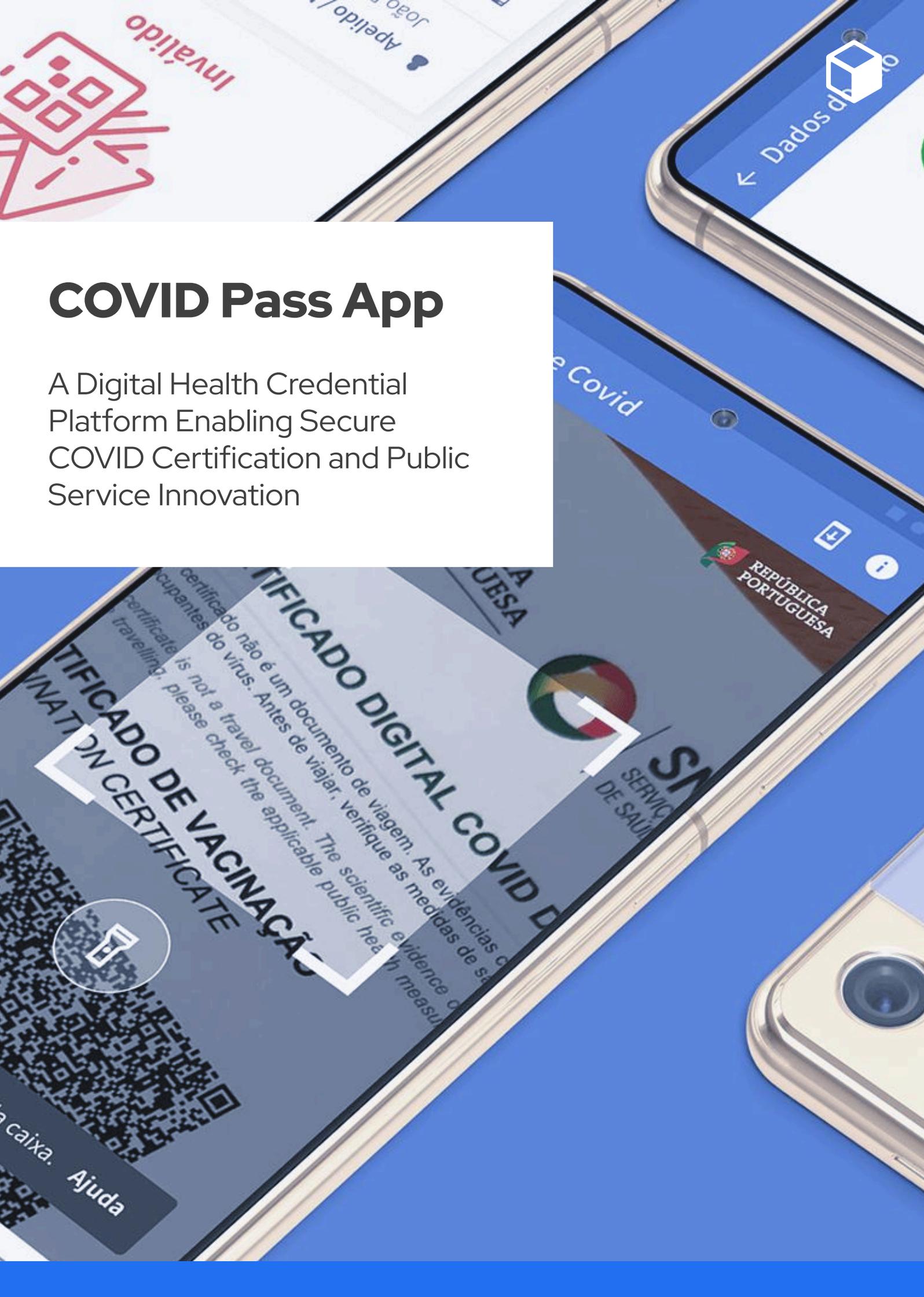
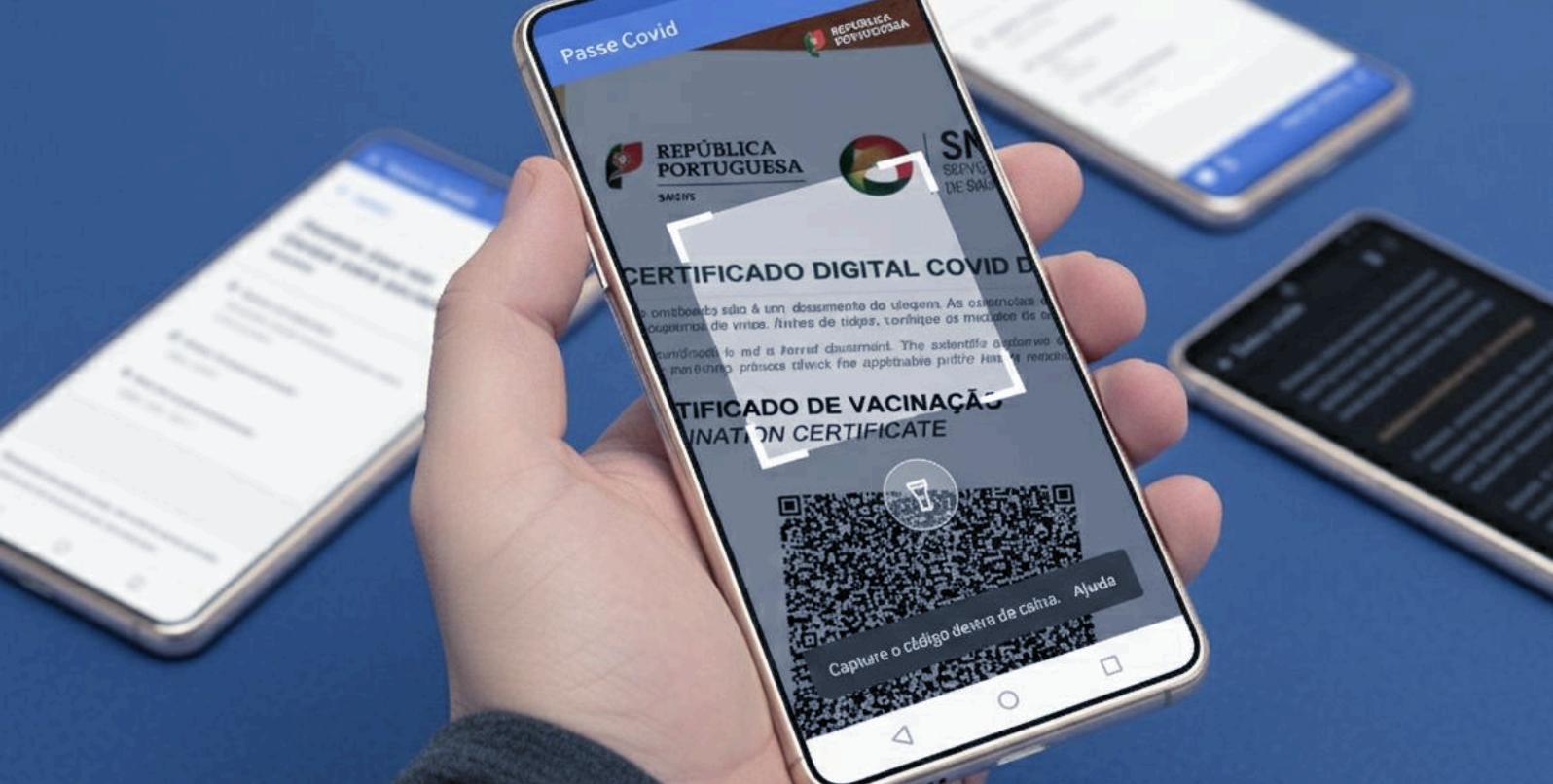


