Rail Sector Deal High-level Industry Delivery Plans:

DIGITALLY CONNECTING THE NATION

6th December 2018

Department for Transport

Rail Supply Group
IN PARTNERSHIP WITH *Rail Delivery Group*

Department for Business, Energy & Industrial Strategy
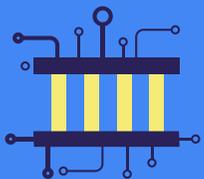
TRANSFORMATION THROUGH DIGITALISATION
(UNIT COST REDUCTION AMBITION AND ASSETS RENEWAL ROADMAP)

INDUSTRY OFFERS & ASKS	MILESTONES & KEY ACTIVITIES			
	PHASE 0 (Q4 2018) to MARCH 2019	YEAR 1	YEAR 2	YEAR 3

Industry Ask: Industry asks that DfT, Network Rail and HS2 Ltd produce a detailed 5-year plan and longer-term roadmap of Digital Railway (DR) interventions with a more certain, sustainable investment profile.

Industry Offer: By the end of 2025 we will achieve whole industry (client and supplier), whole system (train borne and infrastructure based) unit cost reductions that are significantly lower than current UK conventional infrastructure only costs (equivalent to European Benchmark Costs).

Outcomes: A long-term Digital Railway delivery plan that contributes to removing boom and bust cycles from the rail industry, reducing the cost of delivery and enabling investment. Unit cost reduction will allow Network Rail to implement Digital Railway across much of their network to deliver significant customer benefits.

Industry-led Digital Railway, with a sustainable long-term partnership between government and suppliers. This will also bring lower whole life costs and significant reliability and performance benefits, creating a world class railway and a skills legacy with a strong export capability supported by UK reference cases. The use of digital technology and applications will:

1. Improve operational efficiency and reduce cost;
2. Improve asset management and performance;
3. Reduce disruptive interventions in the rail corridor;
4. Improve systems availability through improved reliability and intervention management;
5. Deliver improved passenger experience and increased availability.

Approach and set-up:

- Roundtable to discuss issues and options, providing a basis for further work.
- Agree public and private sector mechanisms to commit to delivery plans (including Network Rail) associated with Unit Cost and Assets Renewals Roadmap programme.
- Jointly develop draft infrastructure asset driven deployment plan and scenarios, to provide a more certain profile and support deliverability.
- Establish a joint Task & Finish Group to develop draft batched in-cab fitment and supply chain (and client/government) resource plans to suit a detailed, smooth 5-year infrastructure plan and 15 year roadmap.
- Agree industry and client co-ordination model (including HS2 Ltd) and resources to support it.
- Initiate delivery of (Industry Sector Deal Submission July) appendix unit cost evidence pack, integral to this delivery plan, that sets out how industry and government will achieve an ambition to reduce digital unit cost.
- Agree assumptions, risks/opportunities, success measures and to support the aspiration of the cost reduction to deliver greater volume at the same level of investment.
- Cost model above plan scenarios.
- Review experience from early deployment projects and ECML to inform future procurement and collaboration approaches.
- Jointly review options to strengthen the current Digital Railway (DR) board and its remit by initially reviewing ToR.

Mobilisation plan, approach and delivery:

- Implement agreed options to strengthen industry-wide Programme Board.
- Complete the business case work to support a more certain joint plan for Operations, Maintenance and Renewal (OMR) and retrofit in-cab fitment, and supply chain resource plans. Aim to achieve a sustainable asset based investment roadmap for delivery profile for CP6 and CP7 onwards.
- Finalise, agree and publish agreed plans.
- Agree collaborative procurement models based on ECML outcome-based specifications, including regional, SME and employment assessment.
- Outcome based specifications to support innovation and tender assessment which includes UK employment, skills and intellectual property development to create centres of expertise to both drive down costs and create the legacy of an export capability.
- Development of an agreed open interface standard (compatibility) to enable innovation and new entrants. To enable supplier interface and encourage innovation and new entrants.
- Agree mobilisation approach and review the readiness of industry change planning.

