

# Technology Transformation

## Standardization & Upgrades

AMEDA 23<sup>rd</sup> Meeting, Tangier

Trust is the most valuable asset of an ambitious market



# Technology Transformation

Technology vision trends

Pillars of successful transformation

Case study - MAROCLEAR



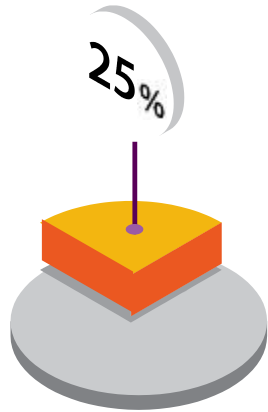
# Foreword

**‘ A lot of Enterprises are making big investments in technology;  
but that’s only the half of story ‘**



# Technology Vision Trends

The CSD business is digital, so the organization, its people and its culture must become digital too.



**25% of the world's economy will be digital by 2020.**

*"Accenture report 2016"*

Today we are witnessing a major technology revolution, specifically a digital revolution. Digital is now dominating every sector of the economy. It's bringing with it unprecedented amounts of change.

There are new technologies and solutions, more data than ever before, legacy and new systems to tie together, new alliances, .... New everything.

Customers are also maturing. They dramatically transformed expectations of service, speed the time to market and personalization.

But also a new kind of employee with very different outlooks and aspirations.

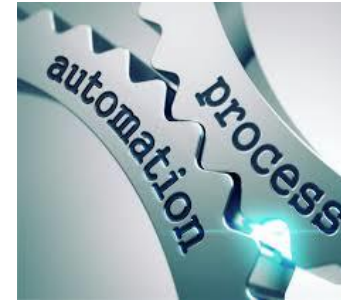
Enterprises need a roadmap to digital business success

# Technology Vision Trends

## Reinventing the World Again and Again

### Trend 1: Process Automation

The solutions will gather unprecedented amounts of data from disparate systems  
The solutions are fundamentally changing the organization, as well as what it does and how it does it.



### Trend 2: People and Process

Companies need more than the right technology; they need to use that technology to enable the right people to do the right things.  
Process need to be built adaptable, change-ready and responsive.

### Trend 3: Platform

We are now creating the adaptable, scalable, and interconnected platform that should supports success in an ecosystem-based digital.



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# Technology Vision Trends

Reinventing the World Again and Again

## Trend 4: Predictable Disruption

Change is in progress and can't be stopped.  
In some cases, the business will be completely redefined and reinvented.  
Need to keep eye on the ecosystem changes

