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RESOLUTION
OF THE SEVENTH STANDING COMMITTEE

(Education, heritage, scientific research, entertainment and sport)

on the initiative of Senator MARCUCCI

approved on 29 June 2016

in accordance with Article 50(2) of the Rules of Procedure, following the examination of the allocated dossier on the European Commission's efforts to promote closer links between the scientific world and society: the objectives of the 'Science with and for Society' programme that forms part of Horizon 2020

1. INTRODUCTION: THE CONTENT OF THE HORIZON 2020 PROGRAMME (H2020) AND ‘SCIENCE WITH AND FOR SOCIETY’ (SWAFS)

The seventh standing committee of the Senate has always considered European framework programmes for research to be of particular importance. The Framework Programme for research and innovation Horizon 2020 (H2020), the funding for which is managed directly by the European Commission and which was established for the period 2014-2020 by Regulation (EC) No 1291/2013 of the European Parliament and of the Council of 11 December 2013, has been long in the making and was submitted to national parliaments in draft form in December 2011, during the 16th parliamentary term.

The programme, which brings together under a single framework the funding previously allocated under the 7th Framework Programme for research, technological development and demonstration activities, the Competitiveness and Innovation Framework Programme (CIP) and the European Institute of Innovation and Technology (EIT), is intended to cover the entire research chain, from frontier research to technological development, demonstration and application of research results, and innovation, which informs the entire programme. Horizon 2020 has a budget of almost EUR 80 billion and is the world’s largest programme supporting research and innovation.

Horizon 2020 has three pillars – Excellent Science, Industrial Leadership and Societal Challenges – supplemented by ‘cross-cutting issues’ needed to ‘develop new knowledge, key competences and major technological breakthroughs as well as translating knowledge into economic and societal value’.

One of these cross-cutting issues that fall outside the Horizon 2020 pillars is ‘Science with and for Society’, which will benefit from around EUR 462.2 million over the seven-year period, in line with Article 6 of Regulation (EU) No 1291/2013, with the first two work programmes approved on 10 December 2013 and 14 October 2015. The programme evolved out of the ‘Science and Society’ and ‘Science in Society’ plans that formed part of the 6th and 7th Framework Programmes respectively, and which enjoyed steadily increasing funding levels. Those plans in turn originated from an initial European Commission document dated 14 November 2000 and entitled ‘Science, society and the citizen in Europe’. The underlying idea is to bring citizens closer to science and research and increase their understanding of these areas, to highlight ethical considerations and equal access, and to make science and research better able to meet society’s needs.

Horizon 2020 increases the funding for ‘Science with and for Society’, although this still represents just 0.6 % of the total, and outlines the idea of responsible research and innovation (RRI) that cuts across the whole programme. ‘Science with and for Society’ thus focuses on the following six aspects: promoting gender equality in research and innovation, ethics, responsible research and innovation, science education, public engagement in responsible research and innovation, and Open Science.

2. THE WORK OF THE 7TH COMMITTEE ON EUROPEAN LEGISLATION AND THE NATIONAL RESEARCH STRATEGY

When examining the Regulation establishing H2020 and the objectives of the ongoing public consultation on the ‘Science with and for Society’ work programme for 2018-2020, it is important to bear in mind the comments concerning subsidiarity already made by the 7th Committee when it examined the original legislative act in accordance with Article 144 of the Senate Rules of Procedure. On this occasion a very thorough examination was carried out over the course of three months, at the end of which the 7th Committee approved a detailed resolution (XVI parliamentary term, Doc. XVII, No 147). Analysing preparatory documents during the drafting stage has certainly allowed Parliament to become familiar with the content of the initial proposals and the individual action points on research, which will now be examined from a different perspective, since it is now in the executive/management phase.

In its initial examination, the Committee welcomed the simplification of funding procedures, including the application of a single set of rules to the entire research and innovation cycle, the adoption of clear assessment criteria and a reduction in red tape. The 7th Committee also made detailed comments on the general approach of the H2020 programme and on the individual action themes. The emphasis on and selection of topics has naturally changed with the transition from one legislative term to another and with the emergence of new priorities. Building on that work, during this parliamentary term the 7th Committee has therefore had the opportunity to express its opinion on matters relating to public research organisations with the approval of a specific resolution (Doc. XXIV, No 36) concerning numerous aspects of the sector, some of which (such as careers in research and unitary research governance) could be included in this process, which aims to be of supranational significance.

