Foreword

Britain’s railway plays a vital role in getting people to work, bringing businesses and communities closer together and supporting the flow of freight across the country. The Government wants to see the railway continue to grow and to provide passengers and freight customers with a better quality of service. That is why our railway is benefitting from the largest investment programme since the Victorian era.

But to deliver our ambitious rail investment plans and to improve the railway’s performance we need to attract a new generation of people to work in rail whilst also investing in our existing workforce.

Earlier this year my department published the Transport Infrastructure Skills Strategy highlighting the skills challenges facing transport and setting out plans for creating 30,000 apprenticeships, increasing diversity and raising skills levels. The strategy is being delivered by the Strategic Transport Apprenticeship Taskforce (STAT), but was also a call to action to the wider transport sector to play its part.

So I am delighted that the rail sector has responded through this skills plan. It shows how the rail industry will collaborate to deliver a highly-skilled, diverse and flexible workforce, to support the creation of apprenticeships and to promote rail as a high tech and dynamic industry.

I encourage everyone in the rail sector to get involved in delivering this important strategy and I look forward to seeing some real progress in the coming months.

Paul Maynard MP
Parliamentary Under Secretary of State for Transport
Our aim

‘one industry’ to attract, recruit and retain the best talent; ensuring we resource rail with the right people in the right place at the right time!
Introduction

Sustained growth in passenger numbers to record numbers, record levels of investment, brand new high speed routes all depend on the rail industry possessing a modern, productive, skilled, talented and well led workforce.

Across the sector, this means new skills and talent will be needed to deliver the future rail system. However, with an ageing workforce, a need for those skilled in technologies and a lack of diversity compared with other sectors, rail is heading for a significant skills shortage unless the industry invests to meet future demands. This is a long term investment but if the industry does not act now, our ability to deliver a rail system that meets future growth requirements will be compromised. Research highlighted that if we do not invest in skills, cost to businesses is estimated to reach £300m per annum and the cost to Government approximately £380m per annum, by 2024. The cost to the economy could be over £1bn a year by 2034.

To respond to this challenge the rail sector has come together to setout the Rail Sector Skills Delivery Plan. This delivery plan has been developed by the industry for the industry with an input from over 60 businesses. Based on research, analysis and collaboration, the plan will help resource rail to have the right people in the right place at the right time.

National Skills Academy for Rail (NSAR), on behalf of the rail sector, will facilitate the collaborative industry effort to address this great challenge. As an industry we will work together to ensure talented people are recruited and upskilled to deliver our industry investment commitments, drive productivity and to take Britain’s rail system into a new technology driven era.

Shamit Gaiger
Director of Strategy - NSAR
LEADERSHIP

INDUSTRY NEEDS STRONG LEADERSHIP

CAPACITY + MOMENTUM = DRIVE CHANGE

- Right People
- Right Place
- Right Time

Resourcing Rail
Leadership Pledges

Key Industry Partners
- STAT
- NR, HS2, TfL
- Industry-wide employers
- NSAR
- RDG/RSG
- DfT
- RIA
- Rail Alliance

Outcome
Industry leadership commits to drive delivery of the industry Sector Skills plan and the associated targets/KPI's as defined in TISS and as set by the leadership team.

Deliverables
- Industry pledges
- Targets and KPIs where appropriate
- Delivery action plan

Industry Champion
Neil Robertson
NSAR

Linkages
- Intelligence
- Promotion & attraction
- Commercial environment
- Standards & qualifications
- Recruitment & retention

Key steps to achieve outcome
- Determine key commitment areas appropriate for a pledge at a cross industry level; including those recently published in the TISS and RSG's Strategy.
- Align with current initiatives already underway
- Consult sector businesses on individual realistic targets, KPI and pledges
- Determine action plan(s) to meet targets
- Ensure buy-in for pledges and investment from key businesses
- Launch the pledges and gain industry-wide commitment to support implementation
- Monitor against targets
Leadership

Commercial Environment

Key Industry Partners
- NR, TFL, HS2
- NSAR
- RDG/RSG
- RIA
- TOCs & FOCs
- Contractors/suppliers/SMEs
- Government/DfT
- Rail Alliance, RFEM

Outcome
Buyers & government authorities to commit to medium/long term commercial activity that will provide confidence to the supply chain with a predictable pipeline of work that enables additional investment in resources and skills

Deliverables
- Visibility of investments
- Industry-wide work bank commitment through accurate forecasting to enable foreknowledge of resource requirements
- Good practice for contracts

