



Smart City

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IUDX

INDIA URBAN DATA EXCHANGE



Ministry of Housing and Urban Affairs

Government of India



National Data Exchange

- Unleashing the power of data for public good

29 November 2021

Kunal Kumar

Joint Secretary and Mission Director

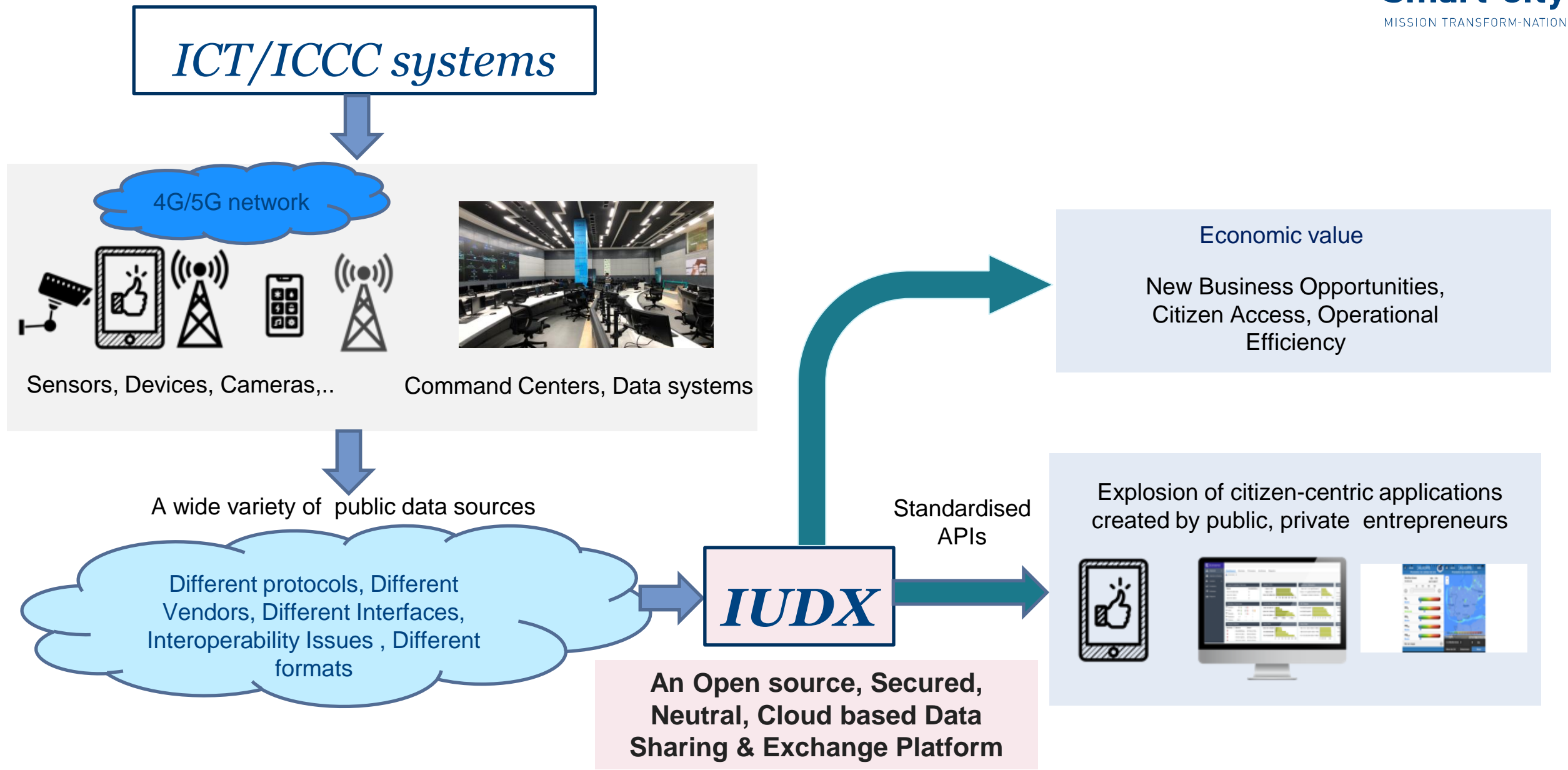
Smart Cities Mission, MoHUA



