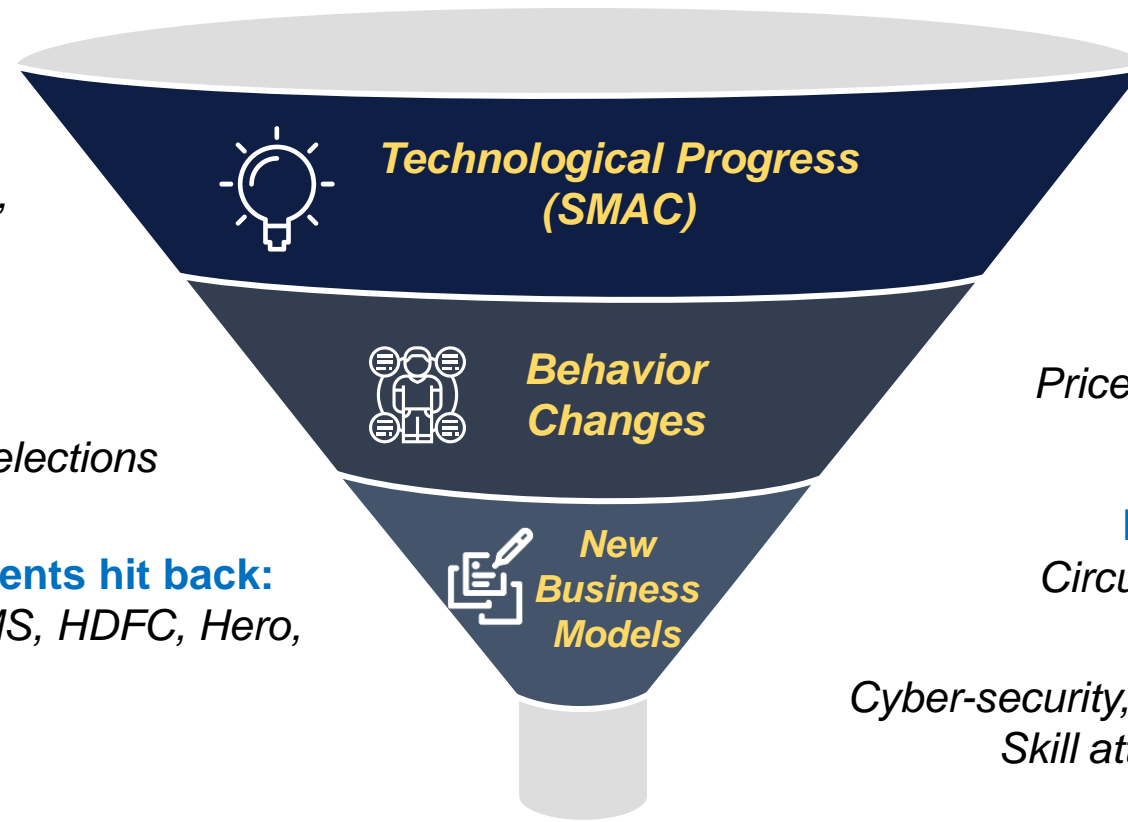


Digital Transformation Initiatives in Mining & Metals – the Tata Steel approach

*Sarajit Jha, Chief Digital Value Acceleration Team
Tata Steel, India*

The Digital Vortex is gaining speed - disruption to become new constant



Age of Platforms:

Android / iOS, FB / Whatapp, Uber / Airbnb, Netflix

Sci-Fi tech democratized:
LiFi, Autonomous cars, AI digital assistants, Neuralink

Black Swan events:

Brexit, Trump win, Demonetization, UP elections

Hyper-competition:
Price transparency, Ubiquitous reach, WoM, Social Search

A few Incumbents hit back:
GE, CISCO, MS, HDFC, Hero, Apple, TSL?