- Commence design and delivery (years 3 & 4) of the accelerated aspects of the plans.
- Implement outcome based tendering on DR projects.
- Annual review of plan progress.
- Annual review of unit cost with a significant reduction versus conventional signalling.
- Accelerated and a more certain infrastructure and in-cab fitment delivery.
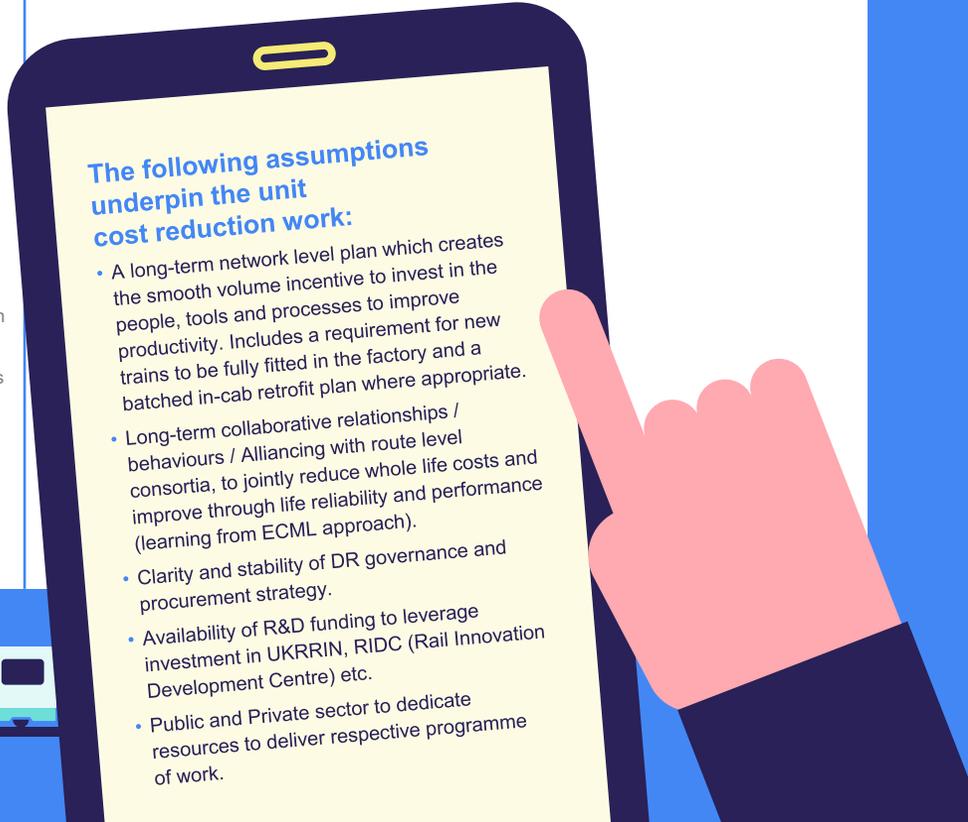
The following assumptions underpin the unit cost reduction work:

- A long-term network level plan which creates the smooth volume incentive to invest in the people, tools and processes to improve productivity. Includes a requirement for new trains to be fully fitted in the factory and a batched in-cab retrofit plan where appropriate.
- Long-term collaborative relationships / behaviours / Alliancing with route level consortia, to jointly reduce whole life costs and improve through life reliability and performance (learning from ECML approach).
- Clarity and stability of DR governance and procurement strategy.
- Availability of R&D funding to leverage investment in UKRRIN, RIDC (Rail Innovation Development Centre) etc.
- Public and Private sector to dedicate resources to deliver respective programme of work.

SIGNIFICANTLY ENHANCING CUSTOMER EXPERIENCE: ESTABLISHING A PLATFORM FOR SECURELY SHARING COMMERCIAL DATA

INDUSTRY OFFERS & ASKS	MILESTONES & KEY ACTIVITIES			
	PHASE 0 (Q4 2018) to MARCH 2019	YEAR 1	YEAR 2	YEAR 3
Industry Ask: Industry asks government to be responsible for establishment and promotion of the role of "Platform Sponsor", working closely with Train Operating Companies (TOCs), Freight Operating Companies (FOCs), supply chain and new entrants to the market (see assumptions). **Outcomes:** Rail commercial data can be shared widely across modes of transport and infrastructure systems, enabling innovation and new customer focused products and services to greatly enhance passenger travel from door to door and the more effective movement of goods. This also has the potential to reduce costs, as has been the case in TfL.	**Approach and set-up:** • Agree public and private sector mechanism to commit to delivery plans, including roles and responsibilities, associated with the Data Sharing Platform. • Agree industry and client coordination model (including HS2 Ltd and existing franchises) and resources to support. • Agree assumptions and final economic impact assessment to better understand data benefits. • Agree approach and remit with DfT, client organisations, suppliers and others. • Agree ToR for an innovation panel (including members from outside of industry). • Incorporate learning from other sectors and TfL. • Agree funding for establishment of Data Sharing Platform including alternative finances where appropriate (see assumptions). • Agree definition of future role of Rail within an integrated mobility network. • Identify and confirm appropriate funding mechanism for implementation and operational costs to be met. • Agree pilot programmes, including HS2 Ltd (greenfield site). • Agree governance structure and detailed programme for delivery, including success measures. • Review ToR of Joint Rail Data Action Plan Task Force. • Assess the Rail Data Action Plan and seek to consolidate activities where appropriate.	**Mobilisation plan, approach and delivery:** • Agree 'Platform Sponsor' role and the set-up of a newly formed innovation panel (see assumptions). • Confirm rail customer segments for MaaS (passenger, freight, retail/interchange etc). • Industry to clarify areas within the Rail Act wording that require guidance for the subsequent application, to enable MaaS. • Establish and convene membership of innovation panel. • Explore, alongside government, new commercial and business models to enable MaaS on Rail, connecting Rail into a wider integrated mobility ecosystem. • Confirm a position on the skills and capabilities needed to deliver MaaS on Rail, supporting the industry's Sector Skills Delivery Plan.	**Delivery and implementation:** • Operation and early commercialisation. • Develop curriculum, where needed, and establish formal training and accreditations to support and promote a Rail specific technology and digital skills agenda.	**Delivery and implementation:** • Platform for sharing commercial data is fully operational.

