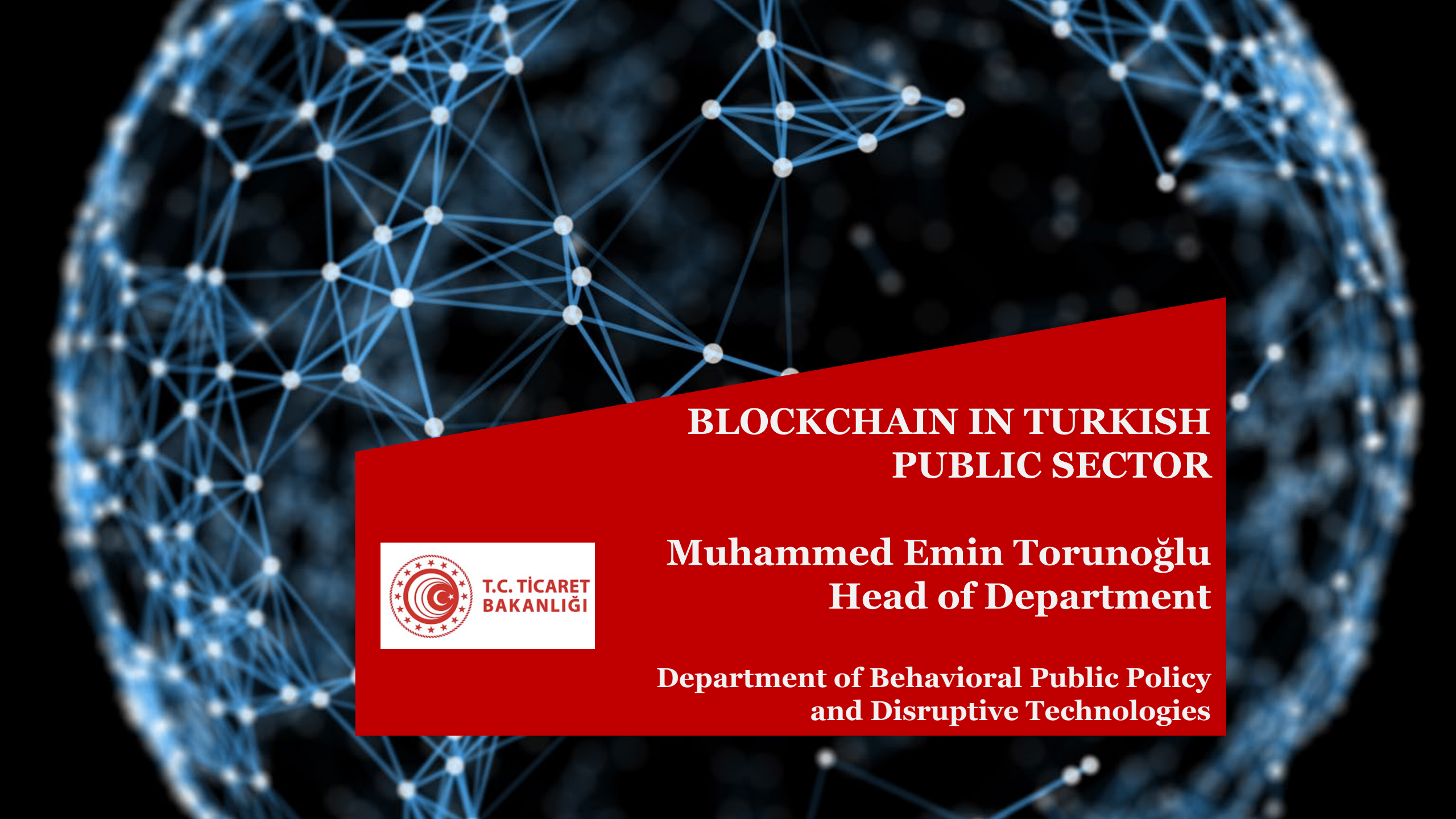

BLOCKCHAIN IN TURKISH PUBLIC SECTOR

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T.C. TİCARET BAKANLIĞI

Agenda

- Disruptive Technologies
- Cross Border Trade
- Pilot Project I – Sharing Test Results
- Pilot Project II CCW Export Control
- International Cooperations
- Roadmap

