



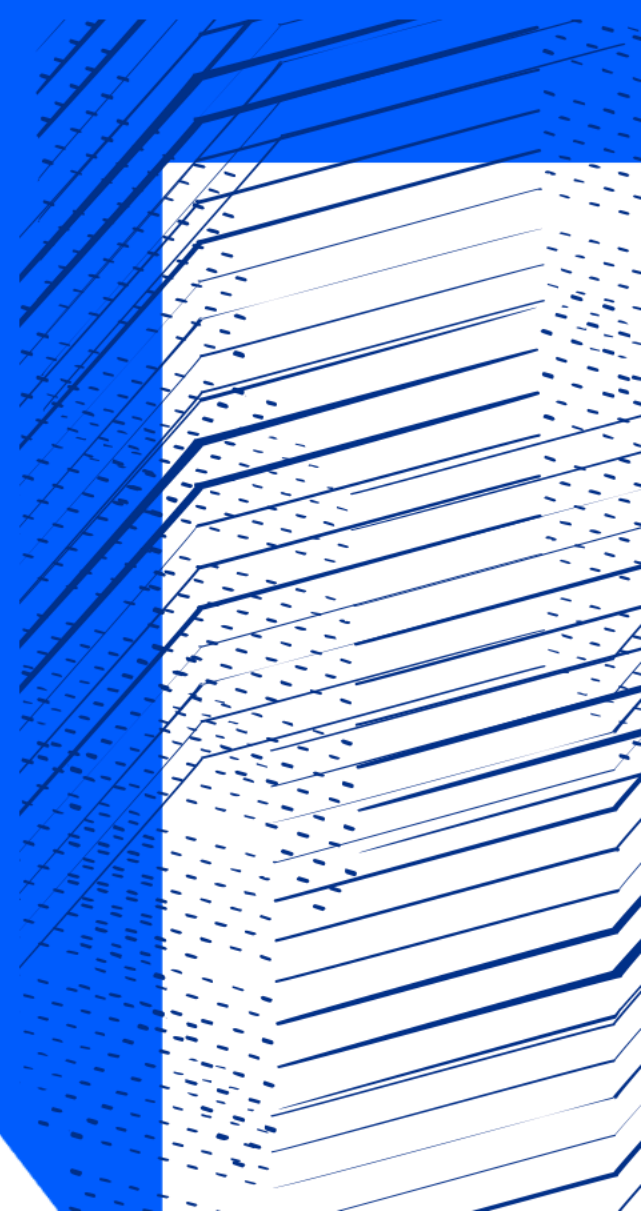
Science and
Technology
Facilities Council

ITRF Project

Project Management

ITRF Project Kick-Off meeting 20th September 2022

Neil Bliss



Content

1. Preparations for ITRF project start
2. Project Management Plan
3. Project Organisation Structure
4. Project Reporting
5. Project Schedules, milestones & Deliverables
6. Project Documentation & Storage
7. Device Naming Proposal



Preparations for ITRF Project Start

- Project funding – from UKRI Infrastructure Fund
- JeS form
- Project sits within ASTeC department within STFC
- Advisory Committee has been running for some time
- Project Board membership is being finalised and meetings should start soon
- Discussion with UKRI IF scheduled for 28th September to KO discussion project milestones, deliverables, risks, issue and metrics.

Project Management Plan

Document: 1272-pa1-pm-pmp-0001-v3.0-ITRF-2022-08-25

<https://stfc365.sharepoint.com/sites/ITRF>

1272-pa1-pm-ppl-0001-v2.0 - ITRF schedule 2022-07-20 - full detail
1272-pa1-pm-ppl-0004-v0.7 - ITRF CDR schedule 2022-09-20
1272-pa1-pm-ppl-0005-v0.4 - ITRF milestones and deliverables 2022-09-20

