

THE NEW SLOVENE BIOMETRIC IDENTITY CARD

A major step towards modern digitalised
services in the Republic of Slovenia





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Watch our promotional video about
the new Slovene biometric identity card



ADVANTAGES OF THE NEW SLOVENE BIOMETRIC ID CARD

On 28 March 2022, after almost 24 years, the Republic of Slovenia began issuing new biometric ID cards, currently the most state-of-the-art technology in this field, which will enable secure and reliable electronic identification and electronic signatures. It is a major step towards modern digitalised services in the Republic of Slovenia that are secure and reliable.

The new SLOVENE BIOMETRIC IDENTITY CARD features:

- **STRENGTHENED SECURITY** for easier identification and border crossing
- **OUTSTANDING DESIGN:**
 - Inspired by Slovenian nature, history, culture and sport
 - Compatible with other Slovene documents
- **STATE-OF-THE-ART TECHNOLOGY**
- **WIDE RANGE OF FUNCTIONALITIES** enabling:
 - Secure and reliable electronic identification
 - Electronic signatures

OUTSTANDING DESIGN, inspired by Slovenian nature, history, culture and sport

The security elements are integrated into the design solution and the motifs that are consistently used on the travel documents of the Republic of Slovenia.

These are an outline of the map of Slovenia, a coat-of-arms, various forms of the manuscript of the Slovenian anthem, a figure from the surface of the Vače Situla highlighting an image of a horseman, a contour of the Robba Fountain, and a linden leaf. The image of Mt Triglav, the text of the second stanza of Prešeren's 'A Toast' (Slov. Zdravljica) and sea waves have been added to the recognisable motifs on the reverse side of the ID card.





We wanted to create the most sophisticated identity card that the current technology, security design and international standards enable.

The identity card templates include motifs which are also contained in other Slovene documents and provide basic cultural and historical information or the characteristics of the country, as well as motifs of Europe. Slovenia is a beautiful country; the green heart of Europe and it was our vision that the identity card would reflect this and make our citizens proud. These motifs are used on the identity cards to facilitate the placement of individual security features.

Our national anthem Zdravljica (The Toast), written by Slovene's greatest poet – France Prešeren, is also included as a manuscript and on the map of Slovenia – hidden in the rivers.

There is a saying that “You are not a Slovene if you don't climb the highest Slovene mountain, Triglav, at least once.” So, we simply had to include it.”

ALENKA COLJA, MSc,
Head of Division for Population Registration and Public Documents, Slovene Ministry of the Interior





THE COLOURS OF SLOVENIAN SPORT

Photo: Aleš Fevžer



THE NATIONAL ANTHEM, ZDRAVLJICA (THE TOAST)

written by Slovene's greatest poet - France Prešeren.

Photo 1: STA, Photo 2: Andrej Tarfila, www.slovenia.info



OTHER MOTIFS OF SLOVENIA

A coat-of-arms | A contour of the Robba Fountain
The Rape of Europa | Isohypses of Slovenia

| 34 SECURITY ELEMENTS

The highest security level and the advanced functionalities of the new ID card are ensured by 34 security elements, also including a chip and a photograph generated using three different techniques, as well as a transparent window where, next to the photograph, the initials of the individual's name and their surname appear. The EU flag with a two-letter code for Slovenia has been added in the upper left corner.





