

INTERNATIONAL CONFERENCE



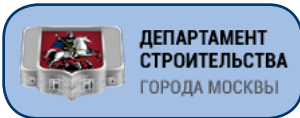
# TUNNEL RUSSIA

MARCH 12–14, 2014, MOSCOW

**EVENT HOLDER:**



**OFFICIAL SUPPORT:**



**SPONSOR:**



**PLENARY MEETING**

**Tunneling in Russia: today and tomorrow. Economy, statistics, general achievements. Foreign experience**

**SESSION 1**

**Underground construction norms and regulations**

**SESSION 2**

**Modern tunneling and large-scale crossings construction technology. Overview and analysis of record-breaking and challenging projects**

**SESSION 3**

**Engineering, survey, construction materials selection, preparation for construction of UG utilities**

**MASTER CLASS**

**Management of tunneling and large-scale crossing projects**

**ROUND TABLE**

**Environmental aspects of trenchless methods. Work safety**

**SESSION 4**

**Building of tunnels and crossings**





**Andrey Rudenko**  
General Director

**Inventor Industries Ltd.**  
UK

## Opening speech by the Event Holder:

Dear colleagues and friends,

Back in the 1990ies, automatic microtunneling and heavy HDD equipment had appeared in large numbers in Russia. This equipment was used to build communal utilities (construction of sanitary sewers and trenchless installation of water and gas pipelines) along with trenchless trunk pipeline crossings (a new application area at that time). Trenchless pipeline crossings and subway engineering / transport tunnels construction form one of the most technically advanced areas of construction industry.

Cutting edge achievements in tunneling, microtunneling and HDD (both worldwide and in Russia) helped Russian drillers implement a large number of projects, including record-breaking ones; many of these were built in geologically and climatically challenging areas. Russia has by now accumulated R&D and technical experience in engineering, project management and work execution. Internationally, Russia is both one of the leading markets for technology and equipment and one of the world's leaders in tunneling and crossings.

It goes without saying that an economically viable industry and a technically complex discipline like tunneling, microtunneling and HDD requires an efficient technical, economic, HR and engineering information exchange along with intra-industrial communication channels and platforms. This industry deserves having a dedicated and specialized information support program. This is exactly what the Tunnel Russia specialized international conference is meant for.

Welcome to the first specialized international conference Tunnel Russia 2014! Wishing you a productive event and a fruitful communication!



## Conference Profile:

Tunnel Russia, a new project by Inventor Industries, will cover tunneling and microtunneling, directional drilling and combined construction technologies used in construction of tunnels and large crossings of motorways, communal utilities and oil and gas pipelines in Russia and CIS.

This is the first time a specialty conference like that is held in the CIS region. Our specialists' 15-year experience in tunneling and HDD from innovations and equipment supplies to information support and education will be a keystone of success of the event.

### EVENT HOLDERS:

Inventor Industries Ltd.: introducing innovative technical solutions and state of the art technologies, providing training and engineering services and supplying construction equipment for utilities, pipelines and tunnels since 1994.

**Alexander Demchikhin:** Project Manager

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**Andrey Rudenko:** General Director of Inventor Industries Ltd.

## Opening speech by the Client:

Construction of underground utilities and transportation facilities, particularly in large megalopolises like Moscow, is a technically challenging task. This can be attributed to the immense density of the existing pipelines, tunnels, sewers and subway tunnels of various installation depths and various age.

The work is greatly impacted by geology. Moscow is built on karst soils. These soils are likely to form cavities with groundwater streams; hence the increased risk of collapse. Besides, the existing residential areas require an uninterrupted supply of power and resources to 24/7 consumers (cultural and welfare facilities and 24/7 industrial production facilities) during the re-installation and forced re-arrangement of the existing utilities.

UG infrastructural facilities typically require a service life of 100 years and more, given the construction cost and the complexity of re-installing or re-arranging these.

I hope that the need for the conferences and seminars held by Inventor Industries will grow from event to event; I am also sure that these events will enjoy continuous support from investors and municipal structures due to the great importance of exchanging the experience in the use of cutting-edge engineering and construction solutions for complex transport systems.



