![emudhra — Trust Delivered]

# Digitizing India & Beyond!

Sep-2022

Speaker Profile

Vijayakumar Manjunatha

- Chief Technology Officer / SVP, eMudhra

- Chair of Technology and Standards Working Group of Asia PKI

- Expert member in United Nations UN/CEFACT

- Panel Member of BIS on IT / Digital Signatures

- Actively Involved with several Global Bodies: Asia PKI Consortium, CA Browser Forum, ETSI (ESI), FIDO, Cloud Signature Consortium, etc

- Part of First eSign implementation in India (2015) under Digital India Program.

- Instrumental in setup of first Global CA in India towards trusted SSL/TLS Certs, SMIME, etc

- Liaising with Microsoft, Google, Mozilla, Apple, Adobe, etc for globally trusted CA operations.

- Working in Webtrust Audited Ecosystem for more than 5 years, and compliance to all 5 seals of Webtrust.

- Involved in active discussions & consultations around Secure Digital Transactions through PKI / Electronic Signature space in Middle East, South & East Asia, African & LatAm countries

eMudhra enables enterprises and consumers to engage, exchange information and transact securely, efficiently and with enhanced **digital customer experience**.
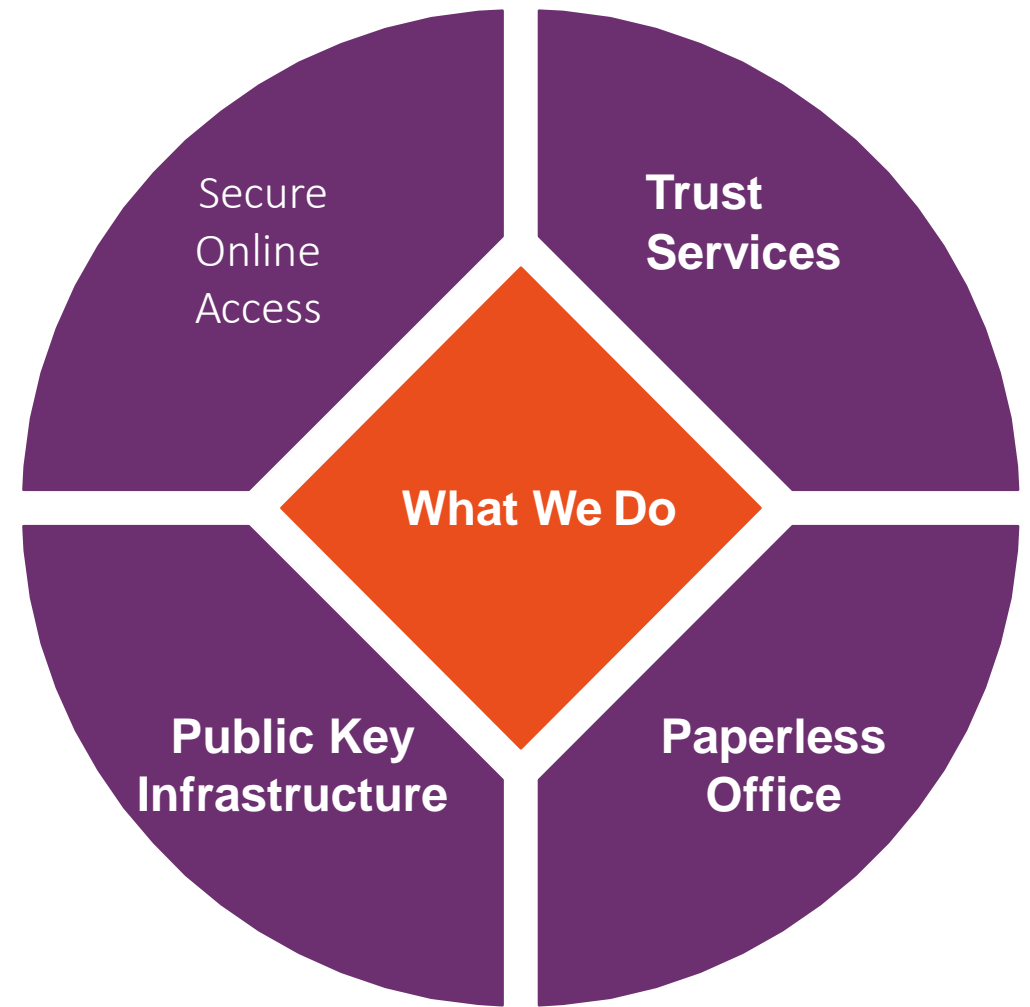
About eMudhra

