

Second Russia-China International Meeting on the Central Asian Orogenic Belt

September 6-8th, 2017, Irkutsk, Russia

with post-conference excursion

September 9-12th, 2017, Baikal area, Siberia, Russia

Second Circular



Sponsors:

Institute of the Earth's Crust, Siberian Branch of

Russian Academy of Sciences, Irkutsk, Russia

Institute of Geology, Chinese Academy of Geological Sciences,

Beijing, China

Russian Foundation for Basic Research, Moscow, Russia

Federal Agency of Scientific Organizations, Moscow, Russia

Novosibirsk State University, Ministry of Education and Science, Russia

1. About the Meeting

The first China-Russia Meeting on the Central-Asian Orogenic Belt (CAOB) was held in September 2015 in Beijing. It was a very successful experience that enabled scientists from Russia, China and several other countries to get together and discuss new research results on the origin and development of the CAOB.

The Central Asian Orogenic Belt one of the largest accretionary orogens on Earth and occupies about 50 % of northern and central Eurasia. It is situated between the Siberian, North China and Tarim cratons, and its development lasted from the latest Mesoproterozoic to the early Mesozoic. Detailed studies have shown that the origin of the CAOB resulted from the closure of three ancient ocean basins, namely the Palaeo-Asian, Solonker and Mongol-Okhotsk oceans and formation of a large-scale composite accretionary orogen.

There are two contrasting hypotheses concerning the evolution of the CAOB. The first model regards the CAOB as an originally single and long chain of early Palaeozoic intra-oceanic island arc systems and back-arc basins that were produced by continuous subduction-accretion processes. This model is similar to the Mesozoic evolution of the North American Cordillera and predicts the existence of large orogen-parallel strike-slip faults. Another view suggests that the CAOB comprises a collage of microcontinents and oceanic as well as continental margin arcs that collided with one another and eventually accreted to the Siberian craton. This view corresponds to models of continent and arc-continent collisions. In general, this view looks similar to the present south-west Pacific style of accretion and may be considered as a major mechanism of large-scale orogen building.

Both models suggest that each part of the CAOB had its own particular tectonic evolution. This is why it is important to study different parts of the CAOB in Central Asia and to share new research results with colleagues within the international geoscience community. Combining international and across-border comparative studies will allow us to improve our understanding of the origin and development of the CAOB as a whole. Moreover, such scientific collaboration provides a platform for communication between Russian, Chinese and other countries' geologists to present new results, ideas and tectonic models and to determine key area and novel approaches for future research and cooperation.

The detailed schedule of the meeting and post-conference field excursion will be announced in the Third Circular.

2. Main topics:

- Evolution of Palaeo-oceans: from accretion to collision (ophiolites, ocean plate stratigraphy, tectonics, magmatism, metamorphism and deformation styles);
- Across-border correlations within the CAOB and nomenclature;
- Continental crustal growth and architecture;
- Intra-plate processes and mantle plume;
- Ore-forming systems and mineralization in Central Asian;
- Superposition of palaeo-Pacific and Okhotsk tectonics;
- Continental amalgamation in the CAOB, Neoproterozoic to Palaeozoic and Mesozoic palaeogeography and palaeomagnetism;

- Reconstructing the crustal structure and tectonics of the CAOB using geophysical techniques

3. Sponsoring Organizations/Senior Representatives

- Institute of the Earth's Crust, Russian Academy of Sciences, Siberian Branch (IEC SB RAS), Irkutsk, 664033, Russia. Responsible scientists: Dmitry Gladkochub, Tatiana Donskaya, Eugene Sklyarov
- Russian Foundation for Basic Research, Moscow, 119991, Russia
- Federal Agency of Scientific Organizations, Moscow, 119991, Russia
- Institute of Geology Chinese Academy of Geological Sciences of Geology and Beijing SHRIMP Center, Chinese Academy of Geological Sciences (CAGS), Beijing, 100037, China (Zen-Qian Hou, Tao Wang, Jing-Yi Li, Dun-Yi Liu, Alfred Kröner)
- Project of Atlas of Geological maps in Central and eastern Asian by five Asian countries/ Shu-Wen Dong (Beijing, China), O. Petrov (VESGEI, Russia)
- Major State Basic Research Program (973) of China (Tectonic superposition in eastern CAOB and large-scale mineralization) /Bei Xu (Beijing, China)
- Institute of Geology and Geophysics, Chinese Academy of Sciences / Wenjiao Xiao
- Novosibirsk State University, Ministry of Education and Science, Russia: Program 220, Project № 14.Y26.31.0018/ Inna Safonova

