

# О ходе работ по проекту NICA

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*НТС ОИЯИ*

## Важнейшие следующие этапы:

- *интеграция бустера в ускорительный комплекс;*
- *проведение сеанса HiLAC – Booster- Nuclotron с выводом пучка на VM@N.*

## Наиболее критические работы:

- *монтаж и запуск канала транспортировки пучка Booster – Nuclotron;*
- *создание и ввод в эксплуатацию ГПП-1;*
- *криогенное обеспечение (криогенно компрессорная станция, крио-коммуникации).*



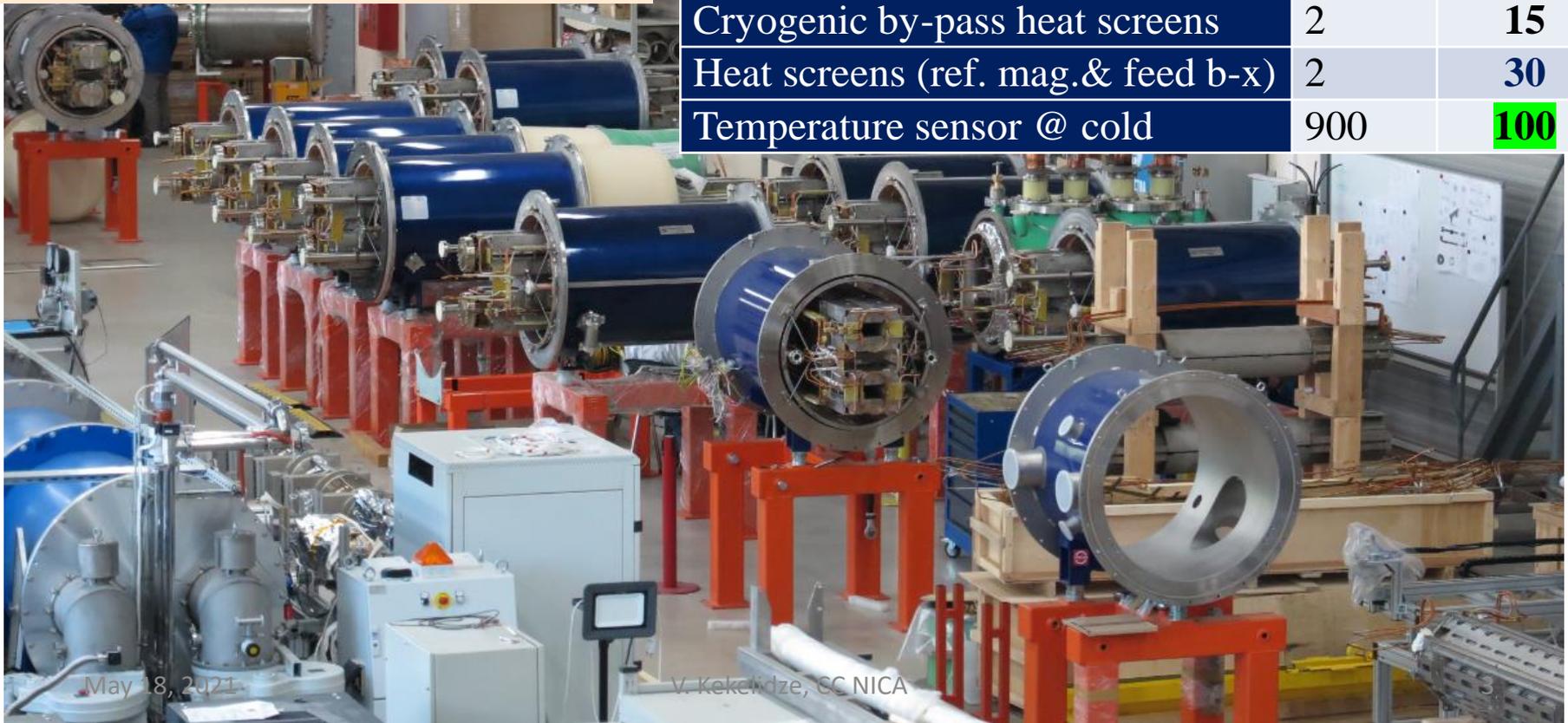
# Collider magnets assembly and testing

Cryogenic-tests per year:

