2nd JANAF's International Oil Conference:
Challenges & Cooperation Strengthening As Growth Drives

JANAF'S DEVELOPMENT AIMED AT SECURITY OF OIL SUPPLY THROUGH STRENGTHENING COOPERATION WITH OIL COMPANIES

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CONFERENCE TARGET

- To convince our business partners that JANAF has potential to increase security of oil supply in Croatia and in the region
- To contribute also to oil companies growth, finding the best way how to answer numerous challenges

- Oil industry has changed significantly in the last 40 years and this process is going on
- We would like to create our successful future together and we are on the good way to do that

JANAF IN EUROPEAN OIL PIPELINE NETWORK AND OIL FLOWS

JANAF pipeline has significant role in oil supply to refineries of SE & Central Europe

1979-2016 oil transport: 214 mil. tons

Diverzification in crude oil and petroleum products storage – 40% of revenues

JANAF OIL PIPELINE & STORAGE SYSTEM

- JANAF Plc. performs the activities of crude oil transport, as well as storage and reloading of crude oil and petroleum products
- Designed capacity - 34 million tons of crude oil transported annually (MTA), while the installed capacity amounts to 20 MTA
- Length of pipeline - 622 km
  - Omišalj-Urinj subsea oil pipeline linking the Omišalj Terminal and INA-Oil Refinery Rijeka
- Reversal flow on the Sisak-Croatian/Hungarian border-Sisak section
- Terminals:
  - Crude oil: Omišalj (1 mil. m^3), Sisak (500.000 m^3), Virje (40.000 m^3), Slavonski Brod (no storage tanks)
  - Petroleum products: Omišalj (60.000 m^3), Žitnjak-Zagreb (142.000 m^3)

