



Leveraging Smart Meters and Data Analytics

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Impacting sustainable development at scale with data, integrated analysis, and strategic outreach

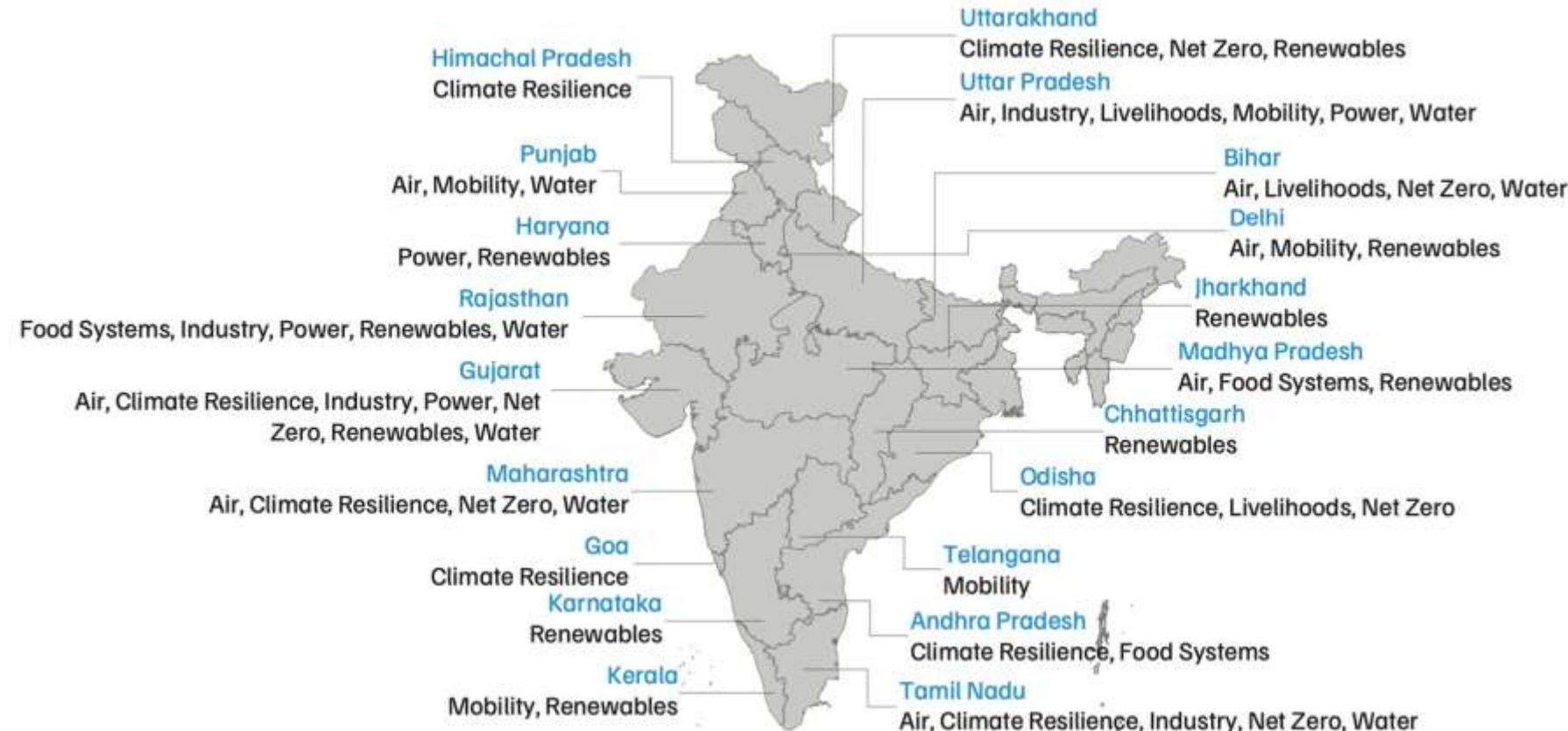
● Strategic pillars

- Clean electricity penetration
- Low-carbon industrialisation & circularity
- Fuels of the future
- Sustainable livelihoods & green economy
- Quality of life of citizens
- Sharing lessons

