

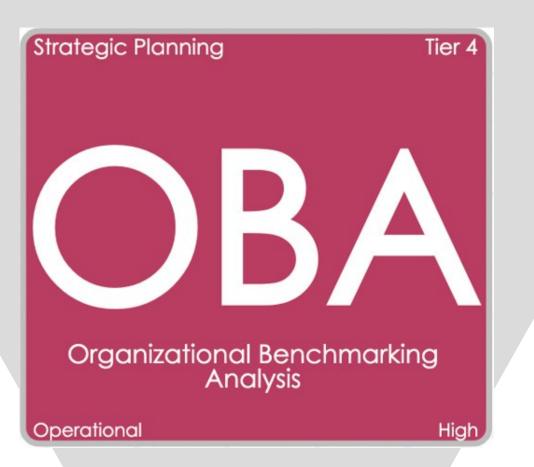
Zylter's Sociotechnical Systems Toolkit

Organizational Benchmarking Analysis Tech Strategy Framework + Method



System Capability to Use Requirement Crosswalk (SCC)





Comparison of organizational performance with comparable organizations based on key attributes







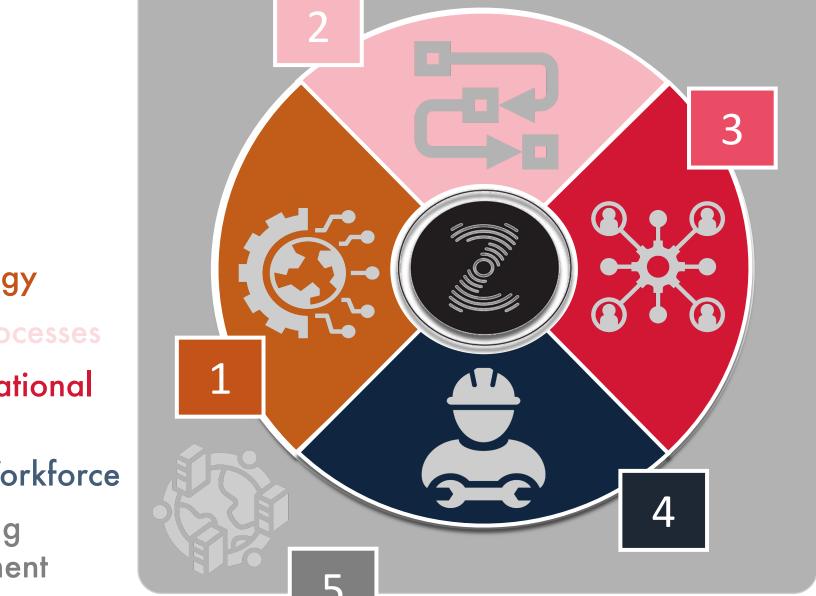
OBA > WHAT IS IT?

This method is a systematic approach to applying descriptive, qualitative and quantitative information to compare organizations across key areas of interest and identify areas for improvement



Benchmarking can use one or a blend of approaches based on the desired outcomes and information available:

- quantitative: with numerical data (if it exists)
- qualitative: using structured assessments
- Descriptive: Using available text and descriptive info



- **Technology**
- Organizational Structure
- Users/Workforce
- Operating Environment





These are key strategic questions that the Organizational Benchmarking Analysis will consider and answer.

What are the key attributes or comparative performance areas for assessing the organization and planning?

How does each organization perform in each attribute?

