

### Performance Through the Cycle









#### 08:00 PGS and market perspectives

Jon Erik Reinhardsen, President and CEO

#### 08:30 Financials

Gottfred Langseth, EVP and CFO

08:50 **Q&A** 

09:15 Coffee break

#### 09:30 Marine Contract

Magne Reiersgard, Executive Vice President Marine Contract

#### 09:45 MultiClient

Sverre Strandenes, Executive Vice President MultiClient

#### 10:00 Imaging & Engineering

Guillaume Cambois, Executive Vice President Imaging & Engineering

#### 10:15 **Operations**

Per Arild Reksnes, Executive Vice President Operations

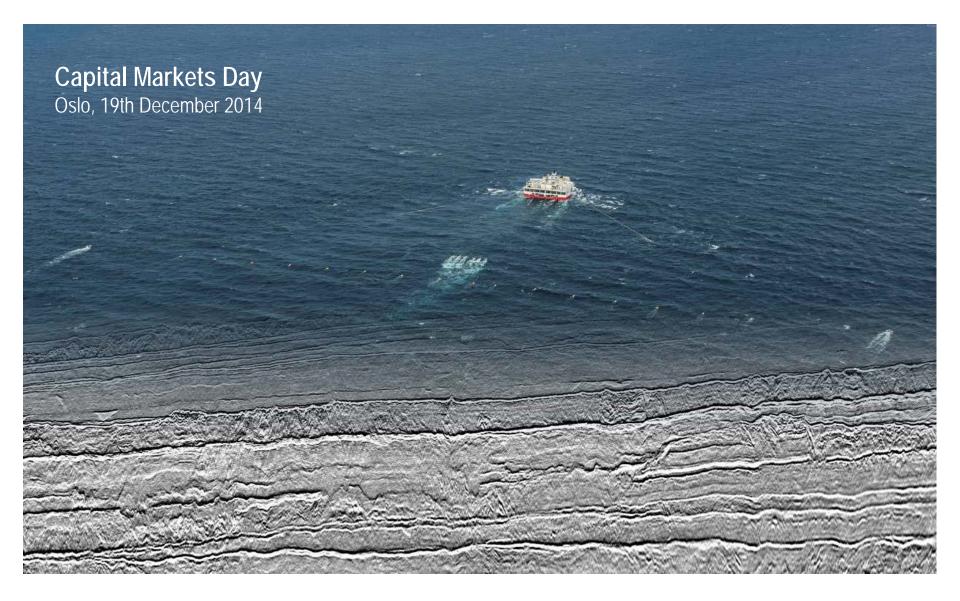
10:30 Coffee Break

#### 10:45 Concluding remarks

Jon Erik Reinhardsen, President and CEO

11:00 **Q&A** 

11:15 Christmas lunch



### Jon Erik Reinhardsen

President & CEO

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- 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 other financial statements and the disclosures therein





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 2013. 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.

### **Leading Marine Geophysical Company**



#### Marine Contract



# Marine market leadership

47% of revenues LTM

Marine Contract acquires seismic data exclusively for oil and gas exploration and production companies

#### MultiClient



### Diverse MultiClient library

42% of revenues LTM

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

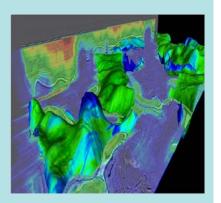
### **Operations**



# Productivity leadership

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

# Imaging & Engineering



## Technology differentiation

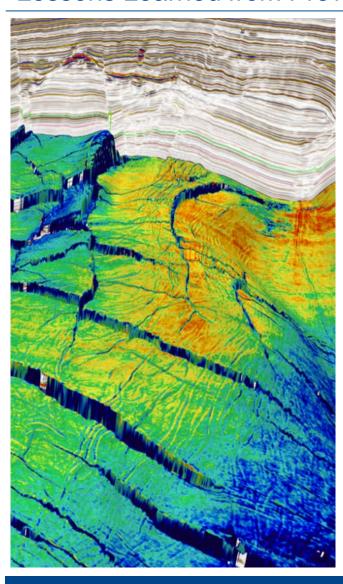
8% of revenues LTM

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

### **Strategy for Taking the Lead**

#### Lessons Learned from Previous Downturns





- Conservative financial gearing creates cyclical robustness
  - Long term financing in place
  - Preserving dividend capacity
- MultiClient reduces earnings volatility
- Conservative pre-funding requirements protect cash flow
  - Lower late sales risk
  - Reduce library build-ups and exposure
- New-build commitments fully funded
- Lowest cash cost wins (and delivers market share leadership)
  - Invest for 25 years use of vessels
  - Focus on maximizing value over life of vessel
- Technology creates differentiation and downside protection
- Continuous cost focus
- Stay focused on core business
  - Divest non-core when possible (PGS Onshore 2009/2010)
- Avoid capital commitments that cannot sustain a downturn



#### **2014 Achievements**

#### Business:

- Excellent safety and operational record
- Established export credit financing for the last two Ramform Titan-class vessels
- Refinanced Term Loan B
- Dividend of NOK 2.3 per share, an increase of 39% from previous year
- Continuing to build an attractive MultiClient library
- Solid MultiClient performance
- Solid marine contract EBIT margins during summer season

#### Technology:

- Acquired EM data over all nominated Barents Sea blocks in the 23<sup>rd</sup> licensing round
- Completed the 3<sup>rd</sup> OptoSeis monitoring 4D survey on the Jubarte field and delivered excellent data quality
- Developing unique GeoStreamer imaging technologies

#### New Builds:

Delivery of Ramform Atlas in Q1 with subsequent strong performance

### **2014 Guidance Update**



#### EBITDA expected to be approximately USD 700 million

- Sub-optimal vessel scheduling due to a weak market
- Approximately USD 100 million in late sales in Q4
- Some further risk of revenue recognition timing 2014 vs. 2015

### MultiClient cash investments of approximately USD 350 million

Pre-funding level of approximately 90%

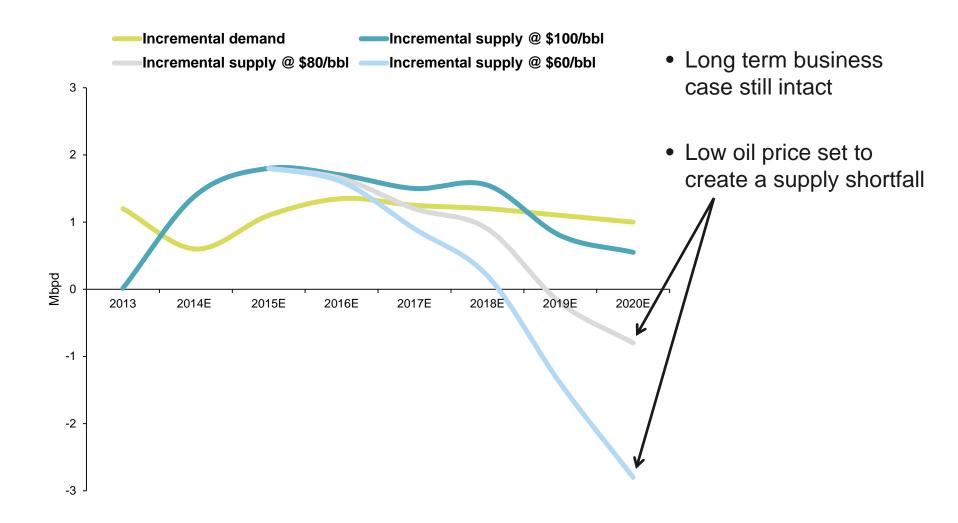
### Capital expenditures of approximately USD 375 million

Approximately USD 210 million relates to the new-build program

#### Market Context:



### Low Oil Price Not Sustainable - Substantial Incremental Supply At Risk



#### **Market Context:**

# PGS

### Low Oil Price Not Sustainable - Project Delays Create Supply Shortfall

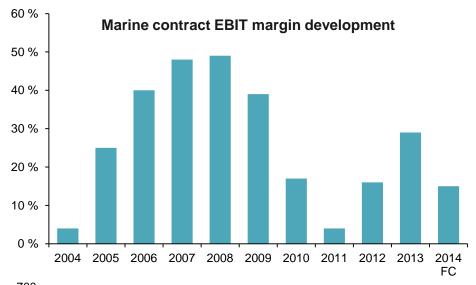


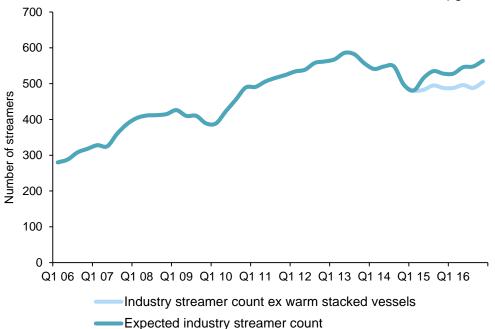
- Delays of big-ticket production projects among oil majors would deprive the world of 7.5 million barrels a day of new output over the coming decade
- The expected near term underinvestment due to a declining oil price will create a supply shortfall

#### Market Context:

### Low Visibility and Significant Market Uncertainty







- 2015 Marine Contract EBIT margin expected to be in line with previous trough years
- Seismic spending to be reduced in 2015 compared to 2014
  - Negatively impacting all our segments
- The North Atlantic Q2/Q3 market is likely to impact supply/demand balance positively
- Average streamer capacity expected to come down further in 2015 vs. 2014
- Capacity reductions contributes to improving market balance

Source: PGS estimates

#### 2015 Guidance



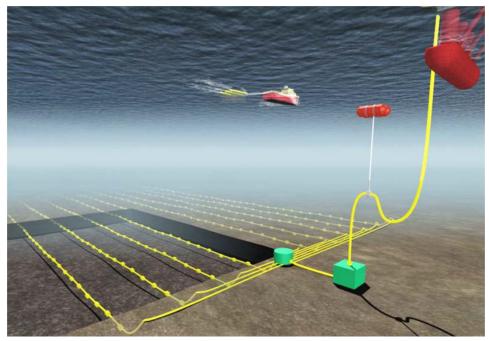
EBITDA in the range of USD 550-700 million

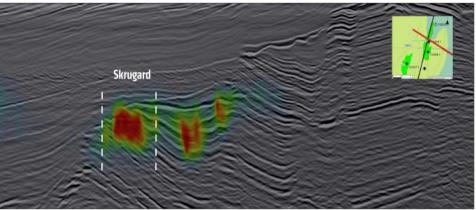
- MultiClient cash investments of approximately USD 275-300 million
  - Pre-funding level at or above 100%

- Capital expenditures of approximately USD 250 million
  - Of which new build capex slightly below USD 150 million for Ramform Tethys and Ramform Hyperion, both with new delivery dates in 2016

# PGS

### **Asset Light Growth Opportunities Maturing**





#### **OptoSeis**

- PGS was awarded a Permanent Reservoir Monitoring (PRM) contract with Petrobras over parts of the Jubarte field in 2010
- PGS OptoSeis technology is now well proven with outstanding results
- PGS in a strong position to take advantage of a growing PRM market

#### **Towed EM**

- · Complementary to seismic
- Acquired EM MultiClient data over all nominated blocks in the 23<sup>rd</sup> licensing round in the Barents Sea

#### **Azimuth**

- Equity vehicle for increased MultiClient library returns
- Significant value potential

#### **Towing productivity**

 Fully utilizing the Ramform productivity potential by leveraging GeoStreamer and SWIM imaging

Net present value potential in the range of USD 500-1,000 million

### Creating Shareholder Value:

### **PGS' Strategic Ambition**





#### To Care

- For our employees
- For the environment and society at large
- For our customers' success

#### To Deliver Productivity Leadership

- Ramform platform + GeoStreamer
- Reducing project turnaround time

#### To Develop Superior Data Quality

- GeoStreamer business platform
- OptoSeis Permanent Reservoir Monitoring
- Imaging Innovations
- Subsurface knowledge

#### To Innovate

- First dual sensor streamer solution
- First with 20+ towed streamer capability
- Towed EM
- Unique reservoir focused solutions

#### To Perform Over the Cycle

- Profitable with robust balance sheet
- Absolute focus on being best in our market segment

### **A Clearer Image**

#### In Conclusion:

### Well Positioned to Navigate Through a Challenging Market





- Robust balance sheet
- No debt maturities before 2018
- Cost effective operations
- Improving productivity
- Reducing costs further
- Solid MultiClient sales performance
- Asset light growth opportunities
- Returning cash to shareholders

**Competitively Positioned – Performance Through the Cycle** 



# Gottfred Langseth Executive Vice President & CFO A Clearer Image | www.pgs.com





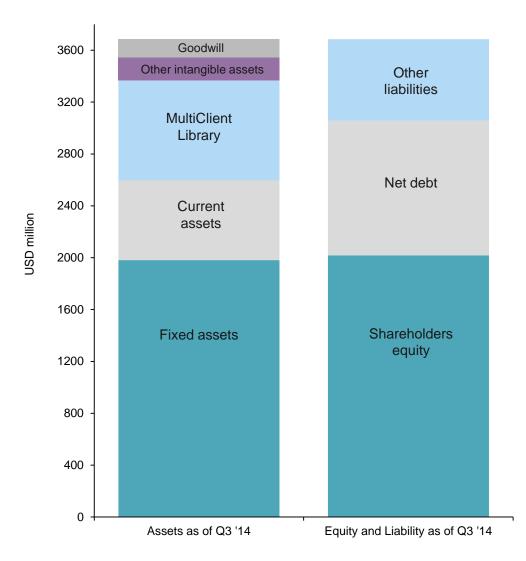
### **Outline**



- Balance sheet position
- Dividend
- Debt structure and maturity profile
- CAPEX trends
- MultiClient investment, late sales and prefunding trends
- Cost trends
- Tax
- Foreign currency
- Sensitivities



