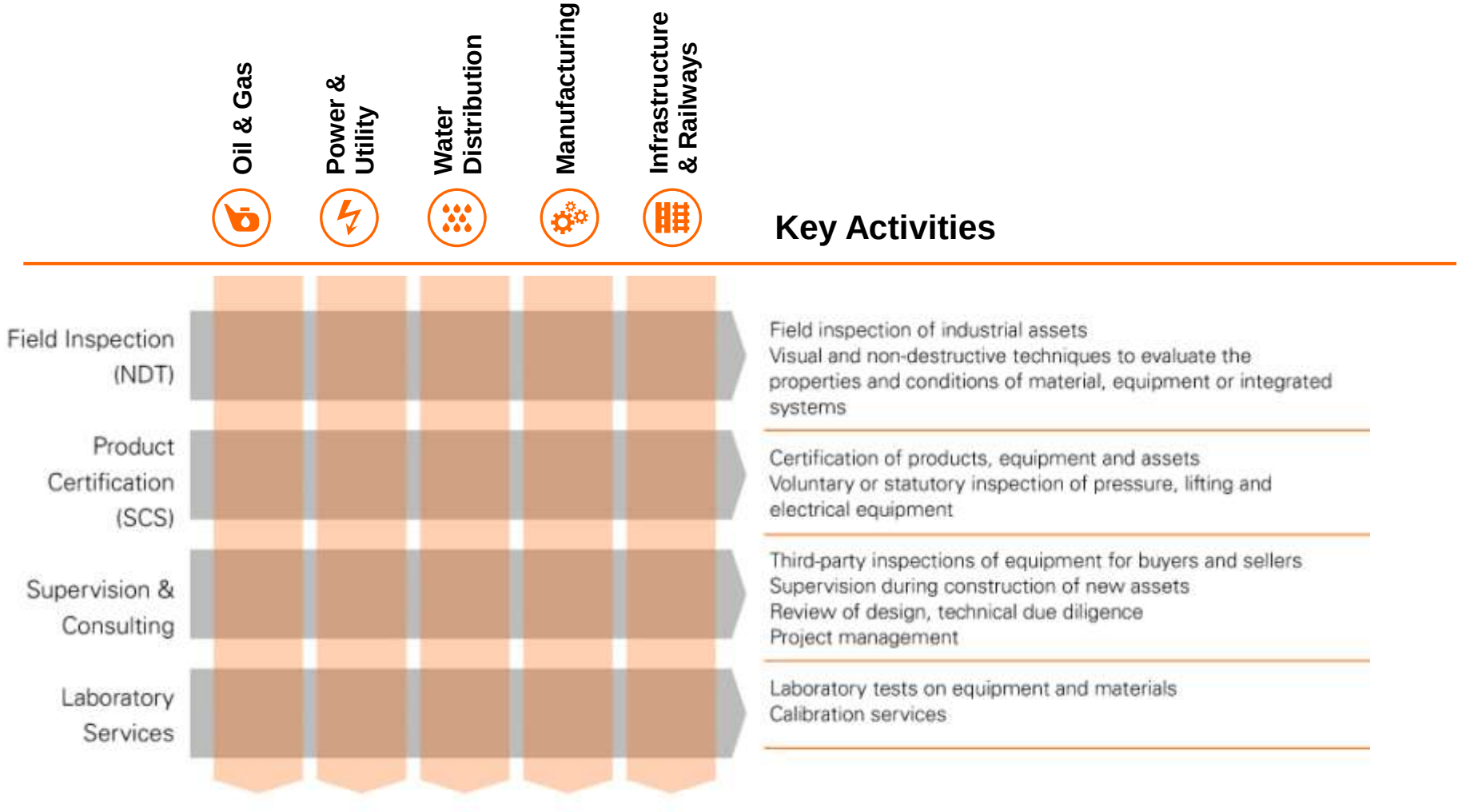
INDUSTRIAL: FUTURE FOCUS

François C. Marti – EVP – Industrial Services

Investor Days, 27-28 October 2016

CONTEXT: FIVE KEY INDUSTRIES ACROSS DIFFERENT DIMENSIONS

SGS INVESTOR DAYS KRAKOW AND PSZCZYNA 27-28 OCTOBER 2016



Source: SGS Indiv

CONTEXT: CUSTOMER NEEDS

SGS INVESTOR DAYS KRAKOW AND PSZCZYNA 27-28 OCTOBER 2016

Oil & Gas	• Low oil price, oversupply, escalated globalization and reduced CAPEX lead to cost pressure and increased efficiency and hence shift focus towards optimizing maintenance activities
Power & Utility	• Excess capacities due to renewables & aging infrastructure demand for cost reduction and more effective maintenance • Distributed energy generation and storage generate need for smart grids • Improved customer interaction through roll-out of Smart Meters
Water Distribution	• Water scarcity increases need for improved monitoring & maintenance • Increased customer requirements such as sludge management, water reuse or remote monitoring require more service based business models • Stricter regulations for water & wastewater treatment require adoption for existing and new infrastructure
Manufacturing	• Constant race for productivity requires increased efficiency • I 4.0 / connected manufacturing require new standards and certifications • Service based business models instead of one-time sale of hardware
Infrastructure & Railways	• Increased age of infrastructure / few reinvestments require improved and more efficient operation & maintenance • Catching up on digitalization requires digitalization along entire value chain • Increased customer awareness to quality (B2B & B2C) leading to need for higher service transparency

