

Reform, Perform and Transform

Indian Railways

JULY 2017



PROCESS FLOW TO ACHIEVE VISION 2022

CHALLENGES FACED AT THE START OF THE JOURNEY



The scale of challenges was enormous

REFORMS AGENDA



A slew of reforms were announced aimed at eliminating issues plaguing from years

PERFORMANCE ACHIEVED



Commendable progress has been made in last 3 years

TRANSFORMATION PLAN FOR 2022



A transformation is underway in Indian Railways in pursuit of clear, defined goals

CHALLENGES

YEARS OF UNDER-INVESTMENT IN INFRASTRUCTURE



Overstretched Infrastructure – with more than 60% of routes being more than 100% utilised

In the last 64 years while the freight loading has grown by 1344% and passenger kms by 1642%, the Route kms have grown by only 23%

CHALLENGES

LACK OF CUSTOMER FOCUS



Inability to meet the demands of its both freight and passenger customers

Apart from the quantum of investment, quality of delivery an issue

Cleanliness, punctuality of services, safety, quality of terminals, capacity of trains, quality of food, security of passengers and ease of booking tickets among major customer focus issues

CHALLENGES

LOW INTERNAL GENERATION OF RESOURCES



Passenger trains utilise two-thirds of capacity and generate only one-third of revenues

High freight tariff leading to getting out-priced in market

Inadequate carrying capacity leading to decreasing modal share in freight and huge unmet passenger demand

Negligible diversification in commodities being catered for

Negligible proportion of 'Non-fare' revenues

CHALLENGES

ORGANISATION RIGIDITY



Slow decision making, inadequate market orientation and silo working

Long project approval duration- average 24 months



REFORMS AGENDA FOR INVESTMENT

(5 YEARS)

Total: `8,56,020 Cr

Network Decongestion (including DFC + electrification, Doubling+ electrification & traffic facilities)	1,99,320	
Network Expansion (including electrification)	1,93,000	
National Projects (North Eastern & Kashmir connectivity projects)	39,000	
Safety (Track renewal, bridge works, ROB, RUB and S&T)	1,27,000	
Information Technology / Research	5,000	
Rolling Stock (Locomotives, coaches, wagons – production & maintenance)	1,02,000	
Passenger Amenities	12,500	
High Speed Rail & Elevated corridor	65,000	
Station redevelopment + logistic parks	1,00,000	
Others	13,200	

PARTNERSHIPS

JVs WITH STATE GOVERNMENTS

**Railway & State
Governments to be
shareholders**

**Revenue streams
from tariff and
commercial
exploitation of
space rights**

RIDF (Railways of India Development Fund)

**Fund proposed to finance Rail
Infrastructure; independent of
Railway Budget**

**Will tap international pension,
insurance and sovereign wealth
funds and provide for entire
Rail sector in India, not just
Ministry of Railways**

OFF-BUDGET DEBT

**IR to tie up long- term
fund for projects**

**IR PSUs to leverage free
reserves/ equity for raising
debt**

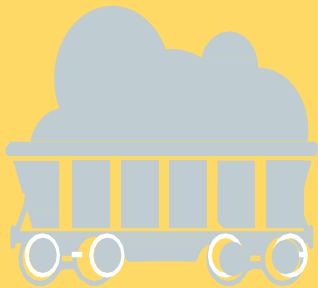




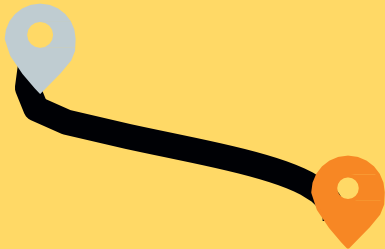
REFORMS AGENDA FOR INFRASTRUCTURE



BG lines commissioning to increase to 19 kms/day, could rise to 25 kms/day in partnership with state governments



2 dedicated freight corridors to be commissioned by 2019; 3 NEW DFCs in pipeline



Increased pace of electrification @ almost 4000 kms/ year. Target to electrify 11,000 Kms in next 3 years



Over 100 stations to be modernized to world class standards





Semi-high speed trains
to be operational along
the golden quadrilateral



Increased average speed of freight trains to 50
kmph and mail/express trains to 80 kmph

DIGITAL

- Include rural India in the digital revolution by providing Rail wire Sathi at 7000 stations - Internet enabled Kiosks which serve as single window for government schemes and departments
- Implement Enterprise Resource Planning architecture in Indian Railways





