



Asset Protection and Optimisation (ASPRO)

Encouraging investment
whilst assuring safety

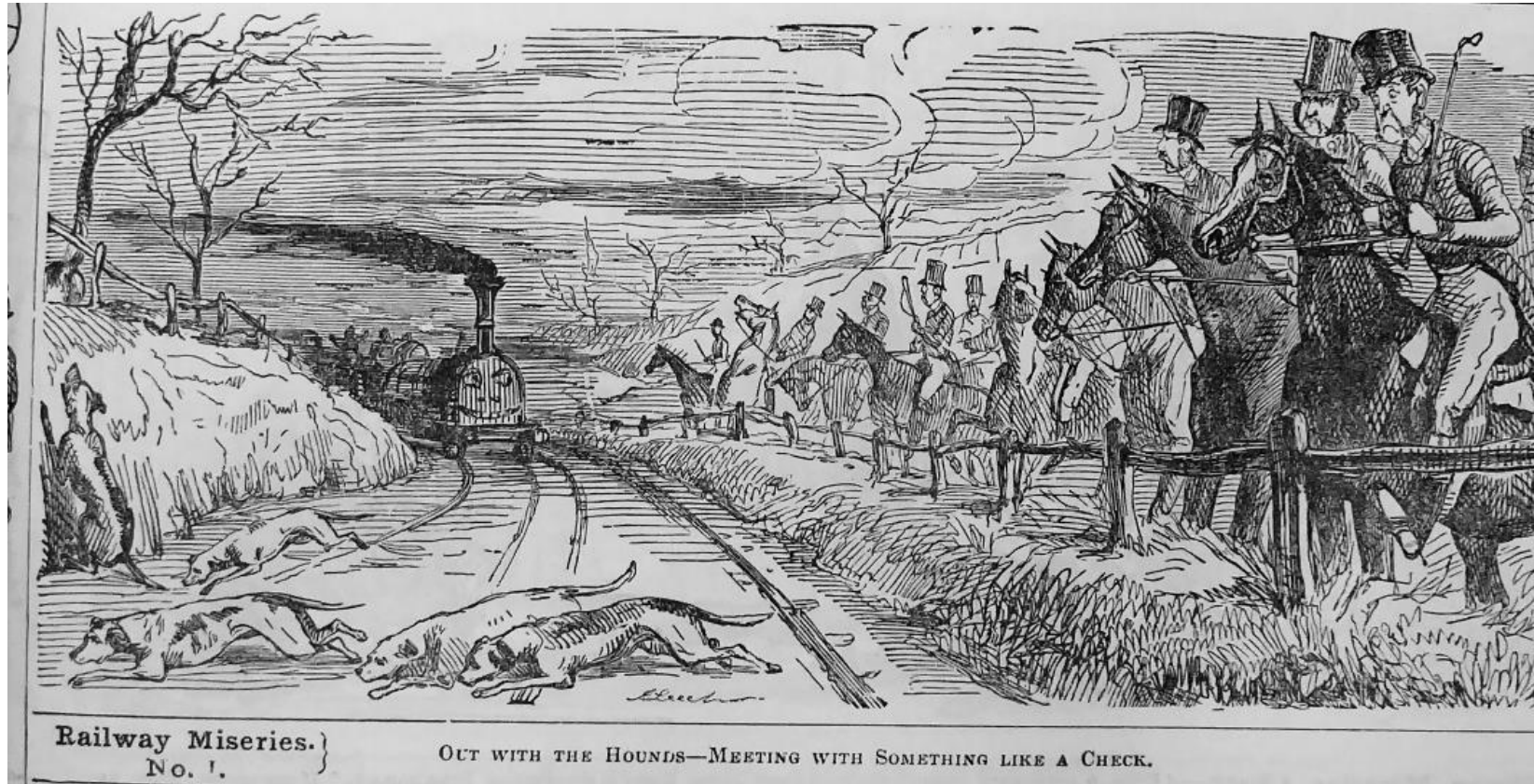
Asset Protection

19th June 2025

History



Asset Protection and
Optimisation (ASPRO)



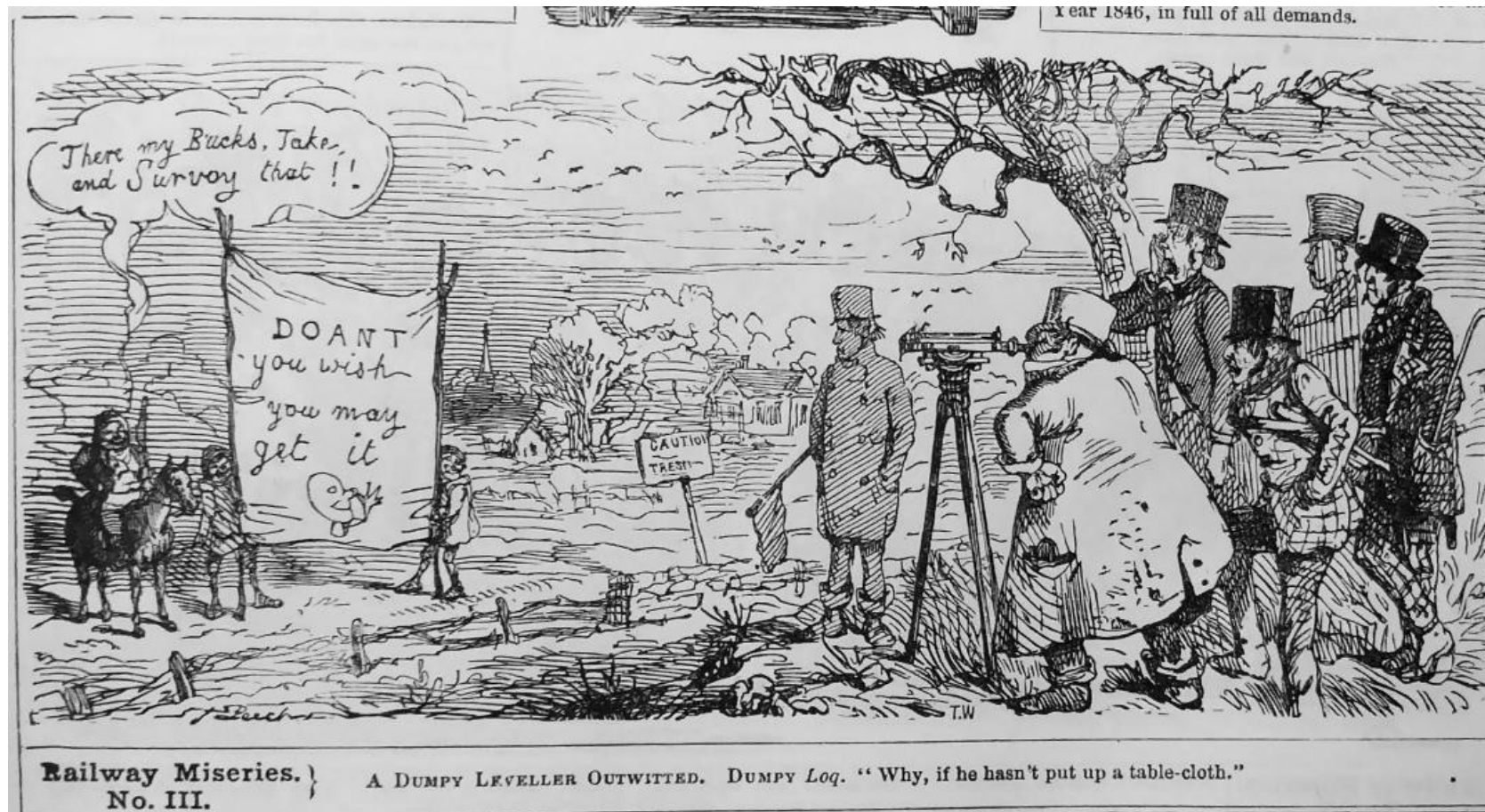
Punch Almanack, 1846



History



Asset Protection and
Optimisation (ASPRO)



