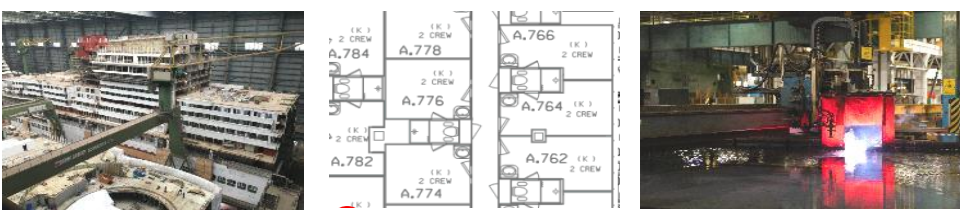


# Learning from Experience



**SEABOURN VENTURE – MAR172**



# CONTENT

- Introduction
- Approach
- Participation
- Knowledge Database
- LFE Context
- What went well
- What could have gone better
- Lessons
- Improvement Recommendations
- Actions Log
- Next Steps



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# Introduction

The purpose of the Learning from Experience (LFE) for ***Seabourn Venture (MAR172)*** is to capture the project's lessons learned in a repository document for use by other project managers on similar future projects.

This LFE document, along with presentation may be used as part of new project planning for similar projects in order to determine what problems occurred, how those problems were handled, and how similar issues may be avoided in the future.

Additionally, the document(s) detail what went well with the project and why, so that other projects may capitalize on these actions.

The document(s) may also be used to determine who the project team members were in order to solicit feedback for planning projects in the future.

The document(s) will be formally communicated within the organization and relevant stakeholders, and will become part of the organisational assets and archives.



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# Approach

The lessons learned from *Seabourn Venture (MAR172)* are compiled from feedback gathered from a survey after delivery, as well as from both realized and unrealized risks in the project risk register and through interviews with project team members and other stakeholder(s) as necessary.

The lessons learned from this project should be used as references for future projects, and should contain an adequate level of detail so that other project managers may have enough information on which to help base their project plans.

The lessons learned in this document are categorised by project phases & knowledge area. These phases are: Pre-Contract, Design, Construction, Commissioning, Delivery, Post Delivery & Warranty

The knowledge areas consist of: project management, risk management, quality management, communications management, planning / scheduling and governance (process & procedure)

*NOTE: Some knowledge areas may not contain lessons learned if none were documented throughout the project lifecycle.*



