



### Objects of cooperation



V. Bakul Institute for Superhard Materials of the National Academy of Sciences of Ukraine is one of the largest scientific-technical materials-science centres of the Europe. It is engaged in the development of processes for production and application of synthetic diamond, cubic boron nitride and other superhard materials, high-density high-tech ceramics, cemented carbides, superconducting ceramics, structural products and tools of the above materials. (<http://www.ism.kiev.ua>)



Vienna University of Technology Institute of Chemical Technologies and Analytics, the research team of metallurgy of rare metals:  
 - Long-term research in the area obtaining powders of tungsten and hard alloys based on tungsten carbide;  
 - Research on the composition and structural condition of phases composites by modern methods of analysis;  
 - Research in the field of sintering at higher pressures and hot pressing. (<http://www.cta.tuwien.ac.at>)

### The scope of cooperation

V. Bakul Institute for Superhard Materials of the NASU department number 4, Technology of solid alloys and composite materials, has developed a new technology of nanopowders «WC». The first intensive course of START Project was one of the factors for the proper formation of the idea and also documents submission for the Call of FP7 NMP 2013.



### The obtained results

V. Bakul Institute for Superhard Materials of NASU, department number 4, jointly with the Institute of Chemical Technology and Analysis, a research group of metallurgy rare metals have won a grant for development of a new technology of ultrapure nanopowder «WC». This research project will be implemented within two years.

### Process of achieving results

At the end of 2012 grant for technology for ultrapure nanopowder «WC» development was obtained. Currently, the process of agreement signing for the financing of the project is lasting.

### Plans for future

Articles, monographs will be published as well as patents will be conducted as a result of implementation of the program. The obtained achievements will help to produce nanopowders of refractory compounds and alloys on their base in Ukraine, to conduct staff training and education from the universities of relevant specialties.