

# “Developing skills for the future need including the progress on the Digital Railway Academy”

*Wednesday 26<sup>th</sup> June 2019*

## Presenters

- **Lydia Fairman** - Lead Capability and Development Manager, Network Rail
- **Clair Mowbray** – Chief Executive, National College for High Speed Rail
- **Neil Franklin** - Head of Skills Intelligence, National Skills Academy for Rail

## Lydia Fairman - Lead Capability and Development Manager, Network Rail

# ATTRACTION



# The Problems

We have and will continue to have fierce competition with other sectors on the battle of talent competing for talent with 'sexier', more attractive, industries such as space, gaming, media and companies such as google and amazon.

There is a lack of visibility and public understanding around careers in the rail industry.  
23red/Talking Taboos 2017/18

A career in the Rail industry is not on the radar of young people: The industry is not perceived positively versus Other sectors - less modern, exciting, well paid and innovative  
23red/Talking Taboo's research 2017/18

Aging Workforce. 14% of employees are under 30, compared to 24% across the economy, and 49% are over 45, compared to 42% across the economy. Atkins Report 2015

The rail industry has a clear diversity issue. Women represent just 20% of the rail industry as a whole. The figure for railway engineering is just 4.4% .  
Atkins Report 2015

Key barriers to considering rail are the perceptions others hold of the sector and the degree to which those around you would consider rail a good choice of career  
23red/Talking Taboos 2017/18

"Without adherence and commitment to an information-rich, co-ordinated and cross-industry approach the industry will potentially face a cost of £316m per year by 2024 and £393m per year by 2034".  
Atkins report 2015

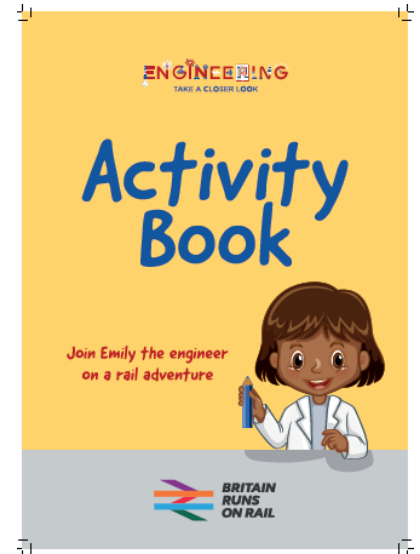
There is a lack of information or outreach from the rail industry: for most they do not remember seeing or hearing much about the rail industry in recent times  
23red/Talking Taboos 2017/18