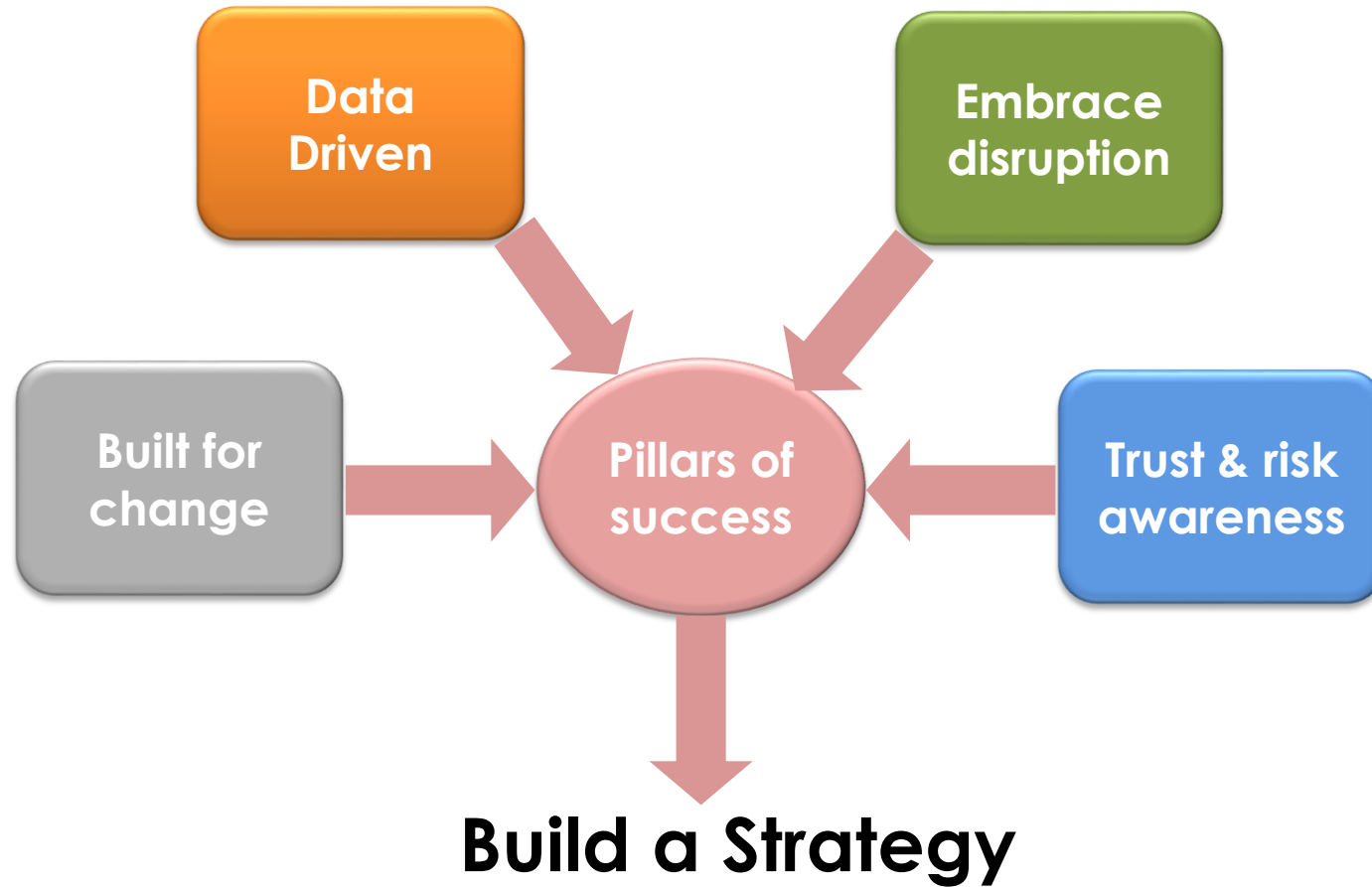


## Trend 5: Trust and Risk Awareness

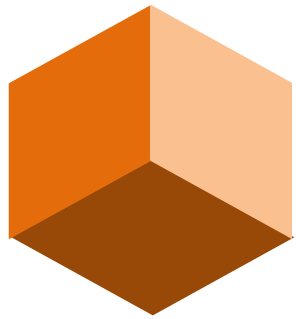
Threats are more and more sophisticated.  
Technology gives much of opportunities but It also amplifies the potential problems and creates new areas of risk

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# Pillars of successful transformation



# Pillars of successful transformation



## Data-driven

Data becomes so pervasive and readily available, that it supports insight-driven and decision-making everywhere

Increasing the capabilities within enterprises for using data and analytics, it goes beyond just having better tools or even better skills. It means changing the basis for making decisions at every level of the company.

This doesn't just mean people using data and machines. It means to be equipped to offer services that meet users expectation in the right time



# Pillars of successful transformation



**Process**

**Built for change**

the most basic of the four aspects, organizations must be built for change

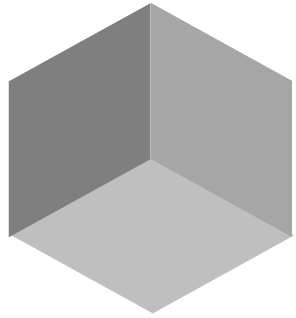
how you're built to develop new skills, new processes, new products and whole new ways of working. People must accept change and enterprise-wide.

