

**Stronger in a Weak Market** 





# Agenda Q4 Earnings Release & Capital Markets Day

Time	Event
08:30	Q4 2016 results and CMD financials Gottfred Langseth, EVP & CFO
09:05	PGS and market perspectives Jon Erik Reinhardsen, President & CEO
09:30	Q&A
10:00	Coffee break
10:15	MultiClient Sverre Strandenes, Executive Vice President MultiClient
10:35	Marine Contract & Operations Per Arild Reksnes, Executive Vice President Operations
11:05	Imaging & Engineering Guillaume Cambois, Executive Vice President Imaging & Engineering
11:25	Concluding remarks Jon Erik Reinhardsen, President & CEO
11:30	Q&A
11:45	Lunch



# **Gottfred Langseth**

EVP & CFO







# **Cautionary Statement**

- This presentation contains forward looking information
- Forward looking information is based on management assumptions and analyses
- Actual experience may differ, and those differences may be material
- Forward looking information is subject to significant uncertainties and risks as they relate to events and/or circumstances in the future
- This presentation must be read in conjunction with the press release for the fourth quarter and preliminary full year 2016 results and the disclosures therein
- The Company uses Alternative Performance Measures ("APMs").
   Disclosures required under the guidelines issued by the European Securities and Markets Authority (ESMA) are included in the Company's financial reports

# **Strong Full Year MultiClient Performance**

# Refinancing Successfully Completed



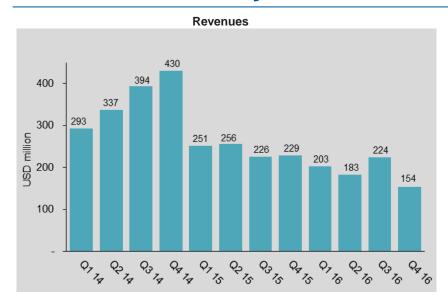


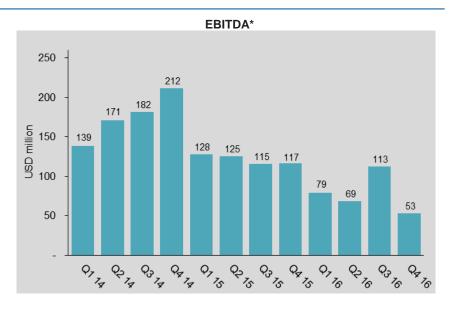
- 2016 EBITDA of USD 313.3 million
- Industry leading MultiClient performance
  - Pre-funding level of 121%
  - Full year sales-to-investment of 2.3 times, up from 1.9 times in 2015
  - Late sales up 17% compared to 2015
- Refinancing completed
  - Gross equity proceeds of ~ USD 260 million
  - Reduced debt
  - Maturities extended to 2020
- Gross cash cost further reduced by ~ USD 131 million compared to 2015
- Ramform Tethys delivered moderate remaining capital expenditure to complete new build program in Q1 2017

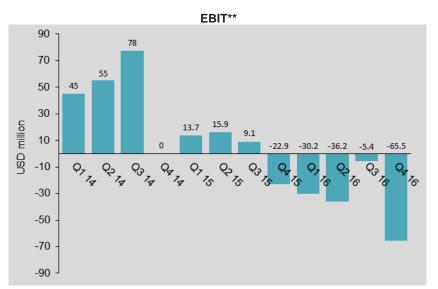
Capital structure better aligned to market conditions

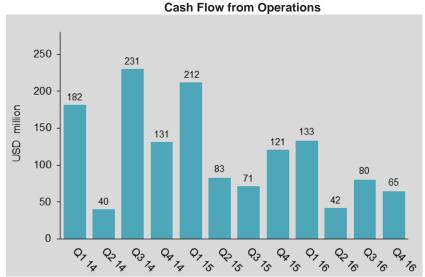












<sup>\*</sup>EBITDA, when used by the Company, means EBIT excluding other charges, impairment and loss on sale of long-term assets and depreciation and amortization.

\*\*EBIT excluding impairment and loss on sale of long-term assets and other charges.



# **Consolidated Statement of Profit and Loss Summary**

	Q4	Q4	Full year	
USD million (except per share data)	2016	2015	2016	
Revenues	154.1	229.3	764.3	
EBITDA*	53.1	116.5	313.3	
Operating profit (loss) EBIT ex impairment and other charges	(65.5)	(22.9)	(137.5)	
Operating profit (loss) EBIT	(92.4)	(332.9)	(180.3)	
Net financial items	(26.3)	(24.3)	(82.6)	
Income (loss) before income tax expense	(118.7)	(357.1)	(262.8)	
Income tax expense	(37.4)	22.5	(31.2)	
Net income (loss) to equity holders	(156.1)	(334.6)	(293.9)	
EPS basic	(\$0.61)	(\$1.48)	(\$1.21)	
EBITDA margin*	34.5 %	50.8 %	41.0 %	
EBIT margin ex impairment and other charges	-42.5 %	-10.0 %	-18.0 %	

Full year	Full year
2016	2015
764.3	961.9
313.3	484.4
(137.5)	15.8
(180.3)	(430.4)
(82.6)	(75.2)
(262.8)	(505.5)
(31.2)	(22.4)
(293.9)	(527.9)
(\$1.21)	(\$2.43)
41.0 %	50.4 %
-18.0 %	1.6 %

- Market and capacity driven revenue decline of 21% in 2016
- High tax expense for Q4 and full year 2016 since a USD 50 million valuation allowance/write down is recorded for deferred tax assets in Norway and UK



# **Impairments and Other Charges**

Summary of impairments and other charges impacting Q4 and full year 2016

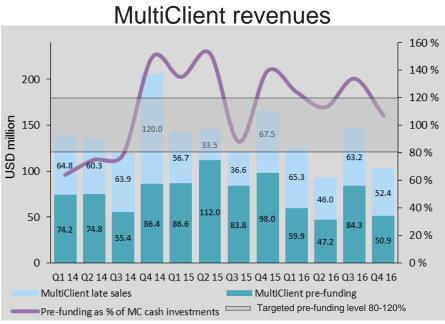
USD million	Q4 2016	Full year 2016
Impairment of property and equipment	(7.8)	(12.0)
Impairment of MultiClient library	(21.0)	(30.1)
Provision for onerous contracts (Other charges)	2.4	3.7
Currency devaluation loss Egypt and Nigeria (Other financial expense)	(4.9)	(10.1)
Increased valuation allowance for deferred tax assets (Income tax expense)	(50.0)	(50.0)

- The refinancing completed in Q4 2016 had limited net impact on the profit and loss statement
  - USD 10.6 million gain on repurchase of USD 212 million of the 2018 Senior Notes at 95% of par
  - USD 2.8 million of expensed debt related transaction cost
  - USD 6.3 million write off related to pre-existing deferred loan cost related to debt refinanced before the initial maturity



# **Q4 2016 Operational Highlights**



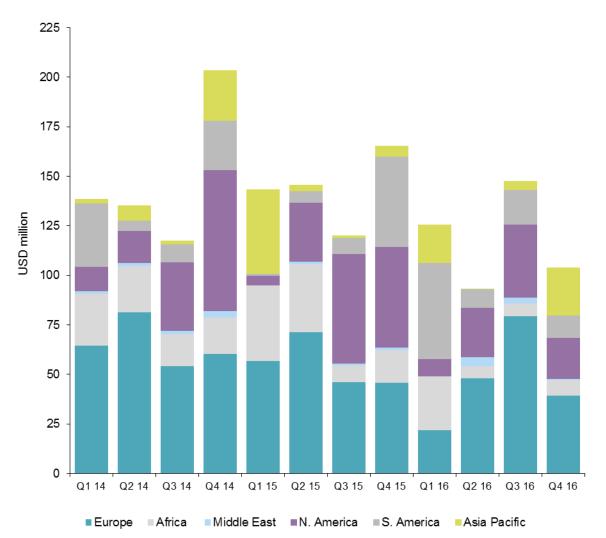


- Total MultiClient revenues of USD 103.4 million
  - Pre-funding revenues of USD 50.9 million
  - Pre-funding level of 107% on USD 47.8 million of MultiClient cash investments
  - Average MultiClient pre-funding level over the last two years exceeds the 80-120% target level
  - Late sales revenues of USD 52.4 million
- Marine contract revenues of USD 29.3 million reflecting low pricing, more nonchargeable vessel time and limited capacity allocated to contract work

# **MultiClient Revenues per Region**



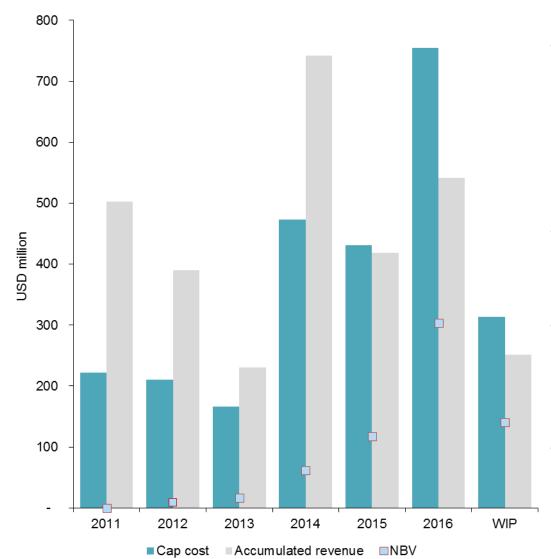




- Q4 pre-funding revenues were highest in Asia-Pacific and Europe
- Q4 late sales revenues were highest in Europe and North America
- Regional and quarterly variability expected to continue







- MultiClient library book value of USD 647.7 million as of December 31, 2016
  - Down from USD 695.0 million at y/e 2015
- Moderate net book value for surveys completed 2011-2015
- 2016 amortization expense of USD 293.8 million
  - 63% of sales
- 2016 impairment charge of USD 30.1 million





	2016			
USD million	Q4	Q3	Q2	Q1
Contract revenues	29.3	54.2	69.9	59.2
MultiClient Pre-funding	50.9	84.3	47.2	59.9
MultiClient Late sales	52.4	63.2	46.0	65.3
Imaging	19.6	16.0	17.9	16.6
Other	1.9	6.4	2.1	2.1
Total Revenues	154.1	224.1	183.0	203.1
Operating cost	(101.0)	(111.4)	(114.2)	(124.6)
EBITDA*	53.1	112.7	68.8	78.6
MultiClient amortization and impairment	(97.6)	(86.2)	(62.9)	(68.1)
Depreciation and amortization of long-term assets (excl. MC library)	(42.0)	(31.9)	(42.1)	(40.7)
Impairment and loss on sale of long-term assets (excl. MC library)	(7.8)	(9.2)	(4.2)	
Other charges, net	1.9	3.1	(4.2)	(1.4)
EBIT	(92.4)	(11.5)	(44.6)	(31.6)
CAPEX, whether paid or not	(28.7)	(19.0)	(51.9)	(108.9)
Cash investment in MultiClient	(47.8)	(63.0)	(41.8)	(48.3)
Order book	215	190	230	204

2015					
Q4	Q3	Q2	Q1		
43.5	77.3	84.4	68.8		
98.0	83.8	112.0	86.6		
67.5	36.6	33.5	56.7		
18.2	21.7	23.5	30.3		
2.2	6.3	2.4	8.7		
229.3	225.7	255.8	251.1		
(112.8)	(110.4)	(130.7)	(123.5)		
116.5	115.3	125.1	127.5		
(101.8)	(78.7)	(74.6)	(72.5)		
(37.6)	(27.4)	(34.5)	(41.6)		
(274.9)	(65.3)	(56.9)	0.0		
(35.1)	(6.5)	(4.7)	(2.7)		
(332.9)	(62.7)	(45.7)	10.9		
		•			
(41.7)	(17.0)	(63.3)	(41.5)		
(70.2)	(95.5)	(73.6)	(64.0)		
240	245	259	394		

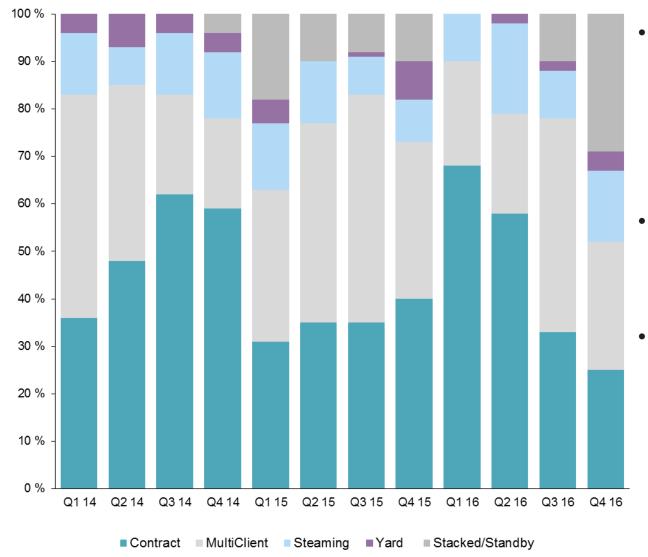
<sup>\*\*</sup>EBITDA, when used by the Company, means EBIT excluding other charges, net, impairment and loss/gain on sale of long-term assets and depreciation and amortization.

The accompanying unaudited financial information has been prepared under IFRS. This information should be read in conjunction with the unaudited fourth quarter and preliminary full year 2016 results released on February 16, 2017.

