BASF Oil & Gas

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Overview & Strategy

Share of Oil & Gas in BASF portfolio

Average EBITDA* 2009-2013 (billion € p.a.)

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil &amp; Gas</td>
<td>2.3</td>
<td>(24%)</td>
</tr>
<tr>
<td>BASF Group w/o Oil &amp; Gas</td>
<td>7.4</td>
<td>(76%)</td>
</tr>
</tbody>
</table>

Key facts

- 2009-2013:
  - Oil & Gas: Solid profit contributor to BASF Group
  - Oil & Gas accounted for ~30% of BASF Group capex

- Oil & Gas will remain a significant contributor to BASF’s total EBITDA
- Capex share of Oil & Gas business in BASF’s portfolio will decline

Cumulative capex** 2009-2013 (billion €)

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil &amp; Gas</td>
<td>6.4</td>
<td>(31%)</td>
</tr>
<tr>
<td>BASF Group w/o Oil &amp; Gas</td>
<td>14.5</td>
<td>(69%)</td>
</tr>
</tbody>
</table>

* Excluding non-deductible oil taxes; restated figures from 2012 onwards in accordance with changes in IFRS
** Including additions to property, plant, equipment resulting from acquisitions, capitalized exploration, restoration obligations and IT investments; restated figures from 2012 onwards in accordance with changes in IFRS
Strong earnings contribution from Oil & Gas

Net income Oil & Gas (million €)

* Positive impact from special income due to the deconsolidation of Gascade Gastransport GmbH and the disposal of a share in the Edvard Grieg oilfield (BASF Report 2013, pp. 86-87)
Oil & Gas – Strong free cash flow contribution to BASF Group

Cash flow Oil & Gas* (million €)

~40% of operating cash flow to BASF Group (avg. 2004-2013)

* Wintershall cash flow  ** Free cash flow: Operating cash flow less payments related to property, plant and equipment and intangible assets
Overview & Strategy

Oil & Gas – Focus on upstream activities

Oil & Gas value chain

Upstream

Midstream

Downstream

Exploration / Development / Production

Transport

Storage / Trading

1 Focus on attractive E&P activities

2 Maintain gas transport business

3 Exit natural gas storage and trading business
1 | Overview & Strategy

2 | Exploration & Production

3 | Natural Gas Transportation

4 | Summary & Outlook
Oil & Gas – Clear strategy for further profitable growth

**Focus**
- E&P
- Core regions
- Limited exploration risk

**Technology**
- BASF technology Verbund
- Enhanced oil recovery (EOR)

**Partnerships**
- Strategic partnerships with regional resource holders

"Growing at the source"
Exploration & Production

Clear regional focus: Four core regions and one development region

- North Africa
- Europe
- Russia
- Middle East
- South America

- Operating company
- Core region
- Current activities
- Development region
Regional footprint 2013 (1)

Production by region 2013

- **Europe**: 18%
- **North Africa/Middle East**: 9%
- **South America**: 20%

![Production Chart](image)

- **Russia**: 53%
- **Total Production**: 132 million boe

Proved 1P reserves by region 2013

- **Europe**: 13%
- **North Africa/Middle East**: 9%
- **South America**: 13%

![Reserves Chart](image)

- **Russia**: 65%
- **Total Reserves**: 1.5 billion boe

Production

- Russia stands for roughly 50% of total production
- In 2013, natural gas accounted for approx. 75% of total production

Reserves

- Russia provides strong reserve base
- Gas accounts for approx. 75% of total reserves
Exploration & Production

Regional footprint 2013 (2)

Sales E&P* by region 2013

- Europe: 38%
- North Africa/Middle East: 26%
- South America: 9%

Sales E&P* by region 2013:

- Europe: 38%
- North Africa/Middle East: 26%
- South America: 9%

Operating income** E&P by region 2013

- Europe: 36%
- Russia: 27%
- South America: 14%

Operating income** E&P by region 2013:

- Europe: 36%
- Russia: 49%
- South America: 14%

Strongest earnings contribution from Russia

* In accordance with US-GAAP (SFAS No. 69); see supplementary information on Oil & Gas segment (BASF Report 2013, pp. 216)

** Operating income represents only those revenues and expenses directly associated with Wintershall’s oil and gas production
Oil & Gas – Excellent further growth opportunities

Production volumes (million boe)

- Continue to significantly invest in core and development regions
- Capex* of ~€4 billion between 2014 and 2018, thereof
  - 70% Europe and Russia
  - 15% North Africa/Middle East
  - 15% South America

* Without capex in non-consolidated participations
Wintershall – Positioned competitively

