

PEC: adoption, use cases and interoperability in the European digital ecosystem



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Foreword

Twenty years after its introduction, PEC (Posta Elettronica Certificata) represents one of the most mature outcomes of Italy's digital transformation journey. Created to provide legal certainty, traceability, and evidential value to electronic communications, PEC has progressively become a foundational component of interactions among public administrations, businesses, professionals, and citizens.

The figures presented in this White Paper clearly illustrate the scale that the phenomenon has reached: more than 20 million mailboxes are estimated by 2026, with approximately 3.5 billion messages exchanged. The growing variety of use cases demonstrates how PEC has moved well beyond its original role as a compliance tool and has become firmly integrated into administrative, professional, and business processes.

Yet the most significant achievement is not merely quantitative. Over the past twenty years, PEC has helped build and promote a genuine culture of digital trust across the country, demonstrating that legally relevant communications can take place entirely in a digital environment while maintaining guarantees of certainty, integrity, and enforceability. PEC is therefore perceived not simply as a digital communication channel, but as a trusted infrastructure through which formal relationships, critical exchanges, and communications requiring certainty and legal protection can be managed. It is precisely this trust, developed through everyday use, that represents one of the most valuable assets created by the Italian system.

It is from this foundation that we must look toward the next phase.

Digital transformation is entering a new era in which the quality of services no longer depends solely on their availability online, but rather on their ability to operate within interoperable, secure, and user-friendly ecosystems. Digital identity, trust services, digital domiciles, electronic notifications, and data interoperability are becoming interconnected components of a common infrastructure capable of generating significant value.

In this context, PEC represents a strategic asset for Italy. The country has pioneered a model capable of achieving widespread adoption, generating expertise, infrastructure, standards, and an ecosystem of service providers that now constitutes a solid foundation for addressing the new European dimension.

The framework established by eIDAS 2 further strengthens the objective of creating a European digital space in which citizens and businesses can use interoperable services that are recognized across national borders. The evolution of PEC toward Qualified Electronic Registered Delivery Services (QERDS) fits perfectly within this trajectory. The goal is not to replace a model that has proven its effectiveness, but rather to build upon

its success and support its evolution. The challenge lies in preserving the strengths that PEC has developed in Italy, including ease of use, broad adoption, and communication certainty, while simultaneously enhancing interoperability, security, and integration with the emerging European trust services ecosystem.

This transition is also strategically important for the country's competitiveness. Making certified communications increasingly seamless in cross-border interactions means simplifying relationships among citizens, businesses, and public administrations throughout the European Union and contributing concretely to the realization of the Digital Single Market.

Italy's experience can make a significant contribution to this journey. The maturity achieved by PEC demonstrates how regulatory and technological innovation, when supported by effective implementation capabilities and a strong ecosystem, can evolve into an infrastructure that influences the functioning of an entire country.

This evolution must necessarily go hand in hand with stronger security. Unsurprisingly, one of the benefits most frequently cited throughout this White Paper, alongside the legal validity of communications, is the security offered by PEC.

Cyber threats are becoming increasingly sophisticated, and no system can be considered secure indefinitely. Phishing, social engineering, credential compromise, and emerging attack vectors require the continuous updating of technical and organizational safeguards, rules, and user behaviors.

Security does not depend solely on the robustness of infrastructure; it is the result of the interaction between technology, organizational practices, and user awareness. This principle is even more important within public administration, where the protection of communications and information is an essential element of the quality and reliability of public services.

From this perspective, the evolution toward qualified services also offers an opportunity to further strengthen trust, positioning the Italian experience within an increasingly harmonized European framework.

Another major theme highlighted in this White Paper is the integration of PEC into digital processes. The value of a technology is not measured solely by the number of users who adopt it, but by its ability to integrate into workflows and simplify them.

Interconnection with document management systems, procurement platforms, CRM solutions, and business applications can transform certified electronic delivery from a simple communication channel into a native component of digital business processes.

In this context, artificial intelligence may also create new opportunities. Capabilities such as communication classification, search, summarization, and anomaly detection can contribute to improved efficiency and security. Innovation, however, creates value only when it is effectively governed and when it strengthens the ability of individuals and organizations to use digital tools in a conscious, responsible, and reliable manner.

Ultimately, this is one of the central questions of European digital sovereignty: not the creation of closed systems, but the development of the skills, standards, and infrastructure necessary to govern strategic services while ensuring autonomy, security, interoperability, and the protection of rights.

The story of PEC demonstrates that Italy possesses a valuable asset that can be further leveraged. An experience developed at the national level and consolidated through twenty years of practical use can now contribute to the construction of a broader European model.

The value of this White Paper therefore lies not only in its ability to explain what PEC represents today, but also in its capacity to explore what PEC could become tomorrow: an increasingly integrated component of a European ecosystem of digital trust.

From this perspective, studies and initiatives of this kind are especially valuable for the broader ecosystem. They contribute to a deeper understanding of the phenomenon, strengthen the collective body of knowledge, and support innovation and sector development through increasingly informed decision-making.

Mario Nobile,
Director General, AgID - Agency for Digital Italy



Executive summary

Twenty years after its launch, Posta Elettronica Certificata (PEC, Italy's certified email) is a strategic, irreplaceable pillar of the country's digital communication. With over 20 million mailboxes estimated active in 2026 and about 3.5 billion messages exchanged, steady growth in every market segment confirms its role as a cornerstone of national digital trust. IDC Italy's research, conducted in Q1 2026 among 300 organizations (Government bodies, companies, professionals) and 800 citizens, shows that PEC is seen across the board as strategic process infrastructure for operations that need legal certainty. Legal value is the top benefit, cited by 61% of organizations and 62% of citizens, followed by security (56% and 43%) and simpler administrative processes (52% and 41%).

Six key findings emerge:

- **Structural, stable adoption.** 63% of organizations manage 2 to 5 PEC mailboxes; Government is the most mature segment. Among citizens with an active mailbox, 45% use it weekly or monthly to communicate with Government and companies. Most users expect stable or growing use over the next 12 months.
- **Broader use cases than expected.** PEC is not just for litigation: it covers tax, social security, contracts and condominium matters. It also helps companies and citizens seize opportunities: 64% of companies that use PEC for tenders (37% of the total) use it to submit their bid application; among citizens who use it for public competitions and calls (32% of the total), 62% use it to submit applications and registrations. Government uses it daily for inter-institutional coordination and formal documents.
- **Complementary to the national digital identity ecosystem.** The growth of online services, digital trust services and notifications, such as SEND, digital signature and digital domicile, adds to PEC rather than replacing it. Government and professionals clearly understand this complementarity.
- **International interoperability will unlock more potential.** 38% of organizations dealing with foreign counterparties use PEC for cross-border communications. 67% expect better legal certainty and compliance from a European extension. Lack of international interoperability is the top systemic barrier (55%). Applying the eIDAS 2 Regulation and reusing the good practices from Italy's twenty years of experience could extend the potential across the EU.
- **AI as a driver of evolution.** 54% of organizations want AI-based security alerts; 46% want automatic content summaries.
- **Digital sovereignty as the cornerstone of user trust.** In a geopolitical climate that makes digital sovereignty a structural driver of sourcing decisions, 90% of PEC users prefer Italian or European providers (78% Italian, 12% EU).

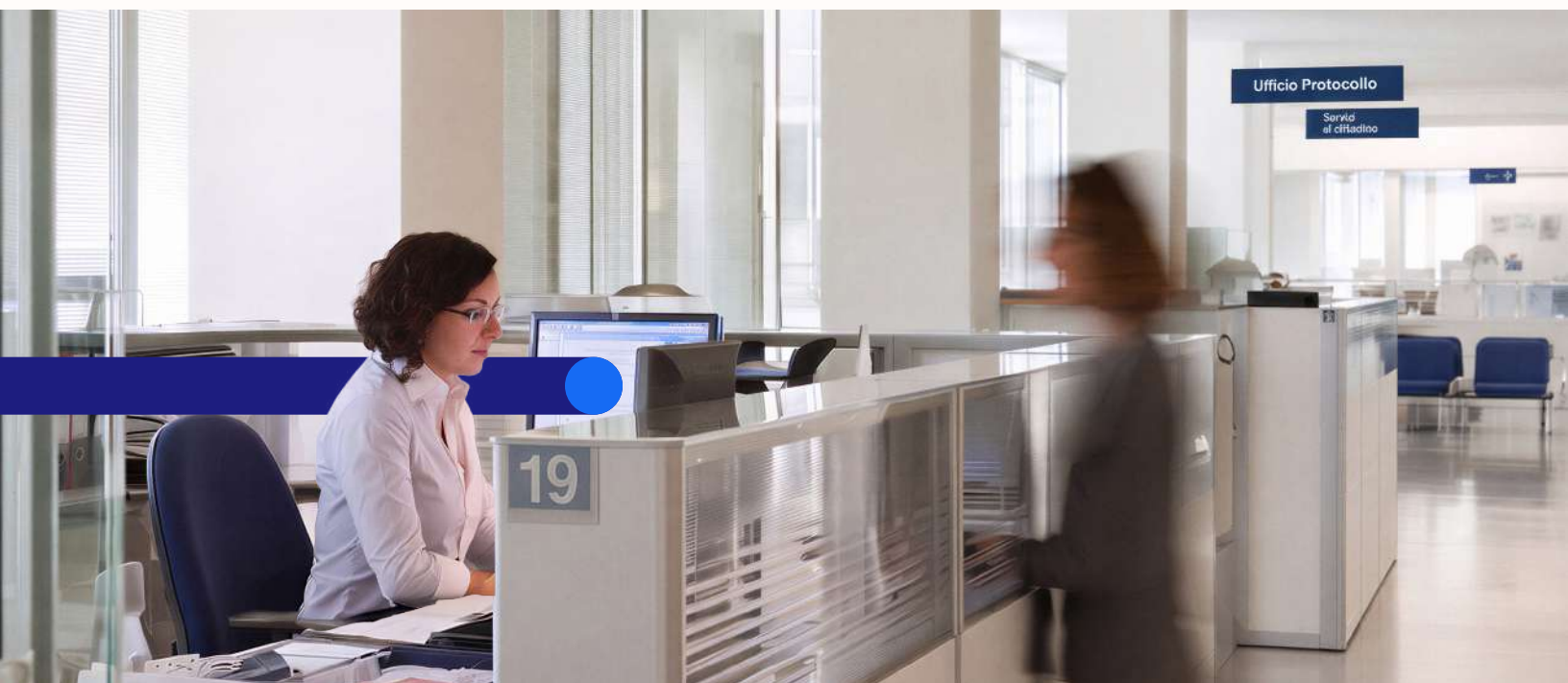
The three main opportunities ahead are: (1) digital education for the less mature user segments to maximize PEC's value beyond regulatory obligations, (2) deeper integration of PEC with business systems, and (3) investment in international interoperability under eIDAS.

¹Source: "BENEFITS AND OPPORTUNITIES OF PEC: PILLAR OF THE DIGITAL TRUST SERVICES OF THE FUTURE"
IDC study on behalf of Aruba, Infocert, TrustTechnologies, January 2024

PEC is a core component of the country's digital infrastructure. Strengthening its value, extending its European reach and combining it with AI and next-generation trust services is more than a market opportunity: it is a requirement for Italy's digital competitiveness in Europe.



This white paper analyzes PEC adoption dynamics, use cases, barriers and drivers for each market segment, and offers operational recommendations for organizations, service providers and policy makers. Below, the segment comprising Government bodies, companies and professionals is called "business", and the citizen/consumer segment "citizens".





CHAPTER 1: PEC as strategic infrastructure for business

Since mandates were introduced for professionals (2008-2011) and for companies and sole proprietorships (2012-2013), PEC growth has accelerated. Millions of users go beyond regulatory obligations, showing that PEC has become strategic infrastructure, used across Government, professionals and companies, including in exchanges with citizens.

