INTERNET OF THINGS WEEK 2018 BILBAO

TagItWine pilot system implemented in the context of H2020 TagItSmart project

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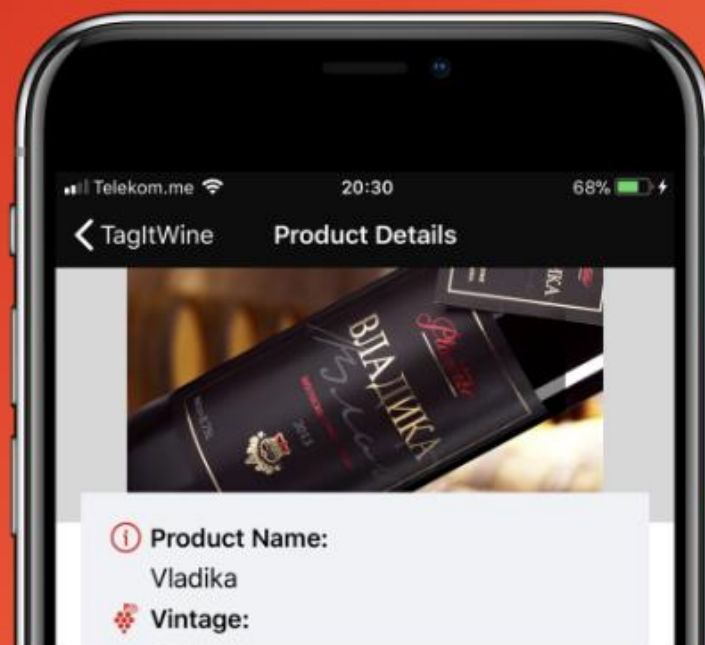University of Donja Gorica, TagItWine

Bilbao, June 2018.

TAGIT SMART

TagItWine - Know Your Wine

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

http://TagItWine.ME

all Telekom.me   20:30   68%

‹ TagItWine   **Product Details**

(i) **Product Name:**
Vladika

Vintage:

European Commission   **TAG**IT SMART   Plantaže   UDG

TagItWine Concept

Counterfeit   Original

Brand protection

Digital product   Lifecycle management

TAGIT SMART

Counterfeit   Original

TAGIT WINE

Project Highlights

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

Counterfeiting in wine industry

- Countefeit wine market etimates 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** world wide
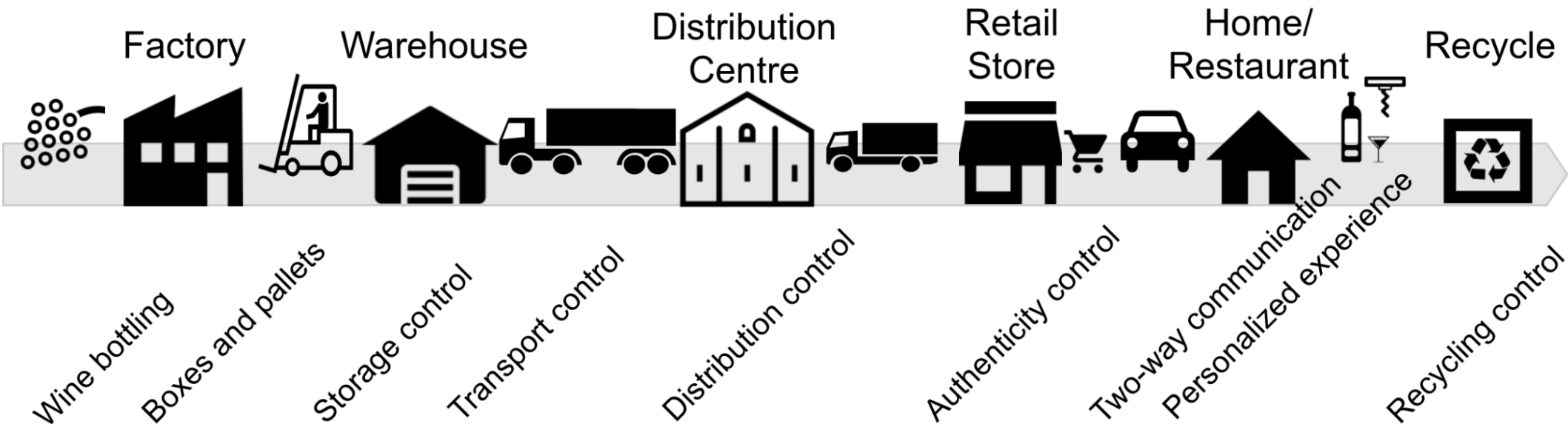
UDG

