Cambodia Data Exchange (CamDX)

Nguonly Taing
31 Mar 2022

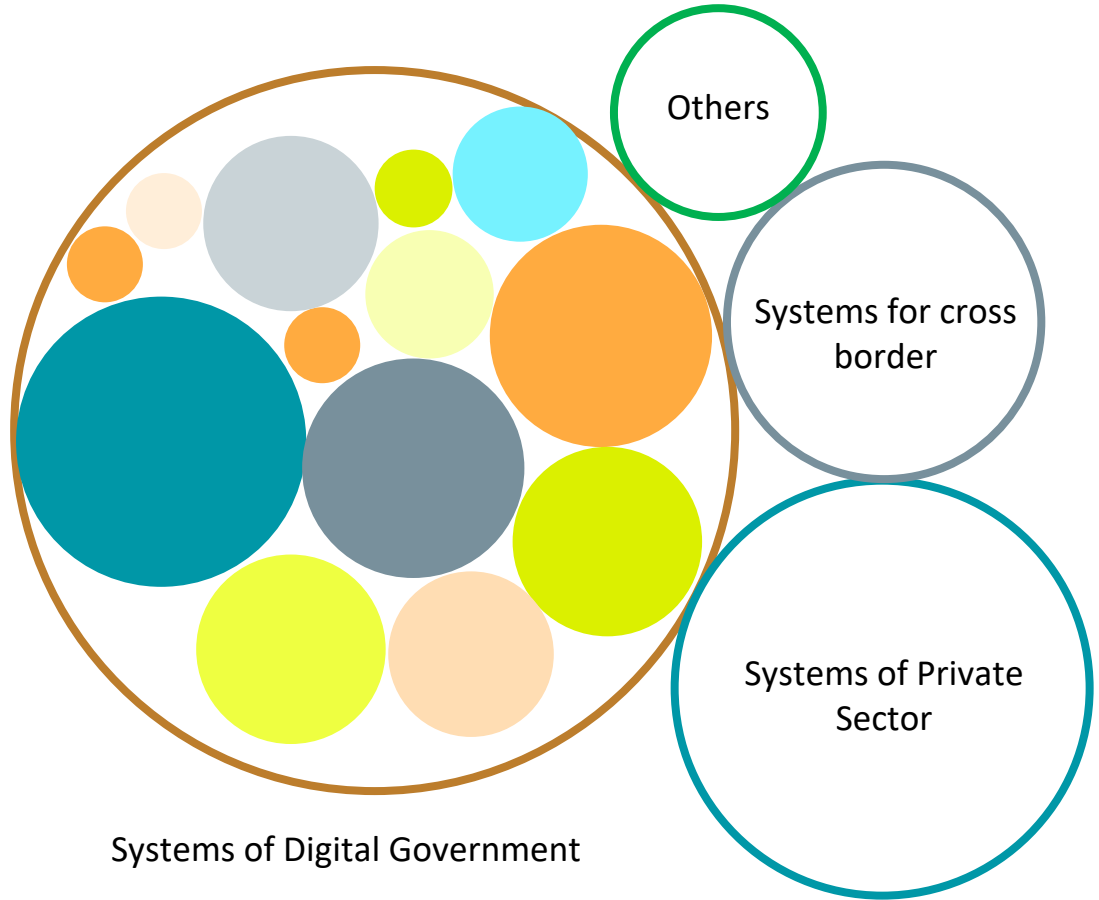Dissemination Workshop on Cambodia Digital Government Policy 2022-2035