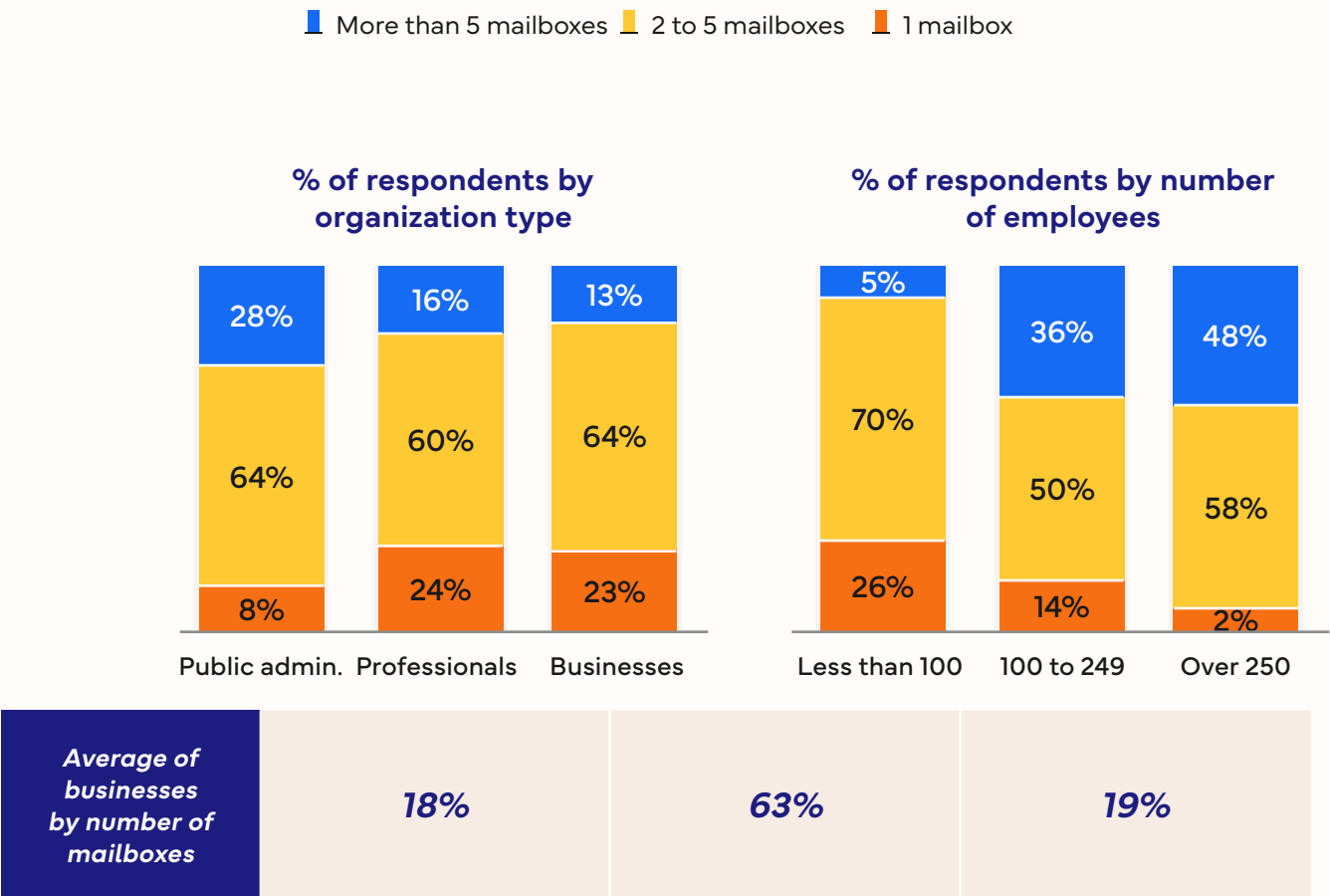
Widespread adoption, frequent use

This analysis confirms PEC's role as an essential tool: 63% of organizations manage two to five active PEC mailboxes and 18% have more than five (Figure 1). Only 19% operate a single mailbox, falling to 8% in Government, where PEC is built into records registration.

Mailbox numbers reflect organization size. Organizations with over 100 employees, with many offices and departments needing dedicated addresses, are 7 times more likely (36% or more) to manage 5 or more active mailboxes than small organizations (5%).

Figure 1
PEC adoption

Q. How many certified email (PEC) mailboxes are currently active in your organization?



Source: PEC Italy business segment survey, IDC, April 2026 (N = 300)



Adoption is driven by legal obligations and company size, but frequency of use varies by sector:

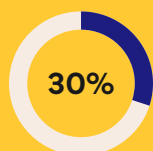
- Government has the most daily users, especially in communications with other Government bodies (60%).
- Professionals use it daily with Government, companies and other professionals.
- Communications with citizens are less frequent, an opportunity to unlock more potential through digital education for citizens.
- All business players expect stable or growing PEC use, proof of its value twenty years on.



Government bodies that use PEC daily to communicate with other Government bodies



Professionals who use PEC daily or weekly to communicate with Government, companies and other professionals



Government bodies, companies and professionals that use PEC to communicate with citizens



Government bodies, companies and professionals that expect **stable or increasing use of PEC over the next 12 months** (excluding PEC communications to citizens)

Source: PEC Italy business segment survey, IDC, April 2026 (N = 300)

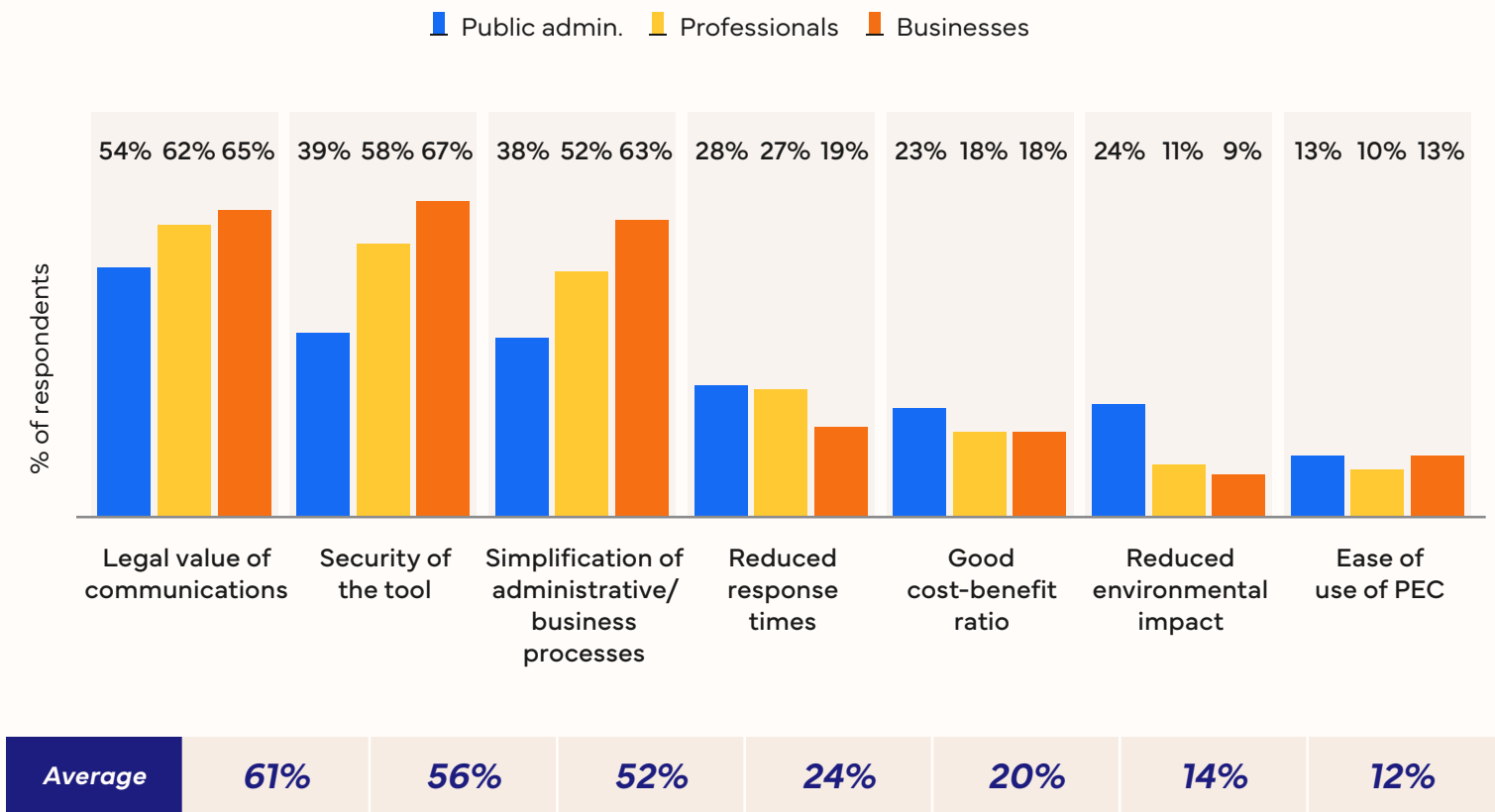
Trusted communications as valuable infrastructure

PEC's wide adoption and use rest on a legal infrastructure that gives every communication trustworthiness, enforceability against third parties and evidentiary value. Its perceived value is clear and consistent across companies, Government and professionals (Figure 2). Legal value is the top benefit, cited on average by 61% of

companies, Government bodies and professionals. Next are security (56% on average) and simpler administrative and/or business processes (52%). Government also sees an environmental benefit: the earlier IDC study cited above estimated 107 kilotons of CO2 saved and paper waste cut by the equivalent of about 71 thousand trees in 2026. As organizations grow, faster response times and ease of use gain importance, signaling a need for speed driven by larger volumes.

Figure 2
PEC benefits

Q. What are the main benefits you see in using PEC? [Select up to 3 options]



Sources: PEC Italy business segment survey, IDC, April 2026 (N = 300, Government 90, companies 120, professionals 90)



When you deal with companies and counterparties and want your communication to have legal value, you send a PEC. Registered mail is now always second choice: first, it is costly (a one-page registered letter with return receipt, priced by weight, costs almost €10); second, you have to go to the post office. Today that means finding someone to “lose” even an hour sending a communication, with no certainty it will be received. PEC bypasses all of this: immediate sending and delivery receipt at no cost. For us professionals, the introduction of PEC has been an enormous advantage.”

Lawyer, Milan law firm

A wide range of use cases

PEC's legal value should not be confused with the common view that it is only for formal communications between professionals or companies and court registries. This study shows a far more varied reality. PEC serves any communication where legal certainty of sending and receipt is useful. In communications with Government, use cases go well beyond the judicial system to include tax and levies, social security, public calls and competitions, and tenders. Communications between companies, or between companies and professional firms, also span many areas where that certainty is needed.

Business to government communications

Business users apply PEC to many use cases when communicating with Government (Figures 3 and 4):

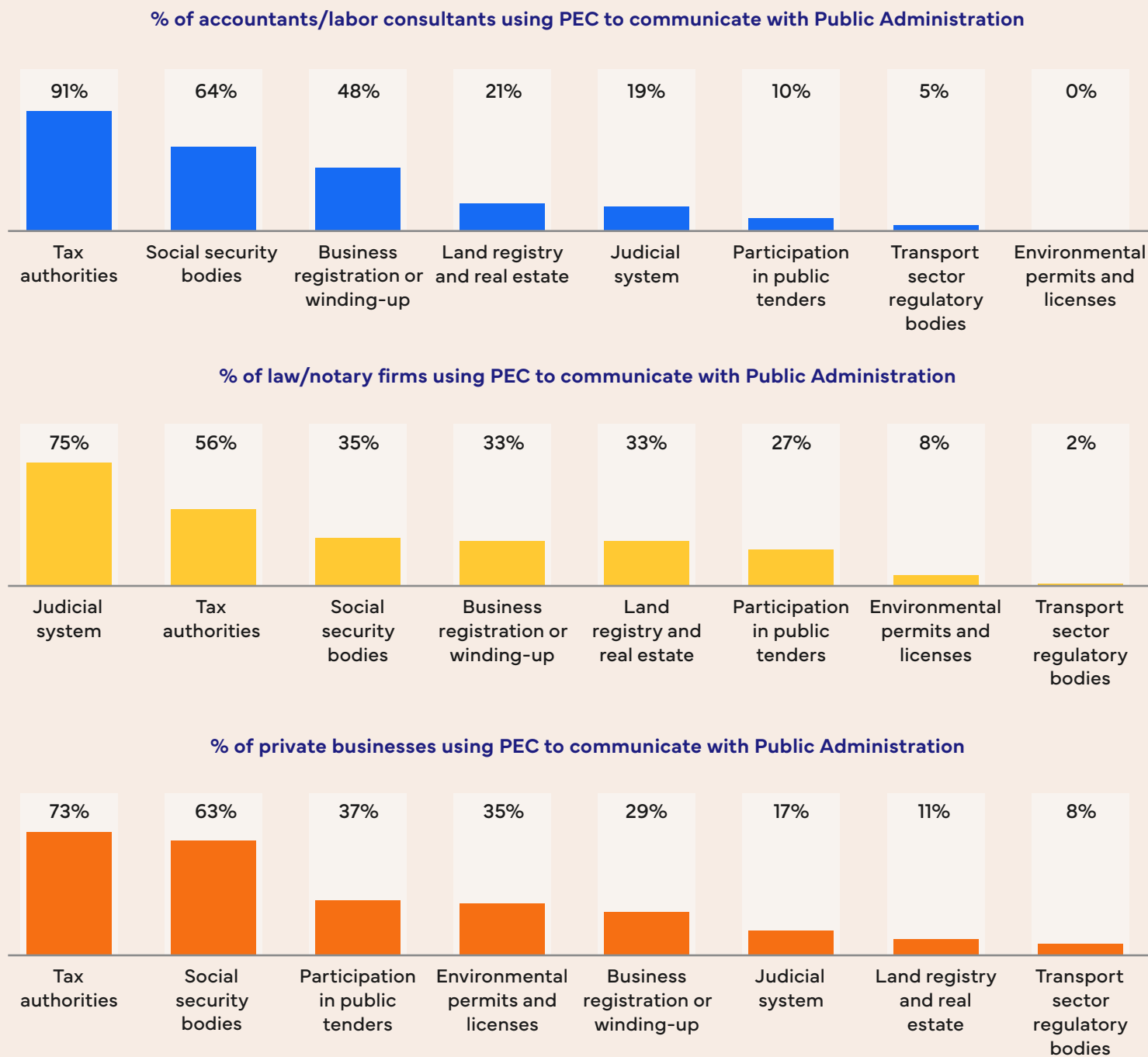
- Accountants and labor consultants use PEC mainly for tax authorities (91%), social security institutions (64%) and the business register.
- Law firms and notary offices mainly deal with the judicial system (75%), followed by tax authorities and social security institutions.
- For companies, PEC is essential in complex transactions that require sending documents, such as registering and terminating employment relationships with social security institutions (63%), tax refund requests (73%) and tenders, which often involve exchanging certifications as well as commercial offers.



