Addressing India's Water Crisis

National Water Mission 20 November, 2018

Arghyam
Safe, sustainable water for all

WHO WE ARE?

ARGHYAM IS A GRANT MAKING FOUNDATION WITH A FOCUS ON GROUNDWATER AND SANITATION

PARTNERS FOOTPRINT

KEY LEGEND

- 🚰 Groundwater
- 🌊 Springs
- 🚰 Sanitation
- 🏢 Urban
- ⚗️ Water Quality

OUR REACH - PGWM

Investing 30 Crores

Reaching 5,00,000 people
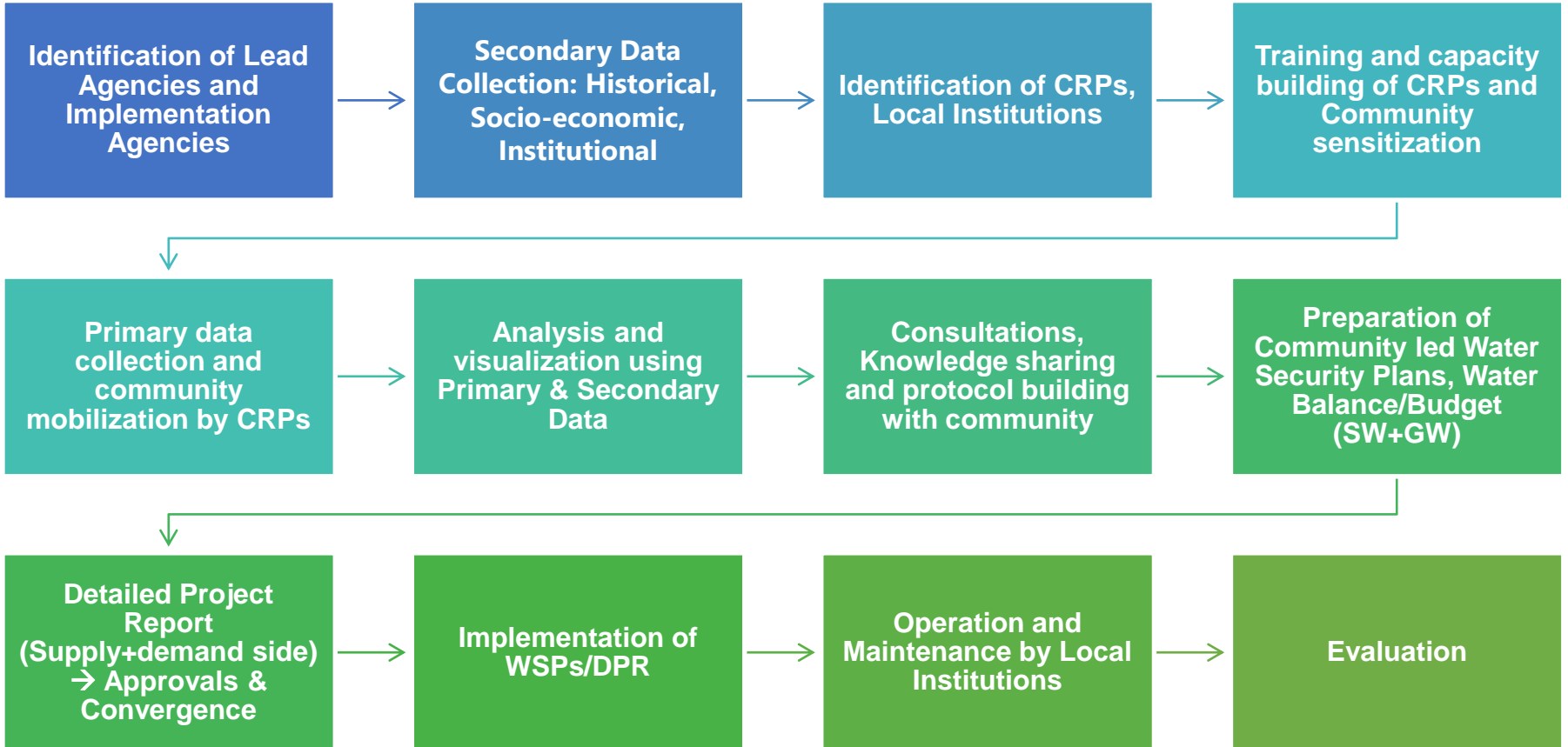
Using groundwater knowledge & data