Behavioral Public Policies and Disruptive Technologies Department

Behavioral Public Policies

- Human focused – fact based policy design
- Application of behavioral theories in real life public policies
- Testing new policies in pilot groups before full scale implementation
- Cooperation with international institutions (OECD, WB, BIT, EU)

Disruptive Technologies

- Blockchain application in existing foreign trade system
- Using artificial intelligence and machine learning as a predictive tool in trade and economy policies

Project Implementation

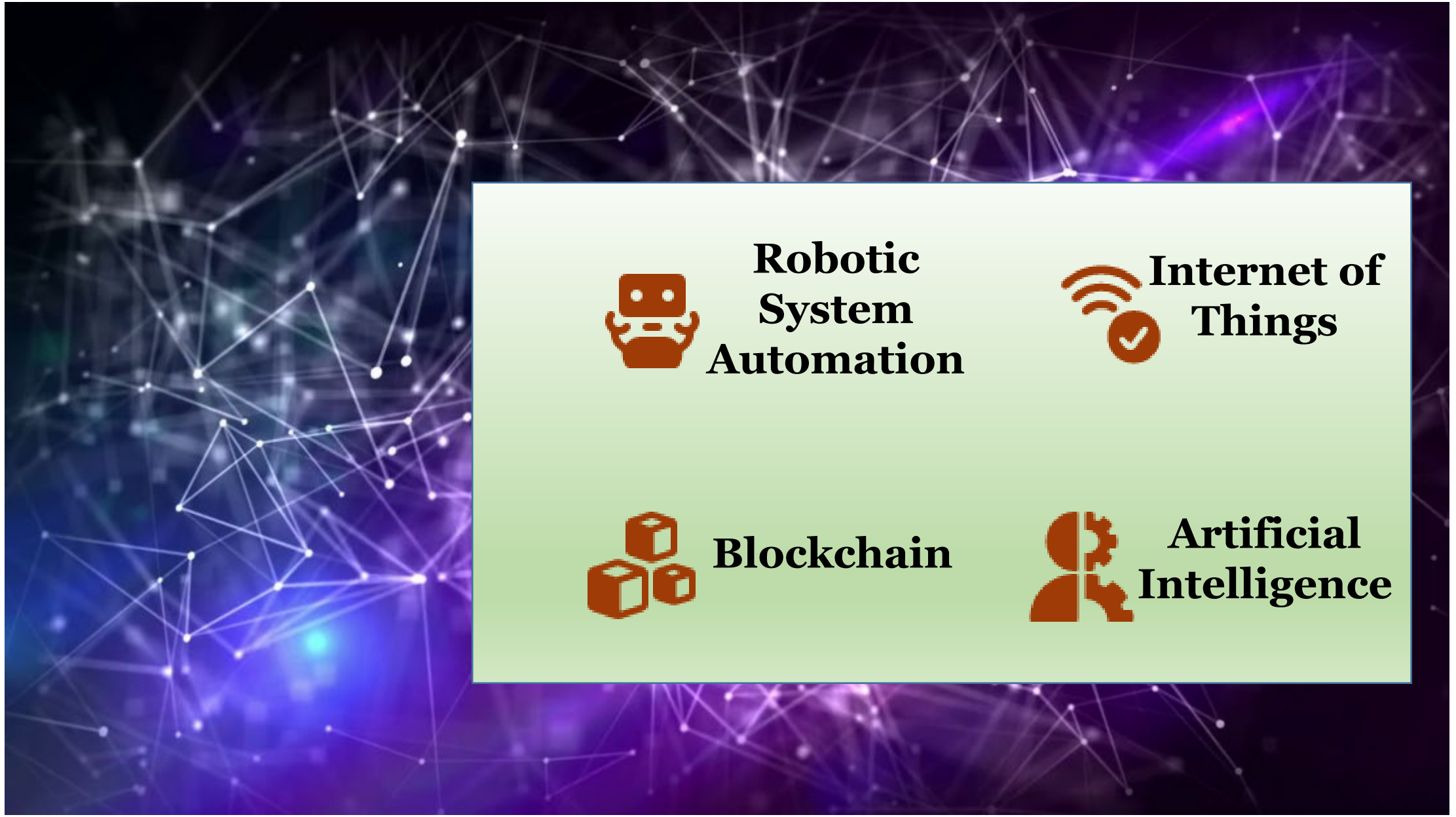
- Implementation of projects conducted by the DAT team
- Financing projects by international institutions (OECD, WB, BIT, EU)
- Monitoring of project performances
- Quality control of project outputs

What is Behavioral Public Policy?

