

Digital Sovereignty

Review of Macron's Term and Debates in the 2022 Presidential Campaign

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► Key Takeaways

- Emmanuel Macron's five-year term has been characterized by notable efforts to reinforce French digital sovereignty through regulation, securing industries and infrastructures, and supporting strategic sectors.
- The candidates running for the 2022 presidential election tend to also adopt a maximalist view of sovereignty, which in the digital domain is not limited to data protection, but also includes an industrial component.
- While all the candidates denounce the current government's policy on cloud computing, their other proposals in the digital domain are generally in line with the action taken since 2017.
- However, the weakness of the candidates' proposals on the international dimension of technology is problematic, at a time when partners and rivals are articulating their foreign policies around these issues, with significant effects on Europe's efforts toward digital sovereignty.

Introduction

In a political context marked by two years of pandemic and the outbreak of war in Ukraine, long-term issues, such as the digital transformation of society, hardly come to the fore in the campaign for the French presidential and legislative elections of April and May 2022. Yet, digital technologies play a structuring role in the future of France and Europe since they intertwine economic, societal and security issues. More fundamentally, these have become “sovereignty” issues. Consequently, most candidates for the presidential election have taken up the subject and have developed proposals on digital, technological and innovation issues.

This *Briefing* takes stock of Macron's five-year term when it comes to digital sovereignty and reviews its three-pronged approach: digital regulation, the securing of industries and infrastructures, and support for strategic sectors. While all the candidates running in 2022 denounce the current government's policy on the “cloud *de confiance*”, their proposals in the digital field are generally in line with the action taken since 2017. The programs of the candidates also show weaknesses in integrating digital issues into their foreign policy, which is problematic at a time when partners and rivals are articulating their foreign policies around these issues.

Macron's Term: Technology for European Strategic Autonomy

As candidate, Emmanuel Macron committed to regulating the digital domain, and to strengthening “digital Europe”.¹ The international context during the five-year term, characterized by the U.S.-China trade war, the Covid-19 pandemic, and the proliferation of cyberattacks, reinforced these needs as it placed digital, technological, and industrial sovereignty, at the heart of the broader project of European strategic autonomy. Emmanuel Macron clarified this articulation in a speech in February 2020: “To build the Europe of tomorrow, our standards cannot be under American control, our infrastructures, ports and airports under Chinese capital and our digital networks under Russian pressure [...]. European freedom of action depends on this economic and digital sovereignty.”² To do this, he added, “it is up to Europe to define the regulatory framework it imposes [...]. We also need to strengthen Europe's technological independence and its ability to anticipate the next strategic breakthroughs”. More recently, the Minister of the Economy, Bruno Le Maire, qualified “technological sovereignty” as a condition, even as the “absolute key”, of political sovereignty.³

1. G. Babinet and T. Lenoir, “Quinquennat Macron : le grand décryptage. Numérique et nouvelles technologies”, Institut Montaigne, 2021, p. 2.

2. Speech by French president Emmanuel Macron on defense and deterrence strategy to the 27th class of l'École de Guerre, Paris, February 7, 2020.

3. Statement by Bruno Le Maire, Minister of Economy, Finance and Recovery, on the digital sovereignty of the European Union, Paris, February 7, 2022.

But what does this ambition of “digital sovereignty” mean in practice? To address this major challenge concretely, the government has taken a series of measures that have focused on (1) regulating the digital sector and protecting data, (2) securing digital and telecommunication businesses and infrastructures, and (3) developing the industrial, research and innovation ecosystem. The ambition for sovereignty has been expressed both at the national and European level, with a series of initiatives whose impacts are still difficult to assess. While Macron has, at the time of writing, made few proposals public for a potential second term, the secretary of state for digital affairs, Cédric O, suggested in early March that the plan would be to continue along and amplify the same lines of effort.⁴

Regulation: “Big Tech” in the Crosshairs

In November 2020, Macron’s party (La République en Marche, LREM) identified the dual problem faced by France and Europe: “the hegemony of the digital giants and [...] the leak of our data outside the European continent”.⁵ Regarding the first problem, several measures have already been enacted through taxation and law against the domination by a few American, and to a lesser extent, Chinese, tech companies. In July 2019, the government enacted a digital services tax law, known as the “Gafa tax” (a 3% tax on turnover made in France). It has also sought to act at the European Union level (European digital taxation project, which is currently suspended) and worldwide, via the G20 and the OECD. A global tax project on multinational companies, including digital players, has been signed in October 2021 by 136 countries, providing for a minimum tax of 15%. Another line of effort at European level has been the *Digital Markets Act*, currently under negotiation in Brussels, to respond to practices neutralizing competition and create a fairer digital market in Europe.