Problem

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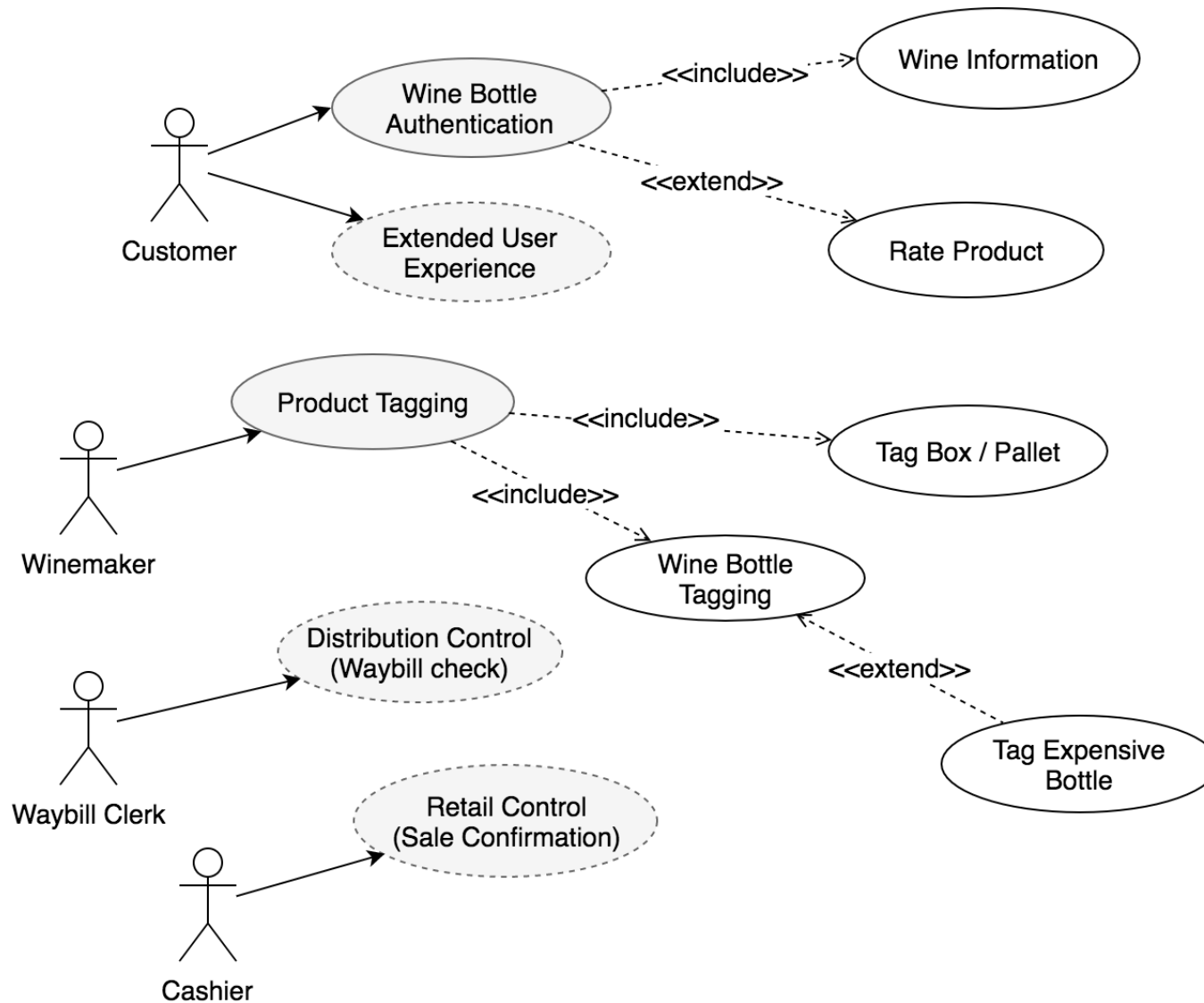 - Examples of fake wine labels

