EBSI-ELSA

Blockchain based solution for the authentication of products

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06/02/2025

PURPOSE & INTEREST OF EBSI-ELSA

Purpose: Fight against the counterfeiting of products

Interest

Economy

Imported products which are **fakes:**

European Union - Approximately **6%** of imported products (EUR 119 billion)

Worldwide - 2.5% of world trade: volume of international trade in counterfeit and pirated products

Customs

Approximately **17.5 million fake items** were detained at the EU border in 2023

Citizens

33% unsure if what bought is **genuine**

15% misled into buying a **counterfeit**

EXPECTED BENEFITS

Rightholders and Manufacturers

Logistic Operators and Intermediaries
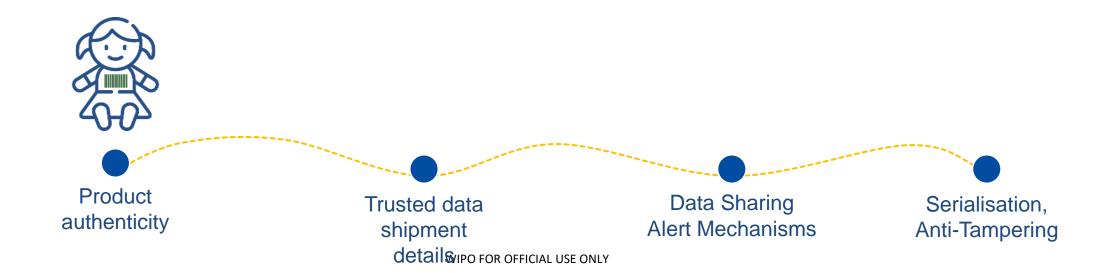
Law Enforcement Authorities

Consumers

No over-production

Safe handle

Fight Fakes

Timely delivery

Product authenticity

Trusted data shipment details

Data Sharing Alert Mechanisms

Serialisation, Anti-Tampering

SYNERGIES WITH EU REGULATIONS

- **Digital Product Passport** providing additional information on project identification.

- (upcoming) **Union Customs Code and the EU Customs Authority** providing IP related supply and logistic chain information.

VIDEO

EBSI-ELSA view IT INFRASTRUCTURE

Module 1- Digital twin module

Real product

Digital representation of the product

- ➢ NFT
- ➢ Information of the product
- ➢ Authenticity checks
- ➢ DPP relation

Module 2- Logistic module

P2P supply chain

Blockchain track & trace audit

- ➢ Brand Owners, transport operators and Customs
- ➢ Exchange information
- ➢ Product logistic events

3 sub-modules

A **Verifiable Credential feature** providing
trademark digital credentials for IP rights holders

IP Wallet

An **Authentication Platform** to input information when creating the **product digital twin** (NFT)

IPEP
IP ENFORCEMENT portal

An **NFT Viewer** which allows to scan the product to perform an **authenticity assessment**

NFT Viewer

Product Label

MODULE 2 – LOGISTIC MODULE

2 sub-modules

A **peer-to-peer submodule** for IP rights holders and transport operators to **exchange information** for the product logistic journey

A **blockchain timestamping submodule** to create an **audit trail** of product logistic events

Logistics Node
BRAND OWNER / USER

Andoni test

Ongoing shipments: **15** | Quotations pending: **22** | Offers received: **3**

Export Data

- Home
- Shipments
- Quotations
- Products
- Pieces
- Locations
- Segments
- Companies

Latest activity

Offer rejected	15/11/2024 13:56
toberejected	
More	

Offer received	15/11/2024 13:55
toberejected	
More	

Quotation sent	15/11/2024 13:54
toberejected	
More	

Quotation sent	15/11/2024 13:54
toberejected	
More	

Quotation sent	15/11/2024 13:54
toberejected	
More	

Shipment updated	15/11/2024 13:52
toberejected	
More	

Load more

Latest interactions

Quotations sent View all

Sent date	Supplier name	Description	Status
2024-08-28	HTL Cargo	02-05-2024	Failed
2024-11-15	EBL	toberejected	Waiting Offers
	HTL Cargo	628c piece	Waiting Offers
2024-03-29	HTL Cargo	BATEST 20240416, Small heavy doll, Heav...	Accepted
2024-11-15	HTL Cargo	michpiece	Accepted

