

Editorial

Developing globalisation of world economy, liberalisation of trade and disappearance of trade barriers and investment limits connected with it decide about the necessity of building predominance in order to face up to competition requirements on the global market on the basis of sources connected first of all with quality, creativity, innovativeness of offered products and the achievements of new abilities and the use of knowledge by industry. Raising innovativeness and technological progress require in turn significant improvement of qualification of human potential and adjusting its structure to market needs. The level of the society education and the system of education must correspond with economy based on knowledge because it becomes a more and more dominating factor in goods and services manufacturing and raising their innovativeness. Thanks to undertaken activities there are conditions for the development of new interdisciplinary sectors having huge growth potential, connected with the intensive use of results of scientific researches and developmental works, such as for example nanotechnology and information and communication technologies. The economies leading in the international arena including among others: American and Japan ones are a big challenge for the European Union consisting at present of 27 member countries and aims to have a dominating role in the world. That is why the Framework Programme for Research and Technological Development called the Seventh Framework Programme and abbreviated FP7 is set up by the European Union in order to fund and promote European research and technological development. It will run from 1 January 2007 to 31 December 2013. It is a collection of the actions at the European Union level and its main objective is to further the construction of the European Research Area. The total budget for the Seventh Framework Programme is 50 521 million Euro over 7 years. Among its specific goals the following ones can be distinguished: to gain leadership in key scientific and technology areas, to stimulate the creativity and excellence of European research, to develop and strengthen the human potential of European research and to enhance research and innovation capacity throughout Europe.

The Seventh Framework Programme is divided into the first layer of breakdown into Specific Programmes sometimes referred as Activities. The Thematic Areas are the second layer of breakdown for the Cooperation Specific Programmes of the Seventh Framework Programme. Challenges are the third layer of breakdown for Thematic Areas. Challenge's number vary for each Thematic Areas. For every Thematic Area, the European Commission publishes a Work Programme that covers a period of 1 to 3 years. This document provides in detail the areas that will be funded within each Thematic Areas as well as a calendar for Call for Proposals and an indicative budget. While the overall budget is now fixed, the split of it along thematic priorities and the content of those priorities was only decided around November 2006. About once a year for each Thematic Area, the European Commission publishes a Call for Proposal, requesting interested entities to submit Proposals with the aim to be founded. When Calls for Proposals cover more than one Thematic Area, they are called Joint Calls. Proposal's content is usually very close to the Work Programme phrasing, with some further precisions. Calls for Proposals usually cover different Challenges within a Thematic Area. Tracks are sub-parts of Calls for Proposals and usually address a specific challenge. Tracks are usually known by their number, which is made of 3 digits.

Four Specific Programmes within the Seventh Framework Programme were created to address the corresponding objectives, including "Cooperation" (64% of the total budget), "Ideas" (15%), "People" (9%) and "Capacities" (9%). Additionally, 3.5% of the total budget are dedicated to the non-nuclear activities of the Joint Research Centre.

There are ten Thematic Priorities in the Cooperation Specific Programme, concerning "Health" (19% of this Specific Programme budget), "Food, Agriculture and Fisheries, Biotechnology" (6%), "Information and Communication Technologies" (28%), "Nanosciences, Nanotechnologies, Materials and new production technologies" (11%), "Energy" (7%), "Environment" (including climate change) (6%), "Transport" (including Aeronautics) (13%), "Socio-economic sciences and Humanities" (2%), "Security" and "Space". Cooperation Specific Programme also includes cooperation between the European Union and third countries.

Similarly to Cooperation Specific Programme second one called Ideas will finance directly scientific research, and will focus on research at the "frontier of knowledge", where risks are higher, that is why the expected fields of research will be more fundamental. This Specific Programme will include engineering, social sciences and the humanities and it will not be linked to the thematic priorities of the Seventh Framework Programme. It will not be managed by the European Commission, but by autonomous the European Research Council.

The People Specific Programme is focussed on supporting the training, the mobility and the career development of European researchers, mainly through the expansion of Marie Curie Actions. The last one Capacities Specific Programme is targeted at enhancing research infrastructures and improving its usage, promoting "Regions of Knowledge", supporting regional research-driven clusters, and stimulating the research potential in the European Union's "convergence" regions. Additionally, this Specific Programme will contain some possibilities of financing coordination of research policies.



Project Types describe the nature of funding open to participants in the Seventh Framework Programme. There will be small and large Collaborative Research Projects. These fund projects on the basis of innovative research outputs described in the form of project deliverables. The main aim of a Network of Excellence is to integrate research at a European level. Thus, participants are paid on the basis of degree of integration achieved and the number of researchers actively participating in the network rather than research outputs. Support Actions fund studies or other measures in support of the relevant Work Programme and Coordination Actions fund networking research that previously was primarily carried out at national level. The People Specific Programme refers to the Marie Curie Actions fund research training and mobility of researchers. The main actions are individual fellowships for post-graduate researchers as Intra-European Fellowships, Incoming International Fellowships and Outgoing International Fellowships and the second type such as Marie Curie Networks, where institutions cooperate to provide joint training programmes for researchers. There is also an action to support cooperation between industry and academia.

The Journal of Achievements in Materials and Manufacturing Engineering is going to promote and encourage to that activeness and also publish the results of works achieved during researches made in the projects financed in the Seventh Framework Programme. The beginning of the realisation of the Seventh Framework Programme gives great possibilities then for the societies of materials science and engineering, because suitable issues can be found in various Thematic Priorities and Specific Programmes. However, it requires huge activeness, imagination and diligence. Each person who will become involved in those activeness has a big change for the success in the competitions and in a case of a victory will have huge possibilities for the realisation of interesting research subject matter, for new scientific achievements and for the satisfaction from industrial implementations. In turn anybody who does not take suitable efforts and eliminates himself/herself from that play not participating in the competition and not reacting for Calls for Proposals can hold a grudge against anybody else. The Editors of the Journal of Achievements in Materials and Manufacturing Engineering wish the PT.Readers and PT.Authors successes in given competitions and wait for works prepared for the publications in the framework of that activeness.

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Gliwice, in 2007