Ministry of Housing and Urban Affairs

Government of India

About IUDX



Enormous volumes of public data being generated in Indian Cities

Over **1.5TBytes** of IoT data

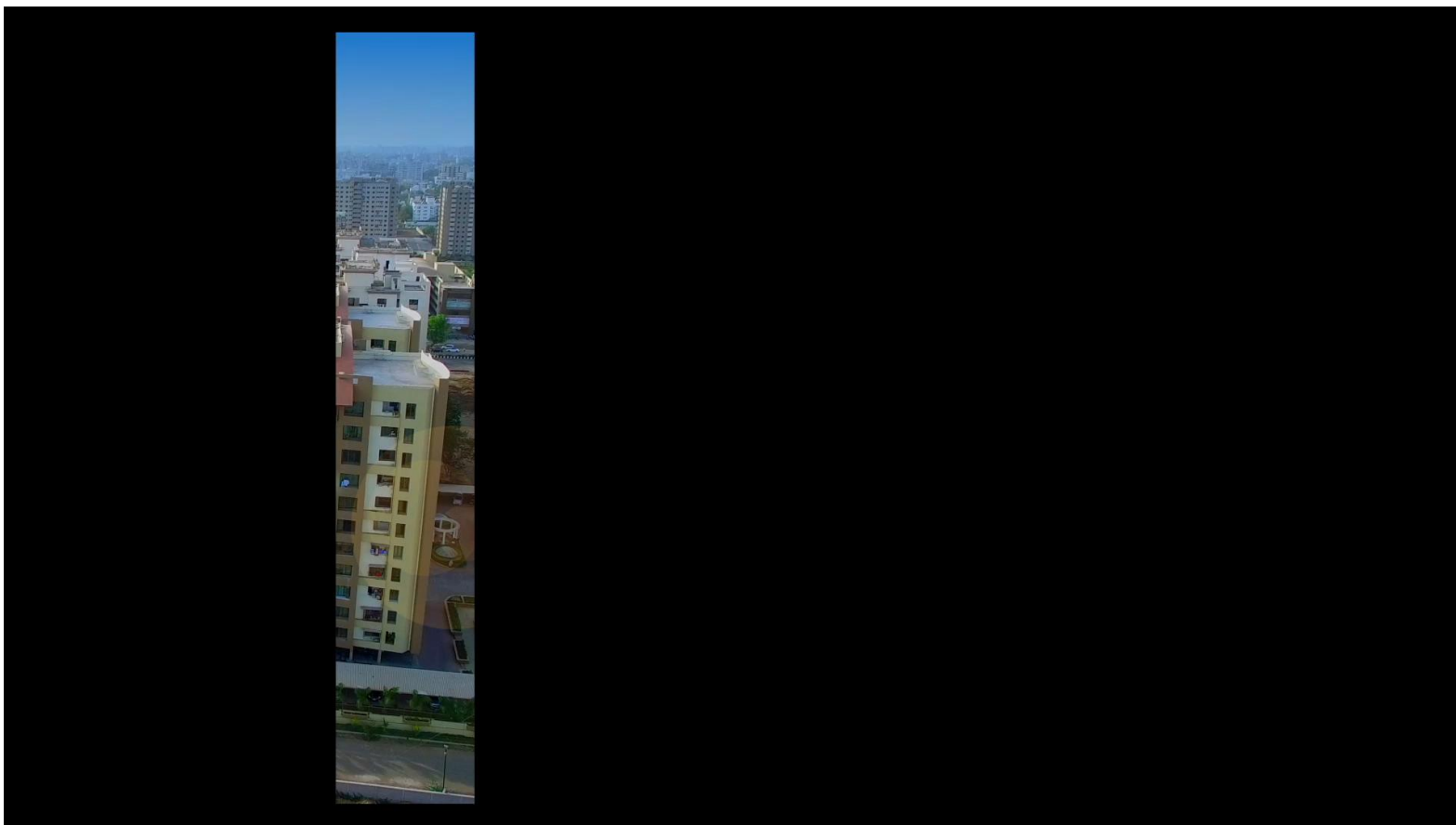
10 PetaBytes of video data **daily**

That can be used to **improve citizen's lives**

But.....

Inhibitors exist in **data silos**, and **security constraints**

IUDX breaks down these walls!



