

10+ Programme

The 10+ Programme is the principal project implemented within the strategy of developing the Refinery in Gdańsk, adopted by the LOTOS Group. In terms of scale and value, this is one of the largest investments executed in Polish industry until 2010.

PROGRAM 10+



The construction of the new oil distillation system as part of the 10+ Programme with the rated throughput of 4.5 million tonnes of oil per year corresponds to the strategy of the Polish Government towards the Polish oil sector. Its key aim is to provide energy safety to the state by guaranteeing the continuity of energy carrier supplies. The capacities of processing various blends of oil created at the refinery in Gdańsk, the availability of own resources and the close location of sea transshipping terminals contribute to greater power safety and diversification in the supplies of the raw material.

After the development of the systems included in the 10+ Programme, Grupa LOTOS will become one of the leading European refineries in terms of its processing potential and the technological capacities in processing crude oil, i.e. the production of market-attractive high-margin goods. This will allow for the long-term improvement of the competitive position of the refinery in Gdańsk and will create the basis for the Company's development for at least the next dozen years.

Funding the investment programmes

On 21 December 2007, Grupa LOTOS sent invitations to selected financial institutions to submit binding offers for funding the 10+ Programme. After that, a period of intense discussion with banks and financial institutions started (e.g. with SACE – the Italian agency of export credits).

In January 2008, Grupa LOTOS, in cooperation with its financial and legal consultants and bank advisors (in the following areas: market, technical, insurance and legal), responded to questions from banks concerning the analysis of data contained in the information package of the 10+ Programme (sent to the banks together with the above-mentioned invitation).

At the end of January, the Company started receiving binding offers from the banks with regard to funding the 10+ Programme. An initial offer was also presented by SACE.

In February 2008, the Extraordinary Shareholders' Meeting of Grupa LOTOS passed a resolution consenting to the collaterals allocated for funding the 10+ Programme.

Following the negotiations with individual institutions in March, the final composition of the financial institutions group was determined, to provide complete funding of the project and uniform commercial conditions (commissions, margins). Moreover, legal terms were determined. As a result, in April 2008 Grupa LOTOS signed a commitment letter with a group of banks, binding the institutions to grant the credit on agreed commercial conditions, including the term sheet providing basic formal and legal conditions of the future transaction. After that, negotiations continued over the detailed provisions of the credit contracts and the related financial documentation (including collateral agreements). The negotiations led to the execution of a credit agreement on 27 June 2008 for financing the 10+ Programme implementation and for the revolving capital of Grupa LOTOS (for USD 1.55 billion and USD 200 million respectively). The Calyon bank became the credit agent with Société Générale S.A. acting as the insurance agent.

Within the credit contract, Grupa LOTOS signed a sub-agreement concerning a credit tranche guaranteed by the Italian agency of export credits SACE (USD 425 million within the above-mentioned amount of USD 1.55 billion).

Executing the credit contract for financing the 10+ Programme together with a credit contract for stock financing (signed in December 2007) completed the provision of the full financing of Grupa LOTOS during the performance of the 10+ Programme.

After that, the conditions precedent for providing the credits for the 10+ Programme had to be fulfilled. In August, the conditions were fulfilled as required for the long-term crediting of the 10+ Programme and for the revolving credit of Grupa LOTOS. In September, the final precedent conditions related to the tranche of the credit guaranteed by SACE were fulfilled.

The first funds from the revolving credit and the commercial investment credit were received already in August 2008, while the first tranche from the credit guaranteed by SACE was received in October 2008. The next tranches, their deadlines and amounts depended on the current cash flow of Grupa LOTOS and the volume of outlays on the 10+ Programme. Banks paid the tranches of the credits in 2008 without any interruptions and in compliance with the applications submitted by Grupa LOTOS and based on information on the actual financial situation of the Concern.

At the same time, the collaterals for the credits' repayment were provided (e.g. the notifications concerning the assignment of rights to the sale contracts, the hedging contracts and EPC contracts). In September 2008, Grupa LOTOS received the decision of the Gdańsk-Północ District Court on the entry in the register of the pledge on the set of assets and rights of the refinery in Gdańsk, which is one of the collaterals for the creditors of the 10+ Programme. In November 2008, Grupa LOTOS received from the District Court in Gdańsk the notification of the entry in the land and mortgage books of the total contractual deposit mortgage to the collateral agent, being one of the basic securities of the credits granted for funding the 10+ Programme.

