



# ISOLDE report INTC 76



**ISOLDE**

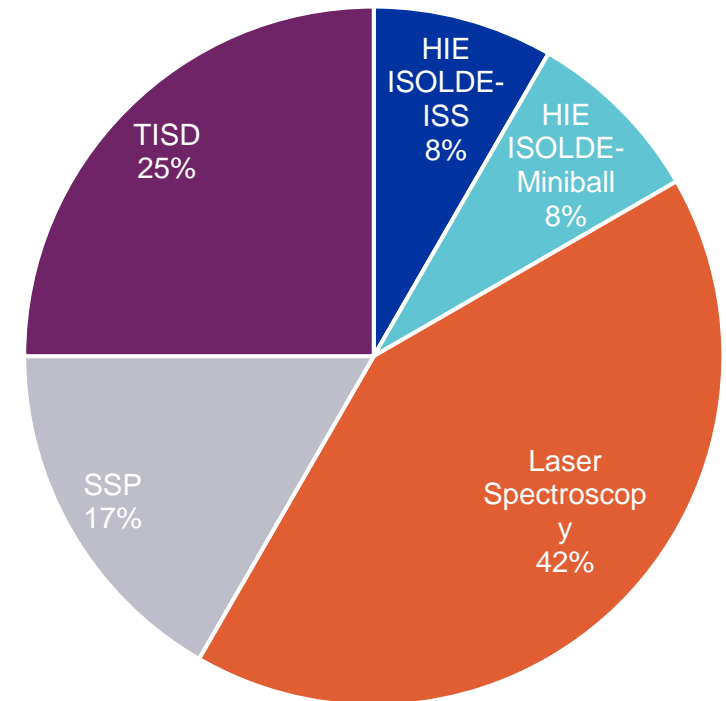
May 2024 - Hanne Heylen

# INTC 76 summary

<input type="checkbox"/> INTC documents	Requested shifts	Requested Protons	
<input type="checkbox"/> ISOLDE	<b>12</b>	<b>122</b>	<b>0</b>
Letter of Clarification	1	9	0
Letter of intent	4	19	0
Proposal	7	94	0
<input type="checkbox"/> nTOF	<b>6</b>	<b>0</b>	<b>2.55E+19</b>
Addendum	1	0	1E+19
Letter of intent	3	0	2E+18
Proposal	2	0	1.35E+19
<b>Grand Total</b>	<b>18</b>	<b>122</b>	<b>2.55E+19</b>