- Proprietary IP across the **Trusted Digital Transformation** value chain

- 750+ employees | 7 offices | HQ – BLR

- Being at the forefront of PKI
  - CAB Forum member
  - Asia PKI Consortium Chair
  - Cloud Signature Consortium Executive Member with Board representation

- **Ranked 1st** in India in 'Identity & Digital Trust' by IDC for 2 consecutive years. Recognized by Gartner as a "Global Full Service Enterprise Solution" vendor

- **60 million+** certificates issued

Serving millions of customers and thousands of enterprises across 25+ countries & 5 continents

We operate Public PKI at a global level through our own trust anchors with several country-specific CA's.

We are webtrust audited and run webtrust compliant services where required

Gartner   IDC   CLOUD SIGNATURE CONSORTIUM   DIGITAL INDIA Growth is good   Asia PKI Consortium   United Nations   emudhra Trust Delivered

Though Leadership, Quality & Security

Global Memberships

## Quality and Security Certifications

Global Trust

Digital Security across the World

Our Digital Trust Reach

We have established a strong digital trust backbone across several countries either directly from our global trust services operations or through local partner tie ups providing our customers the ability to sign documents with legal validity globally

● Trust Service enablement under National root

● Trust Service enablement through global root

● Trust Service integration achieved through local technology partnerships
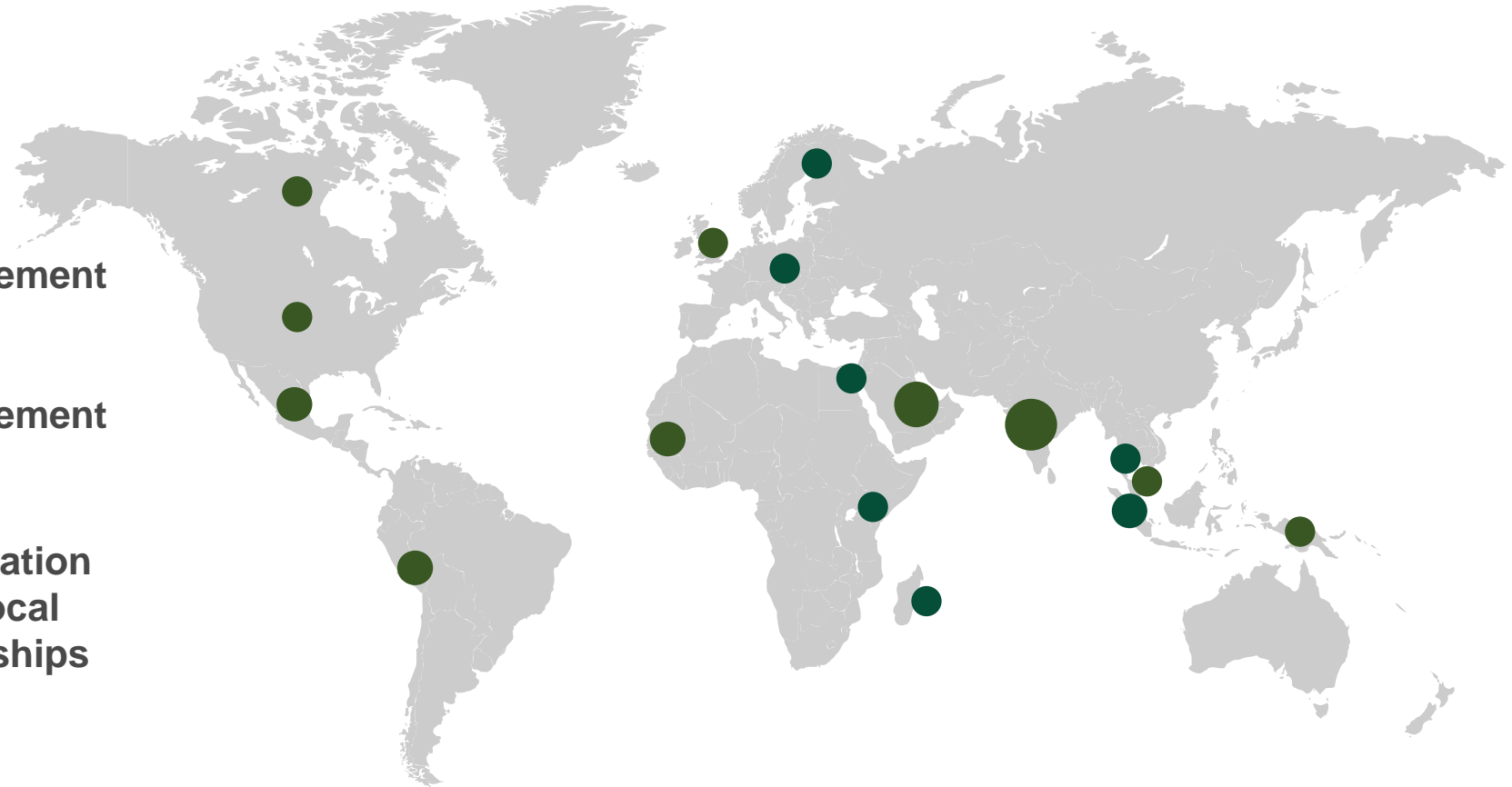
Globally trusted SSL/TLS

