

PAUL SCHERRER INSTITUT



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WP3: Target Preparation for Improvement of Nuclear Data Measurements

SANDA Meeting 5.2.2024: Status Deliverables

Objectives and focus of WP3

Task 3.1: Intensification of the “producer – user – interaction”

Task coordinator: PSI, partners: JRC

Task 3.2: Fostering the network of target makers

Task coordinator: JRC, partners: PSI

Task 3.3: Target production

Task coordinator: JRC, partners: PSI

Task 3.4: Development of an isotope separator

Task coordinator: PSI, partners: UMAINZ, ILL

Partner number and short name	WP3 effort
13 - JRC	15.20
21 - PSI	27.00
28 - UMAINZ	24.00
Total	66.20

Deliverables and Milestones

Deliverable Number ¹⁴	Deliverable Title	Lead beneficiary	Type ¹⁵	Dissemination level ¹⁶	Due Date (in months) ¹⁷	
D3.1	Report on the meetings performed in the frame of (“Producer – user – interaction”)	21 - PSI	Report	Public	36	delivered Oct. 22
D3.2	Report on the meetings performed in the frame of “Network of target producers”	13 - JRC	Report	Public	42	delivered Jan. 24
D3.3	Report on produced targets	13 - JRC	Report	Public	30	delivered Oct. 22
D3.4	Documentation of the design of a mass separation tool for target preparation	28 - UMAINZ	Report	Public	48	delivered Sept. 23
D3.5	Documentation of the site specification for installation of a mass separator in the Hotlab of PSI	21 - PSI	Report	Public	36	24 months delay

Milestones:

MS27 Scheduling regular user – producer meetings	PSI	February 2020	delivered Oct. 22
MS28 Scheduling regular target - maker meetings	JRC	February 2020	delivered Oct. 22
MS29 Decision on targets to be manufactured	JRC	February 2021	delivered Oct. 22

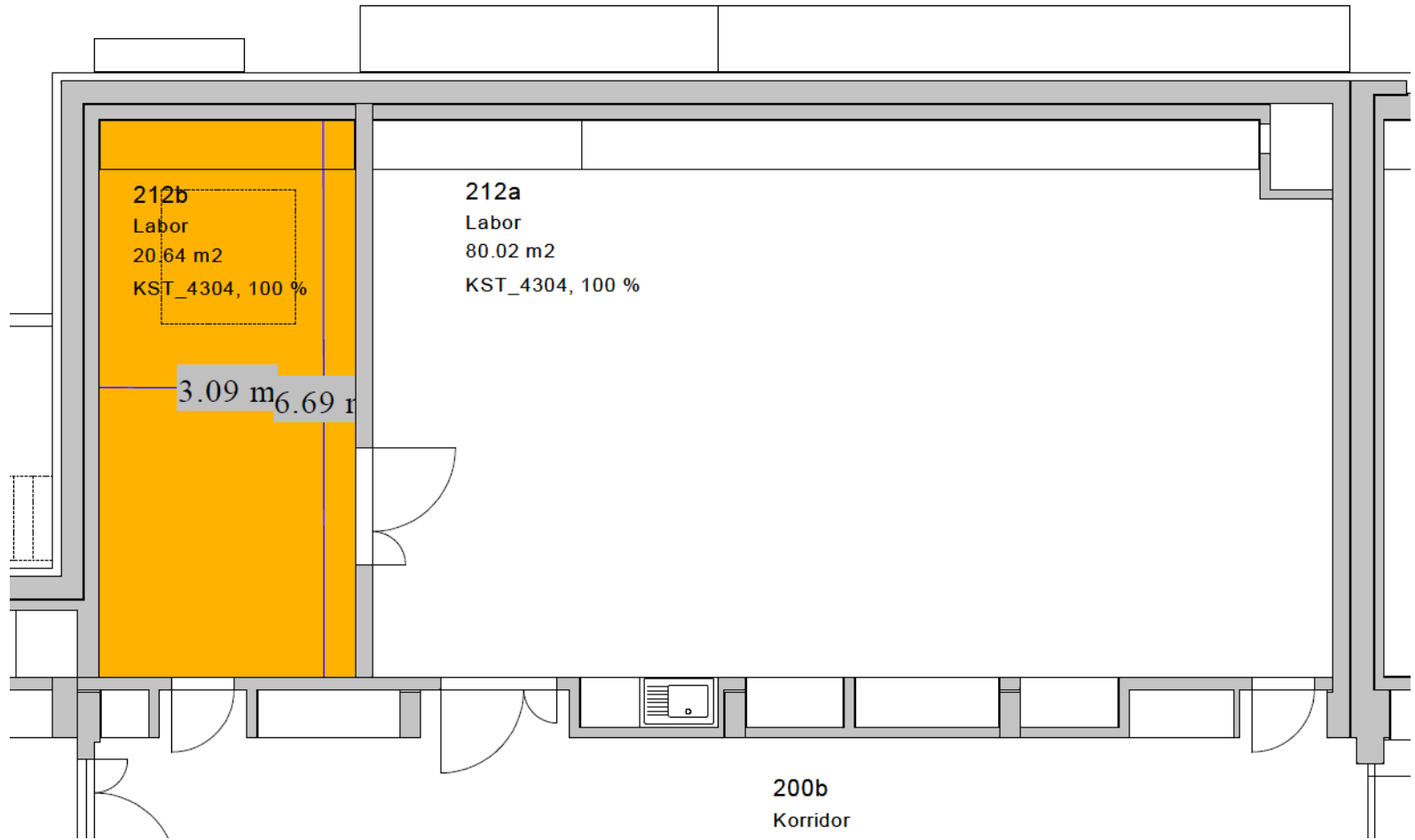
Task 3.4: Development of an isotope separator