As at 31 December 2008, the use of the credits granted for financing the 10+ Programme amounted to approximately 46%.

In 2009, further use of the credits for the 10+ Programme is forecast related and adjusted to the increasingly advanced execution of the Programme. The use of the credits will be accompanied by current and continuous performance of the obligations towards the creditors, pursuant to the credit documentation by Grupa LOTOS.

Contracting, design and building work

On 10 September 2008, Grupa LOTOS signed a contract for the construction of the ROSE system of the vacuum processing of heavy remnants with Technip Italy S.p.A., including the design, supplies of materials and equipment as well as technical consulting. Thus, the list of all main contracts for the performance of production systems included in the 10+ Programme has been completed.

Until 31 December 2008, the contractors had worked for 2,847 thousand hours. 3 minor accidents took place during the analysed period.

As at the end of 2008, the advancement of the whole 10+ Programme was according to plan and amounted to 56%, and it was as follows with regard to individual systems:

Hydrocracking Diesel Desulphurization (HDS) 	87%
Crude Distillation Unit/Vacuum Distillation  Unit (CDU/VDU) 	59%
Hydrocracking (MHC) 	54%
Hydrogen Generation Unit (HGU) 	71%
Amine-Sulphur Complex (KAS) 	78%
Heavy Vacuum Remnants Processing (ROSE)	9%
Auxiliary systems	38%

In compliance with the schedule, the building work of the vacuum processing system of heavy remnants (ROSE) is to commence in Q2 2009.

10+ Programme – 2008 Calendar

January

- Heavy Vacuum Remnants Processing (ROSE) – sending enquiries to potential contractors to confirm their participation in tender proceedings.
- Hydrocracking Diesel Desulphurization (HDS) – completing work and submitting the power supply of the system for final acceptance; underground utilities being constructed.
- Crude Distillation Unit/Vacuum Distillation Unit (CDU/VDU) – signing a contract with Polimex Mostostal S.A. for building and assembling steel structures. Starting piling, foundation construction and the earthing system.
- Hydrocracking (MHC) – obtaining a building permit for the system.
- Hydrogen Generation Unit (HGU) – piling of the ground, ordering all key devices and machines.
- Amine-Sulphur Complex (KAS) – completing piling and laying foundations for the main trestle bridge.
- Auxiliary systems and infrastructure – announcing the tender for the electrical substation buildings.

February

- Hydrocracking Diesel Desulphurization (HDS) – the assembly of steel structures starts.
- Crude Distillation Unit/Vacuum Distillation Unit (CDU/VDU) – signing a contract for the assembly of heavy devices with the Belgian concern SARENS.
- Hydrocracking (MHC) – the start of piling in the system area.
- Hydrogen Generation Unit (HGU) – completing the ground piling.
- Auxiliary systems and infrastructure
 - signing a contract with a contractor for the sewage treatment plant modernization (Biogradex – Holding Sp z o.o.)
 - commencing work related to the preparation of the site for the development of the nitrogen systems and the water and condensate system
 - obtaining a building permit for the construction of VR, DAO and diesel storage tanks.

March

- Hydrocracking Diesel Desulphurization (HDS) – signing a contract for the assembly of a 720-tonne reactor of the Hydrocracking Diesel Desulphurization system with SARENS.
- Crude Distillation Unit/Vacuum Distillation Unit (CDU/VDU) – piling is completed and the construction of the underground utilities systems starts.
- Hydrogen Generation Unit (HGU) – piling is completed and the construction of the underground utilities systems starts.
- Amine-Sulphur Complex (KAS) – piling is completed and the construction of the underground utilities systems starts.
- Auxiliary systems and infrastructure
 - the start of constructing the foundations for the new inter-facility trestle bridges,
 - signing a contract for the construction of a 10-kilometre-long pipeline to the port, the start of work on the construction design of the pipeline, and
 - the start of constructing the VR, VGO and pisolite gasoline storage tanks.

April

- Heavy Vacuum Remnants Processing (ROSE) – the revision of the base project received from KBR.
- Hydrocracking Diesel Desulphurization (HDS) – the assembly of heavy devices starts –mounting the furnaces.
- Crude Distillation Unit/Vacuum Distillation Unit (CDU/VDU) – signing a contract for the performance of electrical work, control, automatic systems and telecommunication.
- Hydrogen Generation Unit (HGU) – the assembly of the furnace-reformer starts.
- Amine-Sulphur Complex (KAS) – the foundation work starts on the LPG AWU system, the commencement of the supplies of pipeline materials.
- Auxiliary systems and infrastructure
 - the selection of contractors for the development of the electrical substation and the medium and low voltage cable networks.

