



Gouvernement Princier  
PRINCIPAUTÉ DE MONACO

# REVIEW & OUTLOOK 2022



Extended  
**Monaco**



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**2022**

Extended  
**Monaco**









*Palais de Monaco*

Mars 2023

Le numérique fait désormais partie intégrante de la vie de chacune et de chacun.

Il est devenu, en quelques années seulement, un vecteur incontournable de l'action des Etats et des collectivités publiques, en toutes ses dimensions.

Mon Gouvernement y est pleinement impliqué au travers, en particulier, de la Délégation chargée de la Transition Numérique laquelle accompagne toutes les démarches de nos services publics en direction des administrés.

C'est ainsi l'Etat tout entier qui, sous mon autorité, est mobilisé pour relever le défi de la transition numérique et élargir l'accès des usagers et des acteurs économiques à une palette toujours plus étendue d'applications et de téléservices.

Aujourd'hui, l'attractivité de la Principauté nécessite en effet une offre de services comparable à celle des places internationales les plus performantes.

Ce rapport d'étape 2022 atteste du potentiel remarquable tel qu'il résulte notamment du lancement de notre Cloud souverain, le premier en Europe. Il s'agit désormais de consolider notre connectivité pour renforcer la vitalité de notre économie et promouvoir le bien-vivre à Monaco.





PRINCIPAUTÉ DE MONACO

*Le Ministre d'Etat*

Depuis bientôt cinq ans la transition numérique est menée par le Gouvernement, avec pour objectifs des relations plus fluides avec l'administration, des politiques publiques plus performantes et une contribution au développement économique. Dans un monde en perpétuel changement et dans une concurrence accrue entre pays, les territoires qui se développent et attirent sont ceux qui ont su tirer profit de la transformation numérique.

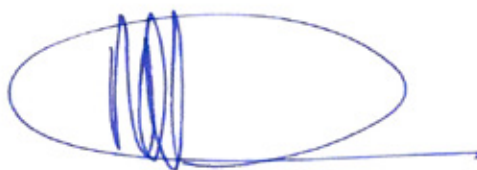
C'est là tout l'enjeu d'Extended Monaco.

Œuvrant avec l'ensemble des départements du Gouvernement Princier que je dirige, le positionnement de la Délégation Interministérielle chargée de la Transition Numérique a fait ses preuves.

L'État monégasque a assumé son ambition en investissant à la hauteur de l'enjeu. Les résultats sont là. La Principauté de Monaco et ses habitants peuvent désormais bénéficier de l'apport de technologies de haut niveau dans leur quotidien.

Je tiens à remercier l'ensemble des équipes de cette Délégation devenue essentielle pour la qualité et l'amélioration de nos politiques publiques.

Pierre DARTOUT

A handwritten signature in blue ink, consisting of a series of loops and a long horizontal stroke extending to the right.





# CONTENTS

EDITORIAL BY FRÉDÉRIC GENTA

10

## LEVERAGING DIGITAL TECHNOLOGY FOR THE WELL-BEING OF MONEGASQUES AND RESIDENTS..... 14

<b>A MESSAGE FROM JULIEN DEJANOVIC</b>	16	Digital access to culture in Monaco is growing	25
<b>IMPROVING THE DAILY LIVES OF STATE TENANTS: A STATE PRIORITY</b>	18	<b>INTERVIEW WITH</b> Cyril Gomez	26
<b>MOBILITY, EDUCATION, LEISURE... EVERY ASPECT OF DAILY LIFE IS GOING DIGITAL</b>	19	MyGuichet.mc: a single online portal for all administrative procedures	27
The success of Monapass, the all-in-one transport and leisure app	19	<b>THREE QUESTIONS FOR</b> Marine Rolando	28
<b>THREE QUESTIONS FOR</b> Georges Gambarini	20	<b>FOCUS ON</b> Digital identity	29
Your Monaco: the app that knows the Principality inside out!	21	<b>INTERVIEW WITH</b> Georges Marsan	30
Monaco Santé: the foundation of e-Health strategy in Monaco	22	Extended Monaco commits to action on women's rights	31
<b>THREE QUESTIONS FOR</b> Thierry Poyet	23	<b>FOCUS ON</b> Residents: a range of services to help people settle in Monaco	32
Education: digital technology as a tool for learning and understanding	24	What's next: a platform to attract and welcome new residents	33

## LEVERAGING DIGITAL TECHNOLOGY TO HELP BUSINESSES... 34

<b>A MESSAGE FROM PASCAL ROUISON</b>	36	<b>EXTENDED MONACO OFFERS PROFESSIONALS THE BEST DIGITAL INFRASTRUCTURE</b>	46
With the Blue Fund, Extended Monaco is helping businesses to navigate the digital transition	38	The sovereign cloud, a first in Europe	46
<b>THREE QUESTIONS FOR</b> Diego Bonaventura	40	Electronic signature: an asset for local businesses	48
Easier access to administrative procedures	42	<b>FOCUS ON</b> Commuters	50
Online hiring and job search in 2023	44		
<b>THREE QUESTIONS FOR</b> Guillaume Rose	45		

## GOVERNMENT IN THE DIGITAL ERA..... 52

Government employees supporting new working practices	55	E-Embassy of Monaco: launching this year	63
<b>THREE QUESTIONS FOR</b> Bertrand Vanzo	56	<b>THREE QUESTIONS FOR</b> Agnès Lepaulmier	64
Behind the scenes of Monaco's public services	58	<b>THREE QUESTIONS FOR</b> Jean-Charles Harlé	65
A shared data platform for Monaco government departments	59	Sustainable digital world	66
<b>THREE QUESTIONS FOR</b> Hélène Colonna-d'Istria Amourdedieu and Rodolphe Heigel	60	Digital inclusion as a credo	67
Two new official websites for government information	61	The Digital Transition Office (DITN)	68
<b>THREE QUESTIONS FOR</b> Christophe Pierre	62	The four strategic objectives of the Extended Monaco programme	68
Sovereign digital highways for a modern and secure transformation	63	Digital technology in Monaco in figures	69



**« Digital technology is a major lever for developing the Principality's economy and increasing its attractiveness. »**



# EDITORIAL BY

## FRÉDÉRIC GENTA

**Member of Government for Attractiveness  
and Digital Transition**



**Nearly four years after the launch of the Extended Monaco Programme, has the Principality caught up with the digital world?**

In March 2018, the Principality had very few digital government services supporting the health, mobility, daily and administrative life of Monegasques, residents and commuters. The country's digital infrastructure, and the IT equipment used by government departments, was outdated and insecure. Monaco was at risk of being left behind digitally.

With the launch of the Extended Monaco programme by the Sovereign Prince in April 2019, the government has succeeded in giving the Principality a digital boost. Every year sees new projects, which cumulatively bring tangible benefits to the country. This contribution was particularly decisive in our management of the Covid-19 crisis across every area of State action. Today, it is vital that digital technology serve as one of the main drivers of our economic recovery plan, and also provide real services to people as they go about their daily lives.

Five years later, the promise has been kept: the Principality has not only caught up, it boasts has an excellent digital infrastructure.

**In concrete terms, what changes does digital technology bring to residents?**

Digital services are steadily becoming part of our everyday experience and are helping to improve our already exceptional quality of life.

The government's one-stop shop, MonGuichet.mc, offers online access to the most important procedures (such as applying for a resident card, registering for school, paying for canteen meals, having a car checked during a vehicle safety inspection, paying for a car stamp, making an appointment with a government department or applying for state-owned housing).

The Mon Espace Domaines website also allows users to manage the routine administrative formalities concerning their homes and exchanging flats.

Today, 80 out of every 100 requests to the State Property Authority are submitted online.

Digital technology is also an essential lever for rethinking mobility in Monaco. To take one specific example, the carpooling app Klaxit is widely used by commuters. Nearly 140,000 rides have been financed, helping to reduce our carbon footprint. Another success is the Monapass application, which was originally focused solely on transport, but has become Monaco's digital ticketing system.

Finally, the Your Monaco app, which puts everyday information at peoples' fingertips, has already won over nearly 5,000 users in the space of three months.





### **How does digital technology help businesses? Does it contribute to the development of the Monegasque economy?**

Some fifty business procedures have now gone paperless. For example, since last December, business users have been able to buy extracts from the Trade and Industry Registry online without having to visit the office in person. These electronic extracts have the same probative value as paper versions, which can take up to 45 minutes to issue. We are talking about 20,000 applications per year for Trade and Industry Registry extracts alone. By the end of the year, there will be a brand new platform dedicated to employment: the recruitment process will be smoother and the promotion of jobs in the Principality will be more visible.

More importantly, in addition to easing the administrative burden on our companies, digital technology is a key driver for the development of our economy. Our digital recovery and investment plan is bearing fruit and has been extended to 2023. Our companies are embracing the digital transition, with tangible consequences for our economy: for every €1 invested via the Blue Fund, the companies concerned report an

average of €8 in turnover generated, significantly increasing new revenue for the State.

As an immediate consequence, the Principality's digital sector, i.e. Monegasque companies working to support the digital transformation of our businesses, is experiencing strong growth, with cumulative turnover of around €800 million.

### **Does the Principality now have the capacity to succeed in an increasingly digital world?**

The digital revolution is far from over. We have barely had time to 'digest' the previous wave, yet we are already facing new technological breakthroughs (artificial intelligence, blockchain, the metaverse and quantum computing, to name but a few) that will inevitably disrupt social and economic models and increase competition between states.

The good news is that the Principality is now well-equipped and has laid the essential foundations for sustainable success.

Our infrastructure is efficient, secure and sovereign. Monaco was the first country to have 100% 5G coverage by the end of 2019. Fibre internet has been deployed in Monaco since 2021, with the world's fastest broadband.

Digital identity is gradually being adopted by the entire population. Finally, we launched Europe's first sovereign cloud in October 2021; it is already being used by the State and by nearly 30 companies.

We also have the necessary resources to design and implement major digital projects in the Principality: more than 200 highly qualified employees in the Digital Transition Office in Fontvieille and an ecosystem of more than 2,000 employees in Monegasque digital service companies.

Finally, Monaco is also betting on the future by preparing the next generations. From kindergarten to high school, students are being trained in programming and digital tools, and made aware of the risks associated with digital technology.

Driven by the visionary impetus of the Sovereign Prince, the Principality now has everything it needs not only to meet the challenges of an ever-changing digital world, but above all to capitalise on them and thus enhance its attractiveness.









An aerial photograph of Monaco, showing the harbor filled with numerous sailboats and the dense, multi-story buildings of the city. The image is partially covered by a large red geometric shape that serves as a background for the text.

# LEVERAGING DIGITAL TECHNOLOGY FOR THE WELL-BEING OF MONEGASQUES AND RESIDENTS

Thanks to the seamless, customised and automated process that it offers, digital technology makes it possible to establish a special relationship with Monegasque government departments and to support the population at key moments in their lives: marriage, birth, moving house, taking up residence in Monaco for the first time, enrolling children in school, buying a car, starting university or looking for a job.

In the space of four years, the Monaco Government has launched more than 120 online procedures for everyday life, all of which are available on the MonGuichet.mc portal.





# A MESSAGE FROM



**JULIEN DEJANOVIC**  
Director of Digital Services

«The Extended Monaco programme was born of a conviction: for our Principality, digital technology offers an unprecedented opportunity to unlock an exceptional quality of life and enhance the value of public services. Almost four years after its launch, Extended Monaco has lived up to all its promises.

The first of these was to lay the foundations for the Principality's digital transformation. Monaco now has a high-performance, secure and sovereign infrastructure. Thanks to fibre broadband, which has covered 100% of the country since 2021, Monegasques and residents benefit from the world's fastest internet (up to 10 Gigabits).

In Monaco, digital identity has also become a reality. The Principality launched its new electronic identity documents – identity cards and residence permits – in June 2021. More than a third of Monegasques and half of our residents, i.e. nearly 20,000 people, now have a new card or permit.

The launch of the Mon-Guichet.mc portal ushered in a new era in the relationship between users and government departments. We simplify the daily lives of Monegasques and residents by giving them access to a centralised catalogue of online public service procedures. This platform,

compatible with digital identity, will strengthen government departments' relationships with individuals and companies alike, ensuring Monaco is able to deliver public services of the very highest standard. The digitisation of administrative procedures has accelerated considerably. Nearly 120 everyday online procedures are now available on MonGuichet.mc, and are adopted by users in over 80% of cases, with very high satisfaction rates. Last year, almost 50,000 online applications were registered. The service is available 24/7 and can be accessed from a computer, smartphone or tablet. The experience is 100% digital, and allows officials to process users' requests and applications with maximum efficiency. Today, anyone wishing to settle in Monaco can complete all the required steps online, from applying for a residence permit to enrolling their children in school and exchanging their foreign driving licence.

With the aim of making life easier for the population, we offer Monegasques, residents, commuters and visitors to the Principality access to platforms that meet all their daily needs.

Monaco Santé has become the go-to portal for health in Monaco. New generations can benefit from the advantages of digital learning in the classroom and at home through the Collège Numérique and Lycée Numérique programmes.

The Your Monaco application provides access to comprehensive practical information about the country, and Monapass lets users manage their tickets for public transport, cultural venues and events.

However, the job is far from complete. Today, our focus is on improving the experience of our digital tools and services, and making our trusted infrastructure an essential part of the Monegasque ecosystem. Private sector stakeholders need no longer hesitate to rely on MConnect authentication and e-signature services to deliver an enhanced and secure experience for their partners and customers.

Last but not least, our digital transformation programme requires us to be vigilant in terms of inclusivity. We are committed to enabling all users to benefit fully from the digital services available to them. This is why we have set up a helpline to support people who are having difficulties with their online experience or with using one of our digital products. In addition, a dedicated space will soon be opened in the Principality to offer support to all those who need it, in partnership with Monaco Telecom.

A new year has begun, but Extended Monaco's values remain the same: a sustainable, an inclusive, a secure and a sovereign digital technology that places the user at the heart of our transformation.