People are «actually» not so rational when making decisions. The behavioural theory precisely develops on this point. The public sector, in that respect, can lead the citizens to «right» preferences by utilizing such theories.

- **Classical economic theory**
- **Behavioural the**
- **Nudge theory**
- **Choice architecture**

The Nobel Prize for Economics was given to Richard Thaler, author of the book "Nudge" in 2017. The same award was given to Daniel Kahneman in 2002 for his work in behavioural economics.


Robotic System Automation
Internet of Things
Blockchain
Artificial Intelligence

Decentralization

No Need for a Central Database

Multiple Data Providers

Authority is Shared

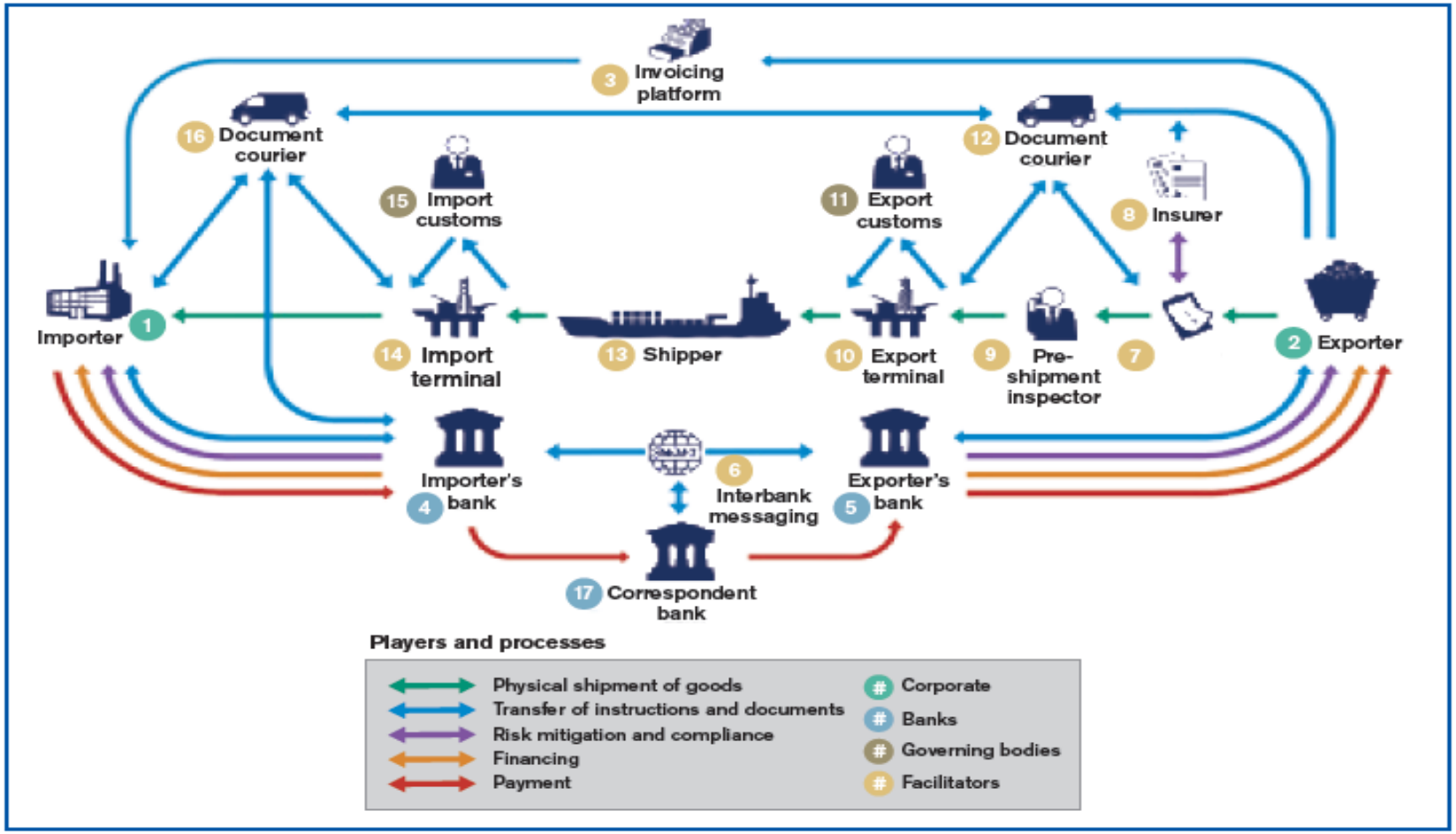
Issue of Trust

Consensus System btw pairs

Immutability

Strong Audit

The promise of Blockchain resonates with the challenges of cross border trade



Source: Boston Consulting Group (2017).

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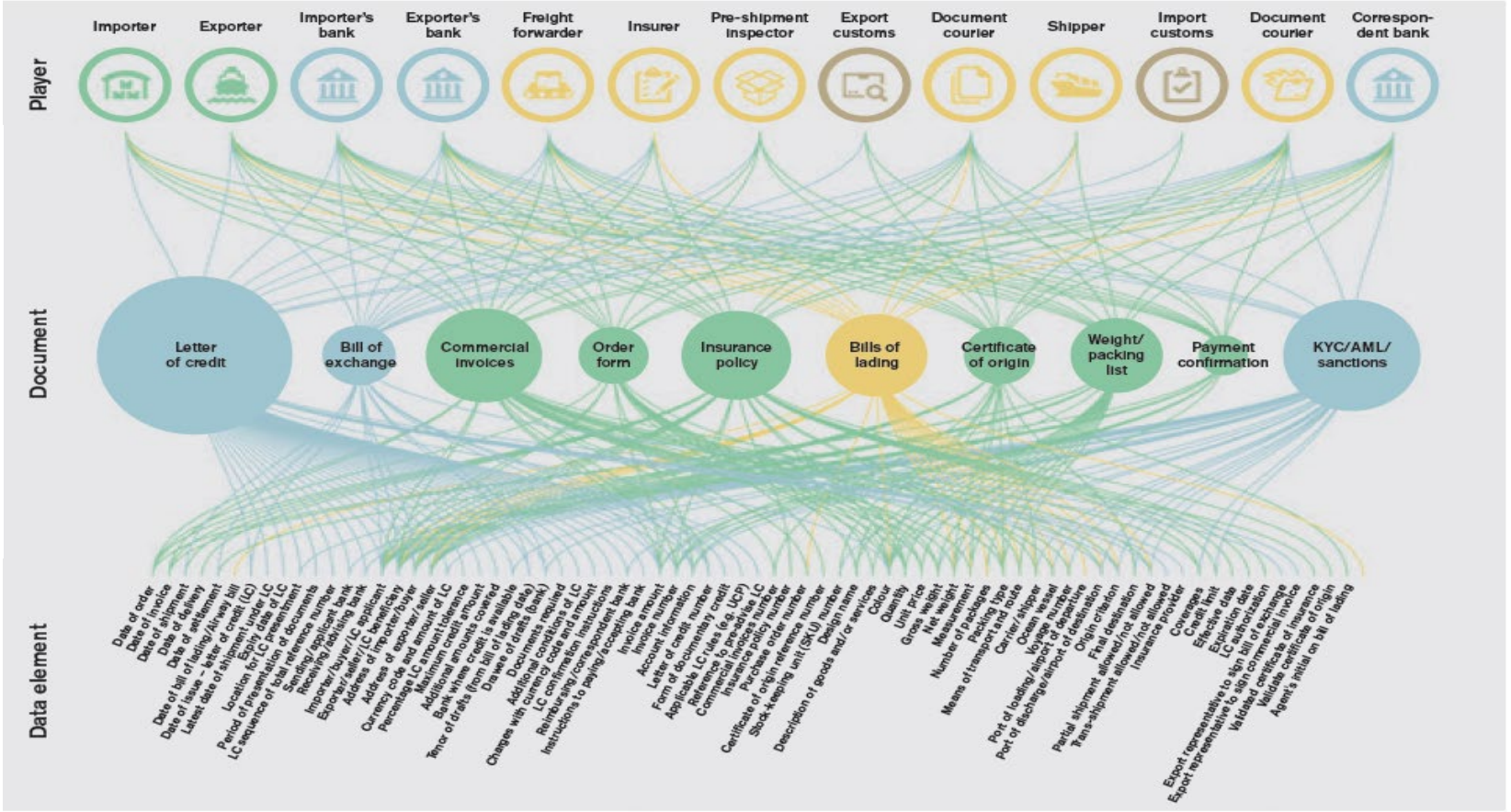
Repetitive sharing of many documents shared with many public authorities and private parties