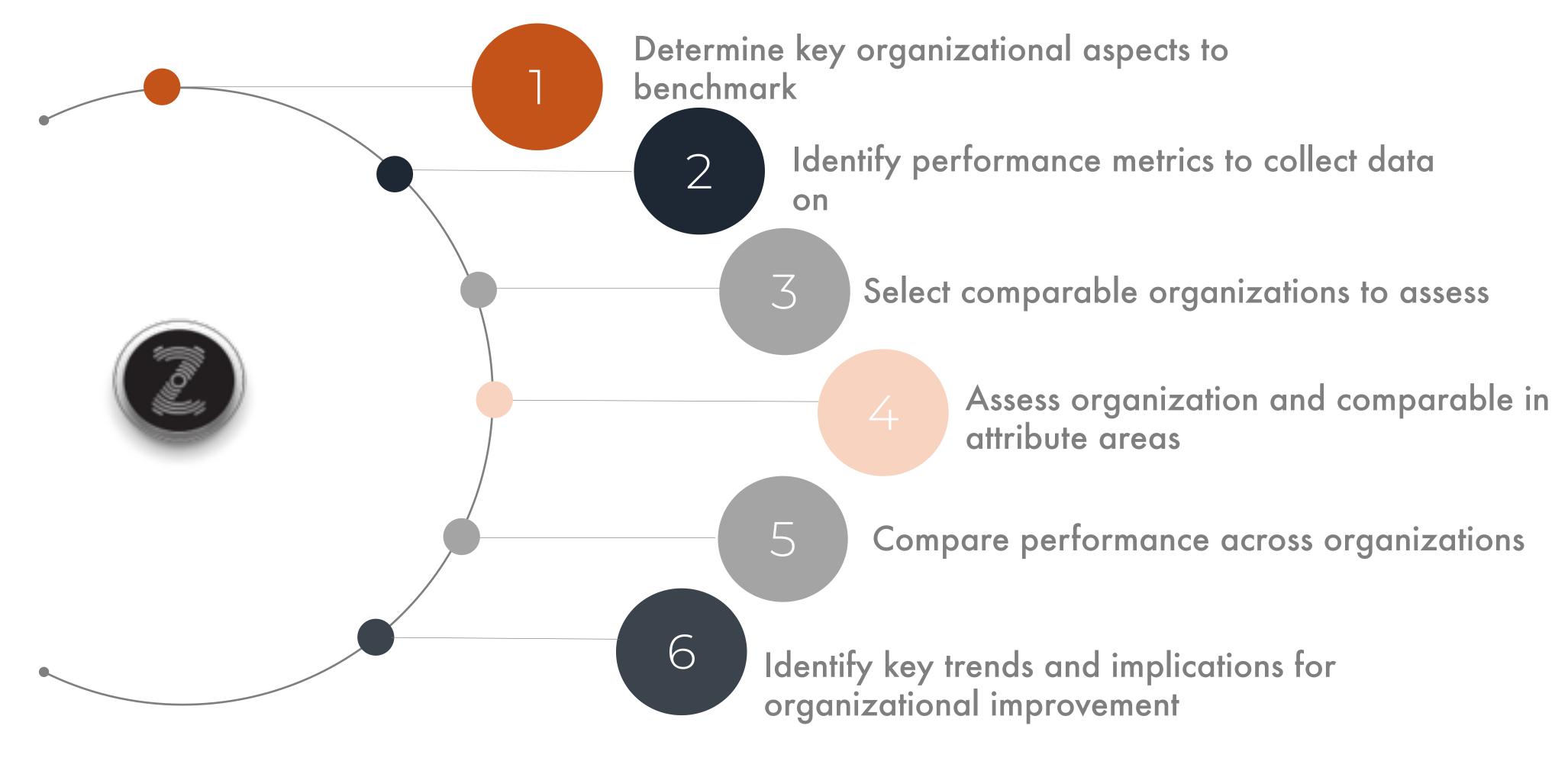
What are the organizations most similar or useful for comparison?

What are trends and implications for organization improvement?



Organizational Benchmarking Analysis

BA HOW DO I APPLY IT?



Organizational Benchmarking

COMPLETED **ANALYSIS** FRAMEWORK

Summary description of organizations to identify comparable for further analysis.

Key attributes for assessment and 2 comparison (based on organizational needs and interests).

Initial assessment of the primary organizational to enable benchmarking Descriptive information for each organization by key attribute