Key Needs

- **Increased efficiency**
- **Digitalization of value chain**
- **Focus on improved O&M[1]**
- **Service based business models**
- **Adoption of new regulations**

1. O&M = Operations and Maintenance
Source: BCG analysis

FOUR KEY OPPORTUNITIES

SERVING CUSTOMER NEEDS VIA DIGITAL TECHNOLOGIES

CUSTOMER NEEDS

- Increased efficiency
- Digitalization of value chain
- Focus on improved O&M[1]
- Service based business models
- Adoption of new regulations

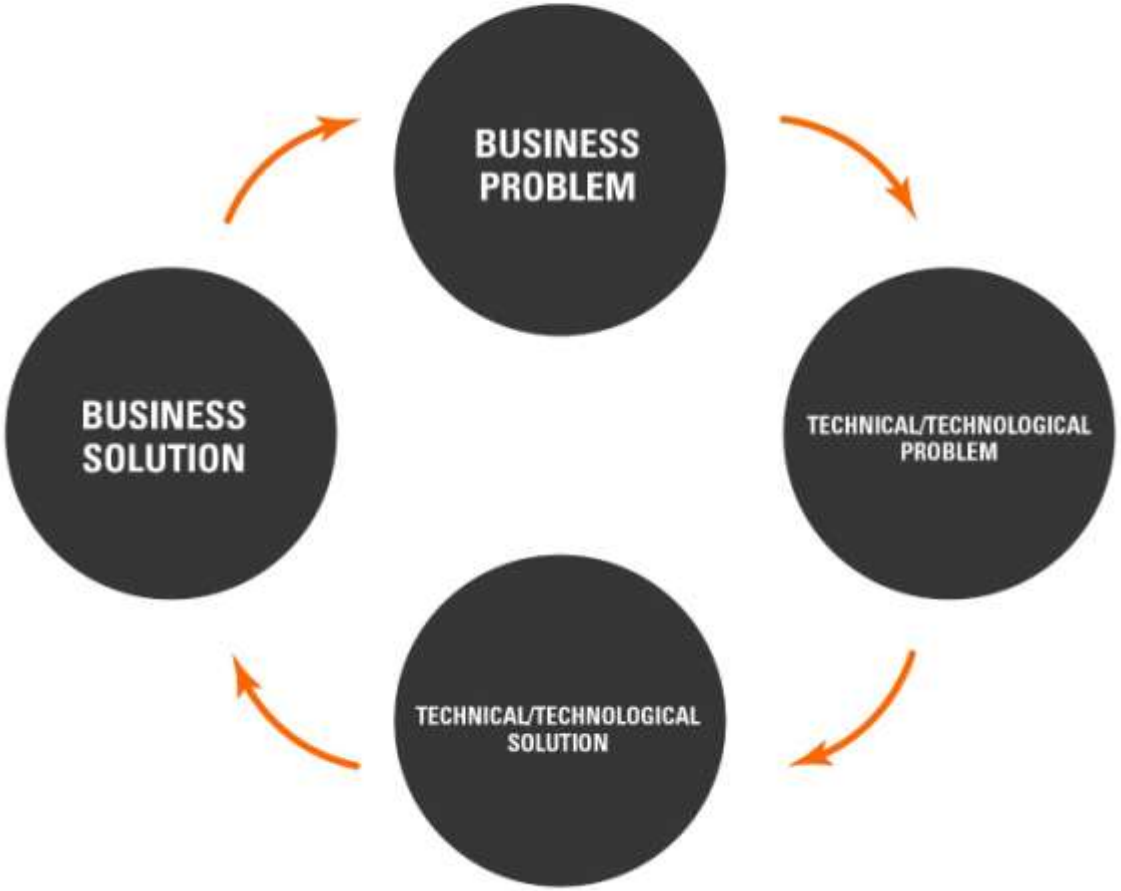
DIGITAL TRENDS

- Hardware to Software
- Big Data & Analytics
- Augmented Reality
- Ubiquitous Connectivity
- Smart Sensors
- Shift to the Cloud
- Improved Device Performance
- New Device Interaction Models
- Virtual Communities