Punch Almanack, 1846

History



Asset Protection and
Optimisation (ASPRO)

Outside Party Engineer

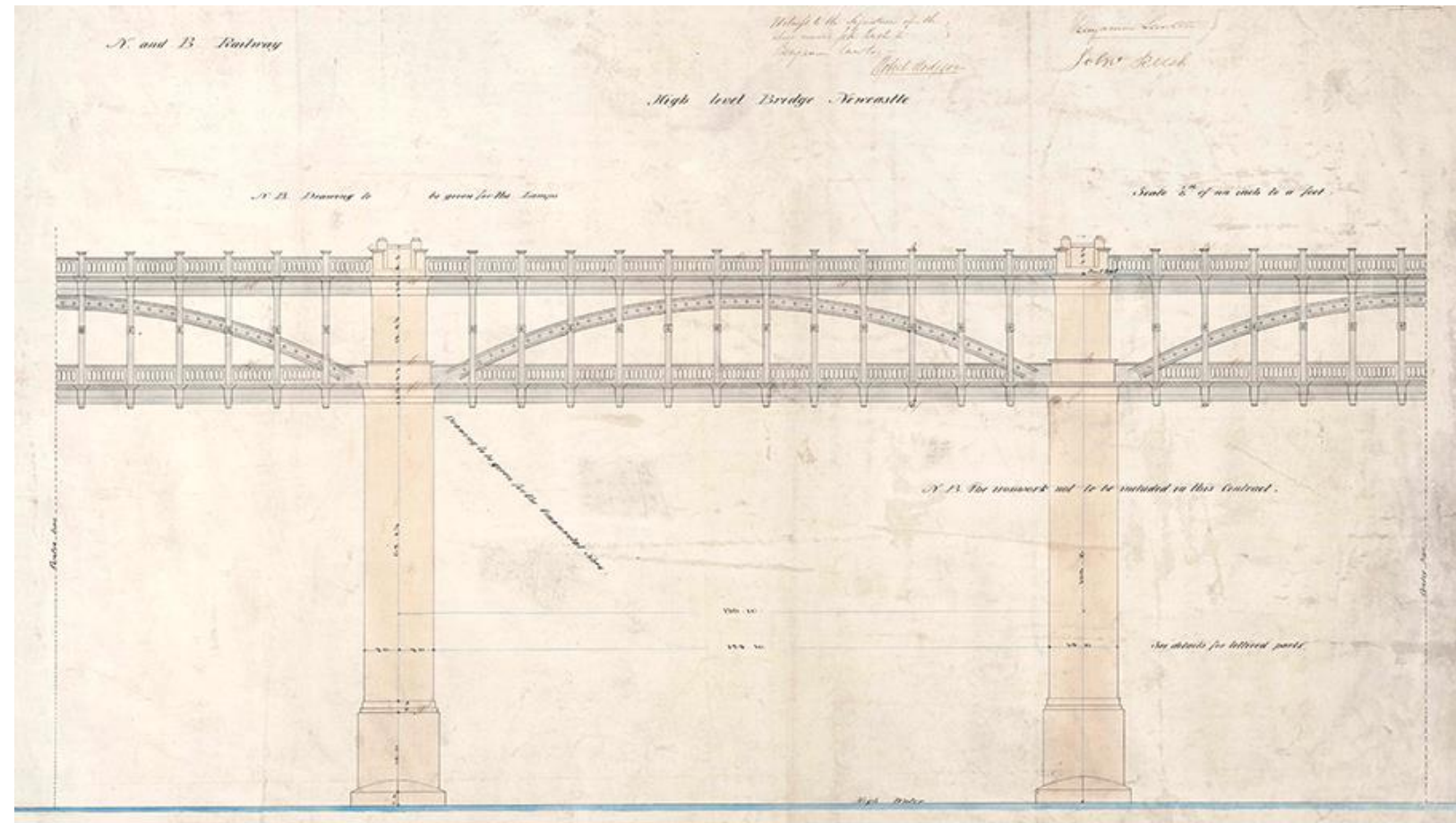
Most high profile work
appeared to be outside
party bridges
(not this one! →)

Railtrack

Outsourcing Aspro

Network Rail

Aspro back in house in 2006



Hansford Review

1. Lack of a specific party responsible for ensuring the creation of a more contestable market
2. Lack of visibility of a pipeline of third party projects
3. Network Rail roles and behaviours
4. Inappropriate risk transfer
5. Standards and scope control
6. Asset Protection Agreements
7. Complex business cases and funding agreements



Asset Protection and
Optimisation (ASPRO)



Open for Business programme



Asset Protection and
Optimisation (ASPRO)

1. New Business Development teams
2. Better defined sponsor role
3. Aspro organisational change
4. Asset Protection and other third party agreements revised
5. Risk funds introduced
6. New standards developed
7. Cost effectiveness, scope control and third party pipeline

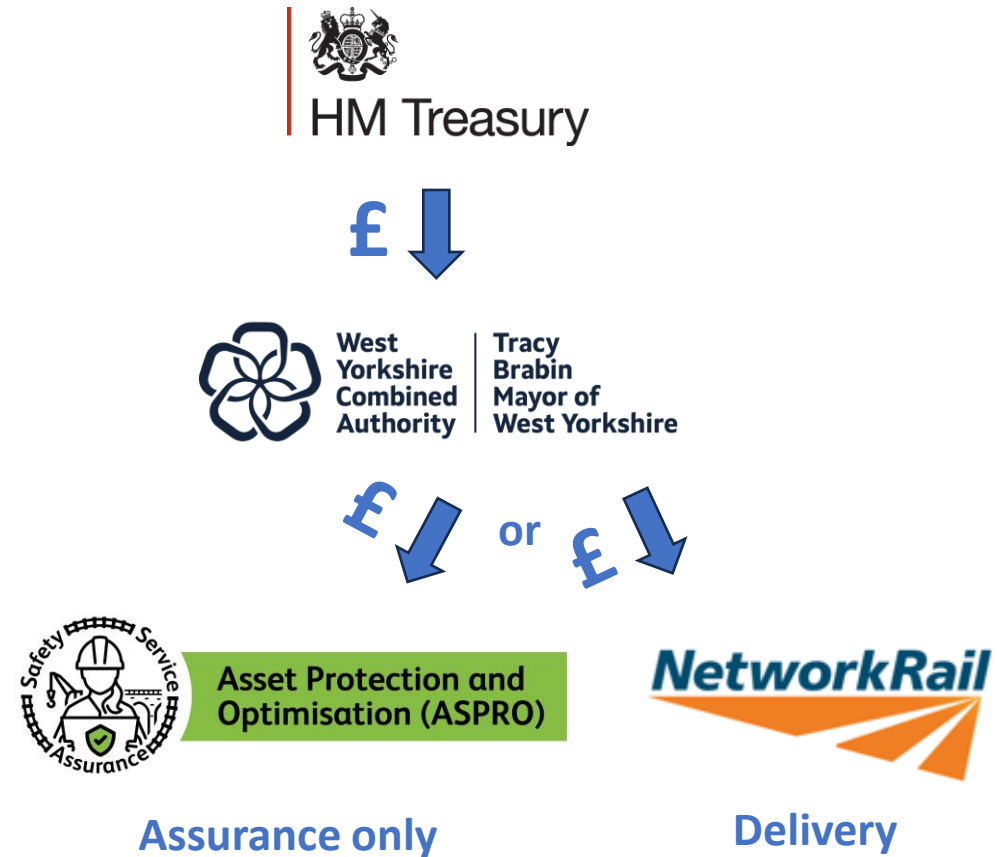


Political context

Before devolution



After devolution



Asset Protection and Optimisation (ASPRO)



