



December 10, 2021

**COMMENTS ON A PROPOSAL FOR A DECISION ON ESTABLISHING
THE 2030 POLICY PROGRAMME “PATH TO THE DIGITAL DECADE”
BY THE
EUROPE TECHNOLOGY POLICY COMMITTEE
OF THE
ASSOCIATION FOR COMPUTING MACHINERY**

The Association for Computing Machinery (ACM) is the world's largest and longest established professional society of individuals involved in all aspects of computing. It annually bestows the ACM A.M. Turing Award, often popularly referred to as the “Nobel Prize of computing.” ACM’s Europe Technology Policy Committee (“Europe TPC”) is charged with and committed to providing objective technical information to policy makers and the general public in the service of sound public policymaking. ACM and Europe TPC are non-profit, non-political, and non-lobbying organizations. See, <https://europe.acm.org/europe-tpc>.

Europe TPC generally supports the objectives outlined in Article 2 of the pending Proposal for a Decision on Establishing the 2030 Policy Programme “Path to The Digital Decade” (“Draft Decision”).¹ We concur that achieving these objectives will lead to a successful digital transformation of the European Union by 2030. We particularly welcome the Draft Decision’s emphasis on a human-centred, inclusive, secure, and open digital environment in line with the European Green Deal.

Europe TPC is pleased to provide the following specific “feedback”² on the text of the Draft Decision:

Article 4

Digital Proficiency: It is appropriate that the European Union set ambitious targets for a significant portion of its population to be proficient in basic digital skills by 2030. We believe, however, that the specified goal of 80% of persons aged 16-74 is insufficiently aggressive, at least for the “digitally native” portion of that age group that will have by then grown up with the Internet. (Arguably, the target also should include youth between 5 and 15 years old.) Accepting that 20% of that segment of the European Union’s population may still be insufficiently digitally literate should not be acceptable. Europe TPC commends the work of the Informatics for All coalition to the Commission for assistance in achieving the more appropriate goal of near universal digital proficiency. See, <https://www.informaticsforall.org/>.

¹ COM(2021) 574 final; 2021/0293 (COD) (15.9.2021).

² This document was authored for ACM’s Europe Technology Policy Committee principally by its Chair, Chris Hankin of Imperial College London (affiliation for identification purposes only).

Critical Issues: We concur that explicitly mentioning quantum acceleration in the Draft Decision is entirely appropriate. Europe TPC urges the Commission, however, to also highlight other equally important technical developments. For example, given the European Union's already significant investment in AI research (particularly the flagship Human Brain Project), neuromorphic computing also might be profitably highlighted as the present availability of neuromorphic chips may make viable it much sooner than quantum computing.

Article 11: Europe TPC welcomes the Commission's intention to closely cooperate with a broad range of stakeholders and looks forward to being among those consulted as an apolitical, non-lobbying source of independent technical policy advice. Europe TPC would be pleased to assist the Commission and other policy makers in accessing the expertise of the Association for Computing Machinery's nearly 20,000 European members in academia, as well as the public and private sectors.³

Article 12: We commend the Commission for recognizing the need to undertake Multi-Country Projects to meet its digital targets, and for the introduction of the new EDIC instrument. Concerning the list of issue areas identified in the Annex, however, we observe:

Software Tools: The Commission also should take the opportunity to list the development and deployment of a suite of software platforms aligned with European values which support organisations in their day-to-day business and individuals in their social relations.

Advanced Computing: The acquisition of supercomputers and quantum computers is, Europe TPC believes, too narrow an objective. We recommend and request that the Commission broaden its goals in this area to include the development and deployment of such hardware, and associated software and tools.

Shadow Infrastructures: The pandemic has led to the organic emergence of so-called "shadow infrastructures," created when large numbers of home workers creatively deploy technologies in ways not intended or foreseen by their designers to circumvent the perceived inadequacies of "official" infrastructures. Examples include the use of un-sanctioned software features and products, and the construction of new office equipment supply chains geared to home delivery. Although such adaptations potentially introduce new vulnerabilities, it is likely that they will persist beyond the pandemic. Work is thus needed to better understand this phenomenon and its effects.

Climate Change: While understandably appealing, reliance on new technologies to accomplish the Commission's climate change mitigation goals actually could be counterproductive. For example, while blockchain technology's functionality may be well suited to the secure operation of global carbon offset markets, its present enormous power consumption needs may negate any emission reductions it fosters. See the recent ACM TechBrief on *Computing and Climate Change* for more background and detail. See, <https://dl.acm.org/doi/pdf/10.1145/3483410>.

ACM's Europe Technology Policy Committee, and its thousands of expert European members, stand ready to assist the Commission at any point in its further consideration of the Draft Decision or otherwise with respect to technical matters implicating all aspects of computing. To request such technical, apolitical, and non-lobbying input, please contact ACM's Director of Global Policy & Public Affairs, Adam Eisgrau, at acmpo@acm.org or +1 202.580.6555.

³ These comments also are applicable to Paragraph 29 of the preamble to the Decision.