

Joined-up thinking

**WORKING TOGETHER TO PREVENT
HYDROCARBON RELEASES**



HOW THE UK INDUSTRY IS DEALING WITH REDUCING HYDROCARBON RELEASES

Steve Bullock

SVP Petrofac Offshore Projects & Operations

Co-chair Step Change in Safety

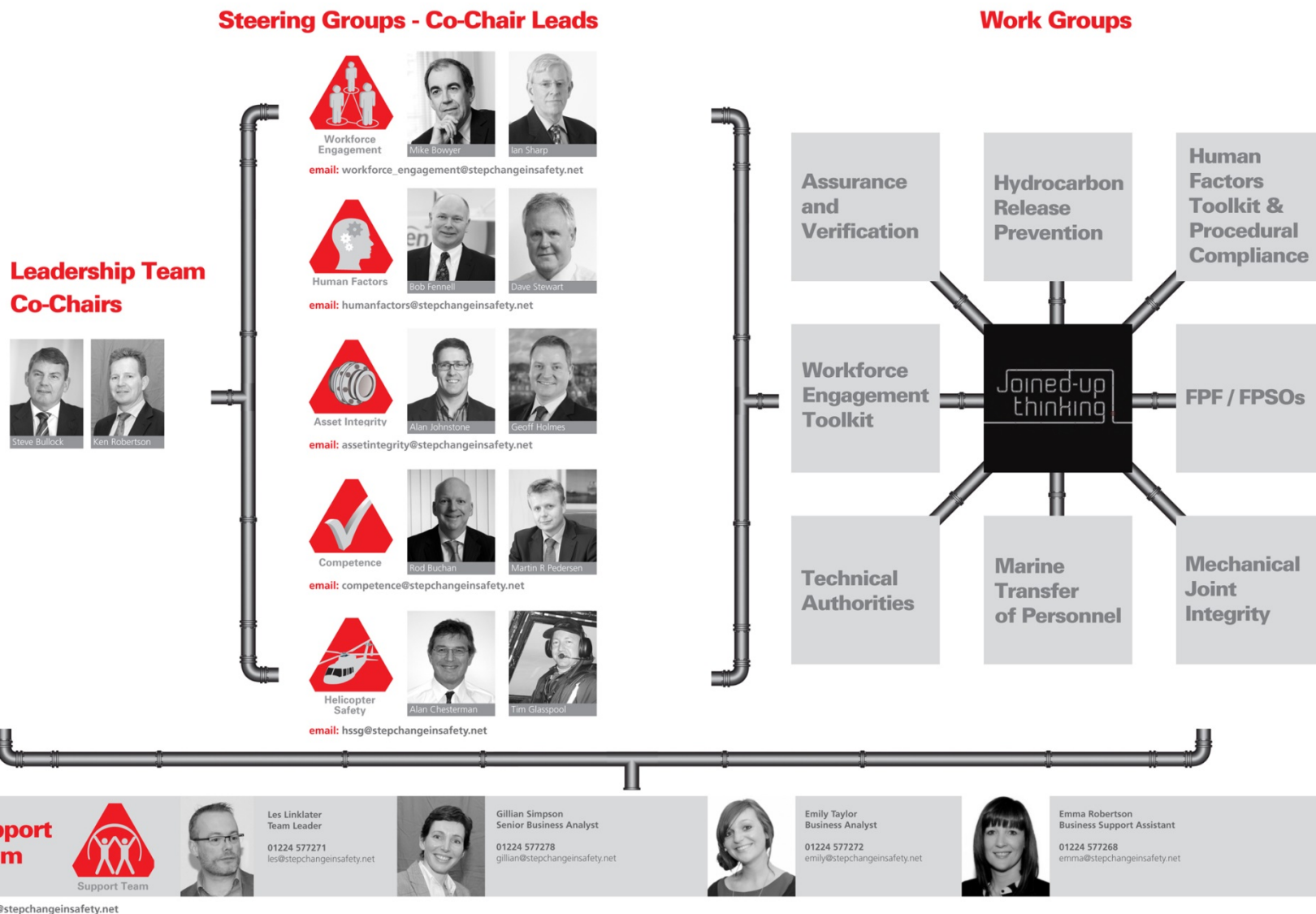


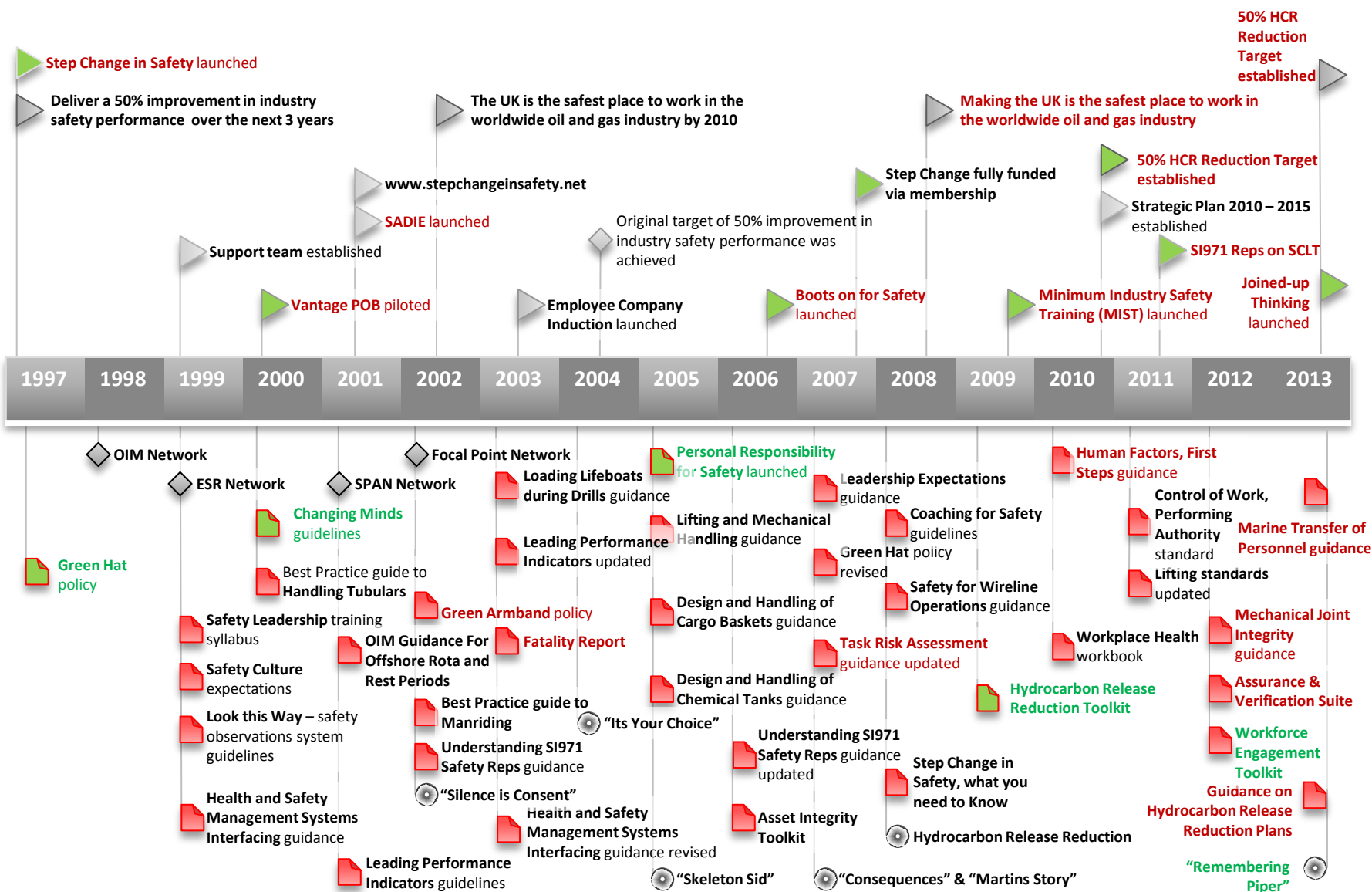
Step Change in Safety is a member led industry body with a 16 year track record of working together with all stakeholders including:

- Employing Companies
- Elected Safety Representatives of the workforce
- Operators
- Regulators – Health and Safety Executive
- Unions
- Trade Associations

“Our sole objective is to continuously improve the safety performance of the UK Oil and Gas industry through collaborative working”

