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Interest groups and the implementation of electronic health records in the Italian NRRP, between policy and politics

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ABSTRACT

One of the main goals of the Italian National Resilience and Recovery Plan (NRRP) is to modernize the economy and the public sector, including the digitalization of public services. Among the many interventions aimed at achieving this goal, the implementation of a national system of Electronic Health Records (EHRs) is both an ambitious and yet overdue objective, having been envisioned for over a decade. Despite the existence of broad agreement on this policy measure, its implementation has turned out to be more challenging than expected, this for constitutional, political and technical reasons. Adopting an interest groups perspective, the aim of this article is to map the positions of the various actors involved in the realization of EHRs in Italy, focusing on the implementation phase of the NRRP, and comparing the two sub-phases corresponding to the different governments in office, namely, the Draghi government (May 2021 – September 2022) and the Meloni government (since October 2022). Having developed a process-tracing analysis, we find that political claims and factors became more salient in the second phase, especially as regards the role of ICT companies in charge of implementing EHRs, despite substantial continuity in terms of policy content.

KEYWORDS

NRRP; interest groups; digitalization; e-health; electronic health record; Fascicolo sanitario elettronico

1. Introduction

To tackle the socio-economic consequences of the COVID-19 pandemic crisis, the European Union (EU) devised a series of political and financial measures aimed at the recovery of a severely hit economy and a transformation of European public sector institutions, industry and society at large, under the label of 'Next Generation EU' (NGEU) (Buti and Fabbrini 2023; Fabbrini 2022). Providing resources for member-states' national recovery plans, the NGEU grand strategy aims not only at repairing the economic and social damage caused by the pandemic crisis, but also at addressing the European economy's structural weaknesses, leading EU member-states along the path of

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the digital and environmental transitions, dubbed the 'twin challenges' (Bongardt and Torres 2022; Ordoñez De Pablos 2023).

The main NGEU fund, the Recovery and Resilience Facility (RRF), allocates resources amounting to €191.5 billion to Italy (the main beneficiary of the fund), to be used over the period 2021–2026. The Italian government has supplemented this with an additional €30.6 billion through a Complementary Fund issued in 2021 and financed directly by the State, resulting in a total of €222.1 billion.

In this context, several major reforms have been outlined in the Italian National Recovery and Resilience Plan (NRRP) (Cotta and Domorenok 2022; Di Mascio and Natalini 2023; Domorenok and Guardiancich 2022). Among them, advancing the digital transition and enhancing the public health system are among the most challenging and long overdue. The former, present as a permanent policy since the early 2000s but slowly implemented (Musella 2021), was presented as crucial to tackling the existing gaps in access to goods and services across the population, to reducing bureaucratic burdens, and increasing the state's administrative capacity, with the digital transition itself being conceived more as a cross-sectoral reform than as a single-path specific policy.[1] The latter was likewise considered relevant in terms of both infrastructures and services, as widely proven especially during the pandemic crisis.[2]

In this article we analyse a policy process grounded in both areas, by looking at the implementation of Electronic Health Records (EHRs; in Italian *Fascicolo sanitario elettronico*), the digital tool through which citizens can trace and collect all their medical data and share them with healthcare professionals in an easy and effective way (Baird, Davidson, and Mathiassen 2017; Kohli and Tan 2016; Wass and Vimarlund 2019).

Although their initial appearance in Italian legislation dates back to the early 2010s, the full implementation of EHRs has so far been delayed for a number of constitutional, political, and technical reasons. These include the need to coordinate different levels of governance, national and regional, with the national administrative level establishing the essential levels of performance and the regions in charge of day-to-day policymaking, as stipulated by article 117 of the Italian Constitution. They also include the struggle to find agreements between politically different governmental authorities, and the need to make digital data systems (which present technical differences across regions) interoperable and secure.

The NGEU funds and the NRRP thus offered the chance to effect real change and to speed up the implementation of EHRs.

We chose to focus our analysis on this policy process for two reasons. One has to do with the lack of comprehensive studies on EHRs in the political science literature. The other has to do with the fact that this case provides an opportunity to test different theories concerning the role of interest groups – including institutional actors – in a policymaking process intertwining the domains of health and digitalization policies, in the highly meaningful context of NRRP reforms (Buse, Mays, and Walt 2012).

By adopting an interest groups perspective, we thus intend to tackle two main research questions. First, what interest groups mobilized on the EHRs in the NRRP implementation phase, and what policy goals did these groups pursue? Second, did any change occur in this regard during the policy cycle, and more specifically during the implementation phase? If that is the case, what motivated such changes?

