

Upstream Claims Overview 2012-2017

LILLEHAMMER 
**ENERGY
CLAIMS**
 CONFERENCE

Presented by Andrew Jackson

7 March 2018



Presentation data source

FOR THE CHARTS AND LISTINGS THAT FOLLOW PLEASE NOTE:

- ALL data is from the Willis Towers Watson Energy Loss Database (WELD)
- Only losses excess of \$ 1,000,000 FGU have been included
- These are UPSTREAM losses only, as defined in WELD – currently offshore wind is defined as POWER in WELD and is not included in these presentation statistics
- All amounts are in US\$ converted at the date of loss rate of exchange if incurred in other currencies
- The figures relate to PD/S&P, OEE and BI costs only – no death & injury liability costs are included
- These are industry figures rather than insured figures which means
 - Where possible they INCLUDE deductibles and waiting periods
 - Except for BI they are not restricted to any policy limits but the costs involved are considered insurable
 - In other words, if you recognise the loss you may not recognise the amount!
- We will be delighted to receive information regarding omissions or inaccuracies
- It is still too early to have an accurate overview for 2017 and far too early for 2018

Upstream Losses > \$100M from 2012 to 2017 – by Year

2012

2012 – JACKUP – Nigeria - \$370M
2012 – WELL – Nigeria - \$200M
2012 – WELL – UK - \$470M
2012 – WELL – India - \$150M
2012 – PIPELINE – Nigeria - \$100M

2015

2015 – PLANT – Libya - \$140M
2015 – FPSO – Brazil - \$500M
2015 – PLANT – Libya - \$450M
2015 – PLATFORM – Iran - \$260M
2015 – PLATFORM – Mexico - \$650M
2015 – FSO – Brazil - \$140M
2015 – JACKUP – Mexico - \$240M
2015 – PIPELINE – USA - \$220M
2015 – PLATFORM – USA - \$650M
2015 – FPSO – Brazil - \$100M

2013

2013 – PLATFORM – Norway - \$380M
2013 – JACKUP – Angola - \$290M
2013 – PLATFORM – Angola - \$110M
2013 – JACKUP – USA - \$150M
2013 – PLATFORM – China - \$240M
2013 – LAND RIG – Mexico - \$190M
2013 – WELL – Indonesia - \$100M
2013 – SEMI SUB – S. Korea - \$120M

2016

2016 – FPSO – Ghana - \$1.5BN
2016 – DRILLSHIP – Canada - \$180M
2016 – PIPELINE – Nigeria - \$100M

2014

2014 – JACKUP – Mexico - \$110M

2017

2017 – PIPELAY – Brazil - \$130M
2017 – FPSO – Nigeria - \$150M

Upstream Losses > \$100M from 2012 to 2017 – by Category

MOPUS

2015 – FPSO – Brazil - \$500M
2015 – FSO – Brazil - \$140M
2015 – FPSO – Brazil - \$100M
2016 – FPSO – Ghana - \$1.5BN
2017 – FPSO – Nigeria - \$150M

WELLS

2012 – WELL – Nigeria - \$200M
2012 – WELL – UK - \$470M
2012 – WELL – India - \$150M
2013 – WELL – Indonesia - \$100M

RIGS/VESSELS

2012 – JACKUP – Nigeria - \$370M
2013 – JACKUP – Angola - \$290M
2013 – JACKUP – USA - \$150M
2013 – LAND RIG – Mexico - \$190M
2013 – SEMI SUB – S. Korea - \$120M
2014 – JACKUP – Mexico - \$110M
2015 – JACKUP – Mexico - \$240M
2016 – DRILLSHIP – Canada - \$180M
2017 – PIPELAY – Brazil - \$130M

PLANTS

2015 – PLANT – Libya - \$140M
2015 – PLANT – Libya - \$450M

PLATFORMS

2013 – PLATFORM – Norway - \$380M
2013 – PLATFORM – Angola - \$110M
2013 – PLATFORM – China - \$240M
2015 – PLATFORM – Iran - \$260M
2015 – PLATFORM – Mexico - \$650M
2015 – PLATFORM – USA - \$650M

PIPELINES

2012 – PIPELINE – Nigeria - \$100M
2015 – PIPELINE – USA - \$220M
2016 – PIPELINE – Nigeria - \$100M