20 experts have trained 500 master trainers

Over 7 years

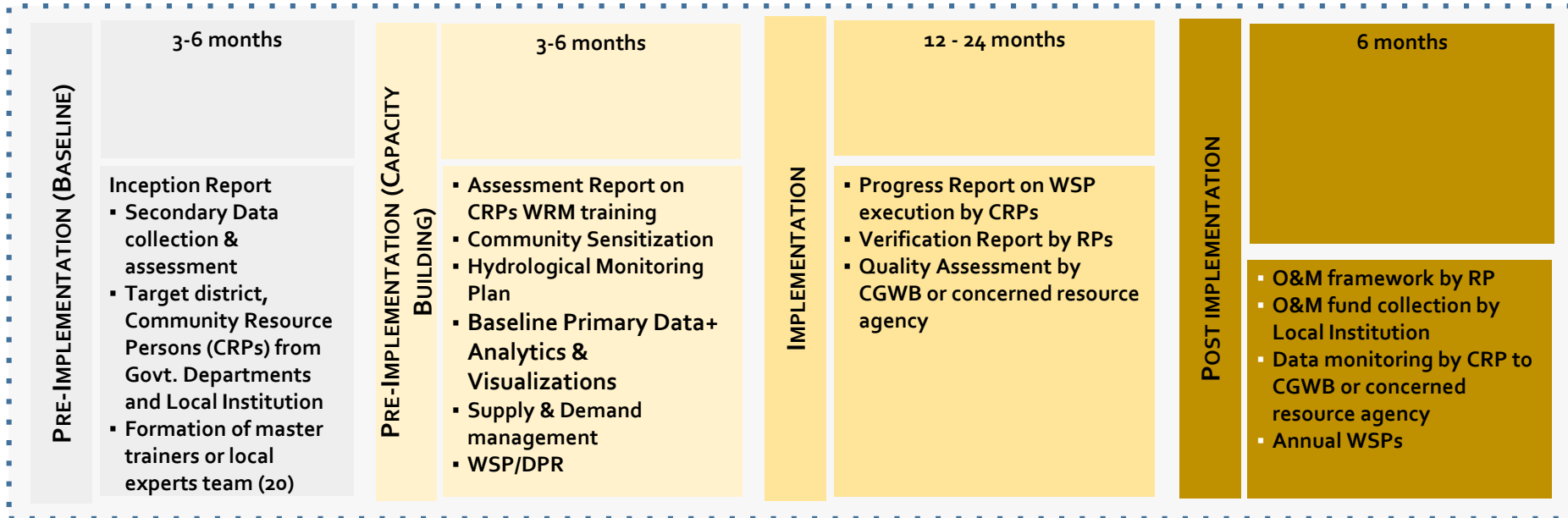*Approach successfully tested across regions within limited scale*

Problem Analysis

Supply Management

Demand Management

Governance

Trained Human Resources

+

Better Water Management

These four factors have been identified as important for holistic water management in India. Convergence of the four at various levels such as aquifer/basin and to tackle issue of quantity, quality and access, is imperative to build resilience of communities to climate change

Programme Design for Scale: Pre-Implementation, Implementation & Post Implementation

The total water security cost accounts for Rs. 15,000 to Rs. 20,000 per hectare.

PRE-IMPLEMENTATION (BASELINE)	**PRE-IMPLEMENTATION (CAPACITY BUILDING)**	**IMPLEMENTATION**	**POST IMPLEMENTATION**
3-6 months	3-6 months	12 - 24 months	6 months

PRE-IMPLEMENTATION (BASELINE) — 3-6 months

Inception Report
- Secondary Data collection & assessment
- Target district, Community Resource Persons (CRPs) from Govt. Departments and Local Institution
- Formation of master trainers or local experts team (20)

PRE-IMPLEMENTATION (CAPACITY BUILDING) — 3-6 months

- Assessment Report on CRPs WRM training
- Community Sensitization
- Hydrological Monitoring Plan
- Baseline Primary Data+ Analytics & Visualizations
- Supply & Demand management
- WSP/DPR