REFORMS AGENDA FOR FINANCIAL HEALTH

10 -20%
non fare revenue

Reduction in fuel costs

Controlling staff costs through
rationalising recruitment

Increased share of non core
commodities e.g., White goods,
FMCG, Auto



INTEGRATED COMPLAINT REDRESSAL

**Integrated
Customer
Complaint
System**



TWITTER



FACEBOOK



INSTAGRAM



YOUTUBE



CPGRAM

IVRS

IR makes 3 lakh calls
every day to
seek feedback
from customers

139
Customer
complaint
helpline

182
Security
helpline

**Twitter and
Facebook have
already been
integrated. Plan
to develop this
comprehensive
system in next
6 months**



Accounting reforms to establish connectivity between outcomes and inputs

Unified cadre of officers working towards a common vision



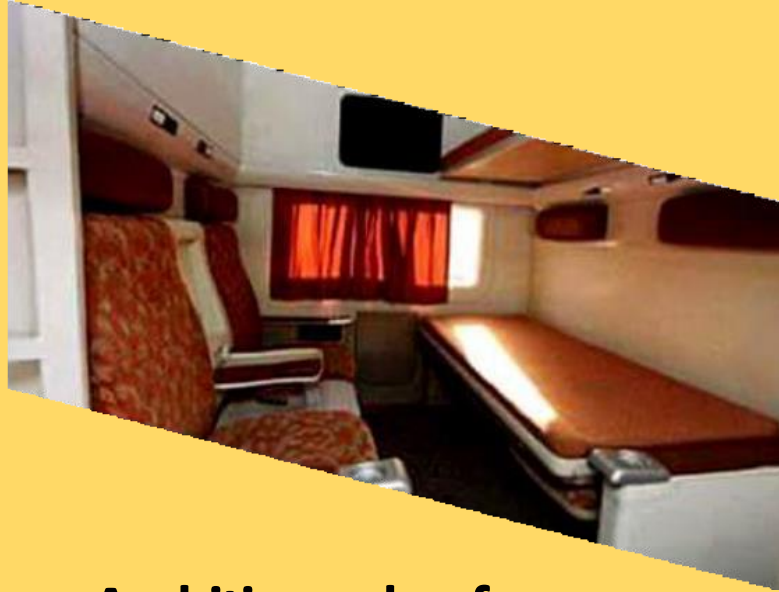
Institutionalised system of performance appraisal based on objective parameters (KRAs)

Fully functional Railway University





REFORMS AGENDA FOR PASSENGER CONVENIENCE



Ambitious plan for refurbishment of 40,000+ coaches with world-class amenities, to be introduced e.g., Entertainment on board, Wi-Fi, vending machines, Autodoors



2,00,000 rail display network screens installed across 2000 stations –New medium for adverts and information dissemination



Less than 5 min waiting for purchase of tickets enabled through higher speeds of web interface, POS terminals, ATMs

NEW STRUCTURES

SHRESTHA

New R&D organisation to serve the future technology needs of Railways

SUTRA

World class data analytics, simulation softwares, network optimisation & decision support systems

RAIL INVESTMENT & PLANNING ORGANISATION

Develop and own the corporate medium term and long term plans, identify investment opportunities, standardise economic assessment of projects and propose optimal modes of financing



 **REFORMS AGENDA FOR
SUSTAINABILITY**



To convert all production units as well as at least **one workshop in each zonal railway** as green industrial unit



1000 MW of **solar power** commissioned by 2020; more than 130 MW of **wind energy**





**REFORMS AGENDA FOR
SUSTAINABILITY**




Rainwater harvesting facility
on all roofs with more than
200sq.m space



Discharge free railways- bio-
toilets in all coaches



**PERFORMANCE
ACHIEVED**



***Commendable
progress has been
made in last 3 years...***



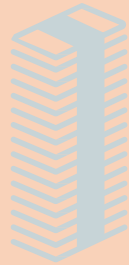
**PERFORMANCE
ACHIEVED ON
INVESTMENT**

ACCELERATED CAPITAL INVESTMENTS

INVESTMENT ₹ CRORE



24,307
AVG 2004-09



45,979
AVG 2009-14



58,718
2014-15



93,795
2015-16



1,11,000
2016-17

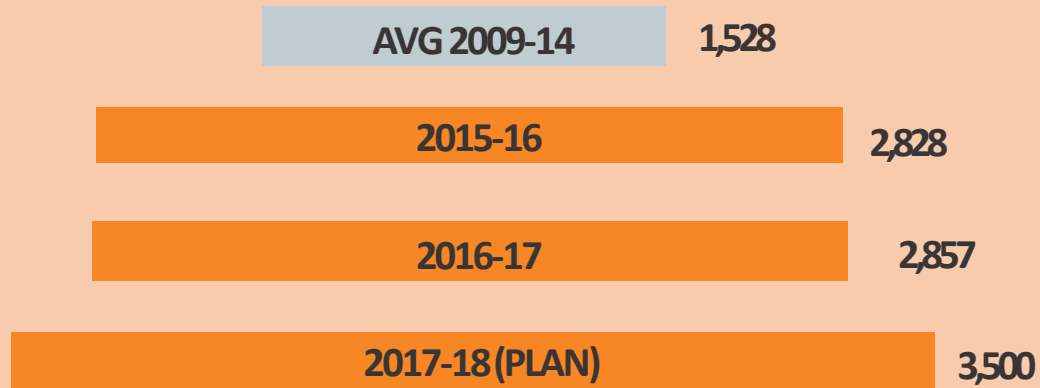


1,31,000
2017-18 (PLAN)