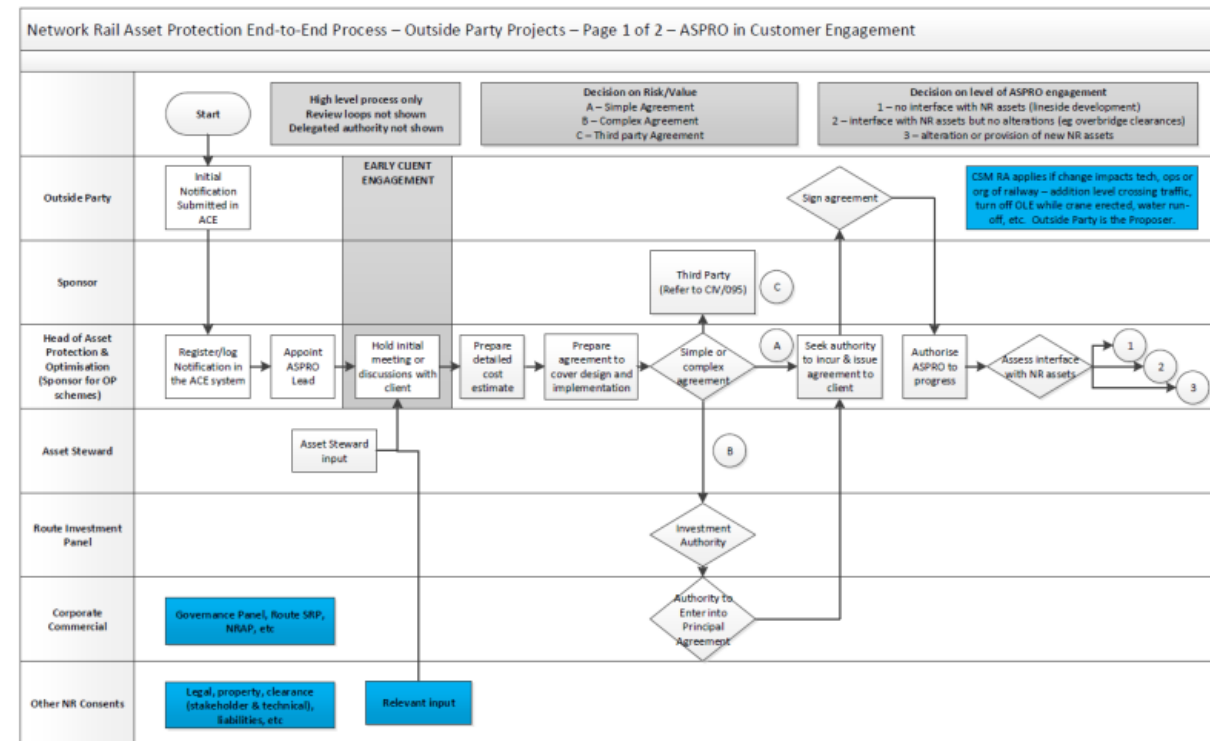
Standards and processes



Asset Protection and Optimisation (ASPRO)

CIV/095 and CIV/096

- Describe Aspro processes consistently
- Basis for training and audit



Standards and processes



Asset Protection and Optimisation (ASPRO)



Competence Name		Short Name	Chief Engineer		Route/Regional ASPRO																			Commercial					
			Network Technical Head of ASPRO	Principal Engineer ASPRO	Head of ASPRO	Asset Protection Portfolio Manager	Asset Protection Technical Interface Specialist	Senior Asset Protection Engineer	Asset Protection Engineer	Assistant Asset Protection Engineer	Asset Protection Scheme Interface Manager	Asset Protection Project Interface Manager	Project Management Assistant	Technical Clerk	Works Planner	Works Scheduler	Senior Construction Manager	Construction Manager	Assistant Construction Manager	Construction Management Assistant	Senior Sponsor	Sponsor	Highways Interface Manager	Highways Interface Adviser	Highways Interface Clerk	Senior Commercial Manager	Commercial Manager (Route)	Project Commercial Manager	Assistant Commercial Manager (Route)
CDM Application (ASPRO)		ASPRO-01	3	3	4	3	3	3	2	2	2	3	2	2	2	2	4	4	3	3	3	2	3	3	2	3	3	2	1
Schedule & Resource (ASPRO)		ASPRO-02	2	2	4	3	3	2	2	2	2	3	2	2	3	2	3	3	2	2	3	2	3	2	2	4	3	2	1
Risk & Opportunity (ASPRO)		ASPRO-03	3	3	4	3	3	4	3	3	3	3	2	2	2	2	4	4	3	3	4	3	3	2	2	3	2	2	1
Budgeting & Cost Control (ASPRO)		ASPRO-04	2	2	4	3	3	2	2	2	3	3	2	2	2	2	3	3	2	2	4	3	3	2	2	4	3	3	2
Change Control (ASPRO)		ASPRO-05	3	3	4	3	3	3	2	2	3	3	2	2	2	2	3	3	2	2	4	3	3	2	2	4	3	2	1
Asset Management Plans (ASPRO)		ASPRO-06	2	2	4	3	3	4	3	2	3	3	2	2	2	2	3	3	2	2	3	2	3	2	2	3	2	2	1
Railway Interfaces (ASPRO)		ASPRO-07	3	2	4	3	3	4	3	2	3	3	2	2	2	2	3	3	2	2	3	2	3	2	2	3	2	2	1
Customer Engagement (ASPRO)		ASPRO-08	4	4	4	4	4	4	3	3	4	4	3	2	3	2	3	3	3	3	4	4	4	3	2	4	3	2	1
Contracts (ASPRO)		ASPRO-09	2	2	4	4	3	2	2	2	3	4	2	2	2	2	3	3	2	2	4	3	3	2	2	4	3	2	2
High Performing Teams (ASPRO)		ASPRO-10	3	3	4	4	2	3	2	2	2	3	2	2	2	2	3	2	2	2	3	2	3	2	2	3	2	2	1
Managing the Highways Interface		ASPRO-11	2	2	2	2	2	2	2	1	2	2	1	2	2	1	1	1	1	1	2	2	4	3	3	1	1	1	1