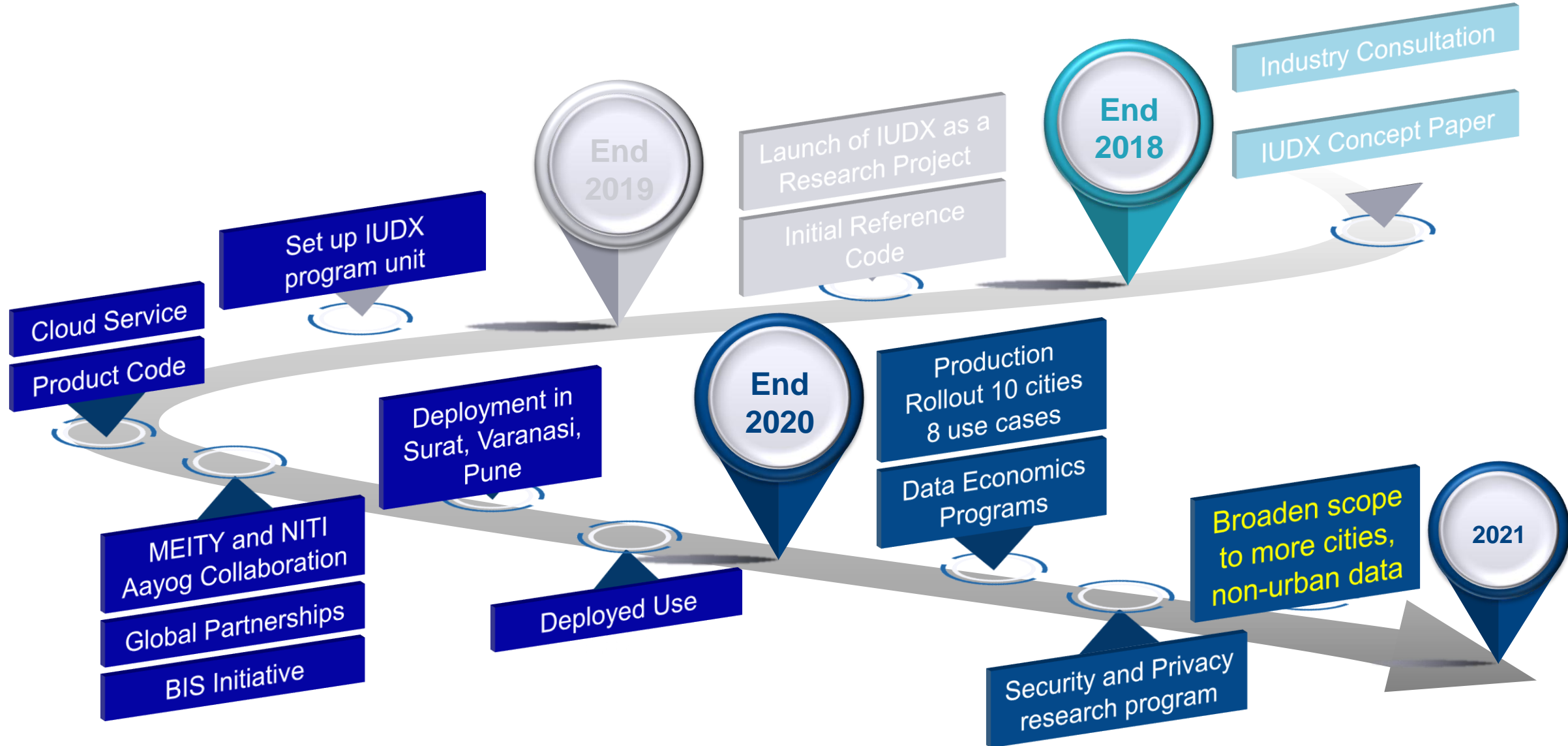
Short Video

The IUDX journey

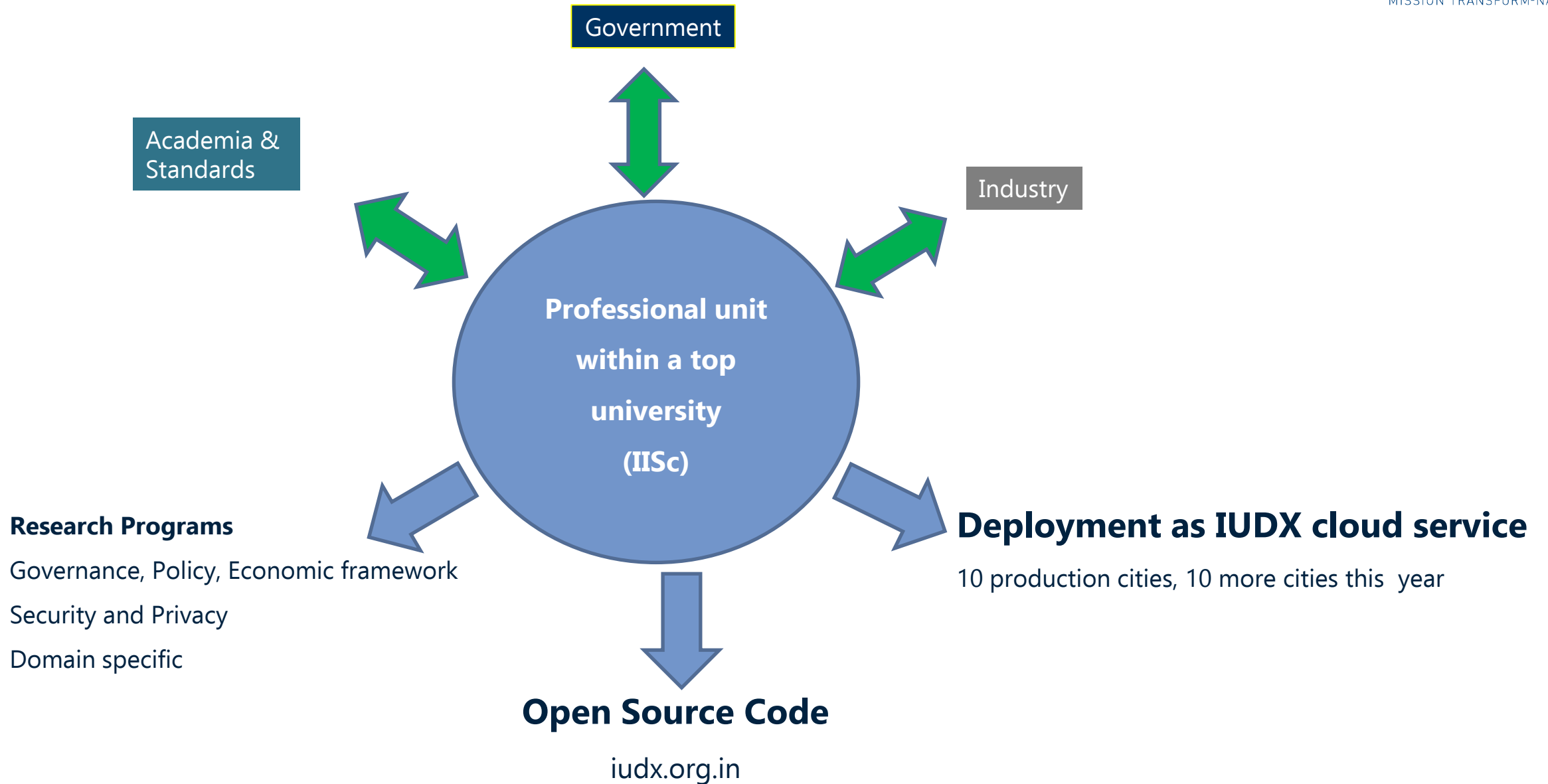


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Inclusive organizational model

