Grigori SHIRKOV

Joint Institute for Nuclear Research

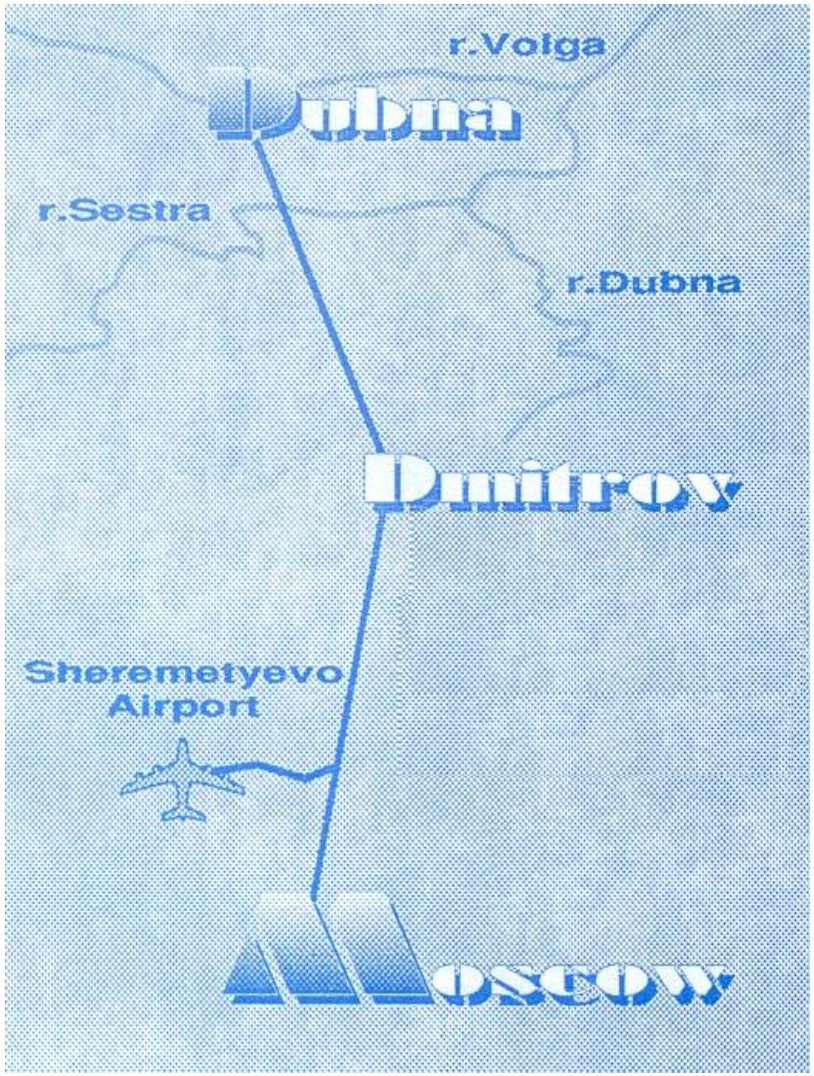
Dubna, Russia

International Intergovernmental Organization

Joint Institute for Nuclear Research

18 member states; 4 associate members

JINR
1956-2006
DUBNA



Joint Institute for Nuclear Research (JINR) is an **international intergovernmental organization** located in Dubna, Russian Federation, about 100 km north of Moscow