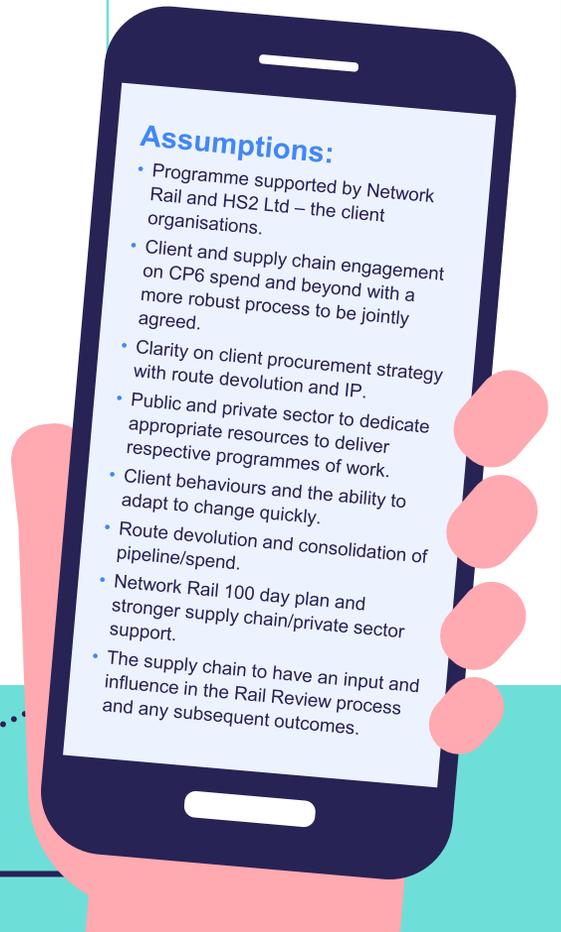**The following assumptions underpin the Data Workstream:**
- The costs for the development of the platform are assumed to be in the range of £5m-£10m with the actual cost to be split 50/50 between government and industry. Options for both the government and industry contributions of up to £5m each are currently under consideration but it is agreed that the industry funding can be "in kind" (through resources, equipment etc and/or the potential to reallocate funding from industry sources such as UKRRIN).
- Align to existing programmes of work (e.g. Joint Rail Data Action Plan (JRDAP) and UK Rail Research & Innovation Network (UKRRIN)
- Responsibilities of the Platform Sponsor to involve establishing and managing the fundamental rules of a data sharing platform and its capabilities – to be clearly defined through a jointly developed framework) and to ensure that it is managed and used securely, responsibly and ethically.
- Data will be shared where legally, ethically and commercially appropriate.
- Government / client organisation engagement and approval to progress pilots.
- Public and private sector will agree on balance of resource requirements at each stage in the delivery programme.

Anticipated delivery programmes:

East Midlands:
MaaS on Rail – implementation: Build and trial platform, extend and integrate platform, skills strategy, ongoing operational commercialised platform.

Leeds (brownfield opportunity):
Upgrade and retrofit + new data platform. Evaluate existing data environment, integrate new platform with existing platform, skills strategy, build and operate MaaS on rail.
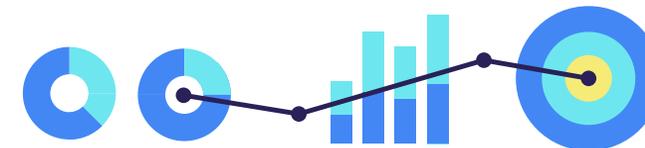
DEVELOPING A SUSTAINABLE UK RAIL SECTOR AT HOME AND ABROAD: MEANINGFUL ENGAGEMENT WITH THE SUPPLY CHAIN

INDUSTRY OFFERS & ASKS

Industry Ask: Government, Network Rail and HS2 Ltd, in partnership with the private sector, to agree a mechanism for ensuring industry is actively engaged in the development of CP6 delivery plans and future control period investment plans. Ensuring that industry is an integral part of the development and deployment of longer term rail investment opportunities (consider using Digital Railway (DR) and Data as possible pilots).