Visual markers for key themes and areas of interest

		_									
	4		MILITARY SEALIFT COMMAND	GOVERNMENT ORGANIZATION 1	MARITIME SHIPPING CO. 1	MARITIME SHIPPING CO. 2	OFFSHORE ENGERGY CO. 1	OFFSHORE ENERGY CO. 2	AIRLINE CO. 1	AIRLINE CO. 2 This offine company is viewed as a major "legacy" American offine, the sixt	
	1				Bits maritime shipping company is a leading provider of energy transportation services delivering crude oil and petroleum products throughout the United States and the world.		This supply vessel company owns and operates one of the largest fleets of Offither's supply Vessels (1937) in the industry and flora a global flooright, with over 90% of its fleet working internationally in more than 60 countries.			This drifting company is viewed as a major Tegacry' American orline, the si addest operating airline by foundation date, and the oldest airline still opera in the United States.	
		Global operations 365 days/year Workforce size	YES YES ~4500 CIVMARs	YES YES Wage Mariners - Approximately 440 16 vesseb	YE5 YE5 YE5 Total mariners - Approximately 750 17 vessels	YES YES Over 100 vessels -5300 Shipboord Personnel	YES YES -5500 Employees	YES YES -5000 Employees	YES YES 226 Alexant 2794 Phots	YES YES 940 Alicroff 1.4600 pilots	
KEY OBSERVATIONS	KEY IMPLICATIONS FOR MCC	Tiered Workforce (license/unlicensed) Dispersed workforce	YES YES	YES YES	YES YES	YES	YES	YES YES	YES YES	YES YES	
[from benchmarking analysis]	KEY IMPLICATIONS FOR MSC	Global travel requirements for assignment	YES	YES	YES	YES	YES	YES	YES	YES	
p-focused assignment models more common than file-b-general: Most companies tend lare world force individuals on a "direct-thire for a specific vessel, vessel class or operational loan."		Company method to determine and oversee assignments	Marine Placement Specialists held responsible for making assignments	Direct hite to vessel. Mariners are hited - permanent to vessel and requires joining a union. Office management handles any case where a temporay relief is needed.	Direct hise to vessel Mariners are hieed - permanent to vessel and potentially requires joining a uselon. Office management handles any carse where a temporary relief is needed. No pool - just mariners that are OHF rolation. Fossible career development	Direct hire to class of vessel Requires joining of union Dispatchers are responsible for assignments within vessel class	Direct hire to operations region or vessel class Potential option to join vessel as permanent. Mariner may be asked to be a temporary place holder on some cocations Dispatcher oversees assignment	Direct hire to platform/vessel 8ased on company needs with little mariner input Temporary lateral assignment to different department (dependent on customer contract)	Limited overlight by Flight Operations Team Automated assignment process that is Seniority based and workforce driven/managed.	Umited oversight by Flight Operations Team Automated assignment process that is Seniority based and workforce driven/managed	
	Industry experience indicates ship-specific or class-specific assignment can support culture and minimize the need to maintain an active land-based pool. Each company's assignment	Key considerations in the assignment process	Priority: Meeting the operational needs of the US Navy Updated HRMS File (Competency Matrix)	Defined job posting (US GOV) to meet NOAA operational need Wage mariner interviews for initial position. Previous vessels/promotions and evaluations taken into account.	Marking sure that all positions available are filled for the voyage. License held/Qualifications (PIC, NMC/Medical).	Making sure that all positions available are filled for the voyage. Qualifications (PIC, TOAR, NMC/Medical) - Often fleet based Past experience or last thip salled	. Vessel and Project Requirements Updated Certifications and Qualifications (NMC, Medical, Training Past Experience	Priority as per Customer Contract Individual updated qualifications Past Experience	Employee driven-Seniority Based Work schedule Vacation schedule Flight duralion and destination	Emplayee driven-Seniority Based Work schedule Vacation schedule Fliaht duration and destination	
Assignment rotations more robust and enabled by low costs of on share personnel: Most	 approach heavly influences their work robinion processes (e.g., vesesk-peofic vessus fleet- general placement). Consideration of changes to policies on assignment legin, testicitions, and general management should explicitly consider for long-term impact on CIVMAR culture, motivation and the MSC-CIVMAR social contract. 	Largest assignment challenge	Lack of transparency in processes Informal practices of mariner to apt out of assignment	Relief pool is not always reliable when filing assignment on-time	Differing pool numbers for each position. Example: not as many e Chief Mates to choose from when compared to Able-Bodies Seamen.	Downsloing of vessel contract based on customer need - creates crew surplus	s Causalty -Extension or abbreviation of project duration occasionally leads to assignment timeliness challenges.	Customer contract constraints Travel logistical challenges - Helicopter crew changes	No major challenges gathered	No mojor challenges gathered	
mnon work rolations are of a 2 f or 3:1 ON/OFF schedule. In the event of any issue with ng FFL workforce acknowledges the potential forfeiture of time onboard vessel, titus eilling any form of pay.		Advertised work rotation and variation per assignment	4 mo, ON - 1 mo, OFF advertised, (Volatile)	No rotation advertised. Wage mariner permanently on vessel until stifficient accrual of tim off Relief pool available. Mostly seasonal underway time.	90 day ON - 90 day OFF to start with. Can vary based on lime wasked with company and wast/life basines desired. After some time, marier may request a nove to 66/80, 7575. This is communicated via email. A solution (discussed with mariner and relief) is presented to the crew coordinator and coordinator approves the change.	Equal time on/off 28 day, 75, or 120 day Dependent on vessel class	Mariner given choice dependent on class of vessel and geographic location Rotations Vary - Vysically equal time en/off Option to work a 2 ON-1 OH ration International mariners 4-8 mo. (Voiatile)	Constrained and varied by customer contract 30 days on-30 days off is prevalent throughout contracts	Work/assignment schedule varies by individual's preference of lime spent ON to time spent OFF. Potential volatility due to unforeseen circumstances. Changes in schedule (last minute or planned) are funneled through HRMS.		