Newer ways of doing things:
Circular economy, Crowd-economy
And bigger Risks:
Cyber-security, Unemployment Armageddon, Skill attrition, Digital detox, Post-truth

Winner takes it all!

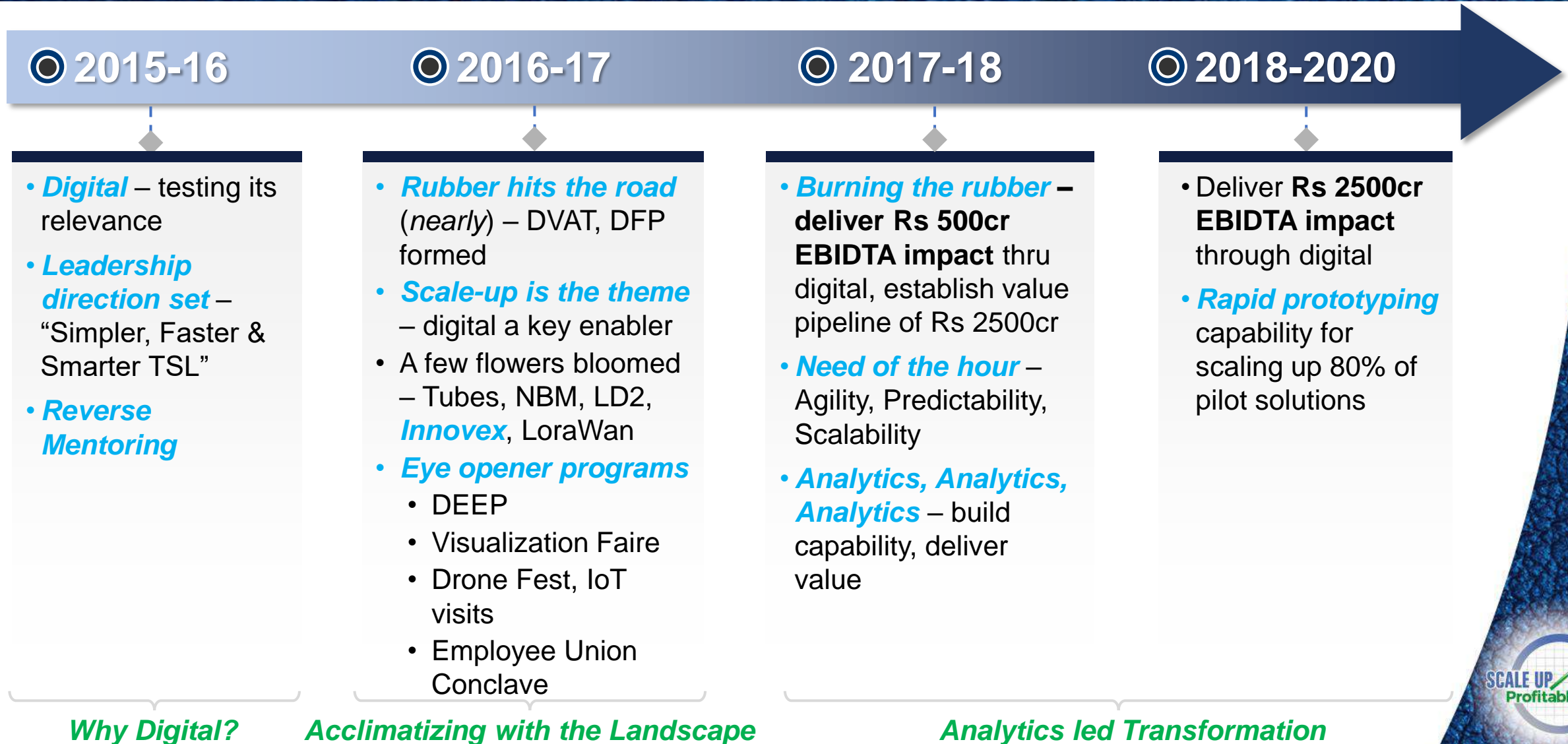
CURIOSITY

COLLABORATION

