00	<b>Operational statistics with MTCA LRF systems at FLASH and XFEL</b> <i>Virtual Workshop via Zoom</i>	<i>Julien Branlard</i> 14:00 - 14:15
	<b>Exhibitor presentation</b> <i>Virtual Workshop via Zoom</i>	<i>Kay Rehlich</i> 14:15 - 14:30
	<b>Coffee Break</b>	<b>Exhibition 1</b>

Presentation & Video's (if permit) will be uploaded asap.

# Workshop program Tu / We/ Th

Special Q&A sessions in morning & evening

Evening 18:10 ...  
Morning 11:30 ...



→ Speaker are ask to participation  
(depending on time zone!!!)

→ Allows for dedicated question to talks

→ Room for expert discussion

Main ZOOM room

13:00	Introduction Virtual Workshop via Zoom	Holger Schlarb 13:00 - 13:10
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	Exhibitor presentation Virtual Workshop via Zoom	Kay Rehllich 14:15 - 14:30
	Coffee Break 14:30 - 15:00	Exhibition 1 Virtual Workshop via Zoom 14:30 - 15:00
		Tutorial 1 AMC, MicroTCA: the basics Ralf Wald
15:00	Product Update: 1U MTCA.4 Crate Virtual Workshop via Zoom	Christian Ganninger 15:00 - 15:15
	Increasing demands for the MicroTCA Carrier Hub (MCH) Virtual Workshop via Zoom	Heiko Körte 15:15 - 15:30
	Overview of MicroTCA.4 Applications for Accelerators based on CAEN ELS Picoammeters Virtual Workshop via Zoom	Paolo Scarbolo 15:30 - 15:45
	MTCA beyond physics, an overview Virtual Workshop via Zoom	Thomas Holzappel 15:45 - 16:00
16:00	MicroTCA Technology Lab at DESY: Report on completed and ongoing projects Virtual Workshop via Zoom	Andreas Brunzel 16:00 - 16:15
	Coffee Break 16:15 - 16:45	Exhibition 2 Virtual Workshop via Zoom 16:15 - 16:45
		Tutorial 2 MCH and power unit: syst... Heiko Körte
	MicroTCA.4 for the ESO Astronomical Detector Controller Virtual Workshop via Zoom	Mathias Richerzhagen 16:45 - 17:05
17:00	A MTCA based LLRF for the LILAC Injector of the NICA project Virtual Workshop via Zoom	Christian Trageser 17:05 - 17:20
	Digitizers for Big Physics Virtual Workshop via Zoom	Kacper Matczyński 17:20 - 17:35
	Overview of DMCS Projects and MicroTCA.4 Developments Virtual Workshop via Zoom	Prof. Dariusz Makowski 17:35 - 17:50
	Status of MicroTCA.4 technology at Sirius Virtual Workshop via Zoom	Lucas Russo 17:50 - 18:05
18:00	Session 1: Q&A Session 1 Virtual Workshop via Zoom 18:15 - 19:15	Session 2: Q&A Session 2 Virtual Workshop via Zoom 18:15 - 19:15
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	Application of MTCA.4 with RF Backplane to LLRF and BPM Electronics at Spring-8 Virtual Workshop via Zoom	Hirotazu Maesaka 13:15 - 13:30	
	A LISA Phasemeter based on MicroTCA as ground-support equipment Virtual Workshop via Zoom	Prof. Oliver Gerberding 13:30 - 13:50	
	MicroTCA applications at the European XFEL Experiments - Experience and outlook Virtual Workshop via Zoom	Bruno Fernandes 13:50 - 14:05	
14:00	MicroTCA @ GSI Virtual Workshop via Zoom	Roné Gelller 14:05 - 14:20	
	Coffee Break 14:20 - 14:50	Exhibition 3 Virtual Workshop via Zoom 14:20 - 14:50	Tutorial 3 MicroTCA management Dariusz Makowski
15:00	Next Generation SoC-based AMC developments at DESY Virtual Workshop via Zoom	Simone Farina et al. 14:50 - 15:05	
	Basic-AMC - the low-cost MicroTCA.4 Compliant Module Virtual Workshop via Zoom	Prof. Dariusz Makowski 15:05 - 15:20	
	Multi-Channel Piezo Driver Boards Virtual Workshop via Zoom	Peter Jänker 15:20 - 15:35	
	MicroTCA Motion Controller Virtual Workshop via Zoom	Nikola Radakovic 15:35 - 15:50	
	Update on MicroTCA developments at Soleil Virtual Workshop via Zoom	Yves-Marie Ablven 15:50 - 16:05	
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	MicroTCA used in the Dark Matter experiment ALPS Virtual Workshop via Zoom	Sven Karstensen 17:10 - 17:25	
	New MTCA solutions for Quantum Technologies and Big Science Virtual Workshop via Zoom	Dr Grzegorz Kasprkiewicz 17:25 - 17:40	
	MicroTCA Control System for Neutral Atom Quantum Computing Virtual Workshop via Zoom	Robin Cox 17:40 - 17:55	
18:00	Session 4: Q&A Session 4 Virtual Workshop via Zoom 18:10 - 19:10	Session 5: Q&A Session 5 Virtual Workshop via Zoom 18:10 - 19:10	Session 6: Q&A Session 6 Virtual Workshop via Zoom 18:10 - 19:10

