



SEMLEX
GROUP

For a secured world

Place of business at Drogenbos (Belgium)



Head office in Brussels (Belgium)

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INTRODUCTION



Who are we?

Semlex is a **Belgian company** that allows each citizen to have a **secured identity**.

For **more than 20 years**, we have been advising and supporting the governments in the biometric identification and numerical security fields with a view to providing them with a **turnkey solution** that covers their overall needs.

Besides the **reliable and secured** identification systems, Semlex is autonomous when it comes to producing high value-added documents thanks to the use of biometric techniques. Therefore, the governmental bodies benefit from the **highest quality** documents meeting the international standards related to quality and security: national identity cards, passports, visas, residence cards, residency permits, driving licenses and many other documents.

These documents are printed at **Garsu Pasaulis** in Lithuania. This modern and secured printing company has actually received the following certifications: ISO 37001 (anti-corruption management system), ISO 9001 (quality management system), ISO 14001 (environmental management system), ISO 27001 (information security management system), ISO 45001 (health and safety management system in the workplace) and ISO 14298 (safety print proceeds management system).



A win-win partnership

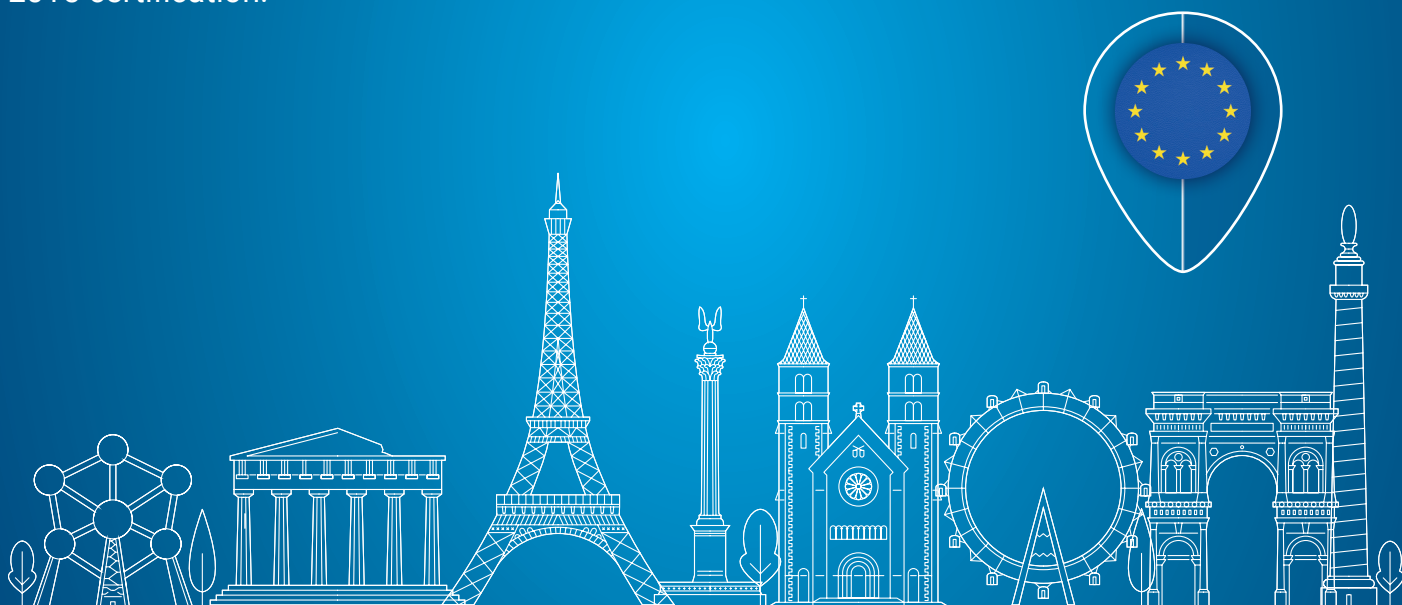
Thanks to our experience in the implementation of all types of projects (that are either small or large) and our financial independence, we have the required means to supply BOT (Build, Operate, Transfer) or PPP (Public-Private Partnership) solutions according to the Government's wish.