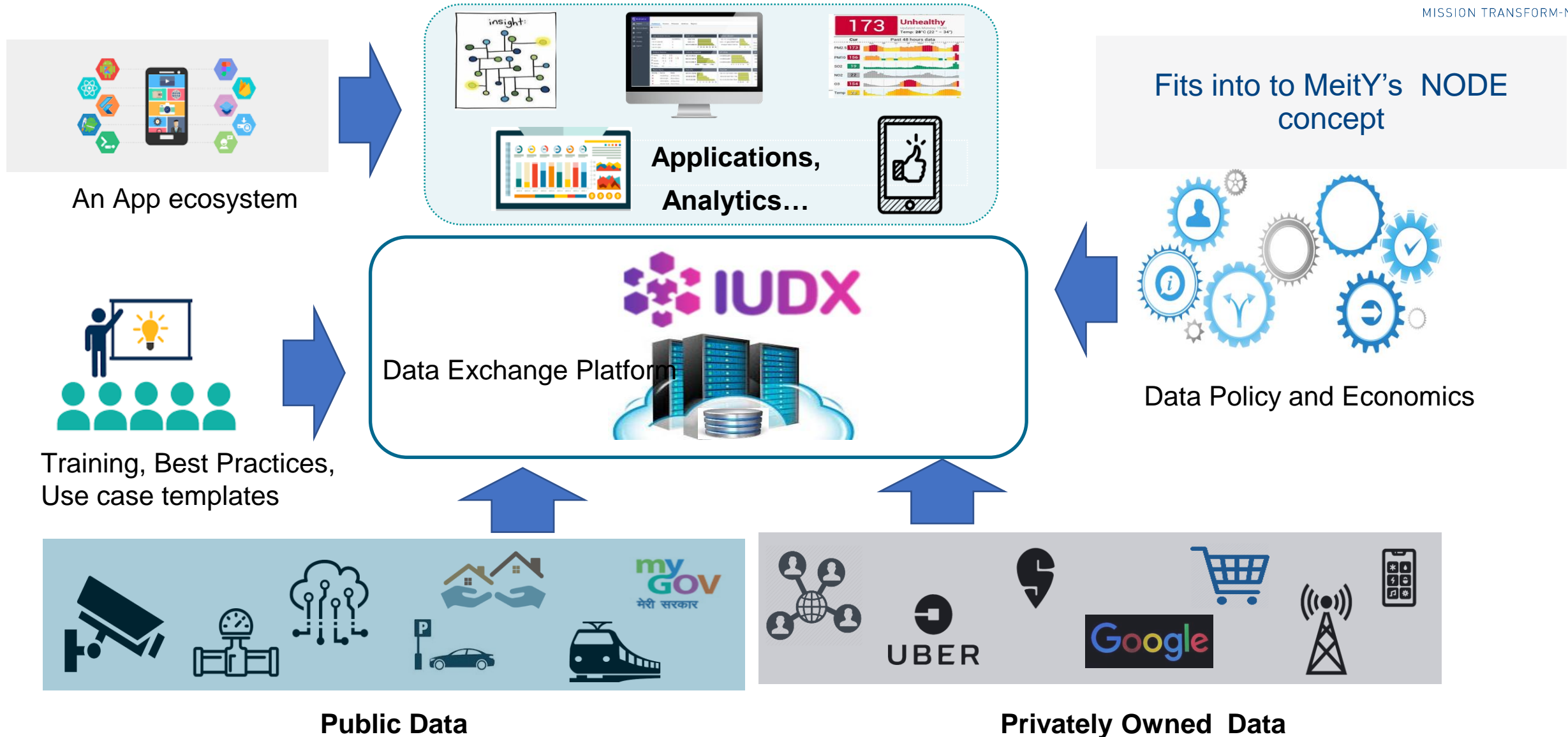


An urban governance data space built around IUDX



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Beyond smart cities

Domain specific data exchanges



Mobility

Healthcare



Can be used for all types of non-personal data

Agriculture



Industrial



An App ecosystem

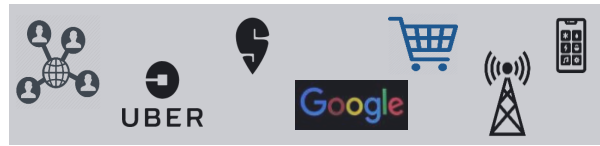


Applications,
Analytics...

Training, Best Practices,
Use case templates



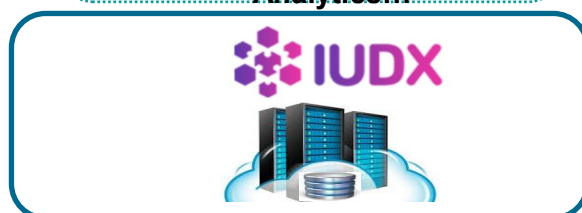
Public Data



Privately Owned Data



Data Policy and Economics

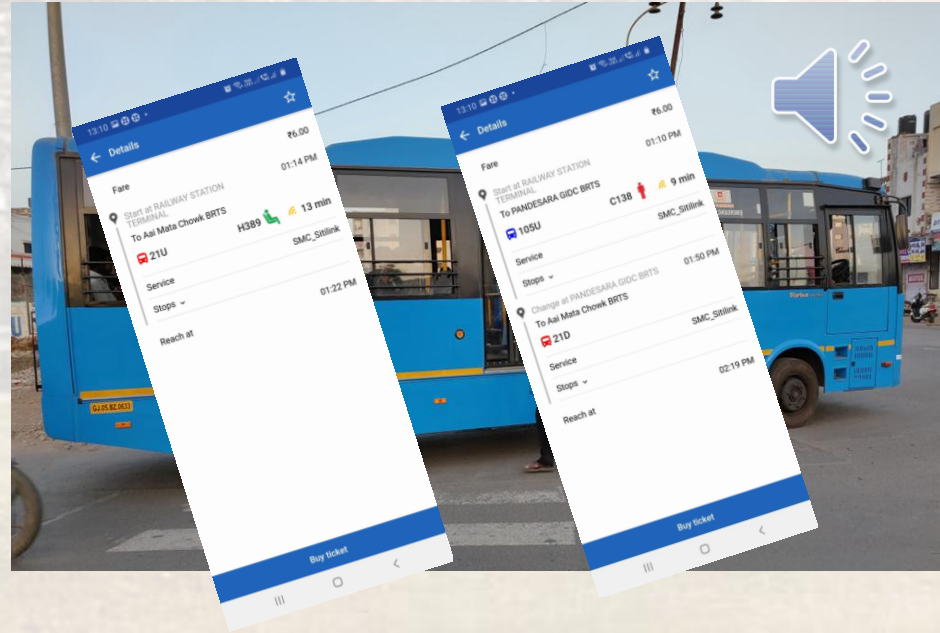




Cities Benefiting from Use of IUDX Through Multi-stakeholders Participation



Surat: Bus/BRTC occupancy level with Expected Time of Arrival



Business case:

- Current Revenue ~ 285 cr./year
- Current Expense ~ 319 cr./year
- Need for increased use of public Transport

With IUDX

- Envisaged revenue increase from ridership @ 2% : ~ **5.5 cr./year**
- Conservative assumption of **15% reduction in operational expenses ~ 42 cr./year**
- Surat bus transport **improves profitability**

Example datasets- Multi agency

Participation

- Chartered e-bikes
- Bus transit
- AFCS data
- Revenue collection by administration
- Solid waste management

Varanasi: Solid waste management optimisation



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Business case:

- Faster waste pick up with reduced traffic
- Lesser pollution and higher citizen satisfaction
- Cost cut of route optimization by 30%
- Envisaged expenditure reduction ~ **8 cr./year**



Example datasets:

- Civic issues
- Air quality monitoring sensors
- Location of Smart Elements
- Solid waste management
- E-challans for traffic violations
- Varanasi Smart Map / GIS

Pune: Safety index of places



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Business case:

- Saving lives and property
- Reduction in crime
- Patterns of travel to be shared to tourist guidance app for monetization

Example datasets:

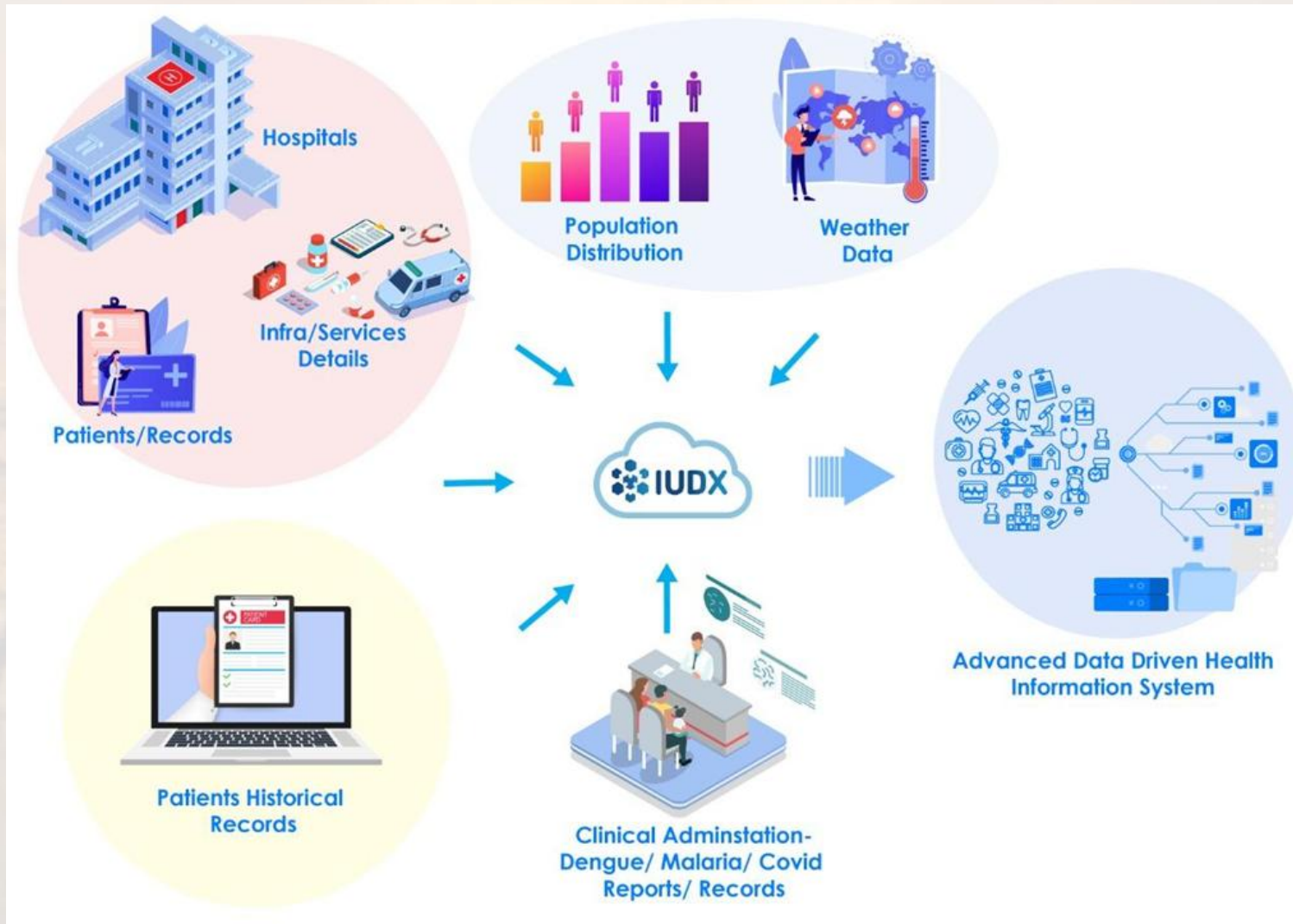
- Air quality monitoring sensors
- Flood sensors
- Current and forecasted rain data
- Location of Smart Elements
- Safety index of places

Pune: Health management information system



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Business case:

- Saving lives
- Huge cost saving in management
- Prevention of disease outbreaks

Example datasets:

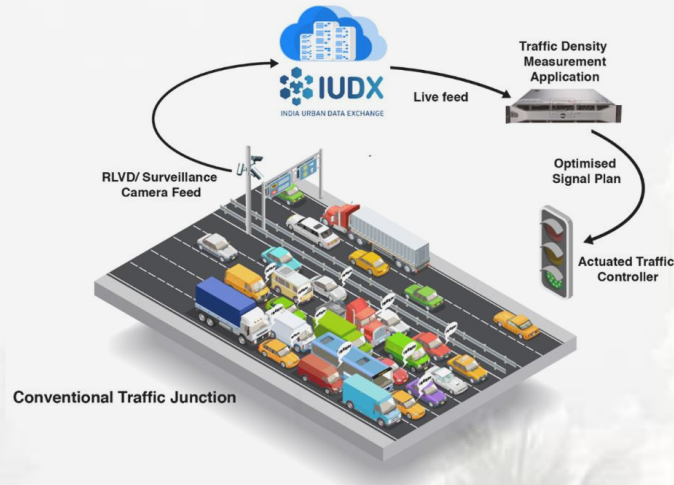
- Health care facilities/centres
- Patient information system/records
- Environmental datasets

