



JANUARY 19



BUREAU VERITAS TRACEABILITY SOLUTION



**BUREAU
VERITAS**

MARKET TRENDS

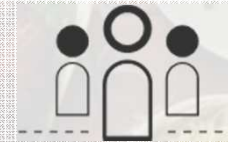
FROM TRUST TO PROOF



BRANDS

want

- Supply chain control
-
- Monitoring
-
- Value creation



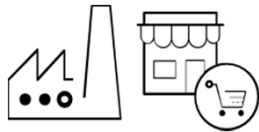
CONSUMERS

want

- Transparency / Information
-
- Trust
-
- Safe products

BUILD A TRACEABILITY SYSTEM WITH BENEFITS FOR ALL

VALUE CREATION ALL ALONG THE VALUE CHAIN



SUPPLY CHAIN PLAYERS

- **Better control your supply chain**
- **Demonstrate your good practices to your clients**
- **Manage efficiently product recalls in real time**



CONSUMERS

- **Get more information** through more transparency
- **Trust the information** provided
- **Get safer products**



scan me
to know my story



origin

Powered by worldline

BLOCKCHAIN

FROM BITCOIN TO TRACEABILITY

BLOCKCHAIN

Public

Bitcoin, 1st use case

1st definition of Blockchain in 2008
with Bitcoin
A peer-to-peer electronic cash system,
No central controlling device
1st crypto-currency, bitcoin, created in 2009
Open network

Private

Corporate issues

Not only Bitcoin
Distributed Ledger Technology
Peer-to-Peer transaction
Immutable and encrypted transactions
With or without crypto-currency
Controlled network

ORIGIN

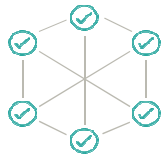
(BUREAU VERITAS SOLUTION)

*Private Blockchain
based on Multichain*

Track a product from farm to fork
Immutable and encrypted transactions
No energy consumption issue, strong
robustness
No crypto-currency
Private network in which each actor can
deploy his own node

WHY BLOCKCHAIN?

DISTRIBUTED



Each actor control its data, without any central controlling device

SECURED



Data are immutable, encrypted and unfalsifiable

OPEN



System open to all, incl. end-consumers, with different data confidentiality levels

EASY



Easy to use and to integrate with existing systems

See next slides for more details

AN OPEN TECHNOLOGY

AVAILABLE TO ALL WITH THREE LEVELS OF DATA CONFIDENTIALITY



PUBLIC DATA

Visible by all users,
incl. end-consumers

*Ex: Tuna species available
for end-consumers*



CONFIDENTIAL DATA

Visible to selected users with
specific access rights

*Ex: Fishing vessel ID #
(IMO)*



PRIVATE DATA

Not visible by default, but
accessible upon request

*Ex: GPS coordinates
of fishing zones*



BLOCKCHAIN IS NOT THE ANSWER TO EVERYTHING

HOW TO MAKE THE SYSTEM RELIABLE TO INCREASE TRUST?

AN EFFECTIVE TECHNOLOGY TO MANAGE TRACEABILITY...

Blockchain is the perfect technology to track product history...

- **Digital reproduction** of the entire history of a product
- **Set up of consistency check** (eg : delivered volumes different from produced volumes)
- **Access in real time to product history** through dynamic dashboard
- In case of problems, **possibility to go up the chain to identify the cause**

... TO ASSOCIATE WITH A CONTROL DEVICE

...But it can not guarantee the accuracy of the data registered

« Garbage in – Garbage out »

→ **Bureau Veritas act as an independent third party to:**

- **Define and organize the governance rules** of the Blockchain consortium
- **Conduct risk analysis** along the supply chain to identify critical point
- **Conduct targeted on-site audits** of different actors

