

Markenschutz

Von der Technologie zum Produkt

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Brugg, 23.04.2015

CSEM at a glance

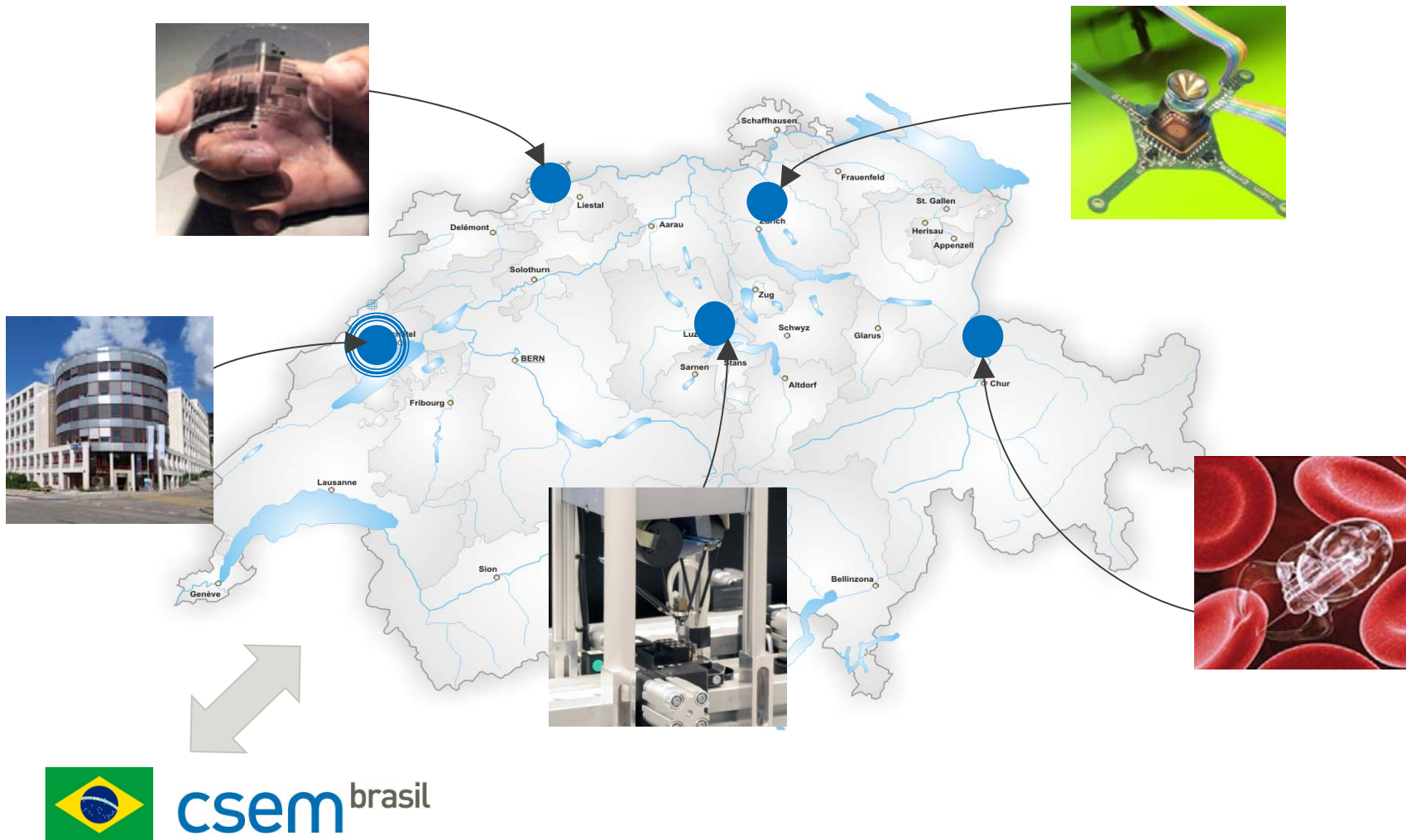
Our mission

Development and transfer of microtechnologies to the industrial sector – in Switzerland, as a priority – in order to reinforce its competitive advantage