ble consideration of preferential assignment common with varied approaches: Multiple		Limitations on work rotation or work schedule	No limitations	No limitations	Union limitations are based on written CBA. There is flexibility between 90 to 120 days of work. Company does not prefer to have a mariner work anything over 4 months (seen as a safety lasse).	No limitations	International mariners - 60-90 day minimum or as per labor hiring agency contracts	Case by case dependent on customer contract Maximum and minimum days aboard standards sett	FAA regulates and dictates proper safe work schedule for company and workfarce individual to follow. Aeronautics and Space14 CFR § 121.471 Revised as of May 16, 2019.	FAA regulates and dictates proper safe work schedule for company and workforce individual to follow. Aeronautics and Space14 CFR §121.471 Revised as of May 2019.	
striss give a certain amount of freedom to each workforce individual to determine er own key considerations in assignment process. The assignment limitation is catered to individual's needs (within applicable confines)	addres CMMAR social control expectations and enhance long-term mainter motivation. MSC can consider allowing consideration of CVMAR perferences and toking mainteriner mathration and mainter social control expectations into account. MSC could cater these solutions and apply them to its own model for ease of implementation.	Timeline restriction on personnel readiness for assignment	Yes LER disciplinary process gets involved HR Memo: Failure to maintain a regular work schedule	Wage mariners are strongly urged to keep all Items related to being assignment ready up to date so that no issues arise durin offshore-projects peak season. Direct oversight from XO.	Entirely on responsibility of mariner to being assignment ready, if mariner is not assignment ready, the mariner potentially facilities this/her position onboard for that veyage and potential fugurement with company. All based on Union CSA	Maliner lypically given 'telum date' when departing ship Responsible for being assignment ready If mariner is not assignment ready; mariner forfeits his/her position onboard vessel and potential tuture employment with compan	If mariner is not assignment ready or about to be, employee immediately receives written notice outlining timeline and disciplinary consequence. Mariner not allowed to return to vessel until solved (unpaid). Potential forfeiture of employment	Preemptive company communicates written notice timeline constraint based on customer contract	A pitot is not allowed to accept, nor is an airline allowed to assign, a light if the pitot has not has all least eight continuous hous at rest during the 24-hour period.	A pilot is not allowed to accept, nor is an airline allowed to a a fight if the pilot has not has all least eight continuous hou rest during the 24-hour period.	
erenfial assignments reinforce company culture development: Componies leverage inest that are in an OFF rotation status to address available assignments. Marines with ivation of career advancement of financial gain are normally taken as prime diatotes. This helps gromate a culture where getting back on assignment as quickly as sible is seen as positive in nature.		Informal business process considerations	Yes Cultural norms Matiner mativation Informal Convensations Social Forces	Ship is locally managed by XO and information is relayed to affirmanagement	Marinet has availability to communicate to relet to determine scheduling solutions that work for both parties. Solution is sent to crew coordinator for approval. From this point, formal process is overlidden and continues as normal.	Cultural norm of being a "yes" person More days worked/year allows for better odds at promotion	Mariner has availability to communicate to relief to determine scheduling solutions that work for both parties. Solution is sent to crew coordinator for approval	Rig personnel may be asked to move laterally outside of normal position	HRMS still allows for informal communication and schedule trading - all dane in HRMS	HRMS still allows for informal communication with schedule tra- all done in HRMS	
Preferential assignments help address dynamic worker motivations: Some individuals priorities workflife balance by seeking a more consistent assignment and/or shorter duration (with potentially been pay). Other individuals seek increased pay or career advancement over workflife balance by taking less destrable assignments and/or langer	MSC can consider methods to systematically collect information to butter understand the CVMAR-specific typiene and molitorian factor stellard to CVMAR age, because of the circumstance and other key determinants of CVMAR age, because and molivations. This information could benefit MSCs determination of which combination of subtinct best fill the organization and support the development a culture most likely to enable MSC operational effectiveness.	Handling of Worldorce Problems (Mafiner lapses on medical/ training/ certification, etc.) Recommended improvements	Dependent on scenario, Walver solution in some cases Predictable rotations	Issues are taken on by XO to detect, manage, and solve with assistance from office management. Currently in the middle of a pilot program where wage marinet	position. Mariners who normally need extra pay or who want to move upward in career take these opportunities	Handled case by case Potential ios of future employment "Block-listing"	Disciplinary consequences communicated and documented	Company does what it can to get individual off rig as soon as possible - pull from pool (stack of resumes) or labor hiting agency	Personnel pulled from reserve list Allow pilot to slick to one singular plane instead of one grouping	Personnel pulled from pre-lot	
