HeliOffshore: Global Collaboration, Frontline Results

HeliOffshore

Safety Through Collaboration

What is HeliOffshore?

An organisation dedicated to Offshore Helicopter Safety

- Backed at CEO level
- Delivering a programme of safety improvements
- We judge our success based on results in the frontline

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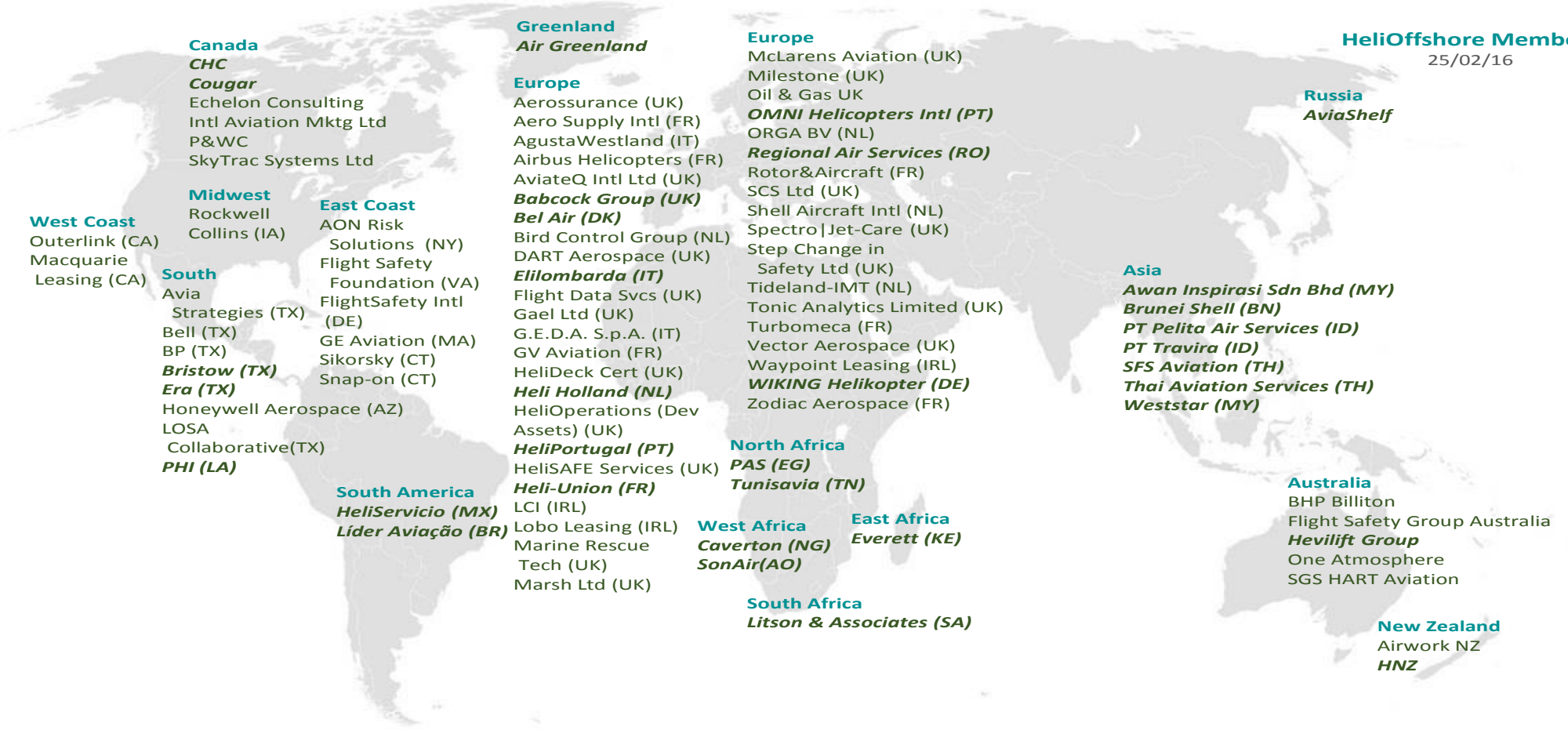
Global Collaboration with 100 Members

- Helicopter Operators
- Manufacturers
- Oil & Gas Companies, Associations
- Technology and Service Providers
- Allied Service/Supply Providers
- Academic and Research Institutes
- Passenger and Staff Groups

A Shared Strategy

- Industry commitment at highest level
- Data driven
- Directs resource to activities that will prevent accidents
- Member-led and resourced work streams
- Focus on frontline safety

We are a global organisation



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Strategy Development

Significant collaborative work in the last year to:

- Gather existing work and data
- Develop performance improvement framework
- Align key stakeholders