Industry Offer: We will support delivery of Connecting People: a strategic vision for rail by developing a coherent and deliverable plan for rail infrastructure investment. Our aim is to achieve a 5-year + indicative investment programme, supported by an investment programme for each Control Period.

Outcomes: The aim is to provide a more certain rail investment pipeline to support more efficient delivery of rail infrastructure and provide the supply chain with greater confidence to invest in people, technology and innovation, ultimately generating greater efficiencies and economies of scale for the UK. This will ensure the supply chain has the skills, capacity and capability to deliver the investment pipeline, cost effectively.

MILESTONES & KEY ACTIVITIES

PHASE 0 (Q4 2018) to MARCH 2019

Approach and set-up:
- Roundtable to discuss issues and options, providing a basis for further work.
- Agree public and private sector mechanism to commit to the delivery plans associated with the Sustainable Pillar, using Digital Railway (DR) and Data sector deal programme of work as the pilot programme, including success measures.
- Clear Network Rail commitment, particularly around how it can make the continuous business planning cycle more inclusive.
- Mapping of any complementary existing industry initiatives that could be aligned.
- Review delivery mechanism, including the supply chain, Train and Freight Operating Companies (TOCs, FOCs) and government/client organisations, and which organisation(s) are best placed to lead key elements.
- Look to consolidate activity where appropriate.
- Prioritise discussions with industry, government, Network Rail and HS2 Ltd to agree an action plan to better integrate the supply chain into the Control Period with an immediate focus on CP6.
- Review and amend ToR for the Strategic Vision Industry Reform Board (SVIRB) – to support for greater supply chain strategic objectives.
- Explore and prioritise appropriate procurement models that can incentivise the supply chain, including the use of outcome based specifications and whole life costing behaviour, and assess barriers to market.
- Review and prioritise supply chain investment in productivity, innovation and skills, as well as greater involvement of SMEs and new entrants.

YEAR 1

Mobilisation plan, approach and delivery:
- Use SVIRB as the governance body to report and monitor progress on Sector Deal delivery.
- Agree procurement scorecard and approach, between buyers and Tier 1s and others, including implementation plans and process to launch.
- Jointly scope options for a better engagement and collaboration model between Network Rail, HS2 Ltd and the supply chain, using early contractor involvement (ECI) Digital Railway (DR) and HS2 Ltd as the exemplars.
- Agree methodology and approach to produce CP6 investment delivery plans, disaggregated by discipline/asset class that has been tested with the supply chain for deliverability. Agree programme to implement where appropriate.
- Prioritise an engagement model in the next generation of Tier 1 contracts for major project delivery (avoid nil value contracts etc).
- Agree future approach for testing government policies that impact the supply chain, where appropriate; based on lessons learned from previous policies.
- Pilot a more collaborative government client supply chain approach using the DR Programme, HS2 Ltd and learning from ECML.
- Development and adoption of outcome based specification tendering model, using DR and HS2 Ltd as the enabler.

YEAR 2

Delivery:
- Deliver, monitor and progress.
- Agree mechanisms for ensuring industry engagement in investment decision-making for CP7 and beyond.
- Full adoption of the balanced scorecard across industry.

YEAR 3

Delivery:
- Deliver, monitor and progress.

Assumptions:
- Programme supported by Network Rail and HS2 Ltd – the client organisations.
- Client and supply chain engagement on CP6 spend and beyond with a more robust process to be jointly agreed.
- Clarity on client procurement strategy with route devolution and IP.
- Public and private sector to dedicate appropriate resources to deliver respective programmes of work.
- Client behaviours and the ability to adapt to change quickly.
- Route devolution and consolidation of pipeline/spend.
- Network Rail 100 day plan and stronger supply chain/private sector support.
- The supply chain to have an input and influence in the Rail Review process and any subsequent outcomes.

IMPROVING EXPORT PERFORMANCE AND INCREASING TARGETED INWARD INVESTMENT

INDUSTRY OFFERS & ASKS	MILESTONES & KEY ACTIVITIES			
	PHASE 0 (Q4 2018) to MARCH 2019	YEAR 1	YEAR 2	YEAR 3

INDUSTRY OFFERS & ASKS

Improved export performance – doubling by 2025, through:

Industry Ask:
Government to examine how public sector organisations could better support UK rail exporters, and to provide ongoing access to government decision making for industry leaders – through an exports consultation group.