IMPLEMENTATION — 12 - 24 months

- Progress Report on WSP execution by CRPs
- Verification Report by RPs
- Quality Assessment by CGWB or concerned resource agency

POST IMPLEMENTATION — 6 months

- O&M framework by RP
- O&M fund collection by Local Institution
- Data monitoring by CRP to CGWB or concerned resource agency
- Annual WSPs

WHAT WORKS

COMMUNITY PARTICIPATION

Common pool resource, local ownership & management needed to ensure equity & sustainability

SCIENCE BASED APPROACH

Data based decision making

DEMAND MANAGEMENT & SUPPLY AUGMENTATION

Needs to be taken in conjunction

BEHAVIOUR CHANGE
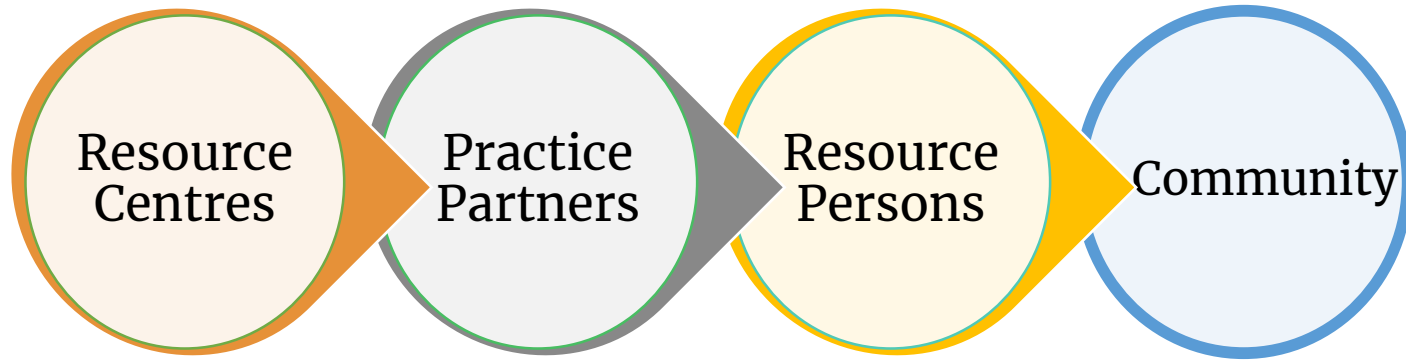
Imperative especially for demand management

CONVERGENCE OF EFFORTS

Within Govt., GO-NGO, Academia is crucial

BUILDING STRONG INSTITUTIONS

to sustain work, allocations, conflicts

LOCAL RESOURCE NEEDS TO BE MANAGED LOCALLY = COMMUNITY PARTICIPATION

Decentralized Resource

Common Pool Resource

Equity

Ownership

Sustainability

CAPACITY BUILDING WORKFLOW

Resource Centres → Practice Partners → Resource Persons → Community
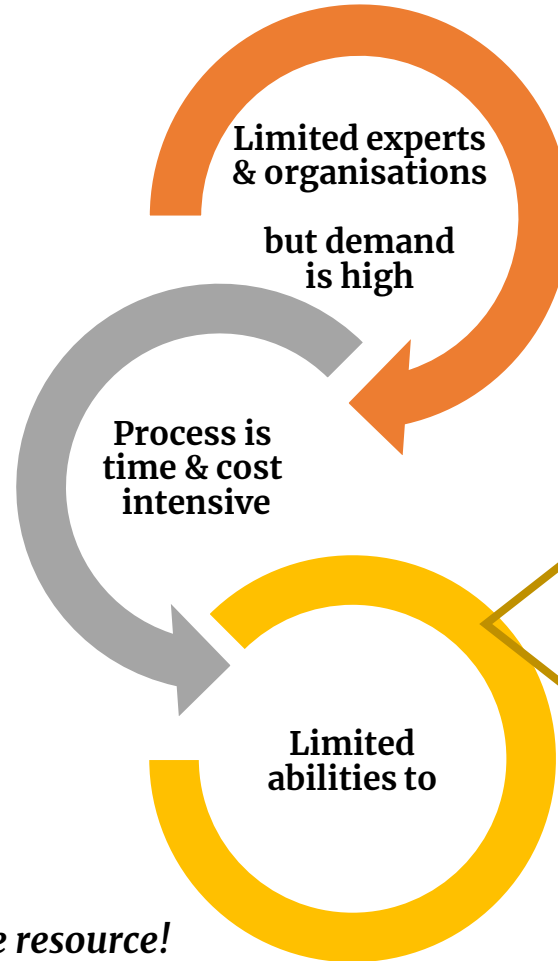
Experts: 10X current capacity