		(based on company experience) Other Comments or Considerations	Transparency and oblity to forecast	stey on a 3 ma, QN-1 ma, QFF water rotation.	No issues gathered Successful and efficient crew coordinators excel by taking marine solution/mariner malivation into account. Toew coordinators relieved of potential sites by gridly some responsibility innormally had by office it or mariner. Allows for mariner to be pleased with workfile balance within reason.	Attempts to keep everyone employed by shartening rotation lengths during lean operations (ATB fleet specific)	Better forecastling of schedules from crew coordinators. New HRMS to be implemented that will ease assignment transparency from workforce to office	Availability to choose offshare sig	of all-forms. 2170 pilot line holders 420 reserves each month	Workforce must work minimum hours to get benefits and p vacations (flight attendants)	
force structure is industry-specific, but with shared challenges: Companies varied ining size dependent on praied requirements, government regulation, and vessel size, companies face constraints due to the labor market, calective bargaining, customer octs, and/day operament regulations.	All companies (including MSC) work within some form of workforce constraints and are faced with similar workforce management challenges and issues, MSC can take advantage in learning from and adopting alternative studions atteady in practice by other companies/industries white decreasing risk of unknown consequences.	Workforce composition (manning size, ranking system) Workforceunion relationship	Ucensed/Infoersed Marines - Unionized Government Employees Yes	Licensed (Engine only)/Unlicensed Mariners 440 wage marines with 90 in-relief status Yes	Ucensed/Unicensed Mariners Ucensed (Deck Officers) - Non Union	Ucensed/Unicensed Mariners Size and ranking system is dependent on vessel class type Yes	Ucensed/Unlicensed mariners - Non - Union International Ucensed/Unlicensed - Labor hile agencies No	Largest Rg - 220 personnel Ucensed Marines Rig Roor Operation forms Rig Operations Management Dependent on country of operation	Pilots - minimum of 2 pilots with potential of flight engineer [14 CFR § 121.385] Flight attendants - This number is dependent on airtame- 1 flight attendant per 50 passenger seats [14 CFR § 121.391]	§121.385) Flight attendants - This number is dependent on airframe-	
munication is a common workforce challenge: Pattern of workforce issues with parency of information and communication makes daily operations and Mariner- aged career progressions difficult to navigate.		Bigget challenge facing workforce (development, manning, compensation framework, fransparency of systems, etc.)	Lack of transparency with home offices, and occess to data management. Different priofities between workforce and office management	2 Electrical warker unions, 3 Marilime related unions Altition rates for Icensed/will-ensed wage mariners. Generational gap mindset differences in Gap	Ucensed (Engine)/Unicensed - Unionized Chollenge seen between union CBA and non-union practices. Very difficult to navigate. Disciplinary actions are seen as a headache to track and see through. Vessel Department heads do not like to dead with switch paperwork and reports just to write semeone up.	Transparency challenge of mariner career development	Lack of communication and transparency between the workforce and office, "Us vs. Them" mentality	Reactive scheduling-Pressure on worldorce to "make it work"	Outdated system compared to industry	Getting over the junior to senior status hill	
pensation is heavily duty-centric: Majority of companies pay workforce for time worked ne on vestel, with some also paying aomed vacation time. Few pay when 'OFF rolation, bonuses assist company in managing vestel destrability.	MSC can consider opportunities to adjust the compensation framework to establish an assignment "economy" that more consistently vields outcomes acceptable to both MSC and CVMABS. Violous categogical-free of pay and other insentitives can be used to promote	General wage/compensation construct [paid/non-paid time off, training compensations]	Defined base solary (on and off vessel) + OT and Premium Pay when an vessel training is paid for uphorn by MSC with SAQ potential Credentialing and sofely *persive Reimbursement SAQ compensation potential	Base salary + Underway banus + OT Trahing - Faid for to a certain amount PTO/Leave - on accrual basis	Mariner is poid only when working onboard the vessel. Training (company monotated) training was a Protential compensation. Training (USCG monotated). Company compensation only other mariner popy uplant (No day rathe per-diem). Medical (company mandated): compensation for (No:use).	Training - No cost to mariner as per union CBA if training is taken of	region, operation, company nearin)	Base salary pold anly when an vessel + Banus Indining - Part for an case by case	Base Pay (every hr. flown) + bonuses if augmented: Reserve Pay + Enoched Medical/fraining compensation	Base pay (for every lr. flown) + bonuses If augmented: Reserve Pay + Enacled Medical/Training compensation	
affive incentifives focused on duty time: Companies utilize incentifived workforce relief ims assisting both company (time-lost) and workforce individual (filanatical gain). Workers sylven et number of dops utiling 10 th period where helpfes in a reserve status and paid ch. If enocled, workers are often required to onever the relief call immediately (start valien pay).	CIVMAR dairs to "get back out to sea ASAP". Other company experiences illustrate positive workforce impact from aftering higher sociaties only for the "ON rotation, with bonuse offered in areas that are primarily observed as undesirable assignments.	ethod / frequency of worker performance evaluation	Performance evaluation occurs when signing all vessel Used during promotion boards (MAP evals)	Yes UNized in lateral and promotional movements	Formal evaluations 1-2 per year (used for promotions record) Due to union C&A, it is very difficult to turn down the return of a problematic mariner unless proper documentation and history is presented.		Wixture of formal and informal evaluations - Mariners are formally		Yes	Yes	