Industry Offers:
- A UK rail supply chain capability map to identify strengths and weaknesses.
- An analysis of overseas opportunities, barriers and to provide local market rail sector overviews.
- An export mentoring and secondment programme.

Outputs & Outcome:
- Understand the areas where we are strong and can export more.
- Understand weaknesses and possible focus areas for inward investment.
- Focused targeting of overseas opportunities and barriers.
- Improved exporting capability within the supply chain.

PHASE 0 (Q4 2018) to MARCH 2019

Approach and set-up:
- **Exports group –** agree priority issues (see Assumptions below), agree membership and hold initial meeting.
- **Capability map –** share existing evidence, agree detailed outputs, begin analysis and testing with stakeholders.
- **Opportunity map –** agree detailed outputs and conduct high level analysis to identify priority markets/projects.
- **Mentoring and secondment –** agree scope and delivery partners, examine best practice and ensure consistency with other sectors.
- Establish success measures for each initiative.
- Map out any existing groups, export initiatives or programmes of work which are complementary to the exports Sector Deal programme of work.

YEAR 1

Mobilisation plan, approach and delivery:
- **Exports group –** ongoing programme of meetings addressing priority issues. Six monthly reviews of agreed actions.
- **Capability map –** conduct core analysis and identify export and inward investment priorities. Develop briefing and marketing materials.
- **Opportunity map –** conduct analysis of priority markets/projects. Match with capability map. Target and match likely exporters, and introduce government support.
- **Mentoring and secondment –** deliver pilot programme with 10-20 companies, possibly focused on digital. Identify lessons learned.

YEAR 2

Review and delivery:
- **Exports group –** ongoing meetings. Review of effectiveness.
- **Capability map –** ongoing dissemination.
- **Opportunity map –** refresh and refine.
- **Mentoring and secondment –** roll out developed programme across industry.

YEAR 3

Review and delivery:
- **Exports group** – ongoing meetings.
- **Capability map** – refresh analysis and materials.
- **Opportunity map** – refresh and refine.
- **Mentoring and secondment** – ongoing delivery. Analysis of impact.

Assumptions – The following joint actions underpin the exports programme of work:
- Public and private sector to dedicate resources to deliver respective programmes of work.
- Jointly agree a programme for delivery and implementation.
- Collective sharing of relevant information, findings and research across government and the private sector to avoid duplication.
- Exports group will have a mix of private and public sector including client organisations and trade organisations.

Issues for further consideration:
- Business planning and market prioritisation by government.
- The ongoing development of the Infrastructure Exports UK model and how the rail sector can become more involved in identifying overseas opportunities and collaborating to pursue them.
- How Network Rail's domestic policy impacts on exporting e.g. production of references for UK suppliers, and showcasing UK suppliers' goods and services when Network Rail hosts overseas visitors.
- Rail export activity by public sector organisations (e.g. Network Rail Consulting, Transport for London Consulting, and Crossrail International) and how they can support UK companies.
- Improving industry competitive engagement in developing country markets, including those receiving UK ODA.

SHARED APPRENTICESHIPS AND SCHOOLS ENGAGEMENT (using the Midlands as a pilot)