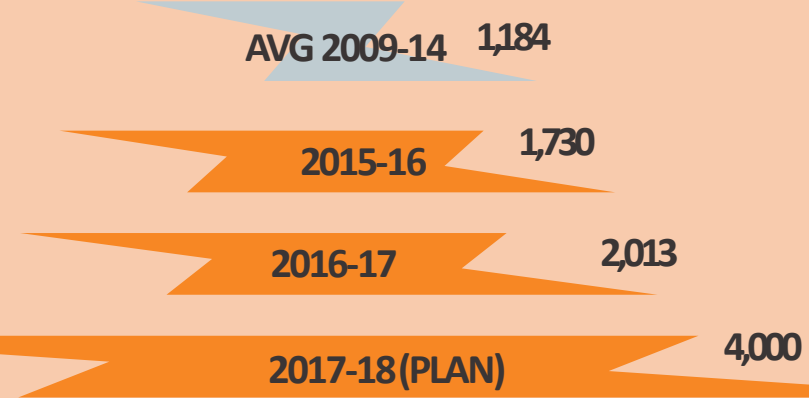
Secured assured funding of ₹ 1.5 Lakh Crore from LIC

ALMOST DOUBLED THE PACE OF INFRASTRUCTURE CREATION

BROAD GAUGE LINES COMMISSIONED (KMS)

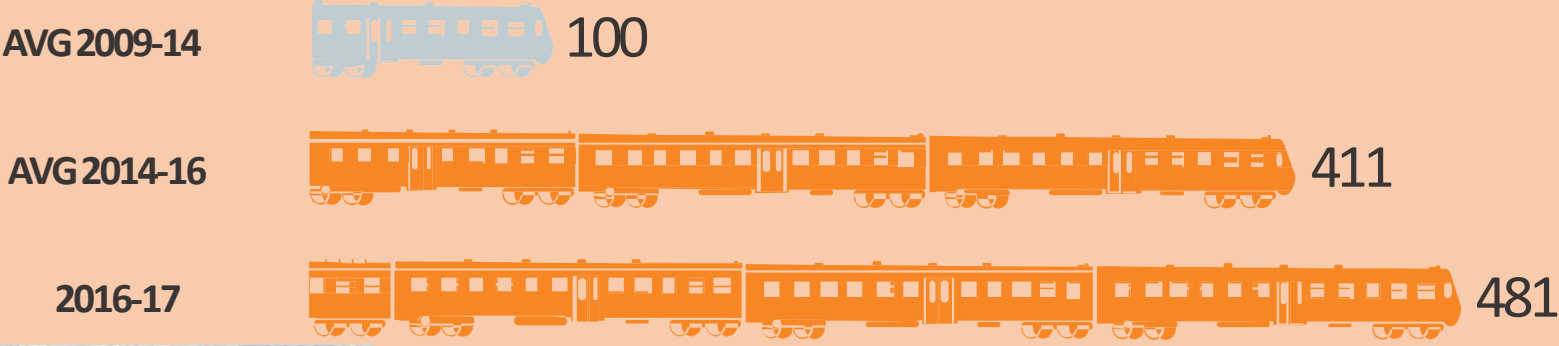


ELECTRIFICATION COMPLETED (KMS)



ELIMINATED ALL MG LINES IN NORTH EAST

BROAD GAUGE LINES COMMISSIONED ACROSS NORTH EAST INDIA (KMS)



