



SERVIZI ON-LINE DI ROMA CAPITALE: LA QUALITA' EROGATA

Analysis of data on the delivery and use of Roma Capitale online services.

The Participation, Communication and Equal Opportunity Department inaugurates a study series for the evaluation and analysis of Roma Capitale services and policies. The first issue is devoted to an analysis of the quality delivered of Roma Capitale's online services. Starting with the comparison with other major Italian municipalities, the capital's performance in providing online services is analyzed, with a focus on the number, type and level of digitization. The central part of the report focuses on the use of online services by city users and Roman citizens, including through a focus on services usable both in presence and remotely and on less digitized users. Finally, the "online services" section of the Roma Capitale portal is placed under observation, thanks to a mapping of the services it contains and the relative level of digitization, accessibility and integration with other portal pages.



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**I. INTRODUCTION:
ROMA CAPITALE'S COMMITMENT
FOR THE DEVELOPMENT OF ONLINE
SERVICES AND THE CURRENT
REGULATIONS.**

1. Digitization of services: an ever-expanding process

Roma Capitale is engaged in a process to promote and foster digitization and the use of online services.

The Digital Agenda 2017/2021 and Roma Capitale's ICT Three-Year Plan 2018-2020 have achieved important goals, including the launch of the new institutional portal, the Single Signaling System (SUS), the open-data portal, and the new mapping infrastructure (NIC)¹.

The pandemic and the subsequent need to eliminate or reduce trips to the counters further strengthened the Administration's work to promote digital use of services. In the months of the lockdown (March-May 2020) and those immediately following, new pages and portals were opened, accessible from the institutional website, with services dedicated to managing the emergency and the subsequent recovery (Rome helps Rome, Rome restarts). A campaign aimed at promoting awareness of online services, a new welcome page intended as a single, intuitive gateway to online services, and a section of the portal dedicated to FAQs on online ^{services2} were also implemented.

The most profound and structural change in which the Administration is engaged, however, has been the adoption, as of April 1, 2021, of a Citizen Relationship Management system, that is, a unique citizen profiling-shared by the internal structures of Roma Capitale and,

1 For a review of achievements see <https://www.comune.roma.it/eventi/it/roma-innovation-goals-achieved.page>

2 For an analysis of Roma Capitale's online services see also ACoS, Rome Laboratory, The management of emergency, institutional communication and digitization of Roma Capitale services, July 6, 2020, https://www.agenzia.roma.it/documenti/schede/romalab_1_communication_and_digitization.pdf

over time, by the Participated Companies - allowing an organic management of its needs. With the gradual integration of all online services into the system, the citizen will have a personalized interface (MyRhome - Casa Digitale del Cittadino) where, by connecting to the Roma Capitale portal, he will find all the services and practices that concern him and can receive alerts and notifications tailored to his specific profile.

However, the picture is constantly evolving. [The Simplification Decree \(DL 76/2020\)](#) includes the obligation for public administrations to:

- Make all of its services usable digitally and initiate related digital transformation projects by February 28, 2021;
- enable access to its online services via mobile devices, including through the AppIO telematics access point.

The rule also introduces a requirement for all public administrations to divest their on- line identification systems and adopt only SPID and CIE (the Electronic Identity Card) digital identity to enable citizens to access digital services.

In the context of this progressive digitization, in order to reduce the digital divide, Roma Capitale has equipped itself with a network of 28 PProFs (Punti Roma Facile), assisted citizen support spaces in which activities aimed at disseminating, promoting and raising awareness of digital culture and implementing the use of technologies are offered. The activity involves individual, free, appointment-based coaching aimed at illustrating (and in some cases delivering) digital services such as, for example, procedures for registering with the Roma Capitale Portal and those for obtaining SPID, online school enrollment, issuing certificates, paying fines, etc.

2. The obligation to evaluate online services in current legislation

This system must undergo a periodic evaluation process as outlined in the relevant regulations.

The [March 24, 2004 Directive](#) on Perceived Quality Survey promoted the introduction of listening and participation methods in public administrations in order to improve services and calibrate them to the actual needs of citizens.

The [Digital Administration Code \(Legislative Decree 82/2005\)](#) contains an express reference to online services. Article 7 introduces the right to the use of simple and integrated online services, places the analysis of real user needs at the basis of the reorganization and updating of services (paragraph 1), and stipulates that administrations survey the level of user satisfaction also with special reference to the usability, accessibility and timeliness of the service rendered (paragraph 3). [ANAC Resolution 1310 of December 28, 2016](#) recalls Legislative Decree 82/2005, as amended by Legislative Decree 179/2016, with reference to the obligation to publish the results of surveys on user satisfaction with the quality of the service rendered, including usage statistics, and stipulates that such data must be published in the "Transparent Administration" section of institutional portals.

The [Directive of July 27, 2005-"Stanca Directive"](#)-in Article 7 goes into detail on how online services are evaluated, indicating one direct (questionnaire), one indirect (information acquired through email, contact center, etc.) and one technical (analysis of browsing behavior).

The Guidelines, provided for in Art. 4 of [Directive 8/2009](#) and drafted in [2010](#) and [2011](#), Agid's most recent Design Guidelines for PA Digital Services, and the Three-Year Plan for Information Technology in PA 2020-2022, also published by Agid, suggest criteria for improving websites and web services in terms of, among other things, design, user interface, management, updating, minimum content, privacy, security, and recall the importance of user evaluation to continuously improve the quality of institutional communication and services: "given the importance of usability in the interaction between user and web application, it is necessary to give the utmost attention to usability-oriented design and its measurement, through a process of including users from the service design stage, according to a person-centered (human-centered) model."³

3. Methodology and objectives of the analysis

In compliance with current regulations, the Participation, Communication and Equal Opportunities Department-in collaboration with the Statistics-Open Data OU, the Digital Transformation Department and the Roma Capitale Agency for the Control and Quality of Local Public Services-promoted an analysis of the quality of Roma Capitale's online services. Specifically, the analysis focused on the services available in the "online services" section of the institutional portal (<https://www.comune.roma.it/web/en/services.page?type=onl>). This is a section that contains services extended to various thematic areas and highly digitized (i.e., allowing the initiation and conclusion of proceedings entirely by telematic means).

³ Agid, Agid Design Guidelines for PA Digital Services, April 23, 2018, p. 42, https://www.agid.gov.it/sites/default/files/repository_files/design-italia.pdf

Table 1 - Main services present in the online services section of the Roma Capitale portal.

Category	Description
School	Nursery and preschool enrollment; payment of fees for school lunch and school transportation; digital scholarship application; book voucher management
Trade and enterprise	Single window for productive activities (SUAP)
Home and urban planning	Unified Services for Construction (SUE) - includes notice of commencement of work, amnesty procedures, consultation of habitability archive, access to digital archives (SIPRE); consultation of areas subject to expropriation
Tributes and fines	Includes miscellaneous payment services (e.g., traffic tickets, residence fees, reversals, fee for advertising initiatives or for the occupation of public spaces and areas) and tax services, such as consultation of IMU and ICI declarations
Registry	Includes changes of residence, marriage banns, registry and marital status certificates, voter registration for poll workers/polling place chairpersons and popular judges
Culture	Access to the services of the Libraries of Rome; public performance authorizations

Source: Roma Capitale, Department of Participation, Communication and Equal Opportunities.

In the following pages we propose an analysis of the quality delivered of online services, that is, a reading based on data that is as "objective" as possible and on quantitative statistics. In particular, we will focus on aspects related to the delivery of online services - including through a comparison between Roma Capitale and other provincial capitals and metropolitan cities - and their use by Roman citizens.