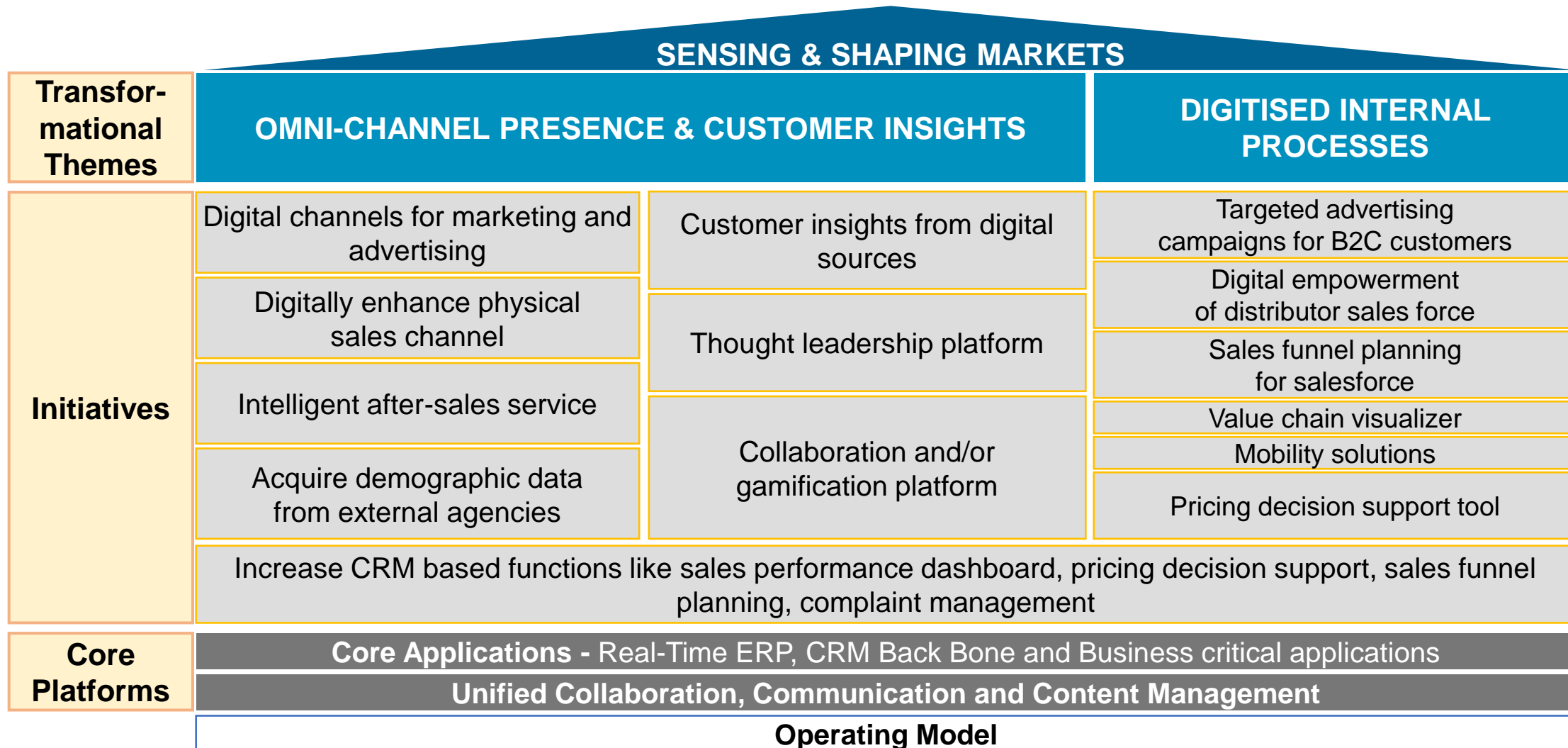
CURATION



The Journey thus far and the North Star



TSL's Customer focus - Sensing & Shaping Markets



We need to learn from and mitigate against common digital failure patterns seen globally