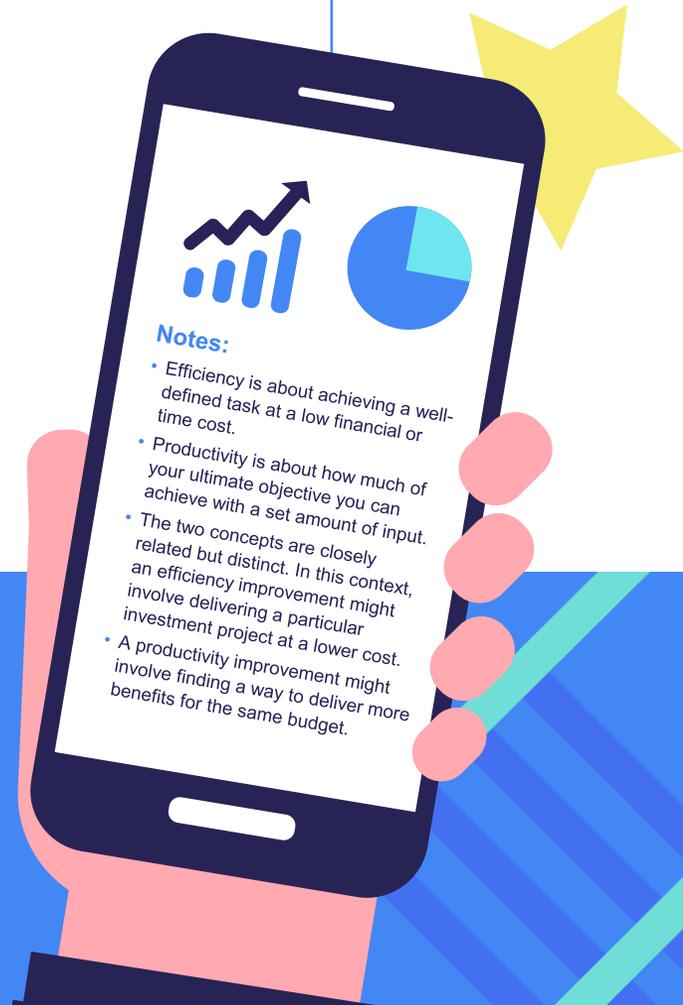| INDUSTRY OFFERS & ASKS	MILESTONES & KEY ACTIVITIES		
	YEAR 1	YEAR 2	YEAR 3
Industry Offer: Collaboration between key stakeholders including SMEs, to address the rail skills challenge. **Outputs & Outcome:** • Increase in number of SMEs recruiting apprentices. • Increase in number of apprenticeships offered. • Increased impact and co-ordination of regional schools engagement activities, resulting in improved awareness of opportunities, increased quality and quantity of applications for apprenticeships, and improved knowledge and image of the sector with young people.	**Shared apprenticeships:** • Engage resources to support activity. • Develop communications and engagement plan for SMEs (East Midlands). • Assess potential latent demand: potential numbers of apprentices and specific skillsets e.g. rail engineering, digital (East Midlands). • Develop plan for college and training provider(s) engagement (East Midlands). • Identify relevant apprenticeship standards. • Develop possible business and delivery model(s) in collaboration with both employers and training providers/colleges. • Agree business/delivery model(s) to be trialled, and establish 3rd party entity to recruit apprentices (if required). • Select delivery partner(s) and develop plan, including success measures. • Recruit first cohort for September 2019 start. **Schools engagement:** • Identify current and potential funding routes for school engagement/sector promotional activity. • Liaise with Routes into Rail (RiR) Board on wider future schools engagement strategy and develop a Midlands based approach that aligns with national plans/ideas. • Develop a long-term strategy and approach for Midlands schools engagement that aligns with RiR Board plans, previous HS2 Ltd Employment and Skills Strategy work (where applicable) and that which takes account of Gatsby Benchmarks and other industry best practice (e.g. the Rolls Royce tiered approach). • Develop an offer aimed at secondary school pupils and test the ideas with a small number of schools to get feedback – amend as needed. • Review the current iRail offer in light of the 'new' strategy and develop as appropriate, including seeking more robust feedback from participating schools in iRail 2019. • Analyse target school catchment areas to ensure maximum inclusivity and representation from disadvantaged areas. • Develop robust success measurement criteria for the programme.	• Monitor initial cohort progress and business/delivery model. Share progress across the UK. • Develop communications and engagement plan for West Midlands – SMEs and college/providers (focus on NCHSR). • Develop alternative business/delivery model(s) (if required). • Recruit first West Midlands cohort for September 2020 start. • Launch junior school offer alongside current or 'new' senior iRail offer. • Develop a 'college/post 16' level iRail (or equivalent) offer. • Review success criteria and adjust as required. • Identify and secure long-term (5 years) sources of funding.	• Share progress across the UK and support other delivery partnerships if required. • Develop additional skills routes, and engage wider group of SMEs to represent broader aspects of the sector. • Launch the 'college/post 16' level offer. • Review success criteria.

SME GROWTH THROUGH COLLABORATION
(using the Midlands as a pilot)