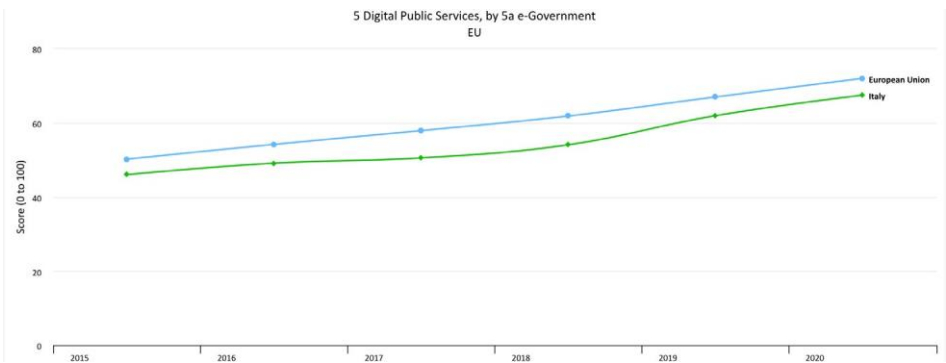
II. ANALYSIS OF THE QUALITY
PROVIDED OF ONLINE SERVICES:
STUDY.
QUANTITATIVE DATA.

1. Lacking digitization: Italy in the European context

According to the Digital Economy and Society Index Report 2020 (DESI)⁴ statistics, Italy ranks 20th out of 28 European countries (the statistics include the United Kingdom) in the provision of public digital services and drops further in the rankings with reference to internet access and usage: 2nd place for the percentage of households (23%) using only mobile broadband to connect to the internet, 6th place for the percentage of individuals who have never used the internet, 24th for the number of people who regularly use the internet (at least once a week), third to last place in the use of internet services (the figure includes normal web use, e-banking, online shopping, access to audio and video content and social), and last place for digital skills (the figure refers to both common and specialized skills).

Italy's disadvantage in the use of digital public services compared to the European average-and the constancy, over the years, of this trend-is well

Chart 1 - Use of digital public services in Italy and Europe - 2015/2020



Source: Open Data DESI

⁴ European Commission, Digital Economy and Society Index Report 2020 - Thematic chapters, pp. 17, 34, 52, 58, 59, https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=67086

viewable through Chart 1 , calculated as a weighted average of five indicators: users, pre-filled forms, online service completion, digital public business services, and open ^{data5}.

2. Online service offerings: good performance of the Capital

If we narrow our gaze from Europe to Italy and compare data on the provision of online services by municipal administrations, we note an excellent performance of the Capital.

In the 2020 I city rankings promoted by Forum PA, Roma Capitale takes the national lead in the field of online services, followed closely by Pisa, Prato, Bergamo and ^{Cremona6}. The ranking is the result of two direct surveys conducted by Forum PA (in May and October 2020) on the sites of the capital city administrations,

Chart 2 - Top 10 municipalities - Online services 2020



Source: PA Cities Forum, I city Rank 2020, p. 11

5 [https://digital-agenda-data.eu/charts/desi-see-the-evolution-of-two-indicators-and-compare-countries#chart={%22indicator%22:%22desi_5_dps%22,%22breakdown%22:%22desi_5a_egov%22,%22unit-measure%22:%22egov_score%22,%22ref-area%22:\[%22EU%22,%22IT%22\]}](https://digital-agenda-data.eu/charts/desi-see-the-evolution-of-two-indicators-and-compare-countries#chart={%22indicator%22:%22desi_5_dps%22,%22breakdown%22:%22desi_5a_egov%22,%22unit-measure%22:%22egov_score%22,%22ref-area%22:[%22EU%22,%22IT%22]})

6 Forum PA Cities, I city rank, annual report 2020 - Digital Transformation Index, Dec. 16, 2020, p. 11

tended to verify the presence of 10 online services chosen from the 24 identified by the Court of Accounts in its "Questionnaire for assessing the status of implementation of the Three-Year Plan for Information Technology in PA."

The last two reports on Equitable and Sustainable Welfare (BES) in Rome (2019 and 2020)⁷ show, moreover, that Roma Capitale has maintained (and increased) over time an advantage over the average of large Italian municipalities both in the number of services offered and in the percentage of services with initiation and conclusion via telematics. Thus, we are talking about those services that can be obtained without ever going to the counter: for example, the possibility of enrolling a child in a nursery school, consulting rankings, paying the school canteen, and submitting an SCIA exclusively through the digital channel.

Tab. 2 - Number and level of digitization of online services in Rome and other major Italian municipalities- 2016/2018

Reference territories	No. services		% services with initiation and conclusion by electronic means out of total online services	
	2016	2018	2016	2018
Rome Capital	35	38	42,9%	44,7%
Large Municipalities	31	33	30,5%	27,6%

Source: Roma Capitale - Bureau of Statistics, *The Equitable and Sustainable Well-being in Rome, 3rd report*
 - 2020 (processing Rome Capital Brand Office)

7 Roma Capitale, Bureau of Statistics, Fair and Sustainable Well-Being in Rome, 2nd report, 2019, p. 114, https://www.comune.roma.it/web-resources/cms/documents/BES_2019_final_last.pdf; Roma Capitale, Bureau of Statistics, Fair and Sustainable Well-Being in Rome, 3rd report, 2020, pp.130 and 136, https://www.comune.roma.it/web-resources/cms/documents/Bes_Roma_2020_final.pdf

The information provided by Istat through the survey on the environmental data of cities⁸ makes it possible to analyze the level of interactivity of specific services in provincial capitals and metropolitan cities. The level of interactivity is identified on the basis of the current legislation, which, starting with the Directive of July 27, 2005 and based on what was stated in the report of the Presidency of the European Council of Nice in November 2000, has been responsible for defining a classification in this regard⁹. The table below provides a summary of the first 4 levels of interactivity contained in the Guidelines for PA Websites¹⁰.

8 Survey of city environmental data, Tables on eco-management, <https://www.istat.it/it/archive/244648>

9 Directive of July 27, 2005, Presidency of the Council of Ministers, Department of Innovation and Technology. Quality of Online Services and Measurement of User Satisfaction (OJ General Series No. 243 of 18-10-2005), https://www.gazzettaufficiale.it/atto/serie_general/loadDetailAct/original?act.datePublicationGazette=2005-10-18&act.codeRational=05A09847&list30days=false

10 Guidelines for PA Websites, 2011, p. 19, <https://www.univaq.it/include/utilities/blob.php?item=file&table=attached&id=2842>. The Guidelines identify a fifth level of interactivity that is not, however, considered in the Istat survey, that of "personalization" in which the user, in addition to performing the entire cycle of the administrative procedure of interest online, receives information (deadlines are reminded, the outcome of the procedure is returned, etc.), which is sent to him/her in advance, based on the linked profile (so-called proactivity).

Tab. 3 - Levels of interactivity.

Level of interaction	Primary objectives	Services offered
Level 1	Information	Information is provided to the user about the administrative process (e.g., purpose, application deadlines, etc.) and, if applicable, how to Of fulfillment (e.g., locations, counter hours)
Level 2	One-way interaction	In addition to the information, forms are made available to the user for requesting the administrative act/procedure of interest that must then be submitted through traditional channels (e.g., change of residence form or self-certification forms)
Level 3	2-way interaction	The user can initiate the administrative act/process of interest (e.g., the form can be filled in and submitted online) and only the data entry is guaranteed to be taken online by the user and not their contextual processing.
Level 4	Transaction	The user can initiate the administrative act/process of interest by providing the necessary data and execute the corresponding transaction entirely online, including any payment of the prescribed costs.