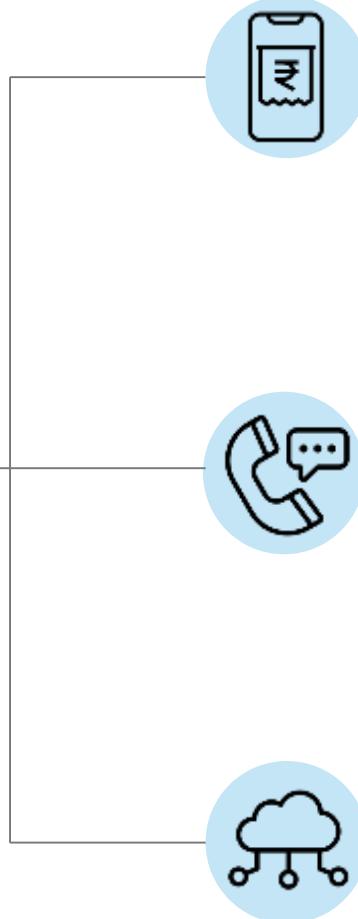
● CEEW in numbers

- 390+ team members
- 550+ peer-reviewed studies
- 700+ convenings
- 400+ mn lives impacted
- 62,000+ livelihoods directly supported

● 20 Indian states supported



Smart meters for the present and for the future



Financially sustainable discoms

- Minimise commercial and technical losses
- Improved revenue recovery
- Cost-reflective tariffs

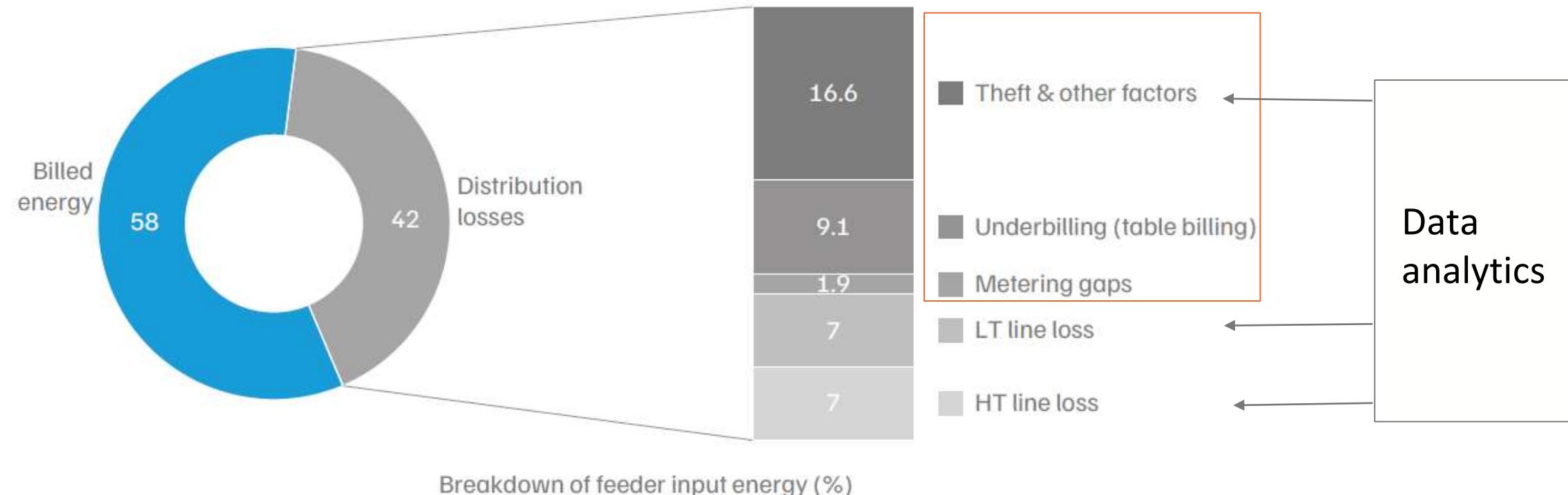
Excellence in consumer service

- Timely and accurate bills
- Access to consumption insights
- Outage detection and restoration

