



# TMK CAPITAL MARKETS DAY

19 March, 2019

MOEX, Moscow, Russia



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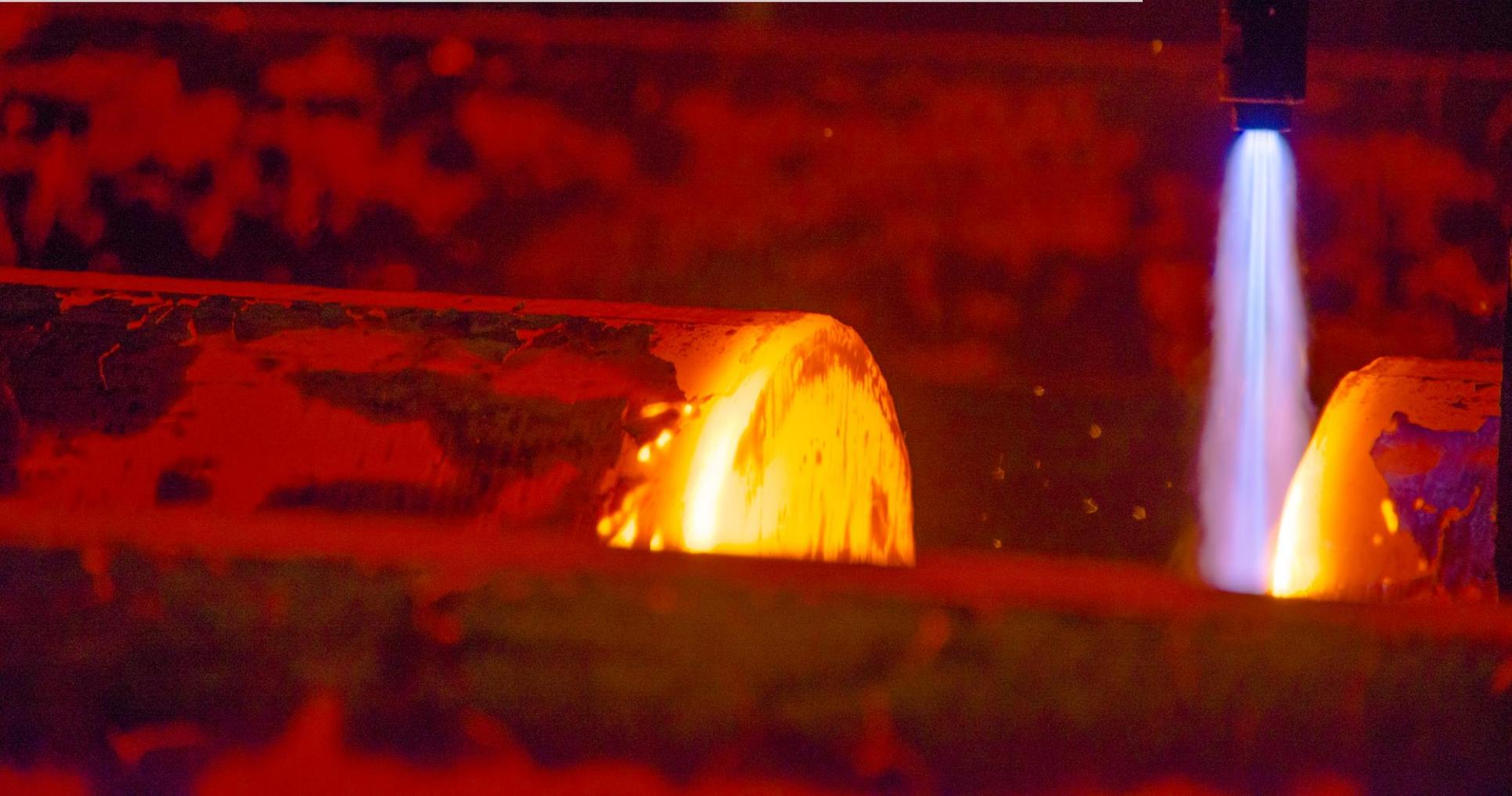
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# TMK Strategy Update

Vladimir Shmatovich

Vice President for Strategy and Business Development





# Goals for 2018-2022

- ① Sustain position as a well-established supplier in the global OCTG market and the leader in the domestic OCTG market, which offers growth potential in a low-oil-price environment:
  - Dominate the Russian OCTG and line pipe markets;
  - Remain in the TOP 3 leading OCTG producers in the USA
- ② Consolidate position in the TOP 2 global leaders by financial performance
- ③ Develop a service offering of comprehensive design solutions for customers using cutting-edge digital technologies
- ④ Enhance the safety levels for our employees
- ⑤ Improve environmental protection at all of TMK's production facilities across all of the regions in which the Company operates
- ⑥ Reduce leverage
- ⑦ Maximise operating cash flow, optimise the asset portfolio

Enhance leadership in key segments and enter new product niches

Optimise vertical integration to reduce costs and develop product and service range

Enhance the sales platform and leverage TMK's global scale

Focus on innovation and digitalisation

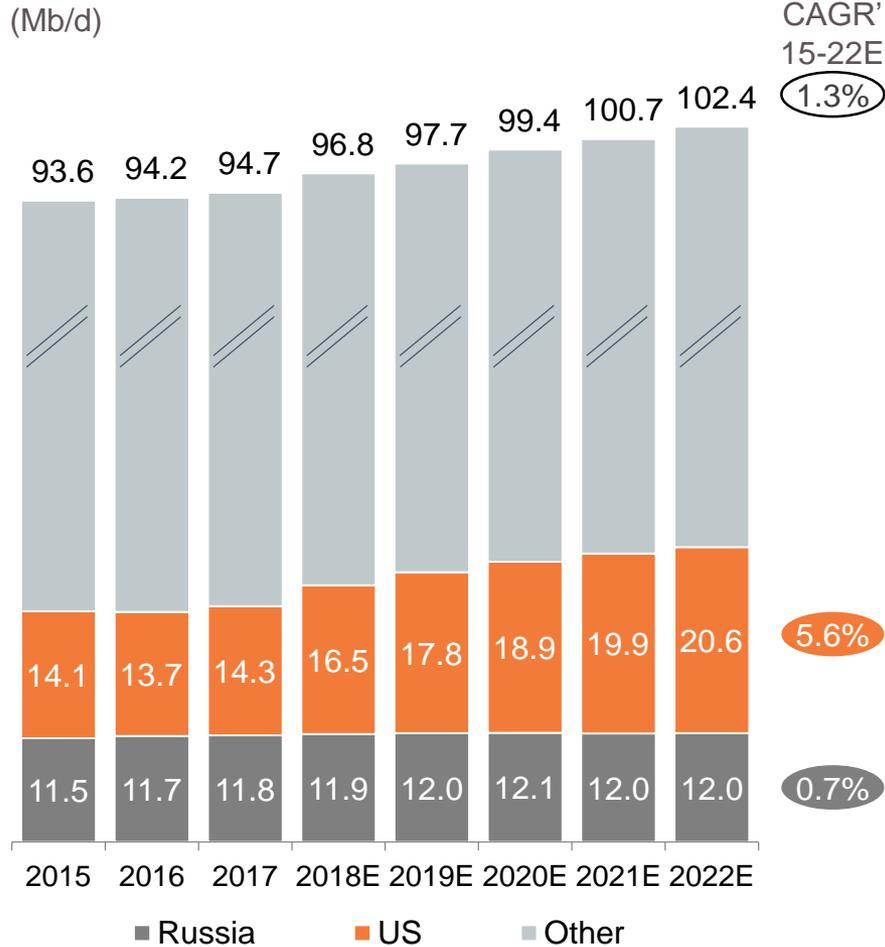
Enhance operational excellence

Strengthen financial performance and investment appeal

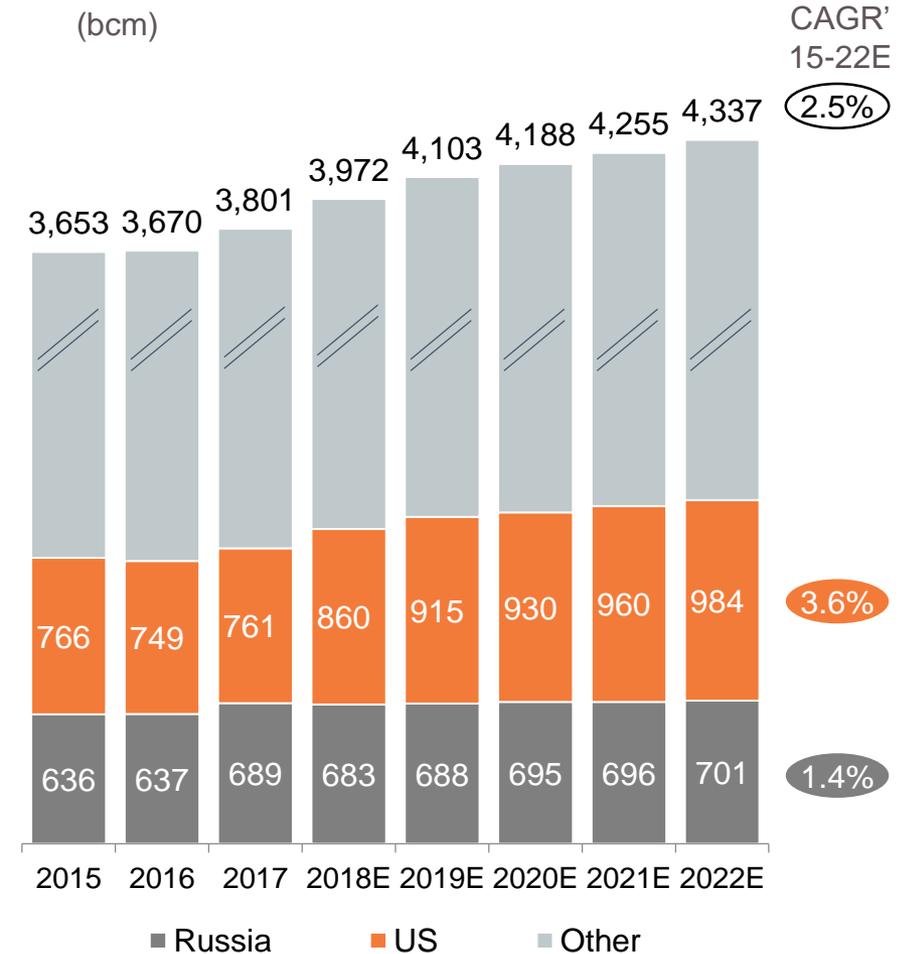


# Global Oil and Gas Production

## Global oil production<sup>(a)</sup>



## Global gas production<sup>(b)</sup>



Source: BMI

(a) Crude, NGPL and other liquids production

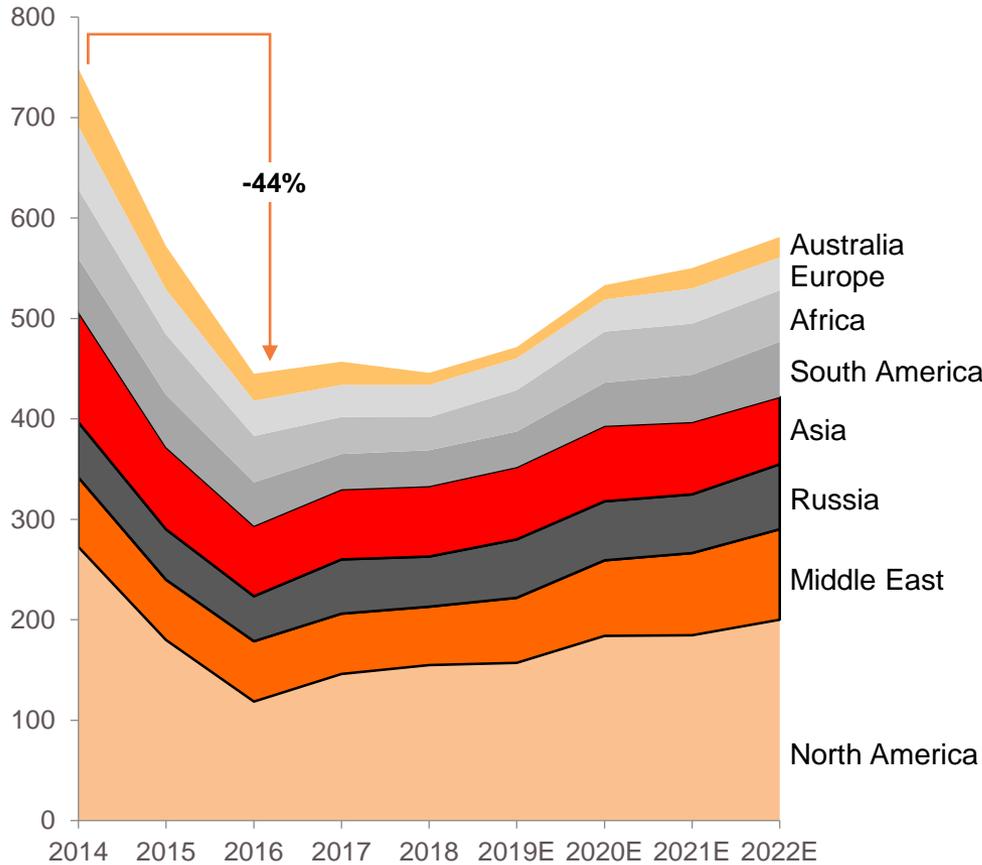
(b) Dry natural gas production



# Global E&P Investments and Drilling Activity

## Global E&P investments

(US\$ bn nominal)



Source: Rystad Energy

## World drilling activity<sup>(a)</sup>

(thousand wells drilled)



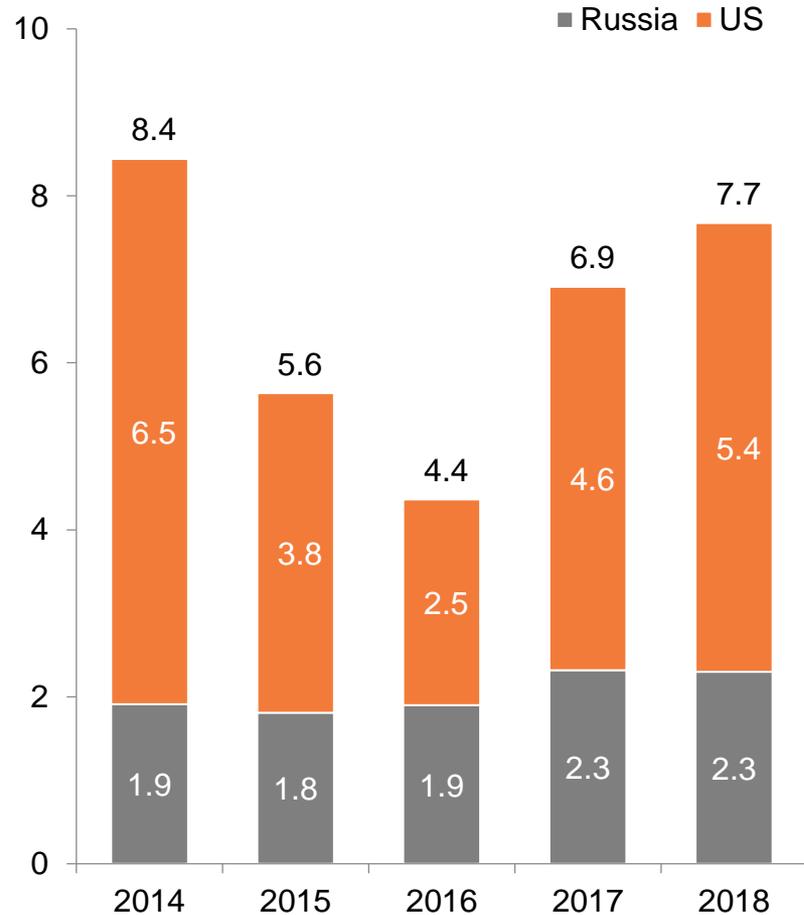
Source: BMI, Baker Hughes, Spears and Associates, M-I Swaco  
 Note: world drilling activity excluding China and central Asia



# TMK Market Exposure

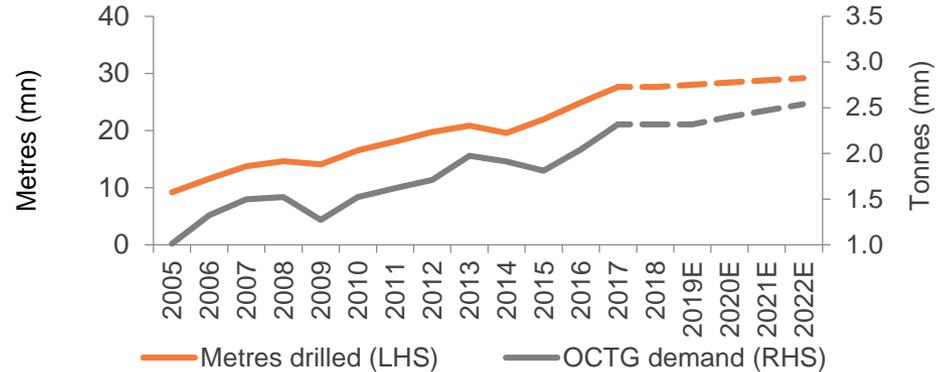
## OCTG market in Russia and the U.S.

(m tonnes)



Source: CDU TEK, Metal Courier for Russian OCTG consumption, Preston Pipe & Tube Report for US statistics

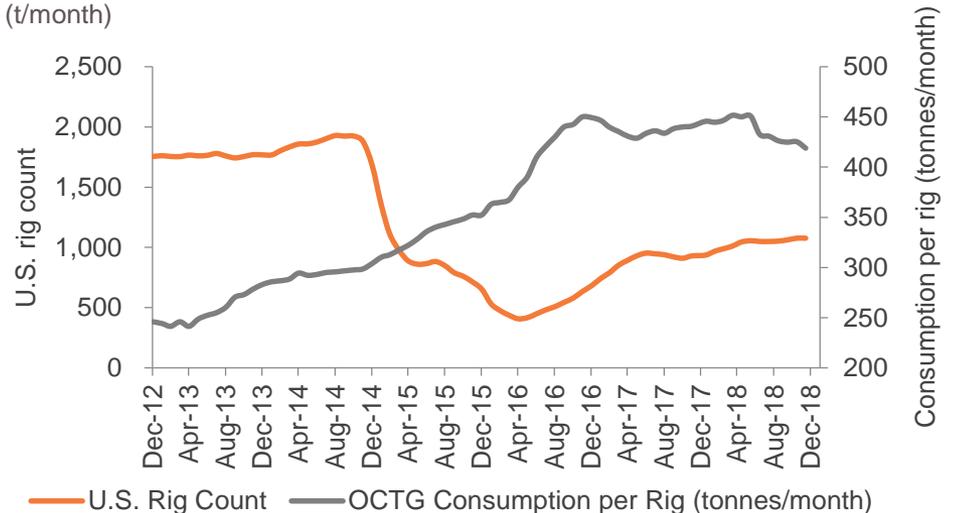
## Russian OCTG market demand fundamentals supportive of continuing growth



Source: : CDU TEK, Metal Courier

## U.S. OCTG consumption per rig

(t/month)