“Digital centricity, not customer centricity”



“Thousand points of digital light”



“Treatment of technology as an outcome/solution”



“Over-indexing on short-term gains”



“Lack of clarity on tangible \$ impact, becomes a process redesign exercise”

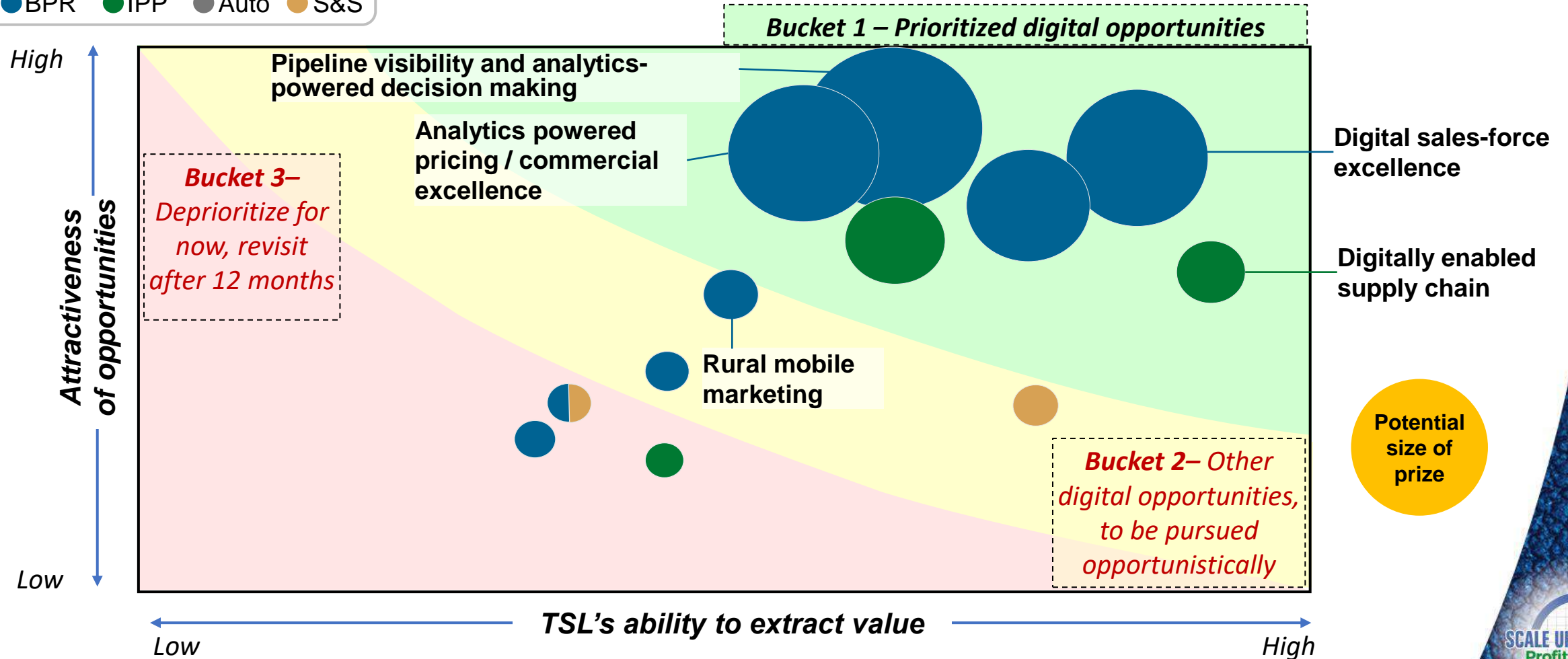


“Focusing on digital alone rather than digital + physical incl. change management”

Prioritization Matrix used to identify digital opportunities for TSL across customer segments