2016 2017 2018 2019 2020 2021  
 20 60 58 76 72 → **150**

**Collider dipoles: 100% tested**  
**Collider quadrupoles: 6% tested**

|                                    | total | prod. % |
|------------------------------------|-------|---------|
| Dipole magnet coil                 | 80+1  | 100     |
| Quadrupole magnet coil             | 46+24 | 89      |
| Corrector magnet coil              | 124+4 | 60      |
| Final focus quadrupole coil        | 12    | 15      |
| Vertical bending magnet coil       | 8     | 20      |
| Dipole magnet heat screen          | 80+1  | 100     |
| Quadrupole magnet heat screen      | 46+12 | 100     |
| interconnections' heat screen      | 181   | 30      |
| Cryogenic by-pass heat screens     | 2     | 15      |
| Heat screens (ref. mag.& feed b-x) | 2     | 30      |
| Temperature sensor @ cold          | 900   | 100     |

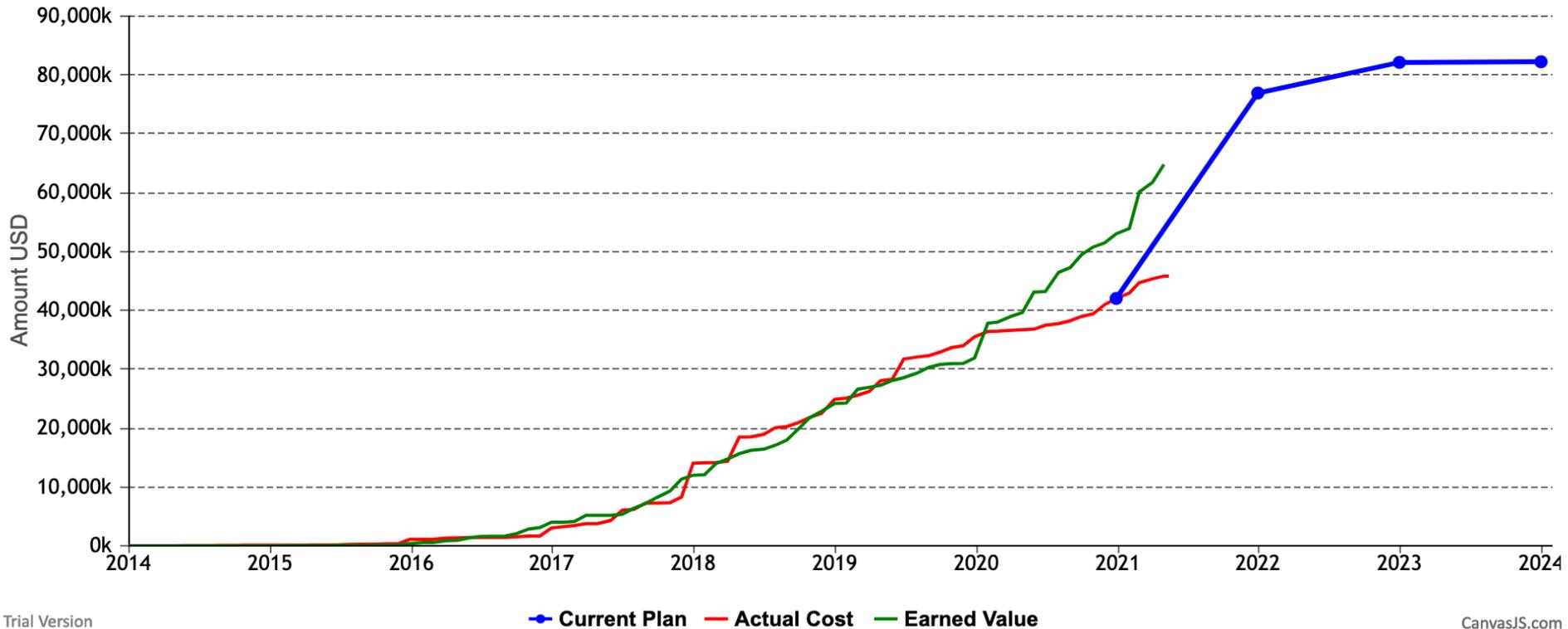


May 18, 2021

V. Kekelidze, SC NICA

- **начало монтажа в туннеле II кв. 2021:**  
оснастка, магниты, RF системы;
- **2022: СЭО**