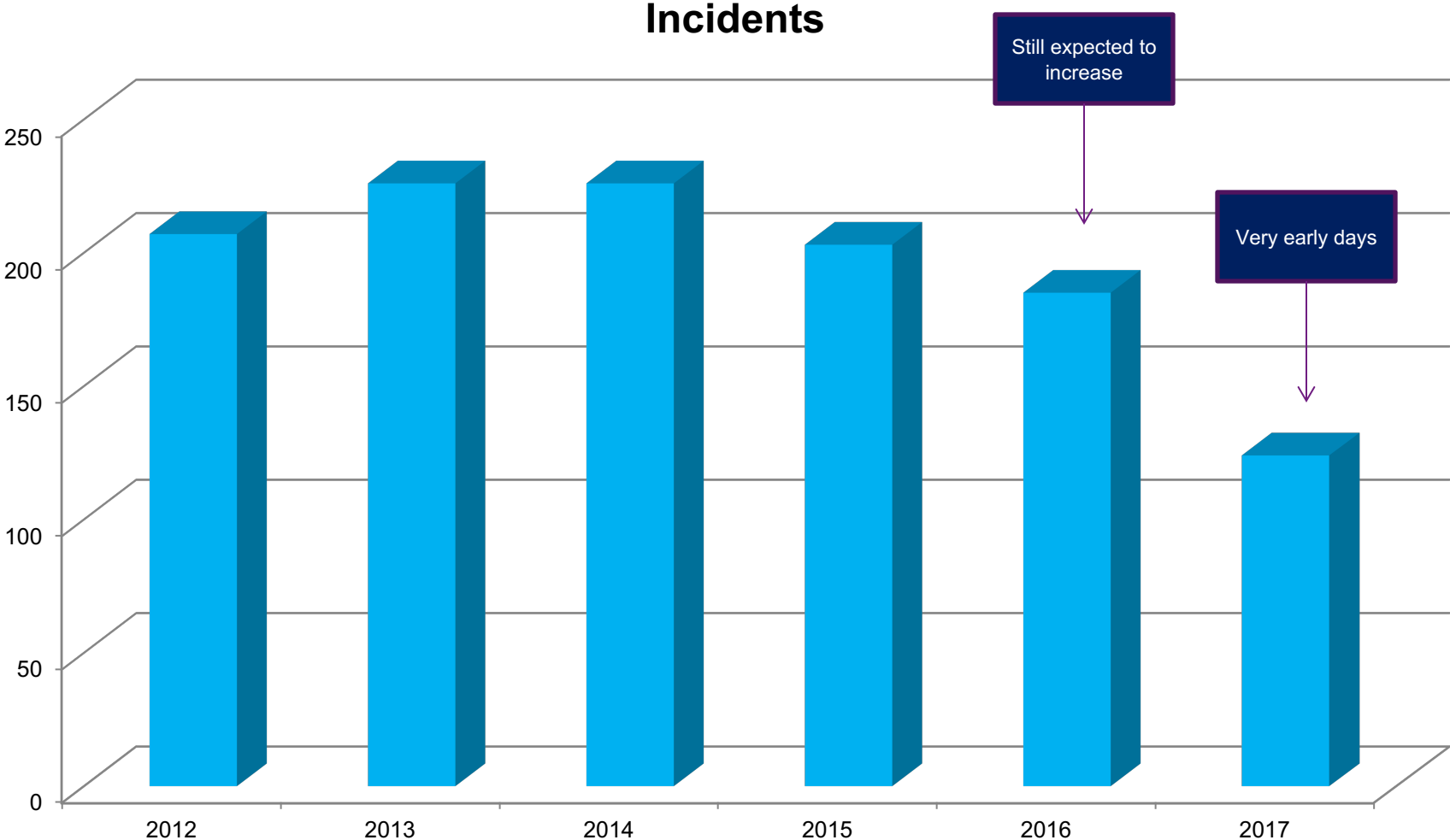
Presentation data

What you will see in this presentation are two sets of statistics

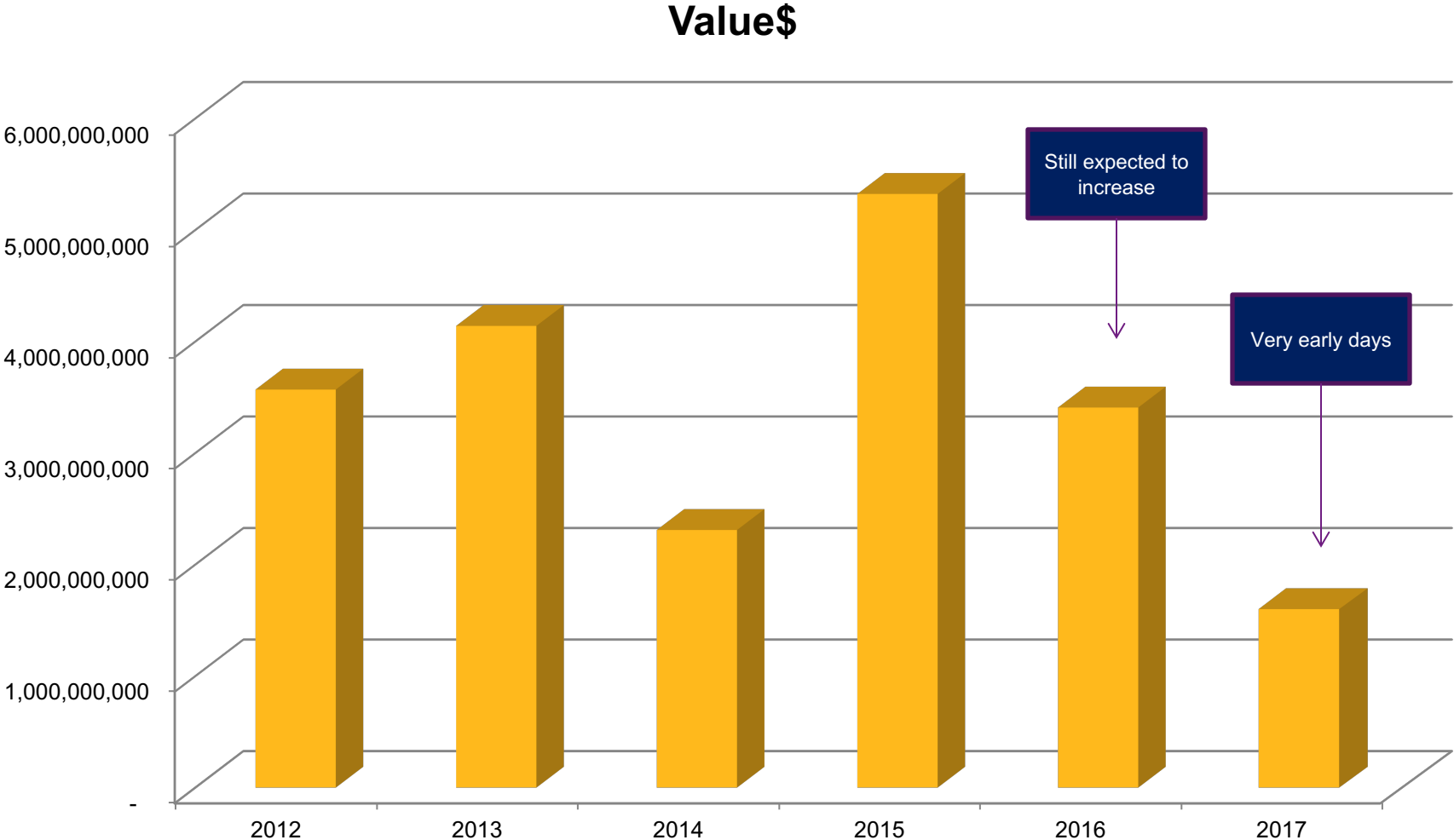
INCIDENTS: this reflects the frequency or number of losses. There is only one entry per incident irrespective of how many parties are involved. If there is a blowout and fire on a MODU with damage to the rig, there is only one entry reflecting the cost of the damage to the contractor (and/or operator) and the operator's OEE costs. Loss of hire and/or loss of production income would also be included in this one entry but only if purchased

VALUE \$: this reflects the combined insurable costs associated with the incident. For PD, S&P and OEE it is the gross cost inclusive of retentions and deductibles and ignores limits, sub-limits or other restrictions if a higher amount of insurance was possible to purchase. For BI it is only included if purchased and would be maximised to the limit purchased

