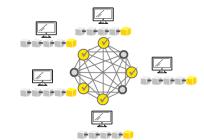# WINE BLOCKCHAIN: A NEW PARADIGM OF TRASPARENCY AND TRACKING IN WINEMAKING PROCESS

DIGITAL DAYS

EY

Blockchain technology

The Blockchain is a **public and distributed register** shared among different participants of a **peer-to-peer network**. The name of blockchain is related to a chain of **blocks chronologically ordered** and protected by **cryptography**.

Always available auditability

NOTARIZATION

- Immutability/non-repudiation
- Timestamping
- Cryptography

TOKENIZATION

- Exchange of non replicable digital asset by mantaining privacy and security of information
- The parties do not share the infrastructure but they take advantage of full interoperability

ad13r0E3O KI04384LNa mfk3219GN

SMART CONTRACT

- To make the exchange dynamic
- To create automatic execution of business rules when certain criteria are met

CONTRACT

TRACKEY background

Globalization and competition increase*

30 billion litres wine global consumption within 2020

Limited awareness for Italian wines abroad

Climate change creates new competitors

Export and marketing crucial for growth and sustainability

Communication and Marketing as competitive leverage

B2C
Communicate products to end customer

B2B
Differentiation along the distribution channel

60% check the label to verify sustainability

71% available to pay a premium price

74% affected by transparency and traceability

89% wants to know Italian wine world and criteria for origin certification

More transparency for export and foreign Institutions

Guaranteed quality and more info for business clients

Opportunities and trends

Blockchain allows to take advantage of a global interest

This Company Added the Word 'Blockchain' to Its Name and Saw Its Shares Surge 394%

Wine Blockchain international press coverage
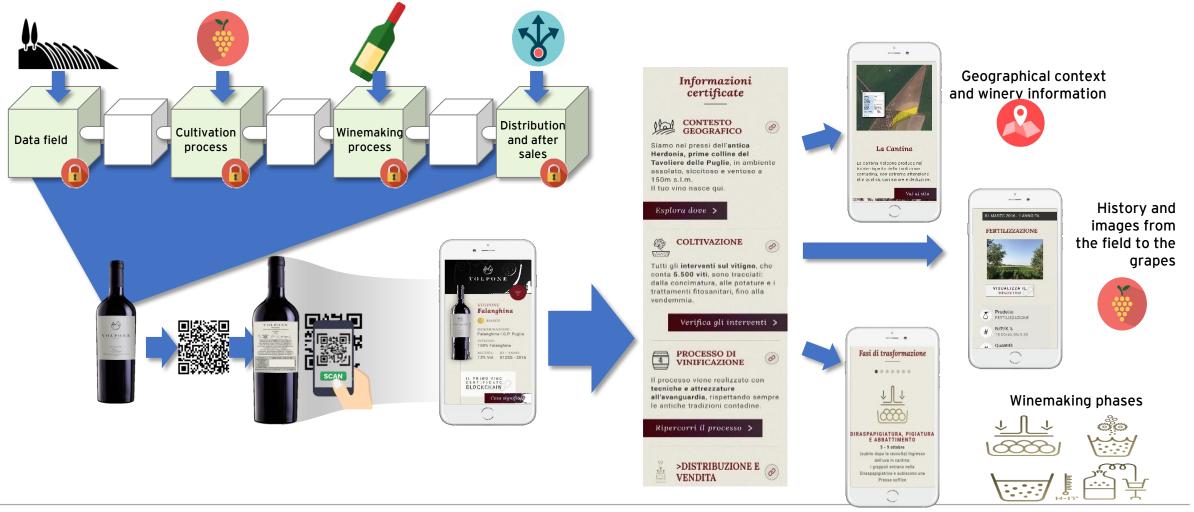

