SMART METERING AS A SERVICE

ERICSSON

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SMART METERING GLOBAL OFFERING LEAD

NETWORKED SOCIETY

Connections (billion)

50

40

30

20

10

15 years
50 billion connected devices

25 years
5 billion connected people

100 years
1 billion connected places

1875   1975   2000   2020

WHY SMART METERING AS A SERVICE?

Improve Quality of Service

Technology shift
Next Gen. Networks complexity
Multi-service networks

Multi vendor, multi-player, multi-stakeholder environments

Communication networks/solutions are critical but not core business

Competence management for non-core activities

Increased project complexity

CAPEX to OPEX Transformation - Increased cost flexibility

Utility benefits:

› Utility can focus on core business/activities
› Optimal Technology choice
› One Single-Point-of-Contact
› Access to best in class resources for managing their network
› A controllable and visible solution operational cost
› Flexible solution that follows the company's core activities requirements
› A proven approach to reducing the total cost of ownership

BUSINESS CHALLENGES

FUTURE PROOF
- › Long term technology sustainability
- › Open or easy to access data, technologies and protocols
- › Flexible and adaptable to regulatory and market changes

EFFICIENCY
- › Use of existing infrastructure (no redundant investments)
- › Connectivity agnostic
- › Cost reduction due to economies of scale

SCALABILITY
- › Many services (water, electricity, waste, street lights, etc.),
- › Geographic scalability
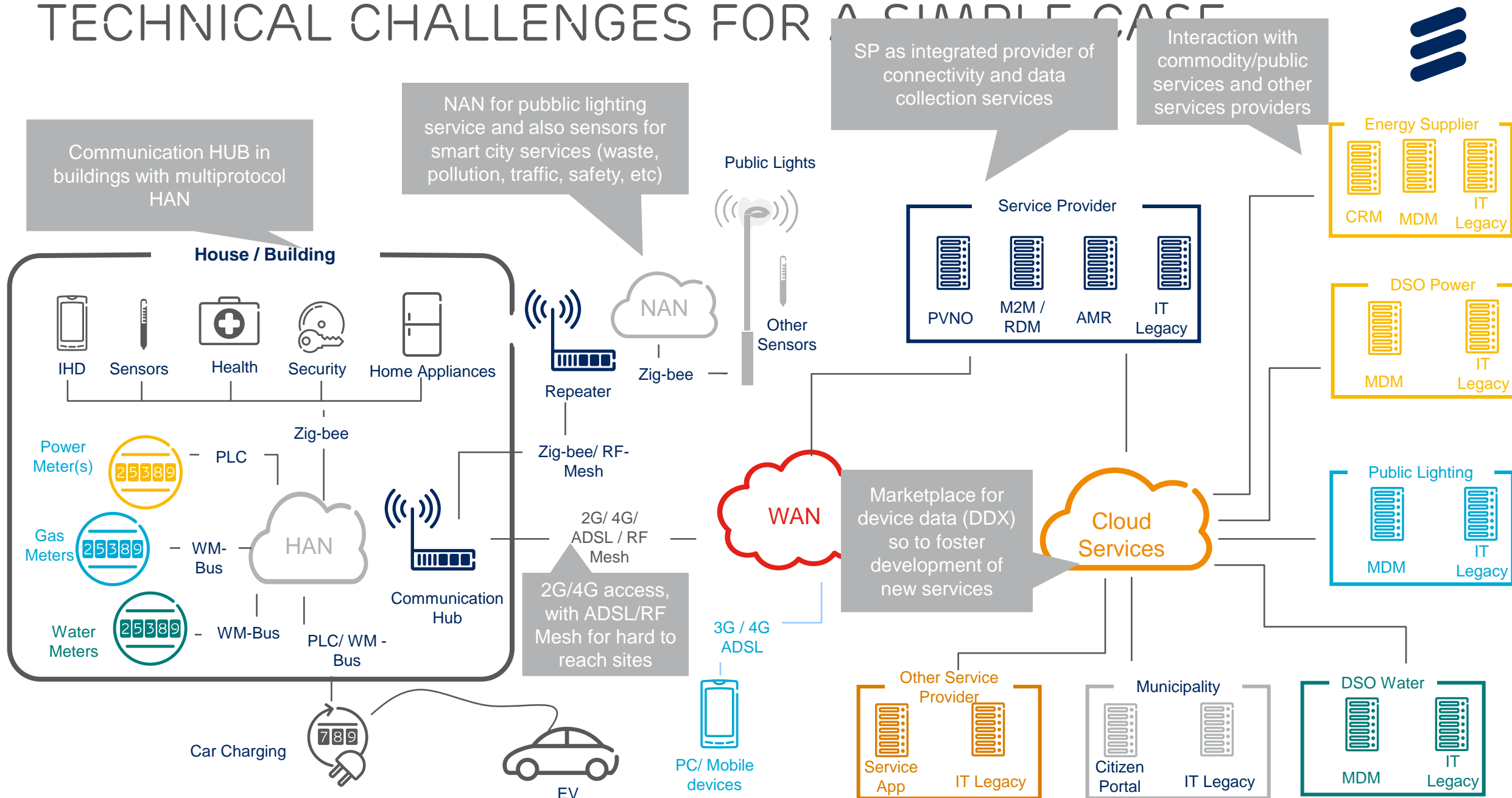- › Capable to enable smart city development

