

CODATA FUTURE VISION

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The exhaustion of fossil fuel resources, catastrophic worsening of ecology, spreading of global diseases, an increasing misbalance between the Earth biocapacity and footprint resulting in the food and drinking water deficit – these and other threats the mankind is facing in the XXIst century. The possible way to respond to the present day global challenges is transition to the sustainable development society. Methodology and tools for this transition can be provided by carrying out comprehensive scientific research and creating new technologies. Today CODATA as a part of the world scientific community plays an important consolidating role in scientific and technological development. In future the main mission of CODATA: “to strengthen international science for the benefit of society by promoting improved scientific and technical data management and use, Beijing, 2006” could be transformed as follows “to facilitate S&T breakthroughs in accordance with new challenges and threats by promoting improved scientific and technical data management and use”.

Proceeding from the above the report considers CODATA’s activities aimed at fulfilling its mission in a global 3-dimensional space along the following coordinates: Priority Goals and Needs; Geography and Partners; Resources and Mechanisms. Necessary efforts for ensuring successful accomplishment of CODATA’s mission in these directions are defined.

A number of new goals and needs which could complement CODATA Strategic Plan for 2006 - 2012 are offered for consideration. Among them some goals connected with intellectualization and an increase of efficiency of super-large scientific data processing to support multidisciplinary research, transformation of scientific data into knowledge, new organizational methods of promoting and advertising of CODATA’s ideas and initiatives and cooperation with other organizations to respond to the global challenges.

New resources and mechanisms are suggested for the support of multidisciplinary projects, implementation of new methodology of data mining based on application of grid- and cloud computing.

Some possible initiatives and ways are suggested to ensure coordinated activities with governmental, research and public organizations for transition to the sustainable development society which may be considered as the next, more advanced form of information society, or knowledge-based society.