Reserve replacement costs ($/boe)
Five year average 2009-2013

- Wintershall: $7.7/
- Peers: $12.7 - $38.1/
- Average peers: $28.0/

Production costs ($/boe)
Five year average 2009-2013

- Wintershall: $5.7/
- Peers: $7.4 - $18.4/
- Average peers: $15.0/

Source: Herold, SEC, own calculation. Peer Group represents an average of the E&P industry
Reserves and R/P

1P Reserves* (million boe)

<table>
<thead>
<tr>
<th>Year</th>
<th>Oil</th>
<th>Natural gas</th>
<th>R/P</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>800</td>
<td>600</td>
<td>10</td>
</tr>
<tr>
<td>2006</td>
<td>1000</td>
<td>400</td>
<td>12</td>
</tr>
<tr>
<td>2009</td>
<td>900</td>
<td>600</td>
<td>10</td>
</tr>
<tr>
<td>2012</td>
<td>1100</td>
<td>400</td>
<td>12</td>
</tr>
</tbody>
</table>

Key facts

- R/P ratio increased to 11 years
- Total 1P reserves amounted to ~1.5 billion boe (2013)
- Gas accounts for approx. 75% of total reserves
- Strong contribution to reserve replenishment from assets in Norway and Russia

Reserve Replacement Rate (RRR, in percent)

<table>
<thead>
<tr>
<th>Year</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>102</td>
<td>50</td>
<td>52</td>
<td>48</td>
<td>389</td>
<td>116</td>
<td>89</td>
<td>89</td>
<td>131</td>
<td>100</td>
<td>280</td>
</tr>
</tbody>
</table>

* According to SEC guidelines; Libya onshore 51%
** 2013 adjusted to new conversion factor from m³ gas to barrel of oil equivalent (5,600 scf = 1 boe instead of 6,000 scf = 1 boe)
**Reserves and Resources 2013**

- **Proved reserves** based on SEC definitions.
- ~40% of exploration and appraisal wells proved hydrocarbons in 2013.
- Robust discovered resource base built on:
  - Exploration success (e.g. Norway, Denmark)
  - Acquisitions (Norway)
  - Improved recovery (e.g. technology)
- Discovered resource contributions from:
  - Russia, Europe, North Africa, South America

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**Graph:**
- 2013
- **Discovered resources**
  - 2.1 billion boe
- **Proved (1P) reserves**
  - 1.5 billion boe

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*1 barrel oil equivalent (boe) = 5,600 standard cubic feet (scf) 
** Proved reserves based on SEC definitions*
Strategic focus through active portfolio management

- Portfolio upgrading
- Cash flow & capex optimization
- Technology application
- Profitable upstream growth
- Own and jointly operated assets
Active portfolio management – Focus on promising projects

- **Acquisitions** (closing dates)
- **Divestitures** (closing dates)
- **Own/joint-operated**
- **Non-own operated**

**Norway**
- 25% in Maria
- 32.7% in Brage
- 15% in Gjøa
- 30% in Vega
- Add. 5% in Gjøa, 19% in Asterix

**Argentina**
- 50% in Aguada Federal

**Russia**
- 24% in Aasta Hansteen*, Add. 5% in Gjøa, 19% in Asterix
- 25% in Achimov IV/V

**Germany**
- 15.79% of VNG
- 50% of WINGAS WIEH, WIEE, Astora

**Netherlands**
- 50% of Wintershall Noordzee

**UK North Sea**
- 14 licenses

**Exploration & Production**

**2011**
- Norway Shares of 14 licences

**2012**

**2013**
- Norway 15% in Gjøa
- 30% in Vega

**2014**
- Norway Add. 24.5% in Vega
- Add. 2.5% in Brage
- 15% in Luno II

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* Including 13.2% in Polarled Pipeline  ** Closing expected in autumn 2014; transaction financially retroactive to April 1, 2013
Russia – Production ramp up Achimgaz

Production development
Achimgaz Block IA* (%)

Plateau production by 2018: Up to 8 billion m³ p.a.*

* 100% share. Russian Standard Conditions (RSC)
Status of the asset swap with Gazprom – Timeline

- 2011: Oct. signing of framework agreement
- 2012: Dec. approval by EU Commission
- 2013: Autumn expected closing
- 2014: Implementation of the swap (e.g., developing new company structure)
- 2015: Dec. signing of final agreement
- 2016: Planned production start area IV/V
- 2017: Exploration & Production Activities to be divested contributed in total ~€12 billion to sales and ~€500 million to EBITDA of BASF Group in 2013
Recent transaction with Statoil

Transaction summary

- Wintershall expands its oil and gas production and reserves in Norway
- Intensification of the cooperation with Statoil, the leading Norwegian oil and gas major, on exploration and development projects
- Wintershall acquires shares in assets from Statoil containing reserves and resources (2P/2C) of ~170 million boe and a stake in the Polarled pipeline project*
- Purchase price of US$1.25 billion plus up to US$50 million if Aasta Hansteen field development is executed according to current project plan
- Effective date January 1, 2014
- Closing expected by the end of 2014