The government has also tackled the second problem of data leakage outside the European continent, not without sparking debate within the political class and economic players in the sector as to the approach adopted. The government has been criticized for having chosen Microsoft, a company subject to the extraterritoriality of American law, without any call for tenders, to host the “Health Data Hub”, which aims to centralize the medical data of French people for research purposes. But the problem does not only concern sensitive state data: 75% of French tech start-ups and 80% of CAC 40 companies are customers of Amazon Web Services, and 80% are subscribers to Microsoft’s cloud.⁶

What does this ambition of “digital sovereignty” mean in practice?

4. BFMTV, “Le pitch des candidats à la Présidentielle sur le numérique”, March 9, 2022, available at: www.bfmtv.com.

5. La République en Marche, “Prise de position : Déploiement de la 5G”, November 2020, available at: <https://storage.googleapis.com>.

6. F. Miguet, “La France peut-elle retrouver sa souveraineté numérique ?”, *Capital*, January 28, 2022, available at: www.capital.fr.

Changing the conditions for hosting and processing data has therefore been an important focus of government action. With its cloud strategy, published in May 2021, it sought to meet French needs in terms of cloud services, while guaranteeing data security.⁷ To that end, the government created a new label: the “cloud *de confiance*” (or “trusted cloud”). This label allows the creation of European cloud companies using foreign technologies under license – a modality that offers a guarantee of legal protection of data against extraterritorial laws. This label has been widely criticized as having missed an opportunity to support French and European cloud players, instead solidifying the status quo and the stranglehold of non-European players on the sector (see below).⁸

Securing Industries and Infrastructure

The government's second priority has been to secure France's cutting-edge industries and digital and telecommunications infrastructure. On the first part, the state was already rather well equipped to monitor the security risks arising from foreign takeovers of strategic companies, and, if necessary, to prevent these takeovers. In response, to the multiplication of Chinese investments in European companies, the PACTE law,⁹ adopted in 2019, strengthened the procedure for examining foreign direct investments in critical technological sectors, and extended the power of control of the state through a special equity investment in the companies concerned. In addition, in 2020, the investment control threshold was lowered from 25% foreign ownership (non-EU and EEA) to 10%.¹⁰

The government also took action to secure digital and telecommunication infrastructures. The strengthening of cybersecurity resources has been constant since the Hollande presidency (2012-2017) and continued by Emmanuel Macron: growth of the staff of the information systems security agency (ANSSI) and the Ministry of the Armed Forces for the cyberdefense component, creation of the “Campus cyber” to consolidate the French ecosystem in the sector, adaptation of cryptography protocols in the face of future quantum threats... The deployment of the 5G network has, for its part, been subject to measures aimed at excluding risky technologies from French networks.¹¹ In 2020, ANSSI decided that licenses for the deployment of Huawei equipment would only be authorized for a limited period of time, which effectively amounts to phasing out Huawei 5G equipment from French territory by 2028. Despite these restrictions decided for

7. A. Pannier, “The Changing Landscape of European Cloud Computing: Gaia-X, the French National Strategy, and EU Plans”, *Briefings de l'Ifri*, Ifri, July 2021.

8. M. Pollet, “French Cloud Industry Regrets Government's Ambivalence in Dealing with Digital Giants”, *Euractiv*, October 21, 2021, available at: www.euractiv.com.

9. PACTE: “Plan d'Action pour la Croissance et la Transformation des Entreprises”, or action plan for business growth and transformation.

10. Direction générale du Trésor, « Bruno Le Maire et Franck Riester annoncent la prolongation d'un an de l'abaissement exceptionnel du seuil de contrôle des investissements étrangers en France de 25 à 10% », November 30, 2021, available at: www.tresor.economie.gouv.fr.

11. J. Nocetti, “L'Europe dans la géopolitique de la 5G. Une ligne de crête technologique ?”, *Études de l'Ifri*, Ifri, January 2022.

cybersecurity reasons, it should be noted that the Chinese equipment manufacturer inaugurated in October 2020 a new research center in Paris — its sixth in France — dedicated to fundamental research in mathematics and computing.

