

Brief analysis addressing the RRI situation and policies in the Czech Republic

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The Czech Republic is new EU member state with only 20 years of very recent democratic development after the 40 years of the totalitarian past. In the Czech science and research system, as a result of the transformation and other changes up to date, foundations have been laid for a research system based on the principles of democracy, free competition, support for excellence and top-level, internationally compatible research projects. The research system has now been adjusted to the institutional forms applied in Western democracies, and operates under the competitive free market conditions and democratic pluralism. The implementation of major reforms of the R&D systems was constrained by economic and fiscal crisis (resulting into extensive decrease in funding), which followed the transition to a market economy.

The National Research, Development and Innovation Policy (for 2009 – 2015) doesn't directly address RRI concept in the Czech Republic. It concentrates on different aspects connected with RRI, e.g. setting the priorities, efficiency, evaluation, excellence, sustainability, competitiveness, societal relevance and pro-innovation environment. More, the understanding of RRI as a concept is different in basic and applied research and in innovation processes. In contrast to public research centres and universities, businesses have their own understanding of all these aspects.

In the area of basic research it is clear for Academy of Science, Czech Science Foundation, and most other grants funding agencies that the RRI concept is necessary and useful. In these councils ex-ante regular evaluation exists, which also evaluates the ethical aspects of research. There is also ex-post evaluation of research projects and research plans, which looks at the real results of research projects not only at the research outputs. In the Czech Republic there is no central institution that deals with TA and it is not likely that TA will be institutionalized in the near future.

The concept of responsible research plays a principal role in the currently drafted strategy of scientific research of the Academy of Sciences of the Czech Republic. The notion of responsible research and innovation affects both its support and selection of research themes as well as research and innovation processes conducted by actors themselves, who should take into account social impacts and ethical implications in the implementation of research and innovations outputs. From the standpoint of the strategy of basic and applied research in the Academy of Sciences of the Czech Republic, responsible research and innovation can be characterized as such research that addresses current and pressing challenges at national, European and world level, strives for excellent quality of its research results, and attempts to achieve long-

term sustainability of its human potential, infrastructure and financial resources. At the same time, this notion of responsibility also encompasses the evaluation of social impacts of the realization of achieved results and respect for ethical and moral principles concerning the conduct of actors in research and innovation processes.

A very serious issue in connection with RRI is the relationship between expert opinions and democratic decisions. An abyss opened up between the expert and democratic aspects during the previous communist regime in the Czech Rep. At present, scientific expert opinions are known to have only a limited impact on political decision-making (even though it is precisely democracy that provides a suitable framework for utilizing expert opinions); in any case, this impact is smaller than is customary in the advanced countries of the EU. In response to the signs of tension building up between science and democracy, this particular tension seems to be creeping into the very foundations of European culture where scientific rationality and democracy constitute two inseparable mainstays.

There are no formalized procedures of public engagement (grounded in legislation or in governmental structures) focused specifically on RRI in the Czech Republic; it is only possible to file specific petitions. Public debates (public hearings) oriented on the general public and civil organizations have not yet become part of public life in the country. However, there are initiatives stimulated from below trying to open public debates on R&D&I – e.g. Forum “Science Is Alive!”.

Generally speaking, public engagement is an important trend influenced by the examples coming from the advanced European countries and – first and foremost – stemming from regional needs.

There exist only a few topics in R&D&I that are discussed both in public, in research community and in decision sphere; these include: GMOs and food chain safety, consumer safety issues and, in a less structured manner, biofuels and biomass, solar and nuclear energy (and its safety) issues and the enlargement of the Czech nuclear power plants. The political stakeholders require better interconnection and coordination of science and innovation policy with other institutional strategies: educational policy, national economic policy, production strategy, marketing, PR, personnel strategies etc. or – at the national level – coordination with the other national priorities (environmental protection, health, knowledge society).

Eurobarometer survey (p. 341 ff.) has shown that Czechs seem to be a public with exceptionally strong belief in new technologies, willingness to delegate decision making to experts and confidence in the responsibility of the industry management, while having only average knowledge of given technologies and a below-average willingness to risk and accept personal responsibility.

The new survey of 2013 (p. 401 ff.) shows public support for responsible research and innovation. Three quarters of Czechs think that science and technology has a positive influence on society. Respondents however also express concern over risks from new technologies, such as to human health and the environment. They want research and innovation to be carried out

with due attention to ethical principles (82%) and gender balance (84%), but only 34% of respondents are interested in developments in science and technology (in comparison to 53% average in EU) and a majority do not feel informed enough (69%). More than three quarters (79%) of respondents in the survey think that scientists working at universities or in government laboratories are best qualified to explain the impact of scientific and technological developments on society, and this group is also most likely to be seen (86%) as trying to behave responsibly towards society.

Czech society does not perceive “science” in all its relevant factors but rather considers individually the various unique aspects connected to it. In the public opinion polls a “scientist” belongs traditionally among the most prestigious occupations (ranking second behind medical doctors, while university teachers rank third). According to a poll from August 2009 the Czech Academy of Sciences belongs among the most credible institutions in the country and 60 percent of respondents were convinced about its usefulness. Universities with long traditions have similar esteem (especially Charles University in Prague and Masaryk University in Brno). Until recently, the questions of science policy and science funding were not a subject of serious public debates. The change in attitude in 2009 was brought about by turbulent reactions of the academic community towards the proposed changes and reforms, the subsequent negotiations with the government and the newly established civic associations such as “Science Is Alive!”. Under these circumstances, the questions of science policy and science funding became a serious issue, which is being regularly discussed at roundtables initiated by the Prime Minister, parliament, as well as in print media, radio, television, and electronic media. They have also become an issue for the electoral campaigns; however, it is being pushed aside by the social and economic problems caused by the economic situation.

In the past few years Czech government introduced three main initiatives in the field of science, research and university education, which could support RRI: (1) the reform of the system of science, research, and innovations; (2) the reform of higher education; (3) establishment of the Technological Agency of the Czech Republic. All these initiatives arise from a single fundamental concept: to increase the efficiency and innovation effects of research and tertiary education. The objectives are concisely formulated in the vision: the goal is to achieve a situation where “Science makes knowledge from money, innovation makes money from knowledge.” Regarding basic research, its excellence in international terms is required; regarding applied research, its concrete economic and social benefits are stressed. The reforms are positively accepted by the general public, which welcomes the goal of increased efficiency of public finances devoted to science and research.