As in the liquidation process, the objects, pipelines, marker poles belonging to the process and installed on the surface are demolished and removed, and the restrictions to use along the pipeline routes cease to exist, therefore the **impacts of liquidation to the landscape is classifiable as IMPROVING**.

10. Summary clear for the public

The Natural Gas Transmission Closed Company Limited by Shares (FGSZ) from Hungary and eustream a.s. from Slovakia have jointly won a financial support within the frames of the European Energy Programme for Recovery (EEPR) set up by the European Commission, for the funding of the building of the Hungarian-Slovak Natural-Gas Transmission Interconnector Pipeline.

Based on the hydraulical investigations performed, a natural-gas transmission system of DN 800 lines must be implemented in the route Vecsés starting point - Szada - Balassagyarmat - Hungarian/Slovakian Border, and, as part of this network, a new compressor station must be built in Szada. The new compressor station must be able to rise the pressure from 42,0 bar to 75,0 bar for a volume of 14,4 Mm 3/day, in other words 600 em 3/h, coming from Slovakia or to be forwarded to Slovakia. Further parts of the Hungarian-Slovakian Interconnector will be: an international measurement and block valve station at the border (Balassagyarmat), two block valve stations, and an entry point to the existing grid within the Vecsés meeting point, that should include measurement and control, as well as the necessary line connections to the lines in the existing meeting point.

Under Point 40 of Annex 1 of Government Regulation 314/2005 (XII.25.) Korm. on the environment use licensing procedure, an environmental impact assessment documentation must be made for the implementation of the planned project.

Assigned authorities taking part in the environmental authorisation of the project:

Licensing authority:

Middle-Danube Valley Environmental, Nature-Conservation and Hydrology Inspectorate

Special authorities:

Government Office of Budapest Capital City

Budapest District Inspectorate of Mines

National Medical Office

Cultural Heritage Protection Office within Pest County Government Office

Land Registration Office within Pest County Government Office

Plant and Soil Protection Directorate of Pest/competent County Government Office

Forestry Directorate within Pest County Government Office

Notary of municipal governments (nature conservation areas of local importance)

The implementation of the natural-gas pipeline interconnecting these two countries will increase the security of natural gas supply in both affected countries, what is more, gas supplies available in Western Europe will also be reachable in reverse-flow transmission mode for the states of the region.

So the transboundary impacts occur to the same extent and the same way in both directions.

As a result of the consultation carried out with the environmental authority, this documentation shall act as the "Consultation Request" under Annex 4 of Government Regulation 314/2005. (XII.25.) Korm., for the launching of the environmental authorisation process for the project in question.

The purpose of the investment:

ENVIRONMENTAL CONSULTATION REQUEST,
OVIT ZRT.,
FOR THE CONSTRUCTION OF THE HUNGARIAN SECTION OF THE HUNGARIAN-SLOVAKIAN GAS PIPELINE

The Hungarian-Slovakian Interconnector is part of a high-priority initiative dealing with the security of gas supply in the European Union, which should be implemented in the framework of the north-south gas corridor. The point of this concept is, that the affected states should interconnect, in north-south direction, the east-west transmission systems situated in the eastern part of Europe. The new interconnection should ensure access to available resources for the affected states both in normal and in crisis situations.

The implementation of the Interconnector will increase the security of natural gas supply in both affected countries, what is more, gas supplies available in Western Europe will also be reachable in reverse-flow transmission mode for the states of the region.

Data of the planned implementation:
Designing: selection of the designer is being under way
Time period planned for the commencement of the works: Q 2 2012
Planned length of the implementation: 2013
Planned commencement period: 2015
Operator: OVIT Natural Gas Directorate

Planned route of the natural-gas transmission pipeline:

After leaving its start point in Vecsés, the Interconnector runs parallel with the Druzhba I oil pipeline owned and operated by MOL Nyrt as long as it reaches settlement Rád. North from this settlement, first the Vác-Romhány, then the Romhány-Balassagyarmat gas pipeline (owned and operated by FGSZ Zrt.) connects into the Interconnector from SW direction. The two existing pipelines and the planned new pipeline run together until they reach settlement Ősagárd. North from this settlement, the oil pipeline parts from the common route. From this point up to Balassagyarmat, the new line runs parallel with the gas pipeline. South from Balassagyarmat, it parts from the common route to pass by the town at East, and to reach the border connection point through a 4-km long route of its own.