# IMPROVING THE DAILY LIVES OF STATE TENANTS: A STATE PRIORITY

**Updating the procedures related to housing and state-owned premises was a priority for the Prince's Government. Since last year, occupants and tenants of state-owned property (housing, shops, offices, car parks, warehouses, etc.) have been able to submit their applications online. They also have access to a dedicated application for everyday life.**

It was one of the Monegasque government's priorities in 2022, and now digital access to administrative procedures related to housing is a reality: applicants to the State Property Authority can apply for housing online. The success of this e-service was immediate. In response to calls for applications in 2022, more than 1,000 – almost 90% of the total – were made online.

Thanks to Mon Espace Domaines, available on the web or via a mobile app, residents and tenants can activate the direct debit facility for their monthly rent, check their invoices, and find information about everyday issues in their building.

« The Mon Espace Domaines application and website enable public service users, if they wish, to gain paperless access to information about their rental situation and to contact the service in many situations: to report a change of situation, to request repairs to an apartment, or to make an appointment to sign a right to buy contract ("habitation-capitalisation"). The State Property Authority can also use this digital tool to communicate directly with residents on events such as works in their building »

Elodie Kheng, Director of the State Property Authority.

Another feature available is registration for the exchange of state-owned apartments. The occupants and tenants of state-owned property can consult photos and floor plans of the accommodation offered for exchange and access a virtual tour. This e-service has been very popular since its launch, with more than 1,500 users registered last year.

Thanks to these e-services, which are the result of close collaboration between the Ministry of Finance and Economy, in particular the Housing Department, the State Property Authority, and the Digital Transition Office, the processing time for applications has been cut in half. Digitisation has also brought other benefits, making it easier to store important documents and reducing paper use in an environmentally responsible way. In addition to 24/7 accessibility, the public service guarantees better security and traceability of information.

By 2024, the use of digital technology will be extended to include the electronic signature of leases with the State Property Authority as well as to applications for National Housing Benefit.

## IN FIGURES

Nearly  
**1,500**  
Mon Espace Domaines  
accounts activated

More than  
**1,000**  
applications for public  
housing submitted  
online in 2022

# MOBILITY, EDUCATION, LEISURE... EVERY ASPECT OF DAILY LIFE IS GOING DIGITAL

In 2022, the Extended Monaco programme expanded the range of digital services in all areas of everyday life: mobility, health, education, leisure, etc.



DOWNLOAD  
THE MONAPASS  
APPLICATION  
BY SCANNING  
THIS QR CODE

## THE SUCCESS OF MONAPASS, THE ALL-IN-ONE TRANSPORT AND LEISURE APP

Launched in May 2021, the Monapass mobile application enables access to all local means of transport and a range of cultural services via smartphone. In 18 months, this app has become increasingly popular, with almost 30,000 downloads and 2,400 users per day. The year it was launched, it won the Prix de la Mobilité Numérique (Digital Mobility Award) at the 30th VRT Transport Awards.

In addition to buses operated by the Monegasque Bus Company (CAM), Monapass facilitates the use of Monabike electric bicycles and on-street parking, and offers tickets for the Oceanographic Museum, the Fine-Arts Cinema and the Grand Tour bus.

« No need to buy my ticket on the bus and queue. All my tickets are stored in my mobile phone. I can even go to the cinema without visiting the box office. » Baptiste, 23-year-old resident.

This service has been added to the digital mobility offering already available in Monaco, which includes Waze to optimise your route and get real-time updates on lane closures and road disruptions, and Klaxit to help users carpool between home and work.

### What's next?

The ambition of Monapass over the coming months is to offer new cultural services and add a very attractive sports-related offering for Monegasques and residents.

A taxi app will also be made available, inspired by the existing services in France.

« Monapass is the Swiss Army knife of Monegasque mobility » Roland de Rechniewski, CAM Chief Operating Officer.

### A genuine digital wallet

Users can now securely organise, pay for and centralise their travel and leisure activities in complete security with a single ticket, pass or subscription. They can also obtain real-time information on nearby means of transport (bus timetables, bicycles available in the vicinity) thanks to the link to Citymapper, and identify the best route by combining bus, walking or electric bike, all with just a click.

### IN FIGURES

30,000  
downloads

2,400  
users per day



# THREE QUESTIONS FOR GEORGES GAMBARINI

Head of the Smart City programme  
at the Digital Transition Office



**« Digital technology offers a better experience of the city and easier access to information and services. »**

public transport and soft mobility, for example. In addition to making it easier to pay for transport tickets, Monapass now includes Citymapper, allowing users to choose the most appropriate means of transport at any given moment!

**What challenges will need to be overcome in the years ahead to make Monaco a global "smart city" benchmark? How does Your Monaco fit into this vision?**

The challenge is twofold. New digital services will need to be developed to improve the experience in the city, while aggregating decision support solutions based on new technologies, which will enable continuous improvement of urban management and planning. In Monaco, the approach is collaborative, involving all of the public and private partners in this sector who have a role to play in this revolution. Our role, the State's role, is to draw on all the skills available locally and to pool them to offer users a better urban experience.

Improving mobility within the city is a priority for the Ministry of Public Works, the Environment and Urban Development and the Digital Transition Office, with the aim of reducing car traffic by 20% by 2030. Georges Gambarini explains how digital technology is making it possible to rethink mobility.

**How is digital technology changing the mobility experience in Monaco?**

For the past four years, we have been working with our partners to set up a range of digital services in response to the major challenges facing the Principality.

Reducing traffic congestion, making commuting easier and optimising travel. Digital technology, a catalyst for public policy change, extends urban development policies, offers a seamless and multimodal mobility experience and improves the quality of our services.

**How are you promoting soft mobility through new products such as Monapass?**

Digital technology is useful in supporting change and facilitating access to services and information. By giving users comprehensive mobility information in their pocket, Monapass promotes the development of

# YOUR MONACO, THE APP THAT KNOWS THE PRINCIPALITY INSIDE OUT!

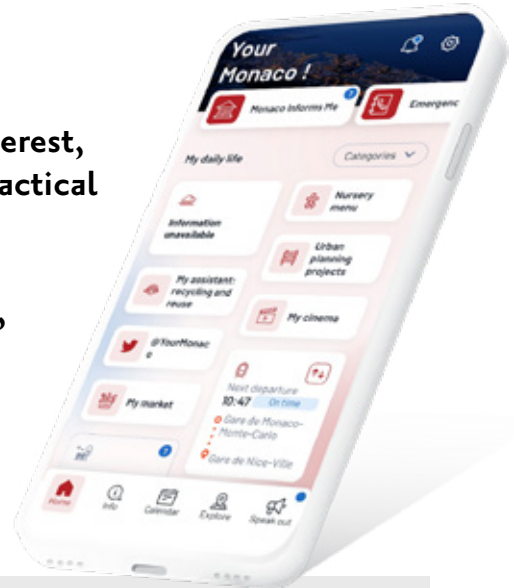
Traffic conditions, real-time indicators, points of interest, and more. The Your Monaco application provides practical information about daily life in the Principality. By integrating all these services into a single solution, Your Monaco aims to be the go-to app for every user, every day.

For residents, commuters and cross-border workers, the urban information website YourMonaco.mc has been providing real-time practical information on the Principality (public transport, traffic, local services, environmental data, incident reports) since 2020. It also offers the opportunity to discover the country's places of interest, events and activities.

In late 2022, the site was transformed and the Your Monaco application is now available to download for free on smartphones (via the App Store and Google Play).

More than just a catalogue of urban services, Your Monaco, which is available in French, English and Italian, meets the specific needs of each individual. Thanks to a customisable dashboard, users can assemble the content that interests them at a glance and quickly consult their favourite sections: from the menus for their children's school meals to cinema listings and a map showing all places of interest (restaurants, schools, kindergartens, electric charging points, etc.). Users can also set up push notifications and alerts to suit their needs.

The result of a collaboration between all government departments, the aim of this tailor-made solution, developed in partnership with Orange Business Services, is to enhance interactivity with the population. This digital service is a new step in the development of the Monegasque smart city.



## WHAT YOU CAN FIND ON YOUR MONACO

The Your Monaco application offers many services:

- ✦ **Live updates on traffic**, transport and the environment
- ✦ **Information about establishments open to the public**: menus for school canteens and childcare facilities, opening hours, cinema showing times, etc.
- ✦ **A chat bot**, a software agent that communicates with users to offer guidance on sorting waste
- ✦ **Themed sections**: environment and urban development, everyday Monaco, etc.
- ✦ **A consolidated calendar** of all events in the Principality
- ✦ **Places of interest** in Monaco
- ✦ **Civic features**: you can make observations and suggestions

## IN FIGURES

5,000  
downloads

400  
users per day on  
average



DOWNLOAD THE  
YOUR MONACO  
APPLICATION BY  
SCANNING THIS  
QR CODE

# MONACO SANTÉ

## THE FOUNDATION OF E-HEALTH STRATEGY IN MONACO

**In 2022, the Monaco Santé platform, the cornerstone of Monaco's e-health strategy, has added new features: teleconsultation and secure messaging.**

To ensure the continued excellence of the Monegasque health system, the Monaco Government is banking on digital technology. The Monaco Santé platform is one of the cornerstones of this e-health strategy in Monaco, which is jointly supported by the Ministry of Health and Social Affairs and the Digital Transition Office.

« E-health will bring patients closer to their doctors, and will also increase efficiency, improve data sharing and avoid medical errors caused by health professionals not having access to the right information at the right time » Dr Jean-Michel Cucchi, President of the College of Physicians of Monaco.

### The patient at the heart of the project

This digital portal, available in three languages (French, English, Italian), is intended to facilitate every step for Monegasques, residents and visitors alike, helping them to access better care. Featuring online appointment booking, a directory of all health professionals working in the community and at care facilities, storage of personal information when a personal account is opened, emergency and on-call numbers synchronised in real time etc. Monaco Santé offers numerous services in addition to providing health news from the Principality.

A major innovation in 2022 was the integration of remote consultations, with the aim of creating a smoother patient experience while maintaining the human connection. Another innovation is secure messaging between healthcare professionals, which facilitates the sharing of information and improves the coordination of care, both within institutions and between private practitioners.

« This health portal will facilitate communication between the various health professionals, doctors, pharmacists, analysis laboratories and patients » Caroline Rougaignon-Vernin, President of the College of Pharmacists.

In this trusted space, professionals are empowered to share health information via email in a secure, paperless way that respects patient privacy.

### What's next?

In 2023, secure messaging will be expanded to cover exchanges between doctors and their patients. In particular, this will allow health professionals to send documents related to the patient's health (prescription, diagnosis, check-up, X-ray, etc.) in a completely confidential and encrypted form. Patients will be able to retrieve their documents via a secure link and two-factor identification – no health documents will pass through the public messaging system.

\*The portal is available online at [www.monacosante.mc](http://www.monacosante.mc) or on smartphones and tablets by using the mobile app which can be downloaded from the AppStore or Google Play.

« The portal will provide access to connected health for all »

Benoite de Sevelinges,  
Director of the Princess  
Grace Hospital.



ACCESS  
THE  
MONACO  
HEALTH

### PATIENT IDENTITY MANAGEMENT WILL BECOME A REALITY IN 2023

The use of a common identity by all health professionals, and therefore the creation of a Monegasque health identity that will eventually be used by all professionals, is an essential prerequisite for the introduction of shared medical records and for enabling discussion and sharing among healthcare professionals. This identity management approach, which encompasses every stage of patient care, means merging identities between all healthcare establishments. This is why the various Monegasque healthcare facilities and private practitioners have already defined common rules and practices for patient identification, formalised a charter and agreed to set up an identity matching server.

### IN FIGURES

750

secure email  
accounts

38,000

secure  
messages

146,000

single visitors to  
the Monaco Santé  
portal in 2022



# THREE QUESTIONS FOR THIERRY POYET

Head of the e-Health programme  
at the Digital Transition Office



**« Protecting  
patient data  
is a key issue. »**

**F**or Thierry Poyet, digital technology is a lever for further enhancing the excellence of the Monegasque healthcare system. Above all, it is an opportunity to forge closer ties between patients and health professionals.

**Monaco Santé was officially unveiled at the end of 2021. What is your assessment one year later?**

Monaco Santé has become the portal of reference in the Principality. More than 400 visitors log into the platform every day. In 2023, we will improve the online appointment booking service by including new schedules and accessible slots.

**A notable innovation has been added in 2022: secure health messaging for health professionals. How does this add value?**

Protecting patient data is an essential issue in the development of digital health uses. The Prince's Government was therefore keen to make available to all health professionals a shared, trusted space to protect the responsibility of professionals authorised to exchange this sensitive data working in private practice or in healthcare facilities in the Principality and the Provence-Alpes-Côte d'Azur region.

**What are the priorities for e-health in Monaco?**

A Monegasque health identity will eventually be used by all professionals, which is why we have drawn up a patient identity management charter with all relevant Monegasque healthcare facilities before setting up an identity matching server in 2023. This is a necessary step ahead of the implementation of shared medical files and for enabling discussion and sharing among professionals. The Shared Medical File concept, which is currently being looked at, will aim to improve patient care and cross-border care pathways.



# EDUCATION: DIGITAL TECHNOLOGY AS A TOOL FOR LEARNING AND UNDERSTANDING

**Digital high school, online procedures, a platform for teachers...  
In 2022, Monaco accelerated the digital transition of its education system.**

One of the aims of e-education is to train and prepare our young people for the careers of tomorrow. Programming classes have been widely introduced from nursery school onwards and a partnership has been signed with the American institution code.org, an EduLab has been opened at Charles III College, and educational uses have been developed, with personal digital equipment provided for teachers and pupils.

« Our aim is to make Monaco the first country in the world to offer this level of tech saviness in education. » Isabelle Bonnal, Director of Education, Youth and Sport.

With the Digital College programme launched at Charles III College in 2020, 100% of students have been equipped with computers or tablets. Monaco has also rolled out the Digital High School programme, starting in late 2021 at the Lycée Albert I and expanding it to the Lycée Technique et Hôtelier in 2022. The new educational resources that have been made available (interactive maps, software for learning languages, mathematics, etc.) will help to develop teachers' creativity and to motivate children and better capture their interest. In 2022, training courses for pupils will also be expanded, with more hours taught as well as a whole-of-society approach to help students better understand their future in a resolutely digital world. Webinars are made available

to pupils and parents in the Principality to help them learn about digital professions and adopt responsible digital practices. This awareness-raising will continue in 2023.