### **Balance Sheet Well Positioned for a Challenging Market**



- Liquidity reserve of USD 470.4 million at end Q3 2014
  - In addition USD 267 million of undrawn Export Credit Agreement (ECA) relating to new builds
- Shareholders' equity of 55%
- Goodwill of USD 139.9 million relates to acquisition of MTEM and AGS and is subject to annual impairment testing
- Other intangible assets of USD 179.7 million include patents and licenses, and technology development costs such as Towed EM, OptoSeis, GeoStreamer
  - Amortized straight line over estimated useful life

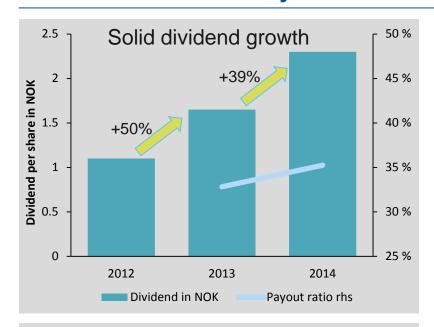


### **PGS Ongoing Dividend Policy**

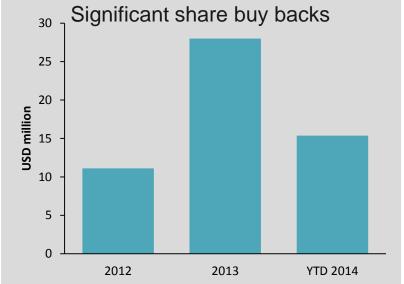
- In 2013 and 2014 PGS distributed approximately 35% of net income in dividend
- Dividend policy aiming to distribute 25 to 50% of net income as dividends over the business cycle
  - Will consider business performance, operating environment and growth opportunities when determining the appropriate level in any specific year
  - Dividend payout decision will take non-recurring items into consideration
  - Excess cash flow in peak years could qualify for extraordinary dividend



### **Dividend is a Priority**



- PGS targets growth of dividend capacity and dividend over time
  - Solid dividend growth since dividend policy was introduced in 2011
- Given the cyclicality of the market, PGS adopted a policy where absolute dividend levels may fluctuate, correlating with earnings and business outlook



- The Board of Directors will decide on the 2015 dividend proposal in its March 2015 meeting based on these factors
- With the current market uncertainty, nominal dividend is likely to be reduced compared to 2014, but to remain within the policy range

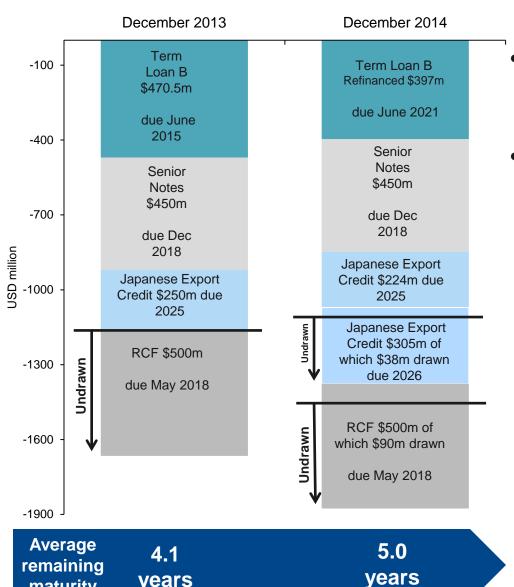


### **TLB Extended - Secured Export Credit Financing**

- Term Loan B reduced from USD 470 million to USD 400 million in Q1 2014
  - Maturity extended from 2015 to 2021
  - Floating interest rate of LIBOR (minimum 0.75%) + 250 basis points
- Export Credit Financing for the two last Ramform Titan-class vessels secured in Q1 2014
  - Total facility of USD 305 million
  - Repayable over 12 years
  - Lenders have first priority mortgage in the two vessels
  - 50% fixed and 50% floating interest



### Debt and Facility Maturities Further Extended



- Average remaining time to maturity increased to 5.0 years
- No unduly restrictive covenants
  - RCF has a maintenance covenant; total leverage ratio\* <2.75:1
  - Term Loan B and Export Credit Facility have an incurrence test; total leverage ratio\* <3.00:1
  - **Export Credit Facility and Senior** Notes have an incurrence test; interest coverage ratio\*\* <2:00:1

vears maturity

<sup>\*</sup>Total indebtedness divided by (EBITDA - non pre-funded MultiClient investments) \*\*Consolidated cash flow divided by consolidated interest expense, both with

certain defined adjustments.



### **Attractive Debt Structure – No Maturities Before 2018**

Long term Credit Lines and Interest Bearing Debt	Nominal Amount September 30, 2014	Total Credit Line	Financial Covenants
USD 400.0 million Term Loan ("TLB"), Libor (minimum 0.75%) + 250 basis points, due 2021	USD 398.0 million		None, but incurrence test: total leverage ratio < 3.00:1
Revolving credit facility ("RCF"), due 2018 70 bps commitment fee on undrawn amount Libor + margin of 200-235 bps on drawn amount	USD 120.0 million	USD 500.0 million	Maintenance covenant: total leverage ratio < 2.75:1
Japanese ECF, 12 year with semi-annual instalments. 50% fixed/ 50% floating interest rate	USD 267.2 million	USD 534.2 million	None, but incurrence test for loan 3&4: Total leverage ratio < 3.00:1 and Interest coverage ratio > 2.0:1
2018 Senior Notes, coupon of 7.375% and callable from 2015	USD 450.0 million		None, but incurrence test: Interest coverage ratio > 2.0:1



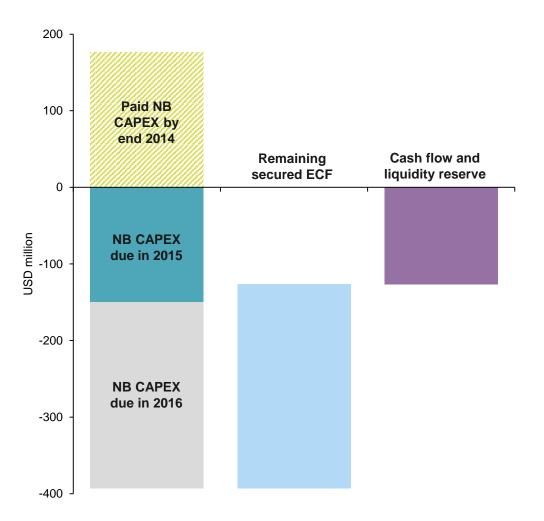




- Delivery times for Ramform Tethys and Ramform Hyperion rescheduled to Q1 and Q3 2016
- Reduces 2015 CAPEX by at least USD 160 million compared to previous baseline
- No cost impact for PGS
- Subject to certain conditions which are expected to be satisfied shortly



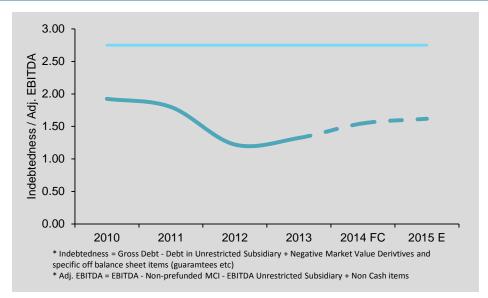
### Two Last New Builds are Fully Financed – Timing of Instalments



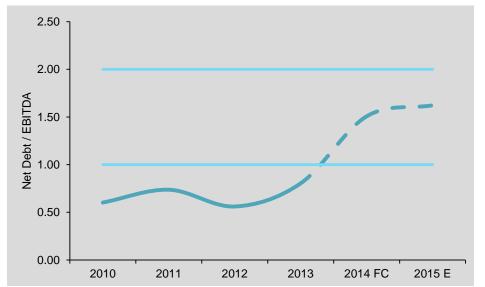
- Available undrawn ECF financing of USD 267 million corresponds to remaining yard instalments
- CAPEX relating to seismic equipment and project related cost will be paid out of cash from operations/available liquidity reserve
- Moderate CAPEX in 2015
- Revolving Credit Facility secures strong liquidity buffer







- Net interest bearing debt forecasted to show relatively flat development in 2015
- Good headroom to maintenance covenant in the Revolving Credit Facility, even at the low end of the 2015 EBITDA guidance



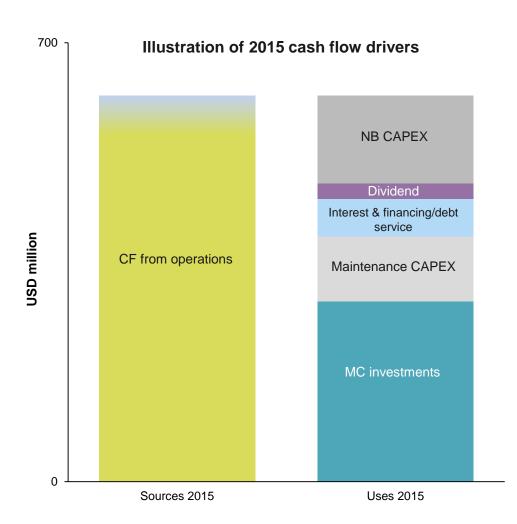
 Net interest bearing debt projected to stay inside PGS' policy to keep net debt below 1xEBITDA in a strong market and 2xEBITDA in a weak market

Both illustrations are PGS estimates based on a 2015 EBITDA of USD 650 million and assumptions relating to working capital, tax payments and other factors which are judgmental and subject to risk

#### 2015 Sources and Uses of Cash

### Expecting Robust Cash Flow in a Weak Market



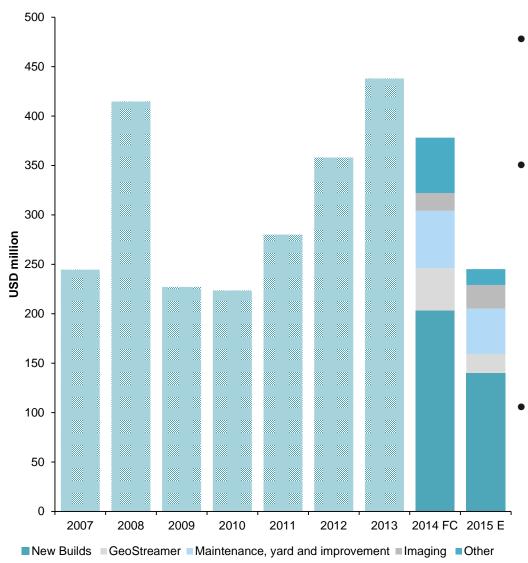


- Cash flow from operations to cover MultiClient investments, maintenance CAPEX, interest & financing/debt service, dividend and most of the new build CAPEX
- Excluding new build CAPEX the Company is expected to generate healthy free cash flow in 2015
- Completion of new build program positions PGS for a significant increase in free cash flow going beyond 2016

The illustration does not show separately the option to draw on ECA financing during 2015 at an estimated amount of USD 38 million. Illustration is based on a 2015 EBITDA of USD 650 million and assumptions relating to working capital, tax payments and other factors which are judgmental and subject to risk.



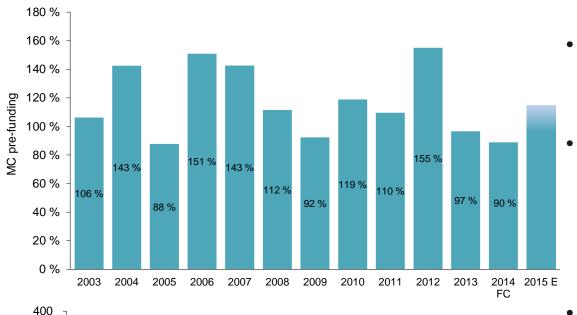
### Capital Expenditures – 2015 Trends and Projections



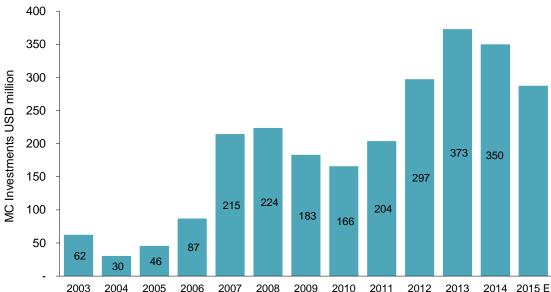
- Full year 2014 CAPEX expected to be approximately USD 375 million
  - Of which approximately USD 210 million relates to new builds
- 2015 CAPEX plan of approximately USD 250 million
  - Slightly less than USD 150 million relates to new builds
  - Approx. USD 20 million for GeoStreamer and related equipment (excl. new builds) and USD 50 million in maintenance, yard and improvement
- Run rate for maintenance CAPEX after delivery of all new builds estimated to be in the range of USD 180-200 million annually



### **Solid MultiClient Pre-funding**



- 2014 MultiClient cash investments of approximately USD 350 million with a pre-funding level of approximately 90%
- MultiClient cash investments in 2015 driven by North Sea program and well funded projects in Australia, Brazil and Ivory Coast
  - 2015 MultiClient cash investments of USD 275-300 million

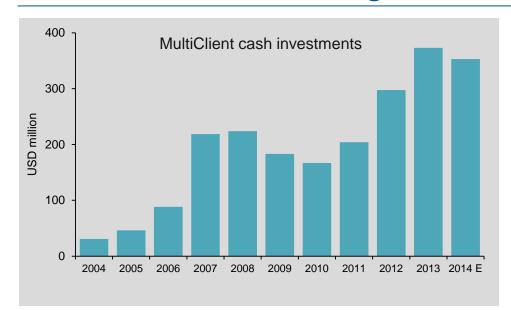


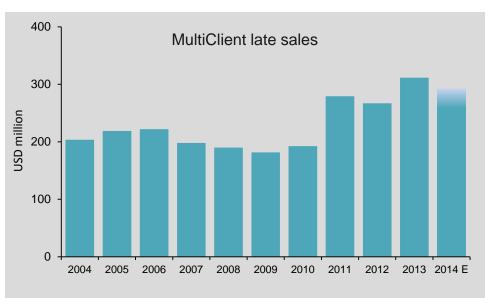
- 2015 pre-funding level expected to be at or above100%
- Approximately 35% of 2015 active 3D fleet capacity currently planned for MultiClient
- Amortization rate expected in the range of 50-55% for 2014 and approximately 55% in 2015