Table A1 – ASPRO Role Profiles

CIV/1000

- Competence frameworks for Aspro in general and civil engineering

Standards and processes

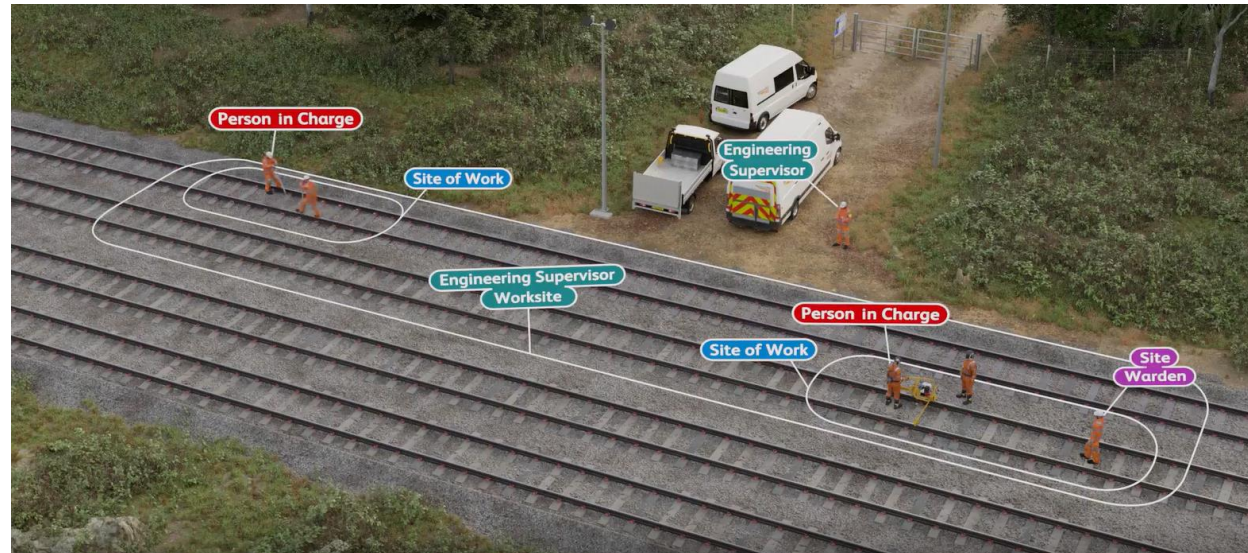


Asset Protection and
Optimisation (ASPRO)

Business Development
processes

019 – safety of people on or
near the line

CIV/003 revision



NR/L2/CIV/003/FormH Certificate of Design and Check for DCC0 works

Document reference		Revision		
		Date		

Project Title		
Project OP Nr		
Remit/Technical Workscope/Requirements /CR-T Nr(s)		<i>Revision & date</i>
Other documents associated with this submission	<i>Insert references & names of related design & check certificates (building services, architectural & layout, track, ancillary civils etc) & other associated documents.</i>	



ACE

ACE has hugely enhanced our workbank management and customer interface

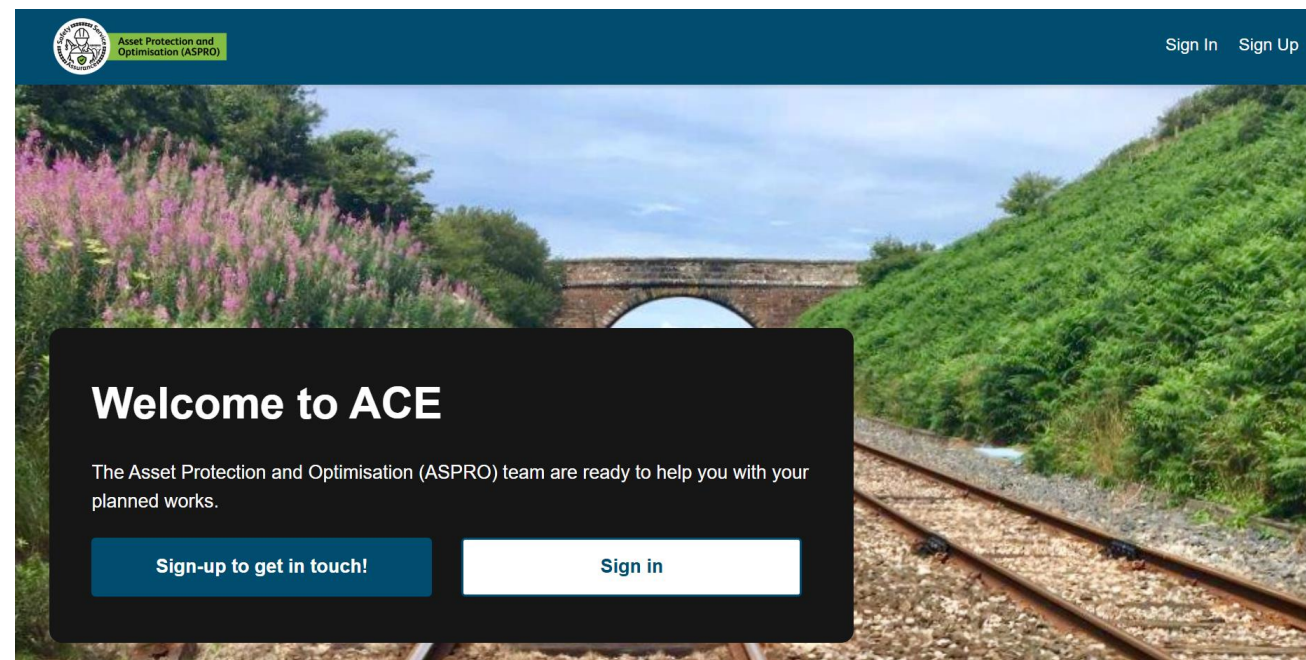
The customer portal allows customers to engage with us directly by filling in an online form like for other services

We have recently improved the form to expand to only show relevant questions as it is completed

We have had great feedback from customers on the improvement over the old manual spreadsheet processes



Asset Protection and Optimisation (ASPRO)



ACE



Asset Protection and Optimisation (ASPRO)

ACE allows us to manage our workbank in real time, directly in the system and by reporting out of it

We can check many things:

- How many jobs are assigned to each person
- Whether a job is dormant
- The distribution of types of schemes
- The status of commercial agreements across the portfolio

Edit Enquiry/ Scheme: 0000193091 : Summary ?

Actions | Save | Save and Close | Cancel

Scheme Overview	* Title	York Central IP2-IP8 Works	Status	Authorised
Summary	* Scheme Type	Property	Agreement Status	Duly signed
Documents	* Scheme Sub Type	Development (new building);Redevelopment	Date Reported	31-May-2022 4:56 PM
Messages	Scheme Size	Major	Reported By	Benjamin Wright
Assessment	* Scheme Stage	Construction Works	Assigned to NRIM	Stephen Ridyard
Deliverables	* Scheme Related to	Outside Party	Assigned to CM	Kirsty Mcpherson
Estimates	Telecom Related	Yes	Assigned To PMA	Sarah Atkinson
Agreements	* Route	East Coast	Sponsor	Roland Kettle
Engineering Re...	* Route Team	East Midlands, North East and Coast	Document Controller	Beverly Cotton
Contacts	Account	Homes England	Document Controller Generic Mailbox	
Team	Primary Contact	Ben Smith	DPE	Peter Barry
Consultants	Project Number	179700	Railway Topography	
Worker	Internal Reference Number	ACE193091	Clearance Reference Number	63527
	Customer Reference ID			Open Clearance Reference
	NBSMA Reference Number		Last Updated Date	11-Jun-2025 12:54 PM
			Last Updated By	Stephen Ridyard