**Andrey Babkin**

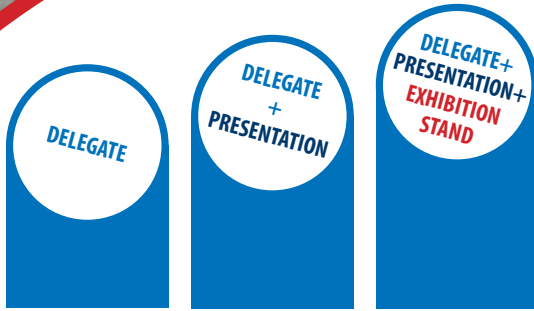
Head of Engineering and Survey Control Service

**Construction Department, Moscow City Administration**





## PARTICIPATION LEVELS:



## GOLDEN SHIELD PRIZE AWARD:

The GOLDEN SHIELD prize will be awarded for achievements in engineering and construction of tunnels, complex trenchless crossings and for contribution to the development of HDD and microtunneling technology in CIS countries.

The nominees will be selected from among the participants by the Committee comprised of A. Babkin, Moscow City Construction Department representative, V. Anischenko, drilling expert, A. Chentsov, Deputy General Director, Science, RDI for Oil and Petroleum Products Transportation. The participants will then elect the winner by voting.



## PARTICIPANTS OF OUR EVENTS:

OJSC SoyuzDonStroy (Russia) • OJSC Giprotuboprovod (Russia)• PC YuzhNilgiprogaz (Ukraine) • CJSC Inzhproyektservice (Russia) • OJSC Svyaztransneft (Russia) • LLC SP VIS-MOS (Russia) • LLC Podzemburstroy (Russia) • LLC IPSK NGS-Tempobur(Russia) • OJSC Institute Neftegazproyekt (Russia) • Construction Department of Moscow City Administration (Russia) • OJSC VNIIST (Russia) •Wesu GmbH (Germany) • MTS GmbH (Germany) • Eising-HDD (the Netherlands) • CJSC PIRS (Russia) • OJSC JSC Transneft (Russia)• LLC RDI for Oil and Petroleum Products Transportation (Russia) • MOLL-prd GmbH (Germany) • CJSC Vodokanalstroy (Russia) • OJSC Rosneft (Russia) • OJSC Lukoil (Russia) • OJSC GazpromNeft (Russia) • OJSC Belorusneft (Belarus) • OJSC Unirus (Russia)• OJSC STIS (Russia) • Herrenknecht AG (Germany) • LMR Drilling (Germany) • ICOP (Italy) • CSM Bessac (France) • A.Hak Drillcon (Netherlands) • Prime Drilling GmbH (Germany) • Streicher GmbH (Germany) etc.

## FEEDBACK:

"I would like to express my gratitude for the program. I really appreciated the sites in the cities of Haarlem and Dunkirk. The presenters demonstrated high level of professionalism. I also enjoyed my leisure time in Amsterdam. This all added up to unforgettable experience and new exposures. I hope I will have another chance to participate in other events held by Inventor Industries Ltd."

**Nejad Vrsic**, Director for Capital Construction, **NIS GAZPROM-NEFT**



## CONFERENCE LIBRARY:

All participants of the International Conference TUNNELRUSSIA 2014, regardless of their participation level, will be offered a unique opportunity to advertise their respective companies by putting their leaflets on display at the CONFERENCE LIBRARY. Leaflets will be laid out on the tables in the conference hall at no cost for all the attendees.

The participants shall publish their own leaflets themselves in compliance with the following requirements: up to 200leaflets, A4format, up to 50pages in one leaflet.

## TENTATIVE AGENDA

MARCH 12, WEDNESDAY

08.30 Registration of participants

09.00 **OPENING CEREMONY**

09.15 **PLENARY MEETING**

*Current status of tunneling in Russia: today and future. Economy, stats, general achievements. Foreign experience*



### Confirmed presentations:

■ **Moscow City Utilities Development Investment Plan to 2020: Moscow City Targeted Investment Program Development Procedure**

**Andrey Babkin**, Head of Engineering and Survey Control Service, **Construction Department, Moscow City Administration**

■ **Examples of effective surveillance activities during the construction of utilities. Relations Committee-Customer**