## Simplifying administrative procedures for parents

E-education is also helping to simplify interactions with parents. Several administrative procedures were made paperless in 2022, such as enrolling in secondary or primary school or applying for scholarships. These are all available on Mon-Guichet.mc. All procedures relating to the school system will be moved online by the end of 2023.

## What's next?

Primary schools will experiment with new practices through immersive classroom experiences, redesigned spaces and time dedicated to learning about digital technology. Parental liaison will be further strengthened by improving the use of Pronote, which makes monitoring school life easier.

## IN FIGURES

**100 %**

of pupils trained in computer programming from kindergarten onwards.

# DIGITAL ACCESS TO CULTURE IN MONACO IS GROWING

In 2023, a new digital platform will promote Monaco's cultural offering.



Cultural events in the Principality are an essential part of the country's appeal. A diverse and abundant range of activities allows the population to enjoy a lifestyle that features a cultural richness on a par with the largest international metropolises. By highlighting this cultural offering, it can be better promoted and become a factor in attracting new residents and investors. This centralised, vibrant platform is intended to centralise online ticketing and diary services, and will also offer heritage and learning content.

« It is important for all public and private cultural institutions to use this platform to promote Monaco's cultural offering, and to provide practical information and rich media. » Françoise Gamerdinger, Director of Cultural Affairs.



## VISION

Create a unified digital culture platform to enhance the value of Monaco's public and private offering



## GOALS

**PROPOSE** a global identity  
**ENHANCE** the Principality's cultural offering  
**STRENGTHEN** the country's appeal  
**DEVELOP** gateways between culture and digital technology



## STRATEGY

**ENSURE** support focused on the "User Experience"  
**USE** multi-channel broadcasting  
**GUARANTEE** the quality of information and content



## CONTRIBUTIONS

Department of Cultural Affairs,  
Cultural Entities, Associations

📄 Websites of cultural organisations  
and partners  
📅 Events calendar  
🎫 Online ticketing

👁️ **DISCOVER** cultural life in the Principality  
👁️ **EXPLORE** the country's cultural diversity  
👁️ **PARTICIPATE** in events



## REACHING OUT

To Monegasques, residents,  
commuters, foreigners,  
tourists, professionals,  
artists, journalists...



# INTERVIEW WITH



## CYRIL GOMEZ

**The Oceanographic Institute – Albert I Prince of Monaco Foundation, one of the first Monapass partners, has accelerated its digital transformation.**

**Deputy Director General Cyril Gomez explains how.**

**Have you used the Blue Fund to develop new digital uses? Has this modernisation had a positive impact on your operations?**

Absolutely, and I would first like to thank the Prince's Government, which is really helping to facilitate the implementation of these projects thanks to the Blue Fund, and more specifically the Digital Transition Office for its human, professional and collaborative support. The Blue Fund has enabled us here at the Oceanographic Institute to launch four major projects: a new online shop, improvements to our IT infrastructure including the overhaul of our Wi-Fi network, a new digital media library, and a CRM (customer relationship management) tool. The media library is already fully operational. It makes it extremely easy to centrally manage, store and share documents, photos and videos, but more importantly, it allows employees to do this independently. The final touches are being added to the online shop, the last administrative details are being worked on and internal training for operators is planned. The CRM will be operational in the second half of 2023. As for the new network infrastructure, more than 80% is already operational and the remaining 20% is due by the end of the first quarter of

2023. The impact was immediate! We now have a new public Wi-Fi service in place, improving visitor satisfaction. The new network tools are enhancing the productivity of the Institute's users on a daily basis.

**« The Blue Fund has enabled the launch of major projects. »**

**You have launched your ticketing service on Monapass and migrated your data to the sovereign cloud. How is the Government supporting you in your digital transformation?**

The Oceanographic Institute has embarked on a vast project to upgrade its information system in order to accelerate its digital transformation. Thanks to access to the *eme.gouv.mc* platform, we were able to assess our digital maturity. For a little over a year now, our digital transition has been under way, with the goal of developing new software and services for the Oceanographic Museum's clients, but also for all employees. For the latter, the objective is not only to improve their productivity but also to increase efficiency, particularly when managing projects in the fields of sales, event management and communication.

For visitors, the specific applications of this transformation include the collaboration undertaken with the teams from the Prince's Government on the Monapass application. Visitors can now book paperless admission tickets using the app, allowing them to enter the Museum without going through the ticket office.

**What will be the next digital developments at the Museum and the Institute?**

In addition to the implementation of the CRM, eagerly awaited by many employees, we are working on a project to digitise administrative and accounting documents, and on an upgrade of our human resources management information system. In the context of these two projects, the use of the sovereign cloud is under consideration, as is the use of electronic signature. Overall, this is a very large project, which will create the structure for our internal operations. For the general public, numerous screens are already in place to help visitors discover the Mediterranean aquariums, providing them with additional information on the species in the exhibitions. We are currently improving the screen management system, centralising updates through a dedicated platform.

# MONGUICHET.MC:

## SINGLE ONLINE PORTAL FOR ALL ADMINISTRATIVE PROCEDURES

Thanks to the MonGuichet.mc portal, administrative life in Monaco is now easier, faster, more efficient and accessible round the clock.

Since the end of 2021, the Principality has offered a portal, available in French and English, which brings together in one place all of the online services offered by the Prince's Government and Monaco City Hall. More than 120 of the 140 most common everyday procedures have been digitised in three years.

### Today, users can:

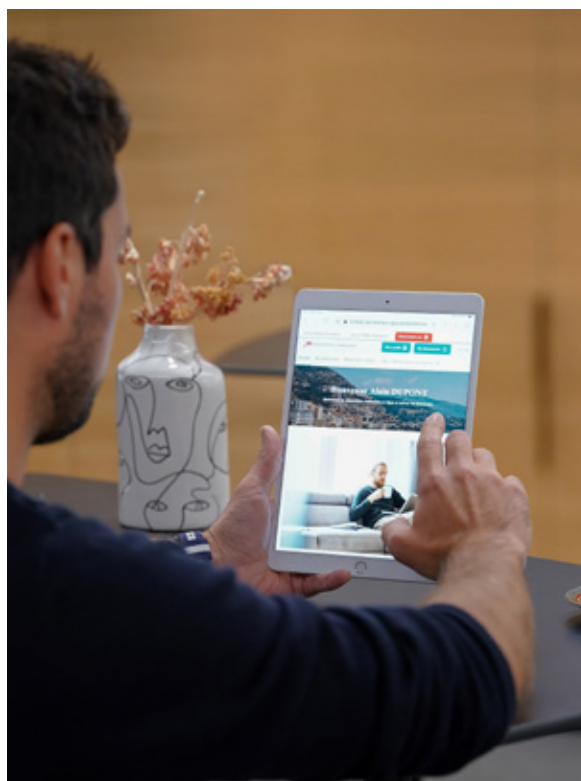
- ★ Apply for or renew **residence permits**
- ★ Apply to exchange **foreign driving licences**
- ★ Apply for **state-owned housing**, or submit and follow up applications for a **flat exchange**
- ★ Enrol children in **nursery, primary, secondary or high school**
- ★ Pay for **school meals**
- ★ Apply for **scholarships**
- ★ **Hire domestic staff**
- ★ **Apply** for public service posts
- ★ Make an **appointment** with a government department

« An exemplary partnership for the utmost satisfaction of users » Richard Marangoni, Chief Superintendent of the Police Department.

« The aim is to offer the 250 users who visit the Office every day a personal welcome with no waiting around, as they will attend by appointment only on a date and at a time of their choosing. » Aurélie Peri, Head of the Driver and Vehicle Licensing Office.

### What's next ?

In 2023, MonGuichet.mc will gain new functionality: users will be able to store documents in a dedicated space, upload documents and save documents issued by government departments.



It will also be possible to book appointments online with the Housing Department and the Business Development Agency.

New and much-anticipated e-services will be launched: National Housing Aid (ANL) and Differential Rent Allowance (ADL), requests for duplicate driving licences and registration certificates, payment of traffic fines and access to the register of associations.

### IN FIGURES

120

paperless  
procedures

86 %

user  
satisfaction  
rate

80 %

adoption rate  
of online  
services

# THREE QUESTIONS FOR MARINE ROLANDO

Head of the e-Government team  
at the Digital Transition Office



**« We do not want to sacrifice the human element or proximity. »**

ensuring accessibility at all times, improving the security and traceability of files and facilitating smoother processing. But we do it without sacrificing the human touch or close contact: all services are available in person as well as online. We conduct regular satisfaction surveys to monitor the digital experience of our citizens and the quality of the services offered, with a view.

**T**he digitisation of administrative procedures is proving extremely popular: more than three quarters of users opt for the online version when a service exists in digital form. Marine Rolando, Head of e-Government, explains why.

## **How has digital technology brought users closer to their government?**

Users of all generations are at the heart of our concerns. Four years ago, the vast majority of procedures were paper-based, forcing users to attend in person as a matter of course, with sometimes long processing times. Digital technology has made it possible to simplify the daily lives of Monegasques and residents, as well as their relationship with government departments. This has had an impact on quality of life. Today, the vast

majority of every day procedures have been made paperless, from the simplest to the most complex, from paying for school meals to applying for a state-owned apartment! We assist people at key moments in their lives and we are making administrative processes easier. But we still retain a close relationship with citizens. In addition to the physical counters open throughout the week at the various government offices, a User Assistance Line is also available. In 2022, our advisors received almost 20,000 calls. We have also noticed that digital technology is very popular in Monaco: as soon as an existing procedure is made paperless, four out of five users switch to the online version.

## **What is your objective?**

Making people's lives easier! We do this by saving time and space,

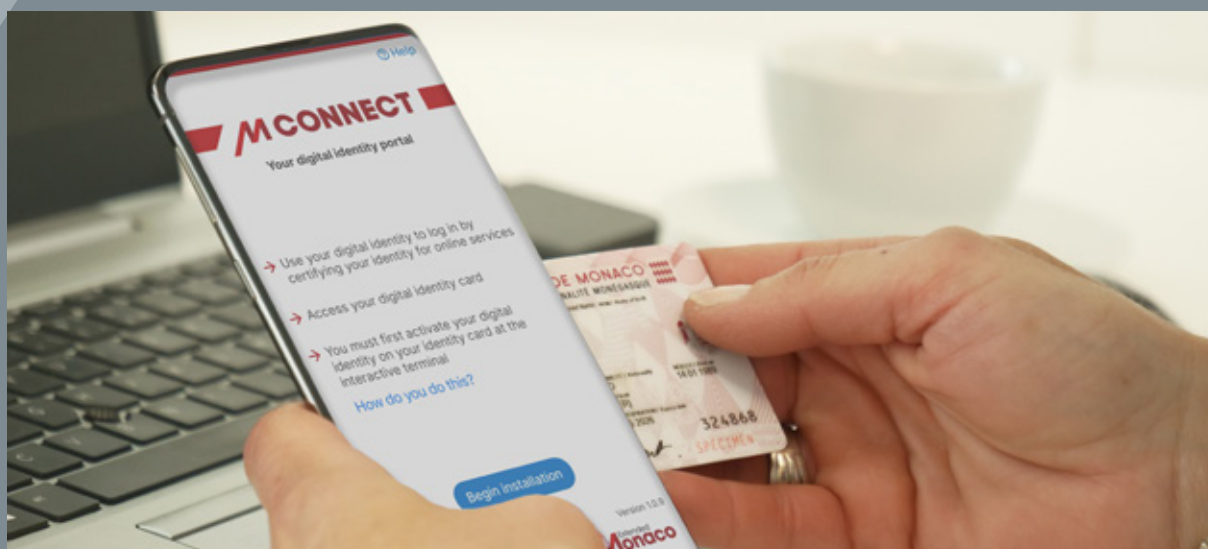
## **What is your roadmap for 2023?**

We have several projects: increasing the value of MonGuichet.mc, developing the use of digital identities, in particular by offering pre-filled forms for users who have activated their identity. We are keen to pursue this strong focus on efficiency and simpler public services for all Monegasques and residents, and to amplify it for entrepreneurs, employees and government departments. A new cycle of transformation is starting over the next two years, with end-to-end transformations (from the business tool to online services) to ensure the highest quality of service.



# FOCUS ON

## Digital identity



Digital identity for Monegasques and residents was developed in just 18 months by the Digital Transition Office, working in collaboration with the Ministry of the Interior, the Police Department, Monaco City Hall and the Monaco Cyber Security Agency, and with the assistance of IN Group, a key player in identity solutions and digital services worldwide.

This digital identity allows holders of the new Monegasque identity card and residence permit to access all of the online procedures on MonGuichet.mc, as well as services offered by private partners, from their computer or smartphone using the MConnect application. Above all, it allows users to connect securely.

Users can also sign documents electronically to the highest international standards.

Last year, the Principality of Monaco was awarded the High Security Printing Award for its digital identity in the "Best new ID card and travel document" category for the Europe, Middle East and Africa region.

Digital identity will be further developed in 2023 with:

- New features on the MConnect mobile application: Face ID and Touch ID to unlock the application.
- The introduction of Tell Us Once on the most used online procedures.
- The extension of digital identity beyond Monegasques and residents.

### IN FIGURES

Nearly  
**18,000**  
new identity cards  
and residence  
permits

**90 %**  
of digital  
identities have  
been activated

**70 %**  
use MConnect  
via the mobile  
app



DOWNLOAD  
THE MCONNECT  
APP BY  
SCANNING  
THIS QR CODE

# INTERVIEW WITH

## GEORGES MARSAN



**For the Mayor of Monaco, Georges Marsan, digital technology has opened up innovative and useful possibilities.**

**How is Monaco City Hall using digital technology to modernise its work, particularly in terms of communication, with digital bus shelters?**

Since 2020, Monaco City Council has been modernising its poster network. We have gradually removed a number of large paper signs and display windows, and replaced them with digital screens. This change of furniture has a dual objective: making our network sleeker and thus more aesthetically pleasing across the city, and modernising it by developing the use of digital media. Digital screens have been installed at various points in the Principality and at entrances to the city, as well as at bus shelters. The communication is not only more modern, it also offers more flexibility. In addition, we have introduced digital technology across all municipal services.