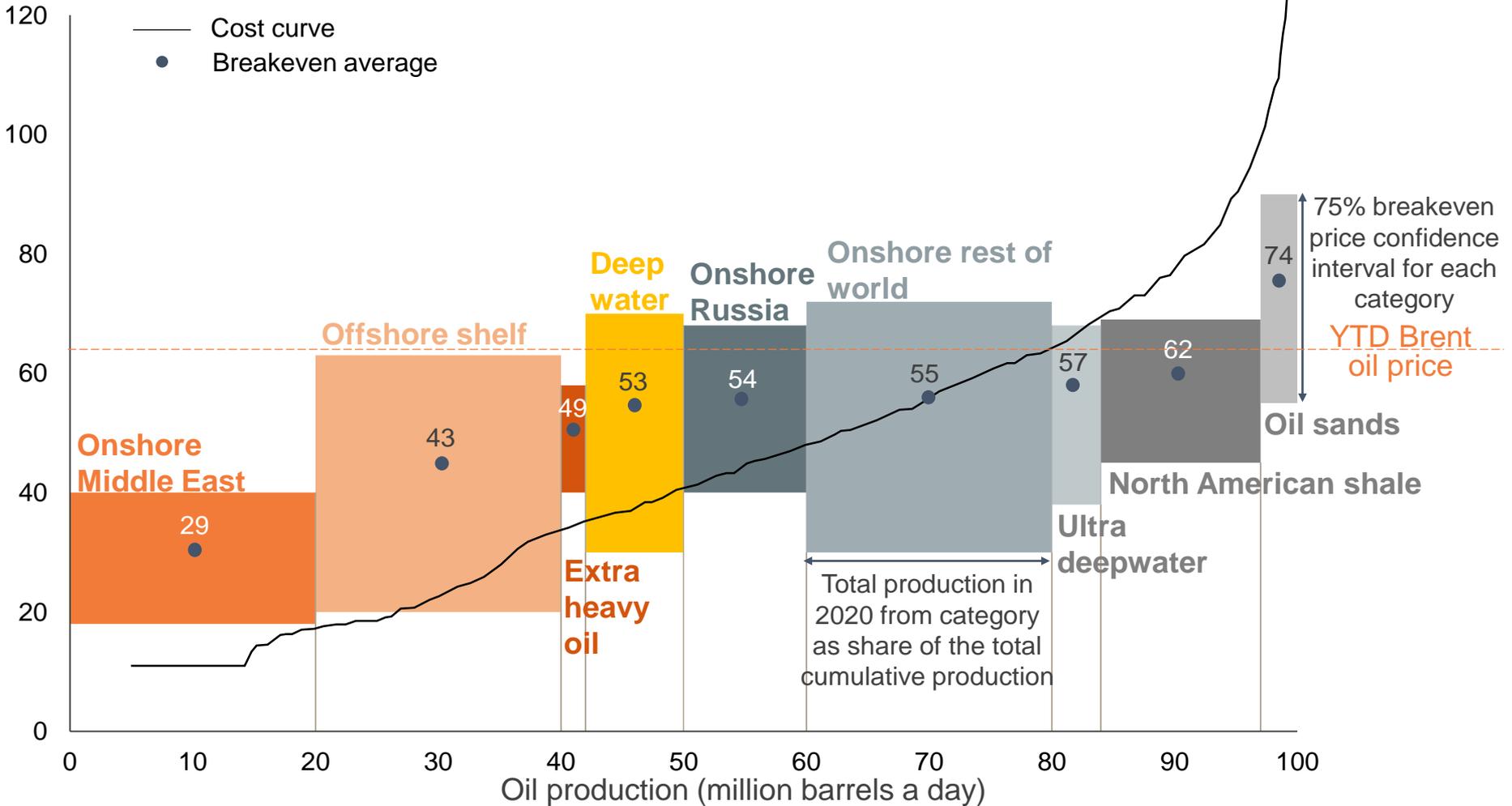


Source: Preston Pipe & Tube Report, Baker Hughes



# Global Oil Supply Cost Curve and Breakeven Prices

(U.S. dollars a barrel)

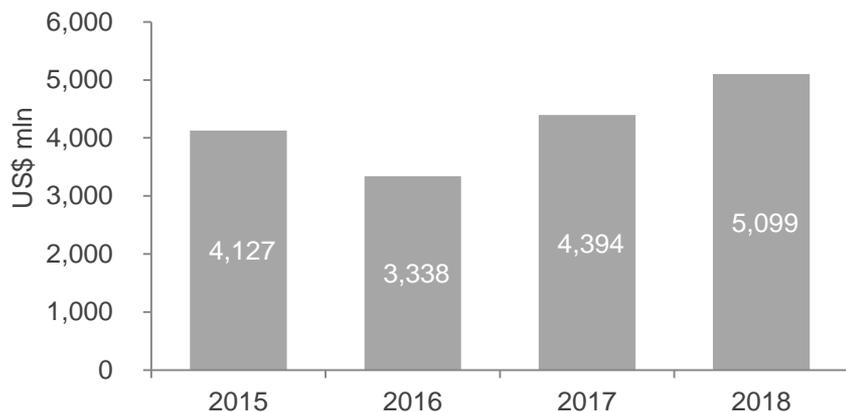


Source: Rystad Energy research and analysis. Note: The breakeven price is the Brent oil price at which net present value equals zero, considering all future cash flows using a real discount rate of 7.5%. Oil refers to crude oil, condensate, and natural gas liquids.

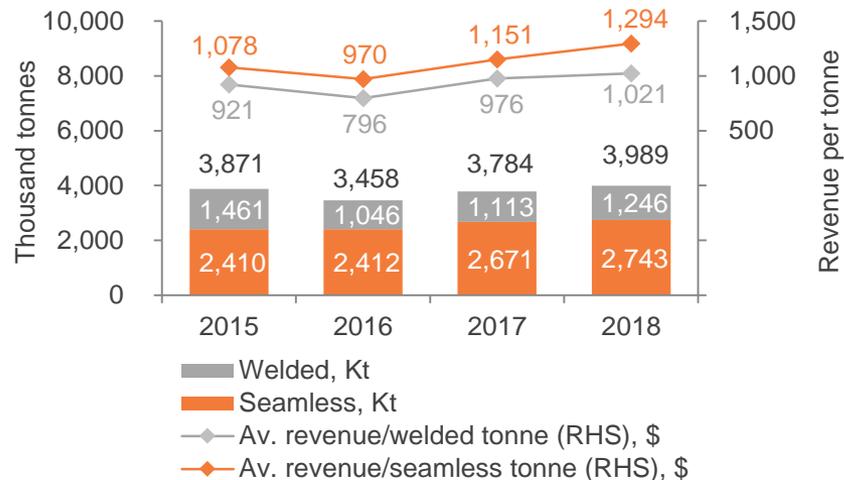


# Consolidated Results Snapshot

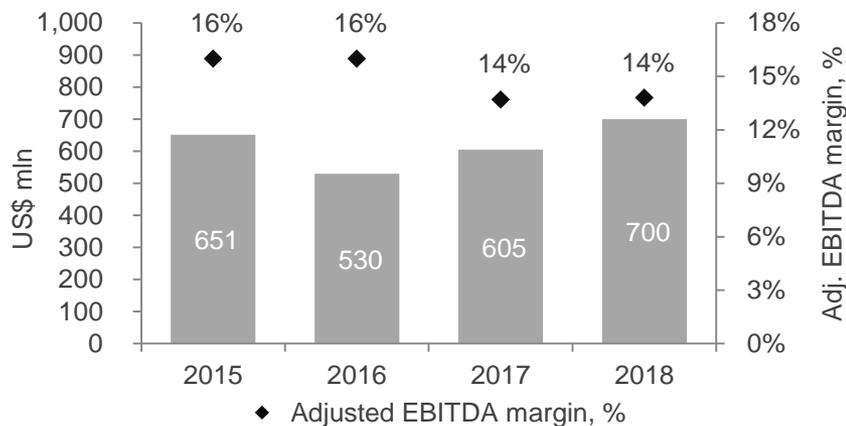
## Revenue



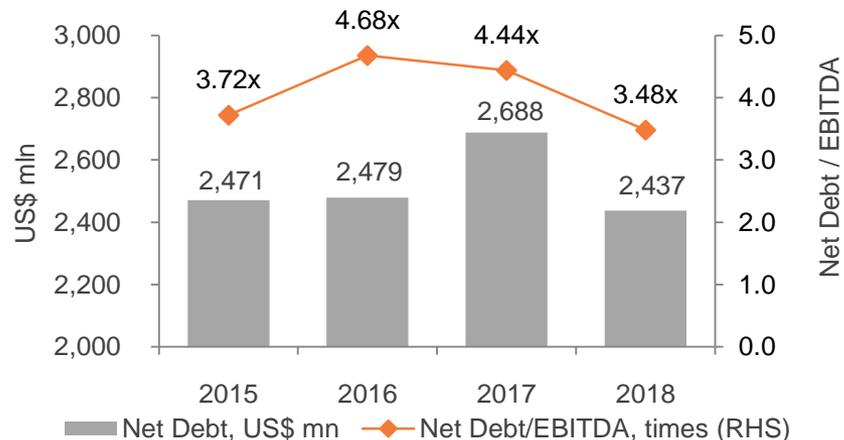
## Volumes and realised prices



## Adjusted EBITDA<sup>(b)</sup>



## Net Debt



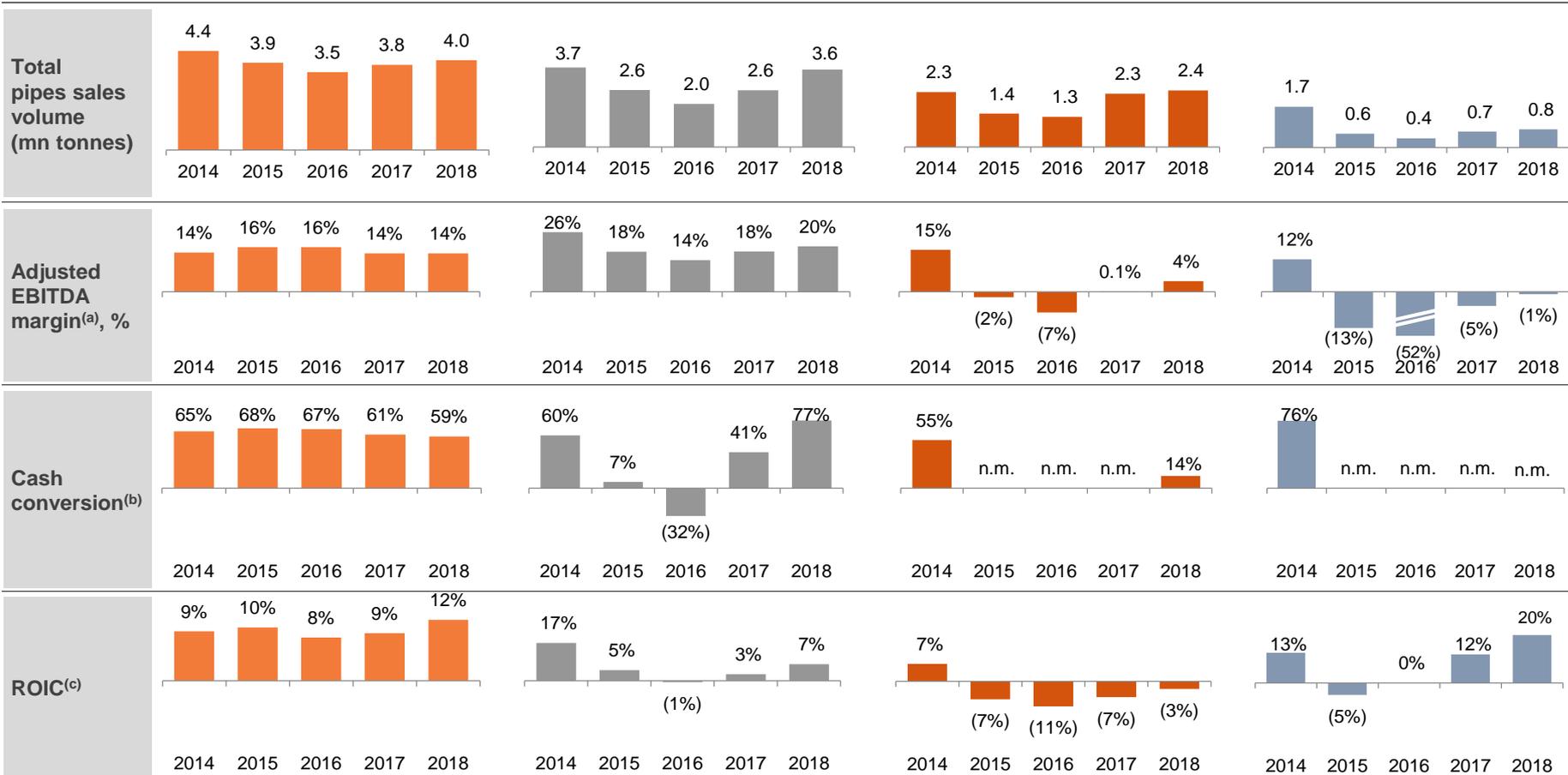
Source: TMK data

Note: (a) Average nominal USD/RUB exchange rate as published by the Central Bank of Russia.

(b) Adjusted EBITDA represents profit/(loss) for the period excluding finance costs and finance income, income tax (benefit)/expense, depreciation and amortisation, foreign exchange (gain)/loss, impairment/ (reversal of impairment) of non-current assets, movements in allowances and provisions (except for provisions for bonuses), (gain)/loss on disposal of property, plant and equipment, (gain)/loss on changes in fair value of financial instruments, share of (profit)/loss of associates and other non-cash, non-recurring and unusual items



# TMK – Superior Earnings Resilience Through the Cycle



Source: Companies' public reporting

Note: (a) Adjusted EBITDA for TMK represents profit/(loss) for the period excluding finance costs and finance income, income tax (benefit)/expense, depreciation and amortisation, foreign exchange (gain)/loss, impairment/(reversal of impairment) of non-current assets, movements in allowances and provisions (except for provisions for bonuses), (gain)/loss on disposal of property, plant and equipment, (gain)/loss on changes in fair value of financial instruments, share of (profit)/loss of associates and other non-cash, non-recurring and unusual items

(b) Calculated as (Adjusted EBITDA – Capex) / Adjusted EBITDA

(c) Calculated as Operating profit/ Average invested capital. Average invested capital calculated as Total assets less cash & cash equivalents less current liabilities (excl. interest bearing liabilities).

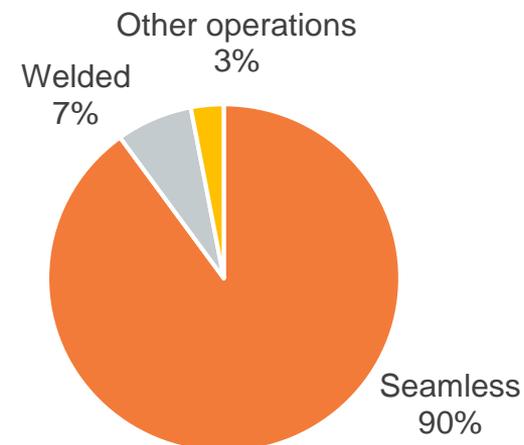
(d) For United States Steel sales volumes, Adjusted EBITDA and Cash conversion are shown for Tubular segment, while ROIC is calculated based on consolidated financials for the whole company.



# Seamless – Core to Profitability

	US\$ mln <i>(unless stated otherwise)</i>	4Q2018	QoQ, %	12M2018	YoY, %
<b>SEAMLESS</b>	Sales - Pipes, kt	<b>738</b>	22%	<b>2,743</b>	3%
	<b>Revenue</b>	<b>950</b>	18%	<b>3,550</b>	15%
	Gross profit	<b>221</b>	15%	<b>824</b>	13%
	<i>Margin, %</i>	23%		23%	
	Avg revenue/tonne (US\$)	1,288	-3%	1,294	12%
	Avg gross profit/tonne (US\$)	300	-6%	301	10%
<b>WELDED</b>	Sales - Pipes, kt	<b>265</b>	-17%	<b>1,246</b>	12%
	<b>Revenue</b>	<b>267</b>	-15%	<b>1,272</b>	17%
	Gross profit	<b>5</b>	-72%	<b>67</b>	-39%
	<i>Margin, %</i>	2%		5%	
	Avg revenue/tonne (US\$)	1,010	2%	1,021	5%
	Avg gross profit/tonne (US\$)	19	-66%	54	-46%

## FY 2018 gross profit breakdown



- Sales of seamless pipe generated 70% of the total revenue in FY 2018
- Gross profit from seamless pipe sales represented 90% of FY 2018 total gross profit
- Gross profit margin from seamless pipe sales amounted to 23% in FY 2018

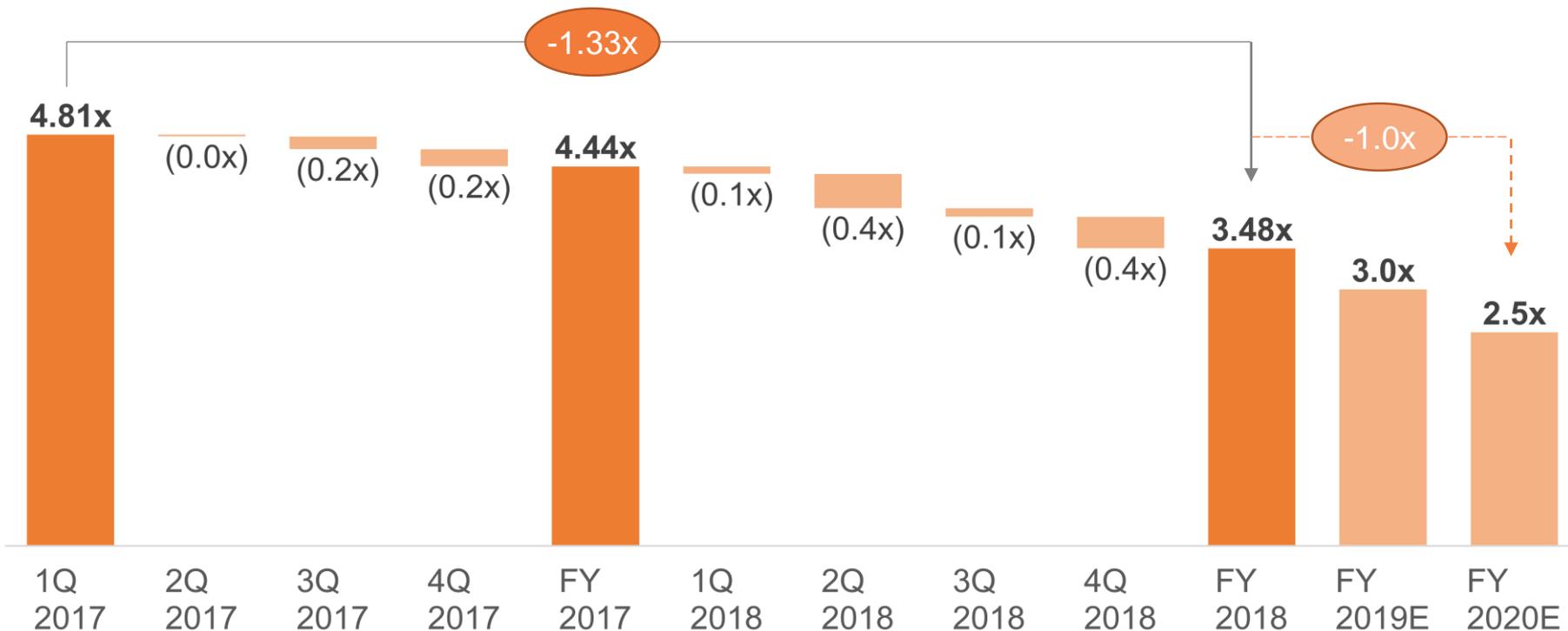
Source: Consolidated IFRS financial statements, TMK data

Note: Certain monetary amounts, percentages and other figures included in this presentation are subject to rounding adjustments. Totals therefore do not always add up to exact arithmetic sums.