1272-pa1-pm-fin-0002-v5.1-ITRF resource-breakdown-2022-04-05

1272-pa1-pm-risk-0001-v0.3-ITRF-Risk

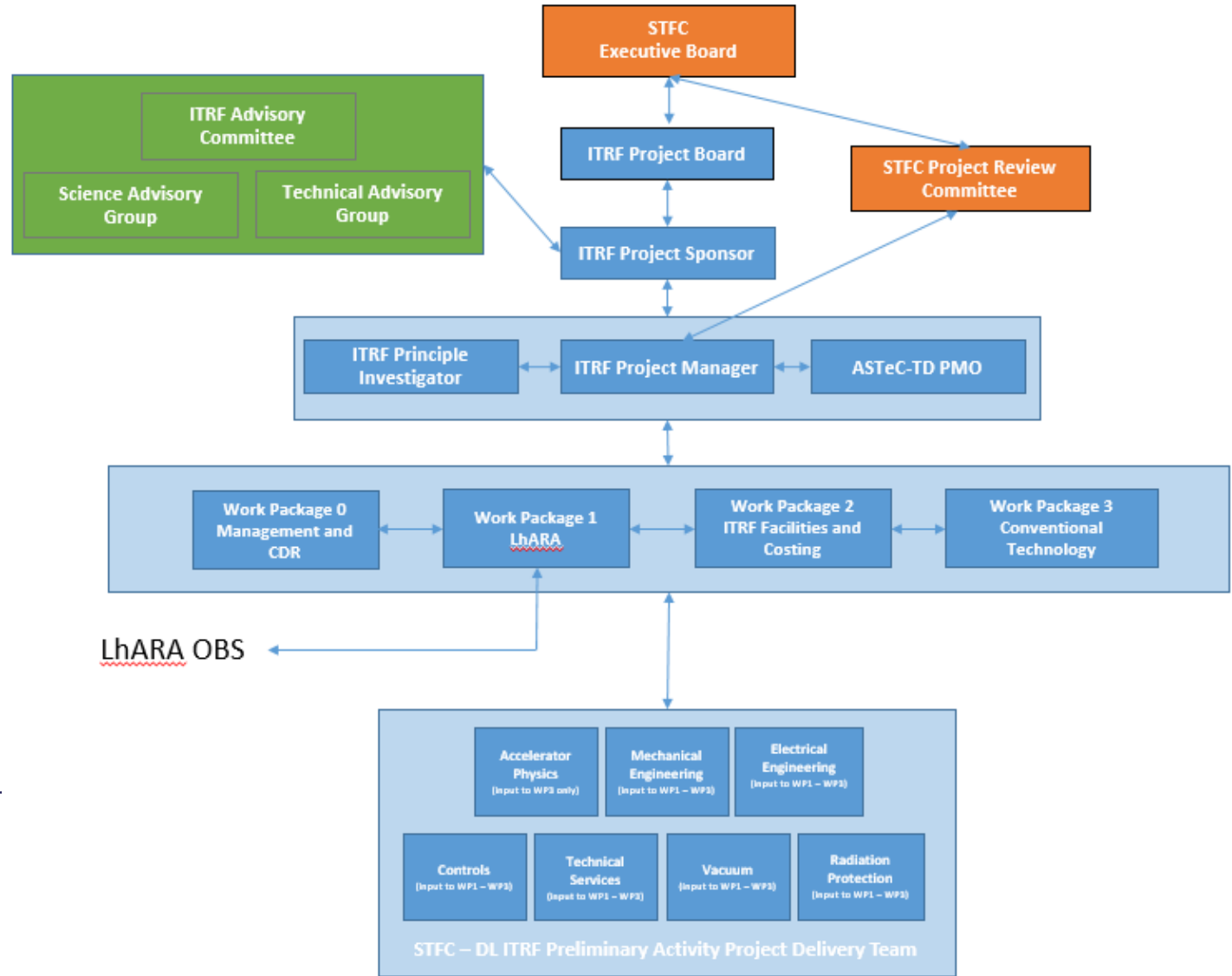
1. Project Description
2. Project Organisation
3. Objectives & Deliverables
4. Project Schedule
5. Finance
6. Resources
7. Procurement Plan
8. Risk Management
9. Stakeholder Communication
10. Monitoring & Reporting
11. Quality Plan
12. Benefits Realisation and Impact Plan
13. SHE Plan
14. Diversity Issues
15. History

