Description for the general public

Standard chronostratigraphic framework is the basis of a proper and reliable understanding of the geological record. The geological time division, based on the chronostratigraphic subdivision, allows the integration of the results of geological and paleobiological data with aim to work out the most adequate picture of the evolution of planet earth. Since few decades, the efforts of many researchers around the world, coordinated by the International Commission on Stratigraphy (through their subcommissions responsible for particular systems), one of the main body of the International Union of Geological Sciences, is focused on working out a proper and most precise framework known as the International Chronostratigraphic Chart, which is the base of the Standard Geological Time Scale (Hartland et al., 1989; Gradstein et al., 2004, 2012; Ogg et al., 2008, 2012, 2016), as well as proposing the most adequate and commonly used terminology.

The aim of the project is to work out the reliable framework of the standard subdivision of the Coniacian Stage (Upper Cretaceous); of its base and of the bases of its substages. The Coniacian Stage is one of the two of the Late Cretaceous stages not ratified yet by the International Commission on Stratigraphy The Principal investigator of the project is a chair of the Coniacian Working Group of the Cretaceous Subcommission of the International Stratigraphic Commission (see: http://cretaceous.stratigraphy.org/working-groups/coniacian-gssp-wg).

The main part of the investigations planned with this project are original field works in selected sections in Europe, North America and Japan. These are sections which, based on the current knowledge, should offer the most complete and reliable geological and palaeontological record of the Coniacian interval of the Earth's history. The integration of the analyses of the various material gained from the sections studied (geological data, macro- and microfossils, chemostratigraphic data), and comparison with the existing databases, should give the base to work out the most adequate chronostratigraphic subdivision of the Coniacian Stage. Having this done, the Coniacian Working Group will be ready to submit formal application to he Cretaceous Subcommission for voting and, subsequently, for ratification by the International Commission on Stratigraphy.

Ultimately, the works planned by the project will lead to establishing the criteria of stage and substage boundaries of the Coniacian Stage and selection of their stratotypic (GSSP – Global Stratotype Section and Point) and of auxilliary sections. The formal applications with the criteria and stratotypic candidates of the base of the Stage will be discussed first within the Coniacian Working Group of the Cretaceous Subcommission, then sent formally to the Cretaceous Stratigraphical Subcommission of the International Commission of Stratigraphy and, if positively voted, ratified by the Internation Commission on Stratigraphy.