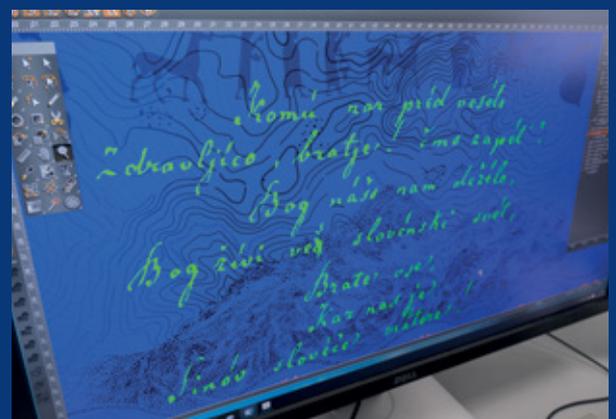
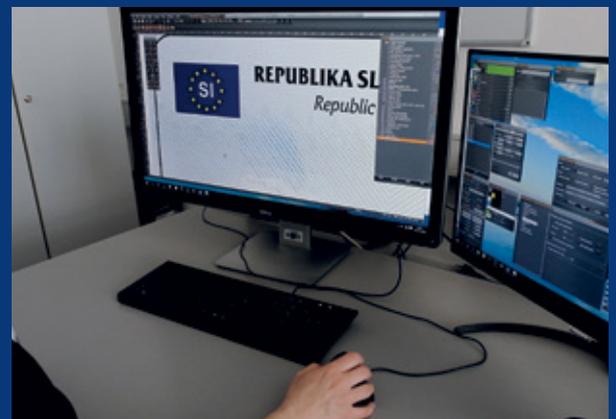
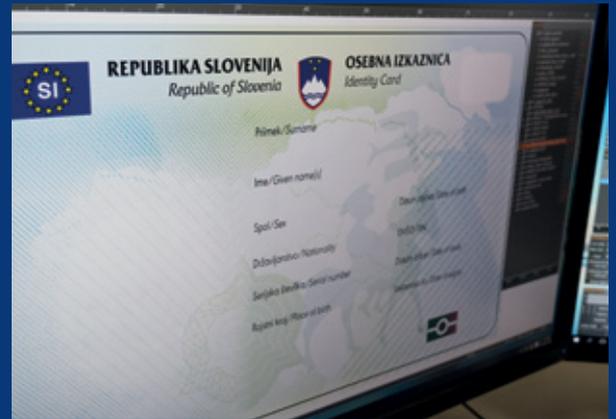
The new ID card is ensured by 34 security elements. This means the highest security level and advanced functionalities.

Some security elements can be seen with the naked eye, some are tactile, while others are only visible under UV light or by using special tools.

The security elements are integrated into the design solution. Each of them is part of the story, nothing is random.

The main innovation is a transparent window with a secondary image of the document holder."

HAJDI ZABUKOŠEK,
member of the CETIS team of
security printing designers



SECURITY ELEMENTS (Front side)

VISIBLE UNDER NORMAL LIGHT



1
Two-colour guilloche overlapping the photo area



2
Embedded hologram overlapping the photo area



3
Rainbow print



4
Laser engraved personalisation in the substrate



5
Transparent window with secondary image of a document holder



6
Tactile element in the photo area



7
Tactile laser personalisation (document serial number)



8
Reversed out micro text



9
3D relief effect



10
Copy evident element



11
Line art design



12
Matt surface



13
OVI® (Optically Variable Ink)



14
Laser engraved photo with the additional personal information

● Tactile element

VISIBLE UNDER UV LIGHT



15
UV-fluorescent feature in the photo area



16
Multicolour (RGB) UV-fluorescent image



17
UV dark polycarbonate



18
UV-fluorescent colours (red, green, blue)



19
UV-fluorescent mini text

SECURITY ELEMENTS (Reverse side)

VISIBLE UNDER NORMAL LIGHT



1 Rainbow print



2 Two-colour guilloche



3 Unique fonts



4 Transparent window with secondary image of a document holder



5 Chip with antenna for contact and contactless communication



6 OVI® (Optically Variable Ink)



7 Braille lettering



8 MLI® Multiple Laser Image (the secondary image of the document holder and the serial number of the document alternate)



9 Tactile element



10 3D relief effect



11 Custom-made screening



12 Line art design

● Tactile element

VISIBLE UNDER UV LIGHT



13 Multicolour (RGB) UV-fluorescent image



14 UV dark polycarbonate



15 UV-fluorescent colours (red, green, blue)

WIDE RANGE OF FUNCTIONALITIES enabling secure and reliable electronic identification and electronic signatures

The new ID card has a chip with two pieces of biometric data: the image of the holder's face and two fingerprints (only applicable to citizens aged 12 and over). Citizens will be able to use the new ID card to travel to all EU member states.

All ID cards also include a mark for the chip and a QR code. The QR code does not include a record of personal data but enables verification of validity via the e-Uprava (e-Administration) portal, thus increasing legal security.





The new Slovene identity card is a major step towards modern digitalised services in the Republic of Slovenia that are secure and reliable.

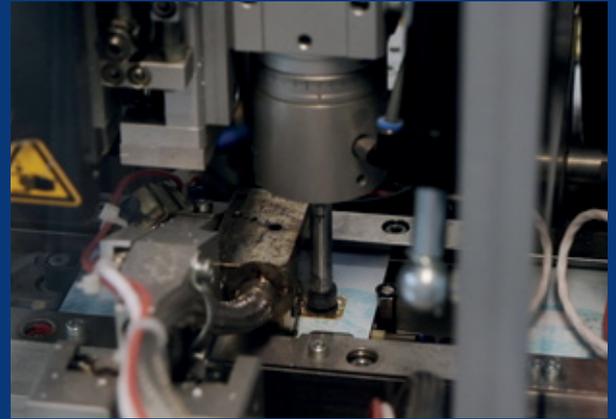
The new biometric identity card has a chip with two biometric data elements: the image of the face and two fingerprints (only applicable to citizens aged 12 and over).