#### 4: Коллайдер

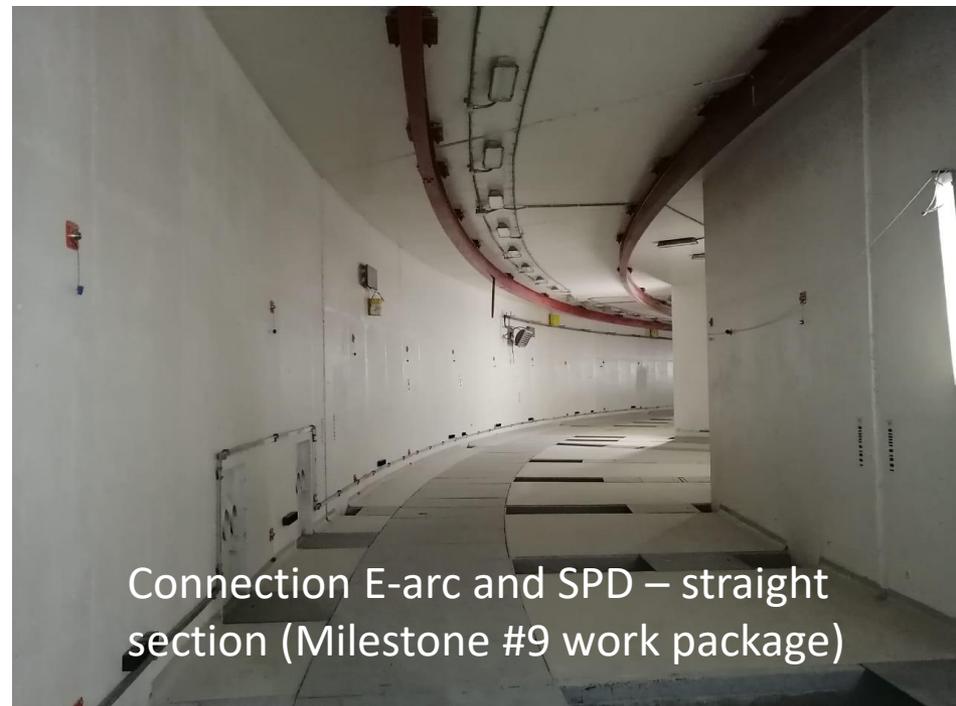


**состояние - апрель 2021;  
завершение - декабрь 2021**



13 мая, 2021

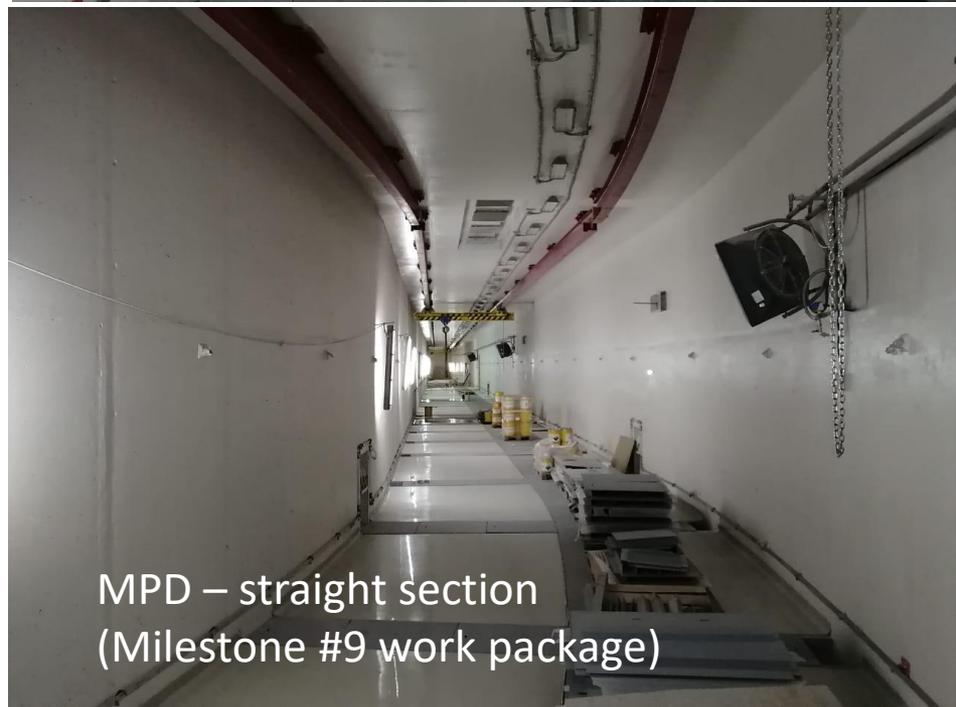
В. Кекелидзе, JSC-NICA



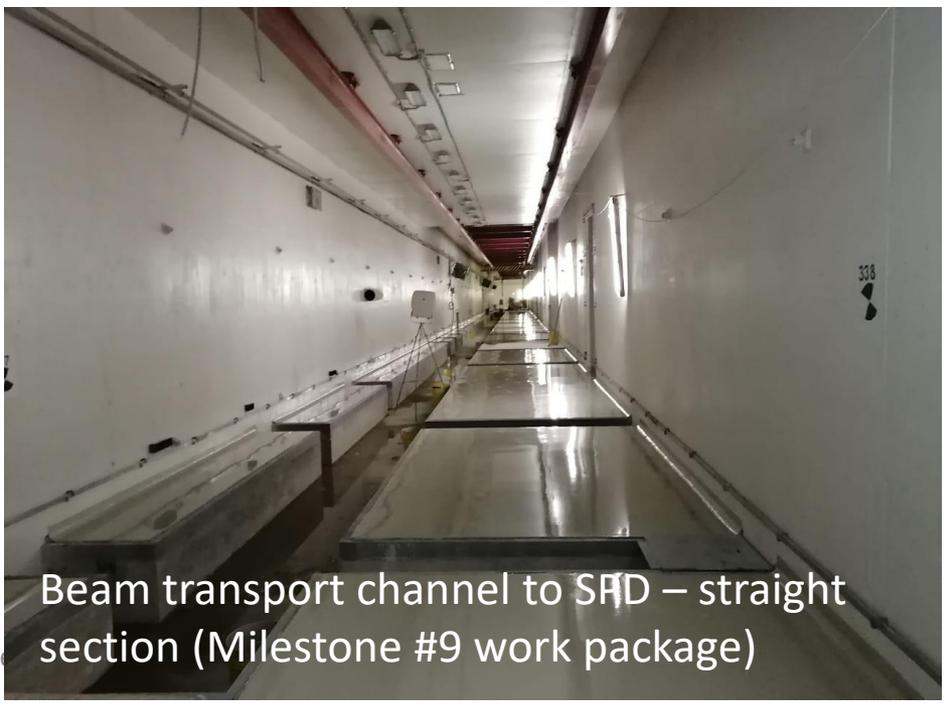
Connection E-arc and SPD – straight section (Milestone #9 work package)



Beginning of W-arc (Milestone #2 work package)



MPD – straight section (Milestone #9 work package)



Beam transport channel to SPD – straight section (Milestone #9 work package)