Semlex also provides all the investments that are required for the project implementation, bears all the operation costs and ensures its maintenance with no financial help from the State.

It is the right formula for a win-win partnership for all the citizens, the State and the company.

A famous know-how

It is thanks to its professionalism, its teamwork quality and its permanent concern for improvement that Semlex was awarded the renewal of ISO 27001 : 2013 certification, ISO 14001 : 2015 certification as well as ISO 9001 : 2015 certification.



The electronic and biometric identification systems of Semlex are meeting the international standards established by the following organisations:



SOLUTIONS MEETING YOUR NEEDS REGARDING IDENTIFICATION OF CITIZENS AND GOODS

Semlex comes with a complete range of tailor-made identification solutions adjusted to infrastructures and systems available on the territory. At the same time, the Semlex employees are in the field aiming at guiding and advising the governments on their needs regarding the identification of citizens and goods.



Steps to success



CONTRACT SIGNING



DOCUMENT

- **Design** (integration of security elements)
- **Validation** of the design by the State
- **Order**
- **Delivery**



MATERIAL

- **Order**
- **Delivery**



SOFTWARE

- **Validation** of processes by the State
- **Development** of new functionalities
- **Configuration** of the **in-house developed software** (ORBIS)
- **Configuration** of the **payment system**
- **Purchase** of licences
- **Reporting**



CONSTRUCTION

- **Analysis** of the works to carry out
- **Order** and **delivery** of the necessary **construction material/ furniture**
- **Construction** and/or **arrangement**



OPERATIONAL SYSTEM

- **Operational** and **logistical support**
- **Hardware** and **software maintenance**
- **Management** of the **citizen's path** in **partnership** with the State
- **Progress** and **improvement** of the system
- **Knowledge transfer**



TRAINING

- **Training** of the **State officials** for the **system usage**



LOCAL RECRUITING

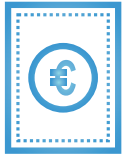


INSTALLATION AND DEPLOYMENT

- **Construction** of a **data center**
- **Setting up** of **computer infrastructure**
- **Network configuration**
- **Hardware setup**



The citizen's path



PAYMENT

- Online
- In cash at the Bank



ENROLMENT

(under the control of the State officials)

- Registration of the **alphanumeric data**
- Registration of the **biometric data**



CONTROLS

(under the control of the State officials)

- Comparison
- Verification



DATA COMPARISON AND VALIDATION

(under the control of the State officials)

- **Alphanumeric data**
- **Biometric data** (digital fingerprint, facial recognition...)



IDENTITY DIGITALIZATION

- Access to eGouvernement
- Numerical identity
- Electronic signature



DISTRIBUTION MANAGEMENT

(carried out by the State officials or Semlex agents)

- Parcel management
- Biometric authentication
- Delivery of the document to the citizen
- Return management



PRODUCTION MANAGEMENT

(carried out by the State officials or Semlex agents)

- Stock management
- Document customization
- Quality control

Semlex solutions for: _____



GUARANTEE

- Large-scale secure database with various applications
- Accurate biometric comparison of individuals
- Duplicate removal
- Verification of the individual's identity
- Accessibility to all citizens
- Intuitive collaboration system and optimized staff productivity

SECURE

- Document delivery systems
- Data exchange operations
 - Access authorisation
 - Login verification



ADAPT

- Systems in line with culture, environment, challenges, needs and expectations specific to each government
- Creation of a digital identity (taxes, customs, finance and banking)
- Customer/server architecture that ensures optimal management of the system and appropriate territorial coverage

FIGHT AGAINST

- Counterfeiting with respect to the civil registration, elections, issuance of identity documents and fictitious job
 - Illegal work
- Abusive immigration
 - Terrorism



PURSUE OUR EFFORTS

- Innovation, research and development
- Operation management of implemented systems





Semlex continues to develop and perfect new technologies with a view to significantly increasing the governments' level of security and satisfaction.