# Deleveraging in Progress

Net debt/EBITDA dynamics since 2017, times

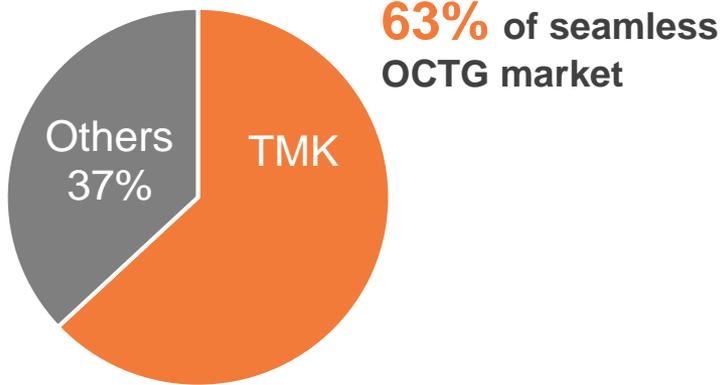


- Leverage reduced 1.33x, reflecting higher EBITDA and lower Net debt level since 1Q 2017
- Expect further leverage reduction due to a combination of organic and non-organic measures, including an increase in operating cash flow, savings on CAPEX, monetisation of international assets, strategic alliances and joint ventures in all regions of operation

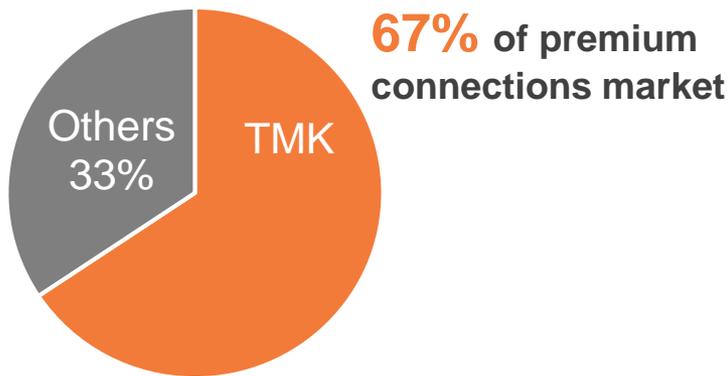


# Focus on Development and Sales of High-Tech Products

## Leading market position in seamless OCTG in Russia



## Leading market position in premium connections in Russia

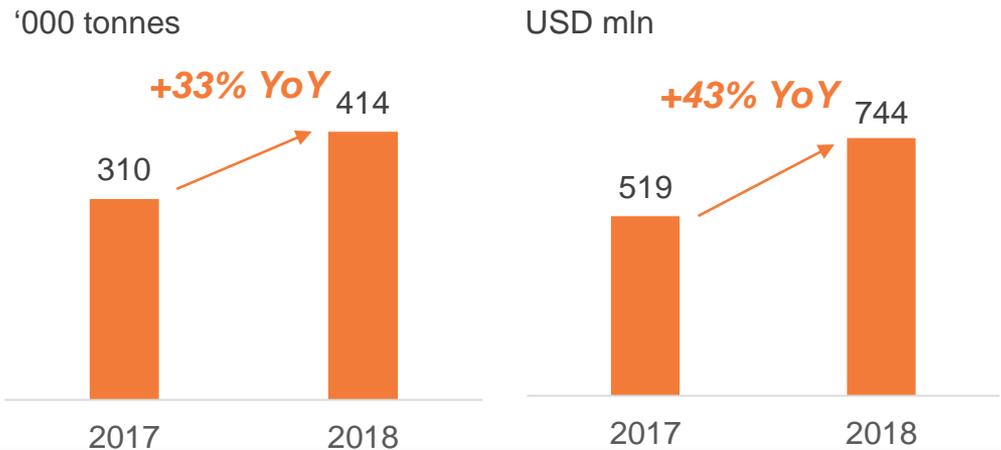


Source: TMK estimates, based on 2018 numbers

## Key results

- **#1** globally in terms of total pipe shipments
- **Dominating market position** in OCTG, line pipes and premium connections in Russia
- Development and sales of high-tech products:
  - In 2018, **sales of high-tech products** accounted for 46% of the Russian division's revenue, or 45% in the Russian division's sales in volume terms;
  - Increase in premium connection sales to **offshore fields** of major customers (>10 Kt)

## Higher sales of premium connections



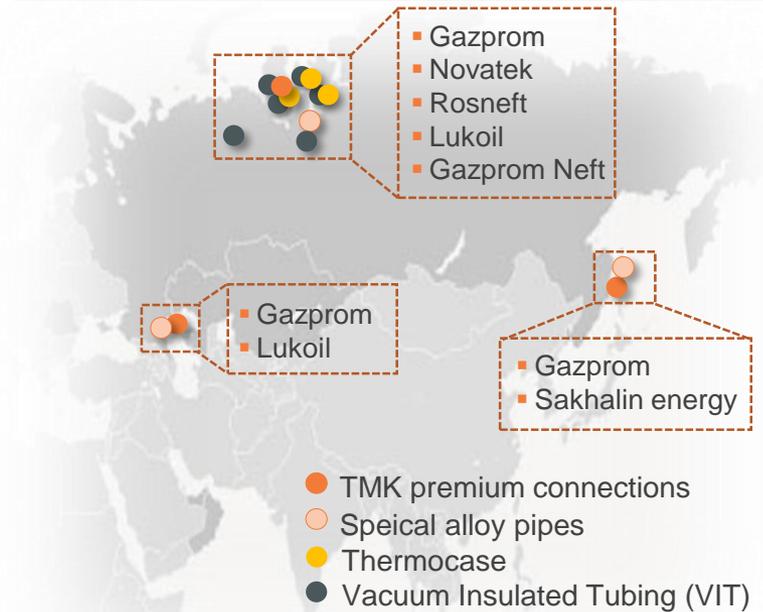


# High-tech Product Supplies

## Key high-tech products developed by TMK

 <p><b>TMK UP CENTUM</b></p>	<ul style="list-style-type: none"> <li>Gastight premium connection with 100% efficiency under compression and tension loading. Unique design provides fast assembly and sealability under the most severe well conditions. Successfully supplied since 2017</li> </ul>
 <p><b>TMK UP PF</b></p>	<ul style="list-style-type: none"> <li>Qualification obtained from Shell. TMK UP PF connections (244.48x11.99 mm L80) were successfully used in the Piltun-Astokhskoye oil field (Sakhalin Energy)</li> </ul>
 <p><b>TORQ Series</b></p>	<ul style="list-style-type: none"> <li>A new series of gastight premium connections developed to withstand extreme torq during the run in extended reached horizontal wells</li> </ul>
 <p><b>Cr13</b> casing and tubing pipes</p>	<ul style="list-style-type: none"> <li>Most effective solutions to protect pipes against H<sub>2</sub>S and CO<sub>2</sub></li> <li>TMK – only Russian manufacturer and supplier of corrosion-resistant pipes with a chromium content of 13%</li> </ul>
<p><b>TMK-C</b> casing and tubing pipes</p>	<ul style="list-style-type: none"> <li>TMK – only Russian manufacturer and supplier of corrosion-resistant (CRA) chromium-nickel alloy pipes</li> <li>Used in well construction at oil and gas fields operating a high temperatures and producing hydrocarbons with particularly high hydrogen sulfide and carbon dioxide content</li> </ul>

## Usage of TMK high-tech products in Russia



 <p><b>Vacuum Insulated Tubing (VIT)</b></p>	<ul style="list-style-type: none"> <li>Designed for permafrost and/or in zones with high viscosity and paraffin deposition of extracted hydrocarbons</li> </ul>
 <p><b>Thermocase</b></p>	<ul style="list-style-type: none"> <li>Used in permafrost conditions</li> <li>Prevents breakage during drilling operations</li> </ul>



# Development of Innovative Products

## Strengthening of R&D activity



**Houston,  
U.S.**



**Chelyabinsk,  
Russia**



to come online  
in 2019

**Skolkovo (Moscow),  
Russia**

## R&D programs with key customers

### Gazprom

- R&D cooperation program (2016-2020) (launch of 34 new high-tech tubular products)
- 'Future Thing' agreement (2016-2023) (design, development and production of tubular products under Gazprom's specifications)
- Smart Pipe project (2018+) (technological roadmap for production of pipes with integrated recording, processing and switching components)

### Rosneft

- Program of import substitution of pipe products for offshore projects (2018-2020)
- Technology partnership program (2017-2020) (cooperation in pipeline transport, drilling, completions, and tubing pipes)

### Gazprom Neft

- Technology partnership program (2018-2020)



# Development of Product and Service Range

## Development priority

## Key results

Increase capacity utilisation of steelmaking facilities and maximise financial impact



- Higher production and sales of steel billets
- Start of production of railway wheel steel (TAGMET) in strategic cooperation with a wheel producer from Kazakhstan

Expand presence in further processing of tubular products (drill pipe, coating, etc.)



- Launch of a new heat treatment facility at TMK-ARTROM → increased share of high-margin products in the sales mix



- Completion of construction of a new coating line at Wilder, KY → improvement in the sales mix

- Plans to expand presence in the drill pipe segment through purchase of a controlling share in Technomash plant, owned by Chinese company Hilong Group

Development of engineering solutions to promote TMK's high-tech products

- Concept engineering services (sales of pipe with premium connections together with project calculation)  
In 2018, 15% of total premium connection sales in Russia



# Strengthening Global Sales Positions

## Inter-divisional cooperation



## Key messages

- TMK supplies products to **more than 80 countries** worldwide
- Extensive sales network covers almost all key global O&G production regions
- In 2018, OCTG and line pipe shipments from Russian plants to the American Division amounted to **150K tonnes (+13% YoY)**

## Major export contracts signed in 2018

Customer	Product	Country
Oil India	Vacuum Insulated Tubing (VTI) with TMK premium connections	India
Vietsovpetro	Drilling pipe for offshore project	Vietnam
Agiba Petroleum	Casing and Tubing pipe	Egypt
YPFB	Tubing pipes with TMK UP premium connections	Bolivia

First pipe supply to Bolivia

← OCTG and line pipe   ← Industrial pipe   ← Steel billet



# Focus on Transformation Based on Digital Solutions

- In 2018, development and launch of TMK’s comprehensive transformation programme based on digital solutions
- A special committee on transformation set up, chaired by the CEO

## TMK TRANSFORMATION PROGRAMME

### Key areas of focus



### Projects

Implemented / initiated in 2017-2018	Ongoing projects
<p>Launch of TMK eTrade – first e-commerce platform for tubular goods in Russia</p>	<p>Digitalisation of repair and maintenance (mobile walk-round check) at Volzhsky pipe plant</p>
<p>Launch of an electronic trading platform for purchases</p>	<p>Control of performance and downtime of threading equipment at TAGMET</p>
<p>Launch of Project office to manage Transformation</p>	<p>Control of welding parameters at LDP production at Volzhsky pipe plant</p>
<p>Start of reorganisation of office space based on 5S+1</p>	<p>Development and implementation of consolidated efficiency improvement program</p>
	<p>Optimisation of electronic document flow</p>
	<p>Development of TMK2U corporate university</p>
	<p>Development of TMK-SAP-Urals Federal University digitalisation laboratory</p>
	<p>Contactless measuring systems for monitoring the location of rolling tools</p>
	<p>Development of algorithms for control of piercing mill based on Big Data</p>
	<p>Development of predictive models for piercing mills</p>



# E-commerce Development

TMK is developing e-commerce across all divisions via TMK eTrade, the first e-commerce platform for tubular goods in Russia

## The best e-commerce project in Russia in 2018\*



\*Winner in the nomination "Audience Award", according to the "Metallosnabzhenie i sbyt" magazine in 2018

## Key results in 2018

Registered clients	1,233
Pipe shipments	>307 Kt

## Key statistics in 2018

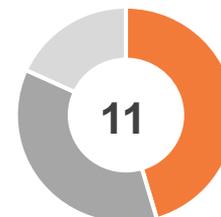
Number of website visits	>77 Kt
Average monthly visits	>6 Kt
Number of regular customers per day	176



# Corporate Governance

## The Board of Directors

	<b>DMITRY PUMPYANSKIY</b> Chairman Non-Executive Director	 Directors
	<b>ALEXANDER SHIRYAEV</b> CEO Executive Director	 Independent Directors
	<b>SERGEY KRAVCHENKO</b> Chairman of the Nomination and Remuneration Committee	 Chairman of the Committee
	<b>ANDREY KAPLUNOV</b> Executive Director	
	<b>PETER L. O'BRIEN</b> Chairman of the Audit Committee	
	<b>ALEXANDER PUMPYANSKIY</b> Non-Executive Director	
	<b>ALEKSANDER SHOKHIN</b> Chairman of the Strategy Committee	
	<b>SERGEY PAPIN</b> Non-Executive Director	
	<b>ROBERT MARK FORESMAN</b> Independent Director	
	<b>ANATOLY CHUBAIS</b> Non-Executive Director	
	<b>YAROSLAV KUZMINOV</b> Independent Director	



- 5 Independent Directors
- 4 Non-Executive Directors
- 2 Executive Directors

## Committees

The Board of Directors has three standing committees chaired by **independent directors**:

- Nomination and Remuneration Committee
- Audit Committee
- Strategy Committee

## Corporate Governance ratings

- **TMK ranks in the Top-20** companies in Russia with the best disclosure of corporate governance information, according to the annual survey “National Corporate Governance Index” in 2018.



# Focus on Environmental Protection as a Foundation for Business Sustainability

## Environmental management system

### 11 TMK's plants

confirmed their compliance with ISO 14001:2005

### Environmental monitoring

All Russian division plants have accredited chemical-analytical laboratories with the necessary modern equipment

## Key results in 2018

### -1% YoY

total pollutant emissions into atmosphere

### 95.32%

water supply is recycled

### 55%

of total waste was reused at TMK facilities

### Flat YoY

total water consumption

## Investment into environmental protection

### ~\$40 mln

Environmental expenditure +5% YoY in 2018

### >20 CAPEX projects

Key areas of investment: water basin protection, air protection and soil protection

## Environmental education program

### 817 employees

passed external education on environmental protection

### Ecology for non-ecologists

E-learning program was developed and launched at the Corporate University platform TMK2U





# Focus on Health & Safety and Social Responsibility as a Foundation For Business Sustainability

## Health & Safety – key results in 2018

**\$11 mln**

Health & safety expenditure  
**+14% YoY in 2018**

### Steel Safety Day-2018

83% of production capacities audited  
>42\* thousand employees participated



### Zero fatalities

**1.37x**

Injury frequency rate in 2018  
(1.52x injury frequency rate in 2017)



### Focus on best practice

Potential projects:

- “Conscious safety” system
- Electronic system of pre-shift inspections
- Digital technology in labour protection



## Corporate social responsibility

### Comprehensive charity program

Through sponsorship and charity, TMK seeks to foster a favourable social climate in the regions where we operate



### 4 key areas of social initiatives:

- Health
- Sport
- Education
- Culture



### 80 non-profit organisations

Receive financial support from TMK, including 19 through various grant competitions



\* Including 7 th. employees from contractors



# **Russian Market Update: Enhancing Leadership Position with Tailor-made Products for Customers**

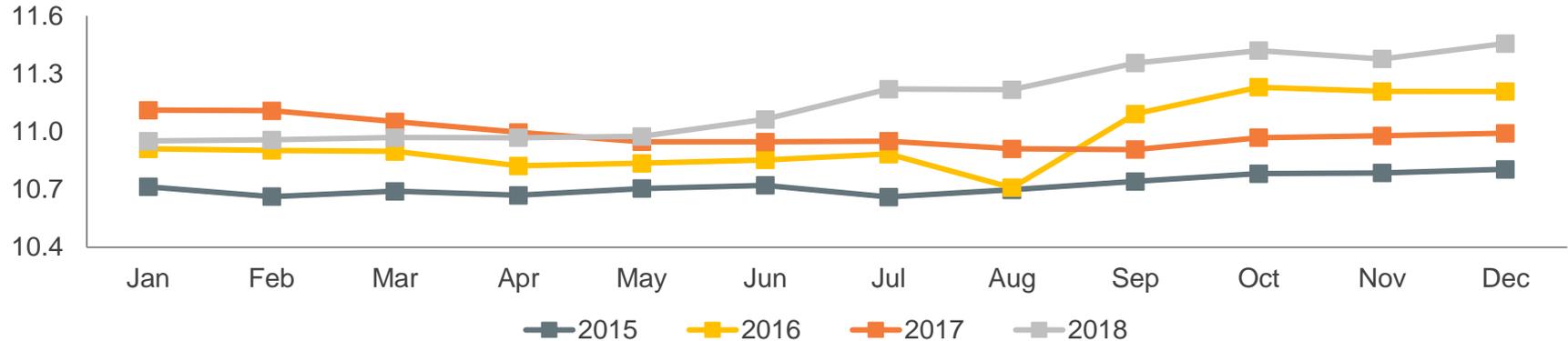
**Sergey Alekseev**  
**Director for Marketing**



# Oil Production in Russia is Strong ...

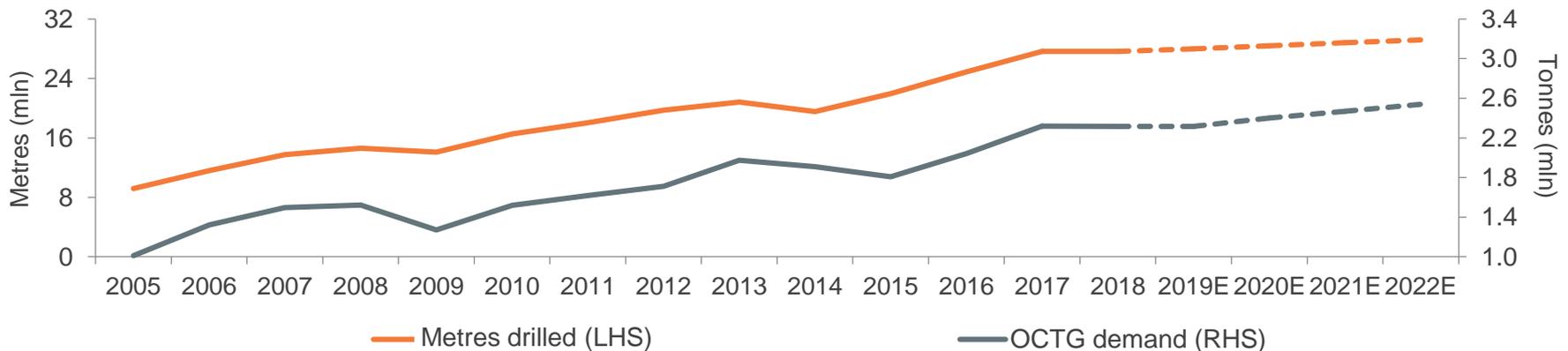
## Oil production remains well above 11.4 mmbpd whilst adhering to the new agreement with OPEC

Russian total oil output, MMBpd



Source: Interfax, Info TEK

## ... However OCTG demand is growing supported by existing level of production and development of greenfields

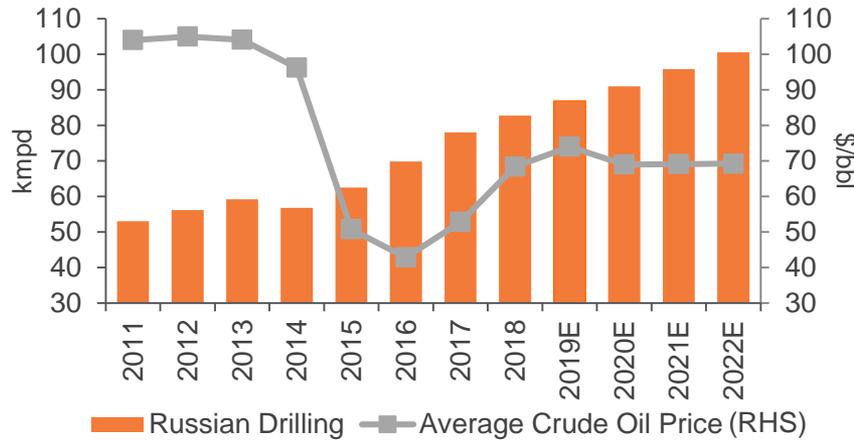


Source: Interfax, Info TEK, Spears & Associates, TMK estimates

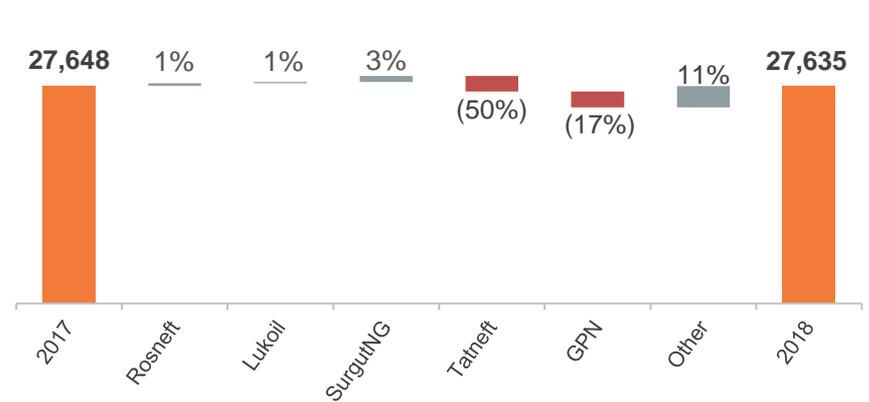


# ...Creating Long-term Demand for High-End Oil & Field Services

## Russian oil drilling activity continues to grow ...



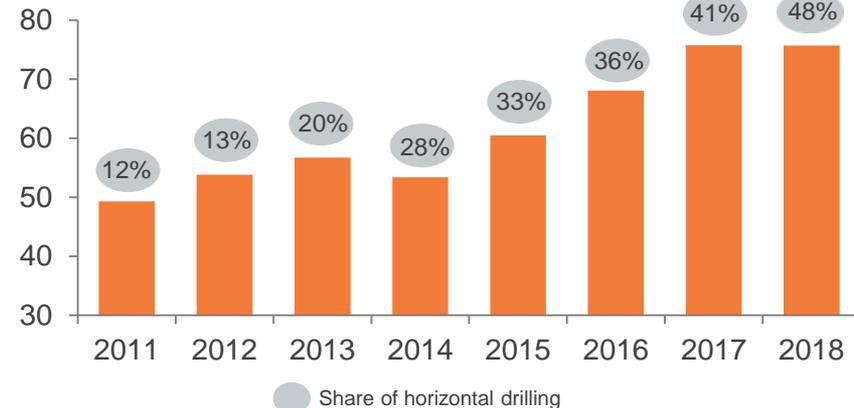
Breakdown of Russian oil drilling activity in 2018, km



Source: CDU TEK

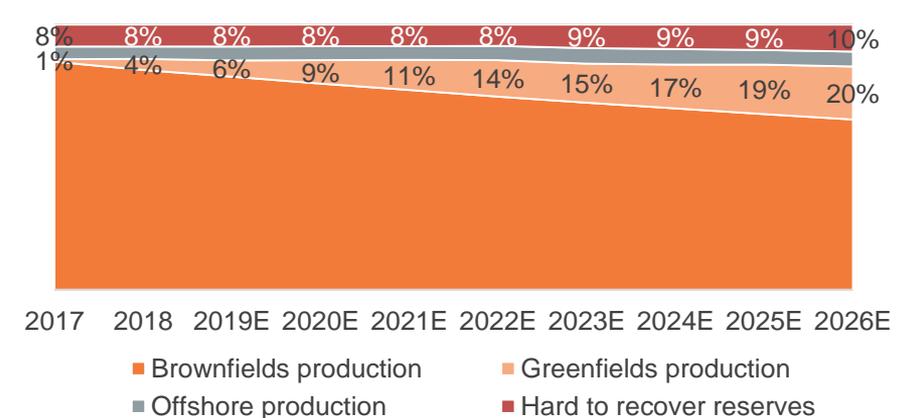
## ... with strong demand for advanced oil field services fueled by EOR activities at brownfields

