



EUROPEAN CENTER FOR  
DIGITAL COMPETITIVENESS

BY ESCP BUSINESS SCHOOL

# DIGITAL ENGAGEMENT REPORT **2020**



## » Preface

Digitalisation is one of the most critical issues faced by individuals, businesses and countries today. However, Europe increasingly lags behind other global regions in terms of digitalisation and the development of a digital economy. Many European companies are still struggling with technologies such as 5G, AI, cloud computing, cybersecurity and the internet of things, whilst other continents – notably North America and Asia – are gearing up to dominate in key future technologies such as quantum computing, blockchain and robotics. In this context, the European Center for Digital Competitiveness by ESCP Business School in Berlin is launching its annual Digital Engagement Report 2020. The report presents the digital engagement of all 27 European heads of state and governments for the year 2019, including all interactions around digitalisation based on publicly accessible government information, press releases and personal accounts on the social media platform Twitter.

Heads of state and governments play a crucial role in the successful digital transformation of their countries, and similar to CEOs, who are responsible for setting and implementing company strategy, these government leaders set the political agenda of their country and are ultimately responsible for their execution. Furthermore, the involvement of a government leader can signal the importance of an issue to his or her entire country, which in turn can inspire the actions of citizens, start-ups and incumbent businesses.

In 2013, Chinese President Xi Jinping proclaimed the “Chinese Dream,” to restore the country’s national pride and power on the international stage, and it has become a national guiding principle in all aspects of life, including

a highly ambitious digital policy. The engagement of President Xi and the entire Chinese Government on digital topics has inspired a new generation of entrepreneurs, students and corporations to follow this digital agenda – backed up by the equivalent of hundreds of billions of euros to fund massive investments in key future technologies and start-ups.

Europe, conversely, has struggled with digitalisation, significantly declined in terms of competitiveness and is increasingly at risk of permanently being left behind in the development of key future technologies. In order to increase Europe’s digital competitiveness, heads of state and governments within the European Union need to play a critical role and inspire actions similar to those announced by Xi Jinping in China.

Through the Digital Engagement Report 2020, we want to stress the importance of highlighting digitalisation at the highest level of government. We hope that this report serves as a call to action for politicians to promote digital engagement in the future and stress its importance in the digital transformation of Europe.



Prof. Dr. Philip Meissner  
Berlin, July 2020

## » Executive Summary

This report finds that the digital engagement of European heads of state and government varies widely in terms of both the amount and the topics in which they engaged during the course of 2019. The top five politicians in the ranking had an average of 47 engagements linked to digitalisation, while the bottom five only had 12 engagements on average. The most digitally engaged leaders in Europe were Jüri Ratas, Angela Merkel, Emmanuel Macron, Mark Rutte and Xavier Bettel, whilst the least so were Marjan Sarec, Victor Orbán, Boyko Borisov, Giuseppe Conte and Mateusz Morawiecki. Our analysis shows that the heads of state and governments from western and northern Europe are significantly more engaged than their eastern and southern European counterparts, thereby indicating a regional divide in the approach to digitalisation.

### Key future technologies are mostly neglected

Topics such as 5G and AI have dominated public discussions around technology – as reflected in 126 engagements with 5G and 116 with AI by European leaders. However, our analysis also shows that key future technologies – such as quantum computing (2 engagements), robotics (12 engagements), mobility (15 engagements) and cloud computing (16 engagements) – have received very little attention. Additionally, digital education has not been addressed widely by top politicians, as exemplified by only 14 engagements attributable to all 27 European leaders combined.

### There is no harmonised approach to digitalisation throughout Europe

Comparing the digital engagement of top politicians across technologies reveals that no harmonised approach exists throughout Europe. With the exception of AI, which is a top focus area for four heads of state and government, all other technologies are emphasised by one very active top politician, while others are less engaged in the respective area. For instance,

5G and industry 4.0 are focus areas for Angela Merkel, entrepreneurship for Mark Rutte and e-government for Jüri Ratas. This not only shows the lack of a unified approach to digitalisation, but it also indicates that it seems to mean different things for different politicians. For Angela Merkel, the focus area is largely digital infrastructure, while for Jüri Ratas it means digitising government services.

### European heads of state and government focus on certain topics

The different focus areas also become visible when looking at the specific engagement profiles of all 27 European leaders. When comparing Europe's top three economies in terms of size (Germany, France and Italy), important differences emerge. First, Giuseppe Conte has significantly fewer engagements related to digitalisation compared to Angela Merkel and Emmanuel Macron. More importantly, the engagement profiles show the topics on which the respective leaders spend their time. In this regard, Angela Merkel focuses mainly on infrastructure topics, with 5G and industry 4.0 accounting for 52% of her digital engagements. Less focus rests on entrepreneurship, with no engagement in 2019, as well as emerging exponential technologies – notably robotics or blockchain – with 2% of her engagements, respectively. Emmanuel Macron, on the other hand, focused mostly on disruptive technologies like AI (24%) as well as entrepreneurship (12%), neglecting other technologies like robotics, blockchain, quantum computing and digital education (no engagement). Giuseppe Conte shares President Macron's leaning toward technology, with AI (27%) and cybersecurity (20%) being the most important focus areas. In contrast, he exhibited no engagements in other important technological elements such as blockchain, quantum computing or digital education.



## » About the Digital Engagement Report

The objective of the Digital Engagement Report is to investigate with what digitalisation topics European heads of state and government engage, thus providing an in-depth analysis of all 27 European leaders' digital focus areas.

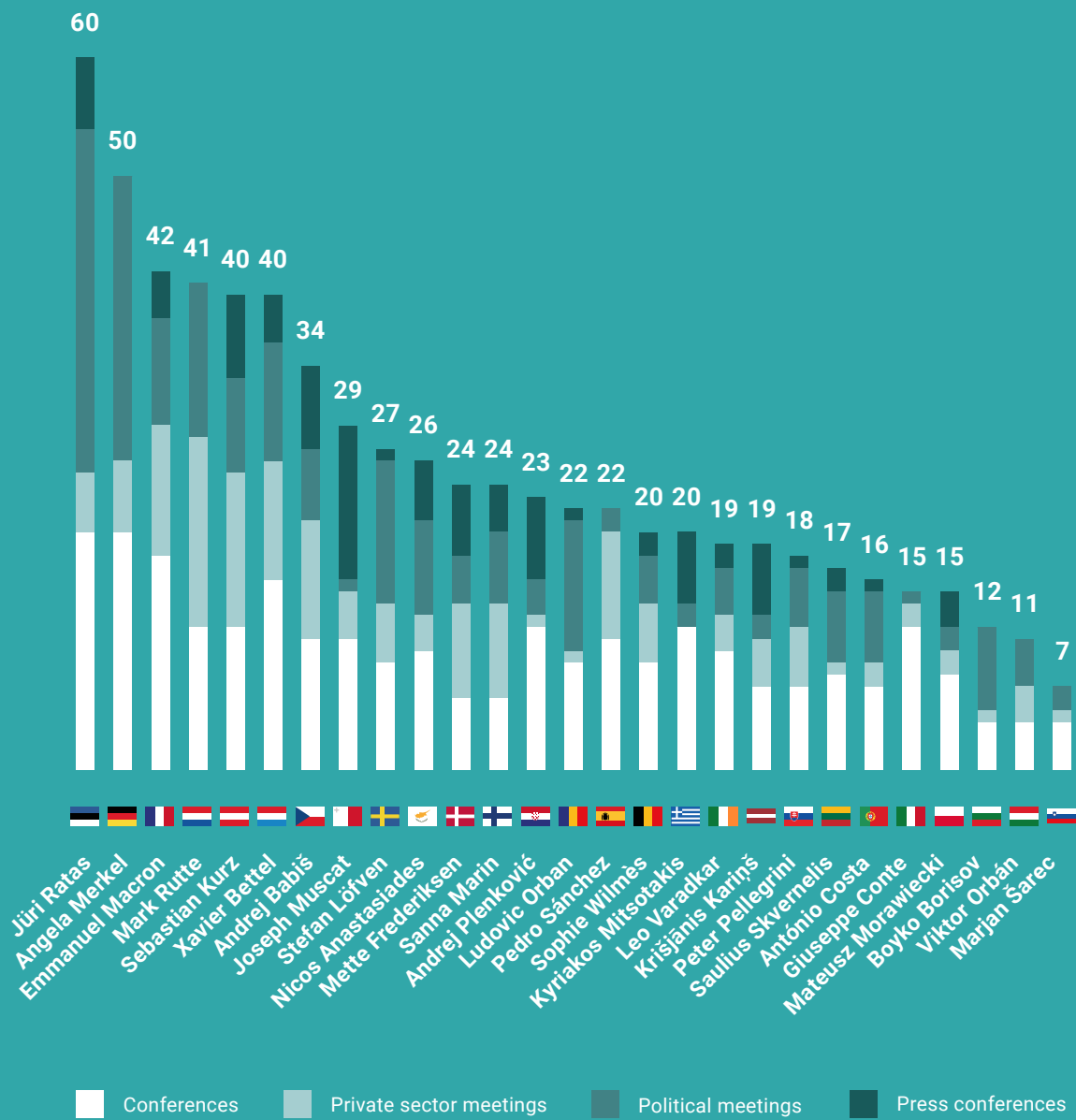
It is based on a digital engagement index, which tracks all relevant interactions around the topic of digitalisation in 2019. The index is compiled from a variety of publicly accessible information promulgated by governments, press releases and personal accounts on the social media platform Twitter.

The digital engagements were recorded from January 1st 2019 until Dec 31st 2019. The study identified 693 digital engagements, which were then classified according to the type of interaction (conferences, private sector meetings, political meetings and press conferences) and topic (5G, AI, blockchain, cloud computing, cybersecurity, digital education, e-government, entrepreneurship, gaming/e-sports, industry 4.0, mobility, quantum computing and robotics). Some digital engagements could not be attributed to a specific topic, while other engagements included discussions on several topics. Every engagement is only counted once in the digital engagement index. However, if an engagement was about two or more topics, these are included in the count of each topic and represented in the individual engagement profiles of the leaders.

The analysis of these interactions results in detailed profiles on the digital engagement of each European leader, represented as a percentage of total digital engagement. These profiles can be found from page 25 onward. In the case of five countries, their head of state or government changed during the year; thus, they are duly noted, and the digital engagement of the predecessor is also included in the new leader's profile.



CHART 1 – TOTAL DIGITAL ENGAGEMENTS  
BY HEADS OF STATE AND GOVERNMENT



## Varying digital engagement across European heads of state and government

The digital engagement of European heads of state and government varies widely. On average, it was 25 engagements per year, with 14 of the 27 leaders falling below this average. While the top five politicians in the ranking had an average of 47 activities linked to digitisation in 2019, the bottom five engaged in just 12 actions on average during the same time period. The most digitally engaged leaders in Europe were Jüri Ratas, Angela Merkel, Emmanuel Macron, Mark Rutte and Xavier Bettel, whilst the least so in 2019 were Marjan Šarec, Viktor Orbán, Boyko Borisov, Mateusz Morawiecki and Giuseppe Conte (Chart 1). The importance of digitisation – as reflected in heads of state and government activities – thus differs to a large degree throughout Europe.

## 5G, AI and entrepreneurship dominate

Topics such as 5G and AI have dominated public discussions around digitalisation. This focus is also reflected in the combined engagement of European heads of state and government, with 126 engagements for 5G and 116 engagements in AI. The top five topics also included entrepreneurship (104 engagements), industry 4.0 (80 engagements) and e-government (49 engagements).

However, our analysis also shows that key future technologies such as quantum computing (2 engagements), robotics (12 engagements), mobility (15 engagements) and cloud computing (16 engagements) received very little attention. In total, only 6% of all digital engagements were focused on these key future technologies. Also, digital education was not addressed widely by top politicians, with only 14 engagements for all leaders combined (Chart 2).