First Indian Company

One Among a Few Global SSL CA

Product range under global trust portfolio

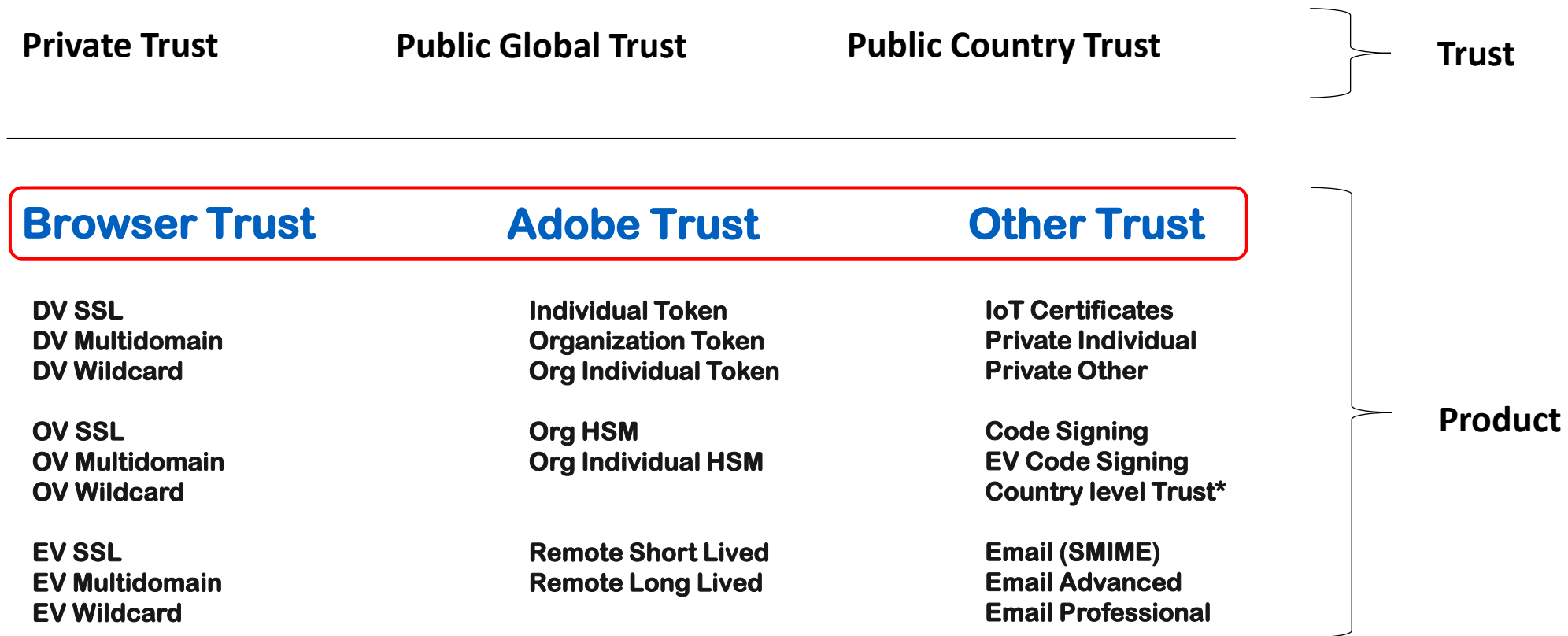| Document Signing Certificates	SSL / TLS Certificates	SMIME Certificates	CodeSign Certificates	Private CA / IoT / etc
REGIONAL	WORLDWIDE	WORLDWIDE	MICROSOFT APPS	CUSTOMIZED