Horizontal oil drilling, kmpd



Source: CDU TEK

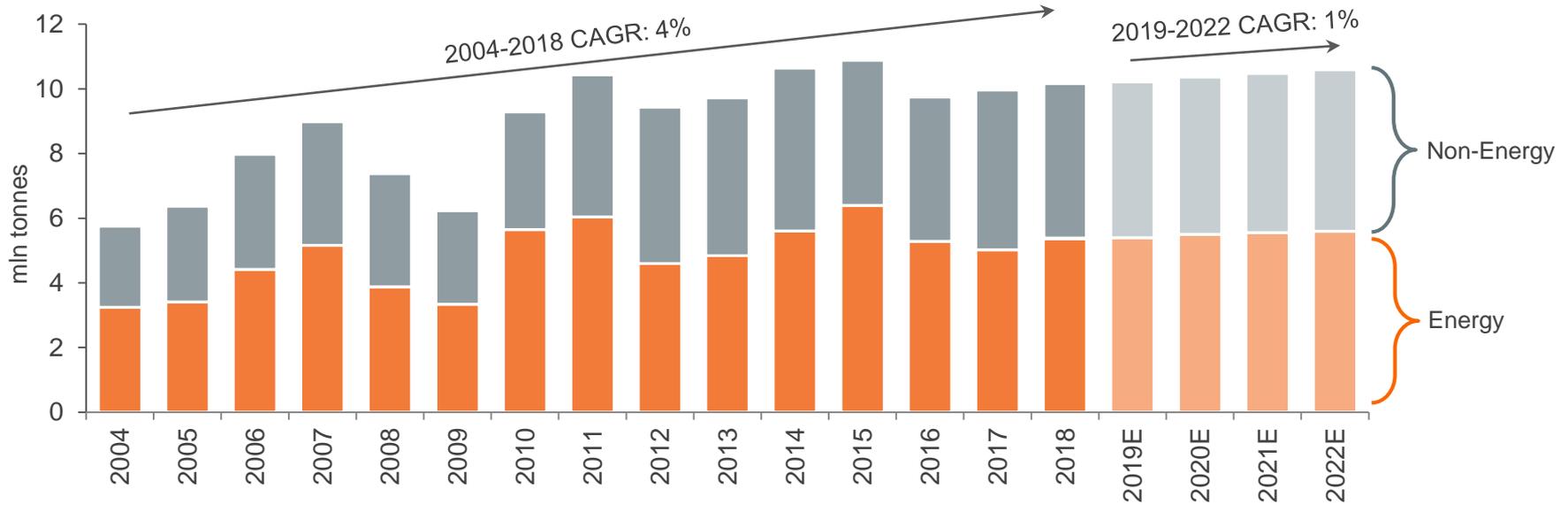
Oil production structure, %



Source: RPI

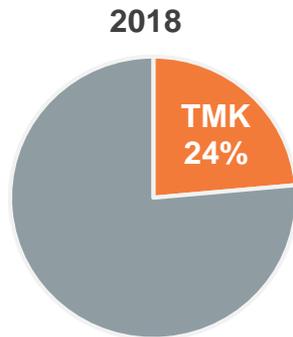


# Russian Tube and Pipe Market



Source: TMK estimates

## No.1 on the Russian tube and pipe market



Source: TMK estimates, based on 2018 numbers

## 33% market share of energy pipe demand



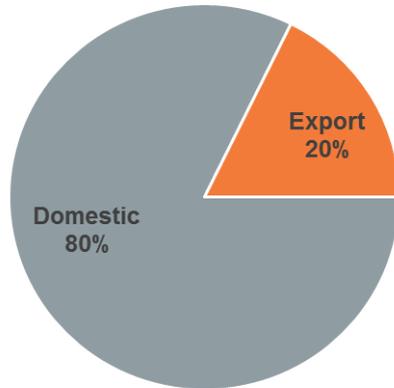
Source: TMK estimates, based on 2017-2018 numbers



# Market Diversification

## Growth of export sales including high-margin products

TMK Russian Division sales structure 2018, %

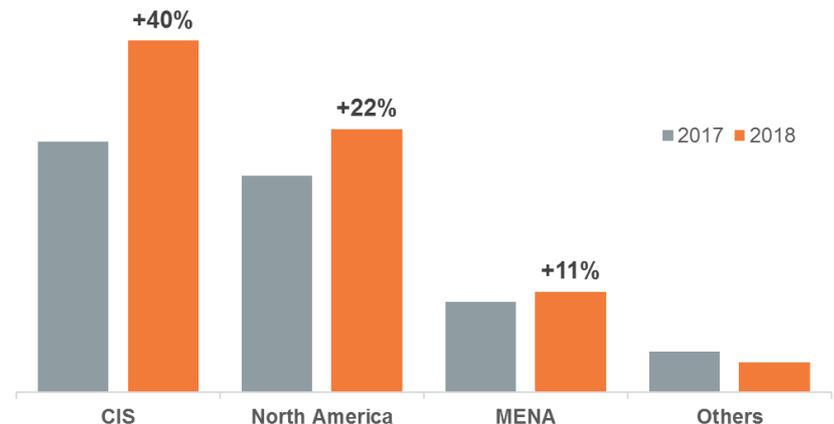


Source: TMK estimates

- Focused on meeting demands of the oil and gas industry
- Favorable geographical position of mills
- Technology partnership with customers based at R&D center
- Customer focus and integrated solution development
- Modern technological complex and extensive sales network

- Mainly focused on the domestic market with higher sales and an increased share of exports in 2018
- CIS, North America and MENA are traditionally the main export destinations
- Geographically diversified sales enables TMK to mitigate risks and uncertainties, while taking advantage of the opportunities offered by each market
- TMK's longer-term geographic expansion will be achieved through further development of partnerships with key customers in order to jointly enter into new oil and gas regions

## Growth in Russian Division's export sales

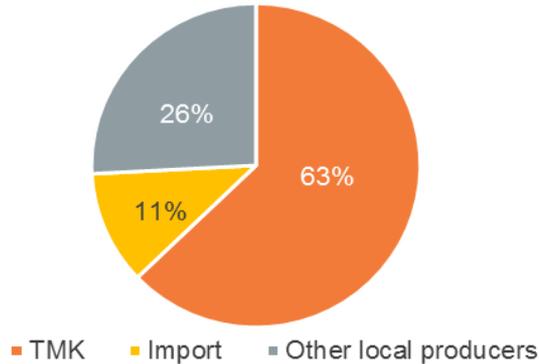




# Strong Position in the Domestic Market

## TMK share of seamless OCTG remains high

Seamless OCTG market shares in 2018, %

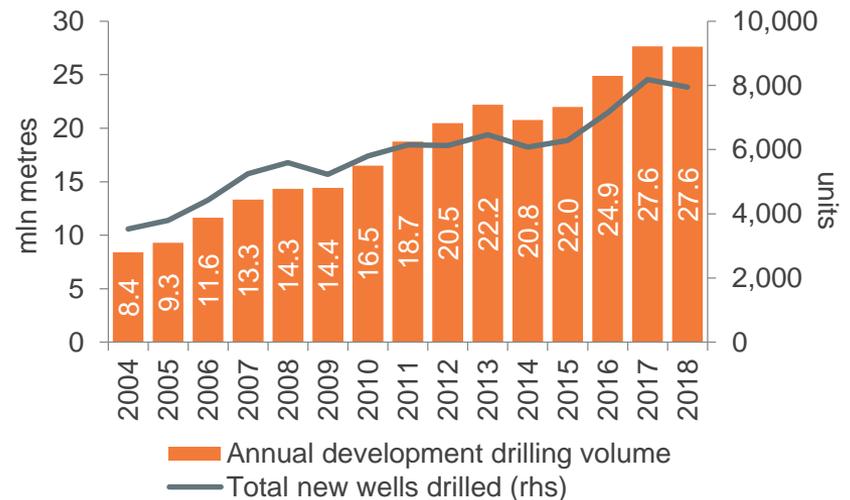


Source: TMK estimates



- Development of conventional and unconventional reserves will require the use of non-conventional drilling techniques and reliable OCTG products
- Russian seamless OCTG market increased 2.5% compared to 2017
- TMK is a leader in the production of seamless OCTG in the Russian market, holding an approximately 63% market share in 2018

## Growing oil drilling market in Russia



Source: CDU TEK

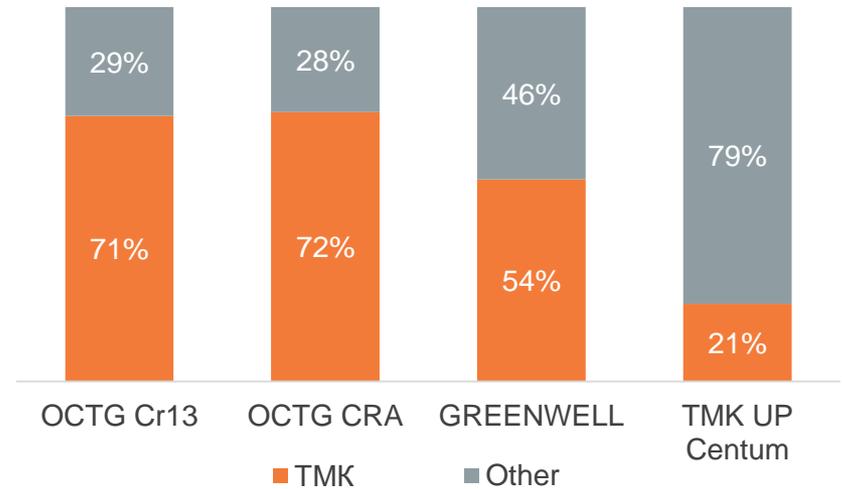


# Tailor-made Products

- **TMK UP Centum** – the latest generation of gas - tight premium threaded connections for casing pipe featuring innovative design with 100% connection efficiency
- **Vacuum Insulated Tubing (VIT)** - designed to develop oil and gas fields located in the most challenging oil and gas production conditions in the permafrost and/or in zones characterised by high viscosity or paraffin deposition of extracted hydrocarbons
- **OCTG Cr13** - the most effective solution to protect pipes against H<sub>2</sub>S and CO<sub>2</sub> corrosion
- **OCTG CRA** - unique corrosion-resistant chromium-nickel alloy TMK-C
- **TMK UP Magna** – used in wells as surface casing
- **GREENWELL technology** – lubricant-free coating

## Unique supplier of HVA products in Russia

HVA products market share in 2018



Source: TMK estimates



Vacuum Insulated Tubing (VIT)



TMK UP Centum  
100% efficiency



GREENWELL  
technology



TMK UP Magna  
New product

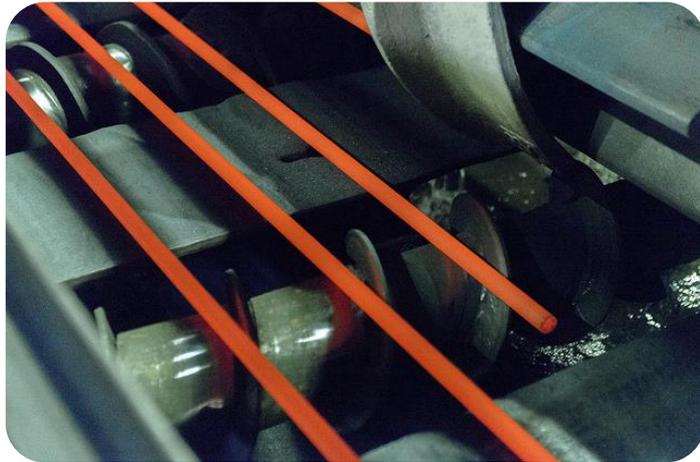


OCTG Cr13



# Seamless Non-Energy Products

- The future of the Russian industrial pipe market looks promising with opportunities in power generation, petrochemical, automotive, and industrial processing
- The Russian industrial pipe market demonstrates stable demand with expected growth with a CAGR of 2.5% from 2018 to 2023
- The major growth drivers for this market are the increasing construction of new pipelines, replacement of ageing pipelines, rate of urbanisation, and infrastructure development



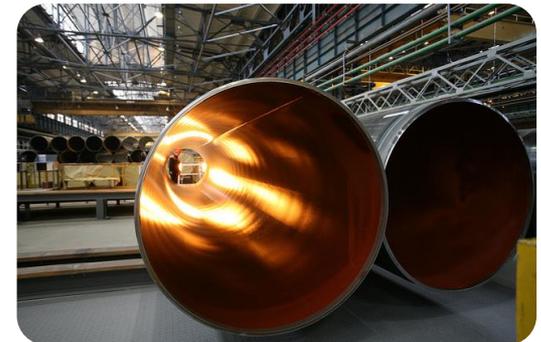
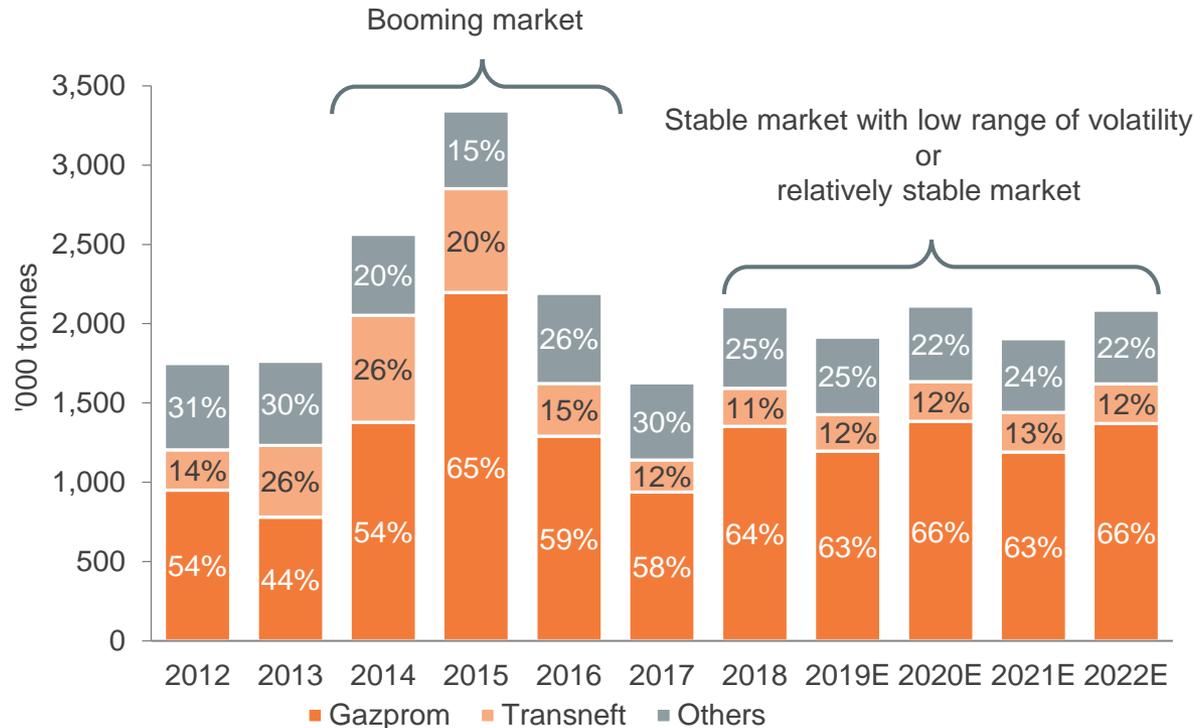
... although TMK mainly focuses on OCTG production, we continuously develop new products used in the construction and utilities sectors, as well as in the engineering and nuclear industries





# LDP Demand in Russia

## LDP demand in Russia, 2012-2022



Source: TMK estimates

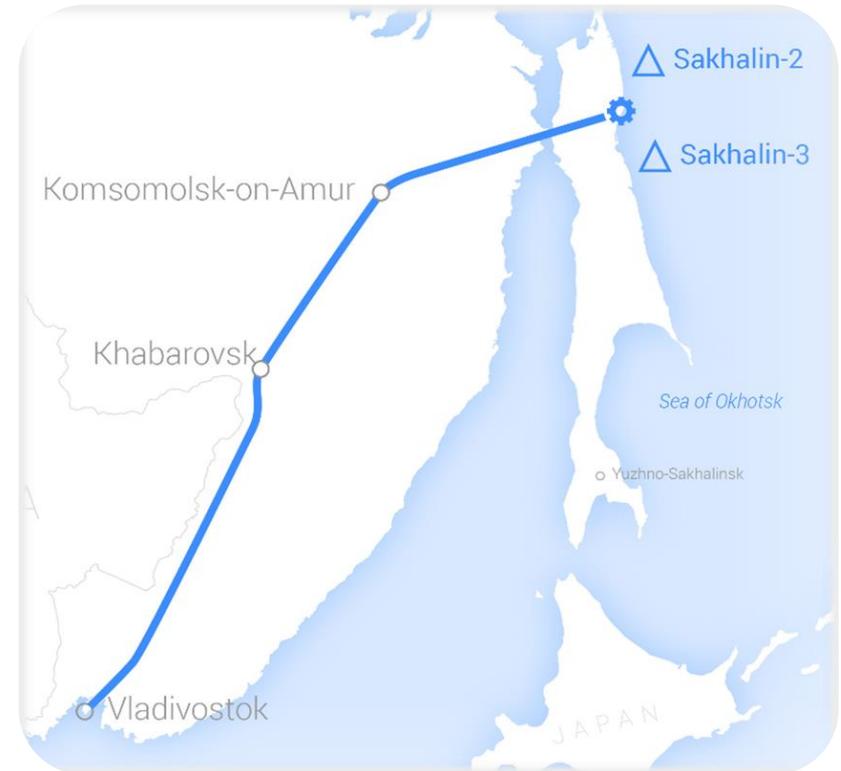
- TMK estimates that annual LDP demand in the next four years could be approximately 1.9-2.1 million tonnes
- Major projects planned: Power of Siberia (GAZP), Bovanenkovo – Ukhta 3 (GAZP), Ukhta-Torzhok 3, Power of Siberia-2 (GAZP), Sakhalin – Khabarovsk – Vladivostok GTS (GAZP), maintenance needs of Transneft and Gazprom



# Sakhalin – Khabarovsk – Vladivostok

## ... expansion of the Sakhalin – Khabarovsk – Vladivostok gas transmission system (GTS) driving additional LDP consumption

- The GTS is intended to deliver gas produced on the Sakhalin shelf to consumers in the Khabarovsk and Primorye Territories
- In order to increase the pipeline capacity by 20 billion cubic meters, 353 km of pipes will be laid from Komsomolsk-on-Amur to Khabarovsk. This part of the pipeline is expected to launch in 2020
- Demand for LDP from GTS could amount to 255 Kt until 2019
- TMK expects to supply LDP supplies for the Sakhalin – Khabarovsk – Vladivostok GTS pipeline





# Russian Market Share

## Seamless



Threaded pipes for the oil and gas industry including drill pipe, casing and tubing

**OCTG 63%**



Short-distance transportation of crude oil, oil products and natural gas

**Line pipe 59%**



Automotive, machine building, and power generation sectors

**Industrial 37%**

## Welded



Short-distance transportation of crude oil, oil products and natural gas

**Line pipe 28%**



Construction of trunk pipeline systems for long distance transportation of natural gas, crude oil and petroleum products