Organisation Breakdown Structure & Governance

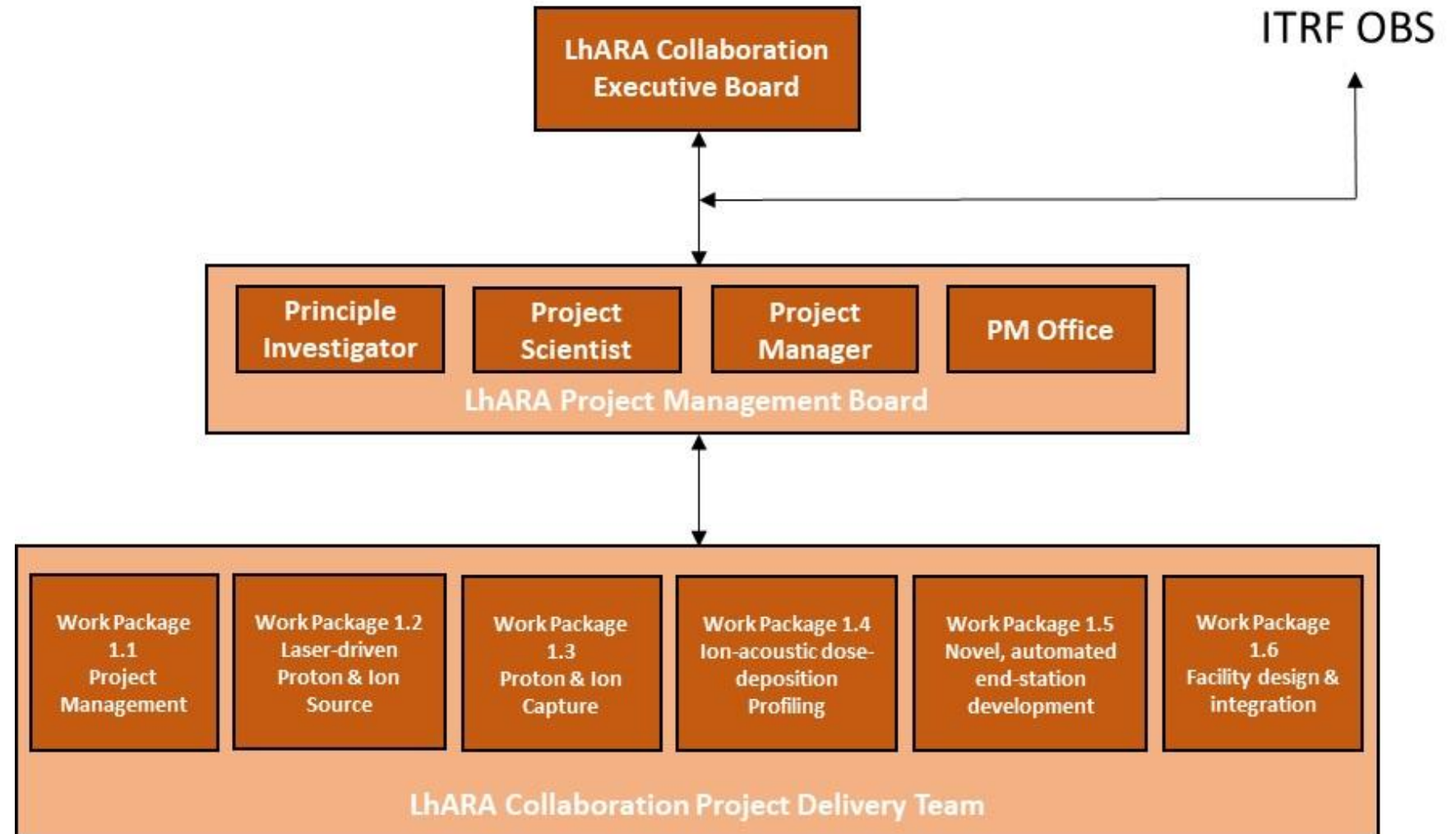
Project within STFC Department: ASTeC
 Project Sponsor: Massimo Noro, BID.
 Principle Investigator: Hywel Owen, ASTeC.
 Project Manager: Neil Bliss, TD. (Interim)
 Accelerator Physics: Mark Johnson, ASTeC.
 Vacuum: Andrew Vick, ASTeC.
 Controls: Graham Cox, TD.
 Electrical Engineering: Stephen Griffiths, TD.
 Mechanical Engineering: Clive Hill, TD.
 Technical Services: Rachel Buckley, ASTeC.
 Radiation Protection: Andy Goulden, ASTeC.

WP1 Manager: Colin Whyte, Strathclyde.
 WP2 Manager: Neil Bliss, TD. (Interim)
 WP3 Manager: Karen Kirkby, University of Manchester.
 and The Christie Hospital.

Project will provide monthly reports to:
 STFC Project Review Committee via ASTeC-TD Portfolio Mar
 and
 Report quarterly to UKRI Infrastructure Fund



Organisation Breakdown Structure & Governance



Project Reporting

Document: [1272-pa1-pm-rpt-0001-v3.0-project-reporting-schedule](https://stfc365.sharepoint.com/sites/ITRF)
<https://stfc365.sharepoint.com/sites/ITRF>

- ITRF project manager (PM) will report to STFC Project Review Committee (PRC) monthly for the duration of the project
- ITRF PM submits the monthly report via the ASTeC- TDL Portfolio Management Office
- Deadline for WP reports to ITRF PM is 5 working days after month end
- Deadline for PM to submit the ITRF report to the ASTeC-TDL PMO is 10 working days after month end
- PRC review is ~ 6 weeks after month end

Month	Deadline for WP report to ITRF PM	Deadline for project report to ASTeC-TD PMO	PRC review date
October 2022	7/11/2022	14/11/2022	7/12/2022

- The plan is that Colin sends one report for all the LhARA sub work packages WP1.1 – WP1.6 using a template that is consistent with the STFC project reporting template.

