

SAARC Smart Grid Roadmap

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India Smart Grid Forum

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Smart Grid Maturity Model (SGMM)

- A management tool managed by the Software Engineering Institute (SEI) at Carnegie Mellon University (CMU)
- Utilities use SGMM to
 - Assess their current state of smart grid implementation
 - Prioritize their options
 - Define their goals for a future state
 - Generate inputs into their road mapping, planning, and implementation processes
 - Measure their progress towards a smarter grid

Overview of the Model

The SGMM describes 8 domains containing logical groupings of incremental smart grid characteristics, which represent key elements of smart grid strategy, organization, operation, and capability

SMR	Strategy, Management, and Regulatory <i>Vision, planning, governance, stakeholder collaboration</i>	TECH	Technology <i>IT architecture, standards, infrastructure, integration, tools</i>
OS	Organization and Structure <i>Culture, structure, training, communications, knowledge management</i>	CUST	Customer Pricing, customer participation & experience, advanced services
GO	Grid Operations <i>Reliability, efficiency, security, safety, observability, control</i>	VCI	Value Chain Integration <i>Demand & supply management, leveraging market opportunities</i>
WAM	Work and Asset Management <i>Asset monitoring, tracking & maintenance, mobile workforce</i>	SE	Societal and Environmental <i>Responsibility, sustainability, critical infrastructure, efficiency</i>

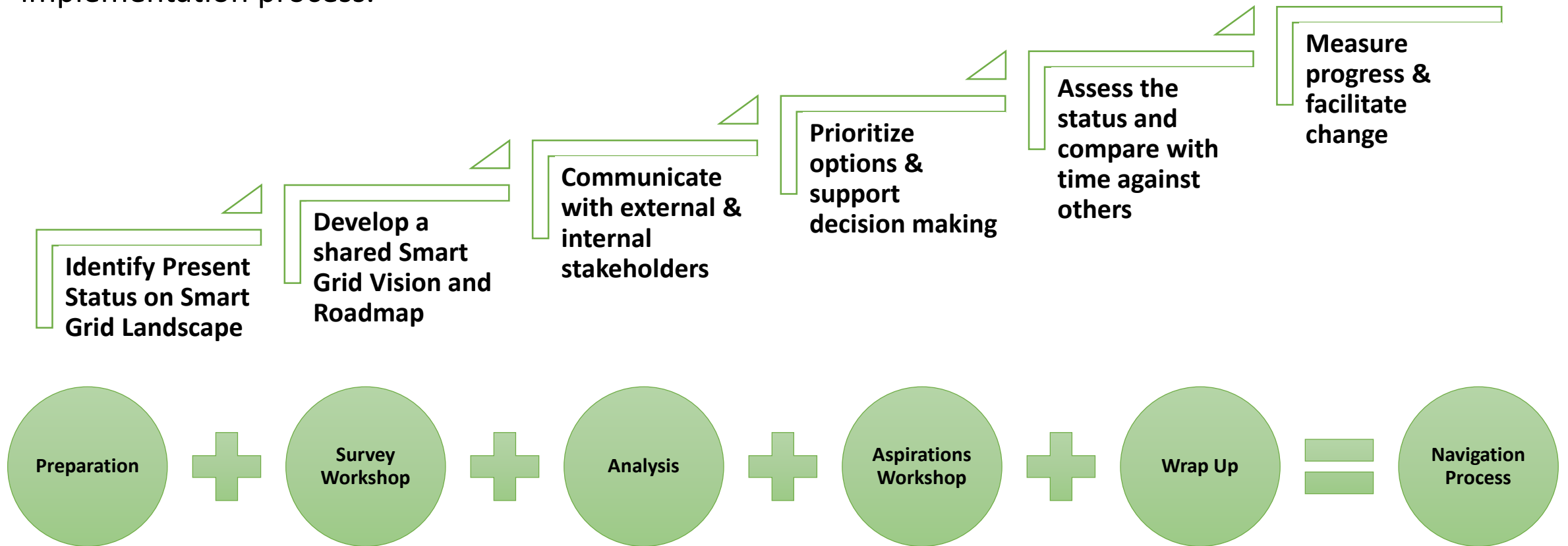
Smart Grid Maturity Model – Levels

- Completing the Compass Survey and having its scores yields a maturity rating for each of the model's eight domains
- By assessing its current maturity level in each domain and taking steps to increase its levels, an organization will move closer to obtaining the desired benefits of implementing smart grid features

PIONEERING	5	Breaking new ground; industry-leading innovation
OPTIMIZING	4	Optimizing smart grid to benefit entire organization; may reach beyond organization; increased automation
INTEGRATING	3	Integrating smart grid deployments across the organization, realizing measurably improved performance
ENABLING	2	Investing based on clear strategy, implementing first projects to enable smart grid (may be compartmentalized)
INITIATING	1	Taking the first steps, exploring options, conducting experiments, developing smart grid vision
DEFAULT	0	Default level (status quo)

Smart Grid Maturity Model Process

SGMM provides utilities a clear understanding of their current state of smart grid implementation, their future aspirations, and the action plans required for roadmap development, planning, and implementation process.



SGMM helps to:

- Determine strategy, management and regulatory investment process
- Enable an external strategy and an internal organizational change strategy
- Prepare a cohesive technology strategy, including information engineering and integration, operational standards and business analytics tools
- Provide a strategy and plan for "green" initiatives, sustainability, and alternative and distributed energy
- Empower grid operations with a core foundation of intelligent grid components
- Operate and maintain assets based latest fact-based performance data
- Extend automation beyond traditional boundaries with value chain integration

- As seen from the SGMM, Smart Grid is not solution or an end state; but a journey towards higher levels of maturity in all aspects of the utility's operations
- An utility must prepare a Smart Grid Roadmap for 10-15 year time horizon before embarking on a transformational journey
- SGMM framework helps a utility to assess their maturity in different aspects of the utility operations, helps determine the future state
- Once all stake-holders agree on the “**TO-BE**” state, the utility can prioritize the activities and conduct cost-benefit analysis of different options and choose the most appropriate route to ascend to higher levels of maturity

- The Roadmap process typically include:
 - Data Collection and Desk Research
 - SGMM Compass Survey
 - Presentation of the Results of SGMM Compass Survey – “AS – IS”
 - Aspiration Workshop of relevant stakeholders to determine future state – “TO-BE”
 - Preparation of the Smart Grid Roadmap for the agreed time horizon
 - Presentation of the Draft Roadmap and feedback from stakeholders
 - Final Smart Grid Roadmap
- Timelines: 4-6 months depending on availability of data

Recommendations

Afghanistan Smart Grid Roadmap 2018-20



Work & Asset Management (WAM)

- Consumer Indexing at distribution level
- Implementation of ERP system
- Develop and implement a communication system plan

Grid Operations (GO)

- Business Case for new equipment and system related to SG (SCADA, DMS, GIS)
- Framework to calculate outages and reliability indices
- Expand and upgrade electrical network

Organization & Structure (OS)

- Articulate needs to build Smart Grid competencies
- OS needs to be aligned to align as per Smart Grid Vision & Roadmap
- Workshops/Seminars on Smart Grid Technologies

Strategy, Management & Regulatory (SMR)

- Smart Grid Vision, Roadmap, Policy and Strategy development
- Training to key personnel
- Identify areas for RE growth and integration with grid

Afghanistan Smart Grid Roadmap 2020-25

Societal and Environmental

- Publish the smart road map with emphasis on DABS role in environment and societal issues
- Availability of environmental compliance records

Customer

- Conduct research studies for customer experience
- Conduct workshops to educate customers
- Consult with public utility commission and /or other government related organization .