CamDX

Systems of Digital Government

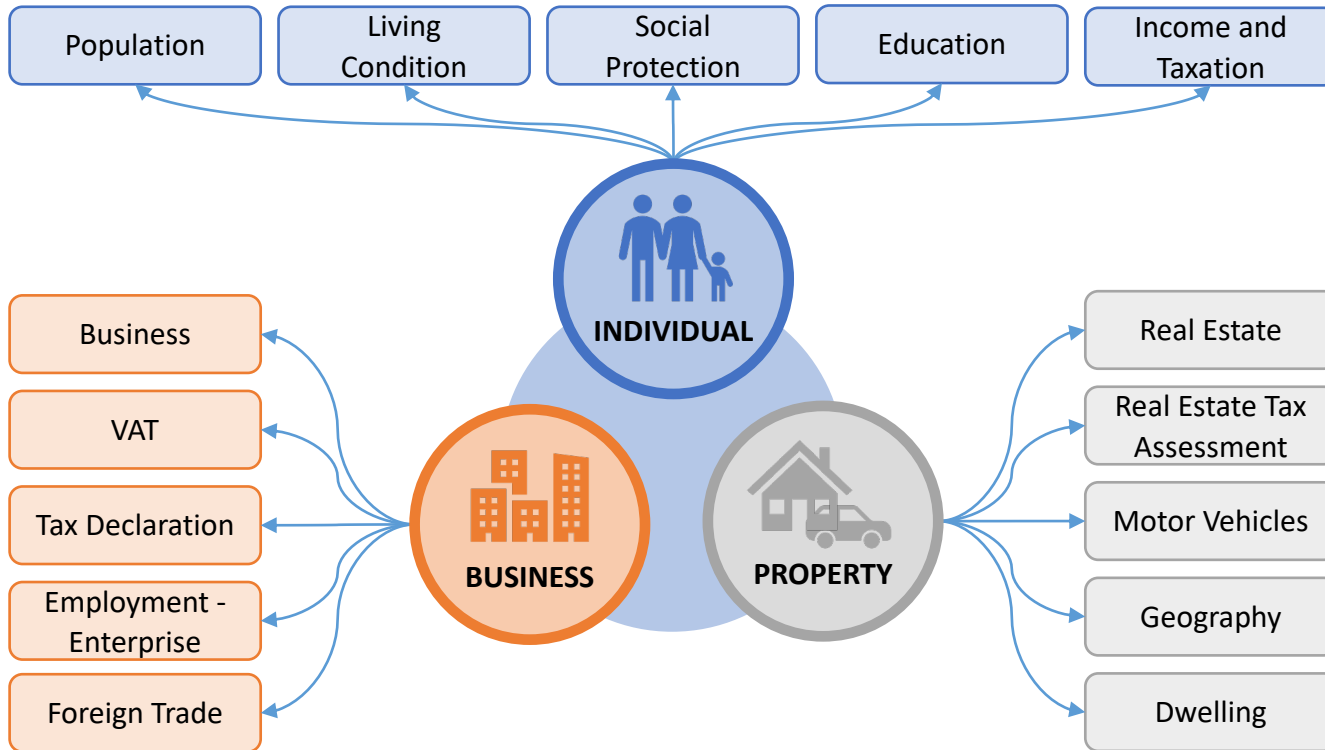At macro level, systems of digital government are viewed as one.

At micro level, systems of digital government are composed of many functional systems.