CONTROL
- › Utilities needs to keep the control of the operational data and solution development
- › Security and data privacy need to be managed
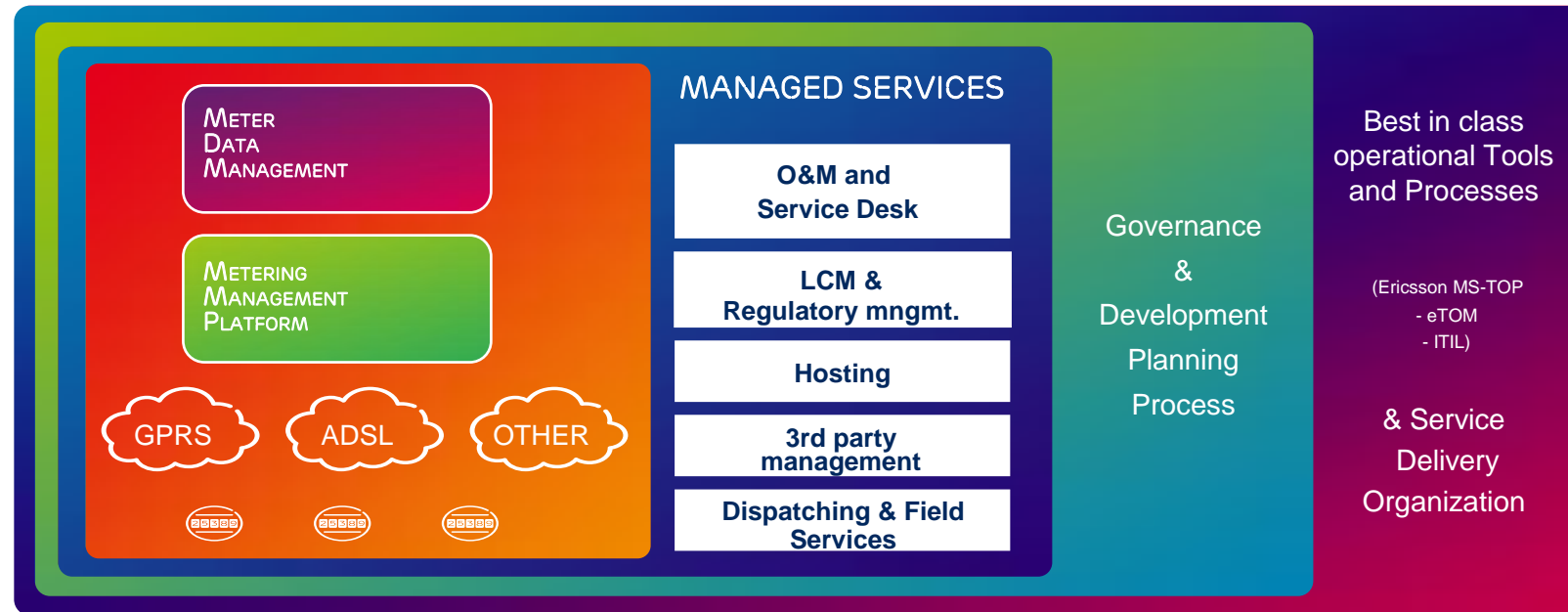
SMaaS SHOULD ENABLE MARKET COMPETION