Besides providing for an intensive analysis aimed at describing (if and) how various interests have impacted the implementation of EHRs, we also contribute to the analysis of how different factors affected the role of the actors involved, in terms of both *policy* and *politics*.

In this regard, ideology and partisanship have traditionally been used (as *political* variables) to study the character and financial provisions governing national health services (Blake and Adolino 2001; Immergut 1992; Montanari and Nelson 2013; Toth 2012). Yet little is known about the role of ideology when health policies cross other salient dimensions such as digitalization, also seen as strongly affected by political views concerning technological innovation, digital rights, the role of Big Tech, privacy and cyber-security concerns, etc.

The analysis developed here considers the two sub-phases represented by the governments in office throughout the NRRP implementation phase. These are the government led by Mario Draghi ('Draghi government', May 2021 - September 2022) and the government led by Giorgia Meloni ('Meloni government', since October 2022). We compare how both the interests at stake and their role evolved following the political change, with a view to drawing general conclusions concerning the impact of political variables on typical policy dynamics.

The article is structured as follows. In the next section we illustrate our research design and methodology; in the third section we reconstruct the policy process throughout the two sub-phases of implementation; in the fourth section we discuss our findings; in the concluding section we discuss the relevance and the limitations of our study, and indicate potential directions for future research.

2. Research design and methodology

Having illustrated the context in which the EHRs policy is being implemented, we will now address our research design and methodology, drawing from both the existing literature and the features of the policy context under investigation to formulate some expectations concerning interest groups' positions in this process.

As mentioned, our first research question aims at identifying the interest groups that mobilized on the EHRs in the NRRP implementation phase, and what policy goals these groups pursued. Therefore, we map the actors involved in this phase, providing an overview of their positions. To identify possible variations, we divided the implementation phase into two main sub-phases, corresponding to two governments in office, namely, the Draghi (May 2021 - September 2022) and Meloni (since October 2022) governments. The former, whose authority was technocratic and political, oversaw the launch of the NRRP and established its first implementation measures, supported by a large, cross-party parliamentary majority (Capano and Sandri 2022; Pritoni, Bitonti, and Montalbano 2023). The latter, resulting from the 2022 elections, is supported by a right-wing parliamentary majority, has purely political authority, and has (among other things) taken on the burden of the NRRP's implementation (Di Mascio and Natalini 2023).

Concerning the policy under consideration – namely, the implementation of a national EHR system – no interest group has been or is openly advocating its demise. However, a few critical positions emerged during the early formulation phase,

ahead of the NGEU's introduction – positions expressed specifically by right-wing parties (back then opposing the left-leaning Conte II Government, 2019 – 2021)[3] and by some representatives of the health professions.[4] The formulation phase of the NRRP limited opportunities for organized interests to mobilize due to supranational and pandemic-related time constraints (Bitonti et al. 2021; Bressanelli and Quaglia 2021; Profeti and Baldi 2021). As we enter the implementation phase, we do not anticipate a change in the structure of interests. Instead, we expect a shift in their positions based on the perceived outcomes of the policy design. This pattern generally holds for policies aligned with 'whole-of-the-government' agendas, such as 'better regulation' reforms for digitalization, normative and administrative simplification, and transparency. These policies are typically well-received regardless of ideological differences (OECD 1995; Radaelli 2007, 2023; Wegrich 2010). Policies aligned with commonly shared objectives, such as digitalization and administrative simplification in the case of EHRs, typically encounter minimal opposition. They smoothly become part of governmental agendas, facilitated by policy integration (Candel 2021; Trein, Maggetti, and Meyer 2021). In the case of the EHRs, we assume that organized interests are not debating whether to pursue health digitalization but rather how to achieve it and who should be empowered by it. In this context, our first research hypothesis is as follows:

H1. *Interests mobilized in the EHR implementation phase do not aim to affect the main policy objectives, but rather the ways in which they should be achieved.*

Regarding our second research question, which focuses on factors that may explain variations between the two sub-phases of implementation, we hypothesize that such variations can be attributed to factors outside the policy itself, specifically within the realm of politics. More precisely, we anticipate that a change in government, especially in cases of an abrupt shift from a primarily 'technocratic' government to a political and highly polarized one, could introduce a purely political variable – ideology. This ideological variable has the potential to influence which interests are prioritized over others. As a result, we formulate our second research hypothesis as follows:

H2. *The shift of positions of strength in the EHR implementation phase are strictly due to a political variable, represented by the change of government that occurred in the interim.*

This second hypothesis assumes that, although the policy objectives pursued through the development of the EHR are of a technical kind, the new political leadership in charge of achieving them has brought them to an ideological level. This expectation largely draws on a growing body of literature on populism and sovereigntism in Western Europe, according to which right-wing governments, especially when challenged by supranational pressures, respond with populist and nationalist policies (Bauer et al. 2021; Bernhard and Kriesi 2019; Caramani and Manucci 2019). These are aimed at fuelling the old-fashioned nationalist idea that domestic services, actors and markets should be favoured *per se* over global or international ones.