Training is more important today to grow and improve the business

Adoption of best practices for interoperability and connections

Adoption of standard (FIX, ISO 15022 and 20022) for STP

# Pillars of successful transformation



## **Embrace disruption**

With people, at every level, driving change with new tools, new skills, and new machines, leaders will have a critical role to play.

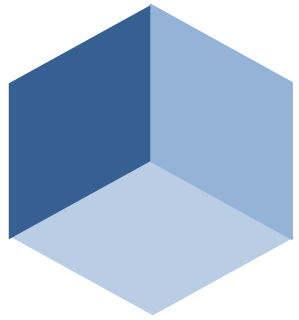
Instead of focusing on efficiency gains from technology development , enterprises need to embrace disruption as part of their corporate DNA.

Winners take a year or more off from their regular job to run a small team to research and develop the idea.

Enterprises need to build strategies to support their success in a dynamic world so they can play a lead role in the existing and future ecosystems.



# Pillars of successful transformation



## Trust and Risk Awareness

Digital trust should be taken into consideration in everything.

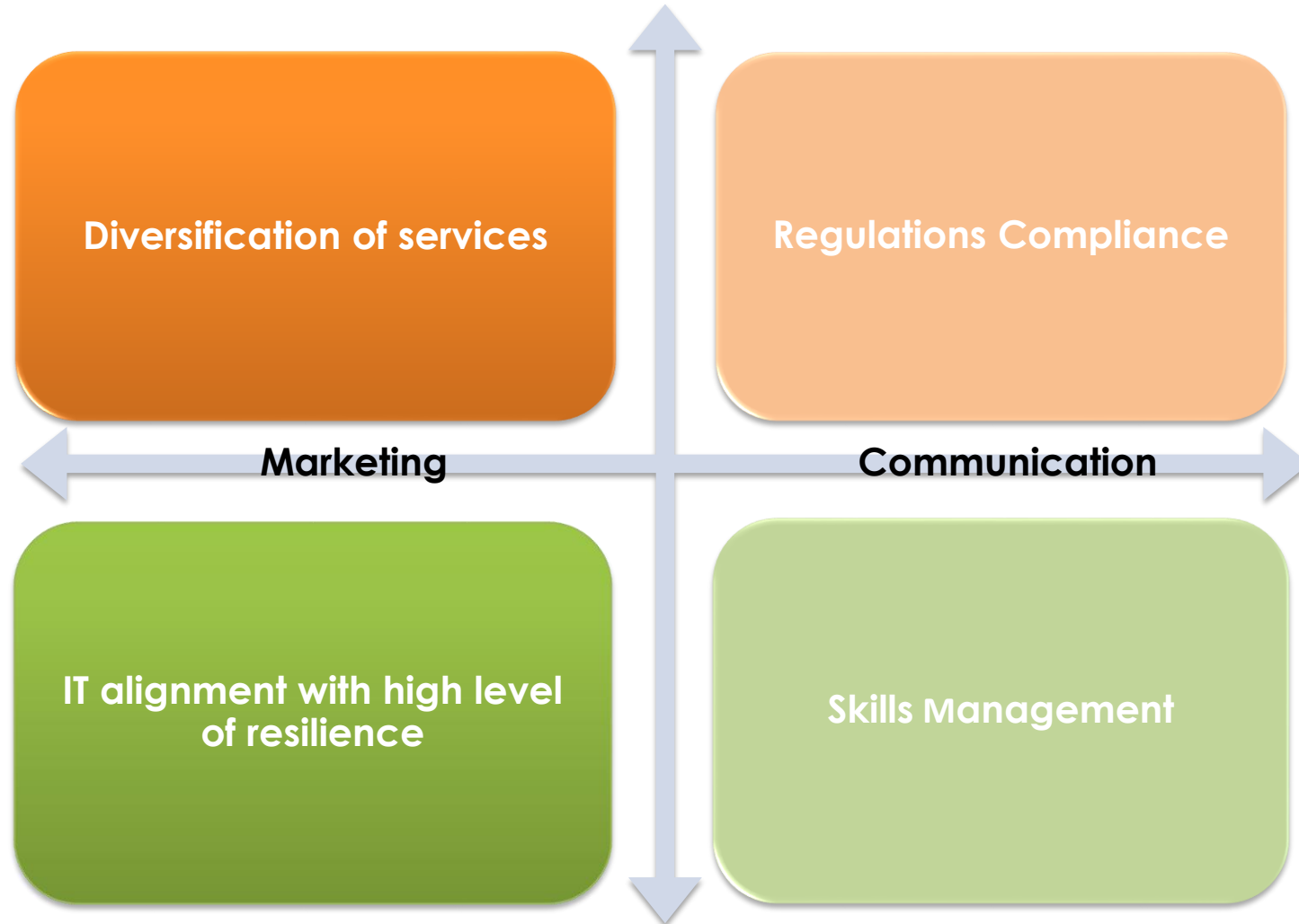
Security, privacy and digital ethics can't be reverse-engineered around a technology; they must be integral to the development process from the outset.