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Safe Operations

Accident Events

Accident Prevention Goals

Safe Survival

Accident Survival Goals

Safety Performance Model

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Safe Operations

Safe Survival

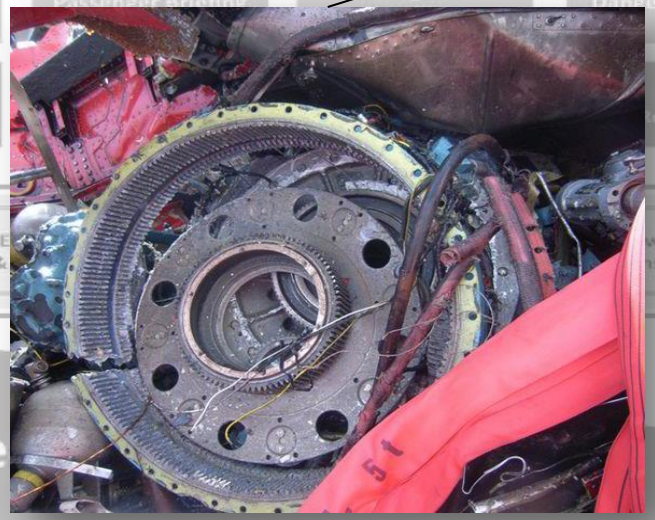
Accident Prevention Goals

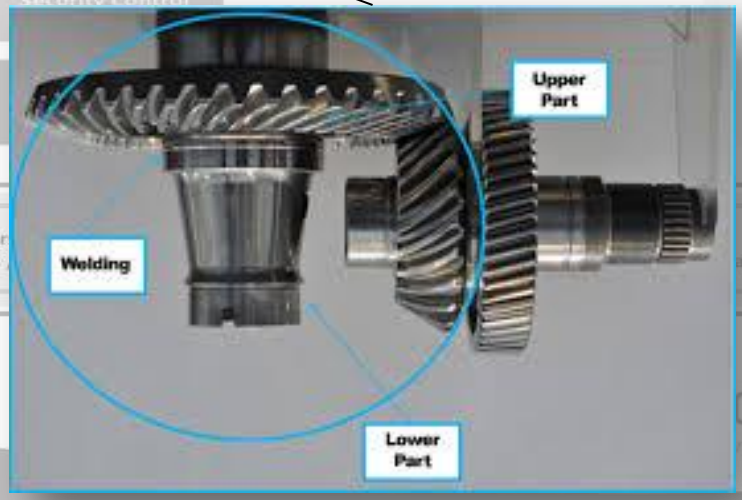
Accident Survival Goals

Aircraft Structural / System Failure	Early Diagnosis of Potential Failures	Enhanced Reliability	Safety Equipment Operating	Error Tolerant Designs	Effective Maintenance / Tool Control	Supply Chain	Impact Survival
Loss of Control	Flightpath Management	Effective Use of Automation	Flight Crew Operations Manual	Fully Coupled Approach	Sterile Cockpit Policy		Flotation
Controlled Flight into Terrain / Water Obstacles	Enhance Space / Reduce Obstacles	Detect / Avoid Obstacles	Night IFR Flight	Realistic Simulator Training	ADALT Procedures / Use / HTAWS		Underwater Escape
Heliport / Helideck	Vessel Pitch, Roll, Height Limits	Heliport Management	No. Aircraft on Heliport / Deck	Heliport / Helideck Design			Sea Survival
Weather	Effective Flight Planning	Regular Reports / Forecasts	Adverse Weather Policy / Use	Aircraft Design	Weather Radar		Land / General Survival
Collision in Air	Attitude Management	Air Traffic Control Oversight	Bird Strike Prevention	Airborne Collision Avoidance System	High Intensity Strobe Lights		Alerting
Ground Collision / Handling	Weight and Balance	Passenger Briefing	Night	Dangerous Goods	Security Control		SAR / Emergency Response
Fuel Exhaustion / Contamination	(Hot) Refuelling Procedures			Fuel Reserves			Post-Accident
Common Controls	Safety Leadership / Culture			Policies			Effective Standards / Oversight

28% Fatal

34% Non-fatal





Safety Performance

Offshore

through Collaboration

Outcome Percentage of Fatal Accidents (Last 15 Years)	27.8%
Outcome Percentage of Non-Fatal Accidents (Last 15 Years)	34.4%
Safety Issues	System Failure