#### **Vessel Utilization\***

## Seismic Streamer 3D Fleet Activity in Streamer Months

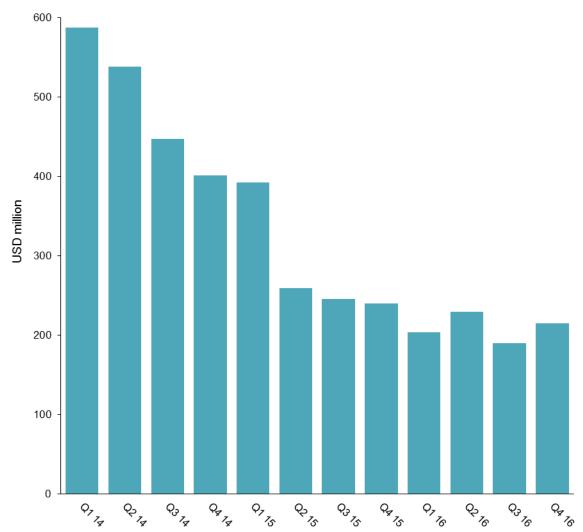




- 52% active vessel time in Q4 2016
  - Significant vessel standby due to the weak market and seasonality
- Vessel utilization to be significantly higher in Q1 2017
- Relatively low MultiClient share of 3D fleet in Q1 2017
  - Approx. 25% of active vessel time

## **Order Book**

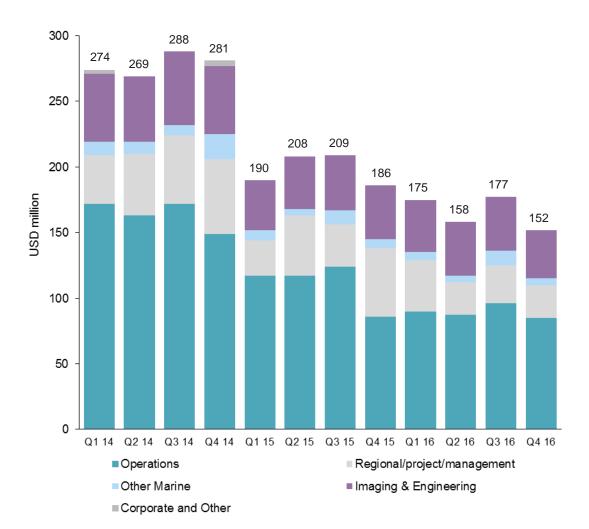




- Order book of USD 215 million by end Q4 2016
- Vessel booking\*
  - ~100% booked for Q1 2017
  - ~80% booked for Q2 2017
  - ~30% booked for Q3 2017
  - ~15% booked for Q4 2017







- Strong cost performance continues
- Q4 operating costs impacted by reduced project related costs due to warm stacking and standby
- Full year 2016 gross cash cost ended at USD 662 million, down USD 131 million versus 2015

<sup>\*</sup>Gross cash costs are defined as the sum of reported net operating expenses (excluding depreciation, amortization, impairments and other charges/(income)) and the cash operating costs capitalized as investments in the MultiClient library as well as capitalized development costs.



# **Consolidated Statements of Cash Flows Summary**

	Q4	Q4
USD million	2016	2015
Cash provided by operating activities	64.7	121.0
Investment in MultiClient library	(47.8)	(70.2)
Capital expenditures	(25.9)	(47.2)
Other investing activities	(7.0)	(14.0)
Net cash flow before financing activities	(16.0)	(10.4)
Financing activities	0.4	9.7
Net increase (decr.) in cash and cash equiv.	(15.6)	(0.7)
Cash and cash equiv. at beginning of period	77.3	82.3
Cash and cash equiv. at end of period	61.7	81.6

Full year	Full year
2016	2015
320.9	487.9
(201.0)	(303.3)
(218.2)	(164.0)
(109.5)	40.4
(207.8)	61.0
187.9	(34.1)
(19.9)	26.9
81.6	54.7
61.7	81.6

- Cash flow from operating activities higher than reported EBITDA for both Q4 and full year 2016 reflecting reduced working capital
- USD 207.8 million negative 2016 cash flow before financing activities primarily driven by new build capex of USD 154.4 million
- Limited new build capex in Q4 2016; final new build instalment due in Q1 2017



# **Balance Sheet Key Numbers**

	December 31	September 30
USD million	2016	2016
Total assets	2 817.0	2 988.5
MultiClient Library	647.7	682.1
Shareholders' equity	1 359.4	1 285.7
Cash and cash equivalents (unrestricted)	61.7	77.3
Restricted cash	101.0	100.2
Liquidity reserve	271.7	417.3
Gross interest bearing debt	1 191.4	1 386.1
Net interest bearing debt	1 029.7	1 208.6

December 31		
2015		
2 914.1		
695.0		
1 463.7		
81.6		
71.6		
556.6		
1 147.2		
994.2		

- Liquidity reserve of USD 271.7 million
  - Does not include the ~USD 35 million from the subesquent equity offering since this was completed after year-end
- Gross interest bearing debt reduced by ~USD 195 million in Q4 as a result of the successful refinancing
- Total leverage ratio of 3.94:1 as of December 31, 2016, compared to 3.96:1 as of September 30, 2016
- Shareholders' equity at 48% of total assets, up from 43% in Q3 2016



# **Gottfred Langseth**

Executive Vice President & CFO









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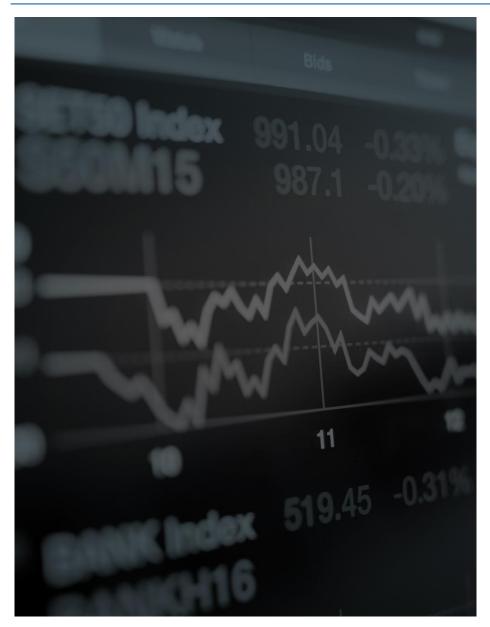




The information included herein contains certain forward-looking statements that address activities, events or developments that the Company expects, projects, believes or anticipates will or may occur in the future. These statements are based on various assumptions made by the Company, which are beyond its control and are subject to certain additional risks and uncertainties. The Company is subject to a large number of risk factors including but not limited to the demand for seismic services, the demand for data from our MultiClient data library, the attractiveness of our technology, unpredictable changes in governmental regulations affecting our markets and extreme weather conditions. For a further description of other relevant risk factors we refer to our Annual Report for 2015. As a result of these and other risk factors, actual events and our actual results may differ materially from those indicated in or implied by such forward looking statements. The reservation is also made that inaccuracies or mistakes may occur in the information given above about current status of the Company or its business. Any reliance on the information above is at the risk of the reader, and PGS disclaims any and all liability in this respect.



## **Financial Review - Outline**



- Refinancing completed
  - Transaction summary
  - Debt structure
- 2017 guidance
  - Cost development
  - CAPEX trends
  - MultiClient investments and prefunding trends
- Cash flow
- Summary
- Appendix
  - Tax
  - Sensitivities

# Refinancing Completed:

# **Transaction Summary**





#### RCF Extension

- Completion of two year extension of RCF to 2020
  - Resized RCF to match ongoing liquidity needs (i.e. USD 400 million with a step down to USD 350 million in September 2018)
  - Unchanged security package
  - Covenant reset to retain availability of liquidity reserve going forward



- Exchange offer for USD 450 million 2018 Notes completed with 94% acceptance
  - USD 212 million (nominal value) redeemed at a price of 95% of par
  - USD 212 million exchanged into new Senior Notes maturing December 2020 (terms otherwise substantially unchanged)
  - USD 26 million of original 2018 Notes left outstanding



#### **Equity Issue**

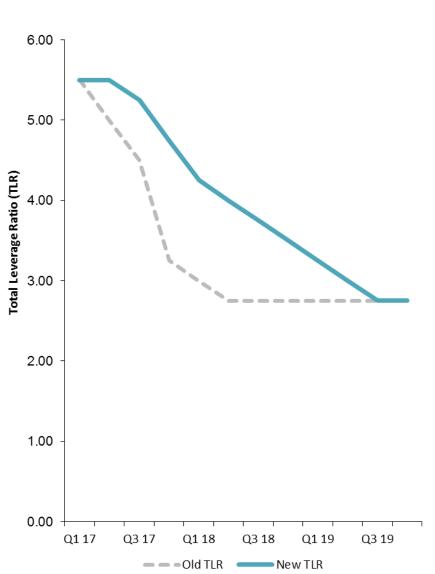
- USD ~225 million Private Placement
  - 85.5 million new shares at NOK 22.50
  - Placed with minimal discount and substantial over subscription
- USD ~35 million Subsequent Offering completed January 2017
  - 13.5 million new shares offered to existing shareholders not participating in Private Placement

Improved balance sheet flexibility and increased long term financial visibility

# Refinancing Completed:

# **Revolving Credit Facility Extended to 2020**





Term	Agreement
Maturity:	September 2020 (2 year extension)
Amount:	USD 400 million, reducing to USD 350 million from September 2018
Security Package:	Unchanged
Interest Cost (drawn):	Libor + margin of 325-625 bps (depending on Total Leverage Ratio "TLR") + utilization fee
Maintenance Covenant:	TLR: ≤ 5.50x, to Q2-2017, 5.25x Q3-17, 4.75x Q4-17, 4.25x Q1-18, thereafter reduced by 0.25x each quarter to 2.75x by Q3-19

# Refinancing Completed:

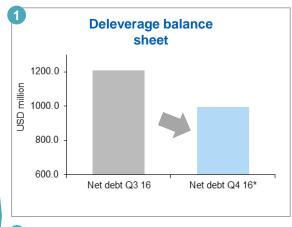
# **Key Effects of the Transactions**

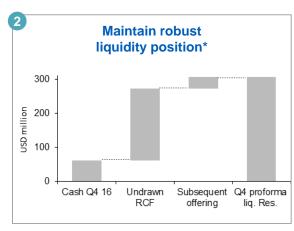


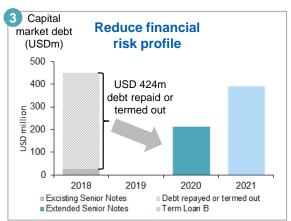
#### **Highlights**

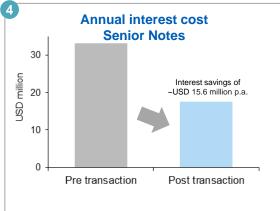
- Reduced debt as equity proceeds were primarily used for deleveraging
- Liquidity reserve benefits from RCF extension to 2020
- Projected interest cost savings related to Senior Notes to December 2018 of USD 31.2 million from buy back

## **Key Effects**









Refinancing improves balance sheet flexibility and creates runway to 2020



# **Summary of Debt and Drawing Facilities**

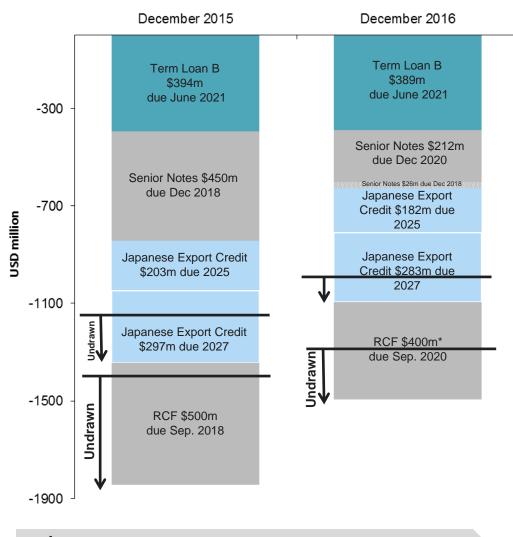
Long term Credit Lines and Interest Bearing Debt	Nominal Amount as of December 31, 2016	Total Credit Line	Financial Covenants
USD 400.0 million Term Loan ("TLB"), Libor (minimum 0.75%) + 250 basis points, due 2021	USD 389 million		None, but incurrence test: total leverage ratio ≤ 3.00x*
Revolving credit facility ("RCF"), due 2020 Libor + margin of 325-625 bps (linked to TLR) + utilization fee	USD 190.0 million	USD 400.0** million	Maintenance covenant: total leverage ratio ≤ 5.50x, to Q2-2017, 5.25x Q3-17, 4.75x Q4-17, 4.25x Q1-18, thereafter reduced by 0.25x each quarter to 2.75x by Q3-19
Japanese ECF, 12 year with semi-annual instalments. 50% fixed/ 50% floating interest rate	USD 374.4 million	USD 465.6 million	None, but incurrence test for loan 3&4: Total leverage ratio ≤ 3.00x* and Interest coverage ratio ≥ 2.0x*
December 2018 Senior Notes, coupon of 7.375%	USD 26.0 million		
December 2020 Senior Notes, coupon of 7.375%	USD 212.0 million		None, but incurrence test: Interest coverage ratio ≥ 2.0x*

<sup>\*</sup>Carve out for drawings under ECF and RCF.

<sup>\*\*</sup>Reducing to USD 350 million in September 2018.