In the section, where the Interconnector runs parallel with the oil pipeline, settlements Pécel and Veresegyháza must be bypassed at West due to new residential areas (housing park), therefore the parallel route cannot be realized here.

In the site tour held in Balassagyarmat on 27 May 2010, the following findings were established:
„Having view to nature-conservation values, the protection of areas being part of the Natura 2000 network, the urban development concept of Balassagyarmat, as well as the technical feasibility of the implementation of the gas transmission line, the participants recommend, as the border-crossing point of the gas pipeline, the site identified by the following GPS coordinates: N 48° 05' 09,8"; E 19° 18' 48,1".
The recommended route affects the following nature conservation areas:
Gödöllői dombság - HUDI 20023-(SCI Natura 2000)
Veresegyházi medence (basin) (SCI, area with local protection)
Vácrátót (SCI, area with local protection)
Nyugat-Cserhát and Naszály -HUDI 20038- (SCI, Natura 2000)
Ipoly (HUDI 10008) SPA, Natura 2000

Vecsés Node
The systems that ensure connection to the nodal grid of FGSZ Zrt. (pressure limitation, gas quantity measurement, gas quality measurement, flow control) must be installed within the existing site, by extending that to the necessary extent. It is recommended to install the new modal technology on the site of the Vecsés node, on an about 40 x 60 m large area, northwards of it, in the direction of Road no. 4
Access: through the gas transfer station of FGSZ Zrt.

Szada Compressor Station
Compressor units driven by a natural-gas turbine must be installed here, which can ensure that the bidirectional transmission tasks are fully complied with.

The station will be located in the neighbourhood of M 3 motorway, north from the petrol station situated near Dhruzhba 1 mineral-oil pipeline.
Accessible from the Szada – Mogyoród public road.

Valve stations (Rád, Romhány),
Pressure release of the Interconnector to be implemented must be ensured by branching offs at both side of the isolating ball pivots.

Romhány
It is recommended that Romhány block valve station should be implemented near or in the vicinity of the site of Romhány gas transfer station owned and operated by FGSZ Zrt., on an about 25 x 25 m large site.
Accessible from the Bánk – Romhány public road.

Rád
A green-field investment at the NW part of the settlement, situated on an about 25 x 25 m land, where the surface technology necessary for the isolability of the pipeline and a new instrumentation container should be installed.
Access to the station: from the Vác-Rád public road.

Metering station (Balassagyarmat)
The filtering and the measurement of natural gas (should it come from or go to Slovakia) must be ensured. For this purpose, the following interconnections must be created:
The filter-, measurement- and flow control system (metering station) must be installed in between the pig chambers of the of Vecsés-Balassagyarmat and the Balassagyarmat-Country Border pipelines. The system must be implemented with such process connections that allow the filtering, measurement and control of natural gas in case of transmissions of any direction.
The ultrasonic measurement system of DN 300 in size must be installed downstream of the filter-separator systems.

In the Metering station 1 tank of 3 m ^{3} must be built for the collection of condensed substances, for the drainage of the liquids trapped by the filter-separator unit. This tank must have double walls, it should be installed on the surface, and it should be provided by a leak-indicator device. In designing this tank, high care must be taken to avoid spillages of the condensed substance from the tank when the substance is drained into the tank.

For Balassagyarmat Metering station, pig chambers (pig switch) suitable for the launching and receiving of intelligent pigs must be designed, and the pig chambers should be connected to the flares to be newly constructed
Access to the station: from the Balassagyarmat – Szügy public road.