* Pipeline project will provide route for produced gas from Aasta Hansteen field to onshore processing facilities
Recent transaction with Statoil

Strategic rationale of the transaction

- To strengthen Wintershall’s position in Norway by increasing participation in producing oil and gas fields
- To participate jointly with Statoil in promising development project “Aasta Hansteen”
- To get access to additional reserves and resources (2P/2C) of ~170 million boe and assets with material exploration perspectivity
- To increase production of Wintershall Norge from currently around 40,000 boe/day to about 60,000 boe/day
- To expand position as field operator in Norway and to gain experience with subsea operations by taking over operatorship in the Vega field*
- To significantly increase Wintershall’s EBIT and future operating cash flow

* Subject to the approval by the authorities and partners
Portfolio optimization in the northern North Sea

- **Brage**: 35.2% share, Wintershall operator since Oct. 1, 2013
- **Astero**: 25% share, Statoil
- **Vega**: 54.5% share, Wintershall to be operator
- **Grosbeak**: 45% share, Wintershall
- **Skarjell**: 35% share, Wintershall
- **Catcher**: 20% share, Premier
- **Broom**: 29% share, EnQuest
- **Crathes/Scolty**: 50% share, EnQuest
- **Cladhan**: 33.5% share, Sterling

**To STATOIL**:
- **Maria**: 50% share, Wintershall
- **Knarr**: 20% share, BG
- **Grosbeak**: 45% share, Wintershall
- **Astero**: 25% share, Statoil

**To Wintershall**:
- **Aasta Hansteen**: 24% share, Statoil
- **Asterix**: 19% share, Statoil
- **Gjøa**: 20% share, GDF Suez
- **Vega**: 54.5% share, Wintershall
- **Brage**: 35.2% share, Wintershall operator since Oct. 1, 2013
- **Luno II**: 15% share, Lundin

*Operator  **Remaining Wintershall share 15%  ***Complete farm-out, closed in March 2014
Exploration & Production

Norway – Strengthening our position through strategic partnership with Statoil

Production
- Equity in three producing fields Vega, Gjøa and Brage
- Increase in production to ~60,000 boepd
- Brage and Vega*: First two own operated producing fields in Norway

Supply
- Optimize transport logistics via location swap
- Norwegian production to secure European supply
- Participation in Norwegian pipeline infrastructure to provide export route to the markets

Technology
- Joint technical evaluation regarding possible application of Schizophyllan

* Subject to the approval by the authorities and partners
Enhanced oil recovery – Schizophyllan
BASF/Wintershall’s proprietary technology

Key facts

- Schizophyllan – biopolymer to enhance oil recovery
- Produced by a fungus in a pilot scale plant at BASF
- Increased incremental oil recovery of up to 10% points above that of waterflooding
- Unique for oil fields with viscous oil and harsh reservoir conditions
- First indication for incremental oil production shown in field test

Next steps

- Additional test planned in further oil field
Exploration & Production

South America – Reinvesting cash flow and applying leading-edge technologies

- **Province Mendoza**
  - Operatorship for exploration licenses in the province of Mendoza
    - CN-V*
    - Ranquil Norte*

- **Province Neuquén**
  - Investment in the heart of Vaca Muerta shale
    - Aguada Federal*
    - San Roque
    - Bandurria

- **Tierra del Fuego**
  - Further development in prospective Tierra del Fuego
    - Vega Pleyade
    - Carina Aries
    - Fenix

* Own-operated
Argentina – Realize unconventional resource potential in Argentina

Key facts Aguada Federal

- Farm-in agreement signed in 2014
- 50% participation interest acquired from Gas y Petroleo de Neuquén (GyP) incl. operatorship
- 100 km² of the prospective Vaca Muerta shale formation

Next steps

- Evaluation of the potential in a first appraisal phase (2014-2016)
  - Investments of ~€80 million (100%)
  - Drilling of up to six wells
Middle East – Shuwaihat project in Abu Dhabi: Start of drilling campaign

Key facts

- Development of Shuwaihat gas/condensate field (containing H₂S and CO₂)
  - 200 km west of Abu Dhabi
  - Water depth: 0-15 meters
  - Targeted field depth: 3,400 meters
- Wintershall: Operator in the appraisal phase
- Resources: 50-500 million boe
- Production start: ~2022

Next steps

- Drilling of up to three appraisal wells and acquiring 3D-seismic over the field (since May 2014)
North Africa – Update on Libya

Key facts

- Active in Libya since 1958
  1. Onshore C96/97 own operated (Gazprom 49% share)
  2. Offshore Al Jurf C137
- Onshore oil production suspended since July 2013 due to the ongoing blockade of the export facilities
- Offshore production (Al Jurf) not affected
Production growth from solid project pipeline (major projects)