The public now has access to all forms in digital format – these can be downloaded from our website – and to new e-services with the development of online procedures; meanwhile, our suppliers can now send paperless invoices and paperless bids in response to calls for tender.

**The implementation of the official national digital identity brings the Principality in line with the most advanced States. What is your verdict 18 months after its launch?**

The official digital identity was launched in June 2021. City Hall, led by my Deputy in charge of Digital Transition, Nicolas Croesi, has actively participated in the project through the implementation of the new Monegasque identity card, and has mobilised various municipal services for over two years.

**« We have introduced digital technology across all municipal services. »**

We have worked hand in hand with the Government and this collaboration fully illustrates the collective action that is needed in our approach to the digital transition. The new identity card, which is the cornerstone of digital identity for Monegasque nationals, has opened up innovative and useful possibilities and now facilitates many administrative procedures online, while guaranteeing optimal security. To date, 3,572 cards have been produced and 90% of cardholders have activated their digital identity.

**Monapass now includes on-street parking features. What has user feedback been like? What other City Council services will soon be accessible via Monapass?**

The City Council has collaborated with the Monapass programme by including payment for on-street parking. This is now used for 50% of all payments! We are currently investigating the possibility of integrating new services into Monapass. Finally, City Hall is also a partner for Your Monaco, the application launched by the Prince's Government last December.



# EXTENDED MONACO COMMITTS TO ACTION ON WOMEN'S RIGHTS

## MONACO EXTENDED COMMITTS TO WOMEN'S RIGHTS

The Committee for the Promotion and Protection of Women's Rights presented its 2022 campaign for the International Day for the Elimination of Violence against Women at the Extended Monaco offices: an interactive and educational website that puts the viewer in the position of someone who can help a woman who has experienced abuse. There has also been a focus on how digital tools can help to share details of the support and information services available for victims of abuse. This is where the Digital Transition Office can step in to assist this noble cause and combat such forms of injustice. The work carried out has resulted in, among other things, the publication of information aimed at the general public and healthcare professionals via the Monaco Santé portal. Monaco has also joined the community of countries using the « App-Elles » personal safety app.

**« Access to information on support and emergency services is absolutely vital for women experiencing abuse. Digital technology has a role to play here, hence our collaboration with the DITN's teams »**

Céline Cottalorda,  
Country Chief Women's Rights Officer.



# FOCUS ON

## Residents : a range of services to help people settle in Monaco

Digital technology can assist individuals at every stage as they settle in Monaco.

### 1<sup>st</sup> phase: a foreign resident wishes to settle in the Principality

Even before they arrive in the Principality, future residents have access to online procedures to facilitate their arrival. In particular, they can apply for a residence permit online with the following corollary benefits:

- ★ Procedures available in English and French
- ★ Preparation of application and subsequent changes
- ★ Interaction with the Police Department
- ★ Online appointment booking

Approximately 1,200 online applications have been made since early 2022 (more than 60% of total applications made).

### 2<sup>nd</sup> phase: the resident has obtained a residence permit

A number of e-services are available to facilitate completion of the administrative procedures involved in settling in the Principality and fulfilling various requirements, such as exchanging a foreign driving licence for a Monegasque one at the Driver and Vehicle Licensing Office or enrolling children in a state-run school in the Principality.

### 3<sup>rd</sup> phase: the resident has settled in the Principality

Various online services are available to residents living in the Principality: renewing a residence permit, applying for a residence certificate, applying for a duplicate residence permit, etc. in the event of loss or theft, reporting of a change in status.

### What's next?

Thanks to digital identity, the MConnect service can be used to simplify online procedures, particularly relating to residence permits. The form will be pre-filled according to the most recent situation known by the Police Department. Residents need only declare any information that has changed.

Online applications to exchange driving licences will also be facilitated by the sharing of information between the Police Department and the Driver and Vehicle Licensing Office, subject to the user's consent. Only new information needs to be filled in and confirmed with supporting documents.



### RESIDENTS' FEEDBACK

« I have just moved to Monaco. The new online procedures have really made it easier for me to settle in and get on with my life. We receive great support and digital technology allows us to interact 24/7. »

**Frédéric, a 54-year-old Belgian resident**

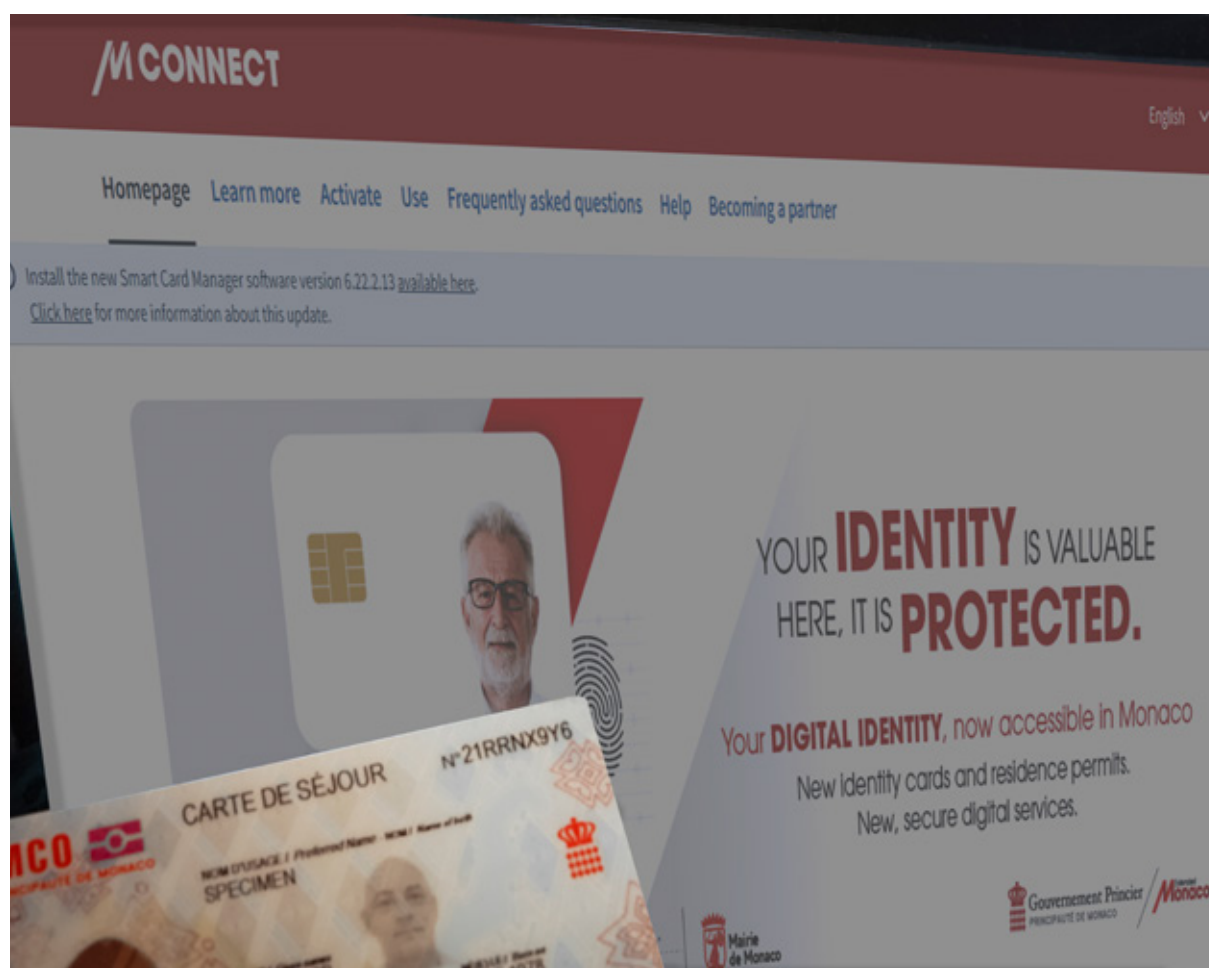
« I was able to renew the residence permits for me and all of my family members in just a few clicks. This saves a lot of time and provides a level of convenience that cannot be found anywhere else. »

**George, 37-year-old Swiss resident**

# WHAT'S NEXT?

## A PLATFORM TO ATTRACT AND WELCOME NEW RESIDENTS

In 2023, Extended Monaco will offer a specific tool to better inform and support individuals (future residents, families, etc.) at every stage of their move to Monaco.



Soon, all information for residents will be available on a new digital platform.

The platform content will be presented in three themed sections, one for each of the major steps involved when moving to the Principality:

- **Choosing Monaco:** an overview of Monaco (territory, climate, population, economy, etc.) and its advantages (taxation, security, quality of life, education, etc.), as well as a database of useful contacts.
- **Settling in Monaco:** assistance with administrative procedures (residence permit, banking, housing, education, vehicles, etc.) and a customised welcome pathway based on a questionnaire.
- **Living in Monaco:** practical information (health-care facilities, schools, cultural venues, etc.) and residents' networks (Club des Résidents Étrangers de Monaco, Monaco Private Label, thematic and national communities and groups, etc.).







An aerial photograph of Monaco, showing the city built into a hillside overlooking the sea. The image is overlaid with a semi-transparent red geometric shape that covers the right side and bottom. The title text is in large, bold, white capital letters.

# LEVERAGING DIGITAL TECHNOLOGY TO HELP BUSINESSES

Thanks to key infrastructure such as 5G, fibre broad band and the sovereign cloud, digital technology is accelerating the Principality's economic development. The Government of Monaco also relies on the Blue Fund, which supports Monegasque businesses in their digital transformation, and on digitised and simplified public services for businesses.



**« Our foundations  
are enabling the  
Monegasque  
economy to reap  
the full benefits  
of the digital  
transformation. »**

# A MESSAGE FROM

## PASCAL ROUISON

Manager, Digital Transition Office



«Since the launch of Extended Monaco by H.S.H. Prince Albert II in April 2019, the goal of our digital transformation programme has been to make the Monegasque economic model ever more attractive. Digital technology has enabled the Principality to free itself from its territorial constraints for the first time, to embark on a new development cycle and to take a special place alongside the world's leading cities.

The Extended Monaco programme began by laying a solid foundation with the pioneering deployment of 5G and fibre throughout the country. These major infrastructures provide all local companies with ultra high-speed internet, an efficient and stable connection, and consequently, an extraordinary asset for competitiveness. Connectivity is an essential requirement for this land of entrepreneurship, where the density of SMEs and VSBs is particularly high.

Together with the sovereign cloud, these foundations are enabling our economy to reap the full benefits of the digital transformation. In 2021, Monaco launched Europe's first sovereign cloud. Thanks to this new infrastructure, which is the only national resource of its kind on the continent, developed in collaboration with the world leaders in the field, Monegasque companies and foreign investors looking to do

business in the Principality of Monaco benefit from a system with high added value. The sovereign cloud offers businesses based in Monaco and abroad access to a wide range of innovative services that are essential to their growth, such as virtual machines, storage and backup.

Digital technology has already proved to be a major asset for our model in the post-Covid world and a great shock absorber for businesses during the crisis. Jointly supported by the Ministry of Finance and the Economy and the Digital Transition Office, the Blue Fund has played a key role in the Principality's economic recovery. These financial and logistical incentives for digital transformation are bearing fruit, with almost 700 digital transformation projects co-financed to the tune of €20 million, more than €42 million – in terms of project value – injected into the local economy, and over 3,500 professionals trained. By the end of the crisis, a real digital ecosystem had been created in the Principality, which now boasts more than 2,000 employees working in Monegasque digital services companies.

On the strength of its success, the Blue Fund scheme has been renewed and is now the cornerstone of the economic development and attractiveness plan.

Extended Monaco also aims to reduce the administrative burden on companies. In concrete terms, some fifty procedures for businesses are now available online. Since the beginning of January, professionals have, for example, been able to

buy an extract from the Trade and Industry Registry without needing to visit in person, and these extracts have the same probative value as the paper versions. A single information platform for professionals – MonEntreprise.mc – has been online since 7 March.

Today, Extended Monaco is seeking to take on a new digital challenge aimed at making the Principality a more attractive place to do business, namely by facilitating recruitment and access to employment in Monaco, given the labour shortage that we are experiencing in certain sectors. From this year onwards, new online services will promote job vacancies to candidates and job seekers and digitise the hiring process for employers.

As the Minister of State pointed out at the last annual Extended Monaco event, «the digital world is a priority for countries and offers incredible power to transform.»

In the post-Covid, ultra-connected era, digital technology is now a powerful driver for economic development for the Principality's businesses, for all the stakeholders who make up Monaco's economy. »



# WITH THE BLUE FUND, EXTENDED MONACO IS HELPING BUSINESSES TO NAVIGATE THE DIGITAL TRANSITION

**Funding for digital transformation projects, job creation, training...  
The Digital Economic Recovery Plan is showing tangible results.**

To support businesses' digital transformation and boost the country's appeal to new investors, at the end of 2020, the government included a digital pillar in its plan to revive the post-Covid Monegasque economy. This action programme is based on the Blue Fund, which aims to develop the digital maturity of Monegasque companies, promote an ecosystem favourable to the digital economy and support the Monegasque digital business services sector. It allows all Monaco companies, regardless of size, to receive funding for up to 70% of their digital project.

The Digital Economic Recovery Plan has proven to be a vehicle for high added value: more than 700 digital transformation projects have been co-financed to the tune of €20 million, €42.5 million worth of transformation contracts have been initiated, there has been a 12% increase in incremental turnover reported by beneficiary companies, 400 potential new jobs in the long term... Ultimately, every €1 invested by the government from the Blue Fund yields €8 of declared value, in the form of either additional turnover or reduced expenditure!

