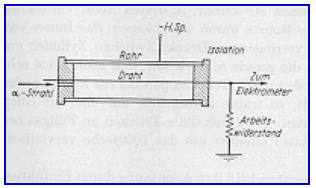
WP7 - Gaseous detectors

WP COORDINATORS:

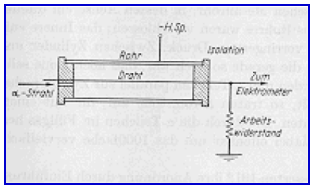
Silvia Dalla Torre, Burkhard Schmidt

OUTLOOOK



- **Task 7.1: Coordination and Communication** (S. Dalla Torre, BS)
- **Task 7.2: RPC sector** **3 tasks**
  - 7.2.1: Multi-gap RPCs (MRPCs) for fast timing (C. Williams)
  - 7.2.2: Shower development in SDHCAL (Mary-Cruz Fouz)
  - 7.2.3: Eco-friendly gas mixtures for RPCs (B. Mandelli, D. Piccolo)
- **Task 7.3: MPGD sector, Technology and engineering** **2 tasks**
  - 7.3.1: Development of resistive electrodes for MPGDs (P. Verwilligen)
  - 7.3.2: Industrial engineering of high-rate μ-RWELLs (G. Bencivenni)
- **Task 7.4: Large volume gaseous detectors** **2 tasks**
  - 7.4.1: A 4-channel electronic board for cluster counting (F. Grancagnolo)
  - 7.4.2: High pressure gas TPC for neutrino physics (A. Deisting) → (Xianguo Lu)
- **Task 7.5: PID sector** **1 task**
  - Photon detectors for hadron particle identification at high momenta (S. Dalla Torre)

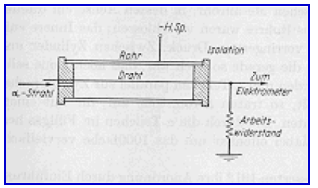
WP7, partners



		Beneficiaries							Associated Partners				
Tasks	7.1	CERN	INFN-Trieste										
	7.2.1	INFN-Bologna	LIP-Coimbra	Univerity of Clermont-Ferrand	PICOTECH SAS				Tsinghua University	Shenzhen Institute of Advanced Technology	Seoul National University Bundang Hospital	IRIS Co.	Benemérita Universidad Autónoma de Puebla
	7.2.2	CNRS - IP2I	CNRS - LPC	CNRS - OMEGA	CIEMAT								
	7.2.3	CERN-EPDT	INFN-Frascati	INFN-Roma2	INFN-Bologna	INFN-Bari	INFN-Torino	Ghent University					
	7.3.1	INFN-Pavia	INFN-Bari	INFN-Lecce									
	7.3.2	INFN-Frascati	INFN-Bologna	INFN-Ferrara	CERN	ELTOS							
	7.4.1	INFN-Lecce	CAEN										
	7.4.2	RHUL	UOXF	INFN-Bari	USC	CERN	CSIC-IFIC						
	7.5.1	INFN-Trieste	INFN-Bari	INFN-Bologna	Charles University				USTC	INCOM			

- Strong collaboration with industry (yellow boxes)
- Wide and solid links also outside Europe

Task 7.1 – Activity in the last year



Coordination activity during the 3rd year

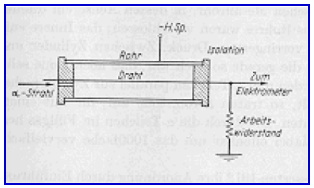
- **3 WP7 meetings: 7/7/23; 4/12/23; 19/3/24**
- **2 WP7 reports to the SC: #10 (12/7/23); #12 (7/12/23)**
- **"Help-line" always open**
  - ***So far, only used to postpone by 3 months Deliverable D7.3 and the related Milestone MS28: discussed and approved at the SC # 12***

- Deliverable D7.3: *Production with industry of small-size prototypes of μ-RWELLs,* due on M30, has been delayed to M33.
- Milestone MS28: *Build a 0.3×0.3 m2 prototype and the readout plane with the new structure,* is due in M36. Also this MS will be 3 month delayed to M39.

From WP7 report at Sc # 12

DELIVERABLES & MILESTONES

GAS DETECTORS



Tasks	Description	Year 1												Year 2												Year 3												Year 4													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
WP7: Gaseous detectors																																																			
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7.4	A 4-channel prototype electronic board for cluster counting and Hybrid readout high pressure gas TPC for neutrino physics																																				M											D M				
7.5	Photon detectors for hadron particle identification at high momenta																																												D						

Due now (M36):

- **Deliverable D7.2**
- **Milestone MS27**

For both, drafts provided to coordinators, being checked

AIDA innova

CHARACTERISATION OF SMALL SIZE MRPC PROTOTYPES FOR FAST TIMING AND HIGH RATES

Deliverable: D7.2

Date: Xx/03/2024

Grant Agreement No: 101004761

AIDAinnova

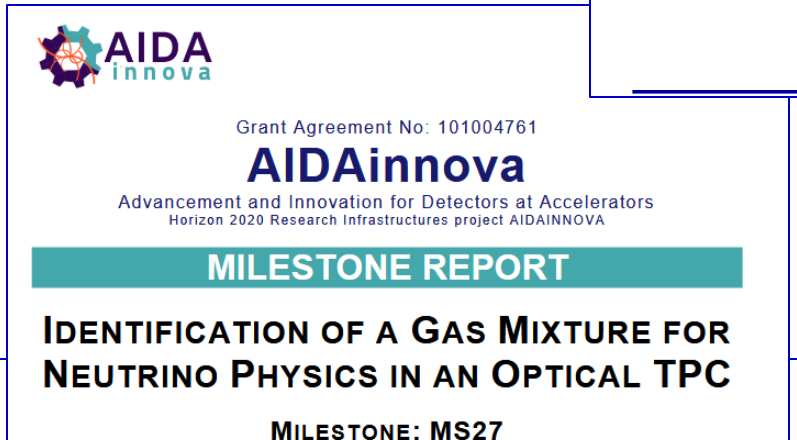
Advancement and Innovation for Detectors at Accelerators

Horizon 2020 Research Infrastructures project AIDAINNOVA

DELIVERABLE REPORT

CHARACTERISATION OF SMALL SIZE MRPC PROTOTYPES FOR FAST TIMING AND HIGH RATES

DELIVERABLE: D7.2



AIDA innova

Grant Agreement No: 101004761

AIDAinnova

Advancement and Innovation for Detectors at Accelerators

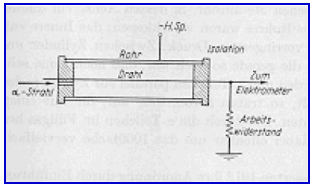
Horizon 2020 Research Infrastructures project AIDAINNOVA

MILESTONE REPORT

IDENTIFICATION OF A GAS MIXTURE FOR NEUTRINO PHYSICS IN AN OPTICAL TPC

MILESTONE: MS27

7.2.1 – MRPCs for fast timing



Today agenda:

The usual tour covering all task reporting on the whole last year activity (April 2023 -March 2024)

For each activity : 15’ + 5’ discussion