Offers received

Date received	Supplier name	Pieces Description	Status
2024-04-09	HTL Cargo		Rejected
2024-09-06	HTL Cargo	GR94-1	Accepted
2024-11-15	HTL Cargo	toberejected	Rejected
2024-04-02	HTL Cargo	Small heavy doll, Heavy box of dolls, Go...	Accepted
2024-09-11	HTL Cargo	Piece of bluetooth speaker that are in a...	Accepted

Logistic Module Dashboard

What are the minimum requirements for a <u>brand owner</u> to access the solution?

Digital twin module: Access to EUIPO IPEP and IP Wallet

Logistic information: Deploy logistic module in brands´ IT infrastructure
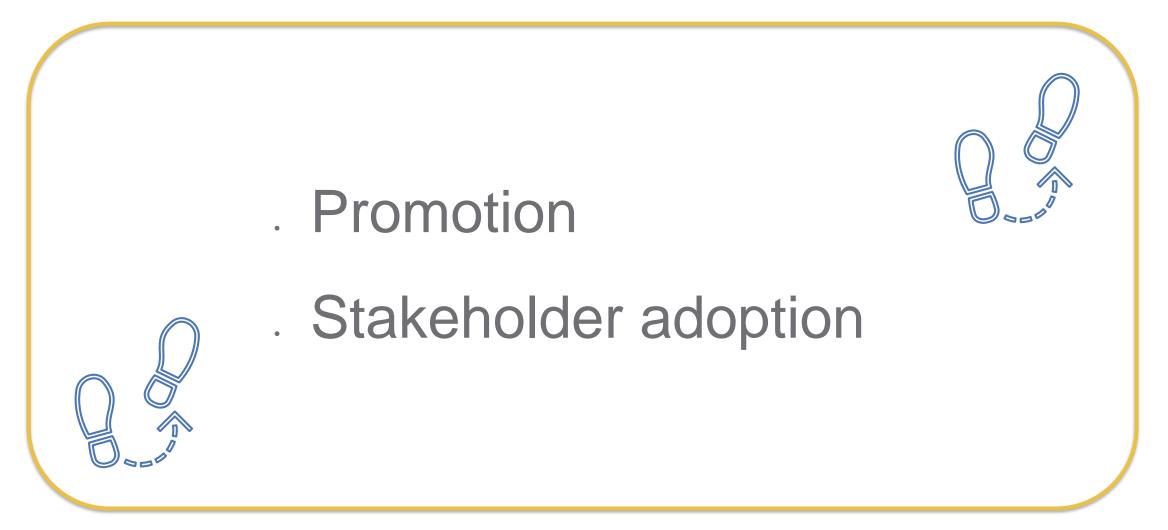
What are the minimum requirements for a <u>custom authority</u> to access the solution?

Shipment data revision: Computer with access to the Freight Forwarder Logistic Module

Product inspection: Scanning-enable device with Internet Connection.

. Promotion

. Stakeholder adoption

Interested in further information or using EBSI-ELSA?

Visit EBSI-ELSA website
Sign up for the Forum

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THANK YOU

Why Advanced Technology is Essential to Combat Intellectual Property Infringements in Real-Time

Mr. Pedro Bravo, Head of Content Protection, NOS Technology, Lisbon, Portugal

WIPO/ACE

06.02.2025

Key Points:

✓ Intellectual property (IP) is a valuable asset for innovators and businesses.

✓ Digital age has increased audiovisual piracy risks, making real-time protection essential.