Unfortunately, the systems are fragmented, and it lacks a technological infrastructure to share data.
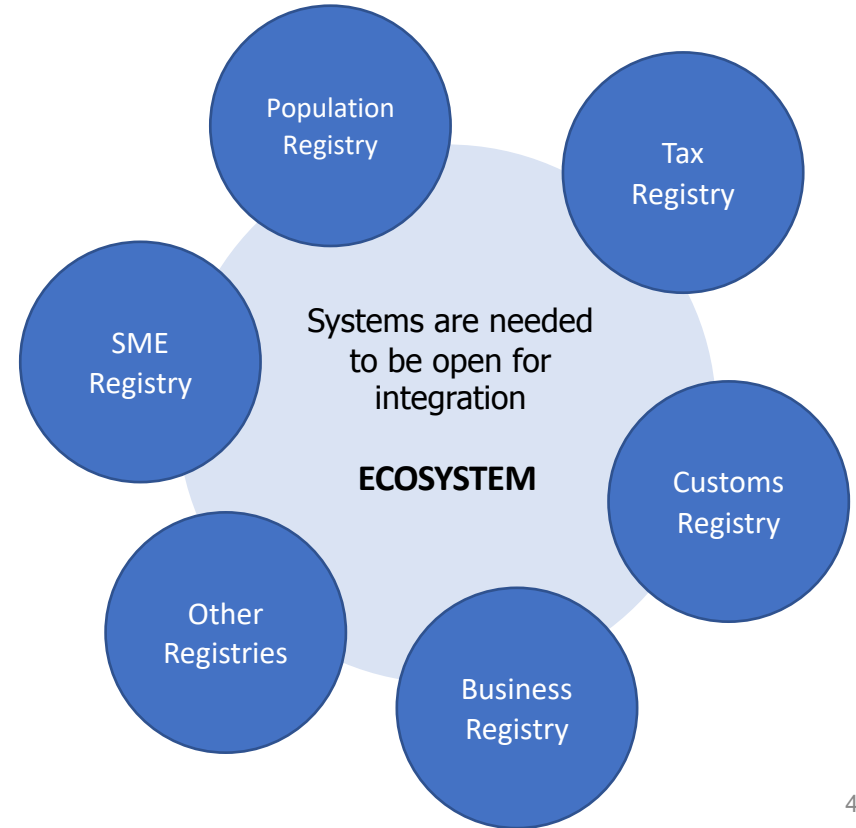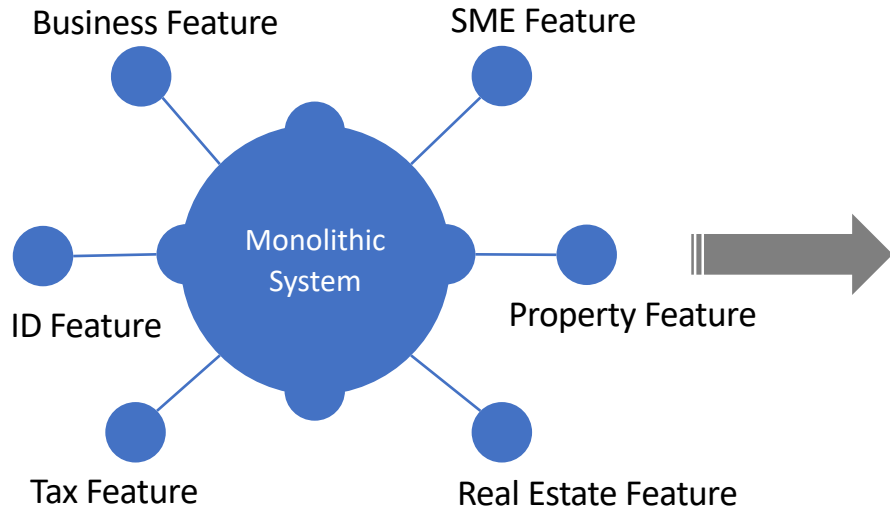
Others

Systems for cross border

Systems of Private Sector

Systems of Digital Government

Basic Registries of the Government

Population

Living Condition

Social Protection

Education

Income and Taxation

INDIVIDUAL

Business

VAT

Tax Declaration

Employment - Enterprise

Foreign Trade

BUSINESS

PROPERTY

Real Estate

Real Estate Tax Assessment

Motor Vehicles

Geography

Dwelling

Monolithic System to EcoSystem

Business Feature

SME Feature

Monolithic System

ID Feature

Property Feature

Tax Feature

Real Estate Feature

Population Registry

Tax Registry

SME Registry

Systems are needed to be open for integration

ECOSYSTEM

Customs Registry

Other Registries

Business Registry

- Creating the complexity
- Hard to maintain and upgrade
- Data Ownership: Who owns data?