On the strength of this success, and as the economy continues to recover, this scheme will be continued and extended in 2023. It is being overhauled to make the Blue Fund a catalyst of economic development and a driver of attractiveness for entrepreneurs with value-added projects.

## **Extended Monaco for Businesses (EME), the platform for successful digital transformation**

The cornerstone of companies' digital transformation in the Principality, the Extended Monaco for Businesses programme ([eme.gouv.mc](http://eme.gouv.mc)) brings together all of the services offered to entrepreneurs. This single gateway to the Blue Fund offers a unique, integrated and personalised experience. With a 360° service approach, the EME programme takes the form of a digital platform that allows companies to test their digital maturity, enjoy free access to a library of content designed to help them become more aware of digital technology and its opportunities, talk to Monegasque digital experts and get support with developing digital strategies, and access information about dedicated financial aid. A training plan is offered via an e-learning platform, in partnership with Coopacademy, and events organised in collaboration with local digital services companies to understand development models.

This comprehensive scheme is designed to support major digital transformation projects in companies: integration of a digital strategy, cloud computing, cybersecurity, process optimisation, training, etc. More than 3,500 people have been trained in digital skills since the launch of the EME programme in November 2020, thanks in particular to workshops organised in collaboration with the Monaco Economic Board and the Federation of Monegasque Companies.

### IN FIGURES

**€ 20.3  
million**  
disbursed by  
the Blue Fund

Nearly  
**700**  
projects  
supported

**€ 43  
million**  
in contract  
value

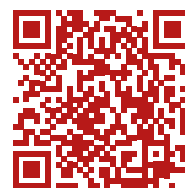
**400**  
potential jobs  
created in  
the long term

**€ 8**  
of value generated  
(declarative) for each  
euro invested by the  
State



## PROPTech, A CENTRE OF DIGITAL EXCELLENCE FOR THE PRINCIPALITY

Since 2021, the Digital Workshops conference series has organised an event on PropTech, a real centre of excellence in the Monegasque economy alongside Smart Yachting, FinTech and SportTech. This new movement places digital transformation at the heart of the revolution in the real estate and construction industry, not only on a city scale but also on a building scale, covering property development, transactions, construction, financing etc. A major contributor to Monaco's GDP, this historic sector of excellence in the Principality, combined with a booming local digital sector, represents an opportunity for attractiveness on a national and international scale. This is why the Principality has been collaborating with ESCP Business School to publish the PropTech barometer since 2020. Produced by Jaime Luque, a professor at ESCP Business School, this work measures the extent of solutions aimed at revolutionising real estate through the digital age, with a chapter dedicated to the solutions used in the Principality (downloadable from [eme.gouv.mc](http://eme.gouv.mc) or by scanning this QR code).



Find out about previous and upcoming Digital Workshops at [eme.gouv.mc/participate-in-events](http://eme.gouv.mc/participate-in-events) or via this QR code.

# THREE QUESTIONS FOR DIEGO BONAVENTURA

Head of the Digital Economy Programme  
at the Digital Transition Office



**D**iego Bonaventura talks about the benefits of the Extended Monaco for Businesses (EME) programme and the Blue Fund, jointly supported by the Ministry of Finance and Economy and the Digital Transition Office.

## How are you encouraging companies to accelerate their digital transformation?

EME, a key pillar of the digital transformation programme for businesses, is the cornerstone of the Principality's economic development and attractiveness plan. This initiative has proved its worth by enabling nearly 700 businesses to go digital. This 360° service platform led by the DITN offers a unique programme:

- A digital needs identification tool to assess your organisation's digital maturity;
- A training plan, with an e-learning platform and events organised with local digital service companies;
- A tool to connect with the community's digital experts to develop and implement your strategy;

*« The Blue Fund, in partnership with Extended Monaco for Businesses (EME), is a catalyst for economic development and a driver of attractiveness. »*

- State co-financing to support project implementation.

## Is this why the EME-Blue Fund scheme has been renewed?

This initiative has two objectives: to facilitate access to digital technology to foster business growth and to promote a favourable ecosystem for the digital economy. Thus, the Government of Monaco is co-financing the digital transition projects being undertaken by the Principality's companies, such as new sales channels, digital human resources solutions, electronic archiving or the creation of services on the sovereign cloud. In view of this success, the Government has decided to make this scheme permanent in 2023 to encourage the roll-out of a new economy and develop a driver of attractiveness for entrepreneurs with high-value-added projects, both within our territory and beyond our borders.

## What training do you offer? Will the Digital Workshops continue in 2023?

This new direction for the digital world implies fostering an upgrade of skills, services, infrastructure and technology. The notion of a 360° pathway is therefore essential and training is a key factor for success. As a key driver of a company's performance, it is vital to tackling the challenges of

digital transformation. This is why EME proposes a training plan based on two actions:

- Digital Workshops that we organise with our partners: we take a vertical approach to digital issues, focusing on different economic sectors (real estate, construction, commerce, yachting, etc.), or adopt a more cross-cutting approach for subjects that impact the entire ecosystem;
- An online training platform featuring more than 2,000 courses offered free of charge to all entrepreneurs, employees and students in the Principality.

## IN FIGURES

**20 +**  
digital workshops since  
the launch of the  
EME platform

**3,500**  
contacts trained





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# EASIER ACCESS

## TO ADMINISTRATIVE PROCEDURES

**Whether you are an entrepreneur, a manager or an employee, less time spent on administrative management means more time to develop your business and focus on high value-added activities! One of the priorities of the Monegasque State is to make the Principality ever more attractive by simplifying life for those who contribute to its economy.**



**T**hanks to the Extended Monaco programme, business users (companies, traders, financial institutions) can now benefit from almost 50 online procedures, allowing administrative procedures – whether submitting a declaration or making a request – to be completed without the need to go anywhere. And this is undoubtedly convenient: the rate of digital use exceeds 90% for some procedures. Some of the online services aim to help employers with recruitment processes and so ultimately promote employment in the Principality. For example, for the last year it has been possible to submit an internship application online whereas previously these applications were all processed by hand, on paper.

Over the course of 12 months, this online service has made it possible to process 1,095 applications submitted online, out of a total of 1,289 (85%). That's an average of 3.5 applications processed each day, with an average processing time of 48 hours.

Since March 2022, it has also been possible to make an appointment online with the Employment Office and the Department of Employment at MonGuichet.mc. This is a big advantage for employers looking to apply for a new work permit, or renew or update an existing permit. Or for employees who want to establish an entitlement to unemployment benefit or to register as a jobseeker.



« We wanted to provide employers and employees with a simple and functional tool to quickly obtain an interview with our services. It is important for our managers to prioritise human relations, even when working online, and videoconferencing allows us to maintain this link, which is important to us at a time when contacts are less frequent »

Magali Imperti, Deputy Director of Employment.

Another essential online procedure is the ability to consult and purchase an extract from the Trade and Industry Registry. With this new online service, the Business Development Agency, in partnership with the Digital Services Department, is seeking to adapt to the new practices of local businesses and their customers or partners, and make it easier for them to carry out official procedures (opening a bank account, signing a commercial lease, purchasing technical equipment and so on).

« Moving the Trade and Industry Registry online reflects our determination to improve service quality for our users and to create the right conditions to simplify and optimise procedures for their benefit. This will enable them to avoid travelling and wasting time queuing. The number of visits made to obtain an extract from the Trade and Industry Registry is estimated at more than 50 a day »,  
Stéphane Bruno, Business Development Agency Director.

The online functionality available is in line with the recommendations issued as part of the evaluation of Monaco's tools to prevent money laundering and terrorist financing (MONEYVAL). This demonstrates the Principality of Monaco's commitment to maintaining the highest international standards. Similarly, it will soon be possible to access the registers of associations online.

Finally, the redesign of the Public Service for Businesses website led to the creation of MonEntreprise.mc. in 2023. This site is the single point of access to the business world and the essential platform for starting a business in Monaco. It will eventually contain all the practical information needed to support companies' growth and digital transformation, currently available on the websites of the Government, Monaco City Hall or private partners. MonEntreprise.mc provides access to news dedicated to entrepreneurs, professional directories (Digital Service Companies, Professional Associations, Administrative Services) and above all to all of the information needed to carry out administrative procedures.

## IN FIGURES

**3,000**

appointments made  
online at the Employment  
Office and the Labour  
Inspectorate

**20,000**

requests for Trade  
and Industry extracts  
each year





# ONLINE HIRING AND JOB SEARCH IN 2023:

**An online space will soon be available on MonGuichet.mc for Monegasque employers and jobseekers registered with the Employment Office.**

In 2023, the launch of new digital services for employment purposes will have a significant impact on the 58,000 employees and 6,300 employers in the Principality, but also for civil servants and staff in the Employment Office. To facilitate online dealings with the Department of Employment, an online space will be set up by the end of the year. In practice, jobseekers registered with the Employment Office will have a space on MonGuichet.mc dedicated to job search. In particular, they will be able to consult public job offers, apply for jobs, monitor the progress of their applications and talk to their advisors.

Employers will also have a dedicated space on MyGuichet.mc to post and follow up on job offers, consult the list of candidates proposed by the Employment Office or give online feedback on applications. As for civil servants and government employees, they will benefit from a new working tool that will enable them to match the profiles of registered jobseekers with job offers more effectively and efficiently, thus optimising processing procedures.

The aim is to fully digitise the job search and recruitment process. Eventually, it will be possible to sign applications for employment electronically and obtain digital work permits.

## FACILITATING THE RECRUITMENT OF YOUNG PEOPLE

In 2022, the Youth Employment Unit launched its new website [cellule-emploi-jeunes.gouv.mc](https://cellule-emploi-jeunes.gouv.mc), entirely dedicated to helping young people enter the labour market in the Principality.

This tool centralises all the information and solutions offered to young workers, while allowing them to discover and familiarise themselves with the different sectors of the economy, professions and training that may align with their career plans. The site also provides employers in the Principality with a wealth of practical information on the various schemes and assistance available for recruitment for work placements or work experience. Each registered company has its own virtual space, increasing its visibility and enabling it to promote its activities and values, and share information about the kinds of people it is looking for to become apprentices or interns.

### IN FIGURES

**58,000**

working employees  
in 2021 (source: IMSEE)

**6,300**

employers in 2021  
(source: IMSEE)

Environ

**6,300**

jobseekers per month  
(source:  
EMPLOYMENT OFFICE)



# THREE QUESTIONS FOR

## GUILLAUME ROSE

Chief Executive Officer of the Monaco Economic Board



**« The Blue Fund has been very effective for our companies. »**

Pineappli, Aedexcell, Algiz consultants, Codelab, Asteria, Baccana, Blue Wave Software, Carlo, Colibri, Deloitte, Equilateral, Everial, Luxtrust, SYS, Federall, KPMG, Fenyx, Homisis, I2N and Keesystem.

**P**or Guillaume Rose, CEO of the Monaco Economic Board, digital technology is on a roll.

### **How is the post-Covid labour market doing?**

The job market is doing very well, with a 4% increase in the number of employees between 2020 and 2021, and more job offers available. The digital professions are in the top three in terms of hiring needs. This high demand is due to the transformation that many companies are undergoing. The number of private-sector employers has also increased above the 2019 level.

### **Did the Government's recovery plan match up to your expectations?**

The recovery plan proposed by the Government has been a lifesaver for many companies and has generally enabled the Monegasque economy to stay afloat during one of the most challenging periods in the last 30 years.

More than 300 companies in the Principality have benefited from the Blue Fund, including businesses that are members of the Monaco Economic Board, and thanks to this aid they have been able to diversify their offer, become more competitive and remain active in their sector. Regardless of the size of the company, this support has been beneficial to their development process. For example, Cruiseline, the largest seller of cruises in Southern Europe, which employs more than 230 people, was supported in its digital transition to improve its digitisation processes. The Distillerie de Monaco, a smaller structure, also benefited and was able to optimise its digital communication strategy. In addition, many of our members' digital companies have been authorised to provide services as official partners of the Extended Monaco for Businesses programme, which has been a great opportunity and helped to set up a virtuous development cycle in the Principality. To name but a few:

### **What are the main expectations of the Monaco Economic Board's members in terms of making recruitment and access to employment easier? Or their relationship with government departments?**

We are fortunate in the Principality to have short and efficient channels for all our administrative procedures. In some sectors, a good knowledge of the local economy may be sufficient. However, the Monegasque ecosystem is made up of many very successful SMEs in niche sectors, which call on very specific skills. For these professions, which often need to attract talent from all over the world, I believe that a digital platform dedicated to employment and recruitment will greatly help our country's stakeholders to find the right people more easily and efficiently. This is a request we often hear from our business leaders.

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# EXTENDED MONACO OFFERS PROFESSIONALS **THE BEST DIGITAL INFRASTRUCTURE**

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## **THE SOVEREIGN CLOUD,** A FIRST IN EUROPE



In 2021, Monaco became the first country in Europe to have its own sovereign cloud. The aim? To offer the Monaco Government, vital organisations and private companies located in Monaco or internationally the best in infrastructure and cloud services.

By combining the political will of the Monaco Government and the technological and digital transformation expertise of private stakeholders in a way that has never been done before, the first sovereign cloud in Europe addresses the challenges of security, business competitiveness and the country's attractiveness on the international stage.

Its value proposition is based on four key benefits:

- 1/ Service excellence:** the services offered by the sovereign cloud will help to accelerate businesses' digital transformation and make Monegasque companies even more competitive in the digital world.
- 2/ Security to the highest standards:** A sovereign encryption solution implemented by Monaco Cloud is also available for the most sensitive data.
- 3/ Guaranteed sovereignty:** the operator's infrastructure is based in Monaco. The data stored is therefore subject to Monegasque law.



**4/ A local operator:** the teams are based in the Principality. The company is building a supporting ecosystem of integration partners and solution vendors that will enable it to enrich its value proposition and accelerate adoption of the cloud among its clients.

Monaco Cloud is part of the vision of what the digital revolution should look like in Monaco: a fantastic opportunity to innovate, energise the economic sectors in which it excels, and create new growth beyond the Principality's territorial borders. It is a key player in the digital transformation of society and is closely associated with Monaco's reputation for excellence.