All Upstream 2012 to 2017 - Overall



All Upstream 2012 to 2017 - Overall

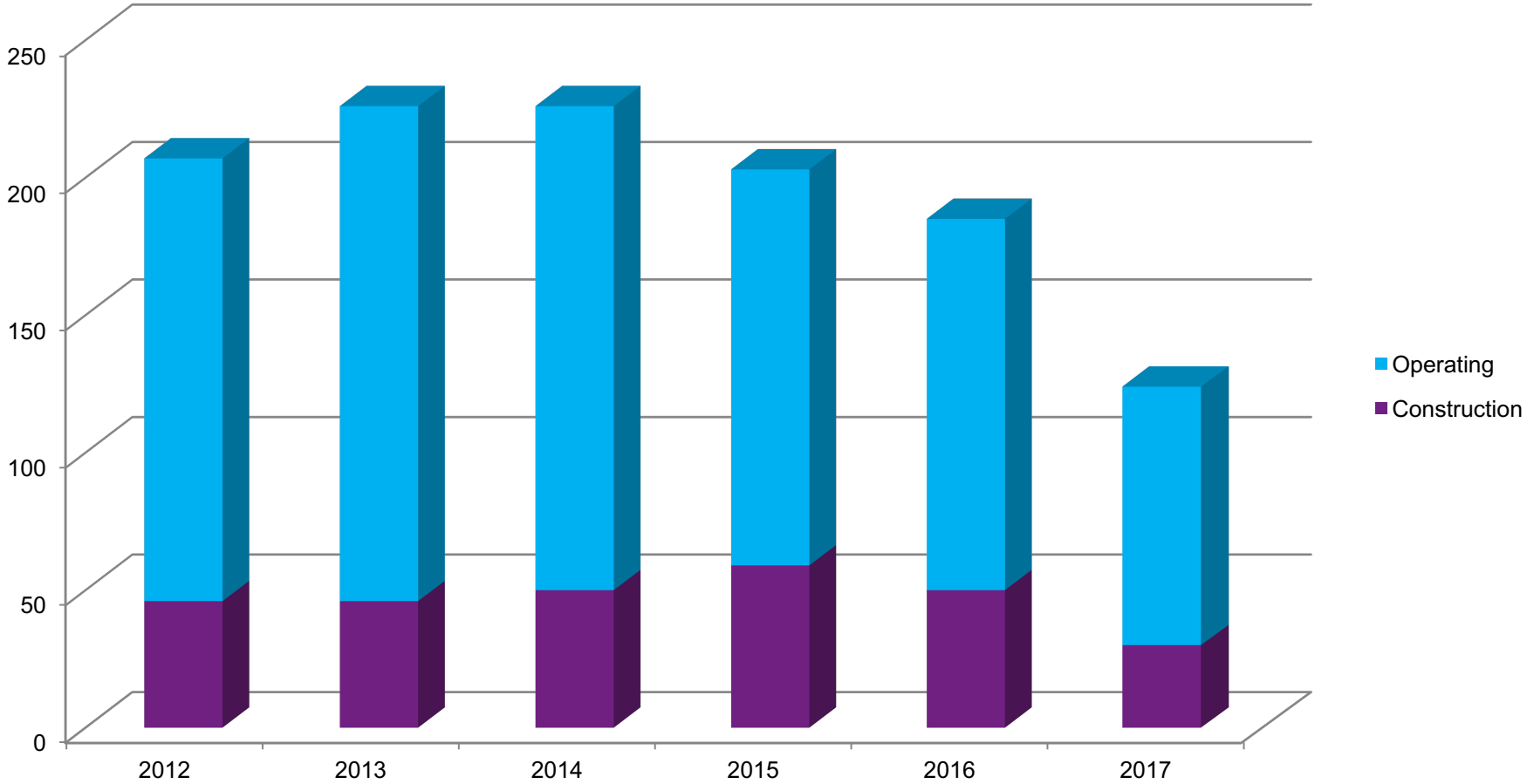


All Upstream 2012 to 2017 – Construction vs Operating

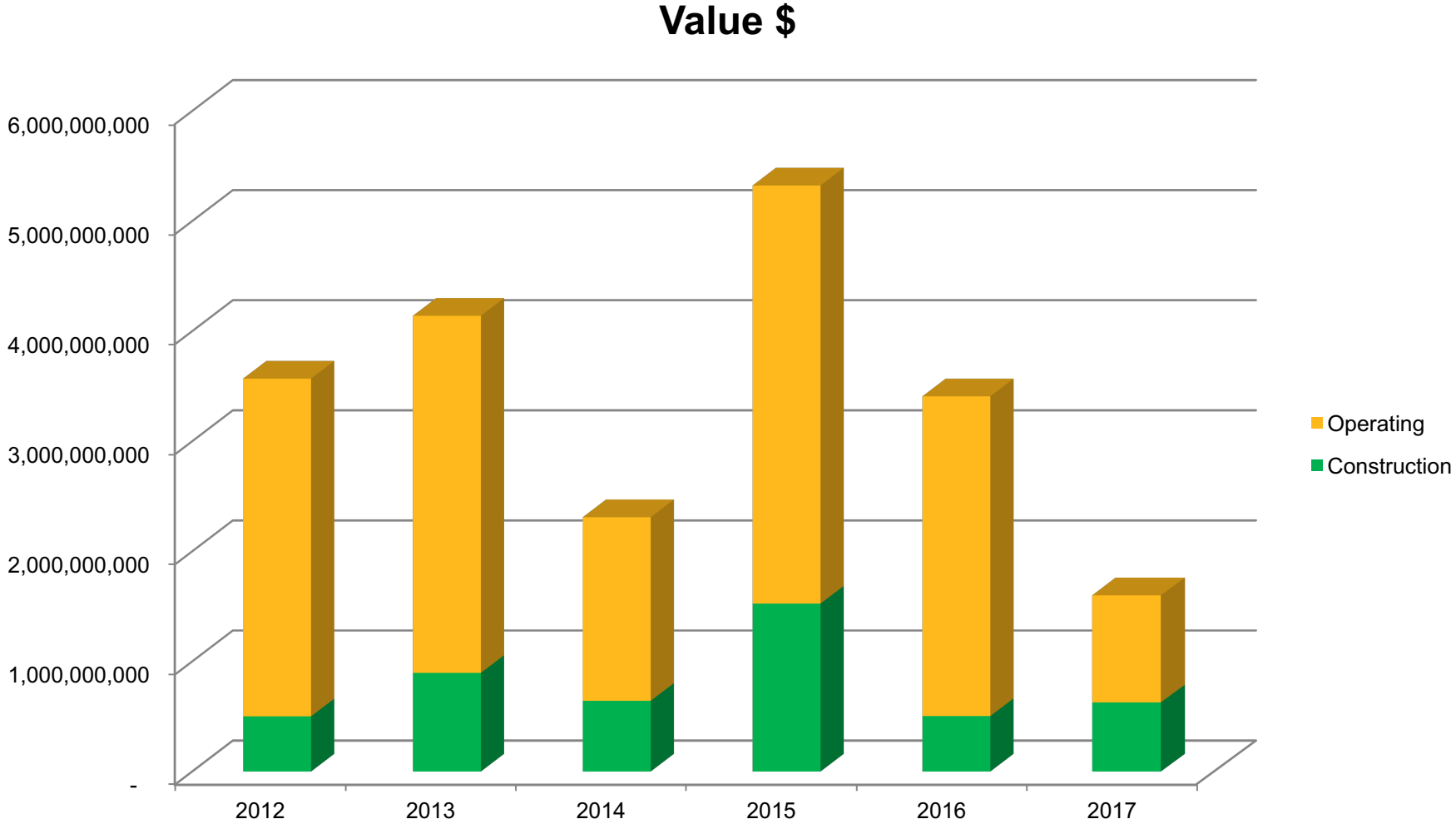
We will now look at how many losses there were during the construction and operational phases and their respective shares of the values