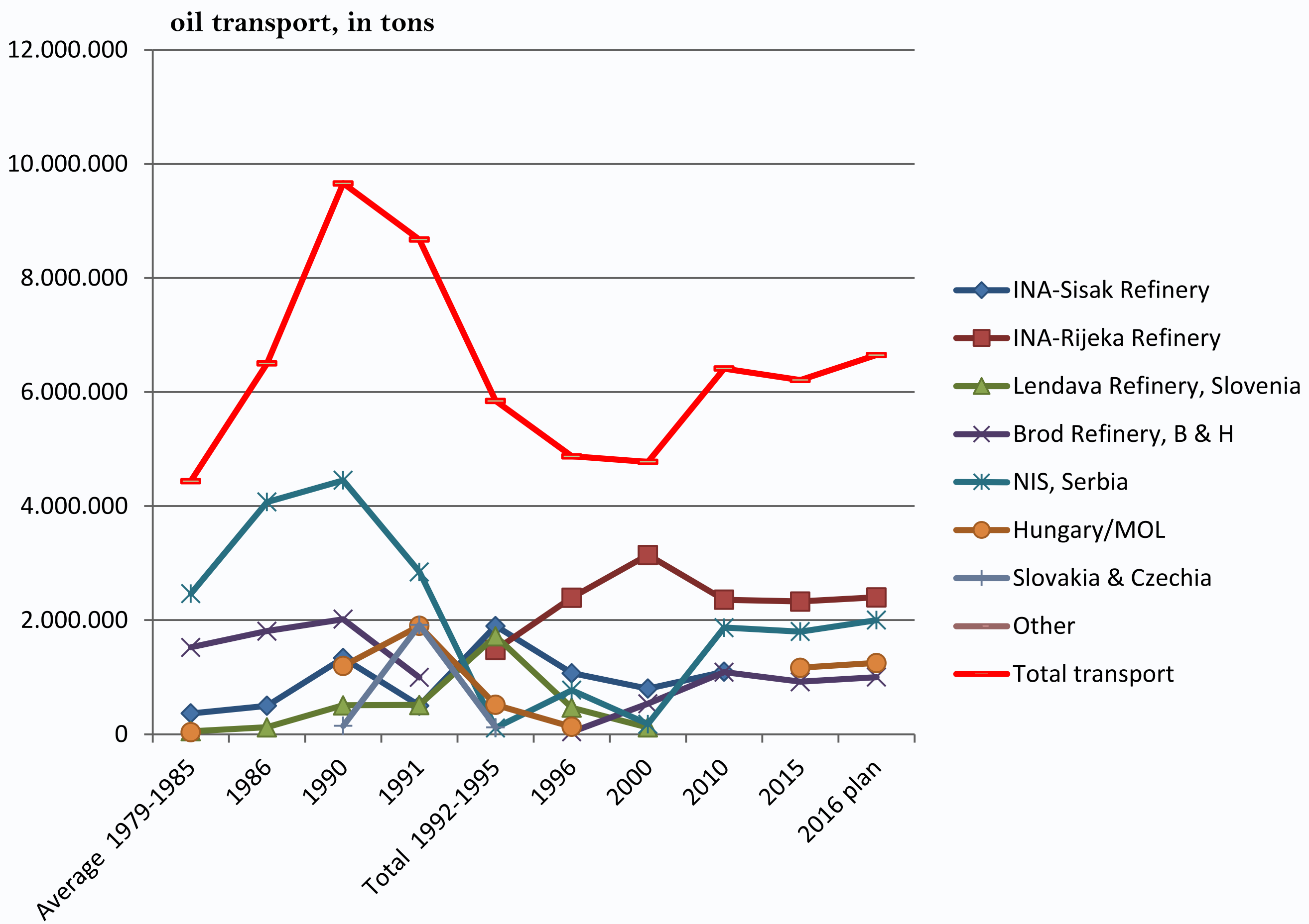
TURBULENT FOUR DECADES FOR JANAF & OIL INDUSTRY

- Oil price increase / decrease

- Political and economic crises in Croatia and the region

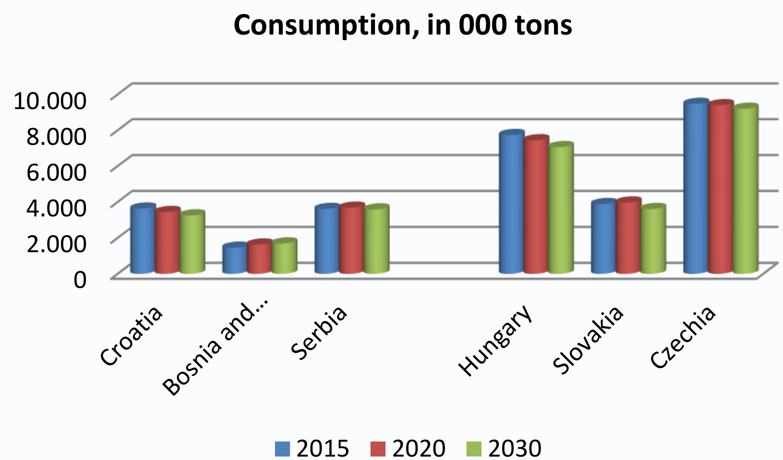
- Refineries shutdown

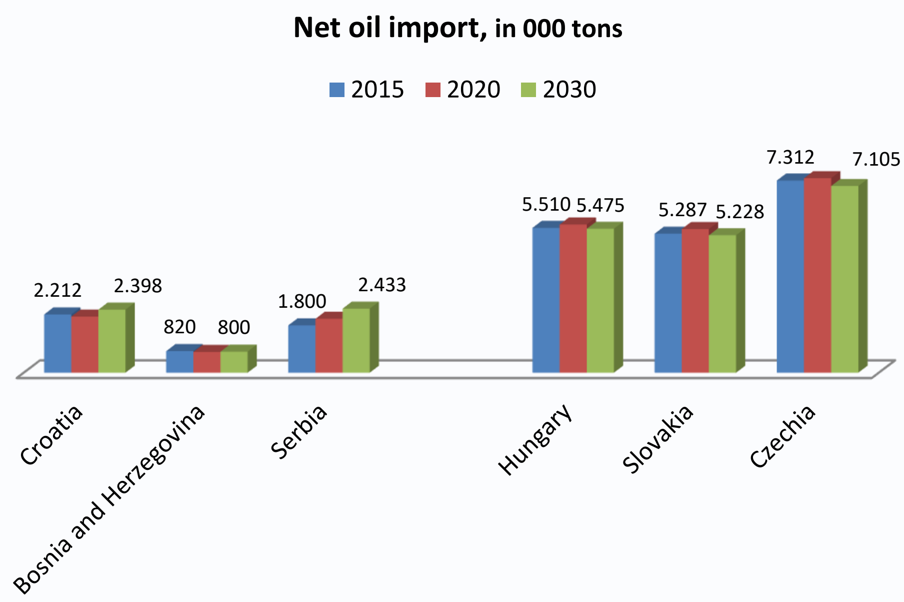
- Most refineries have stopped oil transport periodically