To assess our expectations, we conducted a qualitative analysis that focused on the interest groups involved in the EHR implementation phase. We identified their policy objectives as our main dependent variable and considered the different phases, including their political factors, as our independent variables. We utilized an explaining-outcome process-tracing methodology, which is commonly employed in small-N analyses of interest groups' influence. This methodology involves examining specific case studies with the primary goal of explaining particular historical outcomes. The findings from these case studies can also offer insights into potential occurrences of the phenomenon in other cases, allowing for some degree of generalization (Beach and Pedersen 2019; Dür 2008).

We conducted our qualitative analysis in a thorough and chronological manner, allowing us to establish solid causal inferences between our variables using a narrative approach (Bennett 2023; Fischer and Forester 1993; Kaplan 1986). Our analysis relied on the precise and detailed reconstruction of the implementation phase. This reconstruction covered key aspects such as the actors involved (both institutional and non-institutional), their policy objectives, the extent of their involvement – or their 'insiderness' – in different sub-phases,[5] and the roles they played.

We relied on four primary sources for our analysis. First, we used formal policy documents, including laws, decrees, guidelines, and implementing norms, to trace the formal development of the process. Second, we analysed documents and statements from stakeholders, such as letters, agreed documents, and press statements, to identify their official positions throughout the policy developments. Third, we conducted a systematic review of the national press to track newspaper articles and public statements related to the EHR policy process. Instead of limiting our selection to a specific number of national newspapers, we opted for the entire press review provided by the Library of the Italian Parliament. We used keywords to identify all articles addressing the topic broadly, resulting in 123 articles from 22 newspapers and magazines spanning January 2016 to June 2023 (we extended the analysis period to better understand interest groups' positions on EHRs beyond the current NRRP framework). Fourth, we conducted unstructured interviews with key players representing both public and private sector organizations involved in the policy process (a full list is available in the Appendix) to gather additional insights into the various positions taken by different actors during the process.

3. Implementing the EHRs as a cutting-edge digitalization policy in the Italian NRRP

As mentioned earlier, EHRs serve as a key element in the digitization of health-related procedures within the NRRP. However, its history extends back at least a decade. In 2012, Law-decree no. 179 introduced EHRs as a mandatory tool at the regional level for managing healthcare services and archives. The decree defined regional EHRs as 'the set of digital health and social-health data and documents generated by present and past clinical events concerning the patient, also referring to services provided outside the National Health Service' (Article 12, authors' translation). It mandated healthcare professionals to input data into the EHR within five days after providing any health-related

service. The decree aimed to achieve three main objectives: a) prevention, diagnosis, treatment and rehabilitation; b) study and scientific research; c) healthcare monitoring, management, and quality assessment. In 2015, the Decree of the President of the Council of Ministers no. 178/2015 further specified a minimum set of common information to be uploaded to the EHRs.

However, due to among other things the constitutional framework mentioned earlier, each Italian region implemented the EHR system at varying speeds and often in significantly different ways, both in terms of content and front-office layouts. After facing several delays, it became evident that national solutions were necessary to facilitate communication between regional data systems and standardize services. Concurrently, there was a lively debate on e-health at the European level, with substantial investments being allocated.[6] This presented a significant opportunity for Member States to establish nationwide e-health systems. Meanwhile, with the assistance of the Digital Transition Team (established in 2016 by the Italian Government to support public sector organizations with digitalization policies), by 2018, 12 out of 20 regions had their own interoperable EHR systems, albeit at varying levels of implementation.[7] Seizing the opportunity provided by the NRRP, the Italian government invested substantial funds in 2018 for the full implementation of a national EHR system, building upon the information provided by existing regional systems.