May

- Hydrocracking Diesel Desulphurization (HDS) – the prefabrication of pipelines starts.
- Crude Distillation Unit/Vacuum Distillation Unit (CDU/VDU) – the assembly of steel structures of internal trestle bridges begins.
- Hydrocracking (MHC) – the visit of the representatives of Grupa LOTOS and Technip at the producer of the reactors and compressors; foundation work starts.
- Hydrogen Generation Unit (HGU) – the construction of foundations, the slope and electrical conduits and the oil sewage systems.
- Amine-Sulphur Complex (KAS) – the construction of foundations is completed; the first supplies of pipeline materials.
- Auxiliary systems and infrastructure
- signing a contract for the supplies and assembly of steel structures of the new and modernised trestle bridges and the LPG system, and
 - signing a contract for the development of the electrical substation and the medium and low voltage cable networks.

June

- Heavy Vacuum Remnants Processing (ROSE) – executing a preliminary agreement with Technip Italy for the technical project and supplies.
- Hydrocracking Diesel Desulphurization (HDS) – the final phase of building work on cable ducts and trays.
- Crude Distillation Unit/Vacuum Distillation Unit (CDU/VDU) – continuing work on the assembly of steel structures of internal trestle bridges and racks; the work on underground utilities is continued.
- Hydrocracking (MHC) – piling at the system site is completed; the first work on the underground utilities; the start of preparations for piling the storage site and erecting the reactors.
- Amine-Sulphur Complex (KAS) – the construction of foundations is completed, the start of deliveries and assembly of devices.
- Auxiliary systems and infrastructure
 - signing a contract for the construction of a new nitrogen system, and
 - piling is completed and the start of foundation work on the diesel oil storage tanks.

July

- Heavy Vacuum Remnants Processing (ROSE) – work is started on the system design (Technip Italy).
- Hydrocracking Diesel Desulphurization (HDS) – building work is completed on the cable ducts and trays; exceeding 50% advancement of the HDS system project.
- Crude Distillation Unit/Vacuum Distillation Unit (CDU/VDU) – prefabrication of pipelines begins.
- Hydrocracking (MHC) – piling is completed at the reactor storage site; a pressure test at the producer of the 0930R1A reactor (Grupa LOTOS representatives participate).
- Hydrogen Generation Unit (HGU) – completing the assembly of the internal trestle bridge.
- Amine-Sulphur Complex (KAS) – building of foundations and underground systems is completed; the assembly of the main system trestle bridge structure; exceeding 50% advancement of the total KAS project.
- Auxiliary systems and infrastructure
 - the first deliveries of materials for the construction of the pipeline system between facilities,
 - building the foundation of the VR, VGO and pisolite gasoline storage tanks, commencing the assembly of steel coating on VR and VGO tanks, and
 - completing the final acceptance and pressure tests of the underground network systems: cooling water, fire, sewage system – the first production system of the 10+ Programme is completed
- Providing the Technology Division with the scope of work to be performed during the SPRING 2009 overhaul due to the requirements of the 10+ Programme.

August

- Heavy Vacuum Remnants Processing (ROSE) – obtaining the first design documentation from Technip Italy.
- Hydrocracking Diesel Desulphurization (HDS) – the complex assembly of the 720-tonne reactor is completed.
- Crude Distillation Unit/Vacuum Distillation Unit (CDU/VDU) – building work and the underground utilities are continued; the pipeline prefabrication commences; laying a fire protection layer on steel structures.
- Hydrocracking (MHC) – the start of deliveries and prefabrication of underground pipelines.
- Hydrogen Generation Unit (HGU) – the delivery of a chimney (in four parts), preparing the chimney for assembly.
- Auxiliary systems and infrastructure
 - starting work on the building designs: the water conditioning station, the nitrogen production plant, the hot cooling water system and the demineralised water tank,
 - presenting design solutions for the whole route of the Port-Refinery pipeline to PERN [R7].

