OPTEL IdentifAI™
FOR BRAND PROTECTION

OPTEL
Traceability technologies for a better world

COMBATING FRAUD WITH TRACEABILITY AND ARTIFICIAL INTELLIGENCE

THE MOST POWERFUL AUTHENTICATION SOLUTION ON THE MARKET

OPTEL IdentifAI™ is a game changer for brand owners and manufacturers that need to trace and authenticate their products with minimal disruption to their manufacturing and packaging lines. Consumers will also be able to authenticate the products they purchase using a mobile device.

The key component of OPTEL IdentifAI is the signature matching feature, which can recognize a product's unique packaging pattern and number and match it to its identity in a cloud database.

This groundbreaking technology was developed with leading brands using OPTEL's proven traceability capabilities and innovative artificial intelligence (AI) algorithms to offer the best solution on the market.

The result is a powerful brand-protection tool that is easily scalable to other modules of OPTEL's Intelligent Supply Chain (ISC) platform.

VALUE PROPOSITION

OPTEL IdentifAI™ is a turnkey, cost-effective and easy-to-implement solution for tracing products from manufacturing to final consumer (or investigators). It uses a combination of digital traceability technology, supply chain visibility and mapping tools with multiple levels of authentication options, including signature matching technology, powered by strong AI and machine-learning capabilities. The solution is configurable to suit your company's authentication and data-granularity needs.

WHAT FRAUD ISSUES CAN OPTEL IDENTIFAI™ SOLVE?

- Product counterfeiting
- Product refilling issues
- Market diversion
- Identification of damaged labels

SOLUTION OVERVIEW

ANTI-COUNTERFEITING: HOW IT WORKS

When a product is scanned, our solution matches the data gathered from production and shipping events to check if the product is in the proper geographic location, as well as the number of times the product was scanned and by whom. If the product UID is not found in the database and/or the lot number does not match the information in the database, the user and brand owner will receive a warning or alert.
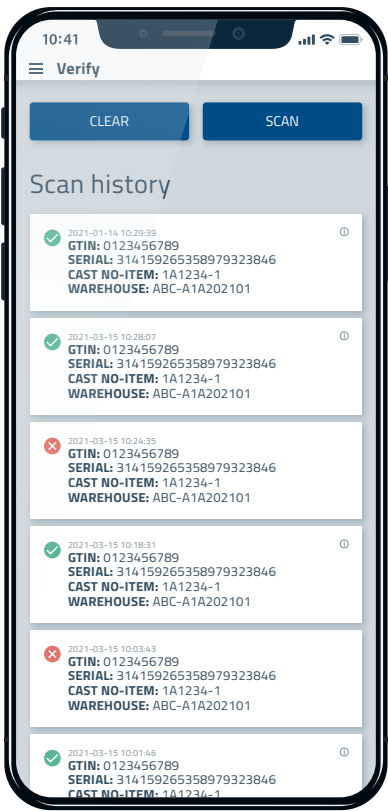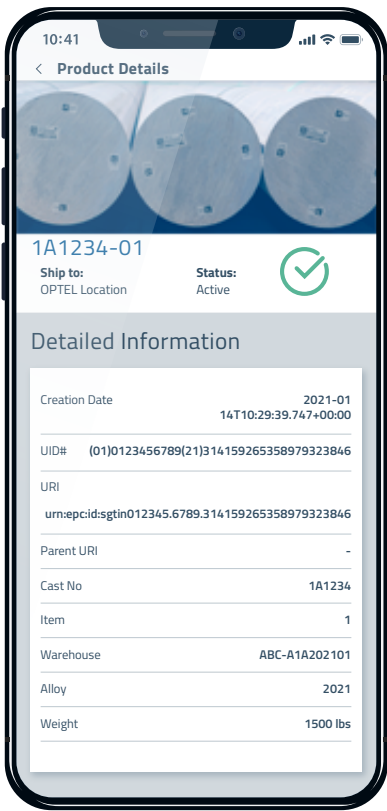
Authentic