ACE

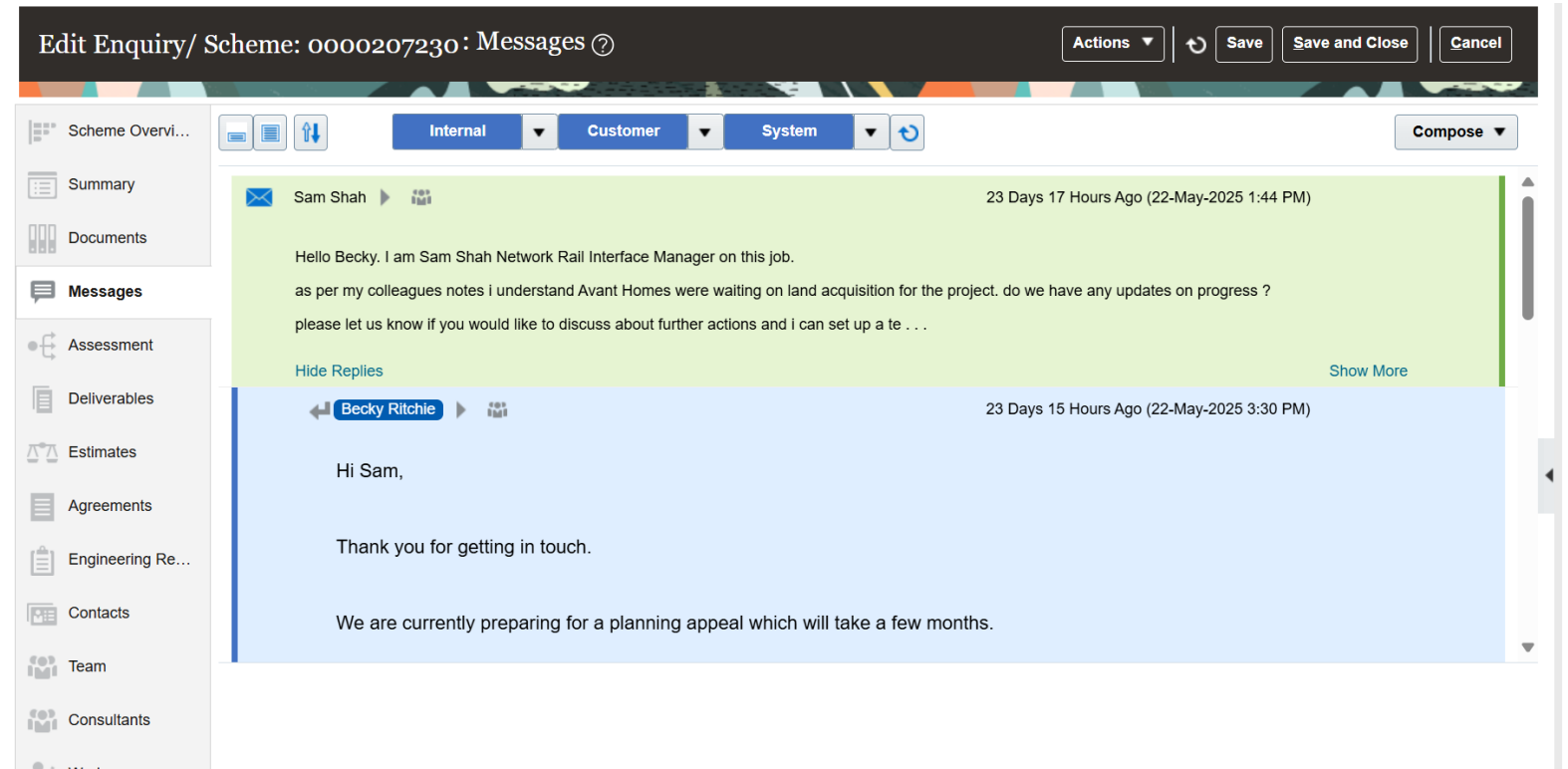
Communication within the team and with the customer is much improved

Everybody can see what last happened on the scheme through the messages thread, rather than emails invisible to others

Documents can be easily shared with the customer and amongst the team



Asset Protection and Optimisation (ASPRO)



The screenshot displays the ACE web application interface. At the top, a dark header bar contains the text "Edit Enquiry/ Scheme: 0000207230: Messages ?" and buttons for "Actions", "Save", "Save and Close", and "Cancel". Below this, a navigation bar includes tabs for "Internal", "Customer", and "System", along with a "Compose" button. A left-hand sidebar lists various project components: "Scheme Overvi...", "Summary", "Documents", "Messages", "Assessment", "Deliverables", "Estimates", "Agreements", "Engineering Re...", "Contacts", "Team", and "Consultants". The main content area shows a message thread. The first message, from Sam Shah, is dated "23 Days 17 Hours Ago (22-May-2025 1:44 PM)" and contains the text: "Hello Becky. I am Sam Shah Network Rail Interface Manager on this job. as per my colleagues notes i understand Avant Homes were waiting on land acquisition for the project. do we have any updates on progress ? please let us know if you would like to discuss about further actions and i can set up a te . . .". Below this message are links for "Hide Replies" and "Show More". The second message, from Becky Ritchie, is dated "23 Days 15 Hours Ago (22-May-2025 3:30 PM)" and contains the text: "Hi Sam, Thank you for getting in touch. We are currently preparing for a planning appeal which will take a few months."