Source: *Guidelines for PA Websites, 2011, p. 19*

In the following tables we offer a comparison of Rome, Milan, Turin and Naples, i.e., the capital cities of the first four Metropolitan Cities by population.

An overall look, shows an advantage of Roma Capitale in both the number of services offered and the percentage of services with initiation and conclusion of proceedings exclusively online.

Tab. 4 - Number of online services and percentage level of interactivity - Major municipal governments - 2018

Municipality	Number of online services	Level of interactivity (%)			
		Level 1	Level 2	Level 3	Level 4
Turin	34	17,6	23,5	38,2	20,6
Milan	34	56,7	-	16,7	26,7
Rome	38	33,7	31,6	-	44,7
Naples	37	24,3	24,3	18,9	32,4

Source: Istat, *Environmental Data in Cities*

Table 7 shows the level of interactivity of some specific services in the 4 selected capitals. For each service provided by the Administration, the level of interactivity is indicated (1 to 4 as shown in Table 7) or the reason for not being on the institutional portal (5 = The service is not available on the site; 6 = The service is not within the jurisdiction of the Authority).

Table 5 - Level of interactivity of some individual services - 2018

AREA	SERVICE	Turin	Milan	Rome	Naples
REGISTRY SERVICES	Biographical certificates	4	4	4	4
	ID card	2	3	1	1
	Change of address or residence	3	3	2	4
ELECTION OPERATIONS	Application for a voter card	3	1	1	1
	Membership/deletion from the Presidents' Register.	3	1	2	4
	Enrollment/deregistration of tellers.	4	1	2	4
WELFARE SERVICES	Disability mark	2	1	4	4
	Family unit allowance	3	5	5	2
PRODUCTIVE ACTIVITIES	SUAP - Single window for productive activities.	3	1	4	4
	Declaration of commencement of productive activity (DIAP)	3	1	2	3
	Building permits (e.g., SCIA, DIA)	4	3	2	3
	Land Registry Visits	6	3	5	6
REAL ESTATE AND LAND	SUE - Single window for construction.	3	3	4	3
	Request for zoning certificates	4	1	2	3
	Municipal property tax (ICI/IMU)	2	4	4	4
	Tax on Occupation of Public Spaces and Areas (TOSAP)	2	4	4	2
	Application for concession of state property	6	5	1	6
CULTURAL AND TOURISM SERVICES	Catalog consultation and library lending	3	5	4	1
	Booking tourist services	6	6	1	1
	Subsistence fee	1	5	4	4
	Funding request for recovery and restoration of public and worship buildings	6	5	1	2
TRIBUTES AND SANCTIONS.	Tax for the disposal of municipal solid waste (Ta.Ri)	2	4	4	4
	Concessionary charges for advertising initiatives	2	5	2	4
	Penalties for advertising initiatives	3	5	4	2

AREA	SERVICE	Turin	Milan	Rome	Naples
SCHOOL SERVICES	Nursery school enrollment	4	4	4	4
	School cafeteria services	2	4	4	4
	School transportation contribution	3	6	4	6
TRAINING AND WORK	Database jobs	1	5	1	1
	Public competitions	4	4	2	2
	Enrollment in professional training courses	3	4	4	1
VIABILITY	Parking payment service	6	1	4	4
	Limited traffic zone (ZTL) transit permit	2	1	4	3
	Contraventions	1	1	4	2
	Request for traffic accident reports	3	1	1	2
	Information on removed vehicles	1	1	1	1
ENVIRONMENTAL SERVICES	Environmental Permits	3	1	2	2
CEMETERY SERVICES	Cemetery Services	5	1	2	1
OTHER SERVICES.	Calls for tenders	4	1	2	3
	Venue rental for civil wedding celebration	1	1	1	2
	Lost and found	1	1	2	1
	Online booking of appointments with municipal office contacts	x	x	x	x

Source: Istat, *Environmental Data in Cities*

The level of digitization can also be calculated by the number of smartphone-accessible Apps made available by the administration. Rome, like Naples, has made Apps for all sectors surveyed by Istat and shows a good level compared to the average of provincial capitals and metropolitan cities.

Tab 6 - Applications for mobile devices such as smartphones, PDAs and tablets (Apps) that provide information and/or utility services - 2018

SERVICE	Turin	Milan	Rome	Naples	Italy (a)
Culture, tourism and/or sports (events, theater, guides, museums, libraries, facilities and facilities...)	x	-	x	x	54
Waste (separate collection, door-to-door, clean city...)	x	-	x	x	48
Mobility (bicycle use, removed vehicles, architectural barriers, parking, train...)	x	-	x	x	47
"Youth info" (concessions, events, etc.).	x	-	x	x	19
Institutional type (registry, voting, event calendar, offices, lost and found, cemetery, file cutter...)	x	x	x	x	32
Security (alert system, civil defense, weather emergencies, local police...)	-	-	x	x	44
Free Wi-Fi areas	-	-	x	x	46
Other area of interest	-	-	-	-	14

Source: Istat, Environmental Data in Cities

(a) Italy refers to the number of provincial capitals/metropolitan cities that have the online services considered.

In the I city rank 2020, Rome appears among the top 10 municipalities in terms of the number of Apps offered. The index in this case is the result of a survey conducted by Forum PA on 74 capital municipalities for which up-to-date data could be found.

Chart 3 - Top 10 municipalities - municipal apps 2020



Source: PA Cities Forum, I city Rank 2020, p. 16

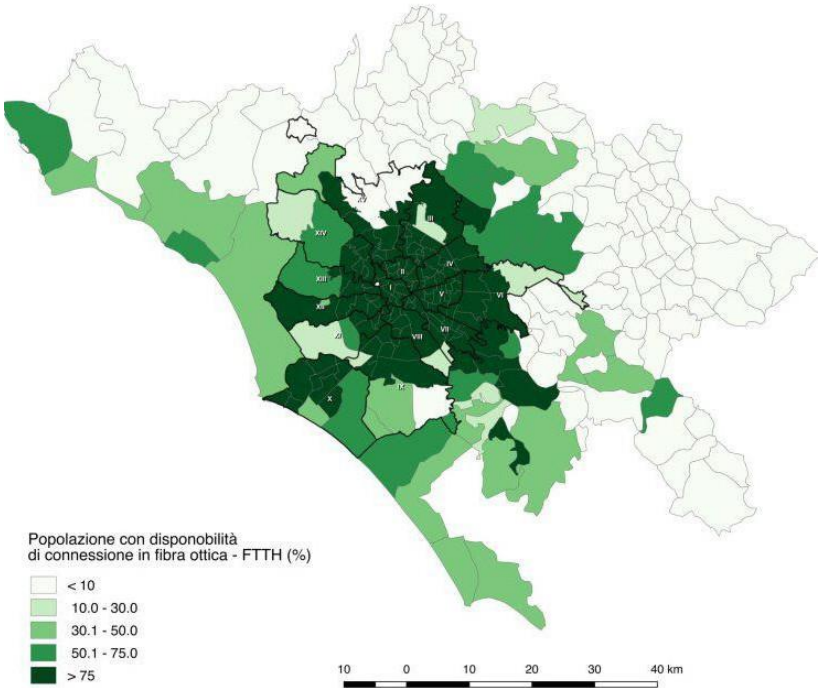
3. Use of online services: a complex picture

If we move from the analysis of the supply of services to the analysis of their use, the data appear more contradictory.