Data Exchange without CamDX

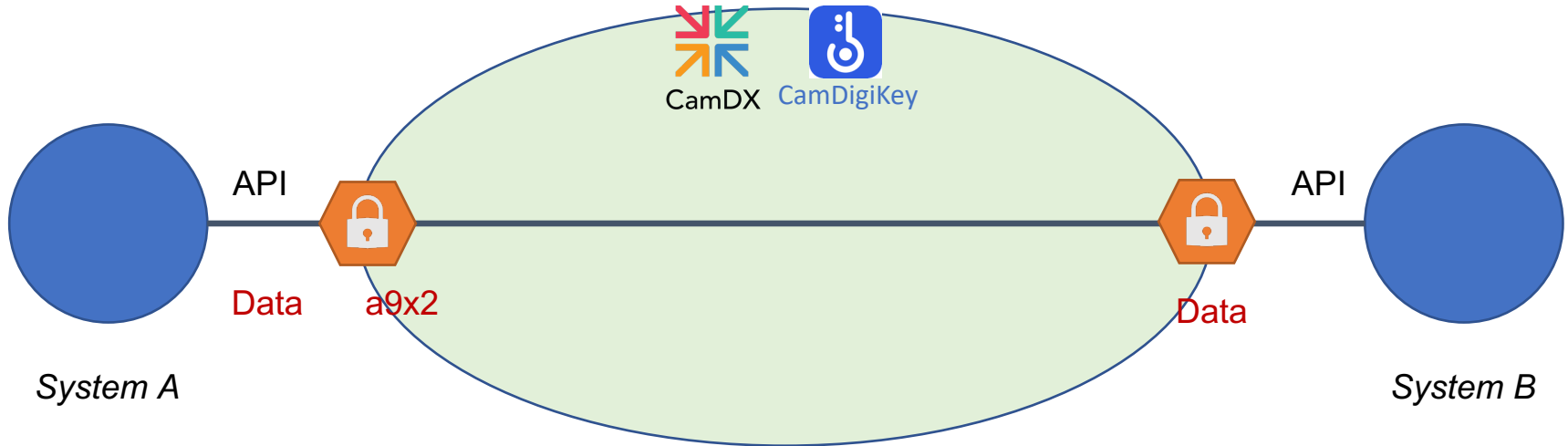API   API

Data

System A   *System B*

You will need to
- Handle security in data exchange by yourself
- Bilateral model which isn't suitable for digital government
- Lack of overview of service/API catalogue from an open government perspective

Data Exchange with CamDX

Data transmitted through CamDX is encrypted, digitally signed and timestamped with a trusted PKI component

PKI: Public Key Infrastructure

Interaction between Systems of Digital Government
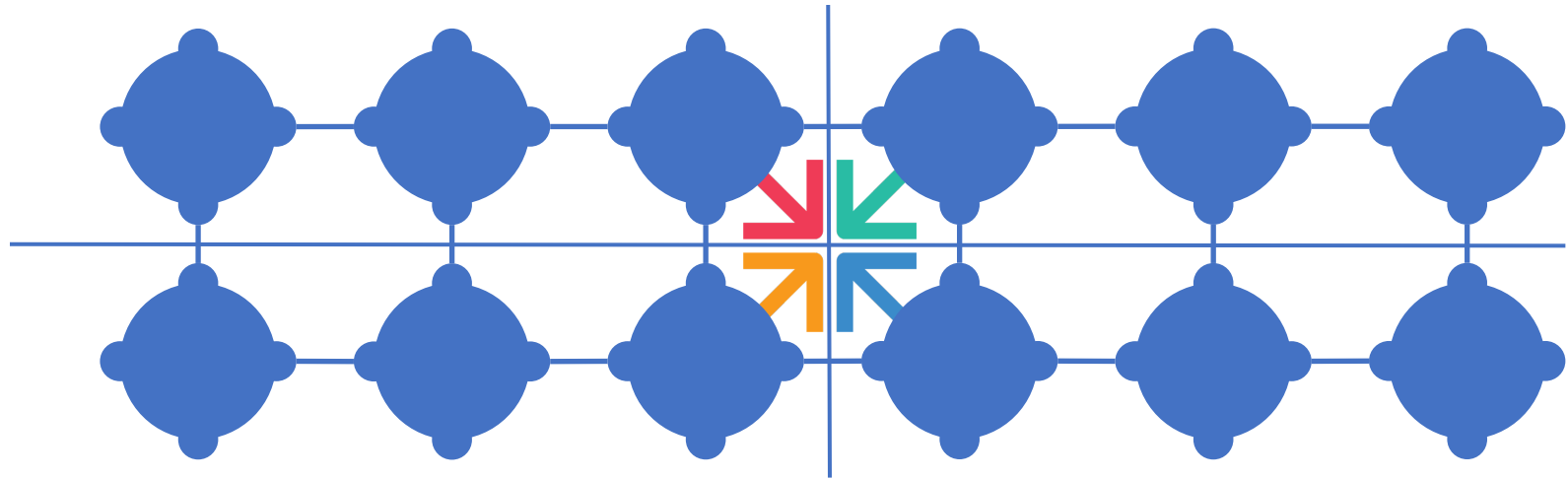
A mesh network of digital systems of respective ministries connecting through CamDX empowered by open data model.