NGO: 10-20X current capacity

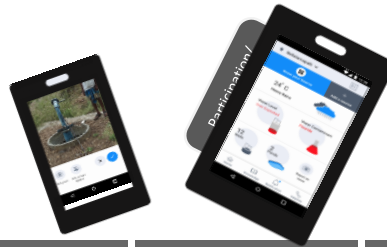NGO staff: 10-20X current capacity

Fund management: 10-20X current capacity

Need for non-linear approaches

IN TRYING TO SCALE WHAT WORKS SOME CHALLENGES FOR CAPACITY BUILDING

Limited experts & organisations

but demand is high

Process is time & cost intensive

Limited abilities to

❖ *Deliver in multiple languages*
❖ *Track trainee absorption*
❖ *Deliver a comprehensive course*
❖ *Break silos in expertise*
❖ *Merge with other solutions – other practice, markets, academia*
❖ *Incorporate and update local context*
❖ *Have flexible, need based and interactive training*
❖ *Be an aid for trainees for consumption at own space and time*
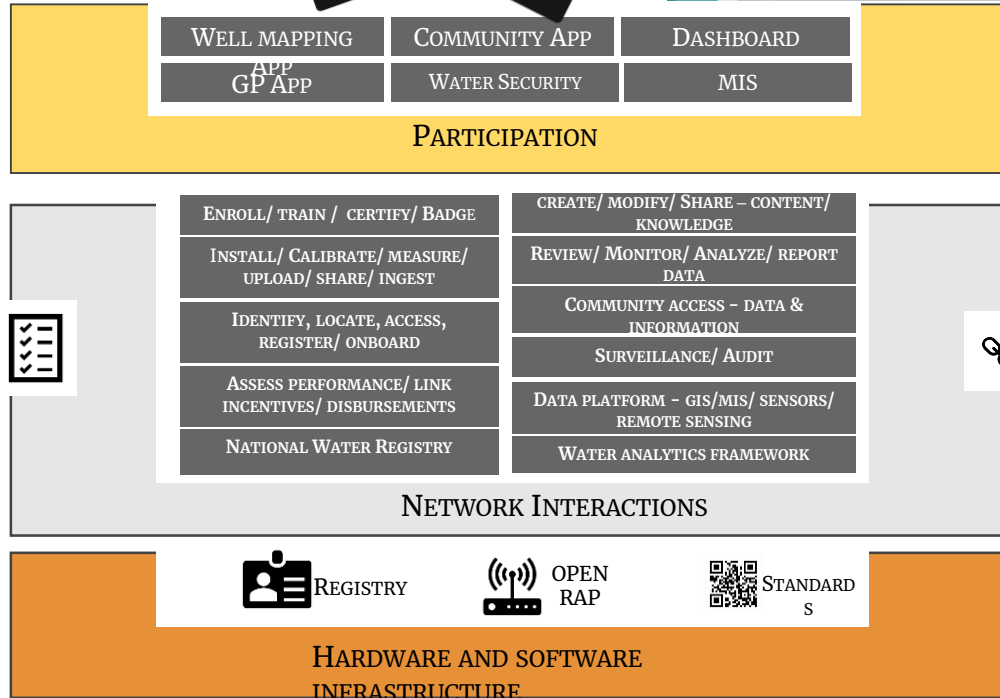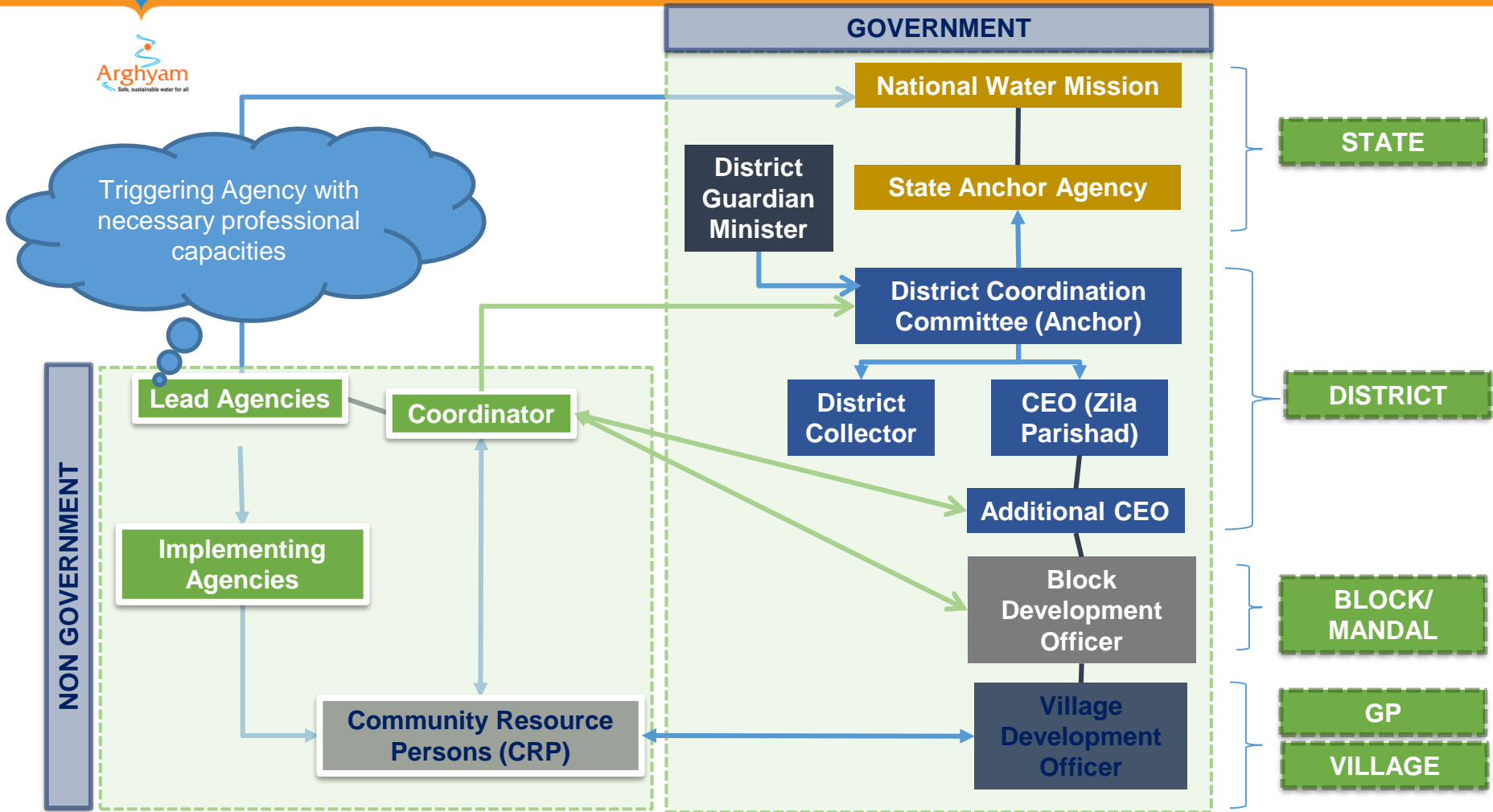
Expert knowledge is a scarce resource!

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THE PLATFORM ARCHITECTURE

Well mapping App **Community App** **Dashboard**

GP App **Water Security** **MIS**

Participation

Data ingestion

Enroll/ train / certify/ Badge

Install/ Calibrate/ measure/ upload/ share/ ingest

Identify, locate, access, register/ onboard

Assess performance/ link incentives/ disbursements

National Water Registry

Create/ modify/ Share – content/ knowledge

Review/ Monitor/ Analyze/ report data

Community access – data & information

Surveillance/ Audit

Data platform – gis/mis/ sensors/ remote sensing

Water analytics framework

Network Interactions

Open architecture / Extensible/ Api's

Registry **Open RAP** **Standards**

Hardware and software infrastructure

Thank You!