**Alexander Maksimenko**, Head of Department, **State Construction Supervision Committee of Moscow**

■ **Role of trenchless technologies for the integrated development of underground space, world experience**

**Sergey Alpatov**, President, **NP ROBT (Russia)**

10.30 Coffee break

■ **Crossrail London: Challenges and Highlights of a Mega Project**

**Chris Dulake**, Chief Engineer, **Crossrail Ltd (UK)**

■ **Comparative Economic Assessment: Trenching, HDD, Auger Drilling, Microtunneling. Progressive Work Execution Methods**

**Gilbert Kimpel**, General Director, **MTS (Germany)**

■ **Trenchless Crossings: Viable Option or Not? Trenchless Technology Limitations: Geology, Hydrogeology, Geometry**

**Vasily Anischenko**, Independent Consultant, Expert in Trenchless Technologies **(Russia)**

### Invited presentations:

■ **Assessment of new tendencies in signing the contracts for underground utility construction projects**

■ **Use of Pension Fund in financing of trenchless construction projects. UK experience**

■ **Bridge vs. tunnel: comparative economic and technical analysis**

■ **Tunneling projects financing specifics**

12:00 **SESSION 1: REGULATORY AND LEGAL BASIS FOR UNDERGROUND CONSTRUCTION**

### Confirmed presentations:

■ **Actual tasks of the underground construction in Moscow**  
**Valery Belyaev**, Head Advisor, **Urbanisation Department of Moscow**, President Advisor, **National Surveyors Association**

■ **Status of Construction Norms and Standards for Transport Tunnels. Mine survey and survey to ensure the construction of tunnels for different purposes during the design and construction**

**V. Nikonorov**, Leading Researcher, Ph.D., **Branch of OJSC CNIIS RDC Tunnels and Subways**

### Invited presentations:

■ **Overview of Engineering Norms and Standards for Large Bore Utility Crossings**

**OJSC Giprotuboprovod (Russia)**

■ **Comparative Analysis of Underground Construction Methods from the Engineering Point of View. Estimate Norms for Cost Accounting**

**Alfred Bekshenev**, Deputy General Director, Chief Engineer, **CJSC PIRS (Russia)**

■ **Trunk Pipeline Crossings Construction Technology and Methods Selection and Certification Criteria**

**Alexander Chentsov**, Deputy General Director, Science, **RDI for Oil and Petroleum Products Transportation (Russia)**

13.00 Lunch







**14:00** **SESSION 2: OVERVIEW OF MODERN TUNNELS AND LARGE BORE PIPELINE CROSSINGS CONSTRUCTION TECHNOLOGY**

*Record-breaking and challenging projects implemented worldwide: examples and analysis*

**Confirmed presentations:**

- **Technological Analysis of Solent project - the longest crossing in Europe with 3926 m length**

**Ernst Fengler**, Managing Director, **LMR Drilling (Germany)**

- **Innovative «curved pipes» technology: pipelines construction method for trenchless crossings**

**Gennady Seleznev**, General Director, **Podzemburstroy Ltd. (Russia)**

**Invited presentations:**

- **Trenchless installation of pipelines in permafrost areas; tunneling methods**

**Permafrost Institute (Yakutsk, Russia)**

**15:00 PRESENTATIONS OF TECHNOLOGY SUPPLIERS**

**Confirmed presentations:**

- **Pipeline installation for trenchless crossings under the motorways, railways with the «HOBAS» products**

**Dmitry Eremenko**, General Director, **Truby HOBAS (Russia)**



**16:00 ROUND TABLE: ENVIRONMENTAL ASPECTS OF TRENCHLESS METHODS. SAFETY**

**Subjects to be covered:**

- Environmental norms for underground construction (Russian vs. European)
- Safety assurance during tunneling and utility construction. Effective norms and regulations. Nickolay Meshechek, Construction Safety Assurance and Emergency Response Division, Construction Department, Moscow City Administration
- Fire safety
- Work in seismic areas
- Environmental risks of HDD river crossings construction projects
- Water impermeability and degassing assurance
- Slurry and mud disposal