CHART 2 – DIGITAL ENGAGEMENT BY TOPIC

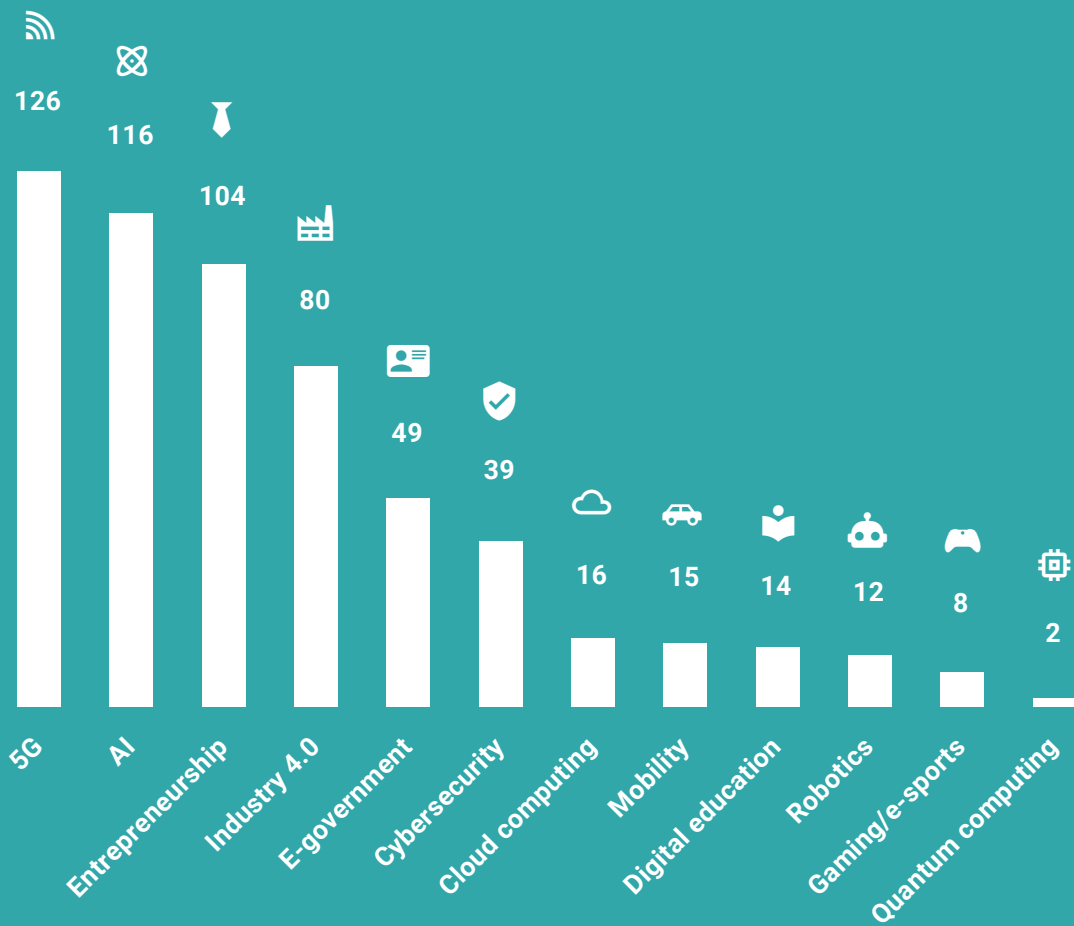
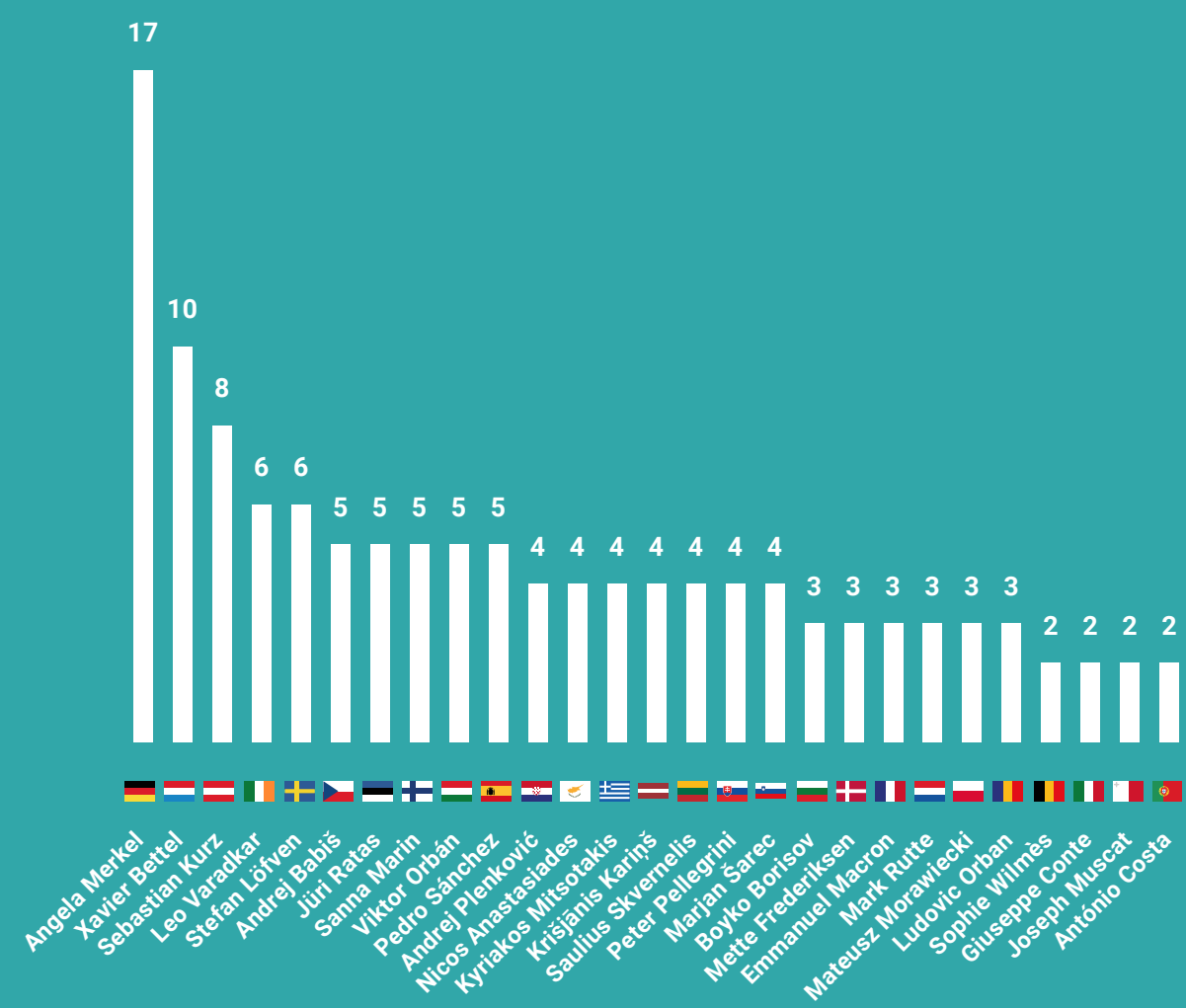


CHART 3 – ENGAGEMENT IN 5G



## 5G & AI: A different understanding of digitalisation

When evaluating digital engagement by European leaders on 5G and AI, clear differences emerge. Each of them engaged in these topics, due in part to the fact that they were discussed at two European Council meetings in 2019.

There were 128 engagements by all heads of state and government related to 5G in 2019. Angela Merkel stands out as the clear leader on 5G with 17 engagements, with Xavier Bettel (10), Sebastian Kurz (8), Leo Varadkar (6) and Stefan Löfven (also 6 engagements) paying particularly good attention to the subject. Sophie Wilmès, Giuseppe Conte, Joseph Muscat and António Costa did not have any digital engagements with 5G besides the European Council meetings on this topic.

## Engagements in AI dominated by a small group of leaders

When comparing the digital engagements seen for 5G in comparison to AI, an entirely different group of leaders stands out. Besides Xavier Bettel, who was also highly engaged in 5G, Jüri Ratas (11 engagements), Emmanuel Macron and Mark Rutte (both 10 engagements) are the clear front-runners when it comes to digital engagement in AI. For the other European heads of state and government, AI was not at the forefront of their digital agenda. Furthermore, 11 of the 27 European leaders (i.e. 40%) did not engage in AI by themselves and only participated in the two European Council meetings that involved a discussion on the subject.

Overall, it is evident that while some premiers have placed a high emphasis on 5G as a driver of digitalisation, others have engaged more in AI, thereby reflecting a different understanding of what matters in digital transformation.

CHART 4 – ENGAGEMENT IN AI

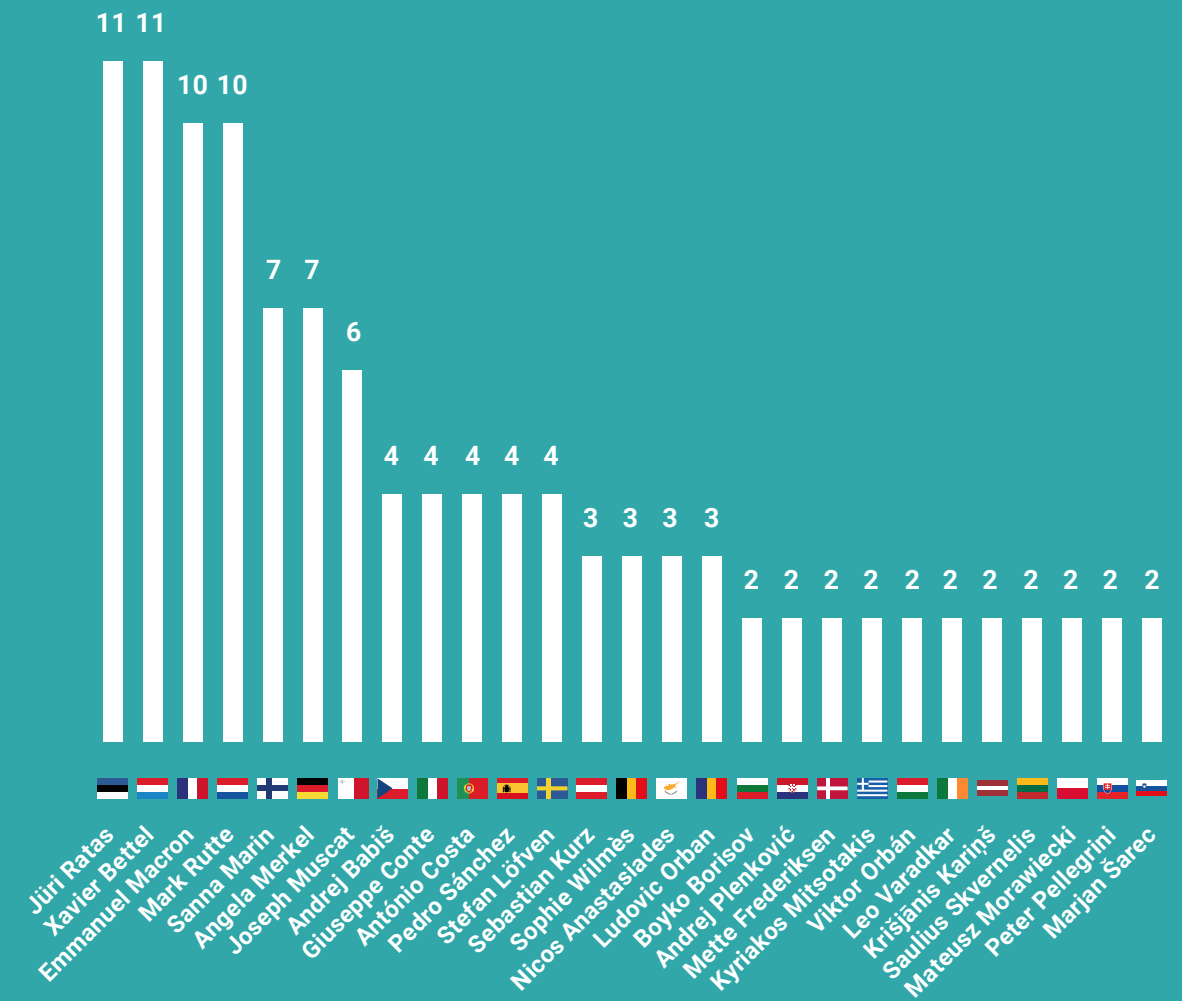
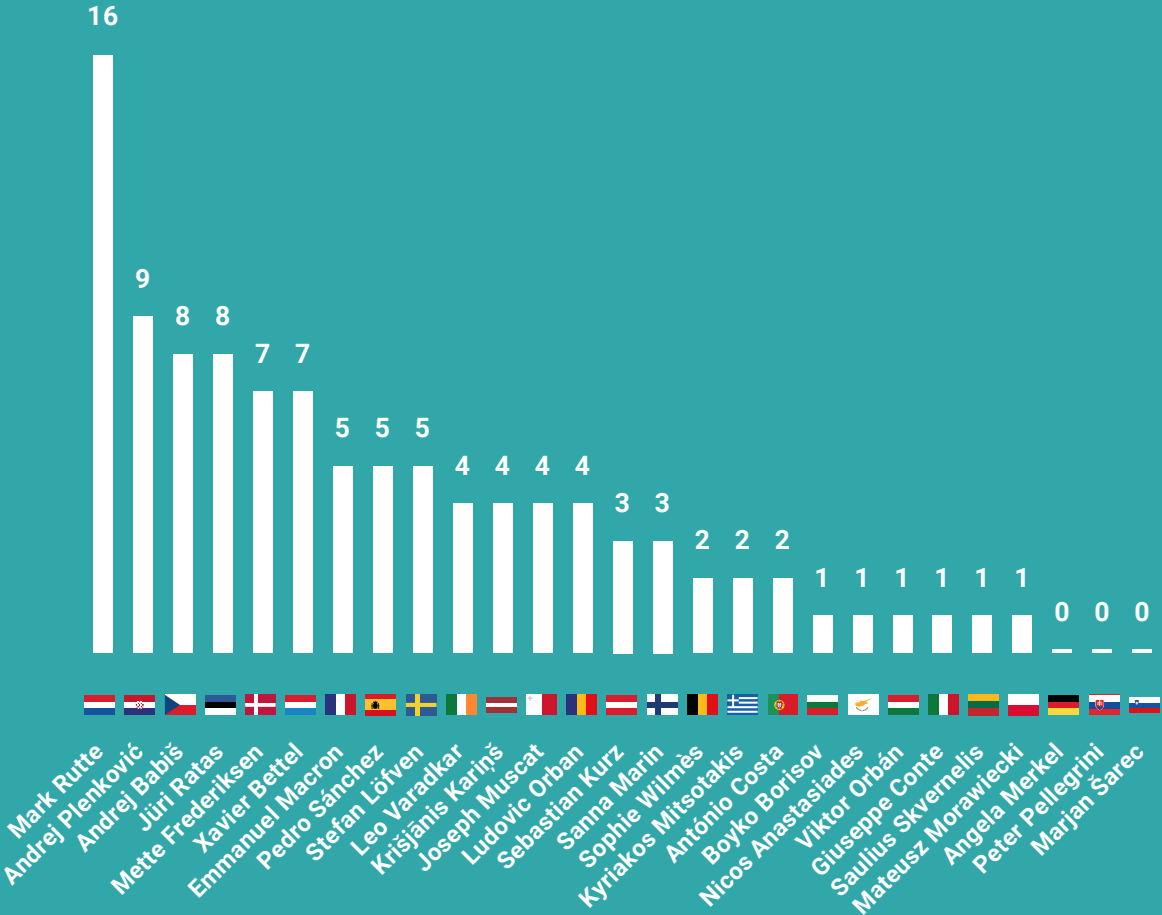




CHART 5 – ENGAGEMENT IN ENTREPRENEURSHIP



### Entrepreneurship is a top priority, but only for some leaders

Mark Rutte had a total of 16 engagements related to entrepreneurship and thus leads the field in this regard. He visited both local and international start-ups and participated in the Global Entrepreneurship Summit. Others, such as Andrej Plenković (9 engagements), Andrej Babiš and Jüri Ratas (both 8 engagements), were also highly involved in promoting entrepreneurship and developing a digital economy. However, clear differences emerge amongst the European heads of state and government. While the top five countries had an average of 11 engagements on this important topic, six government leaders had only one interaction, while Angela Merkel, Peter Pellegrini and Marjan Šarec did not have any at all linked to entrepreneurship.

## Europe’s largest industrial nation is also the leader in Industry 4.0 digital engagement

When it comes to the digitalisation of the legacy industry, Angela Merkel emerges as the leader with the most engagements (9) related to industry 4.0. One of these involved her participation at Hannover Messe, an annual trade fair focused on industrialisation, which she attended together with Sweden’s Stefan Löfven (8 engagements). The heads of state and government from the other large economies, such as France, Italy and Spain, had very limited involvement with industry 4.0. Emmanuel Macron had four engagements, while Giuseppe Conte had two and both Pedro Sánchez and Leo Varadkar had only one. Krišjānis Kariņš had no connection whatsoever with the digitalisation of industry.