Industry Champion
Peter Loosley
Rail Industry Association

Linkages
- Intelligence
- Clearing house
- Regional engagement
- Optimising training provision
- Promotion & attraction

Key steps to achieve outcome

Understand industry investment plans, fleet requirements and commitments

Understand medium term skills needs to deliver investment plans

Gap analysis to identify the skills required for workload, derived from investment plans for the supply chain

Work with buyers to publish predictable work banks available to the supply chain

Work with buyers to establish good practice re: skills in contracts (build on Crossrail and franchising)

Buyers to support by ensuring contracts are firm and committed

Continual monitoring of investment against skill demands
INTELLIGENCE

INTELLIGENCE BY
- BUSINESS UNIT
- PROJECT
- SKILL SET
- GEOGRAPHY

BASELINE BY
- AGE
- GENDER
- SKILL PROFILE

- ANALYSE INVESTMENT
- CHANGES IN TECHNOLOGY
- PRODUCTIVITY GAINS
Intelligence

Key Industry Partners
- Industry employers
- STAT/RSG/RDG/RIA
- Education providers
- Training providers

Key steps to achieve outcome
- Establish skills data baseline for the sector
- Development of forecasting tool
- Agree forecast assumptions
- Report skills shortages
- Develop a capability for varying levels of granularity, from national to project level
- Agree key performance indicators
- Monitor progress towards meeting forecasted needs and attainment of KPIs

Outcomes
Understand future and current skills shortages to enable targeted investment and monitoring of progress in order to close gap reducing industry costs.

Deliverables
- An industry strategic skills resourcing tool
- Agreed sector KPIs for monitoring
- Breakdown to projects, routes, franchises and geographical areas

Industry Champion
Neil Franklin
NSAR

Linkages
- Input and review loop into all workstreams.
Promotion and Attraction

Industry Image

**Key Industry Partners**
- Routes into Rail
- YRP
- Women in Rail
- NSAR
- RDG / RSG
- RIA/ Rail Alliance
- Regional forums
- RFEM

**Outcome**
Rail sector is seen by educators and potential recruits as a high-tech & dynamic industry; increasing number, diversity and quality of recruits & apprenticeships

**Deliverables**
Targeted rail promotion marketing campaign that positions rail as an attractive career choice. One industry approach that does not dilute individual brands

**Industry Champion**
Rob Kirk
Rail Delivery Group

**Key steps to achieve outcome**

- Define what we are selling, who we are selling it to and where the message is needed
- Understand market perception, needs and interest at demographic level
- Collaborate with RDG to capitalise on their campaign for industry branding
- Tailor marketing messages to audiences
- Devise marketing and communication plan
- Deliver targeted media campaigns
- Develop success metrics, evaluation strategy and monitor outcomes

**Linkages**
- Regional engagement
- Intelligence
- Increase diversity
- Career path
- Apprenticeships
Promotion and Attraction
Regional Engagement

Key Industry Partners
• Sector ambassadors
• WiR/YRP
• Routes into Rail
• Schools/unis/colleges
• RDG/ RSG
• RIA/ Rail Alliance
• RFEM
• Regional forums

Outcome
To position the railway as a great place to work, using a coordinated and geographically targeted approach

Deliverables
• Regional engagement delivery plans supported by industry-agreed promotional material
• Formation of cross-industry engagement unit

Industry Champion
Sabrina Ihaddaden
Bombardier & Young Rail Professionals

Linkages
• Industry image
• Intelligence
• Clearing house
• Apprenticeships
• Career path
• Diversity

Key steps to achieve outcome
Understand current promotional activity taking place within and outside the sector which can be capitalised on
Map regional skills needs from intelligence
Agree with industry, a comprehensive set of promotional & educational briefing material for each target demographic/group
Highlight opportunities for displaced employees within and outside sector
Produce detailed regional engagement delivery plans
Establish comprehensive network of cross-industry ambassadors and role models
Develop, coordinate and provide traineeships, work experience and engagement competitions
Build cross-industry unit to deliver and engage
Co-ordinate industry effort
Promotion and Attraction

Increase Diversity

Key Industry Partners
- Women in Rail
- YRP
- Routes into Rail
- Industry Employers
- Sector ambassadors
- RDG
- RSG

Key steps to achieve outcome
- Develop an Industry wide Diversity and Inclusion strategy
- Target attraction based on Intelligence, regional engagement, delivery plans and industry image.
- Engagement programme with senior industry leaders to encourage embedding diversity in organisations through recruitment, procurement and the creation of supporting environments
- Develop mentoring programme to support women & BAME in business
- Build on existing and develop best practice to retain women & BAME to support culture change where needed
- Develop success metrics, evaluation strategy and monitor outcomes