Technology

- Development of an enterprise IT Architecture
- Integrated billing system across DABS
- Conduct audit for Cyber Security

Work and Asset Management (WAM)

- Completion of ERP implementation and integration with GIS
- Plan for hotline maintenance
- Prepare plan for mobile workforce management (MWFM) system

Strategy, Management & Regulatory (SMR)

- Approval and acceptance of Smart Grid Roadmap from higher management
- Approval of smart grid projects and investments
- Update policies and regulations

Organization & Structure (OS)

- Approval of Manpower Plan
- Restructuring of organization hierarchy
- Plan for linking compensation and incentives

Grid Operation (GO)

- Establish SCADA/DMS in urban areas by 2025
- Pilot installation on EV charging infrastructure in Kabul and other urban areas
- Upgrade electrical network to support estimated peak load for 2025 targets .

Afghanistan Smart Grid Roadmap 2025-30

Organization & Structure (OS)

- Redesigning of organization structure
- Conduct educational training programs
- Development of knowledge management framework

Grid Operations (GO)

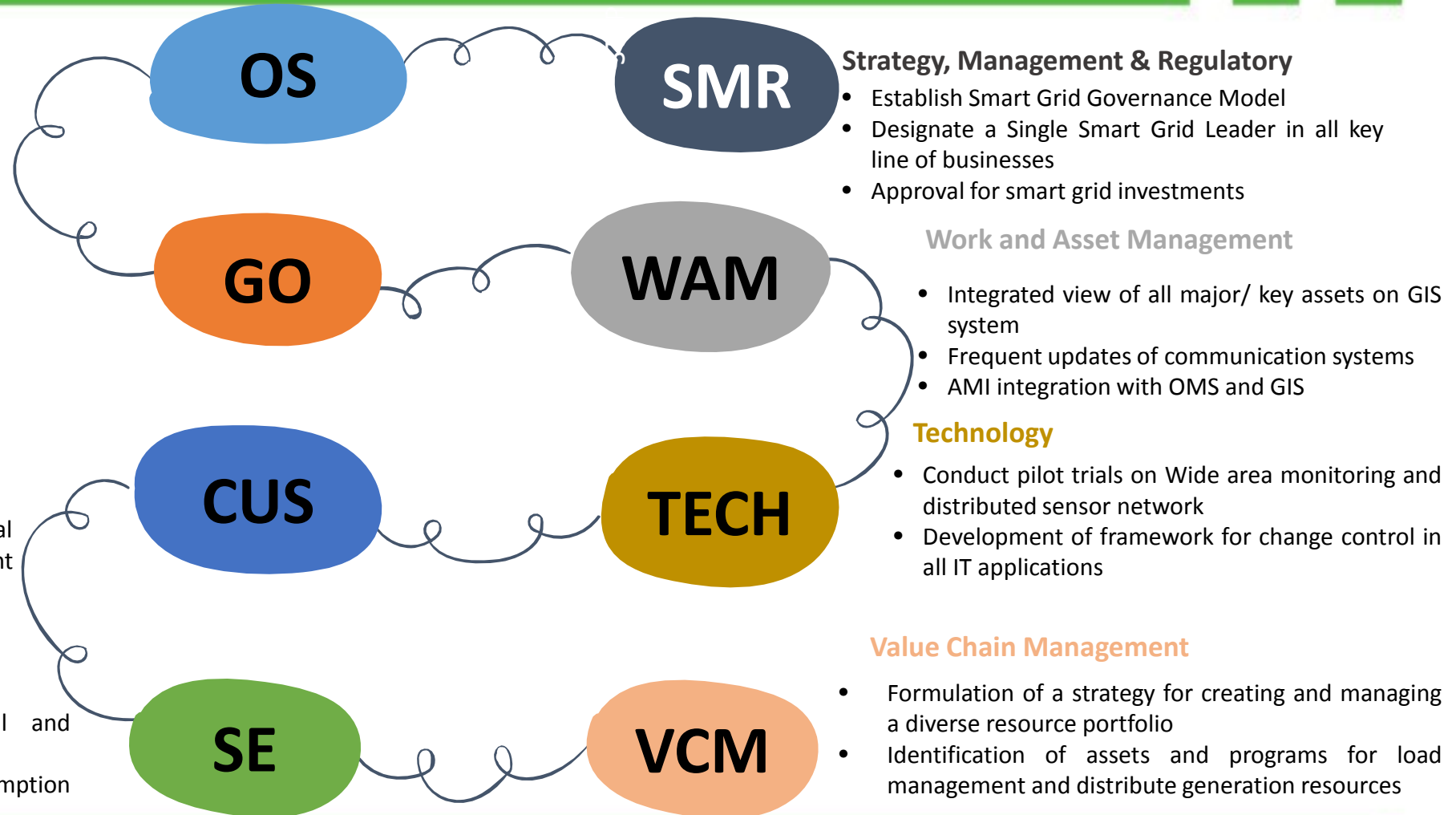
- Upgrade electrical network to support estimated peak demand growth to 3502 MW
- Integration of regional grids
- Expansion of RE capacity from 4500 MW to 5000 MW

Customer

- Implementation of a state-of-the-art customer portal
- Leveraging Societal media for customer engagement effectively

Societal & Environment

- Finalize work plans for addressing societal and environmental issues
- Provide details of granular level energy consumption data to customers



Bangladesh Smart Grid Roadmap 2018-20

Organization & Structure (OS)

- Build positive scenario for Smart Grid and its applications
- OS needs to be aligned to align as per Smart Grid Vision & Roadmap
- Workshops/Seminars on Smart Grid Technologies

Work & Asset Management (WAM)

- Consumer Indexing at distribution level
- Institute work flow for continuous updating of assets and customers on GIS map
- Develop and implement a communication system plan

Customer

- Conduct research studies for customers
- Conduct workshops to educate customers
- Consult with utilities and/or government organizations regarding the impact of technologies on different categories of customers



Strategy, Management & Regulatory (SMR)

- Smart Grid Vision, Roadmap, Policy and Strategy development with Ministry of Power, Energy and Mineral Resources (MPEMR)
- Define load dispatch centres at all levels and SCADA hierarchy for the country
- Identify potential area for pilot project implementation for Smart Grid Pilot Projects

Grid Operations (GO)

- Business Case for new equipment and system related to SG (SCADA, DMS, GIS)
- Installation of transformer monitoring units (TMU) on all transformers
- Implementation of SCADA/DMS, Substation Automation in phased manner by 2020
- Utilize GIS for planning and expansion of the power grid systems

Technology

- Development and implementation of enterprise IT architecture
- Implement one integrated billing system
- Cybersecurity auditing
- Prepare cloud strategy for future expansion

Bangladesh Smart Grid Roadmap 2020-25

Societal and Environmental

- Publish the smart road map with emphasis on utilities role in environment and societal issues
- Availability of environmental compliance records