BY **2020**

ALL CAPITAL CITIES OF
NORTH EASTERN INDIAN
STATES TO BE CONNECTED
WITH BROAD GAUGELINES

COMPLETED LANDMARK STRUCTURES WHICH HAD BEEN DELAYED FOR YEARS



RAIL CUM ROAD BRIDGE ON GANGA - MUNGER



JUBLEE RAIL BRIDGE ON HOOGLY - KOLKATTA



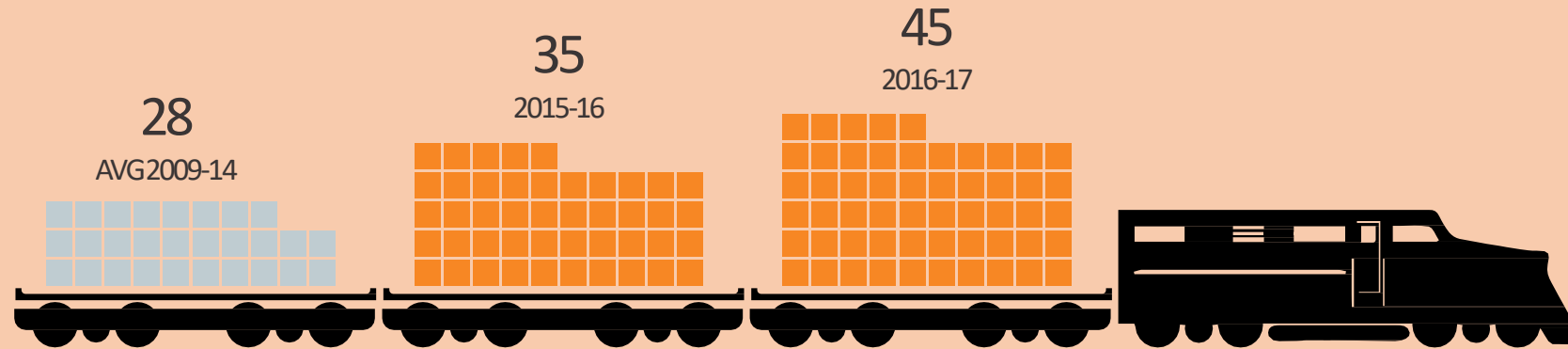
**HIGHEST RAIL BRIDGE UNDER CONSTRUCTION IN
NORTH EAST**



LONGEST RAIL TUNNEL COMPLETED IN NORTH EAST

RAMPED UP BUILDING OF NEW FREIGHT TERMINALS

NO. OF PVT SIDINGS AND PRIVATE FREIGHT TERMINALS COMMISIONED



**MISSION '100' WAS LAUNCHED IN 2015-16 TO
EXPEDITE COMMISSIONING OF TERMINALS TO
SUPPORT FREIGHT GROWTH**

**PLAN TO MODERNISE GOOD SHEDS THROUGH
PPP UNDERWAY**



LEVERAGED THE PRIVATE SECTOR TO BUILD INFRASTRUCTURE



CONSTRUCTION IN FULL SWING AT MARWHORA



CONSTRUCTION IN FULL SWING AT MADHEPURA

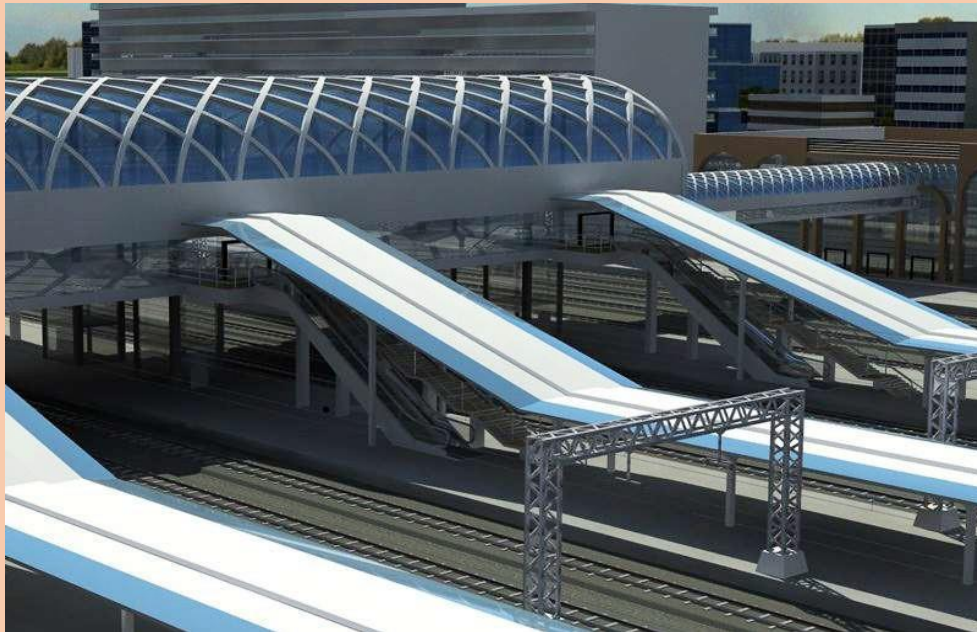


PROTOTYPE OF LOCOMOTIVE TO BE 'MADE IN INDIA' BEING DEVELOPED IN UNITED STATES

Approved 2 new loco factories in Bihar (were stuck since 10 years), one of the largest FDIs in India with combined order book of ₹40,000 Crore. Factories currently under construction; Target to commission in next year

MODERNISING STATIONS

Contracts awarded and construction commenced for **Habibganj and Gandhinagar Railway Stations**



25+ STATIONS

under various stages of bidding

Redevelopment programme would entail investments of more than ₹1,00,000 Crore





PERFORMANCE
ACHIEVED ON
SPEED

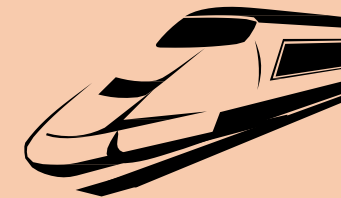
PICKED UP 'SPEED'

Introduced India's fastest train
Gatimaan Express
@ 160kmph



Formed '**National High Speed Corporation**' to undertake high speed railway construction between Mumbai & Ahmedabad

Sanctioned `17,000 crore to develop **Delhi-Mumbai and Delhi-Kolkatta as integrated semi high speed corridors (160-200Kmph)**. Contracts to be awarded this year



