

COMMISSIONER MOEDAS  
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President Mattarella,  
Your Majesty King Felipe,  
President Cavaco Silva,  
Ladies and Gentlemen,

It is my distinct pleasure to be among such distinguished company.

It's not often that leaders of your calibre demonstrate such a genuine interest in how their nations' innovations will shape the future of Europe and the world.

President **Mattarella** has long been a moral compass to his nation as a constitutional Court Justice. At his inauguration, the President presented a strong case for institutional reform and a commitment to tear down the barriers to Italy's economic growth.<sup>1</sup>

**His Majesty the King of Spain** has had innovation at the core of his vision for Europe, actively urging Spanish companies to invest in knowledge, to create value through innovation and to compete globally in a sustainable manner.

**President Cavaco Silva's** distinguished record of public service to my own country includes placing "competitiveness" firmly at the centre of political debate. Well before it was widely understood, President Cavaco Silva rightly saw competitiveness as an issue of value, not of cost; that only through innovation could our companies compete globally and sustainably.

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Ladies and Gentlemen,  
Distinguished Guests,

Over the past week, I've been in Lisbon and Madrid sharing my ideas on how the digital transition is changing the way we do innovation and science.

Today, I'm in Rome – completing the Cotec Europa triangle – and I'd like to talk about what I see as the disruptive implications of a truly digital economy and why we should embrace it.

1.

I'm sure you will agree that digital technologies have already changed how we conduct research, how we do science and how we innovate; how we produce and sell products and services.

Yet, I would argue that we are still at the infancy of the digital revolution.

A Web pioneer, Steve Case, says that we are just at the beginning of the third stage of the internet. In the first, the infrastructure of the internet was built. In the second, where we still are, Apps were built on top of that infrastructure. The third, just emerging, is when we bring the internet and the digital to the more traditional "infrastructures", like health, transport or manufacturing.

After falling behind in the first two stages of the internet, Europe now has a fresh opportunity to gain an edge and push our economy to a higher stage of innovation and growth.

To achieve this edge, we should understand the three ways in which the digital technology creates an impact on innovation.

1) First, it puts the user in the driving seat; 2) Second, it empowers small players, allowing them to enter and dominate established markets;

3) And third, it enables the creation of totally new markets.

Let me illustrate each of these three drivers of innovation and then conclude by saying what I intend to do, from the European Commission, to maximise Europe's capacity to reap this opportunity of the digital.

1)

So the first point is about placing the "user" at the centre of innovation.

The digital revolution means that innovation and science are no longer the monopoly of the producer or the lab. The user has a say!

The internet empowers users to co-develop products, to experiment, to give feedback to producers. And it enables wise producers to systematically learn from their users.

Let me tell you the story of Tal Golesworthy a boiler engineer from the UK. Tal was diagnosed with Marfan Syndrome. That meant that his aorta vessel from the heart would not last. When he was diagnosed and the doctor said that at some point the vessel could burst. So he as engineer found a solution that has saved so far more than 100 lives.

So in the digital world, user innovations can have great impact. Imagine what this will bring in the coming years, as more and more people feel empowered to innovate. This is truly a force for the democratization of innovation.

2)

Similarly, the digital economy opens the possibility that smaller or newer players enter an existing market and gain rapid dominance.

Think of the Swedish company Spotify, which from scratch, in a few years, was able to enter in the music industry and completely dominate it. Or think of Tesla, the American

electric car manufacturer, which entered a mature and well established industry and has been growing extremely fast.

There are two factors that explain why Tesla is a very real challenge to the traditional auto industry: first, they were the first to understand the importance of integrating software – the digital – with the mechanical part of the vehicle

[do you know, for example, that two weeks ago Tesla updated the software of existing cars. So imagine this: in their garages, through Wi-Fi, existing Tesla owners were able to update the software and suddenly their cars gained basic self-driving capabilities!]

The second reason why Tesla is a challenge is the fact that electric engines, combined with rapidly evolving software, are less complex than traditional combustion engines. Thus, the traditional engineering edge from old players is no longer so important. A software whiz-kid may not even have a driving license. But he has the opportunity to bring a concrete innovation to a car.