Photo of Dubna from satellite

JINR participation in ILC

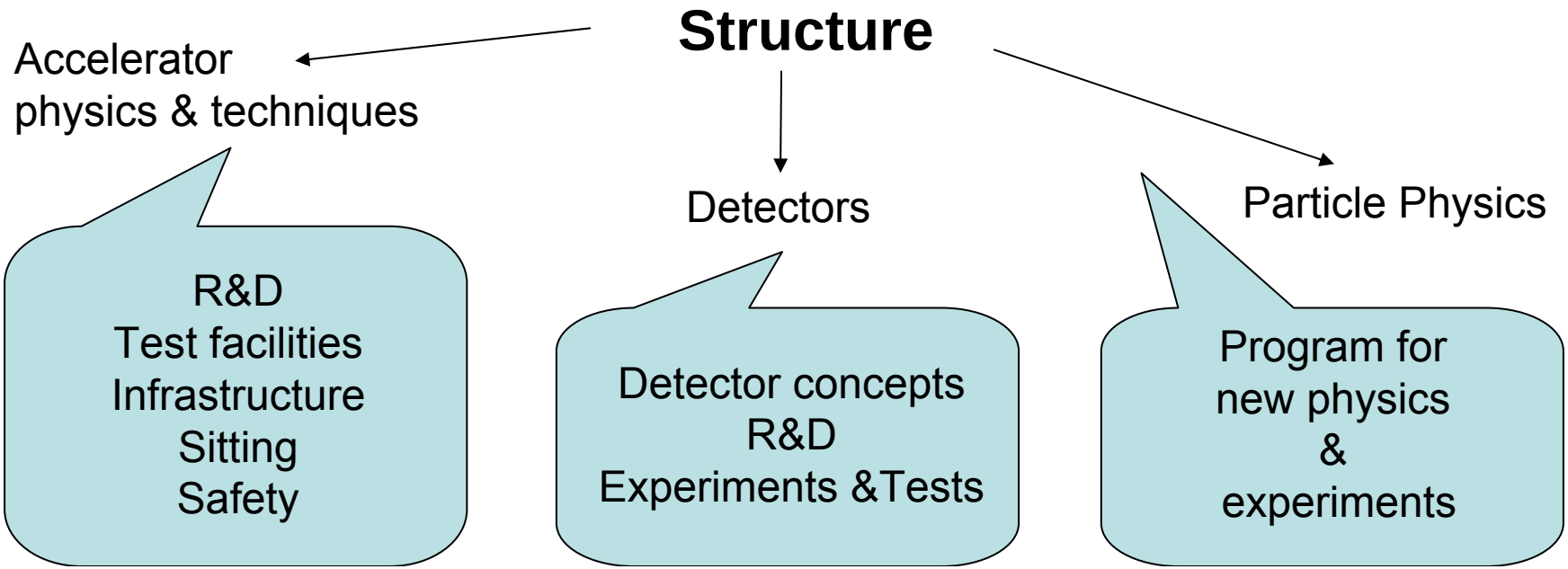
Scientific Council of JINR (20.01.2006):

- encourages JINR to be involved in the ILC design effort and to invest appropriate resources in scientific and technological developments to support its ability to play a leading role in the ILC project;
- supports the intention of JINR to participate actively in the ILC project and the possible interest of JINR to host the ILC

JINR Committee of Plenipotentiaries approved this recommendation on 25.03.2006

The Committee of Plenipotentiary Representatives of the Governments of the Member States is ***the supreme body governing the Institute.***

The total investment into the ILC activity at JINR is about 100 k$ for 2006



Accelerator physics & technique

Design, construction, commissioning of the Test bench of Electron gun with photocathode (Photo Injector prototype) & experiments

(Inhere: creation of FEL in the range of wavelength of 1000 Å – so called Soft X-Ray Laser – a lot of applications)

Participation in design works on construction, manufacturing and assembling of the cryo modules for superconducting RF cavities

Assembling and test of RF accelerator sections and cryo modules

Test of the accelerator sections with electron beam

Final stage of these R&D – creation of the linear electron accelerator with superconducting RF cavity

Other possible Accelerator “participation” :

Development of the magnetic systems for ILC:

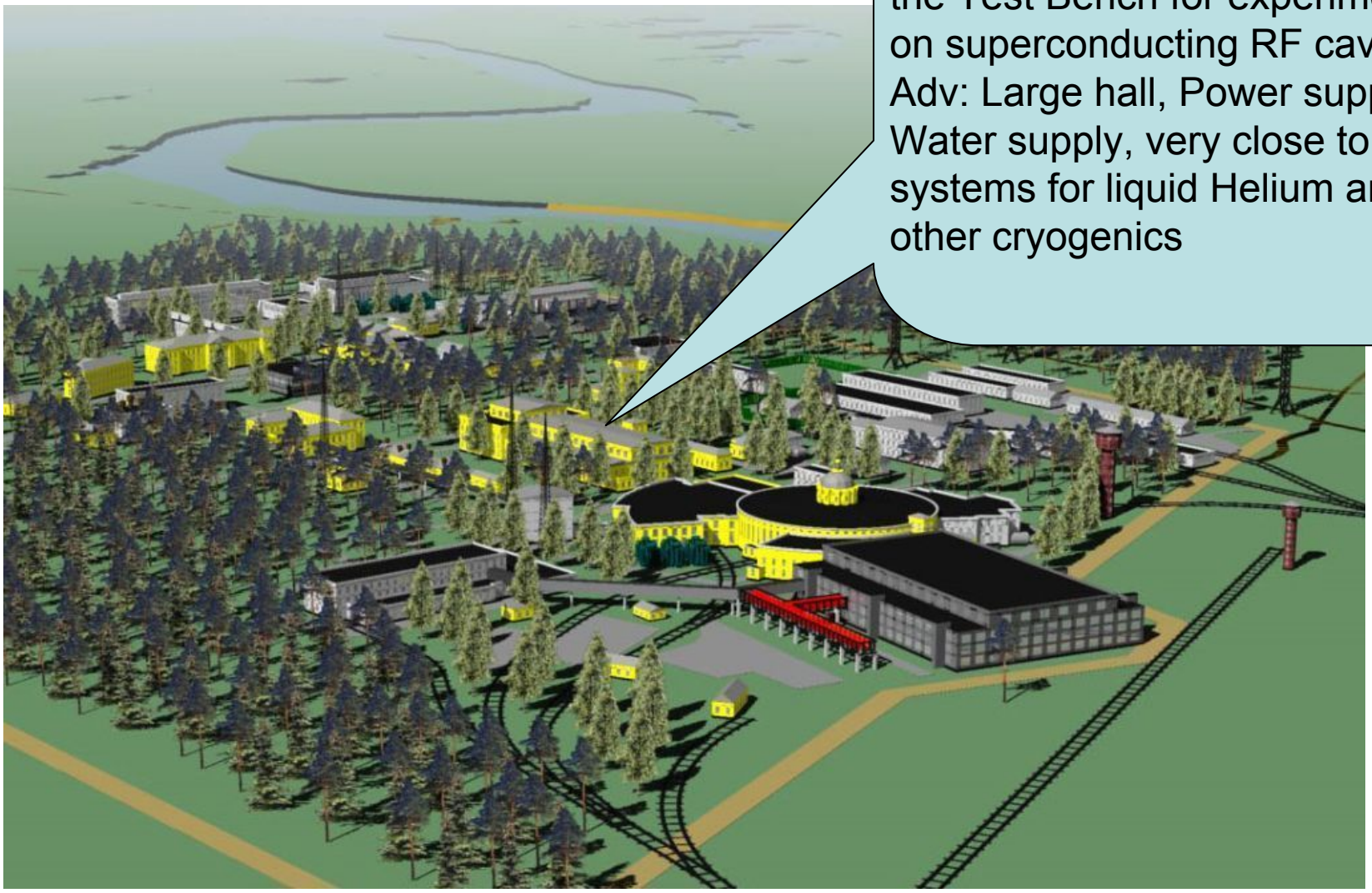
- modeling of the magnetic field, magnet parameters, technical proposals for design, construction, tests
- R&D of magnetic systems based both on superconducting and “warm” electromagnets
- particle dynamics simulation in ILC