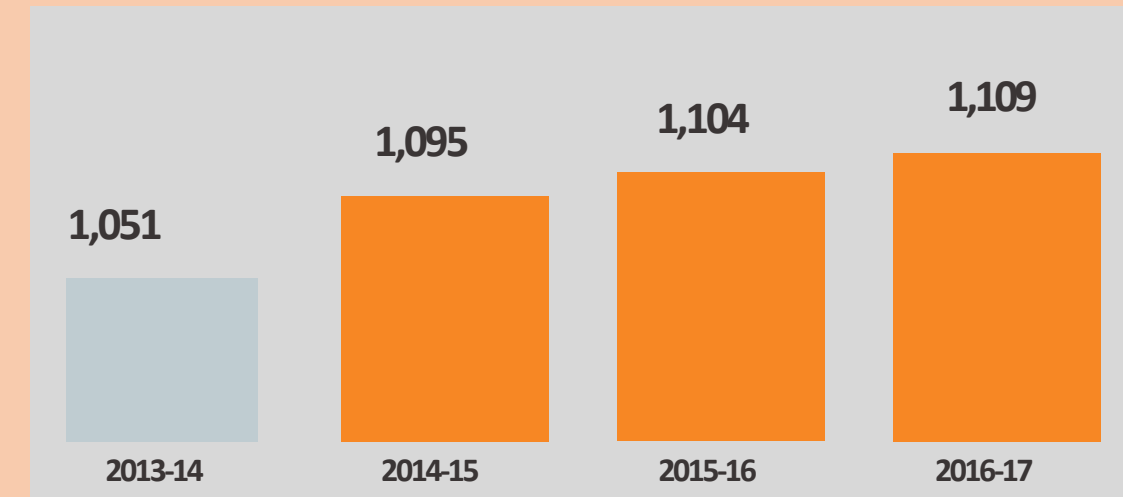


**PERFORMANCE
ACHIEVED ON
FREIGHT**

CONSTANTLY IMPROVED FREIGHT PERFORMANCE

- For the first time ever in Indian Railways, freight rates were reduced
- Port congestion charges dropped
- Dual pricing policy of iron withdrawn

TONNAGE MNTONNES

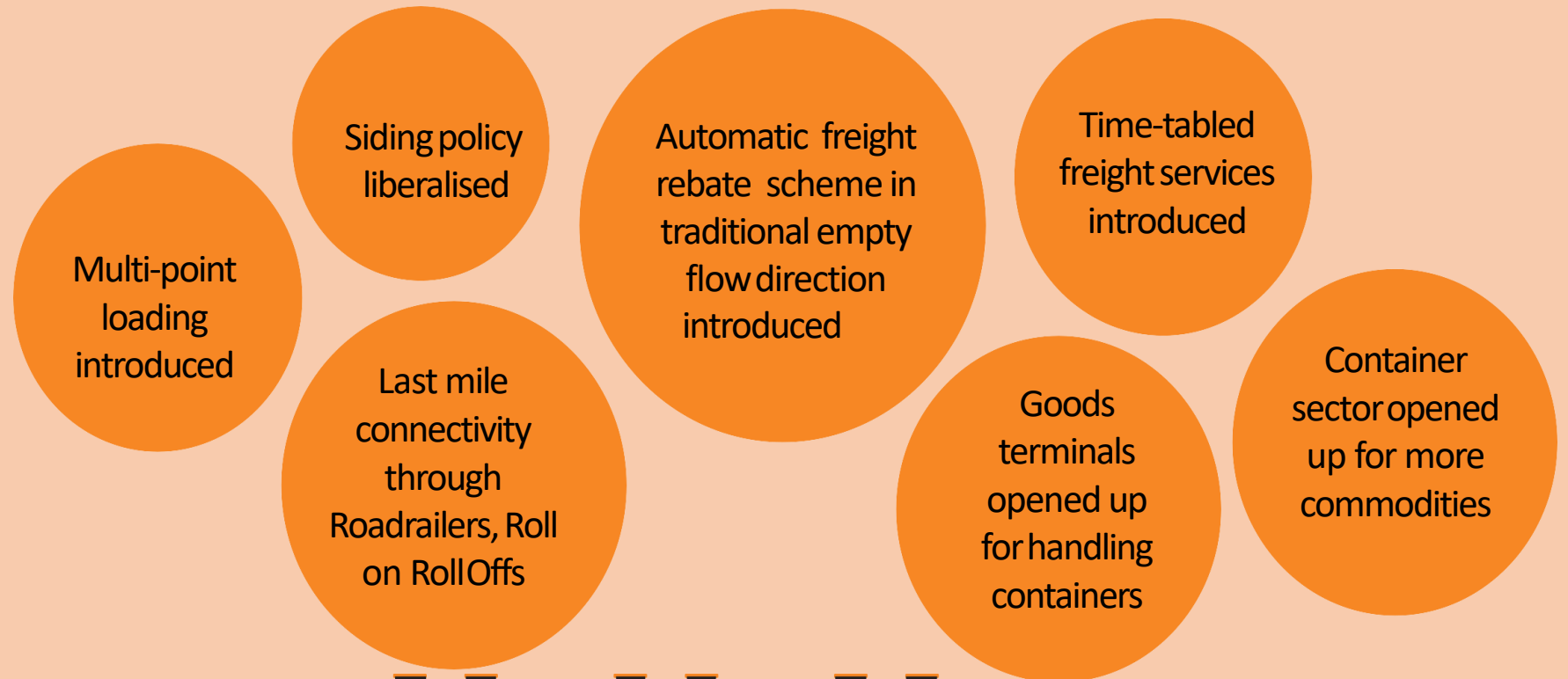


Highest ever
loading by
Indian Railways



LIBERALISED THE FREIGHT SECTOR

**Numerous policy interventions
carried out**



BECAME MORE CUSTOMER FRIENDLY



Appointed **Key Customer Managers** to serve as single point of contact for all major freight customers. Introduced Long term contracts, which are being signed by key customers



