

Brussels

December 1, 2017

# Legal Security in Real Property Opportunities of a Technological Ecosystem

## ELRA XXV General Assembly

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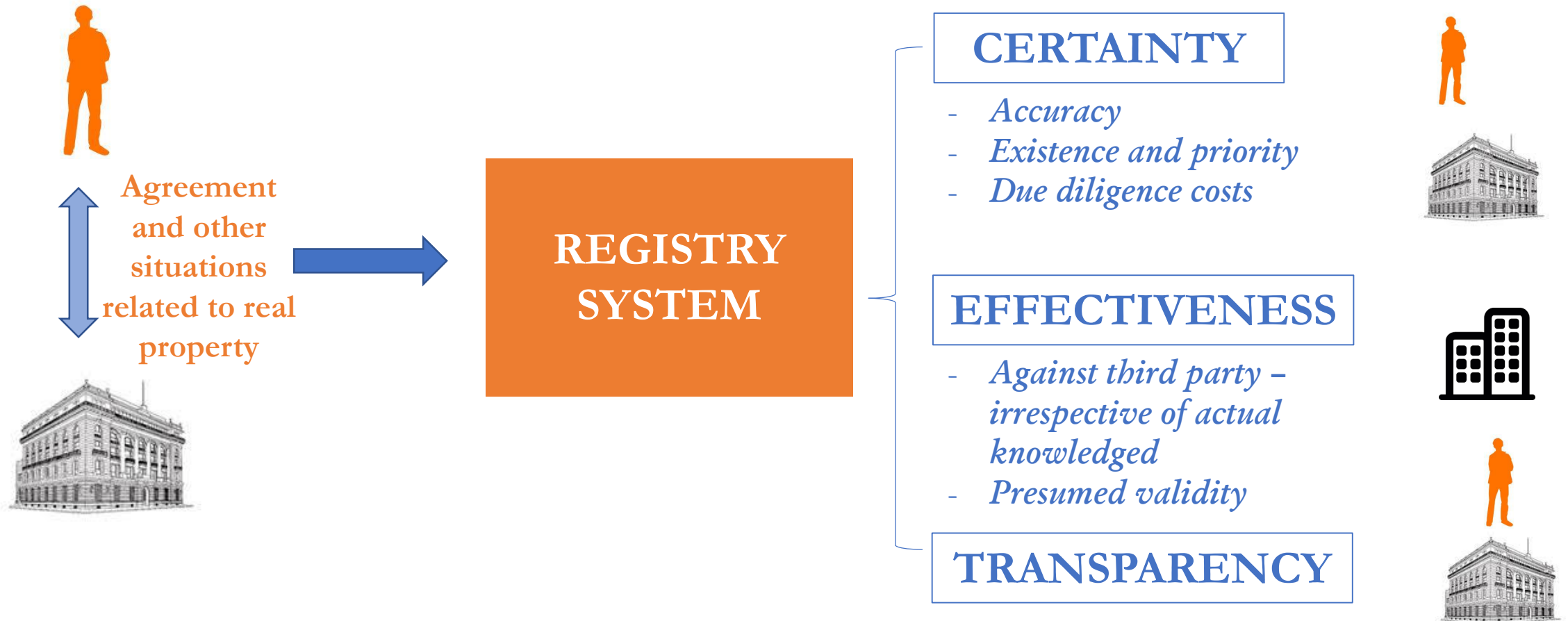
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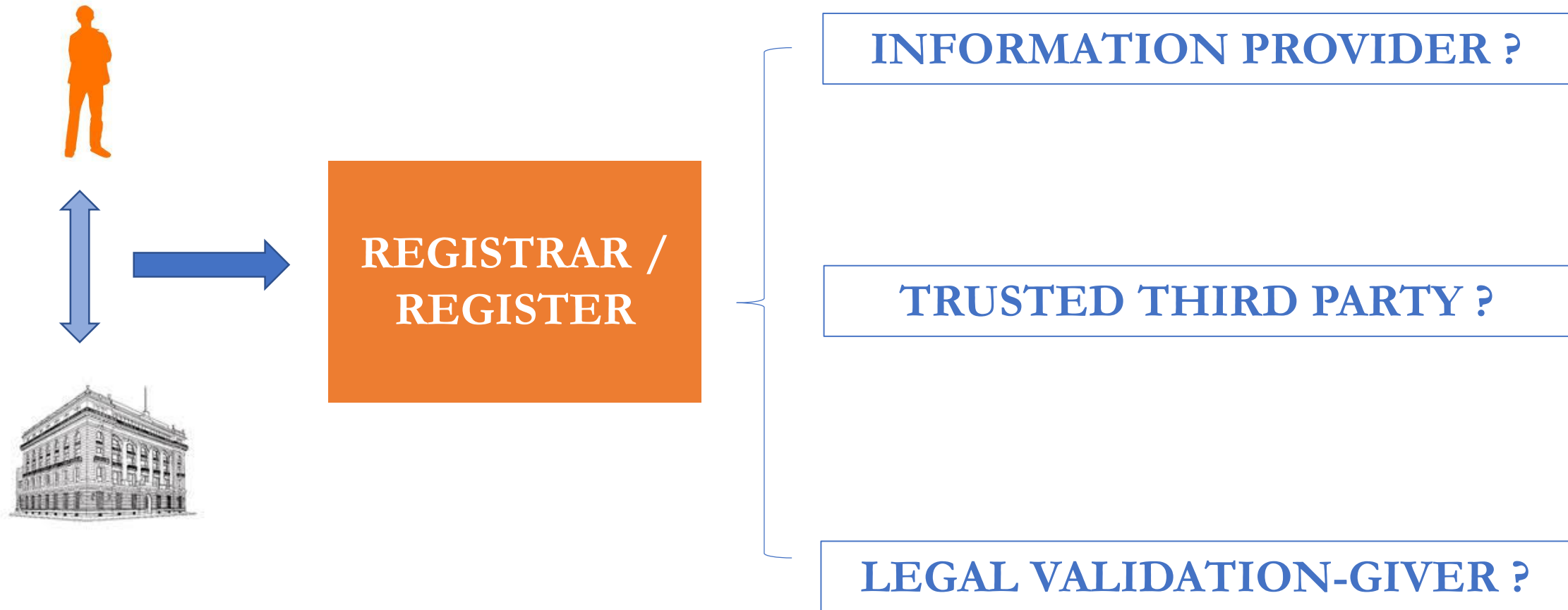
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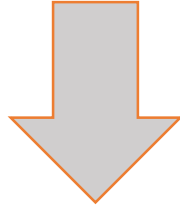
# 1.- Rationales for registration – The Roles of Land Registers