1 shifts = 8 hours; 1 day~ 1 x 10<sup>17</sup> protons

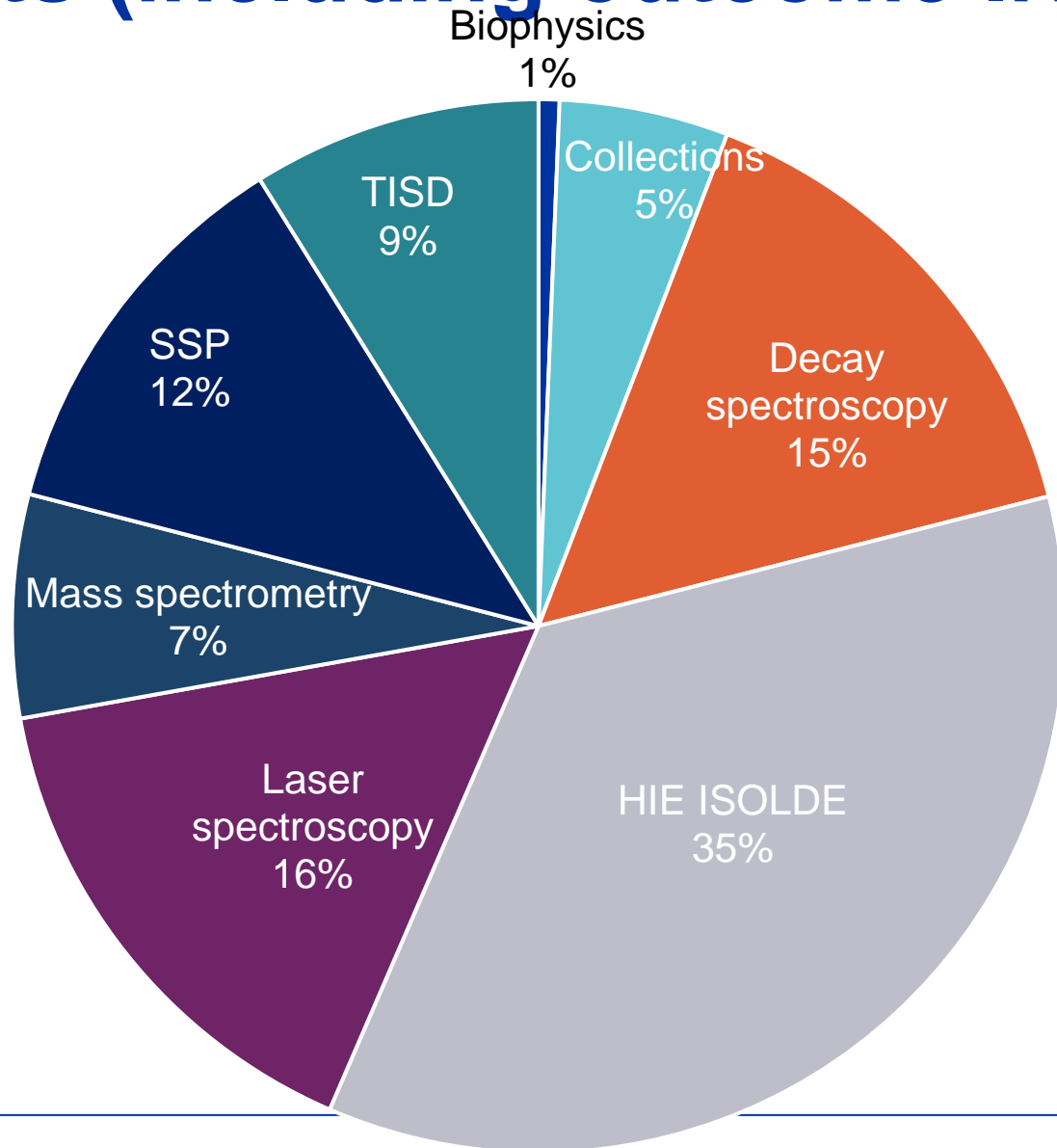
**ISOLDE**  
Distribution of documents per topic



# ISOLDE accepted shifts (including outcome INTC 75)

- Low energy experiments: ~1150 shifts
  - Counted shifts 2023: 370 shifts
- HIE-ISOLDE experiments: ~700 shifts
  - Counted shifts 2023: 125 shifts

Note: all experiments will be automatically closed at the end of run 3



# ISOLDE schedule 2024



Schedule 2024: weeks 14 - 35

Version: 06/05/2024 by Hanne Heylen

GPS Physics

HRS physics

Target change

		GPS																		
		April					May					June								
Week		14	15	16	17	18	19	20	21	22	23	24								
Mon	1		8	15	#831-Nb-MK4 (neg)	22	IS643 (cont.)	29	IS688 - 149Dy (nights) - GLM	6	13	IS668 - GLM+GHM	20	IS662 (cont.)	27	#857-UC-MK1(Ta)	3	IS659+IS668 (cont.)	10	Stable beam ASCII
Tue	2		9	#849-Ta-VD5	16		23	#853-Ta-MK1(Ta)	30						28		4		11	
Wed	3	#851-Pa-VD5	10		17		24		31	8	#727M-Pb-VD5	14		21		29		5	12	
Thur	4		11	TISD - Tb production	18	LOI259 - 70Br (neg)	25			9		16		23		30		6	13	Tech. stop (no p+) oil sampling
Fri	5	LOI258 - Pa	12		19		26			10		17		24		31		7	14	
Sat	6		13		20	IS643-Cl- Gandalf GLM	27			11		18	IS662 - 132,134In	25		1	IS659 - 9Li (IDS) + IS668 - 75Ga (GHM)	8	15	
Sun	7		14		21		28	IS688	5	12		19		26		2		9	16	111mCd - GLM
RILIS					Negative Cl	Negative Cl / Dy			Dy			In	In		Ga	Ga				

