

DEME approach to port infrastructure development in the Russian Federation.

Dredging International, Belgium

In the current economical and financial conditions Transport strategy implements active government position on social and economical development, improvement of Russia transport system competitiveness, based on innovative and environment friendly approach.

There are graduate attention to sea port modernization and new ports construction in the transport strategy of RF.

Recent year's impressive development has taken place in the Baltic basin. Considerable dredging and hydro construction works were done in such ports as Ust-Luga, Primorsk, Vysotsk. This region has being a strategic corridor, or so-called "window" to Europe from historical ages and remains as such. There for further development is foreseen here.

However the other regions pulling more and more attention of investors due to their high potential:

North basin ports keep intentions to boost the coal-handling capacities and developing support bases for shelf oil and gas projects.

South basin is very attractive area for ports development as the Russian transport corridor to the Mediterranean, Middle East, Africa, South and South-East Asia, and Far East ports are the gates to Pacific and America markets.

DEME is a global offshore and marine contractor.

DEME can look back on nearly 150 years of experience in worldwide contracting.

Throughout the years a number of specialized activities have been developed in support of the core business, dredging and land reclamation. They are all related to hydraulic engineering, offshore and environmental works.

Thus in 1991 DEME group was found to pool all resources together.

Group main activities, its' 5 strengths are: dredging and reclamation, marine engineering, environment techniques, fluvial and marine aggregates, project development and concession. Dredging and reclamation division is specialized in maintenance dredging, capital dredging and port development, as well as reclamation and new land construction.

Marine engineering regarding port development is mainly breakwaters and quay wall construction, but in broad is also offshore works related to underwater pipe laying: as rock dumping and seabed profiling, landfall constructions; and platforms installation on site.

Port development projects form more than half of DEME business all over. Some of last achievements are: - Durban port development, where we dredged access channel and constructed 2 breakwaters, preliminary removed old constructions and part of the port area.

- Port La Havre, access channel and turning basin dredging, reclamation, temporally breakwater and 2 beaches nourishment.

D.E.M.E. has won a prominent position on the world market in a highly specialized and complex discipline. The company fosters a strong innovative approach and has indeed been a trend-setter and a pioneer in technical innovation throughout its history.

The key factor of our success is **Excellent performance**.

DEME approach to excellent performance is meeting the customer expectations.

1. Capacities to perform the works.
2. Timing
3. Safety
4. Environment impact
5. Financing

DEME capacities are first of all our people, about 3700 professionals of more than 30 nationalities are working in DEME. The training courses and seminars for engineers and administrative personnel are given gradually through the year on permanent basis. DEME has a CSD simulation center where we improve technical skills of our young baggermasters and navigators.

DEME fleet has more than 80 main dredgers and about 200 units of auxiliary equipment. Our main equipment is: Trailing Hopper Suction Dredgers, Cutter Suction dredgers, Backhoes, Grabs and Chain Bucket Dredgers, 3 fall pipe dumping vessels, some self-elevating platforms etc.

But – The vanguard of sustainable development is **Innovations**

Working at the top of an industry, requires continuous innovation to maintain market leadership.

DEME's in-house Research, Development and Engineering division has some of the finest and most experienced specialists at hand to see to this. Adapting plant to the specific needs of a project, improving efficiency of existing equipment, developing new techniques, and researching and implementing new dredging vessel designs, is a permanent concern of this talented staff.

- DRACULA,
- Suction improvement of dredgers,
- Development of an underwater grab and drag system to excavate "glory holes" in water depths of up to 120 meters
- Development of the computer controlled spreader pontoon Bayard-II
- Development of a new and highly efficient soft soil improvement method.
- Development of special plant for eco-dredging.
- Panama drilling and blasting
- A jumbo Jack-up platform "Goliath" for GeoSea

To meet our client demand and to be able effectively perform now and further DEME has been investing in construction of new equipment all the years of existence and our investment program for next 4 years is impressive, more than Euro 500 mln.

Investment program 2008-2012:

- Trailing suction hopper dredger "Artevelde" 5,600 m³
- Next Generation+ Megatrailer 30,000 m³
- Backhoe "Samson"- Backhoe dredger with bucket up to 40.00 m³
- Seagoing rock cutter dredger (MEDCO) with barge loading installation 13,000 kW
- Seagoing rock cutter dredger (DI) with barge loading installation 13,000 kW
- Cutter suction dredger medium segment "Ganga" (ISD) 6,250 kW
- Water Injection Dredger "Dhamra" (ISD) Jetwater flow 12,000 m³/h

- Two self-propelled split barges “Sloeber” & “Pagadder” 2,750 m3
- Multifunctional offshore work platform “Thornton I”
- Fall pipe vessel “Flintstone” Loading capacity 19,000 Tonnes
- Jumbo self-elevating platform “Goliath” Payload 1,600 Tonnes
- Gravel trailer “Victor Horta” 5,000 m3

Project finalization in time is always our obligation and desire.