# **Debt and Facility Maturities Further Extended**



- Average remaining time to maturity increased to 4.2 years while debt level is decreased
- Proactive and robust financial cycle management

Average remaining 4.1 4.2 maturity of loan facilities years years

#### 2017 Guidance



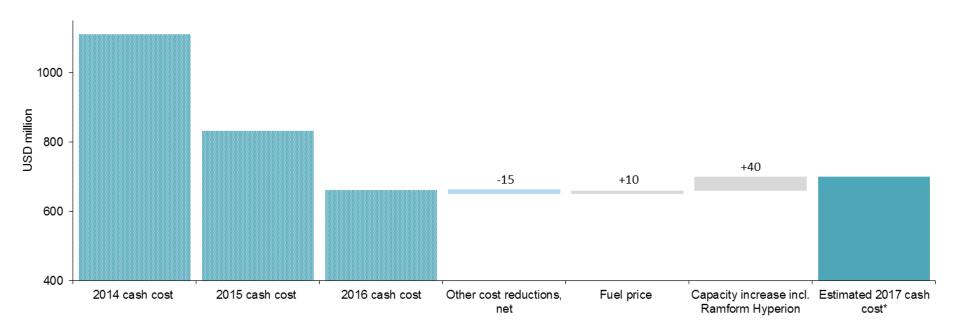
- Group gross cash cost ~USD 700 million
  - Of which ~USD 275 million to be capitalized as MultiClient cash investments
- MultiClient cash investments ~USD 275 million
  - Pre-funding level of ~100%
  - Active 3D vessel time planned for MultiClient of ~55%

- Capital expenditures of ~USD 150 million
  - Of which new build capex of ~USD 85 million

- Gross cash interest expense of ~USD 55 million
  - Of which ~USD 10 million expected to be capitalized to the MultiClient library



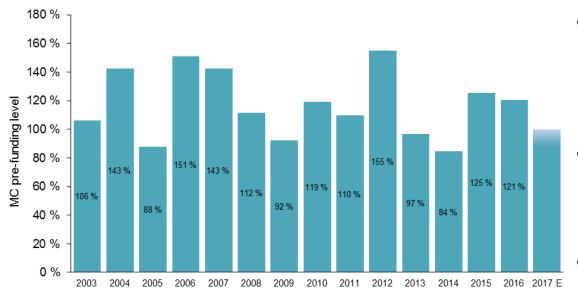
# Cost Discipline Remains a Key Priority in 2017

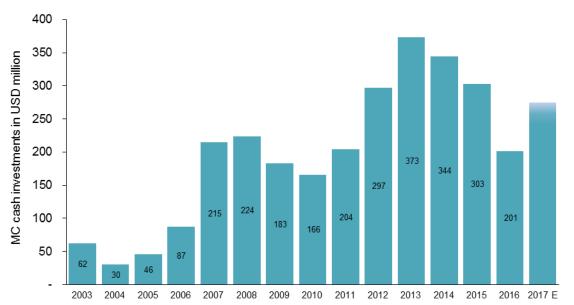


- 2016 gross cash cost more than 40% lower than in 2014
- 2017 cash cost of ~USD 700 million modest increase from structurally lower level mainly attributable to:
  - More operated capacity with full year operation of Ramform Tethys and delivery of Ramform Hyperion
  - Expected increase of fuel prices
- Tight cost control continues



# **Solid MultiClient Pre-funding**

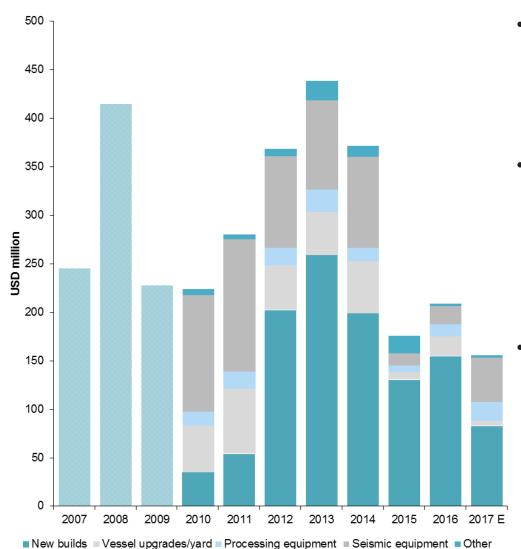




- 2016 MultiClient cash investments of USD 201 million with a pre-funding level of 121%
- MultiClient cash investments in 2017 expected to be ~USD 275 million
- 2017 pre-funding level expected to be ~100%
- Approx. 55% of 2017 active 3D fleet capacity currently planned for MultiClient
  - Less in the first part of 2017 with 25% of active time scheduled in Q1
- 2017 MultiClient amortization expense expected to be in the range of USD 350-375 million



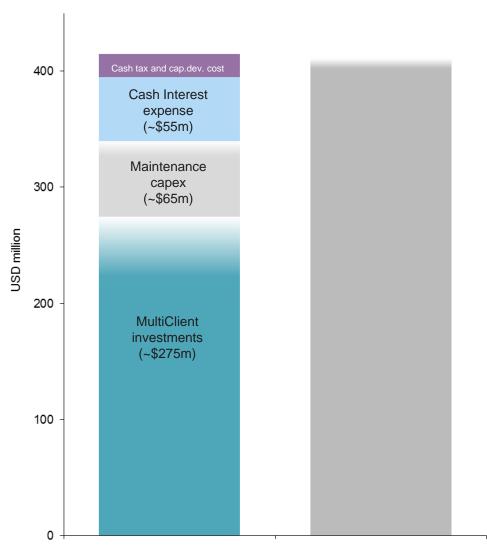
# **Capital Expenditure Trends**



- Full year 2016 capex of USD 208.6 million
  - USD 31.4 million down from initial plan
  - USD 154.4 million relates to new builds
- 2017 CAPEX plan of ~USD 150 million
  - New build CAPEX of ~USD 85 million fully covered by Export Credit Financing
  - Following recent fleet renewal PGS will not embark on new builds for the foreseeable future
- Gross depreciation cost is expected to be ~USD 230 million in 2017
  - Approx. USD 100 million to be capitalized as part of MultiClient investments



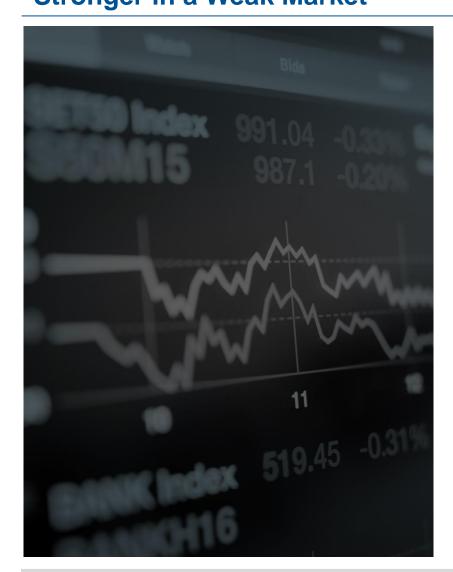
# Required EBITDA to be Cash Flow Breakeven in 2017



- 2016 EBITDA of USD 313.3 million
- EBITDA of ≥USD 400 million required to be cash flow breakeven in 2017, excluding:
  - Amortization of ECF and TLB loans (USD ~50 million)
  - New build capex (separately financed)
  - Working capital changes

# Addressing Financial Challenges: Stronger in a Weak Market





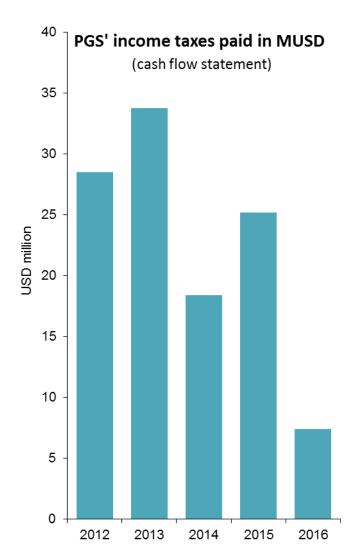
- Successful refinancing demonstrates PGS' strong standing in the industry and capital markets
- Tight cost and capex control continues
- Cash flow better balanced after completion of new build program early 2017
- Solid MultiClient performance with high cash generation
- Flexibility to handle market volatility

**Proactive Financial Management in a Weak Market** 

# Appendix:

#### **PGS' Tax Position**



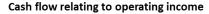


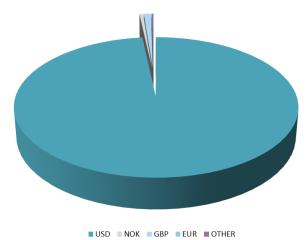
- Substantial tax assets will benefit current tax expense for future years
- Tonnage Tax regimes
  - PGS' vessels are owned by companies within tonnage tax regimes. In profitable years, this will have a positive impact on tax expense; in loss-making years the impact will be negative
- Current tax/cash tax has typically been in the range of USD ~10-35 million annually
  - Mainly withholding taxes and local taxation in countries of operation where PGS has no deferred tax assets
  - Will vary depending on area of operation
  - The tax expense in the cash flow statement is the cash tax paid in the period, while in the P&L it is the incurred tax expense, whether paid or not
- Effective tax rate
  - Fluctuates for various reasons: foreign exchange movements, utilization and recognition of deferred tax assets, area of operation, impact from tonnage tax regimes and other permanent differences
  - In a «mid cycle» market an average effective reported tax rate around 25% or below should be achievable
  - Higher in years with low profitability since a significant portion of current taxes is based on gross amounts (e.g. withholding taxes and revenue based taxes)

# Appendix:

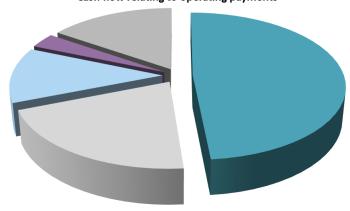
# Foreign Exchange and Sensitivity







#### Cash flow relating to operating payments



#### On an annual basis:

A 10% change of the USD vs. NOK has an annual net EBIT impact of USD 15-20 million before currency hedging activities.
 A 10% change vs. GBP has an effect of USD 7-9 million

#### The Company hedges:

- Material monetary balance sheet items in non-USD currencies
- Specific material firm commitments, e.g. ship building contracts
- Operational cash flow up to the duration of the contract order book

#### Current hedging positions:

- To hedge material monetary balance sheet items
  - Currently ~NOK 120 million and GBP 29 million bought on forward contracts
  - Hedge of BRL 142 million in place against the exposure arising from cash deposit held in Brazil (~65% of the deposit) plus monetary balance sheet items
- To hedge specific material firm commitments NOK 265 million bought forward

# Appendix:

# **Key Sensitivities**



- Technical downtime/mobilization delays/standby
- One month for high capacity vessel could amount to a revenue loss of USD 4-8 million + risk of schedule impact and equipment cost
- Standby will reduce vessel cash cost by USD 0.75-1 million per vessel month, depending on duration and lead time
- Contract versus MultiClient
  - In the current market there is normally a positive EBITDA impact of changing 3D capacity from Contract to MultiClient assuming that pre-funding is around 100% of capitalized MultiClient cash investments
- MultiClient late sales
- Sensitive to oil price, legislative changes and license rounds
- Regional variability from quarter to quarter
- Fuel price
- 10% change represents ~USD 0.7 million per month of operating cost
- Risk related to fuel cost fluctuations is placed with the customer on a majority of contract work



# Jon Erik Reinhardsen

President & CEO

A Clearer Image | www.pgs.com



#### **2016 Achievements**





Improved capital structure to optimize competitive position

- Secured financial runway to 2020
- Reduced debt
- · Reduced interest expense



#### **Industry leading MultiClient performance**

- Best in class sales/cash investment ratio
- · Best in class sales/book ratio
- Acquired DOLP MC library w/TGS



**Excellent operational performance** 

- Operational performance of 95%
- Downtime of 2.7%
- TRCF and LTIF of 0.7 and 0.1



Took delivery of Ramform Tethys

- · The third in a series of four
- Last new build due Q1 2017
- FCF will improve after last delivery



Continuing to enhance imaging capabilities

- Benefitting from superior GeoStreamer technology
- Groundbreaking imaging technologies



Reducing cost and capital expenditures further

- Cost reduced by another USD 131 million
- Low maintenance capex of USD 54 million





#### **To Deliver Productivity Leadership**

- Ramform Platform + GeoStreamer
- · Reducing project turnaround time

#### **To Deliver Superior Data Quality**

- · GeoStreamer business platform
- · Imaging quality and innovations
- Subsurface knowledge

#### To Innovate

- First dual sensor streamer solution
- First with 20+ towed streamer capacity
- Towed EM
- · Unique reservoir focus solutions

#### **To Perform Over the Cycle**

- Focus on being best in our market segments
- Flexible cost base
- Strong MultiClient performance reduce cyclical exposure

#### **To Care**

- For our employees
- For the environment
- · For our customers' success

### A Clearer Image

# Corporate Strategy:

# **Ambition to be Number 1 in All Business Areas**



#### Marine Contract



# Marine market leadership

28%\* of 2016 revenues

Marine Contract delivers exclusive seismic surveys to oil and gas exploration and production companies

#### MultiClient



Diverse MultiClient library – Improving financial performance

62%\* of 2016 revenues

MultiClient initiates and manages seismic surveys which PGS acquires, processes, markets and sells to multiple customers on a non-exclusive basis

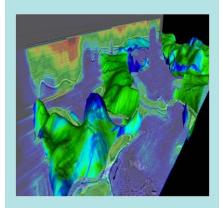
#### **Operations**



# Productivity leadership

Operations supports Marine Contract and MultiClient with vessel resources and manages fleet renewal strategies

# Imaging & Engineering



Technology
differentiation – Rapidly
becoming at par with
industry best
9%\* of 2016 revenues

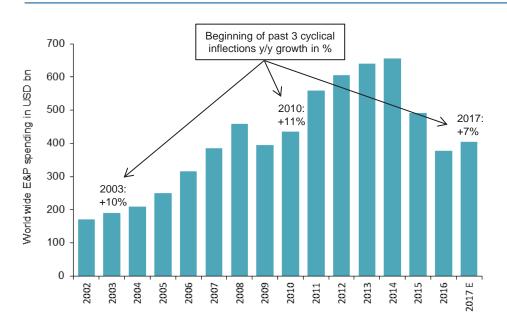
Imaging and Engineering processes seismic data acquired by PGS for its MultiClient library and for external clients on contract and manages research and development activities

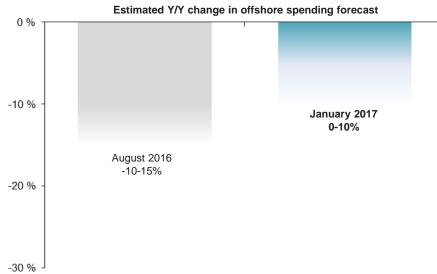
\*Remaining 1% relates to Other revenues.