Structured dialogue between Railways and Customers christened 'Samvad' started



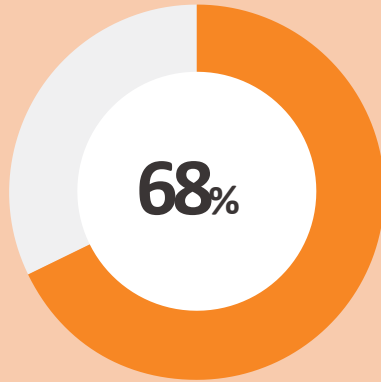
Electronic registration of Demand and Electronic transmission of Railway Receipts started



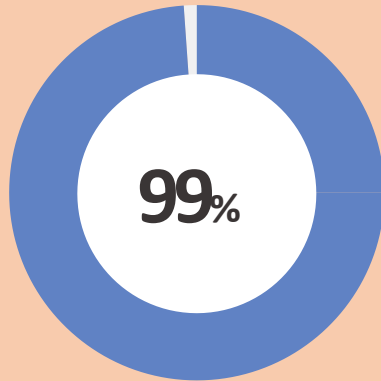
IMPROVED CUSTOMER EXPERIENCE BY GOING DIGITAL

% OF CASHLESS TRANSACTIONS

Passenger
Business



Freight
Business



1,20,000

Number of simultaneous internet users handling capacity

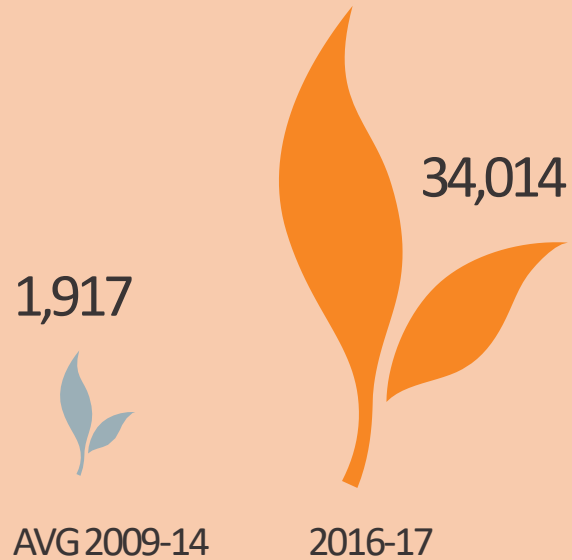


System capability improved by 3 times

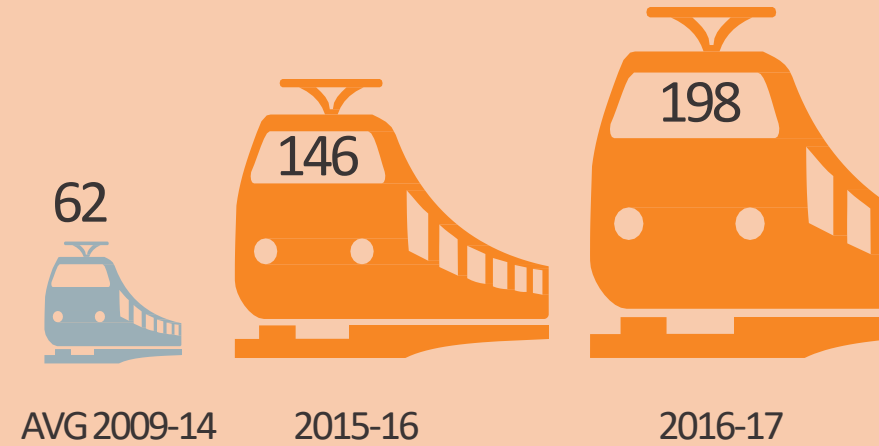


INSPIRED FROM 'SWACHH BHARAT', LAUNCHED 'SWACHH RAIL'

NO. OF BIO-TOILETS



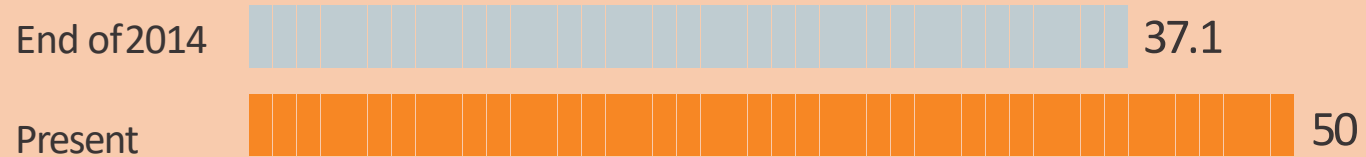
NO. OF OBHS TRAINS



Over 800 trains with OBHS service

MADE PASSENGERS FEEL AT HOME

RESERVED ACCOMMODATION CAPACITY [NO. OF BERTHS IN CRORE]



Launched **all India helpline 182** to resolve passenger complaints



Launched new catering policy

Food to be prepared largely at sophisticated, world class base kitchens. Big push on E-Catering and Ready to Eat meals – Offers more choice to passengers



BUILT 'ONE OF ITS KIND' COMPLAINT REDRESSAL MECHANISM IN THE WORLD

INPUTS



**23
MILLION**

passengers
travelling /day



6500

tweets/day

PROCESS

24/7 operations via a centrally managed cell

Tweets classified as critical, non-critical, suggestions & others

For every actionable tweet, a ticket is opened in the system

Critical tweets are communicated via SMS or phone calls

Each ticket is monitored at various stages in the system until resolution

OUTPUT

Average response time of less than 30 mins





FOCUSSED ON REDUCING COSTS AND LOOKING AT ALTERNATIVE SOURCES OF REVENUE

Significant cost savings planned

- Launched Mission 41K - Save ₹41,000 Crores in 10 years through energy efficiency and procurement optimization