(Source: "13. jul Plantaže")

TagItWine Pilot

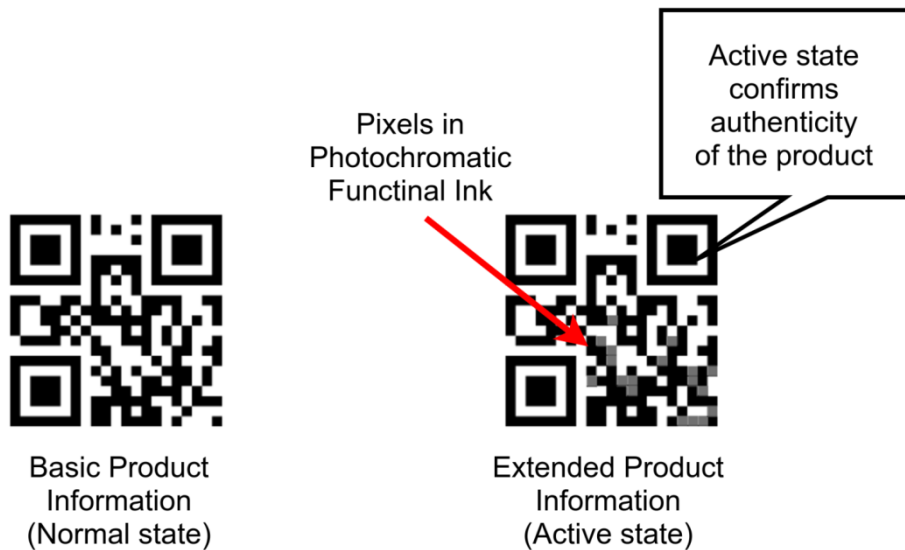**TAGIT** W I N E - SYSTEM FOR BRAND PROTECTION AND ANTI-COUNTERFEITING IN WINE INDUSTRY

TIS PILOT:
BRAND ROTECTION

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

Smart & Fun Tags

- Functional ink

- OpenSense dual-state NFC tags

Pixels in Photochromatic Functinal Ink

Active state confirms authenticity of the product

Basic Product Information (Normal state)

Extended Product Information (Active state)