Future-ready distribution network

- Data-driven load forecasting and planning
- Optimise capex using load flexibility
- Valuation and settlement of distributed generation

Use case 1: Reducing distribution losses through targeted efforts



Use case 2: Empowering consumers with insights



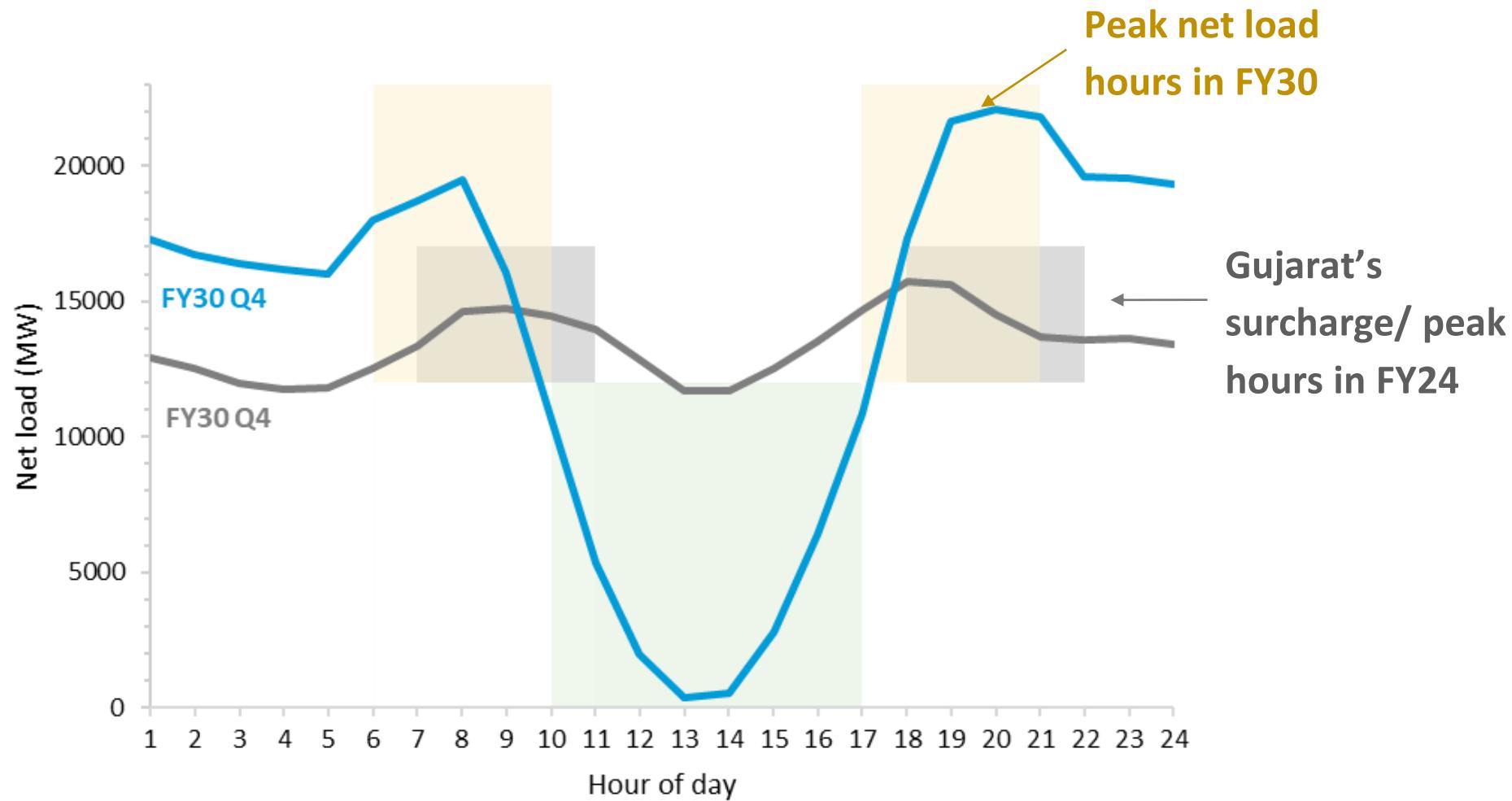
CEEW's smart meter user survey in 6 states (2022)