**BLOCKCHAIN
TECHNOLOGY**

+



**AS AN
INDEPENDENT
THIRD PARTY**

=

**TRACEABILITY SYSTEM WITH
TRUST AND PROOF**

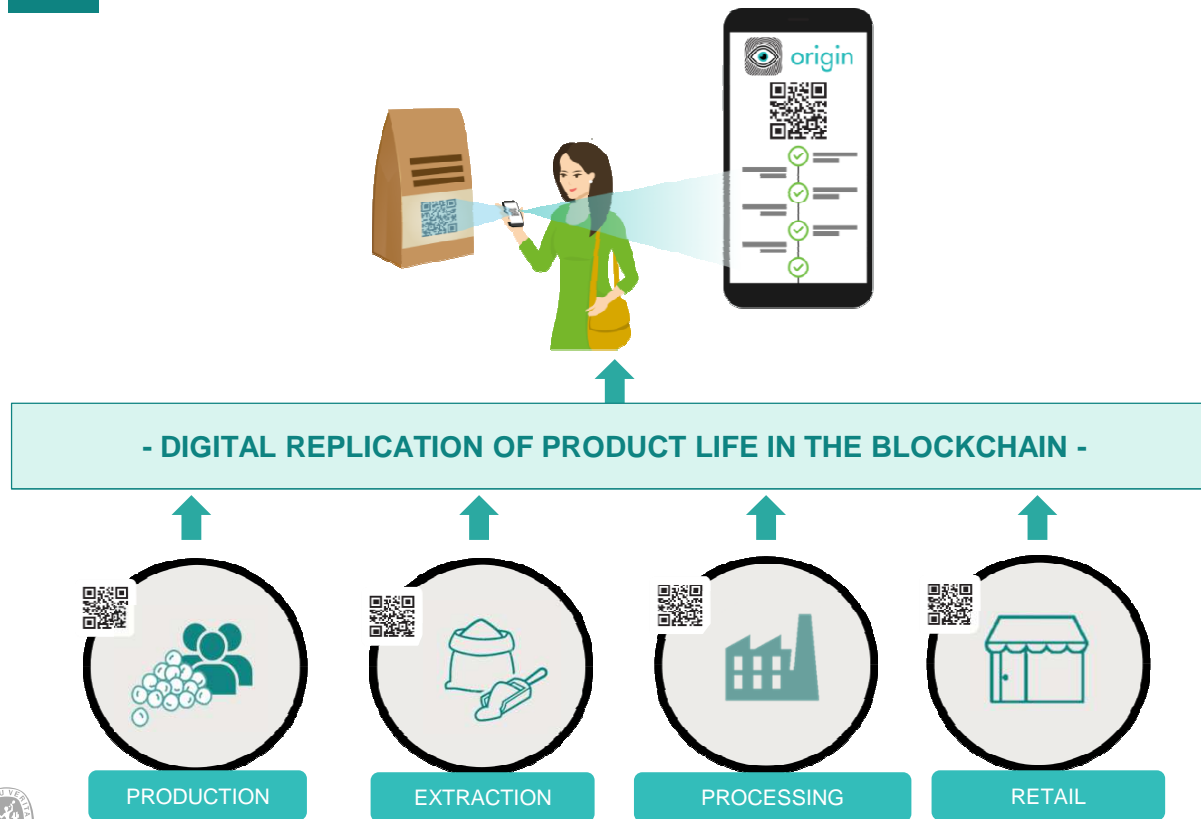


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Slide / 8

HOW DOES IT WORK?

DATA IS SENT TO THE BLOCKCHAIN AT EVERY STEP



- **Data recorded in real time**, chronologically, publicly, with different confidentiality rights
- **Full visibility of the product history** throughout the value chain
- **Blockchain-based**
- **B2B2C solution**



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EASY SYSTEM

TWO EASY WAYS TO SEND INFORMATION TO THE BLOCKCHAIN



AUTOMATIC

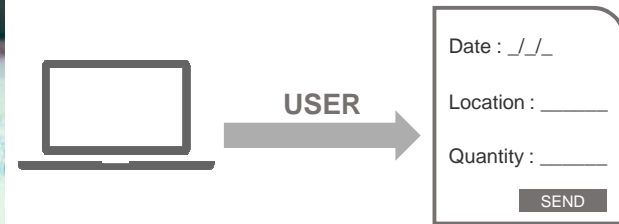
*Data is already
in your system*



APIs will be developed to link your system with Origin blockchain
Bureau Veritas and Worldline will provide technical specifications for development