Development of the diagnostic systems for measurements of the beam parameters

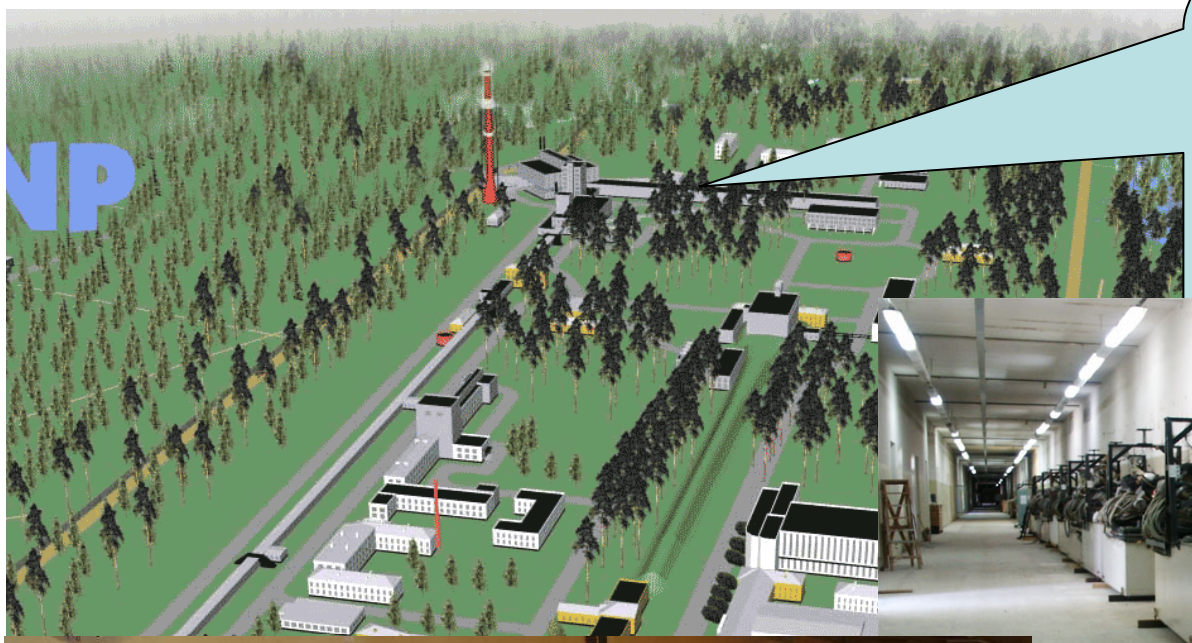
Experimental and theoretical works on interaction of short electron bunch with RF system (based on CLIC technology)