All Upstream 2012 to 2017 – Construction vs Operating

Incidents



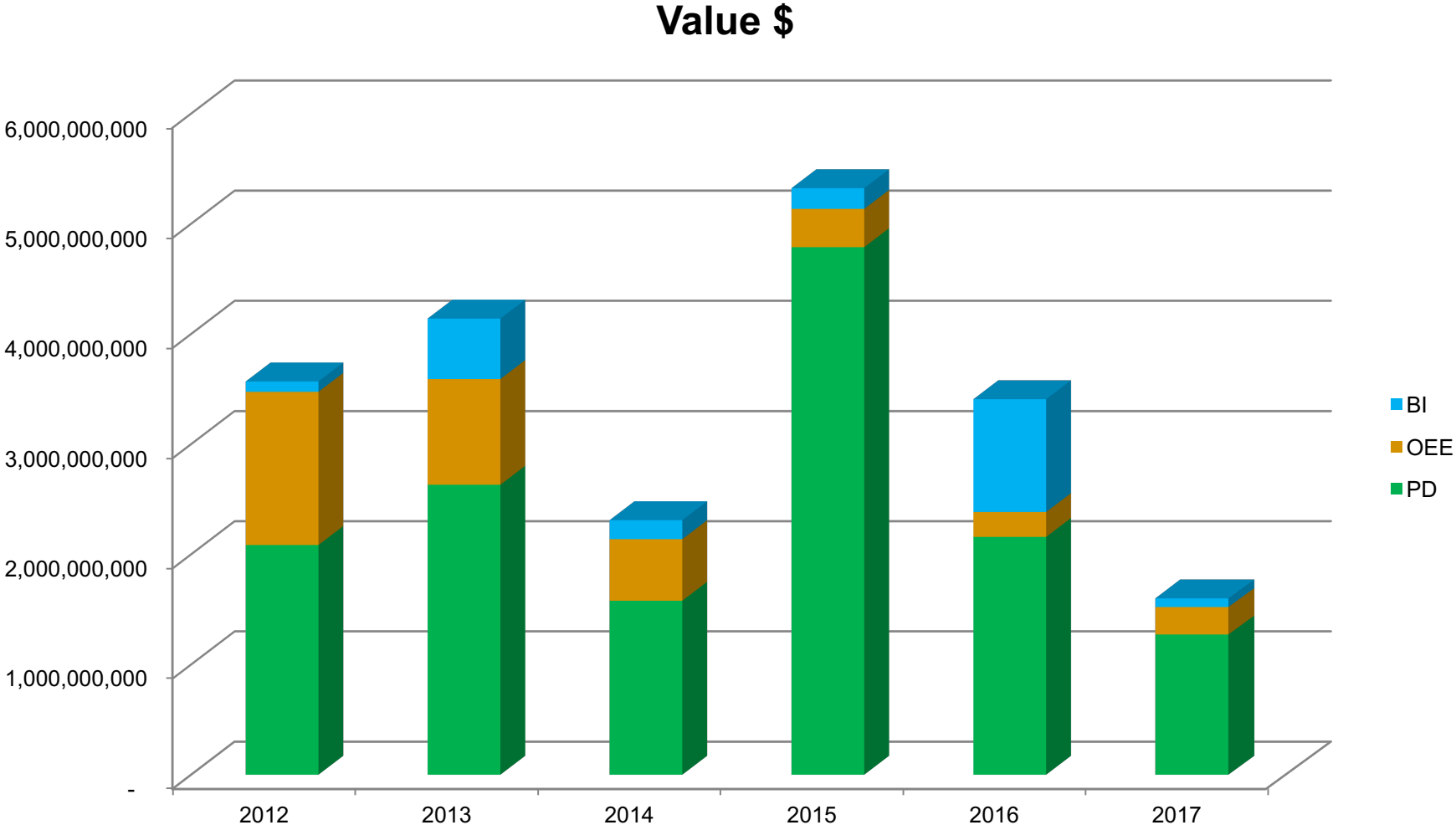
All Upstream 2012 to 2017 – Construction vs Operating



All Upstream 2012 to 2017 – Costs Analysis

The next slide shows how the values have been made up between PD/S&P, OEE and BI.

All Upstream 2012 to 2017 – Construction vs Operating



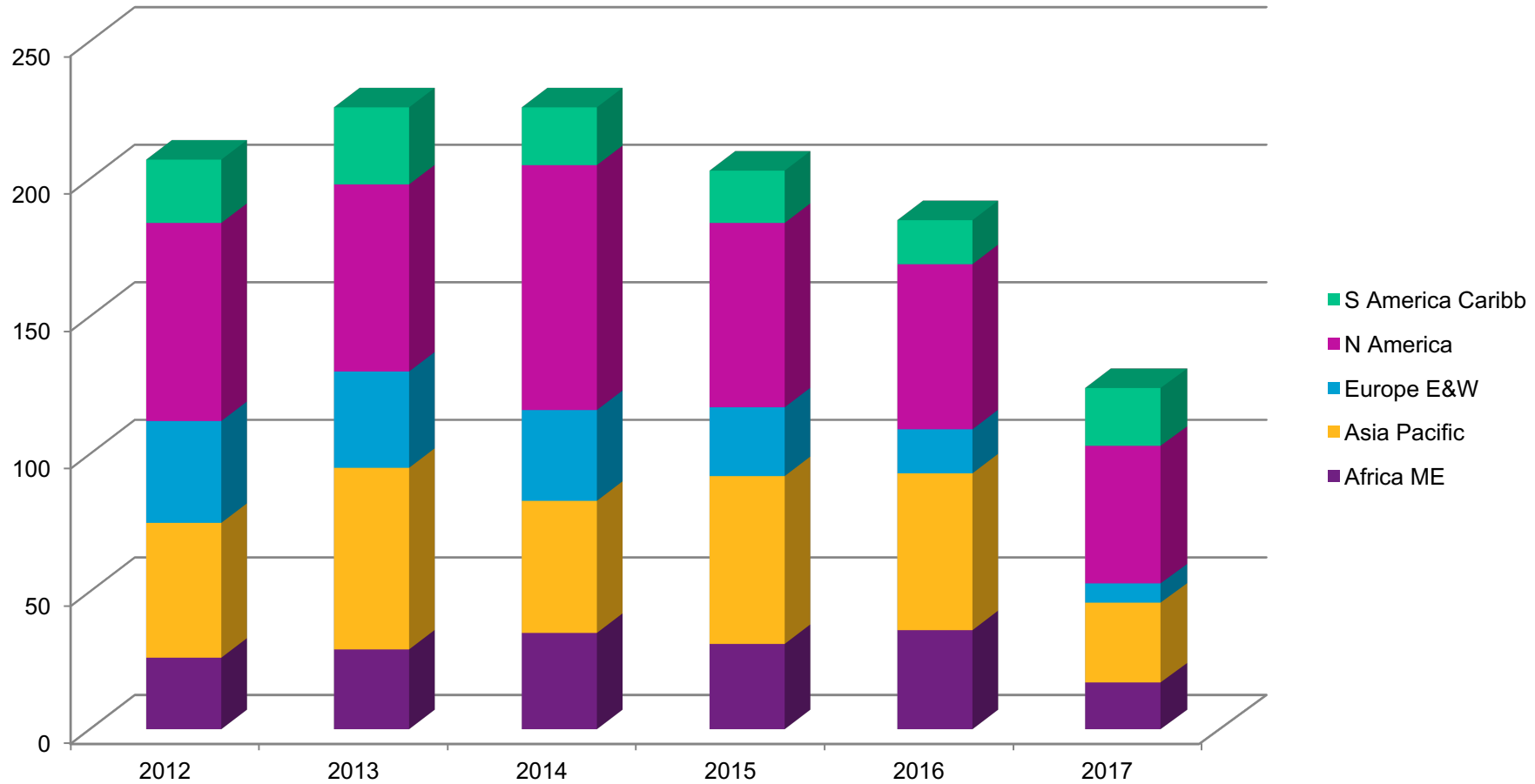
All Upstream 2012 to 2017 – By Area Operating and Construction