Source: Boston Consulting Group (2017).

VISION : BLOCKCHAIN IN FOREIGN TRADE PROCESSES

Transferring all processes related to foreign trade to a system that works with blockchain infrastructure

Trade Finance

•A roundtable meeting was held on March 21, 2019 with 40 representatives of 17 banks.

•Meetings were held with the IBM team, the developer of “we.trade”.

•The payment systems were discussed with the CBRT (TCMB).

•A meeting was held with EMRA (EPDK) and CMB (SPK) and data security issues were discussed.

•Talks in progress with Singapore throuh Commercial Counselor

•A meeting was held with HSBC on 27 June

Customs Procedures

•Meetings were held with Microsoft, IBM, Bosch, Swisscom Blockchain, Procivis

•A workshop of origin was held with Microsoft.

•Two workshops were held with Bosch.

•Talks progressed with Atez Software, Lean Power Solutions, T2 and Dusoft

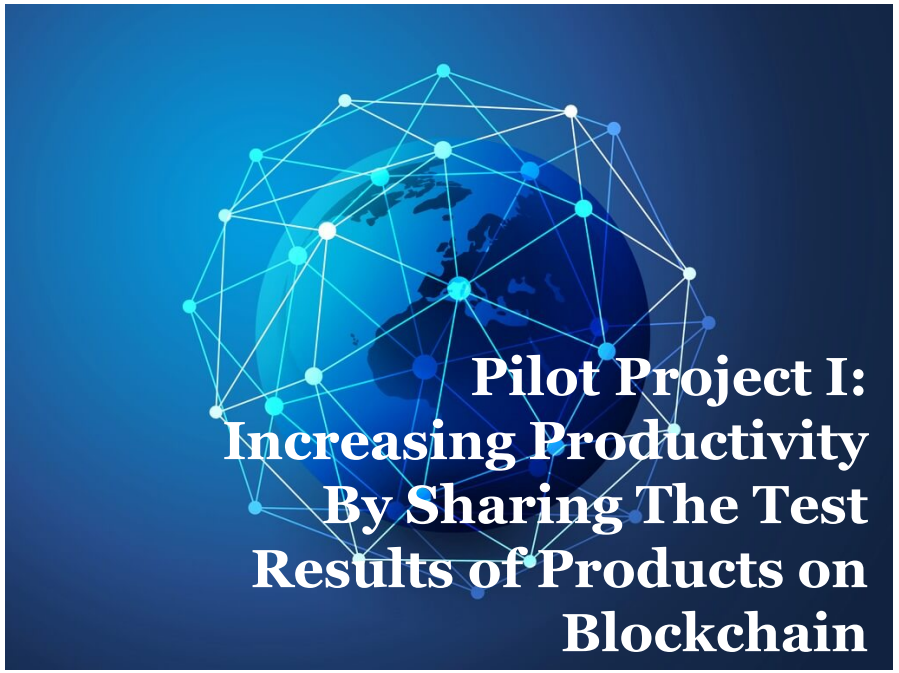
•The bids of the firms were evaluated

•The London Chamber of Commerce was contacted.