- Cooperation agreements with established companies
- Creation of start-ups

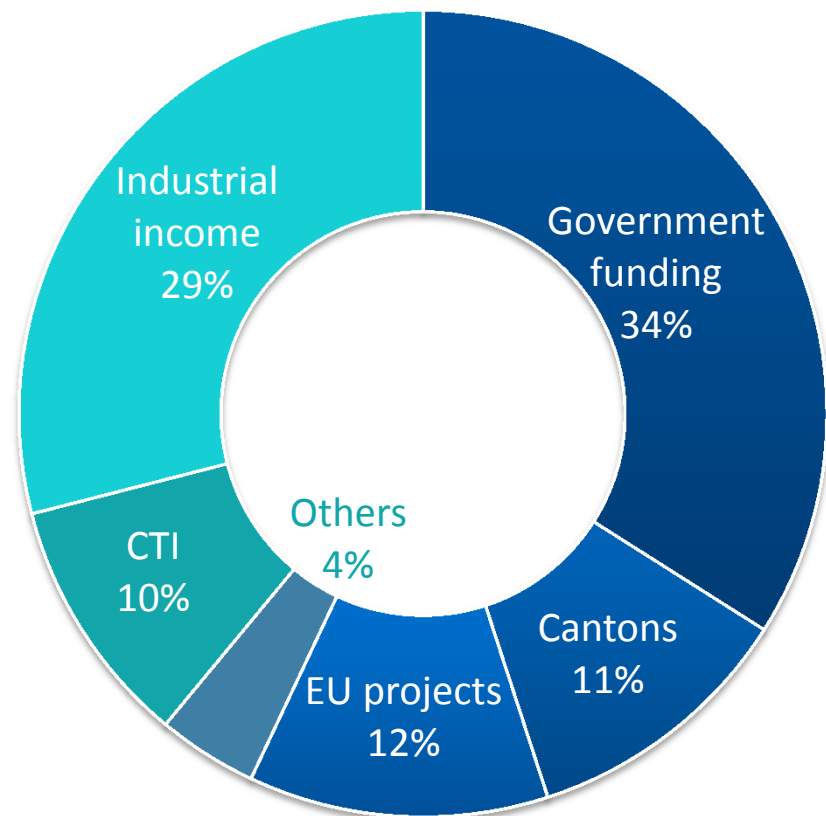


Closer to industry ...



CSEM at a glance

- Incorporated, not-for-profit **Research and Technology Organization (RTO)**, supported by the Swiss Government
- **A public-private partnership**
 - 31 % public
 - 69 % private
- **Key figures (2013)**
 - Revenues ~ CHF 74.6 mio
 - Employees ~ 400



Counterfeiting is everywhere



Was trägt CSEM zur Fälschungssicherheit bei ?