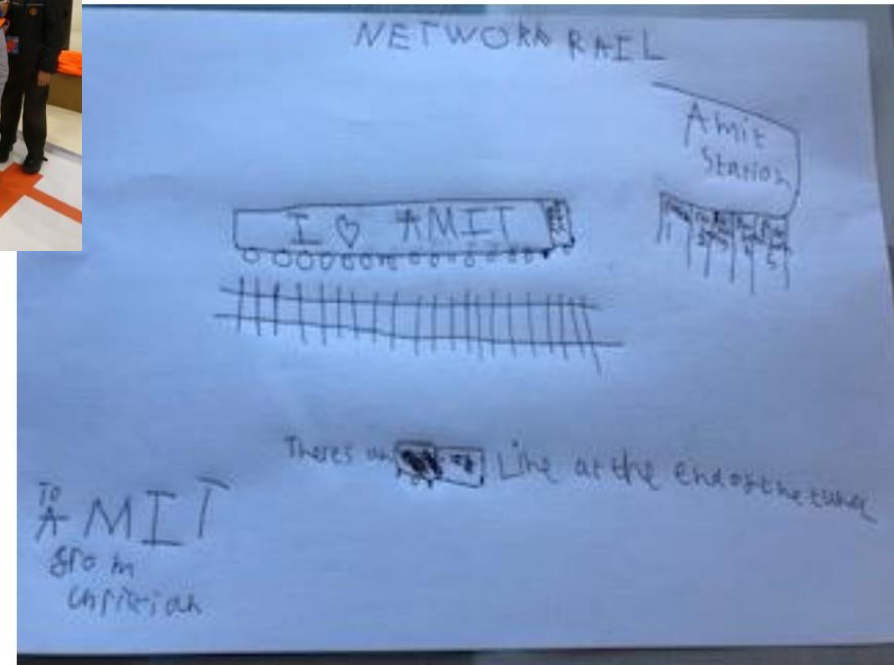
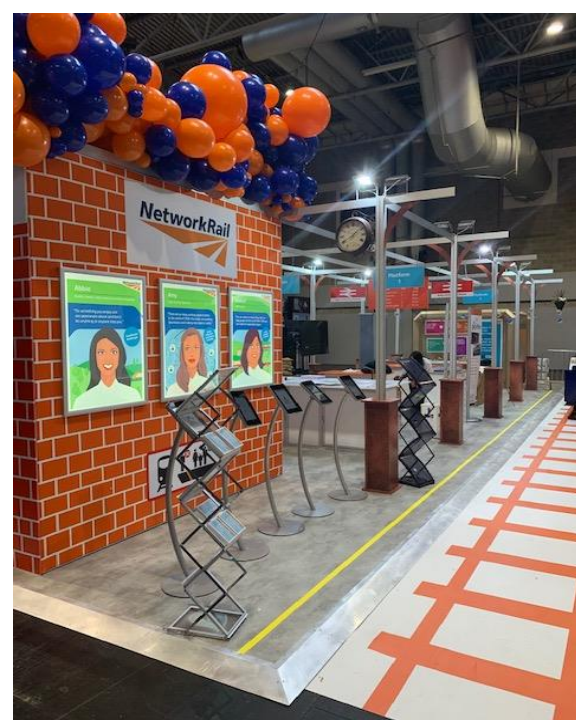
"Government will face annual costs of £381m by 2024 and £451m by 2034."  
Atkins report 2015

- Image Issue
- Diversity Issue
- Engagement Issue
- Implications

# So what are we doing?

- Sector deal (skills)
  - Leadership and management capabilities
  - Promotion and attraction
  - Focus on Digital skills
- Industry collaborations on early engagement
  - “engineering, take a closer look” and the year of engineering
  - Big Bang, rail week, station events etc
  - Routes into Rail





# So what more can we do?

**IF YOU WERE an  
ENGINEER  
WHAT WOULD YOU DO?®**

- Outreach
  - My skills my life (WISE)
  - Primary Engineer
  - STEM learning
- Collaborate and participate in each others programmes and initiatives
- Show children the pathways they can follow to join rail
- Make our role models visible

**COACH**

Coaches may use their friendly, diplomatic and empathic skills to support customers who may be trying to set up or use a product; they may be working in a sales team using their persuasive and impartiality skills to help people choose the correct products.

Coaches could work as supply chain specialists, or as management consultants.