Customer

- AMI deployment to all urban customers
- Automatic outage detection and restoration system in place at substation level
- Pilot Peer to Peer (P2P) trading of electricity from behind the meter devices

Technology

- Business processes in key LOBs aligned to approved IT architecture
- Implementation of uniform data communication strategies
- Implemented SG strategies leveraged to improve cross-LOB performances

Work and Asset Management (WAM)

- Completion of ERP implementation and integration with GIS
- AMI integration with OMS and GIS
- Prepare plan for mobile workforce management (MWFM) system

Strategy, Management & Regulatory (SMR)

- Approval and acceptance of Smart Grid Roadmap from higher management
- Approval of smart grid projects and investments
- Update policies and regulations

Organization & Structure (OS)

- Approval of Manpower Plan
- Restructuring of organization hierarchy
- Cross functional teams among all LOBs for implementation of Smart Grid initiatives

Grid Operations (GO)

- Establish SCADA/DMS in urban areas by 2025
- Pilot installation on EV charging infrastructure in Dhaka and other urban areas
- Upgrade electrical network to support estimated peak load for 2025 targets .

Bangladesh Smart Grid Roadmap 2025-30

Organization & Structure (OS)

- Redesigning of organization structure
- Success based performance rewards
- Commitment and consistency of leadership in communication

Grid Operations (GO)

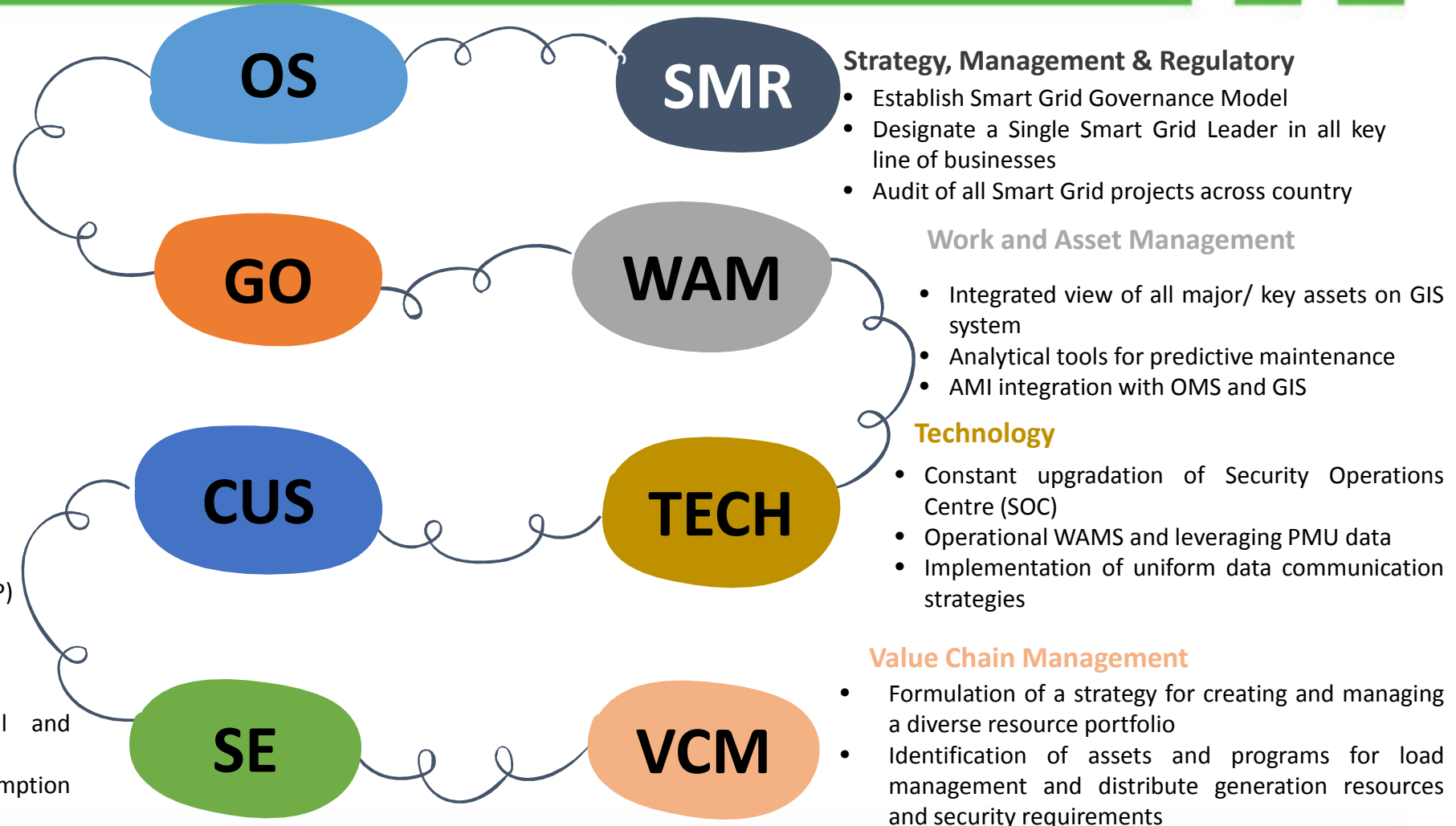
- Implementation of SCADA/DMS and DAS in Smart Cities
- Rollout of EV charging infrastructure and VGI in urban areas and highways
- Development of Energy Storage System (ESS) for grid balancing with high rooftop PV penetration

Customer

- Automatic outage detection available at circuit level
- Introduction of ToU tariff
- Systems for participation in Peer to Peer (P2P) trading of electricity

Societal & Environment

- Finalize work plans for addressing societal and environmental issues
- Provide details of granular level energy consumption data to customers





Work & Asset Management (WAM)

- Consumer Indexing at distribution level
- Implementation of ERP system
- Develop and implement a communication system plan

Grid Operations (GO)

- Business Case for new equipment and system related to Smart Grid (SCADA,/DMS, GIS)
- Framework to calculate outages and reliability indices
- Expand and upgrade electrical network to achieve 100% rural electrification

Organization & Structure (OS)

- Articulate needs to build Smart Grid competencies
- Organization structure needs to be aligned to align as per Smart Grid Vision & Roadmap
- Workshops/Seminars on Smart Grid Technologies

Strategy, Management & Regulatory (SMR)

- Smart Grid Vision, Roadmap, Policy and Strategy development
- Training to key personnel
- Identify areas for RE growth and integration with grid
- Identify potential area for pilot project implementation

Bhutan Smart Grid Roadmap 2020-25

Societal and Environmental

- Publish the smart road map with emphasis on Bhutan's role in environment and societal issues , organization role in protecting nation's critical infrastructure

Customer

- Conduct research studies for customer experience
- Conduct workshops to educate customers
- Consult with public utility commission and /or other government related organizations

Technology

- Development of an enterprise IT Architecture
- Conduct audit for Cyber Security
- Prepare cloud strategy for future expansion

Work and Asset Management (WAM)

- ERP implementation and integration with GIS
- Plan for hotline maintenance
- Prepare plan for mobile workforce management (MWFM) system

Strategy, Management & Regulatory (SMR)

- Approval and acceptance of Smart Grid Roadmap from higher management
- Approval of smart grid projects and investments
- Update policies and regulations