**Large-diameter 14%**



Wide array of applications and industries, including utilities and agriculture

**Industrial 8%**

## Premium



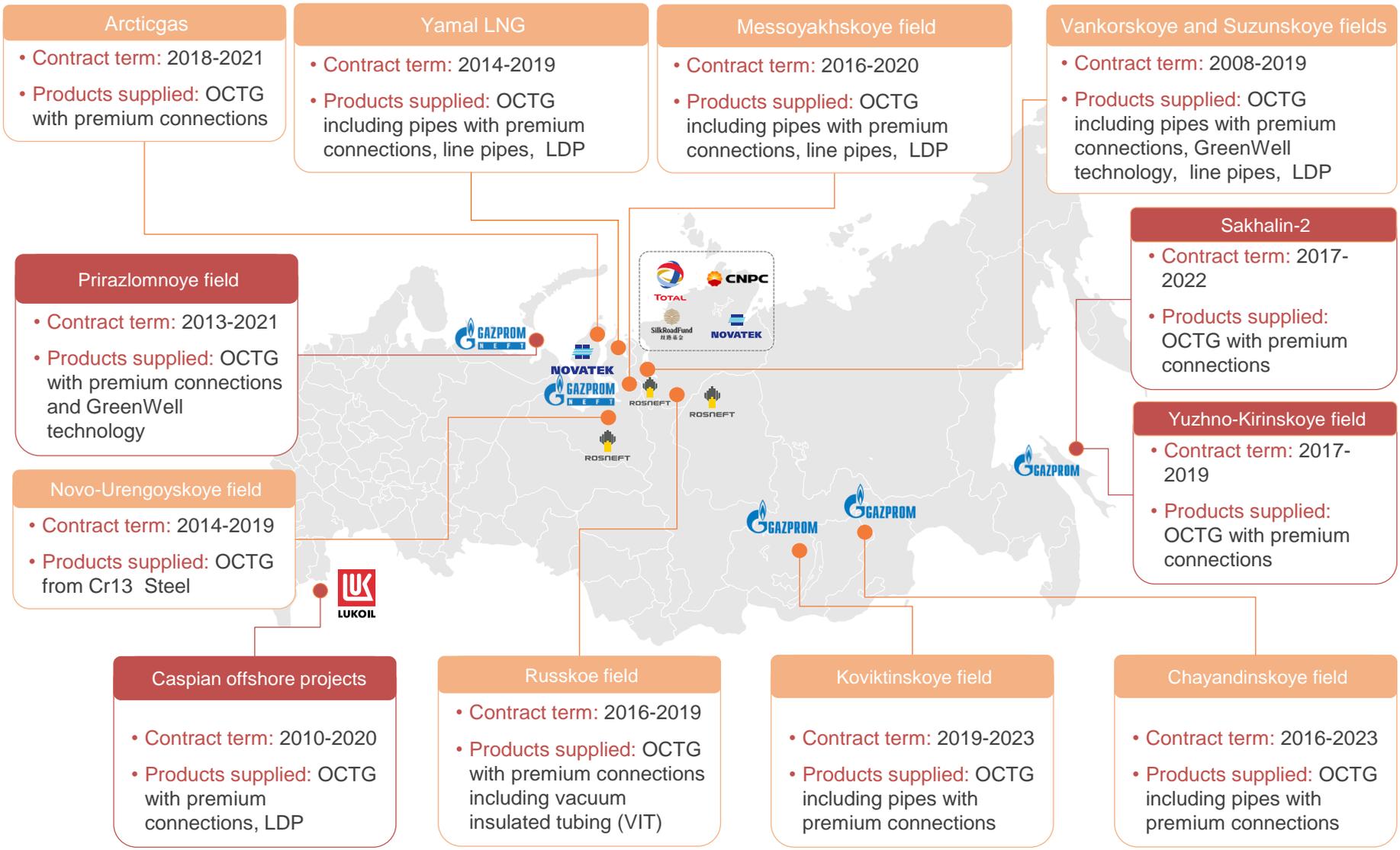
Premium connections are proprietary value-added products used to connect OCTG pipes and are used in sour, deep well, off-shore, low temperature and other high-pressure applications

**Premium connections (TMK UP) 67%**





# Attractive Portfolio of Premium OCTG Projects





# Service Efficiency and Innovation

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- Long-term strategic partnerships with key customers
- Highly-qualified technical personnel for field maintenance and service support
- Personalised well engineering
- Wide network of maintenance and repair workshops close to the oil and gas fields
- Service list extension

# Our Customer Offering Enhanced by New Digital Technologies

## Be customer focused...

- Long term strategic customer partnerships
- Production of advanced technology tubular products according to customer specifications
- Experienced engineers to support customers
- Flexible production programme for key customers
- Tailored service for individual customers



## ...and develop service quality further

- New clients
- Additional distribution channel
- Cooperation 24/7
- Growth of sales volumes and revenue
- Increase customer loyalty
- Up-to-date business

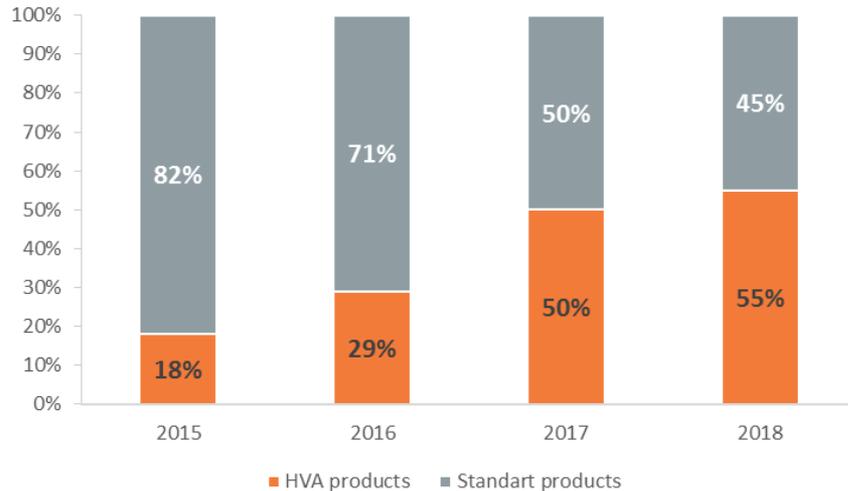


# Middle East Market Update – Considerable Room for Growth



# TMK Middle East Division (TMK ME)

## TMK Middle East sales structure 2015-2018



Source: TMK estimates



- TMK is an established supplier of OCTG in the MENA market with a market share of around 4%
- TMK ME strategy is to increase its sales volume and market share of HVA products in the MENA region and move to less competitive, higher margin products
- Today, the share of high-value products in TMK ME seamless sales mix has risen to 55%

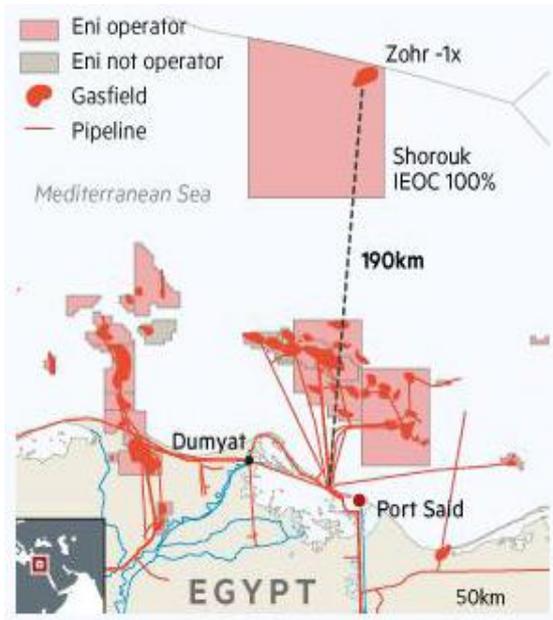




# TMK ME Major Projects Executed

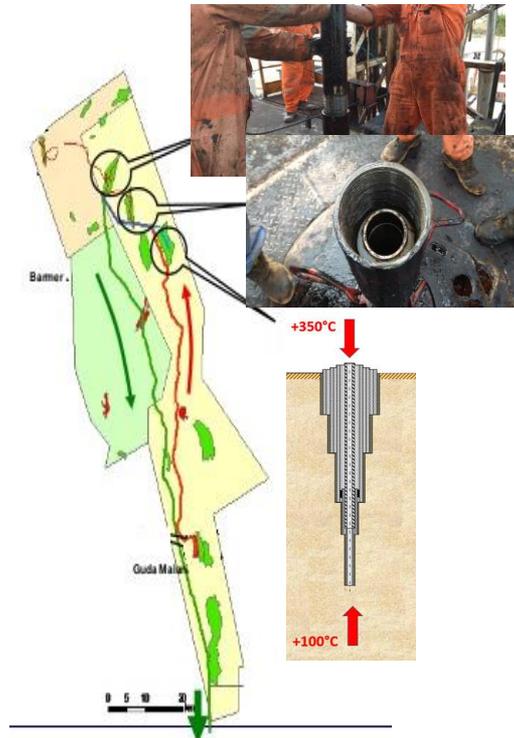
## Petrobel/ENI/ROSNEFT Deep Offshore linepipe

First Supply for ultra deep offshore Linepipe project (depth of 1,800 Mtr) in the MENA Region.



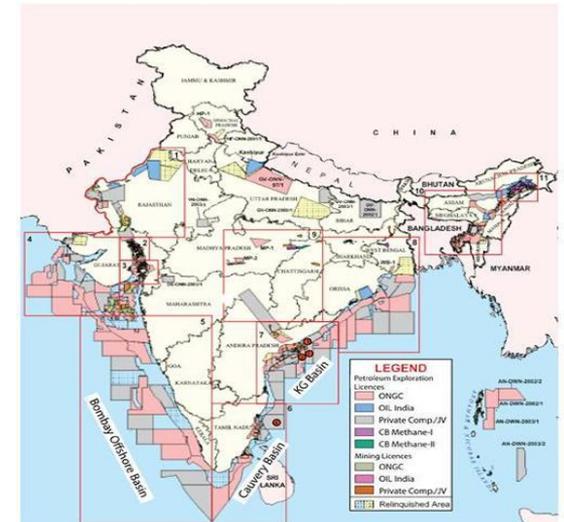
## Oil India Vacuum Insulated Tubing

TMK ME carried out the first pilot project supply of VIT tubes to Indian market through oil India.



## ONGC Supply of Offshore Linepipe

Since 2011 TMK has been registered and qualified in ONGC as an approved supplier for offshore linepipe. TMK ME supplied more than 65 Kt of line pipe for offshore application through EPC's companies.



# **U.S. Market Update**

**Sergey Alekseev**

**Director for Marketing**





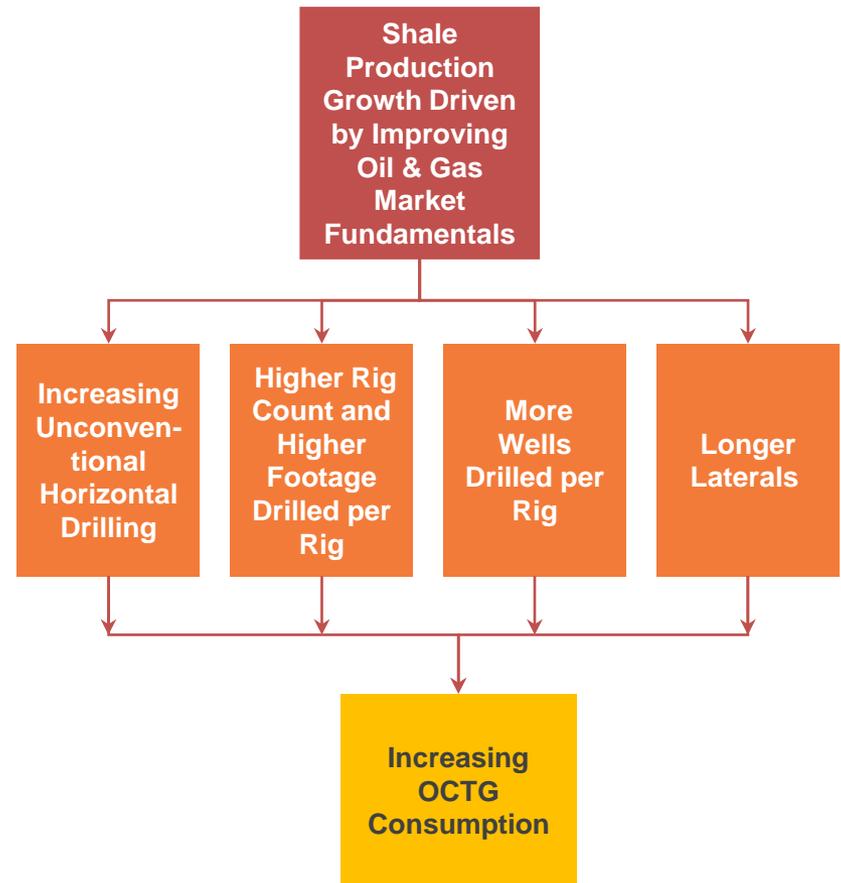
# U.S. OCTG Market Overview



# Strong Fundamentals Driving OCTG Consumption

- Shale oil production is growing, supported by the O&G market recovery, which is reflected in higher unconventional exploration activity
- New levels of shale oil production achieved through:
  - Increased unconventional horizontal drilling
  - Higher rig count and higher footage drilled per rig
  - More wells drilled per rig
  - Longer laterals
- As a result, OCTG consumption is increasing, driven by growing needs across the energy value chain

## Strong fundamentals support OCTG demand

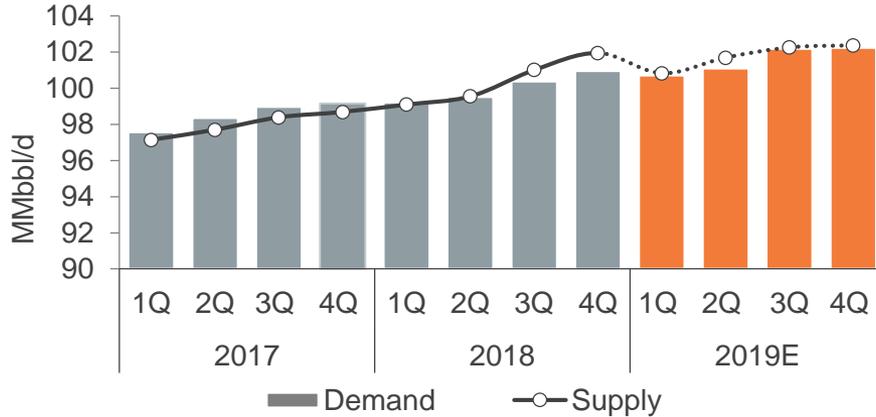




# Oil & Gas Market Fundamentals

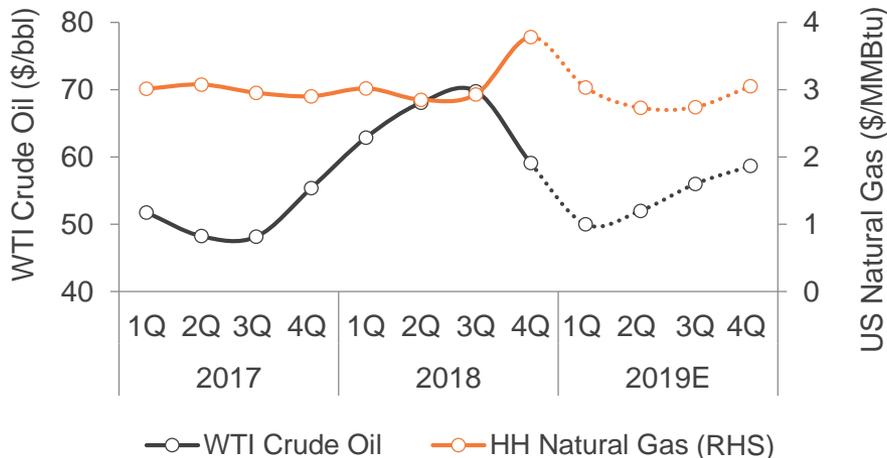
## A balanced market and positive fundamentals...

International petroleum and other liquids production



Source: EIA

## ...improved sentiment and price in 2019



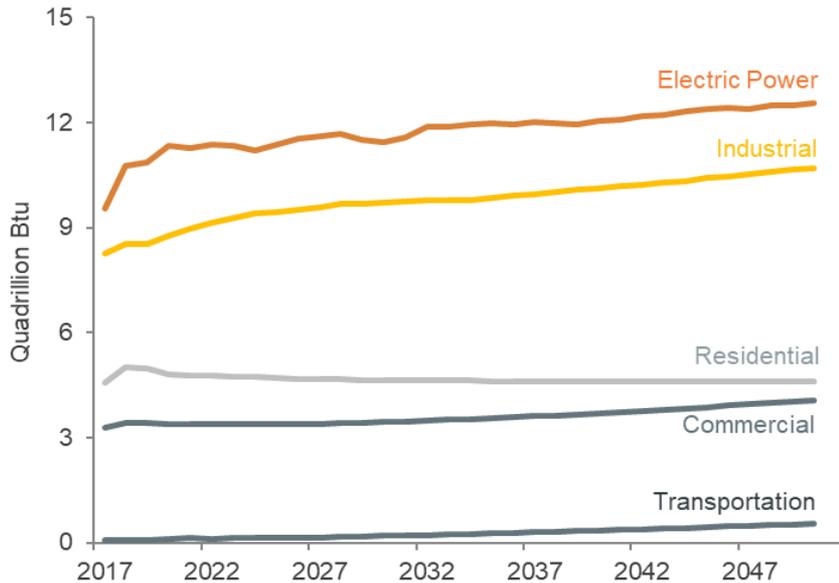
Source: EIA

- Supply cuts from OPEC+ and Canada have brought the market into balance and stabilised prices
- Capex spending in oil and gas continues to focus on US shale drilling rather than long-term and more expensive projects
- Pipeline bottlenecks in the Permian and Eagle ford shales have led to a build-up in uncompleted wells but have not restrained supplies as much as previously expected
- Growth in natural gas exports coupled with an increasing supply of associated gas maintain a balanced and stable pricing picture for natural gas



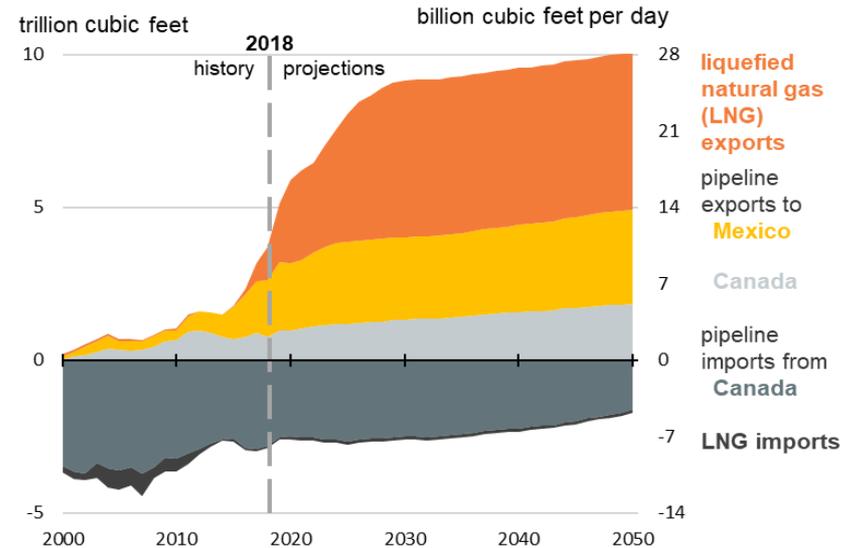
# Oil & Gas Market Fundamentals

## U.S. natural gas consumption by sector, 2014 – 2040E



Source: EIA

## LNG Exports and pipeline exports to Mexico will continue to drive demand



Source: EIA

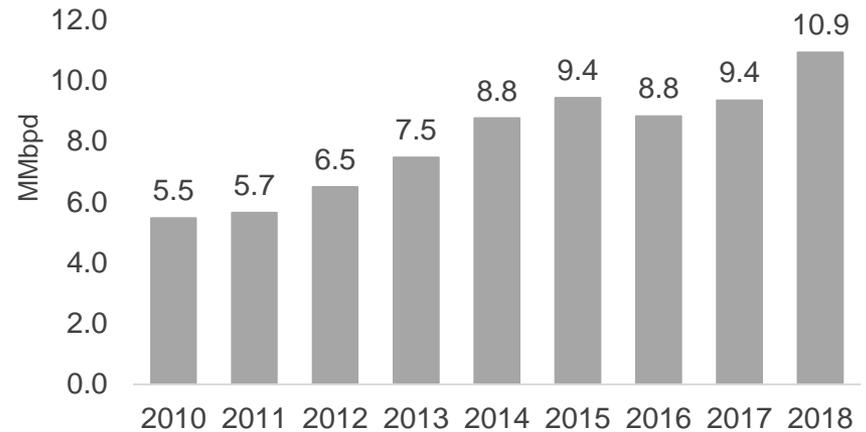
- Industrial and electric power sectors will drive demand for natural gas over the next 20 years
- In early 2000, 16% of electricity was generated by natural gas and 52% by coal, while in 2018 34% of electricity was generated by natural gas and 28% by coal
- EIA estimates that dry natural gas production was on average 89.6 Bcf/d in 2018, up by 9.6 Bcf/d from 2017, establishing a new record high
- 20.5 Bcf/d of US LNG export capacity has been approved, with 3.8 bcf/d operational and 8.1 Bcf/d under construction



# U.S. Shale Production

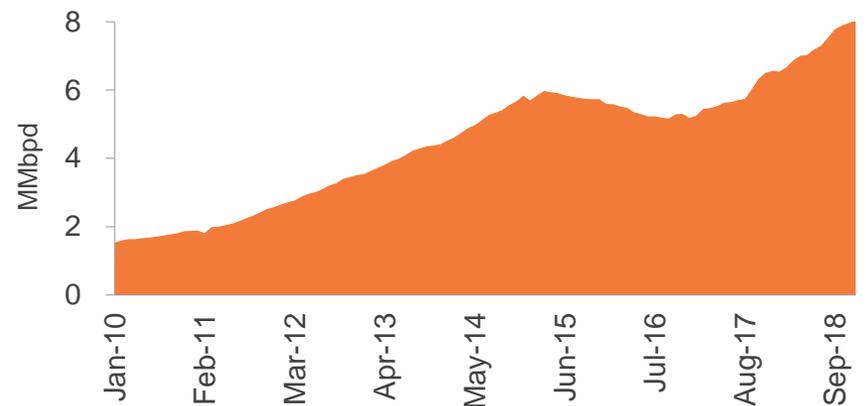
- US crude oil production has rebounded sharply since bottoming out in mid-2016
- According to EIA forecasts, U.S. crude oil production is set to reach 12.4 MMbpd and 13.2 MMbpd in 2019E and 2020E respectively vs. 10.9 MMbpd in 2017, driven by growth in shale oil production
- New pipeline takeaway capacity coming online in 2019-20 should alleviate current constraints. However, production growth has continued in spite of pipeline constraints