CHALLENGES AND OPPORTUNITIES

DOMESTIC AND REGIONAL OIL MARKET





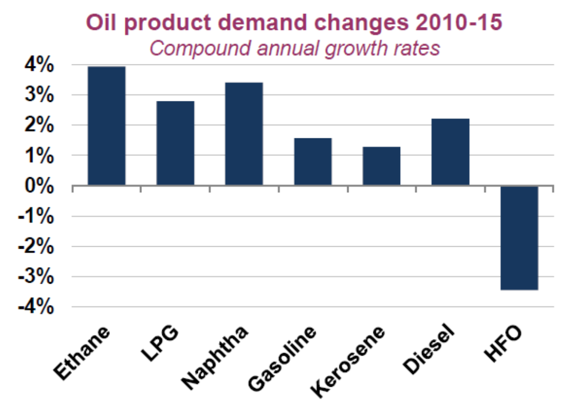
STRATEGIC MARKET CHANGES & CHALLENGES

CHALLENGES

- 24 European refineries have been shut down since 2007; further refinery overcapacity and competition strengthening are expected
- European refineries are less complex than new Asian refineries, mostly 40 and more years old, with focus on gasoline configuration
- High diesel import from Russia and Middle East
- Diesel cars share increase to 50% in 2015, compared to 15% - 20 % in 1990
- Structure of fuel car consumption would be changed with more electric cars, transport „gasification”, etc.
- Less crude, more product import

STRUCTURAL CHANGES IN OIL DEMAND

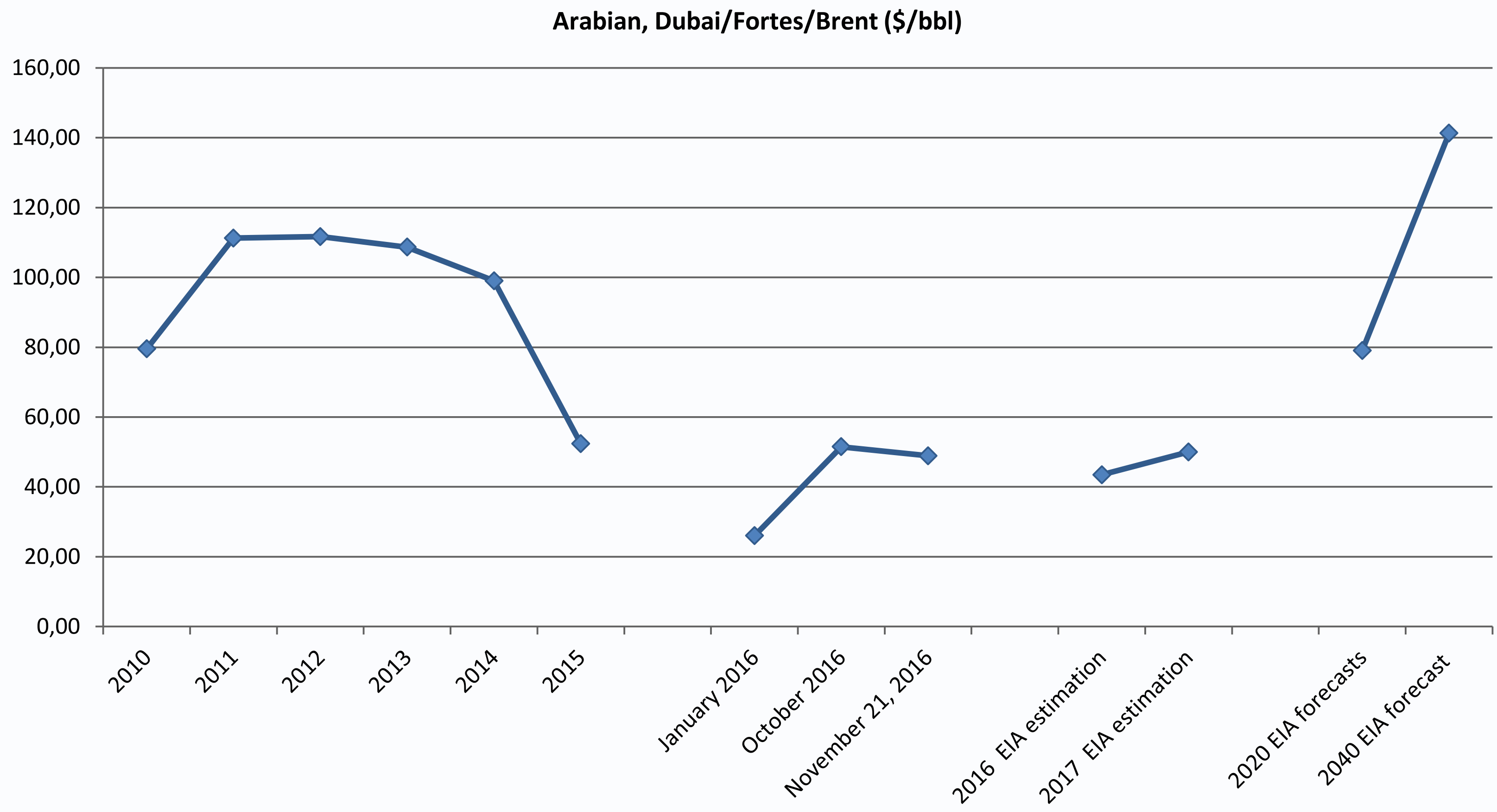
Strongest growth in non-refined category