Figure 3

Business to government PEC communications

Q. Which of the following use cases do you currently use PEC for when communicating with Government?



Source: PEC Italy business segment survey, IDC, April 2026

Figure 4

Priority PEC use cases in business to government communications

Q. Which of the following use cases do you currently use PEC for when communicating with Government?

		Priority use case for professional firms in communications with Public Administration	Priority use case for businesses in communications with Public Administration
Social security bodies		Employment registrations, changes and terminations	Submitting contribution documentation
Tax authorities		Submitting tax returns and refund requests	Submitting tax returns and refund requests
Public tenders		Submitting applications to participate	Submitting applications to participate
Environmental permits and licenses		Submitting environmental impact studies	Submitting periodic reports and monitoring data
Business registration		Submitting requests, additions and clarifications to the Chamber of Commerce	Submitting requests, additions and clarifications to the Chamber of Commerce
Judicial system		Notification and filing of legal documents	Notification and filing of legal documents
Land registry and real estate		Requests for property searches and floor plans	Submitting requests for corrections, updates, ownership transfer
Transport sector bodies		Submitting safety and regulatory compliance reports	Submitting documents for inspections

Source: PEC Italy business segment survey, IDC, April 2026 (N = 300)

Government to government/business communications

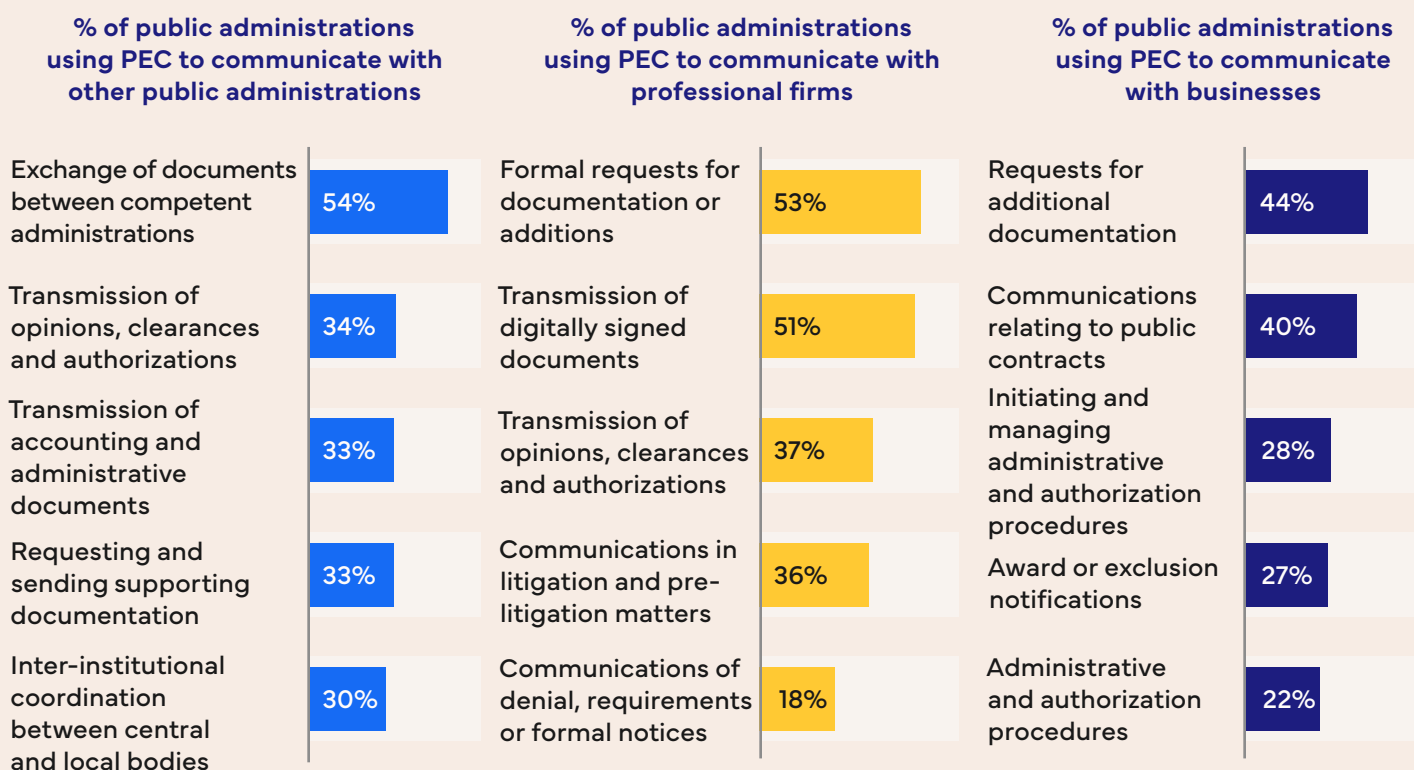
Government communications to companies and professional firms show that (Figure 5):

- Communications between Government bodies, the most frequent (60% communicate daily with other Government bodies via PEC), mainly concern documents, opinions and authorizations, and coordination between central and local Government.
- Communications with companies cover supplementary documentation, notifications and public contracts; the last mirrors the companies' view (Figure 3), where tenders and public contracts are the third most important area of PEC use.
- Communications with professional firms mainly involve exchanging documents and formal acts, for example in judicial matters.

Figure 5

Priority PEC use cases in government to government/business communications (government bodies, companies, professional firms and citizens)

Q. Which of the following use cases do you currently use PEC for when communicating with...?



Source: PEC Italy business segment survey, IDC, April 2026 (N = 90)

Communications among companies and professionals

PEC use cases extend beyond interactions with Government (Figure 6).

Professional firms use PEC to send formal communications and documents such as deeds, opinions and notifications. Note that professionals use PEC with each other only when a dispute is opened, where the first communication fixes the date of sending and receipt.

Companies, too, have extended PEC use to contracts and to privacy and regulatory compliance.

Figure 6

Priority PEC use cases in communications among companies and professional firms

Q. Which of the following use cases do you currently use PEC for when communicating with...?



Source: PEC Italy business segment survey, IDC, April 2026 (N = 210)

The use case survey clearly shows that the image of PEC as a tool mainly for penalty-related communications, though real and relevant, captures only part of its value.

PEC also enables opportunities, such as:

- Tender participation. PEC's value in sending documents, sales proposals and service offers is significant and growing, showing the tool's versatility.
- Managing commercial relationships with evidentiary value: sending and receiving contracts to be signed or signed, and sending invoices (especially for smaller companies).

PEC is not just defensive (preventing disputes over receipt of documents); it also supports proactive activity, enabling active participation in institutional and commercial processes that need certainty of communication.

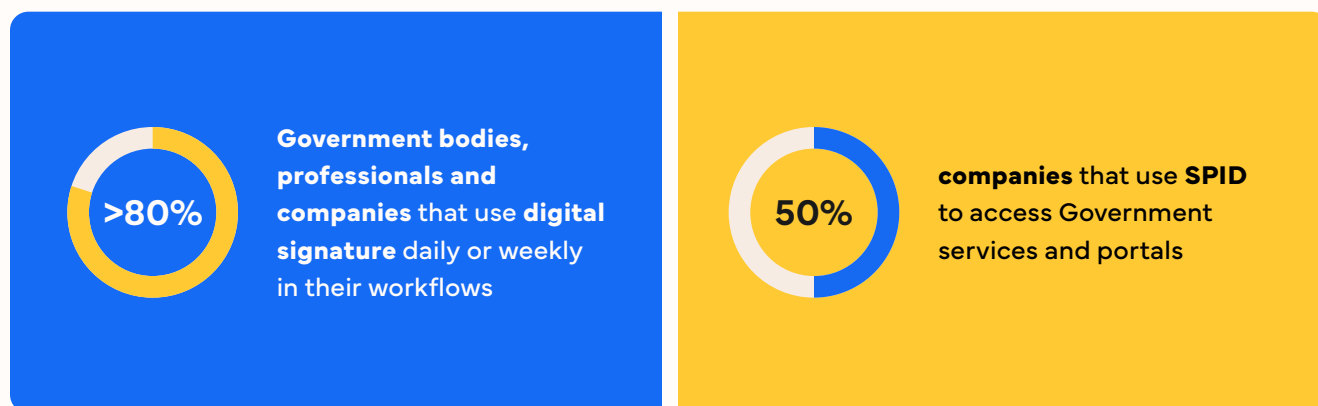
PEC within the national ecosystem of digital identity, trust services and notifications

PEC sits within a broader national digital identity ecosystem that includes trust services and notifications. Under the European Digital Decade 2030 program, which sets measurable targets for Europe's digital transformation, and in implementation of the eIDAS and eIDAS 2.0 regulations (Electronic IDentification, Authentication and trust Services), PEC and Italy's other trust services, introduced before the European rules took effect, play a key role. Over the last twenty years Italy has introduced digital identity, electronic signature and trust service tools to build a digital trust ecosystem where citizens, businesses and Government interact securely, with certainty and legal validity.

Besides PEC, the national ecosystem of digital identity, trust services and notifications includes the SPID (Sistema Pubblico di Identità Digitale) and CIE (Carta d'Identità Elettronica) authentication systems, digital signature and the digital domicile, the legal qualification of the electronic address chosen as official point of delivery, which PEC now enables. Government also relies on the SEND platform, which sends notifications and communications to citizens through several digital channels (App IO, PEC or traditional email). See the appendix for descriptions of the main services.

In business, digital signature is the most widespread, established digital trust service.

- Professionals also use digital signature heavily. Like PEC, it is often built into workflows (for example, a lawyer filing an electronic deed in the court's electronic case file signs the document digitally through the Processo Civile Telematico software).
- Businesses show an equally established adoption model for digital signature, driven by regulatory obligation and by integration of digital services into management systems. This segment also makes heavy use of SPID: over 50% of companies say their legal representatives use it to access Government portals and services on the company's behalf.

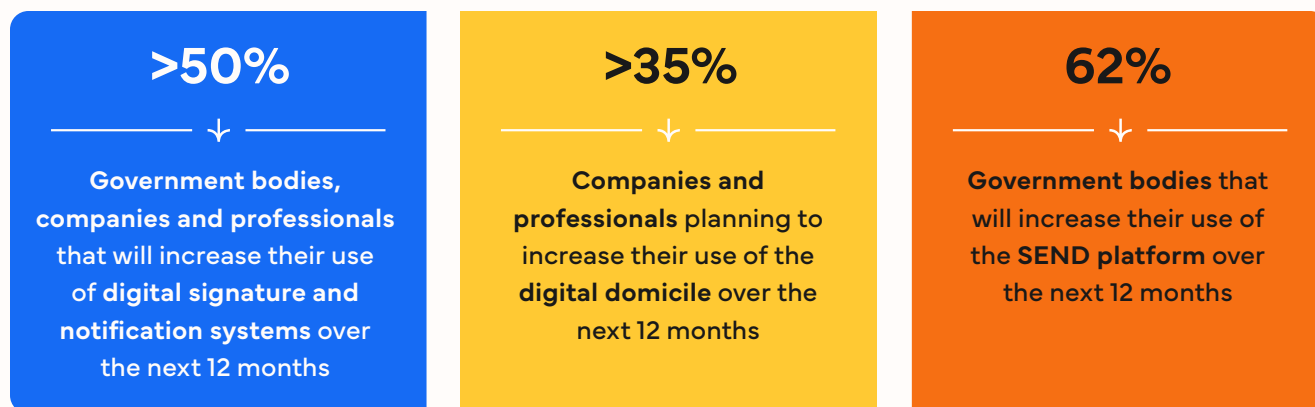


Source: PEC Italy business segment survey, IDC, April 2026 (N = 300, Government 90, companies 120, professionals 90)

Government bodies, companies and professionals expect to use digital trust services more:

- Among professionals, digital signature and notification systems show the highest expected growth: over 50% of the sample plan to use them more in the next 12 months. Next is the digital domicile (35%, of which 7% plan to start using it). Other digital services in the country's infrastructure, though not trust services, are also widely used, such as the PagoPA payment system (33%).
- Companies expect the highest growth for digital signature (56%) and notification systems (51%).

- For Government, expected growth in digital trust services centers on the SEND platform (62%), with 23% of bodies planning to start using it within 12 months. Today 7,072 public bodies are active on the platform, up 46% on the previous year (AgID data, May 2026).



Source: PEC Italy business segment survey, IDC, April 2026 (N = 300, Government 90, companies 120, professionals 90)

The IDC survey data show PEC as a growing tool and the backbone of an ecosystem of digital identity, trust services and notifications such as SEND, digital domicile and digital signature, which rely on PEC as a certified delivery channel with legal value. The digital domicile builds on PEC as a qualification of the delivery address, while SEND and digital signature remain complementary but legally distinct services. This is now well understood by Government bodies, professionals and companies, none of which expect to use PEC less. In particular, SEND carries the notification and PEC ensures certified delivery, a more efficient operating model that combines SEND's easy access with PEC's legal solidity.



SEND and PEC together create value for the country. SEND can simplify the act of notification; PEC, with the digital domicile, speeds up delivery by sending the notification and the document together, closing the notification process completely. Each system does its part: one notifies, the other delivers.”