Site preparation in Hotlab of PSI

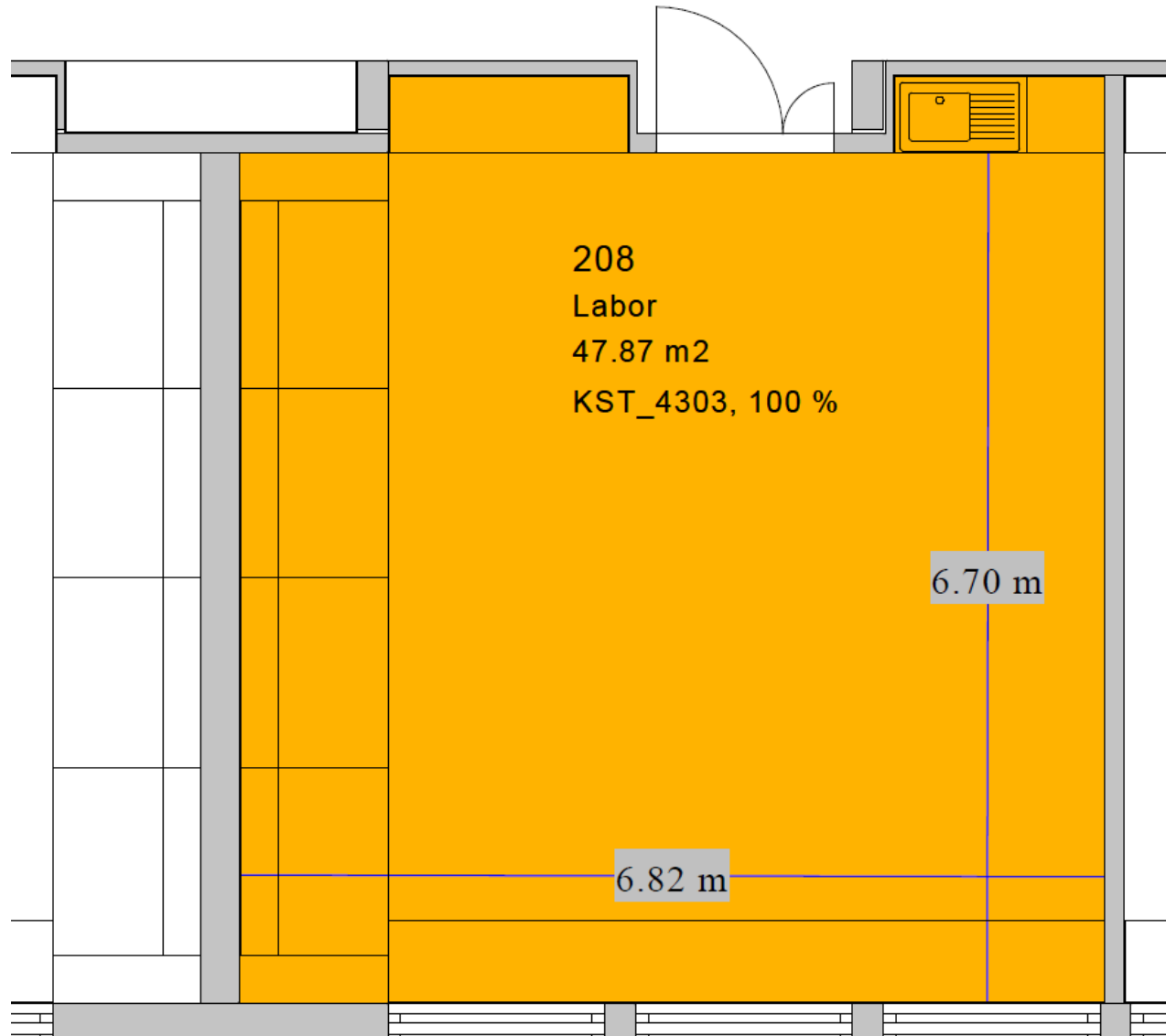
- 1 room for sample preparation and target production
 - Permission for working with α -emitters obtained, equipped with fumehoods, measurement technique, radiochemical devices etc. glovebox installation ongoing
- 1 + 1 side room for separation facility
 - Former Pu-zone, remainings from former users have to be measured for clearance, conditioned, and disposed of.
 - Problems with supply chains and waste disposal capacities
- Application for funding in APRENDE submitted
- Application for funding at SNSF due in May 2024

