



EC Grant Agreement No. 654166
Project duration: 01.09.2015-31.08.2018

CREMLIN WP2 Workshop on Big data Management

15-16 February 2017
NRC “Kurchatov Institute”
1, Akademika Kurchatova pl., Moscow

Objectives:

This CREMLIN Workshop is devoted to the topic of Big data management and e-infrastructure with a focus on European-Russian collaboration in the context of Megascience facilities. It shall bring together representatives and experts from existing European, Russian and international platforms and initiatives with representatives from the Russian Megascience facilities. The workshop shall take up community-specific challenges and needs in the context of Big data. Recommendations, approaches to solutions and next steps shall be worked out that will be followed up within the CREMLIN project at thematic-WP-level.

It is a task within CREMLIN WP2 (Task 2.4) to “support the integration of the Russian megascience projects into the European and global e-infrastructure initiatives”. The workshop is a key instrument address this task.

Agenda:

Day I - Wednesday 15 February 2017

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| 09:30 | Transfer from Aerostar Hotel (Leningrad prospect, 37, korp. 9) to NRC KI (bus shuttle) |
| 10:00 | Arrival at NRC “Kurchatov Institute”; security check |
| 10:30-12:30 | Trip to NRC KI HPC facilities (Reactor F-1, Supercomputing NRC KI, Synchrotron center) |
| 12:30-14:00 | Lunch |
| 14:00-14:40 | Opening & Welcome <ul style="list-style-type: none">• Welcome & Goals of the workshop (<i>Mikhail Popov, NRC KI; Frank Lehner, DESY</i>)• Welcome (<i>Richard Burger, EU Delegation to Russia</i>)• Key note speech from EU COM (<i>Wainer Lusoli, European Commission, DG Research & Innovation, EOSC</i>) |
| 14:40-15:40 | Introduction (<i>chair: Frank Lehner</i>) <ul style="list-style-type: none">• Big data in European contexts (<i>Volker Gülzow, DESY</i>)• Big data in Russian contexts: An overview (<i>Vasily Velikhov, NRC KI</i>)• Challenges in data storage (<i>Patrick Fuhrmann, DESY</i>) |

- 15:40-16:00** **Coffee break**
- 16:00-17:40** **Session I: Best practice examples from ongoing EU-Russian collaborations**
(chair: Vasily Velikhov)
(Talks start with ongoing EU-RU collaborations, present short case studies on good or best practice in EU-RU collaboration on Big data at various facilities)
- CERN LHC – (*Massimo Lamanna, CERN; Alexei Klimentov, NRC KI*)
 - CRIC: the evolution of the ATLAS Grid Information System for other collaborations (*Alexey Anisenkov, BINP*)
 - European XFEL – (*Krzysztof Wrona, European XFEL; Anton Teslyuk, NRC KI*)
 - FAIR – (*Thorsten Kollegger, GSI; Victor Braguta, ITEP NRC KI*)
 - ESRF – (*Harald Reichert, ESRF*)
- 17:40-18:00** **Coffee break**
- 18:00-19:40** **Session II: European and international Big data-related platforms and networks**
(chair: Volker Gülzow)
(Talks will introduce the platforms and networks: What is their mission & services, what could they do in order to improve and better integrate Russian research infrastructures?)
- EOSC - European Open Science Cloud) (*Barend Mons; former chair of HLEG*)
 - GÉANT - Pan European Infrastructure and services for research and education (*Vincenzo Capone*)
 - EGI (*Yannick Legré*)
 - PRACE aisbl - Partnership for Advanced Computing in Europe (*Florian Berberich*)
 - RDA - Research Data Alliance (*Mark Parsons*)
- 20:00-21:30** **Joint Workshop dinner (at Kurchatov premises)**
- 21:30-22:00** **Transfer from NRC KI to Aerostar Hotel (bus shuttle)**

Day II - Thursday 16 February 2017

- 08:30-09:00** **Transfer from Aerostar Hotel to NRC KI (bus shuttle)**
- 09:00-10:30** **Session III: Preparatory discussions in three parallel sessions on community-specific challenges in EU-Russian collaboration**
(Key questions: What community-specific challenges and needs in the context of Big data have to be addressed for the Russian megascience facilities? How could approaches on data management/handling and on data policy look like? ..)
- Big data and data management in research with neutron sources (WP4) (Chair: *Jean-François Perrin, ILL*; co-chairs: *S. Grigoriev, A. Kiryanov PNPI NRC KI*)
 - Big data in Particle physics and in research with ion sources (WP3; WP7) (Chair: *Eva Sickling, CERN*; co-chairs: *Vladimir Koren'kov, JINR; Yuriy Tikhonov, BINP*)
 - Big data and data management in Photon science and in research with High-power lasers (WP5; WP6) (Chair: *Harald Reichert; Alexander Sergeev, IAP RAS*)
- 10:30-11:00** **Coffee break**
- 11:00-11:45** **Session IV: Reports (10 min + 5 min discussion) from parallel sessions**
(Chair: Alexander Petrov, NRC KI)
- Big data and data management in research with neutron sources (WP4) (*Jean-François Perrin*)

- Big data in Particle physics and in research with ion sources (WP3; WP7) (*Eva Sicking, CERN*)
- Big data and data management in Photon science and in research with High-power lasers (WP5; WP6) (*Harald Reichert*)

11:45-12:30

Session V: Plenary discussion & Wrap up

Chairs: *Volker Gülzow; Vasily Velikhov*

- General discussion in plenary
- Summarizing/Wrapping up: Recommendations for the communities and for the follow-up of the results within all 5 thematic CREMLIN Work packages

12:30-12:45

Closing of the Workshop; Farewell

12:45-13:45

Lunch

14:00

Transfer from NRC KI to Aerostar Hotel (bus shuttle)