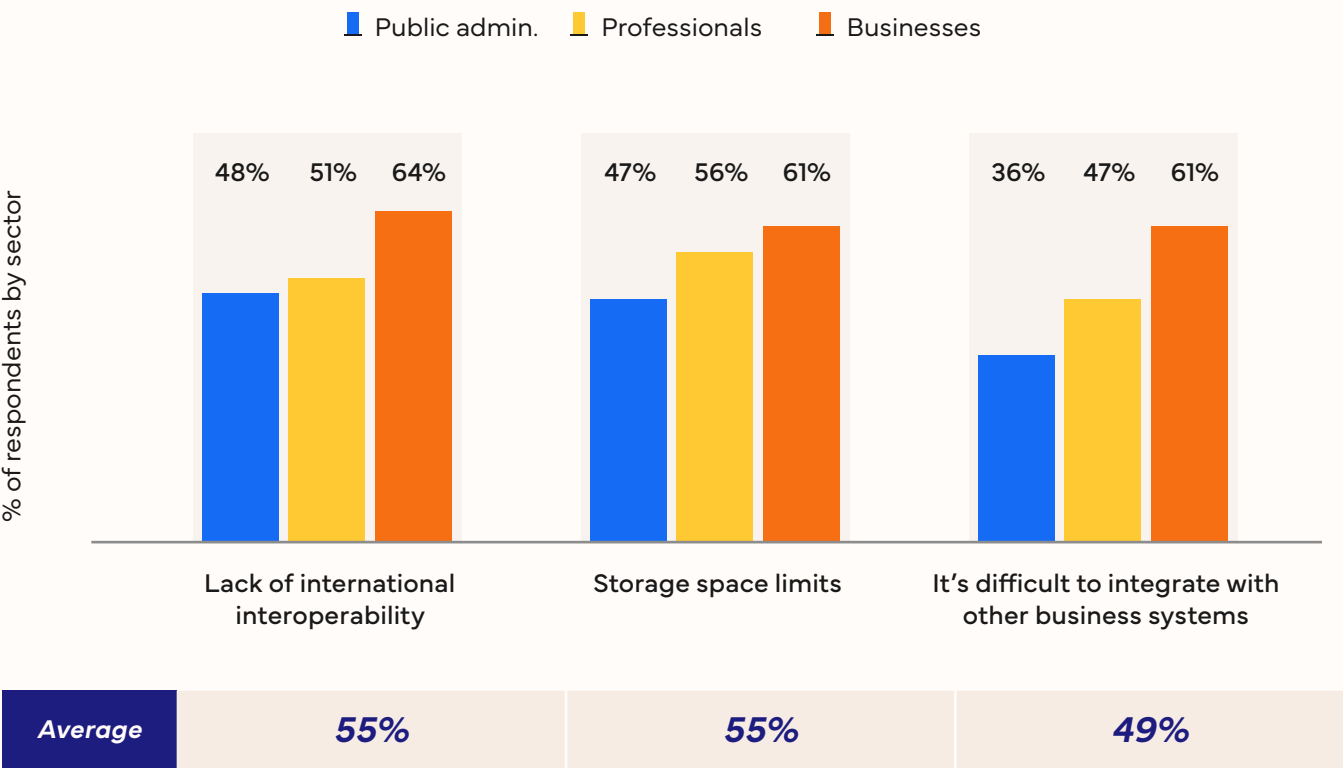
IT Manager, central government

Key challenges to unlocking PEC’s full potential

Wide adoption and frequent use show PEC’s broad impact. Some open challenges remain: barriers must be reduced so users can realize its full potential.

For business users, the main barriers are structural: lack of international interoperability (55%), storage limits (55%) and difficulty integrating with business systems (49%) (Figure 7).

Figure 7
The three key challenges for business PEC Adoption
Q. What are the main issues you encounter in using PEC? [Select up to 3 options]



Source: PEC Italy business segment survey, IDC, April 2026 (N = 300)

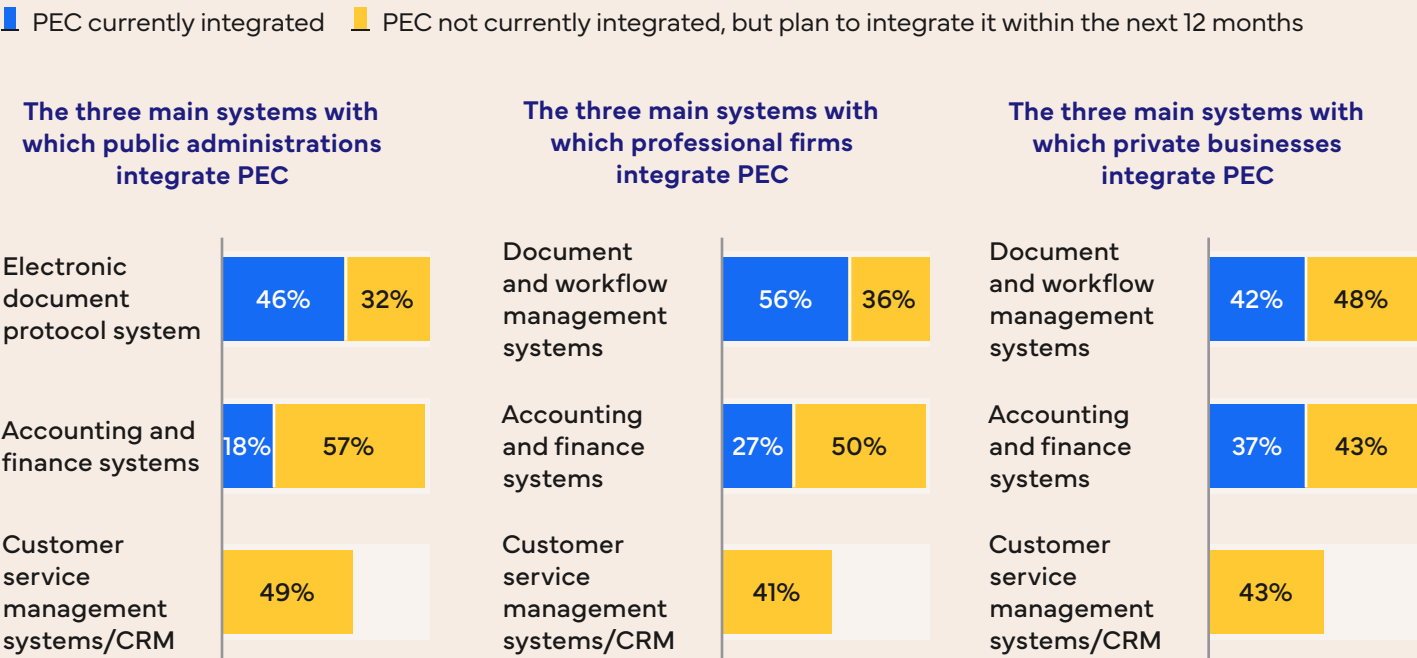
Opportunities for integration with business systems

Integration with enterprise information systems is key to realizing PEC’s full benefits. A PEC accessed manually through webmail handles individual communications; a PEC built into document workflows automates processes and reduces response times and the risk of errors or omissions (Figure 8).

Integration has progressed significantly with the electronic registry system (protocollo informatico) in Government (78% of respondents have integrated PEC or plan to within 12 months) and with document management systems in companies (91% of respondents).

Looking ahead, business users plan to integrate PEC with accounting, purchasing, warehouse and customer service/CRM systems; over the next 12 months, 49% of Government bodies, 43% of companies and 41% of professionals plan CRM integration to support customer experience.

Figure 8
PEC and integration with business systems
Q. What is the level of integration of PEC with other business systems?



Source: PEC Italy business segment survey, IDC, April 2026 (N = 300)



None of our officials open a PEC webmail directly. PEC is integrated with the document management system: incoming messages are registered and assigned to the right officer. For outgoing PEC we have a single transmission gateway where we built an algorithm that checks INI-PEC, then INAD, and finally starts the analog process: if the PEC produces no result, the system automatically generates a workflow to send a paper registered letter. The official clicks the button and the system does the rest.”

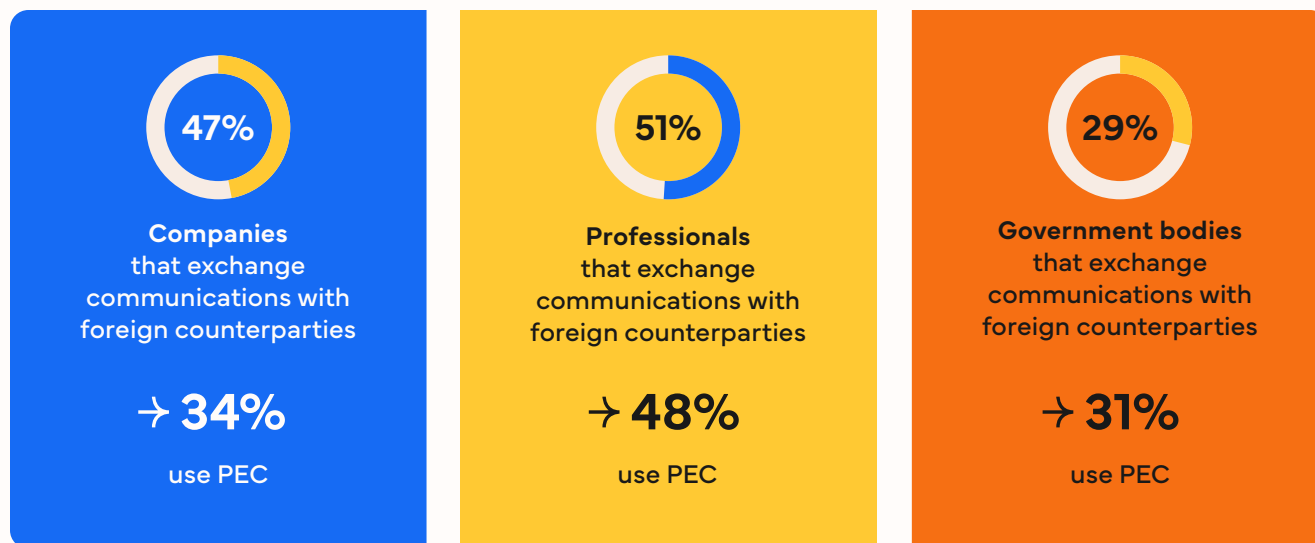
IT Manager, central government

The international value of PEC

PEC's international dimension is both the tool's biggest limit today and its biggest opportunity for future development.

Business users already exchange significant communications with foreign counterparties, mainly professionals (51%) and companies (47%). The frequency rises with organization size, a sign of the internationalization of large companies and of the professional firms that serve them.

Among organizations with cross-border communications, only 38% use PEC. Most use alternatives: digitally signed files and ordinary email (both 81% business average) and traditional registered mail (77%). The usual practice is to sign the file digitally and send it by regular email, which guarantees only the document's legal value, not the communication's. Government bodies, companies and professional firms that use PEC abroad know it lacks legal value there. The gap stems not from a missing European framework but from the lack of technical interoperability and mutual recognition among national systems. Proven experience like Italy's can help close it at European level.



Source: PEC Italy business segment survey, IDC, April 2026 (N = 300)

For business users, recognizing PEC's value across borders matters: organizations communicating abroad should not give up PEC's legal certainty and validity for tools with lower evidentiary value. The data (Figure 9) show concrete expectations. On average, 67% of companies/Government bodies/professionals expect better legal certainty and compliance in communications with foreign entities, followed by greater security (62%), faster response times (43%) and lower costs (39%).

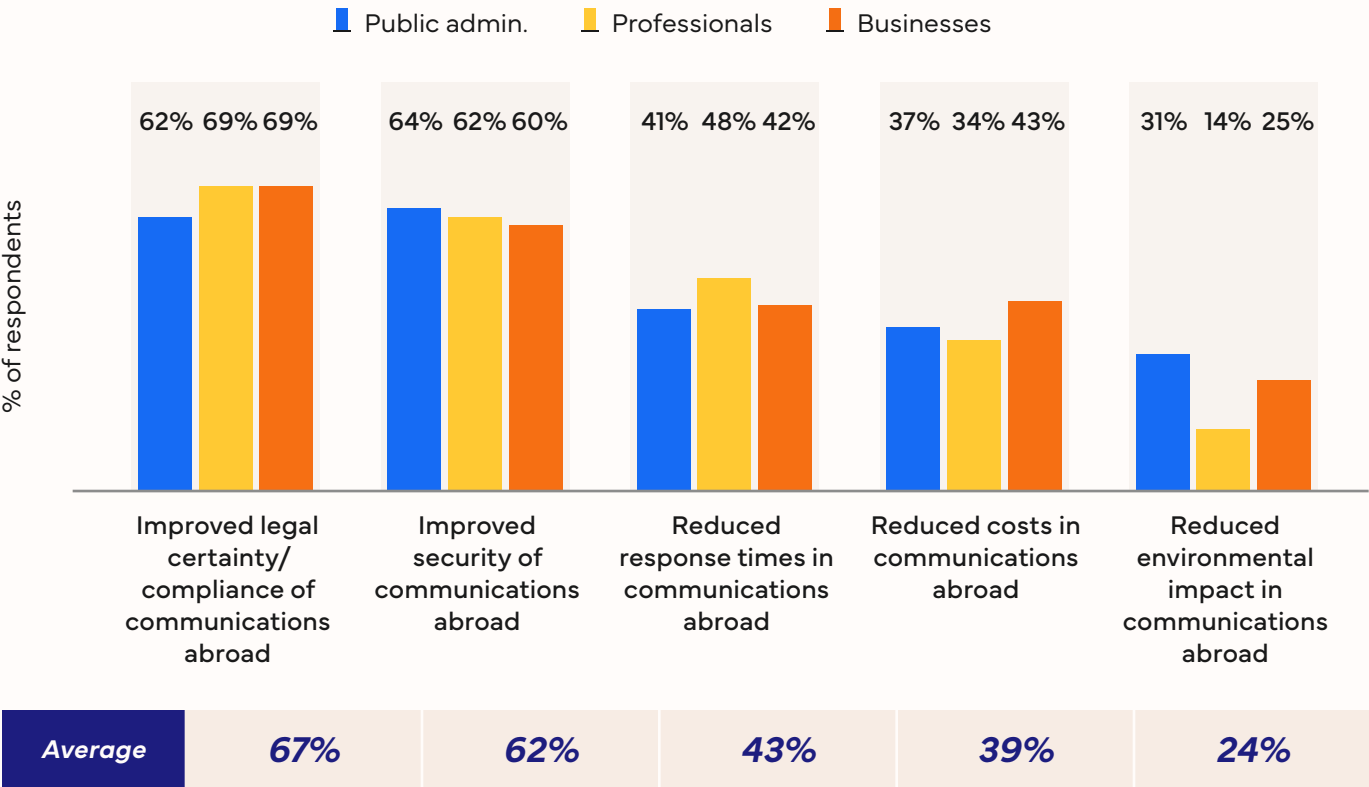


For foreign communications we lack a convenient, certified channel. Without certainty of delivery, even in accounting terms revenue cannot be recorded when an act is issued: you must wait for confirmed delivery. It is a regulatory and a budget problem at once. A system handling certified notification abroad for a few euros a year, as PEC does in Italy, would have an immediate operational and potentially economic impact.”