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### **Increased Sales from a Larger MultiClient Library**

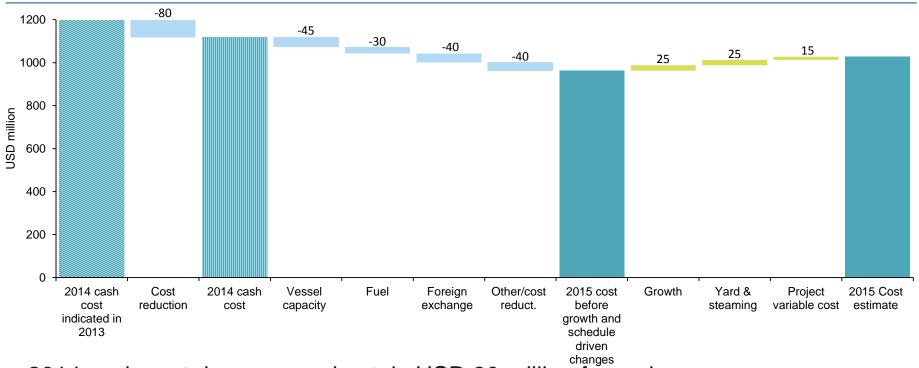




- After PGS sold its Onshore division in 2010, MultiClient was organized as a dedicated business area
- MultiClient cash investment levels increased with strong pre-funding
- Late sales increased from a runrate of approximately USD 200 million pre 2011 to approximately USD 300 million
- A larger, well maintained MultiClient library has generated a higher level of sustainable sales over time



#### **Cost Reduction Continues in 2015**



- 2014 cash cost down approximately USD 80 million from plan
  - Cost reduction program
  - Lower project variable cost
  - First impact from lower fuel costs and more favorable currency exchange rates
- Cash cost to decline significantly in 2015
  - Significant impact from fuel price (Brent of USD 70-75 per barrel in illustration) and a stronger USD (NOK/USD 7.15 in illustration)
  - Cost effect of retiring low end capacity and other implemented cost savings
  - Partially offset by growth in EM, funded R&D projects, less capitalization of yard and steaming time, and higher project variable cost

# PGS

#### **Beneficial Tax Position**

#### Deferred tax assets

- Deferred tax assets (USD 105 million at end Q3 2014) will continue to benefit current tax expense for the coming years
- Current tax mainly relates to withholding taxes and local taxation in countries of operation where PGS has no deferred tax assets. Will vary significantly depending on area of operation

#### Tonnage Tax regimes

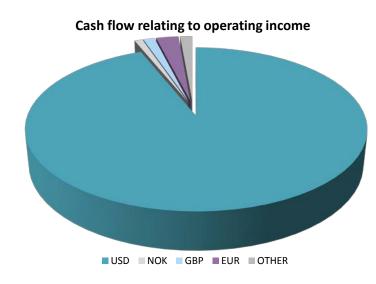
- Operation of most vessels in tonnage tax regimes positively impacts tax expense
- Under average market conditions the benefit to tax expense could be USD 30-40 million annually
- The benefit to tax expense varies with profitability and will be lower in 2015

#### Effective tax rate

- Fluctuates due to various reasons: foreign exchange movements, utilization and recognition of deferred tax assets, area of operation, impact from tonnage tax regimes and other permanent differences
- Looking ahead, an average effective reported tax rate below 25% should be achievable in an average market
  - Higher in years with low profitability since a portion of current taxes is based on gross amounts (e.g. withholding taxes and revenue based taxes)

### Foreign Exchange and Sensitivity







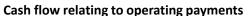
 A 10% change of the USD vs. NOK has an annual net EBIT impact of USD 21-23 million before currency hedging activities. A 10% change vs. GBP has an effect of USD 10-12 million

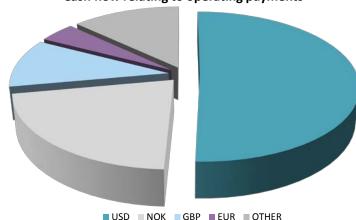
### The Company hedges

- 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 backlog

### Current hedging positions

- Currently approximately NOK 398 million and GBP 28 million bought on forward contracts
- Hedge of BRL 120 million in place against the exposure arising from cash deposit held in Brazil, approximately 65% of the deposit
- A strong USD is generally positive. Short term negative impact on balance sheet items and tax positions. At current rates, PGS expects:
  - USD 20-25 million of negative impact on Q4 deferred tax expense
  - USD 5-9 million of negative impact on net financial items





### **Key Sensitivities**



- Technical downtime/mobilization delays/standby
  - One month for high capacity vessel could amount to a revenue loss of USD 8-12 million
     + risk of schedule impact and equipment cost
- Contract versus MultiClient
- Given the current market the EBIT impact of changing 3D capacity between Contract and MultiClient is limited assuming that pre-funding is at or above 100% of capitalized MultiClient cash investment
- MultiClient late sales
- Sensitive to oil price, legislative changes and license rounds
- Regional variability from quarter to quarter
- Fuel price
- 10% change represents slightly less than USD 1 million per month of operating cost
- Price risk is placed with the customer on a majority of contract work
- Marine contract margin
  - One percentage points increased marine contract EBIT margin approximates USD 6 million in increased EBIT/year

### **Robust Cycle Management**





- Solid financial profile
- Attractive debt structure with no maturities before 2018
- Significant cost and CAPEX reduction in 2015
- Flexibility to handle market volatility
- Benefiting from a strong USD

**Robust Performance Through the Cycle – Reducing Cyclical Exposure** 



#### Magne Reiersgard

Executive Vice President, Marine Contract







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



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

#### **Outline**





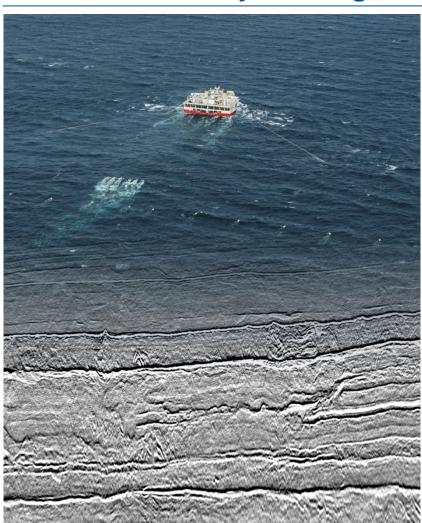
- Outlook seismic market
- Broadband shift
- Competitive advantage
- Towed Streamer Electromagnetics
- Permanent Reservoir Monitoring
- Summary

Photo: Johannes Homuth

#### Marine Contract Value Proposition:

#### **Better Data Quality AND Higher Efficiency Matter**





- Meeting the client's need for tailor made services
- Safe and environmentally sound
- Leading GeoStreamer technology platform facilitating high efficiency and data quality
- Flexible and innovative solutions to survey requirements
- Reliable, on-time, on budget
- Global reach

#### **Ambition:**

Being number 1 in the high-end seismic market Adding value for our customers and creating profitability for PGS



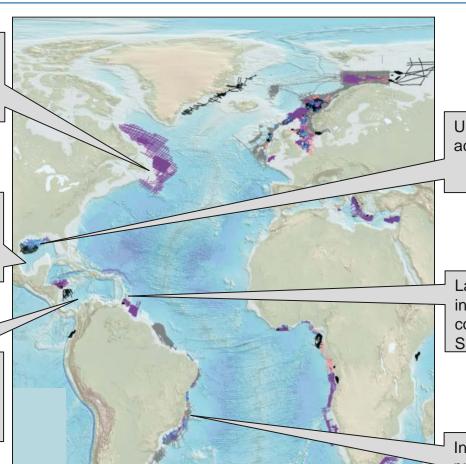
#### **Demand Outlook Western Atlantic**

Several large programs planned for 2015 summer offshore Eastern Canada, both exploration and 4D

Mexico reform – expect first seismic in 2015 under the new regulations

High seismic commitments on new acreage in Colombia, high impact recent discovery

Uruguay & Falklands – hiatus in activity, future depends on drilling results



US Gulf of Mexico – stable activity levels

Large surveys in Trinidad, interest remains high in conjugate margin Guyana and Suriname

In Brazil still substantial programs to be shot following 11<sup>th</sup> round. Permit delays. 4D market.



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

High interest for North Sea licensing rounds, becoming primarily a MultiClient province for exploration work. 4D market.

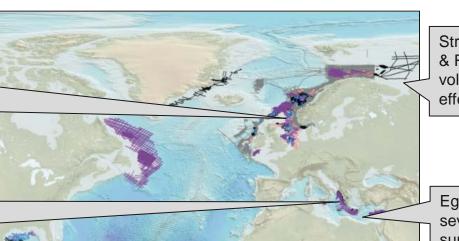
Eastern Mediterranean -

and Croatia

Licensing rounds in Greece

West African margin – stable activity, sub-salt rounds in Angola and Gabon creating large programs. 4D market.

Namibia, South Africa - drilling determines longer term demand levels



Strong growth in Barents Sea & Russia Arctic but uncertain volumes due to fall in ruble and effects of sanctions

Egypt activity returning several large broadband surveys to be shot in 2015

Extensive campaign planned in Saudi Arabia

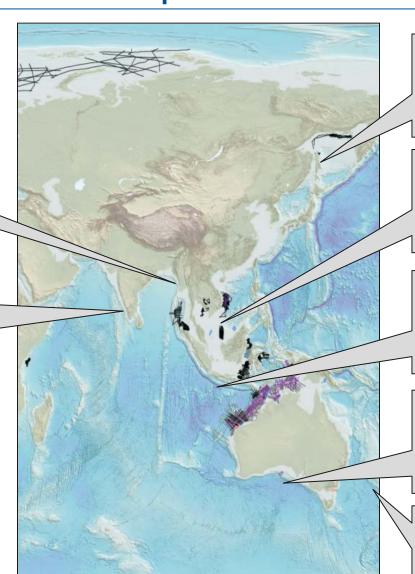
East African margin – several programs in Mozambique, Tanzania and Madagascar in 2015





Myanmar: New province opening up prospective acreage – could generate up to 40,000 sq.km. over the next 1-2 years

India: Return of strong activity, at least three vessels for this winter season



Sakhalin: Higher activity expected for 2015 – probably 3 vessels

Malaysia – stable high activity, multiple substantial tenders expected in Q1

Indonesia – bureaucratic barriers in recent years may ease with new Government

Australia: High activity level both on the NW Shelf and South Australia. Record breaking number of nominations for 2015 license round

New Zealand attracting new interest, both contract and MultiClient

# PGS

#### **High Exploration Interest in New Areas**





#### **Myanmar**

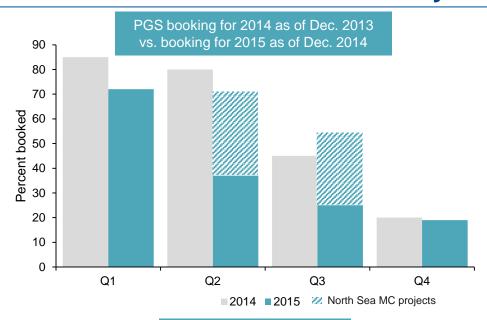
- Bid round in Myanmar could generate up to 80,000 sqkm of 3D seismic over the next 2-3 years
- First surveys to begin Q1/2 2015
- Q4 2015 post monsoon activity commitments around 30,000 sqkm
- Potential round in 2015 for remaining deepwater blocks could sustain activity through 2016 and 2017

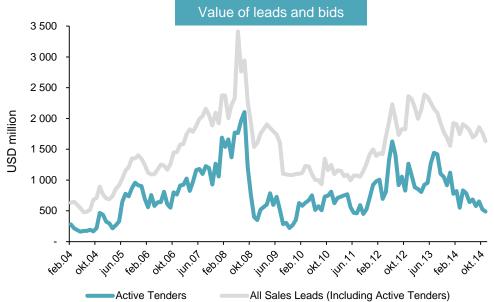
#### **Mexico**

- New legislation opens a prime, new, prospective province with very little modern exploration data available
- Area equivalent to over 50% of the current US Gulf of Mexico
- Seismic demand depends on change of regulation



#### **Decent Order Book – Low Visibility**

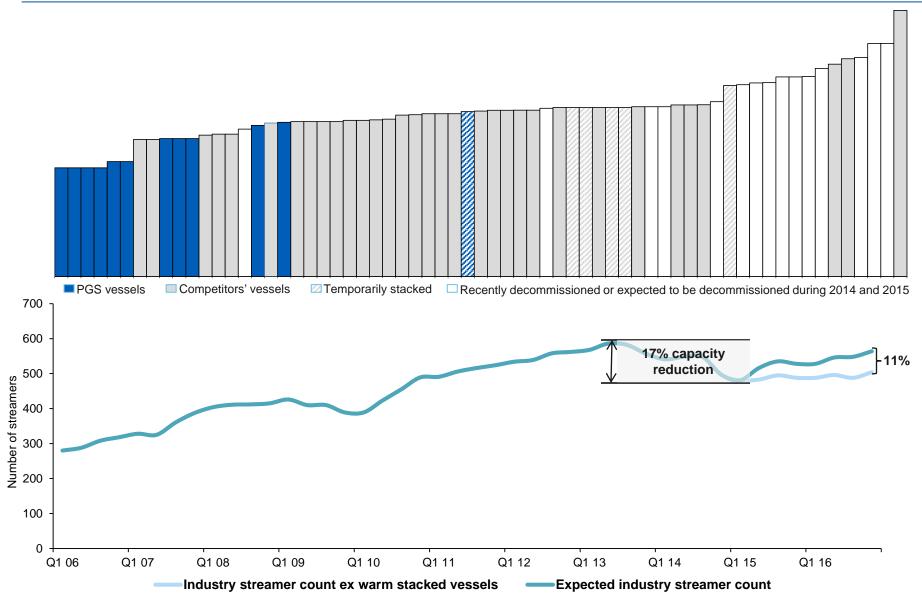




- Reduction in leads the last two years is primarily due to lower prices
- Good inflow of sales leads in December
- Q1 2015 is expected to be challenging
- Market uptick expected in Q2 2015 from Q1 2015



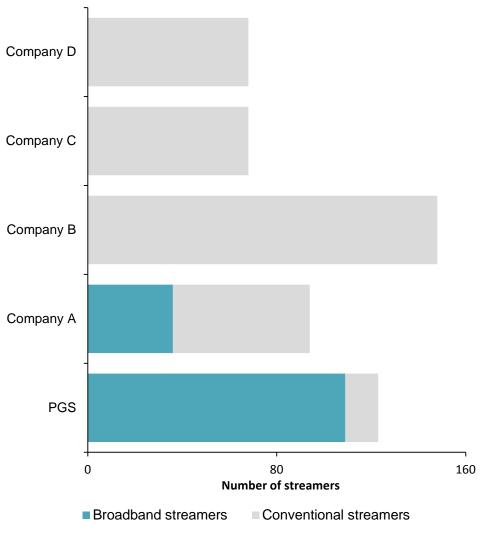
#### The Industry Fleet is Adjusting Quite Fast to Lower Spending



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 15 streamers, S-class with 14 streamers and the V-class with 12 streamers.