INDUSTRY OFFERS & ASKS	MILESTONES & KEY ACTIVITIES		
	YEAR 1	YEAR 2	YEAR 3
Industry Offer: Collaboration between key stakeholders including SMEs, to address specific opportunities, resolve issues and problems. Bringing partners from across the Midlands, rail, auto, aero sectors together with digital and data companies (UK and overseas). **Outputs & Outcome:** • Increase of SMEs in supply chain, resulting in innovation and local employment. • Development of new/enhanced product and services for the future railway whilst improving the customer experience. • Developing skills within SMEs to work collaboratively and to grow their businesses. • Unlocking barriers for SMEs to support UK clients. • Creation of an agglomeration effect by linking business, research and innovation centres.	**Shared apprenticeships:** • The steering group of SMEs and key stakeholders/clients to advise on and develop the process (this needs to be robust but practical and effective for both clients and suppliers including the current RSG SME Council composition). • Secure support from key clients/OEMs. • Identify potential local/regional partners: funding, legal, research etc. • Identify scope for working cross-sector with similar bodies, and engage with auto/aero associations (and others), as appropriate. • Prioritise and address key barriers in the Fast Track to the Future strategy document and subsequent work. • Identify a few smaller 'projects' to kick start and progress in order to gain experience and trial the process, including establishing success measures.	**Mobilisation plan, approach & delivery:** • Review initial small projects – aim to rollout on a larger scale. • Support wider rollout plans across other regions (if successful) working with other trade associations, key clients and stakeholders (this would be solely to support activity to enable others to learn from the Midlands pilot experiences).	**Delivery:** • Liaise with any wider national delivery partnerships to ensure knowledge transfer, maximum cross-industry learning etc.
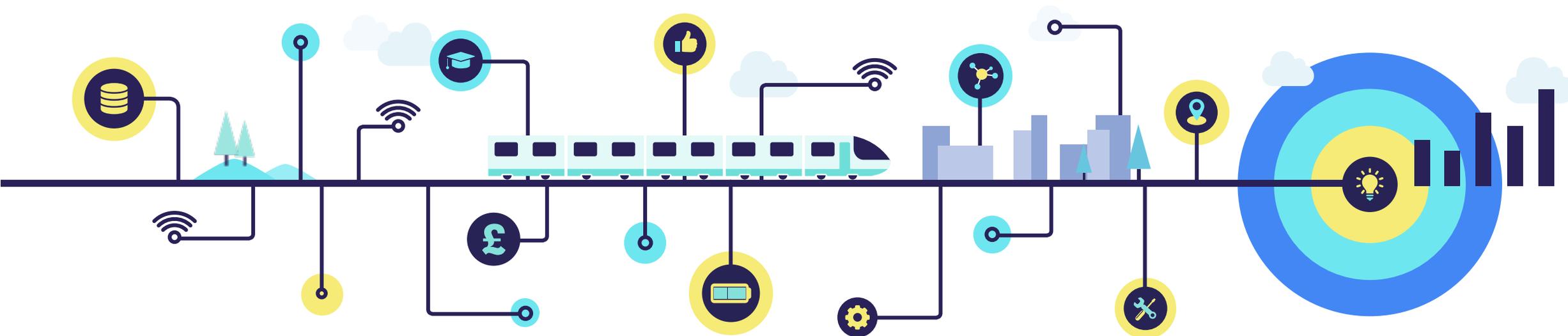
PRODUCTIVITY ROADMAP

INDUSTRY OFFERS & ASKS	MILESTONES & KEY ACTIVITIES			
	PHASE 0 (Q4 2018) to MARCH 2019	**YEAR 1**	**YEAR 2**	**YEAR 3**
Industry Offer: To develop a productivity plan with project performance information. This will achieve better assurance of what projects / programmes are likely to cost and can help to identify drivers of cost in individual projects or systems, which in turn can highlight best practice and drive innovation. **Outputs & Outcome:** • The performance of the rail supply chain should be measured in terms of productivity as well as cost. If productivity and the causes of delay are captured at task level, poor performance can be better diagnosed and resolved. • Measuring productivity, the causes and duration of delays should help contractors to compare and improve performance, improve planning processes, estimating and should help simplify the resolution of claims for disruption. • These benchmarks could be rolled up from project to organisation and to national levels and should support the work of the regulator.	• Agree scope of work and outcomes including key stakeholder and reporting governance lines. • Agree component workstreams, their terms of reference and delivery timelines. • Define productivity and the associated metrics.	• Identify key areas and pilot solutions to improve productivity, e.g. risk sharing models (i.e. procurement, standards), investment in skills, models that improve certainty by avoiding stop/start, etc. • Run two pilots for measuring productivity.	• Based on adjacent outcomes, set new baselines and plans to increase productivity as an input to the Transport Infrastructure efficiency Strategy.	• Deliver plan.

Notes:

• Efficiency is about achieving a well-defined task at a low financial or time cost.
• Productivity is about how much of your ultimate objective you can achieve with a set amount of input.
• The two concepts are closely related but distinct. In this context, an efficiency improvement might involve delivering a particular investment project at a lower cost.
• A productivity improvement might involve finding a way to deliver more benefits for the same budget.

INVESTING IN OUR PEOPLE & SKILLS

INDUSTRY OFFERS & ASKS	MILESTONES & KEY ACTIVITIES			
	PHASE 0 (Q4 2018) to MARCH 2019	YEAR 1	YEAR 2	YEAR 3

Industry Offers:

Industry will develop and implement a long-term Education and People Strategy by refreshing our 2 year old Rail Sector Skills Delivery Plan, taking into account the Transport Infrastructure Skills Strategy and Transport Infrastructure Efficiency Strategy.