DIGITAL BUSINESS MODELS

- Digitalization of activities
- TIC for systems/ platforms
- Operation of digital platforms
- Data analytics

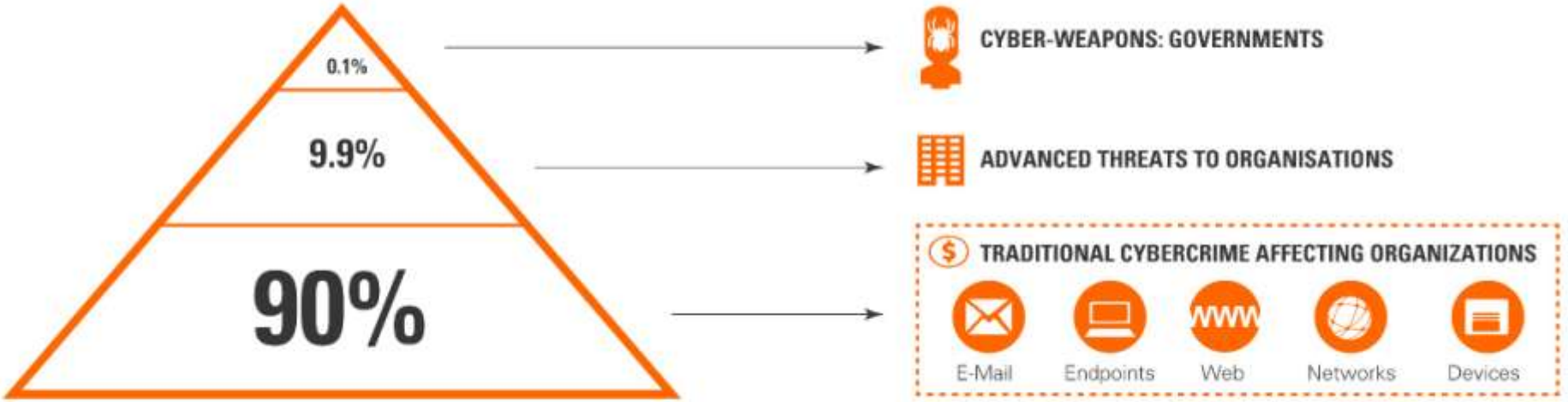
FROM BUSINESS PROBLEM TO BUSINESS SOLUTION



CYBERSECURITY – CONTEXT

SGS INVESTOR DAYS KRAKOW AND PSZCZYNA 27-28 OCTOBER 2016

- Cybercrime will cost the global economy USD 445bn in 2016(1)
- Worldwide spending on information security technology expected to grow from USD 77bn in 2015 to USD 108bn in 2019(2)
- Nature of the threats:



(1) World Economic Forum (2) Gartner (3) Karspersky Lab

CYBERSECURITY – CASE STUDY

SGS INVESTOR DAYS KRAKOW AND PSZCZYNA 27-28 OCTOBER 2016

- **SGS Spain** contributed to developing the **Seal of Cybersecurity**
- Managed by the **Spanish Cluster of Cybersecurity**
- Aimed at:
  - **Any private or public organization** willing to demonstrate commitment and compliance
  - **Critical infrastructures**
- Goes beyond ISO 27001 requirements with focus on:
  - **Communication protocols**
  - **Software**
  - **Data protection**
  - **Physical infrastructure,**
  - **Human factor**
  - **Suppliers**
  - **Services**

ASSET HEALTH MONITORING & INTEGRITY MANAGEMENT – CONTEXT

- **Asset Integrity Management** disrupted by IoT-based solutions along the entire value chain
- No one-stop shop solution for all new IoT related AIM solutions
- No link between NDT standardized procedures and emerging IoT solutions
- **Asset virtualization** solutions (3D models) can now include real-time sensor data, and become one-stop shops
- Sensor technology is developing and enables to address highly active market for **impartial predictive maintenance**

ASSET HEALTH MONITORING & INTEGRITY MANAGEMENT – CASE STUDY

SGS INVESTOR DAYS KRAKOW AND PSZCZYNA 27-28 OCTOBER 2016

SENSIMA inspection

+

Savi

- SGS and **Sensima Inspection** (Switzerland) concluded a partnership on a real-time, IoT-ready asset health monitoring solution based on **NDT eddy-current sensors**
- Disruptive Sensima technology with enormous potential in a wide number of industrial applications
- Powered by the **Savi analytics platform**
- Asset owners obtain **asset integrity information** with unparalleled accuracy, coherence and value
- Will provide SGS with a clear competitive edge in TIC 4.0