Organization & Structure (OS)

- Approval of Manpower Plan
- Restructuring of organization hierarchy
- Plan for linking compensation and incentives
- Plan workshop and train key personnel

Grid Operations (GO)

- Establish SCADA/DMS in urban areas by 2025
- Pilot installation on EV charging infrastructure in Thimphu and other urban areas
- Upgrade electrical network to support estimated peak load for 2025 targets .
- Installation of Distribution Automation System in major towns

Bhutan Smart Grid Roadmap 2025-30

Organization & Structure (OS)

- Redesigning of organization structure
- Conduct educational training programs
- Development of knowledge management framework

Grid Operations (GO)

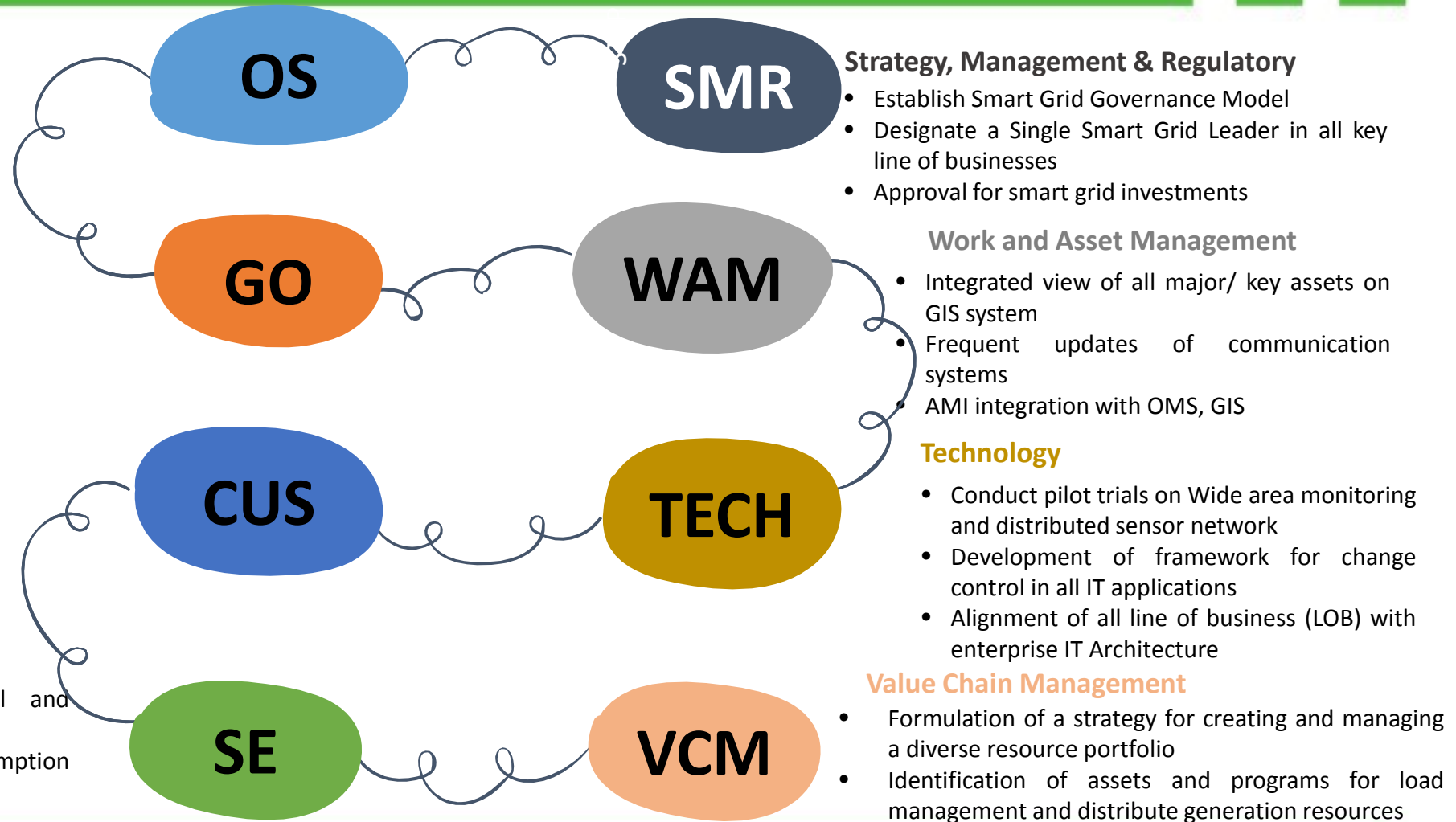
- Upgrade electrical network to support estimated peak demand growth
- Integration of regional grids
- Plan for rollout of EV charging infrastructure and Vehicle to Grid integration (VGI) in all urban areas

Customer

- Implementation of a state-of-the-art customer portal
- Assess the impact of new smart grid systems
- Prosumer enablement and net-metering plans

Societal & Environment

- Finalize work plans for addressing societal and environmental issues
- Provide details of granular level energy consumption data to customers
- Diesel Generator (DG) replacement with battery



India Smart Grid Roadmap 2018-20

Organization & Structure (OS)

- OS needs to be aligned to align as per Smart Grid Vision & Roadmap
- Workshops/Seminars on Smart Grid Technologies
- Organization should articulate (communicate) it's needs to build smart grid competencies in its workforce

Work & Asset Management (WAM)

- Consumer Indexing at distribution level
- Institute work flow for continuous updating of assets and customers on GIS map
- Implementation of ERP system
- Define business case for GIS and asset mapping at Transmission and Distribution levels

Customer

- Conduct research studies for customers
- Conduct workshops to educate customers
- Consult with utilities and/or government organizations regarding the impact of technologies on different categories of customers



Strategy, Management & Regulatory (SMR)

- Smart Grid Vision, Roadmap, Policy and Strategy development with Ministry of Power
- Initiate discussions with regulators on DISCOMs Smart Grid Roadmap
- Identify potential area for pilot project implementation for Smart Grid Pilot Projects

Grid Operations (GO)

- Business Case for new equipment and system related to SG (SCADA, DMS, GIS)
- Establish framework to calculate outages and reliability indices at distribution level
- Utilize GIS for planning and expansion of the power grid systems
- Addition of new DT's feeders and bifurcation of existing feeder to increase transmission and distribution capacity

Technology

- Development and implementation of enterprise IT architecture
- Implement one integrated billing system
- Cybersecurity auditing
- Prepare cloud strategy for future expansion

India Smart Grid Roadmap 2020-25



Societal and Environmental

- Publish the smart road map with emphasis on Bhutan's role in environment and societal issues , organization role in protecting nation's critical infrastructure

Customer

- Conduct research studies for customer experience
- Conduct workshops to educate customers
- Consult with public utility commission and /or other government related organizations

Technology

- Development of an enterprise IT Architecture
- Conduct audit for Cyber Security
- Prepare cloud strategy for future expansion

Work and Asset Management (WAM)

- ERP implementation and integration with GIS
- Development of network model for the distribution grid up to DT level
- Prepare plan for mobile workforce management (MWFM) system

Strategy, Management & Regulatory (SMR)

- Approval and acceptance of Smart Grid Roadmap from higher management
- Approval of smart grid projects and investments
- Designate and make hierarchy of smart grid leaders in all key line of business