# 7th Collaboration Meeting of the BM@N Experiment at the NICA Facility

20 April, 2021 (*hybrid format*):

*121 participants, > 40 reports.*

## IB session:

- *Status of German-Russian Roadmap;*
- *Collaboration membership update*
  - *2 China institutions left the collaboration;*
- *Executive Council Election*
  - *Fedor Guber (INR RAS) and Johann Heuser (GSI/FAIR) were elected*



15:38



*191 participants, > 50 reports.*

## **IB session:**

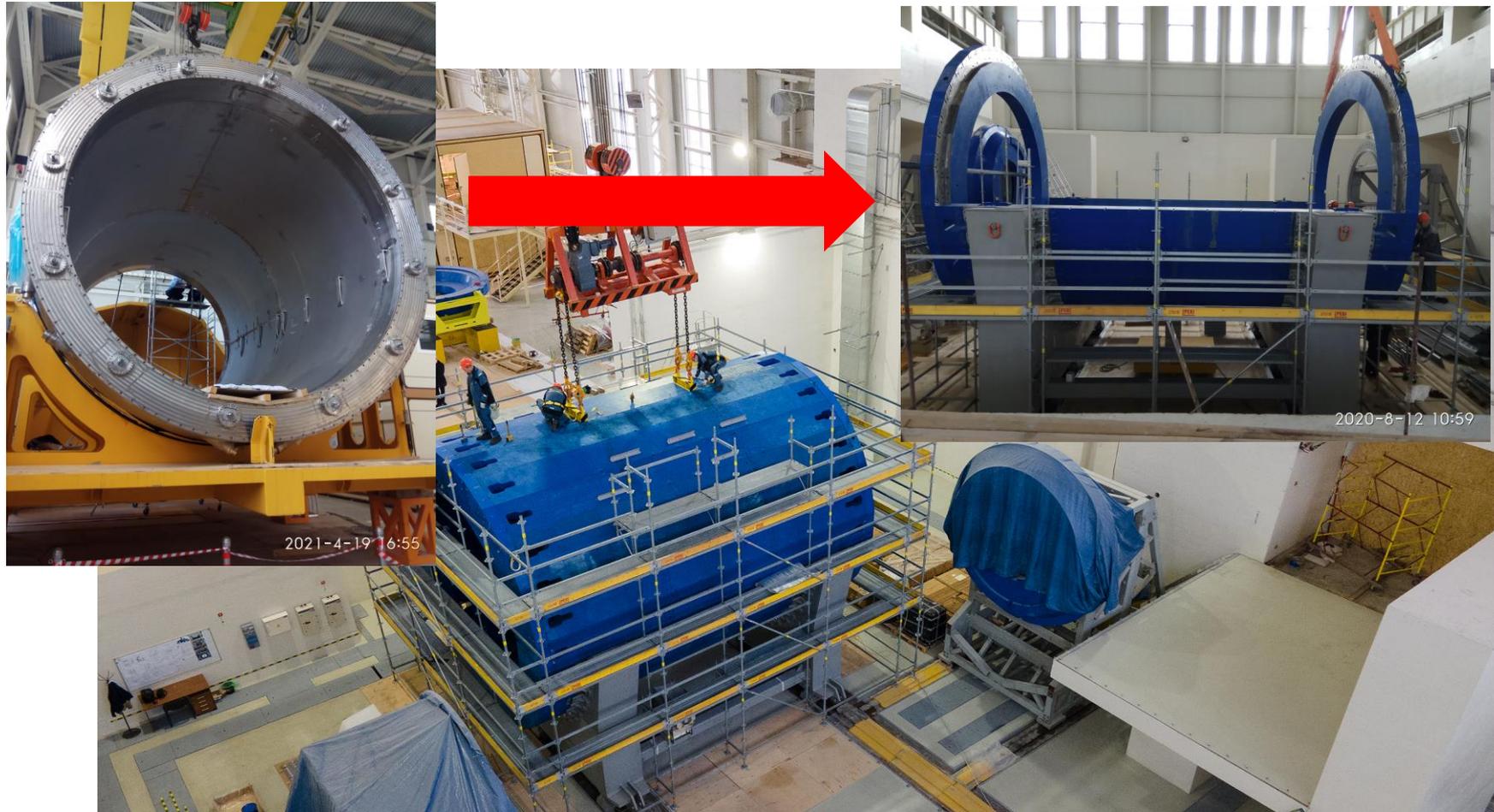
*application of 3 institutions to join the collaboration was considered and approved*