Project Reporting Template

Document: 1272-pa1-pm-temp-0001-v0.1-WP-Report-Template
<https://stfc365.sharepoint.com/sites/ITRF>

Project Name		Ion Therapy Research Facility			Financial Year		FY 2022 - 2023			
WP Name										
WP#	Work Package Manager						Report Date:		dd/mm/yy	
Project Start Date				Baseline Project End			Forecast Project End			
01/10/22				30/09/24			30/09/24			
Approved Project Budget (£)					Estimate At Completion (£)					
0.00					0.00					
Progress										
Progress to include tasks and milestones										
No.	Task / Milestone						Original target date to complete	Current target date to complete	% complete	
1							dd/mm/yy	dd/mm/yy	0%	
2							dd/mm/yy	dd/mm/yy	0%	
3							dd/mm/yy	dd/mm/yy	0%	
This Period Highlights										
Next Period Forecast Highlights										

Project Reporting Template

Document: 1272-pa1-pm-temp-0001-v0.1-WP-Report-Template

<https://stfc365.sharepoint.com/sites/ITRF>

Financial Summary - Total Project (£k)				Staff	Non-Staff	Total
Approved Total Funding				0.00	0.00	0.00
Budgeted Cost to Date				0.00	0.00	0.00
Actual Cost to Date				0.00	0.00	0.00
Estimate at Completion				0.00	0.00	0.00
Financial Summary - Current Financial Year (£k)				Staff	Non-Staff	Total
Approved FY Funding				0.00	0.00	0.00
Budgeted Cost to Date (FY)				0.00	0.00	0.00
Actual Cost to Date (FY)				0.00	0.00	0.00
Estimate at End of Financial Year				0.00	0.00	0.00
Estimate at Completion - Financial Year Distribution (£k)					Total	0.00
FY 1		FY 2				
0.00		0.00				
<p style="text-align: center;">Risks</p> <p style="text-align: center;">Are there any new risks ?</p>						
No.	Risk Description			Risk Mitigation		Score
<p style="text-align: center;">Issues</p> <p style="text-align: center;">Are there any new issues ?</p>						
No.	Issue Description			Issue impact and status		
<p style="text-align: center;">Work Package Manager Additional Comments</p>						

Project Schedules

Overall project

Documents: [1272-pa1-pm-ppl-0001-v2.0 - ITRF schedule 2022-07-20 – summary](#)
[1272-pa1-pm-ppl-0001-v2.0 - ITRF schedule 2022-07-20 - full detail](#)
<https://stfc365.sharepoint.com/sites/ITRF>

ID	Task WBS Mo	Task Name	Duration	Start	Finish	Predecessors	
0	0	ITRF schedule	2087 days	Mon 03/10/22	Tue 01/10/30		2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032
1	1	ITRF	2087 days	Mon 03/10/22	Tue 01/10/30		
2	1.1	Project Start	0 days	Mon 03/10/22	Mon 03/10/22		◆ 03/10
3	1.2	Conceptual Design Report (CDR) - 2 years	521 days	Mon 03/10/22	Mon 30/09/24		
15	1.3	Stage 1 Technical Design Report (TDR) - 1 year	261 days	Tue 01/10/24	Tue 30/09/25		
23	1.4	Stage 1 Procurement & testing	500 days	Thu 01/10/26	Wed 30/08/28		
28	1.5	Stage 2 Technical Design - 2 years	522 days	Wed 01/10/25	Thu 30/09/27		
39	1.6	STAGE 2 Procurement & Testing	991 days	Tue 01/10/24	Tue 18/07/28		
44	1.7	Building Specifiation & Architect Design	386 days	Tue 01/04/25	Tue 22/09/26		
47	1.8	Building Construction	391 days	Thu 01/10/26	Thu 30/03/28		
51	1.9	Radiation Shielding & Technical Services	250 days	Fri 31/03/28	Thu 15/03/29		
56	1.10	Equipment Installation in Building & Commissioning with Beams	553 days	Fri 18/08/28	Tue 01/10/30		
57	1.10.1	Stage 1 Equipment installation & testing in building	150 days	Fri 18/08/28	Thu 15/03/29	52,25	
58	1.10.2	Stage 1 Commissioning with Beams	143 days	Fri 16/03/29	Tue 02/10/29	57,25	
59	1.10.3	Start Research with Stage 1 - Low energy	0 days	Tue 02/10/29	Tue 02/10/29	58	◆ 02/10
60	1.10.4	Stage 2 Equipment Installation, PS system and Testing in building	250 days	Fri 16/03/29	Thu 28/02/30	55,43SS	
61	1.10.5	Stage 1 Commissioning with Beams complete	0 days	Tue 02/10/29	Tue 02/10/29	58	◆ 02/10
62	1.10.6	Construction Project complete, ready to start Stage 2 Commissioning with Beams	0 days	Thu 28/02/30	Thu 28/02/30	60	◆ 28/02
63	1.10.7	Stage 2 commissioning with beams	153 days	Fri 01/03/30	Tue 01/10/30	62	
64	1.10.8	Start Research with Stage 2 - Full energy	0 days	Tue 01/10/30	Tue 01/10/30	63	◆ 01/10