September

- Heavy Vacuum Remnants Processing (ROSE) – signing a contract for the production design and deliveries with Technip.
- Hydrocracking Diesel Desulphurization (HDS) – continuing the prefabrication and assembly of pipelines and the performance of the fire protections of the trestle bridge structures.
- Crude Distillation Unit/Vacuum Distillation Unit (CDU/VDU) – deliveries start of devices and equipment.
- Hydrocracking (MHC) – the acceptance control of the 930 R1A/B reactors at the Italian producer (Belleli) together with the licensor (SGSI), is completed with a positive result.
- Hydrogen Generation Unit (HGU) and the Amine-Sulphur Complex (KAS) – the erection of two chimneys (h=80 m); exceeding 50% total advancement of the hydrogen production system project.
- Auxiliary systems and infrastructure
 - the start of building work on the modernization of equipment in the power substation supplying new systems, and
 - the start of building work (piling) at the Water Department.

October

- Heavy Vacuum Remnants Processing (ROSE) – the start of work on the building design.
- Hydrocracking Diesel Desulphurization (HDS) – laying cables and electrical fittings commences.
- Crude Distillation Unit/Vacuum Distillation Unit (CDU/VDU) – exceeding 50% advancement of the distillation unit project.
- Hydrocracking (MHC) – electrical work of the underground system starts: the earthing and cathodic protection systems; the visit of Grupa LOTOS representatives at the manufacturer of the R2 and R3 reactors (GE/Nuovo Pignone) in Florence in order to verify the compliance of work advancement with the schedule.
- Hydrogen Generation Unit (HGU) – continuing the furnace-reformer construction assembly.
- Amine-Sulphur Complex (KAS) – the assembly of the main trestle bridge structure is completed.
- Auxiliary systems and infrastructure
 - completing the building work on the two main power facilities, and
 - the start of ground work and the assembly of the pipelines to the Port [R7] at the site of Grupa LOTOS.

November

- Hydrocracking Diesel Desulphurization (HDS) – laying cables and electrical fittings commences.
- Crude Distillation Unit/Vacuum Distillation Unit (CDU/VDU) – the construction of foundations is completed; the start of deliveries of parts and the assembly of the furnace housing and the chimney sections.
- Hydrocracking (MHC) – the initial assembly of air coolers begins; exceeding 50% advancement of the hydrocracking system project.
- Hydrogen Generation Unit (HGU) – the start of laying electrical cables.
- Amine-Sulphur Complex (KAS) – the start of laying electrical cables.
- Auxiliary systems and infrastructure
- laying power cables is completed.
- The assembly of the pipeline to the port [R7] at the site of Grupa LOTOS is completed, exceeding 50% advancement of the work on the 10+ Programme.

December

- Heavy Vacuum Remnants Processing (ROSE) – signing a contract for the delivery of the ROSE-MAX packages with Kellogg Brown & Root Inc.
- Hydrocracking Diesel Desulphurization (HDS) – completing work on the fire protection of the trestle bridge and apparatus structures.
- Crude Distillation Unit/Vacuum Distillation Unit (CDU/VDU) – completing design work in specific disciplines; erecting the 80-metre-high chimney operating for both furnaces on the foundation.
- Hydrocracking (MHC) – the start of the internal trestle bridges assembly.
- Hydrogen Generation Unit (HGU) – completing design work in specific branches and the commencement of laying electrical cables and the control and automatic cables.
- Auxiliary systems and infrastructure
- completing the foundation work for the boiler water system, the demineralised water tank and the fuel gas system, and
- completing the assembly of steel coats of the four tanks of the VR and VGO heavy fractions.

In 2009, the first new systems executed in the **10+ Programme** will be accepted. First (at the end of May), the Hydrocracking Diesel Desulphurization (HDS) system is to be commissioned. At the same time, the following auxiliary systems and infrastructure required for the HDS system will be completed:

- the amine system,
- the acid water stripper,
- the cooling water,
- the discharge system,
- the inter-facility connections, and
- the nitrogen system.

In the following months, the following systems are to be commissioned:

- the hydrogen production system in September 2009,
- the sulphur recovery system in September 2009,
- the Crude Distillation Unit/Vacuum Distillation Unit (CDU/VDU) in October 2009.

According to the schedule, the following systems are to be completed by the end of 2010: the Hydrocracking (MHC), the Heavy Vacuum Remnants Processing and other auxiliary and infrastructure systems.

The 10+ Programme is the key project executed by Grupa LOTOS. Therefore, the Company carries out the systematic analysis of risks and implements the resulting measures aimed at the safe and timely construction and start-up of the new and modernised systems.

The global economic crisis, in spite of the related hazards, has not impacted the present course of the **10+ Programme**. The investment is being executed without any interruptions.