Organization & Structure (OS)

- Approval of Manpower Plan
- Restructuring of organization hierarchy
- Create cross-functional teams among all LOBs for implementation of Smart Grid initiatives
- Plan workshop and train key personnel

Grid Operations (GO)

- Establish demand response (DR) for peak load management at customer level
- Implement AMI in DISCOMs
- Pilot install EV charging infrastructure in required areas
- Undertake pilot trials on smart microgrids for campuses, industrial parks etc

India Smart Grid Roadmap 2025-30

Organization & Structure (OS)

- Redesigning of organization structure
- Conduct educational training programs
- Changes made in consideration and support with Smart Grid programs

Grid Operations (GO)

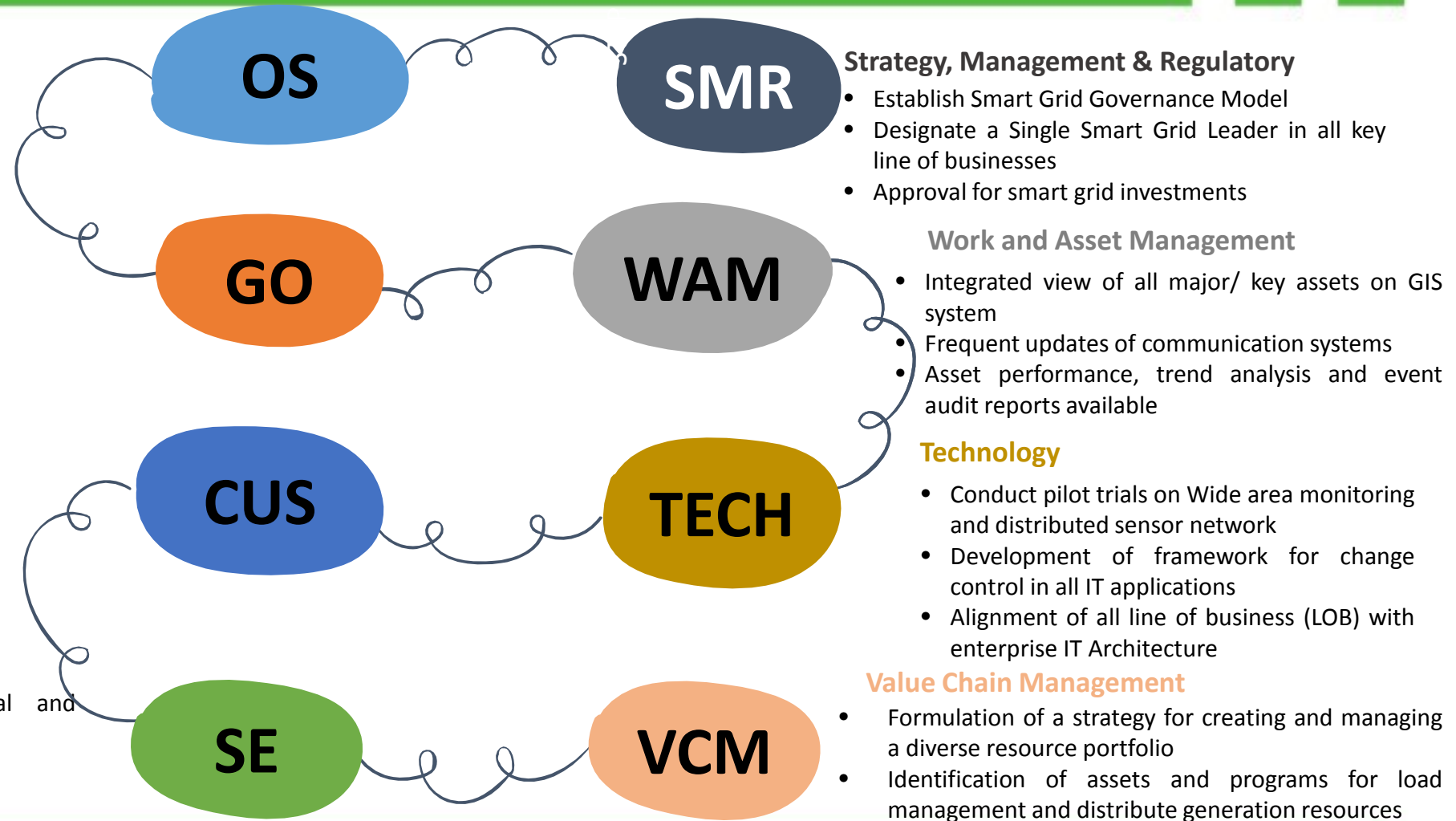
- Upgrade electrical network to support estimated peak demand growth
- Integration of regional grids
- Plan for rollout of EV charging infrastructure and Vehicle to Grid integration (VGI) in all urban areas
- Automated operation of capacitor bank

Customer

- Implementation of a state-of-the-art customer portal
- Undertake pilot AMI projects
- DISCOMs vision of the future grid is being communicated to customers

Societal & Environment

- Finalize work plans for addressing societal and environmental issues
- Undertake proof of concept projects
- Diesel Generator (DG) replacement with battery



Maldives Smart Grid Roadmap 2018-22



STELCO in Male island

- Prepare plan and install at least 5 MW of rooftop Solar PV in Male' Island
- Install Battery Energy Storage Systems for minimum 10 MWh capacity
- Identify locations in Male to make smart microgrids
- Convert one DG Set as a hybrid power station with solar and study the behavior

STELCO and FENAKA on other islands

- Identify one island each for converting to a smart microgrid with solar, wind, DG sets and battery storage systems
- Undertake feasibility studies to identify groups of nearby islands whose power systems can be connected through undersea cables
- Study the feasibility of deploying floating solar panels in sea water with appropriate wave-breakers
- Study the feasibility of deploying floating wind mills

Male Water and Sewerage Company (MWSC)

- Setup a Waste to Energy plant in Male running primarily on Municipal Solid Waste (MSW)

Housing Development Company (HDC)

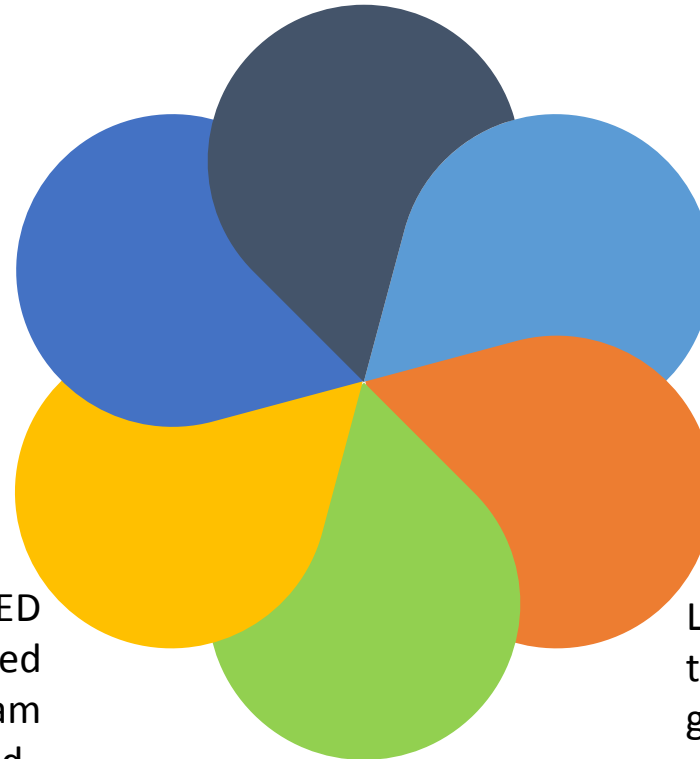
- Finalize the plan for the Smart City in Hulhumale island; and undertake pilots on selected domains including electricity