First of all, the infrastructure component should be kept in mind. The 30th map published by K. Lelo, F. Celata, S. Monni and F. Tomassi in 2020--from an elaboration of AGCOM data--shows that Roma Capitale has an excellent level of coverage with FTTH connection technology, i.e., ultra-wideband, fast and suitable for all uses: 96 percent versus 15.3 percent of the 121 municipalities that make up the metropolitan city. The authors point out that of the 155 urbanistic zones that make up Roma Capitale: "as many as 103 have total coverage, 23 have it above 90 percent, while another 25, almost all of them outside the GRA, are characterized by a high variability of coverage ranging between 80 and 10 percent. Three urban areas (Porta Medaglia,

Prima Porta, S. Cornelia and Martignano, the latter of which, however, is not actually inhabited), are not covered at all by fiber-optic connection all the way inside the housing units. (...) The urban areas of Rome with the highest number of households that do not have an ultra-wideband connection available are the outermost ones (Porta Medaglia, S. Maria di Galeria and Castel Romano between 98 and 100 percent), and numerous extra-GRA areas have values between 40 and 87 percent. "¹¹

Chart 4 - Population with fiber connection availability - FTTH (%) - 2020



Source: #MappaRoma on AGCOM 2020 data.

11 Project #MapRoma, <https://www.mapparoma.info/mapparoma30->

disuguaglianze - digitali - nella - città -
metropolitana - di-roma/

The authors point out, by the way, that in areas with low landline connection speeds, the mobile network is still available, for those with smartphones or tablets, and, for those who can afford it, a satellite connection. 4G mobile technology in the metropolitan city of Rome has excellent coverage, and the main operators (TIM and Vodafone) allow download speeds up to about 30 mbps.

The availability of a fast connection is an important but of course not sufficient condition for frequent use of online services offered by the public administration.

Istat data¹² show that the most popular activities on the web are those related to the use of communication and instant messaging services, which allow people to get in touch with several people at once. In the last 3 months of 2019, more than eight out of ten internet users aged 14 and older had used instant messaging services and just under two-thirds (64.5 percent) made internet calls. Also widespread was the use of the web to read information and news (57.0%), to download images, movies, music and/or games (47.3%), and for banking services (46.4%), while only 29.3% used the web to relate to PA.

With reference to the use of online services, we are unable to make a comparison between Roma Capitale and the other provincial capitals or metropolitan cities because Istat only offers a regional-level breakdown. However, it may be interesting to note that Lazio has a higher average than Italy and the regions of Lombardy, Piedmont and Campania in terms of the number of people over the age of 14 who have related to the Public

¹² Istat, Citizens and ICT, 2019, <https://www.istat.it/it/files/2019/12/Cittadini-e-ICT-2019.pdf>

Administration via the Internet to obtain information, download forms or send completed forms. This is according to Istat's multi-purpose survey on "Aspects of Everyday Life"¹³.

Tab 7 - Internet: access and type of use -Interaction with PA (%) - 2019

	People over 14 years old who have related to the Public Administration in the last 12 months via the Internet by:		
	Obtaining information	Download forms	Sending out pre-filled forms
Piedmont	22,4	19,4	16,2
Lombardy	26,2	21,9	19,6
Latium	27,2	23,4	20,3
Campania	20	17,7	14,3
Italy	23,6	20,8	17,5

Source: Istat, Multipurpose Survey on Aspects of Daily Life.

If we analyze the data from the Roma Capitale portal, we notice that the willingness and interest to use the Public Administration website interactively-through a process of identification by authentication to the portal that allows access to online services, submit reports, take part in participatory processes or receive institutional communications-is continuously growing. As of December 31, 2020, there were more than 800,000 people identified to the portal through authentication, and the tables below show how this figure has grown ^{continuously} from 2017 to the present¹⁴.

13 Istat, Internet: access and type of use, Interaction with PA, <http://dati.istat.it/Index.aspx?QueryId=22050>

14 It should be noted that as of 1/1/2019, no new credentials were issued for access (while still remaining usable until 12/31/2020).

Tab 8 - Newly identified to the Roma Capitale portal by authentication channel - 2017/2020.

Channel	2017	2018	2019	2020
SPID	14.248	19.767	89.755	129.425
National Service Card - CNS	-	-	2.115	2.937
Electronic Identity Card - CIE	-	-	1	2.557
Credentials	75.889	75.964	155	-9
Credentials issued through town halls	3.182	1.642	-	-
Newly identified to the portal	93.319	97.373	92.026	134.911

Source: Roma Capitale, Digital Transformation Department

Tab. 9 - Total identified to the Roma Capitale portal by authentication channel - 2017/2020

	2017	2018	2019	2020
Total identified to the portal	490.603	587.976	680.002	814.913

Source: Roma Capitale, Digital Transformation Department

The actual number of logins through an authentication process - a necessary step to access most of the interactive services available on the portal - is also on the rise from 2017 to 2020 but with some decline in the middle years of the period considered. However, it should be considered that authentication methods through SPID, CIE and CNS- the only ones to be accepted as of January 1, 2021 to access the restricted area and online services-have grown strongly over time.

10 - Accesses to the Roma Capitale portal by authentication mode - 2017/2020

Channel	2017	2018	2019	2020
Credentials	2.395.537	1.394.841	1.263.719	1.565.624
SPID	94.738	199.630	818.881	1.601.278
CNS	3.114	6.930	1.289	30.424
CIE	Channel not available	Channel not available	11	8.220
Total accesses with authentication	2.493.389	1.601.401	2.083.900	3.205.546

Source: Roma Capitale, Digital Transformation Department

A complex picture is also obtained by reading the data on services that can be used both digitally and over-the-counter. The two main services that, in Roma Capitale, meet this criterion are the issuance of registry certificates and payment services.

Out of a total of about 50 types of certificates and extracts issued by Roma Capitale, there are 18 that can be obtained both online and over-the-counter. The table below refers to the latter and shows how the number of certificates issued through the portal has grown over time to become, as early as 2019, about 80 percent of the total. The strong preference for the digital channel is due not only to the easier usability of the service but also to the fact that issuing certificates ^{online} is free of charge¹⁵. In contrast, the overall reduction in certificates required in 2020 is due to the impact of the pandemic.

¹⁵ The issuance of certificates online does not involve the payment of secretarial fees of 26 cents for plain paper certificates and 52 cents for stamp certificates; in contrast, at the counter, except for birth, death and marriage certificates, secretarial fees are paid.

11 - Registry certificates requested online and by counter - 2017/2020

	2017		2018		2019		2020	
Certificate type	Counter	On-line	Counter	On-line	Counter	On-line	Counter	On-line
Italian citizenship for A.I.R.E.	181	14.339	157	15.601	150	71.718	80	310
Residence, citizenship, marital status, birth and family status	65.240	22.273	52.446	38.666	40.138	83.961	15.576	84.637
Residence, citizenship, marital status and birth	580	1.437	657	2.456	409	6.460	220	5.466
Residence, citizenship, free status	20.228	1.101	17.477	1.899	15.654	5.479	9.686	3.803
Residence and citizenship A.I.R.E.	453	168	391	212	378	563	146	582
Family status for A.I.R.E.	1.102	277	722	417	693	1.054	326	1.137
Italian citizenship	1.939	161.980	1.408	145.543	1.038	582.382	384	2.435
Wedding	18.008	10.526	14.999	14.653	12.802	26.721	6.162	24.654
Death	42.559	7.459	33.784	9.702	28.266	14.262	17.779	14.819
Birth	21.332	20.776	17.042	14.327	13.852	23.268	6.262	21.860
Residence	138.168	228.634	113.432	230.065	85.592	207.126	33.082	166.904
Residence and citizenship	487	579	322	955	221	3.120	110	3.241
Residence and free state	2.056	507	1.767	752	1.610	2.363	910	2.282
Residence for A.I.R.E.	1.985	14.722	1.675	16.135	1.371	5.461	699	1.541
Family status	114.808	27.024	89.451	41.038	66.671	104.765	22.369	107.200
Free State	7.691	2.025	6.223	2.942	5.575	7.158	4.122	15.043
Biographical history	55.447	16.972	42.899	23.796	33.750	55.089	15.753	75.993
Enjoyment of political rights	228	49	203	97	119	412	56	363
Total (number)	492.492	530.848	395.055	559.256	308.289	1.201.362	133.722	532.270
GRAND TOTAL	1.023.340		954.311		1.509.651		665.992	
Percentage online services of total	51,9		58,6		79,6		79,9	

Unlike with registry certificates, in payment services the tendency to use the digital channel, appears to be in the minority.