## U.S. crude oil production



Source: EIA

## U.S. shale oil production<sup>(1)</sup> is growing



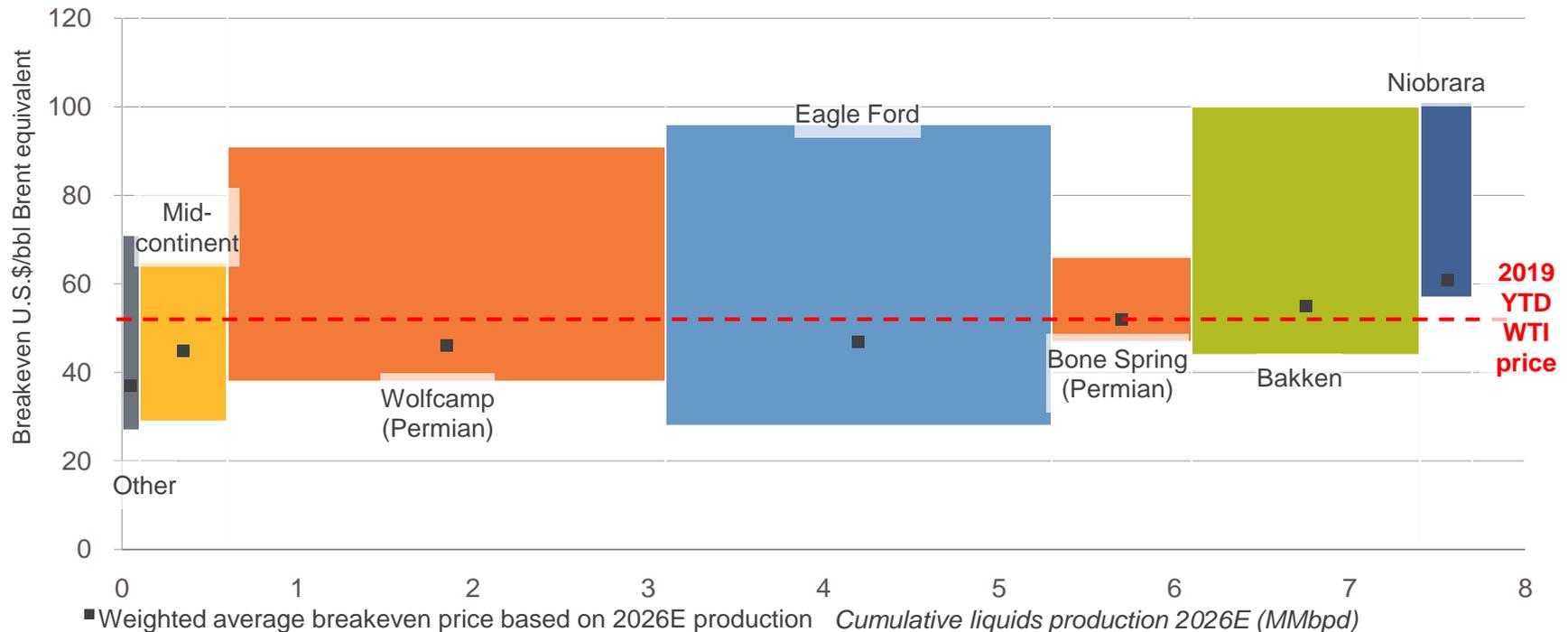
Source: EIA

Notes: (1) Includes total oil production from Anadarko, Appalachia, Bakken, Eagle Ford, Haynesville, Marcellus, Niobrara, Permian & Utica



# Sustainable at Current Oil Price Levels

## Continental U.S. tight oil cost curve 2026E



Source: Wood Mackenzie

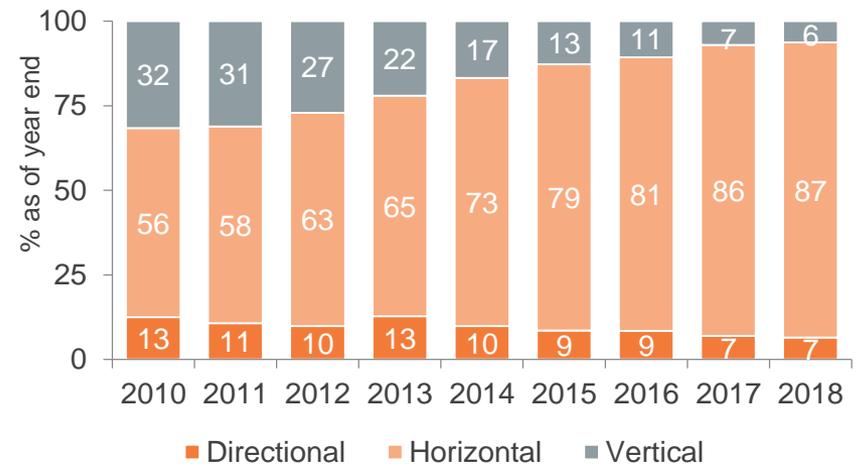
- During the past 2 years, U.S. shale players have managed to decrease production costs
  - Drilling technology has evolved, driven by efficiency requirements
  - Key changes included higher intensity of drilling, longer laterals, significantly higher usage of proppants and equipment and well string standardisation
- Despite wide variation between plays, many U.S. shale producers are profitable with oil prices in the U.S.\$50-60/bbl range over the long term
  - A number of shale plays, incl. Permian and Eagle Ford basins as well as the Mid-continent region of the U.S., are profitable at around U.S.\$45-50/bbl



# Increasing Unconventional Horizontal Drilling

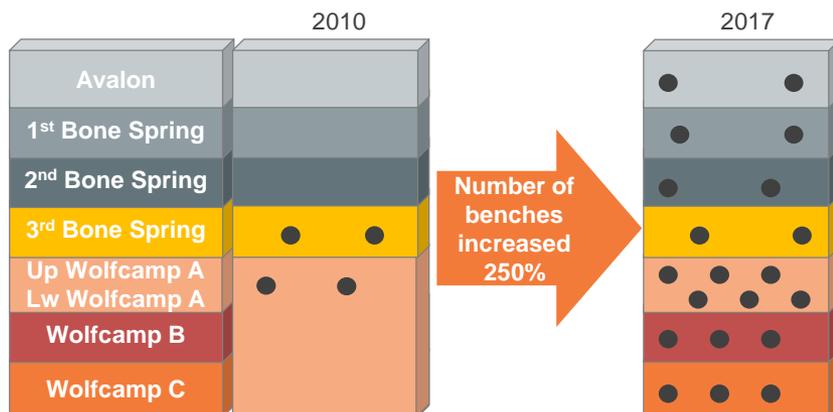
- Horizontal and directional drilling represented 94% of all US drilling activity in 2018
- According to Spears & Associates estimates, 2018 U.S. drilling and completion spending was 20% above 2017
- Growing number of available productive benches means that for any drilled well there is the potential for additional drilling activity further down the line

## U.S. active rig count by type of drilling



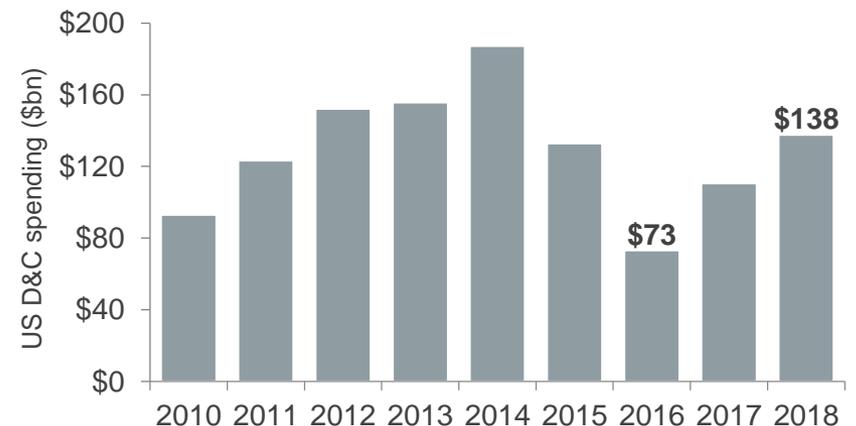
Source: Baker Hughes

## Potential for additional drilling activity: Permian basin (Delaware sub-basin) example



Source: Spears & Associates, Drilling Production Report as of September 2018

## U.S. drilling and completion spending



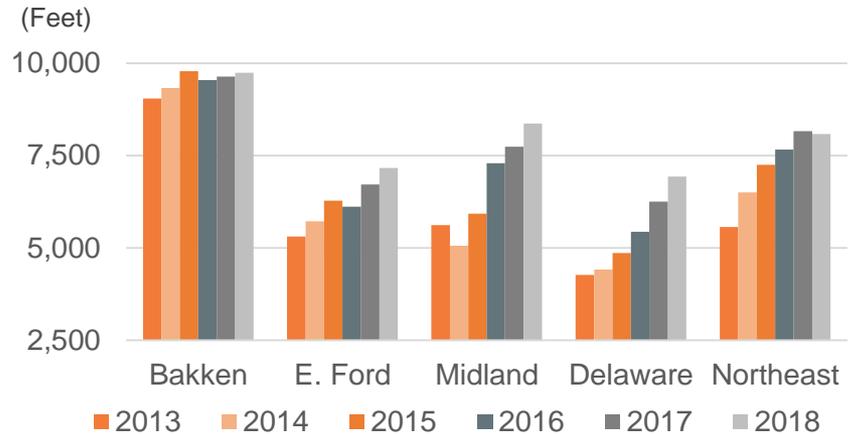
Source: Spears & Associates



# Coupled with More Wells Drilled per Rig and Longer Laterals

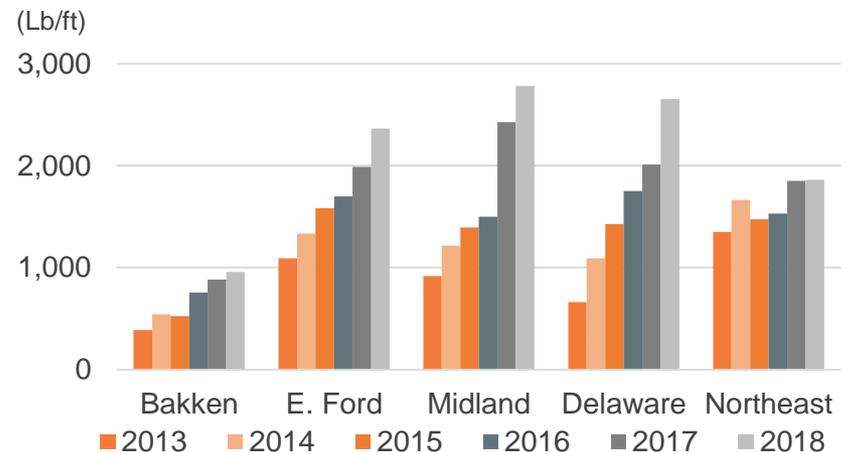
- The recovery in spending and rig count since 2016 is more significant when accounting for efficiency and productivity gains achieved by producers over the same period
- Drilling times have fallen sharply in most regions, resulting in fewer rigs needed to perform the same work
- As producers continue to innovate, well lengths have increased, frac stages have risen and proppant usage has increased
- However, given parent-child well interference, operations are returning to greater well spacing
- Increased lateral lengths and greater drilling complexity are driving greater spending on technologically advanced drilling consumables, such as OCTG with premium and semi-premium connections

## Average U.S. lateral length



Source: BTU Analytics

## Average Proppant per foot



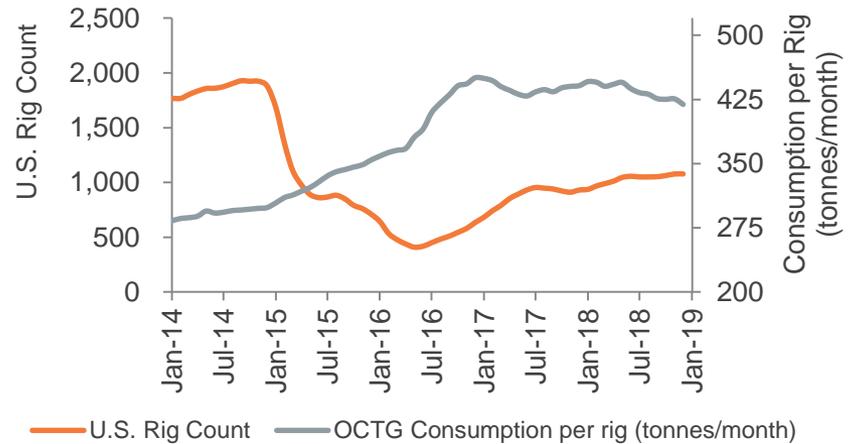
Source: BTU Analytics



# Resulting in OCTG Consumption Growth

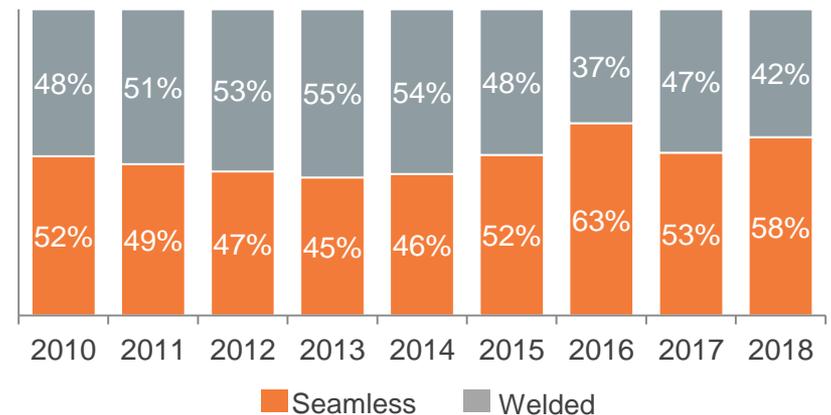
- OCTG consumption per rig has doubled since January 2013, allowing for a significant recovery in the sector despite having fewer rigs in operation
- According to Preston Pipe, seamless pipe represented approximately 58% of total U.S. OCTG shipments during 2018
- U.S. consumption of OCTG reached 5.9 million net tons (5.4 million metric tonnes) in 2018, +0.9 million net tons over 2017

## OCTG consumption per rig



Source: Preston Pipe and Tube Report

## OCTG shipments mix



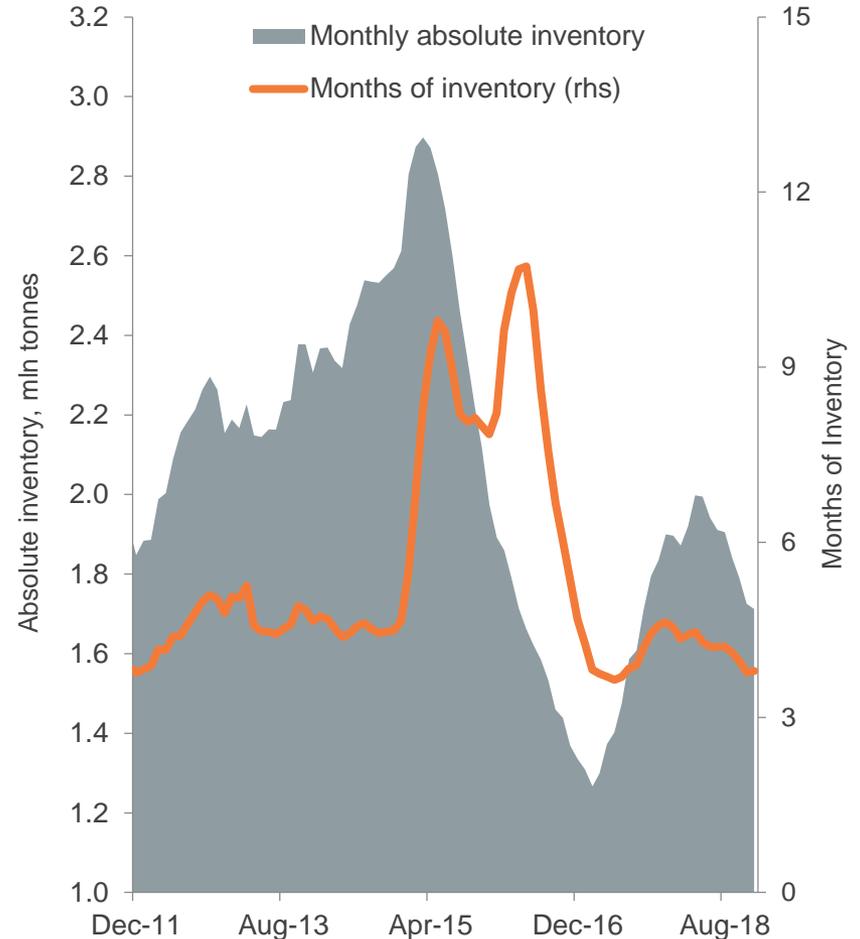
Source: Preston Pipe and Tube Report



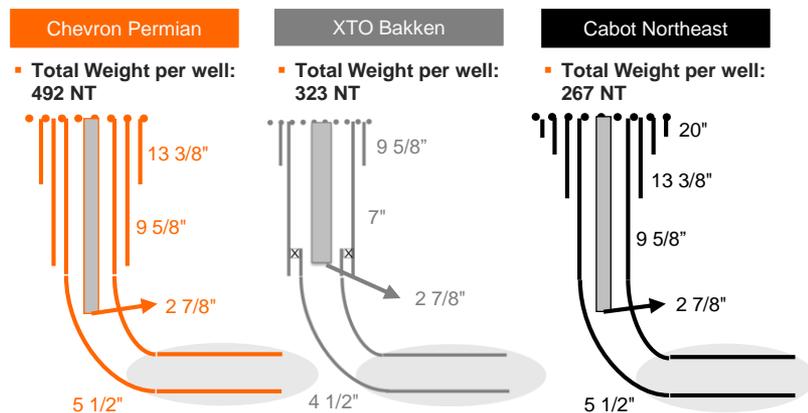
# Inventory Normalisation, Higher Efficiency

- After a period of rebuilding, US OCTG inventories have decreased as consumption outpaced shipments during 2018
- The monthly absolute inventory is meaningfully below pre-crisis levels due to higher industry efficiency:
  - String design has standardised and activity has further concentrated allowing for lower inventories
  - E&P investment has spilled over into the management of inventory: the amount of pipe on the ground that was typically required to maintain a certain rig level has decreased from previous cycles

## Increased shipment levels bring months-of-inventory back to pre-downturn levels



## Standardised diameters of OCTG piping



Source: Company data

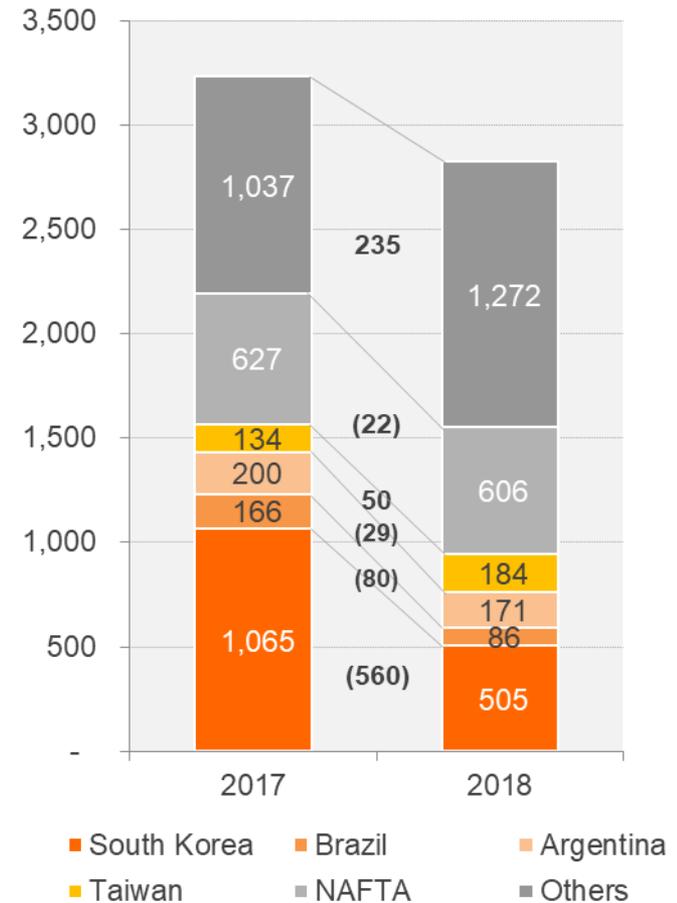
Source: Preston Pipe & Tube Report



# Section 232 Outcome is Expected to Reduce OCTG Imports Into the U.S.

- Imports accounted for 46% of total OCTG volumes in 2018, down 11pp from 2017
- 2018 imports of all pipes and tubes are estimated to be 13% lower than 2017
- The largest source of imported OCTG, South Korea, agreed to an absolute annual quota of 70% of average annual imports from 2015-2017
- Similar agreements were signed with Brazil and Argentina
- Quotas have been allocated quarterly in 2019, compared to 2018 where they were allocated as annual allowances
- All other countries pay a 25% tariff