#### **Market Context:**

# **Sentiment Changing – Offshore Will Benefit**







 Overall E&P spending expected to increase in a similar pace in 2017 as in historical inflection points

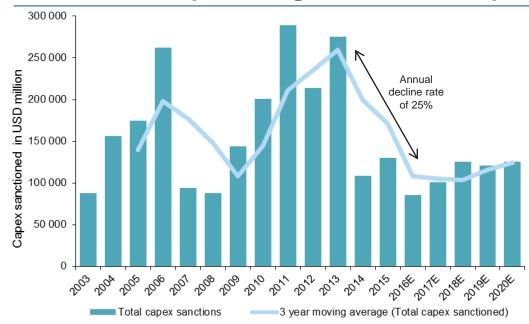
- Only a marginal decline in offshore spending in 2017 vs. 2016 is increasingly likely
  - Continued deflation is likely to yield an increase in activity in 2017 vs.
     2016
  - Marine seismic has historically been early cycle mover

#### Market Context:

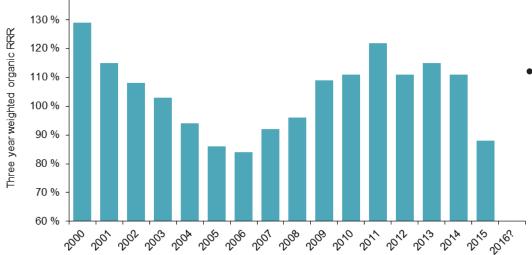
140 %

# Sanctioned Capex Troughs - RRR Will Impact Exploration Capex





- Significant decline in capex related to project sanctioning during this downturn
  - Through the trough in 2016
  - Fundamentals benefit from a higher and more stable oil price
  - Significant cost reductions and efficiency gains improves oil companies' cash flow position

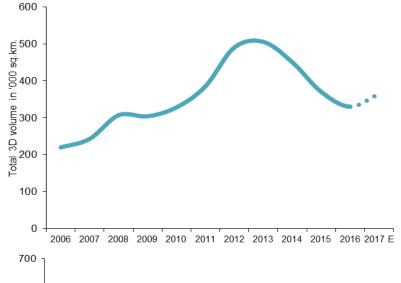


- Reserve Replacement Ratio is down to historical low levels
  - Will have to be addressed

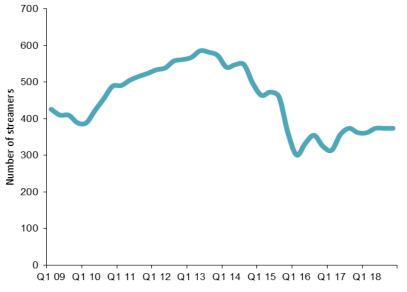
#### Market Context:

# Marine Seismic Activity Expected to Increase in 2017





- Seismic activity is expected to increase ~10% in 2017 compared to 2016
  - Improved capacity utilization
  - Emerging release of pent up demand with more
     4D tenders for the North Sea and West Africa
  - Growth primarily in MultiClient acquisition
- Significant supply reduction with streamer capacity ~45% lower than at the 2013 peak
  - Approx. 40% lower in 2017 summer season with warm-stacked vessels coming back and delivery of Ramform Hyperion
  - Access to streamers will constrain supply further



### Supply/demand balance likely to improve

# Summary:

# Stronger in a Weak Market - Ambition to be Number 1 in all Business Areas



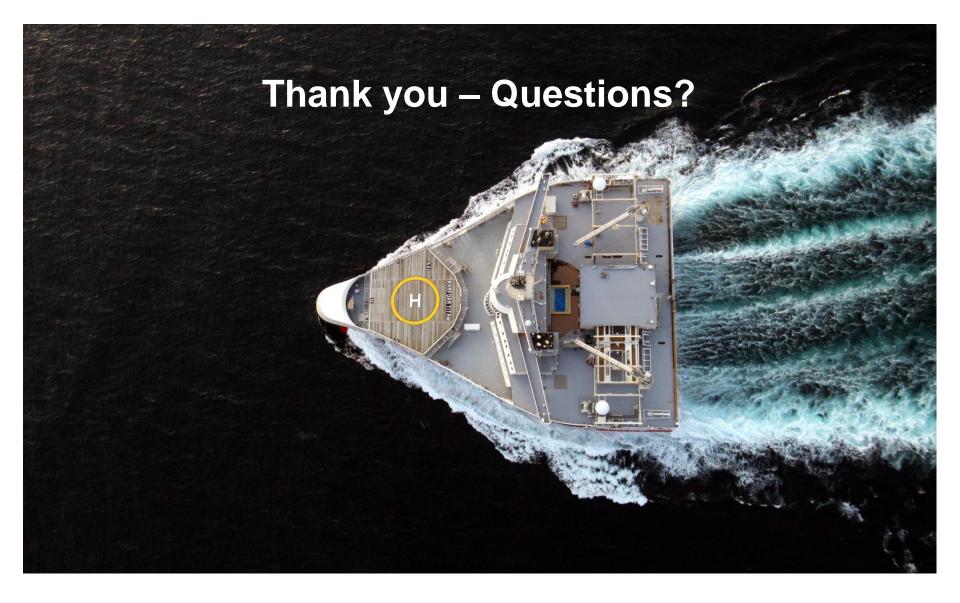
Improved capital structure

Industry leading performance

Seismic activity expected to increase in 2017

Continuous focus on cost and capex

**Competitively Positioned to Navigate Current Market Environment** 







# **Sverre Strandenes**

**Executive Vice President MultiClient** 







#### **MultiClient – What Does the Business Unit Do?**



MultiClient manages and licenses seismic data that PGS acquires on a non-exclusive basis. The Company invests in the projects and licenses the data to customers under a variety of business models

#### **Outline**



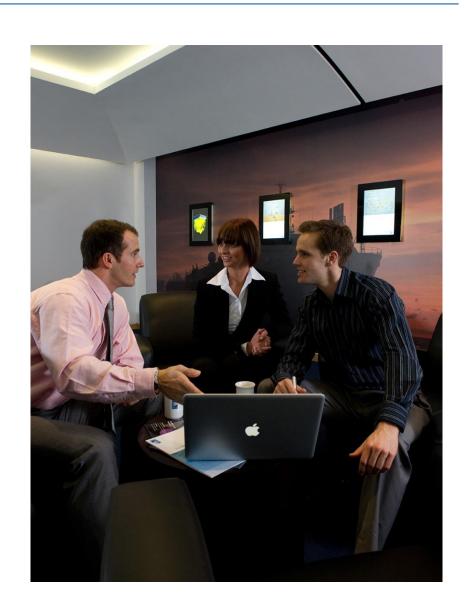


- What we have done to strengthen our position
- Some MultiClient highlights
- MultiClient market perspectives
- Strengthening relative position
- Azimuth / Equity
- Summary



# What Have We Done to Strengthen Our Position

- Focused, global business line from 2010
- Rigorous project selection, risk management and focus on the financials
- Further integration of the Reservoir group and Geology & Geophysics (G&G) expertise
- Better understanding of our clients' needs, strategies & organizations
- Built strong relationships with governments
- Leveraging operational and technological capabilities
- Having the right people (motivated, experienced)





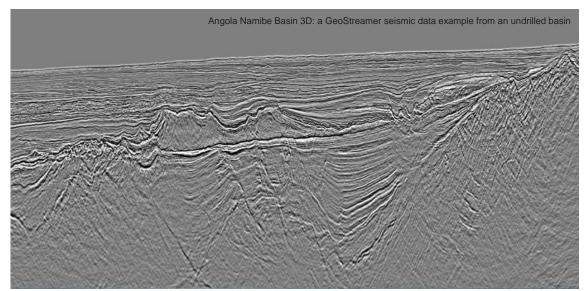


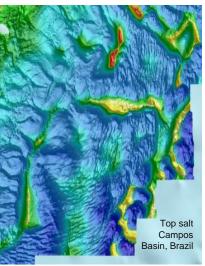
#### Identification

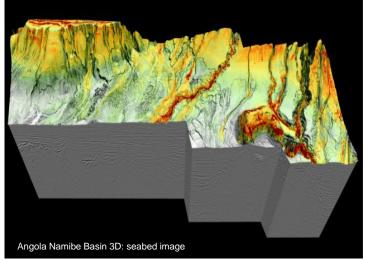
- Hydrocarbon potential / prospectivity
- Access to acreage: license round, lease roll, farm-ins, direct awards
- Political environment & fiscal terms
- Timing
- Technology to address subsurface mapping objectives
- Partner relations: governments,
   JV, pre-funding client

#### **Selection**

- Business Unit independent Risk Board process
- Financial ROI
- Robust Business plan
- Secured pre-funding
- Risk-reward profile balanced portfolio



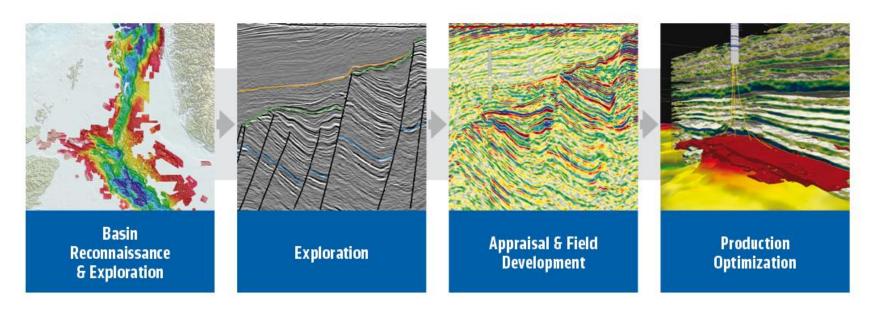








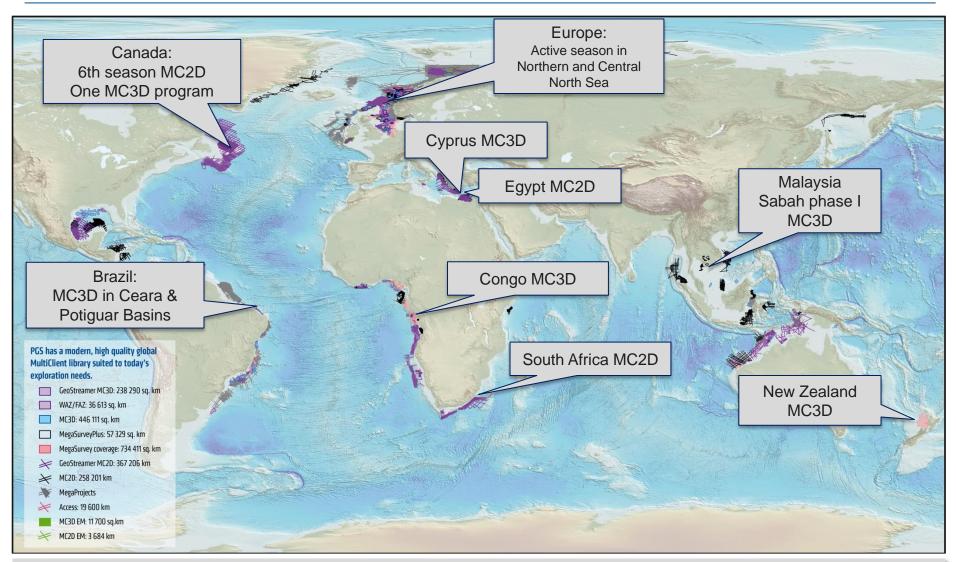
# Understanding Prospectivity is a Critical Component of a Successful MultiClient Project



Multi-skilled G&G teams, utilizing "state of the art" technology, providing exploration, development and reservoir services



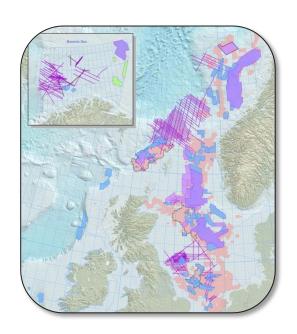
# **Key MultiClient Programs 2016**



40,000 km<sup>2</sup> GeoStreamer MC3D and 50,000 km GeoStreamer MC2D added to library in 2016

# PGS

# **Highlights: Continue to Build Attractive Positions in Key Basins**

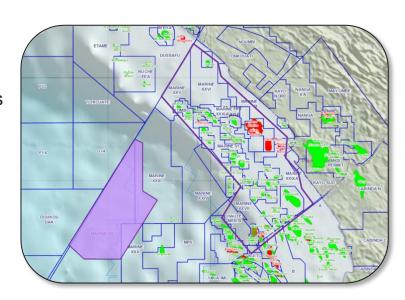


#### Europe

- Continued expansion in Europe stronghold in 2016 by adding 22,000 km<sup>2</sup> of new GeoStreamer MC3D
- Most productive European season Titan class vessels and acquisition technology drove improved efficiency
- PGS Europe library now > 100,000 km<sup>2</sup> of GeoStreamer MC3D data
- GeoStreamer Pure: Starting to develop new regional depth products in key regional hubs

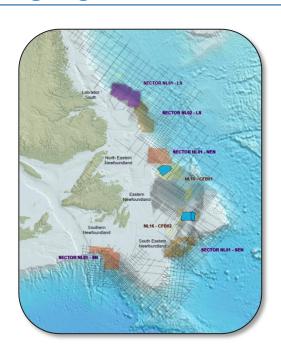
#### Congo

- Highly prospective country, with upcoming license rounds
- Recent pre-salt discoveries generating high industry interest
- PGS technology and expertise secure unique in-country position, including license round support
- New MC3D planned in 2017 for future Shelf License Round



# PGS

# **Highlights: Continue to Build Attractive Positions in Key Basins**

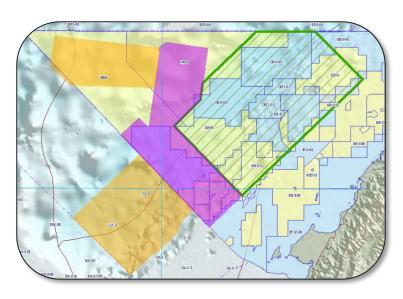


#### Newfoundland & Labrador

- PGS/TGS Joint Venture continues to build on its unique footprint for a sixth consecutive season in Canada
- Record breaking results from the second land sale under the Land Tenure System – oil companies pledged ~\$ 550 million for 8 parcels of land in the Orphan, Flemish Pass and Jeanne d'Arc basins
- Companies showing interest in the 2017 call for bids in the Labrador South Region – detailed 5 x 5 km 2D grid available over 10 parcels on offer

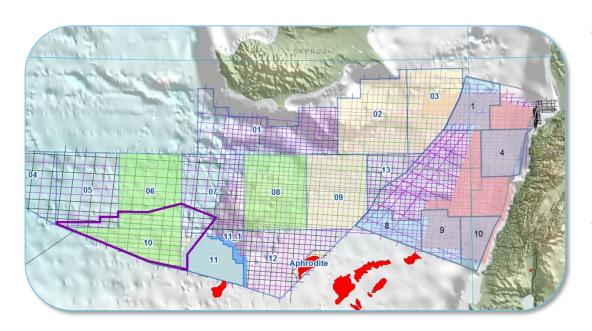
#### Sabah, Malaysia

- First ever MC3D survey in Malaysia
- Sabah Phase 1/2a (9,406km²) GeoStreamer
   MC3D acquisition ongoing with industry support
- Licensing round opened in the area with strong interest expressed by industry for a significantly larger sized program
- Parts of Sabah in JV with WG and TGS