**INGE-SARAH ANDERSEN**  
**GRADUATE ELECTRICAL ENGINEER**  
NETWORK RAIL

Starting: £26,500  
Average: £31,254  
Senior: £49,395

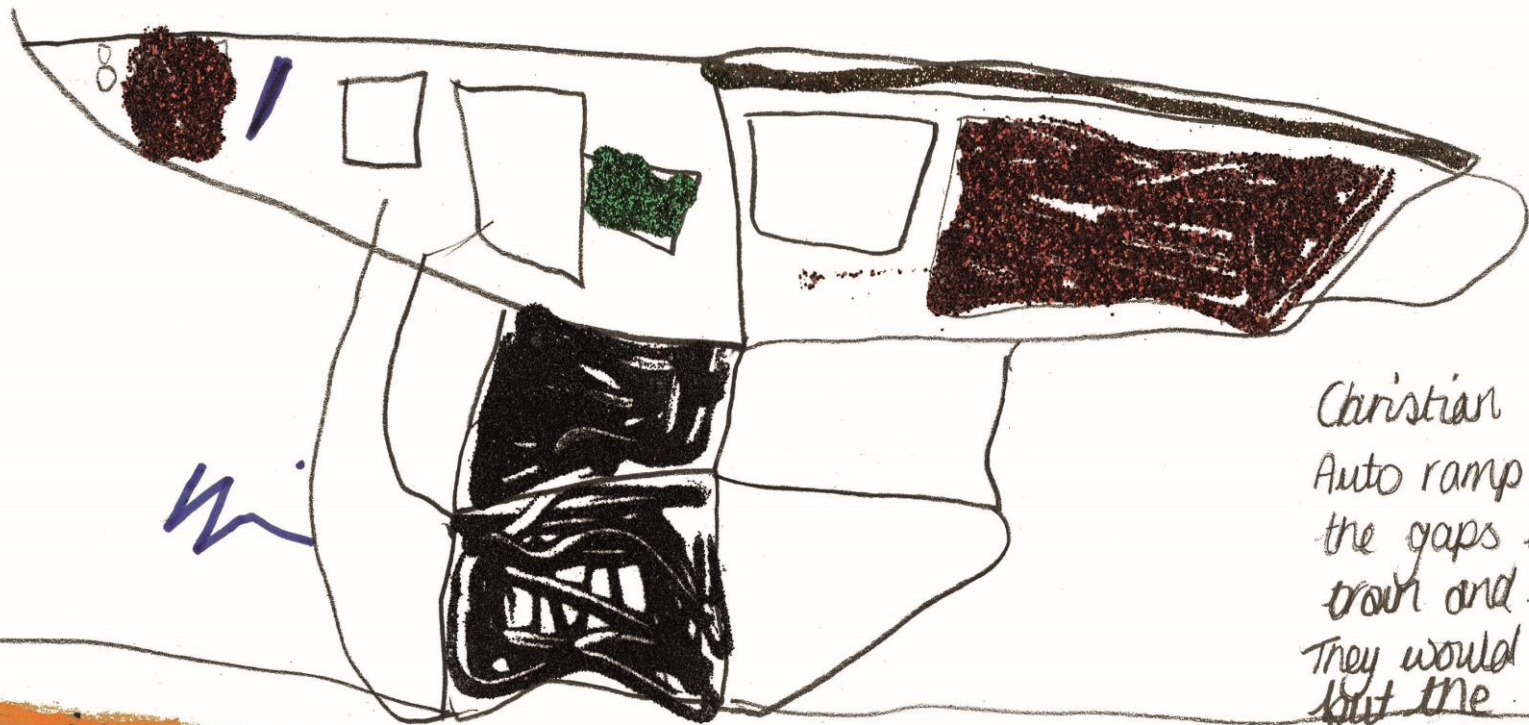
**What does Inge-Sarah do?**  
Inge-Sarah has a varied role which gives her the opportunity to find out about all the different departments and roles at Network Rail. She is based in the maintenance department where she works with other engineers to identify and resolve any electrical faults on the rail system. She also helps to provide maintenance to keep the railway running to time.

**Pathways**  
Inge-Sarah took a degree in Electronic and Electrical Engineering.

**Employers:**  
Arup, Capita, Wood.

**B**





Christian designed  
Auto ramp to cross  
the gaps between the  
train and station.  
They would help everyone  
but the elderly and  
disabled most.