Structure overview



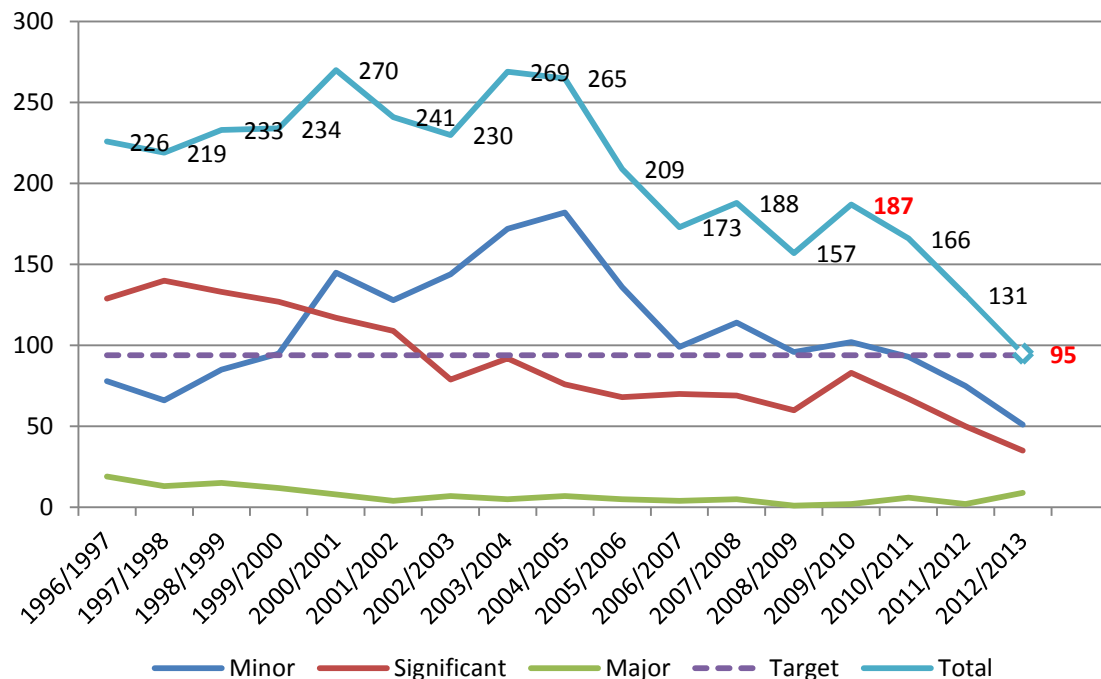


*“New releases for
old reasons....”*



50%

**reduction target in
HCR's by March 2013**



**Guidance on
hydrocarbon
release
reduction plans**



**Assurance and
verification
guidance**



**Mechanical
Joint Integrity
– Route to
Competence**



- To create long-term sustainability of continuous improvement in HRC reduction, with a target of 50% reduction from 2010-2013

Events held to showcase industry good practice

- Hydrocarbon release themed network events
- Attended by site leaders, safety professionals and advisors, company focal points and elected safety representatives
- Speakers include oil and gas operators, contractors and the regulator
- Events focused on reduction of hydrocarbon releases, the challenges and ways to share the things that are working well



Focus on sharing learning
and improving

- Safety Alert Database and Information Exchange (SADIE), facilitates the sharing of safety information and improves the lateral learning across the industry
- Available on the Step Change in Safety website

25% of reported HCRS currently in database

- Target to significantly improve input to this valuable tool





Guidance on Hydrocarbon Release Reduction Plans

Making the UK the safest place to work in the worldwide oil and gas industry

STEP CHANGE IN SAFETY



- Requirement set by the UK regulator for HCR reduction plans
- Guidance of what 'good' HCR reduction plans may include
- Produced using industry HCR reduction plans identified by the regulator as being exemplar 'good' plans
- Consolidated by workgroup & published for industry in 2012

PEOPLE

- > Site leadership
- > Information – Everybody has the responsibility and responsibility to make interventions
- > Mutual Awareness – Shared tacit awareness and understanding
- > Human Factor awareness

PROCESS

- > Procedures simplification and governance
- > HSE performance engagement with our contractors
- > Visible environmental performance through eNCR/RET
- > Audit planning focused on Major Incident Hazards

PLANT

- > Implement Process plan 2
- > Continue accelerated Performance releases and reduce spills to the environment
- > Deliver on high quality asset integrity plan
- > Technical assurance of integrity and maintenance management

PLAY YOUR PART

...so we become the **safest** and **most effective** operator in the UK North Sea?