TECHNICAL CHALLENGES FOR A SIMPLE CASE

SP as integrated provider of connectivity and data collection services

Interaction with commodity/public services and other services providers

Communication HUB in buildings with multiprotocol HAN

NAN for pubblic lighting service and also sensors for smart city services (waste, pollution, traffic, safety, etc)

Public Lights

Energy Supplier

CRM   MDM   IT Legacy

House / Building

IHD   Sensors   Health   Security   Home Appliances

NAN

Service Provider

PVNO   M2M / RDM   AMR   IT Legacy

Other Sensors

Zig-bee

Repeater

DSO Power

MDM   IT Legacy

Power Meter(s)   25389   PLC

Zig-bee

Zig-bee/ RF-Mesh

Gas Meters   25389   WM-Bus

HAN

Communication Hub

2G/ 4G/ ADSL / RF Mesh

WAN

Marketplace for device data (DDX) so to foster development of new services

Cloud Services

Public Lighting

MDM   IT Legacy

Water Meters   25389   WM-Bus

PLC/ WM - Bus

2G/4G access, with ADSL/RF Mesh for hard to reach sites

3G / 4G ADSL

Car Charging   789

EV

PC/ Mobile devices

Other Service Provider

Service App   IT Legacy

Municipality

Citizen Portal   IT Legacy

DSO Water

MDM   IT Legacy

SMART METERING IS MORE THAN AMI

MANAGED SERVICES

METER DATA MANAGEMENT

METERING MANAGEMENT PLATFORM

GPRS   ADSL   OTHER

O&M and Service Desk

LCM & Regulatory mngmt.

Hosting

3rd party management

Dispatching & Field Services

Governance & Development Planning Process

Best in class operational Tools and Processes

(Ericsson MS-TOP
- eTOM
- ITIL)

& Service Delivery Organization

REAL CASES

ITALY

SWEDEN

ESTONIA

FINLAND

› Third largest power distributor in Italy (and #1 water distributor in Italy).
› Complete managed Advanced Metering Management operation service for **1.6 million** electricity meters and 500 street-lighting substations

› E.ON Elnat Sverige, part of E.ON Group
› Ericsson operates more than **600.000** E.ON smart meters from 20 different vendors in Sweden
› Solution combines managed services, system integration, ICT and field services
› Industrialization of "Meter-to-Cash" processes

› Electrilevi is the main DSO in Estonia
› Ericsson as prime integrator to suplpy, deploy, system integrate and run a smart metering network
› Includes deployment of **630.000** smart meters and the needed IT systems

› Ericsson chosen to deliver nationwide SMaaS (including related field operations) for more than **700.000** L&G meters and more than 20 customers in Finland. Contract starts Oct 1st, 2014
› Contract includes transfer of 13 L&G employees to Ericsson

ESTABLISH & OPERATE NEW SERVICES
CUSTOMER NEEDS

› Competence and skills to launch a new services and technology

› Managing risks during a change in the communication network and metering devices roll-out