		June (cont.)					July					August								
Week		25	26	27	28	29	30	31	32	33	34	35								
Mon	17	111mCd - GLM, LOI248, LOI249, IS713, IS730, IS732, IS738	24	#820-La(lig)-MK1(Ta)	1	Target change	8	#835	15	22	IS702-134SnS (cont.)	29	5	IS742-132SnS (cont.)	12	Target change	19		26	IS675 - 61Zn (cont.)
Tue	18		25		2		9		16	23		30	6		13		20		27	Target change
Wed	19		26	IS721 - 135Cs coll. - GLM	3		10	IS725 - 226Ra coll. - GLM (no p+)	17	24		31	7		14	TISD - 9Li - tapestation	21	28		
Thur	20		27		4		11		18	25		1	8		15		22		29	
Fri	21		28		5	IS529-54Ca	12	Target change	19	26	Target change	2	9		16	Target change	23		30	
Sat	22		29		6		13		20	27	IS702-134SnS - Miniball	4	10		17		24		31	IS675 - 61Zn - ISS
Sun	23		30		7		14		21	28		3	11		18		25		32	IS646 - 79Zn
RILIS						Ca														Zn

		HRS																		
		April					May					June								
Week		14	15	16	17	18	19	20	21	22	23	24								
Mon	1		8	#835 UC MK1(Ta)	15	#821-UC-MK1(Ta)	22		29	6	13	IS678 (cont.)	20	27	TISD cont.	3		10	IS737 (cont.)	
Tue	2		9		16		23		30	K/In stable	7	14		21	#838-ZrO-MK1(Ta)	28	#859 - Nb foil + CF4	4	#858-UC-MK1(Ta)	11
Wed	3		10		17		24	IS733 - 49-51K	31	1	8		15	22		29		5	12	
Thur	4		11	TISD	18		25		2	#823-CaO-VD7	9	IS678 - 32Ar	16		23		30	TISD (incl. for IS694)	6	
Fri	5	#818-UC-MK1(Ta)	12		19		26		3		10		17		24		31		7	Stable beam CRIS
Sat	6		13		20		27		4		11		18		25	ZrO - TISD + LOI232	1	8	IS737 - 177-188Au	15
Sun	7		14		21		28		5		12		19		26		2	9	16	IS737 (cont.)
RILIS																Zn/Se	Zn/Se		Au	Au

		June (cont.)					July					August								
Week		25	26	27	28	29	30	31	32	33	34	35								
Mon	17	IS737 (cont.)	24	#776	1	Target change	8		15	IS686 - 108Sn (cont.)	22	29	IS745-96Cd	5	12	IS736-105-112Sb	19	26		
Tue	18		25		2		9		16		23	30		6	13		20	27		
Wed	19	IS726 - 206Au	26		3		10		17	Target change	24	31		7	14		21	28		
Thur	20		27	LOI270-34Mg- Isoltrap/tapestation/ IDS (days) + MIRACLS stable beam (nights)	4		11		18		25	1	Target change	8	15		22	29		
Fri	21		28		5		12		19		26	2		9	16		23	30		
Sat	22	Stable beam	29		6		13	IS686 - 108Sn - ISS	20	27		3		10	17		24	31		
Sun	23	MIRACLS	30		7		14		21	28		4		11	18		25	32	1	
RILIS																				

- Protons for physics to ISOLDE from 8 April – 25 November (4 weeks longer than originally foreseen 😊)

- Winter Physics (low E only) until 9 December (TBC)

- Separator course 10-11 December (TBC)

- Preliminary 2025 schedule: 25.03 - 17.11 (protons for physics)

- LS3 for ISOLDE: no physics for 2026 and 2027 (TBC)

# Feedback from first runs of 2024

## Scheduled shifts (cut-off Friday 17/05)

- INTC proposals and LOIs: 60 shifts, 6 runs
- TISD measurements: 15 shifts (no experiments wanted to run first 2 weeks ... )
- Stable beam to commissioning setup: CRIS, ECSLI (~9 shifts)
- Irradiation for winter physics targets: 10 shifts

## Highlights

- LOI258: first production of Pa beams at ISOLDE
- IS688: record activities during  $^{149}\text{Tb}$  collections for targeted alpha therapy sent to PSI
- IS733: Decay spectroscopy on neutron-rich K with spin-polarized beams, first physics data for DeVITO
- IS662: new set of neutron detectors at IDS work well (ongoing experiment)

# Safety

- Crane – Transport service (temporary measures)
- Safety files – EP safety
  - Plan inspections before run (if modifications are made to the regular setup)
- Procedures – EP safety
- Radioactive sources – Radioactive Source Management Service
  - Alpha sources
  - ( $\neq$  implanted samples)
- Training for newcomers to ISOLDE
  - Classroom training: RP and electrical safety
  - Book at least 14 days in advance
  - No ad-hoc training

