

58th IAA HISTORY OF ASTRONAUTICS SYMPOSIUM (E4)  
Organizational, Scientific and Technical Histories (2)

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SCIENCE AND POLITICS: SOVIET-EUROPEAN CO-OPERATION ON THE BIONS

**Abstract**

Soviet bioscientists and space capabilities garnered significant interest from the international scientific community. This interest catalysed close cooperation in the 1970s with scientists from the U.S. and France. Major international projects were conducted under the Soviet Cosmos biomedical research programme aboard the Bion satellites under the responsibility of the Institute of Medical and Biological Problems (IMBP), founded in 1963.

The participation of ESA scientists materialized at a later stage in 1987 and finished in 1992. In summarizing Soviet-European cooperation in the field of space biomedicine during the perestroika period, it is worth noting two key aspects. First, there was an extended phase of mutual observation and gradual warming up before embarking on joint projects. Soviet officials had extended multiple invitations to European scientists for collaborative efforts on Bion since the late 1970s, yet encountered a lack of positive response from the European side.

Second, the cooperation that eventually commenced underwent a swift evolution within the four short years that remained before the end of the Soviet era. Thus, there was an enhancement in the technical component of the experiments. The progression was evident, evolving from biomaterials placed in separate containers on Bions-8 and 9 to the development of distinct equipment, such as Biobox. The weight, quantity, and complexity of European experiments accommodated in Soviet capsules also experienced growth. Moreover, ESA successfully transitioned its primary partners in the USSR several times: from IMBP to Glavkosmos, and subsequently to TsSKB Progress in Kuibyshev. Additionally, the collaboration, initially based on principles of no charge scientific exchange, transformed into a commercial arrangement by the end of 1991. Finally, the level of technology transfer, governed on one side by the CoCom regulations and on the other by the secrecy of the strategic military-industrial complex, underwent notable changes.

In my presentation, I will endeavour to address the question of the extent to which politics influences scientific collaboration. To achieve this, firstly, I will focus on clarifying the reasons behind the relatively delayed commencement of Soviet-European cooperation. Secondly, I will analyse the scientific, economic, political, and cultural factors of the collaboration on the Bions from both sides. Lastly, a comprehensive examination of the reasons compelling ESA to withdraw from the project will be presented.

The research draws upon archival materials from the Historical Archives of EU (Florence), interviews with former Soviet and European project participants, and published data.