Legend

- BPR
- IPP
- Auto
- S&S



Note: Attractiveness determined by degree of business impact based on global / internal analogs and extent of impact on TSL's business, Ability to extract value determined by TSL's readiness (tech / capability / org) and ecosystem readiness (Customers / Partners / Regulations / Risk / Gestation period)



Digital Radar can help move towards our Digital vision, along 6 key elements

DIGITAL DEPARTURE

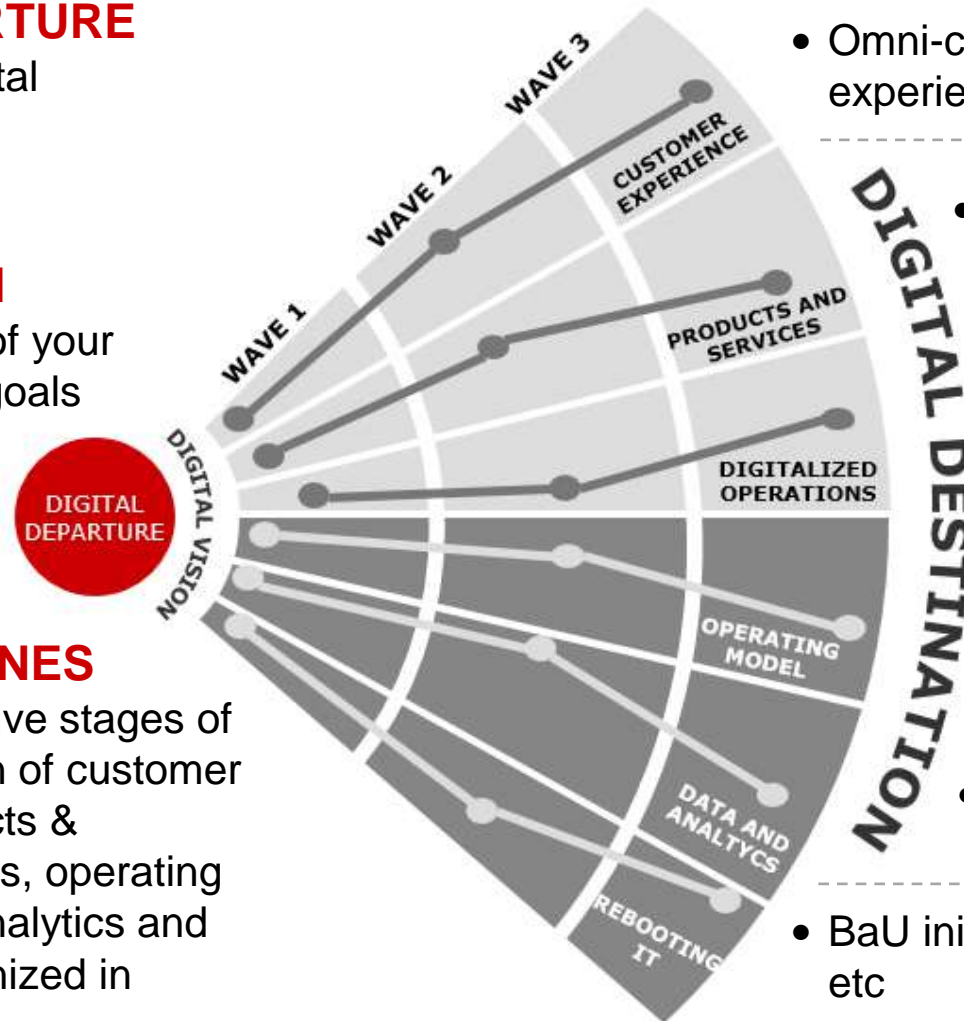
A statement of digital progress to date

DIGITAL VISION

A clear statement of your company's digital goals

STEPPING STONES

Concrete, successive stages of the digital evolution of customer experience, products & services, operations, operating model, data and analytics and IT backbone, organized in WAVES