✓ Unauthorized content can appear on global platforms within seconds.
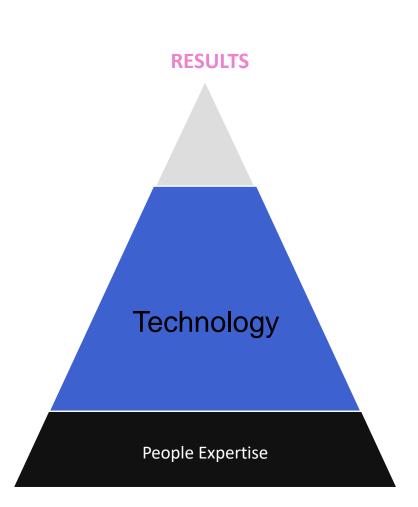
Piracy Evolution:

- Digital piracy results in over $50 billion in annual business losses

- Traditional enforcement methods are outdated.

- Modern piracy uses encrypted platforms and decentralized networks.

- Rapid dissemination causes brand damage and revenue loss.

22

Features of the Anti-Piracy Toolkit:

- AI & Machine Learning for real-time detection.

- Blockchain for data integrity.

- Automation for rapid enforcement actions

RESULTS

Technology

People Expertise

WIPO FOR OFFICIAL USE ONLY

Technology Components:
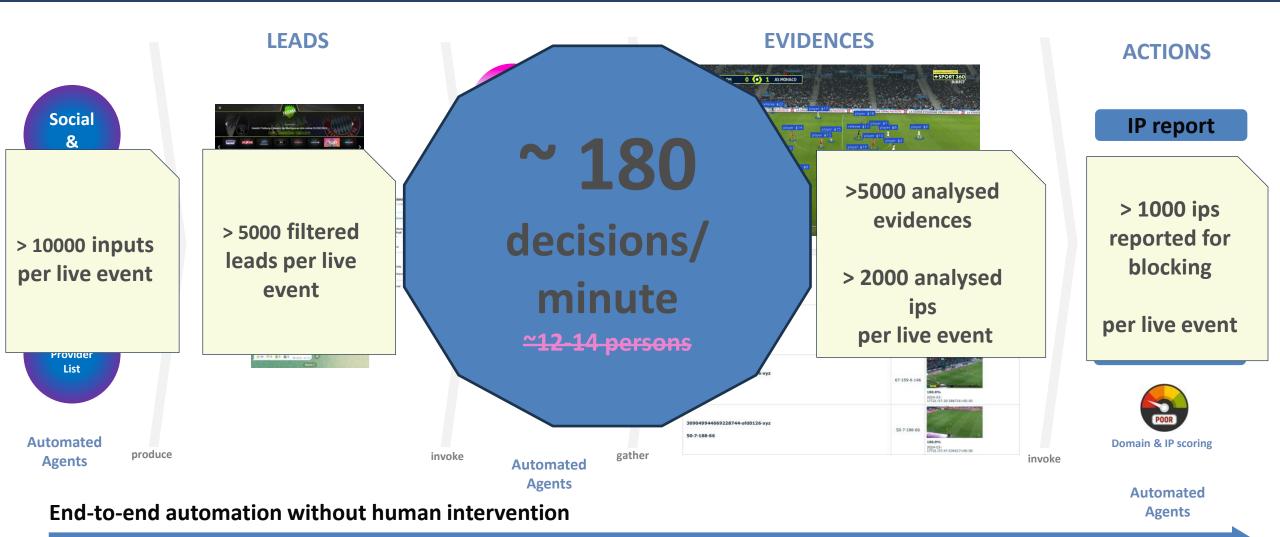
- **Smart Web Crawling:** Adaptive AI-based search.

- **Image & Video Recognition:** Identifies logos, watermarks, and ads.

- **Natural Language Processing (NLP):** Simulates human analysis.