CHART 6 – ENGAGEMENT IN INDUSTRY 4.0

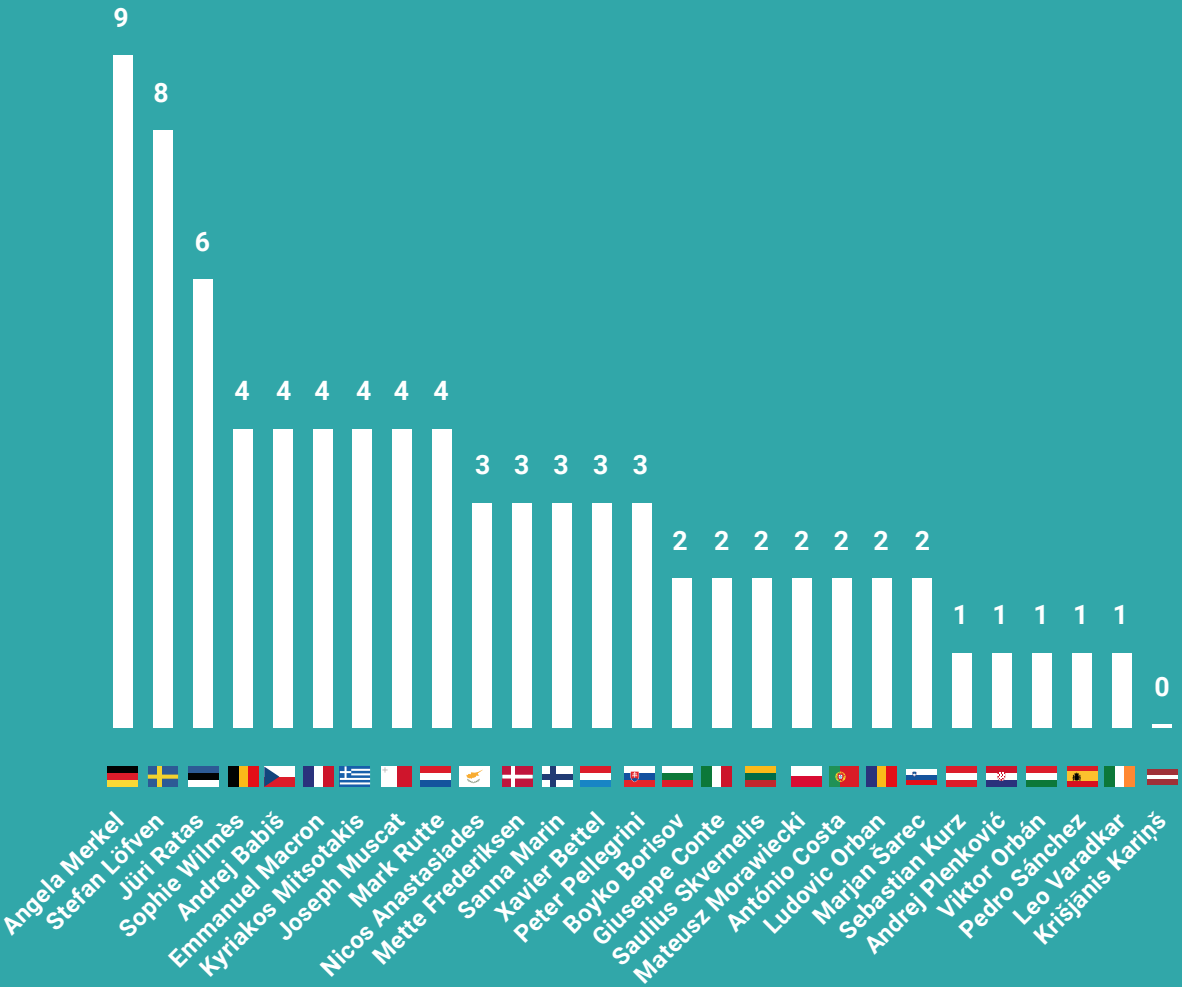
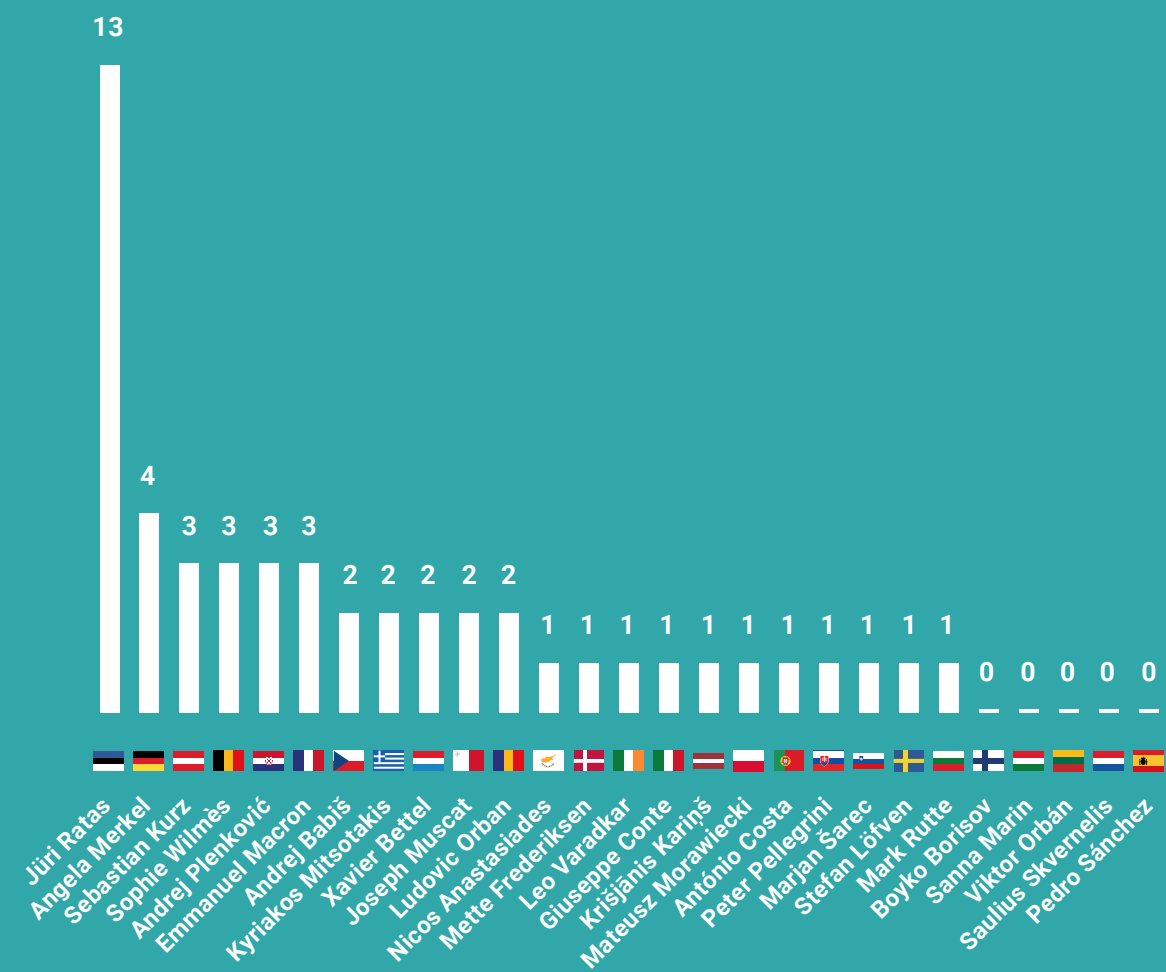


CHART 7 – ENGAGEMENT IN E-GOVERNMENT



### E-government is the top priority for Estonia’s Jüri Ratas but neglected by most other leaders

Digitalising the government and offering digital government services for citizens is a clear priority for Estonia. The country has made headlines in recent years by offering e-voting, e-residency and an e-ID, which 99% of the country’s residents have adopted. This is also reflected in Jüri Ratas’ digital engagement in the form of 13 interactions with e-government in 2019.

For all other heads of state and government, e-government was not an important topic. Ten leaders had at least two meetings on e-government, while another 10 leaders had only one meeting on the subject. Five government leaders did not have any activities related to digitalising government services.





## » Individual Head of State and Government Profiles



# Chancellor Sebastian Kurz

Austria 

Caretaker government between 28 May 2019 until re-election on 7 Jan 2020.



## Digital infrastructure instead of future technologies

In total, 30% of Sebastian Kurz’s engagements were linked to 5G and cloud computing, reflecting a focus on digital infrastructure technologies rather than topics such as AI, e-government and entrepreneurship (each with 7.5% of engagements). There was no engagement related to key future technologies such as blockchain, robotics and quantum computing. Austria has a large production industry, but Kurz paid only little attention (2.5% of engagements) to industry 4.0. However, he conducted two foreign trips in 2019 to visit tech companies and start-ups: he visited the Alibaba headquarters in Hangzhou and met with founder Jack Ma, and he also travelled to Silicon Valley, where he met with leaders of Facebook, Netflix and Uber.

# Prime Minister Sophie Wilmès

Belgium 

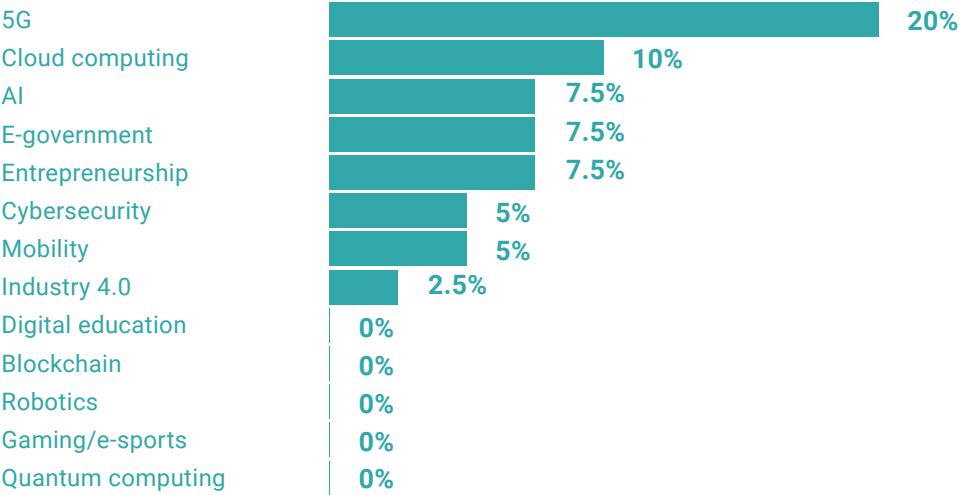
Succeeded Charles Michel as Prime Minister on 27 October, 2019.



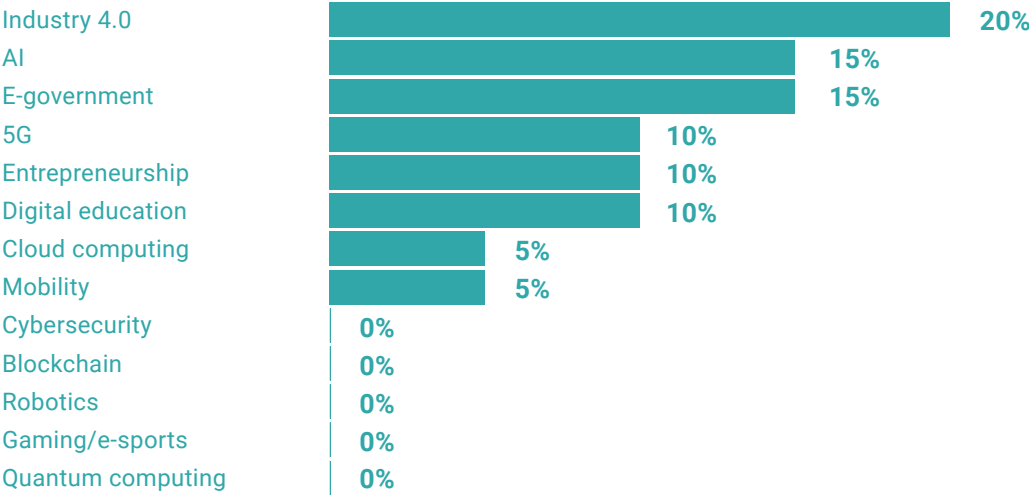
## No activities on key future technologies

Belgium’s prime ministers had a clear focus on industry 4.0, with 20% of all digital engagements related to this topic. There were also several engagements related to AI (15%). On the topic of e-government, they announced a new government e-platform and interacted with cloud computing (5%). The Belgian Government and Google also announced that the company would invest at least €600m in building a data centre in Belgium. As one of only a few European heads of state and government, Belgium’s prime ministers had at least some engagements related to digital education (10%); however, they also lacked activities related to key future technologies such as blockchain, quantum computing and robotics.

## DIGITAL ENGAGEMENT PROFILE



## DIGITAL ENGAGEMENT PROFILE



Prime Minister Boyko Borisov

Bulgaria 



Low digital engagement and only few topics

Boyko Borisov’s digital engagement is characterised by the fact that he only covered five of the 13 topics identified in the digital engagement index and had very low overall engagement (12 engagements, ranked 24th). His main focus fell on 5G (25% of engagements), while industry 4.0 and AI (16.7% each) also had a place on his digital agenda. However, Borisov travelled to South Korea as one of the only European leaders to do so, in order to gain insights into digitalisation and high-tech companies.