CDR Milestones & Deliverables

UKRI IF KO meeting 28th September

Documents: [1272-pa1-pm-ppl-0005-v0.4 - ITRF milestones and deliverables 2022-09-20](https://stfc365.sharepoint.com/sites/ITRF)
<https://stfc365.sharepoint.com/sites/ITRF>

Year 1

Document: 1272-pa1-pm-ppl-0005-v0.4 - ITRF milestones and deliverables 2022-09-20			
WBS	ITRF No.	High Level Milestones	Date
1		Project start	Mon 03/10/22
2.2.1		ITRF Team Kick-Off meeting at STFC Daresbury Laboratory	Tue 20/09/22
2.2.2		ITRF IF monitoring kick off meeting	Wed 28/09/22
		D1: Y1Q1 IF progress report	Thu 15/12/22
4.6.2	M1	LhARA lattice optimisation, aperture estimation, parameter list and schematic diagram update	Tue 31/01/23
2.2.6	M2	Refined scope, specifications, defined parameters and schematic diagram of facility equipment complete (6 month design review).	Thu 23/03/23
		D2: Y1Q2 IF progress report	Fri 31/03/23
	M3	Validate LhARA plasma simulations with existing Swansea experimental set-up (LhARA M3.1)	Mon 03/04/23
		D3: Y1Q3 IF progress report	Fri 30/06/23
2.2.8	M4	M4: ITRF Baseline designs complete (12 month design review).	Thu 21/09/23
		D4: Y1Q4 IF progress report	Fri 29/09/23