MANUAL

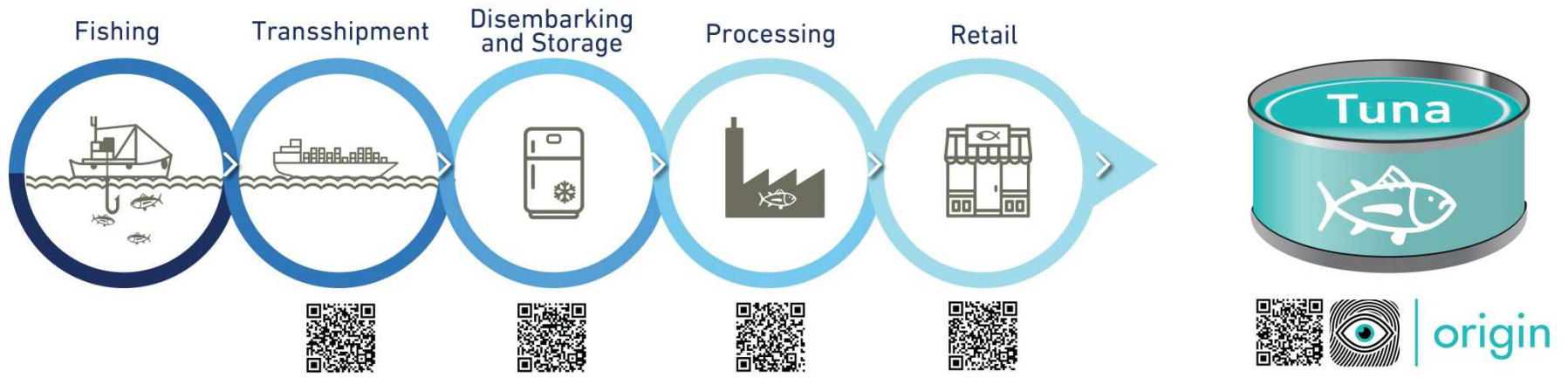
*Data is not
stored yet*



A simple web application with login and password will be designed for each user to register data



EXAMPLE TUNA SUPPLY CHAIN



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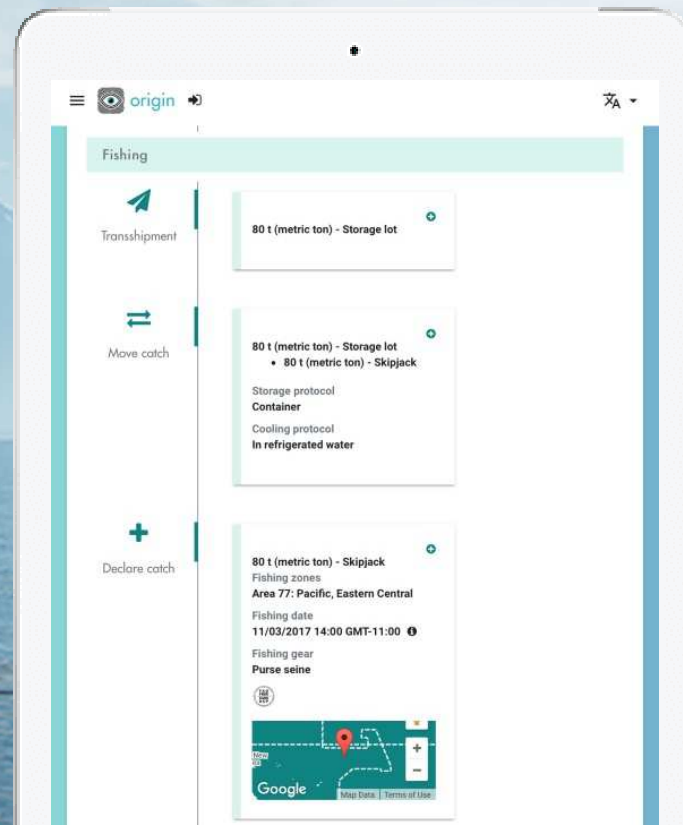
ILLUSTRATION (1/2)