Support to Strategic Sectors

The “sovereignty” at the heart of the government’s ambition targets strategic sectors and “critical” technologies, in which the state claims to have a stake. At the end of 2019, these were defined as including: cybersecurity, artificial intelligence (AI), robotics, additive manufacturing, semiconductors, quantum technologies, and energy storage. The list was expanded in January 2022 to include biotechnology and technologies used in the production of renewable energy.¹² In these increasingly vast strategic technological sectors, an effort has been made to support R&D and industry, resulting in a multiplication of dedicated funds and investment plans.

On the one hand, there have been targeted strategies, such as the national strategy for artificial intelligence (€1.5 billion over 5 years), the quantum plan (€1.8 billion), the national cybersecurity strategy (€1 billion), the 5G acceleration strategy (€480 million). These amounts — generally spread over 5 years — are similar to or slightly lower than the efforts made by countries such as the United Kingdom and Germany, which have for example respectively invested £2.65 billion (about €3.2 billion) over 5 years, and €3 billion over 7 years in AI.¹³ At the European level, France has supported the setting-up of Important projects of common European interest (IPCEI) in the cloud, hydrogen, batteries, and micro-electronics — which make it possible to collectively grant state aid to companies in sectors identified as strategic.

Support the growth of European digital start-ups

Transversal plans have come on top of these targeted strategies. This includes a fund for innovation and industry, launched in January 2018, under which BPI France — the public investment bank — was endowed with €10 billion, of which around a third is dedicated to investment in deep tech start-ups in a bottom-up logic.¹⁴ Another funding stream is the 4th future investment plan (*Plan d'Investissement d'Avenir*, PIA4), announced in September 2020 and intended for universities and research. It includes a €12.5 billion investment over 5 years to “accelerate” innovation in certain sectors, including AI, quantum, cybersecurity, 5G, clean hydrogen, digital health, and cloud.¹⁵ In October 2021, a new “France 2030” investment plan, amounting to €30 billion, was announced to provide additional support to several strategic sectors, including space.

12. Direction Générale du Trésor, “Les secteurs d’activités dans lesquels les investissements sont soumis à autorisation préalable”, November 25, 2021, available at: www.tresor.economie.gouv.fr.

13. G. Babinet and T. Lenoir, “Quinquennat Macron : le grand décryptage. Numérique et nouvelles technologies”, *op. cit.*

14. Plan d’Action pour la Croissance et la Transformation des Entreprises, September 2019.

15. Gouvernement, “Stratégies d’accélération pour l’innovation”, February 7, 2022, available at: www.gouvernement.fr.

Here too, national action has been coupled with European initiatives. The government pushed for the establishment of the European Innovation Council, within the “Horizon Europe” research funding program and encouraged the launch of Scale Up Europe, a venture capital fund which should eventually have €10 billion to support the growth of European digital start-ups.¹⁶

2022 Candidates and Their Projects: The Sovereignty Consensus

The main candidates for the presidential elections, apart from Emmanuel Macron (La République en Marche, LREM), are from left to right: Fabien Roussel (Parti Communiste, PC), Jean-Luc Mélenchon (Union Populaire, UP), Anne Hidalgo (Parti Socialiste, PS), Yannick Jadot (Europe-Écologie-Les Verts, EELV), Valérie Pécresse (Les Républicains, LR), Marine Le Pen (Rassemblement National, RN), and Eric Zemmour. The candidates' platforms indicate a strong degree of cross-partisan consensus on digital sovereignty, around several elements.

Convergences and Nuances on Cloud and Data Sovereignty

All candidates pursue the goal of enhancing France's “digital sovereignty”. In that endeavor, Macron's challengers unanimously oppose the tech giants on the one hand, but also the “cloud *de confiance*” introduced by the current government, on the other hand. Indeed, all consider the domination of the digital market by foreign companies as harming

Enhancing France's “digital sovereignty”

France's digital sovereignty, and all view the “cloud *de confiance*” as insufficient as it risks perpetuating the status quo. In response, Anne Hidalgo proposes to “restore [...] French sovereignty” by storing sensitive data “on the national territory” and preventing them from transiting abroad.¹⁷ Marine Le Pen also considers that “we cannot accept such delegations of our independence”.¹⁸ Valérie Pécresse, meanwhile,

deemed the hosting of the health data platform with Microsoft to be a “real strategic error”, and considers that the government project of “cloud *de confiance*” is a “mystification”.¹⁹

16. A. Gayte, “Emmanuel Macron a-t-il tenu ses promesses de 2017 concernant la tech et le numérique?”, Numérama, February 15, 2022, www.numerama.com.