Pharma als Beispiel

Markenschutz & High Security

Security in Pharma



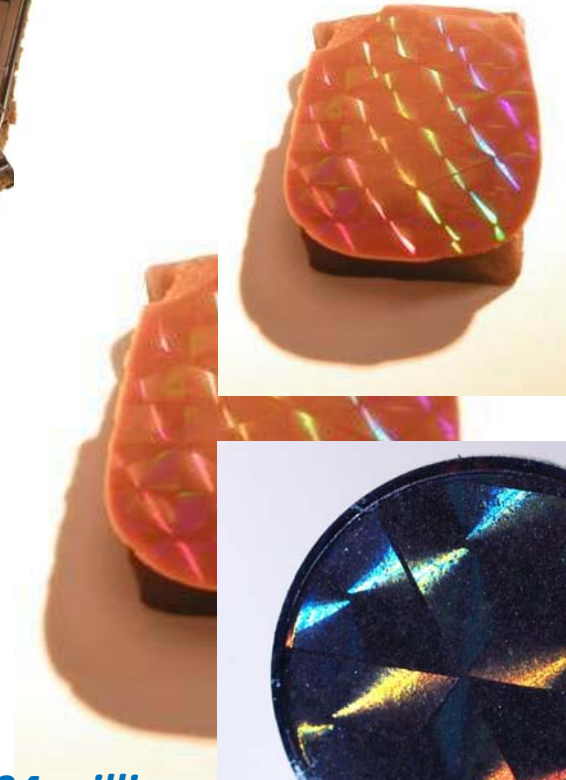
From chocolate



to a brilliant idea

Direct marking of medical products
with secure microstructures

- Tablets
- Pharma caps
- Sterile pouches

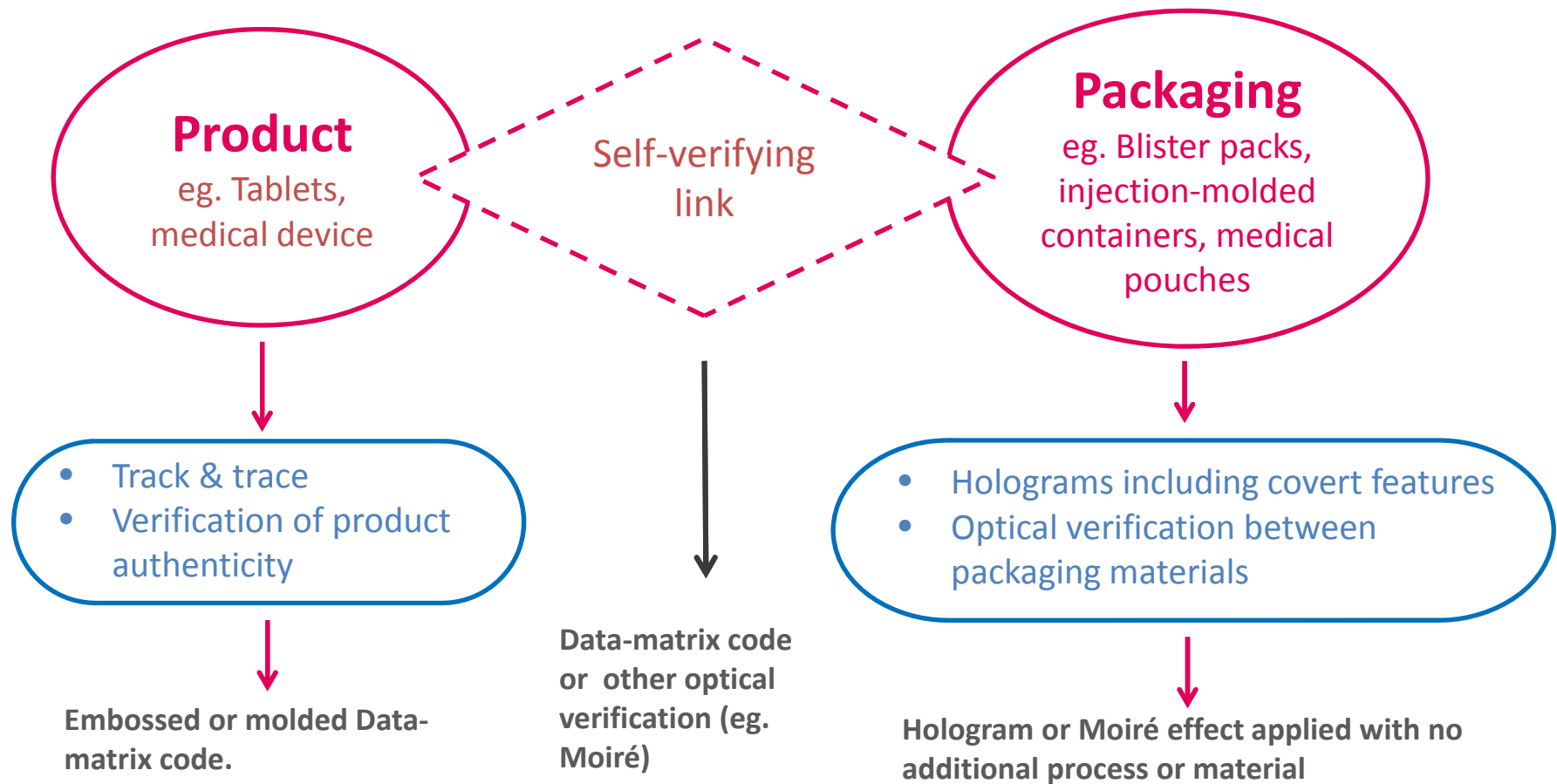


“In just two months, the EU seized 34 million fake tablets at customs points in all member countries”

G. Verheugen EU Ind. Commissioner 2009



Targeted security features



Molded data-matrix codes hidden

uncoated



coated



Tablet with a data code matrix before and after the coating deposition.
Coating thickness ~50um → code invisible



Tablet with a data code matrix after coating deposition. Coating thickness <50 um → code still visible



Molded hologram security features

- **Level 1:** Holographic logo or pattern that diffracts light to different colours at different angles, difficult to produce, directly moulded from hard steel mould tools.
- **Level 2:** Complex hologram, appearance changes when viewed from different angles.
- **Level 3:** Hidden detail (only visible when inspected at a specific point or using a specific method).