B2B INTERFACE FOR THE TUNA SUPPLY CHAIN



Transshipment user has access to several data from fisher

- Fishing area
- Fishing date
- Quantity and species

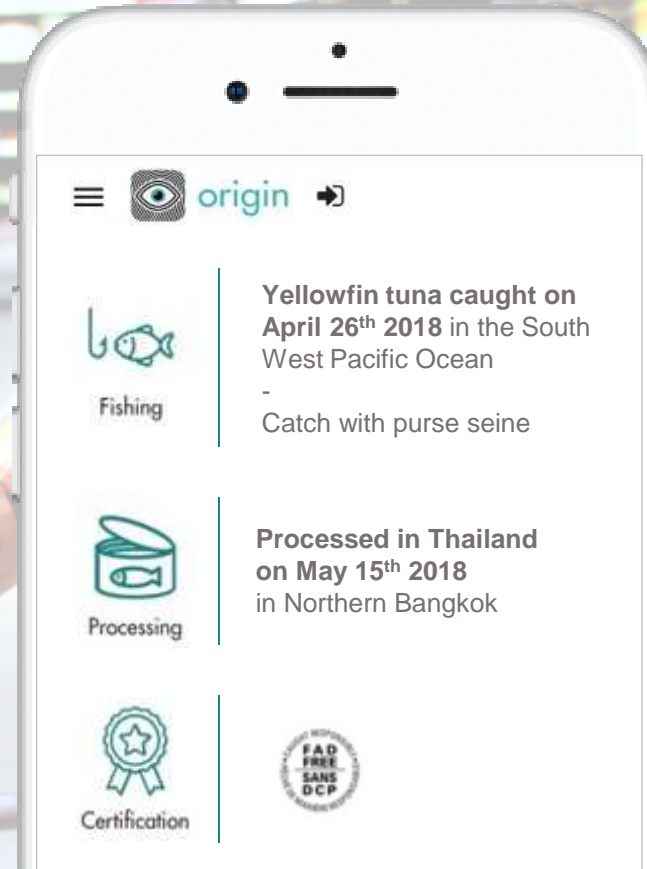


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EXAMPLE CONSUMER INTERFACE



CUSTOMIZED INTERFACE FOR EACH PRODUCT



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PARTNERSHIP
BUREAU VERITAS & WORLDLINE



Responsible for the accuracy of
information registered in the blockchain

Responsible for the integrity and security
of information registered in the blockchain



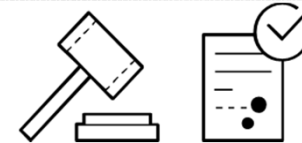
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BUREAU VERITAS ROLE

ACTS AS A REFEREE IN THIS SHARED SYSTEM



**CREATE
BLOCKCHAIN RULES
AND WORKFLOW
PROCESSES**



**VALIDATE DATA
SENT TO THE
BLOCKCHAIN
THANKS TO AUDITS**

**Bureau Veritas is the legitimate independent
third party to offer this solution**



OUR PARTNER: **Worldline**
ORIGIN SOLUTION IS POWERED BY WORLDLINE



Subsidiary of the Atos Group with 40 years
of experience in payment and transactional services

Focus on **user experience**

B2B2C experience

Very **innovative**

International presence



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ROADMAP

4 MONTHS OF PILOT BEFORE FULL DEPLOYMENT



1

PILOT

4 months
Selected users

- Define and understand the value chain
- Risk analysis
- Define data and steps which will be useful for product traceability
- Support for users
- Test before deployment

2

DEPLOYMENT

At the end of pilot
All value chain

- Origin Label: from B2B to B2B2C solution
- Available for all stakeholders
- Random Bureau Veritas audits



2018: PROPOSITION OF PILOTS

PILOTS OF 4 MONTHS WITH TWO PHASES



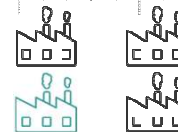
PRODUCTION



TRANSPORT



PROCESSING



RETAIL



PREPARATORY PHASE 1 month

- **2 to 4 workshops by product category:** depending on the level of complexity
- **Objectives :**
 - Define the workflows for each sector and select one user by step
 - Set the using rules, involved actors, confidentiality rules and access rights
 - Set up an operational and specific technical solution to the needs of the sector

TEST PHASE 3 months

- **Monthly steering committee**
- **Objectives :**
 - Daily management and maintenance of the platform
 - Continuous improvement of the platform based on user feedback
 - Preparation of the global deployment

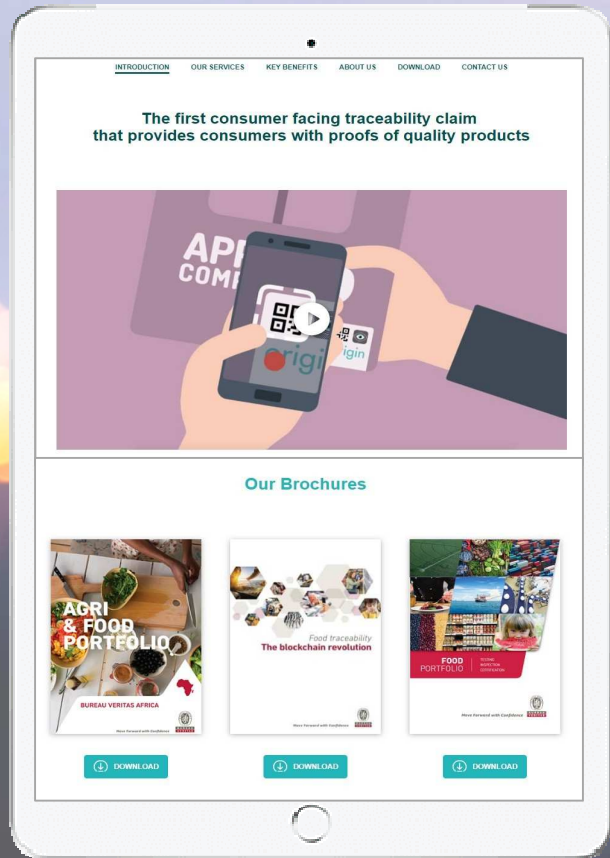




THANK YOU!



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