



SERBIA and CERN

(a brief history)

September, 1954: The Former Yugoslavia was one of twelve European founding states of CERN

January, 1961: Yugoslavia pulls out from CERN and receives an observer status

June, 1995: CERN Council abolishes an observer status of Federal Republic of Yugoslavia and Serbia establishes formal relations with CERN as an independent state

June 9, 2001: Serbia signs with CERN the General Agreement on Scientific and Technical Cooperation



SERBIA and CERN



12-08-2005

August 12, 2005

**Serbia signs Memorandum of
Understanding for M&O for
ATLAS and CMS Experiment**



SERBIA and CERN

November, 2008: Serbia sends a letter of intent for admission to the CERN membership

March, 2009: Serbia applies for a candidate for the CERN membership



SERBIA and CERN



January 10, 2012: Serbia signs the Agreement on an associate CERN membership as pre-stage to the full membership

March, 2012: Serbia's parliament ratifies this Agreement and Serbia becomes an associate member of CERN



SERBIA and CERN

February 26, 2014
Signed Agreement:
CERN - Institute of Physics



26-02-2014

February 26, 2014
Signed Agreement:
CERN-Faculty of Physics



A brief overview of contribution of Serbia to CERN projects



In-kind contribution to the CMS experiment



75 hydraulic jacks for the CMS magnet were made in 2002 by "ZASTAVA Alati" in Kragujevac and delivered to CMS in July 2003.





Hardware contributions to the CMS experiment

1) ECAL Safety System – **ESS**

designed, constructed and tested by the Serbian CMS Group and delivered to CMS in the beginning of 2007.

ESS



2) ECAL Relative Humidity System – **ERHS**

design and construction by the Serbian CMS Group completed in 2012.



ERHS



3) Engineering :

design and 3D modeling of the CMS detector, since 2004.

4) Physics studies since 1997:

- until 2010: preparation of the experiment
- since 2010: physics analysis of experimental data



Contributions to the ATLAS experiment



In-kind contribution to the forward shielding system:

Disk Shielding (JD) and A-frame supports for the forward shielding (JF), produced by Lola Korporacija (Zeleznik) and Kryooprema (Belgrade), and transported to CERN in 2004.



Test assembly of JD disks at the Lola factory in October 2004.



Installation of JD in ATLAS
February 2008

Physics studies since 2003:

- until 2010: preparation of the experiment
- since 2010: physics analysis of experimental data



Other contributions at CERN

1) Contribution to the ISOLDE (Nuclear Physics) experiment:

University of Novi Sad: Faculty of Science (5 physicists), since 1990.

2) Contribution to the DELPHI experiment at LEP:

University of Belgrade: VINČA Institute (3 physicists), since 1993.

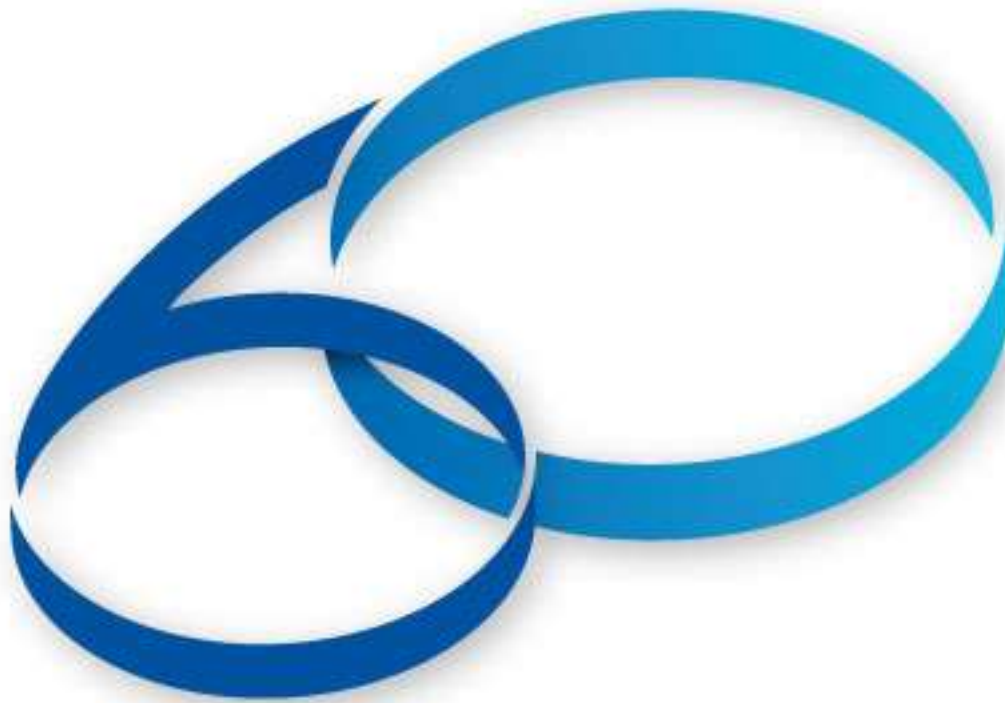
3) Contribution to the LHC GRID (Computing) Project:

University of Belgrade: Institute of Physics (5 physicists), since 2006.

4) Contribution to SHINE (Nuclear Physics) experiment:

University of Belgrade: Faculty of Physics (4 physicists), since 2011.

Events in Serbia on the occasion of the CERN 60th Anniversary



YEARS/ANS **CERN**



Contribution of Serbia to CERN Jubilee

Exposition: CERN in SERBIA (09.-19. September 2014) will include physics demonstrations and lectures.

Tuesday, 09 September (Exposition site):

17.00 Opening talk by Dr. Emmanuel Tsesmelis:
“A Gateway to Science and Technology”

18.00 Official opening of Exposition by Dr Sergio Bertolucci

Wednesday, 10 September (University Hall):

12.00 Public talk by Dr. Sergio Bertolucci:
“Look into the future of CERN and Particle Physics”

**“The Danube School of instrumentation
in Particle Physics”**

also falls in the jubilee period!

Thank you for your attention