Each symbol represents digital systems of a particular ministry/organization

What is CamDX?

Infrastructure

Secure data sharing and exchange & secure real-time integration

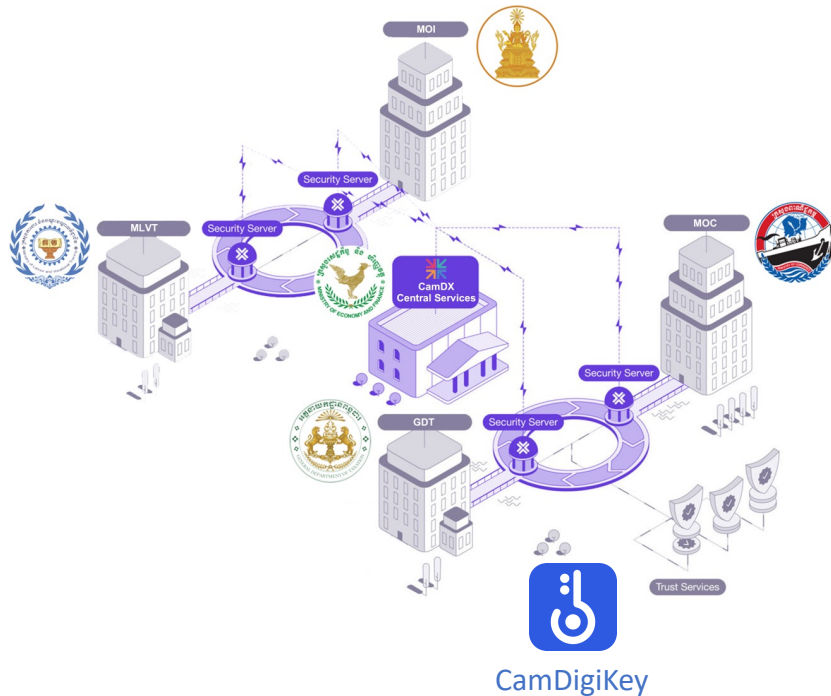## Technology

Modern API gateway; enable service interoperability; empower multilateral communication; secure by design
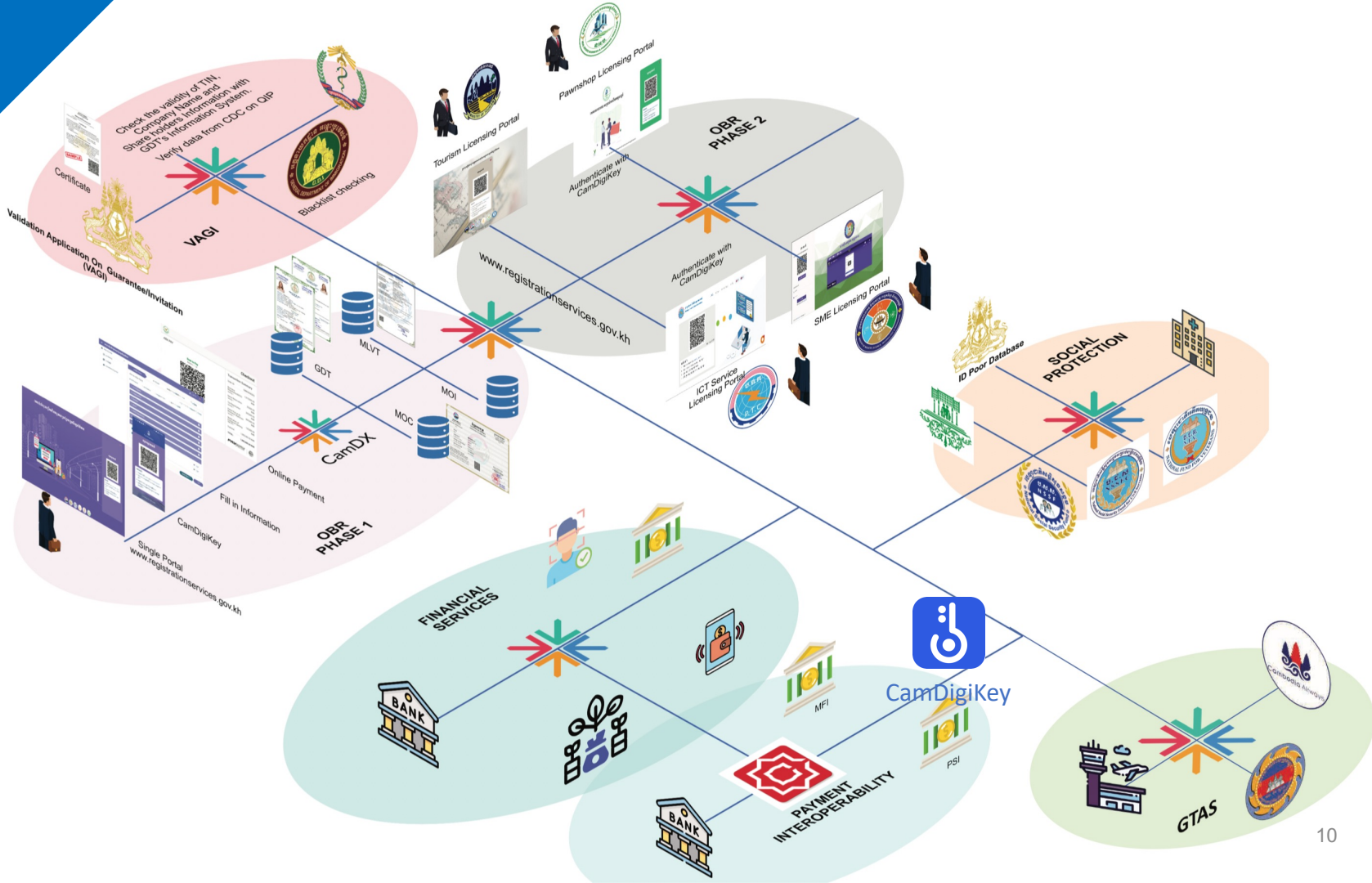
Legal Framework

Backed by the Royal Government; CamDX Subdecree and more to come

What CamDX Does?

CamDigiKey

1 Connect fragmented systems into an ecosystem

2 Do not own data of the members

3 Secure exchange data through API

4 Provide the full control of API to the members

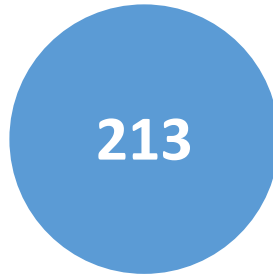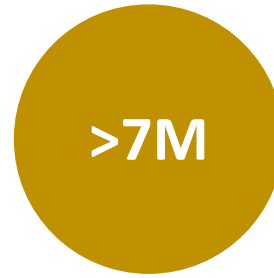**5** Improve system verification and data integrity
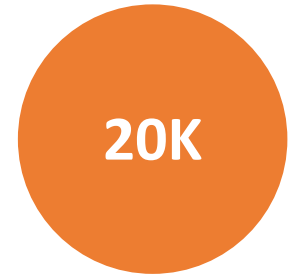
CamDX Ecosystem