No decline in performance during the process

ESTABLISH & OPERATE NEW SOLUTION
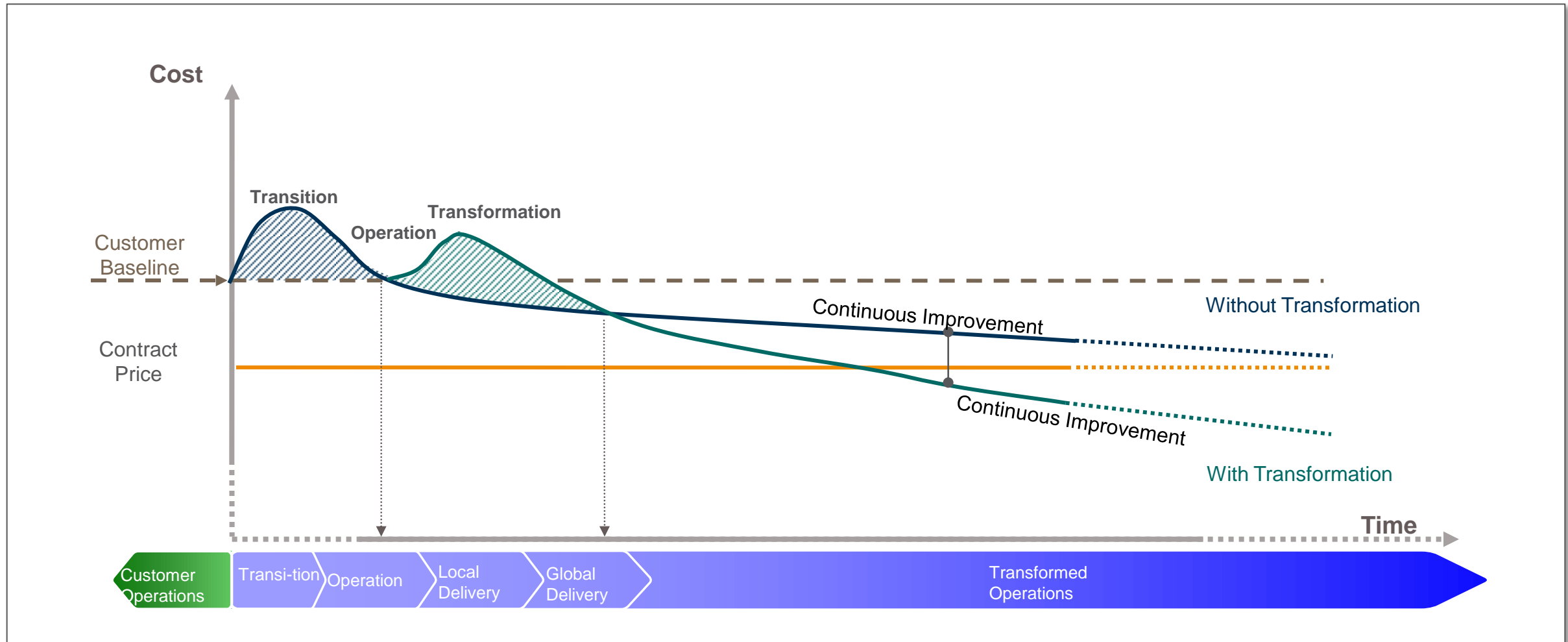## SMART METERING AS SERVICE TO OFFER

› Global knowledge and experience delivered locally within your premises

