

# Leadership with Trust

INDUSTRY – UNIVERSITY PARTNERSHIP





### The Tata group



In a free enterprise, the community is not just another stakeholder in business, but is in fact the very purpose of its existence.

> Jamsetji Tata, founder of the Tata group

a global business group, 147 years old with products and services in over 150 countries

over 600,000 employees from 120 nationalities and operations in over 100 countries

group revenue of \$110 bnwith 68% generated in geographies other than India

global leader in several sectors

GOINGFORWARD



#### Group Today

# Revenue FY15: \$110 bn 100+ operating companies

# Largest Companies

TataMotors

TataSteel

Tata Consultancy Services

TataPower

TataCommunications

TataChemicals

Tata International

TitanCompany

TataGlobal Beverages

TataTeleservices



Tata AIA Life Insurance Voltas TajHotels Resorts and Palaces TataCapital Tata Sky Tata Projects InfinitiRetail Tata AutoComp Systems Tata AIG General Insurance Trent Tata Housing

Market Capitalisation (India) of 29 listed companies as on 31st March 2016 USD 117 bn

- Most valuable business group in India
- 8.0% of Bombay Stock Exchange's total market capitalisation (US\$1,454 bn)
- 3.9mn shareholders

# TATA Group - Brands and Global reach





# Industry - University Partnership-Tata Trusts

66% shareholding in Tata Sons, the promoter holding company

Endowments for **creation** of national institutions :

Indian Institute of Science

Tata Institute of Social Sciences

Tata Institute of Fundamental Research

National Centre for the Performing Arts

Educational scholarships for for higher studies outside India :

JN Tata Endowment scheme (established in 1892)

- eg Clement Attlee ( ex British PM)
- Educational scholarships for studies in India eg Dr Abdul Kalam (ex Indian President )

] Support to institutions, including : Indian Institute of Science (Bengaluru), Harvard Business School (USA), Cornell University (USA), Warwick University (UK), Berkley (USA), Singapore Management University



 ...What came from the people has gone back to the people many times

over.

-JRD Tata Chairman, TataSons 1938-1991

DRIVEN BY VALUES



## Industry - University - Changing nature of Partnership

- From endowments to joint funding or development assistance
- From general engagement to engagement based on specific projects or issues
- From single or dual instituition engagement to multi instituitional engagement

#### Changing needs & hence change in rationale:

Specific Institutions have specific capabilities

□ Industry to feel the need to innovate

 $\hfill \Box$  Industry to locate the right institution any where in

the world

Motivate a person or group to resolve the issue

#### Some recent examples by Tata:

National Automotive Innovation Centre (NAIC) along with University of Warwick, UK - Tata Motors
University Research Fellowship (URF) with Royal Society, UK - Tata Motors & TCS
Genomics Project along with University of California, Berkeley - TCS
Smart City Project with Singapore Management University - TCS
Blast Furnace slag chemistry project with University of Stockholm - Tata Steel
Advanced Steel Research Hub in University of Warwick - Tata Steel



# National Automative Innovation Centre (NAIC) - UK - (2/2)

The National Automotive Innovation Centre (NAIC) will be a unique, state of the art centre of excellence and innovation for the UK's automotive sector, and the largest of its kind in Europe.

□ NAIC is a £150m joint venture between University of Warwick, Jaguar Land Rover and Tata Motors, will provide high quality research facilities for engineers, scientists and designers

□NAIC will open in late 2017 and will be based at the University of Warwick campus, outside Coventry. NAIC will provide more than 33,000 sq m of research space

□More than 1,000 academics, industrial engineers will be hosted at the Centre, which will feature advanced R&D facilities, an engineering hall, a VR lab, advanced driving simulator, design workshops, teaching facilities,

□NAIC will be a major centre of training and development for a new generation of high-calibre scientists and engineers, helping to address the shortage of skilled professionals across the UK automotive supply chain

□Key areas of automotive research: Electric Vehicles (incl. energy storage and e-drives); Carbon Reduction (incl. hybrids, light-weighting and composites); Smart and Connected (incl. driver assist and cyber-security for connected vehicles).

□NAIC will house one of the world's most adaptable advanced driving simulators. Co-funded by the Engineering and Physical Sciences Research Council (EPSRC) and Jaguar Land Rover, the simulator allows researchers to test cars in a sophisticated simulation of the road environments

DRIVEN BY VALUES



### National Automative Innovation Centre (NAIC) - UK - (2/2)

# **Objective of each partner**

Warwick –

□NAIC will be the largest and most significant centre for automotive R&D and excellence in the UK, and the 'jewel in the crown' of all WMG's campus facilities.