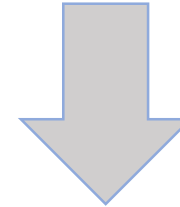
# 1.- Rationales for registration – The Roles of Land Registers



## A.- The Roles of Technology – APPLICATIONS AND USES



### AS AN INSTRUMENT



### AS AN ARCHITECTURE

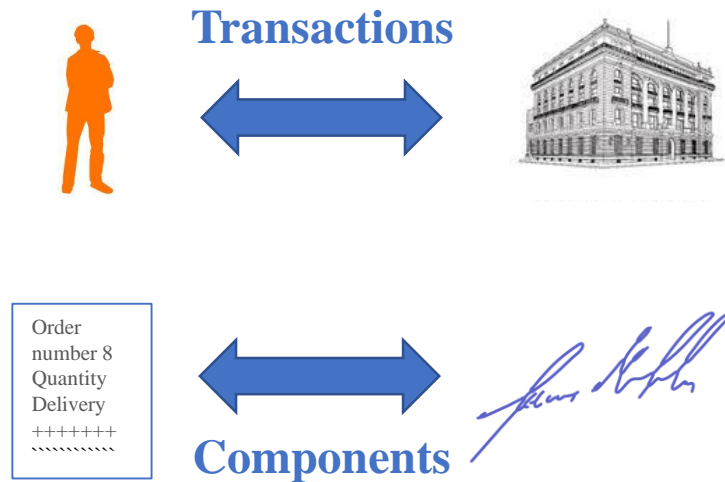
#### THEORETICAL FRAMEWORK TO FACE TECHNOLOGY APPLICATIONS.