- **Piracy Detection Score:** AI-based ranking system.

- **Active Learning:** Continuously improves detection accuracy.

LEADS

EVIDENCES

ACTIONS

Social & WEB

Telegram & OSINT

Know Providers List

Automated Agents

App Agent

IPTV Subscription Agent

IPTV Agent

Webstream Agent

CS Agent

Automated Agents

IP report

Domain abuse

SSL abuse

Registrar abuse

Domain & IP scoring

Automated Agents

produce   invoke   gather   invoke

End-to-end automation without human intervention

THE LIVE MEDIA DETECTION PROCESS THAT ENSURES EVIDENCES FOR COURT AND ISPs

LEADS

EVIDENCES

ACTIONS

Social &
Provider List

> 10000 inputs per live event

> 5000 filtered leads per live event

~ 180 decisions/ minute
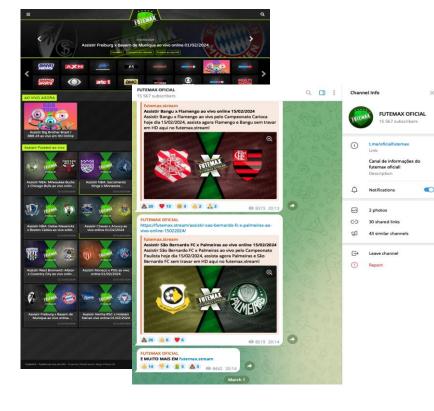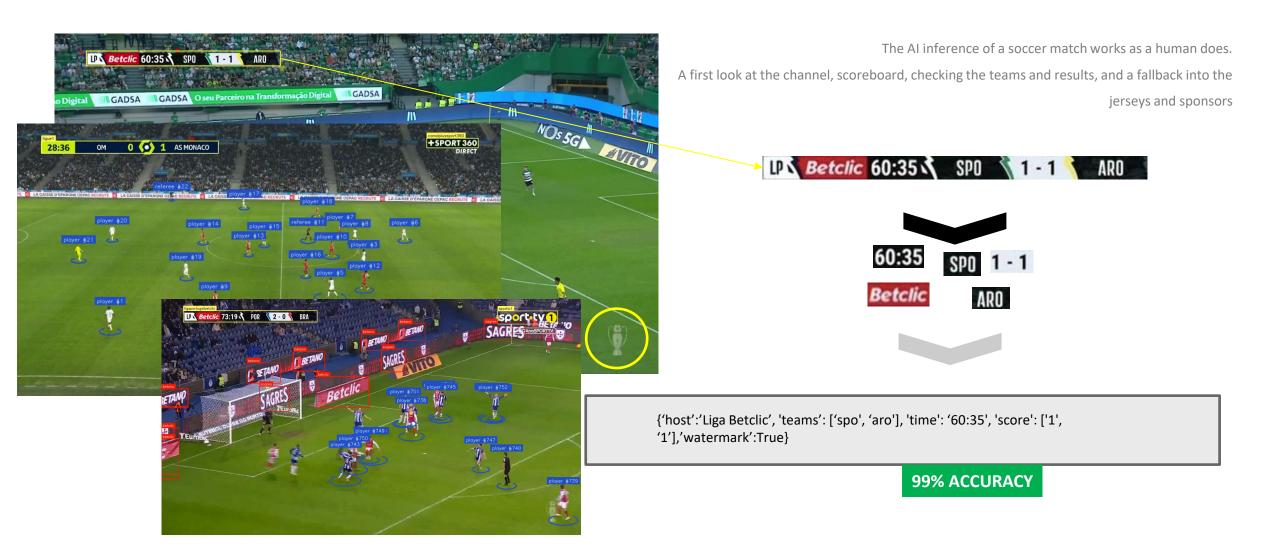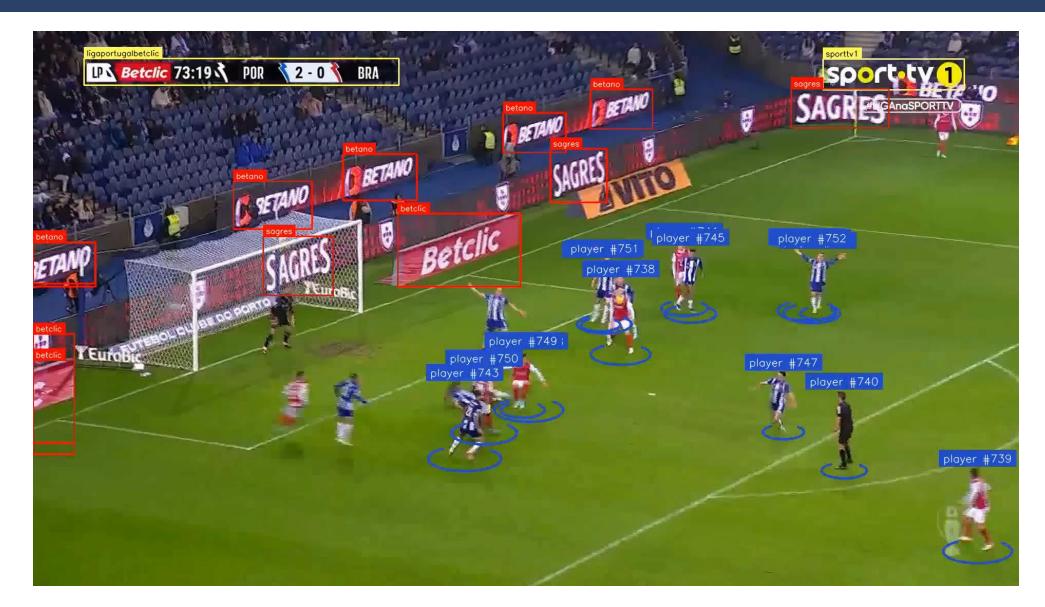
~~~12-14 persons~~

IP report

>5000 analysed evidences

> 2000 analysed ips per live event

> 1000 ips reported for blocking

per live event

Automated Agents

produce

invoke

Automated Agents

gather

309049944669228744-ofd0126-xyz

50-7-188-66

67-159-6-146
100.0%
2024-03-
17T21:57:30.186716+00:00