CamDX in Number

11

213

>7M

20K

Members

APIs

Transactions

Avg. Transaction per Day

as of 29 Mar 2022

https://monitoring.camdx.gov.kh

CamStat of NIS and CamDX

MEF
1

MOEYS
4

MAFF
2

MOH
5

MOT
3

CamDX

NIS System

SDMX and Excel

CamStat data format
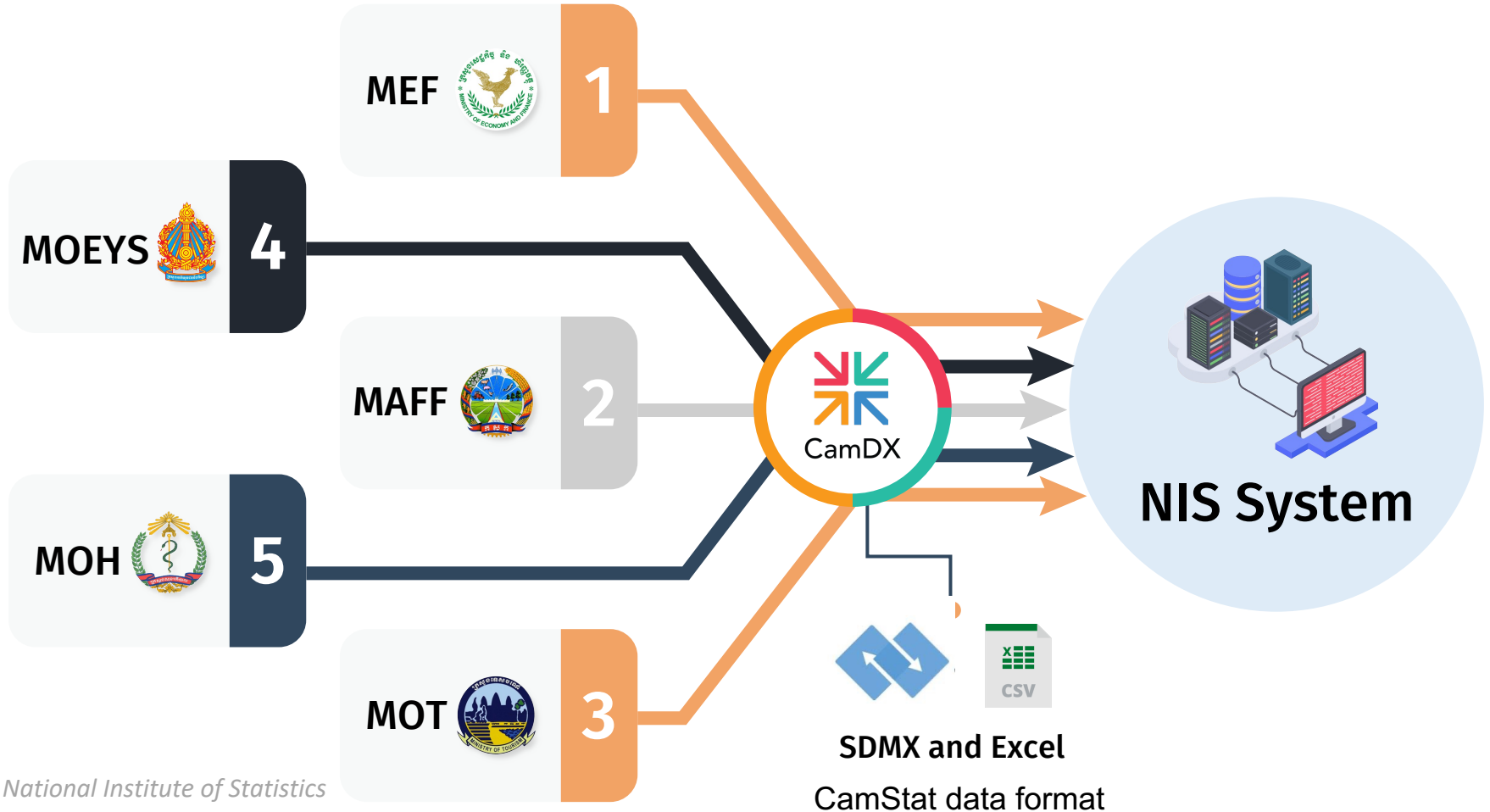
Conclusion

CamDX

A unified data exchange platform!
https://camdx.gov.kh

- A "**whole-of-government**" approach
- Simple yet proven to be working
- Guarantee ownership of the data
- Improve data consistency and integrity through open data