CDR Milestones & Deliverables continued – Year 2

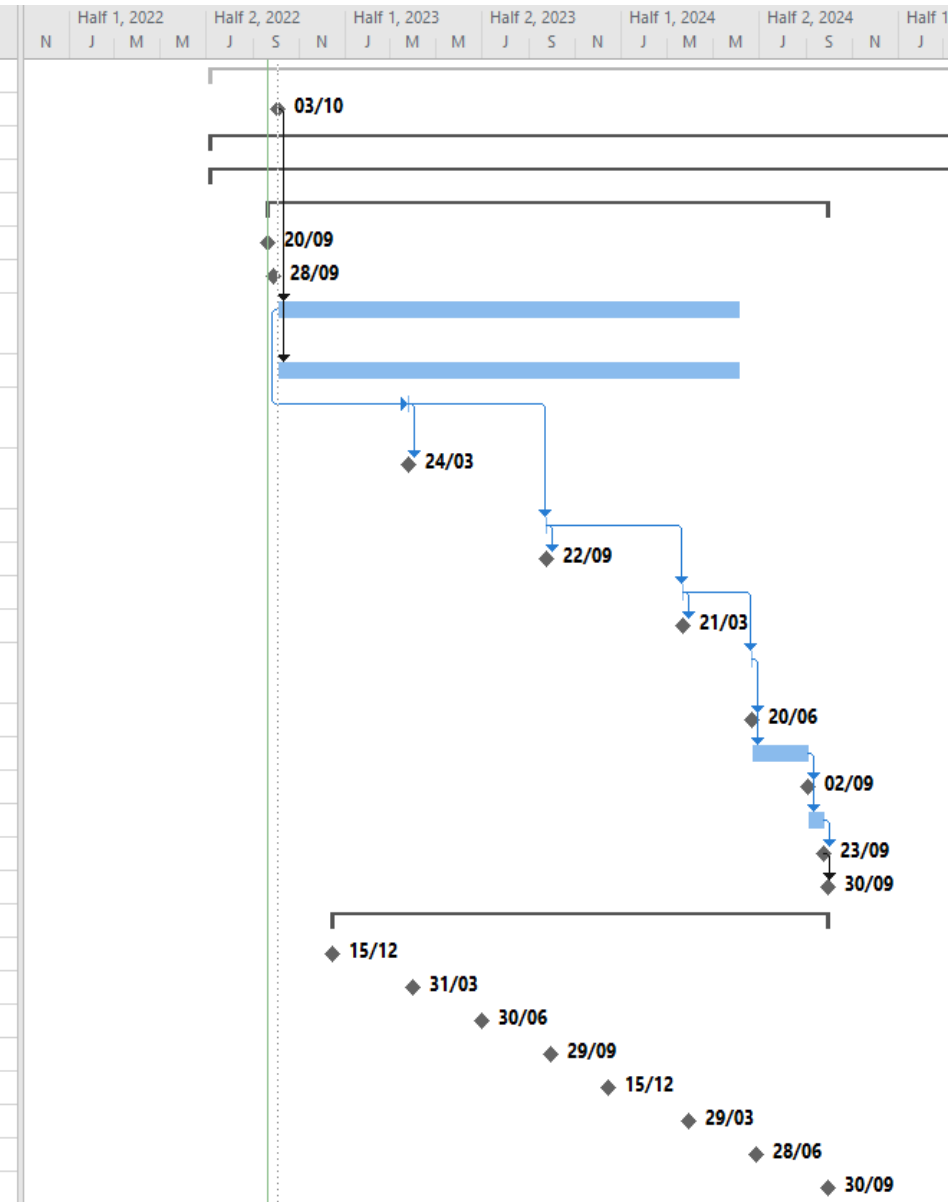
	M5	Prediction of optimised LhARA proton source parameters for 100+ TW laser systems based on hydrodynamic and kinetic simulations (LhARA M2.1)	Mon 02/10/23
		D5: Y2Q1 IF progress report	Fri 15/12/23
4.6.6	M6	Preliminary design of LhARA MA RF cavity, FFA magnet, diagnostic system, control & feedback systems complete.	Thu 28/03/24
5.2	M7	Preliminary design study of LhARA Building concept design, bulk shielding assessment, mechanical systems integration support concepts, vacuum concepts, power consumption & cooling requirements complete.	Thu 28/03/24
	M8	First LhARA ion source simulations and experiment on SCAPA completed (LhARA M2.2)	Mon 01/04/24
	M9	Progress report of LhARA large diameter plasma experiments and simulations (LhARA M3.2)	Mon 01/04/24
	M10	M4.1 Geant4 simulations of beam energy deposition profile (LhARA M4.1)	Mon 01/04/24
2.2.10	M11	Refined ITRF specifications & designs (18 month design review) .	Thu 21/03/24
		D6: Y2Q2 IF progress report	Fri 29/03/24
2.2.12	M12	Start ITRF CDR write up (21 month design meeting) .	Thu 20/06/24
		D7: Y2Q3 IF progress report	Fri 28/06/30
4.6.14	M13	Finalise Conceptual Design iterations (All LhARA WP6 systems) complete	Wed 24/07/24
	M14	LhARA Next generation plasma lens test bench design (LhARA M3.3)	Fri 30/08/24
	M15	LhARA Acoustic sensor array design complete (LhARA M4.2)	Fri 30/08/24
	M16	LhARA automated cell dish handling and environmental system design complete (LhARA M5.1), End-station user-community consultation complete (LhARA M5.2), End-station component testing at Birmingham complete (LhARA M5.3)	Fri 30/08/24
	M17	Specification of LhARA beam monitoring technology complete (LhARA M5.5)	Fri 30/08/24
	M18	LhARA kG,y/s tests at Birmingham complete (LhARA M5.7)	Fri 30/08/24
2.2.16	M19	ITRF CDR Publication	Mon 23/09/24
2.2.17	M20	ITRF CDR phase complete	Mon 30/09/24
		D8: Y2Q4 IF progress report	Mon 30/09/24

Project Schedules

CDR

Documents: [1272-pa1-pm-ppl-0004-v0.7 - ITRF CDR schedule 2022-09-20](https://stfc365.sharepoint.com/sites/ITRF)
<https://stfc365.sharepoint.com/sites/ITRF>

WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Names	Half 1, 2022		Half 2, 2022		Half 1, 2023			Half 2, 2023			Half 1, 2024			Half 2, 2024		
							N	J	M	M	J	S	N	J	M	M	J	S	N	J	M	M
0	ITRF CDR schedule	870 days	Mon 04/07/22	Mon 03/11/25																		
1	Project start	0 days	Mon 03/10/22	Mon 03/10/22																		
2	WP0 ITRF Management & Conceptual Design Review	870 days	Mon 04/07/22	Mon 03/11/25																		
2.1	UKRI Infrastructure Funding Waves	870 days	Mon 04/07/22	Mon 03/11/25																		
2.2	ITRF Conceptual Design Report (CDR) - 2 years	529 days	Tue 20/09/22	Mon 30/09/24																		
2.2.1	ITRF Team Kick-Off meeting at STFC Daresbury Laboratory	0 days	Tue 20/09/22	Tue 20/09/22																		
2.2.2	ITRF IF monitoring kick off meeting	0 days	Wed 28/09/22	Wed 28/09/22																		
2.2.3	Project Management Plan; scope, specifications, risk, finance, stakeholders, deliverables	437 days	Mon 03/10/22	Tue 04/06/24	1																	
2.2.4	Technical studies	437 days	Mon 03/10/22	Tue 04/06/24	1																	
2.2.5	Preliminary Conceptual Design Review (6 months) - refine scope, specifications, define parameters and schematic diagram of facility equipment.	2 days	Thu 23/03/23	Fri 24/03/23	18SS																	
2.2.6	M2: ITRF Refined scope, specifications, defined parameters and schematic diagram of facility equipment complete.	0 days	Fri 24/03/23	Fri 24/03/23	20																	
2.2.7	Interim Conceptual Design Review 1 (12 months) - specify baseline design	2 days	Thu 21/09/23	Fri 22/09/23	20																	
2.2.8	M4: ITRF Baseline designs complete	0 days	Fri 22/09/23	Fri 22/09/23	22																	
2.2.9	Interim Conceptual Design Review 2 (18 months) - refine specifications & designs	1 day	Thu 21/03/24	Thu 21/03/24	22																	
2.2.10	M15: Refined ITRF specifications & designs	0 days	Thu 21/03/24	Thu 21/03/24	24																	
2.2.11	Final Conceptual Design Meeting (21 months) - final specification & design ready for CDR write up	1 day	Thu 20/06/24	Thu 20/06/24	24																	
2.2.12	M16: Start ITRF CDR write up	0 days	Thu 20/06/24	Thu 20/06/24	26																	
2.2.13	CDR writing	52 days	Fri 21/06/24	Mon 02/09/24	26																	
2.2.14	Chapter authors complete CDR writing	0 days	Mon 02/09/24	Mon 02/09/24	28																	
2.2.15	Proof reading and final adjustments to CDR	15 days	Tue 03/09/24	Mon 23/09/24	28																	
2.2.16	M18: ITRF CDR Publication	0 days	Mon 23/09/24	Mon 23/09/24	30																	
2.2.17	M19: ITRF CDR phase complete	0 days	Mon 30/09/24	Mon 30/09/24	31																	
3	UKRI Infrastructure Fund (IF) Deliverables	467 days	Thu 15/12/22	Mon 30/09/24																		
3.1	D1: Y1Q1 IF progress report	0 days	Thu 15/12/22	Thu 15/12/22																		
3.2	D2: Y1Q2 IF progress report	0 days	Fri 31/03/23	Fri 31/03/23																		
3.3	D3: Y1Q3 IF progress report	0 days	Fri 30/06/23	Fri 30/06/23																		
3.4	D4: Y1Q4 IF progress report	0 days	Fri 29/09/23	Fri 29/09/23																		
3.5	D5: Y2Q1 IF progress report	0 days	Fri 15/12/23	Fri 15/12/23																		
3.6	D6: Y2Q2 IF progress report	0 days	Fri 29/03/24	Fri 29/03/24																		
3.7	D7: Y2Q3 IF progress report	0 days	Fri 28/06/24	Fri 28/06/24																		
3.8	D8: Y2Q4 IF progress report	0 days	Mon 30/09/24	Mon 30/09/24																		