Quantity and quality parameters of natural gas to be transmitted:
The capacity of the Interconnector as defined by the permit in both directions is 600 thm 3/h, 14,4 Mm 3/day, or 5,0 Bm 3/year of non-odoured natural gas of commercial quality.

Impacts of the installation

As regards the implementation of the investment, the following criteria have been taken into consideration for defining the layout:

- Compliance with applicable regulations and standards, and the applicable installation distances.
- Ensuring a safe operation of the object

The contemplated route:
crossings:

- 197 unpaved roads
- 27 roads with solid pavement
- motorways at 3 points,
- 6 railway lines, and
- 16 smaller watercourses, and river Ipoly

Air-cleanliness protection

Vecsés Node (metering station) - Balassagyarmat - Hungarian/Slovakian Border high-pressure natural-gas transmission pipeline

During the construction works, the direct impacts areas related to air-protection change continually, affecting the direct environment of pipeline segments being under construction at the given time. The contemplated route of the pipeline runs both in direct vicinity of and in a long distance from residential areas.

On the basis of the calculation results, it can be established that the contemplated investment influences the present air quality to a hardly demonstrable extent.

Even this impact will be detectable only in the installation period.

- *Vecsés node*

During the construction works, air exposures of similar sources are expectable like in the construction of the compressor station, only to a smaller extent

Szada Compressor Station

In the installation period, not only the emissions caused by the above-listed machinery should be taken into consideration, but also the so-called wind-erosion dust pollution, dust raised by heavy vehicles, and their exhaust gases.

In the construction works period, first of all the dust raised by vehicles and machines gives rise to higher air pollution levels.

On the basis of the calculations it can be stated, that the construction works of the compressor station do not cause air pollution above the limit values.

Block valve stations (Rád, Romhány),

Air exposures of similar types are likely in the construction works period as for the construction of the compressor station, just to a lesser extent.

Metering station (Balassagyarmat)

In the construction period, air exposures of similar sources are likely as in the construction of the compressor station, just to a lesser extent.

Protection of soil, ground waters and subsurface waters:

Significant impacts as regards the pollution of soils, ground waters and subsurface waters do not have to be expected in the implementation phase of the investment where the machinery and building materials used are in perfect condition in terms of environment protection. Gas oils and lubricant oils spilled when the machines are refilled with them on the work site should be included among those factors that may cause contamination to soil. Accordingly, mitigating measures must be complied with, which should refer to performing the operations with special care, and leakages must be contained by sand-trays where necessary . Process discipline and the control thereof must be ensured.
Where the above precautions are met, no contaminants get to the soil.

In the construction process of the pipeline route, the provisions of the building permit released by the competent mine authority must be complied with.

Short description of the construction works of crossings of various objects:

- Road crossings.

- Crossing of unpaved roads:

Unpaved roads are crossed underneath, for which the road is cut through.

- Crossing of roads with solid pavement

For the crossing of paved roads, the use of the pipe driving technique is planned, without breaking the pavement up.

- Crossing of motorways

The technical solutions for motorway crossings should be selected with view to local circumstances, either by pipe driving or by directional horizontal drilling.

- Crossing of over-the-ground line structures:

The route of the pipeline was defined in accordance with the provisions of Hungarian standards MSZ 151, MSZ 13207/2000, and MSZ 7487/2-80, Regulations 122/2004 GKM and 9/1986 IPM, and Communiqué 9004/1982 KPM-IPM, and it must be complied with during the implementation.

- Crossing of railway lines

In case a railway line is crossed, the provisions of the following document released by MÁV Zrt. (the Hungarian State Railways Company) must be met: No. P -8964/2007. PMLF „Mandatory directives for the construction of railway line crossings by hydrocarbon transmission pipelines, without a ring space, with protective tubing made from a fibre-reinforced composite material."

Vecsés Node

Underground construction works will not be performed at this node, so no pollution of the groundwater or of sub-surface waters have to be taken into account. Pollution to the soil, however, may occur due to a wrong operation of machinery. Pollution can be avoided by performing the operations with special care.