Big Tech companies began actively advocating for a prominent role in upgrading the EHRs to the status of a national interoperable tool. This push intensified, particularly in response to the altered landscape created by the pandemic. [8] By 2022, EHRs were operational in all regions, albeit with different platforms and data-management systems. [9] Concurrently, the government initiated efforts to standardize practices across regions and establish a national data-exchange grid. This move was in line with the decision to incorporate a national EHR system into the NRRP. In the following discussion, we explore the NRRP implementation phase, differentiating between the governments that held office during the two sub-phases. We will also focus on the interests at stake, examining their roles, degree of involvement, and primary objectives.

3.1. First implementation sub-phase. Draghi Government (May 2021 – September 2022)

The design of the EHRs faced minimal opposition from the actors involved. Before its widespread adoption across all regions due to the pandemic, Law-decree no. 34/2020 mandated that all health data and documents from regions with existing EHR systems be incorporated into them. However, after the European Union's approval of the NRRP, the question of how to implement it arose. While the main contents were already defined, the decision on who would be responsible for connecting all regional EHR systems to the central one and ensuring interoperability remained. This technical matter emerged at a time when government actors were still placing significant emphasis on the issue. Former Health Minister, Roberto Speranza, at the time, gave numerous interviews expressing high expectations for the swift implementation of e-health and the EHRs, considering them as a solution to the management problems exacerbated by the pandemic. Former Minister for Digital Transition, Vittorio Colao, also strongly supported the completion of digitalization and emphasized the government's commitment to it.

Simultaneously, a dedicated working group was established to formulate the implementation guidelines, eventually adopted on 25 January 2022.[10] Regarding institutional actors, the national Data Protection Authority (DPA) played a role in expressing its opinion on the balance between the privacy of sensitive health data and the effective functioning and exchange of digital data. The DPA's stance was particularly sensitive to data protection concerns, causing a delay in the technical definition of contents and exchange mechanisms, especially regarding issues like data anonymization and the data of underage individuals.

Regarding the primary non-institutional actors in the initial implementation phase, three key groups played pivotal roles: the regions, functioning as stakeholders; healthcare professionals and their associations, taking a leading role in EHR implementation; and ICT companies, potentially assigned the dual responsibility of establishing the delayed regional EHRs and implementing the national EHR system. The latter category is divided into international Big Tech firms and domestic ICT companies, each pursuing distinct policy objectives. We will now focus on each of these groups.

Regions: They had been involved with EHRs for nearly a decade prior to the NRRP. Before Law-decree no. 34/2020 made them mandatory, regional EHRs were formally in effect in all regions in 2019. However, their actual usage by citizens and doctors varied widely across the country. With the opportunity to utilize EU funds, Italian regions actively participated in the formulation phase, expressing a pro-EHR stance, which was also reinforced by favourable technical opinions provided to the Draghi government. [11] Despite a consensus on establishing a national grid for interoperability, the regions differed in their approaches to EHR implementation. Some had invested in advanced ICT systems, while others relied on local actors, often the same providers of other digital services. While they all agreed on the need for a national grid, they were hesitant to abandon their existing systems for a standardized one. Their objective was to preserve their investments while benefiting from a centralized mechanism capable of mediating and translating their servers into a universal digital flow. Additionally, regional governance reflects the political priorities set by elected political parties in regional elections. Therefore, differences in political perspectives likely played a role in negotiations between the central government and regional administrations. Recognizing this, regional administrators have been invited as permanent guests to the *Comitato Interministeriale per la Transizione Digitale* – an administrative body composed of members from various administrations involved in the implementation of digital transformation measures – since late 2023.

Healthcare professionals: Much like the regions, they experienced increased involvement, particularly from the Ministry of Health, during the formulation phase. Doctors and pharmacists' associations[12] advocated for a more active role in shaping the guidelines for the EHRs. Although their stance towards the policy had become more favourable compared to their strong opposition before the NRRP (see §2), they remained neutral on the question of how to implement technical infrastructures. Their primary concern was the potential rise in digital bureaucracy.

Big Tech Companies: With a longstanding influence, international Big Techs significantly contributed to shaping the EHR policy within the NRRP. [13] Leveraging their expertise in international e-health management and their close ties to the Draghi government, major players such as Microsoft, Google, and Oracle were invited to take

part in the creation of the National Strategic Pole (NSP). [14] This strategic pole involves collaboration with prominent national companies – TIM, Leonardo, CDP Equity, and Sogei – working together to furnish Italian public administrations with digital cloud services.