For people aged 12 and over, the new ID card is an electronic ID card, too, as the chip also includes a qualified certificate for an electronic signature and two certificates for electronic identification (one of assurance level high and the other of assurance level low). Therefore, it enables citizens to use two key functionalities needed for e-services: electronic identification and electronic signature. The chip has a dual interface (contact and contactless) which enables us to offer users several eID card use modes: they can use either a contact or a contactless reader on a computer or even a mobile app on a smartphone.

Currently the electronic ID card can already be used for a large number of e-services not only in the public but also in the private sector. Soon it will also be supported as a supplement for a national health insurance card.

Our citizens now have everything they need to identify themselves in the physical and electronic world on a single document."

ALEŠ PELAN, M. Sc.,
Head of Sector for Trust Services, Information Technology Directorate, Slovene Ministry of Public Administration



BASIC INFORMATION from the official presentational brochure

IDENTITY CARD OF THE REPUBLIC OF SLOVENIA – BASIC INFORMATION

On 28 March 2022, the Republic of Slovenia started issuing identity cards in accordance with Regulation (EU) 2019/1157 of the European Parliament and of the Council of 20 June 2019 on strengthening the security of identity cards of Union citizens and of residence documents issued to Union citizens and their family members exercising their right of free movement.

In the Republic of Slovenia, an identity card is a public document by which citizens prove their identity and citizenship and which allows them to cross the state borders of the states of the European Union and the Schengen Area and of other states that have consented to such. The identity card also enables citizens to be electronically identified and authenticated for access to electronic services and to sign electronically in accordance with the regulations governing electronic identification and electronic signature.

Every citizen may obtain an identity card of the Republic of Slovenia immediately after birth. Notwithstanding the above, the identity card is not a mandatory document. It is only mandatory for citizens over 18 years of age, with permanent residence in the territory of the Republic of Slovenia, who do not have another valid identification document with a photograph issued by a state authority.

Identity cards are issued with different validity periods:

- an identity card with a validity of three years is issued to children younger than 3 years of age;
- an identity card with a validity of five years is issued to children aged 3 to 18 years;
- an identity card with a validity of ten years is issued to a citizen aged 18 to 70 years;
- a citizen who has applied for an identity card after reaching the age of 70 years is issued an identity card with permanent validity.

By way of exception, an identity card with a validity of one year is issued to a citizen:

- who during the five years prior to applying for a new identity card has destroyed, misplaced or lost two or more identity cards due to negligent handling, as well as if two or more identity cards have been stolen;
- with temporary residence in the Republic of Slovenia who is in the process of having an application for permanent residence verified in accordance with the Act regulating registration of residence;
- with a ban on crossing the state border;¹
- who has attained the age of 12 years and whose fingerprints cannot be taken at the time of the application for an identity card for medical reasons which are of temporary nature.

An identity card may cease to be valid by law before the date otherwise indicated as the date of validity on the identity card form on the date of reporting its misplacement, loss, or theft, destruction due to negligent handling, upon termination of citizenship of the Republic of Slovenia, and in the event of the citizen's death. Its validity may also terminate in other cases where the citizen submits the identity card for destruction before the expiry date, such as: a change of name, a change of residence, inappropriate photograph, etc.

All new identity cards are biometric. In addition to the biometric photograph, the fingerprint biometric is included on the storage medium if the citizen was over 12 years of age at the time of application.

An identity card issued to a citizen after the age of 12 also enables access to electronic services and consists of:

- an electronic identification means with the assurance level high,
- an electronic identification means with the assurance level low,
- a qualified certificate for electronic signature.

Both electronic identification means and the qualified certificate for electronic signature have the same validity as the identity card itself, with the exception of identity cards issued with a permanent validity. In these cases, they are valid for 10 years from the date on which the identity card was produced. The electronic identification means and the qualified certificate for electronic signature may be revoked by an individual at any time, thereby disabling access to electronic services, however, without prejudice to the aforementioned, the identity card itself does not cease to be valid.

The identity card is issued in three versions of template, which differ according to the language of the pre-printed data fields. In addition to the template in Slovenian and English, there are also templates in Slovenian, English and Italian or in Slovenian, English and Hungarian respectively. These templates are used for the issue of an identity card to citizens with registered permanent residence in an area determined by law, where the autochthonous Italian or Hungarian national communities live.