ASSET HEALTH MONITORING & INTEGRITY MANAGEMENT - CASE STUDY

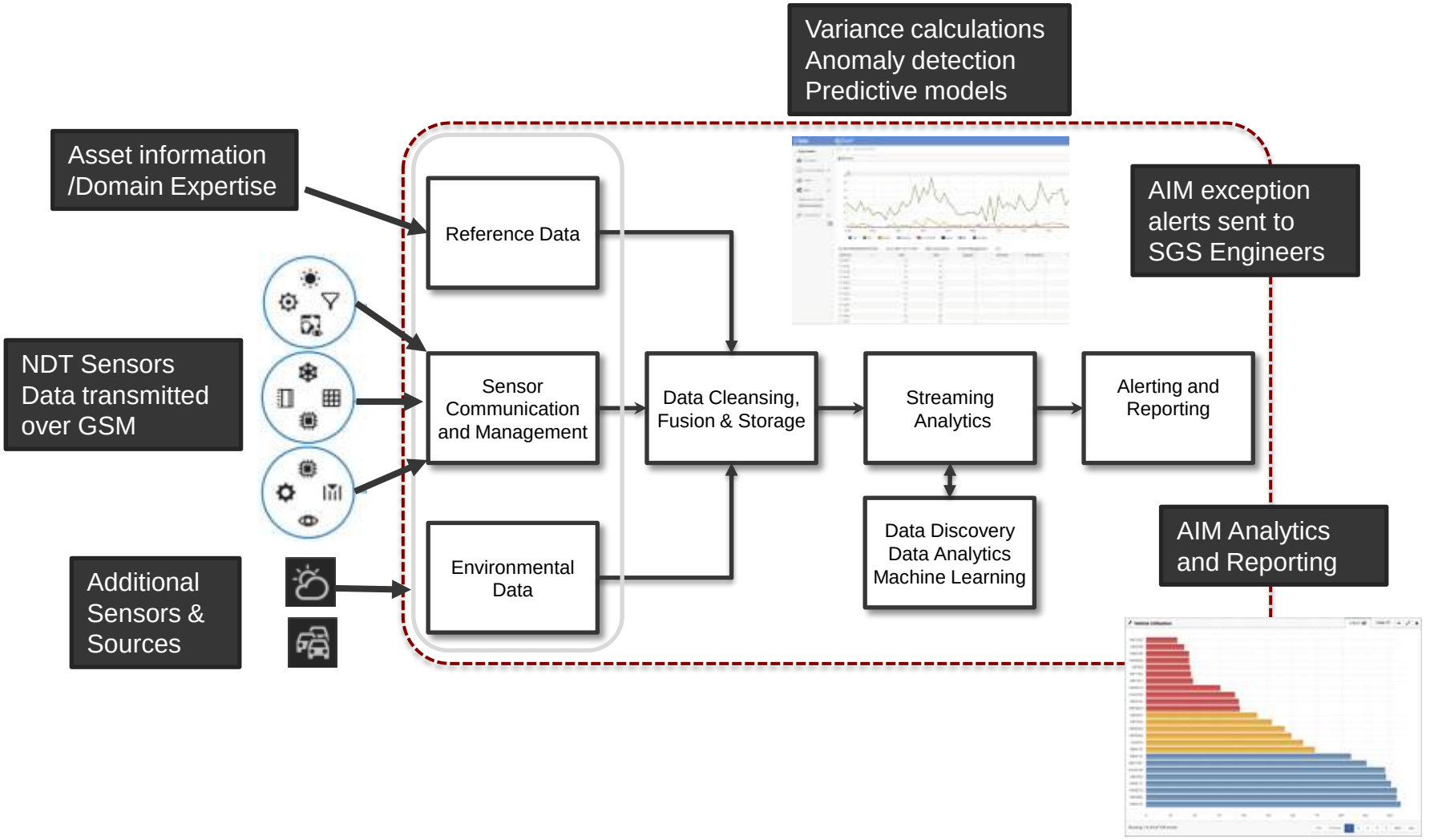
NDT sensor based on core technology

- Sensima core technology:
  - Digital monitoring ASIC (1) (chip) for NDT measurements
  - Software platform for eddy current, ultrasound, motion & environmental data **fusion & visualization**
  - With a modern mobile user interface

- Intellectual property:
  - Proprietary ASIC (chip) designs ➔ **high entry barrier for competitors**
  - NDT **data fusion algorithms** to increase the reliability of automated data processing

(1) Application-Specific Integrated Circuit

ASSET HEALTH MONITORING & INTEGRITY MANAGEMENT – CASE STUDY



BOOST

SGS INVESTOR DAYS KRAKOW AND PSZCZYNA 27-28 OCTOBER 2016

- Grow and defend our market share
  - Focus on excellence in delivery
  - Enhance key account management
- Be an industry leader
  - Innovate with key technology partners and customers
  - Continue to implement disruptive business model

MISSION 2020
UNDER CONTROL

TAKE OFF COMPLETED

WHEN YOU NEED TO BE SURE

SGS