National ICT Companies: This term refers to ICT companies primarily operating at the local level, actively involved in the earlier implementation of individual regional EHRs. Following the national legislation of 2020-2021, which mandated interoperability among all regions, these companies initiated communication campaigns – often by purchasing newspaper columns – to advocate for greater continuity between the existing regional infrastructures and the forthcoming national EHRs. During a period when technical implementation options were still being evaluated, the government seemingly maintained a neutral stance towards these companies, although it was more inclined to seek expertise from Big Techs.

3.2. Second implementation sub-phase. Meloni Government (October 2022 – ongoing)

The right-wing coalition that led to the formation of the Meloni Government was elected in September 2022, just a few months after the adoption of two ministerial decrees on 18 and 20 May 2022. These decrees respectively integrated the minimum data for the EHRs and adopted their guidelines. Thereafter, formal implementation of the EHRs faced obstacles, including the need to await the opinion of the DPA. Notably, management of the issue shifted from a ministerial structure to a department head under the new government, possibly signalling a changed approach (Interview no. 5). The unresolved decision was who should handle the data from individual EHRs and their exchange. Two main positions emerged: either allowing regions to manage them through their existing systems, ensuring full interoperability, or entrusting a centralized system with this task. To address these implementation issues, Undersecretary Alessio Butti, the head of Digitalization Policies in the Meloni Government, announced that two additional decrees would be adopted within a short period of time. However, the first year passed without significant developments, except for the favourable opinion (with recommendations) issued by the DPA on 8 June 2022. Butti described the opinion as 'the result of months of consultations between the Department for digital transformation and the Ministry of health, the regions, [...] in-house companies, and the DPA'. [15] Despite statements and interviews by Health Minister, Orazio Schillaci, and by Alessio Butti, following the DPA's opinion, implementation of the EHRs during this second sub-phase, previously progressing rapidly, slowed down compared to telemedicine – an e-health reform included in the NRRP that had started later than the EHRs but gained momentum in 2023 (Interview no. 5).

In the following paragraphs we trace the interests at stake and how their positions changed in this second sub-phase (Meloni Government).

Regions: Their stance on alternative solutions for managing regional data essentially remained unchanged. What did change across the different levels of government, however, was the amount of attention paid by national political leaders to their concerns – specifically, the desire to avoid squandering previous investments in local infrastructures

and the political misalignment of certain regional administrations with the central government. At the same time, regions are the primary beneficiaries of the NRRP concerning the implementation of EHRs. Both official implementation and monitoring indicators demonstrate a slightly improved performance for all regions, though standardization across them has not yet been achieved.[16]

Healthcare Professionals: Similar to regions, their stance towards EHRs has gradually become more openly favourable, thanks in part to the intervention of the DPA, which established boundaries for the exchange and publication of sensitive data. Concerning the question of whom to trust with the implementation of the central infrastructure, medical associations did not take sides. Instead, they remained more focused on the contents and practical functioning aspects (Interview no. 4).

Big Tech Companies: While still interested in influencing the implementation of the national infrastructure to ensure interoperability among regional EHRs, major international ICT companies experienced reduced involvement by the Italian government in designing technical solutions for the upcoming decrees (Interviews no. 1, 2, 3). This shift became evident in press interviews and statements by Butti, who emphasized that the preference for non-national ICT companies was now over. According to him, the previous government had allegedly favoured these companies to the detriment of national ICT companies (see §4).

National ICT Companies: Similar to the aforementioned group, although their strategies and policy objectives have not undergone visible changes in the second sub-phase, their position within the governmental implementing strategy seems to have shifted. They now play a more central and instrumental role, being invoked in public discourses and statements as exemplars of the necessity to 'defend the sovereignty of our national digital asset' and 'reduce technological and jurisdictional dependencies on third countries'.[17]

Table 1 summarizes the main positions taken by organized interests as a result of their interactions with the government in office.

4. Discussion. Between policy and politics

The analysis above has provided valuable insights into the interests surrounding the implementation of the EHRs following the impetus provided by the NRRP. In addition to shedding light on this previously under-investigated phenomenon, it has allowed us to highlight intriguing interactions between variables stemming from both policy dynamics and political structures. The change of government halfway through the process facilitated this comparison. Specifically, from these insights, we identify the following points of discussion.

Regarding our first research question, which investigates the types of interests mobilized during the early implementation phase and their primary policy objectives, we have identified four main interest groups active in both sub-phases of the EHR implementation phase. These groups include two main types of ICT companies, distinguishing between global Big Techs and domestic companies operating at a more territorial level. Both advocate for a leading role in implementing and managing the unified national EHRs. Additionally, we have healthcare professionals (doctors and pharmacists) and regions. Regions function as institutional interest

Table 1. Evolution of the structure of interests across the EHR implementation phases.

