



CADENA

# Blockchain Platform to implement MRAs for AEO Programs

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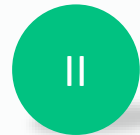
# What will be talking about?



**What does Blockchain do?**



**Properties of Blockchain**



**What is the value of Blockchain**



**Pilot Project CADENA.  
A solution for MRAs?**

# 0. What does Blockchain do?

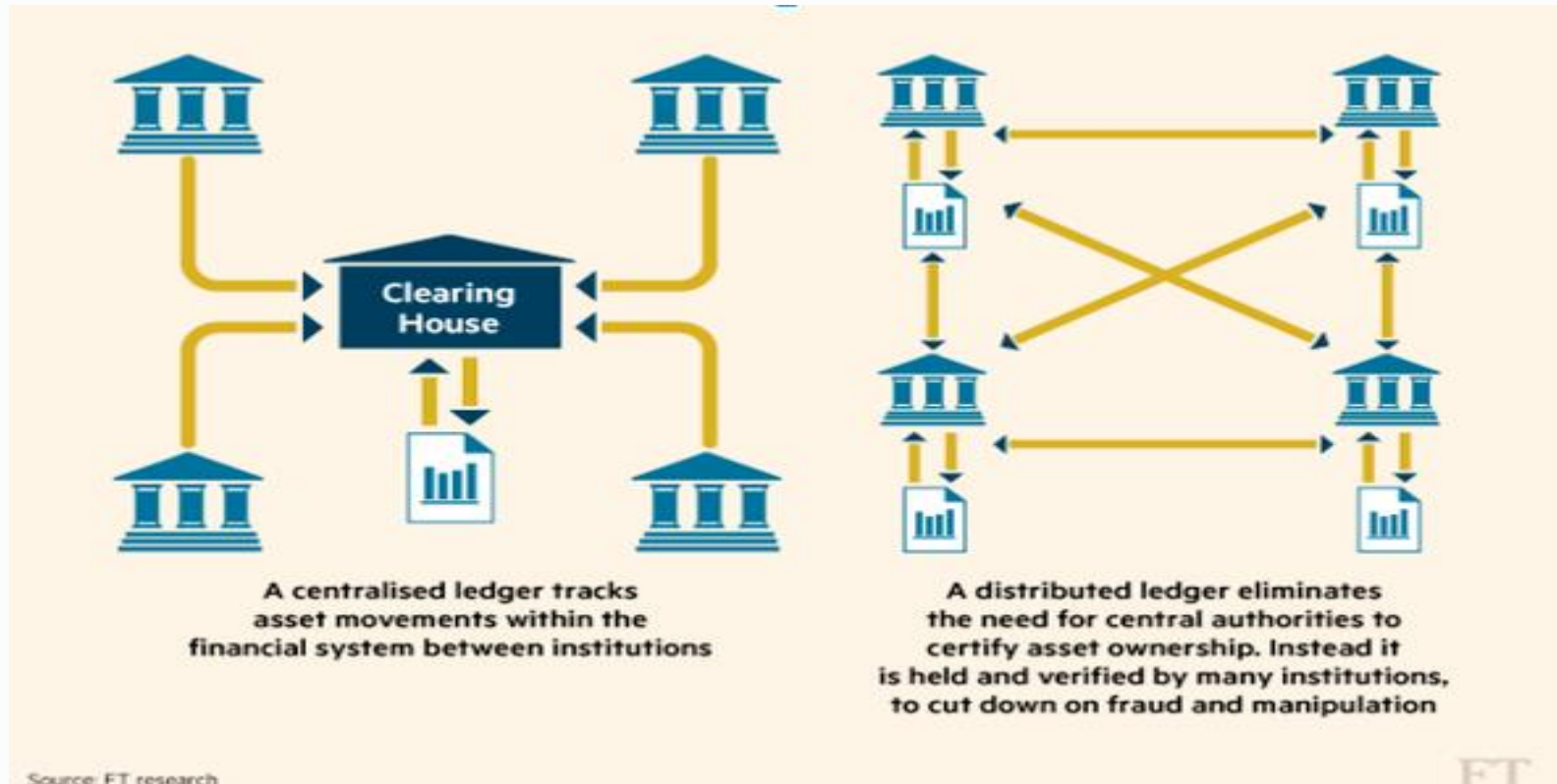
- ❑ Blockchain technology allows to share, validate and register digital data or transactions protected by cryptography among all those parts related to an asset or object.
- ❑ Validated transactions through consensus are converted into blocks of information that are chronologically linked together in a permanent record that cannot be altered retroactively.
- ❑ Blockchain also allows to introduce and apply business rules and stipulations through Smart Contracts. These are executable actions, that when the rules are followed, they trigger transactions automatically. This provides options for functional applications and uses beyond the sharing and storage of data.