Maldives Smart Grid Roadmap 2022-30

Introduce electric and solar planes for inter-island transport

Rollout solar boats for inter-island transport between nearby islands

Scale up energy efficiency programs (LED bulbs, LED street lights, star labelled appliances etc) – fine tune the program based on the experience from Male' island



Implement policies to prevent addition of DG Sets capacity

Explore techno-economic feasibility for replication/scaling up of:

- Microgrids with solar PV
- Floating solar plants
- Floating wind mills
- Waste to Energy plants

Launch programs for replacement of DG sets smaller than 100 kW with batteries and other sources of generation



Work & Asset Management (WAM)

- Consumer Indexing at distribution level
- Implementation of ERP system
- Develop and implement a communication system plan

Grid Operations (GO)

- Business Case for new equipment and system related to Smart Grid (SCADA,/DMS, GIS)
- Framework to calculate outages and reliability indices
- Expand and upgrade electrical network to achieve 100% rural electrification

Organization & Structure (OS)

- Articulate needs to build Smart Grid competencies
- Organization structure needs to be aligned to align as per Smart Grid Vision & Roadmap
- Workshops/Seminars on Smart Grid Technologies

Strategy, Management & Regulatory (SMR)

- Smart Grid Vision, Roadmap, Policy and Strategy development
- Training to key personnel
- Identify areas for RE growth and integration with grid
- Identify potential area for pilot project implementation

Nepal Smart Grid Roadmap 2020-25



Societal and Environmental

- Publish the smart road map with emphasis on DISCOM's role in environment and societal issues , organization role in protecting nation's critical infrastructure
- Approved environment compliance records to public

Customer

- Conduct research studies for customer experience
- Conduct workshops to educate customers
- Consult with public utility commission and /or other government related organizations

Technology

- Development of an enterprise IT Architecture
- Implement one integrated billing system in DISCOM
- Prepare cloud strategy for future expansion

Work and Asset Management (WAM)

- ERP implementation and integration with GIS
- Plan for hotline maintenance
- Prepare plan for mobile workforce management (MWFM) system

Strategy, Management & Regulatory (SMR)

- Approval and acceptance of Smart Grid Roadmap from higher management
- Approval of smart grid projects and investments
- Update policies and regulations

Organization & Structure (OS)

- Approval of Manpower Plan
- Restructuring of organization hierarchy
- Plan for linking compensation and incentives
- Plan workshop and train key personnel

Grid Operations (GO)

- Establish SCADA/DMS in urban areas by 2025
- Establish demand response (DR) for peak load management at customer level
- Establish outage management system (OMS) for outage restoration
- Implement AMI in DISCOMs

Nepal Smart Grid Roadmap 2025-30

Organization & Structure (OS)

- Redesigning of organization structure
- Conduct educational training programs
- Development of knowledge management framework

Grid Operations (GO)

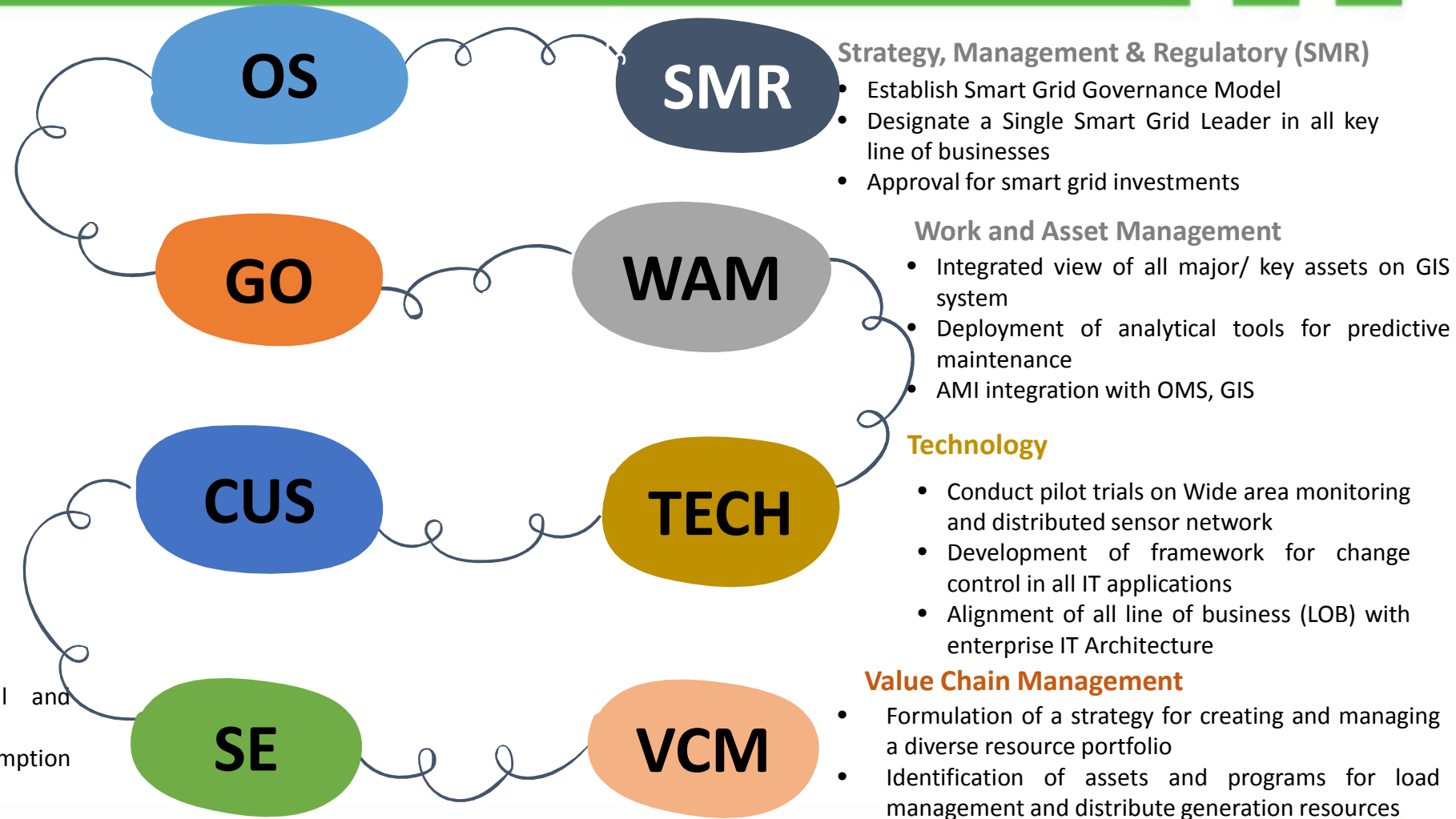
- Upgrade electrical network to support estimated peak demand growth
- Replacement of DTs with higher capacity DTs
- Peak Load management through Demand Response(DR) at customer premises