	Big Techs	National ICT companies	Healthcare professionals	Regions
Draghi Government				
Position on the EHRs	Favourable	Favourable	Favourable (with reservations)	Favourable
Position on the implementing strategy	Global management	Domestic management	Neutral	Domestic Management
Match with the Government's positions on the implementing strategy	YES	NO	N.a.	NO
Meloni Government				
Position on the EHR	Favourable	Favourable	Favourable	Favourable
Position on the implementing strategy	Global management	Domestic management	Neutral	Domestic Management
Match with the Government's positions on the implementing strategy	NO	YES	N.a.	YES

groups aiming to influence central governmental decisions, primarily advocating to preserve their previous investments and adopt a national solution not significantly deviating from the status quo. Supporting multiple domestic ICT managers, according to them, would require little effort and resources to conform to the new national standards. With the exception of health workers generally, who have long grappled with the adoption of electronic solutions in healthcare management, the actors eventually aligned in considering the EHRs a mandatory option. In this regard, our first hypothesis on the convergence of policy objectives and the divergence of implementation strategies is confirmed by the evidence (see Table 1). The real issue at stake concerns whom to empower for the substantial EHR implementation effort. The choice is between Big Techs, operating globally and likely capable of managing this phase at a centralized level, possibly through the gradual integration of smaller domestic managers, and, on the other hand, empowering the latter by maintaining territorial management essentially separated, provided they comply with uniform national standards and rules.

The analysed policy has a notable characteristic: instead of relying on lobbying strategies, various factors serve as catalysts for greater or lesser engagement of interests in key policymaking areas. These factors are closely linked to the political structure and intermittently empower different stakeholders, endorsing diverse implementation approaches. The shift in the political landscape, resulting from the succession of two significantly different governments, appears to either diminish the influence of organized interests by facilitating their entry into core policymaking or, conversely, by blocking it.

The above explanation is reinforced by incorporating political ideology into our overall argument as a factor influencing the effectiveness of lobbying. Specifically, while previous studies in management and political science (Kollman 1997; McKay 2010; Nalick et al. 2023) have treated the political ideology of interest group leaders as an independent variable in lobbying tactics, it can also be viewed as an independent variable affecting the extent to which the overall political leadership is willing to involve and empower certain interests at the expense of others. Although there has been analysis of the interaction between the ideologies of political leaders and the interests involved, it has primarily been at an individual level (Bayes 1982; Berry et al. 2010; Jackson and Kingdon 1992), sometimes falling short in identifying a systemic macro-level correlation

between a dominant political ideology and the role assigned to interest groups in determining a specific policy outcome.

The transition from Draghi to Meloni resulted in the latter government elevating the digitalization policy objective from a practical matter to an ideological stance. When we attempted to interview in-house ICT companies supporting the implementation of the national platform, they declined, citing the sensitivity of the political issue and their unwillingness to discuss behind-the-scenes developments. In essence, with the imperative to implement the EHRs, they seized the opportunity to break from the recent past by proposing a different implementation approach. Instead of relying on Big Tech companies, which symbolized the globalized market connections nurtured by the former government, the new approach entrusted national ICT companies. These companies were considered long underrated but now seen as capable of competing with ICT giants, thanks to a favourable nationalist policy.

Undersecretary Butti publicly argued that the government needed to combat the dominance of Big Techs in public digitalization interventions due to the perceived threat to national digital sovereignty posed by the U.S. Cloud Act, which could assert jurisdiction over Italian territory. He questioned whether the Draghi government had overlooked the actions of other European countries in this regard,[18] suggesting that reasons beyond technical assessments may have influenced the previous government's highly favourable stance towards welcoming ICT giants into the national context. More recently, Butti has emphasized the government's ambition to elevate Italian companies and technologies in the European context,[19] aligning with his announcements via social media about an upcoming fund to support national AI start-ups. Additionally, in terms of implementing the EHR, Butti has highlighted that, 'compared to previous governments', they possess 'patience and quite clear ideas'.[20]

The above observations seem to support our second hypothesis, which suggests that the shift in power dynamics – specifically, the varying empowerment levels of Big Techs (and their national branches) versus national ICT companies – is not primarily due to changes in their resources or strategies. Instead, it appears to be linked more closely to a shift in government strategy, which, in turn, is closely tied to ideological factors. More specifically, this evolving strategy aims to elevate the technical considerations regarding the most efficient ways to implement the national EHR to a different level of discourse – the ideological one. Consequently, what was originally an uncontested technical policy objective transforms into an ideological discourse on how to implement it. This ideological discourse is then employed as an argument to signify a departure from the approaches of previous governments.