Achieved ₹ 10,100 crores of non-fare revenue in 2016-17, almost 80% increase in one year

- Various initiatives lined up to boost Non Fare Revenues further
 - Train Branding – Both external and internal advertising on trains
 - Railway display network – Creating a new medium for advertising and information dissemination
 - Sole advertising rights for the entire Zonal Railway; On Board entertainment

LAUNCHED NEW TRAIN PRODUCTS



Launched new trains products to meet targeted customer needs – **Tejas, Humsafar, Mahamana and Antyodaya** trains





**PERFORMANCE
ACHIEVED ON
GOVERNANCE**

UNDERTOOK MAJOR STRUCTURAL REFORMS



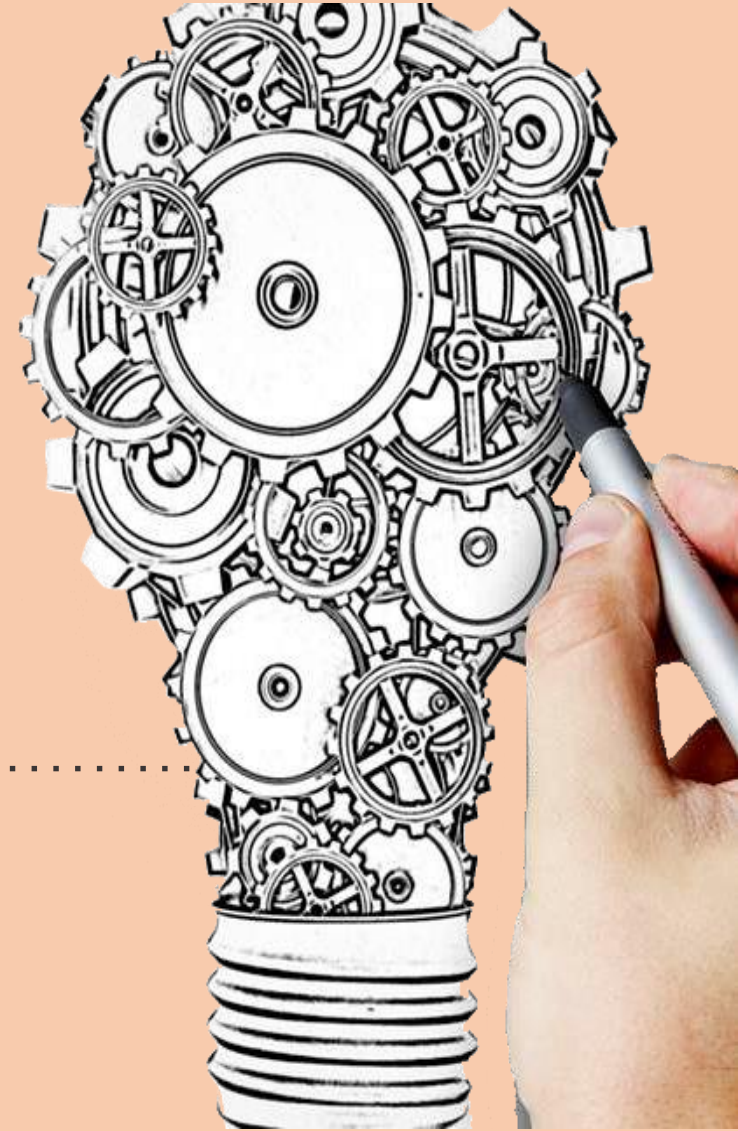
Setting up an independent regulator, Rail Development Authority approved. One of the biggest reforms in Rail Sector



Created distinct Rolling Stock and Traction Departments – Led to capture of massive synergies and improved operational efficiency



Piloted merger of Rail Budget and General Budget

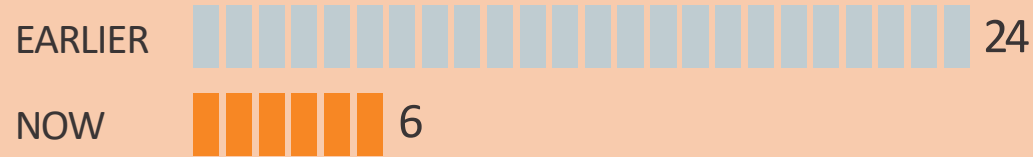




**PERFORMANCE
ACHIEVED ON
GOVERNANCE**

IMPROVED GOVERNANCE AND TRANSPARENCY

AVERAGE PROJECT APPROVAL DURATION (MONTHS)



**Largest ever online
recruitment
in the world conducted
by Indian Railways**



**Delegation of
powers
to functional
levels**



**Key result areas
defined for
General Managers
& DRMs**

100%

e-procurement
established.
Complete
digitisation of
supply chain
catering to annual
procurement of
**more than
₹ 25,000 Cr**