Outputs & Outcome:

- Up-skill workforce to increase the average industry skill level from 2 to 3, gearing the industry workforce for the digital transformation.
- Develop an industry partnership to aggregate apprenticeship demand, and facilitate the delivery to meet latent demand and surface broader offering by using the Midlands as a pilot.
- Deliver an average of 12 days of technical training per year for employees.
- Improve customer service through better-trained employees.
- Facilitate connections with universities and other educational providers to encourage innovation, investment in new technologies & research.
- Support high potential SMEs to grow to the next level, provide strategic guidance and support to develop their people using the Midlands pilot.
- An agile industry leadership development programme announced.

Outcomes:

A long-term skills strategy will increase the rail industry's social and economic impact through developing skills and creating jobs. This will ultimately help support the delivery of a modern railway, with a better trained and better equipped workforce, including digital skills that will drive productivity throughout the industry.

PHASE 0 (Q4 2018) to MARCH 2019

Leadership & Management Development:

Leadership and management development to increase the quality and quantity of leadership and management training.

- We will assess current supply and demand and future industry requirements through a number of workshops.

Promotion & Attraction:

Promotion and attraction to achieve a step change in our efforts to attract diverse talent into the rail industry at all levels. This will build on existing company activity, sectoral activity and sectoral co-ordination through Routes into Rail.

- We have measured the size of the challenge and researched opportunities for improving our diversity in STEM, engineering and rail.
- We have costed options and will test these with industry.

YEAR 1

Digital Rail Skills:

Digital Rail Skills to ensure our sector's current and future workforce is equipped for digital technology.

- Conducting a full feasibility study for a Digital Railway (DR) academy to address the lack of capacity in the supply of digital skills.
- Produce a workforce development plan encompassing clients and suppliers to map demand.
- We will ensure that all necessary apprenticeship and other training standards are in place.
- Common 'apprenticeships' standards identified and developed to meet the current and future needs of digital and other skills.

Leadership & Management Development:

- We will prepare, test and introduce a leadership development implementation plan.
- Skills intelligence to use our class-leading data to create clear workforce plans at route, Train Operating Companies (TOC), project and company levels. These will convert insights into plans and will drive increases in training as shortages (and their associated costs) become apparent at the "coal face".
- Routes, bidders, companies can use the industry standard workforce development planning tool, supported by NSAR. They will then identify their delivery plans, priorities and risks. These will be aggregated to ensure the sum of activity matches the whole industry requirement.

Promotion & Attraction:

- We will implement whichever level of engagement industry chooses and continue to coordinate activity.
- We will deliver a shared apprenticeships and schools engagement programme using the Midlands as a pilot (as per the Midlands slide).

YEAR 2

Digital Rail Skills:

- Each company will deliver their agreed quantum of trained workers.
- Track progress through an impartial measurement arrangement.
- We will mandate this through contracts.
- We will run 2 pilots in 2019 to test the concept.
- We will increase the number of students in full time rail related courses at all levels and especially level 5. The data shows that this will be the highest risk area of future skills requirements.
- An end to end view of rail careers developed, together with a rail skills matrix to upskill and develop non-technical skills of the workforce.
- A single industry platform and portal developed to recruit, promote and support rail careers.

Leadership & Management Development:

- We will monitor progress through an impartial measurement arrangement.

Promotion & Attraction:

- Additionally we will develop and deliver pre-apprenticeship programmes to assist those further from the labour market into rail apprenticeship opportunities. We will set up an impartial measurement arrangement.
- We will deliver an Export Mentoring and Secondment Programme to strengthen industry capability and to grow our sector talent (as per the exports slide).

YEAR 3

Digital Rail Skills:

- This will be a core aspect of a wider upskilling from level 2 to level 3 plan. Other core aspects will be drivers, and maintenance engineers.

Glossary of Abbreviations

RSG	Rail Supply Group
RDG	Rail Delivery Group
BEIS	Department for Business, Energy and Industrial Strategy
CP	Control Period
DR	Digital Railway
DfT	Department for Transport
ECI	Early Contractor Involvement
ECML	East Coast Main Line
FOC	Freight Operating Company
HS2	High Speed 2
JRDAP	Joint Rail Data Action Plan
MaaS	Mobility as a Service
NCHSR	National College for High Speed Rail
NSAR	National Skills Academy for Rail
ODA	Official Development Assistance
OEM	Original Equipment Manufacturer
OMR	Operation, Maintenance, and Renewals
R&D	Research & Development
RiR	Routes into Rail
SME	Small or Medium-sized Enterprise
STEM	Science, Technology, Engineering, and Mathematics
SVIRB	Strategic Vision Industry Reform Board
TfL	Transport for London
TOC	Train Operating Company
ToR	Terms of Reference
UKRRIN	UK Rail Research and Innovation Network