Analyze of the methods for diagnostics of electron bunches

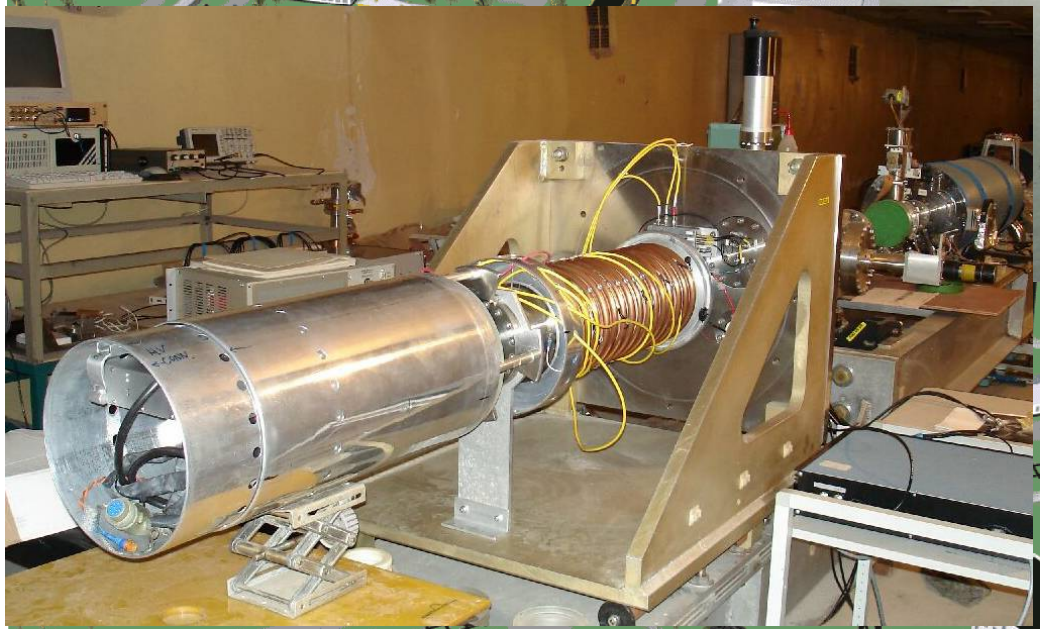
LHE ground

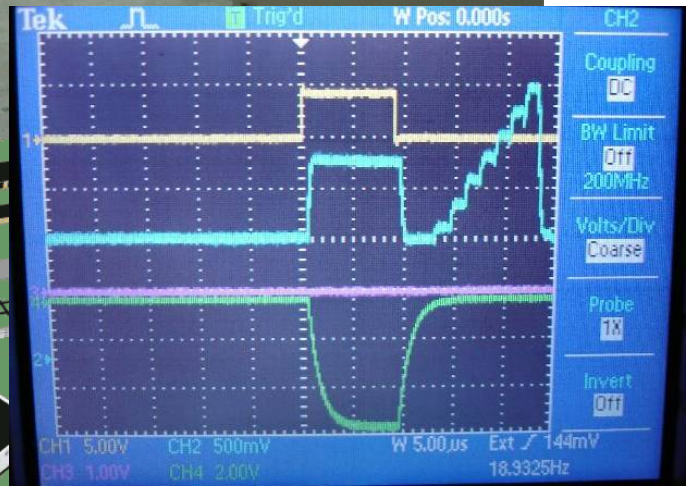

Machinery Hall # 2:
Possible place for location of the Test Bench for experiments on superconducting RF cavities.
Adv: Large hall, Power supply, Water supply, very close to systems for liquid Helium and other cryogenics

LNP ground



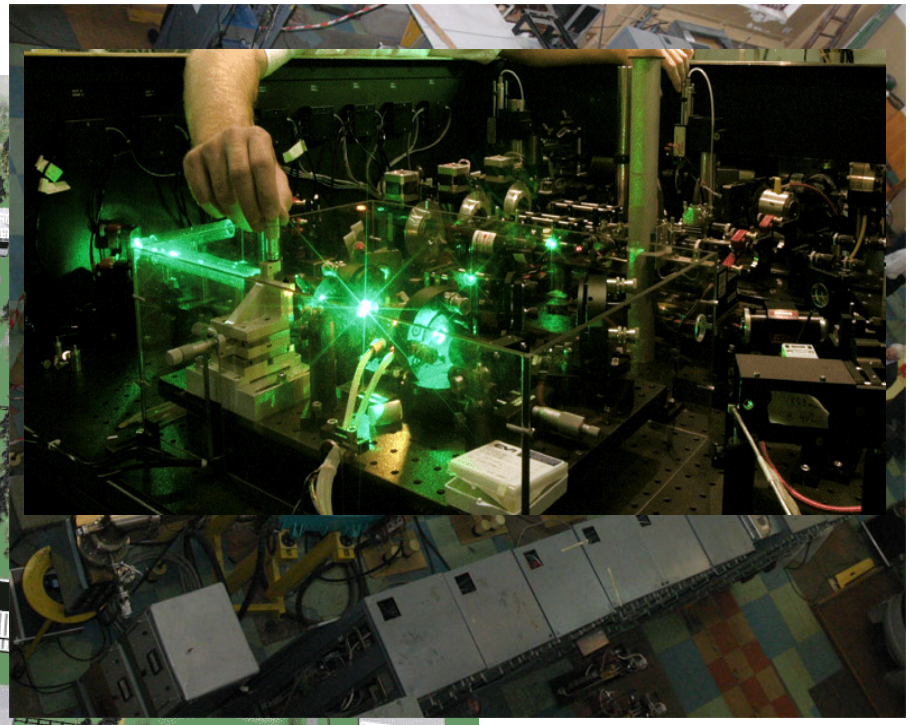
Building 118
Location of constructed LINAC-800.
Test of RF accelerator sections and cryo modules
LINAC with super-