So, with the integration of the digital and the physical, new players can enter existing markets and gain dominance.

The example I gave you involves an American company. But nothing excludes Europeans from this game. Because of our strong industrial base, if we are able to advance in the digitisation of industry, we can innovate much more and we can gain a competitive global edge.

And new European players, including SMEs can have the ambition to compete against more established players, yet again showing the digital innovation as a source of economic democratization.

This brings me to the third way in which the digital impacts innovation.

3) Apart from putting the user at the centre, and enabling new players to enter traditional markets, the digital economy has the capacity to create whole new markets.

It is what Clayton Christensen calls "market creating innovations".

Think of Uber or AirBnB. These are platforms that link free capacity or spare capacity that already exists in society – extra houses or extra cars – with users that need them.

They are able to do it by being at the cutting-edge of internet, app, geolocation and mobile technology. They are successful because they eliminate "pain points" in the interaction – for example, you do not have to have cash with you to use an Uber; and they are successful because it just works – the design, the service, the process, it is easy for the user.

No doubt these new services pose concrete challenges to our regulatory and tax systems. They raise questions of fairness and competition. And these cannot be ignored.

But my point is that these businesses enable economic transactions that would otherwise simply not happen.

This is what I mean when I say that the digital creates new markets that it enables a type of innovation that creates new economic opportunities.

Again, this is a force for the democratization of innovation, empowering the sharing economy, promoting employment and even a more sustainable use of existing resources, which can be positive for the environment.

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So I presented what are in my view the three ways in which the digital impacts innovation: it empowers the user to innovate; it gives opportunities to newer smaller, more innovative players, to challenge existing markets; and it enables the ultimate innovation: which is the creation of whole new markets, with new jobs and new economic opportunities.

A common denominator is the democratization of innovation.

All of us, as consumers; but also a small enterprise; or a part-time driver; or an aspiring musician; or a young scientist at a remote institution. All of them can be innovators and can bring positive impact to the World.

How can Europe embrace this opportunity?

The answer is of course complex. But it starts from the bottom-up. It starts with associations such as Cotec that place these issues at the centre of the debate.

It continues with projects such as *Startup Lisboa*<sup>2</sup> and *Beta-i*<sup>3</sup> that are bringing forth a new generation of business leaders in Portugal.

Or with associations like *Mind the Bridge*<sup>4</sup> networking Italian startups with Silicon Valley.

And it also continues with projects like the Spanish IN<sub>3</sub> (IN-cubed) or South Summit promoting Spanish entrepreneurship, and to which the King has given so much attention.<sup>5</sup>

Ladies and gentlemen,

These examples, I think serve to demonstrate that Italy, Portugal and Spain have the know-how and creative energy to reap the full potential of the digital economy.

Some of Europe's best digital success stories are coming from the young businesses in your countries.

On my part, I have the privilege of managing Horizon 2020, the largest programme for research, science and innovation in Europe. Every day we fund the best of the best: the top scientists and researchers and the most innovative businesses.

And I have the ambition of creating a European Innovation Council, which can replicate for entrepreneurs what the European Research Council has brought to European scientists. Because I believe innovators should have the freedom to tell us what they want to do and not the other way around. Because I believe real innovation comes from bottom-up collaboration and intersection between different disciplines.

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This will not be a project for tomorrow. It will take time and I count on institutions like Cotec to contribute with ideas on how this Council should work.

Europe has to be the continent of Open Innovation, Open Science and Open the world.

President Mattarella, His Majesty the King of Spain, President Cavaco Silva,

Thank you for your leadership.

And thank you to Cotec, for placing innovation at the heart of policy debates in Italy, Spain and Portugal.

Walter Isaacson once said about the effect of digital on innovation: "This innovation will come from people who are able to link beauty to engineering, humanity to technology, and poetry to processors [...] In other words, creators who can flourish where the arts intersect with sciences."

Thank you.

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