Monaco Cloud's services have been approved in line with the methodology recommended by the Monaco Cyber Security Agency (AMSN) in 2022. This approval is based on the State Information Systems Security Policy (PSSI-E), which aims to protect against cyber attacks such as hacking, privacy breaches or sabotage of information systems.

« This certification is the result of major efforts made over several months by the Monaco Cloud teams.

The success of this important step, which is already crucial for the security of customers, including the Government, is to be welcomed. We will thus continue to meet the highest standards of security » Frédéric Fautrier, Director of the Monaco Cyber Security Agency.

### A Move2Cloud offer

Companies can now easily migrate their infrastructure to the sovereign cloud with the Move2Cloud offering, based on VMware Cloud Director Availability (VCDA). Move2Cloud offers cost-effective availability and recovery capabilities, as well as secure operations.

By the end of the year, Monaco Cloud will become the first sovereign cloud to be certified as a DS Health Data Host and ISO/IEC 27001, Information Technology - Security Techniques - Information Security Management Systems - Requirements.

« We had already been building our own private cloud for a few years, and it was evolving to keep up with technological developments and customer needs. When the Government proposed that we participate in the Monaco Cloud project, we did not hesitate. »

Anthony Boira, founder of Monaco Digital and Managing Director of Monaco Cloud.

## MONACO CLOUD\* REAL ADDED VALUE FOR COMPANIES

### Territorial sovereignty

- ✦ Data is stored in Monaco.
- ✦ Data transits through the Monaco Telecom network on Monegasque territory.

### Sovereignty of governance

- ✦ As the majority shareholder, the Monegasque State guarantees the longterm future of Monaco Cloud.
- ✦ The shareholding is composed exclusively of Monegasque entities.

### Legal sovereignty

- ✦ The stored data is not subject to extraterritorial laws (including the CLOUD Act).
- ✦ No direct legal action against Monaco Cloud can be brought by a foreign state or company.
- ✦ All supplier contracts are under Monegasque jurisdiction.

### Sovereignty of operations

- ✦ Monaco Cloud is the sole entity administering its services
- ✦ Security is part of Monaco's DNA. The services will be PINH qualified (SecNumCloud equivalent) and security products are offered.

### Economic and financial benefits

- ✦ The Cloud allows us to move from a CAPEX to an OPEX economic model: it is no longer useful to invest in the acquisition of servers that generate fixed costs, regardless of their level of use. With the cloud, costs depend on usage. Avec le Cloud, les coûts dépendent de son usage.
- ✦ The company benefits from the economies of scale allowed by the cloud provider, which – by pooling its IT resources – is able to offer attractive prices.

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# ELECTRONIC SIGNATURE:

AN ASSET FOR LOCAL BUSINESSES



Gouvernement Princier  
PRINCIPAUTÉ DE MONACO

Extended  
**Monaco**



Since March 2021, electronic signature and electronic seal have been available for companies registered in Monaco, and provision was extended to other taxable persons in May 2022, i.e. approximately 25,000 legal entities. The amended Act no. 1.383 of 2 August 2011 for a Digital Principality has given electronically signed documents a probative value equivalent to handwritten signatures. It allows holders to sign in their own name on behalf of the entity they represent. At the beginning of the year, the application process was simplified with the introduction of a dedicated online service. This large-scale project was the subject of an 18-month collaboration with the Monaco Cyber Security Agency and the National Council to establish a legislative and regulatory basis. Electronic signature has been implemented in accordance with the highest standards of the European eIDAS regulation.

The uses and benefits for those involved are many and include:

- Any document exchanged with a supplier or partner, or for internal use can be signed electronically: contracts, order forms, meeting minutes, pay slips, etc.
- Considerable space savings;
- Improved document security: the components of electronic signature include a digital fingerprint of the original document. Each signed document thus bears a guarantee of its integrity, authenticity and non-repudiation.
- Reduced costs and an eco-friendly approach: less printing, paper archiving and transportation of documents.
- Faster and smoother customer relations: contractual activities can be completed remotely by sharing digital documents with probative value.

To obtain a professional electronic signature or seal certificate, go to [teleservice.gouv.mc/ecertificats-pro](https://teleservice.gouv.mc/ecertificats-pro).



ACCESSING  
THE ONLINE  
SERVICE

### What's next?

Electronic signature will soon make it possible to sign a commercial lease with the State Property Authority, a public contract or an application for a job permit.

## A FLESHED-OUT BLOCKCHAIN LEGAL FRAMEWORK

In Monaco, "digital investors" can count on a modern legislative framework.

Act No. 1.491 of 23 June 2020 introduced into Monegasque law a legal framework for initial token offerings, which are a form of fundraising by means of a digital recording device on a shared registry, such as a Blockchain, resulting in the issuance of tokens in return for the investors' capital outlay.

Since the adoption of Act No. 1.528 of 7 July 2022, "digital investors" can rely on a dynamic and more accurate legislative framework in Monaco. This technical law is in line with the recently adopted European texts and defines several concepts such as the metaverse and cryptoassets. These new regulations will make it possible to develop these new activities in a secure environment in the coming years.



# FOCUS ON

## Commuters

Commuters play a key role in the Principality's development. Attracting and retaining workers, talents and skills is a major challenge for ensuring Monaco's attractiveness

Since the Covid-19 crisis, recruitment tensions linked to the shortage of certain skills have emerged in several industries: the hospitality trade, health, digital technology and private banking.

The Principality is using digital technology to promote and facilitate access to employment for this group, to offer them quality mobility solutions in Monaco and beyond, and thus to improve their daily lives as workers.

### Digital technology for promotion of and access to employment

From this year onwards, job searches and qualification of candidates registered with the Employment Office by employers will be made paperless. In 2024, the recruitment process will also be largely digitised, with the MConnect service extended to jobseekers and future employees. This will make it faster, thanks in particular to the integration of online payment, the ability to sign documents electronically, and the introduction of a digital work permit.

### Leveraging digital technology to improve mobility

One of the concerns of people who work in the Principality, whether they come from neighbouring French or Italian towns, is commuting to Monaco.

Digital technology is helping to keep traffic moving in Monaco and its suburbs:

- Launched at the end of 2020 in conjunction with the Ministry of Public Works, the Environment and Urban Planning, the Klaxit home-work carpooling service is a real success, with more than 35 local partner companies, employing nearly 15,000 employees and an average of 2,000 journeys per week. The trips are fully co-financed by the state. This public/private collaborative approach is part

of the State's plan to reduce car traffic by 20% by 2030 (compared with 2019), while absorbing the additional traffic likely to result from Monaco's economic development. Commuters also have access to real-time information to help them make the best decisions for their journeys:

- Since July 2020, the data collected on a daily basis by the Integrated Mobility Management Centre has been automatically integrated into the Waze app. This is a free, participatory navigation application that allows users to follow traffic information in real time. Monaco participates in the "Waze Citizen Program" to integrate specific local concerns.
- Your Monaco provides real-time information on public transport and traffic, available parking spaces and pedestrian and car flows.

Digital technology facilitates access to quality and efficient public transport in Monaco:

- Monapass facilitates the management of mobility tickets and passes for commuters, covering buses, bicycles and on-street parking. Citymapper offers alternatives to individual transport with routes calculated in real time, combining several means of transport for getting to Monaco or around the Principality. The application registers over 30,000 uses per month.

### IN FIGURES

**3,300,000 km**  
co-financed by the State with Klaxit

## FEEDBACK FROM COMMUTERS

« Carpooling with Klaxit every day gives me peace of mind and saves me money. Given the current cost of energy, this is a real advantage for drivers and passengers. » **Anna**, 40 years old, government employee.

« Since I discovered Citymapper, I can better plan my journeys in Monaco. » **Alexandra**, 23 years old, employed in telecommunications.

« I connect to Waze or Your Monaco to find out about traffic conditions and avoid traffic jams caused by accidents or roadworks. This is a real plus! » **Simon**, 29 years, bank employee.



DOWNLOAD THE KLAXIT  
APPLICATION BY  
SCANNING THIS QR CODE










# GOVERNMENT IN THE DIGITAL ERA

Users are at the heart of the State's concerns and the development of public policies. By further refocusing on service to users and striving for excellence, government departments will make a major contribution to the attractiveness of the country. With this in mind, the Principality is banking on digital technology and on those who work in its government departments. In addition to modernising the tools and working methods of its civil servants, it is investing in the transition to a digital world, based on three pillars: digitisation, training for government employees, and digital inclusion.



« The digital transformation of Monegasque government services is a multi-stage process. The pandemic has enhanced the potential of this transformation through widespread use of digital technology, and accelerated the digital shift. Extended Monaco's role is to raise awareness, support, equip and train all civil servants and government employees so that they can make the most of digital technology. »

**Pascal Rouison**, Head of the Digital Transition Office

« To meet the new needs of Monegasques, residents and businesses, we had to rethink the notion of public service and proximity to continue to offer an excellent quality of service. Civil servants are the guarantors of this model, and we must put them in the best position to reconcile digital technology and inclusiveness. »

**Julien Dejanovic**, Director of the Digital Services Department.

« Modernisation of government departments' systems and networks is a strategic issue for the development of our digital services. At the heart of this evolution is the fundamental transition to a more integrated and modern network, where applications are an integral part of the architecture. »

**Christophe Pierre**, Director of the Digital Platforms and Resources Department.

« The governance framework for the state's digital security must take into account the deep changes we are experiencing. The digital transformation of government services implies more risks, more monitoring and therefore more maintenance. It is the whole architecture that is being modernised, with consequences for the overall implementation and operating procedures of information systems. »

**Jean-Charles Harlé**, Director of the Information System Department.

# GOVERNMENT EMPLOYEES

## SUPPORTING NEW WORKING PRACTICES

Since 2019, the tools and working methods employed by government departments have become more collaborative, user-friendly, and better adapted to the work of government employees.



**T**he digital transformation of government services should enable government employees to shift their focus to tasks with higher added value and to their relationship with users. This modernisation is partly a response to the new working conditions of government employees, as defined by Act No. 975 of 12 July 1975 (amended) on the status of government employees.

In this context, the Digital Transition Office equipped eligible civil servants and government employees with laptops in 2019 and then deployed Microsoft Teams 365 in 2022. This platform-based tool facilitates exchanges between workers, helps to manage access to information more easily in the context of

**« Hybrid working is now possible within the Government. »**

project management and allows users to make calls securely from work or home. Hybrid working thus offers the possibility of better integrating teleworking into government departments' processes while providing a similar experience for those who work remotely. This combination of traditional, face-to-face office working and off-site teleworking gives staff and officials greater flexibility.



# THREE QUESTIONS FOR

## BERTRAND VANZO

Head of the e-Administration programme  
at the Digital Transition Office



**Bertrand Vanzo, Head of the E-Government Division, explains how State services work in the new digital era.**

**Digital technology is disrupting our ways of working. How are you supporting this transformation within government departments?**

In 2019, it was almost impossible for government employees to work remotely. We have made it possible and have assisted all government employees and civil servants in that endeavour. All eligible government employees have been equipped with computers and digital tools,

and trained to use them efficiently. Thanks to the upgrade of government networks, hybrid work is open to all those who wish to take advantage of this option, and it is easier to do so.

**How does digital technology promote collaboration within government departments?**

We rolled out Microsoft Teams 365 at the end of 2022 because it is the

most effective collaborative tool on the market today, facilitating professional exchanges and improving teamwork, including remotely. These numerous tools meet specific needs (making questionnaires, managing and monitoring tasks, modifying files in collaborative mode, etc.). In just a few weeks, more than 700 collaboration spaces were created. Many other features will be integrated this year, including the CoopAcademy training platform.

**Did this modernisation anticipate the reform of the Civil Servant Regulations?**

Absolutely. The changes that digital technology has brought to our daily lives as citizens were also seen as an opportunity to enhance the efficiency of administrative services. And for these new tools to lead to greater efficiency, they need to be accompanied by organisational changes. This is why we are raising awareness and supporting all staff in this digital transition, which is not always easy to grasp and appreciate. We will go even further in the coming years, as we want to make Monaco a model country in this respect.

## The new digital working equipment is designed for new ways of working together and paves the way for future teleworking within government departments



Meeting the emerging need for collaborative working



Enabling the option to work anywhere (workstation, PC, smartphone, etc.)

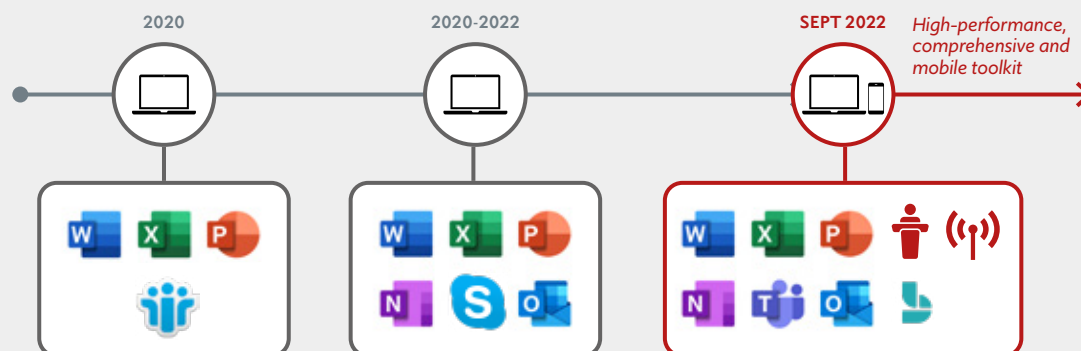


Delivering better quality communications



Equipping government employees with the best tools on the market to make teleworking sustainable in 2023

### Gradually upgrading the working tools made available to government employees



## ELECTRONIC SIGNATURE ROLLED OUT TO GOVERNMENT DEPARTMENTS

**Electronic signature was made available to government departments in late 2022.**

In the same way as for companies, Law No. 1.383 of 2 August 2011 on a Digital Principality (amended) gives documents signed electronically within government departments the same probative value as a handwritten signature. Electronic signature involves providing a digital document (e.g. a PDF file) with a marker that allows the signatory to be identified with certainty and ensures that the document has not been modified following signature. Any person authorised by his or her ministry or the General Secretariat may obtain a card the Human

Resources and Training Department, allowing them to affix an electronic signature on a document.