Since July 2017, Roma Capitale has been on the PagoPa Node, the national platform for payments to the public administration that allows for dual-mode payments:

- online by entering the bulletin's IUV code into the digital platform, or by viewing the debt position in the relevant area system (e.g., the "MESIS" System or Roma Multe) and settling by credit card or reverse charge.
- through Payment Service Providers (PSPs), such as post offices, banks, Sisal and Lottomatica outlets.

As of today, it is possible to pay fines, fees for occupation of public areas (Cosap) and advertising initiatives (CIP), subsistence fees, school services (nursery, transportation, canteen, bridge sections), services defined as 'heritage' (in particular, rents for public housing) by this dual mode, concession fees for sports facilities under departmental jurisdiction, some building services (Sipre and Sicer online), registry services, cab license files, Single Point of Contact for Productive Activities (SUAP) proceedings, expenses related to filming permits¹⁶.

Social services (i.e., assisted living residence fees) and *Æqua Roma's* recovery acts on TARI can, as of today, only be paid through PSP, while library registration solely online.

¹⁶ Payment can be done from the "payment services" page (<https://www.comune.roma.it/web/en/schedule-services.page?contentId=INF87644>) or from individual area systems.

The table below shows a remarkable growth, between 2018 and ²⁰¹⁹¹⁷, of all payments made through the PagoPA Node: those online increase by 70 percent, those enjoyed by PSPs by 65 percent. In 2020, on the other hand, payments through PSPs continue to grow, but at a slower pace, while online payments decline, from 23 percent to 14 percent of the total (partly due to the reduction of activities, and thus payments, that used to absorb a large share of online transactions, for example in the tourism and education sectors).

Tab. 12 - Total payments made online and through Payment Service Providers-PSPs (number and value) - 2018/2020

Payment channel	2018	2019	2020
Online payments (number)	172.350	292.883	232.526
Payments through PSP (number)	608.430	1.006.409	1.404.174
Online payments (€)	41.102.216	53.160.677	30.446.565
Payments through PSP (€)	85.377.970	210.757.735	202.854.697
Number of online payments out of total (%)	22%	22,5%	14%
Value of online payments to total (%)	32%	20%	13%

Source: Roma Capitale, Digital Transformation Department, PagoPA Node Data.

The strong unevenness in the use of online payment depending on the service used, clearly visible in the table below, is partly explained by the difference in the target audience. The mode of access to the balance due can also have an impact: in some cases there is delivery of the paper bill (e.g., fines or social housing rents), in others the total due is accessible only online (as in the case of the school lunch subsidy), and in still other cases, the debt arises from a specific user request and is created at the same time as the request (e.g., reversals).

¹⁷ It is not possible to extend the analysis to 2017 because the transition to the PagoPA Node took place for most services only in July, and in the previous period payments in the territory were made through agreements with individual PSPs and online payments through another platform. The data are therefore not comparable.

Table 13 - Type and number of online payments and percentage of total (a) - 2018/2020

Type of payment service required	2018	2019	2020
Contravention reports ¹⁸	Not available on the PagopA node	53.296 (18%)	58.041 (8%)
Heritage	3.732 (1%)	5.728 (1,3%)	6.846 (2%)
School services	108.259 (39%)	160.587 (49%)	88.923 (53%)
Reversals for miscellaneous services	45.269 (44%)	51.507 (26%)	35.991 (22%)
Public land occupation fee	1.032 (4%)	1.520 (6%)	1.733 (3%)
Territory (Sipre and Sicer online)	Not available on the PagopA node	Not available on the PagopA node	14.203 (71%)
Subsistence fee	13.843 (50%)	19.798 (33%)	7.955 (47%)
Registry Services	Not available on the PagopA node	Not available on the PagopA node	12.507 (93%)
Advertising tax fee	204 (5%)	256 (7%)	383 (4%)
Taxiweb	Not available on the PagopA node	Not available on the PagopA node	2.751 (46%)
Libraries ¹⁹	Not available on the PagopA node	188 (100%)	2.803 (100%)
Social Services	-	-	-
One-stop shop for productive activities	Not available on the PagopA node	Not available on the PagopA node	388 (77%)
Sports Facilities	-	-	-
Film Office	Not available on the PagopA node	Not available on the PagopA node	1 (100%)

Source: Roma Capitale, Digital Transformation Department, PagoPA Node Data.

(a) Total consists of payments made online and through Payment Service Providers.

18 Inclusion on the PagoPA Node took place in September 2019. The figure shown in the table concerns only the transactions that occurred on the Node.

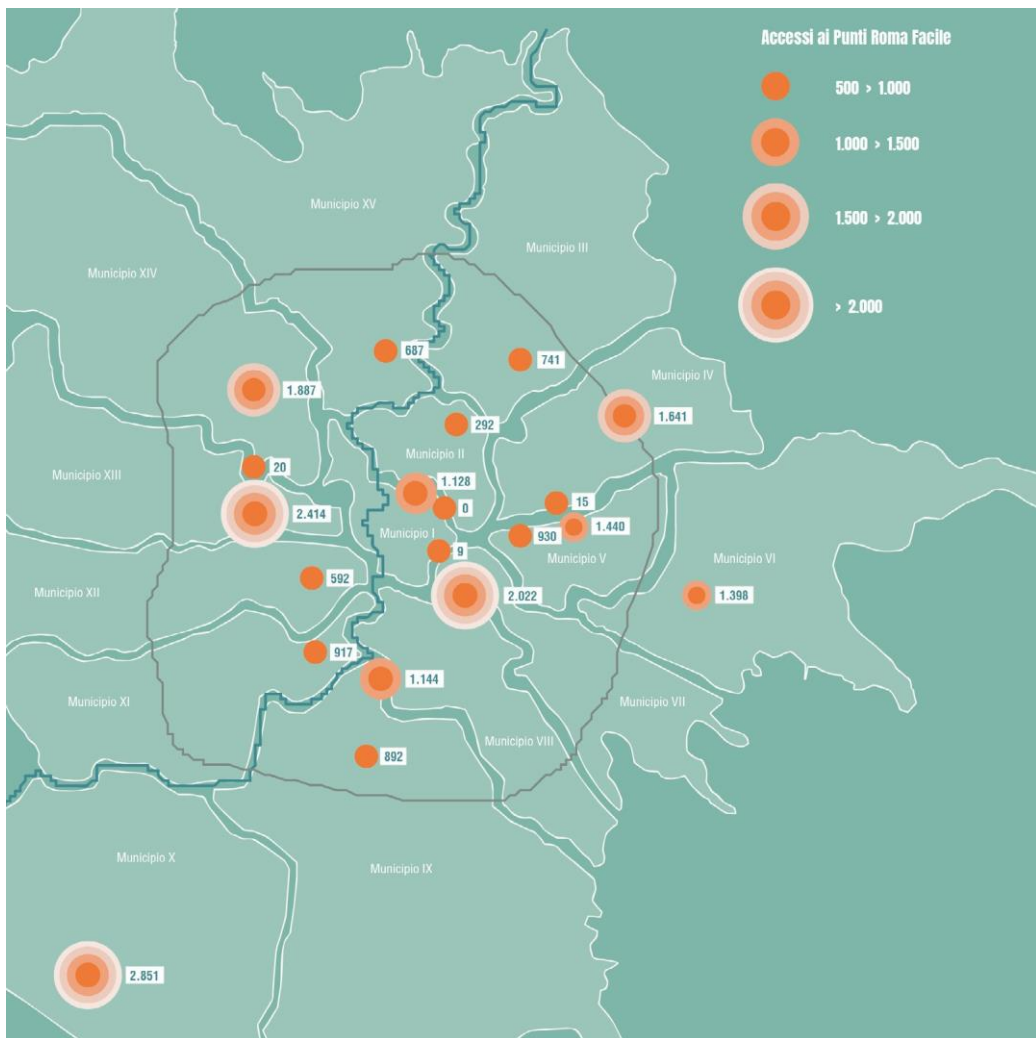
19 Inclusion on the PagoPA Node took place in September 2019. The figure shown in the table concerns only the transactions that occurred on the Node.