### **Eastern Mediterranean: Importance of Government Relations**



- Strong position built over many years in Eastern Mediterranean (Cyprus, Lebanon, Egypt, Greece)
- License round support and G&G expertise / training key elements in building strong relations with the Governments

#### Cyprus:

- 2016 License Round awards expected in Q1 (3 blocks currently under negotiations)
- Ongoing MC3D acquisition in Blocks 6/10
- Potential for further acquisition

#### Lebanon:

 PGS MC3D well positioned within available blocks for the 2017 license round

#### • Egypt:

- License round opportunity 2017/2018
- New data available

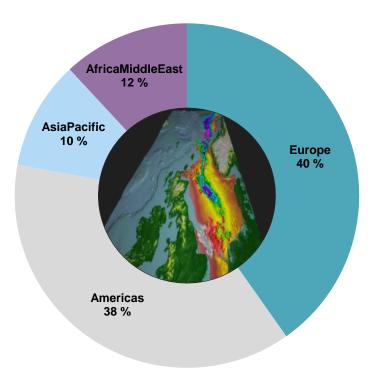
#### Greece:

- Awards expected Q1/2017
- New License Round potential 2018

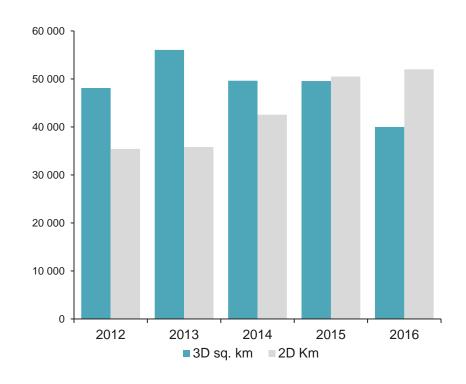


### **Continued, Stable Growth of Library**

- Around 40,000-50,000 km<sup>2</sup> per year of new GeoStreamer MultiClient 3D data added to the library in the past five years
- Maintaining global presence; some weakening of African market while Europe and Americas continue their dominance
- Dolphin library acquisition jointly with TGS



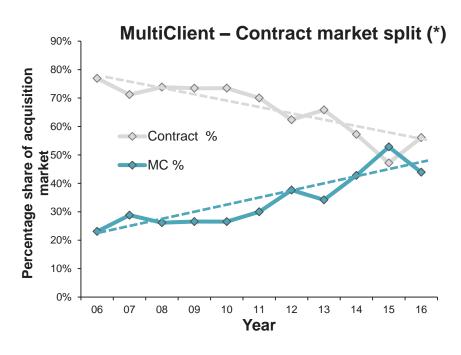
2016 Revenue Distribution

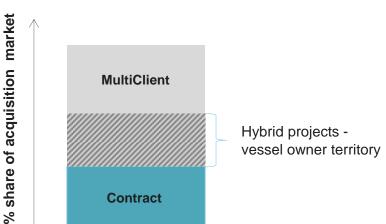


Volume of MC2D and MC3D acquired









- Why oil companies prefer MultiClient
  - Enables acquisition start before block award
  - Rapid turn-around
  - Value in MultiClient model as a one-stop-shop
     from acquisition permits to data delivery
  - Pricing flexibility / attractiveness
- Dynamic market: ability to rapidly switch capacity between MultiClient and Contract opportunities favors vessel owners
- Hybrid projects are more than "converted contracts":
  - Extending or including an area which would otherwise require one or more Contract projects into a MultiClient program with open acreage and/or areas with additional sales potential
  - Possibility to realize economy of scale and timing benefits
  - Converting a Contract project to MultiClient without further sales potential is not attractive
- Expect to allocate ~ 55% of 3D fleet to MultiClient in 2017

(\*) internal estimates



# **Technology Matters: Clients Requiring More From MC Data**

#### Increased Quality Demand

- Client demand for higher quality MC data increasing
- With its increasing weight in our business,
   MC is becoming a showcase and focal point for PGS products and services

#### Define Problem, Select Technology

- GeoStreamer & Imaging technology key success factors for modern PGS MC3D library
- Ability to offer full range, from low cost to high end solutions, to meet diverse client demand in regional MC hot spots

#### Safety, Quality and Efficiency

- Highest fleet wide safety standards
- Pro-actively drive cost effective acquisition and imaging without compromising quality objectives



Same HSE Focus

Same Quality

Same Efficiency

Same Technology

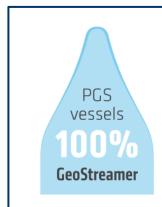
... every time

# Differentiation Becomes Key in a Challenging Market:

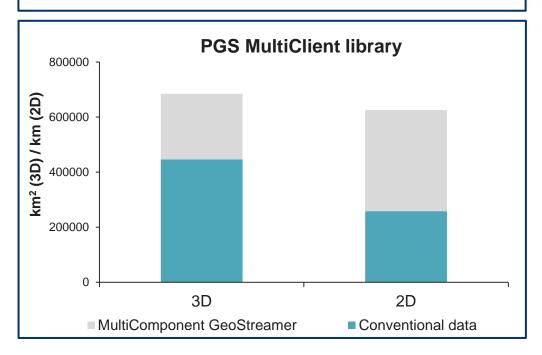
#### **PGS MultiClient Differentiators**



- True broadband seismic: Multicomponent GeoStreamer fully implemented throughout the fleet
- True broadband seismic: Longer shelf life and 4D ready data
- GeoStreamer driven Imaging technology and capability at the forefront of the industry
- Geographically diverse library presence in all major hydrocarbon provinces
  - Facilitating broad range of library deals from local to global
- Access to worlds highest capacity seismic fleet
  - Ideally positioned to play in the hybrid market
  - Can handle any opportunity

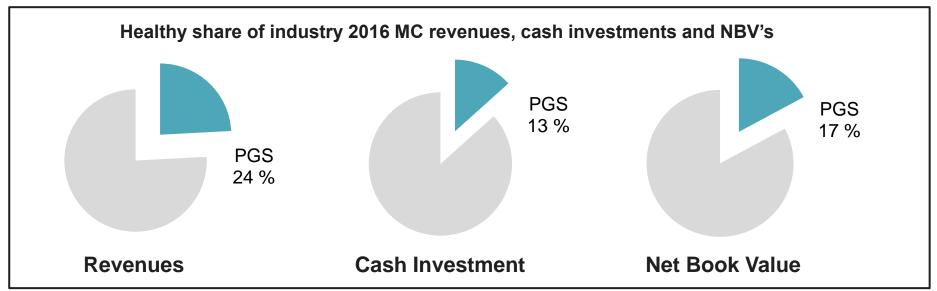


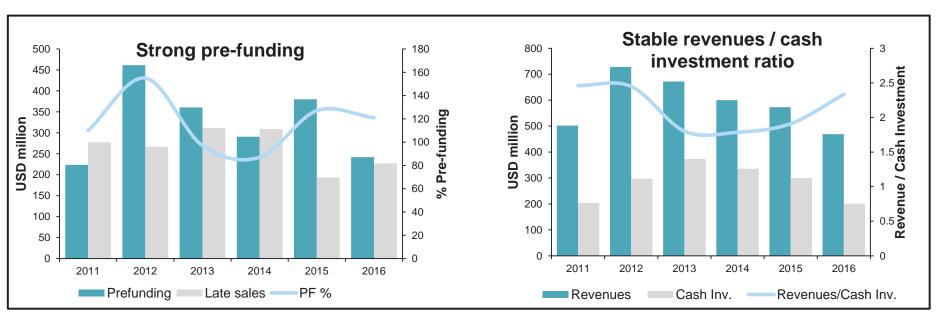
PGS has acquired more than 500,000 km<sup>2</sup> GeoStreamer 3D data





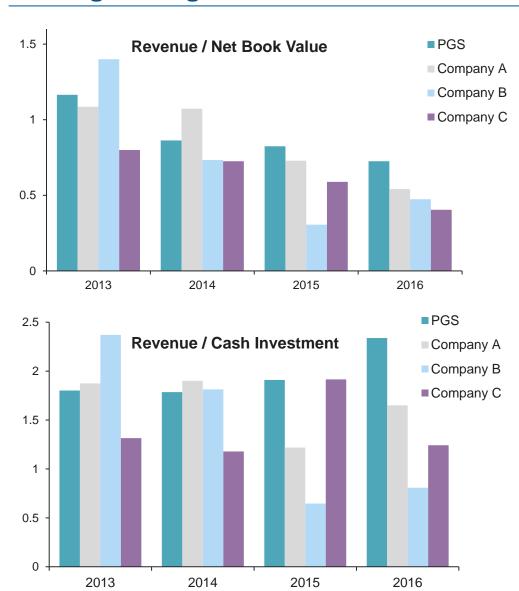
# **Maintaining Robust Library Performance in a Challenging Market**







# **Strengthening Relative Position**

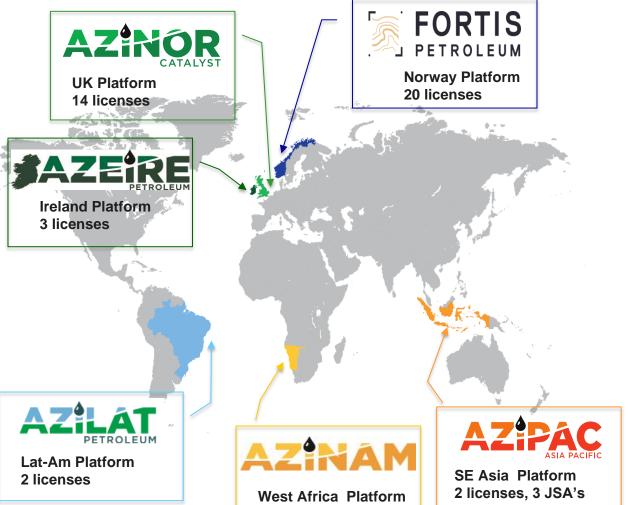


- Library performance strengthened versus peers
- Geographical spread for better risk management
- Lower cost and improved efficiency drive returns in weaker market: more data per
- Technology advantage GeoStreamer & High End Imaging

# The Equity Business Model:

# **Azimuth – PGS Equity Partner**





6 licenses

- Occasionally oil companies want to exchange license acreage in return for data or services
- PGS aims to divests its E&P assets under commercial terms
- Azimuth develops acquired E&P assets within its portfolio
- Azimuth is backed by Seacrest Capital Group, a leading private equity group with high quality largely US based investors
- PGS has ~45% minority ownership position in Azimuth
- Drives further value from the MultiClient library at arm's length distance

# **Summary**





- Challenging market with tough competition in the MultiClient space
- PGS has strengthened its relative position
  - Right people
  - Superior vessel operator
  - Technology that differentiates
  - Market leading imaging capabilities
- Expect 2017 MultiClient 3D fleet allocation of ~55 %
- Expect 2017 MultiClient cash investment level of ~USD 275 million with a pre-funding level of ~100%



# **Marine Contract and Operations**

Per Arild Reksnes, Executive Vice President Operations





#### Marine Contract – What Does the Business Unit Do?



Marine Contract work is where PGS acquires seismic data under proprietary contracts with its customers, and covers Streamer Seismic, Towed Streamer Electromagnetics and Permanent Reservoir Monitoring



# **Operations – What Does the Business Unit Do?**



Operations runs and develops the PGS fleet and is committed to support Marine Contract and MultiClient with safe, reliable and efficient acquisition services



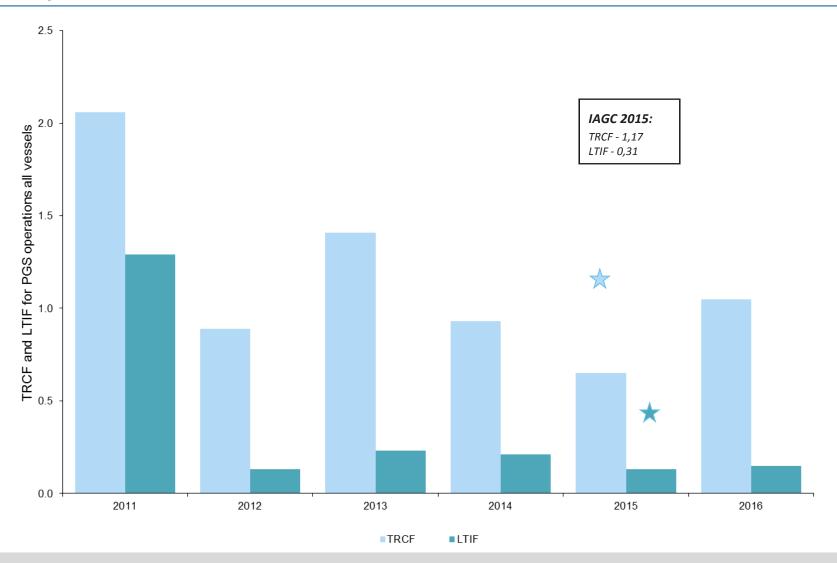




- What we have done to strengthen our position
- Activity outlook
- Supply and demand
- Competitive landscape
- An industry leading fleet
- Towed Streamer Electromagnetics
- Summary



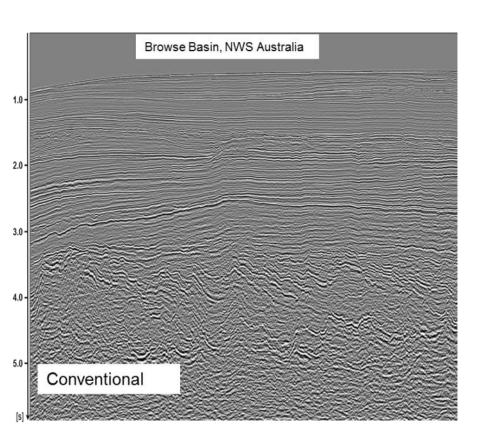
# **Safety First**

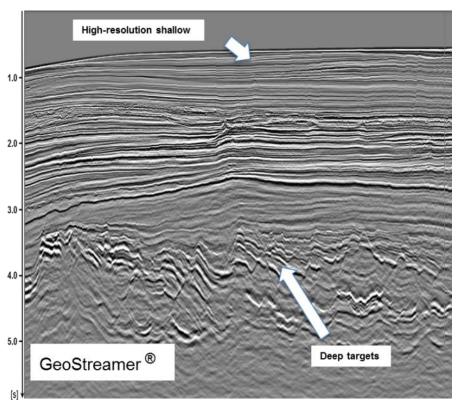


# Safety performance among industry leaders

# First on Data Quality with True Broadband



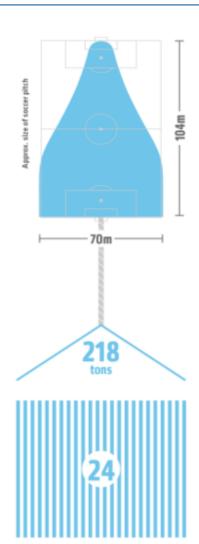




# Consistently delivering superior data quality

# A Track Record Speaking for Itself





#### Ramform Titan:

 daily production up to 175 sq.km using 18 streamers at 100m separation - offshore Myanmar