So where have these losses been taking place? For the next slides the world has been divided into 5 main areas:

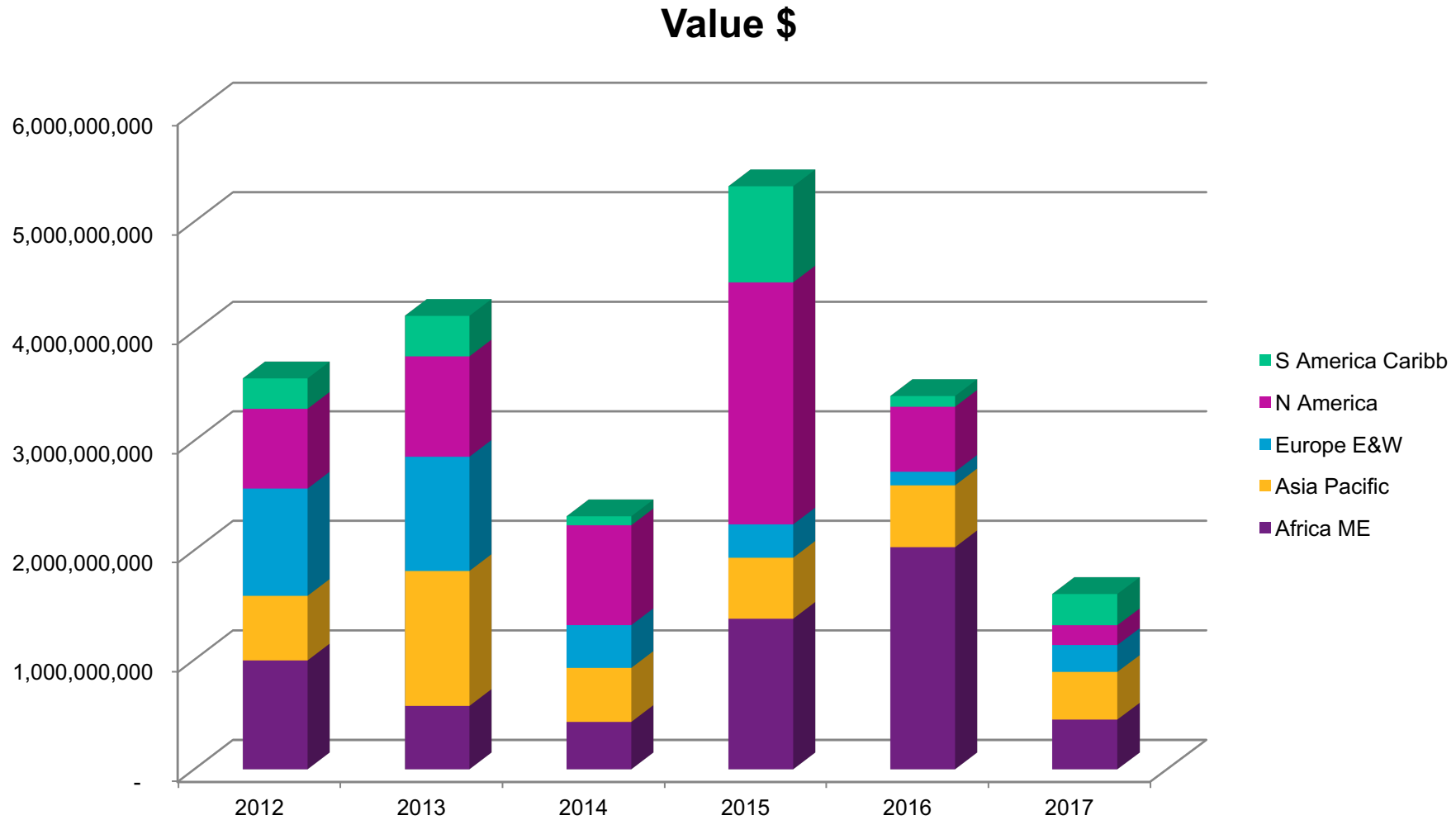
- A. South America and the Caribbean**
- B. North America comprising USA, Canada and Mexico**
- C. Europe and eastern Europe**
- D. Asia Pacific**
- E. Africa and Middle East**