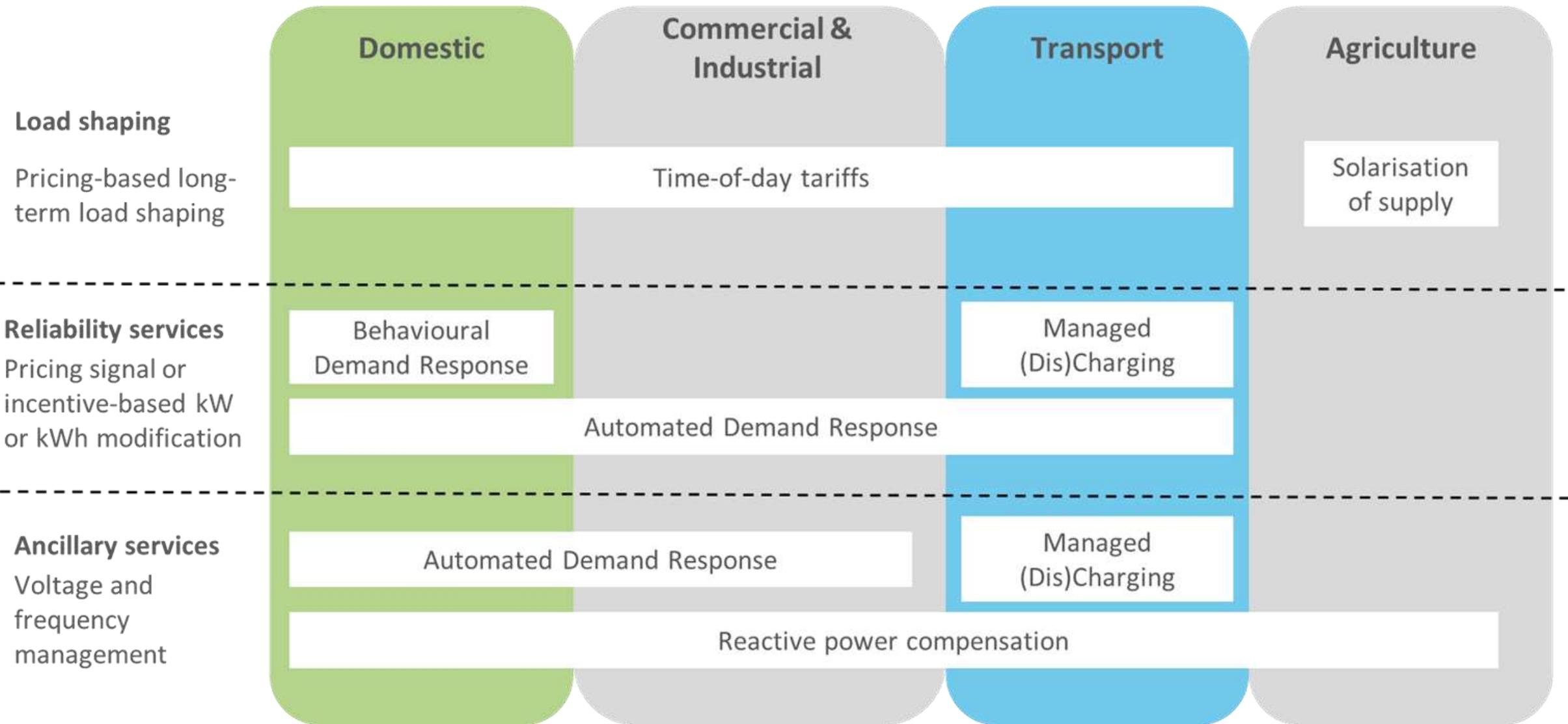
40% consumers reported better control on expenses (50% among prepaid users and 27% among post-paid)

