Council of the European Union

NOTE

From:	General Secretariat of the Council
To:	Delegations
Subject:	Draft Declaration on "A smart and sustainable digital future for European agriculture and rural areas"
	- Information from the Commission

Delegations will find in <u>Annex</u> a draft Declaration on "A smart and sustainable digital future for European agriculture and rural areas", which will be presented by the European Commission under "Any Other Business" at the Special Committee on Agriculture on <u>11 March 2019</u>.

———————————

A smart and sustainable digital future for European agriculture and rural areas

Introduction

The EU agricultural sector is one of the world leading producers of food, guarantor of food security and quality and provider of millions of jobs for Europeans. Yet it faces many challenges. There are environmental pressures, relating to climate change and loss of biodiversity, and there is a need for sustainable and efficient management of resources such as water, soil, biodiversity and energy. Farms have to produce traceable and quality products at affordable prices, as close to the end consumer as possible, and farm revenues are under pressure. Furthermore, the farming population is ageing and in some Member States there is a shortage of farm labour. The lack of a digitally skilled workforce is also slowing down the modernisation of the sector.

Digital technologies such as Artificial Intelligence (AI), robotics, blockchain, High Performance Computing (HPC), Internet of Things (IoT) and 5G have the potential to increase farm efficiency while improving economic and environmental sustainability. Such technologies can transform all types of farming and enable better decision making. Increased use of digital technologies will also have a positive impact on the quality of life for farm workers, and may attract a younger generation to farming and rural business start-ups.

However, the use of digital technology in agriculture and rural areas in the EU is, on average, low. The lack of information about existing technologies, the lack of digital skills and the limited availability of reliable cost/benefit analyses of the new technologies are challenges to increased investments in digital applications. In many cases, research and innovation are still required to develop new solutions. In other cases, the basic infrastructure, such as broadband or access to other high-speed internet connections, is missing.

Rural broadband deployment varies significantly across the EU. By end of 2017, only 47% of rural areas were covered with fast broadband connectivity, resulting in some rural communities not being able to reap the benefits of the social and economic integration that digitalisation brings. This contributes to depopulation of rural areas and increases the average age of rural population. Fast connectivity has the potential to improve their life conditions by opening up new possibilities for online work, commerce, interaction with public services and remote health monitoring and services.

In its Communication on the Future of Food and Farming[1] the European Commission acknowledged that the Common Agricultural Policy (CAP) should enable the EU farming sector to address environmental care, biodiversity and natural resources protection, thus strengthening actions to fight climate change, improve conditions in rural areas, and boost health and employment. The Communication also recognises the essential role of the CAP in fully connecting farmers and rural areas to the digital economy. The CAP offers great potential to support digital solutions to these challenges for the farming sector and rural areas. The Commission Communication on Artificial Intelligence for Europe[2] identifies agriculture as one of the key application areas where targeted investments are needed to achieve those objectives. The EU Coordinated Plan on Artificial Intelligence[3] also provides for investments in platforms and large-scale pilots integrating AI and robotics in agriculture.

Declaration

We, the Member States of the European Union signing this declaration and the European Commission, recognise the urgency and crucial importance of addressing the economic, social, climate and environmental challenges facing the EU's agri-food sector and rural areas, and the potential of digital technologies to help tackle such challenges.

---

[1] COM(2017) 713
[2] COM(2018) 237 final
[3] COM(2018) 795

Technologies such as Artificial Intelligence, Robotics, Blockchain, the Internet of Things, High Performance Computing and fast broadband, including 5G, are already causing profound transformations in our economies and societies, and will be particularly critical for smart farming. Europe has very valuable assets to build on, such as our strength in robotics for precision farming.

Digital technologies can improve the quality of life of all citizens in rural areas and the competitiveness of European farms and rural businesses. We believe that realising the full benefits of the digital transformation of the agricultural sector is only possible if such technologies are easily available to all and everywhere, and adopted by farms and rural populations across Europe. Ubiquitous, high performance digital connectivity is a prerequisite for the availability and take up of state of the art digital technologies and services in rural areas.

Digital technologies are changing business models in the agri-food sector and other rural businesses, creating challenges but also opportunities for sustainable jobs and growth in rural areas. We are determined, therefore, to create conditions so that all workers in the agricultural sector have an opportunity to acquire the skills needed for the smart farms of the future.

This declaration takes note of the Communiqué 2019 of the Berlin Global Forum for Food and Agriculture[4] and aims at contributing to progress towards a smart and sustainable future for European agriculture.