17. J. Paugam, “Anne Hidalgo : ‘L'autorégulation, c'est comme le ruissellement, ça ne marche pas’”, *Le Point*, November 6, 2021.

18. J. Paugam, “Marine Le Pen : ‘Nos données sont une ressource industrielle stratégique’”, *Le Point*, November 4, 2021.

19. J. Paugam, “Valérie Pécresse : ‘L'État doit se réarmer en matière numérique’”, *Le Point*, November 4, 2021.

The main nuance among the candidates concerns the level – French or European – where “digital sovereignty” in the cloud should manifest itself. Valérie Pécresse proposes the establishment by 2030 of a “sovereign cloud” implemented by French and European companies.²⁰ Jean-Luc Mélenchon, for his part, wishes “to democratize the use of servers under French law located in France”.²¹ Finally, Éric Zemmour proposes “[to impose] by law that the sensitive data of the French as well as the strategic data of the State and the private sector be hosted and secured in France on sovereign solutions”.²²

It is worth recalling, however, that the location of the servers on the national territory is not in itself a guarantee concerning the processing of the data (which depends on the service provider). Furthermore, European law requires the free flow of data within the EU, except for reasons of national security. What is more, there already are additional cybersecurity requirements for sensitive data – and French providers that meet those needs (such as 3DS Outscale and OVH) already exist.

Finally, the digital commons (e.g., open software and data) are generally seen as a vehicle for digital sovereignty. According to the government, they contribute “to strengthening the sovereignty of all states” and of the European Union, in that they constitute an alternative to the digital giants.²³ The government’s action in this area is not complete, however. In 2021, the prime minister restated his ambition for the openness, circulation and exploitation of public data, algorithms, and source codes, which have proven useful in the fight against the Covid-19 pandemic.²⁴ In addition, action at the European level is contemplated. In February 2022, the government proposed a European initiative aimed at identifying, promoting, and contributing – including financially – to the commons. Among the other contenders, the Union Populaire has the most ambitious program in this area. Mélenchon’s team proposes to create a free software development agency, potentially at European level, and to guarantee free access for all French people to a cloud based on free software.²⁵

A preponderant role for the state as an investor and digital regulator

20. *Ibid.*

21. L’Usine Nouvelle, “Ce que l’on sait du programme économique de Jean-Luc Mélenchon”, January 18, 2022.

22. É. Zemmour, “Programme numérique”.

23. Communiqué conjoint du Ministère de l’Europe et des Affaires Étrangères et du Secrétariat d’État chargé de la Transition numérique et des communications électroniques, “Création d’une initiative européenne pour les communs numériques”, February 7, 2021, available at: <https://presse.economie.gouv.fr>.

24. French Prime Minister, « Politique publique de la donnée, des algorithmes et des codes sources », Circulaire n°6264/SG, April 27, 2021.

25. Jill-Maud Royer during the conference “Présidentielle 2022 : Le débat du numérique”, Sciences Po, Paris, February 16, 2022.

Support for Public Investment

All the candidates see a preponderant role for the state as an investor and digital regulator, and to set an example. To do this, many propose to use public procurement as a lever to support French digital players. The PS points out that the 20% of the EU recovery plan intended for digital technology has only been marginally allocated to French or European companies, and that the government did not communicate to this subject because the figures were “alarming”²⁶. In return, Les Républicains propose to establish quotas for public procurement, that the price criterion in public contracts cannot exceed a limit of 35% in a project evaluation, and that a significant share of public contracts be reserved for European start-ups.²⁷ Valérie Pécresse even proposes to impose a quota of 50% of European products in public procurement of software and digital infrastructure.²⁸ It should be noted that, apart from cloud computing, the candidates tend to not spell out which digital technologies they consider as priorities. Only Éric Zemmour’s program lists cybersecurity, artificial intelligence, quantum computing and semiconductors, while Jean-Luc Mélenchon is the only one to have developed a platform on space.