4. Secretaries-General:

Dmitry Gladkochub

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Tao Wang

Institute of Geology, CAGS, 26 Baiwanzhuang Road, 100037 Beijing, China
Tel: +86 13683242287, E-mail: taowang@cags.ac.cn, taowang@pku.edu.cn

Members:

Russian side:

Eugene Sklyarov (e-mail: skl@crust.irk.ru);
Vladimir Yarmolyuk (e-mail: yarm@igem.ru);
Kirill Degtyarev (e-mail: degtkir@ginras.ru);
Alexander Kotov (e-mail: abkotov-spb@mail.ru);
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Ying Tong, CAGS (+86 13671204294, +86 10 68999732; yingtong@cags.ac.cn);
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He Huang (CAGS, Tel: +86 13581816019; huanghecugb@126.com).

5. Dates and place of meeting

Conference: 6 - 8 September 2017, Irkutsk, Russia

Post-conference field trip: 9 – 12 September 2017, Baikal area, Siberia, Irkutsk, Russia

Venue: Institute of the Earth's Crust SB RAS, 128 Lermontov Str., 664033 Irkutsk, Russia

6. Contact information

A. For scientific information:

- Dmitry Gladkochub, Institute of the Earth's Crust, Siberian Branch, Russian Academy of Sciences, Irkutsk, 664033, Russia; e-mail: dima@crust.irk.ru
- Tatiana Donskaya, Institute of the Earth's Crust, Siberian Branch, Russian Academy of Sciences, Irkutsk, 664033, Russia; e-mail: tanlen@crust.irk.ru
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- Bei Xu, Peking University, Beijing, China; E-mail: bxu@pku.edu.cn
- Wenjiao Xiao, Institute of Geology and Geophysics, CAS, 100029, China; e-mail: wj-xiao@mail.iggcas.ac.cn
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- Inna Safonova, Novosibirsk State University, Pirogova 2, Novosibirsk, Russia; inna03-64@mail.ru

B. For registration, hotel reservation, field trip payment and others:

- Marina Marchuk, IEC SB RAS (Registration, Extended Abstract submission and others), Irkutsk, Russia; e-mail: gt@crust.irk.ru
- Svetlana Frolenko, IEC SB RAS (Hotel reservation & registration fee and field trip payments), Irkutsk, Russia; e-mail: frolenko@crust.irk.ru
- Polina Boyarchuk, IEC SB RAS (Invitation letters & visa), Irkutsk, Russia; e-mail: foreign@crust.irk.ru

7. Abstracts

Extended abstracts will be published in a Special Issue of the Scientific journal "Geodynamics and Tectonophysics" (Scopus) in September 2017. Abstracts should be submitted in the format of "Geodynamics and Tectonophysics" (<http://gt.crust.irk.ru/jour/about/submissions>) with text file in Word, figure files in .jpg. Extended abstracts should be limited to 5 printed pages, and all references cited must be listed in full at the end of the abstract, following the "Geodynamics and Tectonophysics" format with journal names in expanded form. Abstracts in English should be submitted

electronically to the Secretariat of the meeting (Marina Marchuk, gt@crust.irk.ru) before 1 June, 2017. Abstracts submitted after the deadline will not be included in the abstract volume.

8. Post-conference field excursion

The anatomy of the composite Olkhon terrane: Cross section from the southern margin of the Siberian Craton into the northern CAO

Leaders: Valentin Fedorovsky, Dmitry Gladkochub, Tatiana Donskaya, Eugene Sklyarov, Anatoliy Mazukabzov and colleagues.

Date: 9-12 September (4 days)

Leave from Irkutsk on 9 Sept. at 09:00 a.m. by mini-buses and trucks to the Kurkut area (tourist camp), central part of Lake Baikal.

Back from Kurkut area (tourist camp) on 12 Sept. at 09:00 a.m. by mini-buses and trucks. Arrive at Irkutsk at 07:00 p.m. and further at Irkutsk International Airport at 11:00 p.m.

