

## **Addendum**

### **Interested community**

The NICA project has a long term (approximately 30 years) research program in the field of heavy ion collisions and spin physics. It involves well-established scientific community. The project addresses a multidisciplinary scientific frontier by opening a novel possibility in studies of the fundamental properties of nuclear matter under extreme conditions (high baryonic densities and temperatures); hadron physics study; study of the nucleon spin structure and polarization phenomena; nuclear and atomic physics, biophysics and astrophysics.

The experiments at NICA will be carried out by international collaborations. JINR as an international and intergovernmental institution provides good basis for their activity. Besides this, strong international research alliances have been formed already to support the NICA construction. The geography of the project participants is growing constantly. At present, the physicists, engineers and designers from more than 100 institutes in 30 countries are taking part in the construction of different elements of the facility and in the development of the scientific program. The proposed physics task for NICA are collected in the NICA White Paper, which comprises, at present, contributions from 140 scientists from 56 institutions in 21 countries.

Universities from all JINR member states (18 countries from Europe, Asia, and Latin America) and six countries, which are associated members of the Institute as well as groups of researchers from Germany, Italy, China, the USA, France, Israel, Chile and Vietnam have joined already the collaborations.

We expect permanent presense of 1000 users, the total number of involved users can be estimated as high as 3000 researchers.

### **Timeline**

The overall timeline of the NICA project includes several phases. The first phase of the project was already started in 2017 (BM@N set-up at the Nuclotron extracted beam). The next phase comprises beginning of operation of the start-up configurations of the collider and MPD. It is foreseen to happen by the 2022. The plan of the following phased of the NICA facility development includes the MPD full configuration in 2025, when the set-up will be extended by a vertex detector and two endcaps. The SPD, in its start-up configuration will begin operation the same year.

### **Construction and operational costs**

The cost estimate for the first stage of the NICA complex amounts to 465 M\$.

### **Computing requirements**

The NICA RI will contribute to the development of IT infrastructure which will be a part of the e-Infrastructure commons. It will work with Big Data, including high-performance and high-throughput computing, high-end storage, advanced networking inside the complex, middleware services such as authentication and authorisation. The NICA IT infrastructure will significantly expand computing in the field of knowledge, innovation and science.