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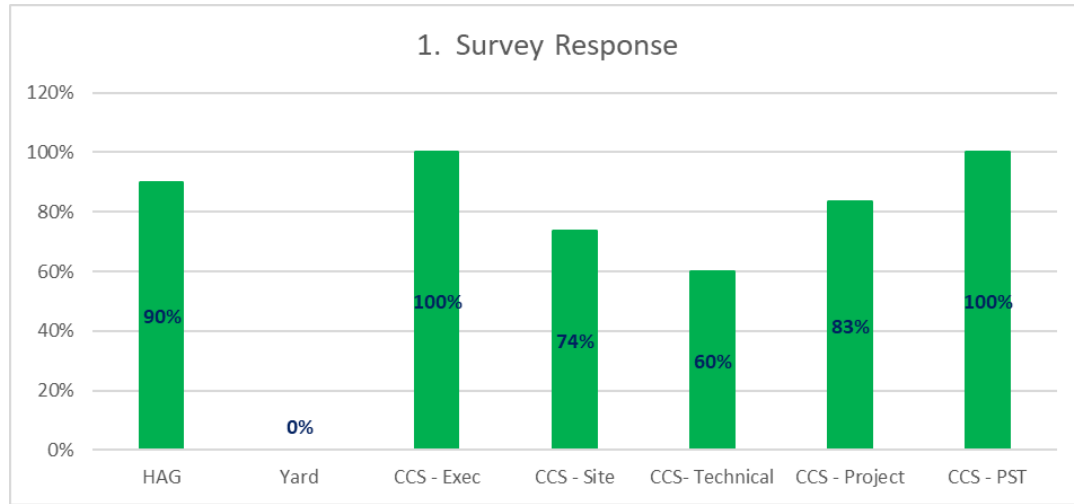
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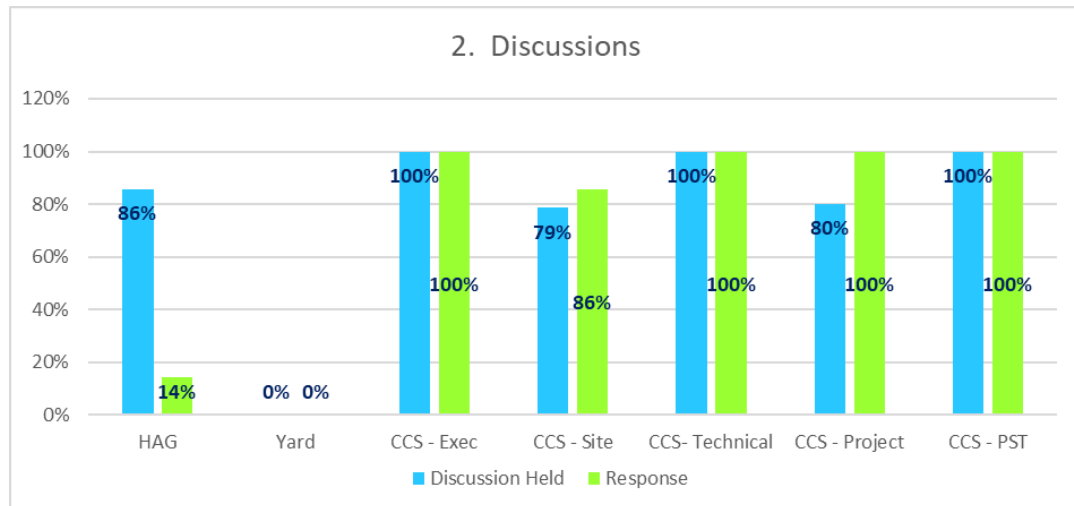
# Participation

SURVEY: The response rate from the initial survey form sent out was 73%



Team	Sent	Responded	%
HAG	10	9	90%
Yard	4	0	0%
CCS - Exec	4	4	100%
CCS - Site	19	14	74%
CCS - Technical	10	6	60%
CCS - Project	6	5	83%
CCS - PST	2	2	100%
	55	40	73%

DISCUSSIONS: Discussion / Workshops held rate was 80%



Team	Invited	Responded	Invite Response	Held	Discussion Held
HAG	7	6	86%	6	86%
Yard	4	0	0%	0	0%
CCS - Exec	3	3	100%	3	100%
CCS - Site	14	12	86%	11	79%
CCS - Technical	10	10	100%	10	100%
CCS - Project	5	5	100%	4	80%
CCS - PST	2	2	100%	2	100%
	45	38	84%	36	80%



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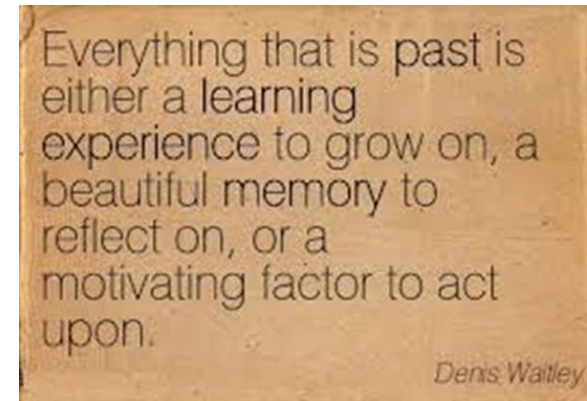
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# Knowledge Database

The LFE lessons for Seabourn Venture (MAR172) will be contained in the organizational lessons learned knowledge base maintained by the PMO.