Head of Digital Services, large local administration/major Italian municipality

Figure 9
Benefits of using PEC beyond Italy

Q. What benefits do you expect if the use and legal value of PEC were extended across the whole EU in an interoperable way? [Select up to 3 options]



Sources: PEC Italy business segment survey, IDC, April 2026 (N = 300, Government 90, companies 120, professionals 90)



The strategy for developing the certified delivery market rests on two pillars: financial institutions, already aware of cross-border compliance challenges and of the value confidentiality and cybersecurity bring to business; and public institutions, which create the regulatory obligations that make certified delivery necessary. Small and medium-sized enterprises are generally not yet aware of this value, unless regulation or the compliance needs of larger partners force them.”

Head of R&D and International Business Development, European qualified trust service provider

The European regulatory framework is evolving to enable full recognition of PEC in communications with foreign counterparties. To this end, the eIDAS 2 Regulation promotes interoperability of certified email through a mechanism of mutual recognition that, once technically implemented by each Member State, will give a message full legal validity and identify sender and recipient (hereafter, for simplicity, “qualified PEC”). To make common exchange systems for legally valid communications interoperable, it will not be enough to compare national solutions; work is needed on a true single standard, easy to integrate with any system already used by companies, professionals and Government. Italy’s twenty years of experience, with wide adoption across all user segments, offers a broad base of good practices.



A European system only makes sense with true interoperability. If the rules are updated but national systems still don’t talk to each other, nothing changes: I see no advantage. If integration and validity are created across all Member States, the value is extraordinary. Interoperability is the key word, and it must be at the heart of any reform of the System.”

IT Manager, central government

The future of PEC: Digital sovereignty and AI

AI is disrupting how companies, Government and professionals transform processes and operating models. For PEC, AI is a driver of evolution that goes well beyond automating operational tasks. It can amplify PEC’s distinctive value by adding intelligence to the management, security and use of the information held in certified communications (Figure 10):

²⁹“Qualified PEC” means, in general terms, PEC’s evolution toward the requirements for qualified electronic registered delivery services under eIDAS 2. Full mutual recognition among Member States requires national systems to align technically and legally with European requirements; it does not follow automatically from the regulation taking effect.

- **Security alerts.** Automated security alerts are by far the most requested AI feature among companies/Government/professionals (54%), most strongly among companies (63%), followed by Government and professionals. This reflects growing exposure to phishing, social engineering and fraud, which large organizations perceive as most urgent (72%): risk awareness rises with operational scale.
- **Summary creation.** Automatic content summarization is the second most requested feature (46%), and professionals' top priority (50%). Lawyers, notaries and accountants handle high volumes of certified documents and benefit directly from a system that automatically extracts the key points from deeds, rulings and tax communications.
- **Advanced search and classification.** Advanced semantic search (finding PEC messages by concept or topic, not exact keyword) is requested by 43% of business users, led by companies (48%) and professionals (46%). Business users are also interested in automatic message classification and routing. Both are largely operational features tied to handling large volumes.



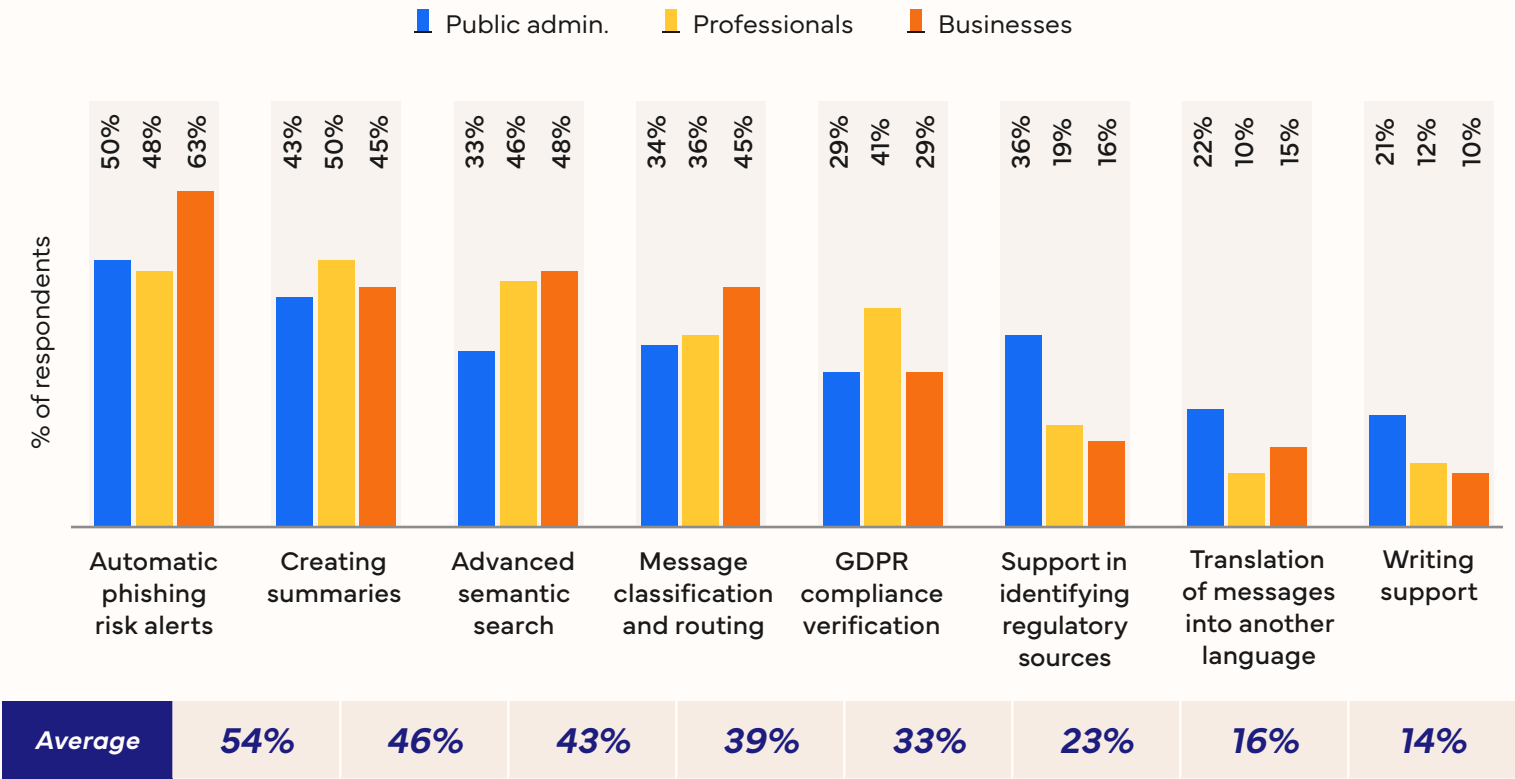
AI is definitely an accelerator when analyzing and understanding PEC content. I am more skeptical about writing, but document analysis applied to incoming communications is very promising for Government. The document stays central, and processing it intelligently makes the difference. PEC's large volumes and case types call for routing and triage; AI adds value by making incoming document management more efficient and accurate."

IT Manager, central government

Figure 10

The impact of AI on PEC

Q. Which artificial intelligence features do you think could increase the benefits of PEC?

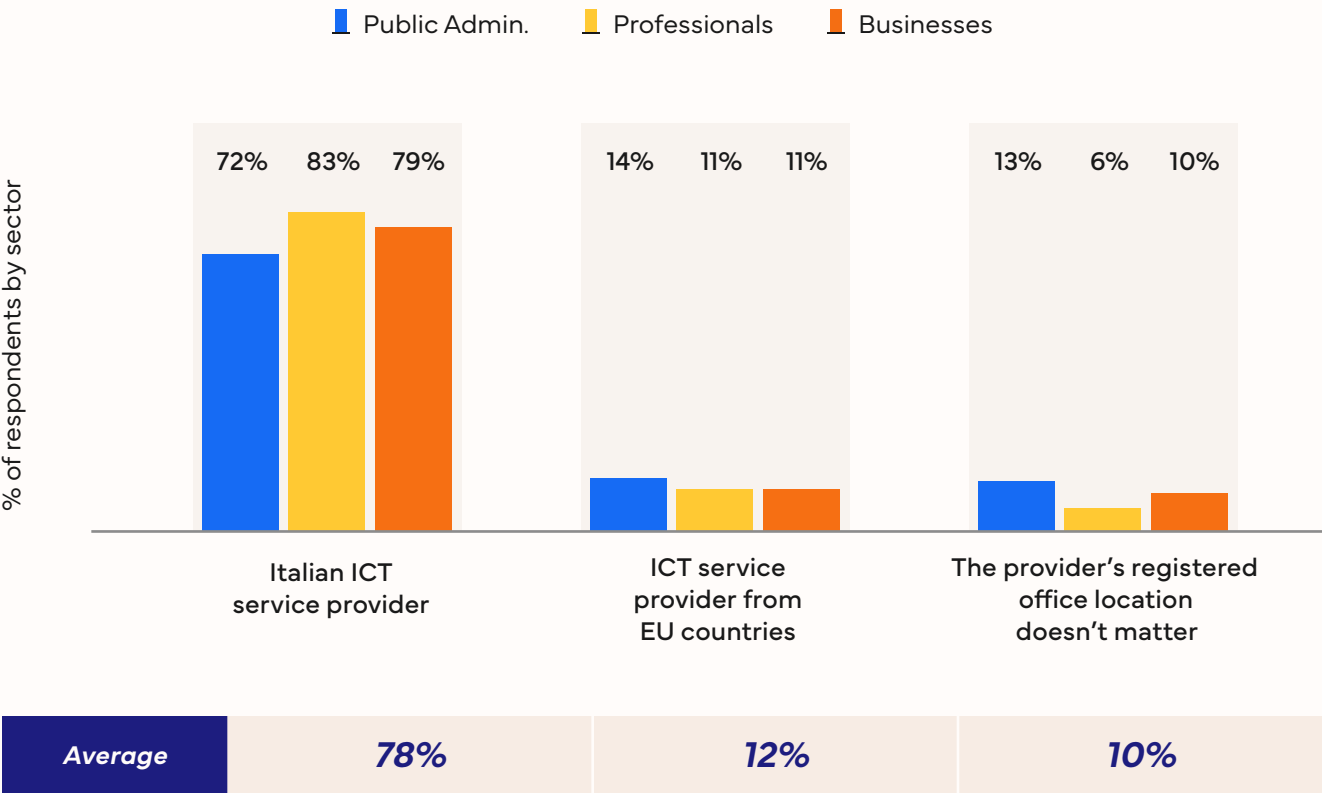


Source: PEC Italy business segment survey, IDC, April 2026 (N = 300)

Alongside accelerating AI adoption, the ICT market is grappling with digital sovereignty. Rising geopolitical uncertainty has increased the need to control not only how and where data is stored and managed, but also to reduce technical and contractual dependencies, strengthen operational resilience and regulatory compliance, and invest in national technologies to reinforce the local supply chain. The IDC study shows that preference for Italian or European providers is a structural demand factor: 78% of companies/Government bodies/professionals prefer Italian providers for PEC and digital trust services (Figure 11). This reflects deep institutional trust. Certified communication services handle sensitive data, legally relevant documents and confidential information, in line with the eIDAS 2.0 framework and new European policies such as the European Commission’s Cloud Sovereignty Framework.