COVID Pass App

A Digital Health Credential Platform Enabling Secure COVID Certification and Public Service Innovation





Challenge

With the emergence of the Covid-19 pandemic, there arose a need for an application that could easily and quickly validate certificates issued by clinics and hospitals, allowing users to confirm their infection status, recovery, or vaccination against the virus.

This way, it enabled airlines, organizers of cultural, corporate, sports, and family events (such as weddings and baptisms) to swiftly and efficiently validate individuals' Covid Digital Certificates, contributing to an improvement in public safety.

Solution & Functionalities

Caixa Mágica developed a lightweight Android and iOS application designed for broad accessibility, ensuring smooth performance on both high-end and low-end devices.

The user experience was simplified into four main components:



Onboarding process

A guided introduction that explains how the app works and helps users start validating certificates quickly.



QR Code Scanner

Fast and reliable QR scanning to validate certificates instantly, even on low-end devices.



Certificate validation screen

Clear visual feedback showing valid or invalid certificates with a green or red status stamp.



Application updates screen

Keeps users informed about new features, improvements and regulatory updates.

How those 4 main components work:

Onboarding & Guidance: Users always began with an onboarding flow explaining how the application works, how certificates are validated and what visual indicators mean. This onboarding could be revisited at any time, supporting user autonomy and reducing confusion.

Fast QR Code Validation: The QR code scanner provided quick and reliable validation of EU Digital COVID Certificates using secure and compliant methods.