Agartala: Integrate adaptive and conventional traffic lights



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Business case:

- Estimated Cost of ATCS signal: 20 Lakhs
- With use case: 7.5 Lakhs
- **Savings of INR 12.5 lakhs per signal**

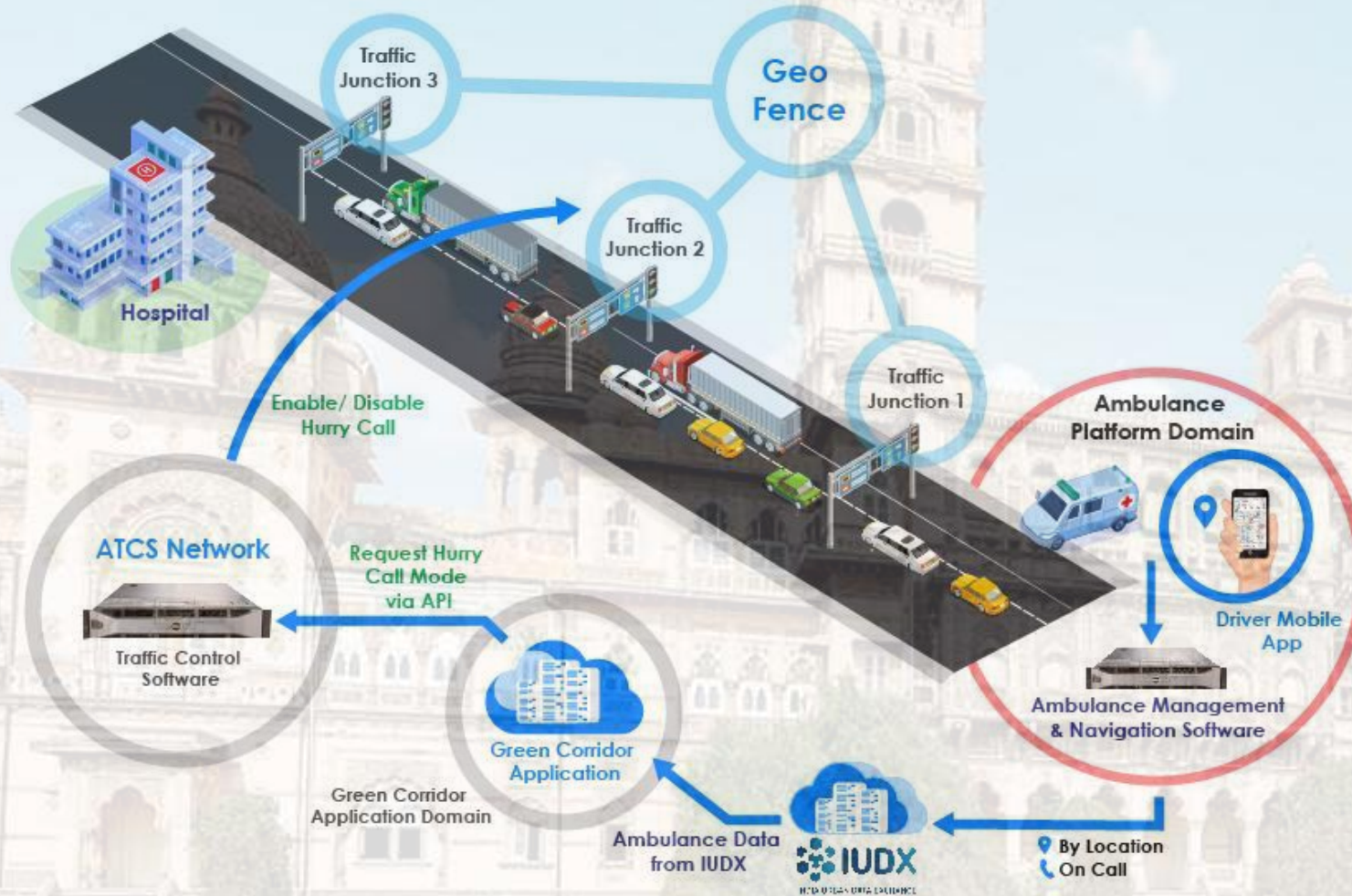
Example datasets:

- Surveillance/flood monitoring
- RLVD camera feeds
- Air quality monitoring sensors
- Location of Smart Elements





Vadodara: Green corridor for ambulances



Business case:

- Saving lives
- Reducing congestion and pollution for other commuters
- Reducing manpower requirements of manual green corridor

Example datasets:

- Civic issues
- Air quality monitoring sensors
- Location of Smart Elements
- Drinking water distribution network
- Realtime info of ambulances
- Solid waste management

Chennai: Flood warning and prediction



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Business case:

- Losses due to flood of about 8,000 Cr per year
- Predicting floods to reduce the losses by a considerable amount in addition to saving lives
- More efficiency due to reduction in disaster management manpower
- Monetization in real estate business