#### Ramform Tethys:

 Has deployed the most streamers of any vessel: 129 kms offshore Norway

#### Ramform Atlas:

 Successful completion of survey in very challenging weather offshore Colombia, using 12 streamers x 10 km length with 100m separation

#### Ramform Sterling

• 17 streamers x 3.6 km x 50m separation, 4D North Sea

#### Sanco Swift

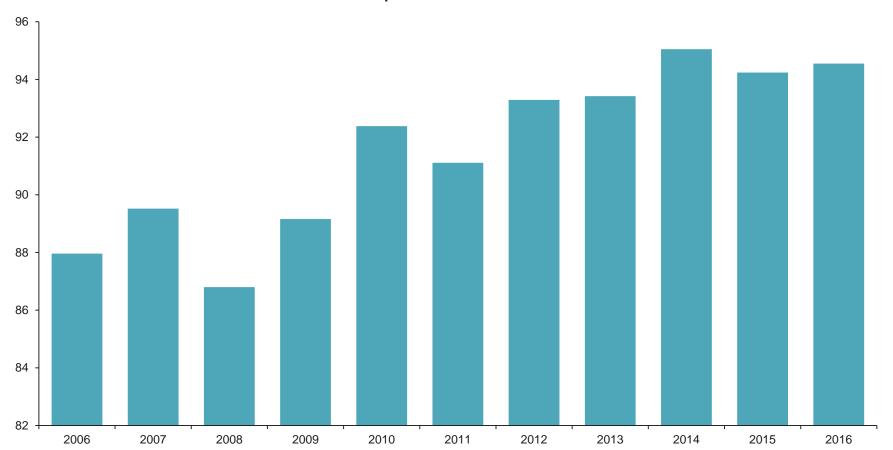
 Kept the streamers in water continuously for 182 days during the first survey for PGS, offshore Norway

PGS' fleet is moving the goalposts for seismic acquisition



# **Operational Uptime Continues to Lead**

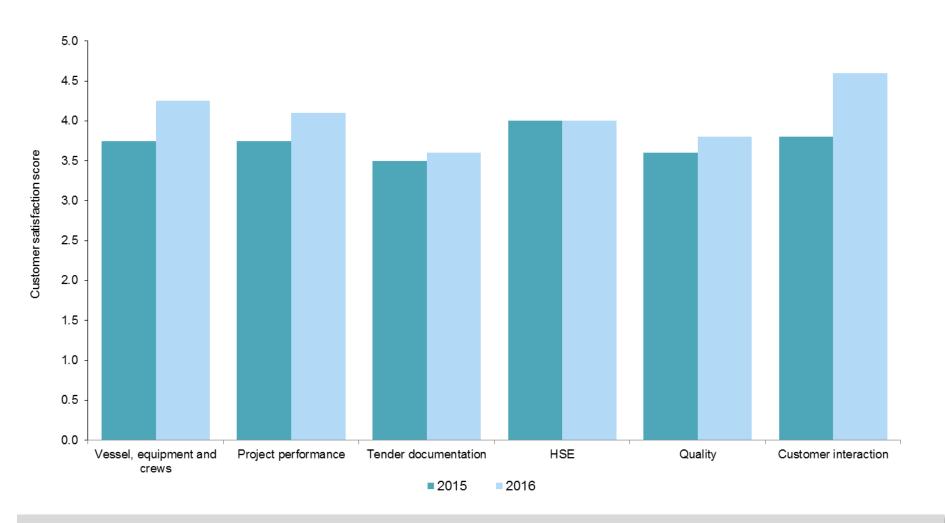
Performance = actual production of seismic in % of available production time



# **Industry Leading Performance**



# **Converting Operational Prowess into Customer Satisfaction**



Ranked #1 marine seismic contractor with large majority of IOCs

# PGS

#### **Demand Outlook Western Atlantic**



Several new licenses awarded and likely increased 4D activity in Brazil



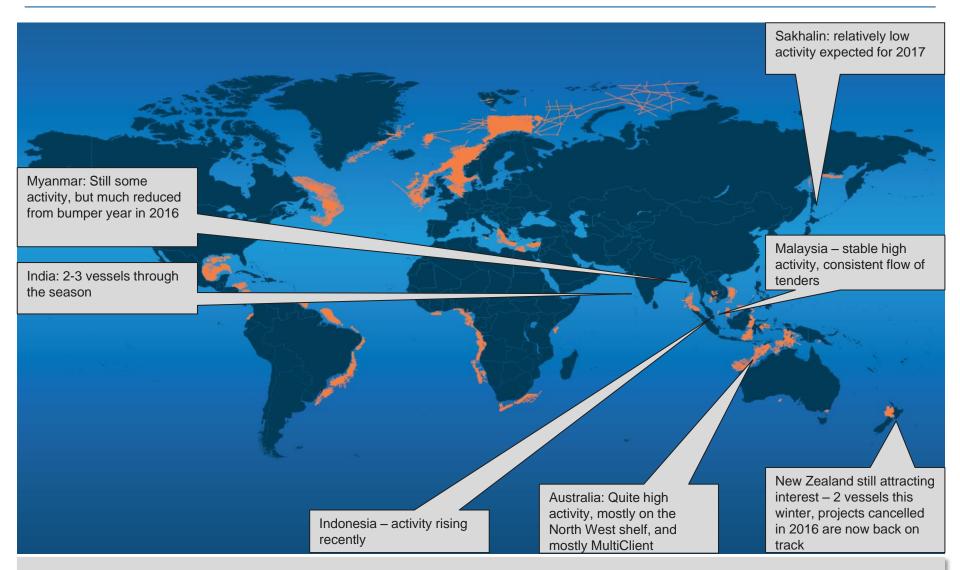
#### **Demand Outlook Eastern Atlantic and Middle East**



A very active region with high 4D activity and good opportunities

# **Demand Outlook Asia Pacific**

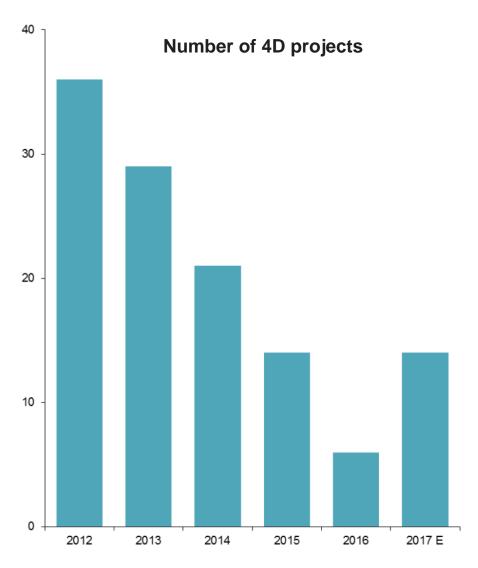




Moderate, but consistent level of activity



# **Production Seismic Expected to Increase in 2017**



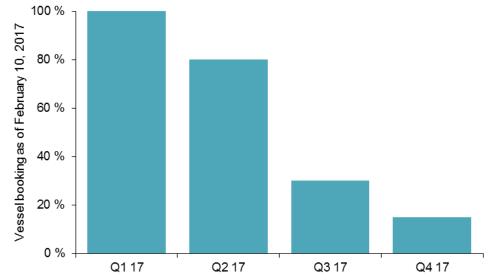
- Oil companies investing more in producing fields and fields under development
- Number of production seismic (4D) projects will more than double in 2017 compared to 2016
- 4D activity expected to increase in North Sea, West Africa and Brazil
- PGS is well positioned in the 4D market due to the Ramform fleet, steerable sources and streamers and GeoStreamer



# **Visibility Starts Building into Coming Summer Season**



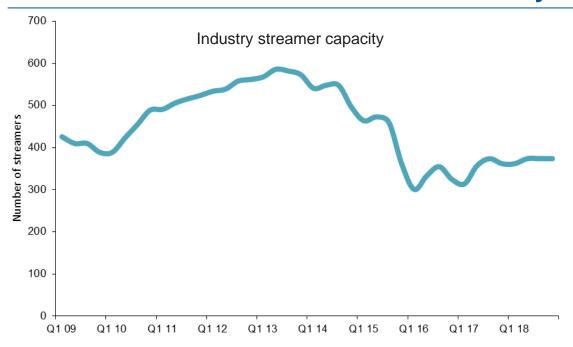
- Significant reduction in activity levels since 2013 has impacted pricing severely
- Currently good inflow of sales leads in Q1
- 1H 2017 will remain challenging on rates



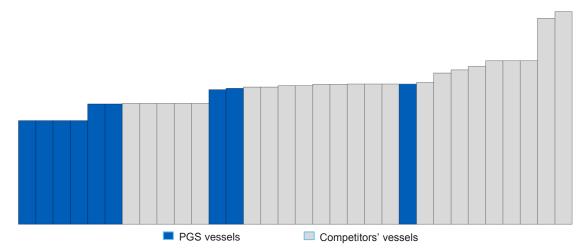
 Industry booking starting to improve



## **PGS Fleet Well Positioned on the Industry Cost Curve**



- Significant industry capacity reduction
- Approx. 30 3D vessels expected to be active most of 2017

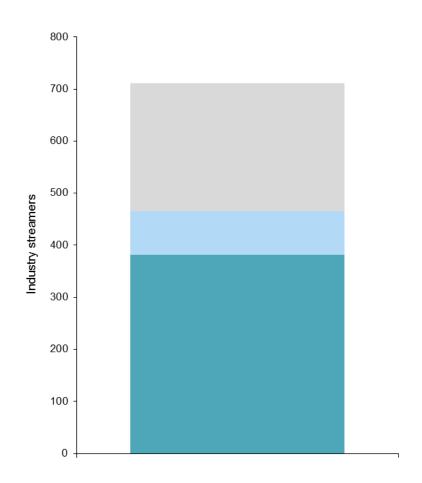


 PGS retains lead on lowest cash cost per streamer

Source to both graphs: PGS internal estimates. The cash cost curve is based on typical number of streamer towed, and excludes GeoStreamer productivity effect. The graph shows all seismic vessels operating in the market and announced new-builds. The Ramform Titan-class vessels are incorporated with 16 streamers, S-class with 14 streamers.







- Industry capacity reduced by ~45% since the peak in 2013 – and the vessel retirements have generally been as predicted from the cost curve
- Due to the weak market, several modern efficient vessels have been stacked for strategic or company specific reasons
- PGS estimates ~100 streamers' worth of stacked capacity likely to return in a normalized market

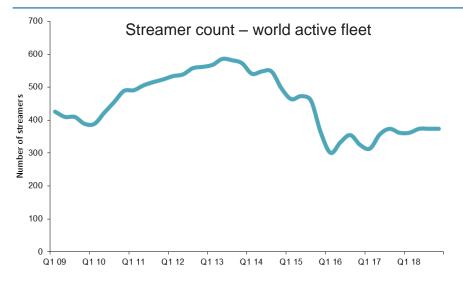
Permanently retired or not expected back to 3D operations

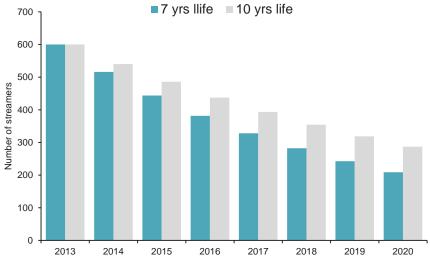
Expected to eventuelly return to the market

Active vessels

# PGS

# The Common Challenge of The Marine Seismic Industry





- Streamers comprise the biggest single capex element for a seismic vessels
- Very little manufacturing of new streamers since 2013
- Streamers on cold stacked vessels have been reused on active vessels
- Given 600 active streamers in 2013 and streamer lifetime of 7-10 years indicates that there are few extra spare streamers on cold stacked vessels or in stores

To reintroduce a cold stacked vessel may require a streamer investment of ~USD 50 million

#### **PGS Seismic Fleet 2017**





#### The Ultra High-end Ramforms













Ramform Titan

Ramform Atlas

Ramform Tethys

Ramform Hyperion

Ramform Sterling

Ramform Sovereign

#### **High-end conventional (chartered)**



PGS Apollo



Delivery Q1 2016



Sanco Sword Cold stacked

2D/EM/Source



Atlantic Explorer

#### Flexible capacity: High-end Ramforms



Ramform Explorer (cold stacked Q3 2015)



Ramform Challenger (cold stacked Q4 2015)



Ramform Valiant (cold stacked Q4 2015)



Ramform Viking (cold stacked Q4 2015)



Ramform Vanguard (warm stacked winter 2016-17)

PGS average active fleet age/streamer count: 4.5 yr/14.2 Competition average fleet age/streamer count: 9.3 yr/12.2