				Key Risk Areas (Outcomes)					
				13.9%	8.3%	5.6%	0%	0%	0%
				9%	4.9%	4.9%	4.1%	1.6%	0.8%
Sa				Obstacle Conflict	Terrain Conflict	Fire	Abnormal Runway (Landing Area) Contact and Excursions	Airborne Conflict	Incursions and Wrong Deck Landings
				●	●	●	●	●	●
		Optimal Operational Use of AFCS Capabilities		●	●		●	●	●
		Obstacle Clearance			●	●			●	
		Operation in Adverse Weather Conditions		●	●	●		●	●	●
		Fuel management	●	●						
		Flight Planning and Preparation		●	●	●	●	●	●	●
		Ground/ Helideck Operations	●	●	●		●	●		●
		Safe Landing Environment			●		●	●		●
		Helicopter Maintenance	●	●	●	●	●	●	●	●
	Technical	Diagnosis of System Failures	●	●			●	●		
		Gearbox and Transmission System Reliability	●	●						
	Consequences	Safe Forced Landings	●	●	●	●	●	●	●	●
		Safe Survival and Egress	●	●	●	●	●	●	●	●
	Human Factors	Flight Crew Perception and Awareness		●	●	●		●	●	●
		CRM and Communication		●	●	●		●	●	●
		Knowledge and Competency of Individuals	●	●	●	●	●	●	●	●
		Personal Readiness	●	●	●	●	●	●	●	●
		Use of Rules and Procedures	●	●	●	●	●	●	●	●
	Organisational	Crew Composition and Management		●	●	●		●	●	●
		SMS Implementation	●	●	●	●	●	●	●	●

Safe Operations

Accident Events

- Aircraft Structural / System
- Loss of Control
- Controlled Flight into Terrain / Water Obstacles
- Helideck
- Weather
- Collision in Air
- Ground Collision / Handling
- Fuel Exhaustion / Contamination

Accident Prevention Goals

- Early Diagnosis of Potential Failures
- Enhanced Reliability
- Safety Eq… Oper…
- Flightpath Management
- Effective Use of Automation
- Flight Operation…
- Enhance Space / Reduce Obstacles
- Detect / Avoid Obstacles
- Nigh… IFR F… Mitiga…
- Vessel Pitch, Roll, Height Limits
- Heliport Management
- No. Airc… Heliport…
- Effective Flight Planning
- Regular Reports / Forecasts
- Adverse … Policy
- Attitude Management
- Air Traffic Control Oversight
- Ri… Str… Preve…
- Weight and Balance
- Passenger Briefing
- Flig… Hand…
- (Hot) Refuelling Procedures
- Fuel Checks
- Flig… Planning
- Reserves
- Supply Chain
- Inspection

Safe Survival

Accident Survival Goals

- Impact Survival
- Flotation
- Underwater Escape
- Sea Survival
- Land / General Survival
- Alerting
- SAR / Emergency Response
- Post-Accident

Common Controls

- Safety Leadership / Culture
- Effective SMS & Data Sharing
- Training, Qualification Experience Recen…
- …worthiness …nagement
- Modern / Proven Technology
- Effective Standards / Oversight

