

orell füssli
security printing

Advancing the art
of security since 1519



Orell Füssli Ltd.
Dietzingerstrasse 3
8036 Zurich
Switzerland
orellfuessli.com

About us

We guide you through every step of security document creation. Together, we generate cutting-edge banknotes and security documents that are admired worldwide.

Orell Füssli Ltd. Security Printing (OFS) is one of the world's oldest printing companies. As part of the Orell Füssli Group, we represent a tradition of exacting quality standards and precision of technology, security and innovation. Our core business is currency printing, identity systems, innovative security features, design and technical services.

We offer independent advice when deploying our comprehensive suite of services in developing currency or ID products. This includes concept consulting, design and origination, innovative custom manufacturing and product delivery under secure conditions. Our production site is in Zurich, Switzerland where banknotes are printed on all substrates for our global customers.

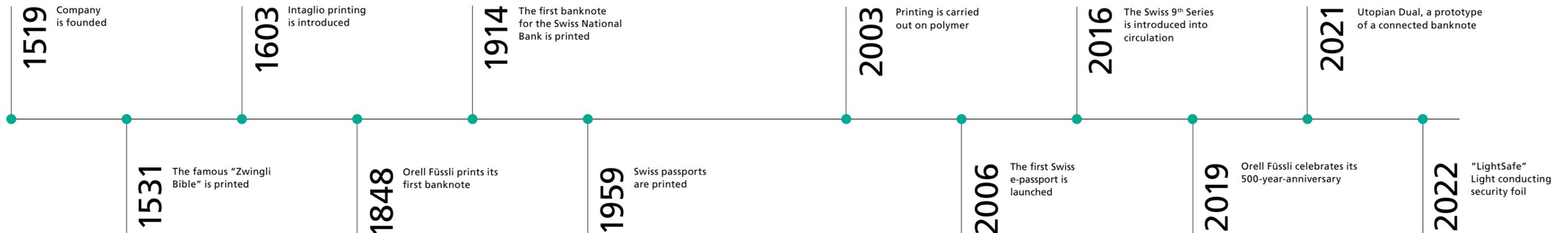

Established in
1519


Operating
worldwide


600
employees


33%
shares held by SNB


Listed on the
SIX
Swiss stock exchange



Banknotes in all their splendour

Switzerland

Together with our key stakeholder – the Swiss National Bank – OFS designed and manufactured the 9th series of the Swiss Franc, considered the most secure banknote in the world, which makes things extremely difficult for counterfeiters.

Substrate: Durasafe®



Hong Kong

This \$10 note of Hong Kong, previously on cotton, was converted to polymer in 2007 and printed several times by OFS, including the first print. The obverse is printed in offset and intaglio, with numbering, a UV patch, a latent image, a clear window and shadow images. For the reverse, in addition to offset, additional features include a clear window, shadow images and see-through register. Obverse and reverse are varnished to significantly increase the lifetime of the notes.

Substrate: Polymer



Orell Füssli Anniversary note

In commemoration of our 500th anniversary, OFS created a house note that pays tribute to the unique skills of our people: printers, designers, scientists and staff. The uniqueness of the note consists of a single design that is adapted to the technical requirements of three different substrate types. The anniversary note combines highly complex printing processes with the latest security features, including a specific window to each substrate.

Substrate: Cotton, Durasafe® and Polymer

Namibia

The N\$200 note is the highest denomination in circulation in Namibia. The upgraded banknotes represent authentic Namibian culture interwoven in a highly secure series. On the obverse side of the banknote, the Bank of Namibia portrays Kaptein Hendrik Witbooi, a hero and leader of the anti-colonial war. Modernized security features are visible on this side. On the reverse side, you can discover the beauty of Namibia's wildlife, a Roan antelope. This mauve-dominant banknote is printed by OFS in our hi-tech city-centre Zurich facilities.

Substrate: Cotton



Bahamas

The Central Bank of The Bahamas assigned OFS to design the new CRISP Evolution banknote series. Approaching such a task requires an in-depth analysis of a country's culture, people, traditions, and geography. The design of this denomination celebrates Bahamian culture and recognizes Bahamian Junkanoo culture. With enhanced designs and improved security features, the public can easily distinguish genuine notes from counterfeiters without using special equipment. This denomination is printed with Swiss Orell Füssli precision.

Substrate: Composite



Costa Rica

The stunning ₡10,000 denomination for the Banco Central de Costa Rica was originated and printed by OFS. This denomination was released into circulation in 2021 and includes enhanced design and security features that serve to deter counterfeiters. The central bank successfully highlights an ecosystem, a rainforest and a native species, the three-toed sloth in the design. The introduction of the new banknote also saw a change in substrate from cotton to polymer.

Substrate: Polymer

IDs are key to an orderly society

As a general contractor for identification document production, OFS combines the highest security requirements with aesthetics and delivers unique, customized products to our clients worldwide. Our identification documents allow a country's citizens to demonstrate who they are and give the issuing authority an image of quality. OFS arranges all the necessary suppliers and acts as the single point of contact for customers.