# PGS

#### **Uniquely Placed in True Broadband Market\***



- PGS has substantial lead in development and deployment of multi component streamer
- PGS is the only player which does not face substantial CAPEX near term to modernize streamer pool
- Leading technology for 4D applications approx. 65% of all broadband 4D projects to date carried out using GeoStreamer
- Multi component streamers give quality uplift under all conditions, in contrast to DP based hydrophone only methods
- Multi component streamers record two sets of discrete measurements, allowing for a suite of imaging products which are not possible with pure hydrophone streamer systems

#### **GeoStreamer remains a premium product**



#### True Broadband Seismic is a Crucial Differentiator

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

**Exploration** 3D seismic

- 2-4k km2
- 10x100m
- 2.5 3 months

Shallow hazard survey



#### **Development** 3D seismic

(4D base)

- 500 km2
- 10x50m
- 2 months

Site Survey



#### **Monitoring**

3D Seismic (4D repeat)

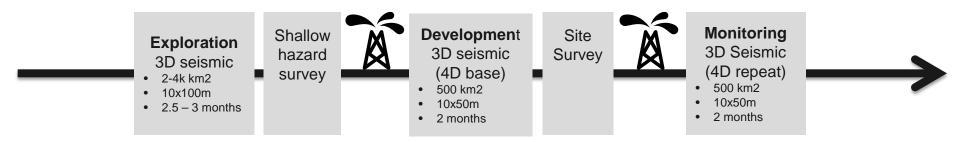
- 500 km2
- 10x50m
- 2 months

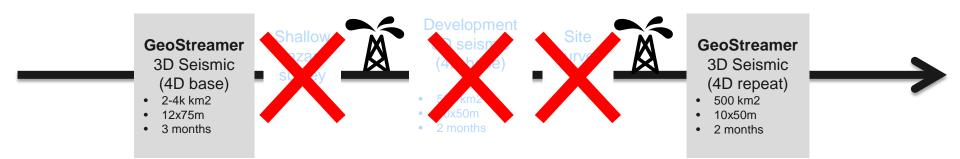




#### True Broadband Seismic is a Crucial Differentiator

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





New paradigm: ONE "multi-purpose" survey

GeoStreamer is a great «Value Proposition» regardless of market conditions



#### **Seismic Vessels Have to Fill All Roles – Competitive Advantage**

Survey type	Requirements	PGS Capability
Large low cost scanning 3D	Large vessels 12+ streamer capacity, wide spreads, SWIM imaging	
4D	Ultra-high streamer count, industry leading broadband technology for 4D purposes	
True Broadband imaging	Multi component streamer technology, suite of imaging technologies to maximise value	
Full Azimuth surveys	Large homogenous fleet, experience, survey planning competence, track record	
Frontier	High endurance, technical redundancy, support experience in remote areas	
High density reservoir work	Ultra-high streamer count with low streamer separations, multi component technology	
Smaller surveys	Global fleet to minimise steaming, fast deployment and retrieval systems	
Longer offset	Large vessels, 12+ streamer capacity, wide spreads, large reels capacity	

PGS fleet is uniquely positioned to take on all kinds of work – efficiently

## PGS

#### **Outlook Summary Marine Contract Seismic**

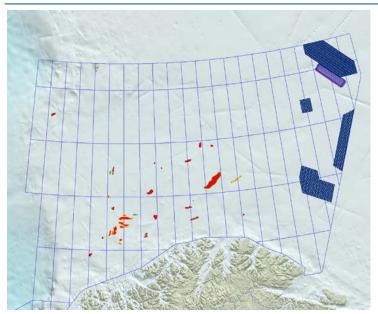


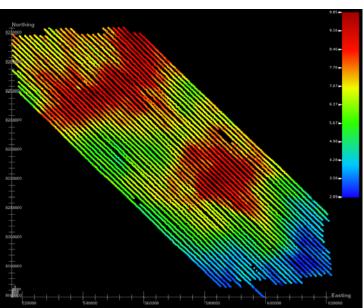
- PGS' contract performance for 2015 is underpinned by:
  - Differentiated GeoStreamer technology, unique combination of multi component data and proprietary imaging algorithms as well as the Ramform fleet
  - Strong reputation with large customer base, particularly IOCs. Consistently ranked as leading marine contractor
  - Favorable fleet development:
    - GeoStreamer technology
    - Capabilities of the new Ramform Titan class
    - Low end vessels retired
  - Portfolio optimization combining the industry leading fleet for contract with robust MC operations

Market requirements playing to PGS' strengths in acquisition and imaging









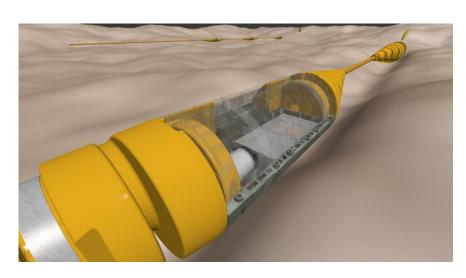
#### Unique value proposition

- Acquisition efficiency massively higher than node based systems – 111 km per day on recent Barents Sea survey
- Acquired simultaneously with seismic data
- Independent acquisition platform reduces utilisation risk dramatically
- Higher data density than any other available system
- 2015 will see expansion into other regions



#### **OptoSeis Marine – Permanent Reservoir Monitoring (PRM)**





- Marked increase in market opportunities in multiple areas
- Unique Only available full turnkey system including design, manufacture, installation and imaging
- Strong track record Jubarte field, offshore Brazil
  - The world's first system delivered on turnkey basis
  - The world's first deep-water system
  - Successful ongoing 4D imaging and acquisition
- Already designing improved system based on field experience



#### OptoSeis Land 3D – Moving from the Lab into the Field



- Joint development Shell-PGS
- Step change in scalability, cost, weight, efficiency
- Optical technology synergies with Optoseis PRM

#### Timeline:

- 2015: Supply chain ramp up and manufacturing activities
- 2016: Large array for desert field test in 2016
- 2017: Ultra-large array for desert commercial sale

OptoSeis Land – Commercialization



#### **Summary Marine Contract Services**

- Unique combination of leading productivity and unique technologies puts PGS contract seismic in a strong market position
- Growth potential beyond fleet expansion
- Consistent and proven ability to satisfy customer demands for clearer images, safe and efficient operations



# Sverre Strandenes Executive Vice President, MultiClient A Clearer Image | www.pgs.com





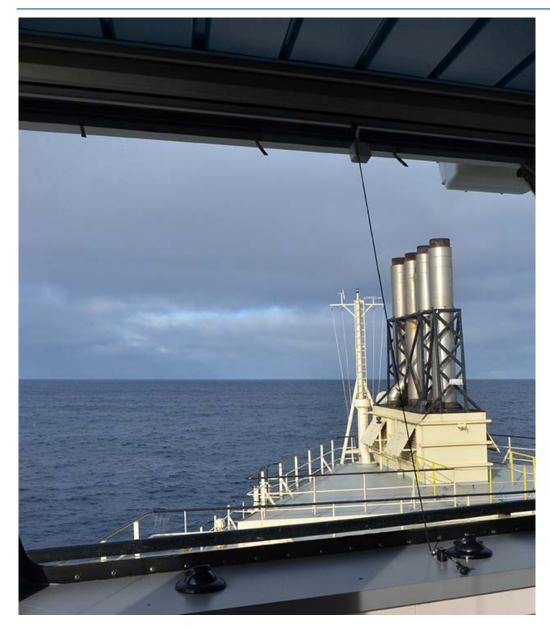
#### **MultiClient – What Does the Business Unit Do?**



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



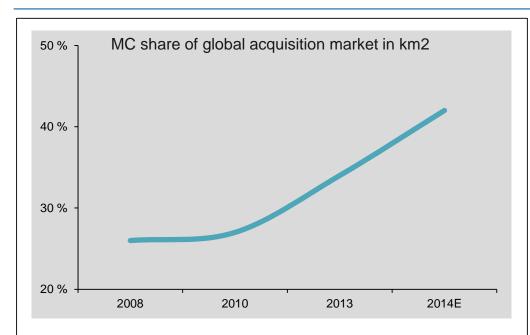




- The market seen from a MultiClient perspective
- Strengths of MultiClient within PGS: Competitive advantages
- Portfolio overview and key projects 2015
- Summary

#### **The Seismic Market Development**



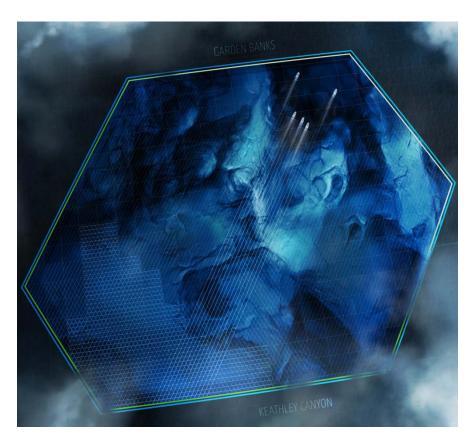


	2008	2014E
UK/NORWAY	31%	61%
AFRICA	17%	27%
AUSTRALIA	23%	49%
BRAZIL	72%	82%

- MultiClient share of seismic 3D acquisition (in km2) has gradually increased to reach well above 40% at present
- Size and character of MultiClient projects have developed significantly and can vary substantially
- As a vessel owner with strong financial capability, PGS is in position to play in all subsets of these
- PGS aims at balancing vessel capacity between the Contract and MultiClient segments according to their relative share of the total market







- Contract and MultiClient serve the same market, under different business models
- A weaker market will also affect MultiClient, but if played right it will
  - Provide opportunities
  - Greater resistance to cyclicality
- Current market is challenging with geographical differences, but also opportunities
  - Transparent, regular licensing regimes remain the most attractive markets; Europe in the lead
  - MultiClient opportunities are on the rise, but attractiveness varies significantly
  - Increased competition, decreased discipline
  - No immediate signs of improvement
- Leveraging PGS strength and advantages of the MultiClient model

#### **Competitive Advantages of PGS MultiClient**



#### A Full Value Chain Seismic Service Provider

Local presence Global reach Vessel owner High capacity fleet

Leading technology: GeoStreamer Imaging EM Business models: Contract MultiClient Equity Adding value: Interpretation Reservoir Characterization

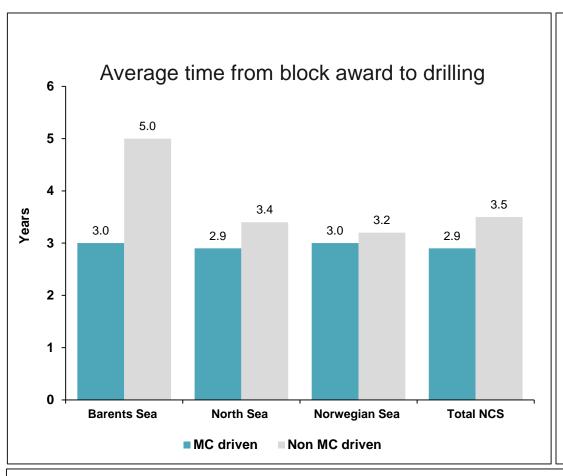
Global service line organization

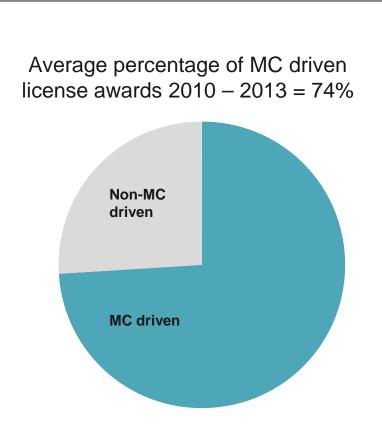
Reduced turn-around, increased efficiency, reduced subsurface risk