- Petrochemical feedstocks saw strongest growth. All can be supplied by fractionators.
- Light and middle distillates saw more modest growth rates
- Fuel oil declined

Source: K. Petrosyan presentation, 10th ERS, 2016

CHALLENGES FOR OIL INDUSTRY
OIL PRICE

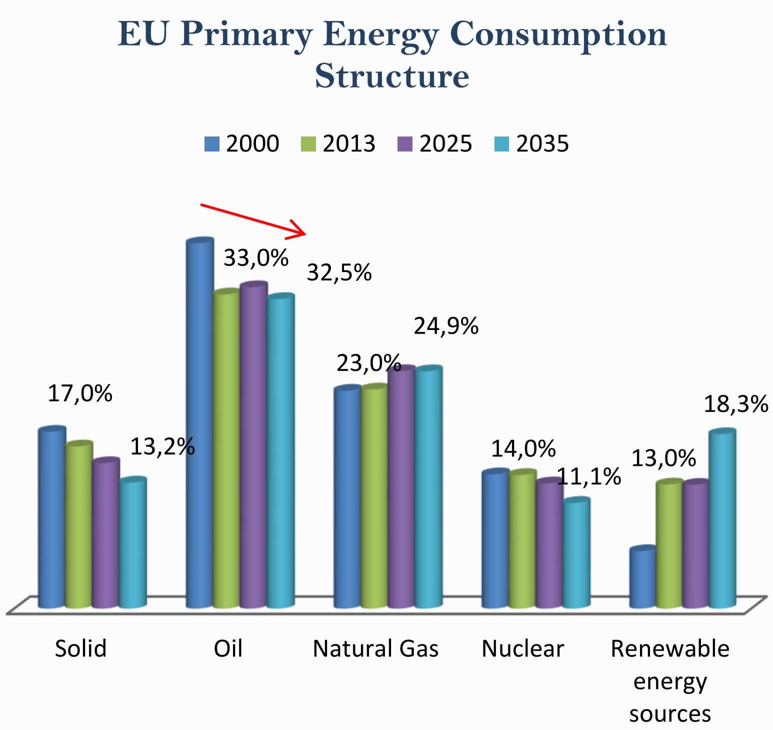


CHALLENGES FOR OIL INDUSTRY
Climate policy

- Paris climate conference (COP21) in December 2015 - 195 countries adopted the first-ever universal, legally binding global climate deal; document enters into force on 4 November 2016
- Governments agreed
  - a long-term goal of keeping the increase in global average temperature to well below 2°C;
  - to aim to limit the increase to 1.5°C, since this would significantly reduce risks and the impacts of climate change
- EU's role
  - The EU has been at the forefront of international efforts towards a global climate deal

- The EU was the first major economy to submit its intended contribution to the new agreement in March 2015. It is already taking steps to implement its target to reduce emissions by at least 40% by 2030

EU ENERGY POLICY



Targets for 2030

- 40% cut in greenhouse gas emissions compared to 1990 levels
- at least 27% share of renewable energy consumption
- at least 27% energy savings compared with the business-as-usual scenario