REFERENCES

More than **10** references in national identity cards

More than **15** references in electronic passports

More than **20** references in visas (among which 8 Schengen visas)

Europe



CYPRUS

Ministry of Transport

Driving Licenses



IRELAND

Ministry of Justice and Law Reform,
Visa Department

Schengen Visa



LITHUANIA

Centre for the customization of identity documents under the direction of the Ministry of Internal Affairs / State Enterprise « Regitra » / AB Lietuvos pastas

Biometric national identity card

Electronic passport

Driving license

Postage stamps

Excise stamps



LUXEMBOURG

Cross-media Editorial Unite, EU Office for Official Publications

Passport booklet of type movement permit



MOLDAVIA

Ministry of Internal Affairs

Electronic passport

Electronic national identity card



SLOVENIA

Ministry of Finance

Excise stamps

Africa



COMOROS

Presidency Cabinet in charge of the Defence and Public Security

Electronic and biometric passport
Visa
Residency permit for foreigners
National identity card
Citizenship certificate



IVORY COAST

Ministry of Internal Affairs and Security

National Records of Natural Persons
Electronic and biometric national identity card
Civil Records
Electronic residency permit (ECOWAS and outside ECOWAS)
Civil Registry Documents
Census of military forces
Census of veterans
Census of retired persons
Digital governmental platform
Numerical identity



GABON

Ministry of Internal Affairs and Security

Passport
Visa
Residency permit for foreigners
National identity card
Biometric border control



GAMBIA

Ministry of Internal Affairs

Electronic and biometric national identity card (ECOWAS)
Residency permit for foreigners (ECOWAS)
Electronic driving license



GUINEA-BISSAU

Ministry of Justice / Ministry of Internal Affairs / Ministry of Defence

Electronic and biometric passport
Residency permit for foreigners
National identity card (with chip and ECOWAS)
Military card* and veteran card**
Civil servant card**

*In partnership with UNDP

**In partnership with EU



LIBYA

Ministry of Internal Affairs, Civil Registry

Civil Records : birth certificates, family record booklets



MADAGASCAR

Ministry of Public Security / Ministry of Foreign Affairs

Electronic and biometric passport



MOZAMBIQUE

Ministry of Internal Affairs

Electronic and biometric passport
Visa
Residency permit for foreigners
National identity card
Biometric border control



DEMOCRATIC REPUBLIC OF THE CONGO

Ministry of Foreign Affairs

Electronic and biometric passport



RWANDA

General Department for Immigration and Emigration

Pass and emergency travel documents
VISA
Biometric border control



SENEGAL

Ministry of Foreign Affairs / IT Agency

Consular card
Biometric census of officials



SOMALIA

Jubaland State / President's Cabinet

Biometric Civil Records: electronic national identity card, residence card, driving license, official card
Schengen Visa
Registration certificate
License plate
Birth deed
Road-traffic tax



CHAD

Ministry of Internal and Public Security

National identity card
Residency permit for foreigners
Supply of passport booklets
Police card



ZIMBABWE

Ministry of Internal Affairs

Electronic and biometric passport
National identity card
Visa
Civil Records

Asia



AZERBAIJAN
Maritime Administration of the State of Azerbaijan / Ministry of Finance

Electronic passport
Seamen passport
Residency permit for foreigners
Visa
Excise stamps



GEORGIA
Civil Records Registry of the Ministry of Justice / National Post / Ministry of Finance

Electronic passport
Postage stamps
Excise stamps



KYRGHYZSTAN
Inspection of State Taxes

Excise stamps



NEPAL
Nepalese Government, Ministry of Information and Communications, Department for postal services / Department of Internal Revenue under the direction of the Ministry of Finance

Postage stamps
Excise stamps



SINGAPORE
Ministry of Internal Affairs, ICA

Visa



YEMEN
Ministry of Internal Affairs, Immigration, Passports and Citizenship Body

Passes
Visa

America



DOMINIC
Electoral Commission

National identity card
Voting card
Travel document
Voting check terminal



EL SALVADOR
General Direction for Migration and Foreigners, attached to the Ministry of Justice and Public Security

Biometric passport

Organisations and others



UNITED NATIONS UNDP

Officials' identification card
Military card in Guinea-Bissau



INTERPOL INTERPOL

Official sponsor for 10 years
Participation in General Assemblies



C.C.P.A.P / INTERPOL Comity of Police Chiefs of Central Africa

Partner and technical advisor



EUROPEAN UNION PARAP

Card of veteran of Guinea-Bissau
Civil servant card for Guinea-Bissau



IOM International Organisation for Migrations

Identification card



ASECNA Agency for the Air Navigation Security in Africa and Madagascar

Employees' identification card

TRAVEL DOCUMENTS (PASSPORT AND VISA)

PASSEPORT

The passports produced by Semlex are in strict compliance with those obligations and recommendations indicated by document n°9303 of ICAO (International Civil Aviation Organisation).