This information will be catalogued in the Southampton drive under PMO\_Programme (portfolio) Management Office -> LFE -> MAR172 Seabourn Venture for future reference. This information will be valuable for any project manager assigned to a new ship build project in the future.

Link: [MAR172 Seabourn Venture](#)



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## LFE Context

Seabourn Venture is a prototype vessel – meaning that she is the first of a new type ship to be built.

This was a project that required more attention and availability than usual, a real challenge!

We faced the challenges of working with a small shipyard that ultimately lacked the expected standard of capabilities and organisation, ranging from Planning / Scheduling to Managing of activities to insufficient resources to fulfil key roles - for example:

- Little to no project / document control system and practises
- No commissioning manager to coordinate activities
- Delayed ship delivery (many times)

Resource constraints were not only relegated to the shipyard, due to involvement in other projects Marine Engineering and the CCS PM team also dealt with this adversity

In the long run, this was a test of everyone's mettle – a chance to prove that we can work as a united team and under extremely agile conditions (where some process control had to be re-defined and adapted to an unusual builder) in the aim of completing and delivering a beautiful ship



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# Summary of LFE Lessons

The Seabourn Venture LFE process identified a number of lessons, a summary of which has been included within this deck.

Below are the material lessons that PMO would consider be cascaded to all delivery teams, due to their being less Yard/build specific, with the supporting deck for further reference:

LESSON	CONSIDERATION
Quality of Inputs to and Outputs from Plan Approval need to be improved	Create / Improve Quality Control process for Project Development and Plan Approval that details the minimum standard of quality expected for any documents being approval at Plan Approval
Open communication and collaboration across all teams	When communicating with the yard, the project needs to ensure there is a single point of contact to communicate decisions/instructions to avoid confusion/cause conflict with yard.
Remove ambiguity of ownership of Test Memo's	To review the current process and address any concerns before re-launching in a structured way to ensure understanding across the business
Understanding of expectations around contractual obligations	To check shipyards understanding of their contractual obligations to ensure alignment and avoid under/over estimation of expectations



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*WHAT WENT WELL....*



## Collaboration / Relationships

- The general relationship between Site and Brand worked very well.
- Maintaining a good relationship with Mariotti and our site team in difficult circumstances.
- Collaboration with the site team and being agile in reacting to challenges from the ship yard.
- Collaboration between the CCS teams (Project, Technical and Site) with the Seabourn site teams was seen to be very good towards the end of the project (~ 2 months from delivery)

## Plan Approval – Drawing Approvals / Test Memo's

- CCS and Project Support Team (PST) managed all the challenges that the Yard brought very well.
- There was great collaboration between PST and PM, trying to understand the needs of PST and the yard.
- Open communication with the yard and PST to resolve issues and finding suitable solutions.

## Project Management / Management

- Good involvement of the PM as Technical Coordinator aiming at managing interfaces (noting that clarity on roles and responsibilities need to be clearer)
- Open and transparent communications within the Project management team (SBN, CCS, TM) during the whole project.
- Project department were very active and supportive.
- CCS Resource utilised as Yard Commissioning Co-ordinator

## Other

- Having a snr Engineer that has worked with Yard previously was advantageous as they knew how the yard work and were able to cultivate a better working relationship between site & Yard (Outfitting)



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*WHAT COULD'VE GONE BETTER....*



## Collaboration / Relationships

- Relationships with Brand Management was challenging
- Subject Matter Expert (SME) specialist support was not readily available until the request was made at VP level
- Yard underestimated the challenge of the project however our organisation did fail to support, collaborate, improve the overall direction with a complete passive approach.