Finally, data on access to Roma Facile Points (PRoFs) offer useful insights into the segment of the population in Rome that has difficulty using digital for the activities and services they need. In PRoFs trained operators are available to users for any kind of need related to surfing the web, not only those related to the relationship with the Public Administration, but also, for example, to the use of social media or Apps.

Monitoring access to the PRoF network in 2019 - carried out by the Department of Participation, Communication and Equal Opportunity - first highlights a sharp increase in the population using the service: 21,026 access requests in 2019 compared to 4,927 in 2018. The figure, which increased more than 4 times in 12 months, is undoubtedly a consequence of a progressive structuring and knowledge of the service, but it is also an expression of a significant segment of city users who are not self-sufficient in using digital services.

The PRoF user generally does so on a one-time basis (only 12% go there more than once), in 38% of cases they do not exceed a high school diploma and in 47% of cases they have a high school diploma. The average user is over 20 years old but the most represented age groups are between 40 and 60 years old, they are employed (44%) or unemployed or retired (39%), they are rarely students or self-employed, at least in one third of cases they are foreigners (35.5%). The PRoFs most used are those in Municipalities IV, VII, X, XIII and XIV, but there is significant demand in other areas as well.

Chart 5 - Distribution of Easy Rome Points - 2019

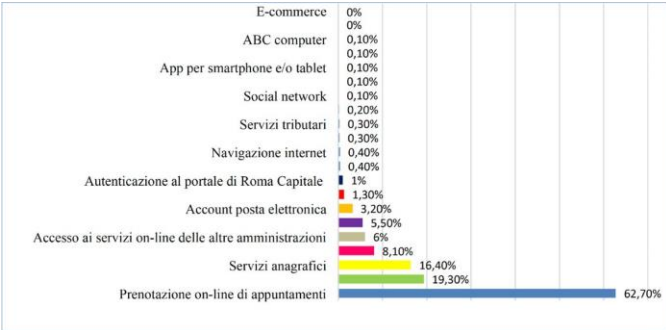


Source: Department of Participation, Communication and Equal Opportunities

Those who turn to PProFs are not internet addicts: they surf the web one or more times a week (13 percent) or even every day (64 percent), but-as also shown by ISTAT analyses-access the web mainly for entertainment, performing the simplest functions. The web is not a tool for dealing with PA and only in a minority of cases is it used for work (about 37 percent use email every day). Connection is mainly via smartphones and not from computers (41% never use computers, and 17% use them at most a few times a month).

About one-quarter (23.7 percent) of users turn to PProF specifically for support in using a Roma Capitale online service, and 8 percent ask for assistance in acquiring the SPID digital identity that allows them to access PA services. However, although there is a strong interest in basic IT courses (89% of requests in this regard), there is a low number of those who ask for more training to use digital services of Roma Capitale or other administrations with greater autonomy (7%). As shown in the chart below, the main request is for online booking of appointments, followed by the demand for the issuance of registry certifications and the creation of digital identity through SPID.

Chart 6 - Required facilitation services - 2019



Source: Department of Participation, Communication and Equal Opportunities - Roma Facile Points Network Office.

The picture that emerges from the data and considerations reported in this section is not an easy one to compose. The gap between the strong growth in portal identifiers (+66 percent) and the less substantial growth in portal accesses made through an authentication channel (+28.5 percent) seems to delineate an untapped potential: there is an interest and willingness to use the network in dealing with PA (as shown by the figure on portal identifiers) that is not, however, transformed into a similar growth in interactions through digital.

The data on PRoF remind us that overcoming the habit of going to the counter and getting a SPID identity costs commitment, even in the face of sufficient technological infrastructure and digital skills. Digital is actually used only in the face of significant time savings and if the process is greatly simplified (as in the case of online certificates).

4. Focus on the "online services" section of Roma Capitale: evidence and considerations

The "online services" section of Roma Capitale (<https://www.comune.roma.it/web/en/servizi.page?type=onl>) hosts 41 services (data as of 31/12/2020).

To achieve this value, a methodology was adopted that considers the "online service" as a digital process pertaining to a specific content of interest to the citizen, and encompasses its different aspects and stages.

From this perspective, the services in the "online services" area were recounted based on 3 different principles:

- **Merging services that represent different stages or aspects of the same content.** For example, we consider the subsistence fee as a single service by merging the aspects of payment and sending the mandatory quarterly reports that are presented on the portal as different services. Similarly, the services of daycare enrollment, confirmation of enrollment, and viewing of rankings are unified as different stages of the same process, whereas they are disaggregated on the site.
- **Elimination of those contents that are present in different sub-sections and should not be counted twice.** For example, the school lunch payment service, also in order to ensure ease of navigation, is found in both the school services page and the payment services page but should only be counted once.
- **Disaggregation of services that are presented on the site as a single set, but actually have different content.** For example, tax services are presented on the site as a single service, but within them are different contents, e.g., related to IMU, ICI, TARI, and TASI.

The methodology used, puts the citizen's perspective at the center, but does not necessarily coincide with the identification of administrative processes underlying service delivery.

Some further clarifications seem appropriate:

- the examination considers all services in the "services-online" area,

including those not provided directly by Roma Capitale (such as the "You pass" service);

- the "online services" section of the institutional portal does not include all digital services that are the responsibility of the administration, but managed by the investees, even if they are at level 4 (e.g., the issuance of the ZTL permit or free parking permits);
- The "online services" section does not include level 2 or level 3 services managed directly by the capitol administration (i.e., those that allow you to download the forms, send them via registered mail or pec, and know the outcome of the process without going to the counter).

Seventy-eight percent of the services in the "online services" section are 'operational' in nature, that is, they allow you to perform an operation (e.g., submit an SCIA, enroll a pupil in daycare or make a payment); 22 percent are 'consultative' in nature, that is, they exhaust their function precisely in consulting a file, register or document (e.g., the Public Register or the Public Works Registry). In 93 percent of cases, authentication (via Spid, credentials, CIE or CNS) is required to access the service.

All services in the "online services" section are level 4 and in most cases show a constant level of digitization over time, taking 2017 as the reference year.