Safety Performance Model

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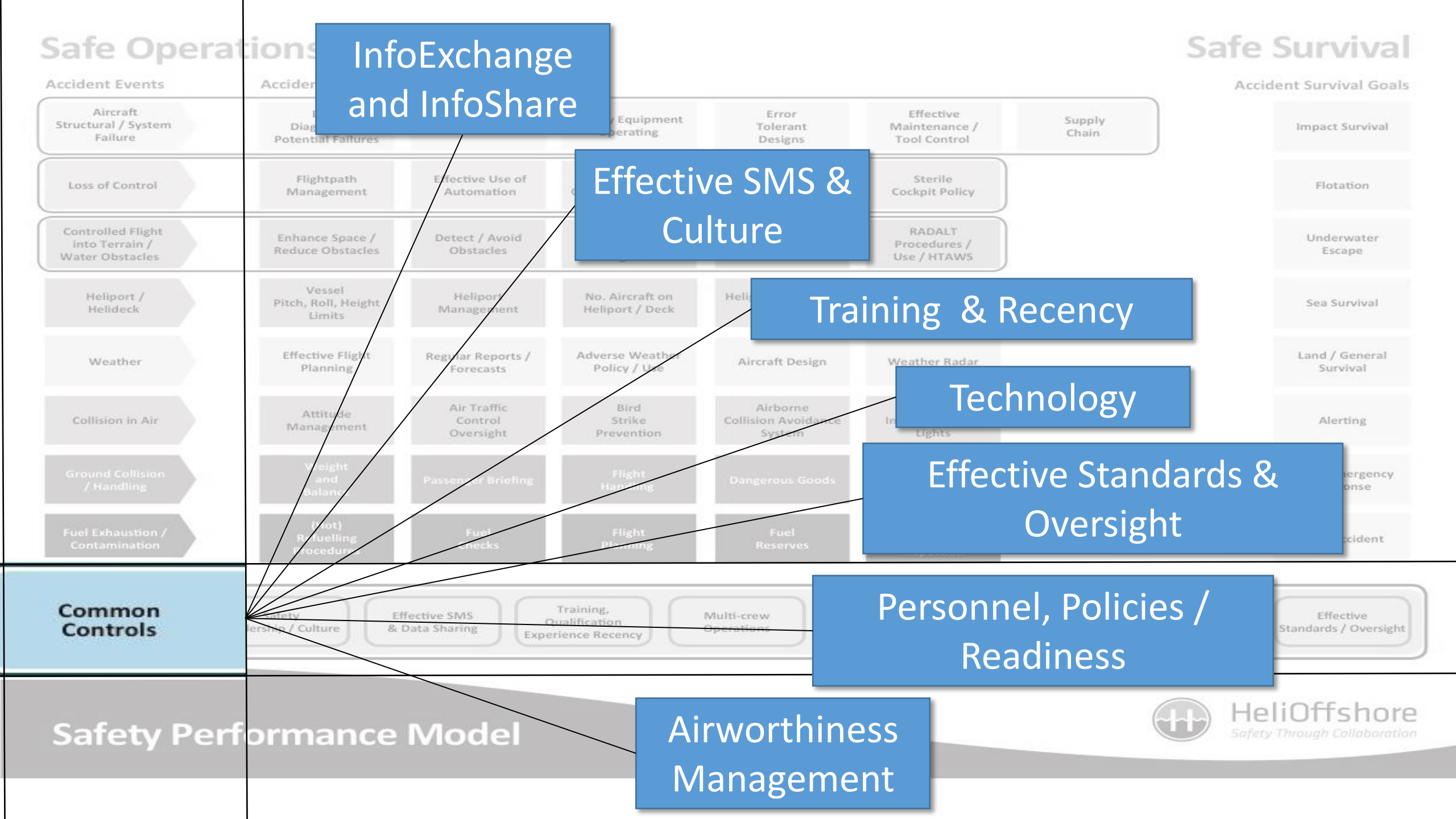
InfoExchange and InfoShare
Effective SMS & Culture
Training & Recency
Technology
Effective Standards & Oversight
Personnel, Policies / Readiness
Airworthiness Management
Safe Operations
Safe Survival
Accident Events
Accident Survival Goals
Aircraft Structural / System Failure
Loss of Control
Controlled Flight into Terrain / Water Obstacles
Heliport / Helideck
Weather
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Ground Collision / Handling
Fuel Exhaustion / Contamination
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Aircraft Design