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2015</th>
<th>2017</th>
<th>2019</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Achimgaz (FFD)</td>
<td>Achimov Blocks IV / V*</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Knarr</td>
<td>Edvard Grieg</td>
<td>Aasta Hansteen</td>
<td>Maria</td>
<td>Skarfell</td>
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<tr>
<td></td>
<td>Fenn</td>
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<td></td>
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<tr>
<td></td>
<td>Ravn</td>
<td></td>
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<tr>
<td></td>
<td>Vega Pleyade</td>
<td></td>
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<td></td>
<td>Block 4N</td>
<td></td>
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<tr>
<td></td>
<td>Shuwaihat</td>
<td></td>
<td></td>
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</tbody>
</table>

* Closing expected autumn 2014

Length of development phase
Oil & Gas – Partnerships and cooperations as enablers

**Strong partners in key regions**
- GAZPROM
- Statoil
- MOL
- bp
- MUBADALA

**Cooperations along the value chain**
- Joint industry projects
- Joint research activities
- Wintershall-driven R&D projects, e.g. EOR
- Well-established R&D cooperations with business units, e.g. Oilfield Chemicals

**BASF internal R&D Verbund**
1 | Overview & Strategy

2 | Exploration & Production

3 | Natural Gas Transportation

4 | Summary & Outlook
Natural gas transportation business generates stable earnings

Key facts

- **Nord Stream** (offshore)
  - Wintershall share: 15.5%
  - Capacity: 55 billion m³/a
  - Both lines in operation
  - Total capex: €7.4 billion

- **South Stream** (offshore)
  - Wintershall share: 15%
  - Planned capacity: 63 billion m³/a via 4 pipelines
  - Total capex (offshore): >€10 billion
  - Start-up: End of 2015

* Start of production is planned not before 2016
Pipeline network well connected to major European distribution hubs

Key facts

- **GASCADE**
  - Wintershall share: 50%
  - Length: 2,400 km
  - In operation since 1992

- **OPAL**
  - Wintershall share: 40%
  - Capacity: 36 billion m³/a
  - Length: 472 km
  - In operation since 2011

- **NEL**
  - Wintershall share: 25.6%
  - Capacity: 20 billion m³/a
  - Length: 441 km
  - In operation since 2012/2013
1 | Overview & Strategy

2 | Exploration & Production

3 | Natural Gas Transportation

4 | Summary & Outlook
## Summary & Outlook

### Oil & Gas – Outlook 2014

<table>
<thead>
<tr>
<th>Time Frame</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Financial performance</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales to 3rd parties:</td>
<td>€14.776 billion</td>
<td>Sales expected to be considerably below 2013 due to the asset swap with Gazprom.</td>
</tr>
<tr>
<td>EBIT before special items:</td>
<td>€1.969 billion</td>
<td>Slight increase in EBIT before special items due to the first all-year inclusion of the acquired activities from Statoil** and the expansion of the Achimgaz production.</td>
</tr>
<tr>
<td>Net income:</td>
<td>€1.780 billion</td>
<td></td>
</tr>
<tr>
<td><strong>Production volumes</strong></td>
<td>Total production:</td>
<td>132 mmboe</td>
</tr>
<tr>
<td><strong>Sales volumes</strong></td>
<td>Natural gas sales:</td>
<td>52 billion m³</td>
</tr>
<tr>
<td><strong>Investments/Expenditures</strong></td>
<td>Investments* 2013:</td>
<td>~€2.954 billion</td>
</tr>
<tr>
<td></td>
<td>thereof E&amp;P:</td>
<td>~€2.834 billion</td>
</tr>
<tr>
<td></td>
<td>thereof Natural Gas Trading:</td>
<td>~€0.120 billion</td>
</tr>
<tr>
<td><strong>Macroeconomic assumptions</strong></td>
<td>Average oil price (brent):</td>
<td>$109 per barrel</td>
</tr>
<tr>
<td></td>
<td>Average exchange rate:</td>
<td>$1.33 per €</td>
</tr>
</tbody>
</table>

* Incl. tangible assets from acquisitions, activated exploration expenditures, without capex in non-consolidated participations
** Former Statoil transaction with closing in 2013
***Without tangible assets from acquisitions and activated exploration expenditure, without capex in non-consolidated participations
BASF’s Oil & Gas division – Summary and roadmap 2018

- New ambitious growth target for 2018
- Strong portfolio with access to high potential acreage
- Solid project pipeline / focus on execution & operational excellence
- Strategy with focus on regions of expertise and limited exploration risk
- Powerful partnerships in key regions
- Exit of natural gas storage and trading business