3x higher app awareness and uptake among prepaid users

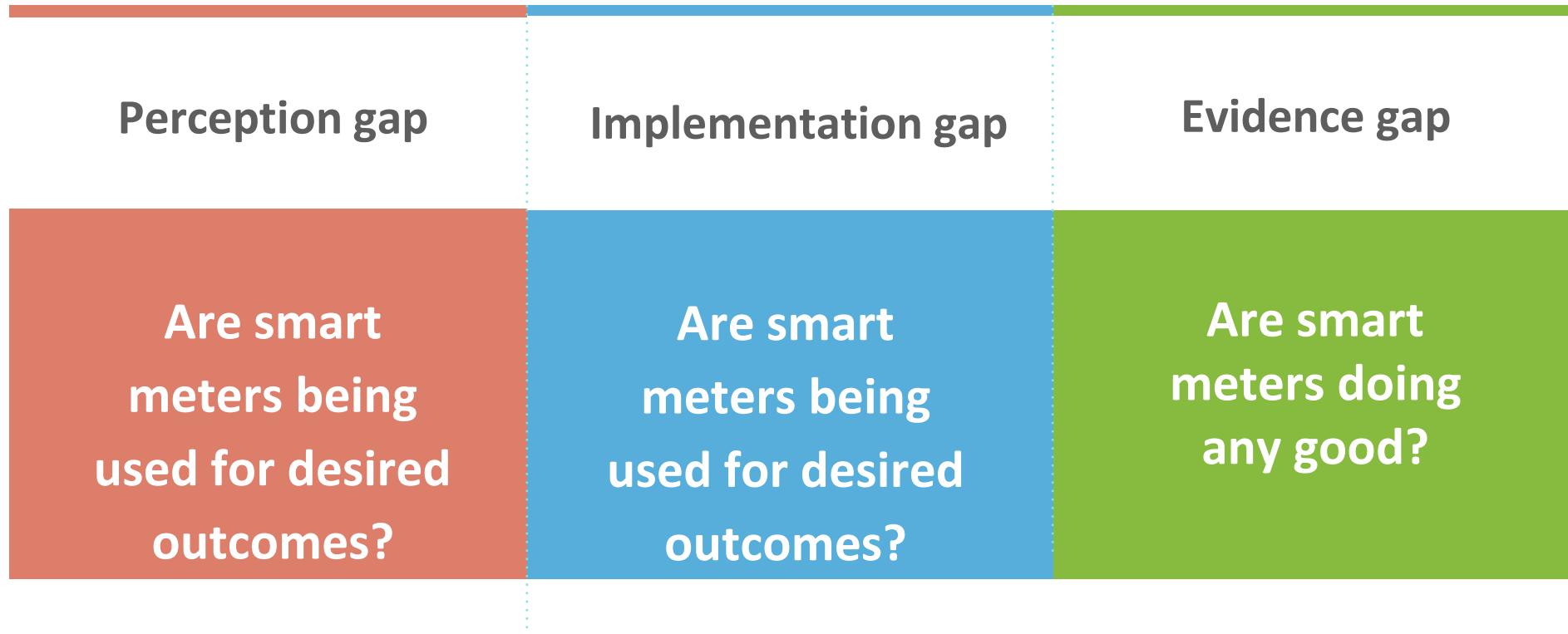
- Unified app across AMISPs -> uniform consumer experience
- Insights on average daily and historical consumption, balance deduction, view and download previous bills
- Other services: Complaint registration and tracking, new connection request, sanctioned load change, etc.