Future improvements - ACE



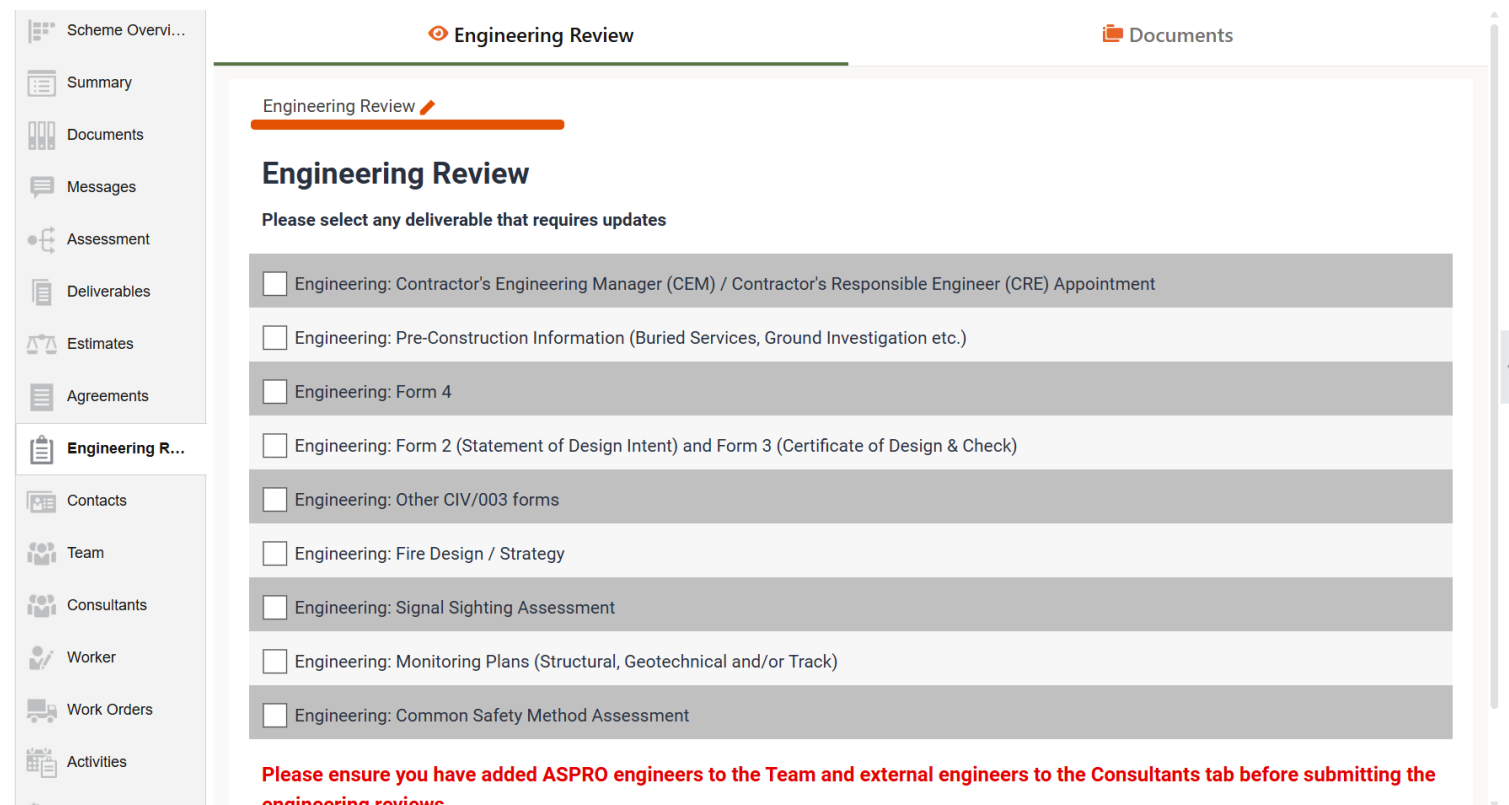
Asset Protection and
Optimisation (ASPRO)

Engineering deliverables in
ACE is the next big
improvement project

It exists in the system
already but doesn't work
well

The off the shelf system is a
sales system, so we have
needed to do a lot of work
to make it suit our unique
needs

Smaller improvements
ongoing all the time



The screenshot shows the 'Engineering Review' interface. On the left is a sidebar menu with options: Scheme Overvi..., Summary, Documents, Messages, Assessment, Deliverables, Estimates, Agreements, Engineering R..., Contacts, Team, Consultants, Worker, Work Orders, and Activities. The main content area is titled 'Engineering Review' and includes a sub-header 'Please select any deliverable that requires updates'. Below this is a list of checkboxes for various engineering deliverables: Engineering: Contractor's Engineering Manager (CEM) / Contractor's Responsible Engineer (CRE) Appointment, Engineering: Pre-Construction Information (Buried Services, Ground Investigation etc.), Engineering: Form 4, Engineering: Form 2 (Statement of Design Intent) and Form 3 (Certificate of Design & Check), Engineering: Other CIV/003 forms, Engineering: Fire Design / Strategy, Engineering: Signal Sighting Assessment, Engineering: Monitoring Plans (Structural, Geotechnical and/or Track), and Engineering: Common Safety Method Assessment. At the bottom, a red text note states: 'Please ensure you have added ASPRO engineers to the Team and external engineers to the Consultants tab before submitting the engineering reviews.'



P6 Planning Initiative 2025

ASPRO Eastern Vision



Purpose

There is an old saying 'fail to plan, plan to fail' and that is very true, hence why we are currently working on a cost and resource loaded P6 Programme for AsPro. The project planning process involves defining the scope, objectives, resource allocations, timelines and sequence of work.

Key Objectives

The vision is to produce a programme (Gantt Chart) for each new scheme, and track progress through the life-cycle of the project, which will ensure that we are:

- ✓ **Planning:** To improve the transparency of AsPro's key deliverables and timescales;
- ✓ **Forecasting:** To improve the allocation of multi-disciplined resources;
- ✓ **Reporting:** To improve weekly progress updates and periodic cost value reconciliations;
- ✓ **Recovering Cost:** To improve the quality and frequency of invoicing;
- ✓ **Managing expectations:** To improve the understanding of process for all project stakeholders;
- ✓ **Customer Focused:** To improve the customer journey experience, which is fundamental for our business.

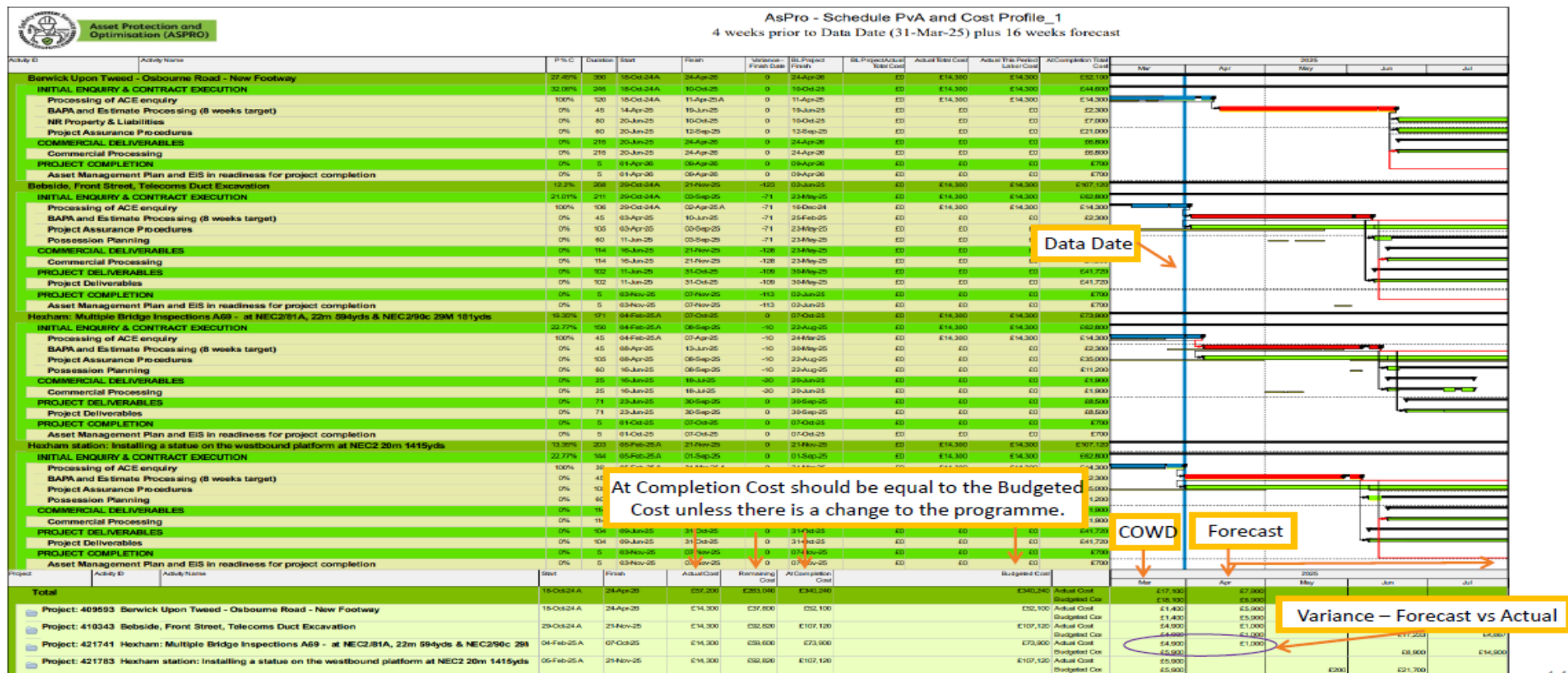
P6 Planning Initiative 2025

ASPRO Eastern Vision

Current Progress

We have developed a draft baseline programme and are in the process of producing multiple templated programmes for each type of scheme. This process has involved undertaking workshops with key stakeholders to establish realistic targets and sequences to provide a credible product and adopt a consistent approach.