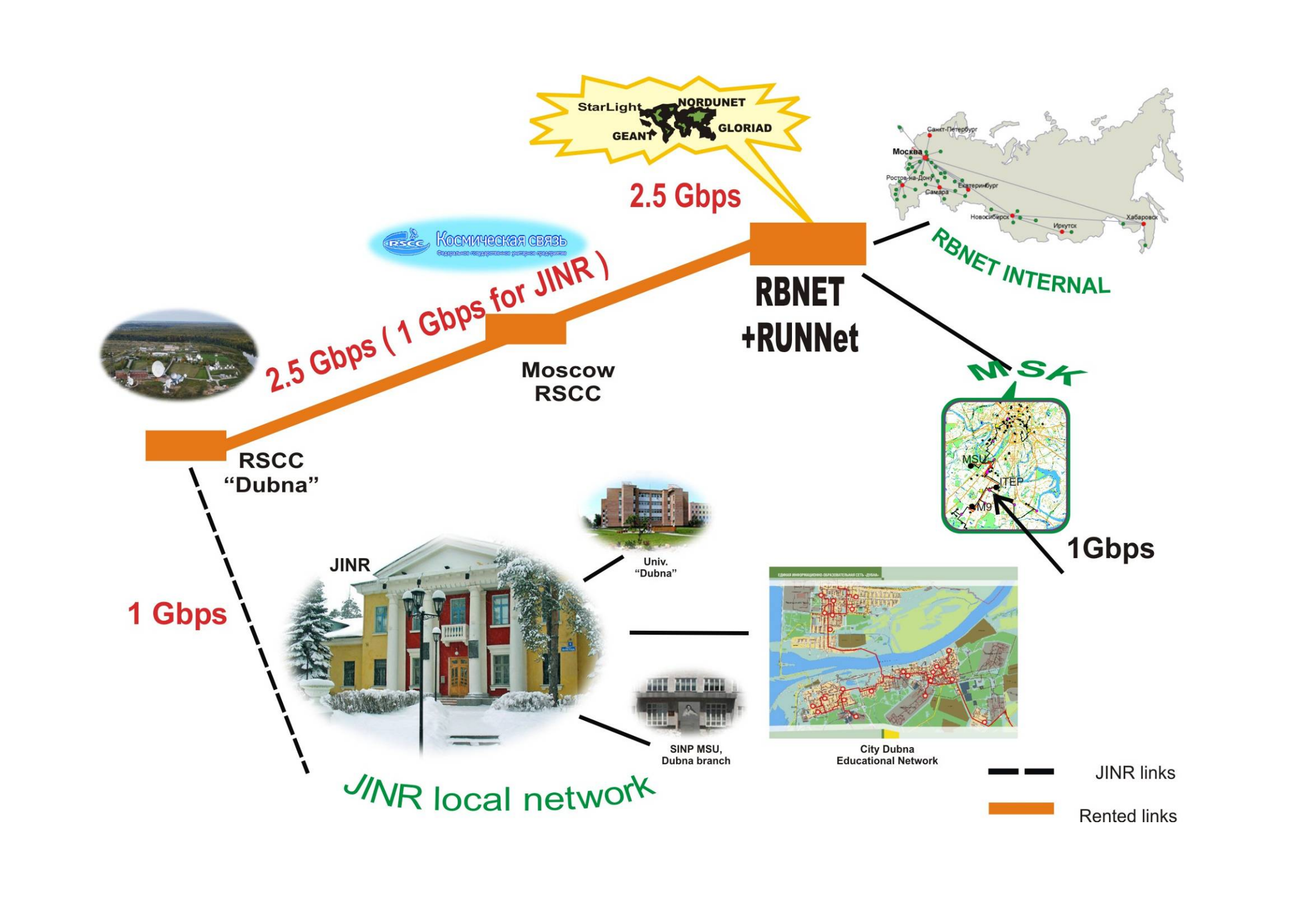
LINAC-800 – first electron beam on 27.04.2006