## Project Management / Management

- Management of crisis: Despite the warnings no changes were applied. Passive approach left us being reactive / treating as emergency response vs being proactive / putting a proper strategy in place. Decisions when taken were late and not discussed among the organisation.
- Organisation Strategy: This was not properly identified, specifically key roles (Building manager, Commissioning Manager, Special Roles created ad hoc) and with interaction with Operator. On such critical project is mandatory to have clear roles and clear hierarchy of decision makers.
- Inspection process was not tracked in accordance with the CCS 2021 procedures, resulting in activities not being track & reported on correctly

## Plan Approval – Drawing Approvals / Test Memo's

- Plan approval from initial draw list to detailed content, mistakes from suppliers, unreviewed details and missing alignment to Ship's tech spec. and contractual requirements.
- Test Memo approval process difficult for missing doc. from plan approval, wrong supplier's details and Yard's way of working. No clear owner (CCS) at start of process and then there seemed to be a passage of ownership from technical to commissioning but this was not clearly explained

## Other

- Frequent changes were made to the original design by Brand and HAG, which impacted on communication flow and plan approval
- Gathering of weight data for Owner Supply from Seabourn should be further impressed at an early stage with those in the brand responsible for purchasing to gather data at that time
- Strategic Sourcing: Owner Supply process was not great from our perspective. Earlier involvement in Maker Selection. Probably not developed enough as a Sourcing function to assist as much as we would have liked.



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## Communication

- Communication with Yard was a key issue. Communication with Operator was not ideal in the Site with continuous dispute and disagreements over the project management.
- Communication between Site and Southampton was sometimes not ideal and blame culture initiatives usually undermined the collaboration purpose.
- Communication within CCS was not ideal even for specific critical decision (new roles identified, yard delay, new dates of delivery, postponed sea trials)

## Resourcing

- Suppliers used by Yard as technical office/foreman
- Sub-contractors did not seem to have a foreman monitoring their work
- No PE so PM was left without that dedicated project support and was left having to manage reporting, risks etc. on his own.
- Yard personnel were oversubscribed with responsibilities - sometimes being the single point of contact for multiple CCS disciplines

## Yard

- Mariotti is a family business and needed to be approached differently compared to Fincantieri - more of a collaboration, less of a yard/ owner relationship. Not all parts of CCS seem to approach the relationship with this unique yard in the right way.
- Better focus on protection in the outfitting areas, as a lot of time and money was wasted replacing damaged panels etc.
- Shipyard are unable to plan and schedule to the level of detail that we expected
- Lack of Yard database for remarks management; missing remarks' official traceability/follow up
- The shipyard does not have a good skill in construction management.
- Lack of a correct planning of the activities by the shipyard, Setting realistic dates for tests, trials & delivery
- The yard needed more managers to effectively control the subcontractors.
- There was a lack of control, coordination & management of the build by the Mariotti, which resulted in extensive and rolling delays to the project.



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*LFE LESSONS*



LFE ID NO.	LESSON	SUMMARY	IMPACT
MAR172-LFE001	Work with the Shipyard to improve their capabilities & relationship mgmt to de-risk delivery	Shipyard struggled to: Maintain sufficient resources to manage / lead main activities Produce plan/schedule for main activities Maintain updates on the plan(s)/schedule(s) Follow inspection map & agreed call sequence not followed	Resulted in extensive & rolling delays to the project
MAR172-LFE002	CCS Resource utilised as Yard Commissioning Co-ordinator	A dedicated CCS resource was appointed for the last 2 months before the delivery to carry out the following: Attend Yard coordination meeting Identify priority in commissioning activity and steer the Yard/sub supplier Give visibility of the short-term schedule of the commissioning activity Report progress vs schedule of the commissioning activity	Able to alleviate the burden of not having a Commissioning Manager from the shipyard.  This had a positive effect, as this person was able to drive the shipyard and their contractors in scheduling their activities and reporting back on their progress each day.
MAR172-LFE003	Quality of the Inputs to & Outputs from Plan Approval need to be improved	Poor initial drawing list; missing details from plan approval process, wrong drawings, missing technical details / unspotted deviations from contractual requirements Documentation was missing or never made available. Important items were missed in all disciplines Drawing numbers for the build were a bit all over the place. No consistency in these that are received from Mariotti. Lack of resources & time / bandwidth to approve	The overall quality of the plan approval process resulted in approved drawings being sent out lacking sufficient detail, not aligned to spec  Shortened work week / hours over the pandemic caused less time to review / approve documents, resulting in lower standard of quality documents being approved
MAR172-LFE004	Managing and resolving deviations to contractual obligations	Due to the limited resources in the shipyard, there were a number of perceived contractual obligations that were not met – i.e.: Role of Commissioning Manager, Team lead(s) for supervision of sub-contractors.	A dedicated CCS resource was appointed for the last 2 months of the project to fulfil a role that yard was meant to undertake
MAR172-LFE005	Understanding the expectations of contractual obligations	During the project there were a few instances where actions / resources / roles / etc. were deemed to be the shipyards responsibility / contractual obligation	Due to the limited capabilities of the shipyard, it is alleged that their expected contractual obligations were not met, resulting in lack of resources, planning, coordination, etc. ultimately leading to the delay in delivery of the ship