# Workshop program Tu / We/ Th

## Short lectures on MicroTCA basics

Break 1:

Break 2:



- To compensate for missing pre-workshop tutorials
- Consideration regarding significant numbers of newcomers

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	Exhibition 1 Virtual Workshop via Zoom 14:30 - 15:00	
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	MicroTCA.4 for the ESO Astronomical Detector Controller Virtual Workshop via Zoom	Abbas Khorrammanesh 16:45 - 17:05
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	Basic-AMC - the low-cost MicroTCA.4 Compliant Module Virtual Workshop via Zoom	Prof. Dariusz Makowski 15:05 - 15:20	
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# Industrial exhibitors...

## Exchange of information & close relationship

- Experience: VC are special difficult to get in contact to customers
- Short introduction → K. Rehlich
- Company presentation
- Product presentation (mainly Tu)
- Zoom Rooms to meet exhibitors

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# Workshop organized by

## Advisory committee:

Kay Rehlich (Chair)	DESY
Holger Schlarb (Chair)	DESY
Henrik Carling	ESS
Paul Chu	IHEP, China
Tobias Hoffmann	GSI
Thomas Holzapfel	powerBridge
Christian Ganninger	nVent - Schroff GmbH
Heiko Koerte	N.A.T.
Rong Liu	Beijing DAQ Technology Co. Ltd
Dariusz Makowski	Lodz University of Technology
Charles Roberts	ORNL
Ian Shearer	Vadatech
Fumihiko Tamura	J-PARC Center, Japan
Axel Winter	MPI Plasmaphysik
Z. R. Zhou	NSRL, USTC, China

## Local organization:

Hanna Kunze	DESY
Gohar Ayvazyan	DESY



Hanna Kunze

Valuable input for shaping the workshop!!!



# Community is steadily growing...

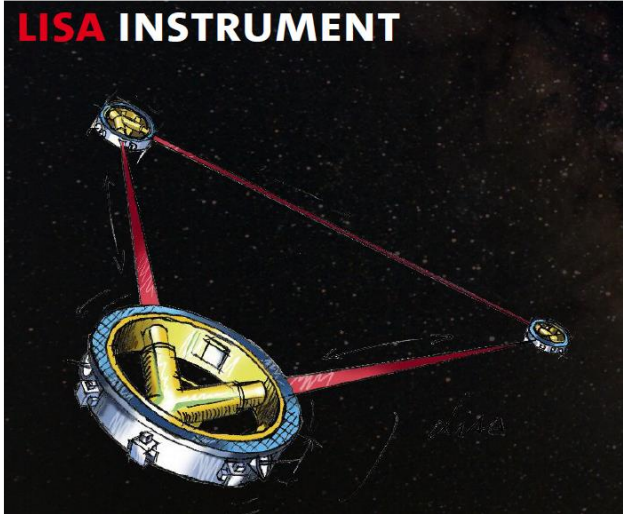
Happy to have this time contributions from:

## Astrophysics Observatories



@Leander Mehrgan (ESO)

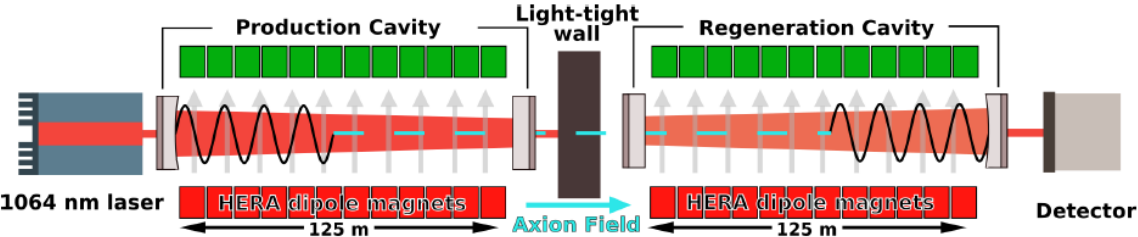
## Gravitational Wave Detection LISA INSTRUMENT