5. Conclusions

In this article, we have examined the digitalization of healthcare services, using an interest group perspective to analyse the implementation of EHRs within the Italian NRRP. Our goal was to uncover the role of interest groups in this specific phase of the policymaking process, a phase often overlooked by lobbying scholars compared to earlier stages of the policy cycle (You 2017). We chose to focus on digitalization because it represents a typically technical policy objective, one on which most concerned parties usually find common ground.

Our investigation was driven by an empirical-theoretical puzzle. Despite a relatively smooth formulation phase, the implementation phase exhibited divergent views on how to achieve the policy objective. We discovered that even if a policy objective is technically oriented (meaning it is not strongly contested by opposing political factions), during times of high political polarization, it tends to be transformed into an ideological issue for electoral-political reasons. The Italian political context following the COVID-19 pandemic and the ongoing implementation of the NRRP provided a suitable testing ground for our explanatory process tracing analysis. This political phase witnessed a change in government from a predominantly 'technocratic' one, the Draghi Government, to a purely political one, the Meloni Government. The latter was highly ideologically charged, driven by nationalistic and sovereigntist motives that caused its leaders to shift the technical issue of healthcare services digitalization into a more ideological and symbolic realm.

Our study makes three notable contributions to the existing literature. Firstly, it offers valuable insights into the policy of digitizing public (including healthcare) services and the extent of interest group involvement in this process. We analyse how the policymaking unfolds and identify the key interests at play, though it is important to note that this process is ongoing.

Secondly, our research adds to the understanding of the relationship between politics and lobbying by addressing a gap related to the implementation phase. We shed light on the potential role of interest groups during this later stage of the policy process. Our study reveals that even when a policy objective is deemed too technical to provoke opposition among interests, political actors can effectively use it as a catalyst for more ideological arguments. This tendency becomes more pronounced, especially when a highly ideological government replaces a less ideological one.

Lastly, our article contributes to the literature on lobbying and policymaking by examining a variable from the political sphere – ideology. This approach enhances our understanding of how political leaders can leverage the opposition between divergent interests (and possibly amplify it) to secure electoral-political consent.

We acknowledge that there is much more to learn about the phenomena mentioned above, and further comparative and empirically grounded research should be conducted in this regard. For instance, conducting a cross-country comparison of the digitalization of public services in diverse political contexts could enhance the robustness of inferences regarding the role of ideology in its implementation. Nevertheless, we consider our current study as a crucial initial step in that direction.

Notes

1. Of the six missions making up the NRRP, three are directly concerned with digitalization. Mission 1 ('Digitization, Innovation, Competitiveness, Culture') allocates a total of €49.2 billion (of which €40.7 billion from the RRF Facility and €8.5 billion from the Complementary Fund) with the aim of promoting the country's digital transformation, supporting innovation in the production system, and investing in tourism and culture. Interventions addressed by Mission 1 are focused on three key areas: connectivity, digitalization of the public sector, and e-health (Sgueo 2022). As regards connectivity, Mission 1 aims at improving network reach and

connection quality across the whole territory. The goal is to have, by 2026, 1 Gbps connectivity for families, businesses, and organizations, and 5 G coverage across the whole territory. Regarding the second goal – digitalization of the public service – Mission 1 obliges the government to foster the widespread adoption of key digital public services, primarily by reinforcing digital identity systems. It also obliges the government to advance the interoperability of platforms and data services, via an API catalogue that allows national- and local-level administrations, according to various authorization levels, to draw on cloud data, process them, and deliver services to citizens and businesses who will be asked to provide information only once. Finally, it commits the Italian government to fostering digital skills, including those of the public-sector workforce. The e-health measures (partially addressed in Mission 6 of the Plan) relate to the introduction of a number of measures aimed at modernizing the public health system, both structurally and procedurally. These measures will be discussed in more detail in the following section.