- Omni-channel and seamless customer experience

- Rapid and collaborative product engineering & design

- Digitally enabled supply chain & sales-force

- Market place for Consumer services

- Analytics driven sales excellence

- BaU initiatives such as EDI, CRM, etc

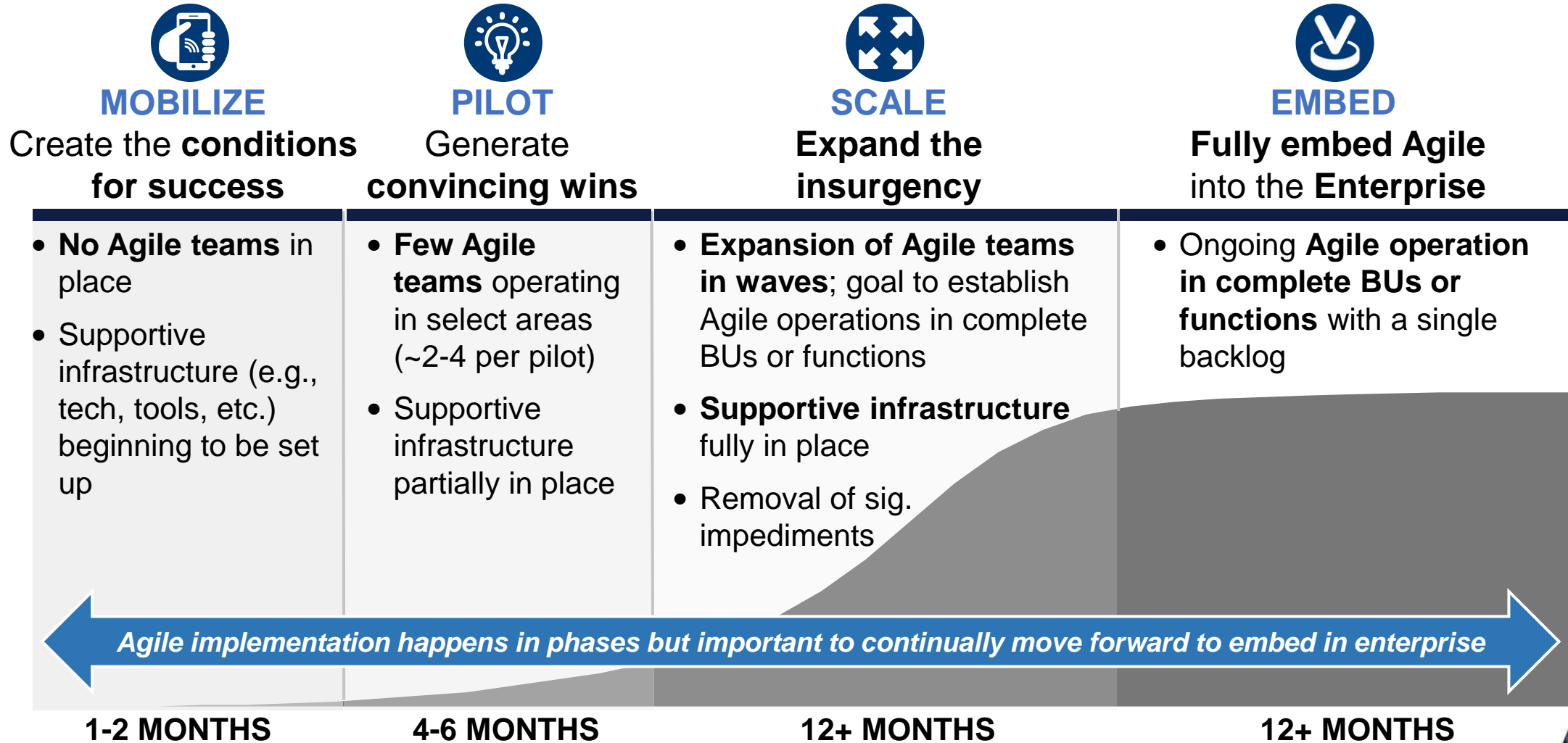
ORCHESTRATION

How you move step by step and adapt along the way