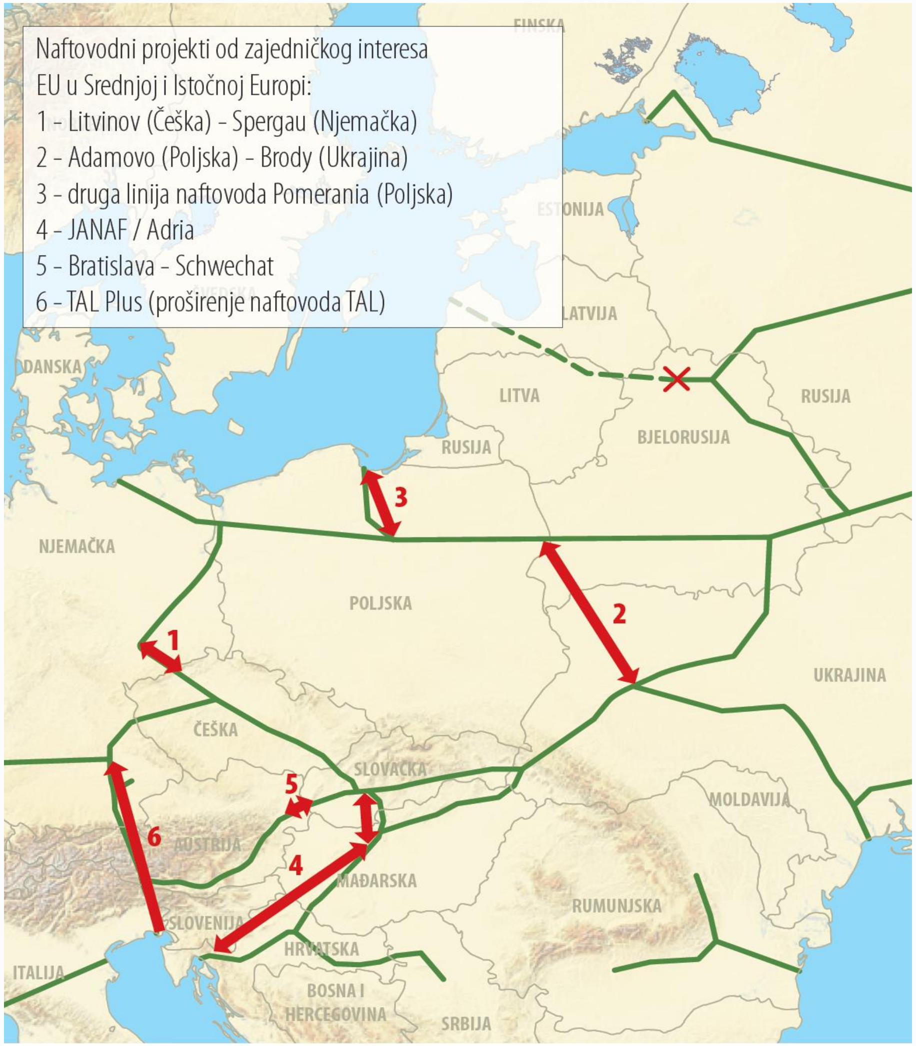
EU Oil consumption 2035 - 511 mil. tons

(590 mil. tons 2015, -13%)

Policies for 2030

- Diversification of supply and interconnection capacities between EU countries

9.3. *JANAF – ADRIA PIPELINES*
EU PROJECT OF COMMON INTEREST



- JANAF is recognized as the EU strategic pipeline through the project of common interest entitled *JANAF-Adria pipelines: reconstruction, upgrade, maintenance and capacity increase of the existing JANAF and Adria oil pipelines linking Croatian Omišalj seaport to the Southern Druzhba*
- EU PCI 9.3. JANAF –Adria on the 1st List (2013) & the 2nd List (2015)
- Strategic task: Increase of oil supply security of SE, particularly CE countries (land lock refineries), using Omišalj import direction
- But without support of the EU funds, only benefits from regulation on permitting granting procedures
- 3rd List – 2017 !?