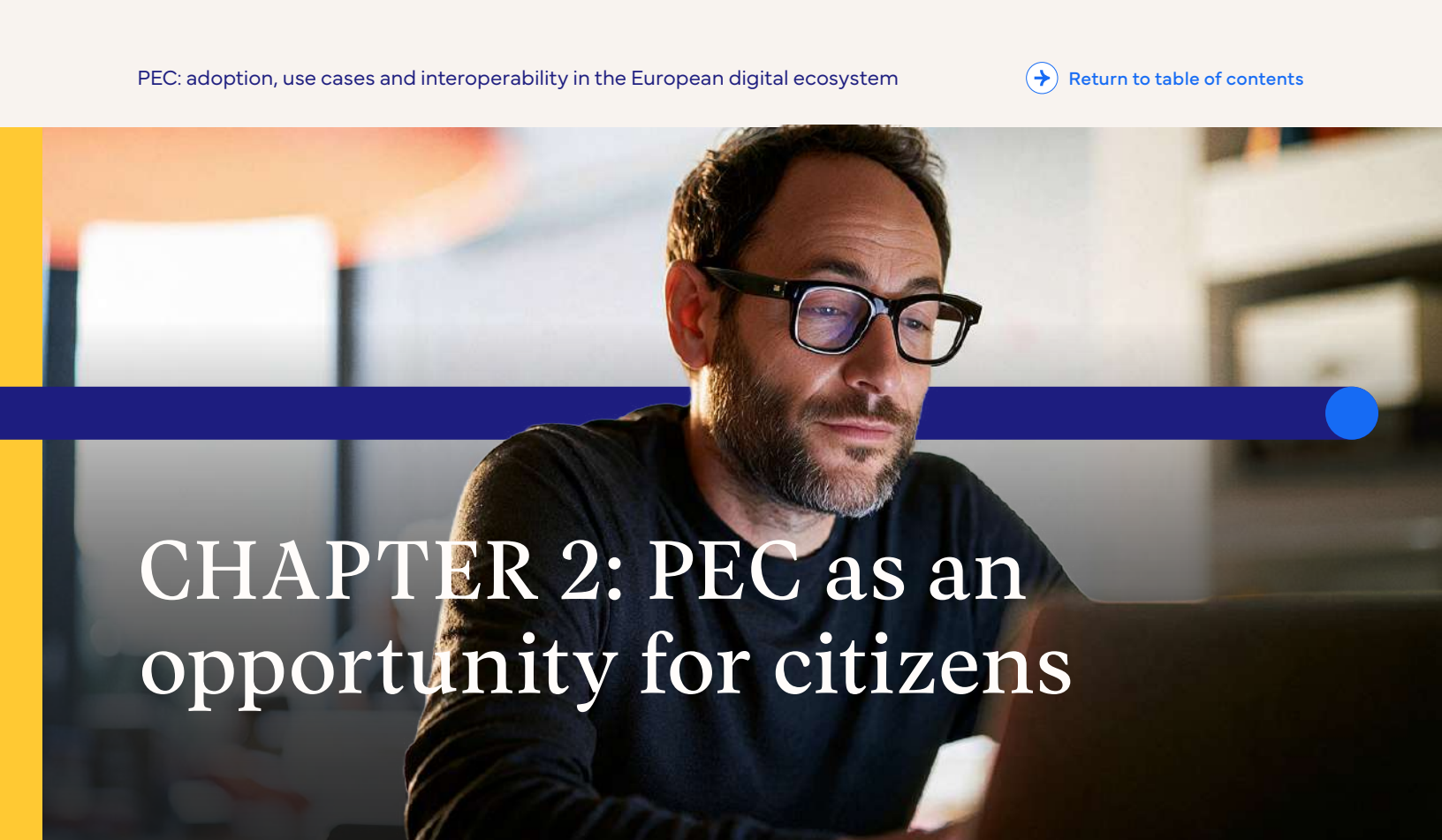
Figure 11
Digital sovereignty

Q. What type of provider does your organization prefer to use for PEC and other trust services?



Source: PEC Italy business segment survey, IDC, April 2026 (N = 300)

The convergence of AI and digital sovereignty points to PEC's direction: users expect local providers of PEC and other digital trust services to ensure compliance with Italian and European rules.



CHAPTER 2: PEC as an opportunity for citizens

The lack of a regulatory obligation has not stopped adoption among citizens. First driven by the usefulness of communicating with Government, citizens then discovered PEC's value with professionals and companies. Gaps remain in full knowledge and awareness of its value.

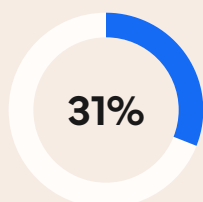
Growing adoption

In the citizen segment the number of active mailboxes is rising, but knowledge and use vary by demographic. PEC users skew younger (75% are under 54) and more educated (53% hold a university degree or higher), a gap to close in knowledge and accessibility for older and less educated users.

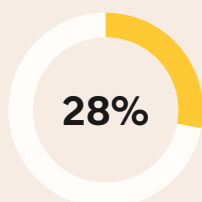
Among citizens who use PEC, 31% use it daily or weekly to communicate with companies, followed by Government (28%) and professional firms (26%); communications between

private individuals remain marginal (23%). For most, frequency is lower than in the business segment: 48% use it only a few times a year with Government, pointing to need-driven use, such as receiving notifications or entering public competitions, rather than routine.

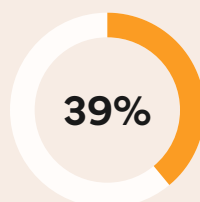
The outlook is still growth: 44% of active users plan to use PEC more with Government over the next 12 months, and 39% with companies and professionals, while fewer than 10% expect a decrease.



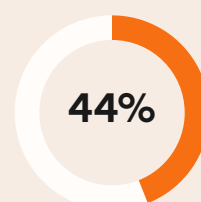
citizens who use PEC daily or weekly to communicate with private companies



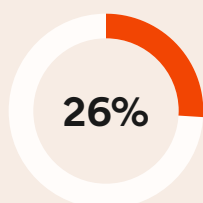
citizens who use PEC daily or weekly to communicate with Government



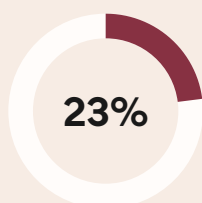
plan to increase their use of PEC with private companies over the next 12 months



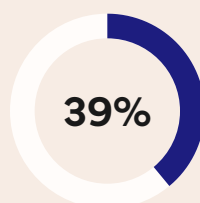
plan to increase their use of PEC with Government over the next 12 months



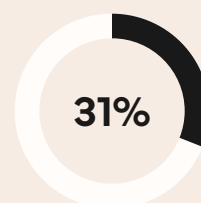
citizens who use PEC daily or weekly to communicate with freelance professionals/professional firms



citizens who use PEC daily or weekly to communicate with other citizens



plan to increase their use of PEC with professionals over the next 12 months



plan to increase their use of PEC with other citizens over the next 12 months

Source: PEC Italy CITIZENS survey, IDC, April 2026 (N = 600)

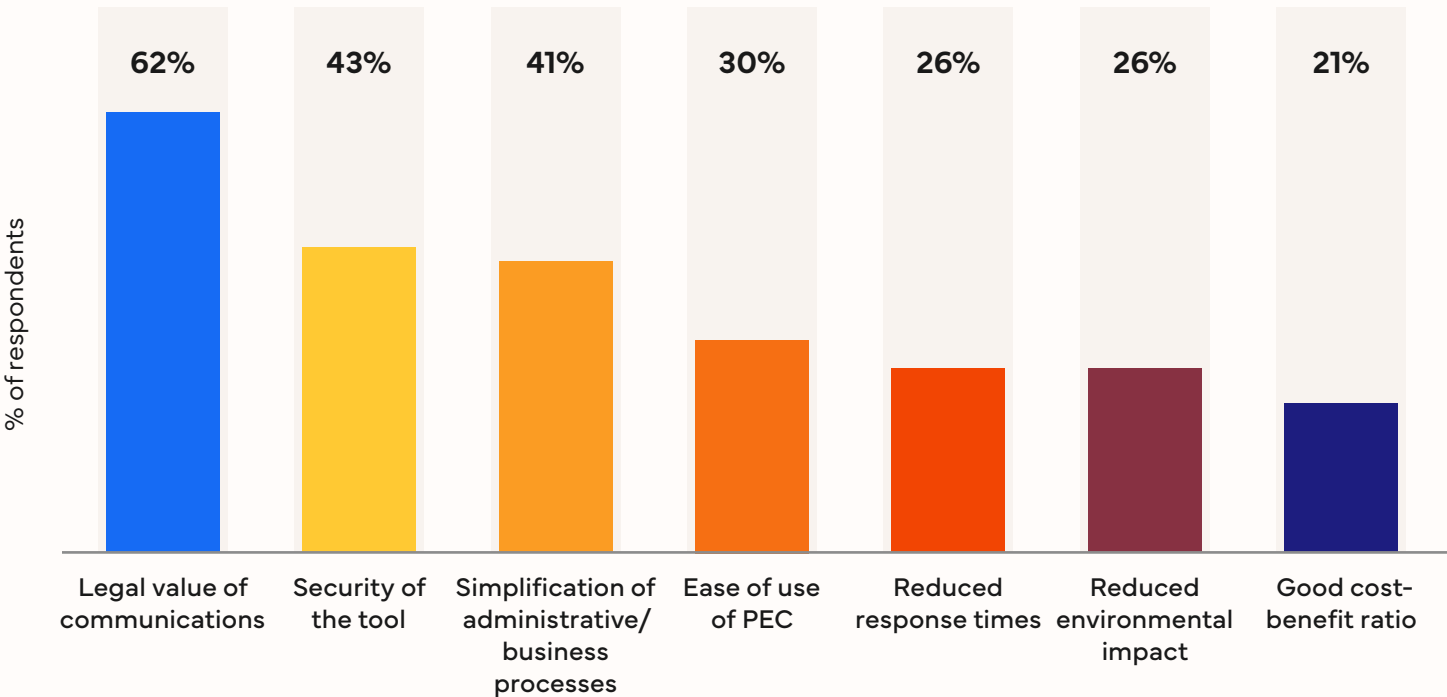
Trusted communications and ease of use as priority benefits

Legal value is the top benefit, cited by 62% of citizens, followed by security (43%) and simpler administrative and/or business processes (41%).

Citizens also value ease of use (30%) more than business users do, clearly equating the PEC experience with traditional email; environmental impact also matters more to them (26% of the sample).

Figure 12
PEC benefits

Q. What are the main benefits you see in using PEC? [Select up to 3 options]



Sources: PEC Italy CITIZENS survey, IDC, March 2026 (PEC users n = 600)

Among citizens without an active PEC mailbox, 28%, about 10 million people, are interested in activating one within 12 months. More communications with Government are the main driver (Figure 13).

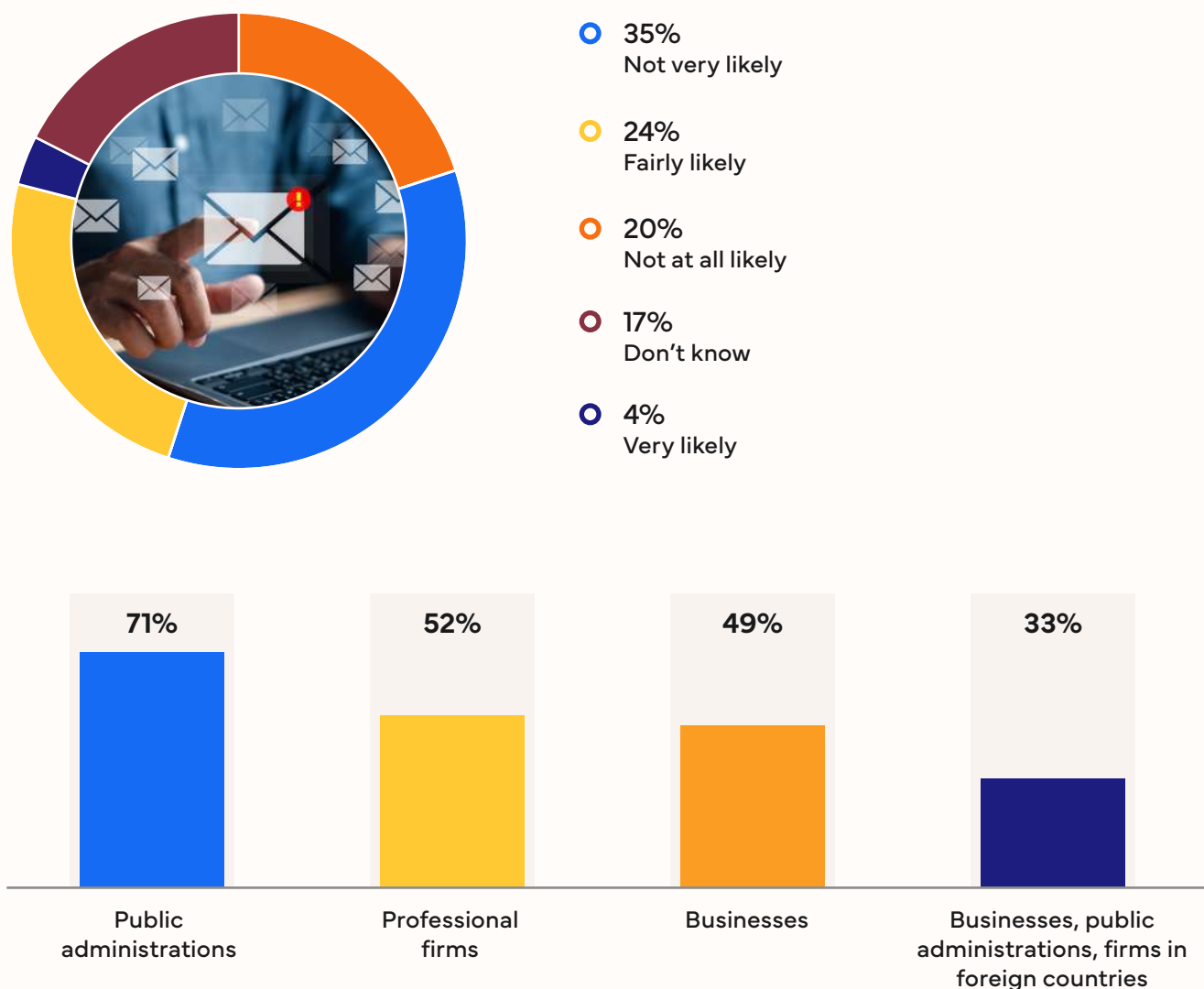
Figure 13

PEC adoption potential among non-users

Q. Over the next 12 months, how likely do you think you are to activate a PEC mailbox?

Q. For communicating with which of the following users do you think PEC could be most useful?

[Select up to 3 options]