panies van jin liefer use of short-Herm of long-Herm workdorce management or conchest-Company or proporabes liutaria del falfring approaches to workforce use and florn float result in varying workforce outcomes. Most companies seem to take a long- approach to his workforce use and reterming. Some companies seem to take a long- approach to his workforce use and reterming. Some companies report benefits in registration and retermine, but no retermine and expense workforce to mine and inefficient moment.	MSC anticulation of its workforce management philosophy should be based on a clear understanding of long-term fleet needs and MSCs place in the broader labor market. Mariners are initiated by high company culture, workfifte bothers, and financial need (coming other fleet), MSC can be for incygliet workforce solutions with seeping in mind is philosophy of twotforce) use and reference. The philosophy should also be explicitly wide be workforce as forth individuals can choose dignament on per the individuals to an other fleet of the other solutions.	Recommended improvements (based on company experience)	Updated policies Account for Mariner preferences and mollvations	Move workforce around fleet Releave resource constraint Generational gap technology training	Recommendation of healthier Union/Non-Union relationship. More streamlined disciplinary process needed with simplified options		Higher level of transparency to aid in mainer-office communications and relations		New HRMS desired by workforce.		
ning affair, and operation of welface. "pool," one similar with all componies training within a windrose pools fevera phylical pools," while most componies operate higher manning ratios (finan MSC), no company surveyed independently and internally orgos a phylical pool of worldrace includious dowalling and year signal rear or wated roaches to virtual personnel management with some componies finding innovative mods in managing worldrace needs.	White nouning action vary, NSC continued use of physical "pools" for workers arrelling upgained in Incommisted with inclusivy parcials and secondar workers benefit within MSC appears to have a lover than normal morning ratio, it is not clear that voordince numbers are the only cause for manning sizes. Such company notices that other workers are the only cause for manning sizes. Such company notices it said to based and the normal president of the contraction of the contraction of the contraction of the inclusivy, operations-specific factors, and workforce requirements (e.g. CSAs).	Other	Manning Ratio (Personnel/Position) - 1 22 EPF Fieet - (Personnel/Position) 2:1	Manning Ratio (Personnel/Position) - 1.25 Attrition Rate 20%	Manning Ratio (Personnel/Position) - 2:1 Incentive based recruitment in effect	Workforce would like to have better visibility in path for career development	Manning Ratio (Personnel/Position) - 2:1	Manning Ratio (Personnel/Position) - 2:1	Manning Ratio (Pilot/Position) 6.2:1	Manning Ratio (Pilot/Position) 7.75:1	
iquated human resource management systems (HRMS) are a common industry	While HRMS modernization is a widespread challenge, MSC's current HRMS capabilities	Use of an integrated data management system	Yes	No	Yes - Partially	Yes (Partially)	Yes (Partially)	Yes (Partially)	Yes	Yes	
singe: Most companies currently have HRMS capabilities and associated processes that influented, ranging from whiteboard tracking to excel spreadsheet usage. Desires for printy and localify, as well as resource availability, drive widespread usage of legacy ing methods (e.g. Excel spreadsheets).	generally behind those of comparable commercial marifilme related companies. This provide an implicit appoprtunity for MSC improvement to potentially adopt a proven HRMS that compliments and aligns with potential improvements in a other areas of focus.	Role of manual entry + post-processing	Manual entry + Post processing	Heavy Manual Entry - Whiteboard and Spreadsheets	Hybrid Manual entry - Spreadsheets (for scheduling) and file keeping. HRMS used as secondary means of data management.	underutilization of HRMS	Heavy manual Entry - Spreadsheets and whiteboard, HRMS minimally utilized.	Mixture of both	Auto-populated with initial manual entry from workforce individual.	Auto-populated with initial manual entry from workforce individual.	
Existing HBMS technology often underutilized: Com software or applications: centered commonly report capability. Personnel confinue to practice a mixture		Department-level access to system Staff / crew access to system data	No Each department has limited access Output is taliared to each department needs	No XO have access to their own local system in place with data management and reports. Office management has its own independent scheduling software.	No Vessel department heads have limited access (equisitions, purchasing). Crew rolation appect of HMMS is available, but mainly managed through email with disportabless, Justice management has further infliend access (maintenance, purchasing, safety) with no access to praptial or evaluations.	No Vessel department heads have limited access (requisition/purchasing). Crew rotation appect of HRMS is available, but mehily managed through email with dispatchess Junior management has shirtle limiting access (maniferance, purchasing, adelty) with no access to appeal or evolucions.	mainer has no access to crew scriedoling hiero.	No HR has most access Marines have limited access	Yes Flight Operations and OCC Workforce	Yes Flight Operations and OCC Wantforce	
of centralization and widespread access to H cct. HRMS platforms are often created for ease companies vary access levels to their respectin		Key system challenges	and historical trends. HRMS meant to be data entry system and	No centralized data management system that applies to their specific manning model - Currently sitting with individual platforms and localized data management/entry, XO onboard vessel is acts as primary gate in HRMS.	NS5 use: requisitions, purchasing, and crew scheduling (primary	Each vessel is running their own hybrid versions of utilizing curren HRMS along with manual entry spreadsheets specific to the vesse No centralized HRMS that is common throughout the vessel classe	it el. No centralization es.	Difficulty in mariner uploading updated certifications into application	Common idea that a new HRMS would be beneficial. Current workforce would like to see PBS came into play		