# PGS

# Fleet Structure Provides Flexibility Through the Cycle

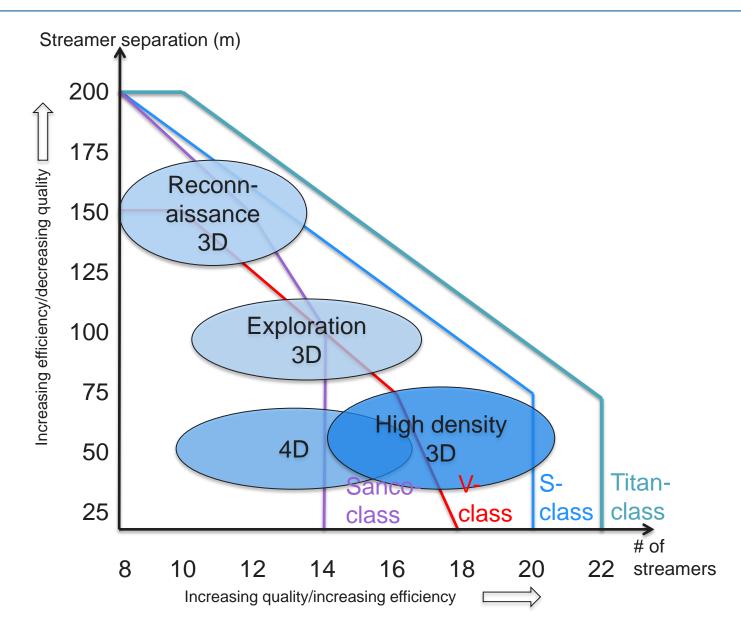


- Combination of chartered high capacity conventional 3D vessels and temporarily cold-stacked first generation Ramform vessels:
  - Improves fleet flexibility
  - Chartered capacity with staggered expiry structure
  - Positions PGS well to take advantage of a market recovery

Significantly reduced capex requirement going forward

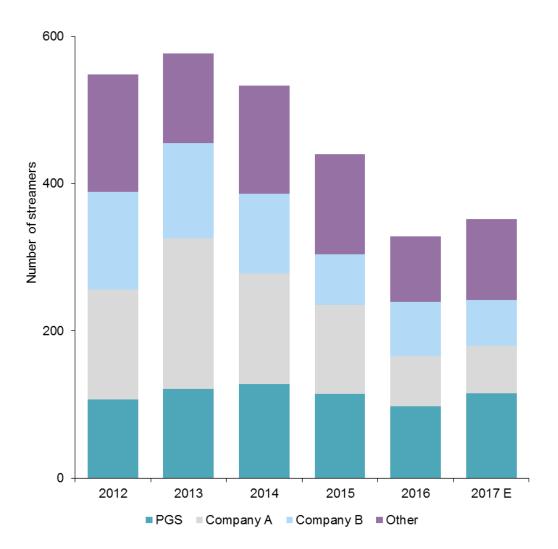






# **A Strong Market Position**



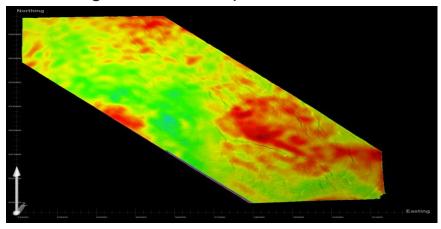


- PGS increases its market share to ~33% in 2017
- Lowest average age of active fleet in the industry
- PGS has the only fleet fully equipped with the latest technologies:
  - Multicomponent streamers
  - Streamer steering
  - Source steering
  - 12+ streamer count

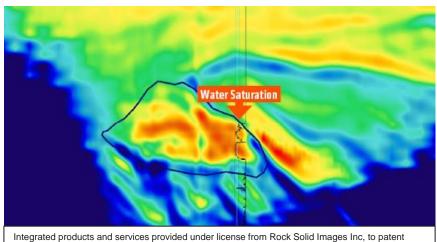
# **Towed Streamer Electromagnetics**



#### From regional-scale exploration...



#### ...to reservoir characterisation



Integrated products and services provided under license from Rock Solid Images Inc, to patent numbers US8064287, US7912649 and US12/135,729 and their related families

#### Unique value proposition:

- Data acquired with the same efficiency as Towed Streamer Seismic
- Superior data density for accurate mapping of sub-surface resistivity
- Integration with seismic data is key to unlocking the value of EM data
- Increasing number of license commitments referencing EM
- Resolved patent dispute with EMGS (April 2016)

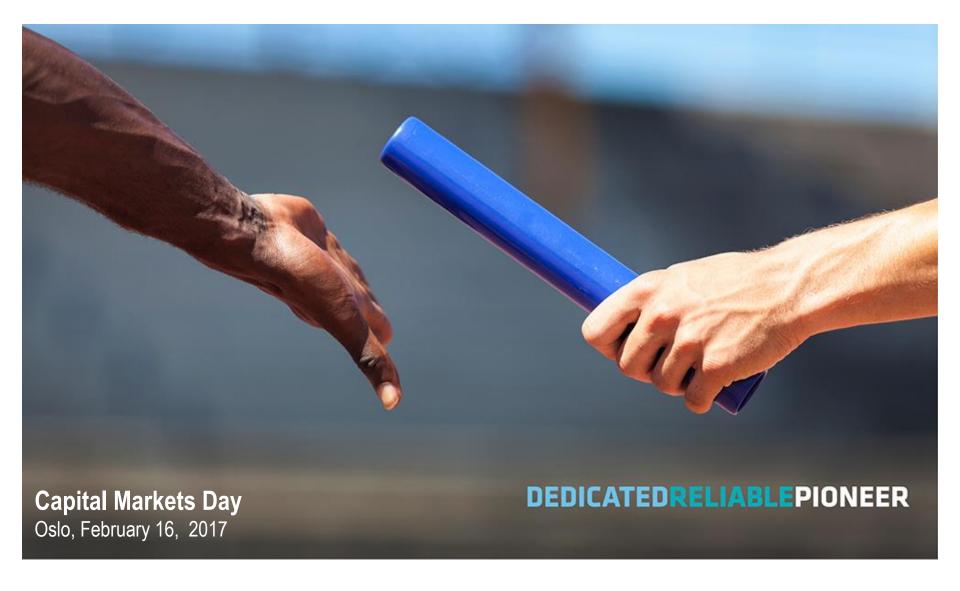
#### **Summary**





- #1 position with major customers
- Market visibility building for the summer season
- H1 2017 will be challenging on rates
- PGS has a competitive fleet and a strong market position:
  - All vessels equipped with GeoStreamer
  - Leading on age and capacity
  - Reinforced position on the cash cost curve
  - Titan class vessels setting the standards for the next 25 years
  - PGS inactive fleet ready for the upturn, with some lead time to build new streamers

Seizing the opportunity to strengthen PGS' position in a weak market



# **Guillaume Cambois**

Executive Vice President, Imaging & Engineering





#### Imaging & Engineering – What Does the Business Unit Do?

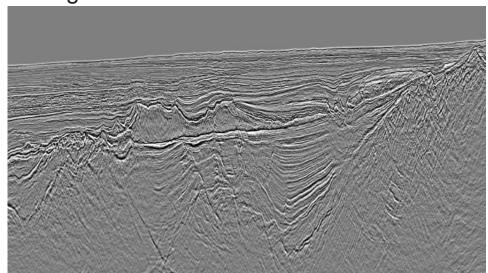


# **Outline**



- What we have done to strengthen our position
- Key metrics
- Highlights
- GeoStreamer and 4D

Going forward











Authors of The Leading Edge 2015 best paper award: Dan Whitmore, Nizar Chemingui, Shaoping Lu, Alejandro Valenciano

Jostein Lima and Kevin Sherwood accept the Special Meritorious Award from Hart's E&P Editor Rhonda Duey

#### Pioneer broadband imaging

- First access to GeoStreamer data
- Develop and patent differentiating tools
- Set new standard for broadband images

#### Deploy groundbreaking technologies

- hyperBeam: Hart's E&P 2010 Special Meritorious Award for Engineering Innovation
- SWIM: 2015 Best Paper in The Leading Edge
- Next generation imaging algorithms using sharedmemory architecture

#### Increase computer throughput

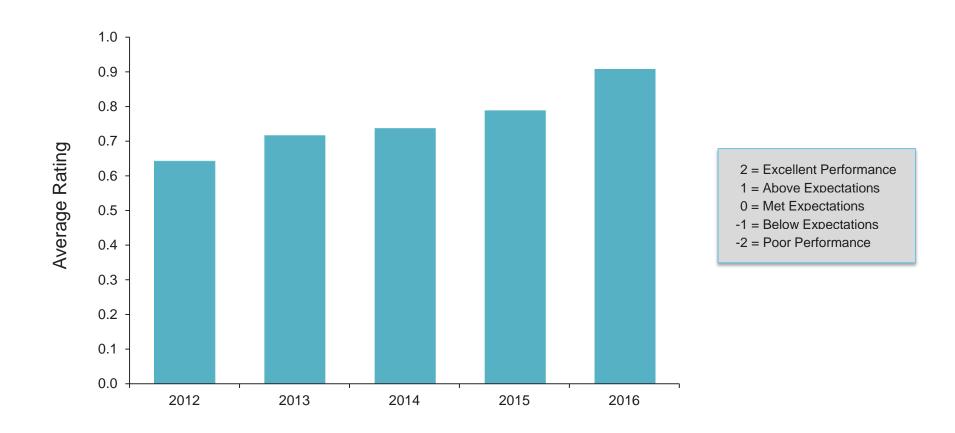
- Leader in shared-memory computer architecture
- Abel: Cray XC40 installed in 2015 (still ranked 22 on the Top 500 list)
- Galois: Cray XC30 installed in 2016

#### Deliver consistent quality of services

- Focus on training and project management
- Develop a network of geophysical expertise
- Define and implement unique workflows



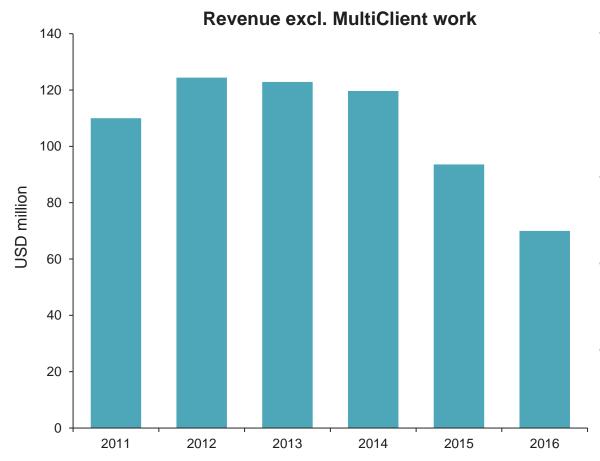
#### **Quality and Customer Satisfaction Steadily Improving**



Clients rate all completed imaging projects across 10 categories





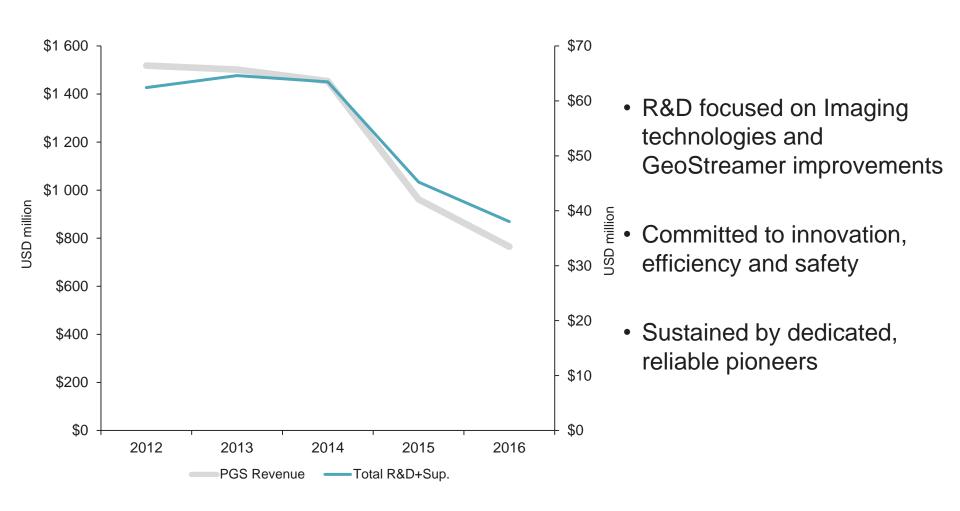


- Imaging market down following decrease of square kilometers acquired and streamer capacity
- Market share increasing slightly
- Smaller competitors going out of business
- MultiClient work sustained year on year

Resilience driven by GeoStreamer, high-end imaging and productivity improvements



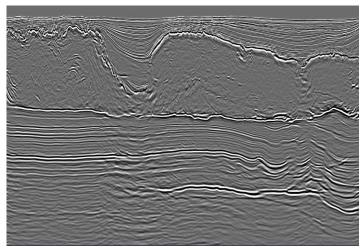
# **R&D Spending Scaled to Adapt to Market**

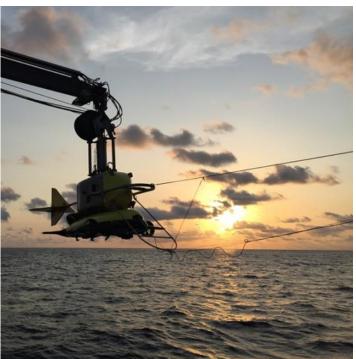


Focus on differentiation and productivity

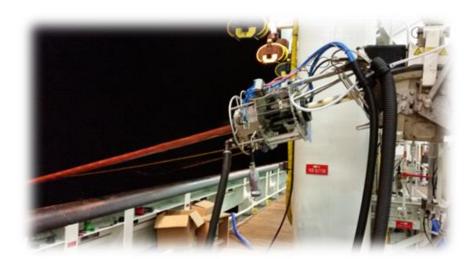








- Triton full-azimuth Gulf of Mexico survey delivered on time with quality that confirms the superiority of GeoStreamer acquisition design
- Full 3D Pre-Stack Time Fast-Track migration of 14,677 sq.km. completed successfully for the first time onboard a vessel and delivered within days of last shot
- Additional Cray supercomputer in Houston increases PGS leadership in shared-memory architecture
- Next generation anti-barnacle equipment successfully tested on the fleet



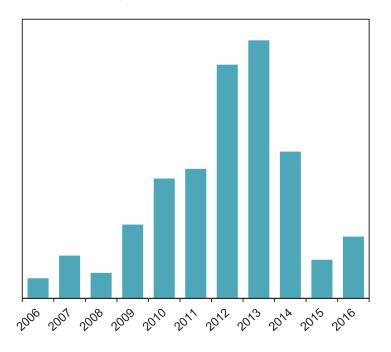


#### Focus on Barnacles for Improved Safety and Performance

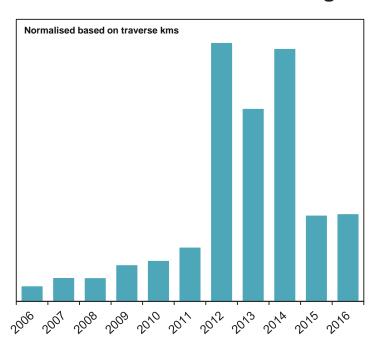
- Less workboat exposure for barnacle scraping
- Dramatic reduction in barnacle related standby
- Reduced noise in GeoStreamer records
- Significant increase in average vessel speed