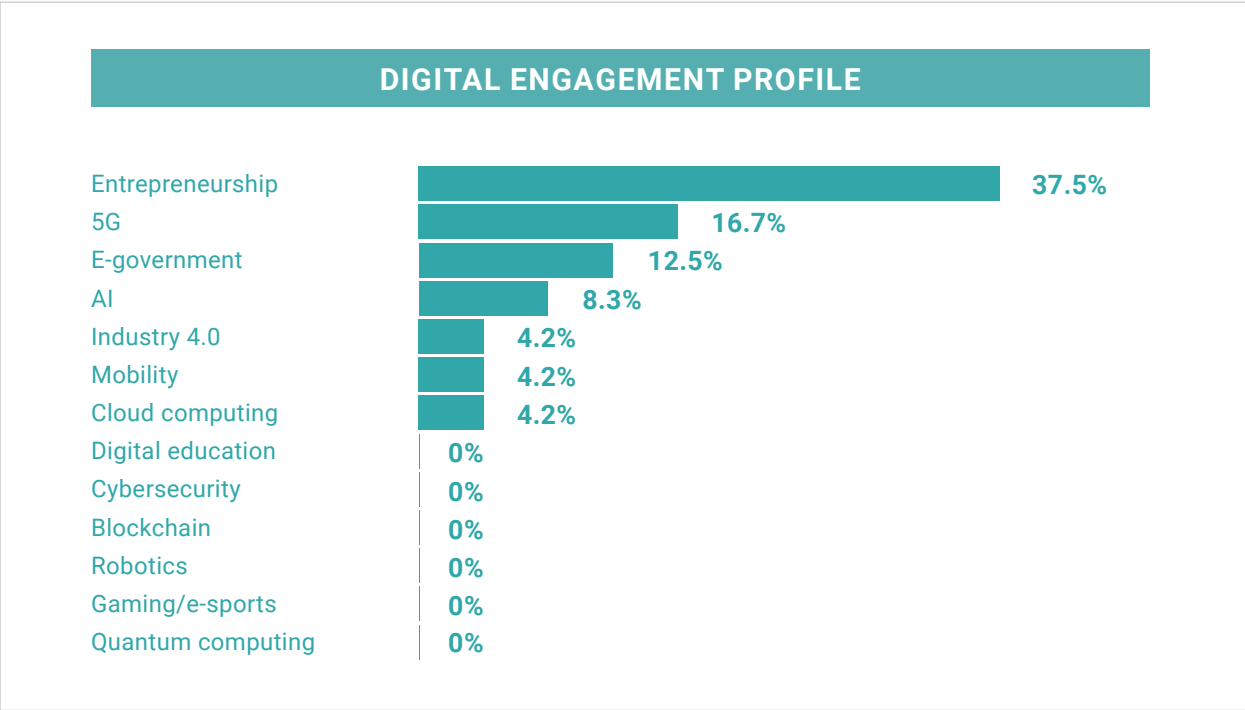
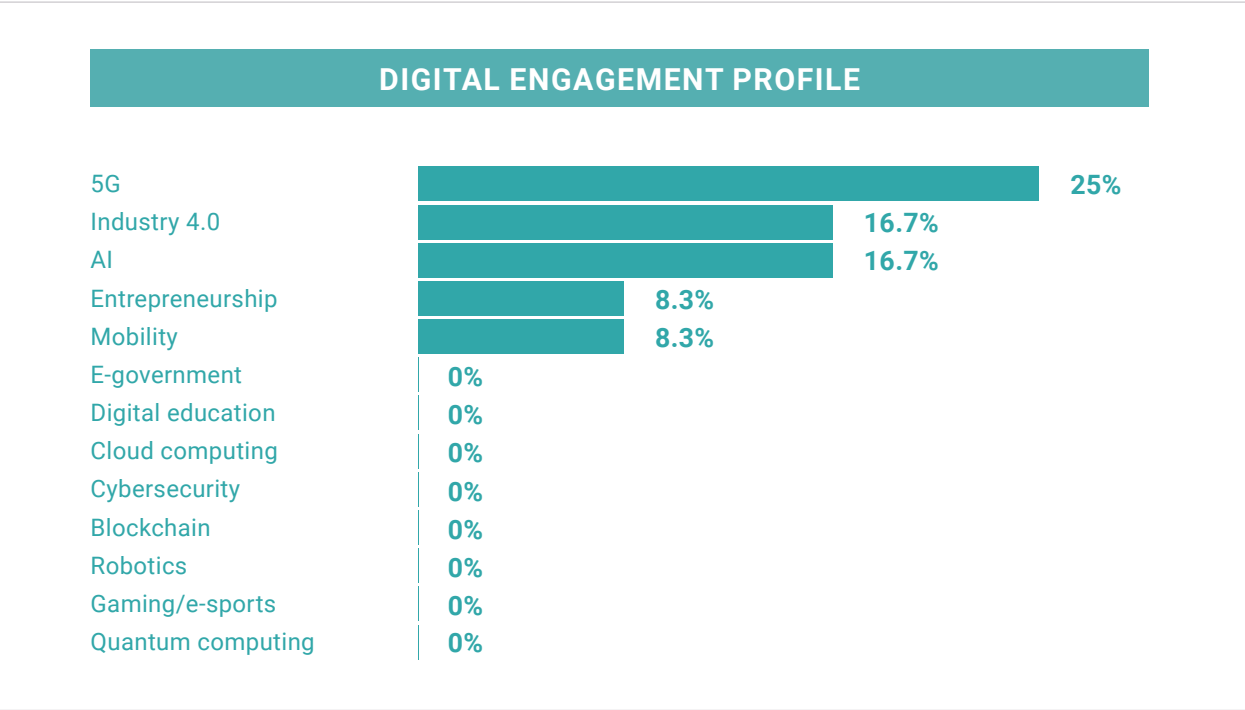
Prime Minister Andrej Plenković

Croatia 



High engagement in the topic of entrepreneurship

Andrej Plenković had the highest digital engagement of the Balkan EU member states and the second highest in Eastern Europe with a total of 23 engagements. Plenković placed a very high emphasis on promoting entrepreneurship (37.5% of engagements), which also puts him second highest on this topic among all European heads of state and government. These engagements included visiting several successful Croatian start-ups, addressing entrepreneurs at a business forum and visiting a newly opened incubator. Like most other government leaders, Plenković also gave higher consideration to 5G, industry 4.0 and cloud computing (25% combined) than to key future technologies such as quantum computing, blockchain and robotics (0%).



# President Nicos Anastasiades

Cyprus 



## Many topics and some engagement in key future technologies

Among the Mediterranean EU states, Nicos Anastasiades is one of the most digitally engaged heads of state and government. Whilst 5G was also his most prevalent topic, Anastasiades was engaged in a wide variety of topics, covering nine of 13 topics in total. As one of only four heads of state and government, Anastasiades had at least one digital engagement covering blockchain, and he discussed mobility and digital education on several occasions, which were neglected by other leaders. Overall, Anastasiades spent an average of 7.7% of his time on each topic, reflecting a balanced digital agenda.

# Prime Minister Andrej Babis

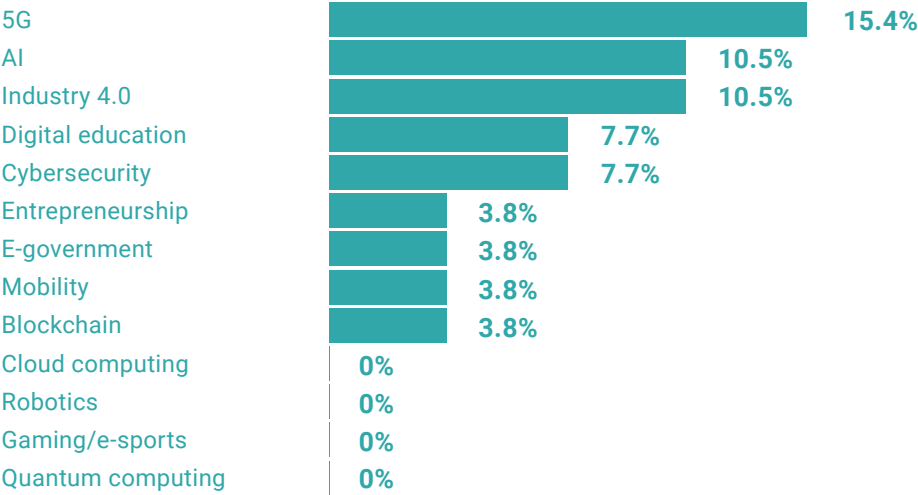
Czech Republic 



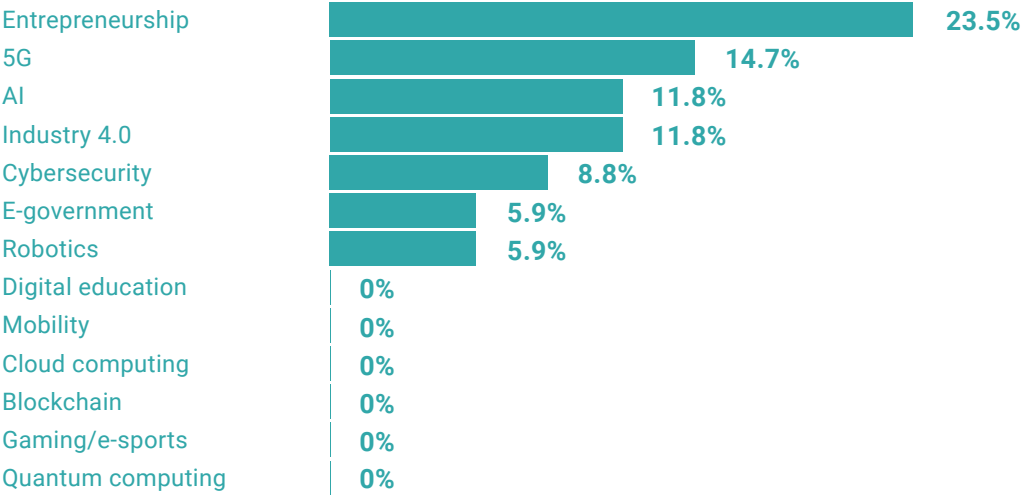
## Most engaged head of state and government in Eastern Europe

Ranked 7th with 34 digital engagements, Andrej Babis was highly engaged in digital topics in 2019 and had the most of all Eastern European government leaders. His main focus was entrepreneurship (23.5% of engagements), for which he is ranked 3rd overall on this topic. Other areas include 5G (14.7% of engagements) and AI as well as industry 4.0 (both 11.8% of engagements). Notably, Babis was very active in travelling abroad to gain insights into digitalisation and technologies. He went on a total of five state visits, including to Singapore, United States and Japan. While Babis generally lacks engagement with many technologies, such as cloud computing, blockchain and quantum computing, he had two engagements on robotics.

### DIGITAL ENGAGEMENT PROFILE



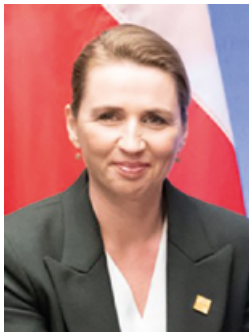
### DIGITAL ENGAGEMENT PROFILE



# Prime Minister Mette Frederiksen

Denmark 

Succeeded Lars Løkke Rasmussen as Prime Minister on 27 June, 2019.



Clear focus on entrepreneurship and emphasis on engagement in gaming and e-sports

With nearly 30% of all engagements linked to entrepreneurship, the Danish prime ministers had one of the highest percentages attributed to this topic. In 2019, they met with start-up investors, visited start-ups and engaged in a discussion with university students on entrepreneurship. Like most other European heads of state and government, they also had significant engagement in 5G and industry 4.0 (both 12.5%), with some focus on AI (8.3%). Notably, they stand out as one of the few government leaders engaged in gaming & e-sports. With three engagements (or 12.5%) related to this topic, this earns them the top spot shared with Maltese counterpart Joseph Muscat.

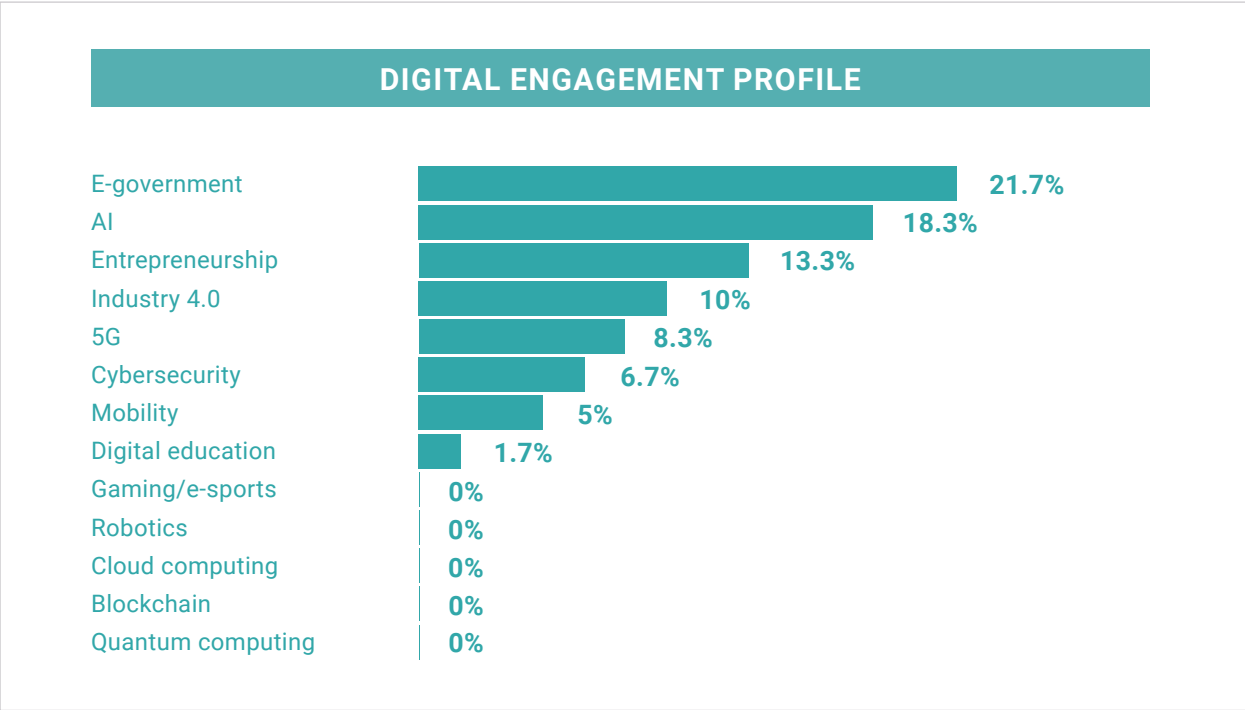
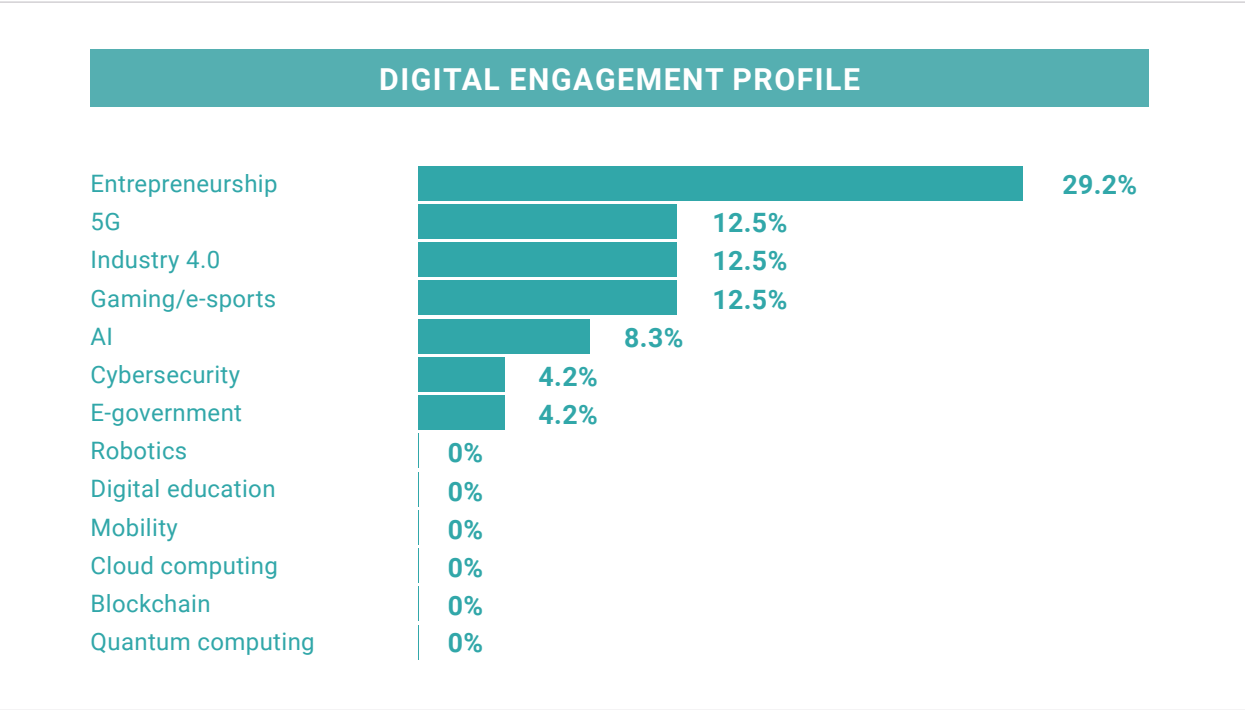
# Prime Minister Jüri Ratas

Estonia 



Most digitally engaged among the European heads of state and government

With 60 digital engagements, Jüri Ratas was the most digitally engaged government leader in 2019. He was also the leader in e-government engagement (21.7%) and shares the top spot for AI (18.3%). Ratas was a sought-after speaker at events ranging from Dubai’s World Government Summit on e-government, the G20 meeting and the World Economic Forum. During all of these meetings, he shared insights into Estonia’s successful digital transformation. Covering eight of the 13 topics, Ratas had a fairly evenly distributed engagement, with an average of 10% on each topic. However, even as the most digitally engaged government leader, he did not discuss key future technologies such as quantum computing, robotics and blockchain.