Logistics&Transport

- A meeting was held with IBM on Tradelens and the entry specifications were reviewed.
- An export scheme to the Netherlands has been studied with BTP.
- Meetings were held with Samsung on the Nextledger platform.
- Courses have been taken to understand customs processes.

PILOT PROJECTS



Pilot Project I: Increasing Productivity By Sharing The Test Results of Products on Blockchain

PROBLEM: There are overlaping tests done by different authorities during import and export processes for the same products.

Ministry of Agriculture and Forestry

product safety tests

Ministry of Trade
DG of Product Safety and Control

commercial quality control tests

Ministry of Trade
DG of Customs

determination of HS Code tests

SOLUTION: Applying a Blockchain solution enabling to share the test results executed by different parties, so that no any party will repeat a test that is already done by another party

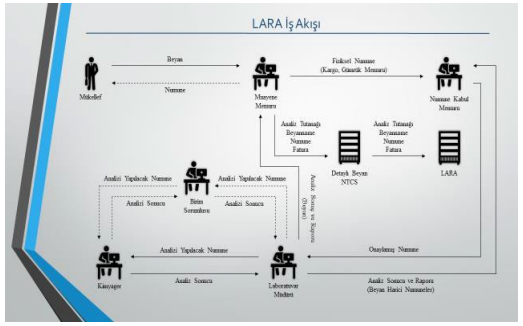
Lowering Costs for Firms

Increasing Cooperation between Public Authorities

Easier process monitoring for firms and the government

Pilot Project I: Increasing Productivity By Sharing The Test Results of Products on Blockchain

Established a working group



Completed the process mapping

Organized field visits

Integrated the Project into Presidency Action Plans

Organised a workshop in cooperation with the

Pilot Project II: CCW (Convention of Chemical Weapons) KSS Export Certificate

- Turkey is a party to The Wassenaar Arrangement On Export Controls For Conventional Arms

- This document is chosen because of:

i. Its clear-cut procees within one Directorate (DoE)(İHR)
ii. Being an electronic document in TPS
iii. Subject to control of sensitive materials

What we have done so far:

• A project team was formed together with the General Directorate of Exports, IT Department, a bank and a technology company.

• A project calendar was created by identifying the phases and sub-processes of the project.

• A comprehensive legislative analysis and system architecture have been drawn up to date.

• The installation of the servers required for blockchain technology in our Ministry has been completed.

• The analysis phase of the network architecture is currently in progress.
• After the analysis phase, the chaincode software process will start.

Government Blockchain Conference, Enrollment of The Ministry to BC Turkey Platform

To raise awareness on the benefits of using Blockchain in the public sector.

Memorandum of Understanding signed with BlockChain Turkey Platform

400 people from 60 different institutions

INTERNATIONAL COOPERATIONS

Singapore

A working group was established working on a joint project for using blockchain in bilateral trade.

- Europe based, a European Commission supported association
- Businesses, countries and international organizations are members
- We signed an invitation letter to join in.
- We are invited to the convention in Malaga in November,19

European Blockchain Partnership

OECD

OECD BLOCKCHAIN POLICY FORUM

WORLD TRADE ORGANIZATION

Can Blockchain revolutionize international trade?

Collaboration on Digital Economy

Singapore

- Ministers started a cooperation on April 2019
- A working group was established to identify the priority areas to foster bilateral trade

Digitising paper based documents

Sub working groups are working on e-certificate of origin and SPS documents

Exploring the use of Blockchain through a pilot project

Cooperation on InfoComm Media Development (IMDA)s e-lading Blockchain project

Challenges

Necessity for Strong Cooperation among different institutions particularly in cross border trade

Global use cases a mostly PoCs and pilots which arises questions on interoperability and scalebility

Minimum change in existing procedures and legislation to move fast

New and Developing Technology which requires resources for capacity building of inhouse IT teams

Singapore: Pilot Project (PoC) will be completed

USA : A Project will be conducted within the Digital Dialogue

KSS Export: Phase 1 will be concluded. IT Dept. Of Ministry capable of coding blockchain

KSS Import: Phase 2 will start.

Olive Oil Test Certificates: First Project in Public Sector will be concluded.