A synchronized, replicated, secure and smart digital ledger

# I. Properties of Blockchain

1

## Distributed Digital Ledger



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# I. Properties of Blockchain

2

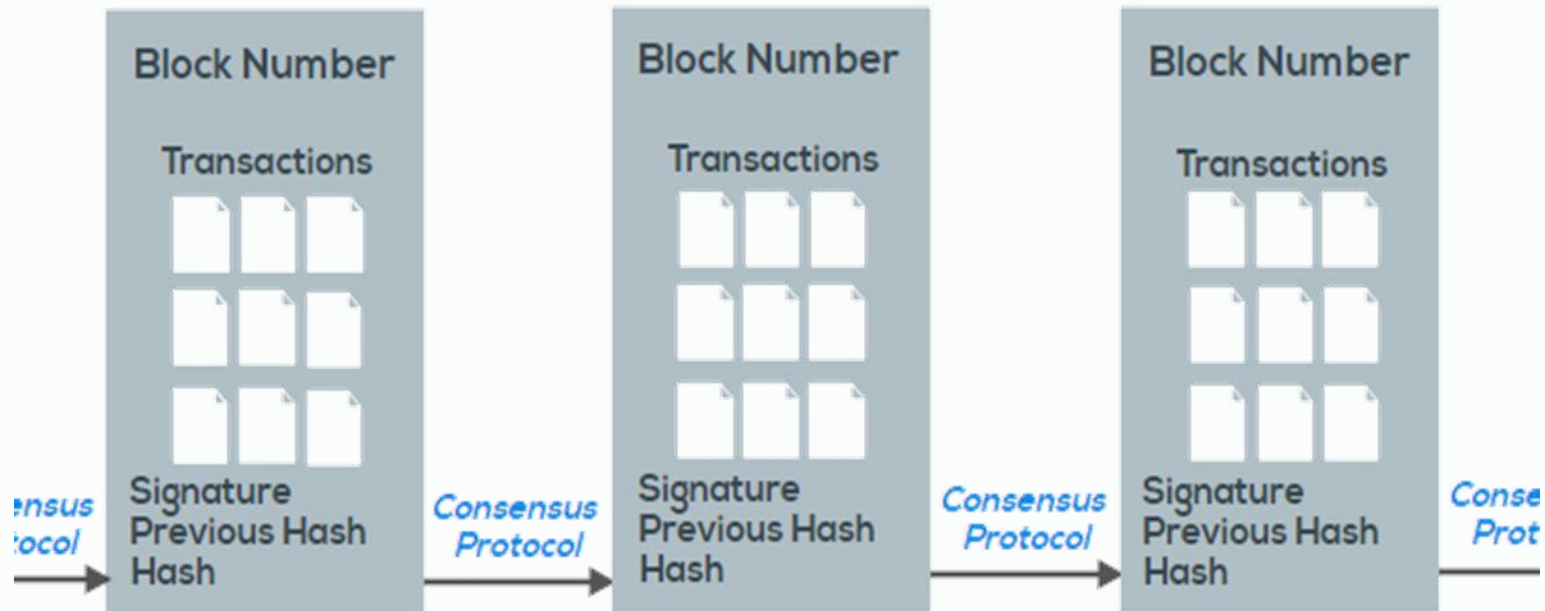
Trusted by consensus



# I. Properties of Blockchain

03

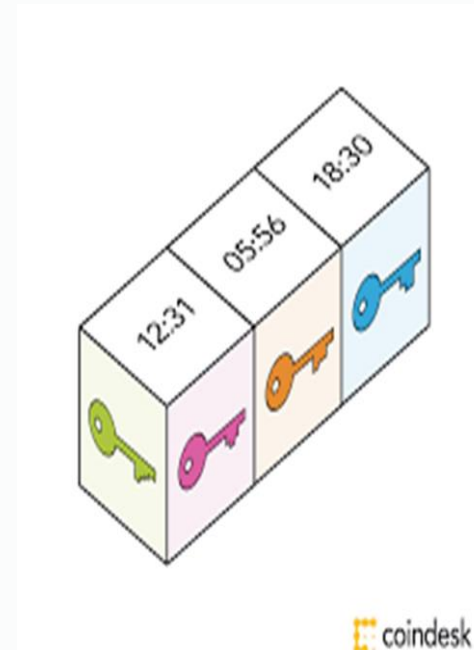
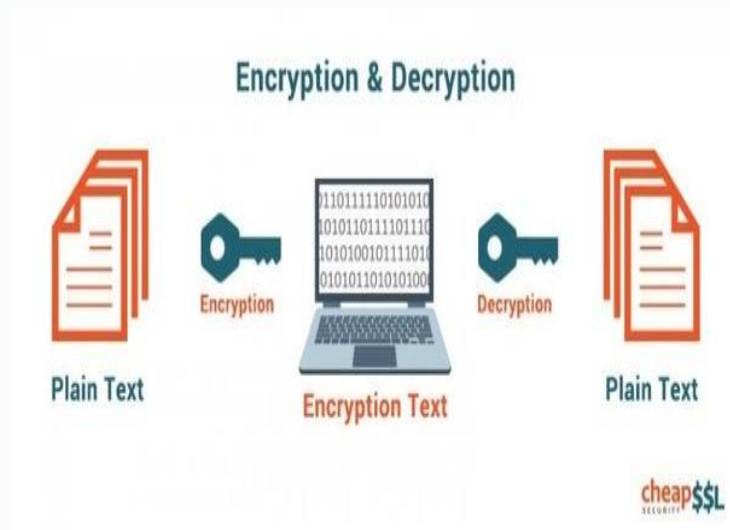
## Inmutable



# I. Properties of Blockchain

4

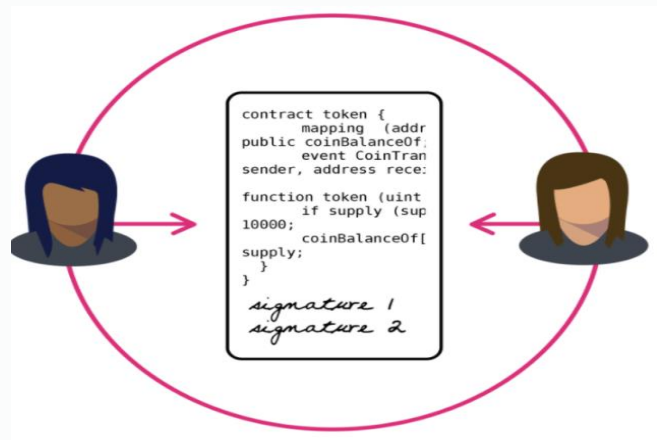
Secured by encryption, time stamp proof and customized access to data



# I. Properties of Blockchain

05

## Programmable through Smart Contracts

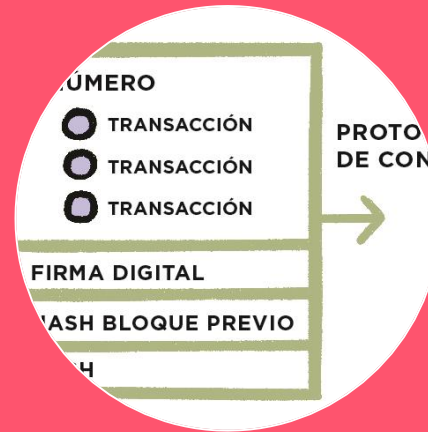




## II. What is the value of blockchain?

### Verifiable

- ❖ Provenance
- ❖ Consensus
- ❖ Transparent



### Immutable

- ❖ Indelible
- ❖ Tamper -proof

## BLOCKCHAIN

### Programmable

- ❖ Smart Contract

### Decentralized

- ❖ Shared and Distributed
- ❖ No single point of failure



# PILOT PROJECT CADENA

Blockchain Platform for sharing data of AEO certified companies in an automated, secured and real time between customs administrations part of a Mutual Recognition Agreement (MRA) aiming to streamline and secure bilateral, regional and global supply chains



# Challenges implementing MRAs (1)



**Filtering with Slicers**

- 1 Click any cell in the table.
- 2 Click the Design tab.
- 3 Click the Insert Slicer button.