Customer

- Implementation of a state-of-the-art customer portal
- Leveraging social media for customer engagement
- Prosumer enablement and net-metering plans

Societal & Environment

- Finalize work plans for addressing societal and environmental issues
- Provide details of granular level energy consumption data to customers
- Diesel Generator (DG) replacement with battery



Pakistan Smart Grid Roadmap 2018-20



Work & Asset Management (WAM)

- Consumer Indexing at distribution level
- Implementation of ERP system
- Develop and implement a communication system plan
- Define business case for GIS and Asset mapping at T&D levels

Grid Operations (GO)

- Business Case for new equipment and system related to Smart Grid (SCADA,/DMS, GIS)
- Framework to calculate outages and reliability indices
- Expand and upgrade electrical network to achieve 100% rural electrification
- Prepare a Smart Grid Roadmap for Discos (10~15 years)

Organization & Structure (OS)

- Articulate needs to build Smart Grid competencies
- Organization structure needs to be aligned to align as per Smart Grid Vision & Roadmap
- Workshops/Seminars on Smart Grid Technologies

Strategy, Management & Regulatory (SMR)

- Smart Grid Vision, Roadmap, Policy and Strategy development
- Make departmental structure for smart grid implementation
- Identify areas for RE growth and integration with grid
- Identify potential area for pilot project implementation

Pakistan Smart Grid Roadmap 2020-25

Societal and Environmental

- Publish the smart road map with emphasis on DISCOs role in environment and societal issues , organization role in protecting nation's critical infrastructure
- Approved environment compliance record to public

Customer

- Conduct research studies for customer experience
- Conduct workshops to educate customers
- Consult with public utility commission and /or other government related organizations

Technology

- Development of an enterprise IT Architecture
- Implement one integrated billing system in DISCOs
- Prepare cloud strategy for future expansion
- Cybersecurity audit

Work and Asset Management (WAM)

- ERP implementation and integration with GIS
- System upgrade plans for load forecast every year
- Systems for tracking inventory and event history of assets on GIS maps

Strategy, Management & Regulatory (SMR)

- Approval and acceptance of Smart Grid Roadmap from higher management
- Approval of smart grid projects and investments
- Update policies and regulations

Organization & Structure (OS)

- Approval of Manpower Plan
- Restructuring of organization hierarchy
- Plan for linking compensation and incentives
- Plan workshop and train key personnel

Grid Operations (GO)

- Establish SCADA/DMS in urban areas by 2025
- Establish outage management system (OMS) for outage restoration
- Implement AMI in DISCOMs
- Creating a new Generation and Transmission network by upgrading T&D capacity

Pakistan Smart Grid Roadmap 2025-30

Organization & Structure (OS)

- Redesigning of organization structure
- Conduct educational training programs
- Performance awards and compensations for SG programs and projects

Grid Operations (GO)

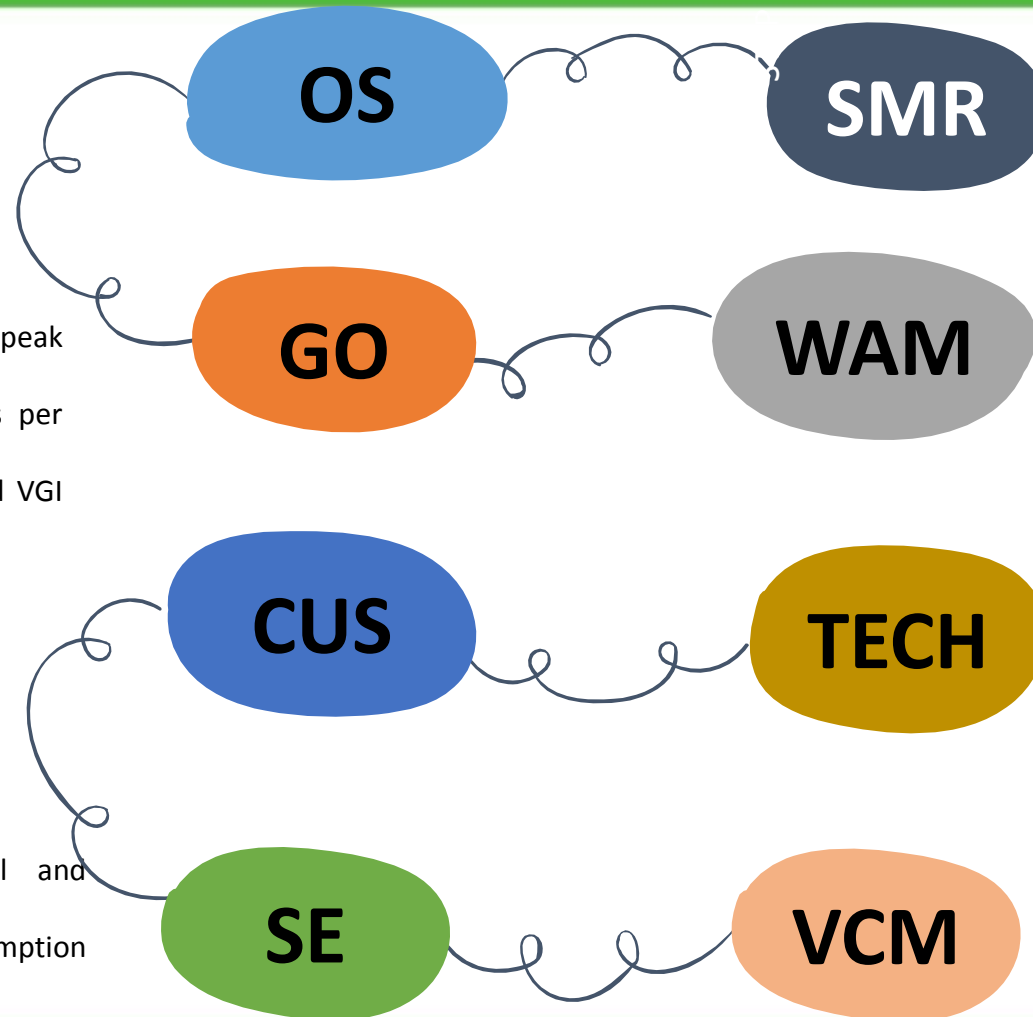
- Upgrade electrical network to support estimated peak demand growth
- Increase transformation capacity at DT level as per organization target of 2030
- Plan for rollout of EV charging infrastructure and VGI integration

Customer

- Implementation of a state-of-the-art customer portal
- Leveraging social media for customer engagement
- Prosumer enablement and net-metering plans

Societal & Environment

- Finalize work plans for addressing societal and environmental issues
- Provide details of granular level energy consumption data to customers
- Diesel Generator (DG) replacement with battery



Strategy, Management & Regulatory (SMR)

- Establish Smart Grid Governance Model
- Designate a Single Smart Grid Leader in all key line of businesses
- Approval for smart grid investments

Work and Asset Management

- Frequent upgradation of communication systems
- Deployment of analytical tools for predictive maintenance
- AMI integration with OMS, GIS