TALISMAN

Energy Services

Built with input from the line

[illegible]

Activities that Sites build into their Site Plans

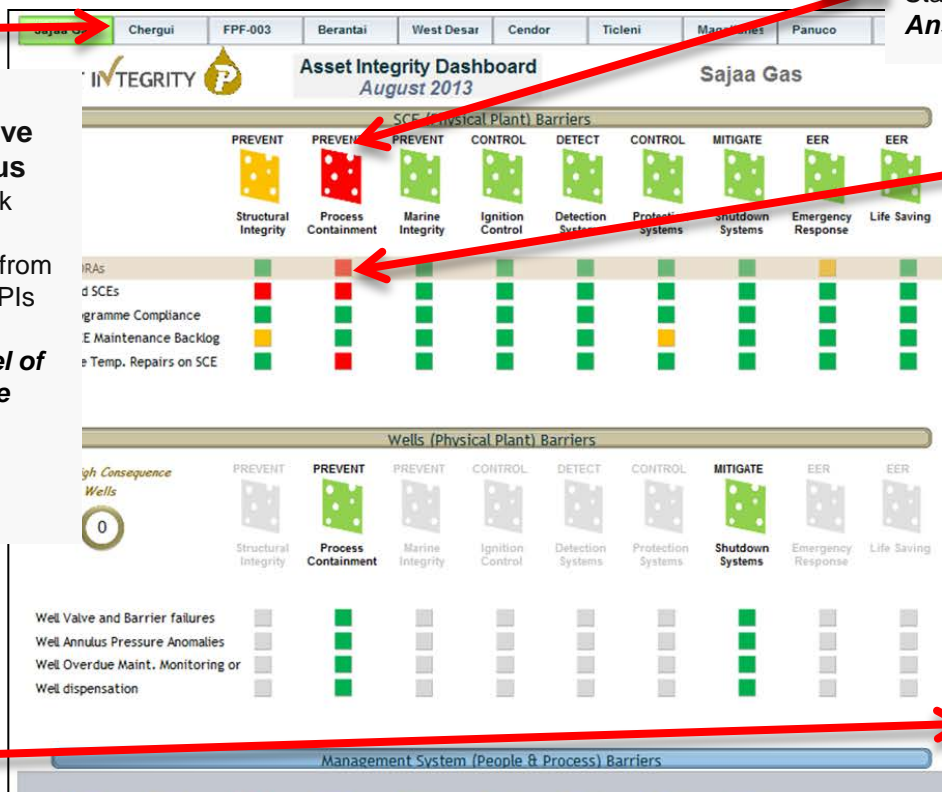
[illegible]

Accountability for delivery with HRP Lead
Key site activities identified & on Generic Plan



1

Asset cumulative risk status
Single Risk Flag
Rolled up from detail of KPIs
Answers:
What level of risk do we face? (Work-in-Progress)

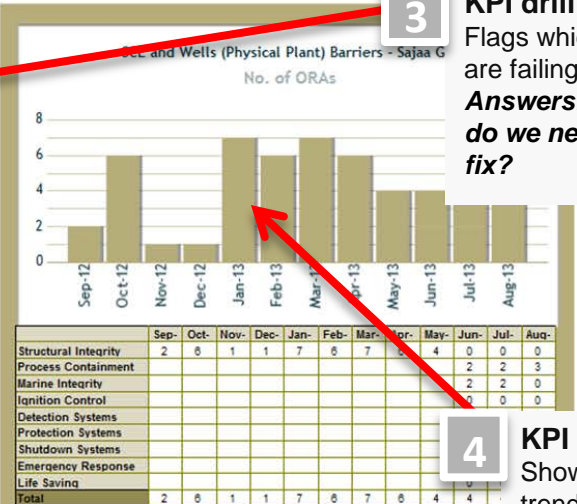


2

Barrier model (current asset condition)
Status of individual barrier groups (rolled-up from KPIs)
Answers: *Where is the risk?*

3

KPI drill down
Flags which KPIs are failing.
Answers: *What do we need to fix?*



4

KPI trend
Shows time-trend on the KPI.
Answers: *Are we getting better or worse?*