Efficiency is the key approach here. With full support from the headquarters, DEME emphasize on high local content and strong long-term relations with partners, suppliers, official organizations and public structures in Russia.

- Logistics.
 - Centralized purchase department.
 - Cost-saving strategy.
- We are Russian in Russia:
 - Long term relations with partners, suppliers and official organizations.
 - Knowledge of local procedures and standards.
 - Collaboration with local sea administrations
 - Regional office support and fast reaction on emergency cases.
- Corporate program: “Lean 6 sigma”

Concern for **safety, environment** and the maintenance of the **strictest quality standards** contribute to better performance and higher efficiency - and hence to greater client satisfaction. This is our philosophy, our credo, our commitment.

We care for health and safety of our staff and other people involved, and we care for the environment in which we operate. Operational and environmental risks are evaluated for every new project and preventive measures are included in every Method Statement, Construction Manual or Control Plan. Project-specific requirements include a risk assessment and checking activities against local regulations.

Training programs focus on awareness of safety, environmental protection and quality assurance. Internal audits, both at DEME Group level and in each company, are carried out by IRCA-recognized auditors. External audits by Lloyds Register Quality Assurance throughout the world, by the Building Construction Authority in Singapore and by the Hong Kong Quality Assurance Association regularly checks internal procedures and assessments. The standard of Quality, safety and environmental awareness in the DEME-Group is demonstrated by the ever growing list of ISO/VCAB/OHSAS/ISM and ISPS certificates

Safety FIRST:

- Following Safety Plan and application of safety rules on sites and in the offices
- Safety training programs,
- Internal audit
- External audits by Lloyds Register Quality Assurance DEME-Group QA-HSES global system
 - ISO 9001 for the execution of quality assurance
 - ISO 14001 for the execution of environmental protection;
 - VCA & OHSAS for the execution of occupational health and safety.
 - ISM for the execution of safety at sea and marine environmental protection;
 - ISPS for the execution of security on vessels;

DEME group Environmental services

- DEC
- de Vries & van de Wiel
- Soil Recycling Centre
- Ecoterres
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DEME group Environmental Services core activities are Valorisation of contaminated sites / Валоризация загрязненных участков, Green Hydraulic Engineering / Гидравлические работы , Environmental Dredging / Экологическое дноуглубление

Project financing.

DEME is a global marine contractor with Belgian roots. Being one of the biggest Belgian Exports DEME established effective cooperation with ONDD to provide financing for DEME projects outside Belgium.

Main goal of project financing is to find the optimal financial structure that will give impulse for project realization and create added value to our client. Group dynamics of annual revenues demonstrate our achievements in clients satisfaction and excellent performance in practice.

DEME projects in Russia are:

1. Blue Stream project in 2001, landfall construction.
2. Sakhalin 1, trenching and backfill for oil pipeline between Chaivo and Orlan platform,
3. Dredging of the access channel of Sevmash factory in Severodvinsk, for Prirazlomnaya platform towing, 2004
4. Dredging and reclamation for Soya terminal at Kaliningrad channel in 2004-2006
5. Dredging of the new navigation channel via C1 gate of St. Petersburg dam against flooding.
6. Dredging and reclamation works in Ust-Luga port, 2004-2009.

We are glad to take part in realization of strategic and one of most ambitious infrastructural project in Russia – Ust-Luga port. We started there in 2004 with small CSD that performed dredging and reclamation works for container terminal, and we proceed in 2008 in the North part of the port for oil terminal with 2 Hoppers: Brabo and Atlantico due; and in 2009 in the South access channel dredging and in the South part of the port. This year we mobilized 4 pieces of our state of art equipment: 3 hoppers: Lange Wapper, Brabo and Reynaert and Backhoe Zenne. All our works in Ust-Luga port foreseen to be completed in time.

DEME faces the **FUTURE** of worldwide development with **CONFIDENCE** based on an **INNOVATIVE** approach, with **CARE** for the **ENVIRONMENT** and dedication to sustainable **DEVELOPMENT**.

Thank you for your attention.

Nina Blaznova,

Area Manager

Oil&Gas and Caspian Sea projects

DREDGING INTERNATIONAL nv

DEME group