	A	B	C	D	E	F	G
1	First	Last	Company	City	Packages	Sales	
2	Joel	Nelson	Nincom Soup	Minneapolis	6	6,602	
3	Louis	Hay	Video Doctor	México DF	7	8,246	
4	Anton	Baril	Nincom Soup	Minneapolis	11	13,683	
5	Caroline	Jolie	Safrasoft	Paris	12	14,108	
6	Daniel	Ruiz	Idéal Base	Paris	6	7,367	
7	Gina	Cuellar	SocialU	Minneapolis	6	7,456	
8	Joseph	Voyer	Video Doctor	México DF	7	8,320	
9	Nena	Moran	Hôtel Soleil	Paris	4	4,369	
10	Robin	Banks	Nincom Soup	Minneapolis	4	4,497	
11	Sofia	Valles	Luna Sea	México DF	1	1,211	
12	Kerry	Oki	Luna Sea	México DF	10	12,045	
13	Javier	Solis	Hôtel Soleil	Paris	5	5,951	
14	Lucy	Gramm	SocialU	Minneapolis	1	1,200	

# Challenges implementing MRAs (2)

01

Risk associated to the *manual* process of sharing sensitive and/or confidential data with low standards of security and integrity.

03

Capacity to grant benefits to AEO companies is limited due to the inability to do it on real time.

02

Difficulties to establish the provenance and traceability of the data and to guarantee secure access and responsibilities while sharing data.

04

Capacity to react on real time when a suspension occur is limited with an impact on the security of the supply chain under the MRA.

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# Blockchain as a solution for MRAs

1. To digitalize and automate the process of sharing data of AEO companies between parts of an MRA.
2. To have a secure, trusted, immutable and traceable mechanism to share data of AEO certificates under an MRA.
3. To guarantee the integrity of the data and to customize and control access to the data.
4. To promote transparency of the data related to AEO/MRA making possible that AEO companies have access to the information related to their certificates.

5. To bring efficiency and effectiveness to the management of MRAs
6. To reduce time and costs for traders- allowing for the automatic and real time application of benefits both at the origin and at the destination of the trade operation.
7. To strengthen the security of the supply chain through an effective application of MRAs.

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# Other Considerations

01

**Inclusion of the Trader Identification Number (TIN) proposed by WCO**

**(ISO Country Code+ National, regional identifier)**

02

**Inclusion of the AEO Master Data Set by WCO Data Model versión 3.8**

# Participants of CADENA

## 1er phase of testing and validation in Latin America

- Customs administrations of Mexico and Costa Rica which are about to sign an MRA in April 2018.
- 2 AEO companies per country

## 2nd phase of validation with another extra regional country

- 2 Customs administrations of Latin America & Caribe
- 2 AEO companies per country
- 1 customs administrations from an extra regional country from LAC with which they had signed an MRA

# CADENA Participants





# Chronogram Pilot CADENA



## PREPARATION PHASE (3 Feb to 15 March)

- To socialize the pilot with the participants
- Definition of technical specifications (IDB and Customs from Costa Rica and Mexico)
- First virtual meeting through videoconference with teams at customs
- Field mission to CR with the participation of ME and IDB(28 Feb & 1 Mar).



## HIRING OF THE TECHNICAL ASSISTANCE (15 Mar to 15 Apr)

By IDB



## IMPLEMENTATION PHASE OF THE PILOT (15 Apr to 30 Jun)

- Consultancy
- Customs from Mexico and Costa Rica
- 2 AEO firms from Mexico and Costa Rica
- IDB

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# Reasons for a Pilot

01

## To validate quickly a product:

- Funcionalities
- Use
- Users participation
- Scalability
- Others



02

## Avoid unnecessary waste of resources

When validating at a reduce scale and a reduce audience, challenges can be detected and improvement measures introduced easily



03

## It is not necessary to adopt the solution

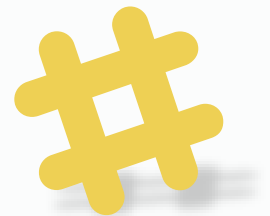
The idea of the pilot is to prove a new concept but not necessarily to adopt it as the final solution.



04

## To identify opportunities for scalability

In a pilot the users become the best alliance to propose new functionalities to scale the product



# SCALABILITY OF THE PILOT

## Possible FUTURE uses

To expand the platform to those customs with active MRAs

To allow the participation of AEO companies with access protocols to interact with customs for the whole certification and maintenance AEO process

This prototype can be a reference to facilitate the sharing of other types of data between customs and other public and private actors

To manage the whole AEO certification process using blockchain

To introduce Smart Contracts to connect and automate the AEO certification management process with the risk manage system at customs

Thank You !!