Table 14 - Accesses to the Roma Capitale portal by authentication mode - 2017/2020

ANAGRAPHY	2017	2018	2019	2020
Biographical certificates (18 total certificates intended for residents)	4	4	4	4
Registration/deregistration on the roll of polling place presiding officers.	4	4	4	4
Registration/deregistration on the register of polling station tellers.	4	4	4	4
Wedding Publications	4	4	4	4
TuPassi Reservation Service - Queue Elimination System	4	4	4	4
Online house number assignment	4	4	4	4
Consultation of the Rome Capital Roadway	4	4	4	4
Popular Judges Register Entry Online	4	4	4	4
Public notice board	4	4	4	4
CULTURE				
Biblio Tu: Registration for library services in Rome and Catalog Consultation and library lending	4	4	4	4
Digital cinema counter	not available online	not available online	not available online	4
URBANISM				
SUE - One Stop Shop for Construction	4	4	4	4
PAYMENT SERVICES				
Contravention Reports				
Heritage	not available online	4	4	4
School Services	4	4	4	4
Reversals x Miscellaneous Services	4	4	4	4
Public Land Use Fee (payment, consultation, simulation)	4	4	4	4
Advertising Tax Fee (payment and consultation)	4	4	4	4
Accommodation Tax (payment and management of accommodations and submission of mandatory quarterly reports)	4	4	4	4
Sports Facilities	not available online	4	4	4

TAX SERVICES				
IMU: Submission and Consultation of communications (for application of reduced rates) and declarations (own municipal tax); submission of application of reimbursement/compensation; Consultation of payments; Consultation of assessments, settlement notices and Submission of Application for Self-Protection	4	4	4	4
ICI: Consultation of notices, declarations, facilitated definition forms, refund/compensation applications, additional deductions; submission of refund/compensation application; payment of municipal property tax and consultation of payments.	4	4	4	4
Succession consultation	4	4	4	4
TASI: payment consultation	4	4	4	4
Requests for exemption from TaRi payment	4	4	4	4
SCHOOL				
Enrollment/acceptance of kindergarten and consultation of rankings	4	4	4	4
Preschool enrollment/acceptance and rankings consultation	4	4	4	4
Preschool reappointment waiver	1	4	4	4
Canteen: subsidized rate application and payment of contribution fees	4	4	4	4
Administrative position	4	4	4	4
Digital scholarship application	unheralded	not disbursed	1	4
Question digital book voucher	4	4	4	4
Booksellers: managing book vouchers and digital book coupons	4	4	4	4
Meal reporting catering firms	4	4	4	4
Searching and viewing services provided by schools	4	4	4	4
Administrative management of covenanted nurseries	4	4	4	4
Application for school transportation of able-bodied and disabled children	N. 4	N. 4	N. 4	N. 4
	D. 1	D. 4	D. 4	D. 4
TRADE AND ENTERPRISE				
SUAP - Single window for productive activities.	4	4	4	4
CAP operator badge	not available online	not available online	not available online	4
DIGITIZATION				
Digit Rome WIFI	4	4	4	4

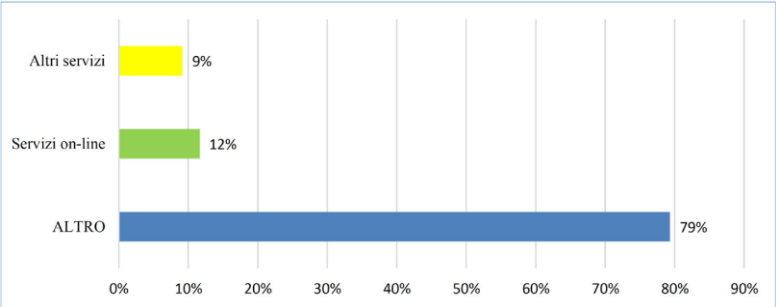
Source: elaboration Department of Participation, Communication and Equal Opportunity on data from Department of Digital Transformation

Let us now analyze the most frequently used services within the Roma Capitale portal. Unfortunately, data on access to individual services are not collected because, after authentication, the user accesses different platforms depending on the service used, managed by different providers. The Participation, Communication and Equal Opportunities Department and the Digital Transformation Department of Roma Capitale have started a process that will lead to the collection and unification of data, but for the moment it is necessary to use other, albeit less precise, indicators.

One piece of data that is certainly useful comes from an analysis of the statistics of the Roma Capitale portal and concerns the 100 most visited pieces of content by users in the first half of 2020.

The graph below shows that 21 percent of the most viewed content is precisely about services: in 12 percent of the cases it is the services accessible from the "online services" page, while in 9 percent of the cases it is the services accessible mainly from the "Services" page (which contains fact sheets and forms) and from the "Rome Helps Rome" site (a site that collects all the useful information in relation to the emergency phase due to covid).

Chart 7 - The 100 most viewed content - I half of 2020



The chart below shows in detail the most viewed services both within the "online services" page and outside of it.

School, registry, payment services and housing services (CIL, CILA, amnesty, etc.) are the most used services in the "online services" section. Outside the "online services" section, services related to change of residence, electronic identity card (CIE), rent bonus and shopping bonus are highly sought after. These are in all cases highly digitized services, even if they are not found in the "online services" section: the change of residence can be done without physically going to the counter, via PEC or ^{ordinary} mail²⁰; as for the CIE, it is necessary to go to the counter, but it is possible to do all the preliminary procedures online from the platform of the Ministry of the ^{Interior}²¹; the application for the rent subsidy (established by Art. 11 of Law No. 431/1998 and refinanced with extraordinary contribution with regional free No. 176 of April 9, 2020 as a result of the covid emergency) must be forwarded by registered mail but, with reference to 2020, it could be sent online with an editable form, after making a ^{simplified} identification²²; the spending bonus could also be applied for by ^{mail}²³.

20 <https://www.comune.roma.it/web/it/scheda-servizi.page?contentId=INF35641>

21 <https://www.comune.roma.it/web/it/scheda-servizi.page?contentId=INF141252&pagina=3>

22 <https://www.comune.roma.it/web/it/scheda-servizi.page?contentId=INF209308>; <https://www.comune.roma.it/web/en/schedule-services.page?contentId=INF209308&page=2>

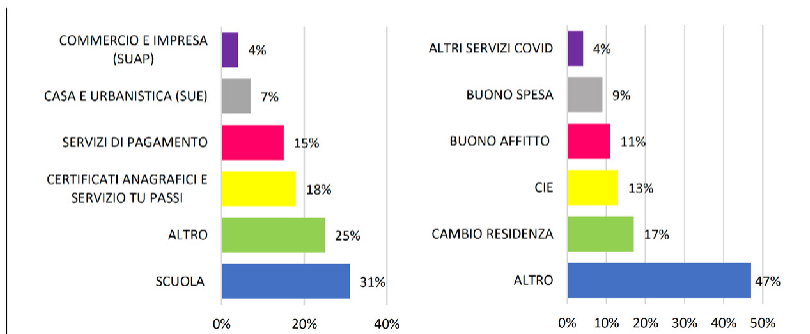
23 <https://www.comune.roma.it/web/it/scheda-servizi.page?contentId=BEC560368>

Source: Roma Capitale, Roma Capitale Portal Statistics, Digital Transformation Department.

Chart 8 - Detail of services appearing among the 100 most visited pages on the site

Servizi presenti nella pagina "servizi on-line" più visualizzati – I semestre 2020

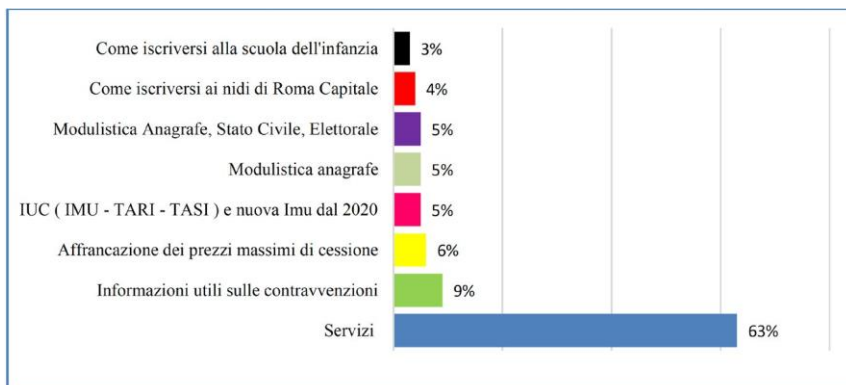
Servizi NON presenti nella pagina "servizi on-line" più visualizzati – I semestre 2020



Source: Roma Capitale, Roma Capitale Portal Statistics, Digital Transformation Department.