Design development of the machinery for specific applications (UMAINZ)

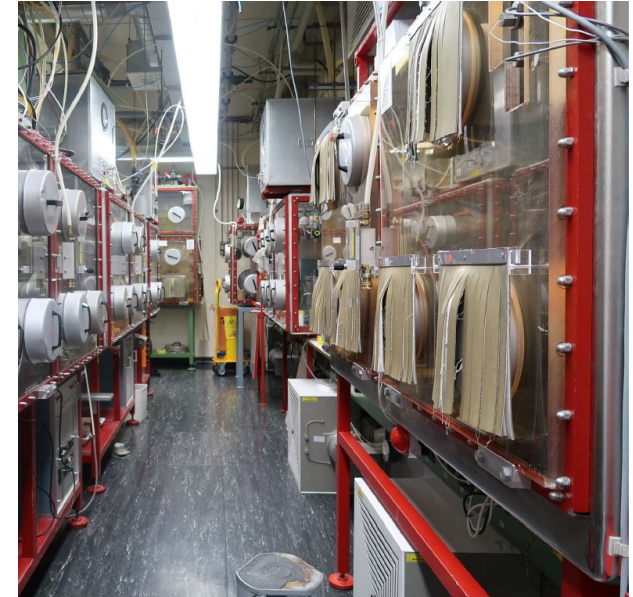
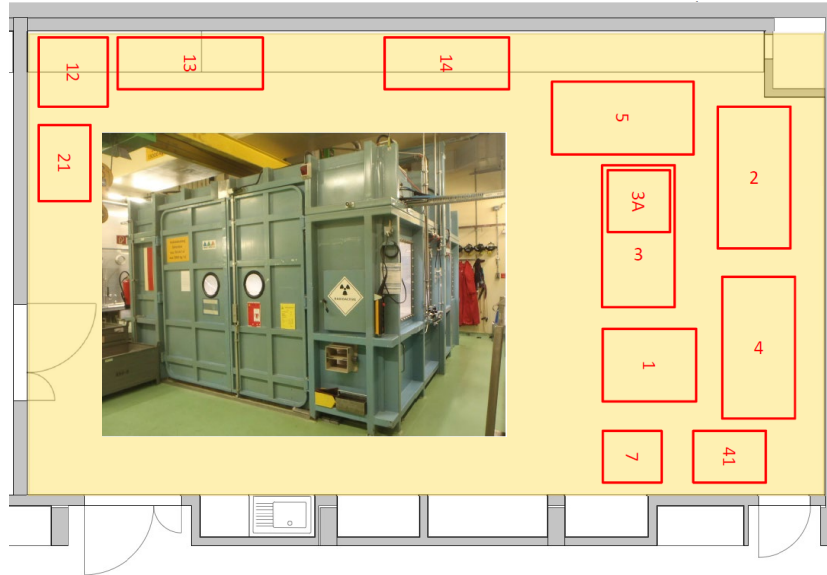
- Finished, report delivered in time