All Upstream 2012 to 2017 – By Area Operating and Construction

Incidents



All Upstream 2012 to 2017 – By Area Operating and Construction



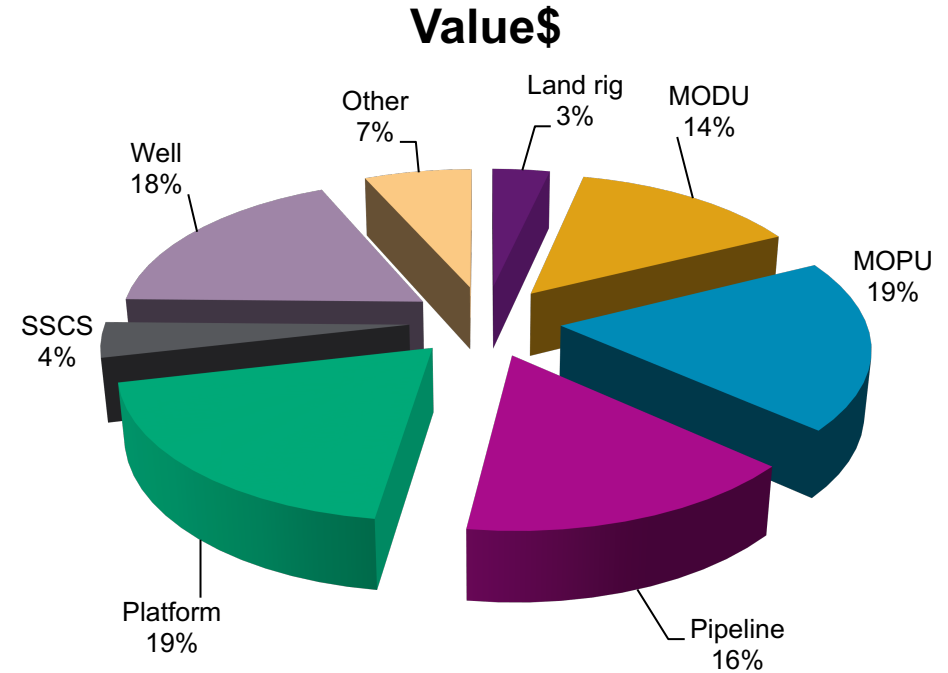
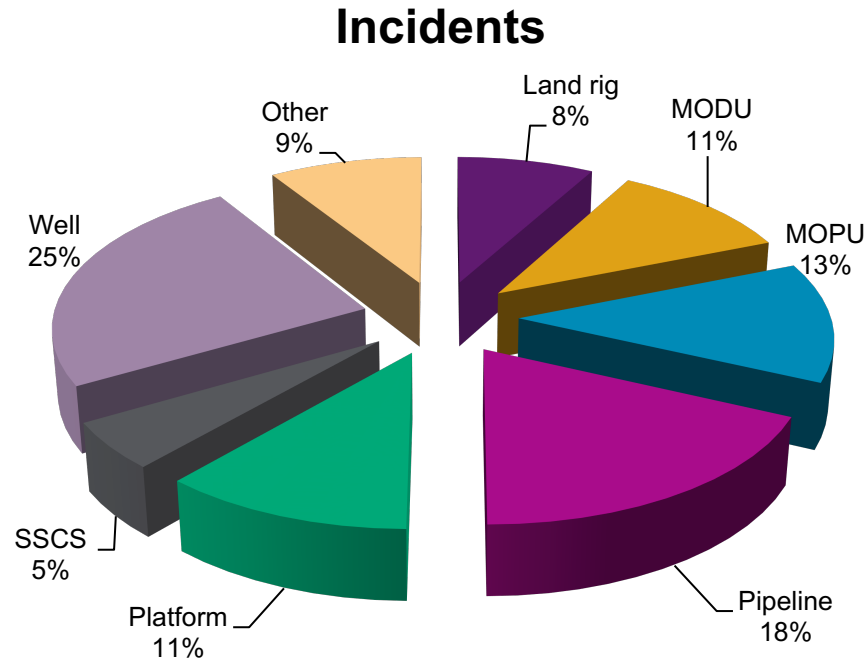
All Upstream 2012 to 2017 – By Area Operating and Construction

And now to see which categories have given rise to most of the claims and which have accounted for most of the cost

Note:

- 1. An OEE loss where there is no resulting PD claim is classed as a 'Well' loss as is damage to the well but not the drilling rig/platform**
- 2. If an OEE loss causes damage to the rig/platform the loss will be classified under the relevant structure**

All Upstream 2012 to 2017 – By Category



MODU = Mobile Offshore Drilling Units
MOPU = Mobile Offshore Production Units
SSCS = Subsea Completion Systems

Floating MOPUs 2012 to 2017

Historically this presentation looks at one particular aspect of the Upstream world in a bit more detail. Today we will have a look at Floating Mobile Offshore Production Units over the last 6 years - there were 4 jackup unit incidents totalling \$40M which are not included

To remind you of some of the type of units:

FLNG	Floating Liquefied Natural Gas
FDPSO	Floating Drilling, Production, Storage & Offloading
FPS	Floating Production System
FPSO	Floating Production, Storage & Offloading
FPU	Floating Production Unit
FSO	Floating Storage & Offloading
FSU	Floating Storage Unit

Floating MOPUs 2012 to 2017

In the last 6 years there have been 147 incidents over \$1M with a total value of \$3.8BN. The majority of these were FPSOs accounting for 123 incidents with FSO/FSUs next with 13

Of these 147 incidents, 96 occurred whilst operating accounting for \$3.25BN of the amount so the next slides are going to focus on these 96 incidents.

But firstly a question:

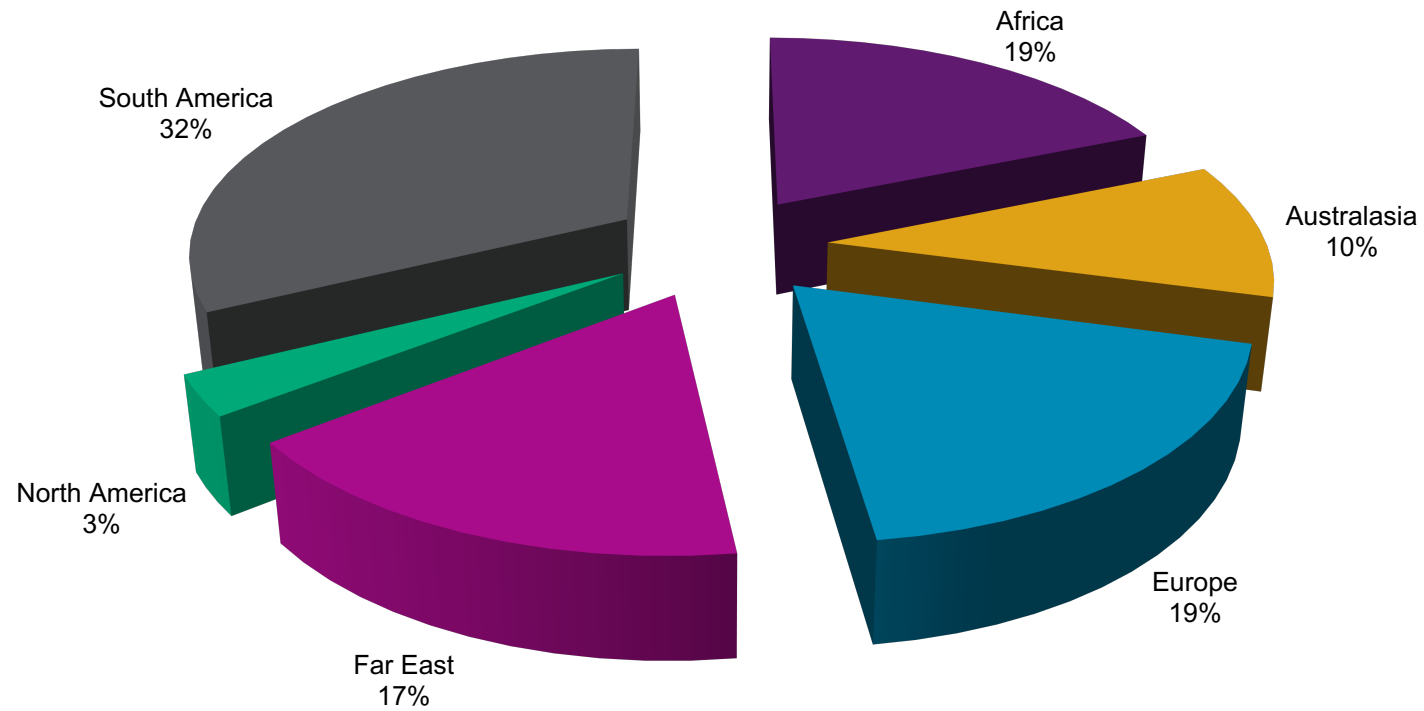
Floating MOPUs 2012 to 2017 – Operational Losses