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Bird Strike Prevention
Airborne Collision Avoidance System
Dangerous Goods
Fuel Reserves
Impact Survival
Flotation
Underwater Escape
Sea Survival
Land / General Survival
Alerting
Common Controls
Effective SMS & Data Sharing
Training, Qualification Experience Recency
Multi-crew Operations
Effective Standards / Oversight
Safety Performance Model
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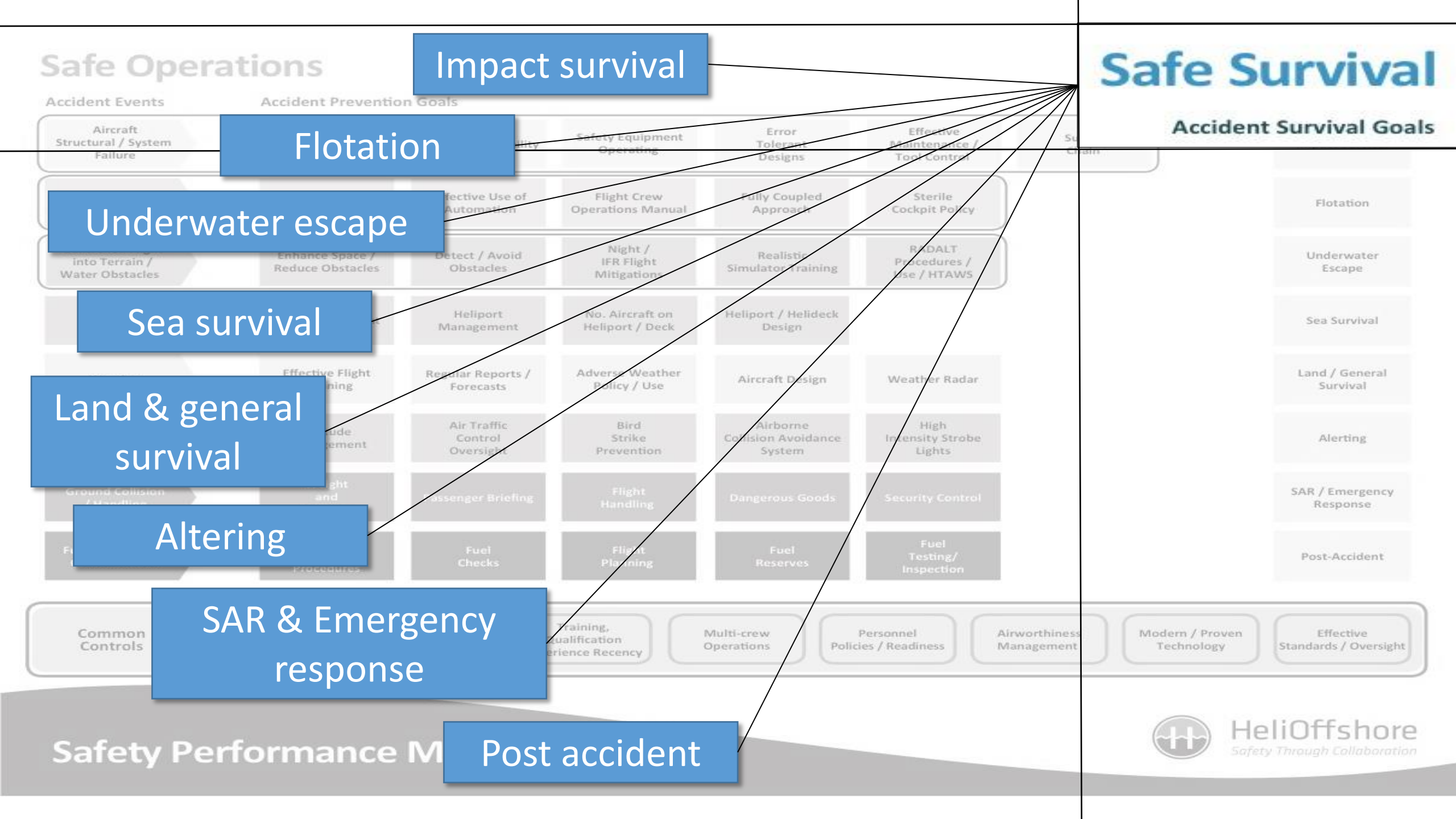
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Safety Performance M
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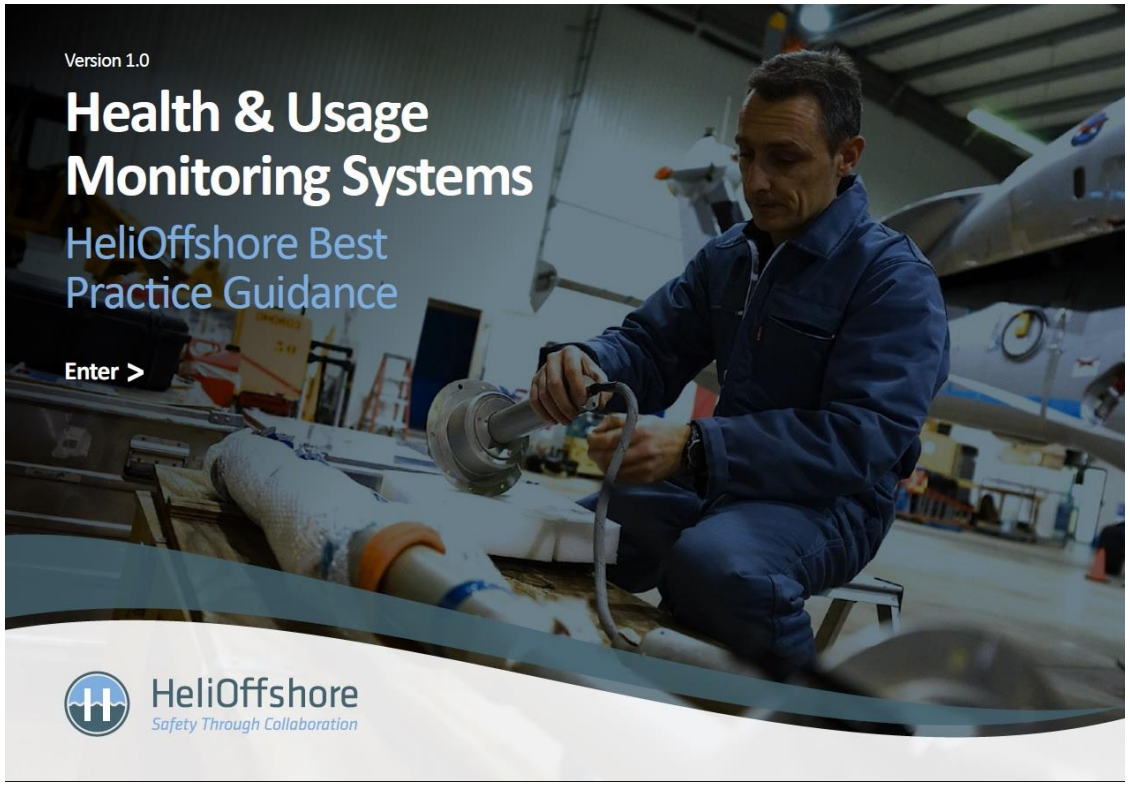
HUMS Best Practice