Fee: 450 USD (ca. 3200 RMB¥), including guide book, accommodation, food and transportation during the excursion.

Observations and purpose of field trip:

The Central Asian orogenic system (Fig. 1a) is a collage of microcontinents and terranes of different ages originating in island arcs, ophiolites, back-arc-basins, accretionary wedges, turbidite-basins, and passive margin settings. Most of these consist of igneous and sedimentary associations, but some are terranes composed of metamorphic rocks of uncertain tectonic affinity which, in turn, are collages of genetically and chronologically different units. Olkhon is one such terrane of uncertain origin, located in the northeastern CAO at the boundary with the Siberian craton (Fig. 1b). It belongs to the Baikal collisional belt which is part of the early Palaeozoic accretionary-collisional system, together with the metamorphic terranes of Derba, Kitoikin, Sludyanka, and Barguzin (Fig. 1b) that developed at about the same time and under similar conditions along the boundary of the Siberian craton and the Neoproterozoic accretionary-collisional system (Fig. 1b).

The Olkhon terrane includes Olkhon Island and the adjacent landmass of the western Lake Baikal shore (Fig. 2) at the collisional suture zone with the Siberian craton. The Olkhon terrane was produced by Ordovician collision as a collage of numerous chaotically mixed tectonic units composed of sedimentary, volcanic and plutonic complexes of different ages and originating in different tectonic settings. The Olkhon collisional collage resulted from three main deformation events: thrusting followed by doming and then strike-slip faulting. The events of metamorphism, magmatism, and tectonism extended over a period from 510 to 450 Ma, constrained by U-Pb zircon ages of rocks from the Olkhon terrane.

During the excursion participants will have a unique opportunity to observe the postulated evolution in excellent outcrops (Fig. 2) along a cross-section from the southern margin of the Siberian Craton into the Olkhon terrane which is the part of the northern segment of the CAO.