Where do you think the majority of operating MOPU losses have occurred? This is by frequency not value

- A. Africa
- B. Australasia
- C. Europe
- D. Far East
- E. North America
- F. South America

Floating MOPUs 2012 to 2017 – Operational Losses

Incidents

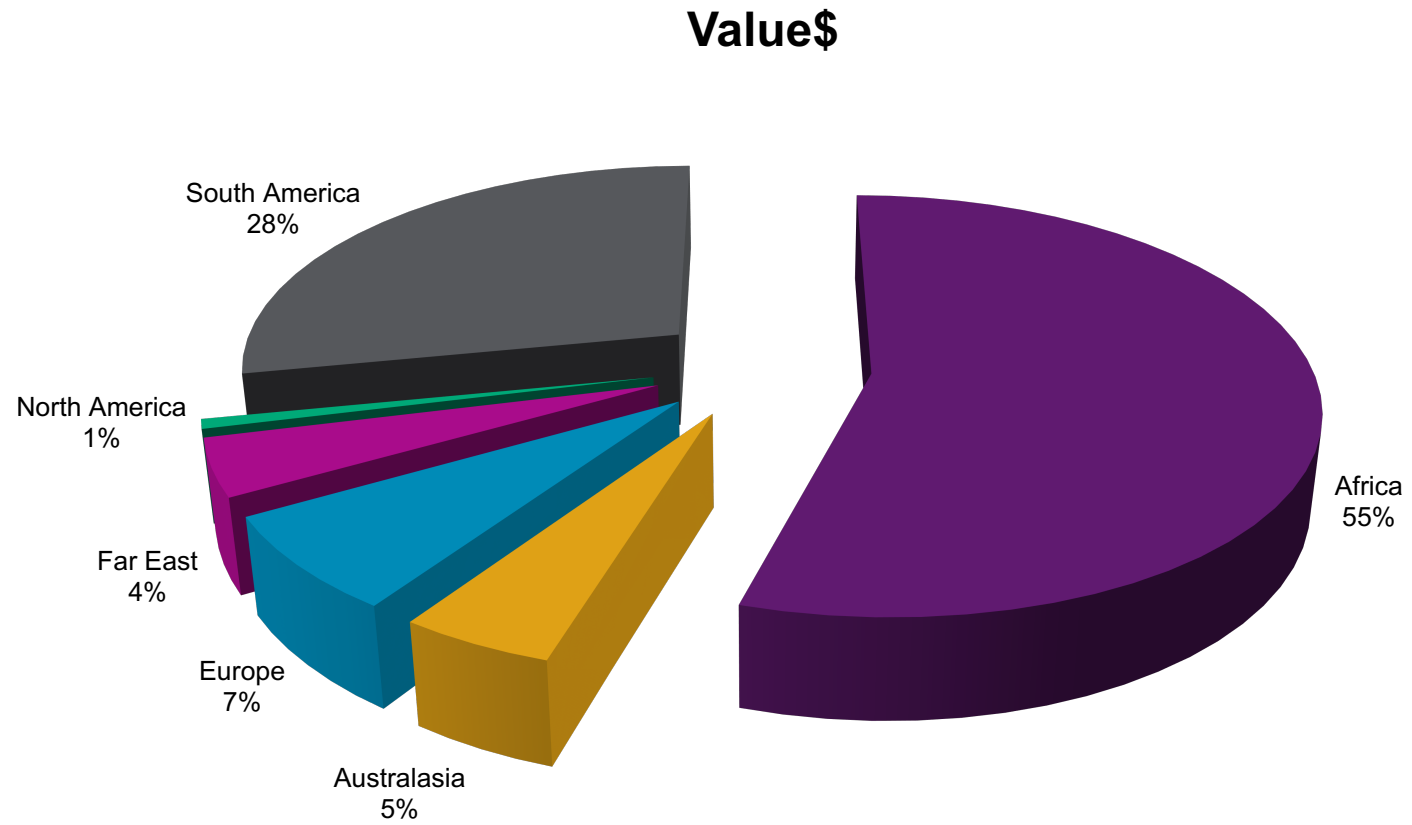


Floating MOPUs 2012 to 2017 – Operational Losses

And to see if you have been paying attentionwhere do you think the majority the costs were incurred?

- A. Africa**
- B. Australasia**
- C. Europe**
- D. Far East**
- E. North America**
- F. South America**

Floating MOPUs 2012 to 2017 – Operational Losses



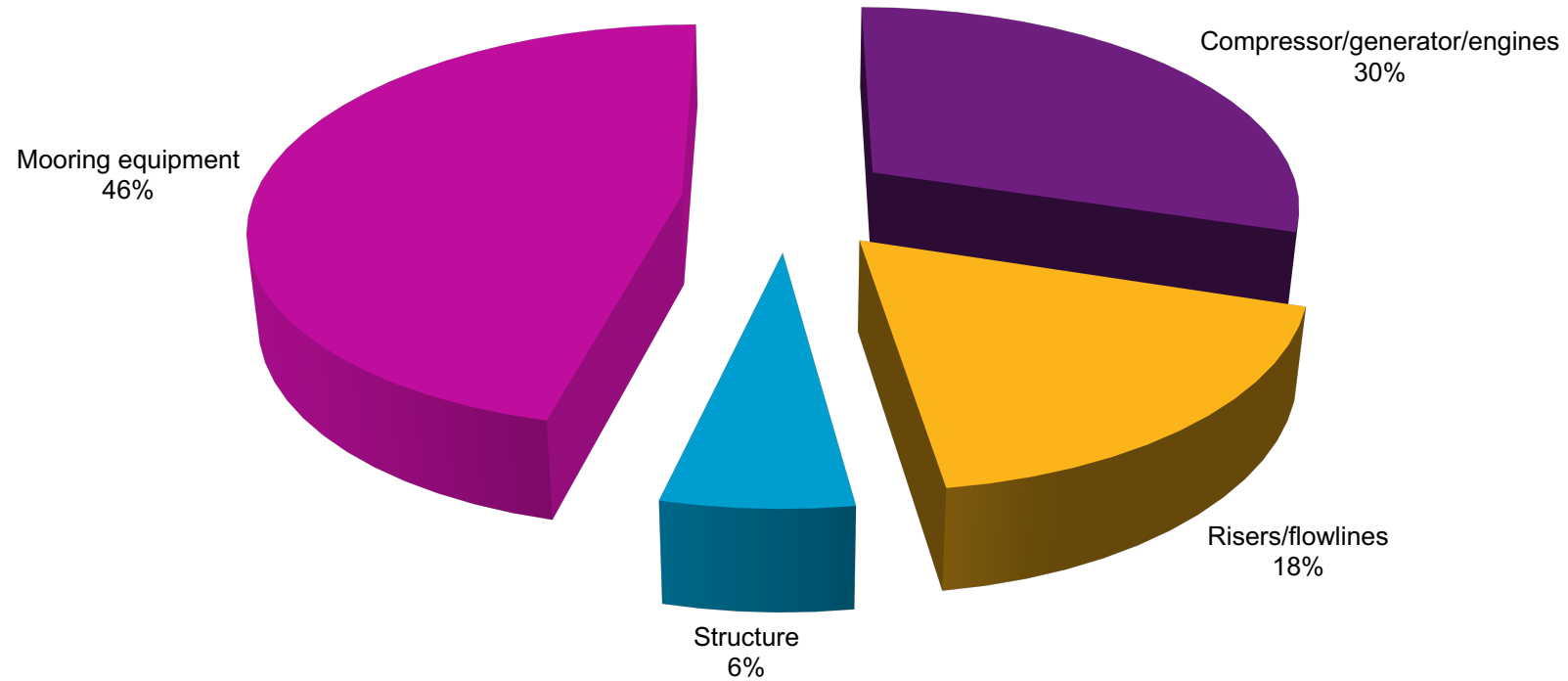
Floating MOPUs 2012 to 2017 – Operational Losses