› Quality improvement linked to Operational Readiness activities

› End to end operations responsibility during critical change period

› Competence transfer
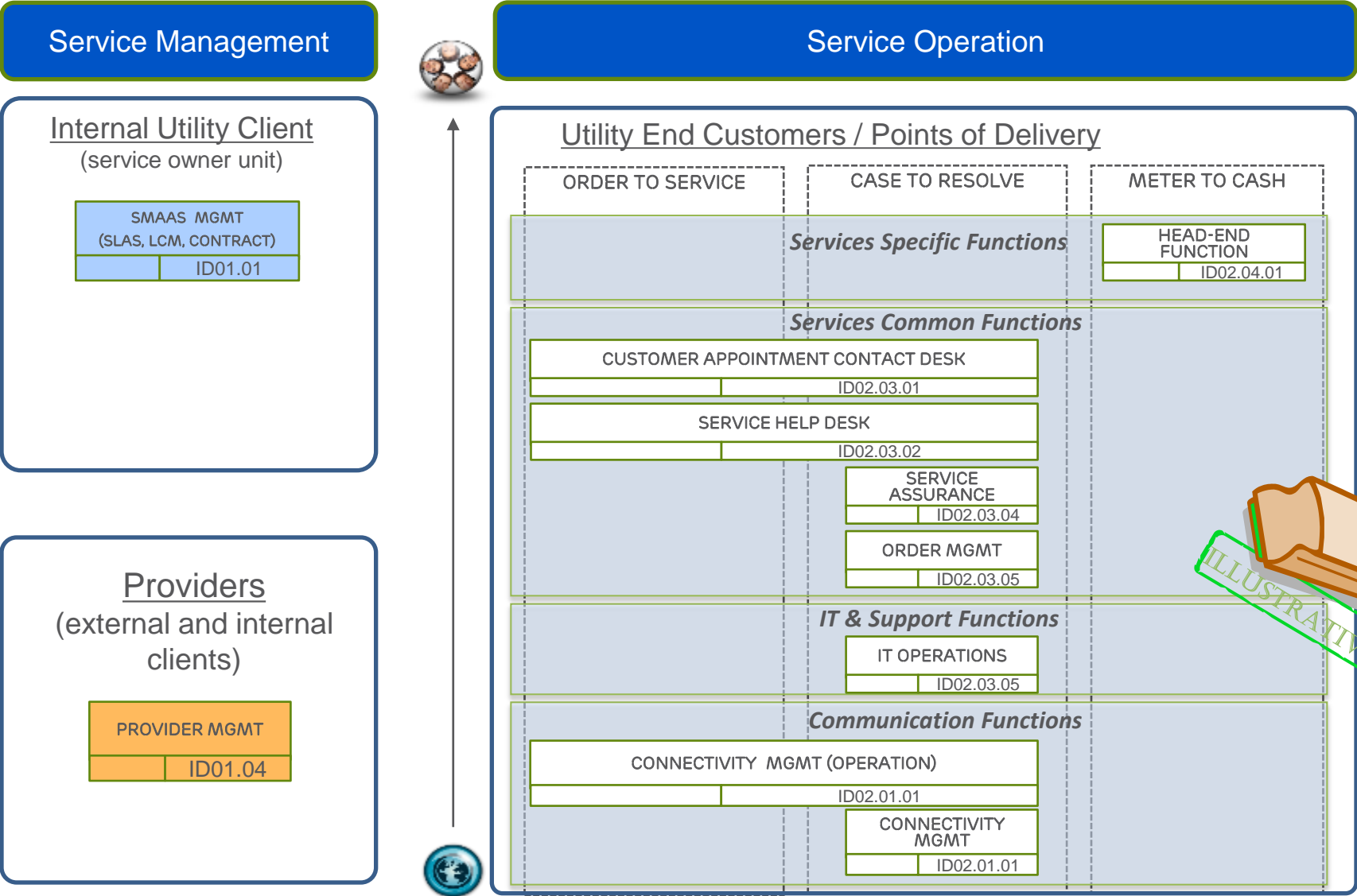
Fast time to market for
new solution and services