Szada Compressor Station

Building the foundation for the compressor, and the works for the office building necessitate that underground construction works are done. Special attention must be paid to avoiding contaminations to ground waters.

Pollution to the soil, however, may occur due to a wrong operation of machinery. Pollution can be avoided by performing the operations with special care.

Block valve stations (Rád, Romhány),

Underground construction works will not be performed at the block valve stations, so no pollution of the groundwater or of sub-surface waters have to be taken into account. Pollution to the soil, however, may occur due to a wrong operation of machinery. Pollution can be avoided by performing the operations with special care.

- *Metering station* (Balassagyarmat)

Underground construction works will not be performed at the metering station, so no pollution of the groundwater or of sub-surface waters have to be taken into account. Pollution to the soil, however, may occur due to wrong operation of machinery. Pollution can be avoided by performing the operations with special care.

Protection of surface waters:

It is recommended to cut across the riverbeds to implement the crossings, which must be agreed upon by the competent hydrology directorate or water-management association.

The approximate GPS coordinates of the border crossing point as measured at the embankment of river Ipoly at the Hungarian side: N 48º 05' 09,8"; E 19º 18' 48,1"."

River Ipoly must be crossed by the horizontal directional drilling technique, in a length of about 700 meters.

Wildlife protection

Vecsés Node (metering station) - Balassagyarmat - Hungarian/Slovakian Border high-pressure natural-gas transmission pipeline

Gas transfer station (Vecsés)

Szada Compressor Station

Block Valve Stations (Rád, Romhány),

Metering station (Balassagyarmat)

Within the Natura 2000 areas, the works are restricted to the vicinity of the existing „Dhruzba 1" oil pipeline for Gödöllői dombság, while for Nyugat-Cserhát and Naszály, also of the existing „Dhruzba 1" oil pipeline and Vác-Romhány gas pipeline led in the same strip. The route of the new pipeline is designated along the above-mentioned pipelines in a distance of 8-10 meters. The pipeline construction works are performed within a 30 to 35 m wide strip. The activity commences with the creation of the construction strip, then the trench in which the pipe is laid down is excavated. The excavated earth (top- and sub-soil separately) is deposited at the side of the trench. After the pipeline has been laid down, earth is buried back. During these activities, significant treading damage should be counted on, due to which recultivation is needed. The treading damage caused by machinery, the provisional deposition of excavated earth, and the excavated trench give rise to a significant degradation of wildlife habitats in the existing right of way zone and its neighbourhood in an about 10-m wide strip).

Noise- and vibration control

When taking into consideration the pipe drilling activities, we can count with the following machineries and sound power levels.

Type of Machinery	**Quantity [dB]**	**Sound Power Level [dB]**
Excavator	2	104
Crane	2 (5)	107
Compressor	1	102
Vermeer type drilling machine	1	110
Electric generator set	1	99
Lorry/truck	2	100
Water pump	1	80
Compactor	1	104
Welding set	4	92

Waste management:

The amount of waste generated in the course of the construction is small. The collection of that waste and its transportation to a recipient or a communal landfill have to be carried out without the pollution of the environment. The types of waste flow which can be separated from non-hazardous waste within the framework of selective collection:

Public sanitary impacts

During the construction works process, container-type room is ensured for staying indoors, and WC, changing and washing rooms are provided for workers.

In the construction works period, the produced hydrocarbon is not present, therefore its health impacts and risks do not have to be assessed.

Cultural heritage protection

As for the protection of cultural heritage (registered archeologic sites, historic sites, ancient monuments), the provisions specified by the special authorative statement of the competent Agency for the Protection of Cultural Heritage must be met in the area in question.

The impacts of the operation

Air-cleanliness protection

Potential pollutant sources in normal operating mode within the entire investment area:

The pipeline itself, and the metering station do not represent or cause loads to the air. Air pollutant substances may be emitted (if any) primarily from the flares (or blowers) of the block valve stations, or from the turbines of the compressor station.