**TRANSFORMATION PLAN
TO ACHIEVE VISION 2022**



**TRANSFORMATIVE
AGENDA FOR
INFRASTRUCTURE**

**DECONGESTED NETWORK DUE TO DFC
COMMISSIONING AND ADDITIONAL 16000 KMS OF
DOUBLE LINES**

ROADMAP

Regular comprehensive reviews being conducted to ensure timely delivery of DFC

Speed of Infrastructure creation (Doubling) has already increased from 4Km/ day in 2014 to the current 7 Km/ day. Target to increase to 9.5 Km/ day in 2017-18 to 19Km/ day by 2022



**75 YEARS OF INDEPENDENCE
INDEPENDENCE FROM CONGESTION**



**TRANSFORMATIVE
AGENDA FOR
INFRASTRUCTURE**

90% OF ROUTE KMS ELECTRIFIED

ROADMAP

Already doubled the pace of electrification

~16,000 Km to be electrified in the next 3 years

Leveraging other PSUs e.g., PGCIL for implementation



**75 YEARS OF INDEPENDENCE
INDEPENDENCE FROM HIGH EMISSIONS**



**TRANSFORMATIVE
AGENDA FOR
INFRASTRUCTURE**

100+ REDEVELOPED MODERN STATIONS

ROADMAP

25+ stations under various stages of bidding

Construction already started at 2 stations

Leveraging PSUs like NBCC, MRVC for development of stations



**75 YEARS OF INDEPENDENCE
INDEPENDENCE FROM POOR AMENITIES**



TRANSFORMATIVE AGENDA FOR FREIGHT

TIME TABLED FREIGHT TRAINS

ROADMAP

First time-table train already being run

Pilot in conceptual stage to run time tabled container trains on NDLS-BCT sector

Plan to develop a software to manage train operations and advance charting to enable publishing of schedules for freight trains



75 YEARS OF INDEPENDENCE
INDEPENDENCE FROM UNRELIABLE
DELIVERY OF GOODS



**TRANSFORMATIVE
AGENDA FOR
FINANCIAL HEALTH**

20% REVENUES FROM NON FARE SOURCES

ROADMAP

Dedicated directorate set up in Railway Board

Station development program launched

*Major policy changes initiated to enable
partnerships with Advertisement industry leaders*

Land monetisation is being expanded



**75 YEARS OF INDEPENDENCE
INDEPENDENCE FROM POOR FINANCIAL
HEALTH**



**TRANSFORMATIVE
AGENDA FOR
CLEANLINESS**

ZERO DISCHARGE OF HUMAN WASTE

ROADMAP

Over 70,000 bio toilets already fitted, 2 corridors already declared as discharge free

All new coaches to be fitted with bio toilets

Bio toilets in every coach by 2019



**75 YEARS OF INDEPENDENCE
INDEPENDENCE FROM DISCHARGE**



**TRANSFORMATIVE
AGENDA FOR
HIGHER SPEEDS**

**Speed of freight trains @50kmph & Mail/Express trains @
80 kmph. Semi high speed trains along golden
quadrilateral**

ROADMAP

Dedicated cross-functional directorate already set-up to focus exclusively on increasing speeds on network

Integrated corridor planning being implemented for Delhi-Mumbai and Delhi-Kolkata

6 other corridors planned for semi-high speed operations



**75 YEARS OF INDEPENDENCE
INDEPENDENCE FROM POOR SPEEDS**

TRANSFORMATIVE AGENDA FOR FREIGHT

37% MODAL SHARE IN FREIGHT

ROADMAP

Growth in tonnage from 1.1bn tonnes to 2.4 bn tonnes by 2025 requires IR to grow at 8.5% CAGR

Incremental tonnage required after adjusting for BAU:

Cement – 200mn tonnes

Steel – 50mn tonnes

Share gain from Road in new markets – 230mn tonnes

Other commodities – 250mn tonnes

New delivery models to be explored to capture incremental traffic e.g., Dwarf containers have already been rolled out



75 YEARS OF INDEPENDENCE
INDEPENDENCE FROM LOW VOLUMES



**TRANSFORMATIVE
AGENDA FOR
CUSTOMER SERVICE**

PUNCTUALITY@ 95%

ROADMAP

Decongestion of network and DFC commissioning to release capacity which would lead to operational streamlining and hence higher punctuality

Predictive maintenance regime being incorporated to further enhance asset reliability



**75 YEARS OF INDEPENDENCE
INDEPENDENCE FROM LATE RUNNING**



**TRANSFORMATIVE
AGENDA FOR
INFRASTRUCTURE**

RESERVED ACCOMMODATION AVAILABLE ON DEMAND

ROADMAP

Commissioning of DFC would release capacity on existing network to run mail/express trains in line with demand

New Generation Electronic Ticketing System implementation and data analytics would lead to optimal utilisation of berth capacity



**75 YEARS OF INDEPENDENCE
INDEPENDENCE FROM BEING WAITLISTED**



**TRANSFORMATIVE
AGENDA FOR
BETTER SKILLS**

FULLY FUNCTIONAL RAILWAY UNIVERSITY

ROADMAP

Consultants already working on DPR for formation of university

Application for deemed university status due in September



**75 YEARS OF INDEPENDENCE
INDEPENDENCE FROM POOR SKILLS**