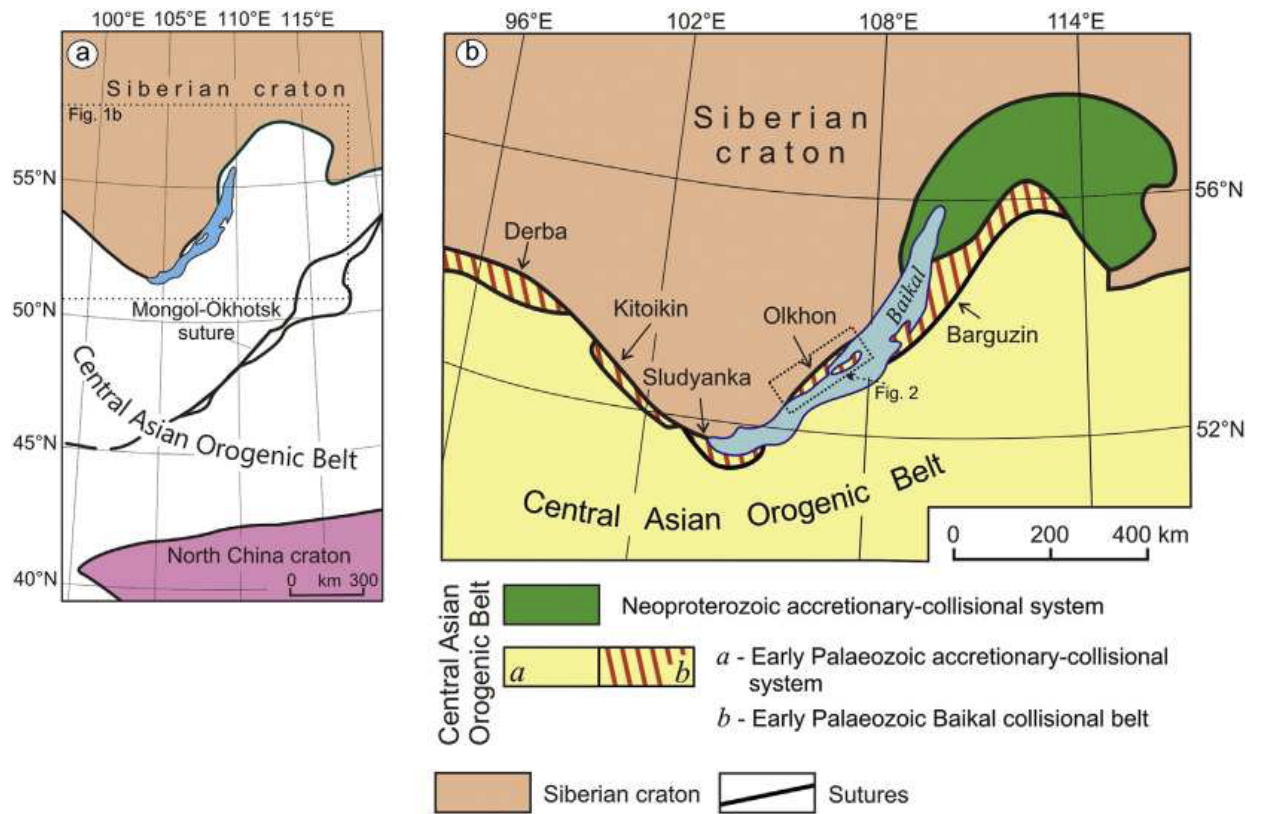


Fig. 1. Tectonic sketch map of Central Asia (a) and terranes in the early Palaeozoic Baikal collisional belt of the northern CAOB (b).

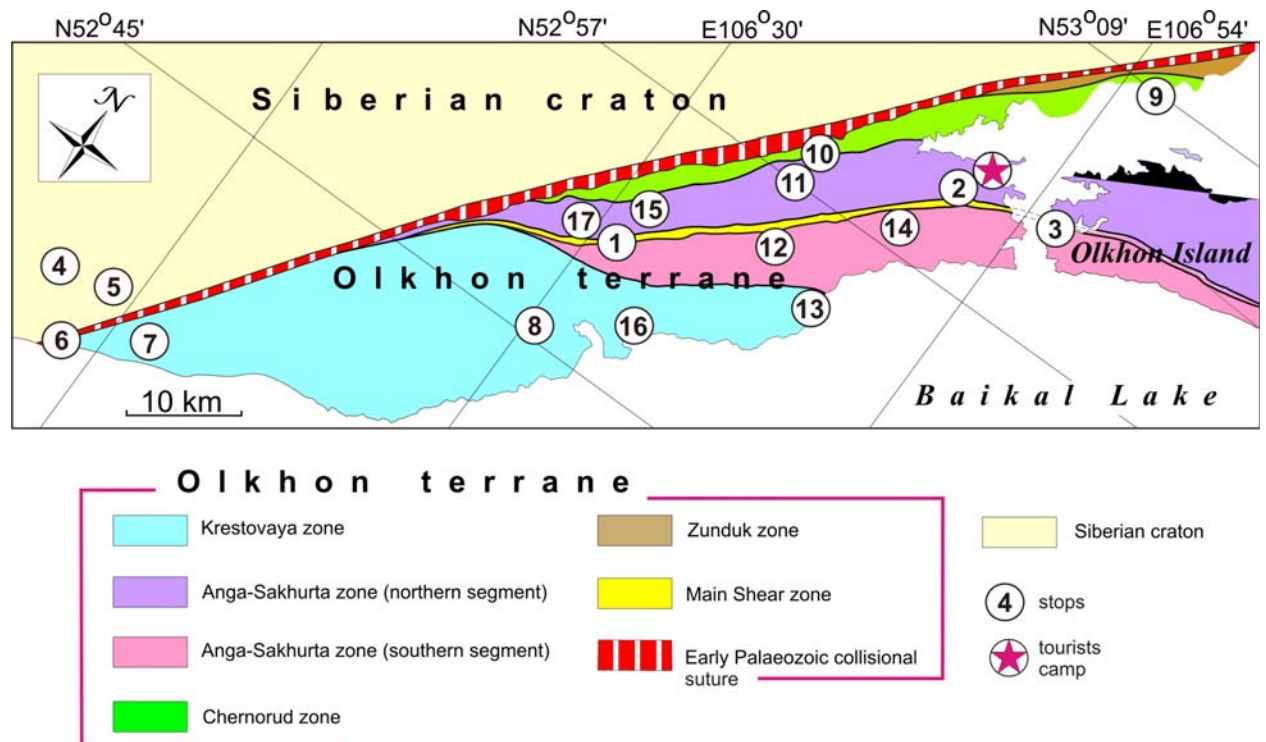


Fig. 2. Simplified tectonics of the Olkhon terrane and location of stops.