### What's next?

The digitisation of internal procedures is much more than a simple trend, it is in fact one of the major challenges of 2023. This approach is not just about digitising documents, but looking at the whole process with the goal of 'zero paper'. In electronic format, the information that departments need to function can flow more easily, while maintaining data integrity and confidentiality.

## MEZZOTEAM, THE COLLABORATIVE PLATFORM FOR PUBLIC WORKS

Last year, the Digital Transition Office developed new functionality within Mezzoteam, a collaborative solution for sharing documents and managing BIM (Building Information Modelling) models, which is used daily by the Public Works Department. Already used for sharing files with private partners and in construction operations, the platform can now be used to publish calls for tenders.

« This project management tool, made available to the teams with which the Public Works Department collaborates, allows projects to be conducted in a transparent manner. At the end of the project, it guarantees a coherent file of the works carried out and the ability to track the history of changes. » Jean-Luc Nguyen, Director of Public Works.

## AN ONLINE SERVICE TO MANAGE YOUR MEDICAL REIMBURSEMENTS FROM THE STATE MEDICAL BENEFITS SERVICE

In 2022, the S.P.M.E. made available to civil servants, state employees and their dependents a new online procedure allowing them to manage their medical reimbursements online. Users can also request that their statements of accounts be automatically forwarded account to their complementary health insurance provider (as long as it has subscribed to the S.P.M.E. teletransmission agreement) and ask for their statements of medical benefits to be digitised. Monegasque nationals who have an active digital identity on their new identity card will be able to log in securely using their Individual account on MonGuichet.mc with the MConnect service.

# BEHIND THE SCENES OF MONACO'S PUBLIC SERVICES

As the digital transformation in government services picks up pace, it is bringing profound changes in the relationship with users. But in addition to digitising everyday online procedures for individuals and businesses, there is also a digital revolution taking place in the 'back office' functions of government. The aim is to redesign systems around end users, and equip government employees with high-performance tools tailored to their internal processes and practices. For an effective transformation, the Digital Transition Office is acting on several fronts:

- Simplifying administrative procedures and therefore their processing
- Strengthening security and trust with connection facilitating access to, protection of and quality of personal data;
- Managing signatures, postal or electronic mail and agendas;
- Indexing, scanning, filing and archiving activities (Electronic Document Management);
- Managing invoices

- In the past year, several systems specific to certain public departments have been modernised, such as the Trade and Industry Registry, or the Residents' Section at the Police Department.

## EXPECTED BENEFITS OF OVERHAULING THE DRIVER AND VEHICLE LICENSING OFFICE'S IT SYSTEM

- ✦ 360° vision and omnichannel management for interacting with users, with the introduction of a new resource for all staff.
- ✦ Wider range of online services available to users.
- ✦ Mettre en place une comptabilité unifiée.
- ✦ Strategic operational indicators and scorecards to support decision-making and quality monitoring.



## SAGEX3, NEW SOFTWARE TO DIGITISE ACCOUNTING AT GOVERNMENT DEPARTMENTS

After five years of working with the Principality's institutions, ministries, government departments, and public establishments, the package of accounting reforms, led by Pierre Silhol and Agnès Guepratte, was rolled out on 1 January.

The new accounting system will provide a better understanding of the cost of public policies, within the existing legislative system and in line with the best international standards. This includes the creation of general and cost accounting, which will complement the renewed budgetary accounting and the cost of public policies.



## DECISION-MAKING SUPPORT: AN URBAN GOVERNANCE ISSUE

Having delivered the basic infrastructure over the last four years, we can envisage the gradual industrialisation of decision-making support for city management, in terms of planning and autonomy.

More than 100 sensors (air and pollen, air quality, pedestrian flows, etc.) have been deployed to take the pulse of the city in real time and to provide useful data for public policy.

It is in this context that, since 2018, the Principality of Monaco has developed a very high definition 3D digital twin of its territory, as well as a digital services platform for the State's operational departments and partners. Thanks to its exceptional calculation and 3D visualisation capabilities, the Monaco Digital Twin can also be used for forward planning, by allowing the impact of urban transformations on numerous indicators to be assessed. These include improvement of urban well-being, noise pollution levels, the visual impact of works, and the environment.

In 2022, the Government of Monaco and Monaco Telecom used this technology for a specific task: planning and optimising the mobile network, in terms of coverage, quality of service and public exposure to radio waves. The newly launched website [bouclethalasso3d.mc](https://bouclethalasso3d.mc) also provides detailed information about the work involved in installing the new ocean thermal energy loop and the benefits of this energy source.

### What's next?

To facilitate the planning of works in the Principality, the digital twin will, from 2023, offer a range of indicators showing the impact of works in terms of noise pollution, mobility, etc. Priority will be given to the implementation of a decision support application that will provide a 3D view of all current and future worksites in the Principality.

# A SHARED DATA PLATFORM FOR MONACO GOVERNMENT DEPARTMENTS

**In 2023, all of the data used by Monegasque government departments will be centralised on a new platform. Using this data strategically will help to guide public policies more accurately, while providing a clearer picture of their effectiveness.**

**D**ata is central to the Government of Monaco's digital transition and is part of the Principality's intangible heritage, whether it comes from the Government's applications and websites, from interactions with our civil servants and government employees, or from our institutional partners or licensees. Use of this data is now vital in formulating public policies more effectively and evaluating their impact accurately. Whether managing the energy consumption of our buildings or developing new services for employment and health, the idea is to make

intelligent use of data to improve the quality of service provided and make government action more efficient.

This data will therefore be centralised on a Monaco government platform from 2023. Some of it will be made available to the general public to foster the emergence of our digital ecosystem, to allow the development of innovative services by private players, and to make government action more transparent. Special attention will be paid to security, availability and sovereignty.

# FOUR QUESTIONS FOR



**HÉLÈNE  
COLONNA-D'ISTRIA  
AMOURDEDIEU**

**Head of the Legal Unit at the Digital Transition Office**



**RODOLPHE  
HEIGEL**

**Head of the UX-UI unit at the Digital Transition Office**

## **Why is Monaco in line with international standards in terms of regulation?**

Since the launch of Extended Monaco and the adoption in 2019 of two key laws concerning digital identity and the Digital Principality, Monaco has entered the digital world with full force. In fact, our provisions are in line with the leading international standards in this area, such as the eIDAS regulation on electronic identification, trust services and electronic documents.

The Principality has even been a forerunner in the creation and use of an official national digital identity, as well as in the creation of new trust services such as electronic archiving and digitisation.

## **The government websites have been revamped. What does this mean for users of these websites?**

The two portals (formerly Public Service for Individuals and Public Service for Businesses) include public service sections, an institutional portal and some 30 dedicated sites. To meet current needs and provide a

better user experience, an overhaul was necessary. We have designed our sites with a "mobile first" approach and optimised navigation, as we are aware that the majority of visits are made from a smartphone. All public services are now closer to our users and more accessible. We will adopt this approach for our entire environment of institutional sites.

## **You mentioned a "User Experience » team. What does this mean exactly?**

User experience refers to the overall experience of users when using an interface, a digital device or more broadly when interacting with any device or service. We have deployed a user-centred approach within the DITN, based on a team of experts in ergonomics and design interfaces, keeping in mind the user experience. We have also recently launched a recruitment programme to allow anyone who wishes to do so to share their experience and access a preview of our future solutions.

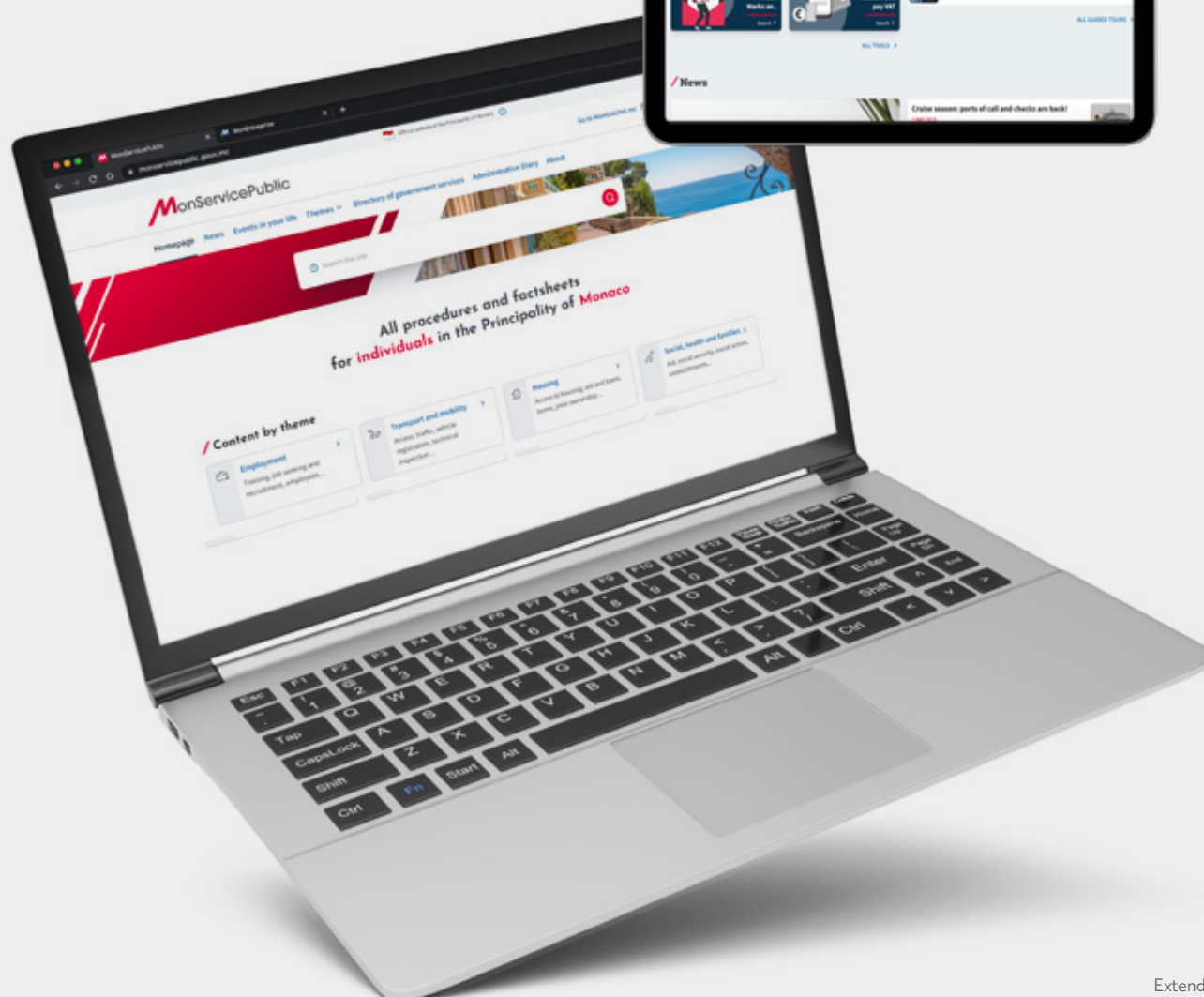
## **You also helped design the new LegiMonaco website. What's new for legal professionals in the Principality?**

Access to law is an important issue for professionals but also for all those with an interest in it. People need to be able to know the law, how it is applied and how the courts apply it. Both Monegasque and foreign professionals must be able to easily understand the regulatory context. It is a major tool for enhancing the attractiveness of our country.

# TWO NEW OFFICIAL WEBSITES FOR GOVERNMENT INFORMATION

For more than 10 years, the official government information websites for individuals and businesses have been helping Monegasques, residents and businesses with their everyday procedures by providing a wide range of information about the government, practical multilingual factsheets, a calendar of events and a complete directory of government services. The websites generate nearly 700,000 hits every year!

Since the beginning of March, both portals have been revamped. MonServicePublic and MonEntreprise will now make it easier to access information from a computer, and also from a tablet or smartphone. The new versions of the websites have been redesigned to make them easier to use on mobile devices, with a more user-friendly and contemporary interface, and a more powerful search engine.





# THREE QUESTIONS FOR

## CHRISTOPHE PIERRE

Director of Digital Platforms and Resources at the Digital Transition Office and Director of the Monaco Office for Outer Space Affairs



### Christophe Pierre explains how all government departments have had their internet networks upgraded

#### Why is the overhaul of the ROSIERS network systems essential for Monaco's government departments?

With the programme to redesign the government's network systems, we have promised the 5,000 government employees that they will be able to work in peace. This is the first time that users will be able to access a website quickly and securely, from any government site or while on the move. This was imperative: our networks were ageing, breakdowns and micro outages were becoming more frequent, and mobile working was almost impossible.

#### What are the concrete benefits for public service users and Monaco's embassies abroad?

The benefits for government employees, but also for the Government itself are numerous: a single and

automatic Wi-Fi connection at all sites, fast guest Wi-Fi, a highly secure system, the sovereignty of our infrastructure, better supervision and control of our consumption and costs.

#### The Office for Space Affairs, which you head, joined the International Astronautical Federation (IAF) in 2022. What is at stake?

This membership is in line with the Principality of Monaco's desire to participate in the development of the space sector alongside the major space agencies, including NASA and ESA, in particular with a view to helping the international community to better assess and understand the crises our societies are tackling. Space exploration is also a theme to which the Office for Space Affairs will remain attentive, due to the direct

#### DID YOU KNOW?

On 2 August 2021, H.S.H. the Sovereign Prince signed Sovereign Ordinance No. 8.809 on an Office for Outer Space Affairs. The creation of this new office followed productive dialogue with businesses working in the sector and based in the Principality, whose activities include the manufacture of Earth observation satellites, telecommunications equipment and rovers. The new office therefore meets the expectations of industry stakeholders, enabling the Principality to interact with its foreign "counterparts", make its voice heard on the relevant international bodies, and welcome new entrants from the sector to the country.

involvement of several Monegasque companies or startups in the sector. As the know-how of Monegasque space actors can contribute to all these activities, one of the objectives of the Office for Space Affairs is to establish a bridge between these actors and international space programmes. Another issue will be to make young people aware of the diversity of space activities and their career prospects.