# Prime Minister Sanna Marin

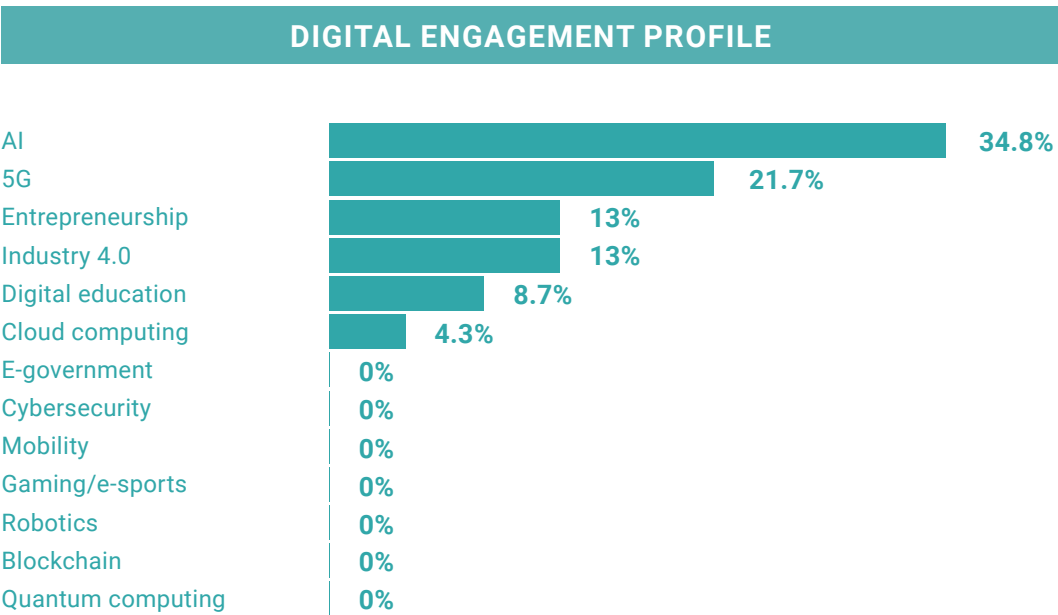
Finland 

Succeeded Anti Rinnen as Prime Minister on 10 December 2019, who in turn succeeded Juha Sipilä on 6 June, 2019.



## Every third engagement is on AI

According to the European Union's Digital Economy and Society Index, Finland is Europe's most digitally advanced country. However, in terms of digital engagement, Finland's prime ministers are ranked only 12th with just 24 digital engagements in 2019, which is slightly below the European average. Yet, digital engagement stands out with a high focus on AI and digital education, for which Finland's prime ministers had the second most engagements after Malta's Joseph Muscat. During the second half of 2019, Finland held the presidency of the European Council, where digitalisation was one of the main programme priorities. Toward the end of the presidency, Sanna Marin announced that Finland would provide a free online course on AI to all European citizens. However, taken together, Finland's prime ministers digital engagement only covered six out of the 13 identified topics. Future technologies such as quantum computing, robotics and blockchain were not on the agenda, along with e-government and mobility (all 0%).



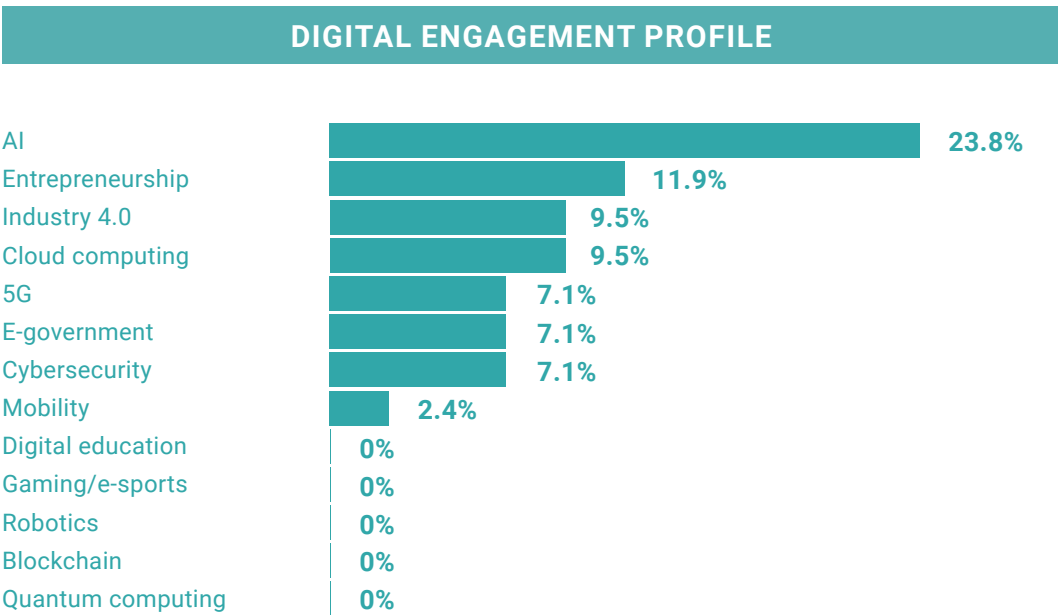
# President Emmanuel Macron

France 



## AI, entrepreneurship and company meetings dominate Macron's calendar

As the third most engaged of the European heads of state and government, digital policy is evidently an important aspect of Macron's agenda. This is also reflected in the numerous summits and conferences he hosted at the Elysee and Versailles Palace 2019, where he met with several tech CEOs, including Facebook's Mark Zuckerberg and Alibaba's Jack Ma. Macron's most engagements are related to AI (24%), and in this regard he also had the second most engagements of all European heads of state and government. Entrepreneurship was another important aspect on his agenda (12% of engagements), by pushing for more investment in French start-ups, in order to increase the number of French 'unicorns'. Contrary to most other government leaders, Macron engaged relatively little in 5G (7%), and whilst he did look at mobility (2.5%), he held no discussions on key future technologies, including quantum computing, robotics and blockchain (all 0%).



# Chancellor Angela Merkel

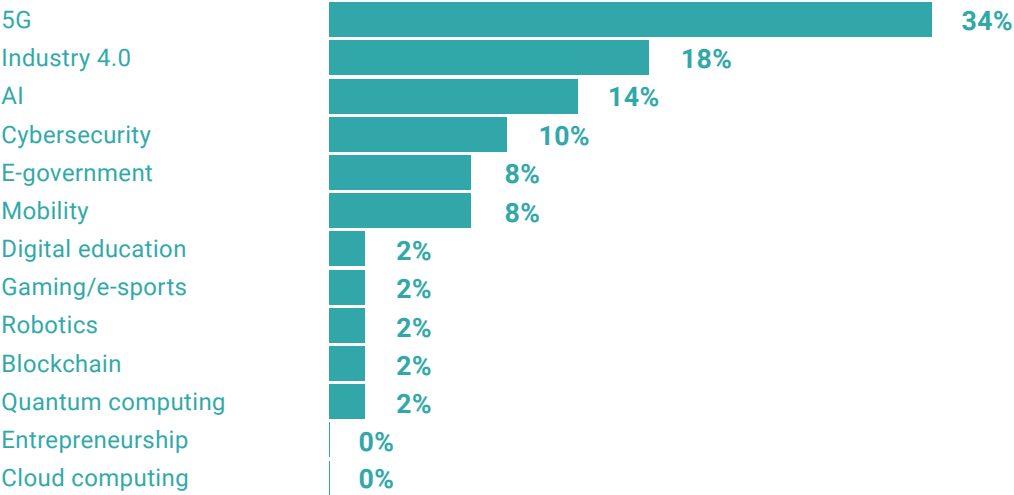
Germany 



## Digital infrastructure more important than future technologies and entrepreneurship

While Angela Merkel is Europe’s second most digitally engaged head of government, her engagement mostly focused on digital infrastructure, including 5G, industry 4.0 and e-government, as opposed to key future technologies. Merkel was most engaged in 5G (34% of engagements), where she was involved in several discussions, conferences and meetings with companies over the year to ensure Germany’s progress in a country-wide rollout. As the leader of Europe’s largest economy, Merkel was also frequently involved with industry 4.0 (18% of engagements), and while she did have some connection with future technologies such as quantum computing, robotics and blockchain (each 2%, or 1 engagement), she did not have a single discussion on entrepreneurship. Along with the leaders of Slovakia and Slovenia, Merkel was the only premier not involved in any activity related to start-ups, possibly reflecting the lack of priority for entrepreneurship in German digital policy.

### DIGITAL ENGAGEMENT PROFILE



# Prime Minister Kyriakos Mitsotakis

Greece 

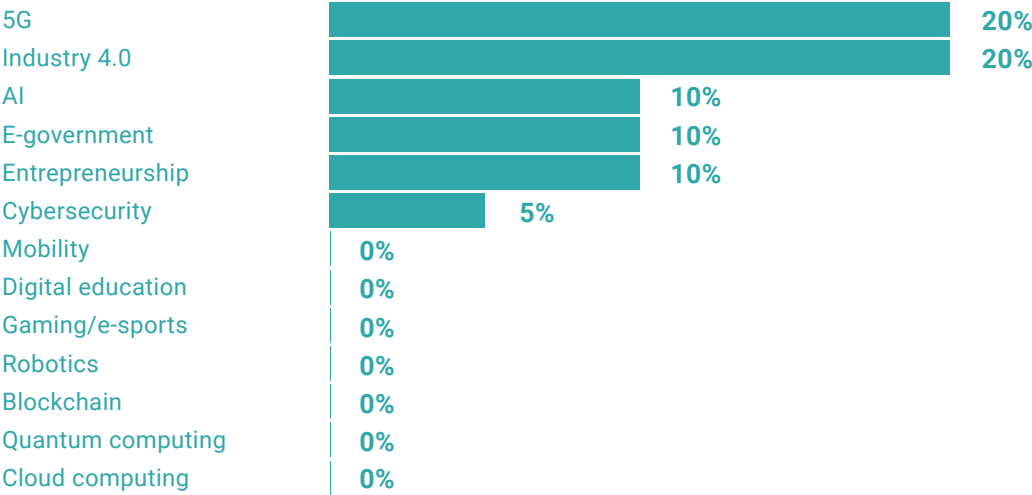


Succeeded Alexis Tsipras as Prime Minister on 8 July, 2019.

## Low engagement, but 5G and e-government were important priorities

Ranked 16th with only 20 digital engagements, the Greek prime ministers fall well below the European average of 25 engagements. Mirroring the priorities of most European heads of state and government, they were very involved in 5G (20%), where Kyriakos Mitsotakis also met with the CEO of Deutsche Telekom Tim Höttinges. Another focus area was industry 4.0 (20%), albeit seven out of 13 topics were completely neglected, including key future technologies and digital education. On a positive note, the Greek prime ministers had several engagements with e-government (10%). Mitsotakis also announced that the Greek government would create a new Ministry of Digital Governance and launch a new website to digitalise several administrative services.

### DIGITAL ENGAGEMENT PROFILE



## Prime Minister Viktor Orban

Hungary 



### Wide neglect of digitisation, with some engagement in 5G

With only 11 digital engagements and ranked second last, digitalisation was apparently not an important priority for Hungary's prime minister Viktor Orban. Furthermore, nearly half of his engagements are related to 5G. His engagement in AI (18%) was only due to the European Council meetings that focused on this topic. Other digital discussions included meetings on industry 4.0 in Japan and on digital education, where Orban announced that the Chinese Fudan University would open a new IT campus in Hungary. Furthermore, eight out of 13 topics were not covered at all. Having been in office for more than 10 years, the lack of activities carried out by Orban related to digitalisation is also reflected in the European Union's Digital Economy and Society Index, in which Hungary is only ranked 22nd.