### U.S. Imports - OCTG

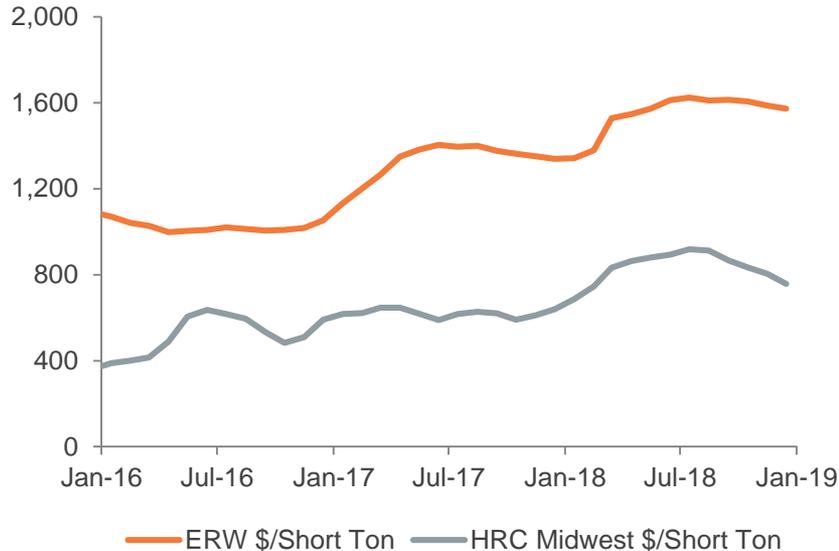




# Stabilisation of OCTG Prices in 2H 2018

## U.S. distributor welded OCTG vs. HRC prices

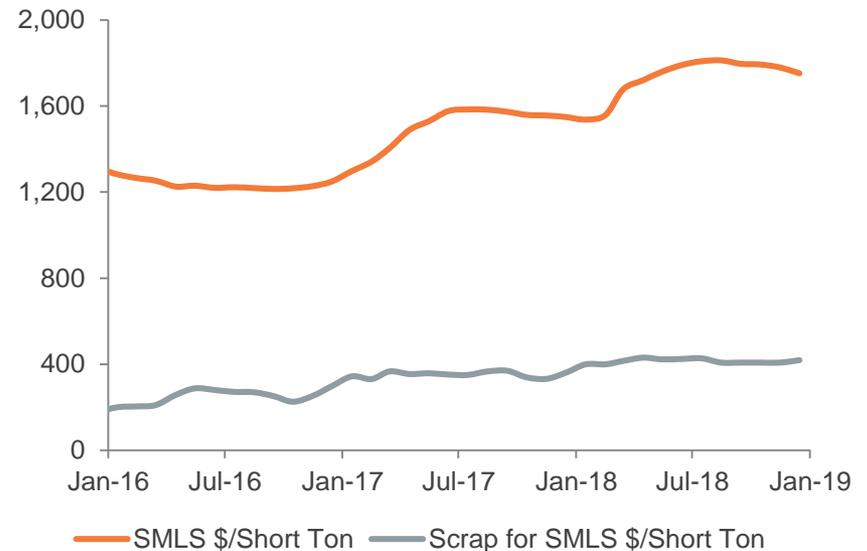
(U.S.\$/ton, monthly average)



Source: Pipe Logix, AMM

## U.S. distributor seamless OCTG vs. scrap prices

(U.S.\$/ton, monthly average)



Source: Pipe Logix, AMM

- Prices have rallied from the low in April 2016. Since the trough, welded OCTG prices have increased by 55% and seamless OCTG prices by almost 41%
- Prices are currently only slightly below their 3Q 2018 peak, down 4.37% from July to February
- Following the implementation of Section 232, HRC prices grew by almost 300US\$/Tn until August, when they started a downward trend that continued into early 2019 and reached a low in February



# American Division Performance Update



# Consolidating Market Leadership with Technological Innovation and Lean Manufacturing

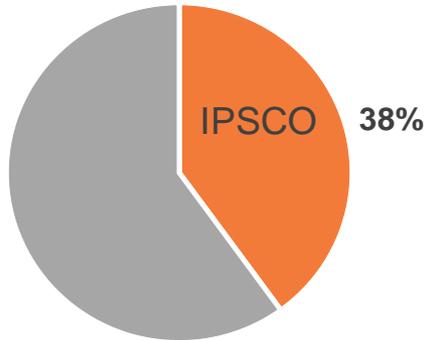
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- Enlarged suite of proprietary connections to 29, successfully launched 3 new premium connections in 2018 in our TORQ series. High torque connections are used in challenging environments including extended-reach laterals, high pressure, and high temperature. They are sold at a premium and develop customer loyalty
- Reached nameplate capacity of 450,000 tons in seamless mill, beating previous record of 416,000 tons in 2017
- Began operations in Wilder coating plant with an annual capacity of 280,000 tons per year – pipe size 2 3/8” through 24” in lengths 24’ through 65’ with Coating - FBE (Fusion Bonded Epoxy) and ARO (Abrasion Resistance Overcoating)
- Capitalizing on demand post-Section 232 after successful restart and ramp up of welding facilities in 2017 with minimalist structure
- Effective operations management: lean manufacturing techniques, aggressive performance targets, and decreased number of customer claims (86% reduction in number of customer claims 2018 compared to 2014)

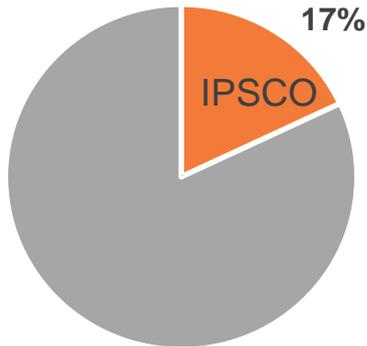


# Connections are Key to Consolidating Position

## Market share of U.S. onshore premium integral connections market



## Market share of U.S. onshore premium connections



DQX TORQ™



SF TORQ™



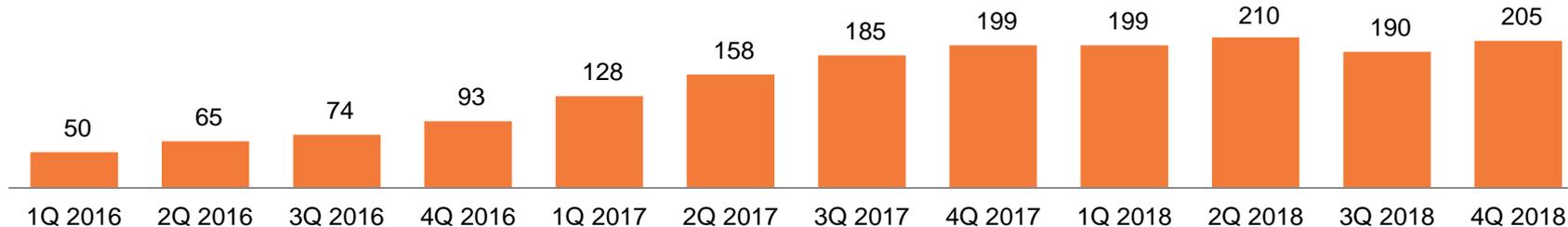
QX TORQ™

- State of the art R&D Center in Houston enables rapid reaction to demand from E&P operators for increasingly complex designs
- Demand for the TORQ series has surpassed expectations. Each of the 3 connections in the TORQ series gained acceptance and was purchased by operators within months of release (surpassing usual hurdles when introducing new connections)
- The TORQ series has allowed operators to rotate while cementing. This operation requires immense torque capacity but provides a significantly improved displacement of cement, resulting in a better cement job. It has also reduced their cost by utilising thinner weights of casing while still maintaining torque capacity



# Financial Performance

## Sales volume (thousand tonnes)



## Adjusted EBITDA (U.S.\$ mln)



## Adjusted EBITDA margin



Source: Company data



## Conclusion

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- Well positioned to take advantage of changing market
- OCTG demand is growing, driven by increasing shale production and a hike in horizontal and unconventional drilling activity
- Oil and gas demand/export are growing, whereas prices have stabilised since the beginning of the year, with E&Ps adjusted to price
- Maintaining gains in cost control, yield, and operational efficiencies
- Regional marketing efforts continue to bring both new customers and volumes
- Standardisation of onshore well design leads to efficiencies, from production to working capital

# European Division:

Leading Integrated European Supplier of Customised-flexible-efficient Solutions for a Multitude of Industrial Applications

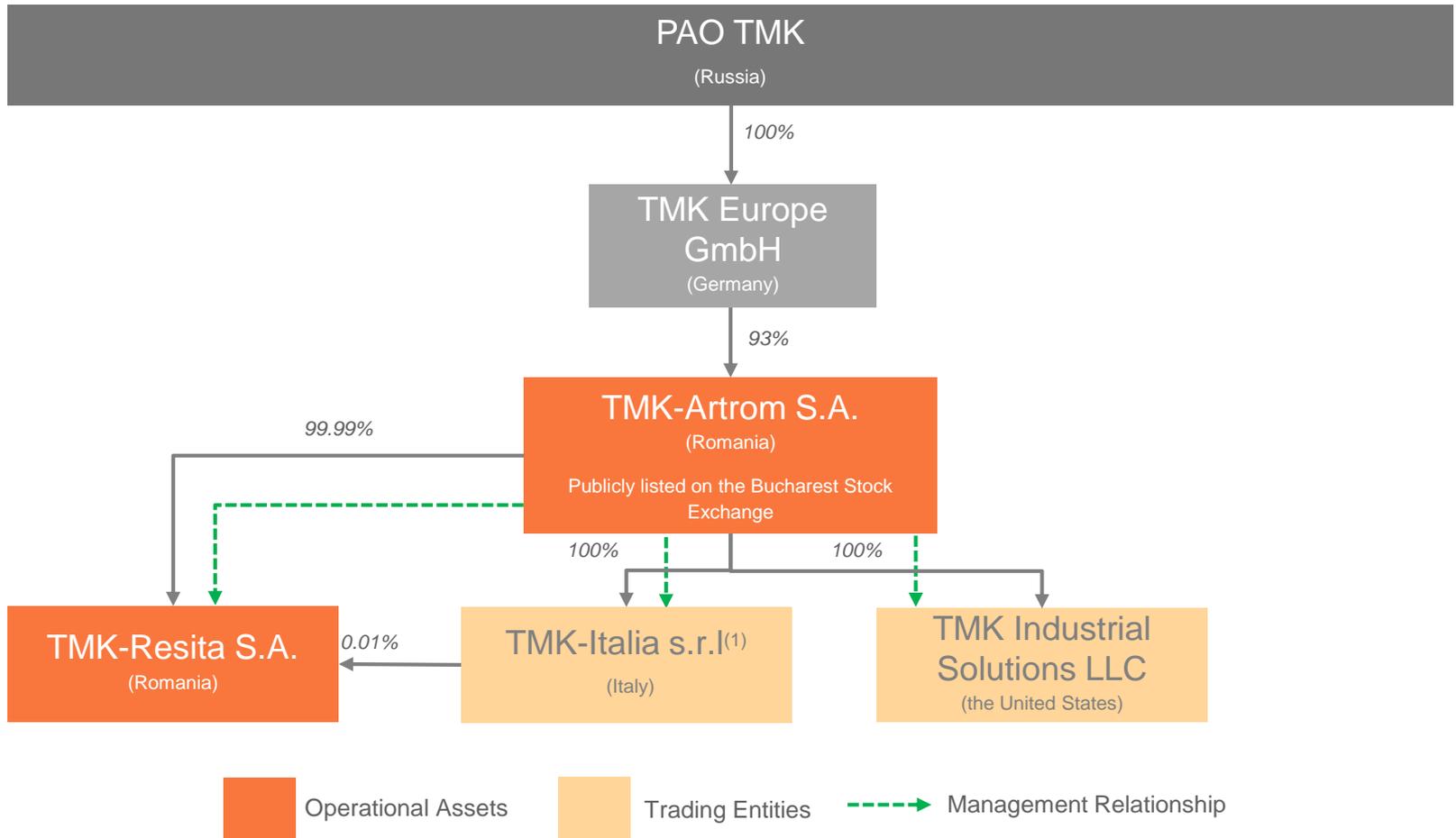
Adrian Popescu

Head of European Division





# Corporate Governance - TMK European Division Structure



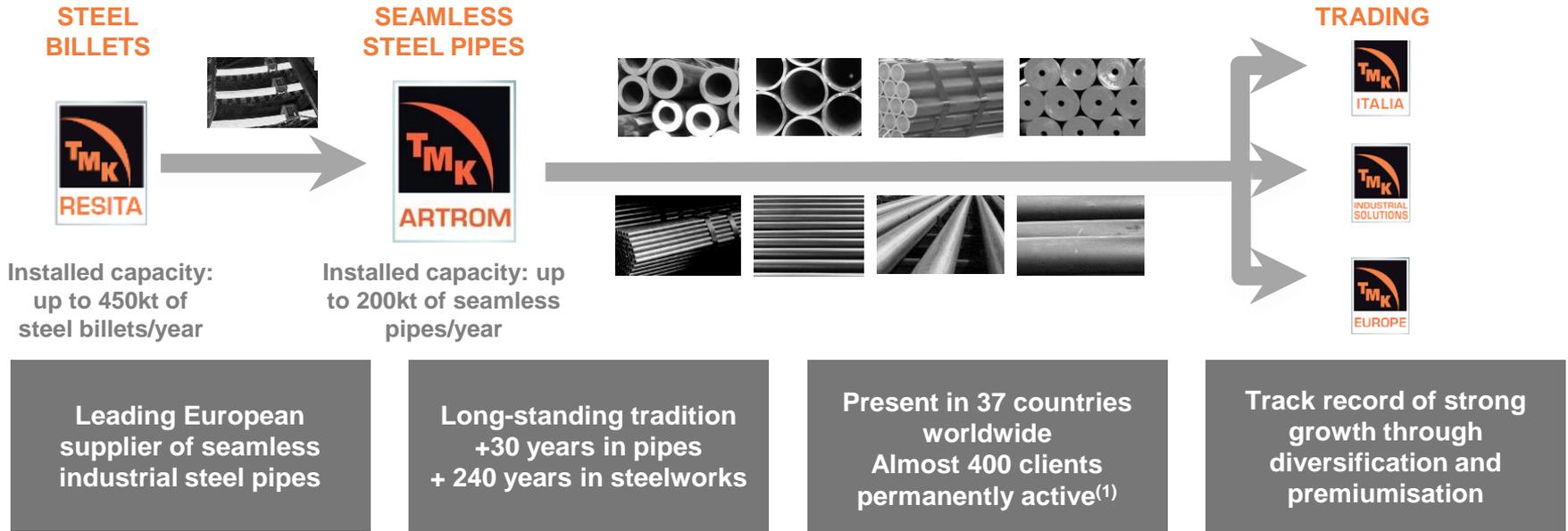
Source: Company information

(1) Acquisition finalised on 5 February 2019



# TMK-ARTROM Leading European Supplier of Seamless Industrial Pipes

## FULL VERTICAL INTEGRATION



## KEY INVESTMENT STRENGTHS

- 1 Well established European steel & seamless pipes platform
- 2 Distinctive product and client portfolio
- 3 Global reach and constantly expanding customer base
- 4 Carefully targeted growth opportunities
- 5 Highly experienced management team
- 6 Strong financial performance

Source: Management accounts

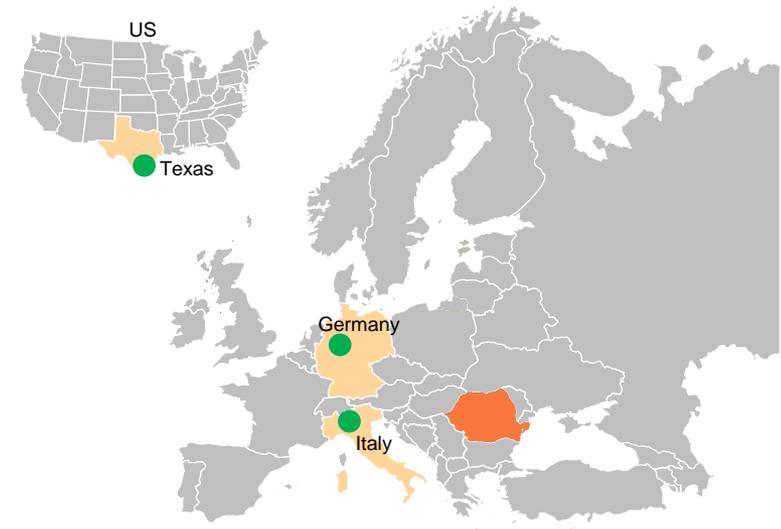
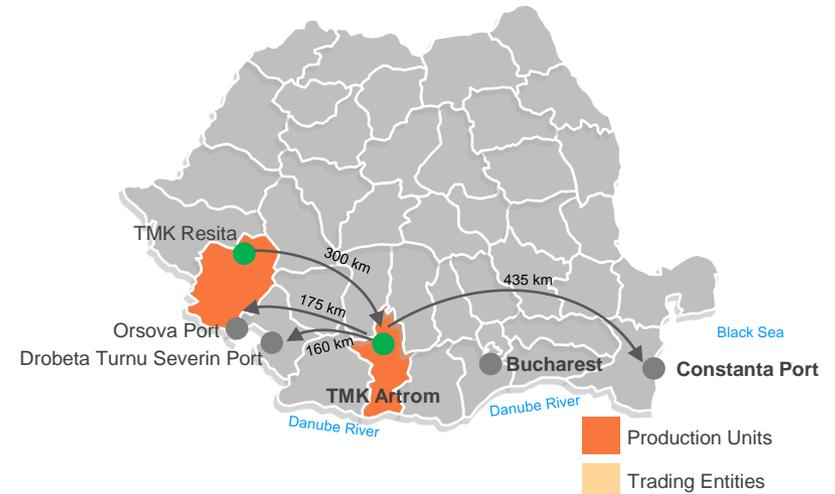
(1) Active client refers to a customer with an active relationship with TMK-Artrom: open order, delivery, unpaid invoice, etc; 2018 data



# Well Established European Steel Platform With a Strong and Resilient Business Model

- **VERTICALLY INTEGRATED** → Steel and seamless steel pipes platform integrated upstream with a modern mini-mill and downstream with three trading entities well positioned to serve clients in two of the largest markets worldwide, Europe (including North Africa) and the Americas
- **WELL LOCATED** → Fair geographical location and efficient plant-to-plant and plant-to-port interconnections in Romania complemented by trade defense measures for EU producers
- **MODERN** → Nearly RON 700m (more than US\$ 200mln<sup>(1)</sup>) modernisation and efficiency-enhancing investments commissioned over the last 14 years, enabling delivery of high quality, high precision, premium products, in the top tier of the pipe industry globally
- **COST-COMPETITIVE** → A mix of advantages making TMK- Artrom S.A. a cost-competitive production platform
  - availability of scrap metal in the proximity of production facilities, a key raw material in production, and
  - lower than EU average salaries costs
- **DIFFERENT** → Focused on midmarket clients, with the whole operation designed to be highly flexible in order to address this client type: volumes per charge of steel of 100 tons and orders as small as 5 tons with just-in-time delivery, plus tailor-made products and prompt post-sale services, including site visits
- **GLOBAL** → Part of the TMK group, one of the largest steel pipe producers in the world, thus benefiting from global exposure and extensive know-how

(1) the exchange rate used was 1 US \$ = 3.3 RON, the NBR average for the last 14 years

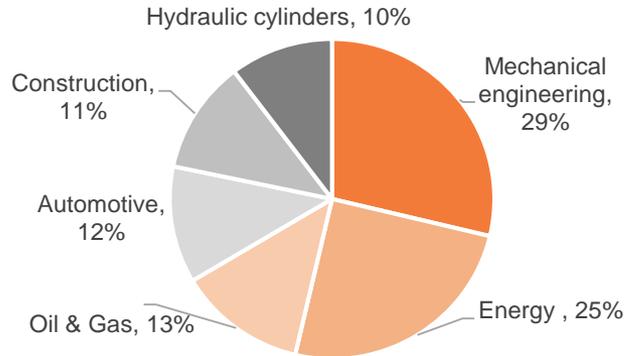




# Distinctive Product and Client Portfolio Decoupling the Company from the Global Steel Market

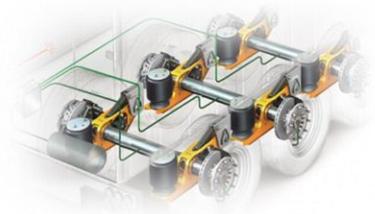
**Strongly positioned in multiple end-markets for pipes, beyond oil & gas...**