@Oliver Gerberding (UniHH)



## Particle Physics: Axion research



@Richard Smith (DESY)

## Quantum Computing

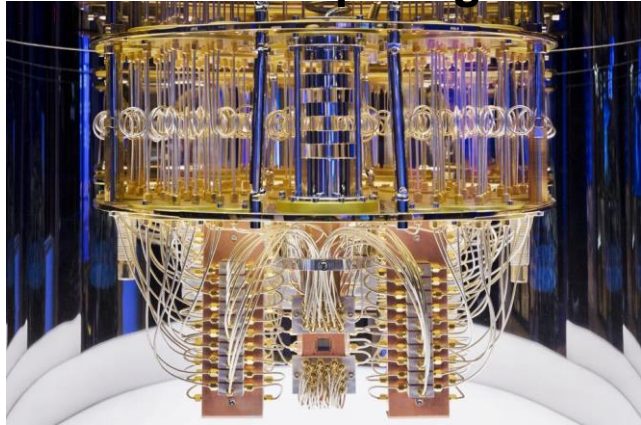
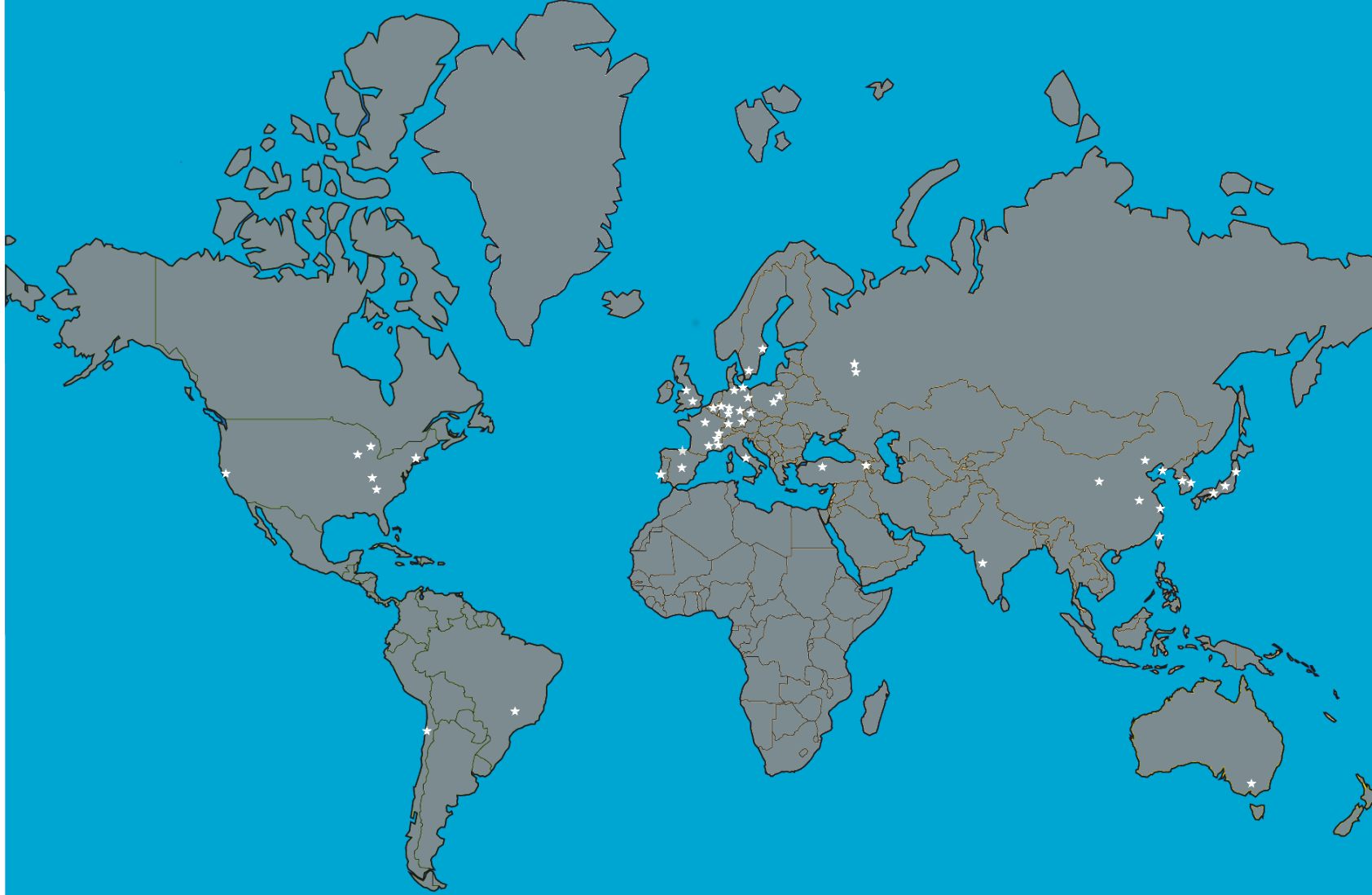