## Taoiseach Leo Varadkar

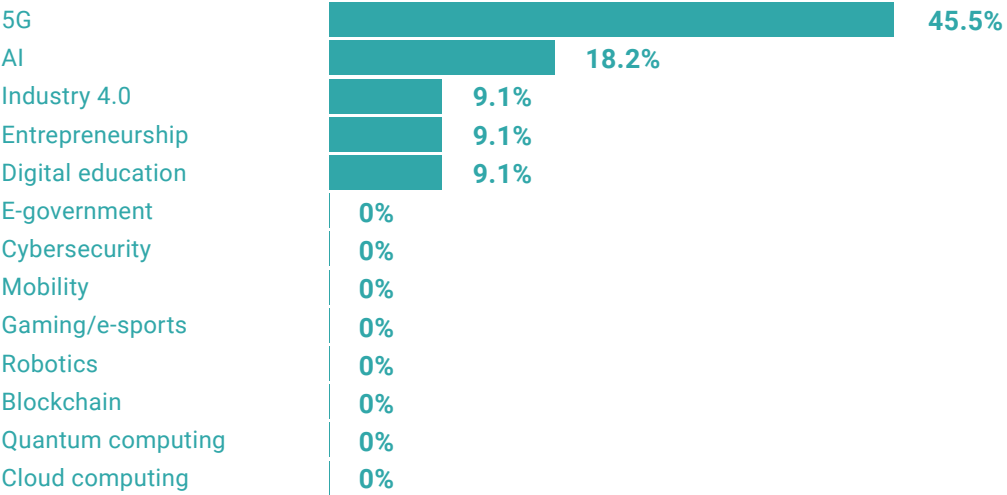
Ireland 



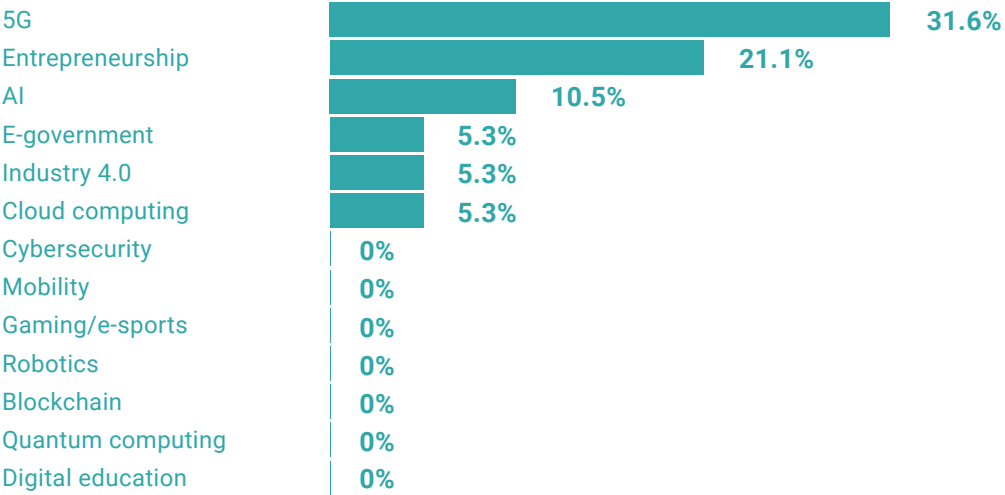
### Ireland is one of Europe's most digitally advanced countries, but this is not reflected in digital engagement

With only 19 digital engagements and ranked 18th, Leo Varadkar is Western Europe's least digitally engaged head of government, which is somewhat surprising, as Ireland is considered as one of the most digitally advanced countries in Europe with a significant digital industry. Varadkar placed most emphasis on 5G (32% of engagements) and entrepreneurship (21%). He had six interactions with tech companies such as eBay, Salesforce and consulting firm EY, which announced it was setting up an innovation hub in Dublin. Like many European heads, Leo Varadkar did not discuss key future technologies.

### DIGITAL ENGAGEMENT PROFILE



### DIGITAL ENGAGEMENT PROFILE



Prime Minister Giuseppe Conte

Italy 



Limited digital engagement, but one of few leaders with a focus on robotics

Heading Europe’s third largest economy, Giuseppe Conte was not widely engaged in digitalisation in 2019. Ranked 23rd with 15 engagements, he had four times fewer digital engagements than the leader Jüri Ratas and is far behind the European average of 25. Conte’s top priority was AI (27%), but this was mainly due to the fact that he attended two European Council meetings and the G20 Summit on this topic. Notably, however, Conte attended a demonstration of industrial robotics, which makes him only one of five European leaders in this regard. Other key future technologies are neglected on Conte’s digital agenda.

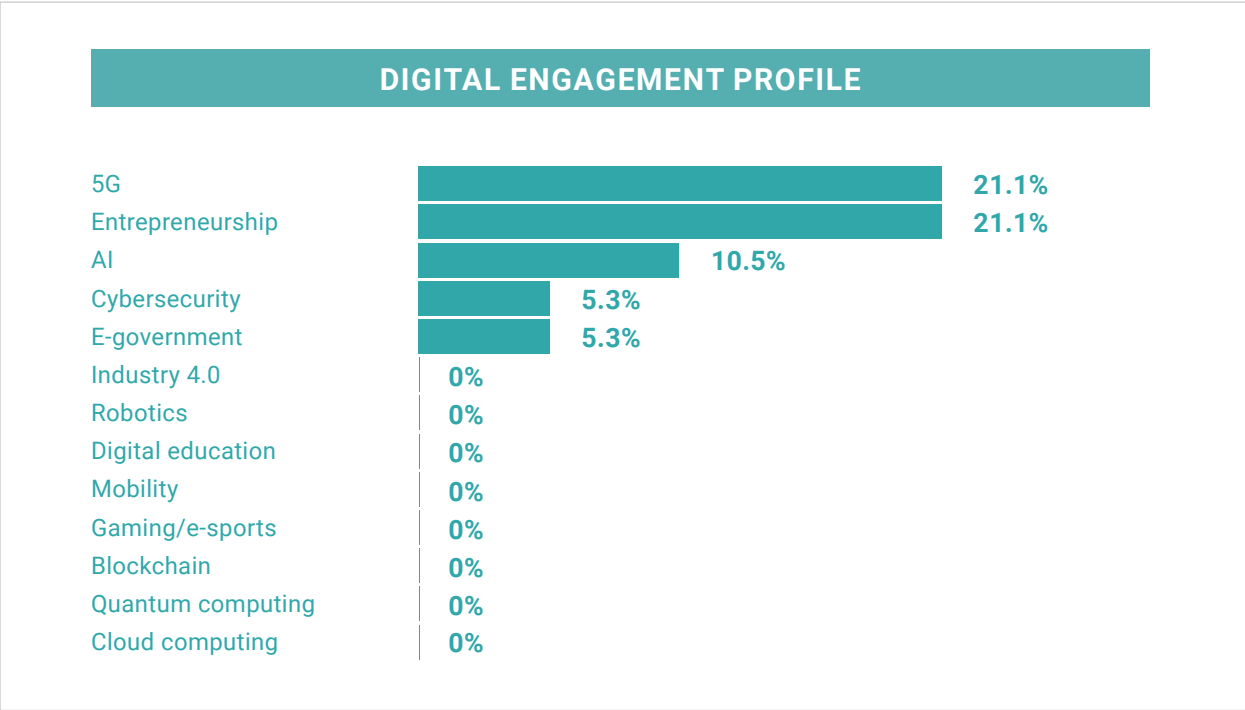
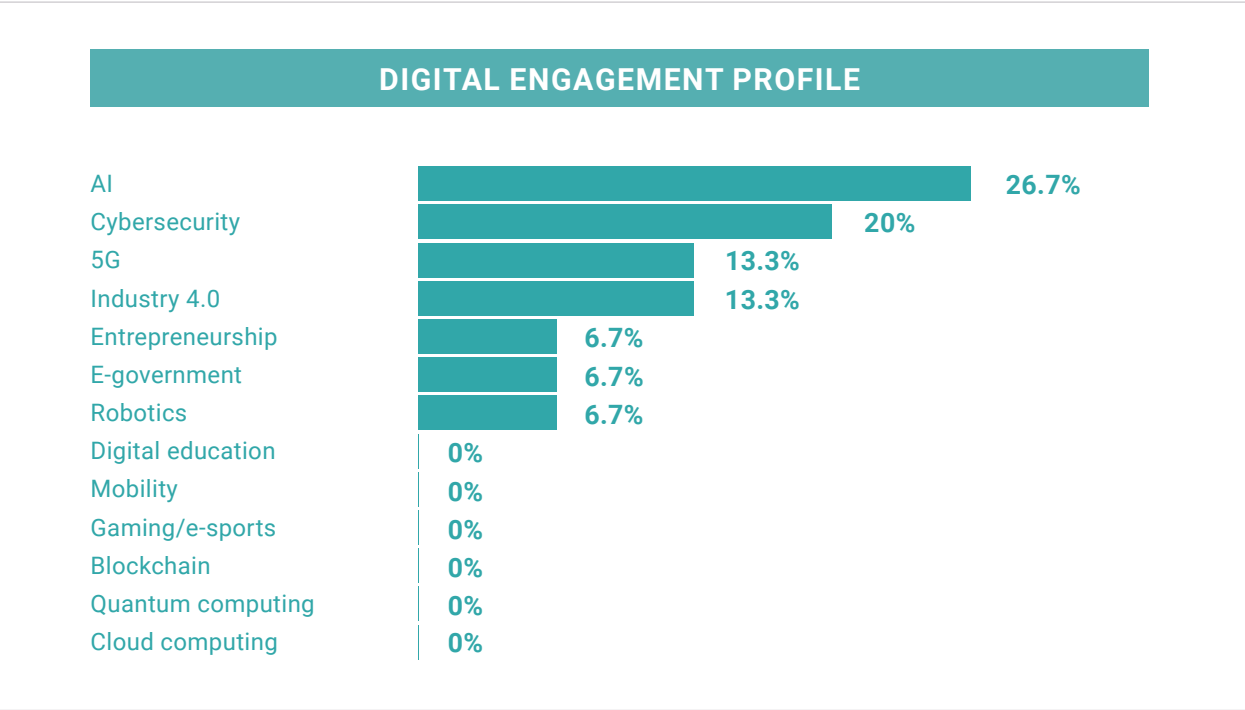
Prime Minister Krišjānis Kariņš

Latvia 



Low overall engagement, but many activities related to entrepreneurship

As opposed to fellow Baltic government leader Jüri Ratas’ high digital engagement, the prime minister of Latvia, Krišjānis Kariņš, had only 19 engagements and therefore clearly falls below the European average. 5G and entrepreneurship share the top spot (both 21% of engagements). In 2019, Kariņš met with several start-ups and had a “brainstorming” session with entrepreneurs to discuss improvements in government support. AI was another focal point (10%), but other topics such as cybersecurity and e-government received scant attention (both 5%). In addition, the remaining eight topics identified in the digital engagement index were not considered.





## Prime Minister Saulius Skvernelis

Lithuania 



### Digitalisation not an agenda priority

While the Baltic nation ranks higher than Lithuania in the European Union’s Digital Economy and Society Index, the digital engagement of Saulius Skvernelis is even less than that of Krišjānis Kariņš’. In 2019, Skvernelis only completed 17 interactions around the topic of digitalisation, 24% of which were related to 5G, reflecting a focus on digital infrastructure technology as opposed to future technologies. Other discussions included meetings on AI and industry 4.0 (both at 12%). Skvernelis also had engagements in entrepreneurship and cybersecurity (both 6%), the latter of which was due to attending a cybersecurity conference in Tel Aviv. Notably, Skvernelis was one of only four European leaders to have made mention at least once of blockchain.

## Prime Minister Xavier Bettel

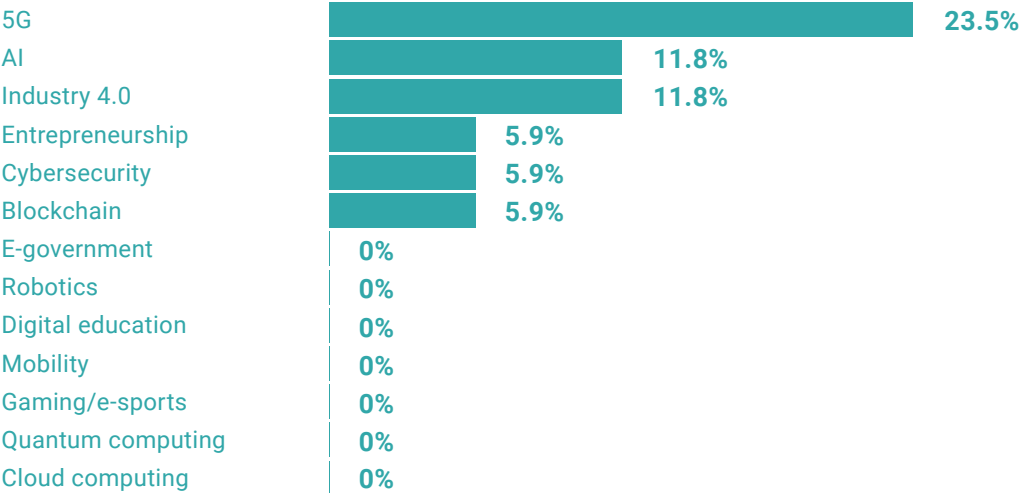
Luxembourg 



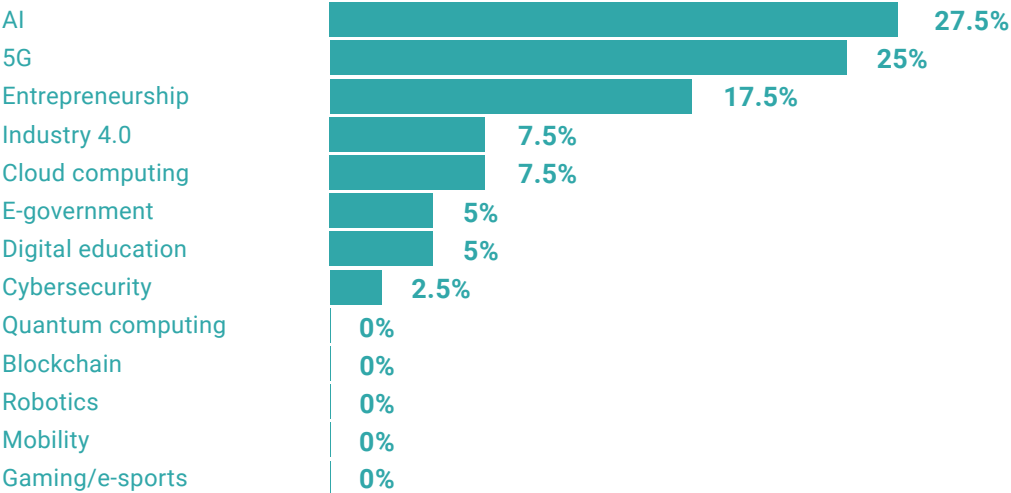
### Highly engaged, with a focus on different topics

Tied with Austria’s Sebastian Kurz for 5th place for most digital engagements, Xavier Bettel ranked very high in 2019. AI (27.5%) was the highest priority on Bettel’s digital agenda, and it seems to have paid off, with chipmaker NVIDIA announcing it would create an AI partnership with the Government of Luxembourg and create an AI research hub. In total, 25% of his engagements were related to 5G, reflecting a common focus of European heads of state and government. However, Bettel was also very active in terms of entrepreneurship (17.5%), and he met with several start-ups and entrepreneurs and also took part in several conferences and events. Topics that received less attention from Bettel included industry 4.0 and cloud computing (Both 7.5%), e-government and digital education (both 5%) and cybersecurity (2.5%). Five topics were not covered at all, including key future technologies such as quantum computing, blockchain and robotics.