Example datasets:

- Air quality monitoring sensors
- Rain sensors
- Water level sensors
- Location of Smart Elements
- Parking data
- Smart bikes

Chennai: Revenue leakage detection



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Business case:

- Fixing financial drain at the ULB level
- Highlights critical loopholes in current property tax collection system

Example datasets:

- Property tax data
- Trade license data
- Electricity board data
- Water bill payment data
- GIS land use and building plan data

Bengaluru: Multimodal transport



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Business case:

- Reduced congestion, pollution, and carbon footprint
- Increase of revenue share of all transport services by 1.5 to 2%
- Monetization through subscription fees or in-app advertisement

Example datasets:

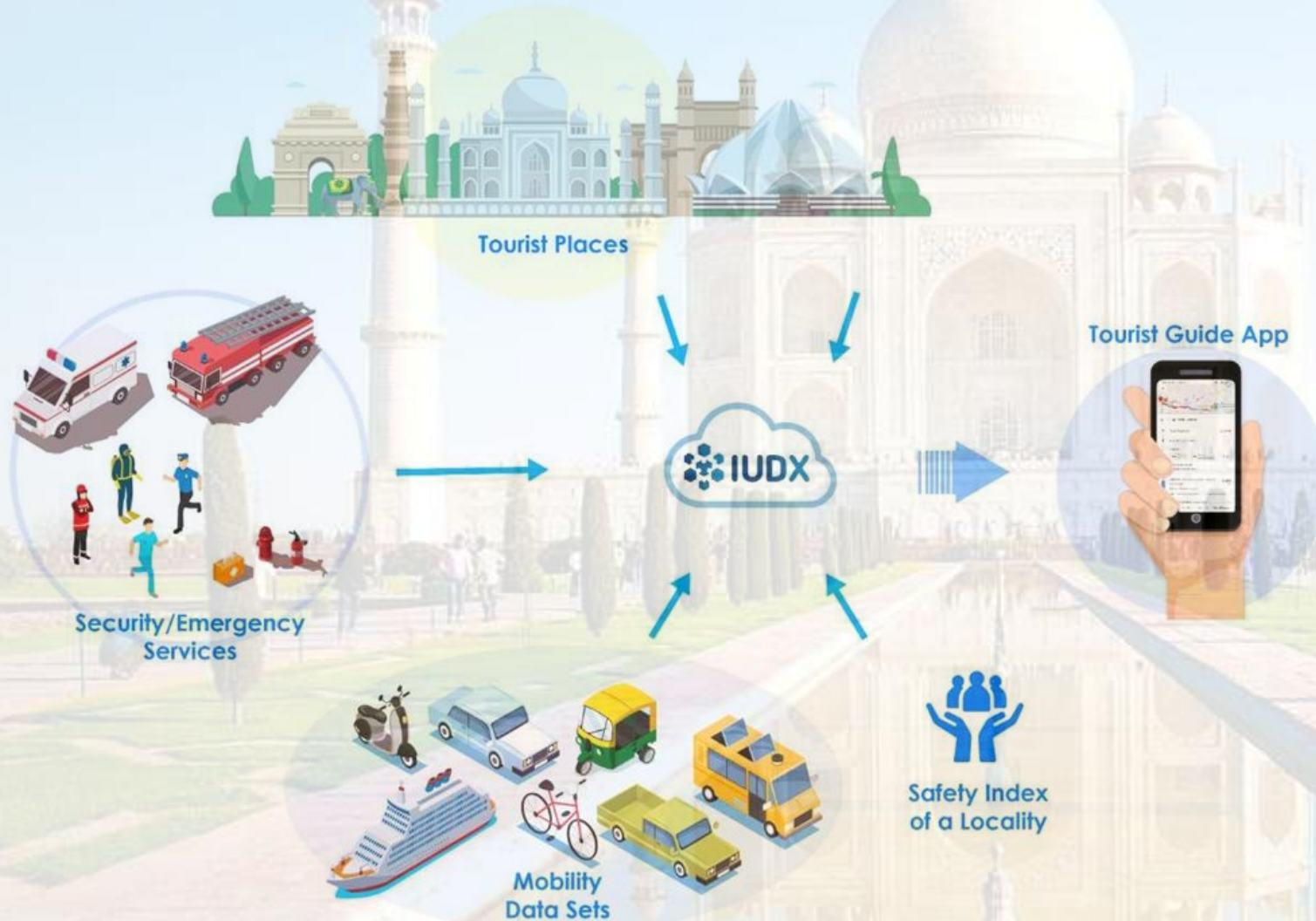
- Road metrics
- Metro data
- E-bikes data
- Realtime info of ambulances

Agra: Tourist guide application



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Business case:

- Increase to visitor satisfaction
- Increase in revenue from visitors

Example datasets:

- Safety index of places
- Help/emergency assistance
- City infrastructure

Thank You

Building Cities for People



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Government of India