50-7-188-66
100.0%
2024-03-
17T21:57:47.034217+00:00

invoke

Domain & IP scoring

Automated Agents

End-to-end automation without human intervention

A POWERFUL AI CRAWLER TO IDENTIFY PIRACY LEADS

SURFS THE WEB, SOCIAL MEDIA, CHAT APPS, and OSINT CLOUD/COMBOS FOR A SUCCESSFUL ILLEGAL SOURCE OF CONTENT

Social Media and Web

Known and captured Websites and Instant Messaging

OSINT

Text Analysis in 100 Supported Languages	**Image Content Analysis**	**Gen AI workforce**

AI CONTENT VALIDATION FOR AUTOMATED BLOCKING

The AI inference of a soccer match works as a human does.

A first look at the channel, scoreboard, checking the teams and results, and a fallback into the jerseys and sponsors

{'host':'Liga Betclic', 'teams': ['spo', 'aro'], 'time': '60:35', 'score': ['1', '1'],'watermark':True}

99% ACCURACY

IPTV, CCCAM Expert

SURFER
(WEB, CHATS, OSINT LOGS, ETC…)

COLLECTOR

RAG

**TRANSLATOR /
CLASSIFIER**

WEBSTREAM EXPERT

TUTORIALS

FRAUD EXPERT

LEGAL ADVISOR
enriched with
- evidences
- registrar info
- ssl info
- asn/ips info
- action

SOURCES

CHANNELS

COMPETITIONS

FOCUS ON STOPPING ILLEGAL STREAMING