	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13
Structural Integrity	2	8	1	1	7	8	7	4	0	0	0	0
Process Containment	2	8	1	1	7	8	7	4	0	0	0	0
Marine Integrity	2	8	1	1	7	8	7	4	0	0	0	0
Ignition Control	2	8	1	1	7	8	7	4	0	0	0	0
Detection Systems	2	8	1	1	7	8	7	4	0	0	0	0
Protection Systems	2	8	1	1	7	8	7	4	0	0	0	0
Shutdown Systems	2	8	1	1	7	8	7	4	0	0	0	0
Emergency Response	2	8	1	1	7	8	7	4	0	0	0	0
Life Saving	2	8	1	1	7	8	7	4	0	0	0	0
Total	2	8	1	1	7	8	7	4	0	0	0	0

Narrative

Top Integrity Issues

Knowledge share

a) What new ORA's were raised this month?
(1) Operation of degasser without PSV set at 75psig
(2) Operation of dilution water storage tank (T901) without PSV676
(3) Vessel is still protected by PSV7007 (set at 675psig) to flare for overpres
(4) Found foam bladder inside TANK 603 was damaged. Need to be replaced

b) Which Operational Technical Authority (OTA) endorsed new ORA's?
Process and Emergency

c) Have the asset had any ORA extensions in the last month and which OTA approved the extensions?
No

d) Which ORA's reach their closeout date in the next month?
Yes - 2nd extension. ORA approval by OTA not submitted yet. Operation of