TPS: Other documents in TPS will be evaluated for a pilot Project.

REPUBLIC OF TURKEY
MINISTRY OF TRADE

THANK YOU

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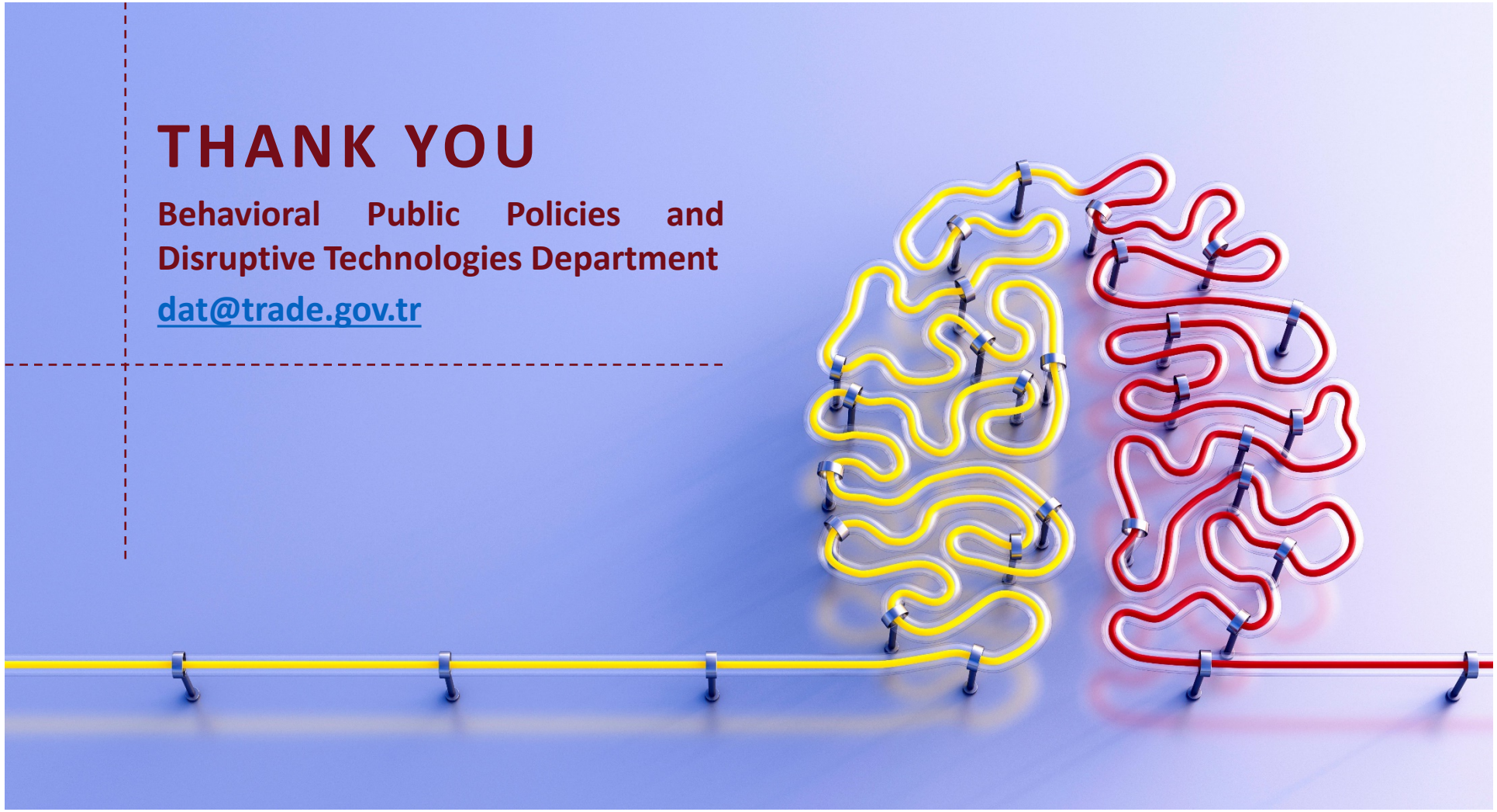
dat@trade.gov.tr