People is the weakness in the security. They need training to improve their awareness and especially the situational awareness.

Compliance with regulation requirements (national and international regulation framework, PFMI...)

# Case study - MAROCLEAR

## Strategy of Development



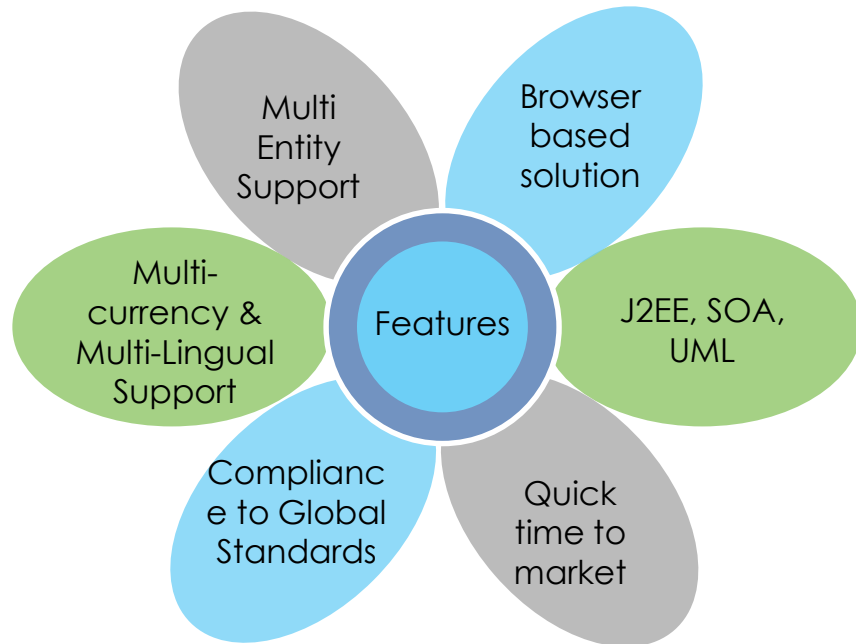
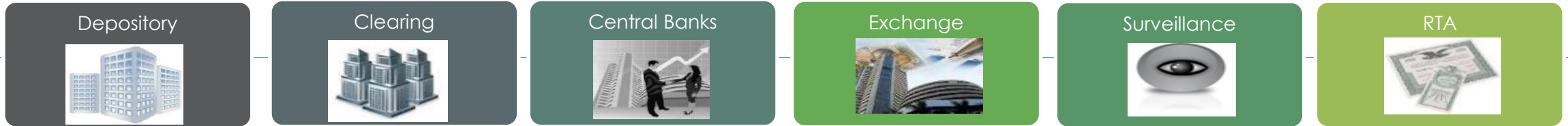
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TCS BaNCS-MI a global solution for Market infrastructures

## Components for Market Infrastructure Institutions



### ✓ Multi-asset class capability

Equities, Fixed Income, Commodities, Index, Currency Pairs, Interest rates, Energy, Carbon

### ✓ Multi-market solution

Cash, Derivatives & OTC markets

### ✓ Global best practices and standards

Variety of trading models & price discovery methods  
G30, BIS settlement models and payment methods  
T2S Ready, EMIR compliant, ISO 20022, 15022, FIXML