**GeoStreamer – A unique platform to support customers' exploration success** 

#### Time From Block Award to Drilling – Norwegian Continental Shelf (\*)





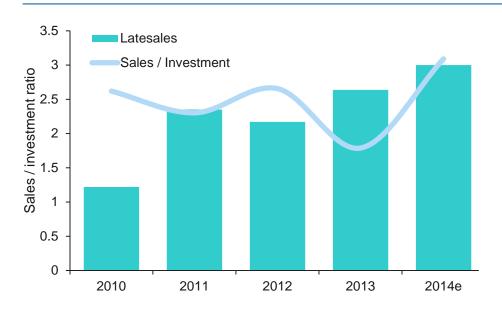


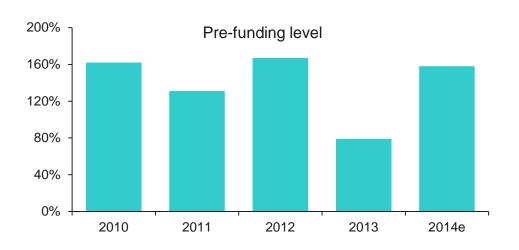
**MC driven license award:** More than 50% of license area covered by at least one MC survey 5 years or less prior to award

MultiClient data availability drives down time from award to drilling by 6 months



#### MultiClient and GeoStreamer Makes the North Sea a Win-Win-Win Market





#### The three wins:

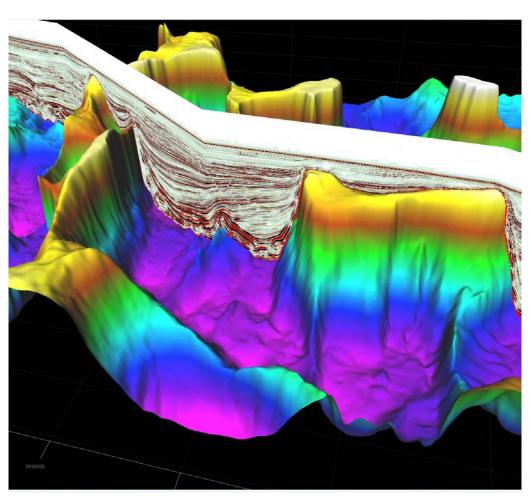
- Government: modern database, shortens time from award to drilling
- Oil companies: Success based licensing models, cost effective state-of-the-art data
- PGS: Solid return on investment

#### • In the period 2010-2014:

- Approximately 60,000 km2 of GeoStreamer MC3D data acquired
- Average pre-funding 140%
- Strong and increasing late sales
- PGS expects to acquire an additional 10,000 km2 MC3D data in 2015

### Regulators Shorten Time From License Award to First Well: Kwanza MultiClient 3D Angola



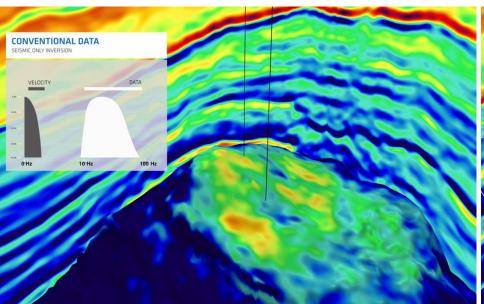


- Operators gained approximately one year time advantage through the MultiClient business model
- GeoStreamer driven project
- PGS supplied two vessels for acquisition from January 2012 – March 2013
  - As a vessel owner PGS could time and optimize arrival of vessels
- PSDM (Depth Migrated) data delivered March 2014
- Program was strongly pre-funded
- Farm-in activity and complex reservoir issues have led to good late sales activity
- Sales / Investment presently at 2.0, NBV
   USD15 million still with significant future sales expectations

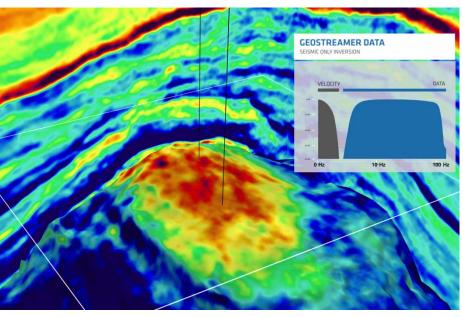
#### MultiClient GeoStreamer: Investing in the Future



#### **Conventional Data**



#### **GeoStreamer Data**



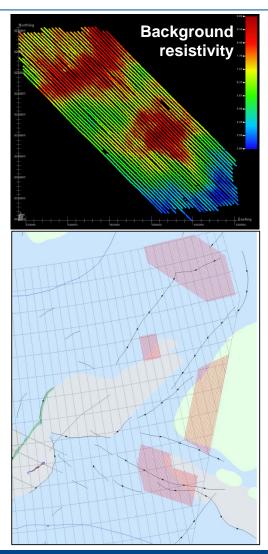
- Lack of low frequencies:
  - Poor inversion quality
  - Lack of reservoir delineation

- Significantly more low frequencies:
  - Improved inversion quality
  - Better reservoir delineation

Future value potential as GeoStreamer imaging technology is further developed

# PGS

#### 2014 Barents Sea MultiClient Towed EM Program (\*)



- Barents Sea MultiClient resistivity program comprising 11,700 km2 MC3D EM data (10,500 line kilometers)
- Total survey duration approximately 100 days using a 1 x 8,400 m towed EM cable
- Significant competitive advantage efficiency and quality:
  - Average acquisition speed 4.5 knots confirms excellent operational efficiency
  - Background resistivity provided during acquisition as part of onboard quality control
  - Starting point for ongoing 2D and 3D inversion

Combining MultiClient seismic and EM – reducing risk in frontier areas

#### The Equity Business Model:

#### **Azimuth Ltd Constitutes the PGS Equity Vehicle**





- Occasionally oil companies want to exchange license acreage in return for data or services
- To free up capital and avoid sitting in a license, PGS divests its E&P assets to Azimuth under commercial terms
- Azimuth is backed by a private equity fund (Seacrest Capital), comprising high quality largely US based investors
- PGS has a minority ownership position in Azimuth

Drives further value potential from the MultiClient library – at arms length terms



#### The Azimuth Global Portfolio: 6 Regional Exploration Companies

# AZEIRE Petroleum Focus on West of Ireland 3 licences, 33 blocks Third party exploration success, on-going exploration drilling, farm-in and seismic activity Net unrisked P50 Resources: c. 700 mmboe+ AZEIRE Petroleum North Sea – Norway and UK Positions in 39 licences / 69 blocks Multiple near-term high impact drilling Net unrisked P50 Resources: c. 1,300 mmboe



#### **Azilat**

- First deal closed in Brazil
- Multiple opportunities identified across 4 basins offshore Brazil and Uruquay
- Additional targets in the Caribbean
- Up to \$50m of initial funding from Seacrest

#### AziNam

- Focus on Offshore Namibia
- One of the largest licence holders in Namibia with positions in 6 licences / 12 blocks
- Net unrisked P50 Resources: c. 12,200 mmboe



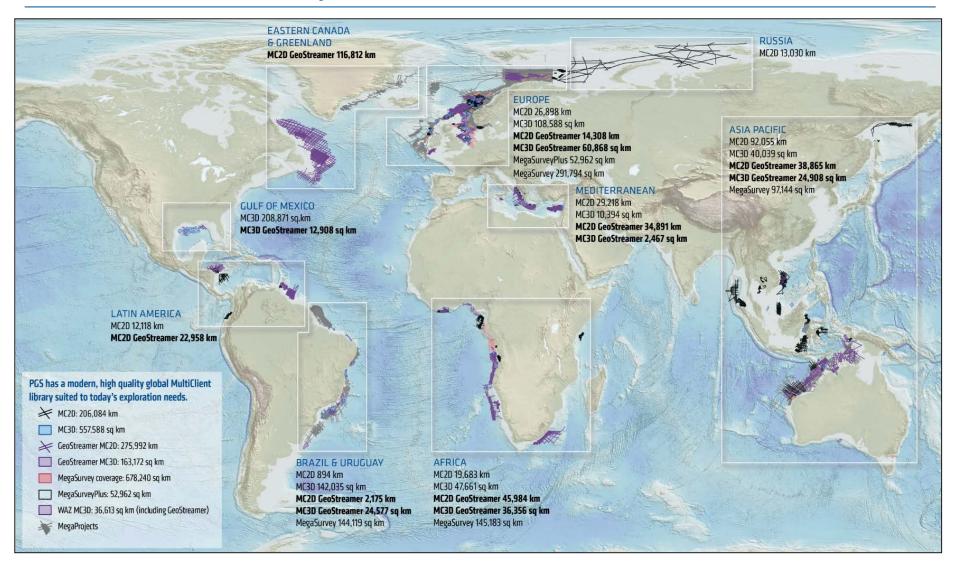
#### AziPac

- Indonesia and Vietnam deals already closed
- Pending licences in Sri Lanka
- Licence applications and farm in deals across target geographies
- Net unrisked P50 Resources: c
  1,400 mmboe

**Expected divestment period for these assets: 2015-2020** 

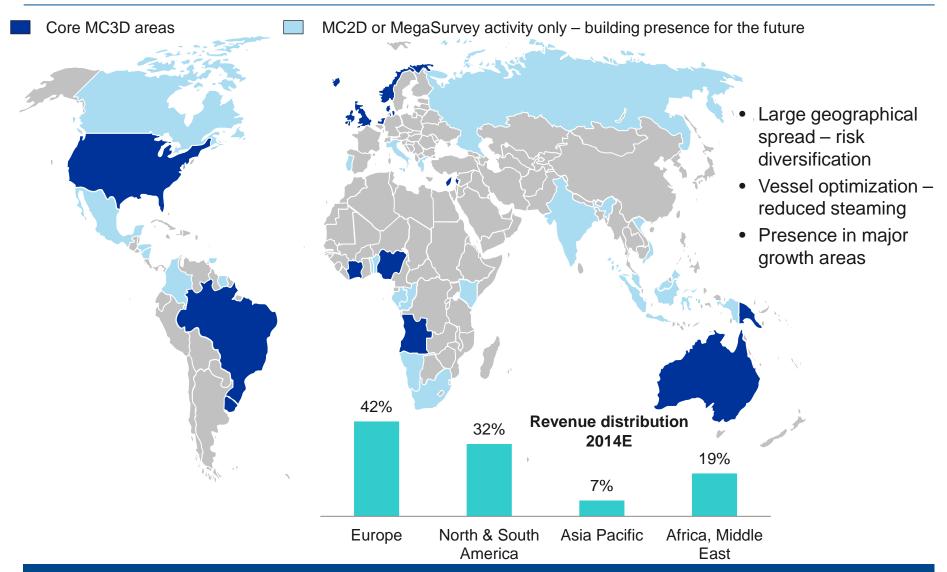


#### **PGS MultiClient Library**





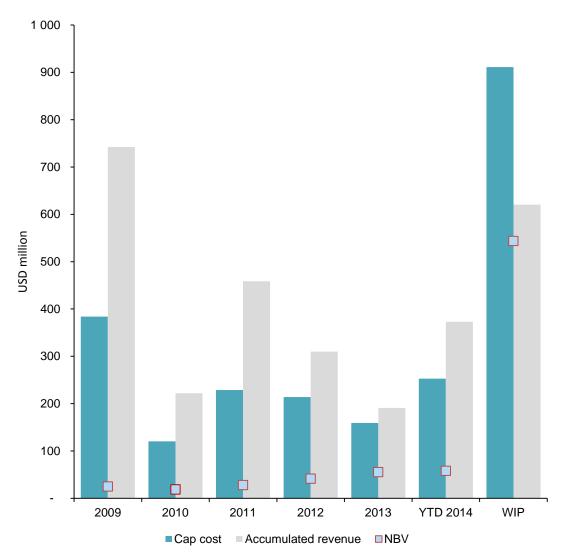
#### Countries with New PGS MultiClient Investment: 2009-14



268,000 km MC2D & 226,000 km<sup>2</sup> MC3D acquired in the period 2009 - 2014



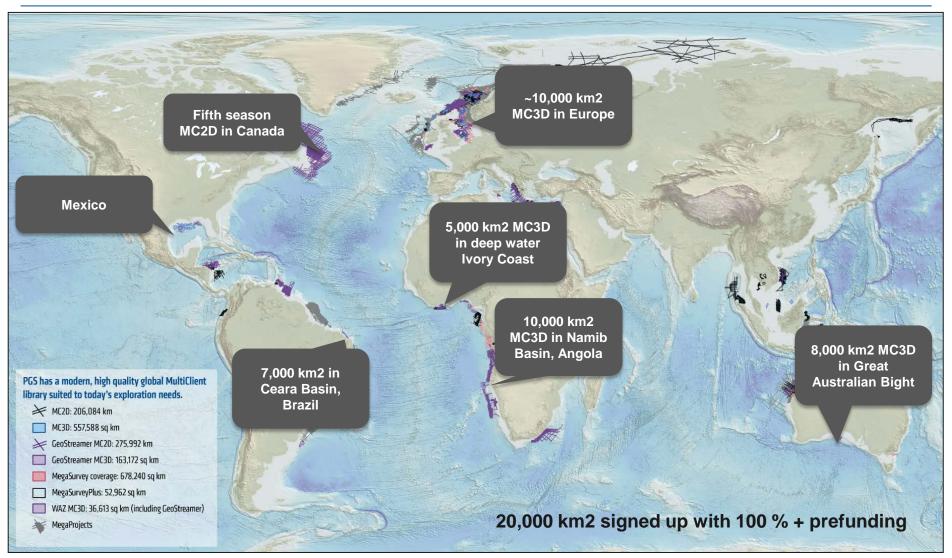
#### **Good MultiClient Sales Performance from all Vintages**



- Strong sales progress for all vintages
- Moderate net book values (NBV) for surveys completed 2009-2014
- Work In Progress (WIP) spreads over 1-3 years
- Full year 2014 amortization rate expected to be in the range of 50-55%
- Balanced library metrics
  - End Q3 2014 NBV ~20% of industry NBV
  - Sales & investments Q1-Q3 2014 ~20% of industry