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LFE ID NO.	LESSON	SUMMARY	IMPACT
MAR172-LFE006	Support CCS Project Management to be proactive, coordinating with all Stakeholders, managing interfaces and keeping good records	PM coordinated with the various stakeholders, pushing for resolutions/answers. Good involvement of the PM as Technical Coordinator aiming at managing interfaces Excellent at choosing which items to escalate and working well with the technical team.	Engaged well with the different persons who entered the project at different times and managed to keep things moving whilst maintaining very good records of the actions and agreements.
MAR172-LFE007	Adapting Ways of Working (WoW) to suit project and shipyard	Mariotti is very different to the other yards that we engage with in that it is a family-owned business and not corporate	Some relationships soured due to the inability/resistance to adapt WoW to suit the yards lack of structure / capabilities / resources / etc.
MAR172-LFE008	Ensure that there are sufficient resources to support the project	CCS PM was left without Project Engineer / dedicated project support to manage reporting, reviews, risks & issues, etc. on his own CCS PM did not feel empowered to take the necessary decisions when needed and always tried to find the correct way to get the decision made CCS Technical Office had limited resources – particularly Marine Engineering / Special Projects	Due to the workload, CCS PM may have had items fall through the cracks Decisions take longer to make & implement, potentially causing knock on delays to other areas Change of personnel / missing handover Delay in timings for Plan Approval, which in turn had an impact on the quality of outputs.
MAR172-LFE009	Drawing list needs to be more concise/robust	Drawing numbers for the build were a bit all over the place. No consistency in these that are received from Mariotti.	Extra time required to match up the drawings in Docova Missing items not being able to be highlighted sooner
MAR172-LFE010	Remove ambiguity of ownership of Test Memo's & Procedures at Plan Approval stage	Approval of test procedures took too long - no clear owner at start of process and then there seemed to be a passage of ownership from technical to commissioning but this was not clearly explained / understood	Test Memo approval process difficult due to missing documents, wrong supplier's details and Yard's way of working. Unable to update/review documents at Plan Approval Stage but fix it during commissioning if wrong.
MAR172-LFE011	Remove ambiguity of ownership of Test Memo's & Procedures at Commissioning stage	During the Test Memo review and system commissioning it was noted that the engineering of some systems were performed without input from the Owner due to lack of deliverables (AoS, drawing, etc). This should have been identified at Plan Approval stage	Despite all efforts, the completion time at later stage was not sufficient to properly close and check areas/systems before the delivery