TrackEY Suite of integrated services for differentiation, internazionalization and authenticity of Made in Italy Wine, trough new ways of communication based on innovative technologies like Blockchain
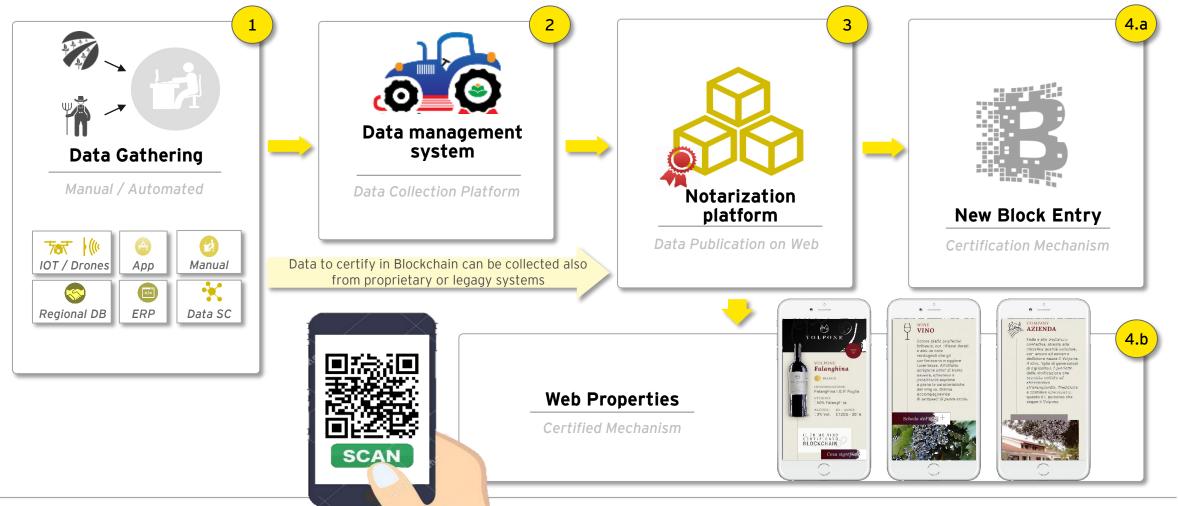
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The first application of Wine Blockchain EY

Data field

Cultivation process

Winemaking process

Distribution and after sales

VOLPONE
Falanghina
BIANCO
DENOMINAZIONE:
Falanghina I.G.P. Puglia
VITIGNO:
100% Falanghina
ALCOOL: 13% Vol. ID – ANNO: 012SG – 2016

IL PRIMO VINO CERTIFICATO BLOCKCHAIN
Cosa significa?

Informazioni certificate

CONTESTO GEOGRAFICO
Siamo nei pressi dell'antica Herdonia, prime colline del Tavoliere delle Puglie, in ambiente assolato, siccitoso e ventoso a 150m s.l.m.
Il tuo vino nasce qui.

Esplora dove >

COLTIVAZIONE
Tutti gli interventi sul vitigno, che conta 5.500 viti, sono tracciati: dalla concimatura, alle potature e i trattamenti fitosanitari, fino alla vendemmia.

Verifica gli interventi >

PROCESSO DI VINIFICAZIONE
Il processo viene realizzato con tecniche e attrezzature all'avanguardia, rispettando sempre le antiche tradizioni contadine.

Ripercorri il processo >

>DISTRIBUZIONE E VENDITA

La Cantina
La cantina Volpone produce nel totale rispetto della tradizione contadina, con estrema attenzione alla qualità, con amore e dedizione.
Vai al sito

Geographical context and winery information

01 MARZO 2016 – 1 ANNO FA
FERTILIZZAZIONE
VISUALIZZA IL REGISTRO
Prodotto FERTILIZZAZIONE
N/P/K %
Quantità

History and images from the field to the grapes

Fasi di trasformazione
DIRASPAPIGIATURA, PIGIATURA E ABBATTIMENTO
5 – 9 ottobre
(subito dopo la raccolta) Ingresso dell'uva in cantina: i grappoli entrano nella Diraspapigiatrice e subiscono una Pressa soffice

Winemaking phases

EY

The building blocks of TRACKEY

1

Data Gathering

Manual / Automated

IOT / Drones	App	Manual
Regional DB	ERP	Data SC

2

Data management system

Data Collection Platform

3

Notarization platform

Data Publication on Web

4.a

New Block Entry

Certification Mechanism

Data to certify in Blockchain can be collected also from proprietary or legacy systems