POTENTIAL NEW STRATEGIES FOR OIL COMPANIES - ANSWERS TO CHALLENGES

REFINERIES

TRADING COMPANIES

CRUDE & PRODUCTS TRANSPORTATION COMPANIES

STORAGE COMPANIES

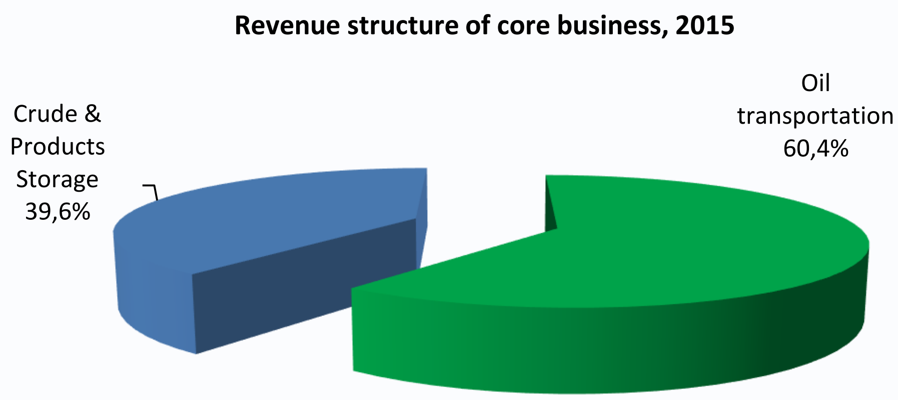
- Increase competitiveness
  - complexity, flexibility, interoperability
  - higher and diversified production/transport/storage/ quantities
  - market widespread, sale increase (crude oil, petroleum products; non petroleum products compatible to oil business)
- Storage restructuring (crude/products), new storage locations (emerging markets, at marine terminals)
- Business diversification and new sources of revenue: integration of oil & energy business, as well as with petrochemicals; investment in new oil infrastructure in countries with emerging markets; investment in non-oil car fuels, renewables, electricity…
- Ensure access to different import routes and sources for crude oil and petroleum products

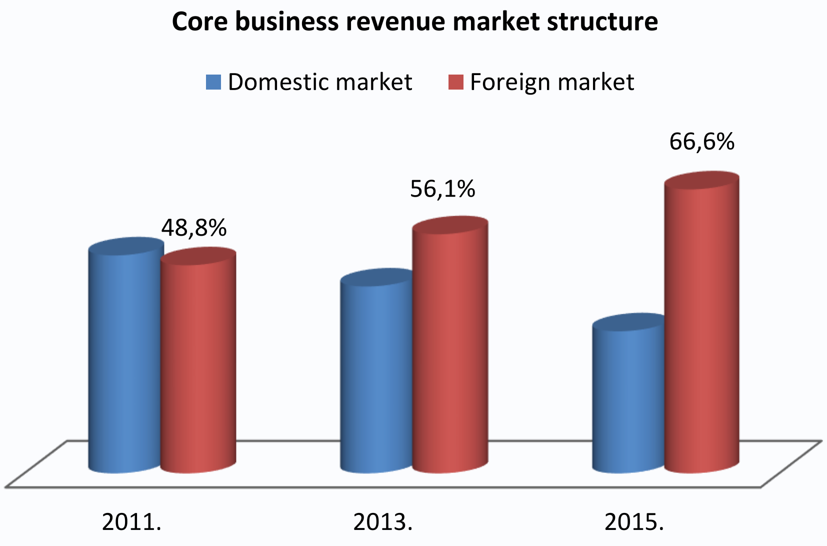
JANAF CONTRIBUTION TO OIL SUPPLY SECURITY AND GROWTH STRATEGIES OF OIL COMPANIES

- Available and new pipeline and storage capacities for crude oil and petroleum products
- Strategic partnership for new storage & pipeline projects & non oil projects
- Flexibility and readiness to improve services in line with oil companies requirements
- Two oil supply directions and diversification of oil supply sources
- Access to oil market/refineries in 6 countries (9 refineries)
- Benefit for oil companies and JANAF

JANAF'S DIVERSIFICATION STRATEGY IS UNDERWAY AND WILL CONTINUE IN LINE WITH ENERGY POLICY AND CUSTOMER NEEDS

Diversification strategy





NEW DEVELOPMENT PROJECTS

- Protection and safety
- Modernization
- Crude oil transportation & crude oil and petroleum products storage
  - Including projects of technical and technological adjustment to customers requirements
- Diversification - non oil projects
  - Renewables
  - Electrical cars
  - Local projects

PROTECTION AND SAFETY

Investment in protection and safety projects

With the aim of securing and protecting, as well as prolonging the oil pipeline life service, the company conducts, among others:

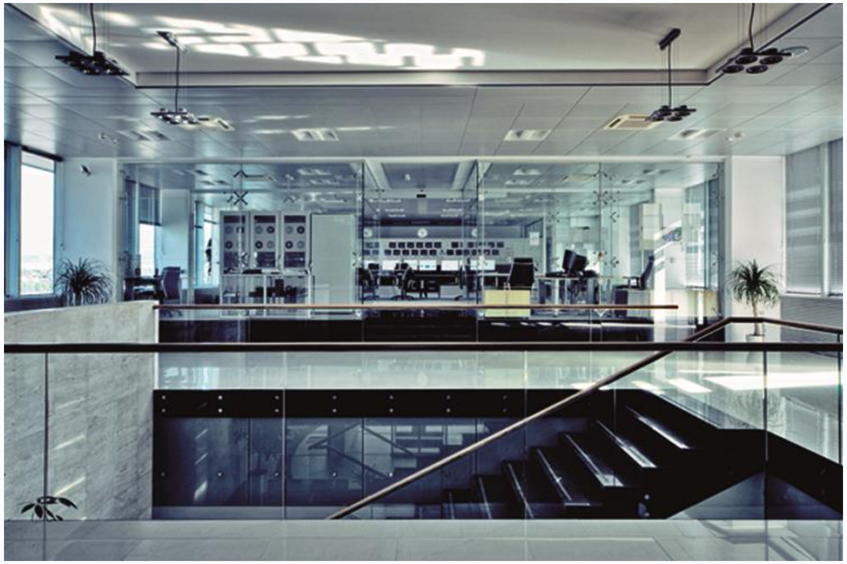
- Pipeline rehabilitation projects
- Construction of subsea oil pipeline linking the island of Krk and the mainland, which should replace the existing crude oil transport through the Krk bridge (at final stage)

SYSTEM MODERNIZATION
SCADA, GIS, ELECTRICITY SYSTEM

SCADA

Control Centres at Omišalj and Sisak Terminals

- Based on state-of-the-art technology with respect to automatic control, IT and telecommunications
- Purpose:
  - to increase the operation safety and efficiency, such as pipeline leakage detection;
  - to monitor and plan batches and scraper/pig runs, etc.



NEW STRATEGIC DEVELOPMENT PROJECTS OMIŠALJ TERMINAL

Omišalj Terminal

- Project of Reconstruction & Upgrade of Storage Facilities and Infrastructure at Omišalj Terminal
  - Purpose of the Project is to improve terminal operations, capacity utilization & interoperability
  - Further increase of storage and oil transport is expected
    - Storage construction, underway: crude oil (2*80.000 m³), petroleum products 20.000 m³
    - Preparation of storage construction: crude oil (3*80.000 m³)

Total storage capacities in next few years (expected):

- crude oil - 1,4 mil. m³ : JANAF Total 1,94 mil. m³
- petroleum products 80.000 - 160.000 m³ : JANAF Total 300.000 m³

NEW STRATEGIC DEVELOPMENT PROJECTS

Sisak Terminal

Further increase of storage activities

- Potential new capacities: crude oil (2*80.000 m³)

Žitnjak, Zagreb Terminal

Further increase of storage activities

- Potential new capacities: petroleum products (60.000 m³)

PROJECTS OF TECHNICAL & TECHNOLOGICAL ADJUSTMENT TO CUSTOMER REQUIREMENTS

Service improvement in line with market demand

- Reconstructions and upgrades of petroleum products tank farm (adding of biofuels, additives, VRU, …)
- Transportation-storage facilities adjustment to customers requirements (pipeline reconstructions, blending project, metering station upgrades,…)

CONCLUSION

JANAF has capacities, strength and possibilities for own growth

And to contribute to growth of oil companies as well as to Croatian economy development

- Significant role in oil supply security of Croatia, Central & SE European countries
- Open to cooperate with oil companies on strategic structural changes and development having in mind turbulent oil market, climate and energy policies, new competition
  - Available and new pipeline and storage capacities for crude oil & petroleum products
  - Technical and technological adjustment to customers requirements
  - Access to oil market/ refineries in 6 countries (9 refineries)
  - Two oil supply directions and many different oil supply sources
- JANAF continues developing new projects and diversification strategy as sources of new revenues and growth
  - Particularly, improving security, reliability and quality of transportation and storage services
  - Contributing to positive climate changes
  - Contributing to faster Croatian economy growth

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Thank you!