- ***Institut of Nuclear Physics PAS, Kraków;***
- ***Vinča Institute of Nuclear Sciences, Serbia;***
- ***Universidad Autónoma Metropolitana, Unidad Iztapalapa, Mexico.***

**Executive Committee Election was voted for spokesperson election in 2022**



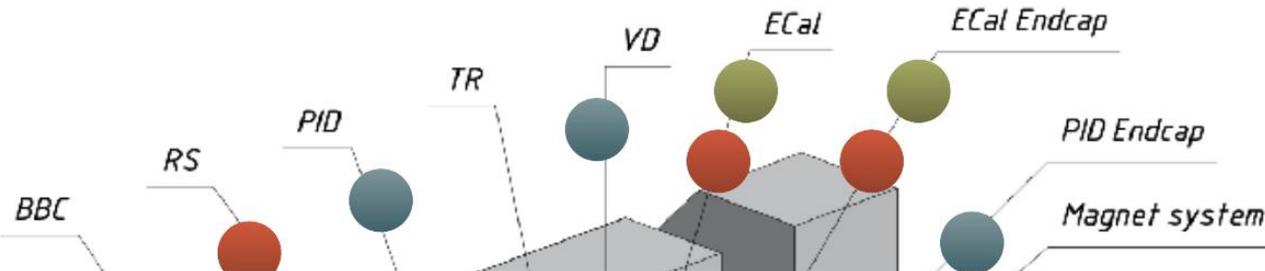
# MPD Hall – magnet assembly



- *Vacuum test in position on transport platform: 10 – 30 May.*
- *Installation of Solenoid into Magnet Yoke, position measurement ,adjustments.*
- *Assembling the Magnet Yoke.*
- *Installation the Top platform.*



# DETECTOR: GENERAL OVERVIEW



Charmonia

Prompt photons

Open charm

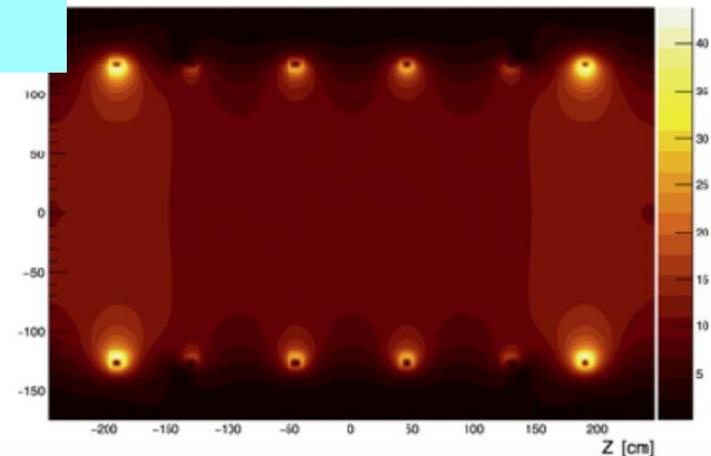
ZDC

## SPD Detector advisory committee:

- *Andrea Bressan (INFN), chairman;*
- *Pasquale Di Nezza (INFN);*
- *Peter Hristov (CERN).*

6 superconductive solenoidal coils

Field |B| [kG],  $\phi = 0.00$  [deg]



Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

# Progress in Particle and Nuclear Physics

journal homepage: [www.elsevier.com/locate/ppnp](http://www.elsevier.com/locate/ppnp)