- Over 12 months, group of experts agreed HUMS best practice
- Guidance published October 2015
- Enhancing use of HUMS at the frontline, worldwide
- Work continues to refine and improve guidance for maintainers



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HTAWS Enhancement

- Increasing warning time for crews
- Will prevent accidents = save lives
- Working with regulators to fast track upgrades to existing systems
- On track to implement by end 2017

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Eye-tracking Research

- Collaborative programme with contributions from Members
- To inform training, design philosophy, standard operating procedures
- Part of wider programme to enhance use of automation

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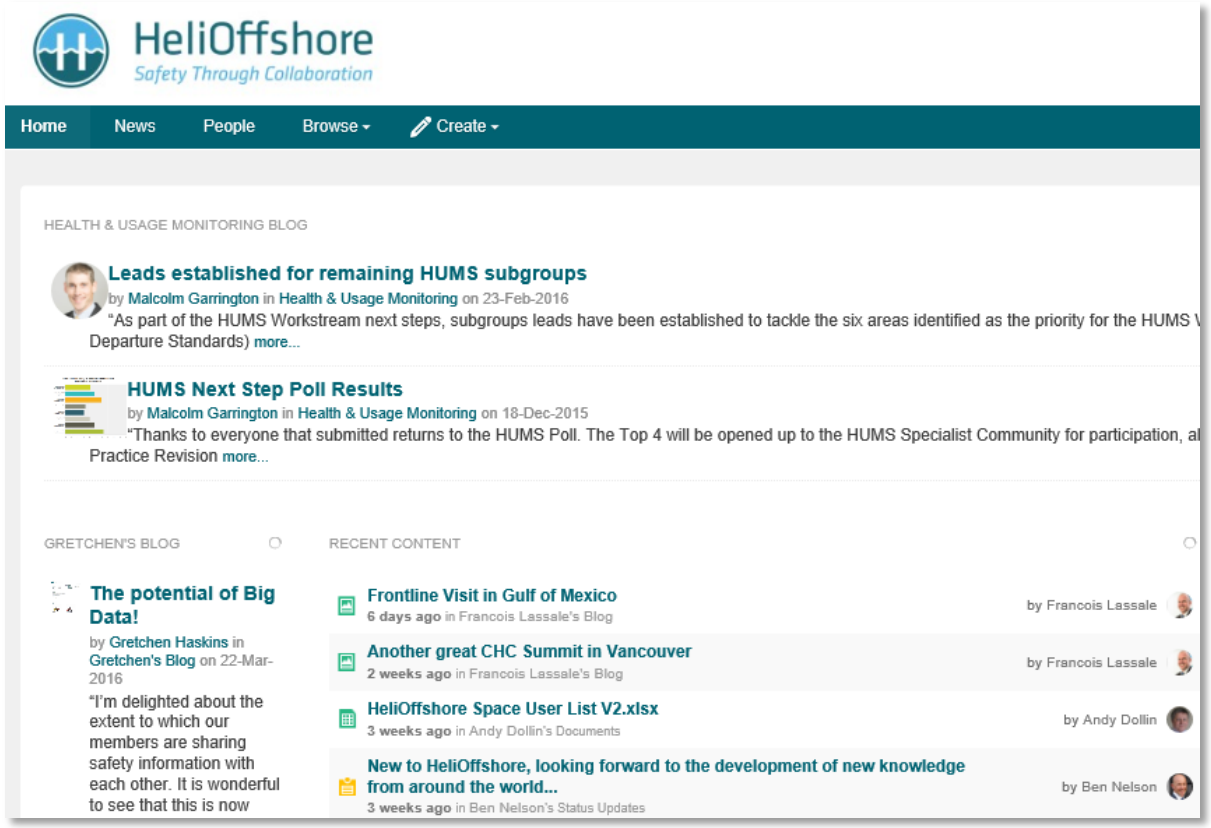

HeliOffshore Space

- Secure, rapid, global exchange of safety information
- 400 participant IDs
- Workstreams can involve experts, worldwide

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InfoShare

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InfoShare

Training Example

Reference	2016-nn	**Event Date**	16 Mar 2016
Priority	Routine	**Aircraft Type**	A helicopter model
Event Type	Operational	**Region**	Somewhere
Event Category	Terrain Conflict	**OEM Notified**	Yes

Synopsis

A brief summary of the event should be written here.

There is a character limit of 400.

Cause

A brief summary of the initially understood cause of the event should be written here.

Pressing return at the end of a line automatically creates a new bullet point.

Actions taken

A brief summary of the actions taken in response to the event should be written here.

Entries should be concise.