We design, print, and supply various printed security documents, such as e-passports, visas, identity documents, and driving licenses. Additionally, Orell Füssli Group is a majority stakeholder of Procvivis Ltd. and a leading Swiss provider of secure technology and efficient solutions for digitalizing public sector services.

6



E-passport

Our experts guarantee that all requirements and standards of the International Civil Aviation Organisation (ICAO) are adhered to in the design phase and during the production of any passport. Passports designed by Orell Füssli meet the highest security requirements while representing a country's image through its aesthetics.



Visa and Visa Issuance System

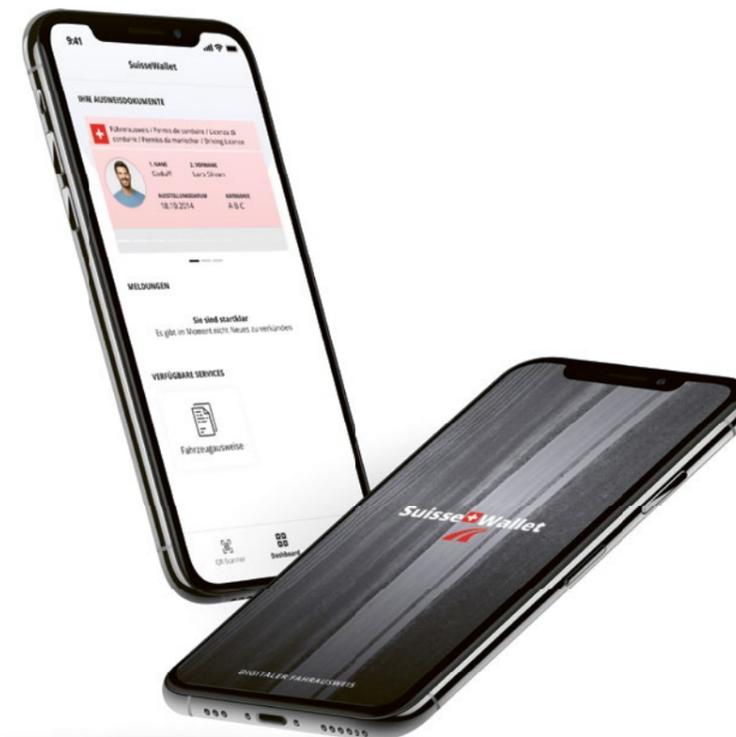
The Schengen visa is manufactured at our facilities in Zurich and afterwards delivered to our customers in the Schengen area. We offer tailor-made visa issuance solutions and design visa stickers as a country's reference, including a rich set of printed security features to ensure that the visa cannot be counterfeited.

Driving License

As a general contractor for the Swiss driving license, OFS orchestrates all the suppliers involved. As an experienced supplier in the driving license sector, we ensure that your driving license meets all security requirements while providing an aesthetic design.



7



Mobile Driving License – mDL

Besides physical driving licenses based on polycarbonate, OFS provides as a digital twin a mobile driving license solution (mDL) together with Procvivis Ltd. The digital driver's license solution is a foundation for future mobility eco-systems.

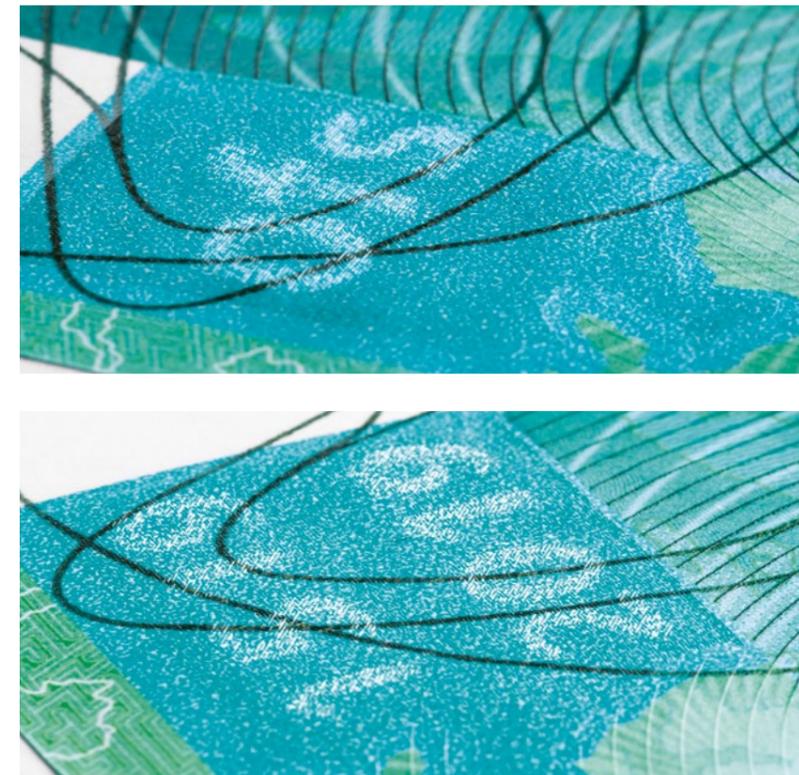
We exclusively offer products with exacting security standards



Our products are embedded with state-of-the-art security features that meet the most stringent standards. Durability is a key attribute, thus ensuring long lifespans in harsh circulation conditions. We develop and apply security features to protect banknotes, identification and security documents against forgeries and alterations.