Source: Business wire

Smart Tags Design

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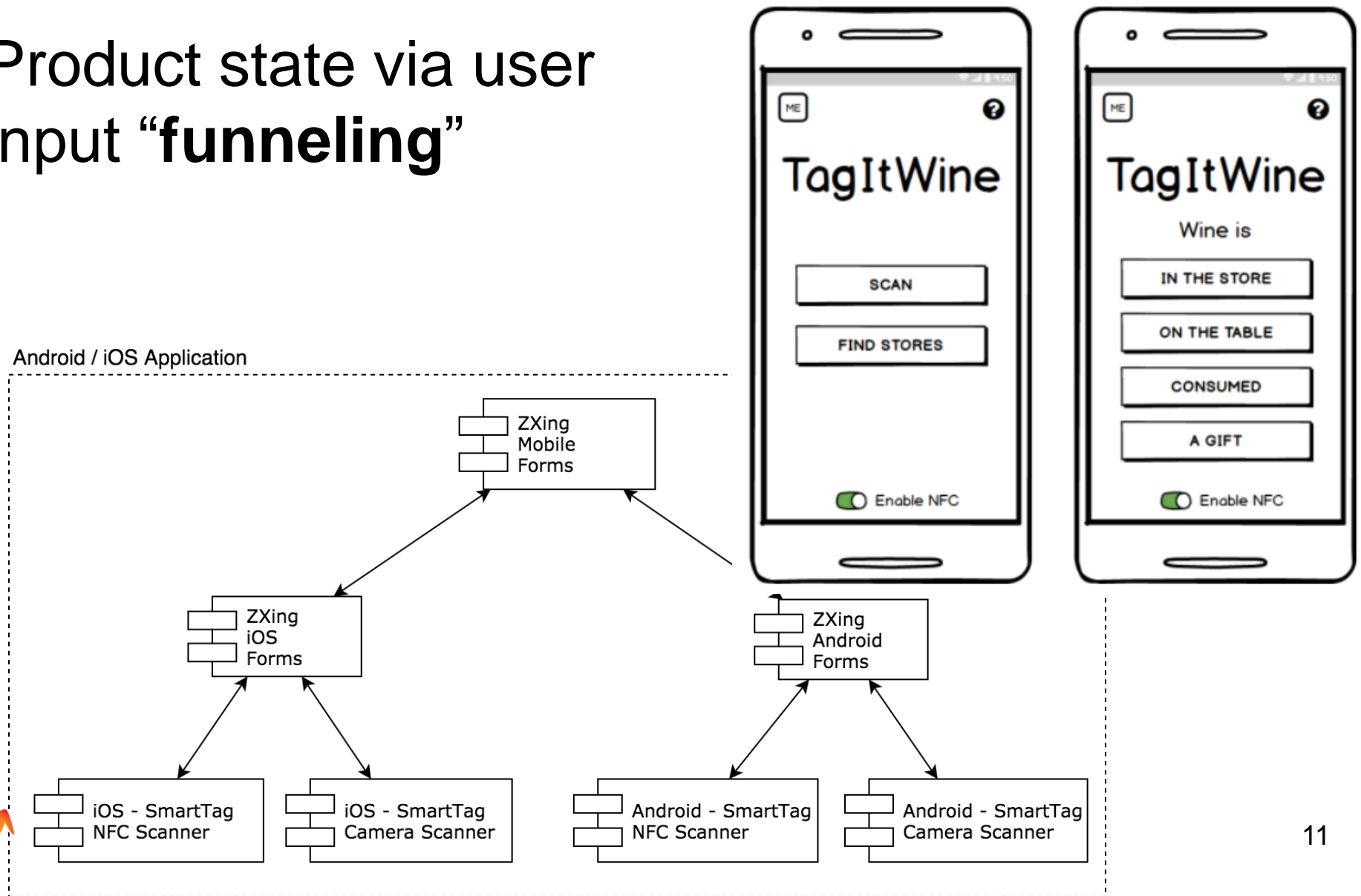- Intelligent **heuristics** on the **Cloud**

Inactive State

Active State

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**
- **Authentification** using advanced **heuristics**
- Use of **Blockchain** distributed database
- **Additional** functions (data collection, **e-card**)

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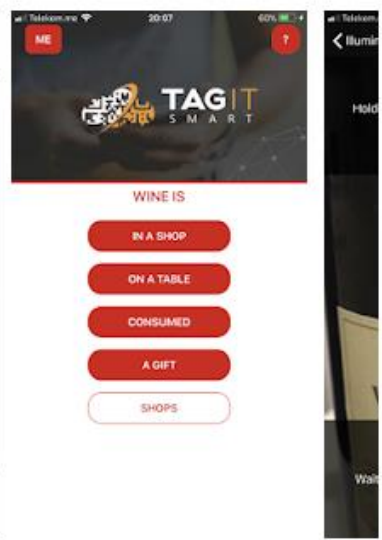
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Parent Guide

TagItWine

DNET studio   **Business**

🎫 Everyone

ℹ This app is compatible with your device.

Installed

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Xperia™ SmartTag

Sony Mobile Communic

★★★★☆   Free

RETAILER   CUSTOMER

TAG IT
S M A R T

MANUFACTURER   DISTRIBUTOR

WINE IS

IN A SHOP

ON A TABLE

CONSUMED

A GIFT

SHOPS

Smart Tag Demo

AIOI SYSTEMS CO.,LTD

★★★★½   Free

PC

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. jul Plantaže" that are equipped with smart tags. Smart tags combine QR code, printing with photochromatic ink, and

PivotCentral Agent

Thank you!

- Questions?