Which part(s) of the unit on operating MOPU losses were the subject of the highest frequency of losses?

- A. Compressor/generator/engines
- B. Risers/flowlines
- C. Structure
- D. Mooring equipment
- E. None of the above

Floating MOPUs 2012 to 2017 – Operational Losses

Incidents

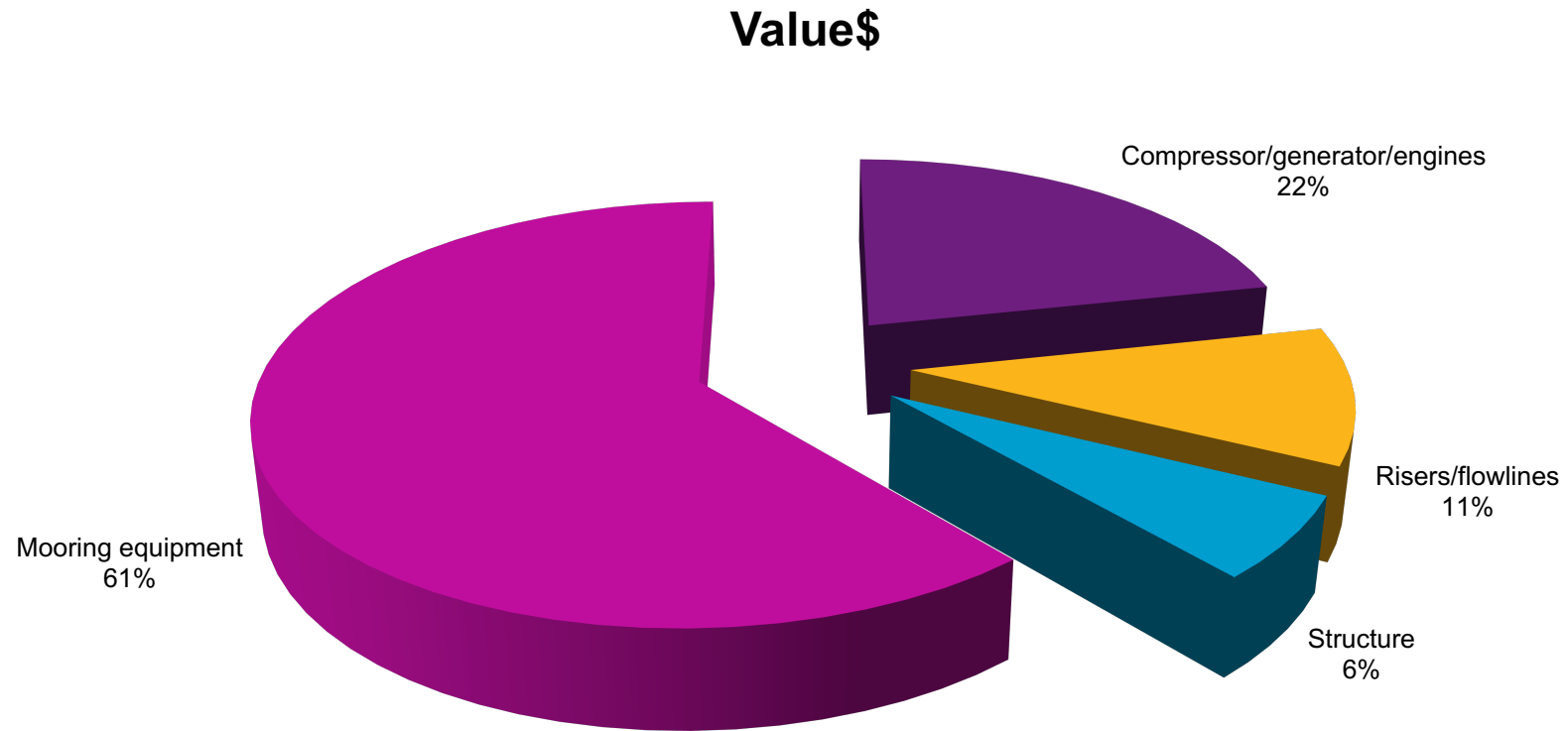


Floating MOPUs 2012 to 2017 – Operational Losses

Which part(s) of the unit on operating MOPU losses were the subject of the highest value of losses?

- A. Compressor/generator/engines
- B. Risers/flowlines
- C. Structure
- D. Mooring equipment
- E. None of the above

Floating MOPUs 2012 to 2017 – Operational Losses



Floating MOPUs 2012 to 2017 – Operational Losses

It would be nice to end with a similar exercise on causation however this is such a sensitive and somewhat subjective issue on MOPUs it won't be discussed here

Suffice it to say that:

Mechanical failure

Faulty workmanship/operator error

Faulty design and corrosion

account for 53/96 incidents and \$2.3BN out of \$3.25BN of costs

Whereas heavy weather and collision accounts for 15/96 incidents and \$123M of losses

Thank you for your attention and enjoy the conference!

About Willis Towers Watson

Willis Towers Watson (NASDAQ: WLTW) is a leading global advisory, broking and solutions company that helps clients around the world turn risk into a path for growth. With roots dating to 1828, Willis Towers Watson has 40,000 employees serving more than 140 countries. We design and deliver solutions that manage risk, optimize benefits, cultivate talent, and expand the power of capital to protect and strengthen institutions and individuals. Our unique perspective allows us to see the critical intersections between talent, assets and ideas – the dynamic formula that drives business performance. Together, we unlock potential. Learn more at willistowerswatson.com.



Copyright © 2018 Willis Towers Watson. All rights reserved.

willistowerswatson.com

Willis Towers Watson 