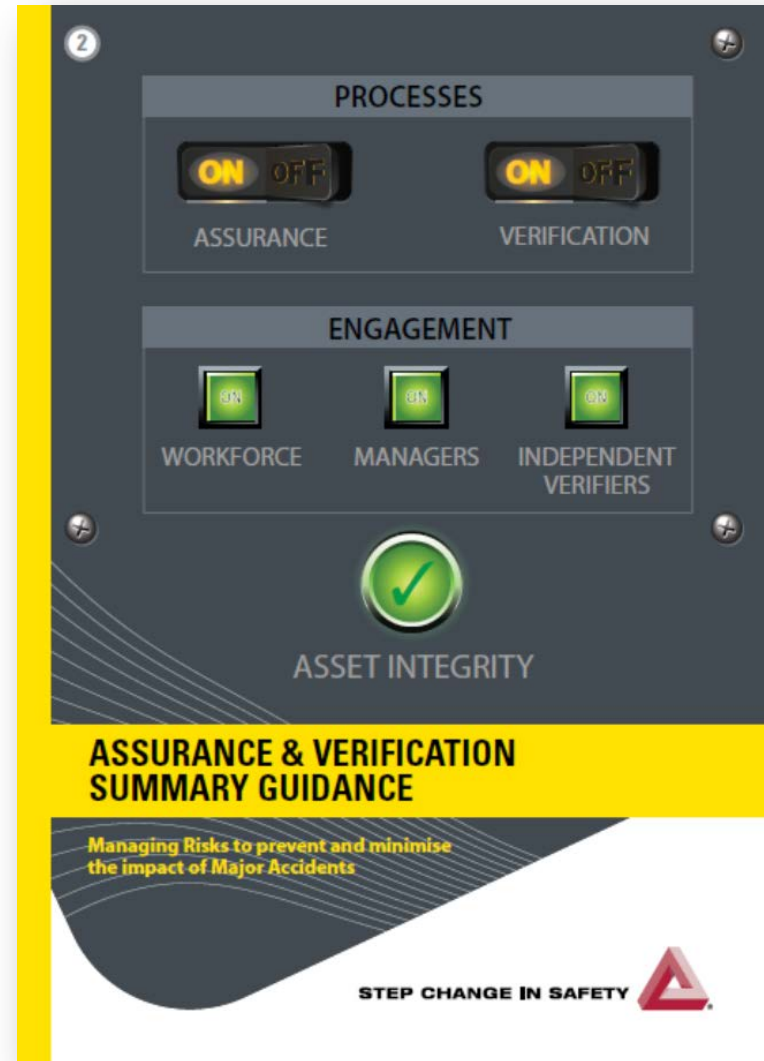
5

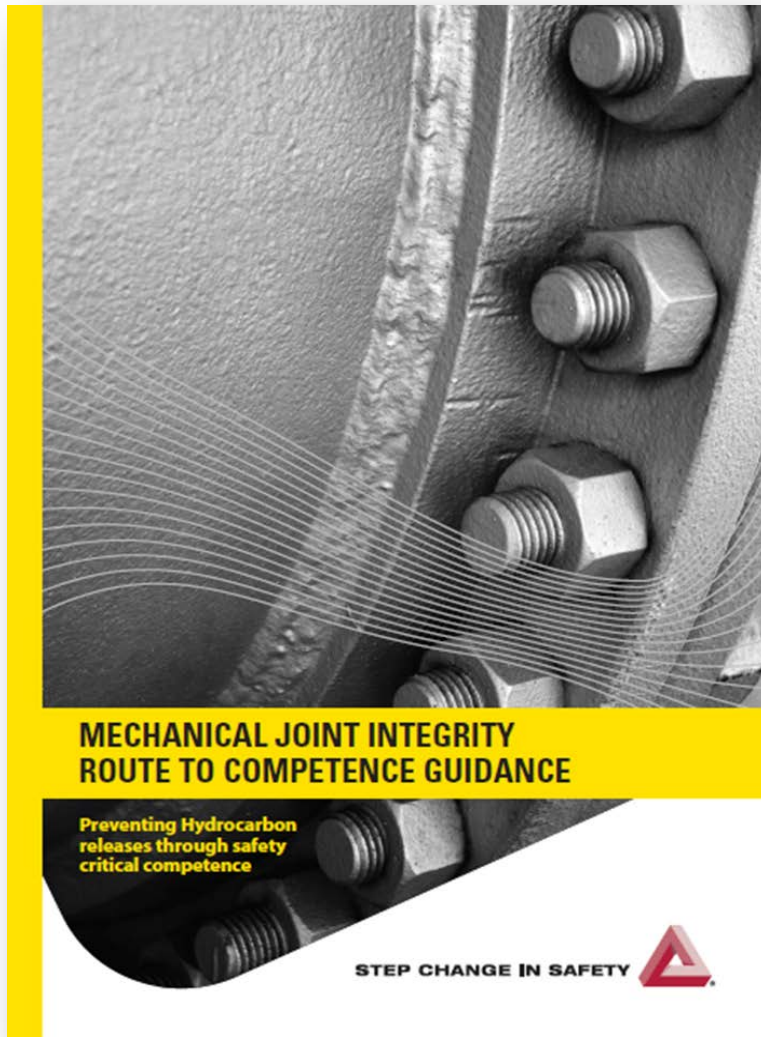
KPI narrative
Structured narrative.
Asset provide a response to the "5Whys" associated with each amber or red KPI.
Asks 'best practice' questions.
Supports roll-out of best practise across all Petrofac assets (OPO & IES) globally and consistently.
Answers: *Is the asset in full control of recovery on this KPI?*

- Provides detail on the framework and the intent behind the offshore Regulatory requirements
- Delivers working understanding of the principles to support the compliance processes by raising understanding of the expectations of Assurance / Verification and the benefits brought to both safety and production

+8000 hard copy publications distributed

75% going directly to workforce





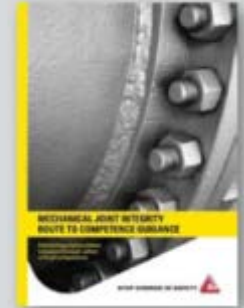
*To reduce / prevent
hydrocarbon leaks by reducing
human error in the making and
breaking of mechanical joints
through improved training &
competence standards and
processes*

Defining minimum standards of competency

Doubled+ the number of people taking the more robust training and competence route