### DIGITAL ENGAGEMENT PROFILE



### DIGITAL ENGAGEMENT PROFILE



## Prime Minister Joseph Muscat

Malta 



### High engagement and focus on key future technologies

Not only did Malta’s prime minister Joseph Muscat have very high overall digital engagement, he is also one of the few European leaders that stand out with a high focus on key future technologies. With seven engagements, 72% of all discussions on blockchain came from Joseph Muscat. Reflecting this high focus on his digital agenda, Malta is now considered a European leader in blockchain, with numerous start-ups in this field. Furthermore, Deutsche Telekom has announced it is opening a blockchain innovation centre. Following the success of creating a niche in blockchain, Malta has now also launched an ambitious AI strategy, and this is also reflected in Muscat’s high engagement in this topic. As opposed to many European government leaders, Muscat had very few discussions on 5G, and instead he focused his efforts on key future technologies and also on gaming/e-sports and robotics. Clearly, Joseph Muscat’s digital engagement offers other government leaders plenty of examples for best practices.

## Prime Minister Mark Rutte

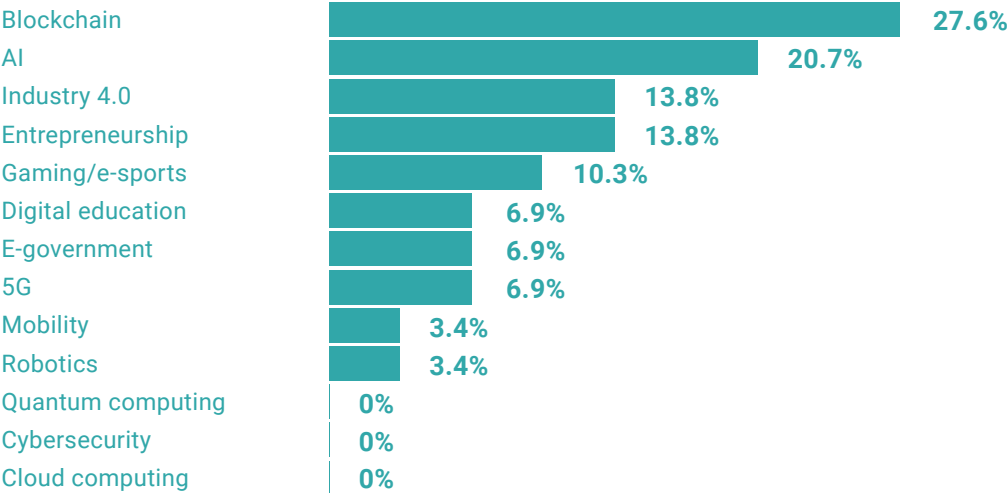
Netherlands 



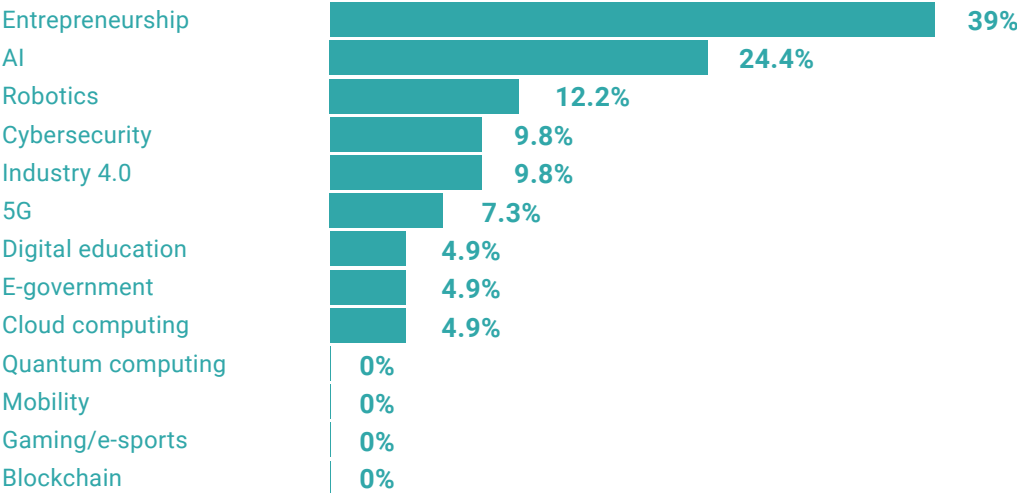
### 4th highest digital engagement and leader in entrepreneurship

Prime minister of the Netherlands, Mark Rutte, ranked 4th in overall digital engagement, reflecting a high priority of digital topics on his agenda. With 10 linked to entrepreneurship, Rutte is tied with France’s Macron for second place on this topic. Rutte was also very active on topics related to AI (25%) and was the most prevalent speaker on robotics (12%). His most significant digital engagements in 2019 included a foreign state visit to the United States, dubbed the “Dutch AI Trade Mission”, where he visited MIT and start-ups such as Boston Dynamics. The Netherlands also co-hosted the Global Entrepreneurship Summit in 2019, together with the United States, where he met with international investors such as Softbank and Blackrock. Whilst he did not have any engagements related to blockchain and quantum computing, he is nevertheless highly involved in digitalisation and has demonstrated a good understanding of key future technologies that will be needed for Europe to stay competitive.

### DIGITAL ENGAGEMENT PROFILE



### DIGITAL ENGAGEMENT PROFILE



Prime Minister Mateusz Morawiecki

Poland 



Low digital engagement, but a broad range of topics

Ranked 24th on overall digital engagement with only 15 entries, Mateusz Morawiecki’s efforts are rather limited and mirror the approach of many European leaders, with a high focus on 5G (20% of engagements) while neglecting key future technologies. Other areas include AI, industry 4.0 and cybersecurity (all 13%). However, Morawiecki was one of only four European heads of state and government to interact with robotics, when he attended a demonstration at a Polish university. On a positive note, he did meet with Apple CEO Tim Cook as well as with local start-ups, and attended a Hackathon.

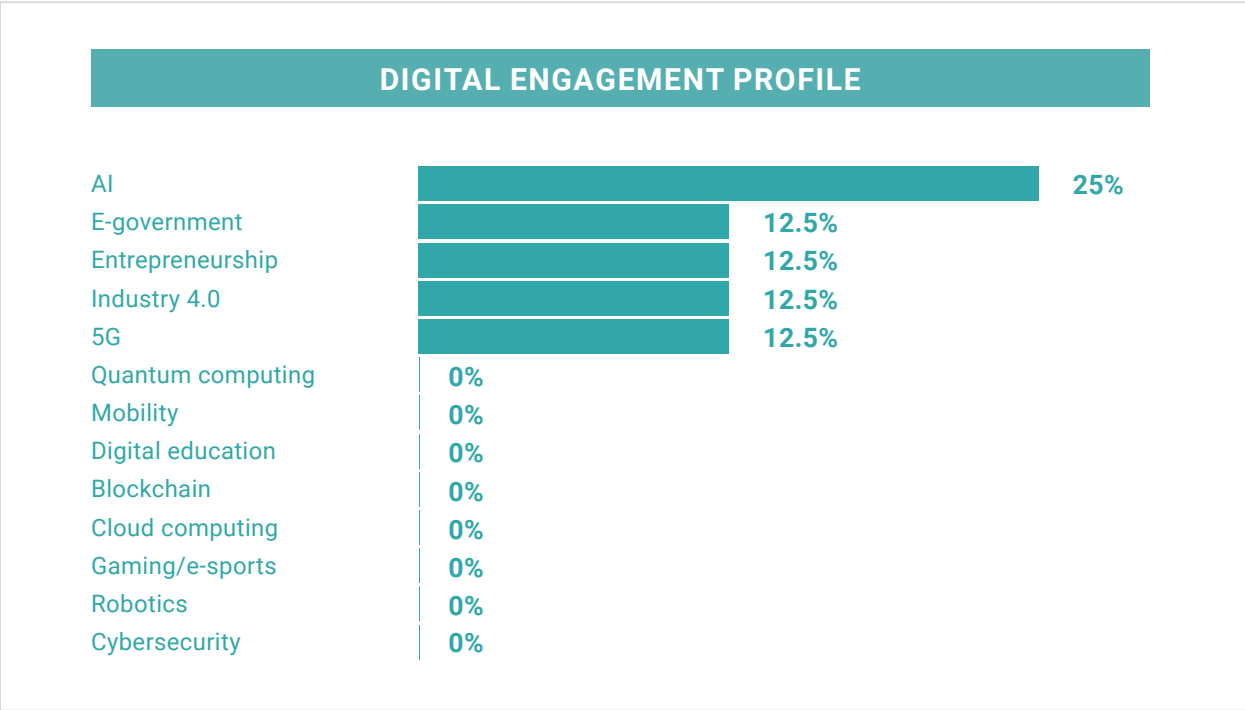
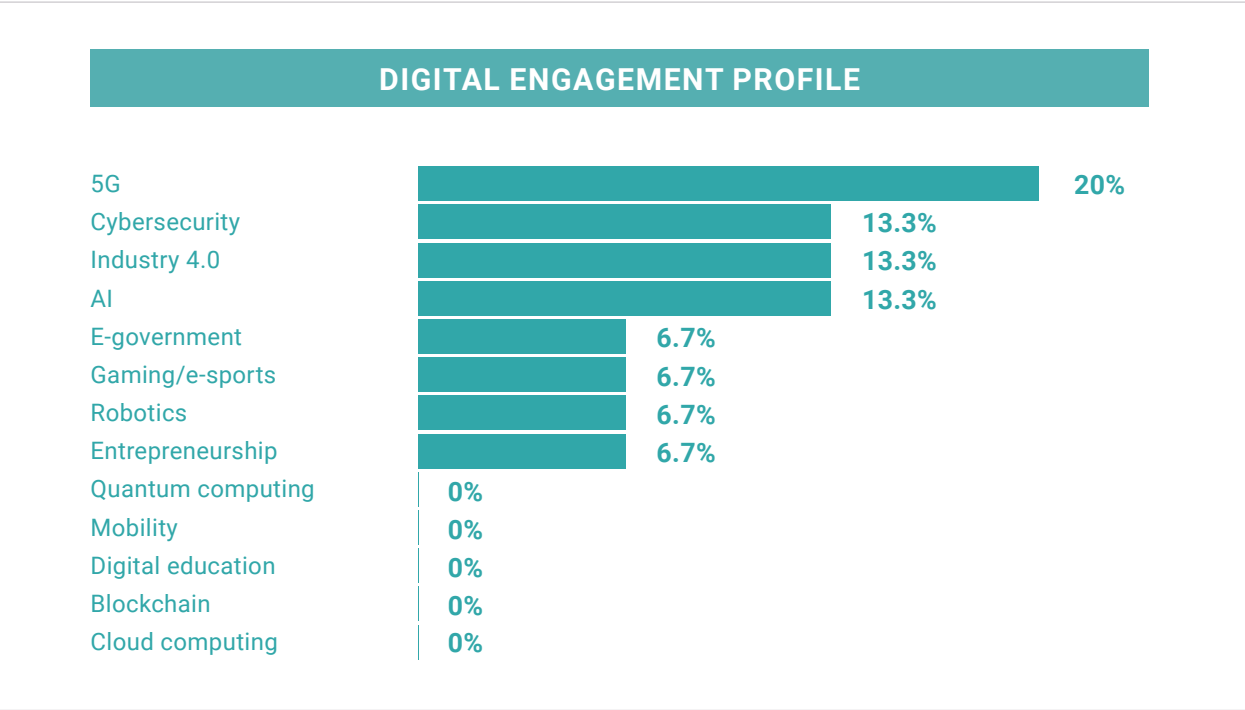
Prime Minister António Costa

Portugal 



Low digital engagement and a limited range of topics

Prime minister of Portugal, António Costa, had only 16 digital engagements in 2019, reflecting the low priority of digital topics on his agenda. While Costa’s highest engagement was related to AI (25%), he did not cover a broad range of topics and only addressed five out of the 13 identified in the digital engagement index. His other engagements focused on 5G, industry 4.0, entrepreneurship and e-government (all at 12.5%). Costa’s most significant digital interaction involved attending the world’s largest tech conference, Web Summit, which takes place in Lisbon on an annual basis. Overall, his low digital engagement, with a lack of focus on key future technologies, is similar to other South European leaders, thereby reflecting the low level of digitalisation in these countries.



# Prime Minister Ludovic Orban

Romania 

Succeeded Viorica Dăncilă as  
Prime Minister on 4 November, 2019.



## High engagement in entrepreneurship and frequent bilateral meetings

With 22 digital engagements, the prime ministers of Romania find themselves in the middle of the pack. Furthermore, only two Eastern European leaders have a higher digital engagement, but what stands out are the frequent bilateral meetings to discuss cooperation on digitalisation. In 2019, the prime ministers of Romania held talks with representatives from the Czech Republic, Malta, Poland, United States and the World Bank on this subject. Furthermore, Romania signed a Memorandum of Understanding with Israel on cybersecurity. The highest priority on the digital agenda of the prime ministers of Romania was related to entrepreneurship (18% of engagements), while AI and 5G also played a significant role (14%). They also had some involvement with industry 4.0, e-government and cybersecurity but neglected other topics, including key future technologies.