*The Case of Blockchain as an illustration :*

- 1.- Is then Blockchain a new instrument enabling a more effective performance of same functions?
- 2.- Is Blockchain a new instrument enabling the performance of new functions?
- 3.- Is Blockchain a new architecture? Does it enable to perform same functions?
- 4.- Is Blockchain a new architecture enabling the performance of new functions?

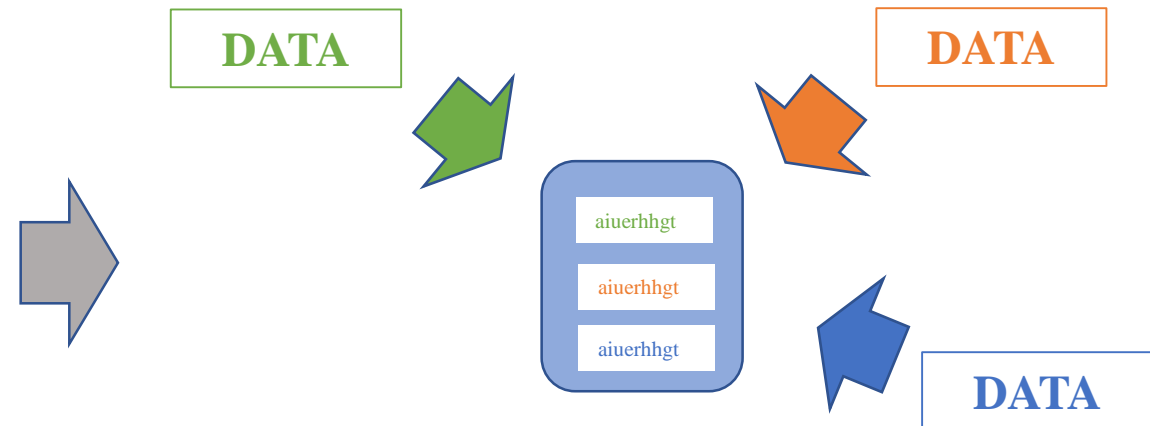
# A.1.- Technology as instrument in transactions – PRIOR DISTINCTION OF RELEVANT TERMS