#### **Standby Hours for Barnacles**

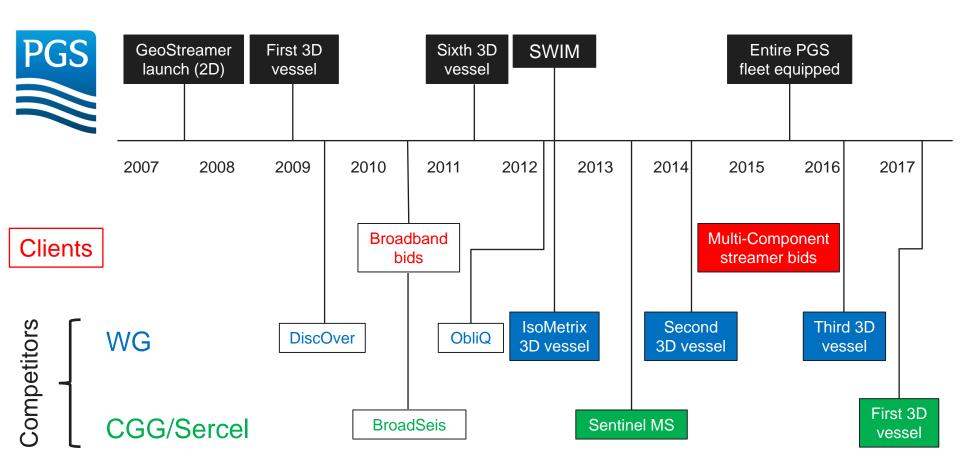


#### **Workboat Barnacle Cleaning**





# **GeoStreamer Led Industry to Adopt Multi-Component Streamers**



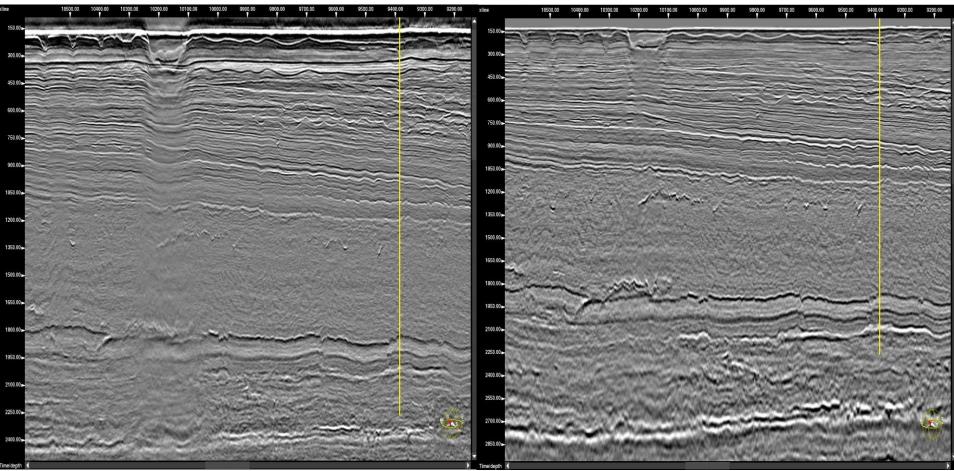
Multi-Component streamers offer far more benefits than just broadband seismic



# **GeoStreamer: Setting New Standards in Imaging**



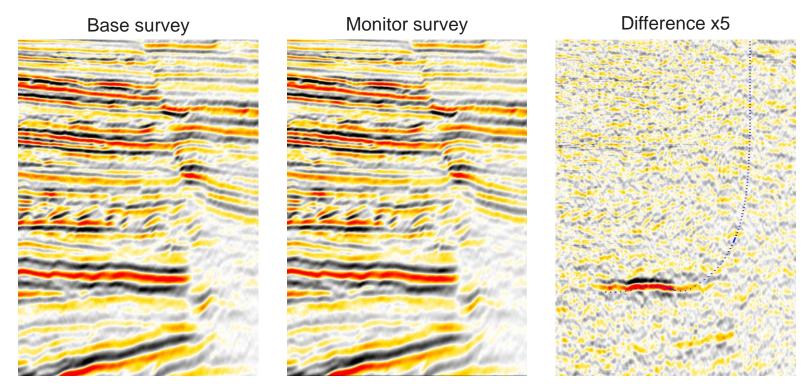
#### GeoStreamer Depth Imaging



Recent advances in GeoStreamer imaging helped rejuvenate the North Sea



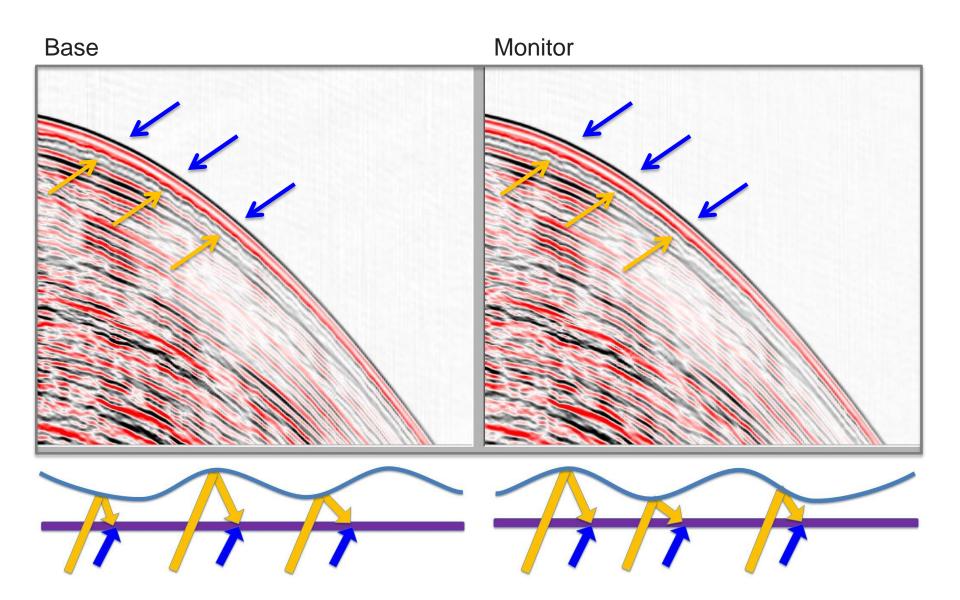
#### **GeoStreamer Improves Repeatability of 4D Surveys**



- 4D surveys are meant to capture changes in fluid contents within producing reservoirs
- The seismic response to reservoir changes is often a very weak signal
- Repeatability in acquisition and imaging is critical to minimize 4D signal interferences
  - Steerable streamers and sources a must
  - Permanent installations required in extreme cases
- Some factors are inherently non-repeatable
  - Weather and sea-surface swell

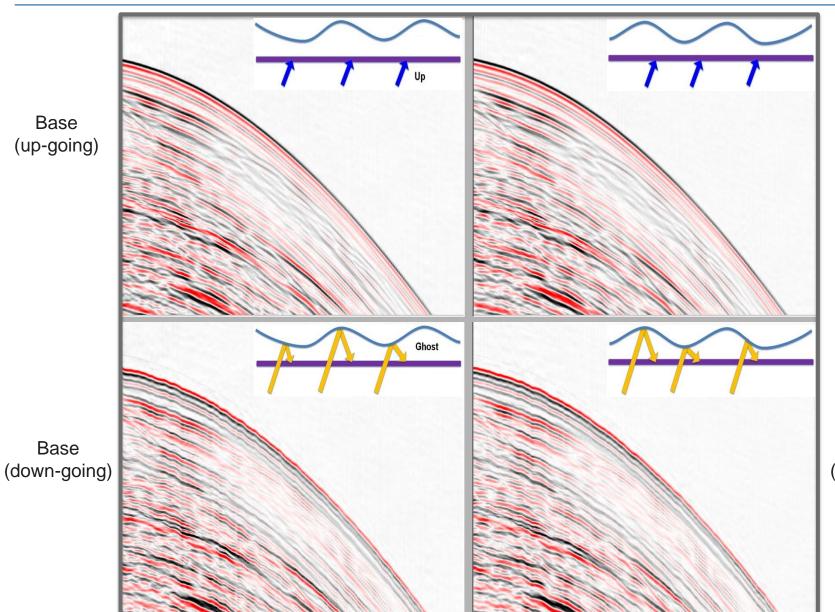


# **Hydrophones Record the Non-Repeatable Sea-Surface Swell**



# GeoStreamer Wavefield Separation Isolates Sea-Surface Swell in Down-Going Wave Making Up-Going Wave More Repeatable



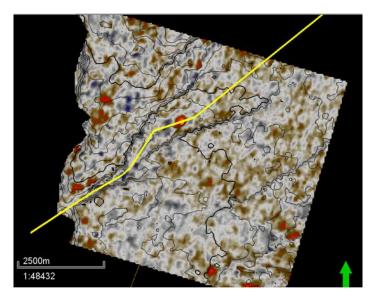


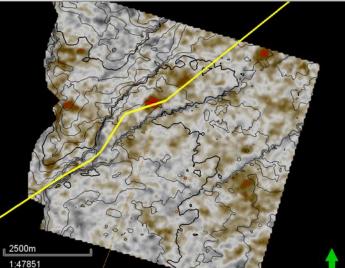
Monitor (up-going)

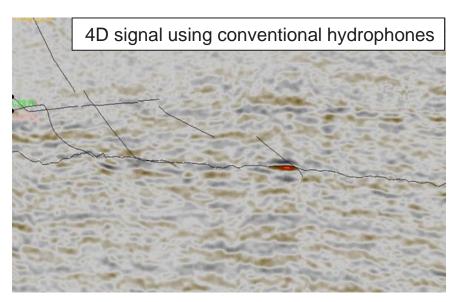
Monitor (down-going)

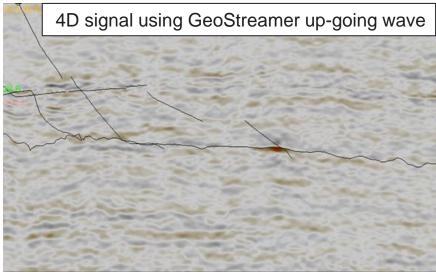


# **GeoStreamer Provides Clearer Images of Fluid Changes**





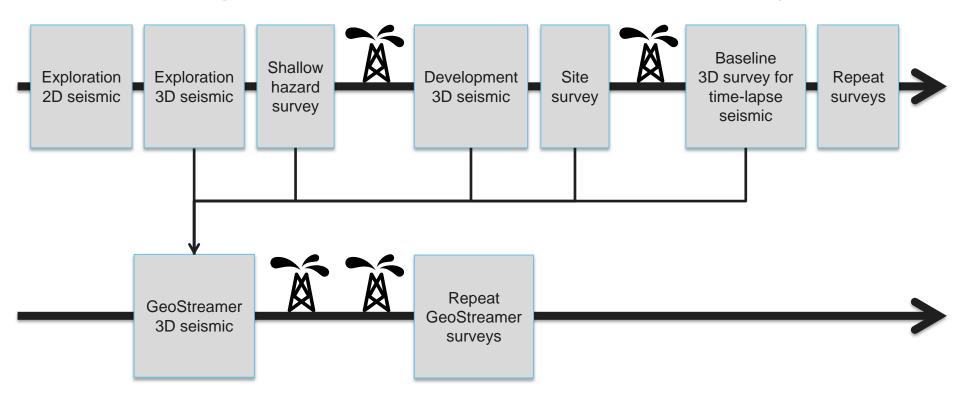






#### The Life Cycle of Seismic Surveys

**Traditional paradigm**: a series of "fit-for-purpose" (i.e., limited purpose) surveys



**GeoStreamer paradigm**: a single "full-purpose" survey used for exploration, development, shallow hazards, site surveys and baseline for 4D seismic and reservoir monitoring

GeoStreamer reduces total E&P costs and shortens field development cycle-time

# PGS

# **Imaging Going Forward**

- Remain focused on quality and client satisfaction
- Leverage large PGS fleet for data access
- Use increased computer capacity and shared-memory to enhance image quality
- Introduce new groundbreaking technologies
  - Expanding on GeoStreamer capabilities
  - Using compute power to automate imaging tasks



#### Imaging & Engineering: Best Positioned to Benefit from Upturn

- Current market low following decrease in acquired 3D marine data
  - Smaller competitors going out of business
  - PGS resilience due to unique technology, quality of services and MultiClient investments
- Marine market rebound will favor multi-component streamers
  - GeoStreamer recognized as the leading technology
  - PGS fleet fully equipped with GeoStreamer
  - PGS Imaging the reference for multi-component streamers
- PGS new imaging algorithms fully harness the power of multi-component streamers
  - SWIM: Separated Wavefield Imaging
  - FWI: Full Waveform Inversion
  - Improved 4D repeatability
- Shared memory computer architecture a step change in Imaging throughput
  - PGS has a head start with Cray supercomputers



# Concluding Remarks - Jon Erik Reinhardsen

President & CEO

A Clearer Image | www.pgs.com





#### **Stronger in a Weak Market**

#### MultiClient:

- Fleet and GeoStreamer technology position PGS well to take advantage of a changing MultiClient market
- Financial performance of MultiClient continues to improve
- Prudent MultiClient risk assessment in place

#### Marine Contract:

- Ranked #1 marine seismic contractor with large majority of IOCs
- Increasing market share, reducing average fleet age and reinforcing position on cost curve
- Strong position in the 4D market

#### Operations:

- Industry leading HSE and operational performance
- Improving towing capabilities moving goalposts for seismic acquisition
- Flexible vessel capacity to fill all roles

#### Imaging & Engineering:

- Pioneering broadband imaging and deploying groundbreaking technologies
- Quality and customer satisfaction steadily improving
- Committed to innovation to improve data quality and vessel productivity

#### In Conclusion





- Improved capital structure to optimize competitive position
- Reducing cost and capital expenditures further
- Industry leading MultiClient performance
- Strong operational performance
- Improving fleet flexibility and productivity
- Continuing to enhance imaging capabilities

PGS - stronger in a weak market