The flaring of gas is not an operational status - it is used in those cases, where a given pipeline segment has to be emptied, and it is not possible to compress the gas into another pipeline section.

Protection of the soil, ground waters and subsurface waters

The gas transported in the pipeline is a non-odorated natural gas of commercial quality, and it is composed of gaseous hydrocarbons.

In case of normal operations:

The piped transportation of natural gas does not represent any risk for either the soil or subsurface waters under normal operation conditions. Similarly, the stations in Vecsés, Gödöllő, Rád, Romhány, and Balassagyarmat, do not represent any risk for the soil, ground waters or subsurface waters.

In case of operating troubles or emergencies:

As no liquid components are contained in natural gas, the soil, ground waters or subsurface waters do not get contaminated in case of operating troubles or emergencies, either along the pipeline route, or in the stations in Vecsés, Rád, Romhány or Balassagyarmat. The operator will be provided by instructions for the prevention of disturbances.

In the compressor station in Szada, there is a potential for the spillage of lubricant oils to the soil as a result of human failure. In such cases, contaminated soils must be removed immediately and transported to a licensed disposal plant.

Protection of surface waters

As the trasported natural gas is a dry gas, and it does not contain liquid matters, it will not cause pollution to watercourses on the surface even if there is a leakage in the pipeline.

Wildlife protection

The piped gas transportation has no disturbing effects on wildlife.

No habitat loss occurs, and there will be no emissions that affect wildlife. The operation of the pipeline does not have impacts on wildlife.

Noise control

Piped gas transmission does not have noise impacts.

Noise impacts in process stations may be caused by the flaring of gas. The special literature says that in extreme events (in case of operational disturbances) the acoustic power level of the flare can be a value within a quite wide range of 90-120 dB. This value is much lower when maintenance works are performed, as the pipeline is emptied by a mobile compressor into the operational pipeline section.

The acoustic power level of the compressor is between 104 and 110 dB, while that of the cooling system is 90 dB.

It is not practicable to use free ventilation openings on the compressor room; it is recommended to use link-motion attenuator elements to ensure that the acoustic inhibition effect of the various surfaces should not be less than 38-40 dB.

Waste

In case of normal operations:

No wastes are produced during the operation of the pipeline in the course of the piped transmission of natural gas.

In case of maintenance works:

In the Vecsés, Szada, Romhány, Rád and Balassagyarmat stations, scheduled preventive maintenance actions are performed with about six-months frequency, and the pipeline is cleaned by an intelligent pig when and where necessary.

Wastes produced:

In the maintenance process, soak-up materials, oil-contaminated wipe-up clothes, oil-contaminated earth produced during the cleaning of tanks, used oils and other oil-contaminated wastes may be produced.

The collection and transportation of dangerous wastes produced in the maintenance processes or in operational breakdowns shall be done in

compliance with the provisions of Government Regulation 98/2001. (VI.15.) Korm. Hazardous wastes have to be managed in accordance with applicable regulations, with special care, separately, under strict control and in a documented way, their disposal and recycling are to be carried out with the least possible exposure and pollution to the environment, in an officially authorized facility.

Liquid and solid communal wastes are collected in accordance with the provisions, then transported to licensed sites.

Public sanitary impacts

Under normal operating conditions

Under normal operating conditions, the piped natural gas transmission does not have public sanitary impact.

In case of extraordinary events:

A pipeline leakage or the release of large quantities of hydrocarbons may represent a sanitary risk. It can be stated for each such event, that the evolvement of health-damage risks can either be prevented or reduced to acceptable levels if the exposure routes representing risks to health can be eliminated either by legal regulation or by any other way.

In this case, on the basis of land use in the route of the natural-gas pipeline, it can be stated, that the presence of humans with the purpose of living or working in the potentially contaminated area can be excluded.

Best Available Technology (BAT)

In defining the best available technology, plus results proportional with expectable extra implementation costs, the benefits and drawbacks of implemented procedures, as well as the principles of cautiousness and prevention must be taken into consideration.