UNDERSTAND BEFORE TRANSFORM

The Transition – Operation – Transformation methodology helps guarantee a successful service outsourcing and transformation program

SMAAS: MODEL USE EXAMPLE (SIMPLIFIED)

Service Management	Service Operation

Service Management

Internal Utility Client
(service owner unit)

SMAAS MGMT (SLAS, LCM, CONTRACT)	
	ID01.01

Providers
(external and internal clients)

PROVIDER MGMT	
	ID01.04

Service Operation

Utility End Customers / Points of Delivery

ORDER TO SERVICE	CASE TO RESOLVE	METER TO CASH

Services Specific Functions

HEAD-END FUNCTION	
	ID02.04.01

Services Common Functions

CUSTOMER APPOINTMENT CONTACT DESK	
	ID02.03.01

SERVICE HELP DESK	
	ID02.03.02

SERVICE ASSURANCE	
	ID02.03.04

ORDER MGMT	
	ID02.03.05

IT & Support Functions

IT OPERATIONS	
	ID02.03.05

Communication Functions

CONNECTIVITY MGMT (OPERATION)	
	ID02.01.01

CONNECTIVITY MGMT	
	ID02.01.01

ILLUSTRATIVE

ITIL

tmforum

ERICSSON

Ericsson SMaaS acts as main point of contact for all Smart Metering related activities, simplifying the utilities relationship with internal and external clients
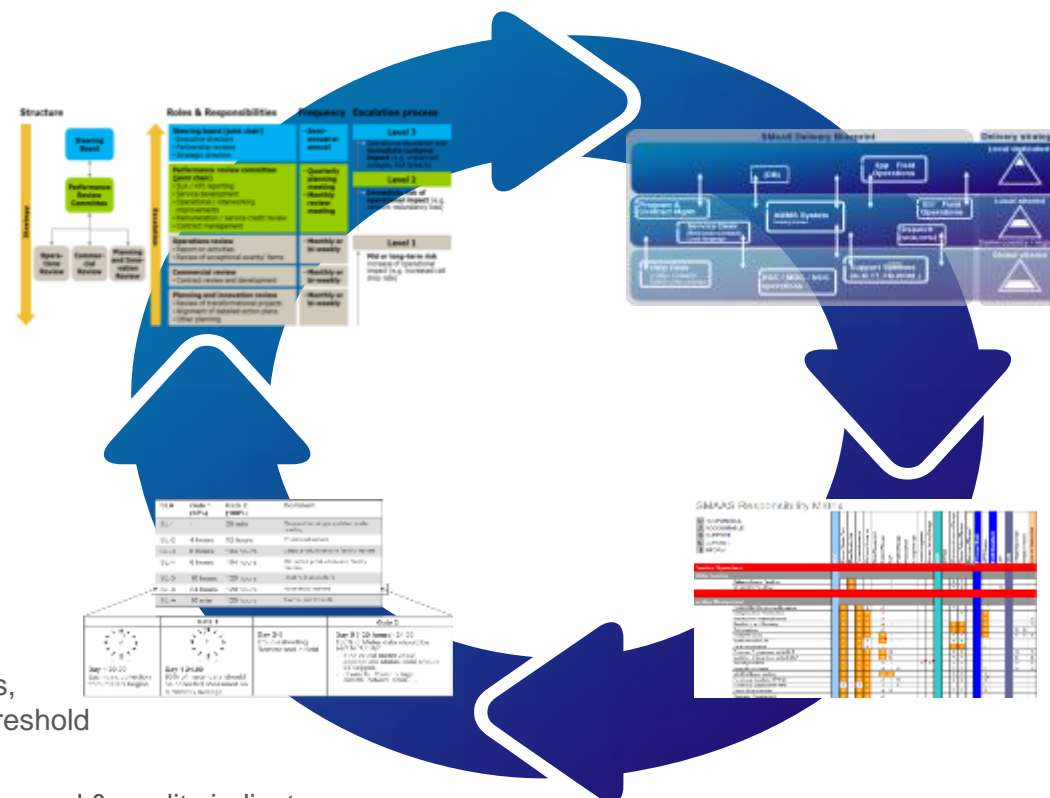
MAIN COMPONENTS OF A INDUSTRIALIZED SERVICE MANAGEMENT MODEL

GOVERNANCE MODEL

› Three-level governance model:
  - Level1: Operations, Commercial, Planning & Innovation review
  - Level 2: Performance review
  - Level 3: Steering Board review

OPERATIONAL MODEL

› Industrialized processes and procedures
› Combination of local dedicated, local/global dedicated/shared resources
› Based on Ericsson Managed Services Blueprint

SLAS & REPORTING

› KPIS/SLAs to be agreed between both parties, including severity level, description, type & threshold
› Reports include:
  - Quaterly Service Performance Report (scorecard & quality indicators, KPI trends, Procedure Manual Reviews, and proposals for strategy changes)
  - Monthly Service Performance Reports (status report, forecast, Service Quality & SLA fulfilment, complaints, etc.)
 - Incident / Service Fault Reports

RESPONSIBILITY MATRIX

› RASCI (Responsible, Accountable, Support, Consult, Inform) matrix covering all service domains (Service Management & Service Operations) according to MSTOP framework:
  - Delivery management (service strategy)
  - Planning & Engineering
  - Deployment & Integration
  - Service Operations