LNP ground

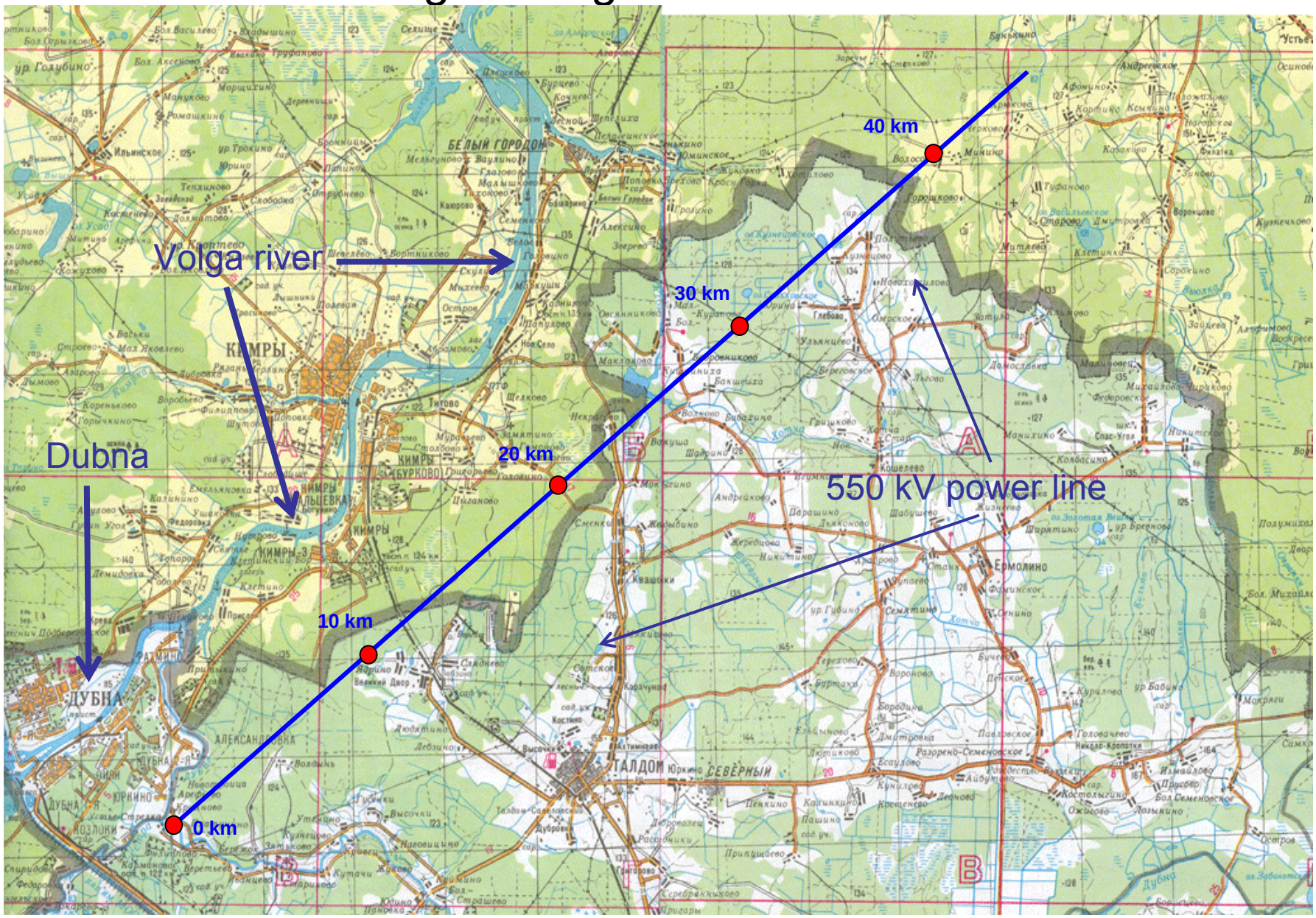


Building 108
(LEPTA project)
2 experimental Halls
(water, power, …)

Test Bench for
Photo Injector


StarLight
NORDUNET
GEANT
GLORIAD
2.5 Gbps
Космическая связь
RSCC
2.5 Gbps (1 Gbps for JINR)
RBNET
+RUNNet
RBNET INTERNAL
Санкт-Петербург
Москва
Ростов-на-Дону
Самара
Екатеринбург
Новосибирск
Иркутск
Хабаровск
MSK
MSU
ITEP
M9
1Gbps
Moscow
RSCC
RSCC
“Dubna”
1 Gbps
JINR
Univ.
“Dubna”
SINP MSU,
Dubna branch
City Dubna
Educational Network
JINR local network
JINR links
Rented links

Engineering & Infrastructure.



Welcome to JINR (Dubna)