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Trust Services Portfolio

| Private Trust | Public Global Trust | Public Country Trust | Trust |

| **Browser Trust** | **Adobe Trust** | **Other Trust** | Product |

DV SSL	Individual Token	IoT Certificates
DV Multidomain	Organization Token	Private Individual
DV Wildcard	Org Individual Token	Private Other
OV SSL	Org HSM	Code Signing
OV Multidomain	Org Individual HSM	EV Code Signing
OV Wildcard		Country level Trust*
EV SSL	Remote Short Lived	Email (SMIME)
EV Multidomain	Remote Long Lived	Email Advanced
EV Wildcard		Email Professional

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WebTrust

CA Conformity Assessment accepted Globally

WebTrust has been a Framework for a Globally Recognizable CA Setup, for SSL, SMIME and other certificates.

Only other alternative is ETSI EN 319 411 (1 and 2), which is adopted by Europe.

WebTrust Overview: The Trust Model

WebTrust: Various Seals

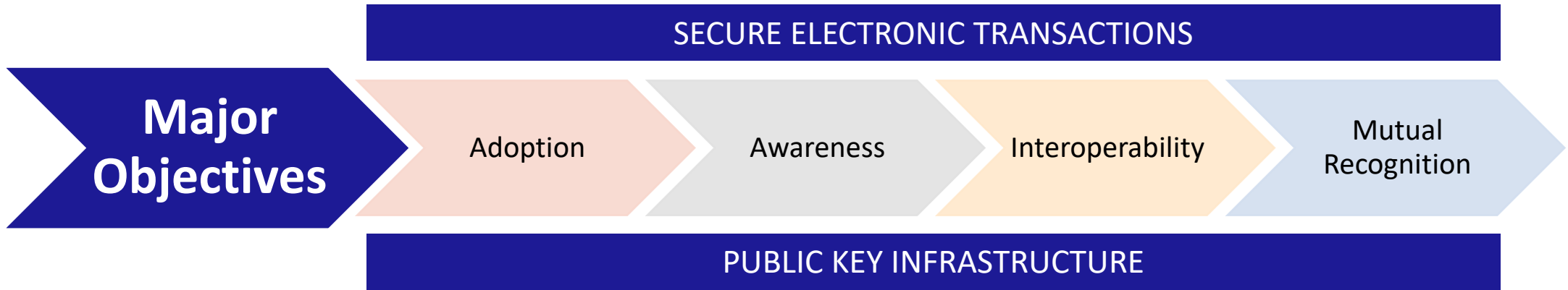|	
Principles and Criteria for Certification Authorities - Version 2.2.2	• Base requirement for any WebTrust Audit.
SSL Baseline with Network Security – Version 2.6	• CAs capable to issue SSL certificates
Extended Validation SSL – Version 1.7.8	• CAs capable to issue EV SSL certificates
Code Signing Baseline Requirements – Version 2.7	• CAs capable to issue Code Signing certificates
Verified Mark Certificates - Version 1.0 (NEW)	• CAs capable to issue Verified Mark certificates
Registration Authorities - Version 1.1 (NEW)	• Entities operating as External RAs, without holding CA Keys.