Authentic—half-hidden

Counterfeit
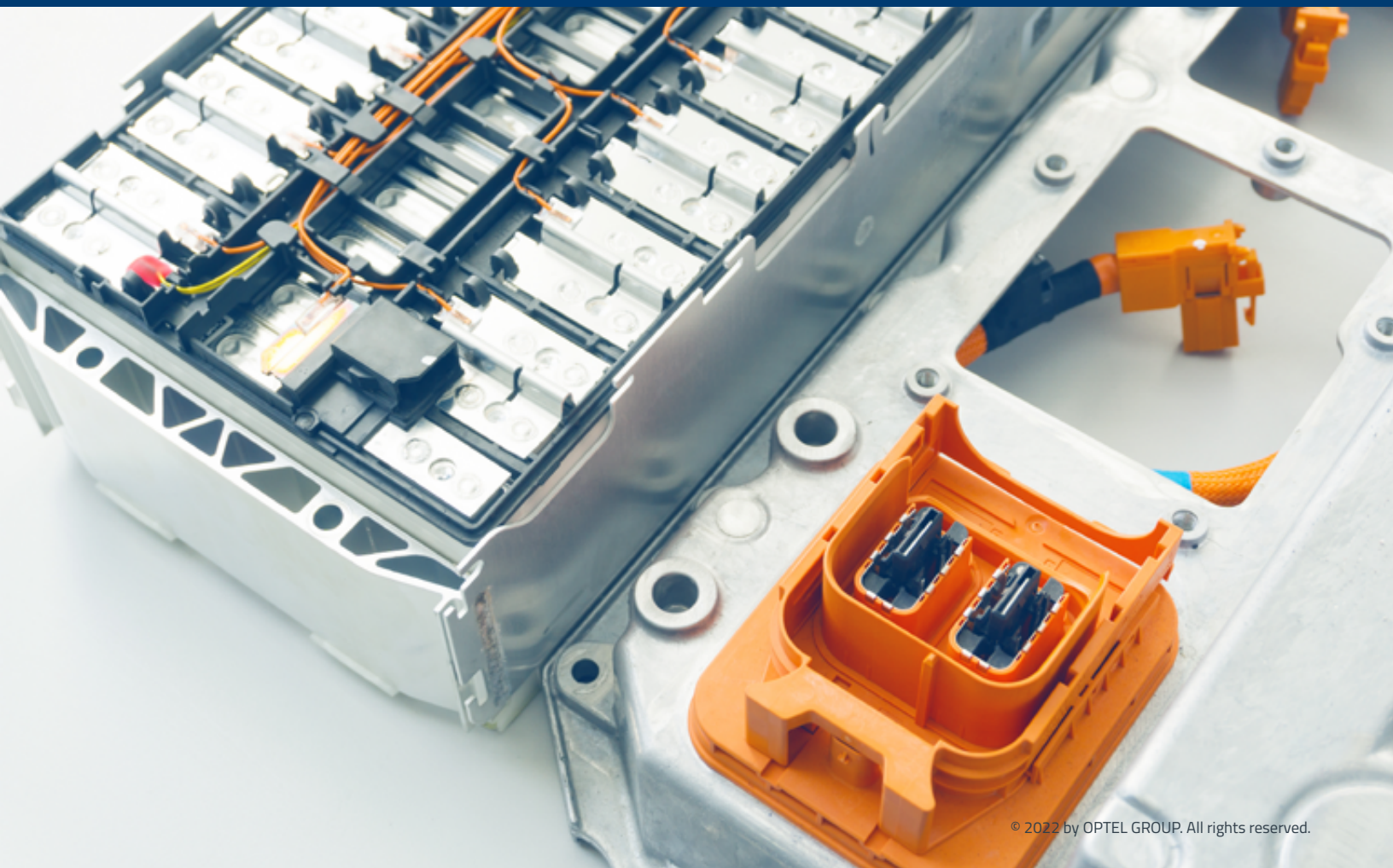
OPTEL IDENTIFAI™ – SOLUTION OPTIONS

KEY FEATURES

- Various levels of authentication available
- Powerful AI algorithms and machine-learning capabilities
- Successful scanning capabilities in all environments (dirt on the product, different angles, curves, variable lighting)
- Low cost of implementation
- Real-time alerts
- Highest data security standards
- Customizable supply chain anomaly detection features
- Mobile-readable
- Off-line capabilities
- Flexible interface and customizable app for investigators
- Engagement program options
- Aggregation optional
- Easily scalable to other Intelligent Supply Chain modules

MAIN BENEFITS FOR MANUFACTURERS

- Detection of illegal production, diversion, refilling issues and counterfeiting
- Brand protection and consumer trust
- Real-time data for instant authentication and visibility
- Strong market analytics and consumer insights
- Minimum disruption of manufacturing lines during solution installation
- Customizable to your needs
- Mobile-friendly (mobile-readable)
- No need for additional codes on product packaging*
- Meets regulatory requirements
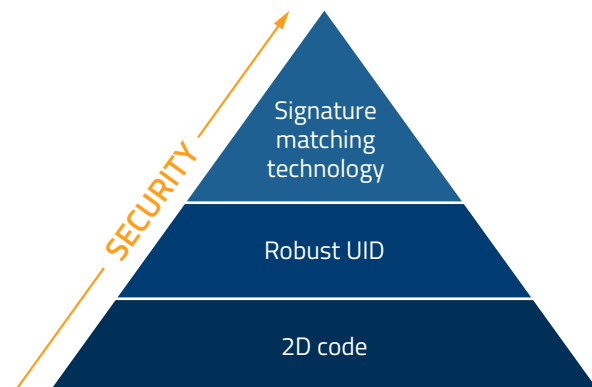- Easily integrates with OPTEL serialization and vision system in place

