TagItWine pilot system implemented in the context of H2020 TagItSmart project

T. Popović, S. Šandi, S. Radonjić
University of Donja Gorica, TagItWine

Bilbao, June 2018.
TagItWine - Know Your Wine

Pilot Project for Brand Protection and Anti-Counterfeiting in Wine Industry

http://TagItWine.ME
TagItWine Concept

- Brand protection
- Digital product
- Lifecycle management

Counterfeit | Original
---|---

Counterfeit | Original
---|---

UDG | Plantaže | TAGIT SMART
Project Highlights

- Realized by **University of Donja Gorica**
- Done in context of **TagItSmart** technology
- **Partnership** with company “13. jul Plantaže”
- Collaboration with **DunavNET, Durst, VTT**
- **Smart Tags** and Applied Computer Science
- **Internet of Things**, Cloud, Mobile apps, Blockchain
Counterfeiting in wine industry

- Countefeit wine market estimates range between 0.2 and 1%, some go up to 4-5%
- Using **fake labels** with subtle changes in brand name and/or company logo
- Using **authentic labels** removed from more expensive wines and place them on cheap wine
- Forbes: **up to 50%** of wine in China may be fake, not wine
- “13. jul Plantaže” company produces over **17 million bottle products** annually sold in **35 countries** worldwide
Problem

- Brand protection and counterfeit prevention
  - Real problem, big challenges
  - Examples of fake wine labels

(Source: “13. jul Plantaže”)
TagItWine Pilot

TAGIT WINE - SYSTEM FOR BRAND PROTECTION AND ANTI-COUNTERFEITING IN WINE INDUSTRY

TIS PILOT: BRAND PROTECTION

Consumer

Factory
Warehouse
Distribution Centre
Retail Store
Home/Restaurant
Recycle

Wine bottling
Boxes and pallets
Storage control
Transport control
Distribution control
Authenticity control
Two-way communication
Personalized experience
Recycling control
TagItWine: Functional Overview

- Wine Bottle Authentication
- Extended User Experience
- Wine Information
- Rate Product

- Product Tagging
- Tag Box / Pallet

- Distribution Control (Waybill check)
- Wine Bottle Tagging

- Waybill Clerk
- Retail Control (Sale Confirmation)

- Winemaker
- Tag Expensive Bottle

- Customer
- Cashier
Smart & Fun Tags

- Functional ink
- OpenSense dual-state NFC tags

Source: Business wire
Smart Tags Design

- QR code + a letter print in photochromic ink
- Tag information combined with user input
- Intelligent heuristics on the Cloud
Human Sensor Network

- Product state via user
- input “funneling”
Cloud

- Smart Tag validation
- Pattern recognition support (letters)
- Match verification QR code vs. functional ink print
- Seamless product status/state tracking
- Authentication using advanced heuristics
- Use of Blockchain distributed database
- Additional functions (data collection, e-card)
TagItWine

This app allows you to scan the wine before purchase and learn more about it. The system combines the information from Smart tags with the historical data in the Cloud in order to provide you with accurate status of the authenticity of each bottle. The system is based on TagItSmart technology that enables a whole new approach to brand protection and anti-counterfeiting in wine industry.

This application is intended for the use with wine bottles coming from “13. juli Plantažë” that are equipped with smart tags. Smart tags combine QR code, printing with photochromatic ink, and...
Thank you!

- Questions?