18.00 End of the first day of Conference

19.00 Gala Dinner Party

**MARCH 13, THURSDAY**

**10:00** **SESSION 3: ENGINEERING, SURVEY, CONSTRUCTION MATERIALS SELECTION, PREPARATION FOR UNDERGROUND UTILITIES CONSTRUCTION**

**Confirmed presentations:**

- **Construction method selection: site area substantiation and site preparation**

**Vasiliy Anischenko**, Independent Consultant, Expert in Trenchless Technologies **(Russia)**

**Invited presentations:**

- **Geophysical and geodesic data: how can they help reduce tunneling risks and costs?**

**Thomas Dickmann**, **Amberg Technologies AG**

- **3DEngineering of Underground Space**  
**Evgeniy Lomakin**, General Director, **LLC SRPC Vodnye Sistemy (Russia)**

- **Modern muds from Europe and North America**

**Baroid (US)**, **SudChmie, MI (Germany)**

- **Pipes: steel, plastic, reinforced concrete. Composite materials**

- **In-situ reinforced concrete pipes production**

- **Overview of drill-pipes, drilling rods, welding and planning tools**

13.00 Lunch

**14:00** **SESSION 4: TUNNELS AND CROSSINGS COMPLETION**

**Confirmed presentations:**

- **External coating selection and evaluation criteria for pipelines to be installed in the crossing wells**

**Vsevolod Pritula**, President's Advisor, **OJSC VNIIST (Russia)**

- **Modern systems of artificial lighting of road tunnels**  
**Anatoly Chernyak**, Head of Laboratory, **Alexey Korobko**, Leading Researcher, **LLC «VNISI» (Russia)**

**Invited presentations:**

- **Configuration and geometry of complex pipe spools in tunnel-type crossings**

- Modern transport tunnel wall lining technologies
- Transport tunnels ventilation and firefighting systems arrangement principles

**16:00 MASTER CLASS: MANAGEMENT OF TUNNELING AND LARGE CROSSINGS CONSTRUCTION PROJECTS**

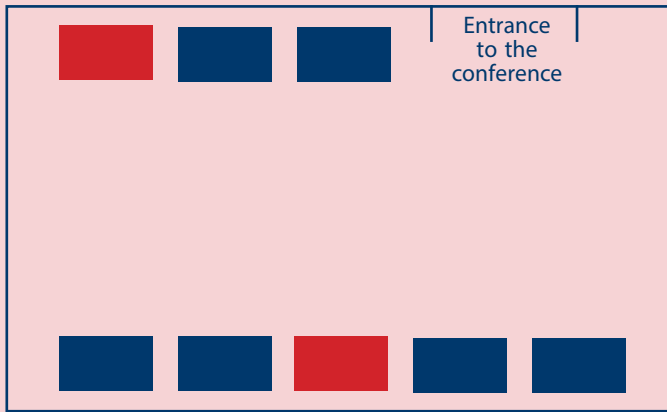
Subjects to be covered:

- Management of HDD crossing (1420 mm): extreme long crossings, extreme large boreholes (56" pipes), outfalls/landfalls
- Modern IT project management tools for tunneling projects
- Shaft control methods. Strain gauge control and visual inspection
- Technical and financial documents and work progress reports. Delivery of the facility

18.00 End of the second day of Conference

**EXHIBITION MAP:**

■ Occupied ■ Vacant



**MARCH 14, FRIDAY**

**09:00 TECHNICAL VISIT**

Departure from the hotel. Visit to the Moscow city construction site:

- Moscow subway station
- Trenchless crossing (HDD, microtunneling or "gooseneck")

13.00 Lunch

15.00 Return to the hotel. Closeout

*The Event Holder reserves the right to revise the agenda*

**LOCATION:**



**Renaissance Moscow Olympic hotel**

18 / 1 Olimpiysky Prospekt, 129110, city of Moscow. Tel.: +7 (495) 931 90 54, fax: +7 (495) 626 58 46

The Event Holder reserves the right to change the host hotel within the Moscow city limits. Those participants who have paid for their transfer will be met by the driver holding the INVENTOR INDUSTRIES sign at the arrival hall. March 15, transfer from the hotel to the airport will be provided three hours before the departure; the driver will be waiting at the hotel lobby

**INFORMATION SUPPORT:**

with accreditation