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Asia PKI Consortium

Working towards Mutual Recognition

Consortium Objectives

Major Objectives → Adoption → Awareness → Interoperability → Mutual Recognition

SECURE ELECTRONIC TRANSACTIONS
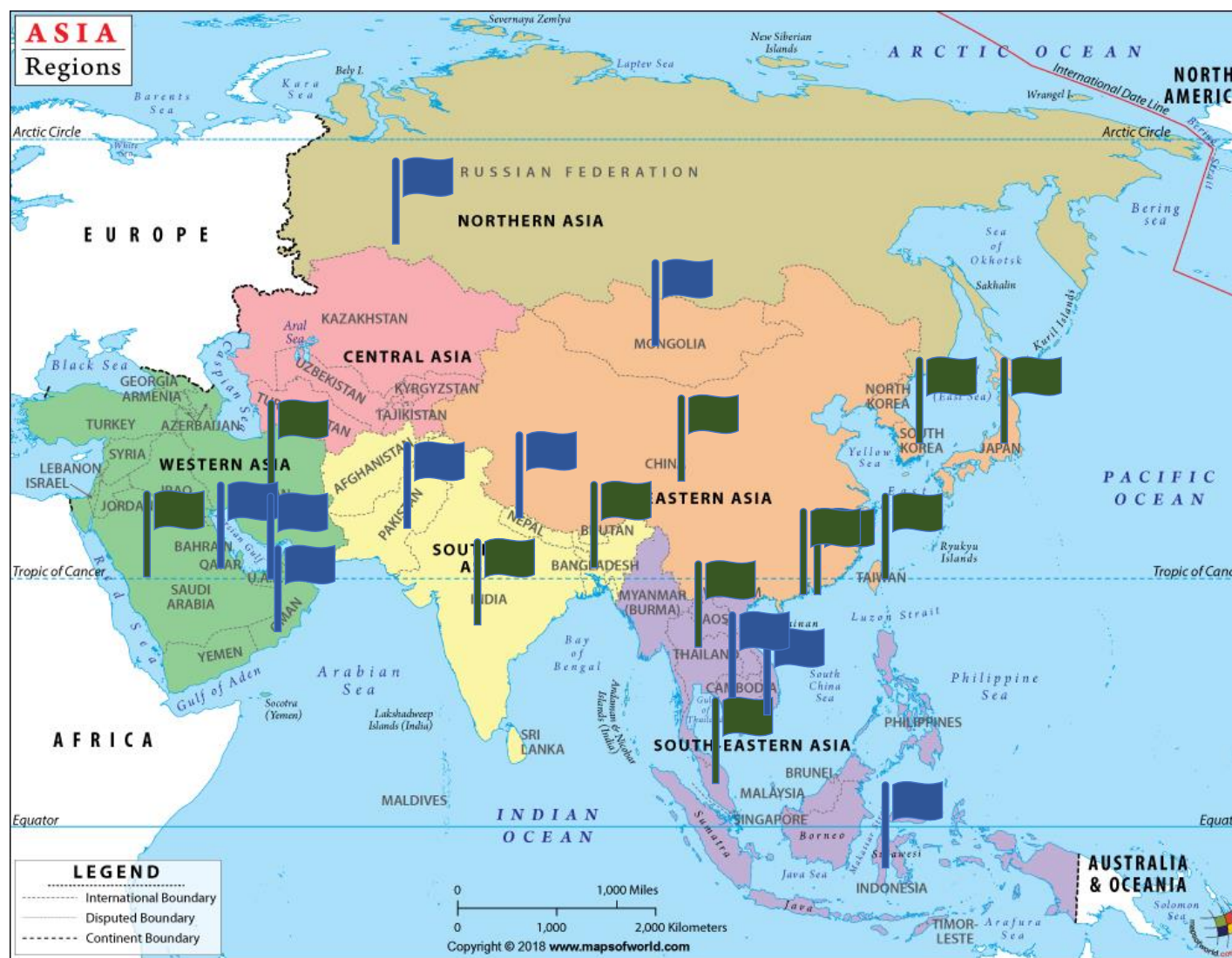
PUBLIC KEY INFRASTRUCTURE

Asia PKI Consortium

Membership Coverage

Consortium Governing Council

V. Srinivasan
Chair, India

William Gee
Vice Chair, Hong Kong

Ali Rahbari
Vice Chair, Iran

Chaichana Mitrpant
Vice Chair, Thailand

Asia PKI Consortium

Working Groups

1. **Business Application Working Group (BAWG)**

   Chair: Ms. Karen Cheng, Taiwan & Co-Chair: Mr. Vijay Kumar, India
   1. To resolve cross-domain & cross-region issues
   2. To promote the exchange and collaboration between members
   3. To explore and enrich the information applications & IT-enabled services