These features are not restricted and may be adjusted as per the government's needs: paper characteristics, hot foil stamping, infrared ink, iridescent ink, optically variable ink (OVI), photochromic ink, UV-fluorescent ink, fluorescent sewing thread, watermark, guilloche, rainbow coloring, holographic laminate, micro-printing, anti-scan/anti-copy patterns, printed/perforated numbering, polycarbonate page, intaglio printing and latent image.



VISA

Semlex suggests a visa in compliance with the recommendations of the document n°9303 part. 2 of ICAO, of the sizes ISO 7810 at ID3 format: 88 mm (+/-0.75mm) x 125 mm (+/-0.75 mm).

The visa contains the data in MRZ (Machine Readable Zone) area, allowing the automatic reading of the name, passport number, nationality, birth data, gender, expiry date and personal identification number.

These features are not restricted and may be adjusted as per the government's needs: paper characteristics, optically variable ink (OVI), photochromic ink, UV-fluorescent ink, guilloche, hologram, rainbow coloring, chemical markers, micro-printing, black laser or inkjet numbering and die cut security.

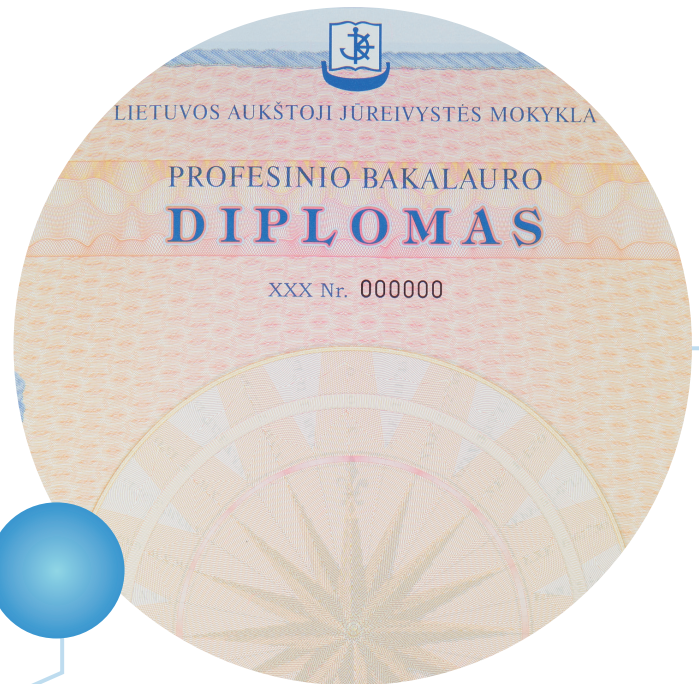




DIPLOMAS AND DEEDS CERTIFICATES

Semlex produces diplomas and deeds certificates (numerical or paper ones) and other documents requiring protection for a large number of institutions.

These features are not restricted and may be adjusted as per the government's needs: paper characteristics, hot foil stamping, optically variable ink (OVI), photochromic ink, UV-fluorescent ink, watermark, guilloche, hologram, rainbow coloring, chemical markers, micro-printing, anti-copy patterns, hidden words, black laser or inkjet numbering, intaglio printing and latent image.



CIVIL REGISTRY SYSTEM

Semlex suggests a digital and secured Civil Registry system. In agreement with SNECI (The National Strategy of the Civil Registry and Identification), one of the main goals of the RNPP project is to implement a digital and secured Civil Registry system and deploy it on the entire territory by progressively interconnecting the Civil Registry centres.

The system manages the National Population Records that allows the complete identification of a person starting with a sole identification number NNI and of his/her biographic and biometric data.