Source: PEC Italy CITIZENS survey, IDC, April 2026 (N = 200)

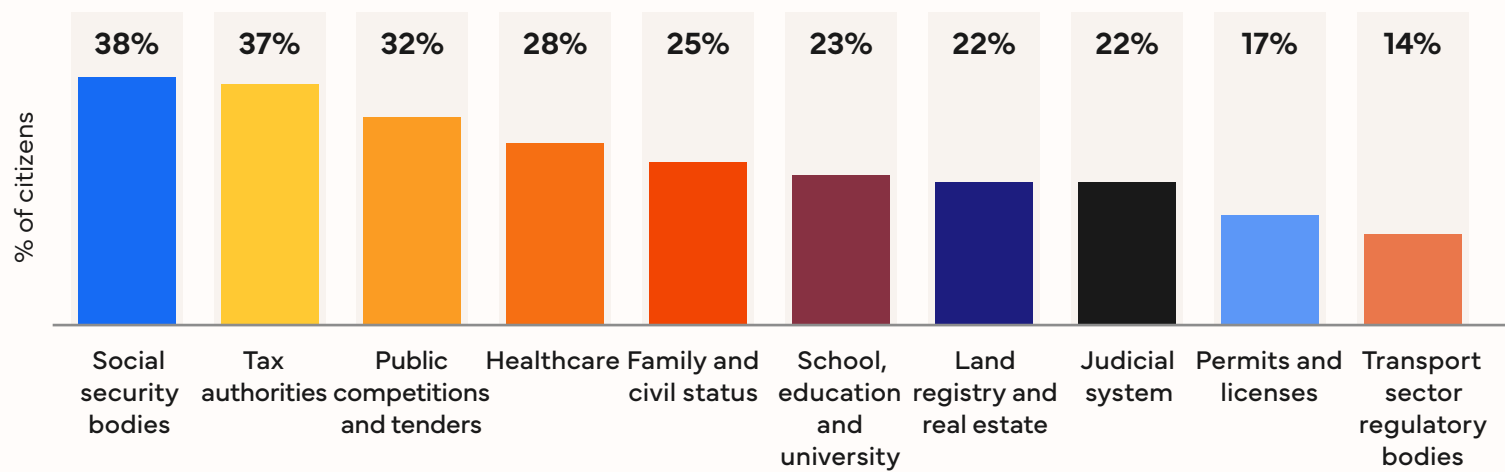
PEC use cases: From necessity to opportunity

As in the business segment, the use case analysis shows that the image of PEC as a tool mainly for formal and/or penalty-related notifications gives only a partial view of its value. Citizens also use PEC with Government to pursue opportunities: 62% of those with a mailbox use it to submit applications for public competitions. Exchanges between citizens also reveal new uses: 20% expect to use PEC for condominium management matters.

Citizens to government communications

For citizens too, PEC enables opportunities: participation in public competitions and calls (32% of respondents) ranks alongside communications with social security institutions (38%) and tax authorities (37%) among the most frequent areas of use (Figure 14).

Figure 14
PEC citizens to government communications
Q. Which of the following use cases do you currently use PEC for when communicating with government?



Source: PEC Italy CITIZENS survey, IDC, March 2026 (N = 600)

Within these areas of communication with Government, the most relevant use cases (Figure 15) are submitting applications and registrations for public calls and competitions (62% of respondents), for example the MaD (Messa a Disposizione) to be hired as a teacher in public schools. 36% also cite sending documents for school enrollment applications.

Figure 15

Priority PEC use cases in citizens to government communications

Q. Which of the following use cases do you currently use PEC for when communicating with government?

		#1 PEC use case	#2 PEC use case
Social security bodies		Communications on contributions and account status	Submitting pension or other benefit applications
Tax authorities		Submitting applications and requests	Submitting supplementary documentation
Public competitions and tenders		Submitting applications to participate	Receiving summonses/appointments
Healthcare		Requests for access to documents/records	Requests for exemptions and certifications
Family and civil status		Requesting civil status certificates	Change-of-residence notifications
School, education and university		Submitting enrollment applications	Submitting scholarship documentation
Land registry and real estate		Communications with the Revenue Agency/Land Registry	Communications related to property searches
Judicial system		Receiving notifications from judicial offices	Requests for certificates and copies of documents
Permits and licenses		Submitting technical documentation	Notifications of business start-up or closure
Transport sector bodies		Submitting documents for licenses or vehicles	Communications with the Vehicle Registration Office

Source: PEC Italy CITIZENS survey, IDC, March 2026 (N = 600)

PEC as a strategic element of the trust services ecosystem

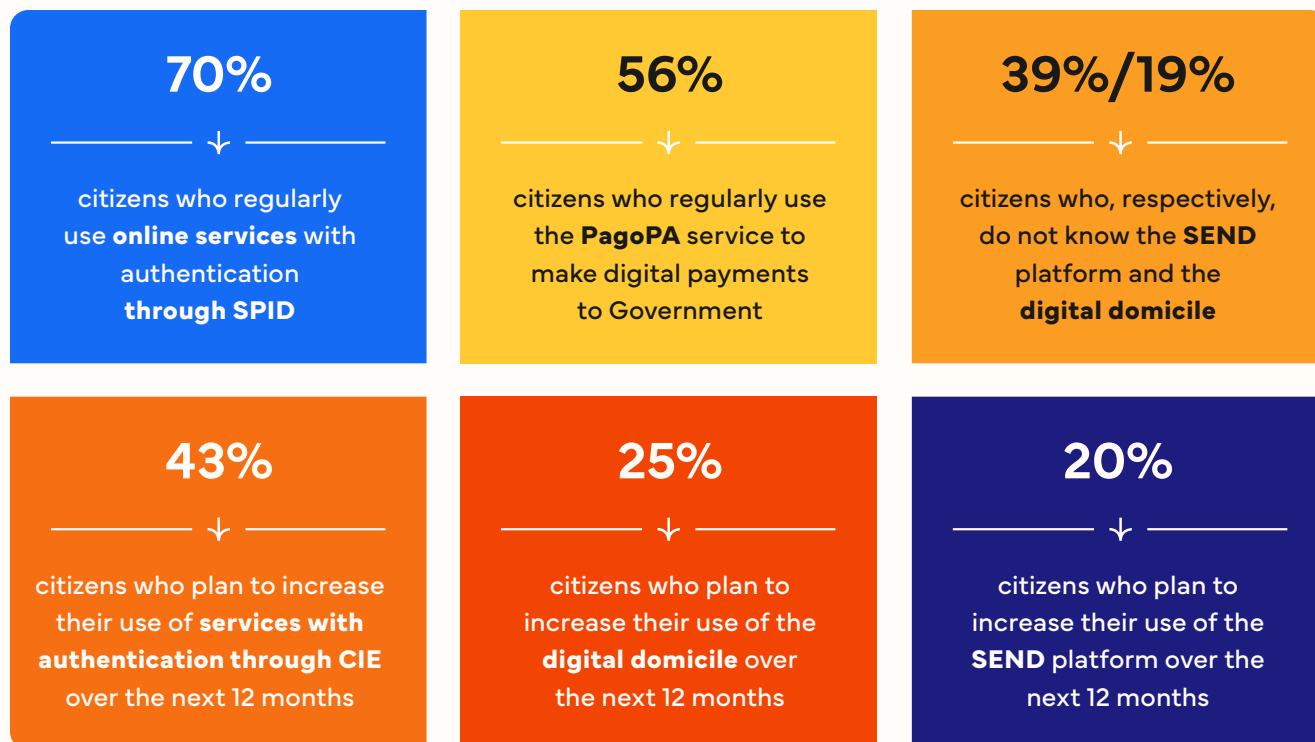
Citizens perceive that greater availability and security of digital services (authentication via CIE or SPID) could replace PEC (62% of current PEC users), but the European Commission's annual eGovernment Benchmark tells a different story.

A closer look shows citizens use PEC to complement online services where digital services exist, and to supplement them where digital services are less developed.

- Social security institutions, citizens' leading area of PEC use, illustrate the first case (PEC complementing digital services). According to the EC eGovernment Benchmark, Italian social security institutions' digital services are quite sophisticated; yet one of citizens' most frequent use cases is sending these bodies communications about changes in contribution positions. Justice is similar: the EC eGovernment Benchmark shows good results for Italy, yet one of the most frequent PEC use cases is requesting copies of documents from judicial offices.
- Healthcare illustrates the second case (PEC supplementing digital services): among citizens who use PEC in healthcare (28% of the total, Figure 14), 34% use it specifically to request access to information in their medical records, reflecting Italy's gap in the eGovernment Benchmark on availability of online healthcare services.

In short, PEC is not just a first step toward more digital communication between Government and citizens, but a key component of a digital trust services ecosystem that makes the citizen experience more convenient and secure.

Moreover, the most recently introduced services, SEND and the digital domicile, still little known among Italian citizens, have processes intrinsically tied to PEC.



Source: PEC Italy CITIZENS survey, IDC, March 2026 (N = 800)

Communications between citizens, companies and professional firms

Beyond Government communications, although citizens use PEC less often than the business segment, the variety of use cases with companies and professionals is widening: with companies, current use focuses on contract withdrawals and cancellations, and managing returns and complaints is expected next. Between citizens, PEC is emerging for condominium matters.

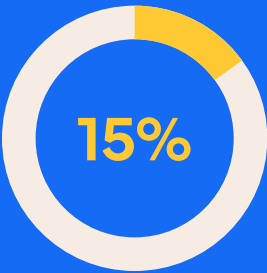
Figure 16
Evolution of PEC use cases for citizens to businesses and professionals communications
Q. Which of the following use cases do you currently use PEC for when communicating with private companies/ professional firms?

Top use cases for citizens	
... in communications with professional firms	• Current – tax and fiscal compliance • In 12 months – exchange of tax and accounting documentation
... in communications with businesses	• Current – Contract withdrawal, cancellation or termination • In 12 months – Returns and complaints management
... in communications with private individuals/citizens	• Current – Withdrawal or termination of private agreements • In 12 months – Condominium management

Source: PEC Italy CITIZENS survey, IDC, March 2026 (N = 600)

Open challenges to international PEC adoption

Though less than in business, citizens also communicate abroad. 15% exchange communications with legal value with foreign entities, and most choose digitally signed documents followed by traditional email (43% and 42%). Only 33% of these use PEC, despite the lack of technical interoperability and mutual recognition among national systems for PEC exchanges abroad.



Citizens who exchange communications with foreign counterparties

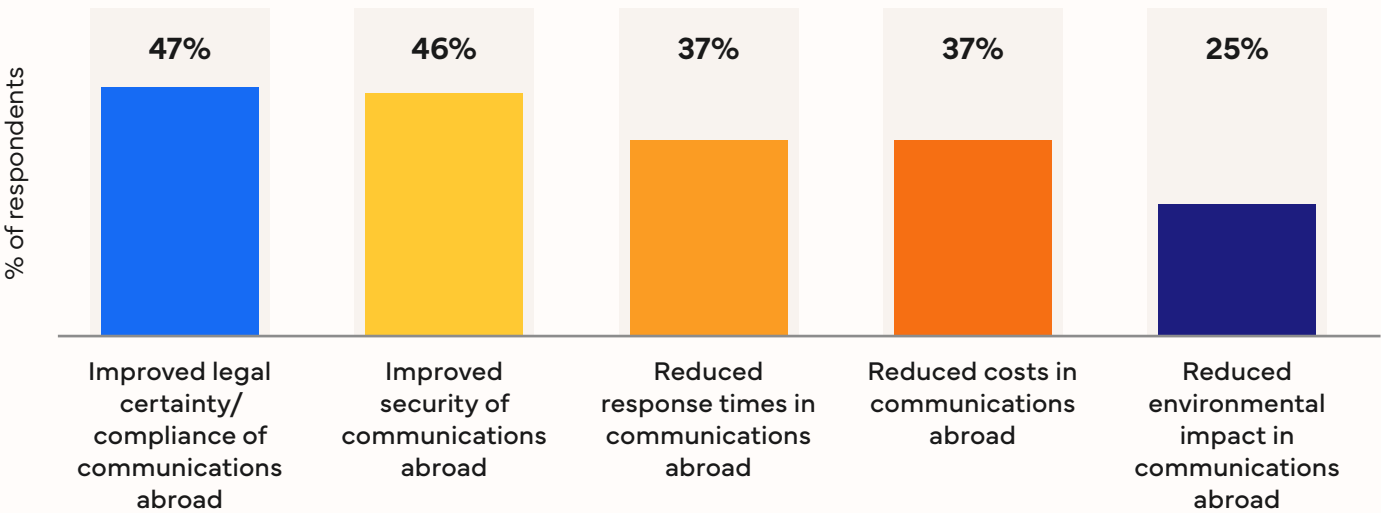


33%
use PEC

A European extension of PEC would help citizens gain legal certainty (47%) and security (46%), and cut costs and response times (37%). Latent demand is significant too: among citizens who do not yet use PEC abroad, 76% are interested in using it with foreign Government bodies, 71% with professional firms and 68% with companies, a sizable potential user base that a coherent European framework could activate.

Figure 17
Benefits of using PEC beyond Italy

Q. What benefits do you expect if the use and legal value of PEC were extended across the whole EU in an interoperable way? [Select up to 3 options]?