*At normal position:
3D globe*



*Rotation by 90°:
2D meridians and parallels*

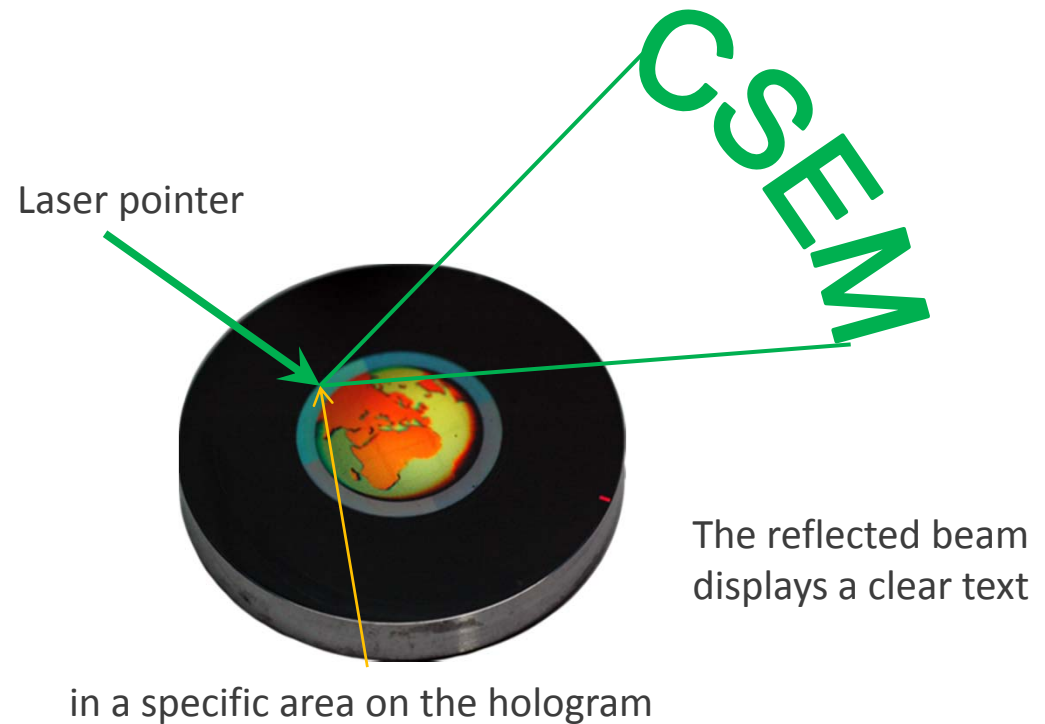


Brand protection → complex holograms



Example of holographic effects and DOE

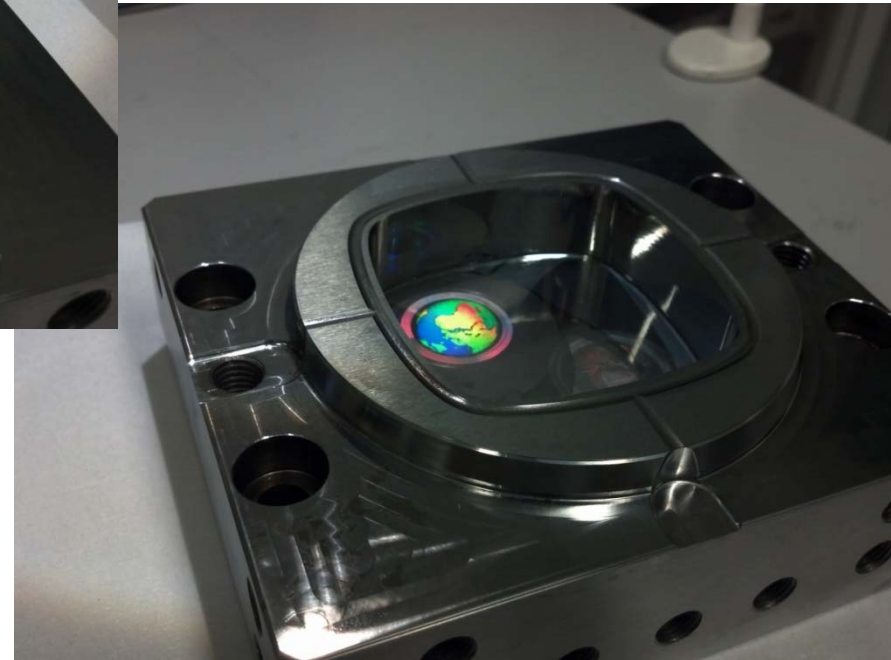
- Hidden text



Security in pharma → packaging



Steel & plastic surface structuring





Holograms including covert features

- Unique process to apply holographic gratings to flat or curved hardened steel surfaces
 - injection moulds
 - embossing tools
- Simple and complex grating structures, Moiré structures,... directly onto steel.