```
                    ┌──────────────┐
                    │  STREAMING   │
                    └──────┬───────┘
        ┌──────────────────┼──────────────────┐
   ┌────┴────┐      ┌───────┴──────┐      ┌────┴────┐
   │  IPTV   │      │ WEBSTREAMING │      │  APPS   │
   └────┬────┘      └───────┬──────┘      └─────────┘
        │                   │
   ┌────┴────┐         ┌────┴────┐
   │ SELLING │         │  SITES  │
   └─────────┘         └─────────┘
        │                   │
   ┌────┴────┐         ┌────┴─────────┐
   │ SHARING │         │ SOCIAL MEDIA │
   └─────────┘         └──────────────┘
                            │
                       ┌────┴──────┐
                       │ CHAT APPs │
                       └───────────┘
```

Streaming Detection and Enforcement:
A comprehensive coverage across various streaming platforms to protect digital rights based on content.

IPTV:
- **Selling**: Detection of illegal IPTV subscription sales channels, often used to distribute unauthorized access to premium content.
- **Sharing**: Tracking and enforcement against shared IPTV lists that provide unauthorized access to streaming content.
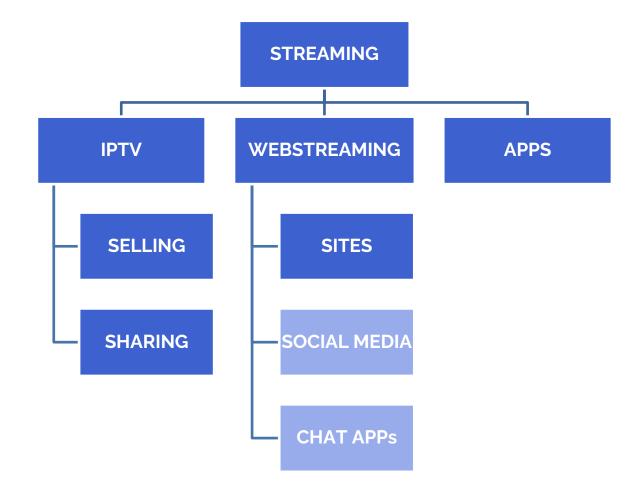
Web streaming:
- **Sites**: Monitoring of websites that host or link to unauthorized streams.
- **Social Media** : Detection of broadcast activities shared across social media platforms.
- **Chat Apps**: Tracking of broadcasting shared in private and group chats on messaging platforms, a common channel for piracy distribution.

Apps:
- Enforcement against apps providing unauthorized streaming access, particularly on third-party app stores or as disguised services.

- **Minimized Revenue Losses**: Immediate takedowns reduce financial damage.

- **Brand Protection**: Prevents unauthorized use of brand assets.

- **Efficiency**: Reduces need for manual enforcement.

- **Legal Compliance**: Ensures adherence to IP protection laws.

- **Global Reach**: Monitors across various platforms, including the dark web.

- **Automated Enforcement**: Issues takedown.

Successful Implementation Cases:

- Revenue losses reduced significantly.

- Faster and more effective IP enforcement.

- Strengthened partnerships with content creators and distributors.

- More precise and sustainable evidence collection.

Why It Matters:

- Protects revenue streams from piracy.

- Ensures fair compensation for creators and businesses.

- Encourages a fair and legal digital economy.

- Enhances consumer trust by ensuring high-quality. content

  access.

Key Takeaways:

- Real-time anti-piracy tools are critical for the future of IP protection.

- Portugal ecosystem solution provides cutting-edge protection.

- Technology-driven enforcement ensures a sustainable and fair digital market.

- Future success depends on proactive IP protection strategies at national level and also pan-

  European commom approachs.

AUDIOVISUAL PIRACY IS A CRIME!

Pedro Bravo

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EUIPO & WIPO & Europol & EU Commission
Expert/Speaker

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