Image <https://www.forbes.com/>

# Stars on world map grow...

MicroTCA.4 users as we had contact... de facto new standard for large scale research facilities!!!



## Large growth potential

- Continents (Asia/Russia/...)
- Community wise

## Very unfortunate:

Regional MicroTCA WS  
planned for 2020

- @ China (USTC)
- @ Japan (KEK)



postponed to Q3/2021

## New PICMG WG active

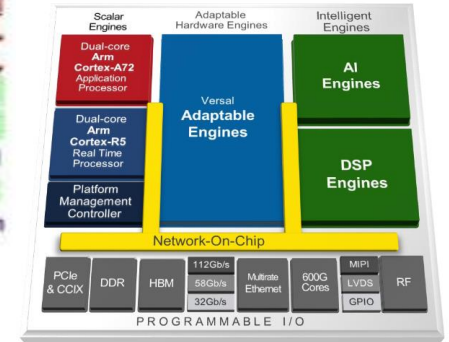
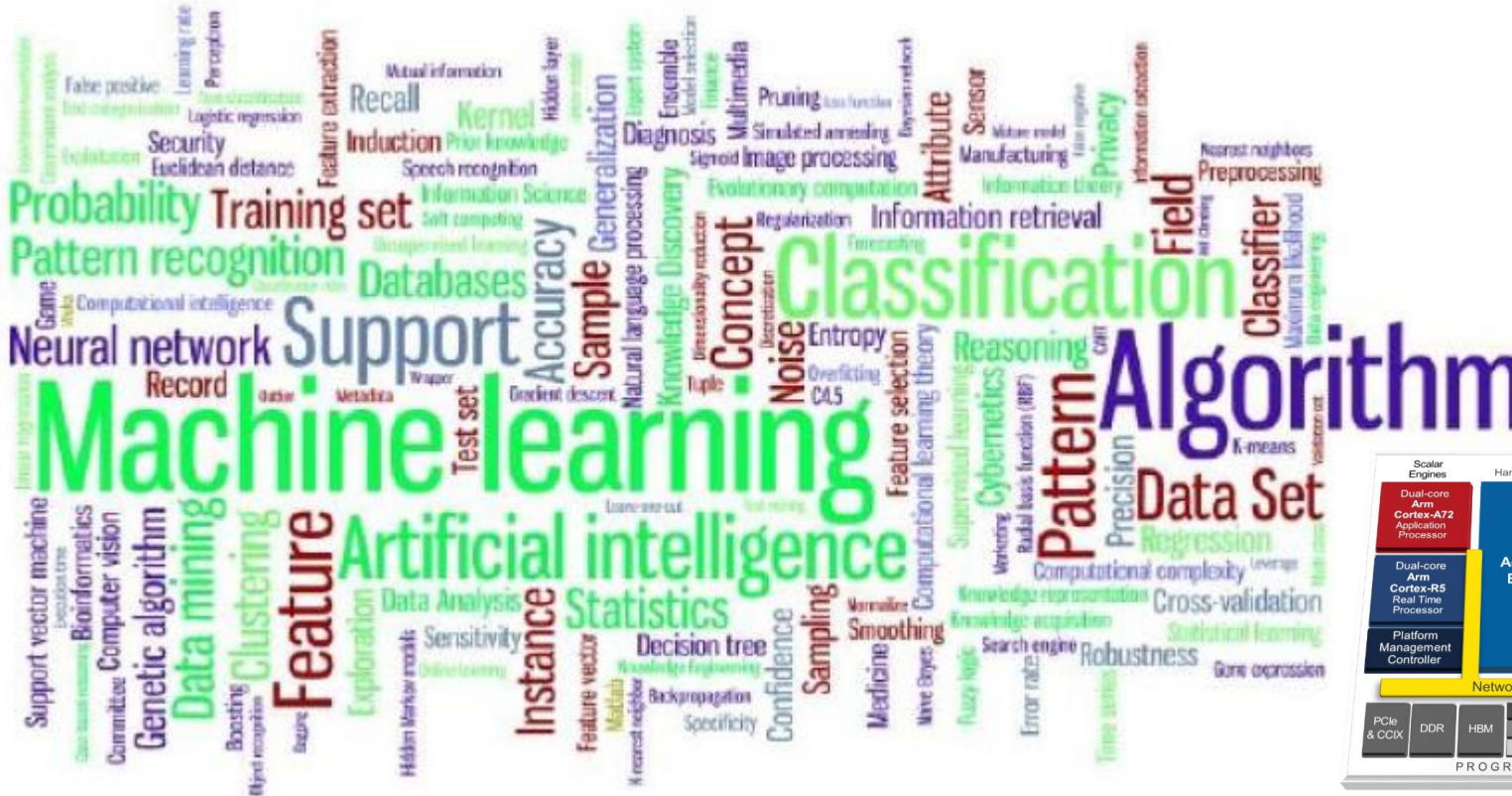
- MicroTCA next generation