Project Planning Example: COWD, Forecast – Actual & Remaining Cost



P6 Planning Initiative 2025

ASPRO Eastern Vision



Programme showing forecasted and actual resource allocations (hours)

Output: 6 months Resource Forecast – multiple schemes

 Asset Protection and Optimisation (ASPRO)		AsPro - Resource - 6 months Lookahead Data Date (31-Mar-25) plus 6 months Forecastrecast													
Activity ID	Activity Name	P % C	Duration	Start	Finish	2025									
						Apr	May	Jun	Jul	Aug	Sep				
FNT Far North Team		4.54%	265	25-Oct-24 A	14-Nov-25										
	Barwick Upon Tweed - Osbourne Road - New Footway	17.89%	240	25-Oct-24 A	10-Oct-25										
	Bebside, Front Street, Telecoms Duct Excavation	1.07%	163	26-Mar-25A	14-Nov-25										
	Hexham: Multiple Bridge Inspections A69 - at NEC2/81A, 22m 594yds & NEC2/90c 29M 181yds	7.02%	151	04-Mar-25A	07-Oct-25										
	Hexham station: Installing a statue on the westbound platform at NEC2 20m 1415yds	1.07%	164	25-Mar-25A	14-Nov-25										
Project	Activity ID	Activity Name	Start	Finish	Actual Units	Remaining Units	Budgeted Units	At Completion Units	Budgeted Units	2025					
										Apr	May	Jun	Jul	Aug	Sep
	Total		25-Oct-24 A	14-Nov-25	21	994	1015	1015		14	4	278	102	86	136
	PMA		24-Mar-25 A	22-Aug-25	7	74	81	81		7	2	51		21	
	APSIM		24-Mar-25 A	17-Oct-25	7	152	159	159		7	2	51		21	4
	APTIM		02-Jun-25	19-Jun-25	0	28	28	28				28			
	CM		01-Apr-25	31-Oct-25	0	666	666	666				138	93	44	135
	Com Mgr		16-Jun-25	14-Nov-25	0	53	53	53				10	9		
	NRIM		25-Oct-24 A	07-Nov-25	7	21	28	28							

Executive Summary

Implementing a P6 Programme, will provide the business with several advantages, including improved strategic alignment, efficient resource utilisation, enhanced stakeholder engagement, greater visibility and control, encourage a more customer focused approach and improve Aspro's reputation, and credibility as a **'One Stop Shop'** for Rail Engineering and Safety Assurance within the UK.

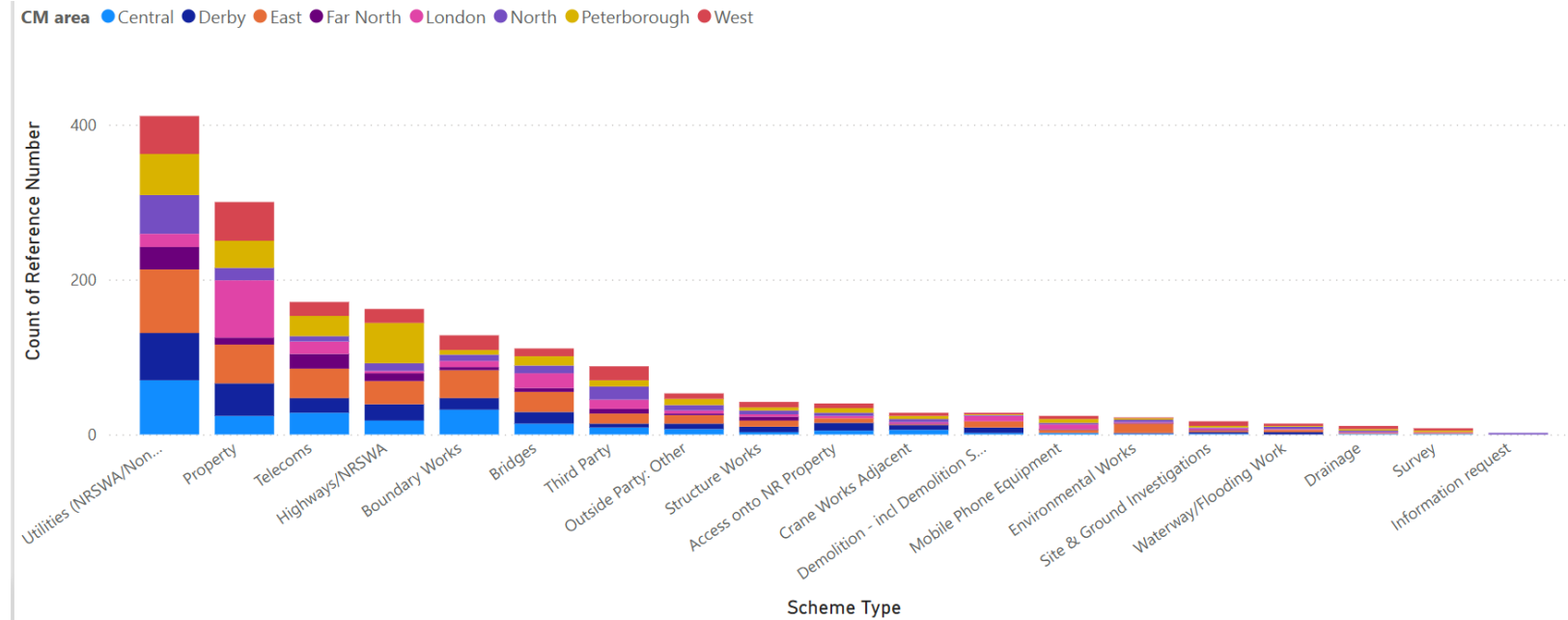
Workbank overview



Asset Protection and Optimisation (ASPRO)