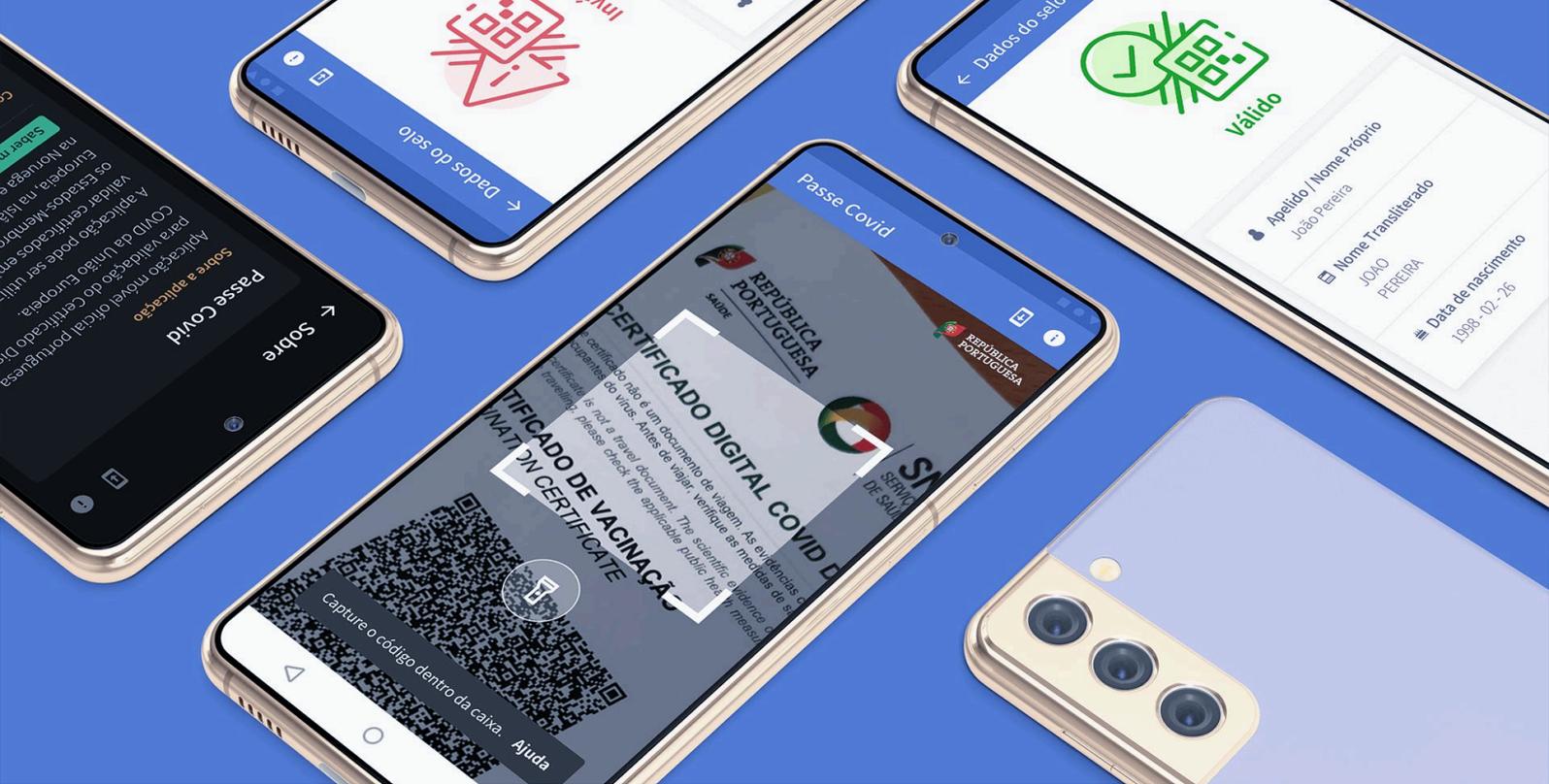
Clear Visual Status: Certificate status was clearly indicated:

Green stamp - valid certificate

Red stamp - invalid certificate, with contextual information and error details

Low-Light Support: The app included a built-in flashlight toggle, enabling certificate scanning in low-light or outdoor environments.

Intuitive Interface: The mobile interface was designed for ease of use, with visual hierarchy, accessible colour contrast and minimal cognitive load.



Impact

The project had a highly compressed timeline and high national criticality, requiring efficient coordination between development, design and regulatory bodies.

Caixa Mágica successfully delivered and deployed the application on time, enabling immediate nationwide adoption. Over one million users downloaded the app, demonstrating both public trust and the need for a simple validation tool during the pandemic.

Due to GDPR constraints, the application did not store user certificates; instead, it performed real-time validation while preserving user privacy.

The solution contributed to safer travel, access to public events and overall confidence during periods of strict health regulations.

The underlying architecture remains adaptable for future certificate-based verification scenarios such as:

Digital IDs

Professional credentials

Event or facility access systems

Health or vaccination records

The project demonstrated Caixa Mágica's ability to deliver secure, user-centric solutions at national scale, even under urgent and high-pressure conditions.