# SOVEREIGN DIGITAL HIGHWAYS

## FOR A MODERN AND SECURE TRANSFORMATION



The ROSIERS programme, to be launched in 2019, aims to modernise the entire network and information system infrastructure of Monegasque Government services, including embassies abroad, and thus be in phase with the acceleration of the Principality's digital transformation.

« Being able to work, connect, communicate and interact from any Government website »

The work is ongoing, including an overhaul of the system and network infrastructure, modern equipment, new data centres, etc.

In four years, 47 sites, including eight embassies, have been modernised.

## E-EMBASSY OF MONACO: LAUNCHING THIS YEAR

In 15 July 2021, Monaco signed a bilateral agreement with the Grand Duchy of Luxembourg on the hosting of the Principality's sensitive data. The data will benefit from guarantees of inviolability and immunity similar to those granted to a physical embassy. Under the agreement, the Monegasque Sovereign Cloud will be duplicated in the Luxembourg data centre. The Government of Monaco, critical infrastructure operators and the Principality's companies will all be able to benefit from it.

### How is this data really protected?

Eight generators are able to take over in the event of a power failure. In another room, nitrogen cylinders stand ready to emit neutral gas to contain a fire. A cooling system also prevents overheating of the site, which has a maximum output of almost 10 megawatts. And if there's a cyber attack? The network is closed down, with no links to the outside world.

# THREE QUESTIONS FOR

## AGNÈS LEPAULMIER

Secretary General of the Commission de Contrôle  
des Informations Nominatives (C.C.I.N.)



**« Our remit is based on three pillars: awareness-raising, assistance and supervision. »**

### What is the role of the C.C.I.N.?

The Commission de Contrôle des Informations Nominatives is the personal data protection authority in the Principality. Like the C.N.I.L. in France, the C.C.I.N. is the regulator of personal data and ensures that the rights and freedoms of individuals whose personal data (or nominative information) is collected and processed by public and/or private bodies are respected.

The C.C.I.N. has the special status of an independent Monegasque Administrative Authority, as enshrined in Act No. 1.165 of 23 December 1993, amended, and its remit includes supervising and ensuring compliance with the legislative and regulatory provisions on personal data protection, with the exception of exclusively personal or domestic activities. Beyond the borders of Monaco, the C.C.I.N. also plays an international role within the framework of the cooperation mechanism with all European and non-European data protection authorities.

### What are your daily tasks?

The first of our missions, as the Data Protection Authority, is to raise awareness among all public and private players in the Principality, as well as users, of the issues inherent in protecting personal data. This may take the form of recommendations on the use of certain digital tools, for example.

Our second mission is to support organisations to comply with the regulations. For example, we regularly meet with the legal team and the operational teams of the DITN to discuss the feasibility of digital projects and their impact on personal data protection. It is within this framework that the DITN has sought our advice on the key digital projects of the Extended Monaco programme: the deployment of digital identity in the Principality; the provision of the Mon-Guichet.mc portal and the related online procedures or the creation of an e-embassy.

Finally, our third and last task, as regulator, is to monitor all the processing operations implemented in the Principality, by means of the prior formalities filed with us and submitted to us for our opinion, to investigate complaints filed by the persons concerned, and to sanction, if necessary, actors who do not abide by the applicable regulations.

### How is the C.C.I.N. involved in the development of the e-embassy and what are the data protection impacts?

As part of our discussions with the Government, the DITN teams presented us with the project for the deployment of an e-embassy in Luxembourg which will eventually host all the data contained in the sovereign cloud. In this particular case, it is important to underline that the e-embassy project benefits from a special legal regime. Indeed, it benefits from immunity similar to that of a physical embassy, based on the rules defined in Article 22 of the 1961 Vienna Convention, but does not benefit from the extraterritoriality regime, which allows Monaco to extend its jurisdiction over a foreign territory, in this case Luxembourg. In concrete terms, with regard to data protection, this means that a dual legal regime applies: the Monegasque law before our Commission and Luxembourg law, i.e. the European law on the protection of personal data (Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016, the "GDPR").



# THREE QUESTIONS FOR

## JEAN-CHARLES HARLÉ

Director of the Information Technologies  
Department at the Digital Transition Office



**« All government data will be in the Cloud by 2025 at the latest. »**

**The true backbone of the digital transition, the Information Technologies Department ensures that the State's IT system functions properly and oversees the modernisation of government tools.**

**Director Jean-Charles Harlé explains how the State's data will be migrated to the cloud.**

### **Is the sovereign cloud an opportunity for government IT?**

The sovereign cloud, approved to the highest international security standards, is a guarantee of robustness for government IT. In the cloud, security is managed by the operator, which has the technical and human resources to guarantee these standards. Furthermore, as the maintenance and protection of the data centres are operated by Monaco Cloud, the risk of incidents

and their severity are considerably reduced! In addition, customers have easy access to multiple data centres to restart their data and IT resources. This distribution helps to mitigate the risk and impact of an incident. Finally, by replicating their data across multiple remote data centres, customers can even prevent service disruption in the event of any incident or disaster. The sovereign cloud also offers new uses for the Principality's 3D digital twin, and for artificial intelligence.

### **What are the prerequisites for migrating government information systems into the cloud?**

The sovereign cloud will be the basis for the modernisation of our government services and the protection of government data. The mission of the Monaco Cloud operator is to provide the Monegasque Government, critical infrastructure operators and private companies located in Monaco and abroad with cloud infrastructure and services that meet the highest global standards (including in terms of confidentiality, integrity and traceability). The PSSI-E certification, obtained in 2022, was a prerequisite for the migration of government information systems according to the methodology recommended by the Monaco Cyber Security Agency. The State has therefore already begun its "Gov to cloud" operation, which consists of depositing its data on the sovereign cloud.

### **In concrete terms, what is the government's timetable for migration?**

The government will have transferred almost all its data by the end of 2024/2025.

# SUSTAINABLE DIGITAL WORLD

**In Monaco, the digital transition must be sustainable and the Government must be exemplary in this area.**

In view of the Principality's greenhouse gas reduction targets (55% by 2030), Monegasque government departments aim to drastically reduce their energy consumption.

« Digital energy consumption is increasing by 9% per year. This is becoming an issue in its own right. Regardless of the driver for the transition, there will be an environmental impact, so we must work together to strike the right balance between technological capability and energy efficiency.

When it comes to energy consumption, the first stage is to avoid, in other words eliminate avoidable sources of energy consumption; the second is to reduce, i.e. improve the energy efficiency of IT equipment and networks; and the third to invest in renewable energy to power IT systems. »

Annabelle Jaeger-Seydoux

How can the energy and digital transitions be reconciled? Pooling printers, digitising pay slips - and internal mail in the near future - integrating environmental issues into purchasing processes, having all government employees sign up to the National Energy Transition Pact, setting up recycling channels dedicated to the IT Services Department, in partnership with the Urban Planning Department and the Société Monégasque d'Assainissement etc.

The actions are numerous. And the results are already tangible.

Following lifecycle analyses conducted within government departments, certain optimisation actions were identified last year, in particular the extension of the lifecycle of IT equipment to five years. This alone reduces CO<sub>2</sub> emissions by 233 tonnes and the extraction of natural resources, the equivalent of 191 return flights from Paris to New York and 1,074 cars.

Every little helps! Some 25% of government departments have committed to returning their individual printers.

The extension of the retention period for equipment from 3 years to 5 years for computers and monitors saves:

**233 tons**  
of CO<sub>2</sub>  
(i.e. 191 round  
trips Paris-NYC))

Resource extraction of  
the equivalent of over

**100 vehicles**



BYOD proposed by the Government  
and adopted by 1,000 civil servants and  
agents saves:

**14 tons**  
of CO<sub>2</sub>  
emissions  
(i.e. 12 Paris-NYC  
return trips)

The extraction of  
**65 tons**  
of resources/year

the production  
of  
**88 kg**  
of electronic  
waste



# DIGITAL INCLUSION AS A CREDO



**D**IGITAL INCLUSION AS A CREDO digital inclusion is a priority for the Extended Monaco programme. The challenge is obvious for the most senior populations (according to the latest Monaco Statistics annual report, 25% of the Monegasque population and residents are over 65 years old). However, despite popular belief, it is also an issue for younger people and those with disabilities, as digital illiteracy is a transgenerational phenomenon. Numerous initiatives have been set up in the Principality to support the population in this area and prevent illiteracy, whatever their age.

The integration of digital technology into teaching practices is essential. In addition to programming classes, all students at Collège Charles III, Lycée Albert I and the Lycée Technique are being equipped and trained in digital technology. The training of managers, employees, students and young graduates has been targeted by offering a catalogue of training courses as part of our Extended

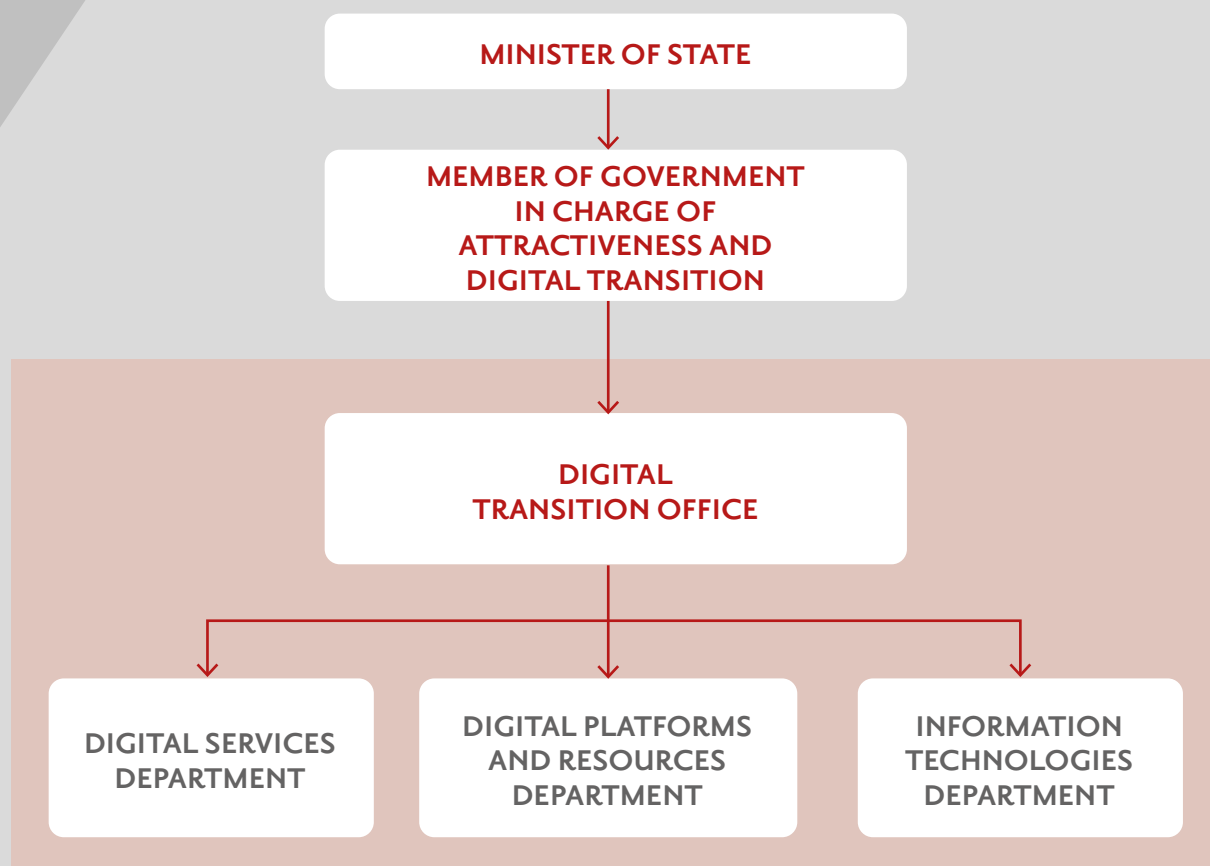
Monaco for Businesses programme. The accessibility of institutional websites is also a subject on which the programme has worked for people with disabilities (visual or hearing impairment, reduced mobility, cognitive disorders). Efforts are being made to provide easy access to the entire population.

## What's next?

A space in the city dedicated to the digital world will soon open its doors, the result of a partnership with Monaco Telecom and the support of the Monaco City Council. This place will welcome all those who wish to obtain information, documentation, exchanges and training on digital technology, with advisors permanently on site. All citizens and professionals will be able to make the most of digital technology.



# DIGITAL TRANSITION OFFICE (DITN)



## THE FOUR STRATEGIC OBJECTIVES OF THE EXTENDED MONACO PROGRAMME



**Extending the scope of our current infrastructure and initiating the acquisition of infrastructure and platforms** representing the latest technological breakthroughs, guarantees of excellence, sovereignty and security;



**Strengthening the attractiveness** of Monaco and contributing to its economic development;



**Improving quality of life** for Monaco residents



**Transforming the Government and increasing the value of public service** for all users without exception, while developing internal efficiency.

# DIGITAL TECHNOLOGY IN FIGURES IN MONACO



**30 April 2019**

Launch of the Extended Monaco programme, in the presence of H.S.H. Prince Albert II



**€858.8 M**

The contribution of the digital sector to the Principality's overall turnover in 2021

Source: IMSEE 2022 report - Monaco in figures.



**+ 18.4 %**

Growth in overall digital turnover 2021 in the Principality, compared to 2020

Source: IMSEE 2022 report - Monaco in figures.



**€1 billion**

The contribution of the digital sector to the Principality's overall turnover estimated in 2021 by integrating the digital share of traditional activities (with E-commerce in Monaco)



**80 %**

Average use of online services



**86 %**

Satisfaction rate expressed by users of online services



**2,000 +**

An ecosystem of more than 2,000 employees working in Monegasque digital services companies



**200 +**

combined talents at the DITN in Fontvieille







Extended  
**Monaco**