Best available technologies entail two benefits: helps to create a cleaner environment, and stimulates innovation, and the modernisation of traditional industries.

We highlight the following procedures that can be considered modern among the procedures used in the piped transportation of hydrocarbons:

1. The use of low-waste-producing technologies:
2. The use of less dangerous substances,
3. Facilitating the regeneration and the reuse of materials produced and used in the process,
4. Alternative operation processes, plants or methods that have been successfully tested in industrial magnitude,
5. Application of changes in technology improvement and in attitudes,
6. Investigation of the types, impacts and quantities of relevant emissions,
7. Drawing up the dates of the authorisation of new and existing objects,
8. Description of the time needed for the implementation of the best available technology,
9. Consumption and types of raw materials used in the process; energy efficiency of the process,
The number and quantity of raw materials used in the process is minor
10-11. The need to minimize or to prevent the environmental impacts of emissions or the risk thereof,
12. Information published by the Hungarian public administrational organs or by international organisations on Best Available Technologies in hydrocarbon production; shared experiences.

Control of extraordinary events

The purpose of an emergency-prevention plan

To specify actions for such situations, in which the life or health of one or more persons are in threat, or there is a risk of pollution to the

environment as a result of a defect or operational breakdown of an object.

Baseline requirements

Participation in salvage or prevention operations is allowable only if the security of workers is ensured, and if they use the required protective devices (special protective equipment for instance: respiration protection equipment, fireproof clothing, etc.)

Further, if the conditions for the personal safety of workers is ensured (the presence or active participation of personal assistance)

Through providing training and exercising for the provisions of the danger-prevention plan it must be ensured, that the shock that paralyses people in case of a danger should be counterbalanced by well-practiced salvation measures, in order to avoid personal injuries and grave environmental pollutions, and to mitigate property damage.

The control of extraordinary events in the territory of the investment is regulated by instructions.

Winding up

After the normal operations of the pipeline have been finished off (if the pipeline is removed from the ground in the winding up process), recultivation of formerly used areas must be ensured to bring the area into a condition suitable for reuse, or the area should be landscaped in a way to match to its natural environment.
After the abandonment of the operation, built objects must be liquidated. Reusable components must be transported to another site.

The impact of the liquidation of objects to environmental components is nearly the same as the impacts occurring in the construction phase, just for a shorter period of time

11. ANNEXES

- Annex 1: Hungarian-Slovakian DN 800 gas pipeline, Draft route (Vecsés-Balassagyarmat). General plan. M=1:100 000.
- Annex 2: Hungarian-Slovakian DN 800 gas pipeline, Draft route (Vecsés-Balassagyarmat). Nature-conservation map. M=1:10 000 Sheet number: 1/7-7/7,
- Annex 3: Vecsés-Balassagyarmat DN 800 Natural gas transmission line. Simplified flow chart.
- Annex 4: Hungarian-Slovakian DN 800 gas pipeline. Vecsés node. M= 1:10 000. Sheet number: 2/5
- Annex 5: Hungarian-Slovakian DN 800 gas pipeline Gödöllő/Szada compressor station. M= 1:10 000. Sheet number: 2/5
- Annex 6: Hungarian-Slovakian DN 800 gas pipeline Rád valve station. M= 1:10 000. Sheet number: 3/5
- Annex 7: Hungarian-Slovakian DN 800 gas pipeline Romhány valve station. M= 1:10 000. Sheet number: 4/5
- Annex 8: Hungarian-Slovakian DN 800 gas pipeline. Balassagyarmat metering station. M= 1:10 000. Sheet number: 5/5
- Annex 9: Hungarian-Slovakian DN 800 gas pipeline Draft route (Vecsés- Balassagyarmat) Environment protection map. M= 1:10.000. Sheet number: 01-13/13-13
- Annex 10: „Minutes of the consultation of experts in connection with the designation of the route of the natural-gas transmission pipeline to be built between Vecsés and Vel'ké Zlievice"
- Annex 11: Impact assessment related to NATURA 2000 areas