Outcome
An industry wide collaboration and commitment to increasing the diversity of the sector workforce

Deliverables
Support 20% increase in apprenticeship uptake from women and BAME by 2020 through targeted attraction, support, retention and engagement

Industry Champion
Adeline Ginn
Angel Trains & Women in Rail

Linkages
- Industry image
- Intelligence
- Clearing house
- Career path
- Commercial environment

The National Skills Academy
RAIL
RECRUITMENT & RETENTION

Diagram showing various roles and career paths:
- Engineering Director
- Commercial Director
- CEO
- Fleet Manager
- Route Control Manager
- Customer Service
- Systems Engineer
- Station Manager
- Graduate
- Mature

Flexibility indicated by arrows pointing in different directions.
Recruitment & Retention
Clearing House

Key Industry Partners
- NR/TfL/HS2
- RSG/RDG
- RIA
- Rail Alliance
- NSAR
- YRP
- Routes into Rail
- RFEM

Outcome
Optimising supply and demand around recruitment of apprenticeships, graduates, career changers and movement of existing industry personnel

Deliverables
- Establish an online capability linking supply of provision to market demand that can support the rail industry in its search of talent, both in terms of future recruitment and the upskilling of existing industry workforces

Industry Champion
- Neil Franklin
- NSAR

Key steps to achieve outcome
- Develop an online requirements specification for a web portal to optimise supply and demand for apprentices, graduate and displaced workforce
- Develop web portal for the sector
- Develop a process and service strategy to support sector
- Pilot tool
- Industry engagement
- Monitor progress

Linkages
- Industry image
- Intelligence
- Apprenticeships
- Career path
Recruitment & Retention

Career Path

Key industry partners
- Employers
- NSAR
- YRP
- Routes into Rail
- RIA,
- RDG/RSG

Outcome
Increase visibility of potential career progression and mobility within the industry broadening industry knowledge

Deliverables
Establish clear industry career opportunity pathways by role

Industry Champion
Clair Mowbray
National College for High Speed Rail

Linkages
- Regional engagement
- Intelligence
- Clearing house
- Apprenticeships
- Modern curriculum

Key steps to achieve outcome
- Agree key roles in operations, engineering, management and leadership with sector
- Understand future talent needs from career path product
- Establish industry career clusters and common capabilities matrix
- Develop pathways for key roles
- Market and encourage employers and education providers to use pathways
STANDARDS & QUALIFICATIONS
Standards & Qualifications

Common Modern Curriculum

Key Industry Partners
- Industry employers
- RRUKA
- NSAR
- HS2

Awarding bodies
- DfE
- Universities
- Professional Institutions

Agreed key roles for common competence standards (engineering and operational)
Facilitate employer-led apprenticeship standards

Deliverables
Agreed set of industry standards (including apprenticeship levels 2-7) for engineering, operational, management and leadership roles taking into account new technologies

Collaborate with universities to develop rail specific higher education courses (apprenticeships 5-7) to address current and future skills needs

Develop rail curriculum for excellence in management and leadership skills

Identify future skills needs taking into account new technologies and develop appropriate standards with employers

Understand the role of qualifications in rail and develop a suite of agreed transferable qualifications

Outcome
Adoption of consistent industry-wide competence standards to support transferability of skills, thus reducing the cost of retraining

Key steps to achieve outcome

Agreed key roles for common competence standards (engineering and operational)
Facilitate employer-led apprenticeship standards including upskilling for agreed key roles

Collaborate with universities to develop rail specific higher education courses (apprenticeships 5-7) to address current and future skills needs

Develop rail curriculum for excellence in management and leadership skills

Identify future skills needs taking into account new technologies and develop appropriate standards with employers

Understand the role of qualifications in rail and develop a suite of agreed transferable qualifications

Linkages
- Apprenticeships
- Intelligence

Career path
Standards & Qualifications

Apprenticeships strategy and levy

Key Industry Partners:
- Industry employers
- NSAR
- DFT/DfE/BEIS
- PEIs, unis, colleges
- STAT
- RSG/RDG
- Training providers
- Regions/RFEM
- Professional
- Institutions

Key steps to achieve outcome:

Use intelligence to determine apprentice numbers in each geographical area, sub-sectors and industry discipline and define scope of supply chain.