Analyzing in detail the "other" item related to services that are not in the "online services" section, it can be seen that a large proportion of the clicks are for obtaining information or downloading forms related to services that are nonetheless in the "online services" section.

Chart 9 - Services NOT on the most viewed "online services" page - Analysis of the item "other" - I semestre 2020



It is therefore possible to imagine that in order to obtain a service, the user has to navigate through multiple pages and sections of the portal, and that not all services of interest to him-even if they do not require counter access-are located in a single section of the institutional portal.

In addition, one aspect that presents some critical issues concerns the accessibility of services.

As written in the Declaration of Accessibility of October 22, ²⁰²⁰²⁴, only a part of the online services offered by Roma Capitale meets the accessibility requirements i.e., it guarantees: "information usable, without discrimination, even by those who due to disabilities require assistive technologies or special configurations." ²⁵ Another part is being reengineered and does not meet these requirements.

The issue of accessibility also emerges as a prevailing criticality from a reading of data from Roma Capitale's Single Reporting System,²⁶ i.e., the system through which suggestions, reports or complaints can be sent regarding the activities of capitol offices (now superseded by MyRhome - Citizen's Digital Home).

Roma Capitale's Agency for the Control and Quality of Local Public Services analyzed the reports sent in the first 9 months of 2020 regarding ^{online} services²⁷. The study highlights 3 main

24 Rome Capital Accessibility Statement of October 22, 2020, <https://form.agid.gov.it/view/2c6bc8c0-5d8c-440a-9ad0-64f2b61c7093/>

25 Agid, <https://www.agid.gov.it/it/design-servizi/accessibilita>

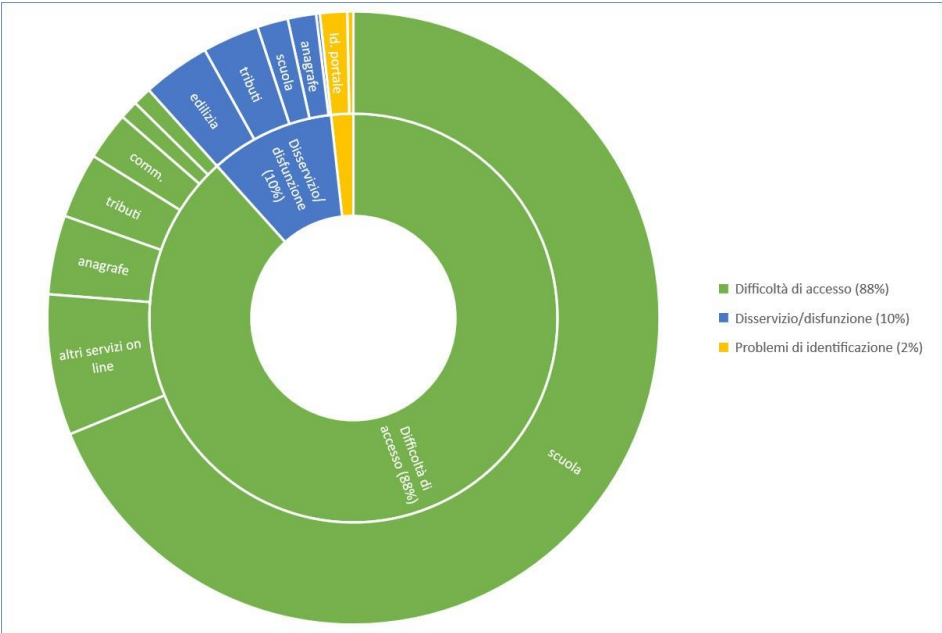
26 All data from the Single Reporting System are 'open' and can be downloaded from the Roma Capitale portal at <https://dati.comune.roma.it/catalog/dataset/sus1>

27 ACoS, Annual Report 2020, pp. 238-239, <https://www.agenzia.roma.it/documenti/schede/>

Source: Roma Capitale, Roma Capitale Portal Statistics, Digital Transformation Department.

issues: access difficulties account for the largest share of reports, with 88 percent; followed by page or portal malfunctions, with 10 percent; and finally, identification problems, with 2 percent.

Chart 10 - Composition of different issues reported on Roma Capitale online services, by sector - Q1/Q3 2020



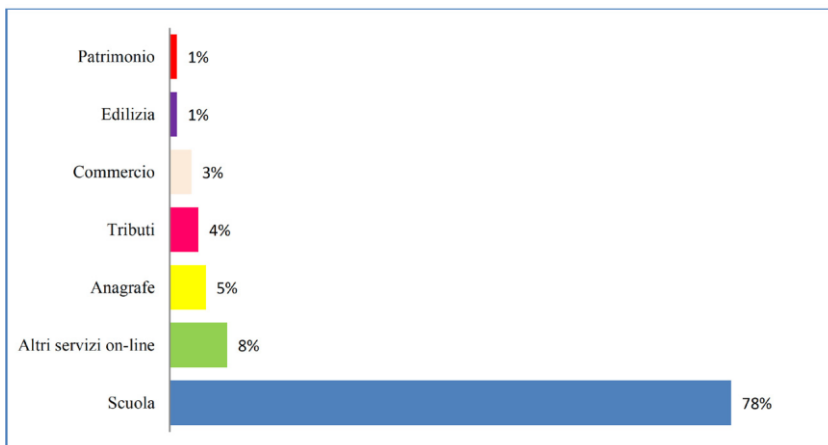
Source: ACoS processing of Roma Capitale SUS data, January-September 2020

The term "difficulty of access" should be understood in a general sense, as the difficulty of finding one's way around the site: finding the desired service and necessary information quickly, reaching the conclusion of the process quickly and intuitively. We refer, therefore, also to the concept of "usability" of the online service, or that criterion which: "measures the degree of ease and satisfaction with which users relate to

the interface of a site, which is therefore all the more usable, the closer the ideas behind the design are to the expectations of the person interacting with the site. "28

The services most viewed are also those on which citizens experience the most difficulty in accessing: school services absorb 78 percent of the reports/complaints counted in this issue type; followed at a great distance by registry services, which accounts for 5 percent of the total, then online tax services (4 percent) and commercial services (3 percent).

Chart 11 - Complaints and reports of difficulty in accessing online services - Q1/Q3 2020



Source: ACoS processing of Roma Capitale SUS data, January-September 2020

Inefficiencies/dysfunctions, on the other hand, were mainly found on the SUET portal, the telematic window for building procedures (32%), joined by another 4% of reports for building permit procedures; the contraventions portal, the payments portal

28 Agid, <https://www.agid.gov.it/it/design-servizi/usabilita>

and the tax portal register a total of 30 percent of the reports for inefficiencies/disfunctions, school services 16 percent and registry services 15 percent. Finally, accommodation activities, in the tourism sector, account for just 2 percent.

The last type of criticality encountered by users and reported through the SUS concerns identification to the portal, which, in contrast, compared to the small number of complaints/reports recorded (27), receives 144 appreciations.



ROMA