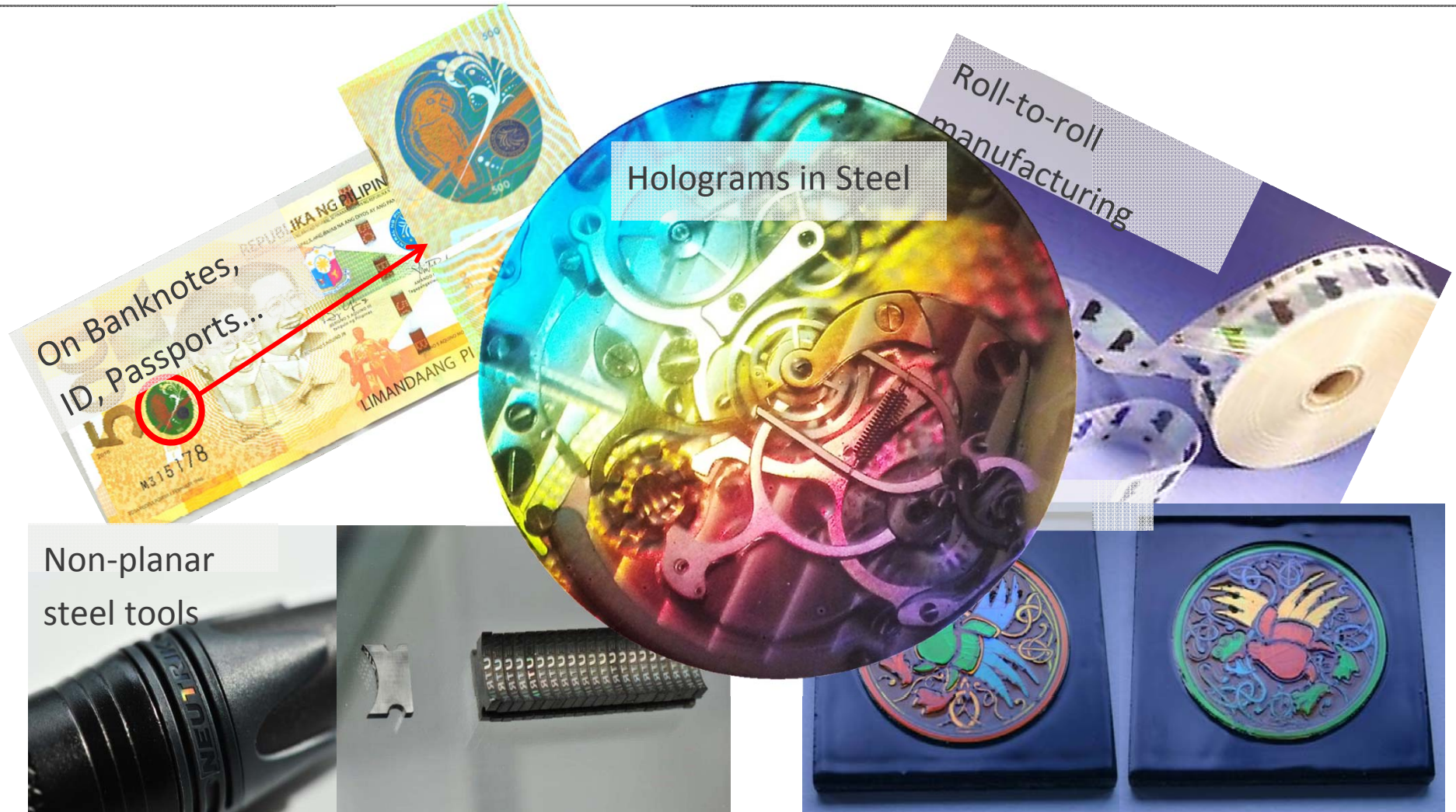


Molded hologram security features

- High-contrast holograms directly injection moulded onto plastic packages
- Holograms directly embossed onto blister packs in a standard packaging line
- Holograms embossed onto medical pouches as part of a standard film converting line

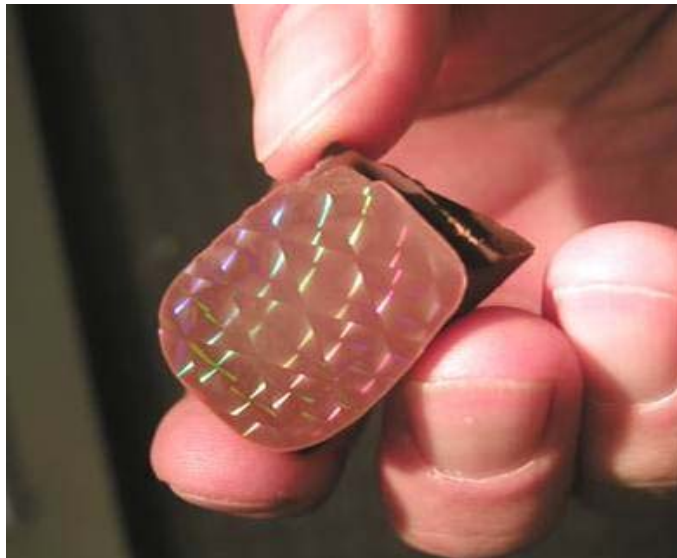


Further CSEM technologies for High Security and Brand Protection



CSEM is active in

- *Brand protection, packaging, watch,...*
 - *High security features with banknotes, ID, passports,...*
 - *Security in pharma, pills, packaging,...*
- and*
- *Replication of holograms in Swiss Chocolate !!*





Thank you for your attention.