Technology

- Conduct pilot trials on Wide area monitoring and distributed sensor network
- Development of framework for change control in all IT applications
- Alignment of all line of business (LOB) with enterprise IT Architecture

Value Chain Management

- Adopt Triple Bottom Line (TBL) framework for key decisions
- Undertake proof of concept projects of Smart Grid technologies



Work & Asset Management (WAM)

- Consumer Indexing at distribution level and map it on GIS
- Implementation of ERP system
- Develop and implement a communication system plan
- Define business case for GIS and Asset mapping at T&D levels

Grid Operations (GO)

- Business Case for new equipment and system related to Smart Grid (SCADA,/DMS, GIS)
- Framework to calculate outages and reliability indices
- Prepare a Smart Grid Roadmap for Discos (10~15 years)
- Implementation of Cyber security measures like Identity and Access Management System, implement relevant recommendation of cyber security authorities

Organization & Structure (OS)

- Articulate needs to build Smart Grid competencies
- Organization structure needs to be aligned to align as per Smart Grid Vision & Roadmap
- Workshops/Seminars on Smart Grid Technologies

Strategy, Management & Regulatory (SMR)

- Smart Grid Vision, Roadmap, Policy and Strategy development
- Make departmental structure for smart grid implementation
- Identify areas for RE growth and integration with grid
- Identify potential area for pilot project implementation

Sri Lanka Smart Grid Roadmap 2020-25

Societal and Environmental

- Publish the smart road map with emphasis on DISCOs role in environment and societal issues , organization role in protecting nation's critical infrastructure
- Approved environment compliance records to public

Customer

- Conduct research studies for customer experience
- Conduct workshops to educate customers
- Consult with public utility commission and /or other government related organizations

Technology

- Development of an enterprise IT Architecture
- Implement one integrated billing system in DISCOs
- Prepare cloud strategy for future expansion
- Cybersecurity audit

Work and Asset Management (WAM)

- ERP implementation and integration with GIS
- Prepare plan for mobile workforce management (MWFM) systems
- Systems for tracking inventory and event history of assets on GIS maps

Strategy, Management & Regulatory (SMR)

- Approval and acceptance of Smart Grid Roadmap from higher management
- Approval of smart grid projects and investments
- Update policies and regulations

Organization & Structure (OS)

- Approval of Manpower Plan
- Restructuring of organization hierarchy
- Plan for linking compensation and incentives
- Plan workshop and train key personnel

Grid Operations (GO)

- Establish SCADA/DMS in urban areas by 2025
- Establish outage management system (OMS) for outage restoration
- Implement AMI in DISCOMs
- Creating a new Generation and Transmission network by upgrading T&D capacity
- Install pilot EV charging infrastructure

Sri Lanka Smart Grid Roadmap 2025-30

Organization & Structure (OS)

- Redesigning of organization structure
- Conduct educational training programs
- Development of knowledge management framework

Grid Operations (GO)

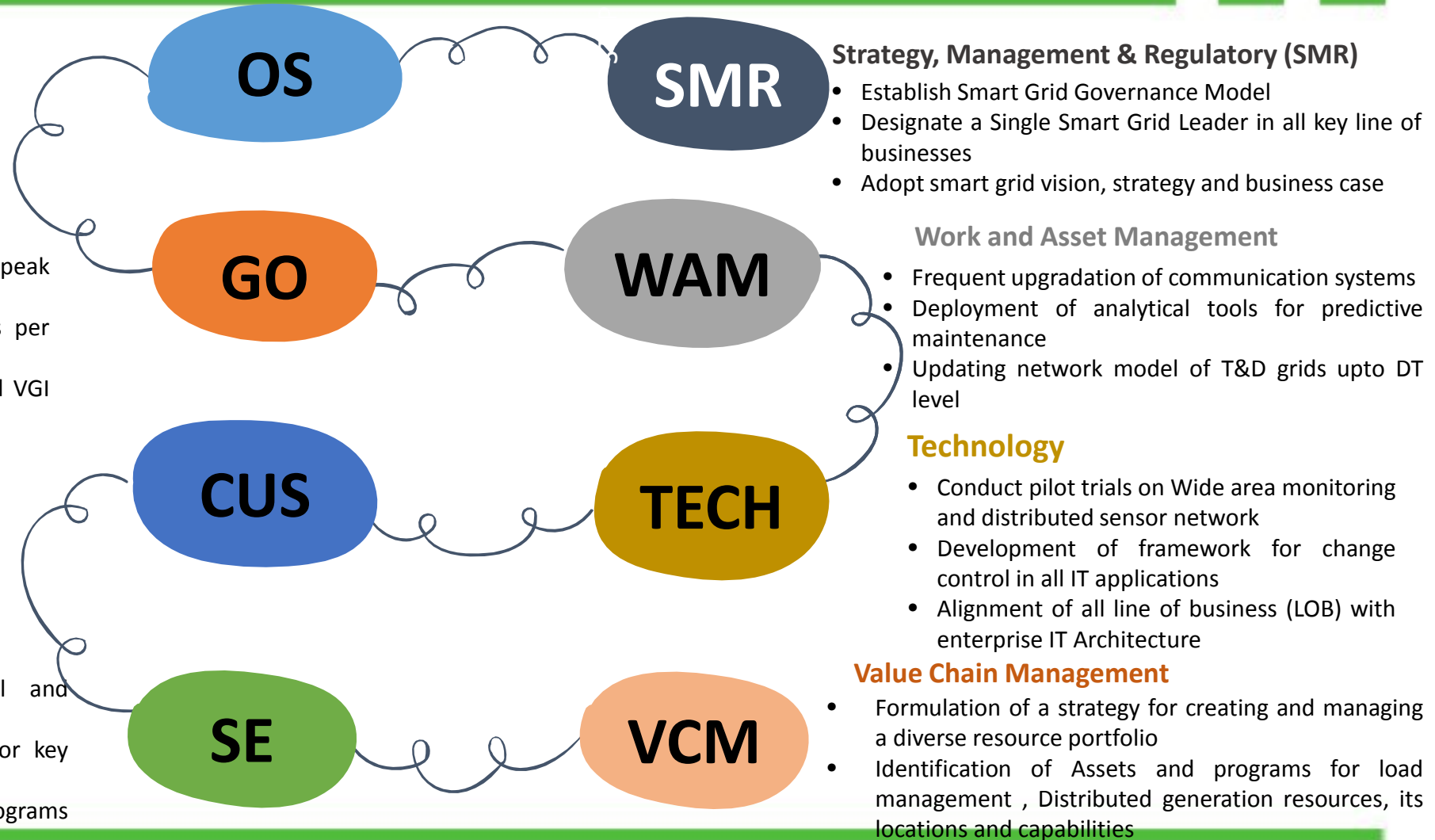
- Upgrade electrical network to support estimated peak demand growth
- Increase transformation capacity at DT level as per organization target of 2030
- Plan for rollout of EV charging infrastructure and VGI integration in all urban areas

Customer

- Analysis of electricity consumption behavior and pattern of residential consumers
- Leveraging social media for customer engagement
- Prosumer enablement and net-metering plans

Societal & Environment

- Finalize work plans for addressing societal and environmental issues
- Adopt “Triple Bottom Line” (TBL) framework for key decisions
- Offer smart grid supported energy efficiency programs for customers



Thank You

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