# Prime Minister Peter Pellegrini

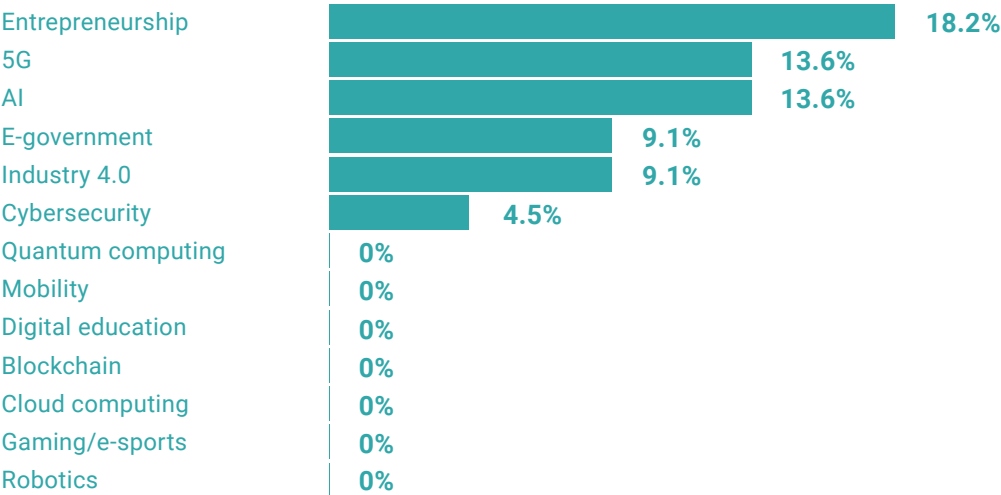
Slovakia 



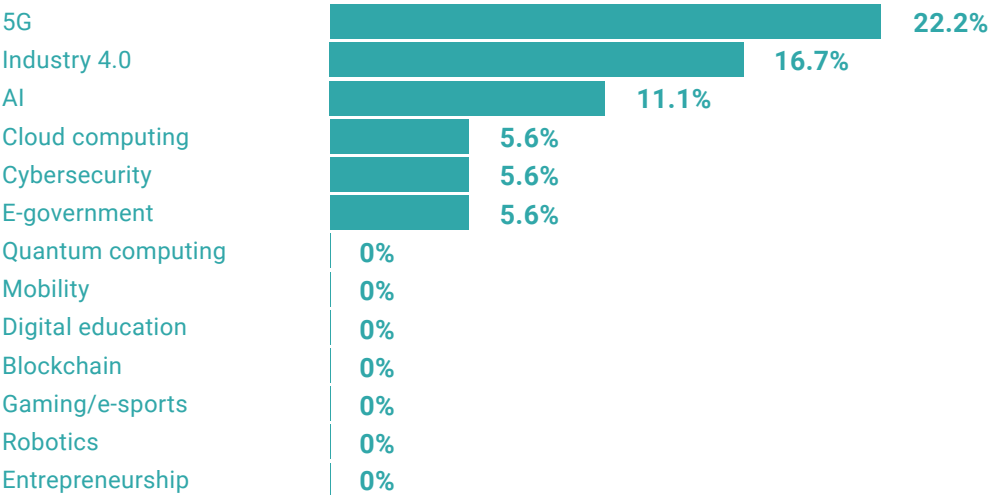
## High focus on 5G and numerous meetings with tech companies

Slovakia's prime minister Peter Pellegrini completed a total of 18 digital engagements in 2019. Pellegrini's digital engagement is characterised by his frequent interactions with tech companies, meeting with firms such as AT&T and Amazon on 5G and cloud computing. Pellegrini's main focus was 5G (22%), while industry 4.0 (16%) was also a frequent topic. On AI, he did not have any interactions besides two European Council meetings on the topic. Other topics such as e-government, cybersecurity and cloud computing received very little attention (all 6%), while many crucial topics such as entrepreneurship, and future technologies such as quantum computing, robotics and blockchain, did not receive any attention at all.

## DIGITAL ENGAGEMENT PROFILE



## DIGITAL ENGAGEMENT PROFILE





# Prime Minister Marjan Sarec

Slovenia 



## Lowest digital engagement and only meetings on 4 different topics

Slovenia’s former prime minister Marjan Sarec is Europe’s least digitally engaged premier. With only seven engagements, he is nearly 20 behind the European average and a factor of eight fewer than Estonia’s Jüri Ratas. From the few digital engagements that Sarec completed, 50% focused on 5G, whilst other discussions included meetings and conferences on industry 4.0 and e-government (both 25%). On AI, he did not have any engagements besides two European Council meetings that included a discussion on the subject. The other nine digitalisation topics were neglected entirely. Thus, it is evident that digitalisation is apparently not an important cornerstone in the policy-making of Marjan Sarec, which could have a negative effect on Slovenia.

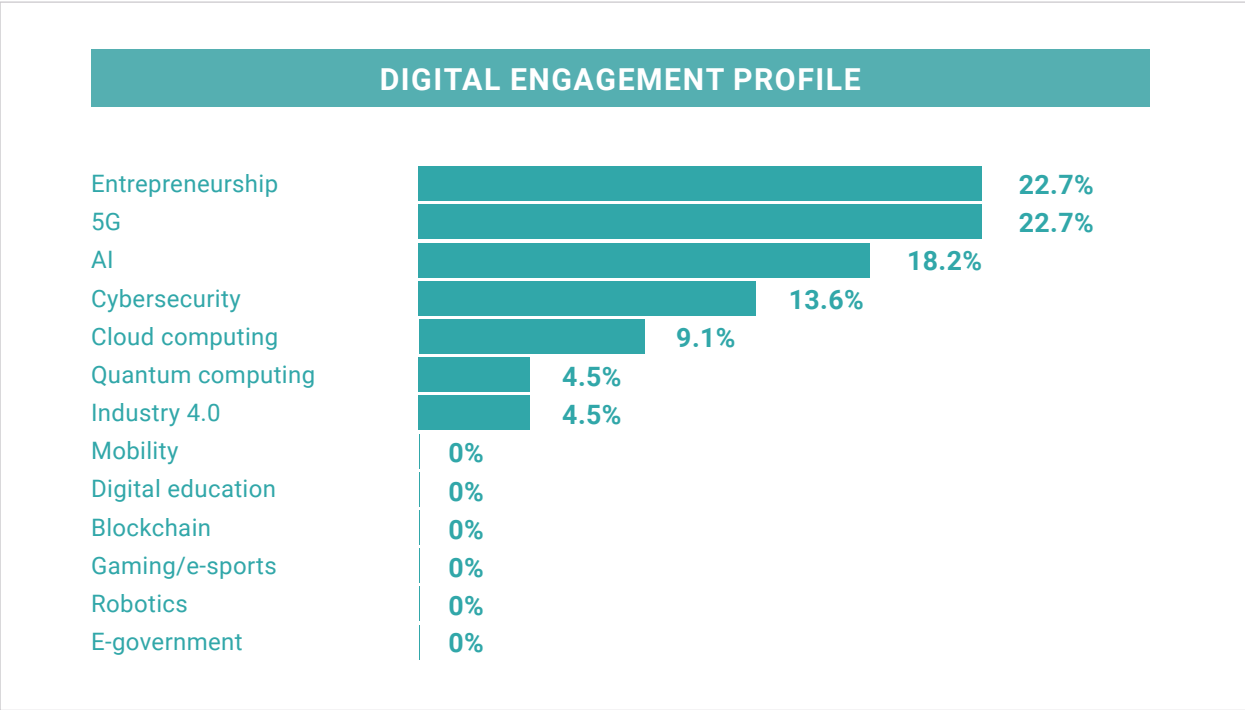
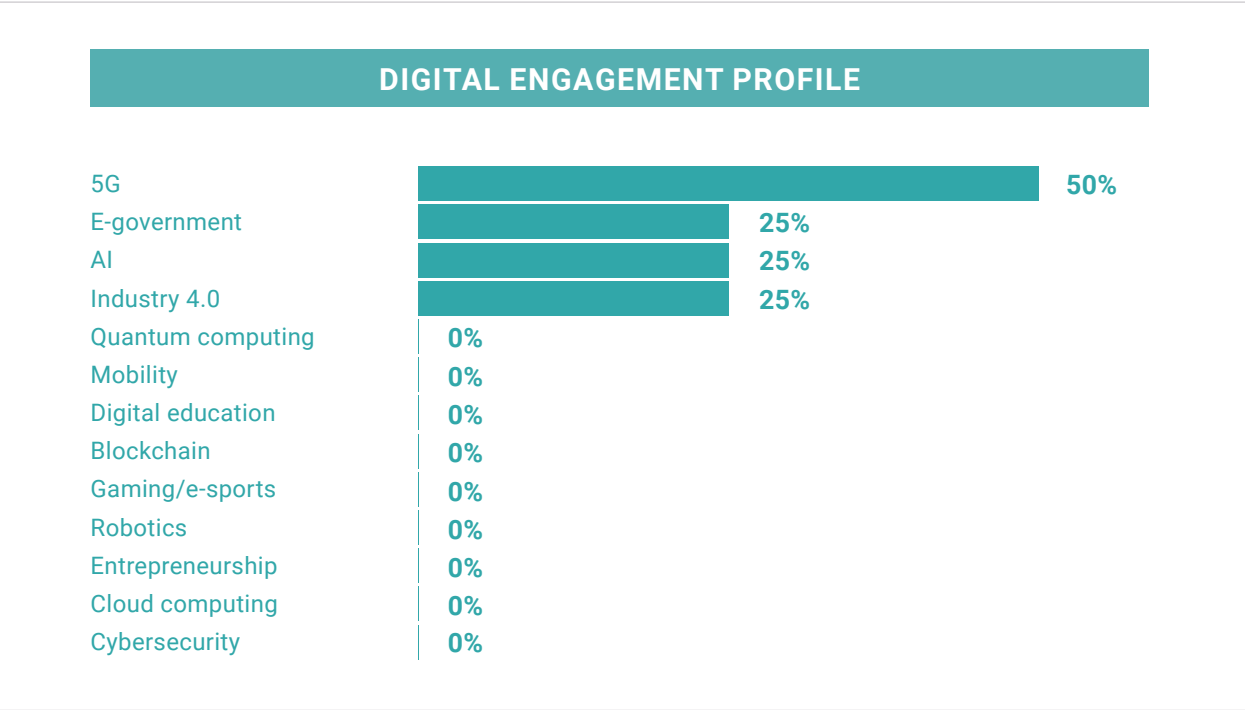
# Prime Minister Pedro Sánchez

Spain 



## Most digitally engaged Southern European head of state and government

With 22 digital engagements, Spanish prime minister Pedro Sánchez is ranked in the middle of the digital engagement index, but he has the most digital engagements among the Southern European heads of state and government. Sanchez had frequent interactions on entrepreneurship (23%), and as one of only two leaders he also discussed quantum computing (5%). He also had quite a diverse range of collaborations, including meetings with start-ups and tech companies, university visits and attending conferences such as the World Economic Forum and the Mobile World Congress. Other frequent interactions on digital topics include 5G (23%) and AI (18%). Besides quantum computing, he did not get involved with other key future technologies such as robotics and blockchain.



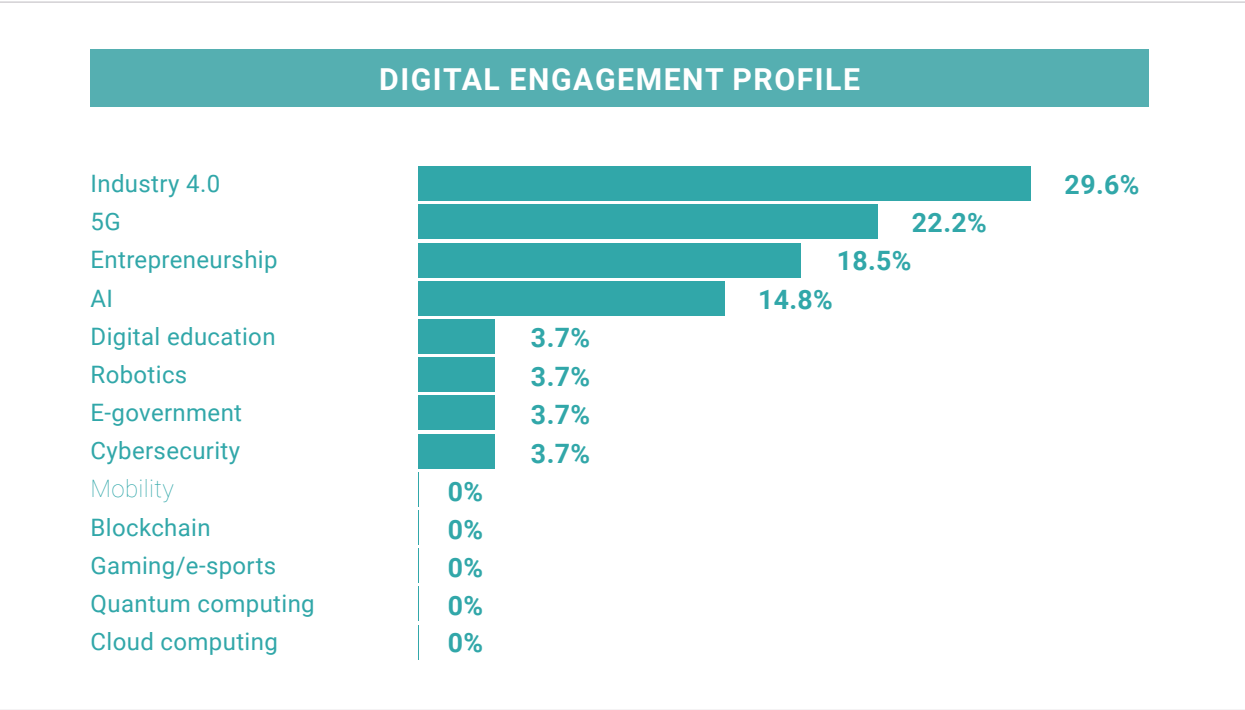
# Prime Minister Stefan Löfven

Sweden 



Focus on digital infrastructure and legacy industry instead of future technologies

Swedish prime minister Stefan Löfven records a total of 27 digital engagements, which puts him slightly above the average, and he is also ranked first among the Nordic heads of state and government. Löfven had a clear focus on digital infrastructure and the digitalisation of the legacy industry, with 30% of engagements related to industry 4.0 and 22% related to 5G. Besides Angela Merkel, Löfven had the most engagements on industry 4.0, including a visit to Hannover Messe with Merkel. He also had several industry 4.0-related engagements during a state visit to South Korea, where a large Swedish trade delegation accompanied the prime minister. However, he also supported start-ups and met with entrepreneurs on several occasions (18%), and most notably, he was also involved in robotics (4% of engagements), albeit he did not have any engagements with quantum computing or blockchain.



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## » European Center for Digital Competitiveness

BY ESCP BUSINESS SCHOOL

The European Center for Digital Competitiveness was founded at ESCP Europe Business School in Berlin with the goal of bringing digital competitiveness to the political and public debate, where it currently only plays a minor role.

Given the digital revolution that our economy and society currently face, digital competitiveness must take center stage in debates to secure our prosperity for the future.

Similarly, in this increasingly dynamic environment we want to support the initiative to position Europe as a global leader for the responsible application of technology for the benefit of society.

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ESCP Business School was founded in 1819 and is the first and oldest business school in the world. Ever since, it has been training managers and entrepreneurs. ESCP Business School now offers Bachelor and Master programs as well as MBA, Executive MBA and PhD programs and executive education seminars.

With its multi-campus model in Berlin, London, Madrid, Paris, Turin and Warsaw, which has been in existence since 1973, ESCP Business School actively lives and promotes the European idea. Every year, more than 6,000 students complete their studies at the Business School, and more than 5,000 managers and executives take part in seminars and education programs. They all come from 120 different countries.

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