SCAN

Web Properties

Certified Mechanism

4.b
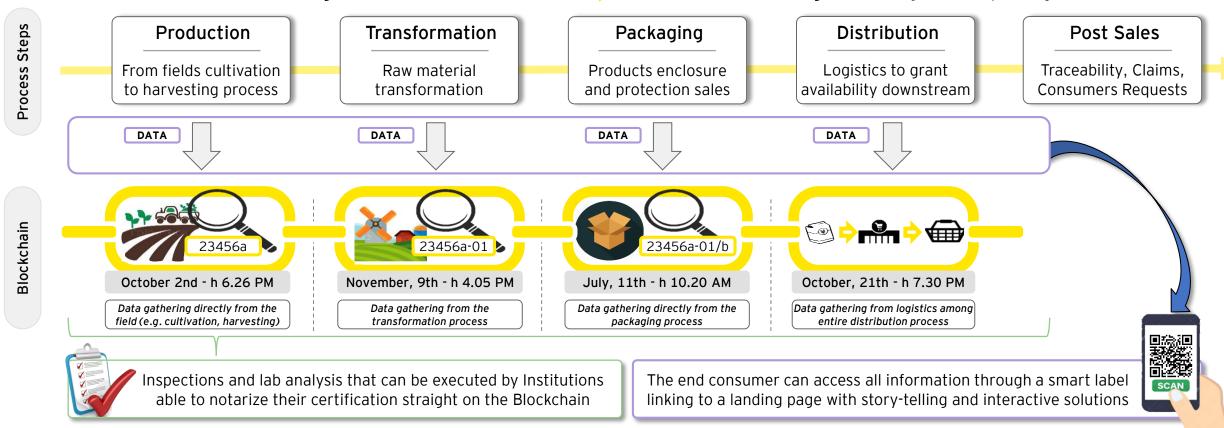
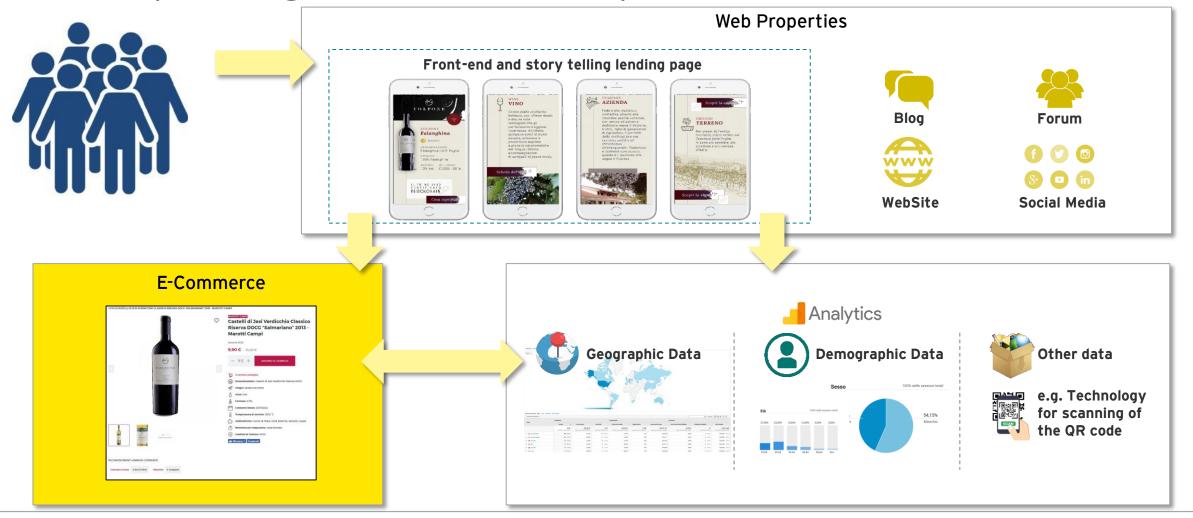# Tracking and certification of each step

A plenty of informations can be **gathered** and **continuously tracked** from each production step along the entire supply chain, with the goal to deliver certificated products data among their **origin** and **quality**.

Process Steps

Production	Transformation	Packaging	Distribution	Post Sales
From fields cultivation to harvesting process	Raw material transformation	Products enclosure and protection sales	Logistics to grant availability downstream	Traceability, Claims, Consumers Requests

DATA   DATA   DATA   DATA

Blockchain

23456a

23456a-01

23456a-01/b

October 2nd - h 6.26 PM

November, 9th - h 4.05 PM

July, 11th - h 10.20 AM

October, 21th - h 7.30 PM

Data gathering directly from the field (e.g. cultivation, harvesting)

Data gathering from the transformation process

Data gathering directly from the packaging process

Data gathering from logistics among entire distribution process

Inspections and lab analysis that can be executed by Institutions able to notarize their certification straight on the Blockchain

The end consumer can access all information through a smart label linking to a landing page with story-telling and interactive solutions

SCAN

EY

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Storytelling and Data Analytics

High value tangible benefits for manufacturers...

Operation

Data collection model for auditing and digitization

Immutable and tamper-proof data

Real-time access to ministerial and regional data

Precision farming / business intelligence systems integration

Business

+ Brand value increase and better reputation / awareness on the market

+ Profits increase and overall process costs reduction

+ **Profit increase** due to higher prices thanks to guaranteed quality and transparency

+ **Value Added Services** to leverage all the opportunities of TRACKEY

…and consumers

High quality product warranty to final consumer

Production process **transparency**

User-generated content on social media platforms which lead to **knowledge sharing**

Direct mobile access to certified informations through **security code** on smartphone
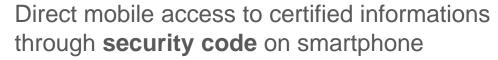
Easy interaction with certified informations through a targeted **storytelling**