Moreover, ‘enhancing the attractiveness of the research profession’ and ‘facilitating cross-border and cross-sector mobility of researchers’ are included among the cross-cutting issues listed under Article 14 of Regulation (EU) No 1291/2013. Article 17 of the Regulation is specifically dedicated to ‘Researchers’ careers’, which would be strengthened by a single market for researchers, also taking into account the transnational character of the actions contained in the programme. This was also considered a high priority by the 7th Committee, which pushed for the transposition of the European Charter for Researchers and the creation at national level of a ‘joint framework’ for researchers and technicians at public research organisations in order to eliminate the current differences with the university system.

Another sensitive topic that the 7th Committee has commented on is the creation of a unitary policy for research that is genuinely coordinated with other national policies, in order to ensure effective governance of the national research system, including university research and higher education in the arts, thereby exploiting the multidisciplinary approach that is essential for innovation. This would help to reduce fragmentation and avoid duplication, as also stated in the Regulation establishing the H2020 programme.

The Committee would therefore note that, when it comes to research,

shared aims can be promoted at both national and European level while still maintaining autonomy as regards the procedures for examining and adopting acts. It is also possible to identify another point in common between the activities of the Italian Parliament and that of the European Commission in the analysis of the impact and implementation of Horizon 2020, in the form of medium-term monitoring and involvement in drawing up future working documents during the pre-drafting stage. This also lays the foundations for building solid expertise within the 7th Committee for when it will be required to examine the new framework programmes for the next seven-year period.

For these reasons, the aim of this dossier is to establish a political dialogue with the European Commission, taking as its starting point the public consultation carried out by the Commission between 11 April and 4 July 2016 to draw up the work programme for the ‘Science with and for Society’ element of Horizon 2020 for the final three-year period from 2018 to 2020. Approval of a resolution by the 7th Committee offers a way of setting out the principles and guidelines that should inform the Italian Government’s position on preparatory activities for drawing up European documents, as well as adding to the material produced by the European Commission, with specific reference to a particular part of Horizon 2020.

3. THE RESULTS OF THE PUBLIC CONSULTATION ON ‘SCIENCE WITH AND FOR SOCIETY’ AND THE CONTRIBUTION BY THE 7TH SENATE COMMITTEE

In line with standard practice to encourage interaction with and the participation of citizens and civil society organisations, and in addition to the procedures set out in the Regulation and in the implementing decisions, the European Commission decided to launch a public consultation exercise for the definition of the 2018-2020 work programme. The exercise was also open to institutional bodies and was intended to supplement the proposals and contributions of the independent advisory group of high level experts set up in accordance with Article 12 of Regulation (EU) No 1291/2013. This exercise is of particular strategic importance for the overall objective, not so much for the funding allocated, as for its cross-cutting significance that affects all activities relating to the three H2020 pillars Excellent Science, Industrial Leadership and Societal Challenges.

The ultimate aim of the procedure is to enable science and society to cooperate effectively, to recruit new talents to science and to make sure that scientific excellence goes hand-in-hand with social awareness and responsibility. These aims are shared by the 7th Committee, which has also considered the practical activities set out in the H2020 programme specifically in relation to ‘Science with and for Society’. When identifying priority actions, research and innovation undoubtedly play a key role in the European plan to stimulate investment, seek out new solutions and expand knowledge, in line with the model of Open Innovation, Open Science and Open to the World promoted by the European Commission.

Based on its investigations and the findings that emerged, the 7th Committee places great importance on the involvement of citizens, as regards

both the participation of civil society in European projects and access to science. The Committee therefore welcomes the idea of improving interaction between the scientific world and citizens and suggests identifying ways in which the institutions can support this relationship and incentivise the closer involvement of civil society with the aim of democratising science.

This also raises the need to make research careers more attractive by focusing on mobility and awakening the younger generation's interest in this sector by highlighting innovation and the rapid pace of technological change, concepts that are in any case already familiar to young people.