Another point of consensus among the candidates is the intention to further reinforce the conditions for the takeover of French tech start-ups by large digital companies. Les Républicains want to create a “High Council for Economic and Digital Sovereignty” responsible for authorizing or not authorizing such takeovers.²⁹ Anne Hidalgo also insisted on the subject,³⁰ and Macron’s party also expressed its intention “[to accentuate] the control of the takeovers of our innovative startups by the digital giants” and “[to widen] the criteria allowing to apply this right of veto, currently limited by the European treaties”.³¹

Blind Spots

While digital technologies are not at the heart of the presidential campaign, the candidates have all made proposals on this theme, with a significant degree of consensus: the candidates all adopt a maximalist view of digital sovereignty, which is not limited to data protection, but also has an industrial component. However, the candidates’ proposals present several blind spots.

Firstly, on feasibility. Public procurement is presented by all as a lever of sovereignty, but this would be an insufficient measure: public procurement in the digital sector in France

26. Rémi Cardon during the “Présidentielle 2022” conference.

27. Nelly Garnier during the “Présidentielle 2022” conference.

28. “Le programme de Valérie Pécresse à la présidentielle 2022”, *Le Monde*, 14 February 2022, available at: www.lemonde.fr.

29. J. Paugam, “Valérie Pécresse : ‘L’État doit se réarmer en matière numérique’”, *op. cit.*

30. Anne Hidalgo stated, quite vaguely: “the State shareholder must retain its sovereignty, always have its say and exercise, if it deems it useful, its right of veto”. See J. Paugam, “Anne Hidalgo : ‘L’autorégulation, c’est comme le ruissellement, ça ne marche pas’”, *op. cit.*

31. La République en Marche, “Prise de position : Déploiement de la 5G”, *op. cit.*

amounted to €2.2 billion in 2020, which constitutes limited leverage in light of the overall value of the French digital market, worth €56.3 billion.³² Moreover, although LREM is pushing – like the others – for the establishment of a European preference for public procurement, Cédric O notes that this falls within the competence of the European Commission, and would therefore require a European consensus, which is currently lacking.³³ The feasibility of the candidates' proposals is therefore far from guaranteed.

A second blind spot is the articulation between digital sovereignty, foreign policy, and matters of international security and governance. Relations with the United States, and even more so with China, are generally absent from the candidates' manifestos, beyond a few general statements.³⁴ When asked about Chinese digital services as alternatives to American companies, the candidates interviewed by *Le Point* in the fall of 2021 were unanimous: Chinese players must, like the others, abide by European law, and the measures taken at the level of EU must respond to the “hegemonic tendencies” of Chinese companies as well as American companies.³⁵ However, technological competition, and the more strategic issues raised by the rise in technological power of China are not mentioned. Similarly, the links between technologies, international security and defense policy are not analyzed. Some candidates (Roussel, Le Pen, and Mélenchon) draw a link between R&D effort, civilian industry, and military acquisitions, and others emphasize the international regulation of space and cyber (Jadot, Le Pen, and Mélenchon). However, digital and technologies do not appear in the programs as strategic and structuring issues for foreign policy. This constitutes a real blind spot, compared to the place that these issues have taken in the United States, China, the United Kingdom, or Russia, in these countries' strategic priorities and in the definition of their foreign policy. Now, the policies pursued by these partners or rivals (regulation of digital companies; control over infrastructures, cables, and satellites; attitude in space and cyberspace; technological sanctions policies; reorganization of value chains; investments in R&D, etc.) and the new technological alliances that are crystallizing will have decisive impacts on the France and the EU's capacity for action, and on the project of digital sovereignty.

The strategic implications of China's technological rise are seldom mentioned

32. AdCF & Banque des Territoires, “Présentation des résultats 2020 de la commande publique”, March 30, 2021, available at: www.adcf.org; Numéum, “Bilan 2021 et perspectives 2022 du secteur numérique”, December 7, 2021, available at: <https://numeum.fr>.

33. BFMTV, “Le pitch”.

34. Éric Zemmour proposes a “fundamental dialogue with all the powers, including China and Russia” (É. Zemmour, “Programme Politique étrangère”), while the Union Populaire asserts that “NATO threatens China” (*Pour une France indépendante, souveraine et non alignée*, p. 9), Yannick Jadot focuses on human rights and climate issues in relations with China (Y. Jadot, *Changeons !*, p. 75), and Marine Le Pen focuses on maintaining the freedom of navigation (M. Le Pen, *La Défense : réarmer la France*, p. 9).

35. J. Paugam, “Anne Hidalgo : ‘L'autorégulation, c'est comme le ruissellement, ça ne marche pas’”, *op. cit.*

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