SMAAS: TECHNICAL SOLUTION
MODEL FLEXIBILITY /ADAPTABILITY
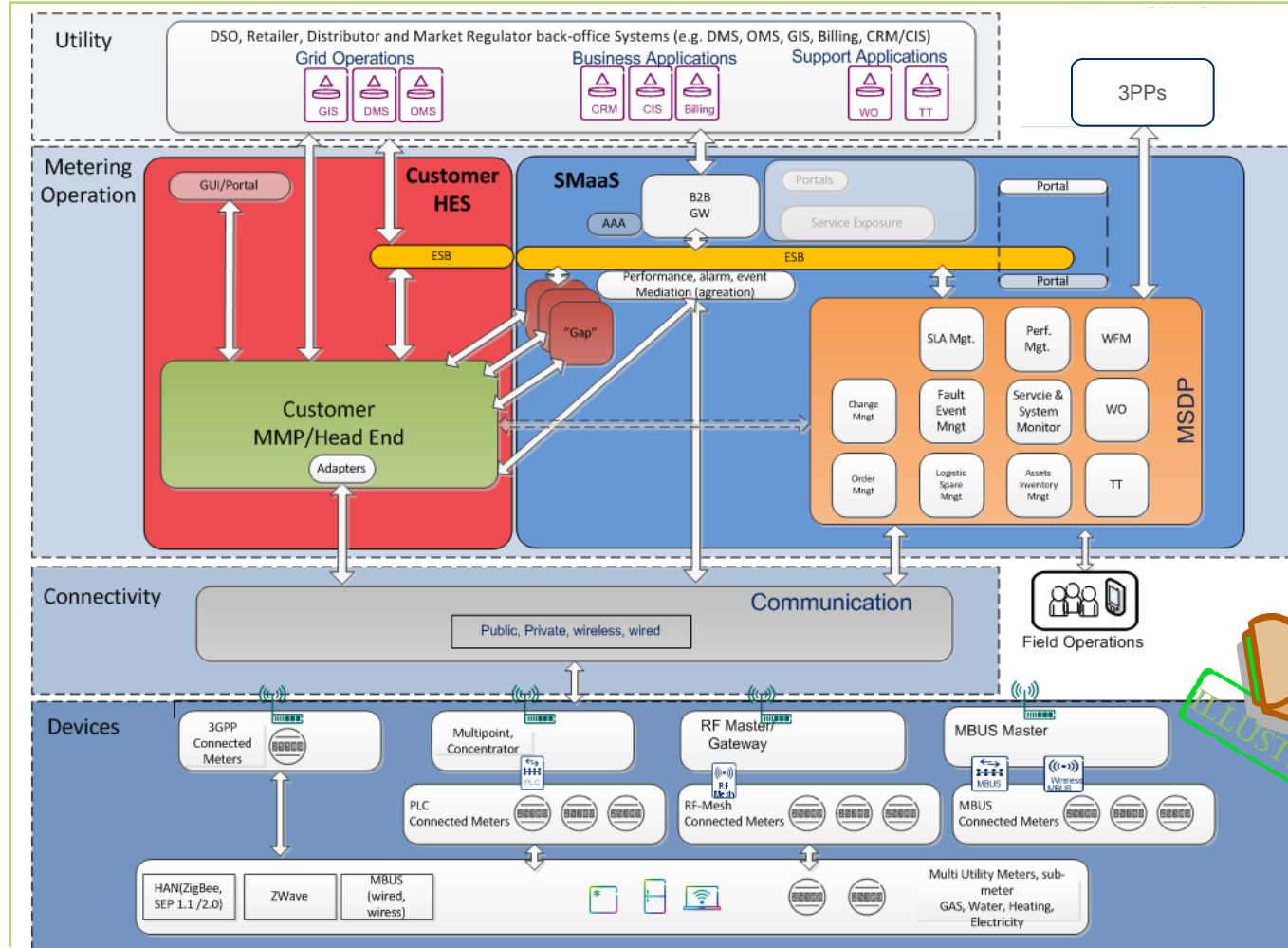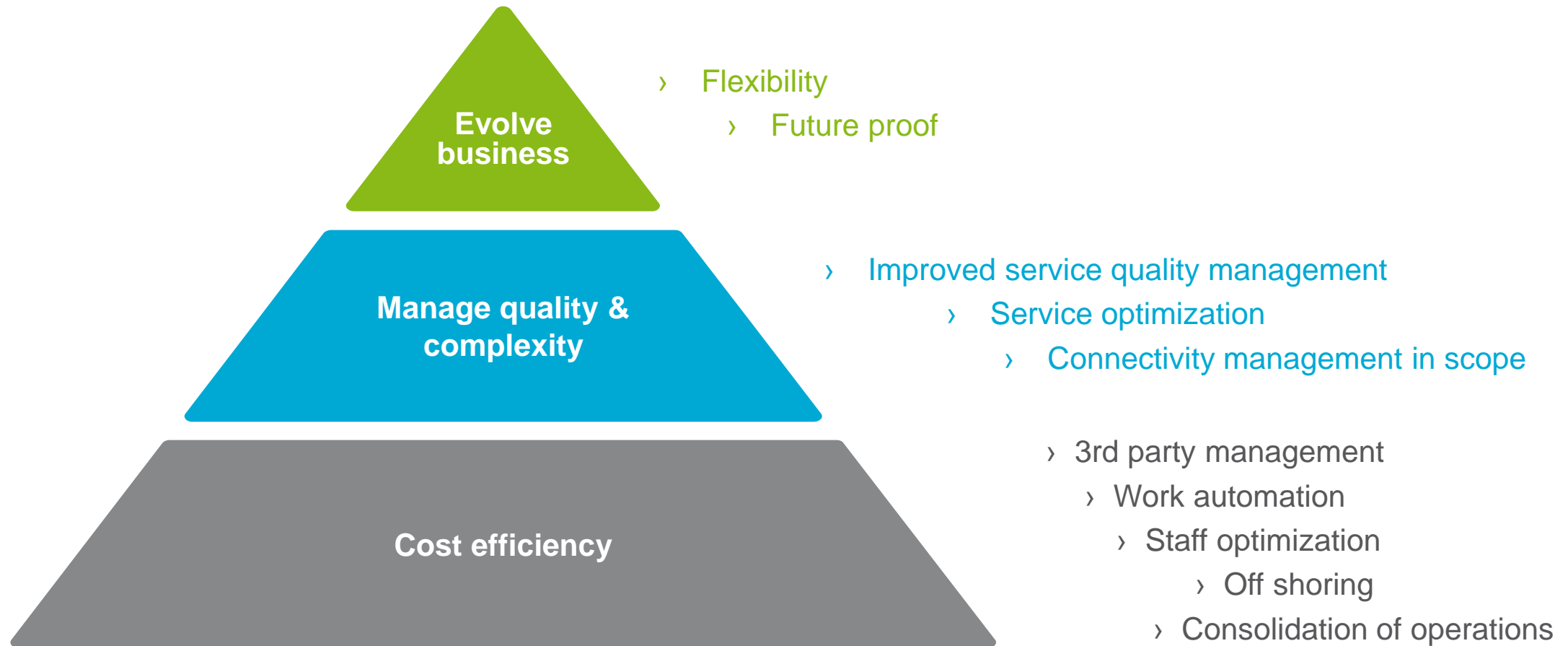