The modular design of our production facility allows us to customize each specific order. Every customer has specific demands for security features, and we ensure that these features blend seamlessly with the design elements.

The 9th Swiss banknote series is a decisive evolution in security printing and has set a new standard in the industry. The complex integration of many security features is a feat of which we are proud.



TwinTilt®

TwinTilt® is an OFS-developed banknote latent image. Depending on the tilted angle, various symbols will be visible in lighter or darker colours. When rotating the note, two different symbols are visible on the printed picture, whereas previously it was only possible to show one symbol. This security effect raises the barrier to counterfeiting, severely hindering reproduction. TwinTilt® is produced by intaglio printing and uses 3D relief structures.

Microperf

This feature represents the pinnacle of efficient security. Microperf is an optically variable device (OVD) that is burned directly into the banknotes by a high-power laser during the production process. The effect can be recognised simply and quickly with the naked eye, where microscopic perforations become visible when the note is held against a light background. The Microperf feature is the only optical security feature that lasts for the entire life span of the banknote, even under extreme conditions. In addition, it can be checked by banknote sorting systems, rendering it highly robust against forgeries.



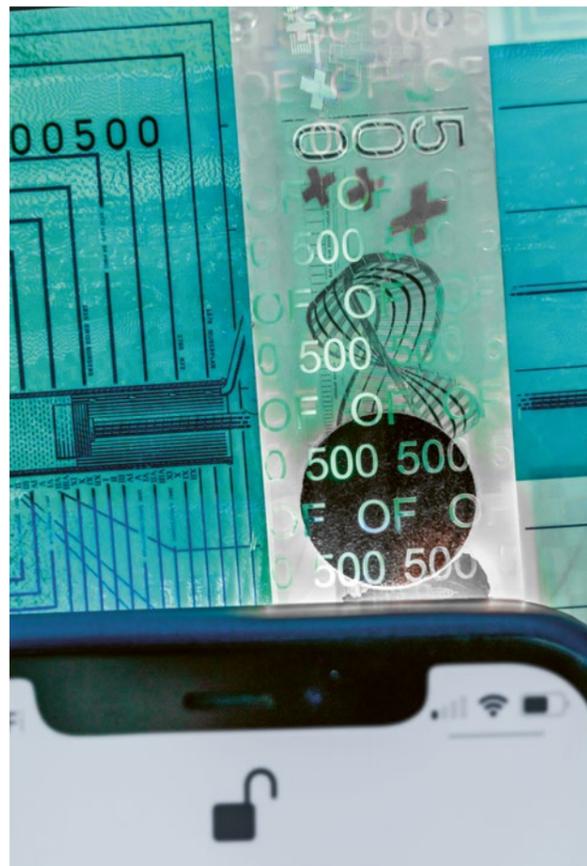
Our vision is to define the future of security printing

Our portfolio ranges from conceptual basics, such as design proposals with optimally embedded security features, to security printing processes and life-cycle management of banknotes. We advise on upgrading or redesigning currency, integrating new and innovative technologies, and seamlessly implementing targeted communication campaigns. As such, we have created an innovation ecosystem and continuously invest in innovation.

10

“LightSafe” a novel interactive security technology

The newest addition to our range of security features is LightSafe. It is a novel interactive technology based on light guiding by total internal reflection integrated in thin security foils. The feature is verified by illuminating the foil with a white light source, such as the LED of a smartphone. This makes a different area of the foil on the security document light up with lines or symbols. This feature is designed for the public, as it is easy and fast to verify – even in dark settings. This novel security is under development and initial industrial trials have taken place.



“Connected Banknote” for central bank digital currency (CBDC)

In cooperation with partners, OFS is developing a “Connected Banknote CBDC” solution, including Distributed Ledger Technology (DLT). A connected banknote is a physical banknote that interacts with a CBDC solution and acts as a transitional device between traditional and CBDC-based payment systems. A connected banknote can be used as a classic banknote; however, the owner can redeem their cold wallet (physical banknote) and transfer the note’s value to a digital wallet by scanning the QRcode using a private key.



11

“Escher” 3D Intaglio Printing

Intaglio printing creates unique graphical elements on a banknote. The degree of realism achieved is outstanding, and our designers are testing different ways to create more realistic intaglio drawings. As for now, 2D-photographs or hand drawings are used as a starting point when beginning a banknote design. In this case, highly detailed scanned 3D models of real objects are used. These are then printed on banknotes using intaglio design elements. This increases the counterfeit deterrence as well as the visual perception of the note. Introducing top-notch 3D digital technologies will significantly prolong the use of iconic intaglio printing.