Images

Helicopter.png

Tail Rotor Missing.png

How is our work structured?

- Proactive Safety Management Approach
- Clear Priorities
- Visible, resourced Safety Plans
- Focus on outcomes – the things that people or machines do to prevent accidents

- *Applied at all levels: global, regional, national, organisational, team, & individual*

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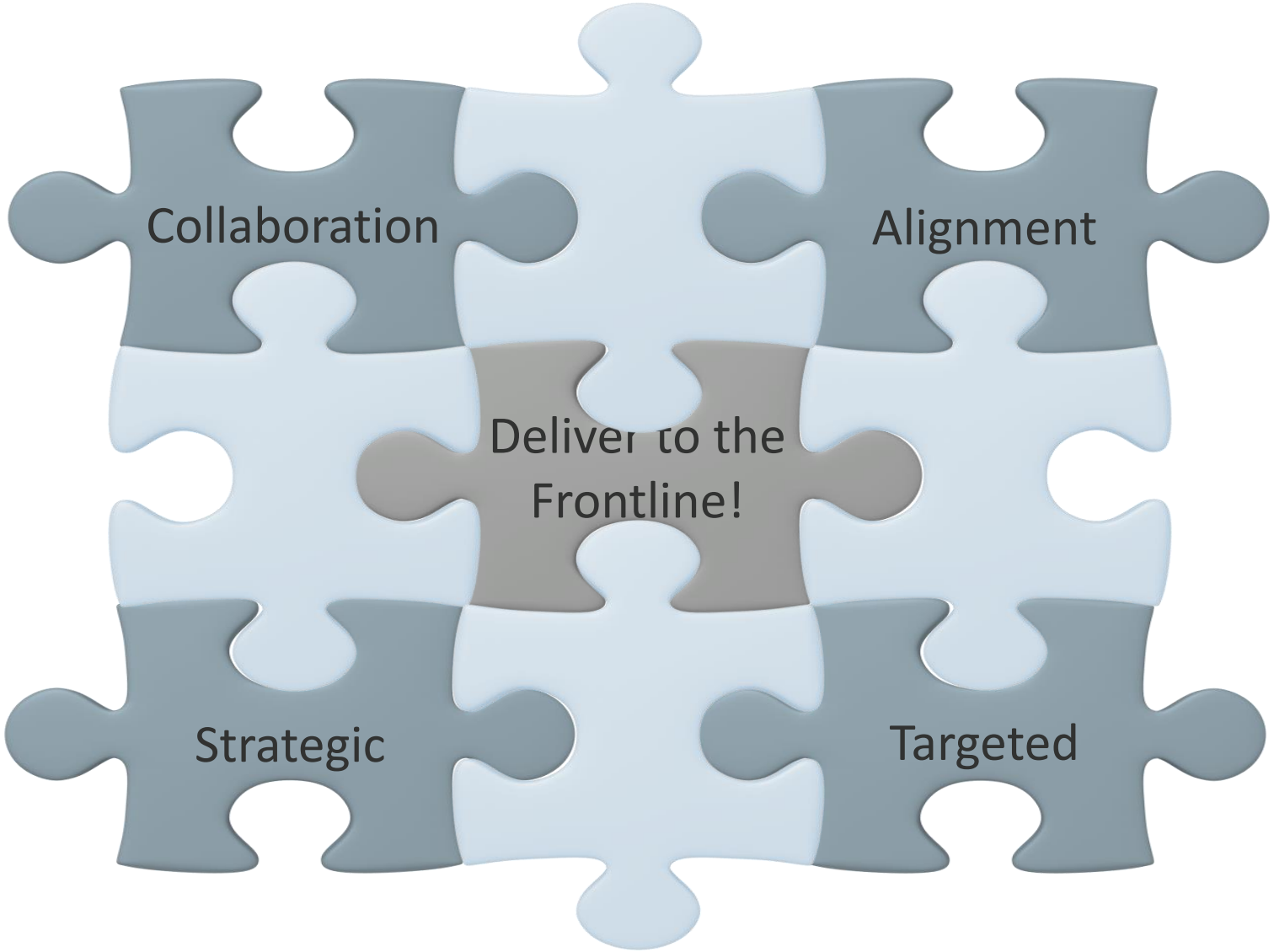
Collaboration
Alignment
Deliver to the Frontline!
Strategic
Targeted

Our WorkStreams

- System Reliability and Resilience
- Operational Effectiveness
- Enablers
- Survivability