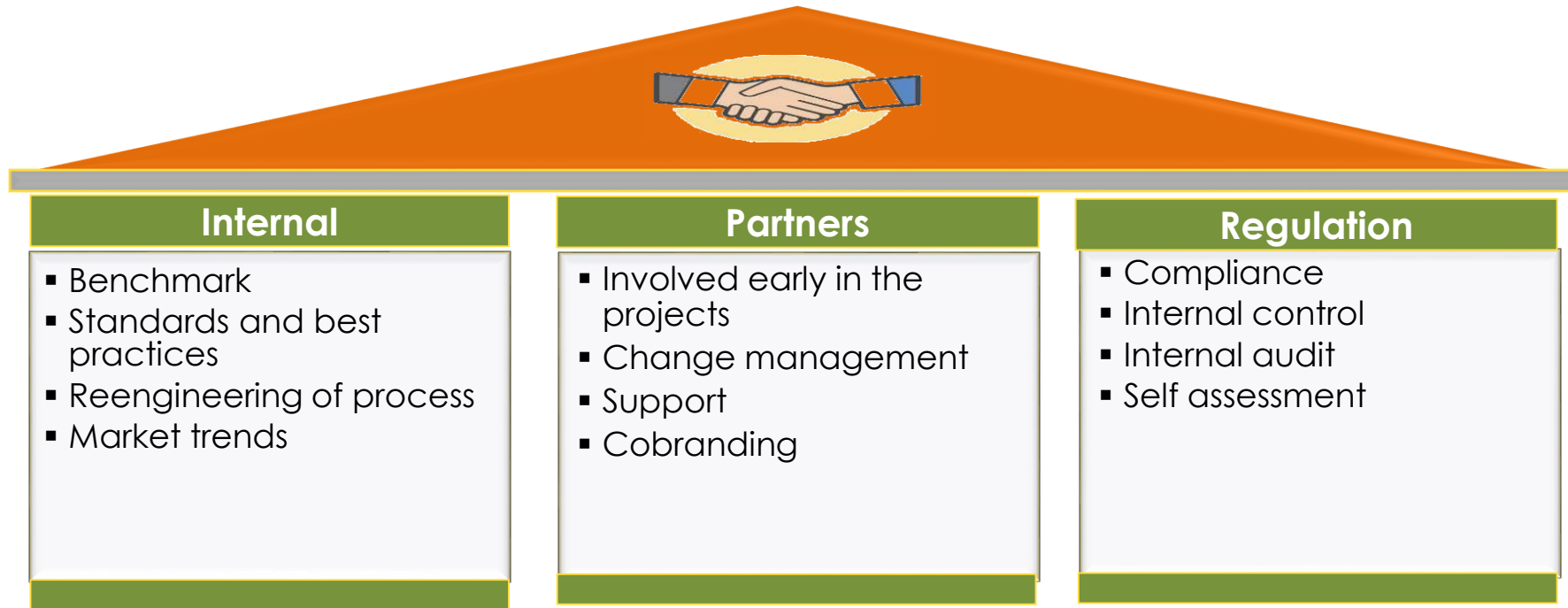
### ✓ Value Added Services – a complete solution

Risk Management , Collateral Management

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# Case study - MAROCLEAR

How we manage transformation ?



# Case study - MAROCLEAR

## Information Technology alignment

### Connectivity : Multiple Access

Technology : Leased line, Lan 2 Lan, Internet VPN

Dual access (screen and File transfer).

Swiftnet (planned)



### Infrastructure : Flexible and Agile

Virtualization and Converged infrastructure

Data replication on multi-nodes and Sites

Private cloud

# Case study - MAROCLEAR

ISO 27001 certification is not enough, what's next?



**'The overall objective of the PFMI is to ensure that FMIs promote stability and efficiency in the financial system (principles 2, 3 and 17)'**



**‘ Enterprises that recognize the disruptive power of ecosystems  
- take action now- will forge new roles and new paths for their future ‘**



# Thank you