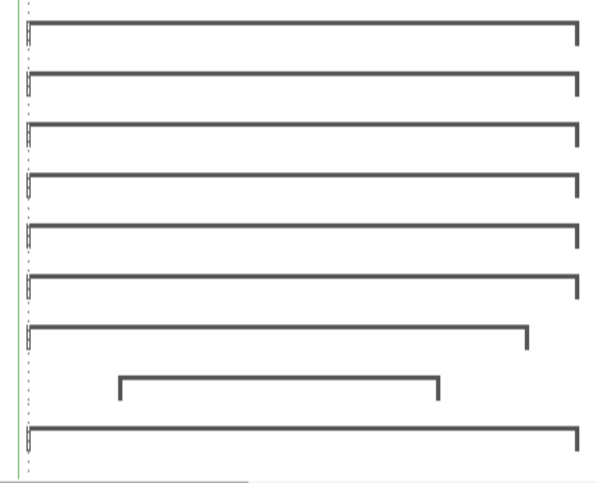


Project Schedules

CDR


Documents: [1272-pa1-pm-ppl-0004-v0.7 - ITRF CDR schedule 2022-09-20](https://stfc365.sharepoint.com/sites/ITRF)
<https://stfc365.sharepoint.com/sites/ITRF>

4	▸ WP1 LhARA	521 days	Mon 03/10/22	Mon 30/09/24		
4.1	▸ WP1.1 Project Management	521 days	Mon 03/10/22	Mon 30/09/24		
4.2	▸ WP1.2 Laser-Driven Proton & Ion Source	521 days	Mon 03/10/22	Mon 30/09/24		
4.3	▸ WP1.3 Proton & Ion Capture	521 days	Mon 03/10/22	Mon 30/09/24		
4.4	▸ WP1.4 Ion-acoustic dose - deposition profiling	521 days	Mon 03/10/22	Mon 30/09/24		
4.5	▸ WP1.5 Novel, automated end-station development	521 days	Mon 03/10/22	Mon 30/09/24		
4.6	▸ WP1.6 LhARA Facility design & Integration	473 days	Mon 03/10/22	Wed 24/07/24		
5	▸ WP2 ITRF Facilities & Costing	302 days	Wed 01/02/23	Thu 28/03/24		
6	▸ WP3 Conventional Technology	521 days	Mon 03/10/22	Mon 30/09/24		








Project Documentation & Storage

Documents: [1272-pa1-pm-rpt-0002-v1.0-ITRF-document-naming](https://stfc365.sharepoint.com/sites/ITRF)
<https://stfc365.sharepoint.com/sites/ITRF>






Documents 

Level 1 (Project)

 Name	Modified	Modified By	
 1272 ITRF	June 23	Owen, Hywel (STFC,DL,AS1)	
 CDR	June 20	Owen, Hywel (STFC,DL,AS1)	
 ccap.hep.ph.ic.ac.uk.url	June 20	Owen, Hywel (STFC,DL,AS1)	
 ITRF Indico.url	June 20	Owen, Hywel (STFC,DL,AS1)	











Documents > 1272 ITRF

Level 2 (Project stage)

 Name	Modified	Modified By
  pa1 - Preliminary Activity 1 (CDR)	Yesterday at 14:45	Bliss, Neil (STFC,DL,TECH)
  pa2 - Preliminary Activity 2 (TDR)	Yesterday at 14:44	Bliss, Neil (STFC,DL,TECH)

Level 3 (Work Package or Engineering Discipline)

Documents > 1272 ITRF > pa1 - Preliminary Activity 1 (CDR)

	Name	Modified	Modified By	
	ac - Advisory Committee	Yesterday at 14:43	Bliss, Neil (STFC,DL,TECH)	
	ctrl - Control Systems	Yesterday at 14:43	Bliss, Neil (STFC,DL,TECH)	
	eeng - Electrical Engineering	Yesterday at 14:43	Bliss, Neil (STFC,DL,TECH)	
	meng - Mechanical Engineering	Yesterday at 14:44	Bliss, Neil (STFC,DL,TECH)	
	pb - Project Board	Yesterday at 14:44	Bliss, Neil (STFC,DL,TECH)	
	pm - Project Management	Yesterday at 14:44	Bliss, Neil (STFC,DL,TECH)	
	tserve - Technical Services Engineering	Yesterday at 14:44	Bliss, Neil (STFC,DL,TECH)	
	wp1 - LhARA	Yesterday at 14:44	Bliss, Neil (STFC,DL,TECH)	
	wp2 - Facilities & Costing	Yesterday at 14:44	Bliss, Neil (STFC,DL,TECH)	
	wp3 - Conventional Technology	Yesterday at 14:44	Bliss, Neil (STFC,DL,TECH)	

Device Naming Proposal

Document: [1272-pa1-ctrl-rpt-0001-v0.3-LhARA-device-naming](https://stfc365.sharepoint.com/sites/ITRF)
<https://stfc365.sharepoint.com/sites/ITRF>