We will work together to:

[Research & Innovation]

- keep Europe at the forefront of progress in smart farming, by increasing investments at European and national levels in research and innovation in digital technologies, but covering also socio-economic agronomic and environmental aspects, and giving priority to artificial intelligence for agriculture in line with our commitments made in the Declaration of Cooperation on artificial intelligence of 10 April 2018;

---

[4] https://www.bmel.de/SharedDocs/Downloads/Landwirtschaft/Welternaehrung/GFFA_2019_Kommunique_EN.pdf?__blob=publicationFile

- support research, development and innovation actions aimed at achieving improved food traceability through the use of blockchain technologies in agriculture, in keeping with the goals announced in the Declaration of Cooperation on blockchain of 10 April 2018, notably via the ongoing work on the European Blockchain Partnership (to which relevant agricultural stakeholders such as the EIP-Agri will be invited);

- support digital solutions for smart farming which help farmers to enhance their resource efficiency, are good for the productivity of the farms and help to reduce the pressure on environmental resources like soils, water and biodiversity.

[Adoption & Deployment]

- expand the on-going initiatives to support the CAP's transition towards a result-based policy by:

  – complementing the activities mentioned in this declaration in coherent and ambitious CAP strategic plans, in support of the CAP's cross-cutting objective of modernising the sector by fostering and sharing of knowledge, innovation and digitalisation in agriculture and rural areas, and encouraging their uptake;

  – working on digital tools for a simplified and effective implementation of the CAP, notably monitoring of agricultural areas using satellite, aerial data or other source of information;

- unleash the full potential of European agriculture by facilitating the deployment of digital technologies in agriculture and rural areas by means of **strengthening the capacity of the Europe-wide technology infrastructure for a smart agri-food sector**, including through the rural development and Digital Europe programmes proposed for the next multi-annual financial framework;

- to set up such technology infrastructure for digital innovation in agriculture, we agree to take the following actions:

  – support the European Commission in identifying at least five large-scale reference experimentation and testing facilities, across Europe, that would serve as a common resource for all European stakeholders to validate new smart solutions in real settings and networking these reference sites with existing experimentation and testing facilities;

  – support the setting up of a network of dedicated agri-food digital innovation hubs making cutting-edge digital technologies and specialised services for agriculture available for local farming and food production ecosystems, including small-scale farms, throughout Europe;

  – build on ongoing initiatives such as the SmartAgriHubs network[5] to create at least one dedicated agri-food digital innovation hub in each Member State,

  – close the loop by connecting the network of dedicated agri-food digital innovation hubs to the more general network of digital innovation hubs to be strengthened also via the Digital Europe programme proposed for the next multi-annual financial framework;

  – help all farmers and rural populations to play their full part in the digital future of agriculture by investing in upskilling, including through short-term training schemes, which could also take place online, to be developed by the dedicated agri-food digital innovation hubs as well, and linking up such upskilling efforts with agricultural knowledge and innovation systems (AKISs) as set out in the CAP strategic plans;

---

[5]   SmartAgriHubs - Connecting the dots to unleash the innovation potential for digital transformation of the European agri-food sector (https://cordis.europa.eu/project/rcn/218572/factsheet/en)

–   encourage the agri-food sector to take full advantage of the AI4EU AI-on-demand platform, which will facilitate access to specific expertise in AI, data repositories, computing resources, tools and algorithms, and training opportunities in advanced digital skills;

–   identify and implement new means of supporting and participating in IoT projects in agriculture, in particular with respect to large-scale IoT pilots in farming and to specific pre-requisites of IoT in agriculture such as low-power wide area wireless networks;

–   revise national broadband plans to ensure that available administrative, regulatory and funding measures, including those financed at EU level through the European Structural and Investment Funds, are fully exploited to achieve full deployment of broadband connectivity in rural areas in line with the Gigabit Society objectives by 2025 and the Action Plan for Rural Broadband, ensuring adequate resources and personnel for national and (where applicable) regional Broadband Competence Offices (BCOs) to participate actively in the exchange of information and best practices;

–   collaborate closely with the European Innovation Partnership on agricultural productivity and sustainability (EIP-Agri), to establish the area of digital innovation as a cornerstone of the future agricultural innovation environment;

–   link up with ongoing initiatives on Smart Villages to encourage the development of multi-level strategies for the digitalisation of rural areas with a people-centred approach, strengthening synergies between funding instruments.

[Data]

- facilitate the cross-border pooling and sharing of agricultural data between farmers and throughout the value chain by promoting relevant platforms and databases taking into account the stakeholders-led Code of conduct on agricultural data sharing by contractual agreement;

- identify in collaboration with the Commission and opening up High Value Datasets in the thematic categories such as geospatial, environmental/climate/Earth observation and meteorological, in line with the recently agreed Directive on Open Data and the re-use of public sector information, to help develop common databases and to promote AI powered precision farming solutions.

- make full use of European space programmes (EGNOS and Galileo) and the earth observation programme (Copernicus) for the accurate and efficient operation of unmanned aerial vehicles and autonomous agricultural machinery, and for data-driven decisions relating to agricultural operations;

The signatories of this declaration commit to a regular assessment of the achievements and progress made on the matters agreed above and on the adoption of the appropriate related actions. To facilitate the implementation of these actions and monitor their implementation, a dedicated Sherpa group of national representatives is being set up.