Use case 3: Designing smart future-ready tariffs to flexibilise demand





Three key gaps



1. Shift focus from output KPIs to desired outcomes from smart metering

Installation metrics

% smart meters installed
% smart meters communicating
% smart meters integrated with billing system



Consumer service metrics

% users getting MR-based bills
% users of smart meter app
% users paying bills through app
% users making multiple payments
% users on ToD tariffs

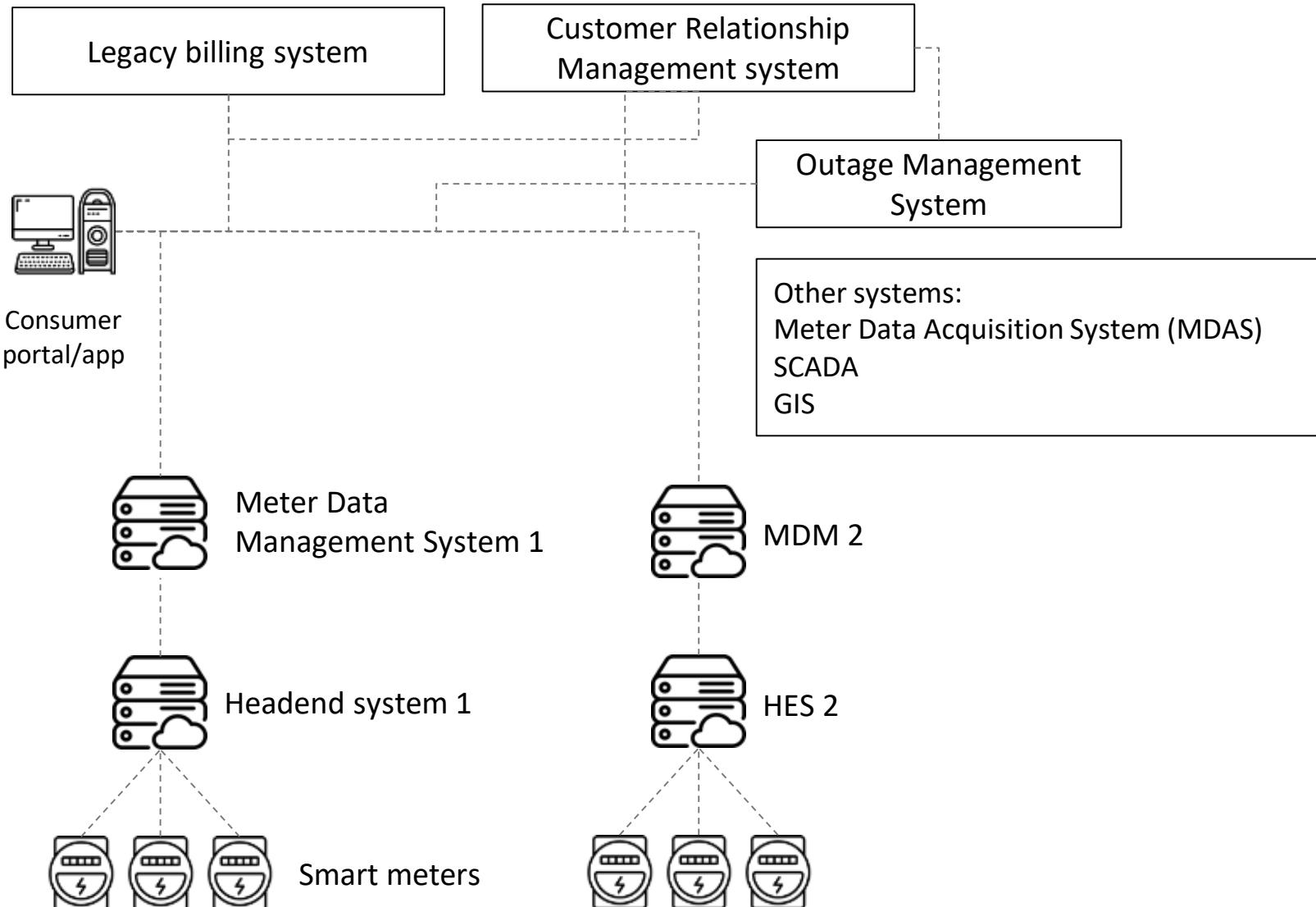


Feeder-level metrics

% feeders with robust energy accounting
% gain in BE & CE
% gain in SAIDI/SAIFI
% DTs with good health parameters