Therefore, in order to contribute to the European Union's consultation as part of the process of political dialogue and to set out the principles and guidelines that should inform the Italian Government's position on preparatory activities for drawing up European legislation, the Committee wishes to make the following comments in response to the six questions in the public consultation questionnaire:

1. The Committee believes that support for science education, including basic research, should be a high priority, particularly where this intersects with the arts and humanities sector, including areas such as gender equality and free access to research results. These topics should be incorporated into the other H2020 objectives, specifically Societal Challenges and Industrial Leadership. There is also a need to make science and technology careers more attractive to young students with measures to promote links between schools, research institutes, industry and civil society organisations. Encouraging inclusive access to research for young people, starting with the education system and schools, while supporting and making the best use of the experience of existing laboratories, could make the world of science and research career opportunities more widely known, thereby establishing an ongoing dialogue between the demands for innovation from technology companies of all sizes, society as a whole and young professionals. To this end there should be a survey of the types of career available in the public and private sectors to supplement the EU careers framework. Gender equality in science should also be promoted at the level of careers for young female researchers, as regards both the content and planning of research activities and the organisational structure of research institutes.

2. One of the most important results that could be achieved through the SWAFS programme within 5-7 years would be to popularise a new, more mature and more conscious cultural approach to sciences among European citizens, and young people in particular, including through experiential learning. Another objective would be to fight the common stereotype that girls are not suited to science, technology, engineering and mathematics (STEM) subjects. The creation of solid links between science and society, with a greater focus on individual needs, as well as on the quality, relevance and sustainability of research results, feeds virtuous research and innovation cycles. Ultimately, initiatives to disseminate and popularise scientific activities play a vital role in encouraging an awareness of science among citizens and families. It could be helpful to develop a programme of 'science in the field' initiatives that would take the form of information, education or demonstration events aimed primarily

at the various segments of civil society with a specific target audience for each event.

3. Confronting the challenges associated with open science and innovation should be a top priority, bearing in mind that research helps to support change and to strengthen the work of the institutions. Open access to publications and data plays an important role in preventing research duplication, strengthening interdisciplinarity, facilitating knowledge transfer to companies and citizens and promoting innovation and development. The work programme should therefore include measures to support open science policies and organisations investing in this area, as well as the creation of a technological and multimedia Open Science Platform to open up a dialogue with civil society as a forum for ongoing interaction and debate. The main driver for accelerating change would be to encourage mobility among researchers by harmonising their careers as far as possible, since people are the primary vehicles for ideas. The time has also come to standardise the responsible research and innovation (RRI) approach through public action, not only in terms of sufficient resources, but also concerning the link between funding and results. Moreover, there is a need to set out methods and procedures that involve the wider society and ensure respect for ethical principles and gender equality.

4. The areas that would most benefit from the integration of horizontal aspects of the H2020 programme are those where sufficient progress has not yet been made. The initiatives to be supported through the SWAFS programme should relate first and foremost to gender equality and the involvement of businesses in responsible research and innovation. To this end, a permanent panel of SWAFS experts drawn from science, civil society and the institutions could be set up to engage with the main existing networks on RRI, so as to encourage the sharing of ideas and best practice on topics such as the ethics of science, risk management and the role of women in science.

5. An effective monitoring, reporting and assessment system is an essential requirement for ensuring the inclusion of RRI in the SWAFS programme and the other H2020 actions. In order to mainstream RRI within and outside the European Union, it is essential to promote H2020 social science research programmes intended to look into aspects of communications, ethics and the fight against inequality, with specific emphasis on transnational networks on SWAFS issues or those that are SWAFS compliant, i.e. those that take proper account of social aspects in their activity plans. In view of the high level of migration, one initiative that could also be supported through other elements of H2020 would relate to drawing up strategies to integrate and benefit from the migrants and refugees with experience as scientists and researchers by implementing existing agreements with their countries of origin or entering into new agreements. This would put into practice the third 'O' (Open to the world) and would make their experience available to the European research system. In this way, the common language of science could bring people together and research activities could be a pathway to inclusion.