## PRINCIPLE OF TECHNOLOGICAL NEUTRALITY



## PRINCIPLE OF FUNCTIONAL EQUIVALENCE

## ‘DYNAMIC OPEN RECORDS/DOCUMENTS’



## A.1.- Technology as instrument in transactions – PRIOR DISTINCTION OF RELEVANT TERMS

**ELECTRONIC**



Use of electronic communications throughout the process

**DIGITAL**



Information codified, produced, transmitted, and stored in digital medium

**AUTOMATIC**

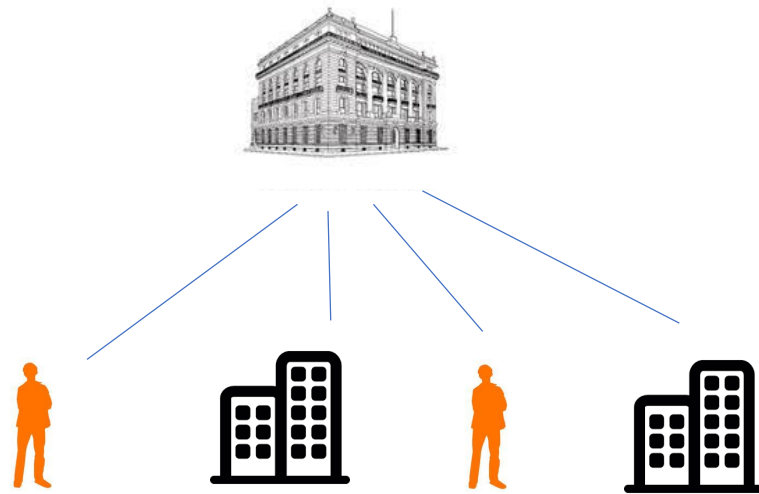


Performance of tasks without human intervention: programming of instructions



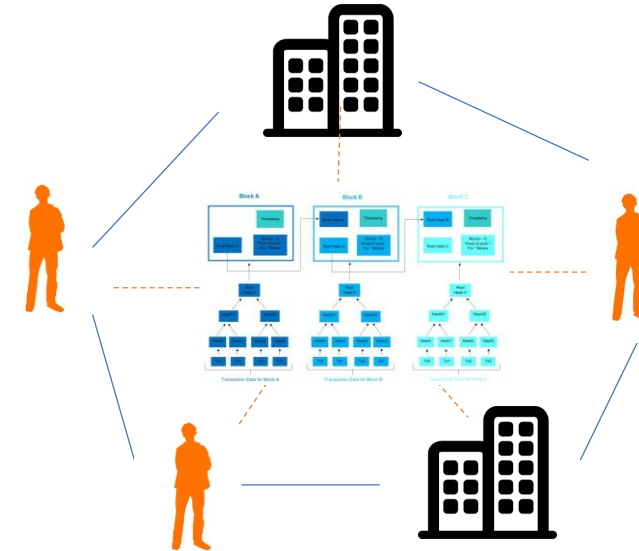
## A.2.- Technology as Architecture – UNDERSTANDING TECHNOLOGY ARCHITECTURE

### PRINCIPLE OF TECHNOLOGICAL NEUTRALITY



### PRINCIPLE OF FUNCTIONAL EQUIVALENCE

### PRINCIPLE OF SYSTEM/ARCHITECTURE NEUTRALITY



### PRINCIPLE OF SYSTEM/ARCHITECTURE EQUIVALENCE

## 2.- Electronic Registry System as a Platform: Defining the Model A

### REGISTER AS A PLATFORM





## 2.- Electronic Registry System: Defining the Model - FEATURES

An electronic version of Registry

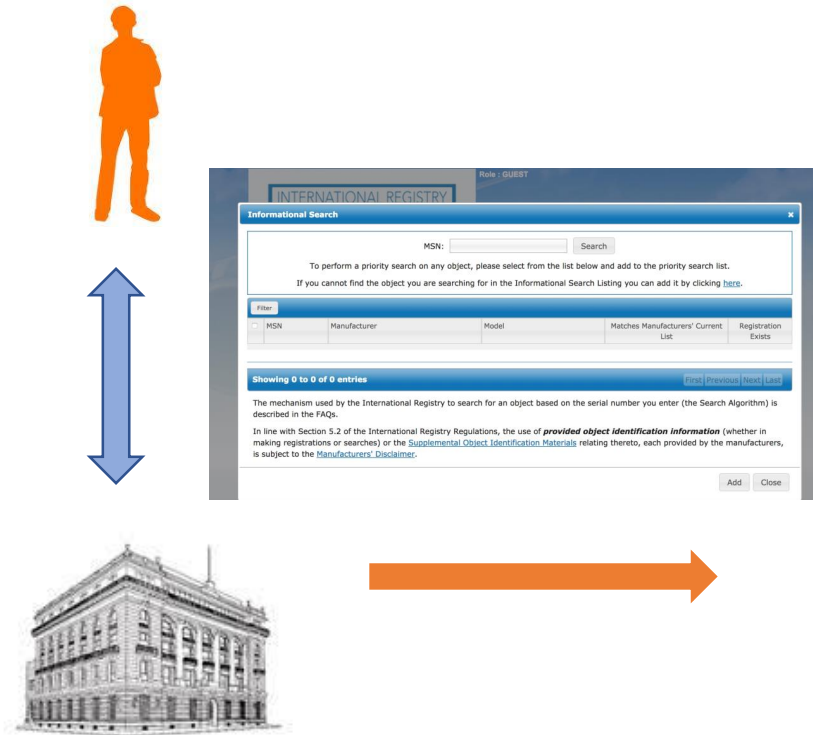


a). Use of electronic means and digital medium for all processes:

- Registration
- Further amendment and cancellation
- Search

## 2.- Electronic Registry System: Defining the Model - FEATURES

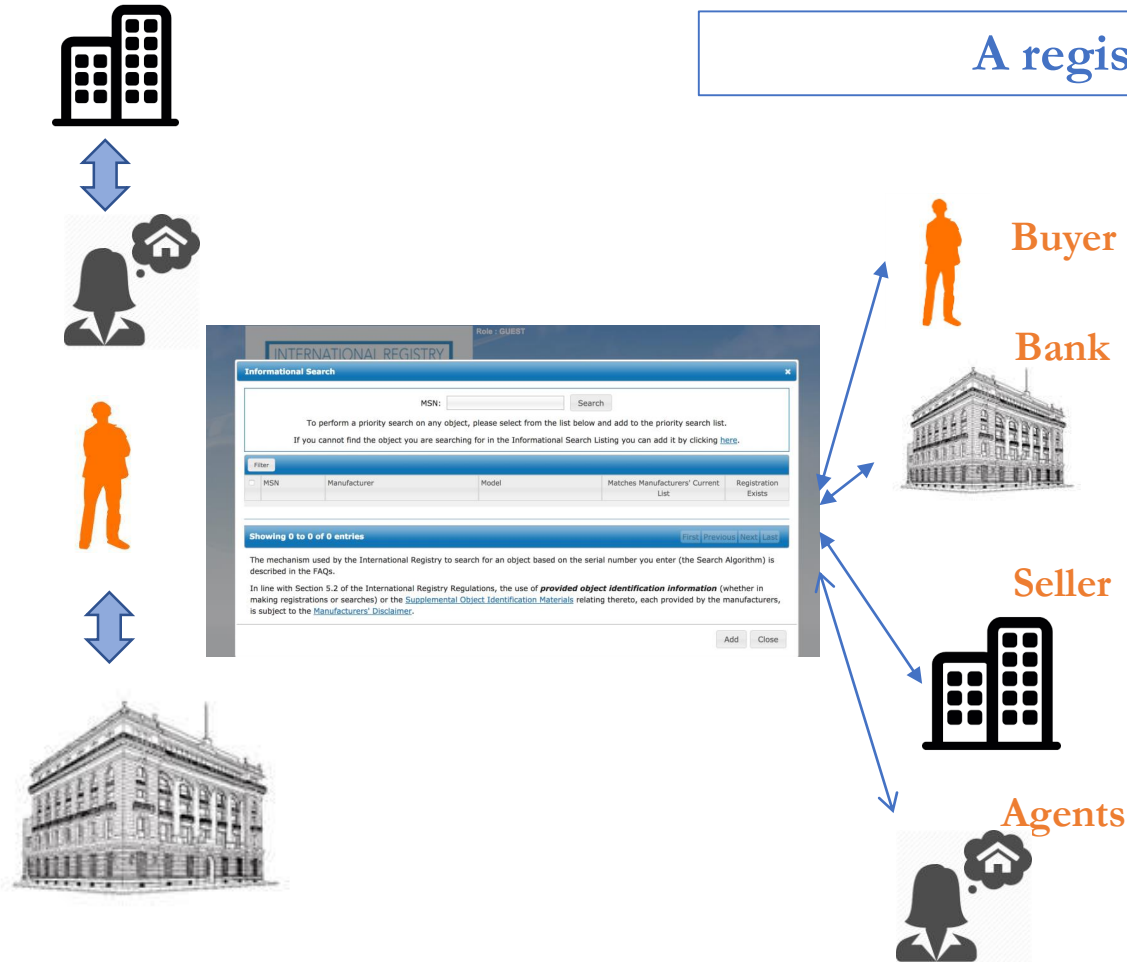
An active registry model: bilateral flow of data



b). Register may interact with registered users and proactively transmit relevant notices and communications (i.e. expiration date, detected errors, etc)