100+ companies using the framework

Mechanical Joint Integrity – Route to Competence



2012

2547 learners

677 technical competence tests 90% achievement

2013

3697 learners

1115 technical competence tests 88% achievement



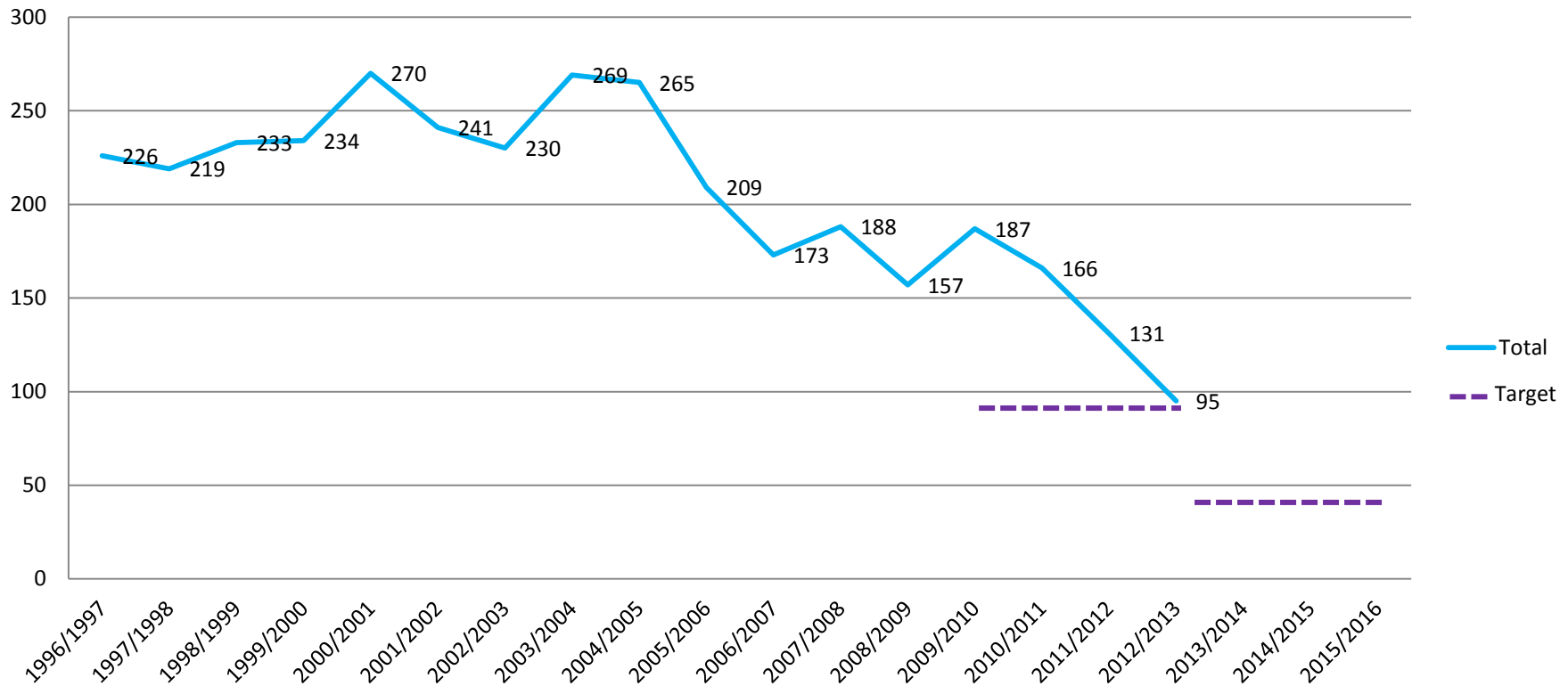
- Launched in 2013 ✓
- Major Accident Hazards ✓
- Small Bore Tubing ✓

- Reporting & Learning Lessons ✓
- Pipework ✓
- October - **Control of Work**
- December - **Joints**

+1000 registered users to date = very positive feedback

Targets

- A further 50% reduction in HCRs over three years (48 HCRs by 2015/16)
- All HCRs reported to SADIE



- Clear “stretch” targets set by AiSG, supported by Step Change leadership team
- Alignment to regulator strategy, inspection and investigation programme
- Industry good practice guidance reinforced, new (and old) guidance delivered
- Focused events drawing together all levels of workforce to share good practice, incident lessons
- Workforce Elected Safety Reps sitting on leadership team, steering groups and workgroup provide direct two way feedback
- Topic at site safety meetings, SI971 constituency meetings etc
- Strong independent leadership

- > SIMPLICITY
- > ENGAGEMENT
- > IMPLEMENTATION
- > LEADERSHIP

**PLAY
YOUR
PART**



**STEP CHANGE
IN SAFETY**





www.stepchangeinsafety.net



<https://www.facebook.com/stepchangeinsafety>



[@StepChangeInfo](https://twitter.com/StepChangeInfo)



Step Change in Safety

**PLAY
YOUR
PART**