

Technical Requirements for the
Specialized software product for the graphical security of the portrait image by
applying the holder's personal data (IPI/LetterScreen),
for the period 2026 – 2030

1. General Requirements

- The software product must enable the secure integration of variable alphanumeric data into the portrait photo of the passport holder.
- The solution must be compatible with the existing passport personalization and issuance infrastructure.

2. Functional requirements (mandatory/optional)

- **LetterScreen technology (mandatory)** : The software product must integrate one or more of the following data elements into the portrait photo:

- Last name
- First name
- Date of birth
- Sex
- Document number
- Document expiry date
- The unique configuration /structure of the textual wave.
- The letter height: minimum 0,4 mm – maximum 1,6 mm.

- **IPI Technology (optional)** : The software product must integrate one or more of the following data elements into the portrait photo:

- Last name
- First name
- Document number
- The information must be embedded in such a way that it can be verified with specialized devices or lenses, or allow for machine verification using high-resolution (600 DPI+) document readers.
- The letter height: 2,9 mm +/- 0,5 mm

3. Security Requirements

- The data embedded through LetterScreen and IPI technologies shall be resistant to forgery, manipulation, or unauthorized duplication.
- The software shall ensure that each personalization is unique and directly linked to the passport holder's personal data.
- Access to the software shall be permitted exclusively to authorized users through the implementation of role-based access control.

4. Integration and Compatibility

- The solution shall be compliant with international standards for electronic passports (ICAO Doc 9303).
- The software product shall ensure compatibility and integration with the specialized personalization equipment for passports/travel documents – IDENTIFIER 60 NOVUS (4 units), as well as with the existing personalization system used by the Contracting authority.
- The Supplier shall provide complete documentation for integration (*user and administrator manuals; maintenance and troubleshooting guidelines*).

5. Staff training

The Training services for the operation of the specialized software product will be initiated within 2 (two) business days after the activation of the licenses, with a minimum duration of 3 (three) business days (8 working hours per day) at the Buyer's premises. The training will be confirmed by the signing of the Buyer's Personnel Training Act by both Parties.

** The training sessions shall be organized for a minimum of 8 participants*

6. Support and Maintenance

- **The Supplier shall provide warranty and technical support for a minimum period of 5 years.**
- The maintenance services shall include updates, bug fixes, and security patches.
- Technical support will be performed remotely/online via telephone and e-mail/Internet, during working days, from Monday till Friday, 09.00-17.00.

Response and recovery times of the software product's functionality are outlined in the table

Non-compliance	Description	Maximum response time	Maximum recovery time of functionality or problem resolution (working hours, days).
Critical	Problem affecting the full functionality of the software product	2 hours	4 hours
High	Problems with a major impact on the functionality of the software product, which may limit its use	4 hours	8 hours
Medium	Problems related to software product malfunctions that can be solved without risking the loss of portrait photo quality	8 hours	2 days
Small	Problems with minimal or no impact on software product functionality	24 hours	3 days

7. Deliverables

- Software product licenses for the LetterScreen technology (mandatory) and IPI technology (optional), intended for the 4 specialized passport/travel document personalization equipment – IDENTIFIER 60 NOVUS.
- Documentation: User and administrator manuals; Maintenance and troubleshooting guidelines.
- Software Development Kit (SDK) for electronic passport readers, intended for quality control of LetterScreen and IPI technologies (Regula-type reader).
- 30 IPI lenses for quality verification (*if applicable*).

8. Additional requirements

The Supplier shall guarantee to the Buyer that the software product is not available free of charge and/or commercially easily accessible to private individuals.

The Supplier shall guarantee to the Buyer that the software product is provided for use (accessible) only to state and governmental institutions and organizations with special certification (such as banks and printing houses producing security documents).