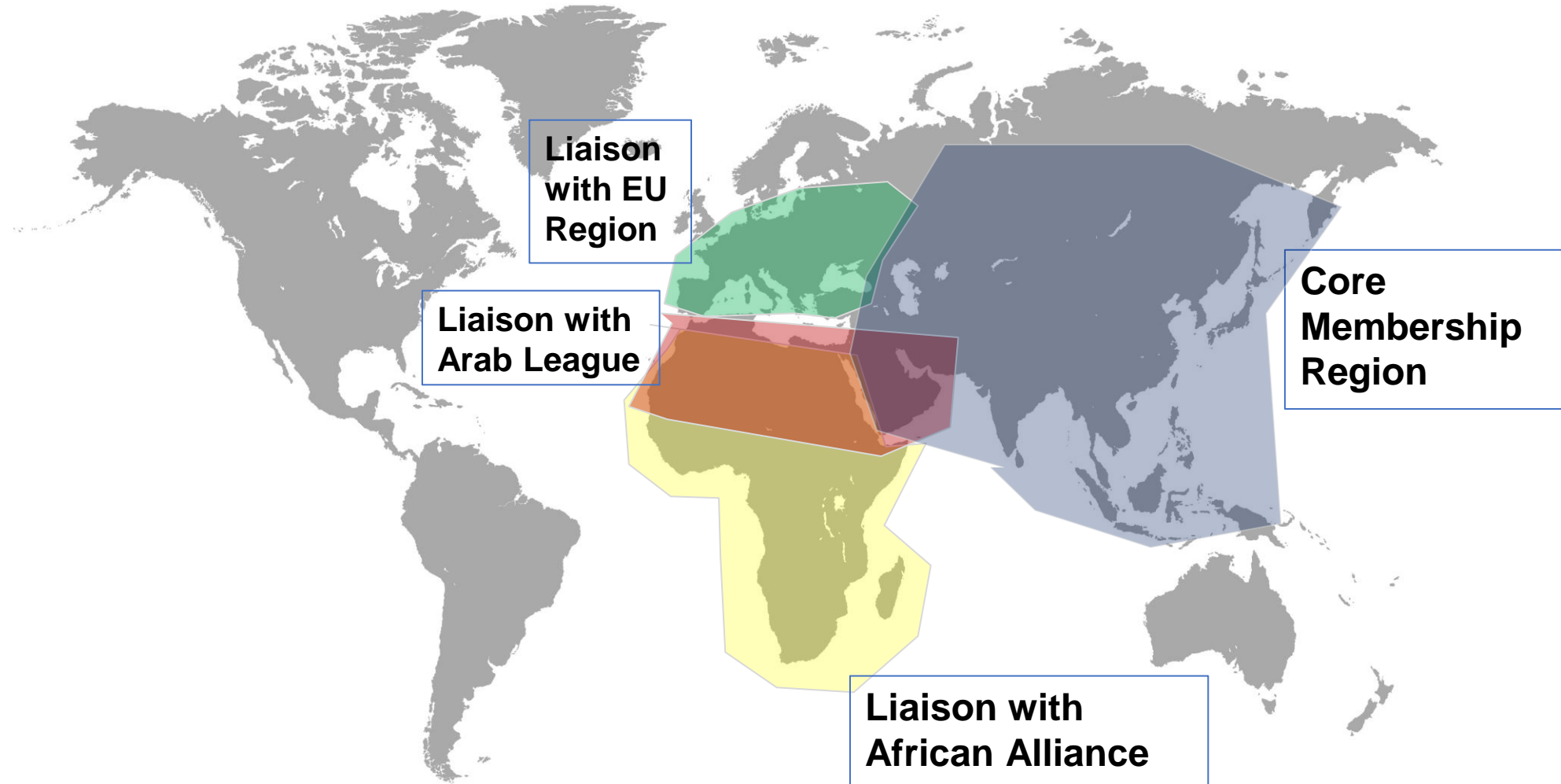2. **Legal & Policy Working Group (LPWG)**

   Chair: Mr. Gordon Szetu, Hong Kong
   1. To influence interoperability initiatives
   2. To collaborate with government and related industries
   3. To produce policy papers and regulative awareness among the members.

3. **Technology & Standards Working Group (TSWG)**

   Chair: Mr. Vijay Kumar, India
   1. To standardize and make technological advancements.
   2. To work on Public Key Cryptography, and the emerging technologies.
   3. To help bring technological platforms together for the members.
   4. To produce whitepapers and case studies

Asia PKI Consortium

Asia PKI: Global Cooperation Program

Liaison with EU Region

Liaison with Arab League

Core Membership Region

Liaison with African Alliance

Asia PKI Consortium

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India | Europe | USA | Singapore | UAE | Indonesia

Thank you!

eMudhra enables governments, enterprises and consumers to engage, exchange information and transact securely, efficiently and with enhanced customer experience.

Disclaimer