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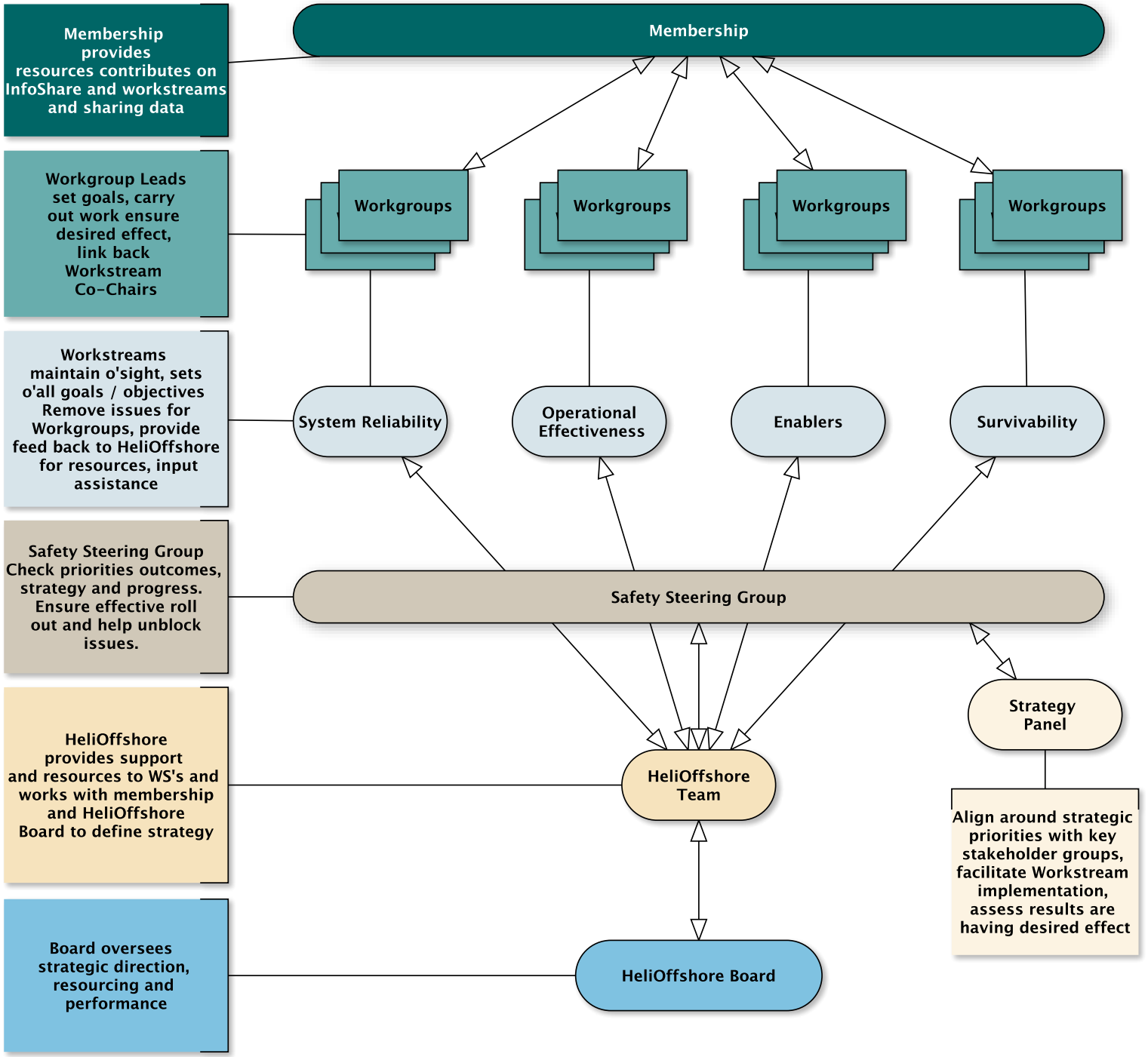
Process


Membership provides resources contributes on InfoShare and workstreams and sharing data
Membership
Workgroup Leads set goals, carry out work ensure desired effect, link back Workstream Co-Chairs
Workgroups
Workgroups
Workgroups
Workgroups
Workstreams maintain o'sight, sets o'all goals / objectives Remove issues for Workgroups, provide feed back to HeliOffshore for resources, input assistance
System Reliability
Operational Effectiveness
Enablers
Survivability
Safety Steering Group Check priorities outcomes, strategy and progress. Ensure effective roll out and help unblock issues.
Safety Steering Group
HeliOffshore provides support and resources to WS's and works with membership and HeliOffshore Board to define strategy
HeliOffshore Team
Strategy Panel
Align around strategic priorities with key stakeholder groups, facilitate Workstream implementation, assess results are having desired effect
Board oversees strategic direction, resourcing and performance
HeliOffshore Board

Help us review our Safety Plans

- Which actions will make the greatest difference?
- Anything missing?
- Is there work underway that we should link to?

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Thank you

- for taking the time to be here today
- If you would like further information or speak with me about being involved please contact me info@helioffshore.org

- Contact
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- Cell:+447867 303981

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