#### **Key MultiClient Projects 2015**





#### **Summary**



- A full value chain seismic service provider with financial muscle
  - Ideally positioned to take advantage of MultiClient opportunity space in a challenging market
- Vessel capacity 2015 at par with 2014
- Investment level 2015 reduced due to reduced cost base
- Strong focus on prudent management of library, maintaining pre-funding at or above 100%



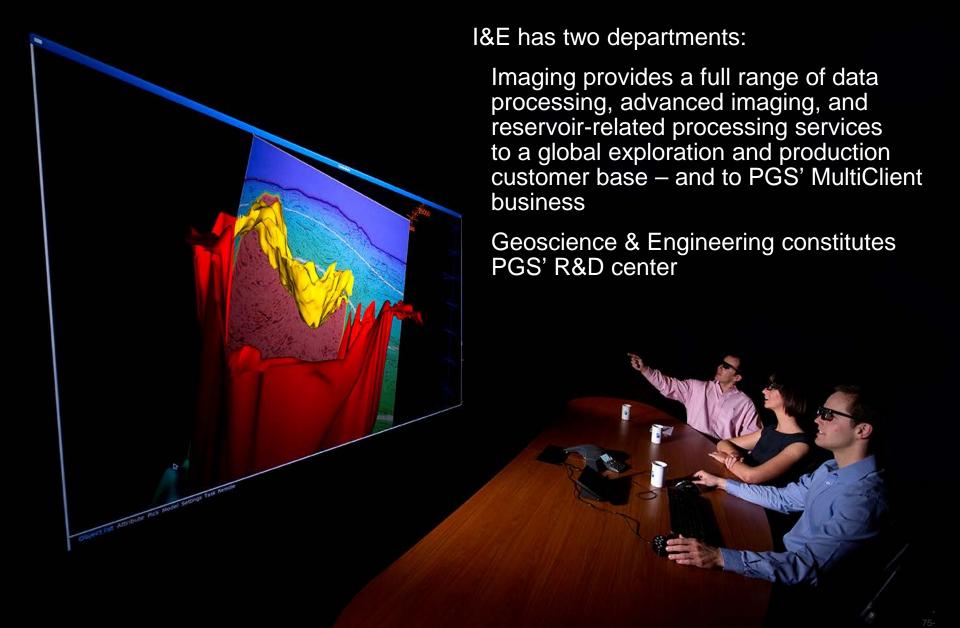
## **Guillaume Cambois**

Executive Vice President, Imaging & Engineering



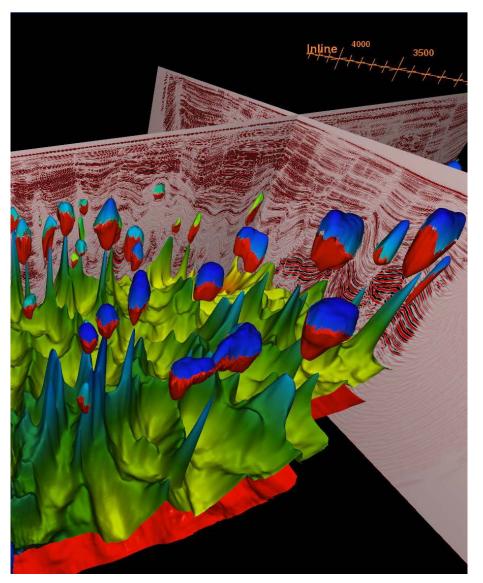


#### Imaging & Engineering – What Does the Business Unit Do?



#### **Outline**

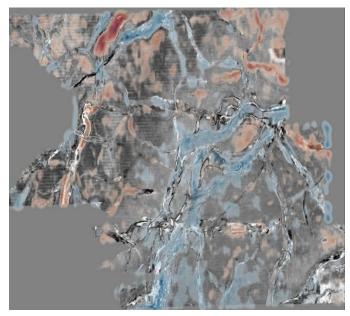




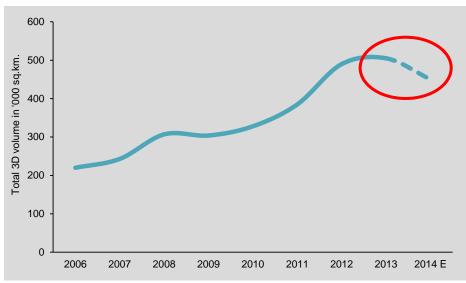
- Market update
- Growth in Imaging revenues and market share
- GeoStreamer platform and benefits
- Complete Wavefield Imaging (CWI)
- Lundin case study
- Wintershall case study
- Jubarte case study
- Summary

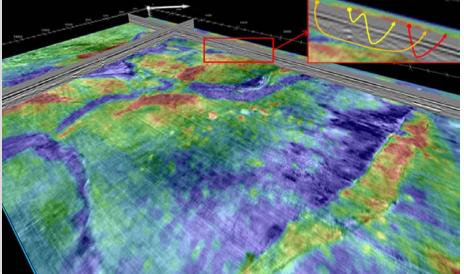
# PGS

#### Imaging & Engineering: Resilience Through a Down Market



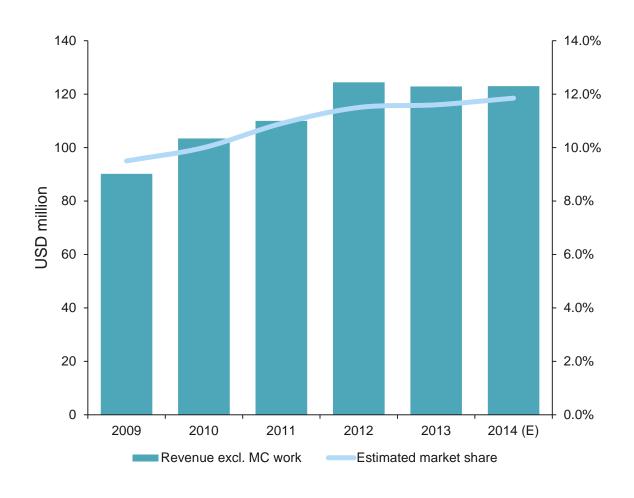
- Imaging market weakening
  - Reduction in 3D marine acquisition will lead to fewer imaging opportunities in 2015
  - Reprocessing market suffers from budget cuts
- PGS leading imaging technology provides resilience
  - SWIM and CWI gaining traction in the market
- Structural changes to adapt to new market conditions and reduce costs
  - Small centers closed and large centers strengthened







#### **Growth in Imaging External Revenue and Market Share**

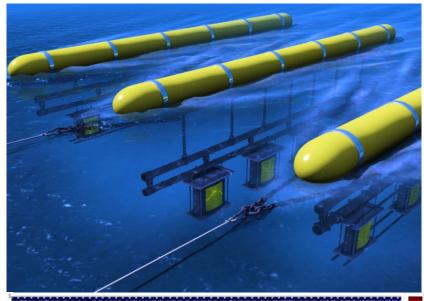


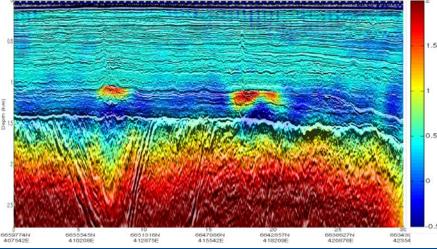
- Market and market share in external services remained flat in 2014
- Moderate growth in internal MultiClient imaging

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



### **R&D Focus – Leadership in Efficiency and Technology**





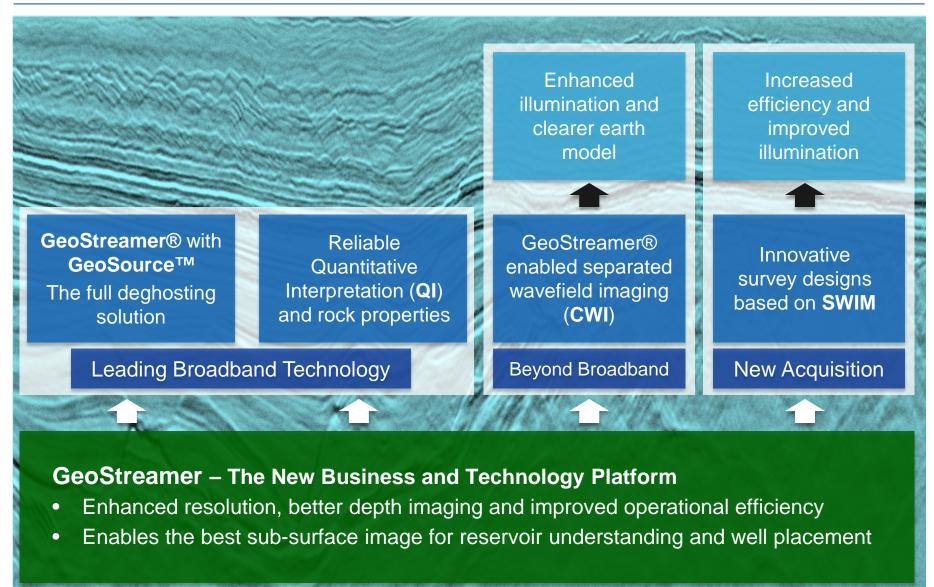
- GeoStreamer
- Alternative sources
- New acquisition designs
- Towed EM
- Continuous improvement of fleet efficiency
- High-end imaging and automation

#### Focus on differentiation

#### The GeoStreamer Technology Platform:

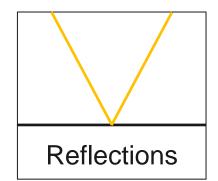
#### **Much More than Broadband**

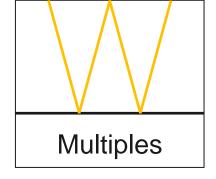


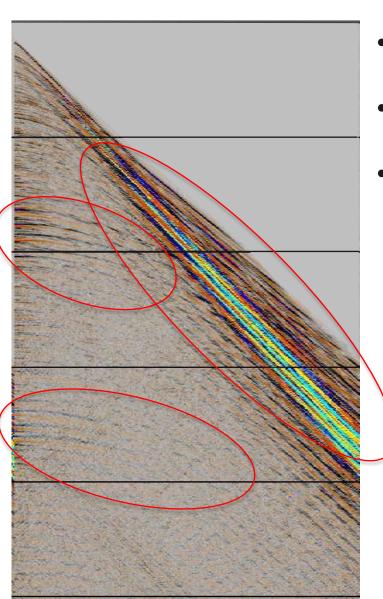




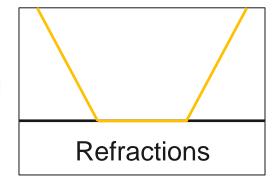








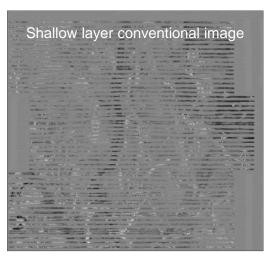
- Conventional processing only focuses on reflections
- Refractions and multiples are treated as noise
- GeoStreamer offers the opportunity to treat them as signal and improve imaging



#### **Complete Wavefield Imaging (CWI)**

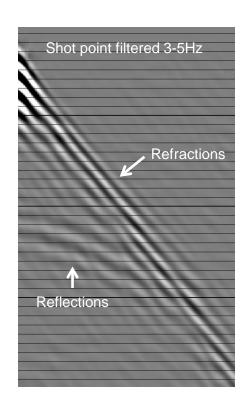


- Separated Wavefield Imaging (SWIM):
  - Uses GeoStreamer unique ability to separate up- and down-going waves
  - Multiple reflections (down-going waves) contribute to the final image
  - Every receiver becomes a secondary source, greatly improving acquisition sampling



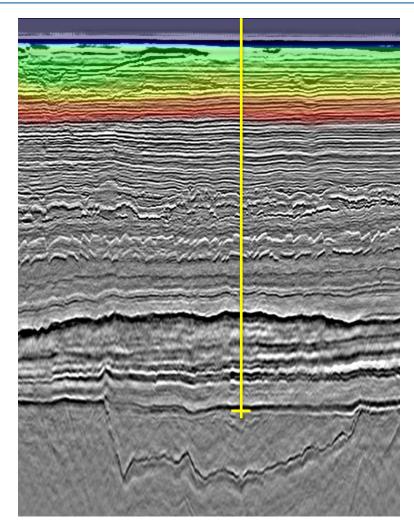


- Full Waveform Inversion (FWI):
  - Models both reflections and refractions to match recorded seismic data
  - Refractions sample shallow layers better than reflections
  - Requires rich low frequencies provided by GeoStreamer

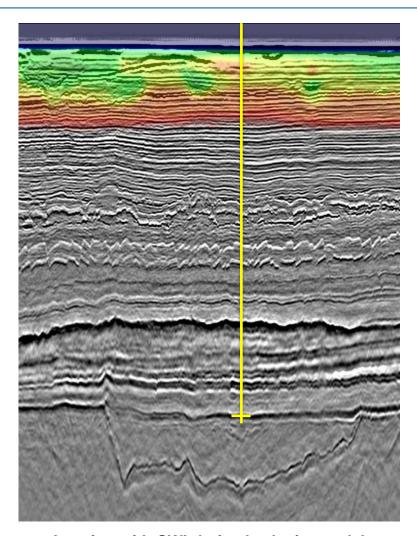


# PGS

### **CWI-Derived Shallow Model Yields Correct Reservoir Depth**



Imaging with conventional velocity model does not give correct depth at key well location



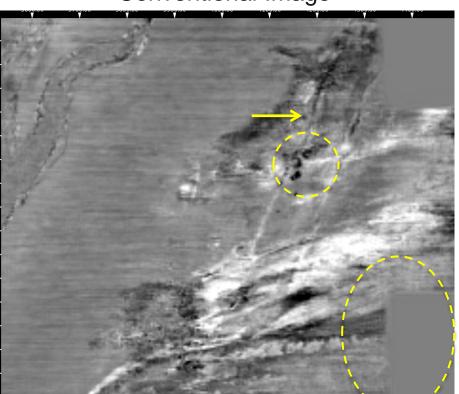
Imaging with CWI-derived velocity model gives correct depth at key well location