Sources: PEC Italy CITIZENS survey, IDC, March 2026 (n = 124)

The future of PEC in the age of AI

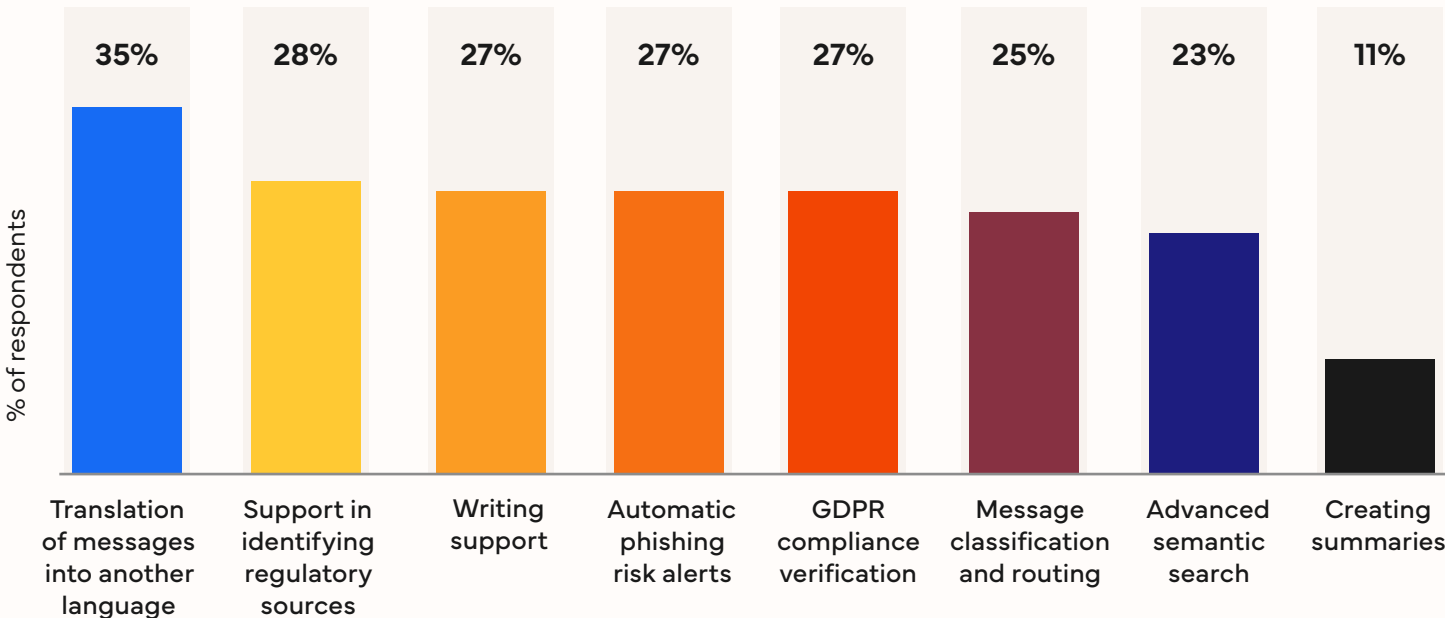
Social media, e-commerce, smartphone assistants and hyper-connected products used daily at home have raised interest in AI’s benefits. This shows in the potential for AI in PEC (Figure 18):

- **Translation.** The AI feature citizens request most (35%).
- **Help finding sources and writing messages.** 28% and 27% of citizens, respectively, find AI tools useful for looking up regulatory sources and preparing communications. Together they would make communications clearer and more compliant.
- **Security alerts.** Citizens worry about security: 27% want automatic phishing alerts.

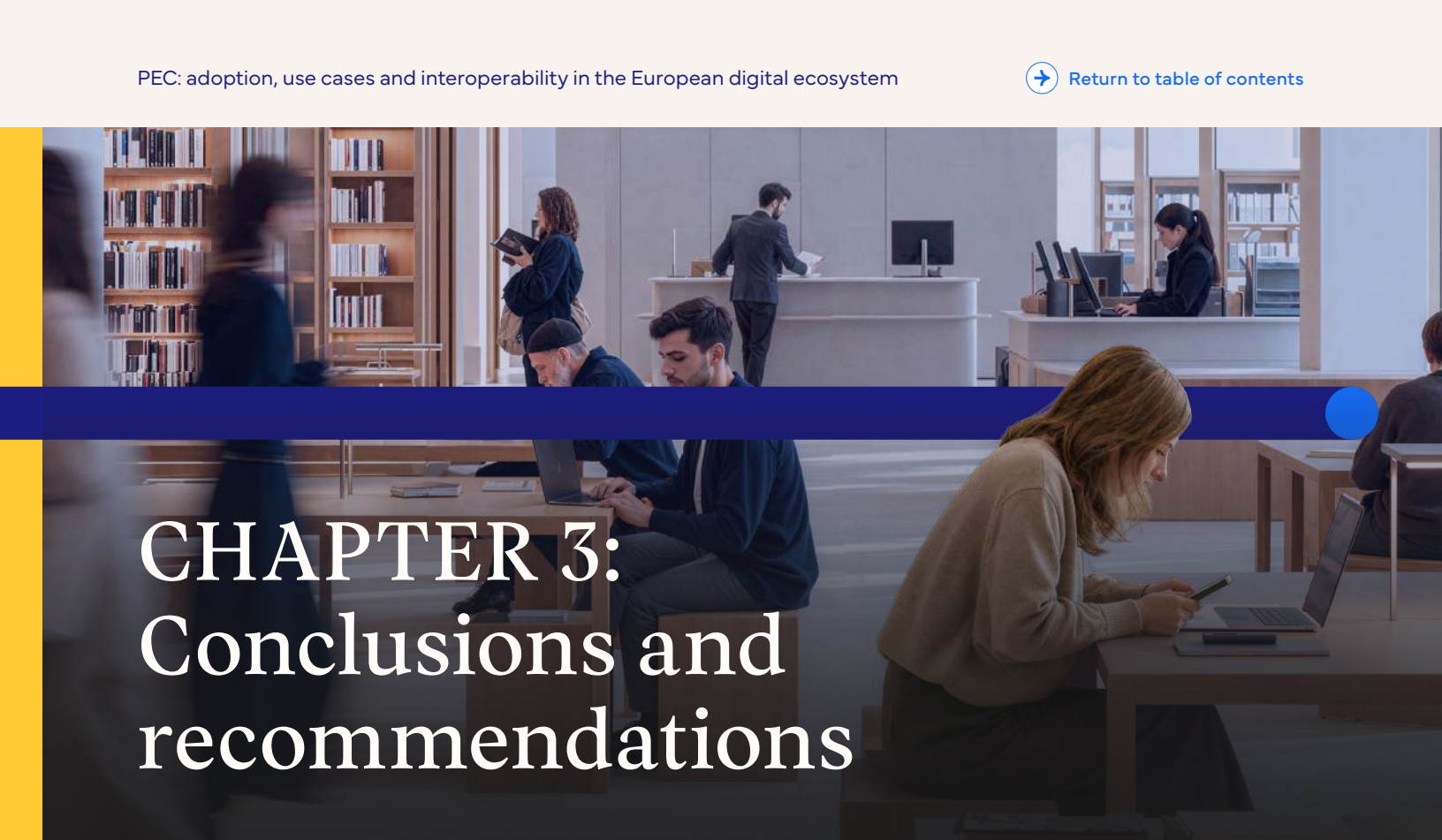
Figure 18

The impact of AI on PEC

Q. Which artificial intelligence features do you think could increase the benefits of PEC?



Source: PEC Italy CITIZENS survey, IDC, March 2026 (N = 800)



CHAPTER 3: Conclusions and recommendations

The IDC study confirms PEC as mature digital infrastructure with solid growth and an expanding scope. The three market segments, however, differ in maturity and priorities and need differentiated approaches.

Government: consolidate operational excellence

Government is the most mature segment, with widespread multi-mailbox adoption, advanced integration with IT and registry systems, and daily use in inter-institutional communications. The challenge is not adopting PEC but optimizing and expanding it.

- **Complete end-to-end integration, beyond the electronic registry system alone, to embed PEC in the workflows of the CRM** and cut response times to citizens, companies and professionals.
- **PEC as a key element in SEND's evolution**, developing operational guidelines that clarify how the two tools complement each other and drive widespread adoption among the thousands of bodies still onboarding.

- **Invest in AI:** prioritize security alerts and semantic analysis of incoming PEC content to reduce operational risk and officials' manual workload.

Companies and professionals: integrate, protect, internationalize, simplify

Professionals are intensive, qualified PEC users with well-defined use cases by segment (the judicial system for law firms; tax authorities and social security institutions for accountants). Priorities now are technical interoperability and connection to new digital ecosystems.

Companies show established PEC adoption but have significant room to improve, especially in systems integration, security posture and international communications.

- **Integrate PEC into core management systems** (ERP, CRM, e-procurement platforms). CRM and customer service integration is the highest-impact opportunity for customer experience.
- **AI for security alerts to improve user responsiveness:** large organizations rank AI alerts as their top priority. SMEs, more exposed to phishing and social engineering, need to be made aware of proactive monitoring tools.
- **Prepare for European interoperability:** institutions must govern PEC's evolution into a qualified system under eIDAS 2.0, so that companies with cross-border flows can start planning now to adapt PEC and the systems it is integrated with to the interoperability the regulation envisages, and keep the competitive advantage of legal certainty in international communications.
- **AI to support new solutions that improve business process efficiency** through automatic summarization and advanced semantic search, cutting the time spent handling large volumes of communications.
- **Strengthen integration with the Processo Civile Telematico and e-procurement platforms (MePA), also in light of the new Public Procurement Code,** which encourages professionals to register on digital platforms to work with Government.
- **Enhance the professional digital domicile** as a strategic tool of the digital trust services ecosystem.

Citizens: closing systemic gaps

The study identifies three systemic gaps that call for programmatic action in national and European policy:

- **Leverage Italian good practices to unlock European interoperability.** Lack of international interoperability is the barrier. Operational transposition of eIDAS 2 is a priority: set a roadmap with firm deadlines for qualified providers' technical alignment, launch bilateral interoperability tests with key EU partners, and share good practices from Italy's twenty years of experience to speed implementation in other Member States.
- **Address the digital divide among citizens.** Over 50% of PEC non-users still do not fully see the use opportunities and concrete benefits; adoption remains concentrated among younger, more educated citizens. A national communication and digital literacy plan is needed to turn awareness into widespread adoption and speed progress toward the European Digital Decade targets.
- **Start developing responsible AI use.** In line with European and national law on responsible AI, support investments that give users value-added AI features in PEC, such as translation, regulatory source lookup and security alerts.

PEC is a core component of the country's digital infrastructure. Strengthening its value, extending its European reach and combining it with AI and next-generation trust services is more than a market opportunity: it is a requirement for Italy's digital competitiveness in Europe.

Methodology note

This White Paper draws on two quantitative surveys IDC conducted in Q1 2026 and on qualitative interviews with representatives of companies, professional firms and Government. Together they allow a systematic analysis of the main PEC use scenarios in B2B and B2C.

The survey of the business segments (Companies, Professionals, Government) was conducted on a sample of 300 respondents using CATI (Computer Assisted Telephone Interviewing).

The survey covered three target segments:

- Companies (n=120), including organizations operating in healthcare and private education
- Government (n=90), including healthcare and public education
- Professionals (n=90), that is, professional firms of various sizes and specializations

Respondents include a mix of IT and Line of Business (LOB) roles. Screening ensured all participants were active PEC users or decision makers, managers or people involved in PEC adoption in their organization.

The **citizen segment survey** was conducted on 800 Italian citizens using CAWI (Computer Assisted Web Interviewing).

The target is individuals aged 18 to 74. The sample was balanced by gender, age and geography to represent the Italian adult population with access to digital tools.

For a complete market view, the sample included both active PEC users (n=600) and non-users familiar with the concept of PEC (n=200).

To complement the quantitative data, IDC interviewed IT and process managers at Government bodies, professional firms and companies, to explore adoption drivers, how PEC is integrated into document workflows, perceived barriers and expectations for the service.

Appendix

Table 1

A1 – DEFINITIONS

Main digital trust services in Italy

Service	Description
Digital signature 	A cryptographic tool that gives an electronic document the same legal validity as a handwritten signature. It guarantees the signer's authenticity, content integrity and non-repudiation. In Italy, the qualified digital signature equals the handwritten signature under the Digital Administration Code (Codice dell'Amministrazione Digitale, CAD).
SPID 	SPID (Sistema Pubblico di Identità Digitale, the Public Digital Identity System) is the national authentication system that lets citizens and businesses access online services of Government and participating private entities with certified digital credentials.
CIE 	The CIE (Carta d'Identità Elettronica, the Electronic Identity Card) is a physical ID document with an NFC chip holding biometric data and digital certificates. It enables online authentication to Government services through a reader or NFC smartphone and can be an alternative to SPID. With the European Digital Identity Wallet (EUDI Wallet) under eIDAS 2.0, the CIE is set to become a pillar of the European digital identity ecosystem.
SEND 	The Servizio Notifiche Digitali (SEND, also called the "notification platform") is the national platform that lets Government send communications and notifications with legal value to citizens and businesses. SEND integrates with several digital delivery channels (App IO, PEC, ordinary email and SMS). Note that App IO, ordinary email and SMS mainly alert recipients that a notification exists (e.g., receipt of a document), whereas PEC is a channel with legal value and contributes to completing the notification.

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Massimiliano (Max) Claps is research director, Government Insights, at IDC EMEA. His research focuses on the impact of technology innovation on the public sector. He is also global lead analyst for the public transport ecosystem and coordinates IDC's research on cross-industry strategies and use cases in EMEA. Max has over 20 years of industry experience, with analyst and manager roles at IDC, Gartner and SAP, and contributes to ITU and European Commission working groups on smart cities, metaverse and citiverse.

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