Site preparation for isotope separator



Nr.	Vorgangsname	Anfang	Ende	2020				2021				2022				2023				2024				2025				2026			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	Rückbau Pu-Zone	Mon 02.03.20	Mit 31.12.25	[Gantt bar spanning from Q1 2020 to Q4 2025]																											
2	Freigabeverfahren mit ENSI	Fre 01.05.20	Mon 21.02.22	[Gantt bar from Q2 2020 to Q2 2021]																											
3	Freigabeantrag H1 erstellen	Fre 01.05.20	Mon 31.05.21	[Gantt bar from Q2 2020 to Q2 2021]																											
4	Freigabe H1 erteilt	Mon 20.09.21	Mon 20.09.21	[Gantt bar from Q3 2021 to Q3 2021]																											
5	Freigabeantrag H2-3	Die 21.09.21	Mon 01.11.21	[Gantt bar from Q3 2021 to Q4 2021]																											
6	Freigabe H2-3 erteilt	Mon 21.02.22	Mon 21.02.22	[Gantt bar from Q1 2022 to Q1 2022]																											
7	Rückbau inaktive Gerätschaften	Mon 01.03.21	Mit 25.08.21	[Gantt bar from Q1 2021 to Q2 2021]																											
8	Vorbereiten der Boxen	Don 26.08.21	Mit 08.03.23	[Gantt bar from Q3 2021 to Q3 2023]																											
9	Beschaffung Dekont-Container	Mon 01.03.21	Fre 30.09.22	[Gantt bar from Q1 2021 to Q3 2022]																											
10	Evaluation	Mon 01.03.21	Fre 04.06.21	[Gantt bar from Q1 2021 to Q2 2021]																											
11	Beschaffung u. Installation	Die 22.02.22	Fre 30.09.22	[Gantt bar from Q1 2022 to Q3 2022]																											
12	Demontage der Handschuhboxen	Mon 03.10.22	Fre 24.11.23	[Gantt bar from Q4 2022 to Q1 2024]																											
13	Rückbau der Installationen	Mon 27.11.23	Die 28.05.24	[Gantt bar from Q4 2023 to Q2 2024]																											
14	Freimessen der Räume	Mit 29.05.24	Mon 26.08.24	[Gantt bar from Q3 2024 to Q3 2024]																											
15	Freigabe H4	Die 27.08.24	Mon 25.11.24	[Gantt bar from Q4 2024 to Q4 2024]																											

Summary and outlook

Task 3.1: Intensification of the “producer – user – interaction”

Task coordinator: PSI, partners: JRC

in time, 1 more workshop (online) envisaged for discussing results and learned lessons

Deliverable 3.1 and MS27 fulfilled

Task 3.2: Fostering the network of target makers

Task coordinator: JRC, partners: PSI

in time, next INTDS conference in 2024

Deliverable 3.2 fulfilled, MS28 fulfilled

Task 3.3: Target production

Task coordinator: JRC, partners: PSI

in time, a few more targets can eventually be made.

Deliverable 3.3. and MS27 fulfilled

Task 3.4: Development of an isotope separator

Task coordinator: PSI, partners: UMAINZ, ILL

design concept in time, site preparation delayed

Deliverable 3.4 fulfilled, Deliverable 3.5. expected till end of August 2024