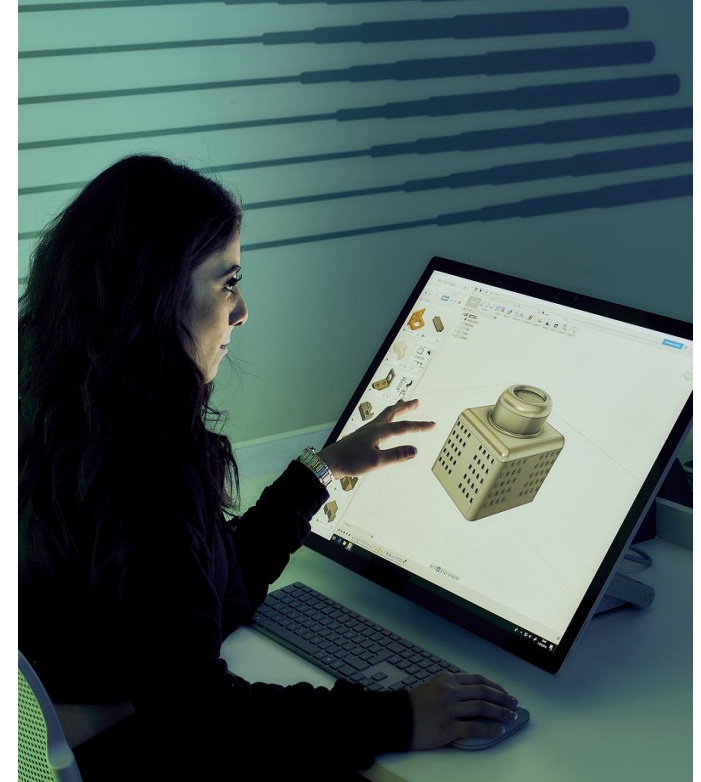
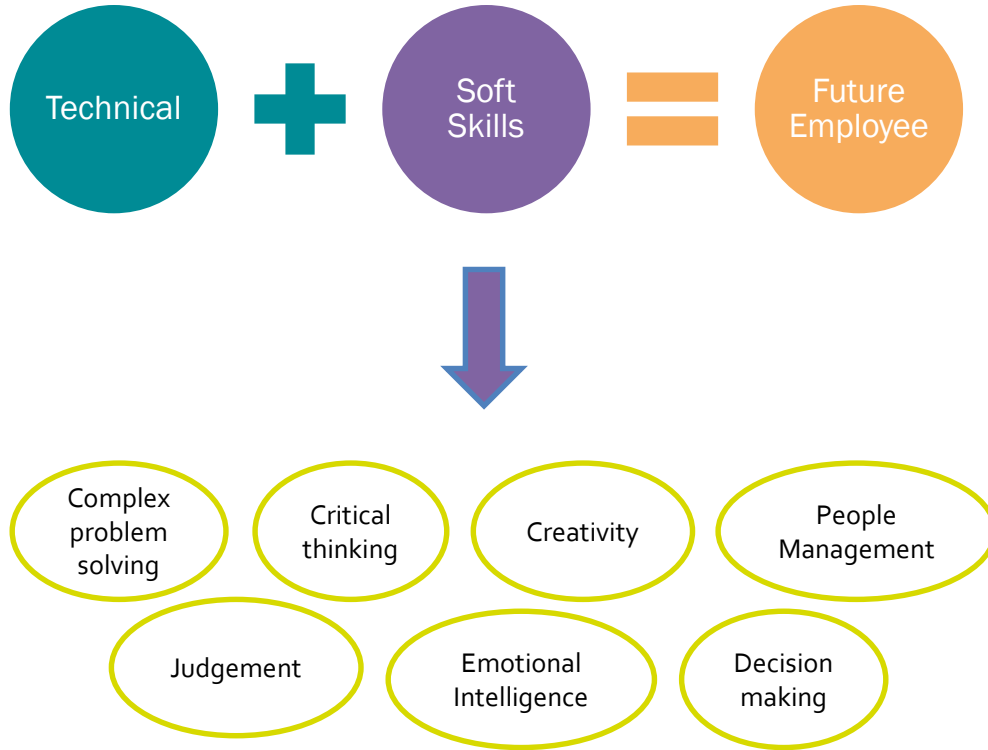


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# The Future Workforce

"Developing skills for the future need"