## Review

### On the physics potential to study the gluon content of proton and deuteron at NICA SPD



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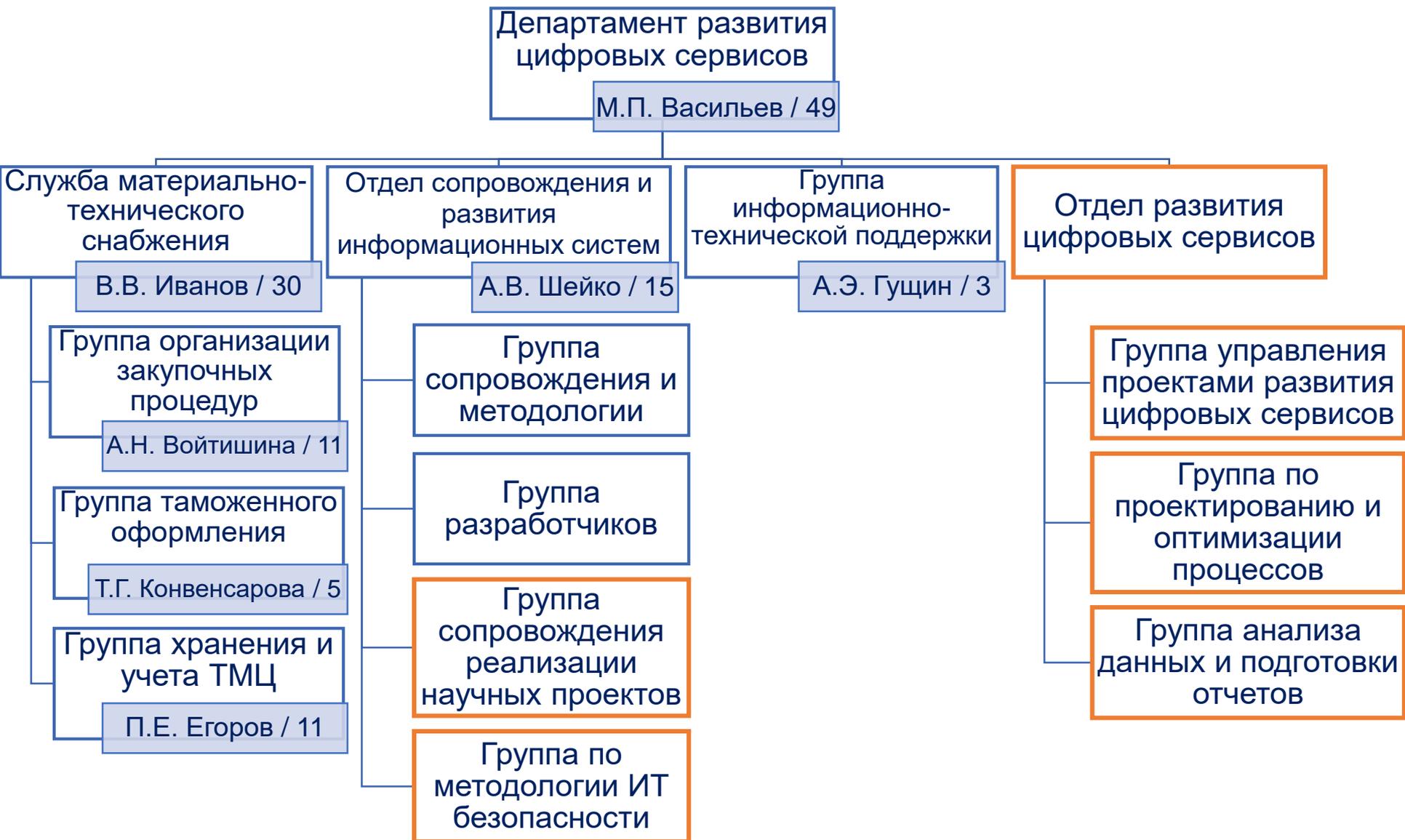
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# Формирование Департамента развития цифровых сервисов



# Формирование Департамента развития цифровых сервисов





**Спасибо**