Approx 1700 live jobs within N&E, EM and EC

High number of fairly simple jobs alongside more complex jobs



Outside party examples



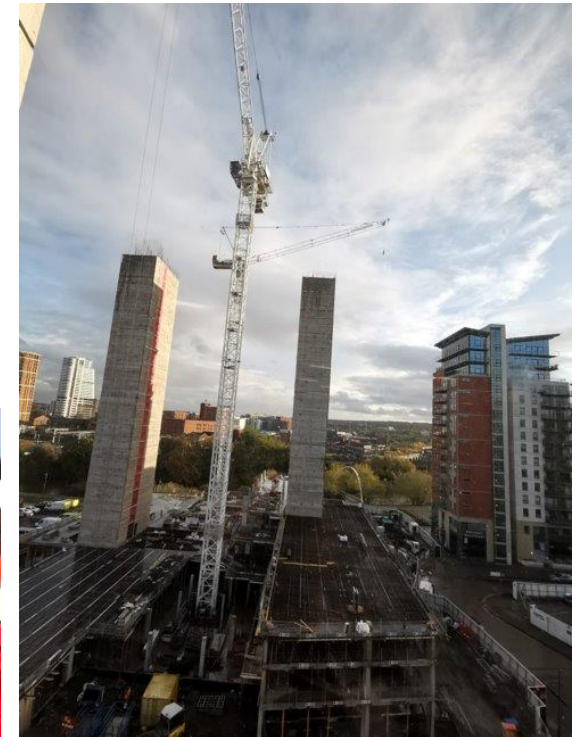
Asset Protection and
Optimisation (ASPRO)

Construction, demolition or
repairs to lineside buildings

Utility excavations near the
railway or in the highway
near a level crossing

Tree felling

....and many more





Asset Protection and
Optimisation (ASPRO)



York Central

2,500 new homes

1m sq ft of new commercial
and retail space

3 new bridges (2 Aspro)

New spur connection to the
National Railway Museum

New Western station
entrance





Asset Protection and
Optimisation (ASPRO)

White Rose new station

New station near Leeds

Mostly built, but
construction stopped in
March 2024 due to funding
issues

12m embankment with lift
and stair cores and link
bridges to the platforms





Asset Protection and
Optimisation (ASPRO)



Northumberland Line

6 new stations and
passenger services from
Newcastle to Ashington
restored for the first time
since Beeching cuts

3 stations now open at
Ashington, Seaton Delaval
and Newsham

Passenger numbers
exceeding expectations,
much appreciated by local
people





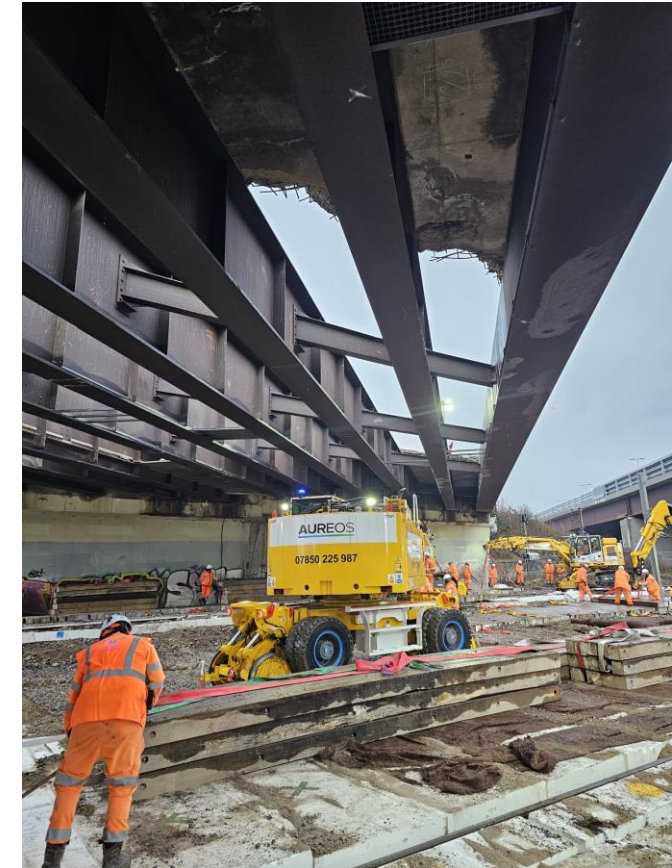
Asset Protection and
Optimisation (ASPRO)

Allerdene bridge

New 3 lane bridge to carry
the A1(M) over the East
Coast Main Line

Demolition of the old 2 lane
bridge

Complexities included the
proximity of Tyne Yard and
tight OLE clearances – the
OLE was lowered and raised
several times during the
demolition





Asset Protection and
Optimisation (ASPRO)

Leeds Station Gateway

New public realm with lifts and staircases to improve the immediate approach to Leeds station from the north east side (New Station Street)

A key dependency of the project is the renewal of the Mill Goit, an open space underneath the station entrance which will be converted into a cycle hub



Case Studies

Brent Cross West Station

Brent Cross West is a new mainline station on the Midland Main Line, that provides improved connectivity to central London. This station, completed in 2023, involved close collaboration between Network Rail and Barnet Council, with Network Rail acting as a key programme partner.

 **Cost:** Barnet Council secured £419m through collaboration with central government partners, including the Ministry of Housing, Communities and Local Government, HM Treasury, and the Greater London Authority.

Key benefits:

 The station includes four platforms, step-free access, bike storage, and a new transport interchange. It also features sustainable design elements like a roof canopy with glazed panels and timber columns.

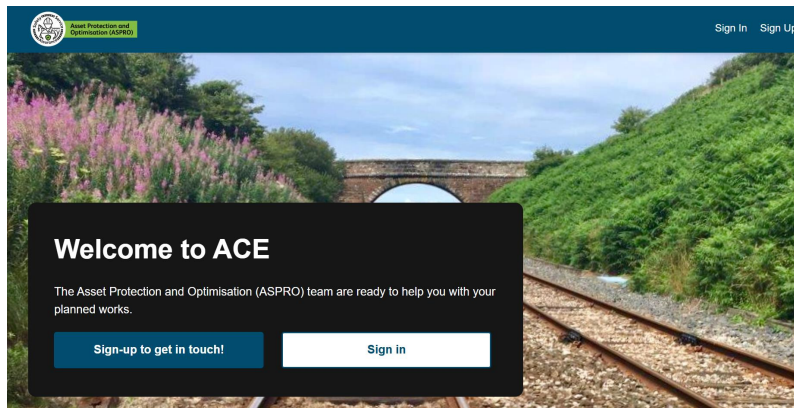
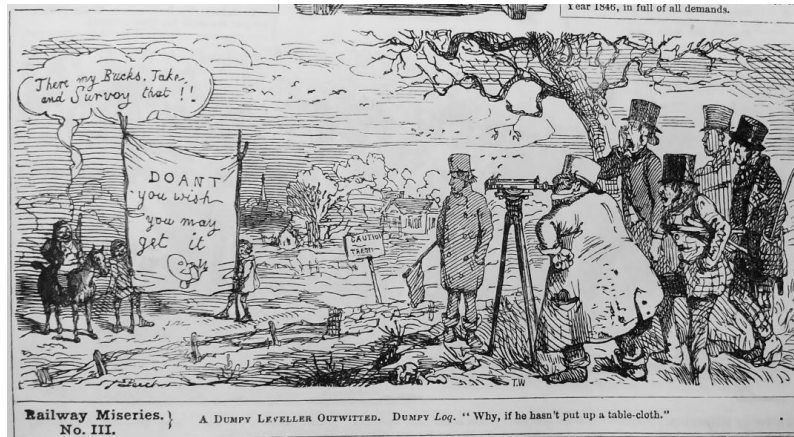
 This project enhances transport links and supports the broader regeneration goals of the Brent Cross Cricklewood area.



Q&A



Asset Protection and Optimisation (ASPRO)



Before devolution



After devolution