# Close relationship...

of MicroTCA.4 to AI-technologies (data generation & processing & intelligent controls)

**BIG  
DATA**

**AI  
Eng.**



MicroTCA an enabler technology for the AI frontiers

➔ Plans for DigitalDESY given by Wim Leemans, M-Director

**Thank you!**

**Wish you an informative  
and pleasant  
9<sup>th</sup> MicroTCA Workshop!**

**Thank you for your attention!**

# Industrial exhibitors...

## Exchange of information & close relationship

- Individual ZOOM Links / Contacts / Opening ours

Home Registration Contributions Programme **Virtual Industrial Exhibition** Past Workshops

### Virtual Industrial Exhibition

Welcome to the virtual industrial exhibition stand!

The virtual exhibition will take place during the workshop from 1-3 December 2020 via ZOOM.  
Desy will provide every exhibitor with a link to their individual exhibition room.

### Exhibitors 2020

**BEVATECH** [Click here to enter the Booth >](#)

Opening hours of virtual booth:

Tuesday	Wednesday	Thursday
14:00-16:00	14:00-16:00	15:00-16:00

Contact person: [Dirk Strehl](#), [Holger Höltermann](#)

**CAENels** [Click here to enter the Booth >](#)

Opening hours of virtual booth: 13:00 - 18:00

Contact person: [Dr. Paolo Scarbolo](#)

**IOxOS TECHNOLOGIES** [Click here to enter the Booth >](#)

Opening hours of virtual booth: 14:00 to 17:30

Contact person: [Iván García](#)



[MicroTCA Technology Lab](#) [Click here to enter the Booth >](#)

Opening hours of virtual booth:

Tuesday	Wednesday	Thursday
14:30-15:00	11:00-12:00	11:00-12:00
16:15-16:45	14:20-14:50	14:15-14:45
18:00-19:00	16:05-16:35	16:00-16:30
	17:55-19:00	17:45-18:30

Contact person: [Sven Stubbe](#)



[N.A.T. GmbH](#) [Click here to enter the Booth >](#)

Opening hours of virtual booth:

Tuesday	Wednesday	Thursday
12:30-13:00	11:00-12:30	11:00-11:30
14:30-15:00	14:20-14:50	14:15-14:45
16:15-16:45	16:05-16:35	16:00-16:30

Contact person: [Heiko Körte](#)



[nVent](#) [Click here to enter the Booth >](#)

Opening hours of virtual booth:

Tuesday	Wednesday	Thursday
14:30-15:00	14:20-14:50	14:15-14:45
16:15-16:45	16:05-16:35	16:00-16:30

Contact person: [Jasmin Gölzenleuchter](#)



[powerBridge Computer](#) [Click here to enter the Booth >](#)

Opening hours of virtual booth: 15:00 - 17:00

Contact person: [Thomas Holzapfel](#)



[muTCA/ATCA product page \(struck.de\)](#)



[Teledyne SP Devices](#) [Click here to enter the Booth >](#)

Opening hours of virtual booth: 10:00-11:00

Contact person: [Kacper Matuszyński](#)