*depending on customization level chosen

OPTEL IDENTIFAI™ – SOLUTION OPTIONS

Every company's needs, goals and challenges are different. Customize your solution to suit yours:

- Granularity: item or lot/batch traceability
- Marking options: QR/Data Matrix, holograms, signature matching, RFID
- Who will scan: sales rep, retailers or consumers
- This solution can easily be leveraged for other benefits such as inventory management, supply chain visibility and more.
- Scanning technology: scanner, camera via mobile device, app or web

SECURITY →

Signature matching technology

Robust UID

2D code

LAYER	OPTIONS	BENEFITS AND ADDED VALUE	ISSUES SOLVED
1	**2D CODE** as product's unique identifier (UID): Identify all products with a Data Matrix or digital-link QR Code. The product UID (preprinted or printed online) is linked to the cloud database for instant validation.	• Native application provides stronger identification • Ideal for low-margin products • Scannable with standard mobile device	Counterfeiting + product identification
2	**ROBUST UID**: Identify the product using holograms, tamper-evident and/or double labeling.	• Includes Level 1 benefits • Stronger authentication marker. Harder to falsify. • Scannable with standard mobile device	Counterfeiting + product identification
3	**SIGNATURE MATCHING**: Digitizes the unique product signature as an identifier. AI algorithms match the signature to a profile in the database.	• Strongest anti-counterfeiting, impossible-to- copy authentication solution on the market • Scannable with standard mobile device • Can be used for product identification related to labeling issues • Analytics and market insights • Provide proofs of origins and histories of your products • Secure individual part recognition • One-to-one image descriptor comparison • Works on industrial cameras and smartphones • Syncs with OPTEL's cloud-based traceability platform • Is non-invasive (high retrofit capabilities) • Recovers damaged or hard-to-read markings	Counterfeiting + product authentication + identification

* Other tailored options are available.

SIGNATURE MATCHING TECHNOLOGY

Through a simple scan, the signature matching technology digitizes the unique product/labeling pattern, like photographing a fingerprint. This information is then stored in OPTEL's cloud-based software and database, to be recognized later by an authorized user's mobile application.

WHAT IS THE DIFFERENCE BETWEEN *IDENTIFICATION* AND *AUTHENTICATION?*

Identification:

The data encoded in a Data Matrix or QR code is compared to a value in a database. Only 2D code content is used, not the pictures taken in the field. This tells you what the product is.

Authentication:

A product image is taken, which can include Data Matrix, QR code, printed text, logo or other information. The information is then compared to the master value captured on the production line and stored with the product attributes in a cloud database. This comparison process uses artificial intelligence and machine-learning capabilities to determine whether the product is what and where it's supposed to be. This solution offers stronger brand protection.

ADVANCED OPTIONS

Adding aggregation to your supply chain allows you to gain visibility while detecting market diversions and other supply chain anomalies. Aggregation is not essential to all options; however, it provides the added value of complete channel visibility for precise recalls and real-time inventory management as well as increased supply chain security.

Other complementary options can be combined with asset identification and authentication, including carbon footprint assessments of your responsibly produced metals.
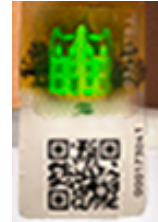
OPTEL IdentifAI™ is a module of OPTEL's Intelligent Supply Chain (ISC), a powerful end-to-end traceability platform. The solution is easily scalable to provide further added value for improving supply chain efficiency and monitoring the carbon footprint of your products.

PRODUCT MARKING EXAMPLE

Preprinted label with 2D code

Preprinted label with hologram and 2D code

Printing on product label

DISADVANTAGES OF USING ONLY A BASIC QR CODE AS UNIQUE IDENTIFIER:

- Easy to link to a fake website
- Does not enable digital link capabilities
- Does not comply with standards
- Likely unusable outside company infrastructure unless limited to a web server link
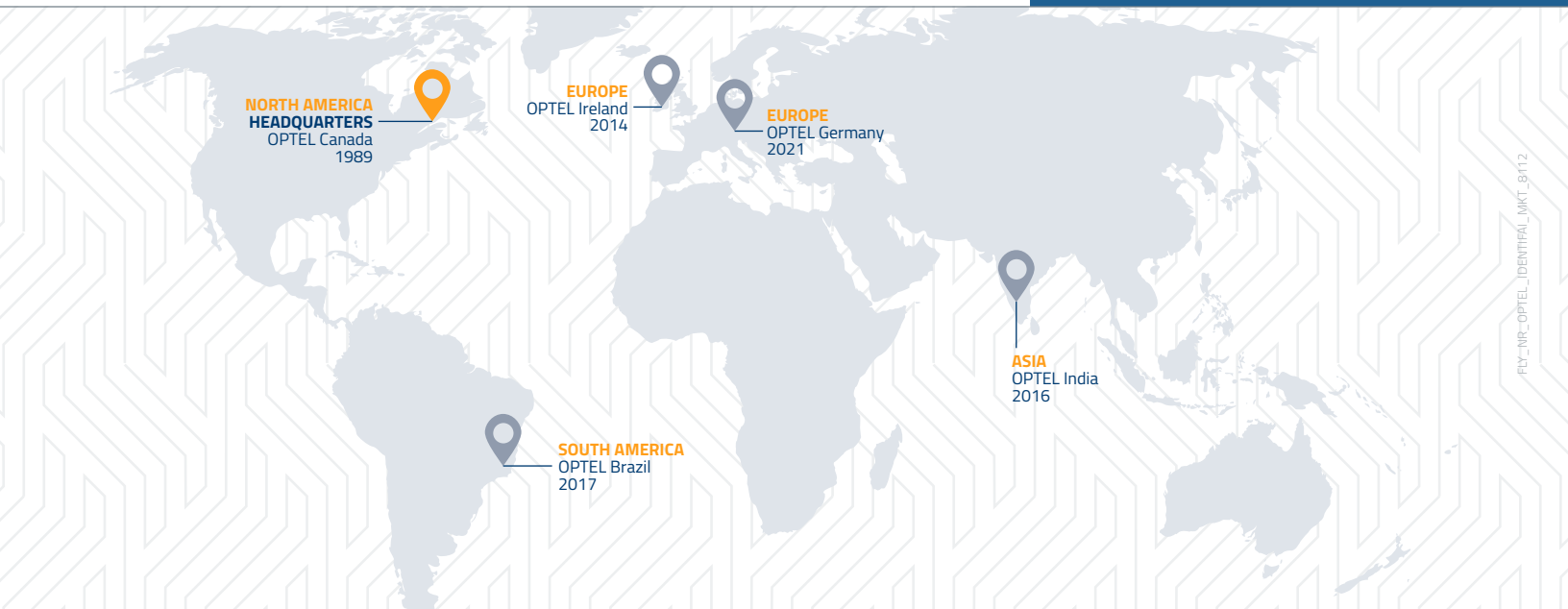
OPTEL IDENTIFAI™ SOLUTION

WHAT TECHNOLOGY IS REQUIRED?

Our technology stack mainly includes hardware to capture accurate and reliable data in real time at high speed and software to empower the data (authentication, supply chain mapping, visualization, monitoring and alerts).

- For manufacturers: cameras installed on manufacturing lines to digitize item/lot numbers with a unique identifier; data is stored in a private cloud platform and empowered by our software.

- The signature matching happens when images captured on the production line are uploaded to the cloud storage platform.

- If aggregation is added, at expedition the pallet is associated with its destination and transportation information. Every supply chain node can perform these actions for increased visibility (advanced option).

- In the distribution channel, a mobile app is used to verify product authenticity.

OPTEL'S INTELLIGENT SUPPLY CHAIN

OPTEL IdentifAI™ is a module of OPTEL's Intelligent Supply Chain (ISC), a powerful end-to-end traceability platform. The ISC can digitize supply chain operations from raw materials to end user, enabling real-time visibility throughout the product life cycle by capturing and empowering data at every step of the value chain. Multiple modules make up the ISC platform, helping businesses solve issues related to supply chain and operational efficiency, product safety and integrity and authentication, sustainability, brand protection, regulatory compliance and user engagement.

NORTH AMERICA HEADQUARTERS
OPTEL Canada
1989

EUROPE
OPTEL Ireland
2014

EUROPE
OPTEL Germany
2021

ASIA
OPTEL India
2016

SOUTH AMERICA
OPTEL Brazil
2017

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ABOUT OPTEL

OPTEL is a global company with manufacturing sites on four continents and 600 employees around the globe. The company has 30 years of proven expertise in developing and deploying track-and-trace, vision and traceability systems for the world's leading pharmaceutical, food and beverage, and agrochemical brands. OPTEL is a Certified B Corporation and co-founder of the Canadian AI supercluster for supply chains (Scale AI).

CONTACT US

For more information,
visit: **optelgroup.com**.