Preliminary Schedule (times for the excursion are approximate):

9 Sept.: Overview of the Olkhon terrane (OT)

9.00 a.m. – from Irkutsk to OT by bus and truck

12.30 – 13.00 - Lunch near Elantsi village (café)

Stop 1. (14.00) – View of the western and central parts of the OT (short talk)

Stop 2. (15.30) – View of the eastern part of the OT (short talk)

Stop 3. (16.30) – Geological structures of Olkhon Island (by ferry from Sakhurte village to the island and back)

19.00 – Accommodation in the tourist camp

20.00 – Dinner

10 Sept.: Transition from the Siberian craton into the CAO B

8.00 a.m. – Breakfast

9.00 – Begin of the excursion

Stop 4. (11.00) – Sediments of the Paleo-Asian ocean (Neoproterozoic passive continental margin of the Siberian craton, lower part of the sequence) (Kurtun River)

Stop 5. (12.00) – Palaeoproterozoic (ca. 1860 Ma) post-collisional granites of the Siberian craton

Stop 6. (13.00) – Main fault between Siberian craton and CAO B (just the margin of the CAO B)

13.30 – 14.00 - Lunch in the field on the coast of Lake Baikal

Stop 7. (14.30) – Marble of the OT in a quarry

Stop 8. (17.00) – 500 Ma gabbro of a mature island arc involved in the OT (Birkhin massif, Krestovaya zone)

19.00 – back to the tourist camp

20.00 – Dinner

11 Sept.: Cross-section through the Olkhon Terrane

8.00 a.m. – Breakfast

9.00 – Begin of the excursion

Stop 9. (10.00) – Granulite unit-1 of the OT (Khadarta Cape, Chernorud zone)

Stop 10. (12.00) – Granulite unit-2 of the OT (Tonta area, Chernorud zone)

Stop 11. (13.00) – Amphibolite unit of the OT (Lake Holbo-Nur area, Anga-Sakhurta zone)

14.00 – 14.30 – Lunch, café “Tazherani”

Stop 12. (15.00) – Youngest (ca. 460 Ma) granite veins

Stop 13. (16.30) – Ca. 800 Ma metamorphic volcano-sedimentary sequence of an active continental margin involved in the OT (Orso bay area, Krestovaya zone)

19.00 – Back to the tourist camp

20.00 – Dinner

12 Sept.: Geological heritage of the OT

8.00 am – Breakfast

9.00 – Check-out at the tourist camp, begin of the excursion

Stop 14. (9.30) – Granite “castles” (Anga-Sakhurta zone)

Stop 15. (10.30) – “Marble road” (Anga-Sakhurta zone)

Stop 16. (11.30) – 460 Ma plume-related Tazheran alkaline massif (unique mineralogy, etc.) (Krestovaya zone);

Stop 17. (13.30) – Cenozoic geyserite (Anga-Sakhurta zone)

14.00 – 14.30 - Lunch near Elantsi village (café)

19.00 – Back to Irkutsk, rest in Hotel, drive to airport.

For additional information regarding the Olkhon Terrane (southern part of the CAO, Baikal area, Russia) see articles that can be downloaded as below:

<http://jgs.lyellcollection.org/content/165/1/235.abstract?sid=b46b07d5-dcad-40ac-9c17-79263218c6fd>

<http://www.sciencedirect.com/science/article/pii/S1342937X16303434>

9. Important dates

Deadlines and schedule:

1 May 2017 – Pre-registration info (confirmation) from participants

1 June 2017 – Deadline for Registration Forms and Extended Abstracts

1 July 2017 – Payment of Registration and field excursion fees

6 September 2017 – Arrival in Irkutsk (direct flight from Beijing), accommodation in the hotel, registration and ice-breaker party