## 2.- Electronic Registry System: Defining the Model - FEATURES

A registry system as a multilateral platform



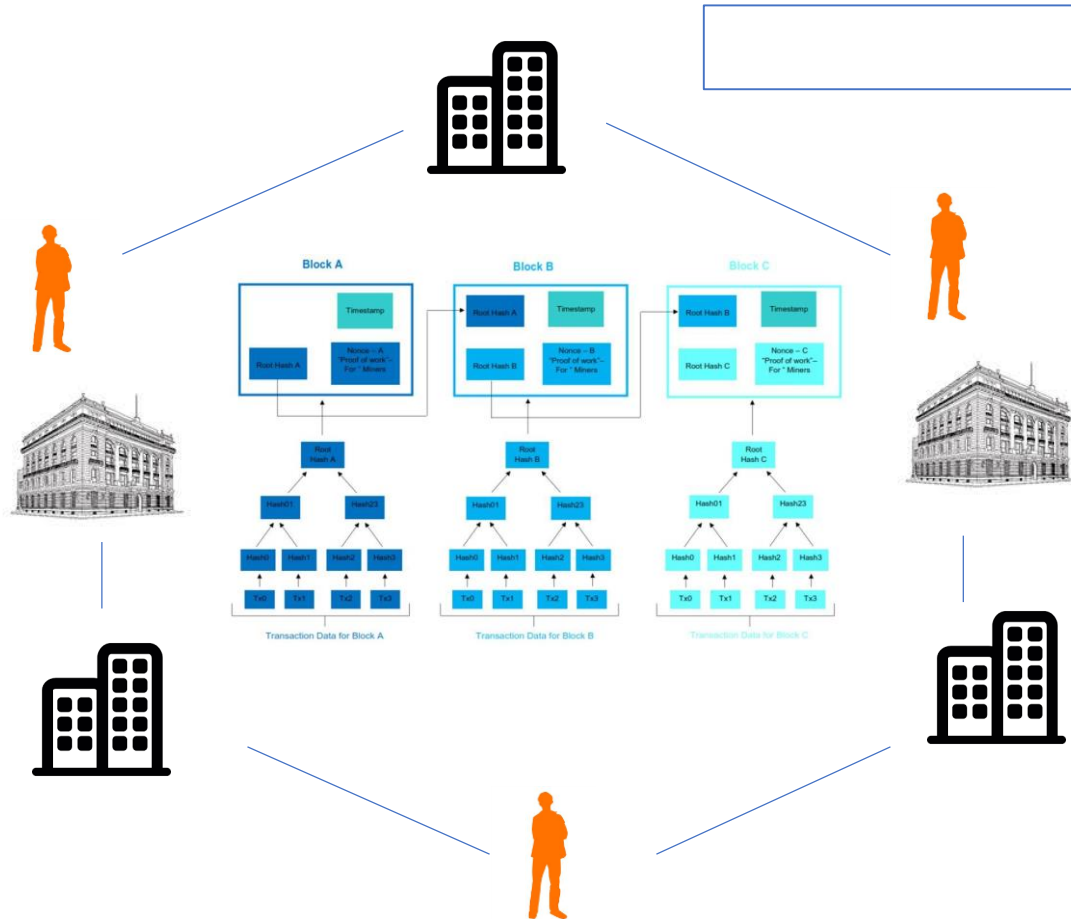
c). Users participate in the registry and interact each other

Multilateral communications are enabled

All relevant data are available to parties on the same platforms

All transactions are conducted through the platform

## 2.- Electronic Registry System: Defining the Model - FEATURES



A decentralized registry?

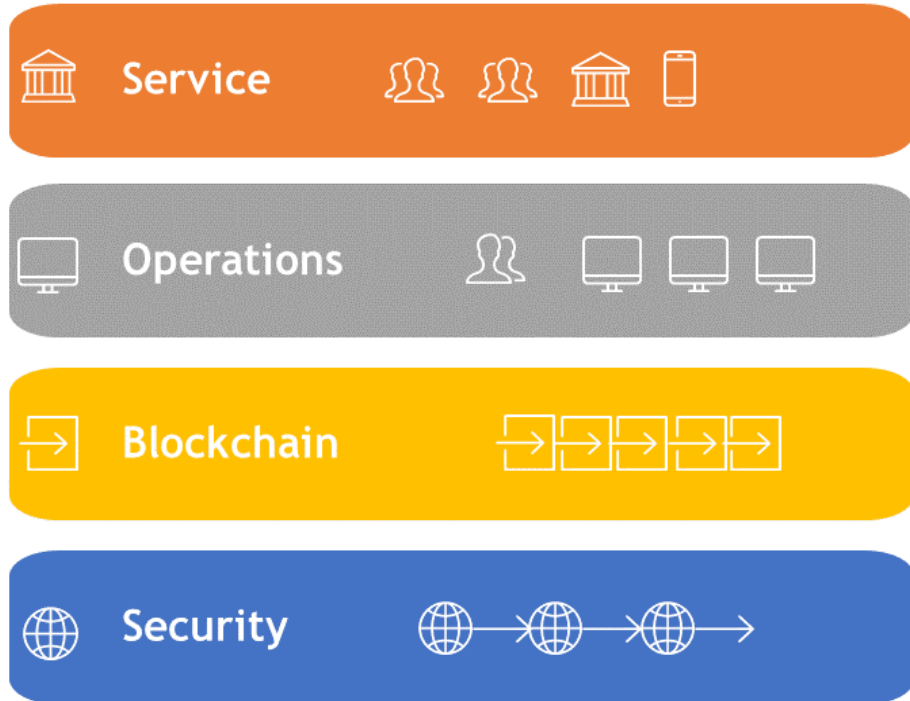
X). Might a blockchain-based registry be an option?