Agree key priority areas for apprenticeship and develop standards based on ‘modern curriculum’ workstream.

Influence industry commercial contracts to deliver apprenticeship numbers throughout the supply chain.

‘Pump prime’ the skills pipeline and facilitate cross-ownership of apprenticeships to support SMEs.

Ensure sufficient training facilities, kits, trainers and assessors are available.

Develop mechanisms to draw on apprenticeship levy benefits.

Monitor progress against TISS target.

Outcome:
Increase industry-wide apprenticeships by 20,000 by 2020 to meet TISS target and assist the industry in exploiting the apprenticeship levy to gain maximum benefit.

Deliverables:
- Cross-industry apprenticeship strategy and framework
- Mechanism to maximise apprenticeship levy benefits

Industry Champion:
Michelle Nolan McSweeney
Network Rail

Linkages:
- Regional engagement
- Clearing house
- Career path
- Modern curriculum
- Industry image
- Diversity
- Intelligence
- TISS target
- Apprenticeships
TRAINING & ASSURANCE

NETWORK RAIL

LUL

NTAR

HS2
Training and Assurance

Quality Assurance

Key industry partners
- NSAR
- Training providers
- NR/TfL/HS2
- RSG

Outcome
Increased competency across industry-wide workforce

Deliverables
- Quality assurance framework within and on behalf of industry
- A pan-industry quality assurance assessment and assurance panel

Industry Champion
Kim Millen
NSAR

Linkages
- Intelligence
- Career path
- Optimising training provision
- Common modern curriculum

Key steps to achieve outcome

Maintain and build on current QA scheme delivered by NSAR

Establish an industry assessment and assurance panel

Identify and form partnerships with training and education providers to expand courses covered by the scheme

Create a mechanism to enable transparency of the quality of training providers to be widely accessible to industry

Monitor continuous improvement of overall quality of training
## Training and Assurance

### Trainers and Assessors Capability

#### Key Industry Partners
- Training providers, colleges and assessors
- Employer assessors
- Apprentice assessment organisations
- Awarding bodies/SFA

#### Outcome

**Current, valid, sufficient and reliable assessment of capabilities**

#### Deliberables
- Develop robust accurate assessment tools and resources
- Increase assessor training capacity
- Quality assurance of training assessments

#### Industry Champion

**Kim Millen**

**NSAR**

#### Key steps to achieve outcome

- Link with provider readiness groups (PRGs)
- Use Future Apprenticeships Toolkit/Excellence Gateway
- Identify demand for assessors in rail
- Identify capacity for training assessors
- Understand assessment requirements for new apprenticeship standards
- Develop online formative and summative assessment tools
- Share assessment resources and support through a national network
- Set up quality assurance of assessments framework

#### Linkages

- Quality assurance
- Common modern curriculum
- Apprenticeship strategy & levy
Training and Assurance

Optimising Training Provision

Key Industry Partners
- NR
- HS2
- NTAR
- Education providers
- TfL
- NSAR
- NCHSR

Outcome
Optimise the use and transparency of a national network of training facilities and providers for industry-wide use to meet current and future needs

Deliverables
- Web-enabled national network of quality assured training facilities and providers
- Identify future resource and facility requirements

Industry Champion
Guy Wilmshurst-Smith
Network Rail

Key steps to achieve outcome

Identify current facilities and resources available

Understand current and future needs using output of intelligence, quality assurance and apprenticeship strategy

Undertake GAP analysis

Gain industry commitment to scheme and establish partnerships to ensure assets are optimised

Develop web portal to provide access to facilities and resources, providing transparency through ‘trip advisor’ approach

Continual monitoring of quality assurance and ‘trip advisor’ type feedback

Linkages
- Intelligence
- Clearing house
- Quality assurance
- Apprenticeship strategy & levy
Governance Structure for Delivery

National Skills Academy for Rail Board

NSAR Board
STAT Sub Group
NSAR Assurance Panel
Routes Into Rail

Programme Management Resource

Leadership
Leadership Pledges
Leadership - Commercial Environment

Intelligence

Training & Assurance
Quality Assurance
Optimising Provision
Trainers & Assessors Capability

Standards & Qualifications
Apprenticeships
Common Modern Curriculum

Recruitment, Retention
Clearing House
Career Paths

Promotion & Attraction
Industry Image
Increased Diversity
Regional Engagement
Rail Sector Skills Delivery Plan
for the sector by the sector

Enquiries to: Shamit Gaiger
Director of Strategy
NSAR
Enquiries@nsar.co.uk