- Secure data exchange
- Minimize system change
- Design to be distributed and scalable; hence no bottleneck
- The more members to join, the better interaction for co-innovation with both public and private sectors
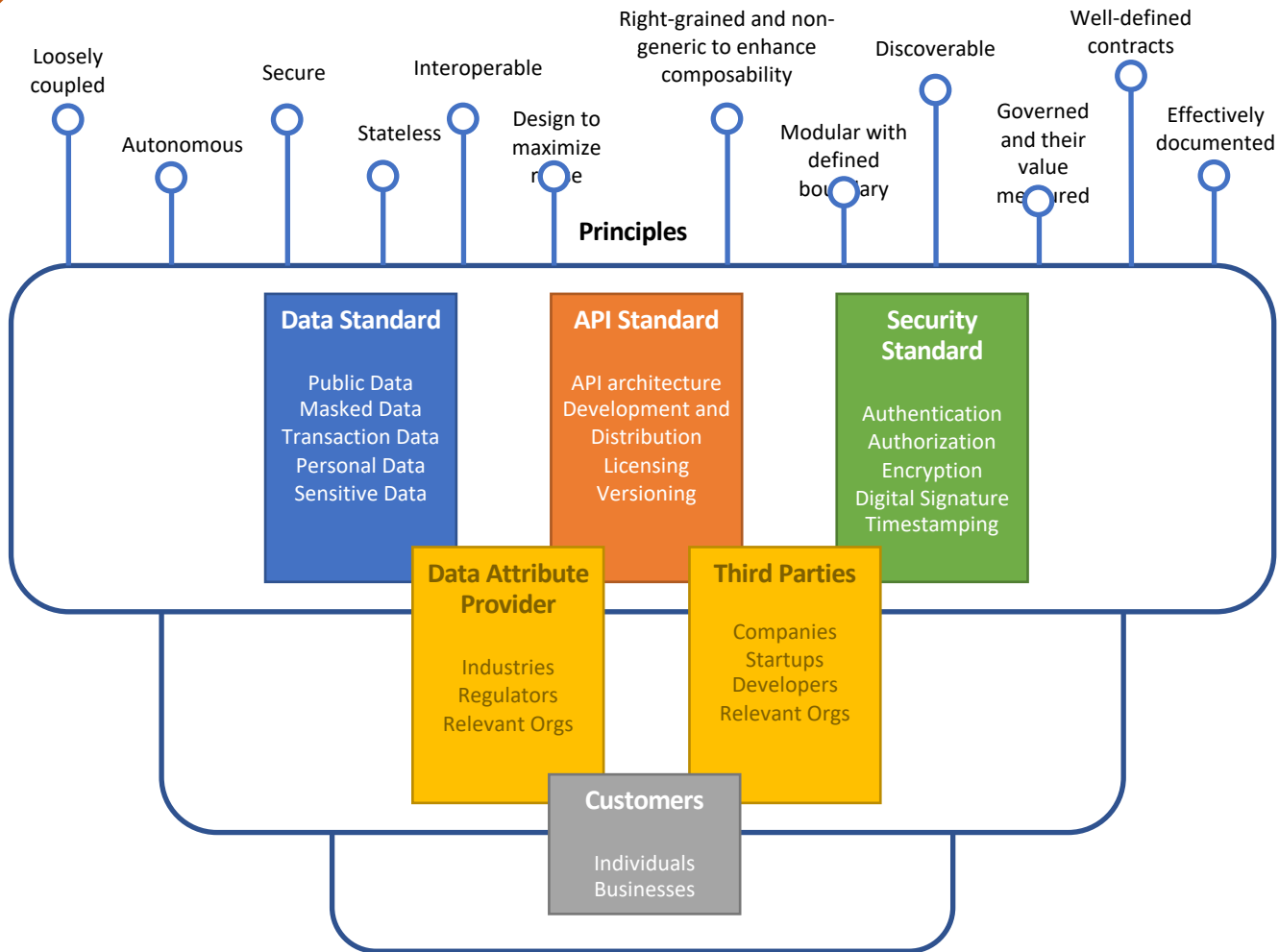- Government can capitalize the revenue from open data through API

14

THANK YOU

CamDX	CamDigiKey	Online Business Registration (OBR)	Techo Startup Center (TSC)
https://camdx.gov.kh	https://camdx.gov.kh/#camdigikey	https://registrationservices.gov.kh	https://techostartup.center