Y). Is blockchain operation compatible with legal design for secured transactions register?

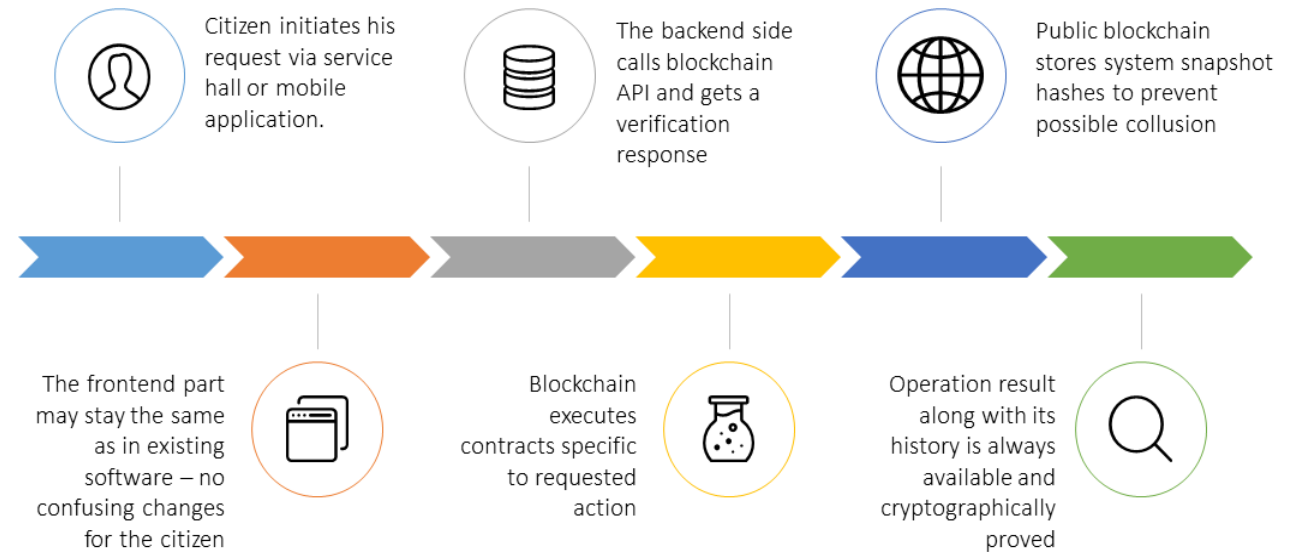
*\* See next example for mixed models*

**\* Example of Blockchain-based register design: BitFury for Georgia – a combination of decentralized and centralized schemes**

## Solution Design: Registries



## Blockchain Registry: How Does It Work?



## 2.- Electronic Registry System: Defining the Model - FEATURES

A highly-automatic registry model in a ECOSYSTEM OF  
SMART CONTRACTS, SMART PROPERTY, AND TRUSTED  
THIRD PARTIES

### REGISTER AS A PLATFORM



### 3.- Opportunities of a Technological Ecosystem

I.- Understanding Technology as an **Instrument** and as an **Architecture**

II.- Assessing **Roles** of Registries prior to Implementing Technological Solutions

III.- New Opportunities for Registry **Legal Design** and **Registrar Roles**

- Registry as a Platform – multilateral interaction
- Proactive Registry
- Automation of Processes and Tasks
- Dynamic Registrations – Updated data

IV.- **Regulatory approach and policy options:**

- General enabling legal framework based on functional-equivalence principle
- Registry-specific legal rules setting out principles, legal design, and legal effects
  - \* *option 1: attributing legal effects to legal design*
  - \* *option 2: attributing legal effects to reliability standards for technology*
- Second-level regulations defining processes, tasks, and outcomes

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