The digital Civil Registry system has a lot of goals:

- **Accessibility:** anybody has access to the system;
- **Legitimacy:** the system relies on a legal device ensuring its legitimacy;
- **Reliability:** the data are reliable and the quality of the data is guaranteed;
- **Security:** the system is protected against any attack (either of internal or external nature);
- **Availability:** the system data are available in real time;
- **Interoperability:** the system is interoperable with identity, Justice, Health.



NUMERICAL IDENTIFICATION

The numerical identification is an additional tool of the identity documents ensuring the security of personal data and allowing a secured access to the online services and secured electronic transactions (e-wallet). In short, the electronic identification has become the ideal solution guaranteeing our identity online.

Semlex developed a numerical identity portal that allow people to carry out their numerical operations on a daily basis, and this, in a secured, confidential manner, in compliance with the international standards.



Mobile station



TRACK AND TRACE SYSTEM

Cargo tracking may be a difficult task to manage considering the complexity of logistics processes, delivery deadlines, geographic problems and various players involved.

Semlex suggests a track and trace system that allows the tracking of goods (medicines, alcohol, tobacco) throughout the supply chain, and this, starting with the entry of products on the national territory.

This software solution allows the real-time tracking of the geographic position of goods. It also allows to establish the day on which the loading shall reach its destination, to identify all the players and their activities, to identify the source of problems in the supply chain. It aims at bringing efficient and quick solutions, at increasing the government revues, fighting against forgery and illegal entry of products.



Orbis, the in-house software

Our know-how in the field has allowed us to develop the population management tool necessary for any 21st century state: ORBIS.

Completely developed by engineers that are part of Semlex group, the ORBIS platform is a solution that is key to any application that allows the management of identities with the support of biometry.

The ORBIS approach ensures:

- The centralisation of the biometrical data belonging to the group or population;
- The allocation of a unique identifier to each person;
- The production of secured biometric documents;
- A fiduciary securitization of deeds, extracts and delivered documents;
- The management of players by the biometric traceability that is applied throughout the operations;
- The management of lists of scammers on the overall information system ORBIS (passport, national identity card, resident card, driving license...).



The advantages offered by ORBIS



Applications

BIOMETRIC AND ALPHANUMERIC REGISTRATION

- Centralisation and storage of registration related data
- Duplicate detection
- Creation of the National Civil Registry
- Document customization
- System administration and security
- Automatised audit of results
- Traceability of operations and operators
- Publication of manufacturing statistics

REGISTRATION

- Fingerprint screenshot
- Identity photos
- Alphanumeric data entry or reading of information from an existing document
- Signature registration

DATA PROCESSING

- Creation of a sole identifier
- Duplicate detection through comparison with 1:n fingerprints
- Encryption of sensitive data

DEVELOPMENT OF A CIVIL REGISTRY DATABASE

- Establishment of parentage and civil status
- Application of citizens' research
- Creation of identification reports
- Creation of lists made up of sensitive persons

DOCUMENT MANAGEMENT

- Complete file management (multiple documents)

DOCUMENT CUSTOMIZATION

- Use of security certificates
- Electronic customization
- Graphic printing
- Laser engraving

ENCODING

- Sensitive data encrypted encoding in a barcode PDF417
- Electronic chip encoding (contact or no contact)

PRINT MANAGEMENT

- Biometric encoding management
- Print batch management
- Print supply management
- Print and scrap statistics

DOCUMENT DELIVERY

- Holders' authentication prior to document distribution
- Certificate activation

ADMINISTRATION

- Production of enrolment and identification reports
- File management
- Archiving of delivered documents
- Managements of lists made up of sensitive persons

OPERATOR MANAGEMENT

- Authenticated users
- Usage right management

QUALITY ASSURANCE

- Control of the chip operation and barcode
- Printed data visual check



SEMLEX EUROPE S.A.

Head office • Avenue Brugmann, 384 - 1180 Brussels, Belgium
Place of business • Avenue W.A. Mozart 1, 1-a - 1620 Drogenbos, Belgium

Tel. no. +32 2 346 80 19 • Facsimile no. +32 2 346 80 29 • www.semlex.com • europe@semlex.com