OPTION COULD BE IMPACTED BY:

- Regulation (reading data into the borders)

- Client strategy

- "Shoring" model

- Service scope (main impacting areas ; field services and connectivity)

Technical solution shall be flexible to achieve best fit to Utility business requirements

MODEL BENEFITS

Evolve business

› Flexibility

› Future proof

Manage quality & complexity

› Improved service quality management

› Service optimization

› Connectivity management in scope

Cost efficiency

› 3rd party management

› Work automation

› Staff optimization

› Off shoring

› Consolidation of operations

Methodology should guarantee a proper knowledge transfer to avoid service provider lock in

NEXT STEPS

- Begin with non mission critical services (Smart metering)

- Put focus in the KPIs management related with security and processes improvement

- Work with a reliable partners

ERICSSON UTILITIES REFERENCES
SOME EXAMPLES

SMART GRID OPERATIONS

SMART METERING

SMART GRID COMMUNICATIONS

UTILITIES TRACK RECORD

>42 MILLION METERS

MANAGED BY PLATFORMS DEVELOPED, OPERATED OR MAINTAINED BY ERICSSON

>20% SAVINGS

IN COST OF COMMUNICATIONS OPERATION, BY UTILITIES THAT HAVE SELECTED OUR COMMUNICATIONS NETWORK OPERATION SERVICES

INNOVATION

FOCUS ON INNOVATION FOR UTILITIES, PARTICIPATING IN SEVERAL INNOVATION PROJECTS SUCH AS GAD, STOCKHOLM ROYAL SEAPORT, AUSGRID, FINESCE, ADDRESS, PRICE AND ELVIIS

STANDARDS

PARTICIPATING IN SEVERAL STANDARDIZATION BODIES FOR UTILITIES SUCH AS MANDATES M441 AND M490, ESMIG, ETSI M2M, NIST, IEEE, UTC, GWAC, ETC.

FIRST 4G (LTE) NETWORK

DESIGNED AND DEPLOYED FOR SMART GRID & FIELD FORCE COMMUNICATIONS

9 UTILITIES

HAVE SELECTED ERICSSON'S SMART METERING AS A SERVICE MODEL

NEXT GENERATION ENERGY NETWORK POWERED BY ICT...

LOOK FOR STRONG GLOBAL TECHNOLOGY ECO-SYSTEMS
CONTRIBUTE TO & LEARN FROM GLOBAL EXPERIENCE

MUCHAS GRACIAS

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