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LFE ID NO.	LESSON	SUMMARY	IMPACT
MAR172-LFE012	Support the yard in Managing of Sub-contractor	Yard unable to manage / supervise the sub-contractors due to their limited resources Sub-contractors working without proper guidance	Due to no supervision, there were instances where installations caused damage to materials that had to be fixed
MAR172-LFE013	Yard may be small however there are some tasks that they are able to accomplish well	Even though the yard is small and under-resourced, there are certain key and critical actions that they have been able to accomplish well, sometimes exceeding expectations	With certain tasks that they are good at, the yard can get good results – i.e.: Incline test
MAR172-LFE014	Clear scope and support to ensure that installations meet Supplier recommendation	No clear indication of supplier scope of works and for ABB there was no real support to ensure the installation met the suppliers' recommendations. For the Nautical discipline, the choice of a new supplier for the navigation part proved to be an optimal choice - work carried out in a professional manner by the technicians and the flexibility of the system allowed a good final commissioning result that with other suppliers may not have been feasible. Whilst not featured strongly in the feedback for MAR172 there have been murmurs to be on the look out in this category on other projects	Lack of functionality understanding, Installation / construction mistakes and lack of support during the commissioning from suppliers Considerations regarding this point are dictated by the evident lack of knowledge and experience on the part of the yard both from the installation and delivery point of view, that without the maker technician we would not have achieved the result we did.
MAR172-LFE015	Conduct LFE at key points throughout the project	Currently LFE are only conducted after delivery of the ship, which means that we are missing key lessons from other phases of the project	Not all lessons are captured as generally the feedback gathered focus on the last 4-6 months of the project



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*IMPROVEMENT RECOMMENDATIONS*



LFE ID NO.	LESSON	IMPROVEMENT / CHANGE RECOMMENDATIONS	ADDITIONAL COMMENTS
MAR172-LFE001	Work with the Shipyard to improve their capabilities & relationship mngt to de-risk delivery	Be clear in what we want / are looking for Work alongside them if needed to ensure expectations are met Yard works well with face to face (f2f) communication rather than a barrage of emails Visibility of yards contract with suppliers to ensure that information has not been lost in translation Clearing up any ambiguous specifications – i.e. Noise/Vibration Ensure that yard has set a realistic delivery date	* Technical Office has already appointed a lead that will work & liaise with the yard
MAR172-LFE002	CCS Resource utilised as Yard Commissioning Co-ordinator	N/A	This should not have been necessary however we needed to adapt to the capabilities of the Shipyard. This can potentially be replicated should the need arise, see point 1 relating to yard capabilities
MAR172-LFE003	Quality of the Inputs to & Outputs from Plan Approval need to be improved	Create / Improve Quality Control process for project development & plan approval	As this been recognised as an area of improvement, this might needs to be explored and documented to ensure adhoc action & focus are set.
MAR172-LFE004	Managing and resolving deviations to contractual obligations	Discuss with Contract Mngt in how we manage this moving forward	Mariotti Specific: Yard is reliant on sub-contracts as their resources & as a small yard find it difficult to get the level of qualified/experienced people
MAR172-LFE005	Understanding the expectations of contractual obligations	Create a list of defined obligations: Roles & responsibilities specific to the shipyard Minimum expectations & formats for schedules, reporting & monitoring Expectations around issues / risks / escalations Define in the contract OR create an initiation document that details these	



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LFE ID NO.	LESSON	IMPROVEMENT / CHANGE RECOMMENDATIONS	ADDITIONAL COMMENTS
MAR172-LFE006	Support CCS Project Management to be proactive, coordinating with all Stakeholders, managing interfaces and keeping good records	Continue to improve the PM toolset	
MAR172-LFE007	Adapting Ways of Working (WoW) to suit project and shipyard	Communication face to face rather than email as this seems to work better Cultivate good relationship by being onsite & speaking to yard Advising of solution rather than asking for solution	
MAR172-LFE008	Ensure that there are sufficient resources to support the project	Review structure of the PM team – Assign a Single Owner with the accountability for the project and empower him/her to be able to deliver. Create a list of required roles & responsibilities Tailoring PM Team to the requirements (scope) & shipyard selected Align PMO support to each project to provide holistic oversight and assurance	
MAR172-LFE009	Drawing list needs to be more concise/robust	Create minimum std expected drawing list, independent to yard (this may not always be possible for prototypes but should be available for any sister ships) Review drawing list vs scope / spec to ensure that there are no missing items	
MAR172-LFE010	Remove ambiguity of ownership of Test Memo's & Procedures at Plan Approval stage	Review the Test Memo / Testing Procedure process to improve this for future use Update process as required Rollout process in a structured way to ensure understanding of process & address any concerns	Process updated & under review
MAR172-LFE011	Remove ambiguity of ownership of Test Memo's & Procedures at Commissioning stage	Define who (if anyone) needs to be onsite during commissioning should any test memo's / procedures need to be amended Process rollout as per point above	Process updated & under review