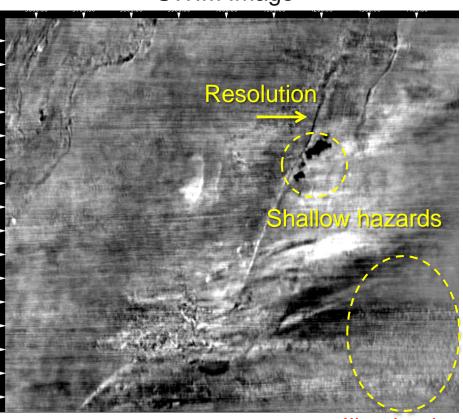
#### **SWIM Image also Helps Identifying Shallow Hazards**



Conventional Image



**SWIM Image** 



Depth Slices 225m

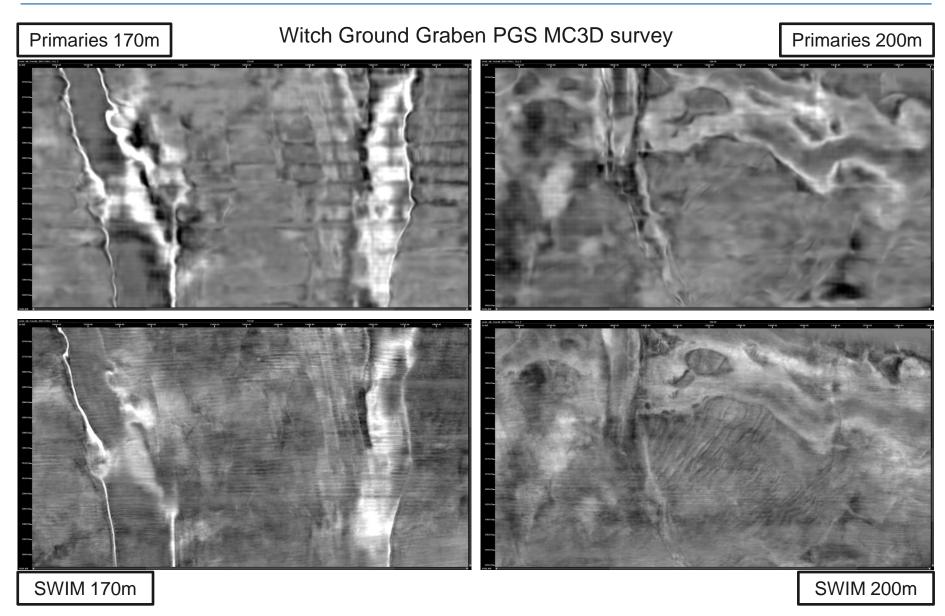
Illumination

Shallow hazard surveys are required to ensure wells are not drilled through gas pockets or high pressure water flows



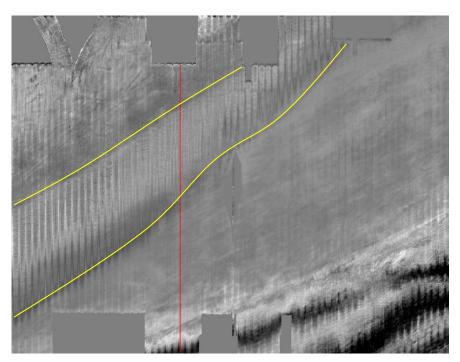


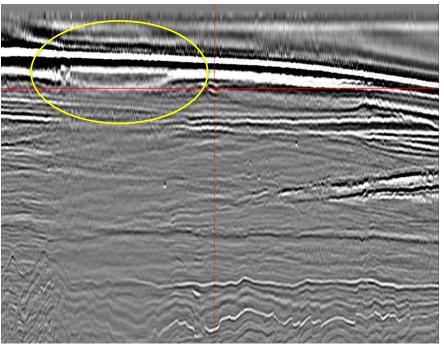
## **SWIM Provides Stunning Images of the Near-Surface**



## **Brage Field Large Shallow Channel Problem**







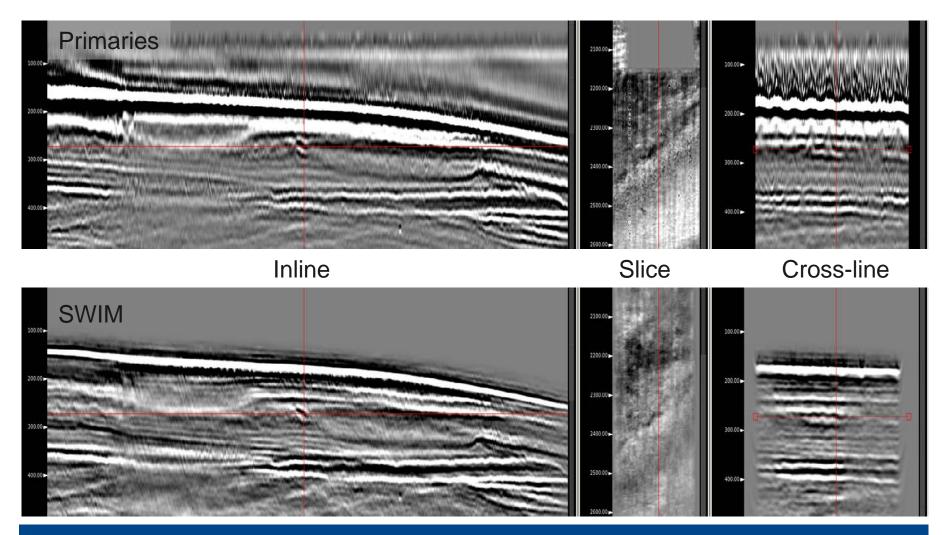
Horizontal slice

Inline

A large and shallow channel is covering parts of the Brage field and is causing imaging challenges for the subsurface

## **SWIM Dramatically Improves Shallow Imaging**



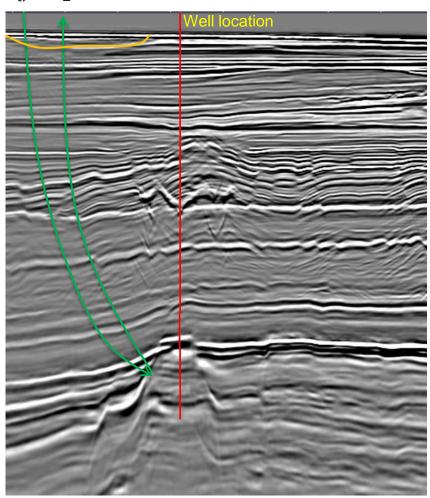


Multiple reflections illuminate the near-surface more densely than primary reflections





source



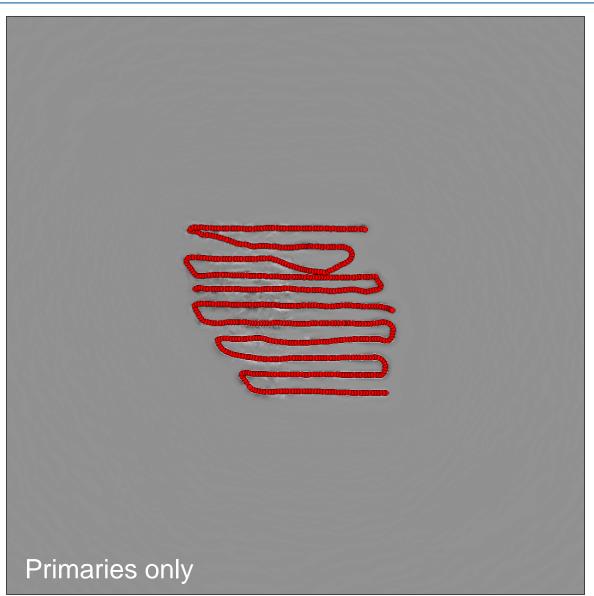
The left flank of the horst structure is partly imaged with rays going through the shallow channel

CWI-derived velocity model results in a lateral repositioning of the reservoir sealing flank by ~100m



## BR PGS

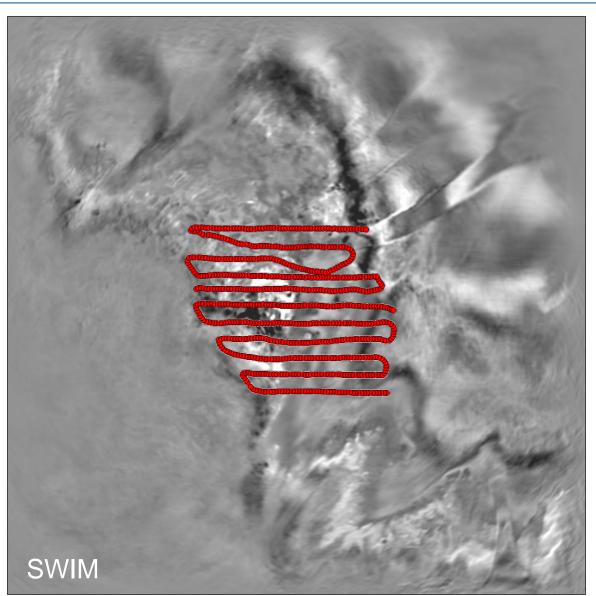
## **Jubarte: Primary Image of the Water-Bottom**







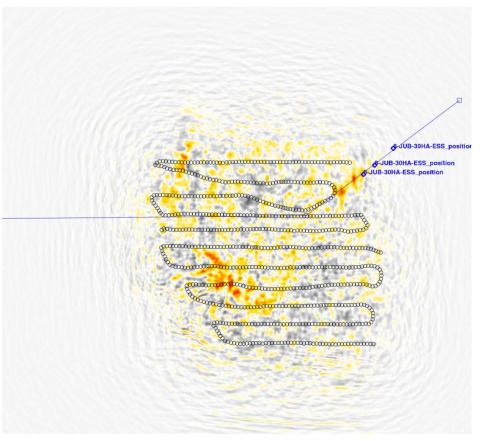
## **Jubarte: SWIM Image of the Water-Bottom**





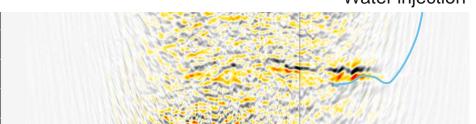








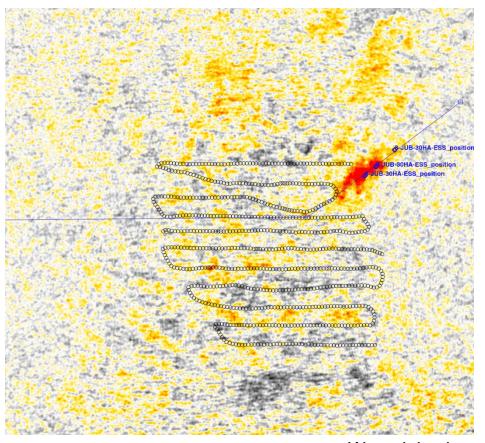
Water injection



Time lapse effect of water injection barely visible at the edge of survey coverage

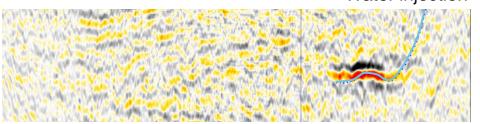








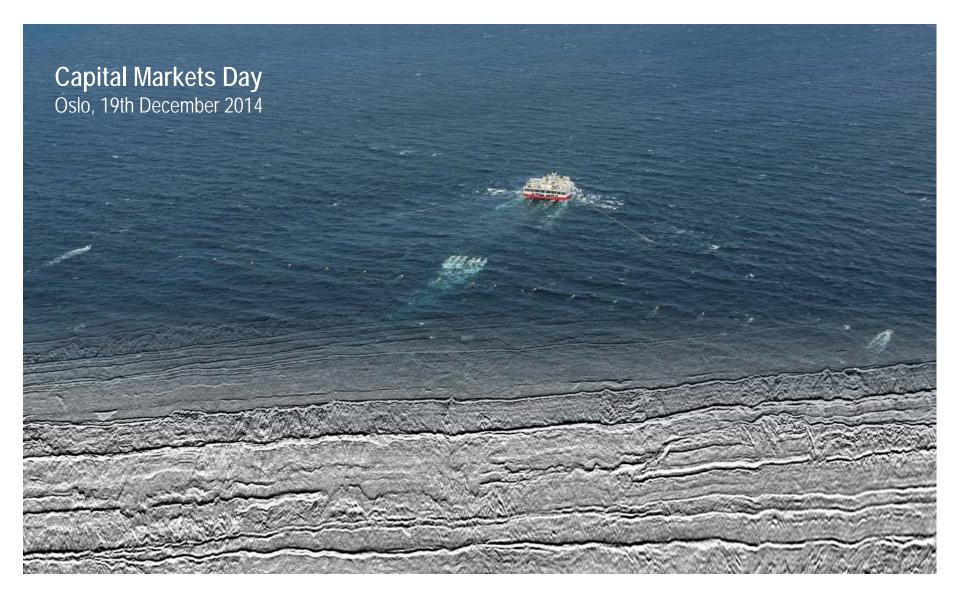
Water injection



Time lapse effect of water injection clearly visible due to increased coverage

## Imaging & Engineering: Resilience Through a Down Market

- 2015 Imaging market expected to decrease in line with marine 3D acquisition market
  - PGS leading technology will provide resilience
  - CWI workflow gaining market traction
- GeoStreamer: Using more of the data
  - Refractions and multiples offer complementary information to reflections
  - Unique tools (SWIM, FWI) to improve shallow resolution and provide accurate images of the reservoir
- GeoStreamer: Extending the use of surveys
  - Exploration seismic
  - Shallow hazard survey
  - Field development
  - Baseline and repeat 4D surveys
- SWIM also applicable to Ocean Bottom Seismic and Permanent Reservoir Monitoring
- GeoStreamer reduces E&P costs and shortens field development cycle-time