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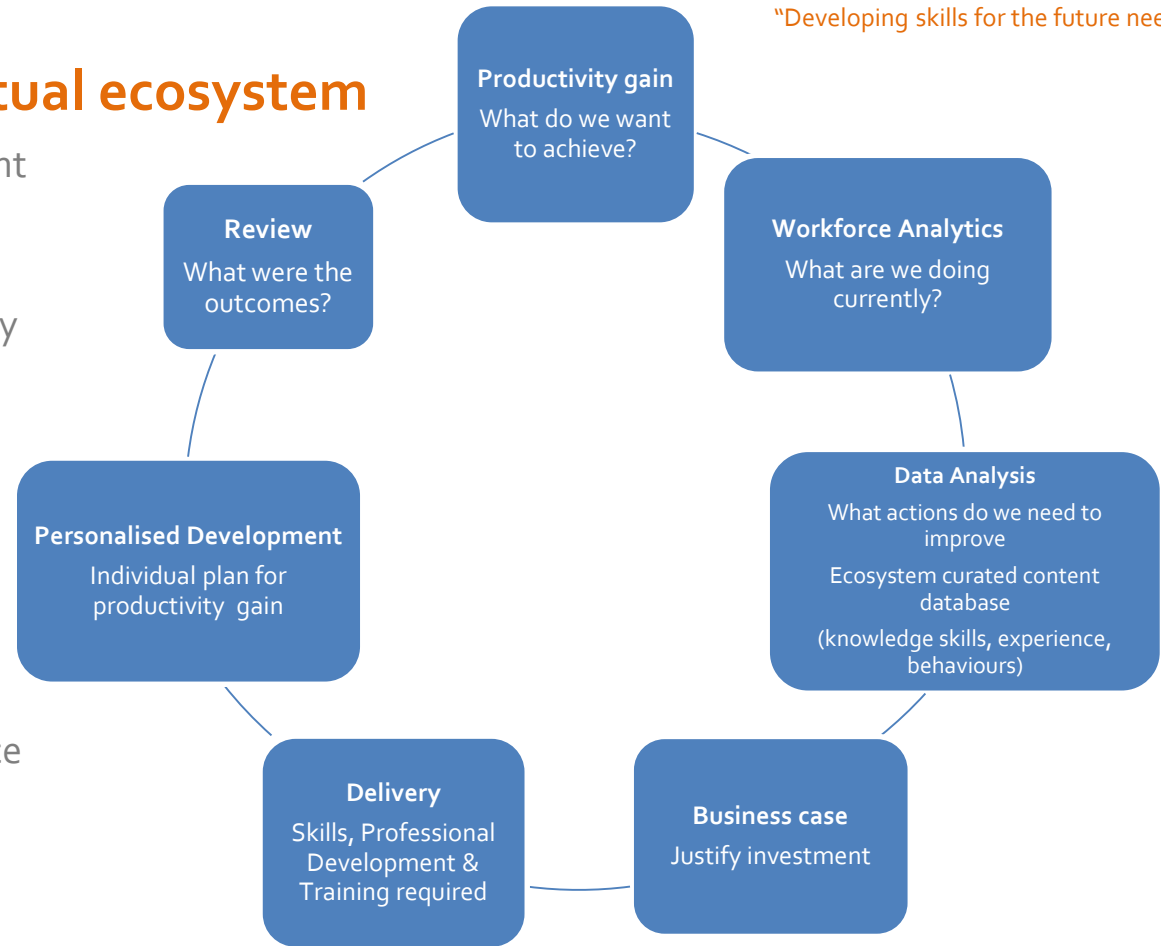
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## Why do we need another Academy?

- The impact of digital technologies cannot be underestimated and > 80% of the industry will require some level of training or education over the next 20 years.
- We will seek to create an internationally recognised brand blending physical and virtual training methodologies and using the existing physical infrastructure at NR and wider industry facilities .
- It will serve as a ‘centre of excellence’ and acting as a focus for skills development and innovation leading the way in enabling a high performing and productive workforce with the right transferable skills, knowledge and quality to unlock the benefits of a digitised railway.
- By digital skills for rail we mean both the generic digital skill sets and the necessary additional skills existing disciplines will need to fit, optimise and maintain new digital assets. There is already an alarmingly shortage of both, which continues to decline.
- The existing training market will only be able to provide a very limited number of these skills, but without an academy these skills will only exist with the supplier giving them a larger share of what would be a monopolistic or oligopolistic market.

## Preferred option – the virtual ecosystem

- Tailors skills, professional development and training to raise productivity through personalised development.
- Paradigm shift in strategy and delivery
- Industry wide content curation, organisation, development, accreditation
- National system informed by skills intelligence
- Uses technology and artificial intelligence to create solutions
- Requires personal skills and experience database
- Capture and share rail experience and knowledge



## So now what?

- Prepare a detailed Business Case and Business Plan document, with firmer numbers on:
  - Costs (to mobilise, build and operate)
  - Revenue projections
  - Cashflow profile
  - Funding discussions
- Agree phases and delivery programmes, priority areas to suit the industry and employers
- Create the marketing and communication plans
- Instigate an Industry Collaboration Board
- Prepare to specify, build and commission



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