Benefits related to **education** about whole industrial processes for goods production

Wine Blockchain EY can bring immediate advantages

1 Certified Wine is continuously growing

2 Customers are willing to pay more for certification

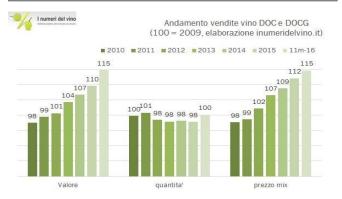**3** CPG thinks that they success factor is no more price, but the transparency and authenticity

Andamento vendite vino fermo
(100 = 2009, elaborazione inumeridelvino.it)

...comuni ...IGT ...DOC/DOCG

I numeri del vino

Indice dei prezzi all'origine vino
(fonte: ISMEA)

Indice prezzo vini da tavola Indice prezzo vini DOC/DOCG

Quanto alle lamentele di scarsa sensibilità da parte della gdo, giungono tuttavia a proposito alcune precisazioni espresse per voce del responsabile reparto vini di **Coop Italia**, **Francesco Scarcelli**, il quale riconosce che in effetti «la leva principale fino a oggi utilizzata dal canale è stata quella promozionale. Noi tuttavia — aggiunge — siamo dell'idea che non sarà più quella chiave per le vendite, ma bisognerà unirvi una componente di sviluppo della conoscenza del prodotto».

5 Better performances for certified wines are related to increases in price, not volume

6 This brings to high margin

7 It is hard to guarantee authenticity with traditional certifications

Andamento vendite vino DOC e DOCG
(100 = 2009, elaborazione inumeridelvino.it)

2010 2011 2012 2013 2014 2015 11m-16

Valore quantita' prezzo mix

Andamento valore aggiunto, utile operativo (EUR m) e margine

Valore Aggiunto Utile operativo Margine operativo

Wine Blockchain EY can bring **results in terms of revenues** at least equal to those brought by **traditional certification**

~ +5%
Revenue / Year

EY

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The first wine supply chain registered in Blockchain

Data and certifications of Winery

Treatment products

Analysis and water consumpion
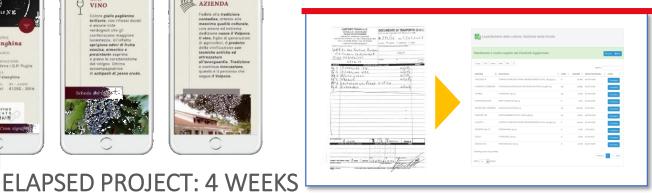
Registro dei trattamenti

TRASPARENCY

- 25% time saving nei Q&A checks

DIFFERENTIATION

+ 580% click on the company website

DIGITIZATION

VOLPONE

CLIENT PROFILE

1741 Sessions
33% age 25-34
54% Male
5,5% Running
54% Italian

ELAPSED PROJECT: 4 WEEKS

Sustainability approach

WATER CONSUMPTION

549* L/Bot
value estimate for 0,75 L

CHEMICAL PRODUCTS USAGE

ECOLOGICAL FOOTPRINT

ECOLOGICAL FOOTPRINT

Media coverage for the first Blockchain solution

Key success factor

✘ Food quality is under the spotlight and customers demand more and more transparency

✘ **Blockchain** is the most **innovative tool** to certificate products and support the quality communication

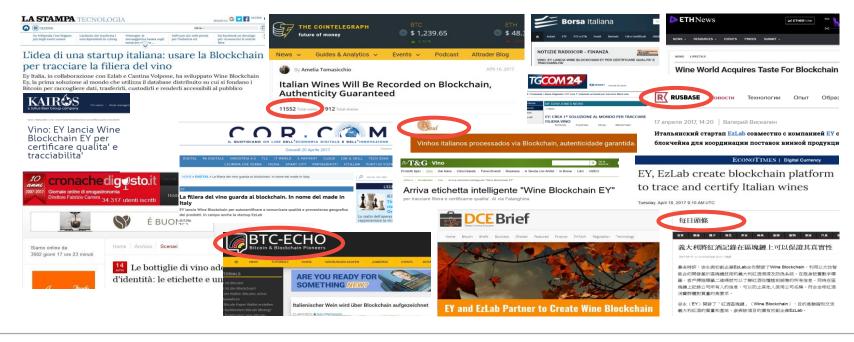✘ The news has been posted by the principal Italian newspapers and international Press

France

China

Germany

Spain

Russia

USA

Targets and forthcoming developments

Wine

First market to be targeted is Wine: high value production that strongly relies on certification and that suffers the counterfeiting.

Wineries

Consumer packaged goods

Wholesale and retailers

Olive oil

Bio products

Cheese

Fish supply chain

EY

DIGITAL DAYS