2. Regarding the e-health chapter, there are €15.63 billion available in the Italian NRRP for this area. One part of these funds is to be used to modernize and digitize the health system – and specifically to renew digital systems and ensure the dissemination of EHRs. E-health is indeed one the EU's digital decade targets, with 100% of European citizens expected to have access to medical records online by 2030 (European Commission 2022), with cross-border solutions enabling secure (privacy-preserving) data flows.
3. Right-wing newspapers such as *La Verità* campaigned against the policy, exaggerating the risk of a 'health big brother'. See, for instance, Andrea Grizzuti's articles, 'Vogliono spiarci persino le cartelle cliniche' (*La Verità*, 17 May 2020) or 'Addio privacy' (*La Verità*, 21 September 2021).
4. See the statements from medical associations and medical staff reported in Gian Piero Sancipriano, 'Fascicolo sanitario elettronico, "non utile ai medici, non utile ai malati", *AgendaDigitale.eu*, 14 June 2016 (https://www.agendadigitale.eu/cittadinanza-digitale/fascicolo-sanitario-elettronico-non-utile-ai-medici-non-utile-ai-malati/) and in Enrico Delfini, "Un po" di chiarezza sul Fascicolo sanitario elettronico', *QuotidianoSanità.it*, 18 February 2018 (https://www.quotidianosanita.it/lettere-al-direttore/articolo.php?articolo_id=59118).
5. By 'insiderness' we mean the degree of active involvement of specific interests in the policy cycle (Maloney, Jordan, and McLaughlin 1994). This might increase or decrease according to who is leading the process and can be affected by the ideological distance between the various actors.
6. Unsurprisingly, the world ICT giants had in the meantime made huge investments in e-health in order to be ready for the European challenge (Federica De Benedetti, 'Sanità: la Ue prescrive una cura digitale. L'Italia può risparmiare 10 miliardi all'anno', *la Repubblica*, 12 June 2017).
7. See the interview with the Digital Transition Team leader, Diego Piacentini, published in *La Stampa*, 5 October 2018.
8. As reported in 'Perché l'epidemia ci deve convincere che l'unica strada è quella della digitalizzazione', *Il Foglio*, 7 April 2020; Stefano Carli, 'L'industria digitale lancia l'allarme 'Attenti ai soldi del Recovery fund'', *la Repubblica*, 5 October 2020; and Giovanna Faggionato, 'Tutti i fondi europei per progetti vecchi. Ai giovani gli spiccioli', *Domani*, 8 December 2020.
9. https://www.fascicolosanitario.gov.it/.
10. https://www.fascicolosanitario.gov.it/sites/default/files/public/media/Linea%20guida%20per%20attuazione%20del%20FSE.pdf.
11. Opinions on the EHR issued by the Conference of Regions (*Conferenza Stato, Regioni e Province Autonome, Rep. Atti n. 53/CSR del 28 aprile 2022* and *Rep. Atti n. 72/CSR* of April 28 2022).

12. See their 2022 letter to the Minister of health: https://portale.fnomceo.it/linee-guida-fse-la-fnomceo-scrive-ai-ministri-non-siamo-stati-coinvolti-lanalisi-del-contesto-e-errata-lontana-dalla-realta-professionale/.
13. Giovanna Faggionato, 'Tempi stretti e divari territoriali. C'è paura per il PNRR che verrà', *Domani*, 23 December 2021.
14. As reported in Ferruccio De Bortoli, 'L'Italia digitale pensi in grande. Locale e piccolo non è bello', *Corriere della sera*, 23 January 2023.
15. As reported in ANSA, 'Butti, presto decreti per fascicolo sanitario elettronico', 20 June 2023, https://www.ansa.it/canale_saluteebenessere/notizie/sanita/2023/06/20/butti-presto-decreti-per-fascicolo-sanitario-elettronico_aad 5ff4c-a9f6-4a39-a661-a80cf6cda619.html.
16. Official updated data available at: https://www.fascicolosanitario.gov.it/monitoraggio.
17. Undersecretary Butti's statement to the Chamber of Deputies, 19 April 2023, authors' translation.
18. *Ibid*.
19. Undersecretary Butti's concluding remarks, 'ComoLake 2023', Next Generation Innovations Forum, 7 October 2023, authors' translation.
20. ANSA, *cit*.

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Appendix

Table A1. List of interviews

No. Interview	Institution/Category	Role	Date
1	Government (digitalization)	Policy Advisor	28/07/2023
2	Government (digitalization)	Policy Advisor	12/09/2023
3	Government (digitalization)	Policy Advisor	15/09/2023
4	General doctors' association	Member of the steering committee (Nicola Calabrese)	28/09/2023
5	Government (health)	Former Head of the technical cabinet of Health Minister (Antonio Gaudioso)	17/10/2023