calions are utilized. HIMS solutions to not consider the mariner as natiner access for personal/profile data manc ajarity of companies still rely on home office p and notifie ratios.	Any MSC consideration of existing industry HBMS solutions should explicitly consider ability of the solution to be effectively meel DOD system requirements and MSC-specific workforce about to the control of the solution of the solution to the solution of	Use of Live Platform and Connectivity	spreadsheets to keep historical records. Major issues with connectivity (affshore and shoreside)	vessel is acts as primary gare in HKMS. Not very reliable. Limited Connectivity	Separate system utilized for polyroni Not very reliable while atthore. System becomes sluggish.	HRMS seems to sync at a faster rate when share in closer range to share. When significantly offshare, days can go by without an update.	0	Yes	Yes Web-based	Yes Web-based	
HRMS solvling design considerations: The airline industry provides the most advanced HRMS solvling design considerations: The airline industry provides the most advanced HRMS solvlings and software. The airline HRMS solvlings provide more information transporency and are designed to collect information to understand individuals key considerations and motivations. The officer denergy industry has adopted newer HRMS solvlings, but with less worker access or functionality than	needs. MC has an opportunity to choose a demonstrated maritime HRMS that addresse both management- and CIVMAR-specific needs, providing as much transparency in information as posible.	Software solution(s) used		Currently in review	NSS is currently in used with a new system in consideration (JIBE)	NS-S	NSS	Globe Custo	Jeppesen Crew tracking Enterprise (JCTE)	Preferential Bidding System (PBS)	
		Recommended improvements (based on company experience)	New system nec	in need of a different Data Management System	New HBMS to come in Sluggish updates post processing. And doubling up on data entry	HEMS is unrelable in its connectivity when vessel is out of sec. Updates often fad and go unnoticed cousing a multi week/month lag in purchasing portion to HEMS.)	4	New HRAS preferred		
		Other Considerations					New data management system to be implemented - Set as All-in one platform				
Similarilles in management of individual worker readiness needs: All companies use some form of software solution to support management in the assignment and manning processes however, the systems vary workely in their capabilities to coldect and apply worker input and		Internal V. external management of workforce readiness functions	Mixture Internal: Prevalent (medical, training, clearance, LER) External: NMC credentials	Mixture: Internat: Training Externat: NAVC credentials, Medical	Mixture: Internal [limited oversight with mariner taking more active role of management]: MedicoL Training External: NMC Credentials	Michure Internal: Training, Medical (though Anderson Kelly) External: NMC credentials		internal: Medical, Training (company specific) Company has general overlight, but is dependent on mariner to follow through or could potentially lace loss of pay, (no assignment-na pay) External - NMC credentials are managed by mariner	Mixture: Joint responsibility between FAA, Company, and Employee	Mkture: Joint responsibility between FAA. Company, and Emplo	
min: requirements for global world occurrence occurrence occurrence of the country of the countr	MSC can consider adoption of the methods demonstrated by companies for emphasizing and molivating worker responsibility for individual training and medical readiness:	Ancillary training Certification/Renewal - Is we a delineation from training to be FFD to long term career building?	High level of oversight MSC takes higher ownership due to specialized training Mariner requests training, but approval is dictated by MSC manning needs and budget	Umited overlight from central office with XO taking ownership role training data management/position relatiment or career building Monter request to having from XO, or XO notifies mariner of XO notifies mariner of the monte of the XO notifies mariner of the XO notifies and the XO notifies of the XO noti	development or to be assignment ready, medical PIC needed to		Managed by mariner and can request anciliary training. Company has limited oversight, assists to a certain amount.	Managed by mariner and can request ancillary training. Company has limited oversight, assists to a certain amount.	FAA mandated for pilot Base month Company provides all training Piot manages timelines	FAA mandated for pilots (Base month) Company provides all training Pilot manages timeliness	
ner readiness and career management are often supported, but often not centrally aged: Most companies provide resources, but provide little oversight and varied support sure that a mariner is ready for assignment.	Supporting departments within MSC are vital to ensuring the needs of MSC and the US Navy, MSC can benefit from adopting practices that more directly motivate and reward individual responsibility for readiness.	USCG License Credential Certification/Renewal?	CIVMAR manages credential renewals and certifications. (MSC compensates)	Wage mariner manages his/her own USCG Icense credentials under additional oversight from vessels XO. Assidance is available to the wage mariner from the central office it requeste	Mainer manages credential renewals and certifications, wainer	Mariner manages credential renewals and certifications. Marine coordinates all efforts during OFF rotation.	or Managed by mariner. Responsibility of mariner to keep up to date with credentials	Managed by mariner. Responsibility of mariner to keep up to date with credentials	Base month for pilots to take care of training certifications and medical Timeline: ± 1 mo.	Base month for pilots to take care of training certifications medical Timeline: ± 1 mo.	
ner responsibility for individual readiness is a cultural value for civilian maritime											