DIGITAL DESTINATION

A picture of your sector's likely future

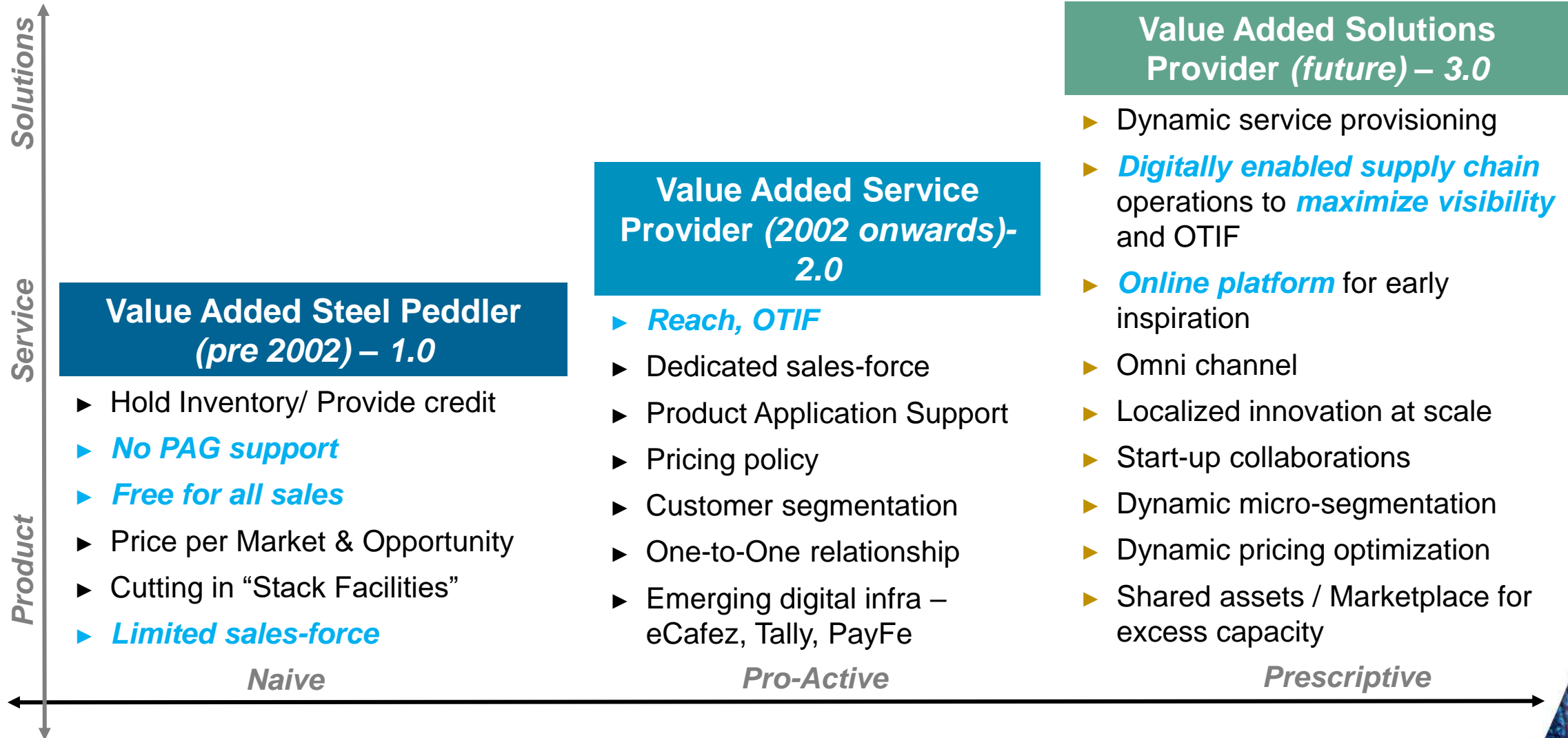
Adoption of Agile is critical to digital, however full transformation may take 2-3 years



Note: Different BUs/functions can be in separate phases of the transformation at a single point in time



Moving from VASP 1.0 to 2.0 to VASP 3.0...