The identity card templates include motifs, which are also contained in the travel documents of the Republic of Slovenia and provide basic cultural and historical information or the characteristics of the country. The basic motifs include the inscription 'Republic of Slovenia', the text of the national anthem in two versions (as the original in the form of the 'Zdravljica' manuscript and as a transcription in ordinary letters) and motifs from the Vače situla. These motifs are used on the identity cards to facilitate the placement of individual security features, which are divided into three basic groups: security features visible to the naked eye, tactile security features, and security features visible through technical aids (including laboratory aids).

The security elements are described in detail in this brochure.

HOLDER OF BIOMETRIC INFORMATION AND ACCESS TO ELECTRONIC SERVICES – CHIP

Basic information about the chip

The identity cards of the Republic of Slovenia contain the NXP P71 chip with the JCOP 4 operating system developed by NXP, which complies with the requirements of the Global Platform Card and Java Card specifications. The chip includes a dual interface to allow both contact and contactless (RFID) access to the contents on the chip. It contains 180-kilobyte EEPROM memory and supports the ISO/IEC 14443 standard.

The chip has a CC EAL6+ security certificate for the hardware and software used, is certified as a Qualified Electronic Signature Creation Device (QSCD). The biometric data record is logically separated from the record of electronic identification means and the qualified certificate for electronic signature in a way that prevents unauthorised access.

Recording and access to biometric information

The chip stores personal data, a photograph of the individual in JPEG2000 format and two fingerprints in WSQ (Wavelet Scalar Quantization) format. Fingerprints are taken in compliance with ISO/IEC FCD 19794-4 and ANSI/NIST-ITL 1-2000 IS standards. The quality of captured fingerprints is assessed according to the NFIQ (NIST Fingerprint Image Quality) standard and must be at least 3 on a scale from 1 to 5. The photograph is stored as a full frontal image and is captured from a photograph that is also graphically personalised on the data page. The chip and antenna are fitted between the layers of the card.

The SOD file contains summaries of the remaining files on the chip, which are digitally signed with the national key. The digital signature and the data signing certificate are directly included in the SOD file.

To prevent unauthorised reading of data and to increase the security of biometric travel documents, the Supplemental Access Control (SAC) has been introduced for the Slovenian identity card, which follows the sophisticated PACE2 (Password Authenticated Connection Establishment) protocol with stronger cryptography to establish a secure communication channel between the chip and the contactless reader, using Near Field Communication (NFC) technology.

Recording and access to electronic identification means and the qualified certificate for electronic signature

The chip stores the electronic identification means with the assurance level high, the electronic identification means with the assurance level low and a qualified certificate for electronic signature; all are stored in the form of a digital certificate with matching private key, and elliptical cryptographic algorithms (ECC) are used to produce digital certificates. Access is possible via a contact or contactless interface in the following ways:

- using a contact or contactless (NFC) card reader,
- using a dedicated application on a mobile device according to the NFC protocol.

Before using the identity card via the contactless interface, a secure link is established between the contactless reader or mobile device and the chip, following the PACE2 protocol, whereby a Machine Readable Zone (MRZ) code or a Card Access Number (CAN) code may be used as a security code.

There are two approaches to protecting access:

- access to electronic identification means with the assurance level low is possible without the use of security mechanisms and is possible by inserting the identity card in the contact reader or by establishing a secure link between the identity card and the contactless reader,
- for the purposes of using an electronic identification means with the assurance level high and a qualified certificate for electronic signature, the following security mechanisms apply:
 - an initial password,
 - a user password,
 - a code to reset the user password.

The initial password is received in a separate envelope and is used to set the user password prior to the first use of an electronic identification means with the assurance level high or a qualified certificate for electronic signature. It can only be used once and only for setting the user password, but it does not allow access to other data.

The user password is a single one and ensures the protection of access to the electronic identification means with the assurance level high and to the qualified certificate for electronic signatures and to matching private keys. It is set by the individual after the initial password has been entered and is to be entered each time the matching private keys are accessed.

The user password reset code allows an individual to reset the user password in case the individual does not know it or it is unusable due to too many failed login attempts.

¹ An identity card issued to a citizen who is prohibited from crossing the state border shall bear on the reverse the words "Border crossing prohibition" and the marking: "X".

PROJECT TEAM OF CREATORS OF THE NEW SLOVENE IDENTITY CARD



REPUBLIC OF SLOVENIA
MINISTRY OF THE INTERIOR



REPUBLIC OF SLOVENIA
MINISTRY OF PUBLIC ADMINISTRATION



CETIS[®]