## Per Arild Reksnes

Executive Vice President, Operations





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



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

#### **Outline**





Photo: Edgard Escalona

- PGS fleet
- HSEQ performance
- Fleet performance
- Fleet strategy
- The Titan experience
- Summary

#### **PGS Seismic Fleet End 2014**



#### **Ramforms**

Titan class





Ramform Atlas

Delivery 2016 Ramform Hyperion



Conventional



PGS Apollo

Ramform Titan

S class



Ramform Sterling

Ramform Sovereign

class







Ramform Tethys

Ramform Valiant

Ramform Viking

Ramform Vanguard



Ramform Explorer

Ramform Challenger

#### 2D/EM/Source



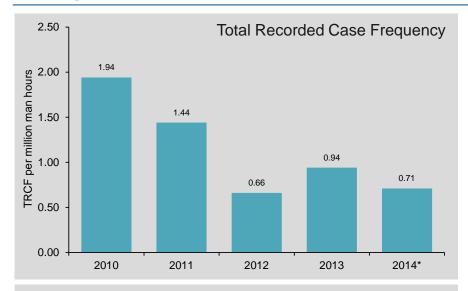
Sanco Spirit

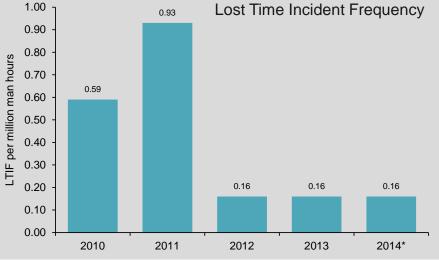


Atlantic Explorer



### **Tangible Improvements in HSEQ Performance**





#### Focus on:

- HSEQ as a Line Management responsibility at all levels
- HSEQ leadership
- HSEQ awareness and behavior
- Training
- Risk and change management onshore and offshore
- Improved HSEQ systems

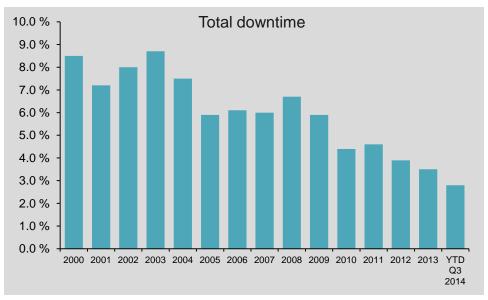
...has given tangible improvements in Operation's HSEQ performance

**Good HSEQ performance is good for business** 

\*Excluding December

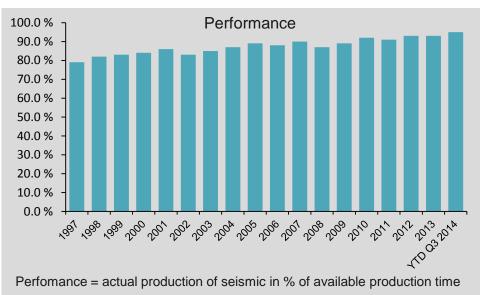


#### **Maintaining Industry Leading Performance**



Focus on better planning and incident prevention rather than fire fighting

Continuous effort on reducing unproductive time



PGS "Best in Class" fleet performance supports our ability to manage through cycles

#### Fleet Strategy





#### Goal

Industry leading fleet cost-efficiency

#### Renewal strategy

- Building flexible high capacity 3D vessels to meet customers future requirements for seismic data and securing long vessel lives
- Retiring capacity when it becomes non-competitive
- Utilize low capacity vessels to 2D/EM
- Chartering in modern, capable support vessels with lower costs than current support vessels

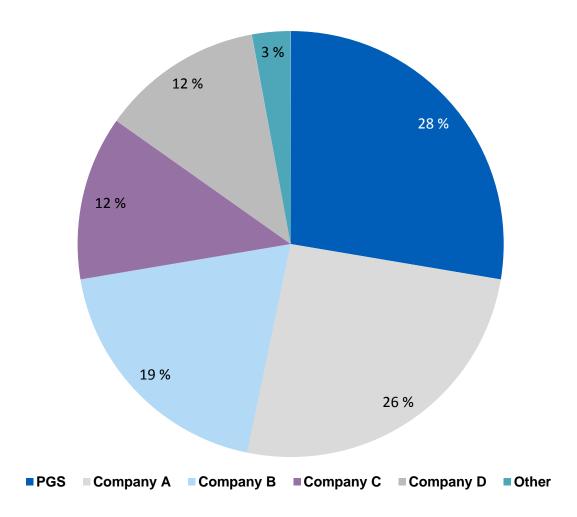


#### Results

- Uniform 3D seismic fleet with lower costs
- Average vessel age 10 years in 2016
- Average # of streamers per vessel > 13 in 2016
- Optimal platform for production of GeoStreamer data
- Safer and more productive surveys in rough weather areas
- Cost savings of more than 15 kUSD per day through chartering in 4 new support vessels from Thor



## In 2016 PGS Will Be Number 1 in Streamer Capacity



Predicted PGS share of acquisition capacity in 2016 – based upon number of streamers

Source: PGS internal estimate -101-

## Ramform Titan – The Ultimate Platform for GeoStreamer Acquisition





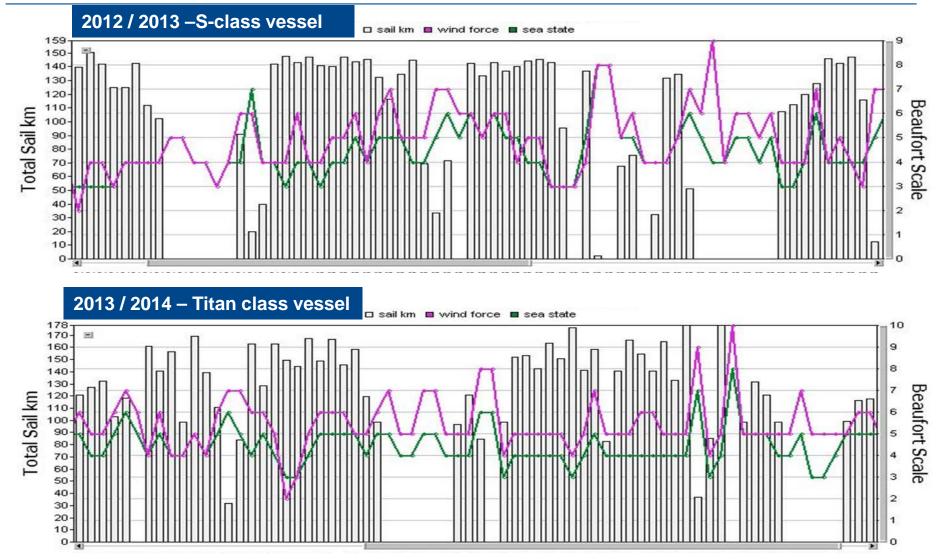
Matching GeoStreamer capabilities with vessel design

**Maximizing efficiency** 

- Vessel stability enabling increased productivity
- Spacious back decks for safe and fast recovery/deployment
- Towing systems enabling high streamer counts and deep towing
- High number of streamers and larger reels gives flexibility
- Longer streamers facilitate mapping of deep and complex targets
- Onboard computer capacity allows rapid QC and processing

## Ramform Titan vs State of The Art Vessel in PGS Fleet: Excellent Performance of Both Vessel Types But Titan Most Impressive





Production statistics for two surveys in same rough weather area



#### Ramform Titan-class – A Sound Investment



Comparing Ramform Titan's performance with other state of art vessel from PGS fleet shows that Titan achieved:

- 7% higher efficiency
- 23% less standby time
- Mastering very difficult weather periods and only retrieving gear for crew change
- Conclusion: The increased productivity of the Ramform Titanclass supports the design choice and the investment decision

Ramform Titan-class – A Pioneer within the seismic industry



#### **Summary**





- Improving safety culture gives good results
- Solid 2014 fleet performance
- Implementing our fleet strategy gives lower cost and higher efficiency
- Ramform Titan-class exceeding expectations
- In short: PGS has the fleet to beat



## **Main Yard Stays Next 12 Months**



Vessel	When	Expected Duration	Type of Yard Stay
Ramform Explorer	January 2015	During Warm Stack Period	Renewal class
Sanco Spirit	June 2015	Approximately 10 days	Renewal class (Owners Cost)
Ramform Valiant	Q4 2015	Approximately 15 days	Intermediate class



## Concluding Remarks - Jon Erik Reinhardsen President & CEO

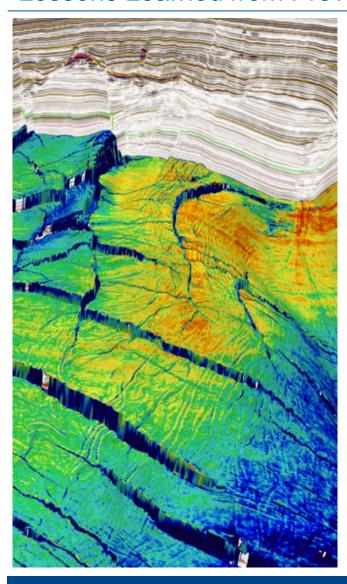
PGS

A Clearer Image | www.pgs.com

#### **Strategy for Taking the Lead**

#### Lessons Learned from Previous Downturns



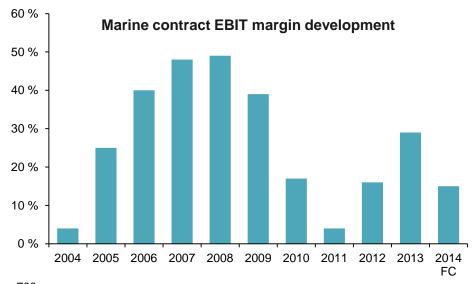


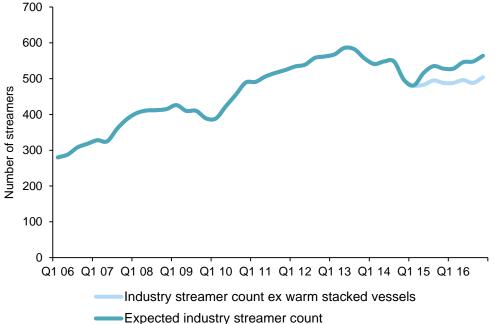
- Conservative financial gearing creates cyclical robustness
  - Long term financing in place
  - Preserving dividend capacity
- MultiClient reduces earnings volatility
- Conservative pre-funding requirements protect cash flow
  - Lower late sales risk
  - Reduce library build-ups and exposure
- New-build commitments fully funded
- Lowest cash cost wins (and delivers market share leadership)
  - Invest for 25 years use of vessels
  - Focus on maximizing value over life of vessel
- Technology creates differentiation and downside protection
- Continuous cost focus
- Stay focused on core business
  - Divest non-core when possible (PGS Onshore 2009/2010)
- Avoid capital commitments that cannot sustain a downturn

#### Market Context:

## Low Visibility and Significant Market Uncertainty







- 2015 Marine Contract EBIT margin expected to be in line with previous trough years
- Seismic spending to be reduced in 2015 compared to 2014
  - Negatively impacting all our segments
- The North Atlantic Q2/Q3 market is likely to impact supply/demand balance positively
- Average streamer capacity expected to come down further in 2015 vs. 2014
- Capacity reductions contributes to improving market balance

Source: PGS estimates -1

#### 2015 Guidance



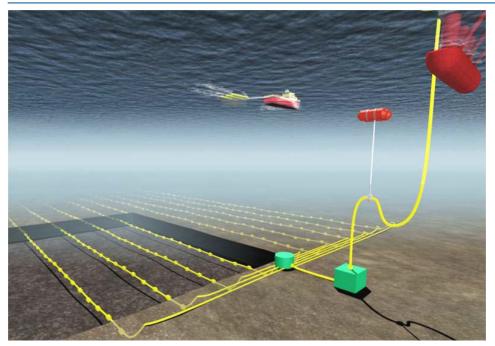
EBITDA in the range of USD 550-700 million

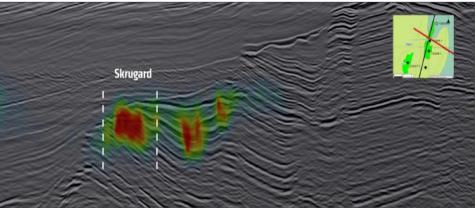
- MultiClient cash investments of approximately USD 275-300 million
  - Pre-funding level at or above 100%

- Capital expenditures of approximately USD 250 million
  - Of which new build capex slightly below USD 150 million for Ramform Tethys and Ramform Hyperion, both with new delivery dates in 2016

## P

#### **Asset Light Growth Opportunities Maturing**





#### **OptoSeis**

- PGS was awarded a Permanent Reservoir Monitoring (PRM) contract with Petrobras over parts of the Jubarte field in 2010
- PGS OptoSeis technology is now well proven with outstanding results
- PGS in a strong position to take advantage of a growing PRM market

#### **Towed EM**

- · Complementary to seismic
- Acquired EM MultiClient data over all nominated blocks in the 23<sup>rd</sup> licensing round in the Barents Sea

#### **Azimuth**

- Equity vehicle for increased MultiClient library returns
- Significant value potential

#### **Towing productivity**

 Fully utilizing the Ramform productivity potential by leveraging GeoStreamer and SWIM imaging

Net present value potential in the range of USD 500-1,000 million

#### In Conclusion:

## Well Positioned to Navigate Through a Challenging Market





- Robust balance sheet
- No debt maturities before 2018
- Cost effective operations
- Improving productivity
- Reducing costs further
- Solid MultiClient sales performance
- Asset light growth opportunities
- Returning cash to shareholders

**Competitively Positioned – Performance Through the Cycle** 