Key messages

- **Digital Vortex is gaining speed** – disruption to become the new constant
- It is critical for us to play a part in **shaping and sensing the market**
- Need to watch-out for and **mitigate against common digital failure patterns** seen across the world
- TSL has **embarked on a digital journey** – however, a **long way to go...**
- Value focus across the Value Chain

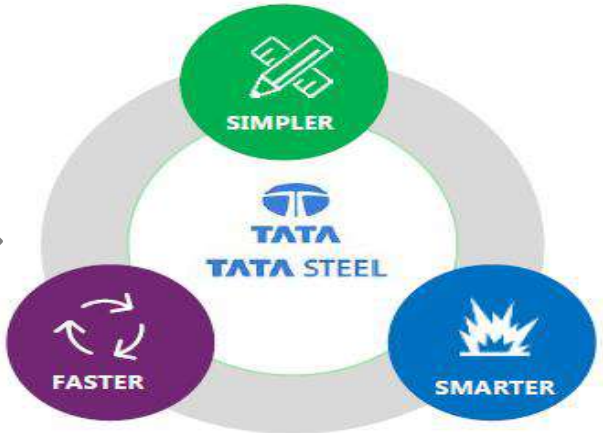
Thank You



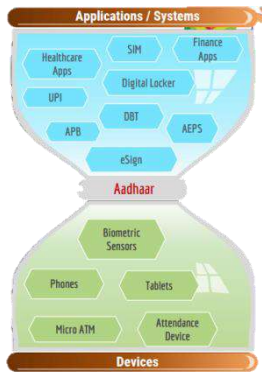
Tata Steel's Digital Script™

Increasing **information intensity** and **connectedness** of **customer and business resources**. Any resource can become digital through the application of technology.

S	SCALABLE	Platform Thinking (0 marginal cost of expansion, R=G)
C	CONNECTED	M2P, P2P and P2M
R	RAPID	Agile Approach
I	INTELLIGENT	Descriptive -> Predictive -> Prescriptive
P	PERSONALISED	Individual as a brand (unique customer, N=1)
T	TECHNOLOGICAL	IT-OT Integration using Digital Technology



Leverage the Ecosystem: Govt. of India – “the Disruptor-in-Chief”



- ▶ **IndiaStack** is a **set of APIs** that allows governments, businesses, startups and developers to utilize an unique digital Infrastructure.
- ▶ **Existing APIs** – Aadhaar Authentication, Aadhaar e-KYC, eSign, Digital Locker, Unified Payment Interface (UPI)
- ▶ **APIs in the pipeline** – Digital User Consent, GSTN - The Goods and Services Tax Network, BBPS - The Bharat Bill Payment System, ETC - Electronic Toll Collection (known under the brand FASTag)

▶ What does it mean for us?

- ▶ e-KYC – know your Retail Customers
- ▶ Hassle-free, traceable & instant payments – AEPS, UPI
- ▶ Sandboxes for agile experimentation – digio, e-mudhra, on-grid



- ▶ **Building an ecosystem minus the trappings of a system**
- ▶ The Startup India Action Plan hopes to accelerate the startup movement through
 - ▶ Simplification and Handholding
 - ▶ Funding Support and Incentives
 - ▶ Industry-Academia Partnership and Incubation

▶ What does it mean for us?

- ▶ Innovation at scale backed up by the Govt
- ▶ Collaboration for rapid product developments
- ▶ Incubators & startups willing to solve real world problems of the larger enterprises