6. Bringing science closer to citizens will certainly require effective public engagement, particularly in the primary and secondary education system, on the part not only of the Government but of all organisations involved. Indeed,

the idea of public engagement covers all the ways in which it is possible to share the activities and benefits of higher education with citizens. This is a two-way process: on one side, society and its needs, and on the other, universities and research centres and their developments. It is essential to harness this approach in each sector and across all channels of interaction in order to bring needs to light and provide effective solutions. Higher education institutions should therefore be incentivised to promote this aspect, which for Italian universities forms part of the ‘third mission’, which is defined in technical terms by the National University and Research Assessment Agency (ANVUR) as ‘the idea of openness towards the socio-economic context by capitalising on and transferring knowledge’ and is included in research quality assessment. Moreover, we would recall the ongoing commitment of all stakeholders set out in the Rome Declaration on Responsible Research and Innovation of 21 November 2014 to identifying inclusive and sustainable solutions to societal challenges. This network also makes it possible to use science to improve access for disadvantaged sections of society, thereby improving their quality of life and lessening hardship, which undoubtedly benefits society as a whole.

4. GUIDELINES FOR THE GOVERNMENT

After having analysed the SWAFS programme and taking into account its long-term value for the future rather than its financial benefits, the 7th Standing Committee feels that it should set out some general guidelines for the Government as regards the overall implementation of Horizon 2020 within Italy. The foundation must be laid both to increase the involvement of citizens in science topics and to transform that involvement into active participation in European calls for tender in order to take advantage of all the opportunities offered by the EU.

Parliament has an essential role to play in this as the guardian of representative democracy and thus the centre of the debate about national strategies on research, as well as promoting initiatives to raise awareness among citizens.

After having gathered material and held hearings, the Committee carried out an initial assessment of Italy’s performance in relation to the Framework Programme, which was analysed on the basis of the measures described in the National Research Programme 2015-2020, and the 7th Committee intends to continue this analysis through its discussions with the Government. In the light of these considerations and the responses to the questions of the public consultation, the 7th Committee calls on the Government to:

a) work together with Parliament to strengthen the activities of all national institutions at European level and increase engagement with the European Commission, not least by having a greater presence on the H2020 administration, evaluation and monitoring bodies, with the aim of reinforcing Italy’s role in implementing the H2020 programme and making a greater contribution to the development of the European Research Area referred to in Article 179 of the Treaty on the Functioning of the European Union;

b) inform the national representatives on the Programme Committee of the contents of this resolution so that they can represent Parliament's interests and pass on requests when work programmes are being drawn up;

c) check how the responses to the consultation questions are incorporated into the 'Science with and for Society' work programme and support its implementation;

d) strengthen the work of the national contact points (NCPs) so as to ensure effective support for Italian researchers wishing to apply for calls for tender, in line with the support measures already set out in the National Research Programme. In this context, the Committee recommends that the outcome of discussions between the various NCPs be disseminated to all research stakeholders on a regular basis in order to raise awareness of the topics being discussed in Europe and, at the same time provide suitable information to local bodies on ongoing projects that could support development in their local areas;

e) introduce appropriate measures, including through National Research Programme actions, to ensure effective coordination of the national research system in order to improve Italy's performance in accessing funding under the H2020 programme;

f) incentivise higher education institutions and schools to raise awareness of research, with the primary aim of involving younger generations, by exploiting the technological innovations that young people already use and that can make the language of science familiar and accessible;

g) complete the measures launched in the wake of the resolution on public research organisations (Doc. XXIV, No 36) in implementation of the powers delegated by Article 13 of Law No 124 of 7 August 2015 to transpose the European Charter for Researchers and the European Framework of Research Careers document, thereby encouraging debate within the Italian research system in order to contribute to the definition of the European career framework;

h) start the process of gradually increasing investment in research until it at least matches the average European funding level;

i) work together with Parliament to introduce ways of accessing research truly based on merit;

j) take all necessary measures at national level, including through legislation, to eliminate inequality or discrimination on the basis of gender or sexual orientation at universities and research bodies and to fight all stereotypes about the choice to study or pursue a career in STEM subjects based on gender or sexual orientation;

k) work together with Parliament to bring about the reorganisation of research governance in Italy at the earliest opportunity.