The Centre adds to the internationally recognised automotive research undertaken by the Group and will attract/ inspire challenging and satisfying engineering careers

Jaguar Land Rover

As an innovation leader, and the National Automotive Innovation Centre will be a new engine driving forward Jaguar Land Rover's innovation infrastructure

□NAIC will be a location for state of the art automotive research, to help Jaguar Land Rover develop next-generation R&D capability

# Tata Motors

It will be a major draw for recruiting and developing talent in UK automotive engineering in general, and for Tata Motors in particular

# Tata Group

Tata has had a presence in the UK for more than a hundred years, and is part of the fabric of the UK economy. This £150m investment into UK innovation and skills demonstrates our continued commitment to the UK, to the British automotive industry, and to young people seeking fulfilling careers in engineering and research

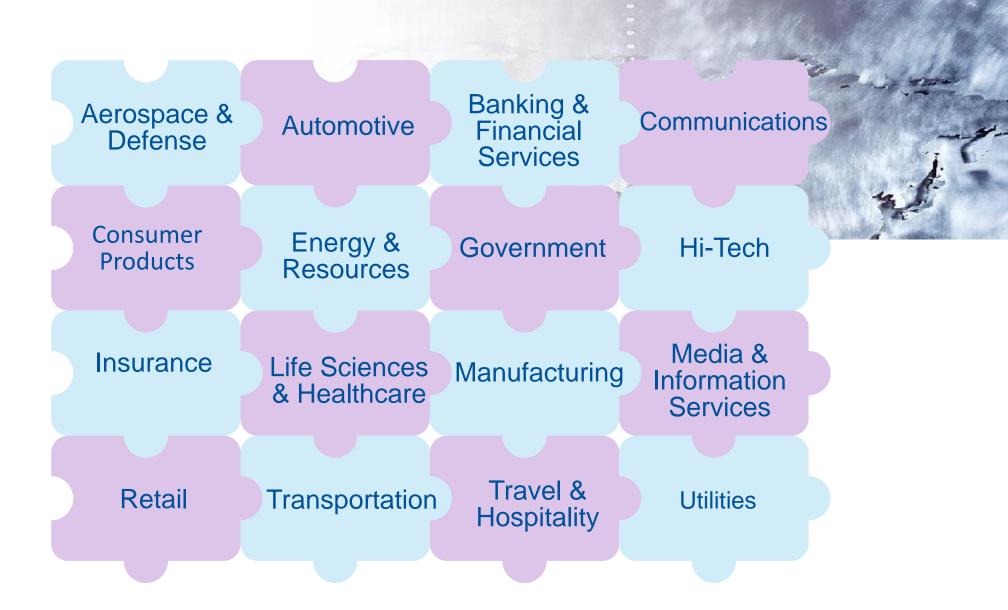


# Tata Consultancy Services (TCS)

- **45+** Years in Business
- 16.5 Billion US\$ in FY16 revenues \*\*\*
- 276,196 Employees \*
  - **118** Employee Nationalities \*
  - 1075 Clients \*
    - **44** Countries where TCS has presence
    - **98** % of annual revenues from repeat customers \*



# TCS – Industry Depth





# TCS' Research Collaboration with S M U for Intelligent Cities

# **Objective & Rationale**

Govt of India announced the conversion of 100 cities into 'smart cities'

Digitally-aware citizens are demanding more inclusion in civic affairs, with greater personalization of services

TCS' Intelligent Cities Project is a collaborative effort with Singapore Management University (SMU), which aims to develop intelligent cities, with Singapore as the project pilot

□ SMU's state-of the-art campus, within the smart nation of Singapore, has been an ideal pilot for developing the solution

TCS, on the other hand, has been successfully executing large transformation projects for governments for several years

## Methodology

The TCS–SMU collaboration has led to the establishment of the TCS–SMU iCity Lab in SMU's campus

The lab is involved in research in several aspects of 'intelligent cities' and will be using Singapore as a test area to pilot the concepts.

The TCS–SMU lab infuses a citizen-centric approach to the project, by taking into consideration their needs and response protocols

The lab has also been engaging other agencies in Singapore for various projects



# TCS' Research Collaboration with S M U for Intelligent Cities

# Some of the pilot projects of the TCS-SMU Lab, include:

A dialysis monitoring unit that can be set up at home, to measure parameters of dialysis patients

A structured information system for advance care planning and management of patient-physician interactions

A sensor-enabled process of care delivery for the elderly, combining Internet of Things (IoT) components and social behavioral studies –SHINESeniors

# Providing a Helping Hand to the Elderly

The lab has received a grant from the Govt of Singapore to create health monitoring technology for the elderly

Sensors installed at the homes of senior citizens collect and transmit vital health information and can trigger timely alerts in case of an emergency

activities for daily living are closely mapped, so that any deviations from the normal pattern, such as extended periods of non-movement, missing a dose of medication

All these activities are carried out in an unobtrusive manner so as to ensure privacy

The project aims to deliver 100 sensor-enabled homes by 2017



" If you want to build a ship, don't drum up people to collect wood and don't assign them tasks and work, but rather teach them to long for the endless immensity of the sea"

Antoine de Saint-Exupery (writer, journalist, philosopher & pilot)



#### Going Forward

# Vision2025

25% of the world's population

will experience the Tata commitment to improving the quality of life of customers and communities. As a result, Tata will be amongst the

25 most admired corporate and employer brands gldbally, with a market capitalisation comparable to the 25 most valuable companies in the world.









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