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LFE ID NO.	LESSON	IMPROVEMENT / CHANGE RECOMMENDATIONS	ADDITIONAL COMMENTS
MAR172-LFE012	Support the yard in Managing of Sub-contractor	Liaise with Strategic Sourcing to understand the feasibility of assisting the yard in this	
MAR172-LFE013	Yard may be small however there are some tasks that they are able to accomplish well	N/A	
MAR172-LFE014	Clear scope and support to ensure that installations meet Supplier recommendation	Earlier involvement with Maker selection from Strategic Sourcing To discuss with SS a way to become more involved in assisting the yard with supplier management	
MAR172-LFE015	Conduct LFE at key points throughout the project	Implement LFE earlier in the lifecycle of the project Complete LFE at key points (end of phases) during the project	



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*ACTIONS LOG*



ACTION ID	RAG	ACTION REQUIRED	TERM	ACTION OWNER	COMMENTS / UPDATES	REVIEW DATE	COMPLETION DATE
MAR172-A001		Review drawing list vs scope / spec to ensure that there are no missing items Action to be added to Project Plan & all PMs to ensure this is completed	Short	Ulf, Olly & Michele	Recommendation to add this action into the project plan		31/12/22
MAR172-A002		Create standard drawing list requirement (independent to shipyard - CCS Technical Office)	Long	Ulf, Olly & Michele	Subject to evaluation of value vs effort - would be required for next NB		TBC
MAR172-A003		Quality Control process for project development & plan approval	Long	Jean-Charles Audouin	Next Action: To determine scope (what is / is not working) and a corrective plan to address.	31/01/23	TBC
MAR172-A004		Review the Test Memo / Testing Procedure process to improve this for future use	Short	Ernesto Palmas	Ernesto working on progress - in place foe 6310 & MAR173 Updated Test Memo Approval process document in review	30/11/22	31/01/23
MAR172-A005		Create a list of required roles & responsibilities for Contractual Obligations	Medium	James Moore	Either include in contract or create Project Initiation Document (PID) to define	31/01/23	TBC
MAR172-A006		Create a list of required minimum expectations & formats for schedules, reporting & monitoring for Contractual Obligations	Medium	James Moore	Running in parallel to OneShip Building - Common way of working to delivery	31/01/23	TBC
MAR172-A007		Standardise Risk & Issue Management	Short	Sam Tilley	Enhanced Risk & Issues log implemented on MAR173, 6310 & 1508 Looking at January roll out to imbed to other NB projects	31/12/22	31/01/23
MAR172-A008		Review structure of the PM team	Short	James Moore	Part of one project	16/01/23	28/02/23
MAR172-A009		Create a list of required roles & responsibilities for Project Delivery Team	Medium	James Moore	Part of one project	16/01/23	28/02/23
MAR172-A010		Tailoring PM Team to the requirements (scope) & shipyard selected	Medium	Sam Tilley	Sam to work with ELT re demand & Capacity planning	31/01/23	30/09/23
MAR172-A011		Align PMO support to each project	Short	Sam Tilley	For MAR173, PMO analyst aligned to project to provide holistic insights future assurance points to be defined & rolled across all projects	31/12/22	TBC
MAR172-A012		Creating a standard assurance checklist	Medium	Sam Tilley	Checklist to be created & rollout - subject to resources	28/02/23	TBC
MAR172-A013		Standardising Project Toolkit: * Project Workbook * Master Plan * Progress Reports * Etc.	Long	Sam Tilley	CCS2021 updates in parallel with OSB Start with small things	31/01/23	TBC



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