We are passionate about the art and strategy of emerging tech adoption. Zylter thrives at the intersection of tech analysis, design and strategy.

Why We Built It



Zylter

To learn more about our work with tech innovators and industry leaders at www.zylter.com



Questions

For more information or help applying this and other STS Toolbox resources, contact us at: STS.solutions@zylter.com



Explore

To explore the STS Toolbox further or access other methods and resources visit www.zylter.com/sts-toolbox

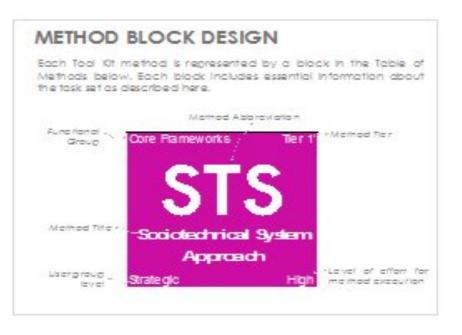


Connect

We appreciate any feedback you have to improve these methods and how we support them! Reach out to us on LinkedIn or at www.zylter.com

Periodic Table of Tech Strategy Methods

This table lists and categorizes each of the current and forthcoming methods in the Tech Strategy Tool Kit. Each method has a Functional Group based on the intended use and a Tier based on the level of effort, time and complexity for execution.



	GROUPOI CORE FRAMEWORKS		GROUP1 STRATEGIC FLANNING		GROUP 2 SOLUTION DESIGN + DEVELOPMENT			GROUP3 SOLUTION LIFECYCLE PLANNING		GROUP 4 MARKET ANALYSS + FRICING			GROUPS USER+WORKFORCE ANALYSIS			GROUP (I PROCESS DESIGN + IMPROVEMENT			
TIER1 Summary Approaches	STS TAP TBR	###	###	###	SRL	###	###	###	###	###	###	###	###	###	###	###	###	###	###
TIER2 General Assessment		SR	OKR	SEM	DPR	OEA	PRD	ASA	###	###	###	###	###	UPD	SDD	USA	TSD	###	###
		SFD	ROI	###	UCD	###	###	###	###	###	###	###	###	TFH	###	###	###	###	
TER3 Detailed Assessment		CLA	SFA	IRD	SJM	SRI	PCD	TCO	TCM	MRA	###	###	###	QUP	TAI		PRL	ABM	ОРМ
		SRD	SEM	SEP	KTD	PRD	###	###	###	###	###			QSD	SFG	###	###	###	###
TER4 Technical Analysis		ОВА	SOM	IAP	CEA	PCP	###	###	###	###	SNA	PPD	CRM	WDR	ПΑ	WAM	PMS	###	###
		###	###	###	###	###	###	###	###	###	###	###	###	###	###	###	###	###	###
-	GROUPO) COREFRAMBWORKS	GROUP3 STRATEGICFLANINING			GROUP® SOLUTION DESIGN + DB/BLORMBNT		GROUP4 FRODUCT LIFBCYCLERANNING		GROUP 2 FRIGING + MARKETANALYSS			GROUP1 USER+WORKFORCE ANALYSIS			GROUPS FROCESSDESIGN+ IMPROVEMENT				

METHOD TIERS

TIER 1: Summary High-level approaches and resources that requires execution of multiple higher-fier methods to successfully Approaches complete. These are the core execution roadmaps for Tech Builder growth milestones, Tech Seeker solution adoption stages and the SocioTechnical System Model that guides Zylter design of specific methods.

TIER 2: GENERAL Methods and resources that can be executed with mostly descriptive information and quickly applied to APPROACHES inform key decisions. These methods are general supported by or expanded on by detailed methods and technical analyses.

TIER 3: DETAILED Methods and resources that compile extensive numeric and/or descriptive information to provide a more ASSESSMENT detailed examination and assessment.

TIER 4: TECHNICAL Methods and frameworks that apply extensive data that is usually numeric and generally requires ANALYSIS specialized software and expertise to execute.