7 September 2017 – Opening ceremony, oral presentations

8 September 2017 - Oral and poster presentations, closing ceremony, banquet

9-12 September 2017 – Field excursion

13 September 2017 – Departure for Beijing and elsewhere from Irkutsk International Airport

10. Information on travel and expenses

1) Visa

Most foreign participants will be required to obtain a visa to enter Russia, which may take some time. Please check your visa requirements with the relevant Consulate General of Russia in your home country. A formal letter of invitation is a likely prerequisite for visa application, and if this is the case, such a letter will be sent on request soon after you let us know. Please contact Polina Boyarchuk, IEC SB RAS (Invitation letters & visa), Irkutsk, Russia (foreign@crust.irk.ru) to obtain an Invitation Letter and regarding any questions concerning visa arrangement.

The Organizing Committee will send the Invitation Letters in July 2017 to registrants who require it to apply for a Russian visa. The following information is required for the Invitation Letters:

- Copy of the first page of valid passport
- Current occupation
- Employer and employer's address
- Telephone numbers (mobile too)
- Dates of your stay in Russia (arrival and departure)

- Country and city where you will get the Russian visa

We need two (2) months for preparing the Invitation Letter.

All information may be sent to foreign@crust.irk.ru or by fax +7(3952)426900 or +7(3952)427000.

In case you need to have an official Invitation Letter earlier than the above date, an e-mail message to explain the reason is requested (please contact us: foreign@crust.irk.ru).

2) Registration & Excursion fees

Registration fee **USD 200 (ca. RMB¥ 1400)** for scientists and **USD 150 (ca. RMB¥ 1050)** for students and accompanying persons, and the field excursion fee is **USD 450 (ca. RMB¥ 3200)**. Everybody is encouraged to make payment through wire transfer before 1 July (see the bank information below).

If this is not convenient, you can also pay the all these fees at the meeting.

Banking details:

Beneficiary: Institute of the Earth's Crust of the Siberian Branch of the Russian Academy of Sciences

Short name of the Institute: IEC SBRAS

INN: 3812011756

Address: Russian Federation, 664033, Irkutsk, Lermontov str., 128

Account: 40503840601851000002

Beneficiary Bank: B&N BANK (Public Joint-stock Company)

33/1 Kotelnicheskaya Naberezhnaya St., Moscow, 115172, Russian Federation

SWIFT: MOBWRUMM

Intermediary Bank: Bank of New York, One Wall str., 8 th Floor New York NY, 10286 USA

SWIFT: IRVTUS3N

Account: 890-0514-841

Please specify your name and “2nd China-Russia meeting” on the transfer form when making payment. For any enquiries please contact us: frolenko@crust.irk.ru

3) Currency exchange:

The rouble (RUB) is the official currency in Russia. An exchange center is located in the airport, and money can also be exchanged at banks. Visa & MasterCard are accepted in hotels, bars and many department stores. ATM facilities are available to obtain RUB cash from your credit card.

4) Insurance liability

Participants should note that emergency medical costs are not covered by the registration fee.

5) Hotel information

The Organizing Committee recommends the Hotel Akademicheskaya (Irkutsk) as it is located nearest (less than 500 m) from the Institute of the Earth's Crust.



Rooms in the Hotel “Akademicheskaya” are available at various rates and degrees of comfort within a 10 minute walking distance from the conference site in Academgorodok. The hotel provides the following facilities: cafeteria, sauna, hairdressing salon, beauty salon and solarium. Room prices are in the range 60-100 USD.

Please use the internet [Booking.com](http://www.booking.com) service to make reservations in the Hotel Akademicheskaya (Irkutsk) or in any other hotel in Irkutsk.

6) Brief info about Irkutsk City

Irkutsk is one of the oldest cities in Russian Siberia (founded in 1661) and is large cultural, scientific and tourist center beyond the Urals. More information about Irkutsk can be found at www.irk.ru and <http://en.wikipedia.org/wiki/Irkutsk>

10. Pre-registration Form (to be send before 1 May 2017)

First Name	
Last Name	
Status (Prof., PhD etc.)	
Affiliation	
Address	
Phone number	
Fax number	
E-mail	
Title of presentation	
Type of report (oral or poster)	
Accompanying person(s)	
I consider to participate in the field excursion (Yes or No)	

We are waiting for you in Irkutsk (Siberia, Russia) in September 2017!