In volume terms, 2018

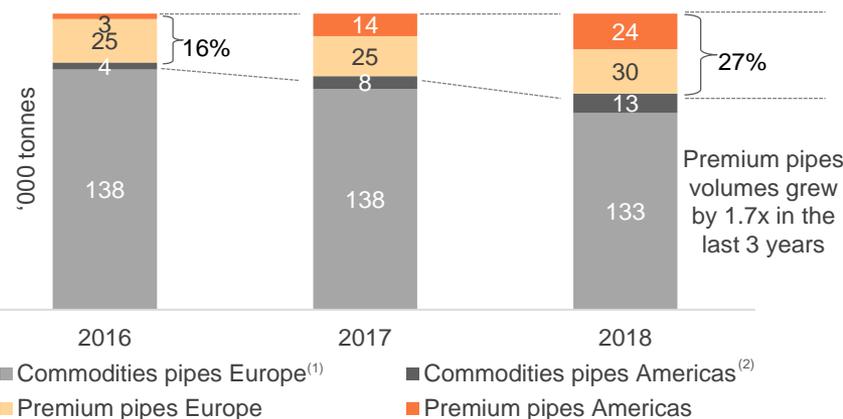


**...quality oriented and certified for the automotive industry, differentiating the Company from most of its peers**

- Up to 12% in the sales mix in 2018
- Able to satisfy one of the most demanding industries in terms of product quality
- Projects co-developed with and pipes supplied to major car manufacturers including some of the most prestigious luxury brands



**Increasing focus on product premiumisation by expanding heat treatment, cold processing and machining...**



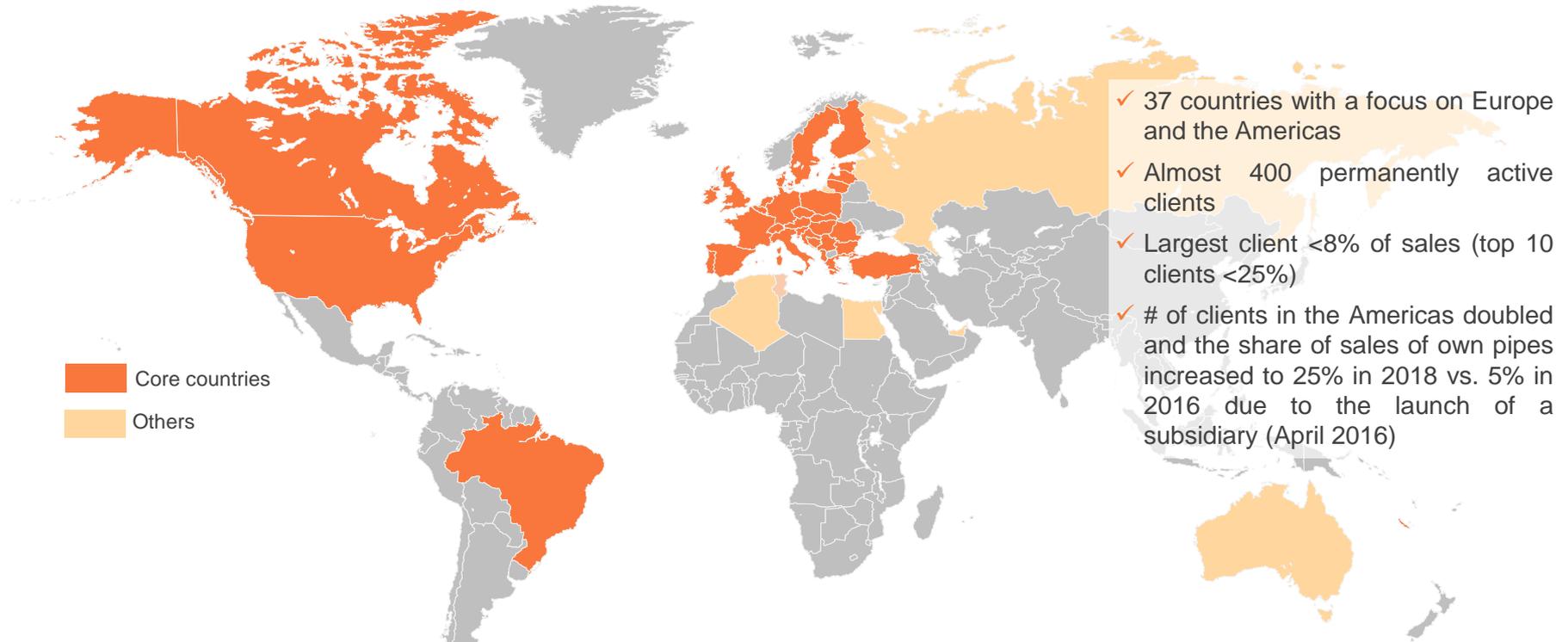
**...and by providing niche and tailor-made customer solutions to a market with growing sophistication**

- Limited editions under tight deadlines: ability to supply small orders (ca. 1/100 compared to industrial commodity pipes) to car manufacturers under tight just-in-time delivery terms (even down to a minimum of 10 days)
- Rare products for the European market: customised heat treated tubes, including quenched and tempered long tubes with wall thickness up to 60mm
- Very high precision products for highly specialised uses: produced in microns tolerances, a dozen times higher level than industrial commodity pipes; these tubes are ready for use without other machining in hydraulic cylinders and accumulator manufacturing

Source: Company information, Management accounts  
 (1) Europe also includes Middle East, Turkey and North Africa  
 (2) Americas also includes Canada, Brazil, US, Mexico

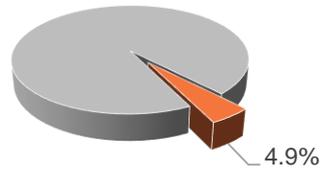


# Global Reach and Constantly Expanding Customer Base with Nearly 400 Permanently Active Clients on all Five Continents

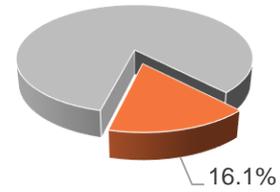


- ✓ 37 countries with a focus on Europe and the Americas
- ✓ Almost 400 permanently active clients
- ✓ Largest client <8% of sales (top 10 clients <25%)
- ✓ # of clients in the Americas doubled and the share of sales of own pipes increased to 25% in 2018 vs. 5% in 2016 due to the launch of a subsidiary (April 2016)

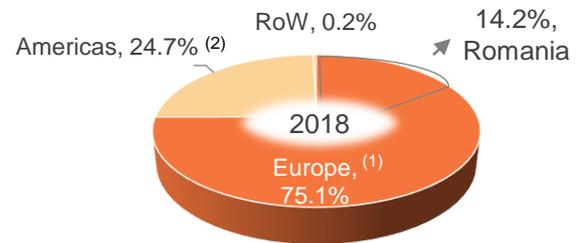
**Seamless Industrial Steel Pipes North America (US & Canada)**  
TMK-Artrom S.A. Market Share 2018



**Seamless Industrial Steel Pipe - EEA**  
TMK-Artrom S.A. Market Share 2018



**Own Seamless Pipes Sales per Geography (value)**



Sources: Company information; Lucintel Independent Market Research Report, February 2019; Company Audited IFRS consolidated financial statements 2016-2018; unless otherwise stated all figures refer to 2018

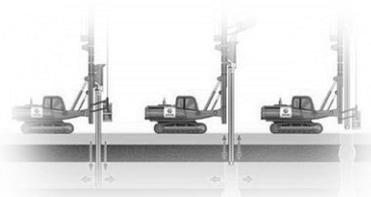
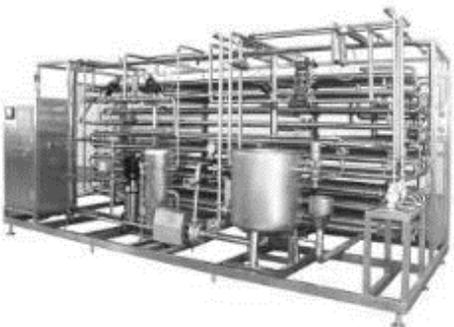
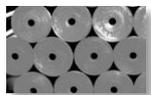
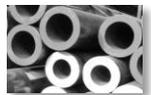
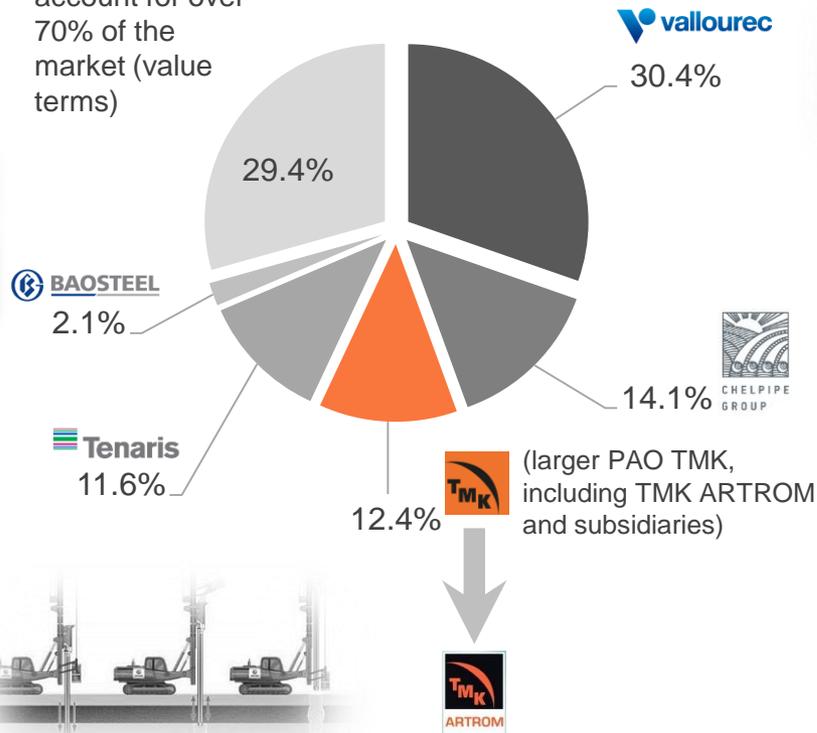
(1) Europe includes also Middle East, Turkey and North Africa  
 (2) Americas includes also Canada, Brazil, US, Mexico



# Seamless Industrial Steel Pipe Market -Top Players

## Market share and concentration, 2018

Top 5 players account for over 70% of the market (value terms)



Sources: Lucintel – “Growth Opportunities in the Global Industrial Seamless Steel Pipe Market 2019 – 2024”, February 2019; Company’s Audited Consolidated IFRS Financial statements 2018



# Latest Investments in Premium Added Value Products

## Heat Treatment Plant in TMK-ARTROM – 16th of February 2018

- Efficiency investment, with short discounted payback period = 4.7 year and internal rate of return = 60%
- Sustainable technology with low environmental impact, low gas consumption, and significantly reduced CO, CO<sub>2</sub> emissions compared to alternative technologies and very low level of NO<sub>x</sub> pollutants with better values than actual BAT<sup>(1)</sup> limits
- TMK-ARTROM Premium Heat Treatment capacity increased from 15 kt/y to over 80 kt/y and the whole heat treatment capacity goes to over 160 kt/y

## Hydraulic Cylinders Tubes – 2015

- The unit 5 – ACH<sup>(2)</sup> produces tubes with the final inside dimensions and H8 roughness required for Hydraulic Cylinders manufacturing, using HPZ<sup>(3)</sup> cold tubes produced in Unit 3 – COLD
- This supplementary processing brings market advantages and added value

## Outside Precision Grinded Pipes

- The tubes are cold drawn with OD<sup>(4)</sup> machined by a centerless grinding machine, for final piston rod size plus an agreed small over metal suitable for last grinding operation before chroming

## DACIA-RENAULT GROUP project

- A project for automotive industry has been developed for the main client DACIA-RENAULT Group, a high productivity and high precision length cutting machine, a multi axis CNC<sup>(5)</sup> machine and other equipment for automatic measurements and verification

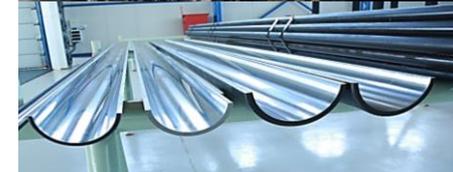
(1) BAT – best available techniques

(2) ACH – automotive, cylinders hydraulic

(3) HPZ – precision pipe for hydraulic cylinders

(4) OD – outside diameter

(5) CNC – computer numerical control





# Future Key Development Opportunities and Strategy

## OPTIMISATION & EXPANSION

Optimise vertical integration Synergy between TMK-ARTROM and TMK-RESITA the SUCCES KEY	Potential to produce a more profitable mix of products at TMK-ARTROM SA Growth in the premium segment	Potential to utilise more capacity at TMK-RESITA	Improve position in our core markets
-------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------	--------------------------------------------------	--------------------------------------

Key strategic item	Short description
Development CAPEX	<ul style="list-style-type: none"> <li>2019 - 2028 – ca. EUR 90 million to be invested in both TMK-ARTROM and TMK-RESITA until 2028</li> </ul> <p><b>TMK-ARTROM</b></p> <ul style="list-style-type: none"> <li>2019 - 2024 – increasing production capacity from 200kt to 320kt in 2024 to benefit from the TMK-RESITA billets capacity – <b>US\$ 48mIn</b> investment to be commissioned in 2024</li> <li>2019 – 2020 - increasing premium products capacity from 82kt to 118kt in 2020 to fully use the capacity of the HTP plant – <b>US\$ 5mIn</b> investment to be commissioned in 2020</li> <li>2019 – 2028 – investments to increase efficiency, safety in operations and other aspects – <b>US\$ 21mIn</b></li> </ul> <p><b>TMK-RESITA</b></p> <ul style="list-style-type: none"> <li>2019 – 2020 – investments to increase quality of billets provided, to support the production of premium products in TMK-ARTROM – <b>US\$ 5mIn</b> to be commissioned in 2020</li> <li>2019 – 2028 – investments to increase efficiency, safety in operations and other aspects – <b>US\$ 5mIn</b></li> </ul>
Maintenance	<ul style="list-style-type: none"> <li>EUR 4-5m/year in line with historical average maintenance CAPEX</li> </ul>
Capacity & usage	<ul style="list-style-type: none"> <li>Total pipe capacity to increase to 320kt in 2024, aiming for full utilisation of the production capacity within 2-3 years from commissioning</li> <li>Premium capacity to increase to 118kt in 2020, aiming for full utilisation until 2024</li> <li>Resita capacity utilisation rate to go up to 90%, when pipe capacity reaches full utilization</li> </ul>
Revenues	<ul style="list-style-type: none"> <li>Increasing in line with capacity deployment</li> <li>Focus on the increase of premium products to 40% of sales (in volume) by 2025</li> <li>Continue strong growth in our core markets, Europe and the Americas</li> <li>Focus on increasing sales to third parties in Resita</li> </ul>
Margins	<ul style="list-style-type: none"> <li>In line with shifting sales mix – increasing product premiumisation</li> </ul>

Initial amounts were estimated in EUR and the exchange rate used is 1 EUR equals US\$ 1.16



# Environmental, Quality & Corporate Social Responsibility

## Environmental compliance and more...

- TMK-ARTROM and its subsidiaries are compliant with national and European environmental legislation;
- The technology that TMK-ARTROM Group uses is much more environmentally friendly (based on recycled materials) than other technology in this industry. It is based on recycled materials rather than materials based on iron ore. TMK uses 100% recycled ferrous scrap metal, with a company recycling process producing lower emissions than standard processes. CO<sub>2</sub> emissions are below 100 kg/1 ton of billets vs. 1,800 kg or more /1 ton of billets in the case of iron ore technology
- Introduction of the European Union's regulations in 2018, TMK-ARTROM issued its first Non-Financial Consolidated Report for the year 2017 based on Global Reporting Initiative Standards (GRI), assessing and communicating the impact of its business on critical sustainability issues such as climate change, human rights, governance and social well being. In 2019, TMK-ARTROM issued its second GRI report consolidated with its all subsidiaries.

## Integrated Management Systems for the entire TMK European Division

- TMK's European Division has its own certified high performance Integrated Management System, focused specifically on the industrial pipe market and added value applications, implementing: Quality ISO 9001:2015, Environmental ISO 14001, Health & Safety ISO 45001:2018
- TMK-Artrom S.A. has numerous European and US certifications attesting the quality of their products and commercial licenses issued by international entities such as Lloyd's Register, TÜV, American Petroleum Institute - API, RINA or Det Norske Veritas
- TMK-Artrom S.A is certified according to the standard IATF 16949-2016 as a supplier for automotive industry



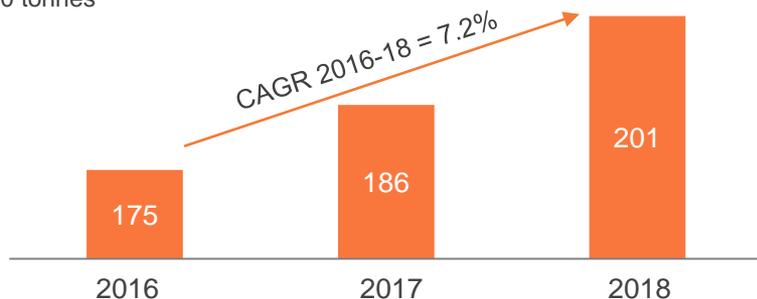
Source: Company information



# TMK European Division IFRS Financial Results

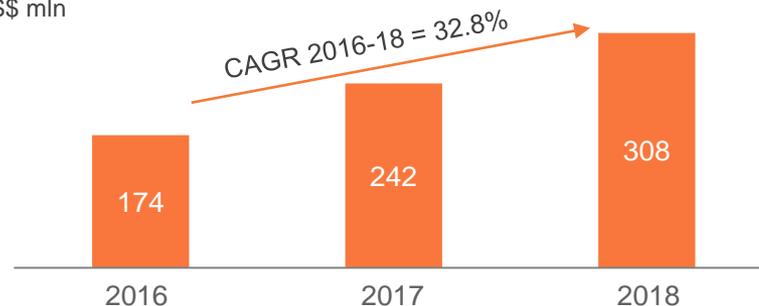
## Over 200 tonnes of seamless industrial steel pipes sold in 2018

'000 tonnes



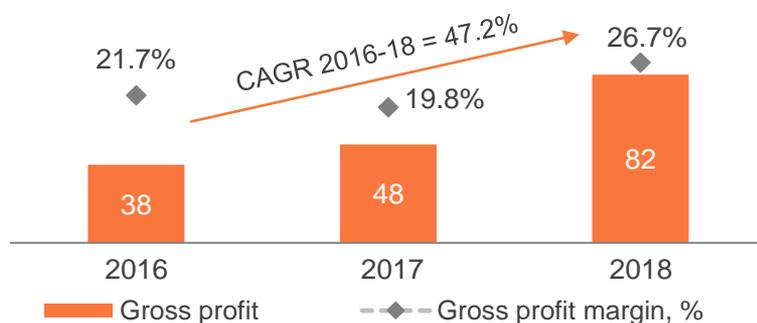
## Strong revenue growth...

US\$ mln



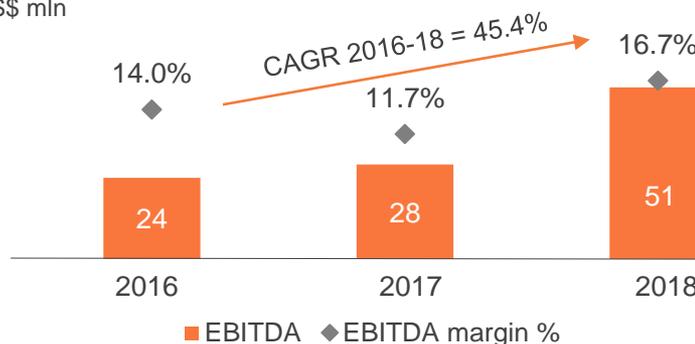
## ...backed by gross margin consolidation

US\$ mln



## ...and reflected in EBITDA increase

US\$ mln



### FY 2018 vs. FY 2017

- The strong year-on-year performance at the European division was driven by higher seamless pipe sales, a favourable pricing environment and a notable improvement in the product mix towards higher value-added products due to the launch of the new heat treatment facility at TMK-ARTROM in early 2018.

### FY 2017 vs. FY 2016

- A strong year-on-year performance at the European division was mainly a result of higher volumes and stronger pipe prices, which was partially offset by higher selling and administrative expenses.

Certain monetary amounts, percentages and other figures included in this press release are subject to rounding adjustments. Totals therefore do not always add up to exact arithmetic sums.

Source: PAO TMK IFRS consolidated financial statements, 2018, 2017



Q & A