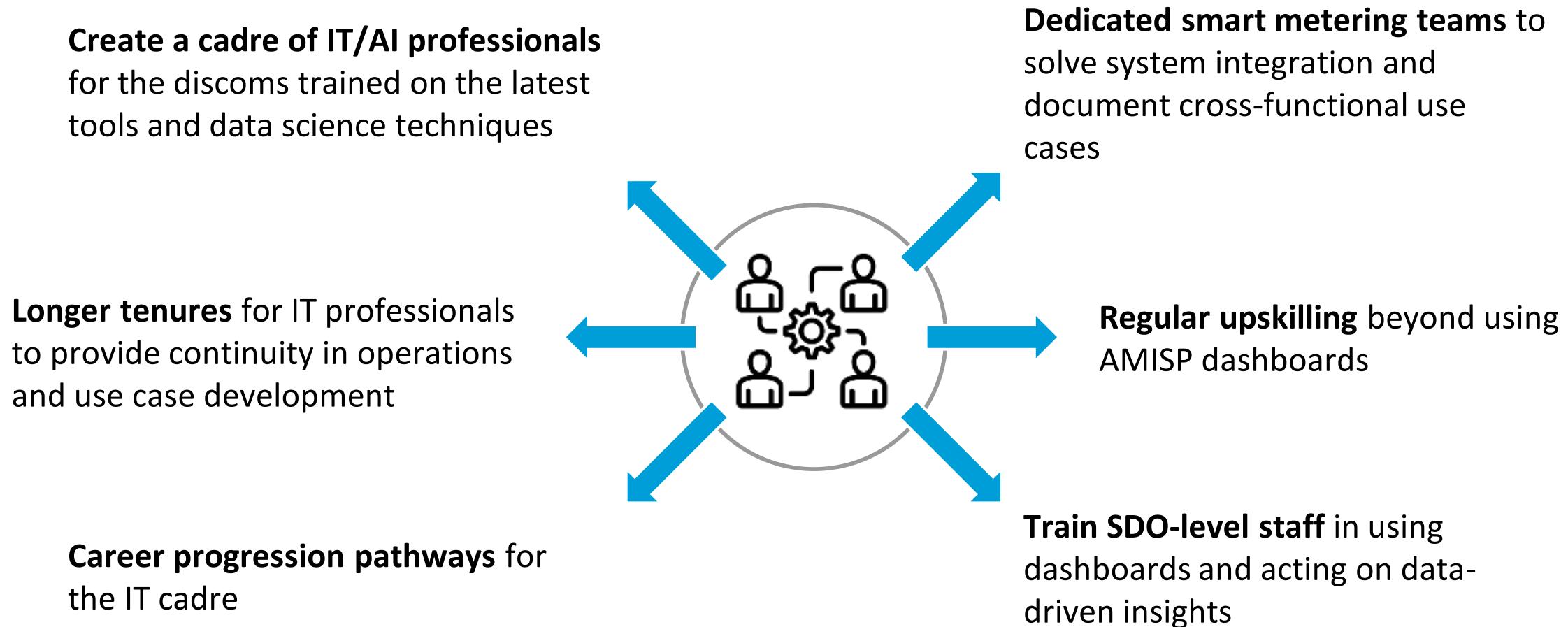
2. Integrate smart meter data with legacy systems to deliver outcomes



Potential integration issues:

- Indexing errors/mismatch across systems
- Poor data quality requiring further VEE or site inspections
- Operational/logic updates e.g., missing rooftop solar flags

3. Build capacity within discoms to scale analytics



Thank you

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