

UiPath® on Tour

AI at Work



LONDON





Adrian Varma

Head of Business Transformation
LNER



TRANSFORMING OUR EMPLOYEE AND CUSTOMER EXPERIENCE

UiPath on Tour, London 2024



Adrian Varma



Head of Business
Transformation, LNER
(London North Eastern Railway)

MY BACKGROUND...

- MARKETING STRATEGY
- BUSINESS STRATEGY
- PROPOSITION DESIGN
- DIGITAL EXPERIENCE STRATEGY
- PRODUCING THINKING & INNOVATION
- BUSINESS CHANGE & TRANSFORMATION



Above all, I believe in having fun, staying curious, motivating others, and always enjoying the challenge...



THE EAST COAST ROUTE IS HIGHLY DISCRETIONARY



900-miles from London to Inverness in Scotland with competition from car, air, open access rail and five other franchises



420,000 customers a week



97% of our revenue comes from discretionary travel – only 3% are season ticket commuters and 60% low frequency leisure travellers



Approx. 35% current market share of journeys > 50 miles



Avg. yield £40. Ancillary revenue is key to driving increased revenue



MODAL SHIFT IS THE
FUNDAMENTAL DRIVER IN
OUR GROWTH STRATEGY



easyJet

BRITISH
AIRWAYS



enterprise



national
express

megabus.com
low cost intercity bus travel



EMR

NORTHERN

AVANTI
WEST COAST

crosscountry
by arriva

ScotRail
Scotland's Railways



GRAND CENTRAL
by arriva

Great Northern

Hull Trains
Your local link to London

lumo

TRANSPENNINE
EXPRESS

CALEDONIAN
SLEEPER



omio

trainline

raileasy
SPLIT TICKETING

Virgin

Split ticketing



To be the most loved
progressive, and
responsible way to
travel, for
generations
to come

TO PUT HEART INTO EVERY DIGITAL JOURNEY

DIGITAL PROPOSITION

EMPOWERING EVERYONE THROUGH TECHNOLOGY

DIGITAL OBJECTIVES

Get more customers interacting
through digital more often, for more
services

Provide passengers with the tools,
services and info they need to
simplify their journey

Enable our staff to offer the best
customer experience possible

KEY SUCCESS MEASURES

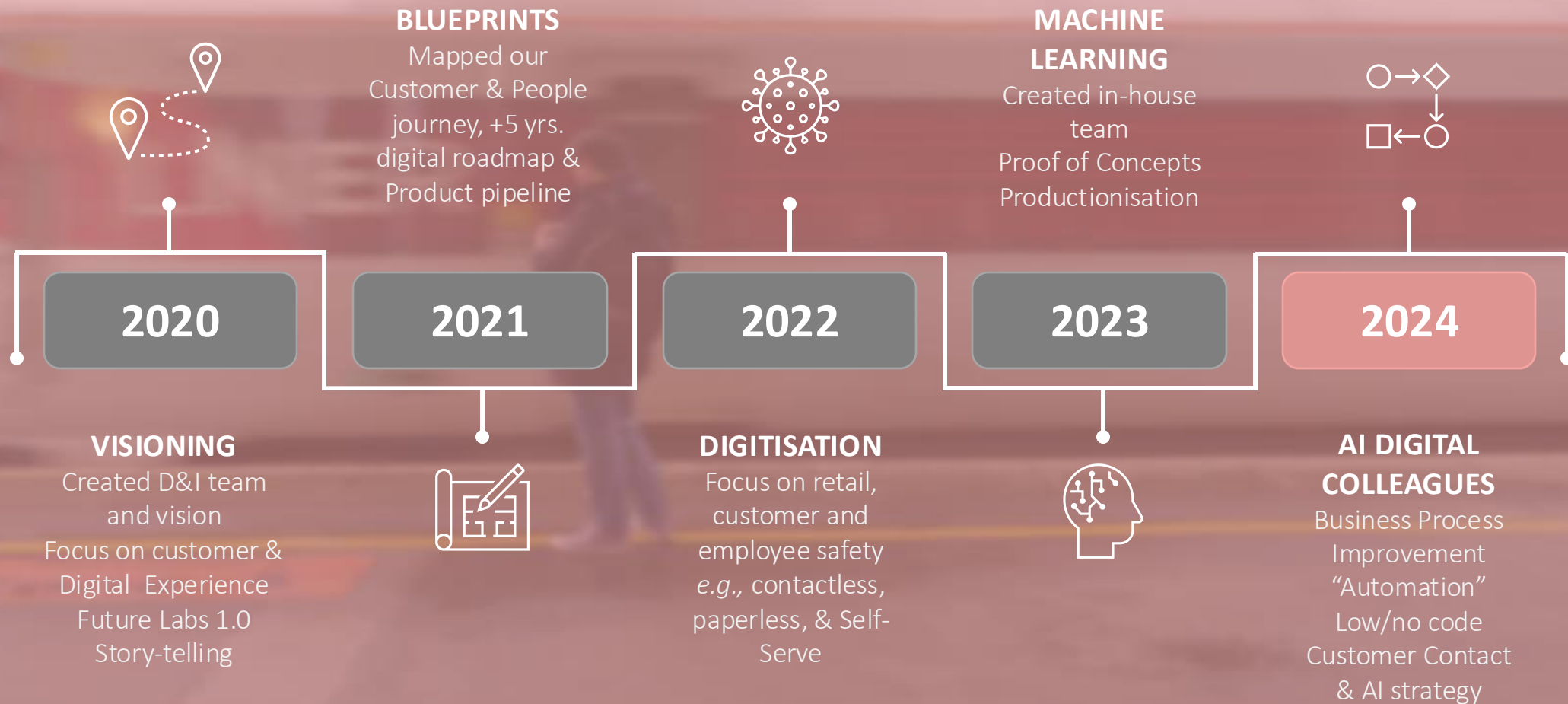
Increase in digital
interactions & self
service

Increase in customers
travelling and spending

Increase in customer
satisfaction scores

Increase in advocacy
and repeat customers

OUR DIGITAL JOURNEY SO FAR...



OUR DIGITAL CAPABILITIES

Cross-Use of Digital functional capability areas. From Digital and Innovation to Digital and Business Transformation.



BUSINESS TRANSFORMATION

Future macro & micro landscape, ML, transforming the business, to succeed.



DIGITAL EXPERIENCE

Digital experience, UX design, & innovation, research & development.



DIGITAL PRODUCTS

Mobile, Web, Wi-Fi, staff tech, retail, CRM and communication systems.



DIGITAL DELIVERY

PMO, governance, business analysis (resource and benefit tracking).

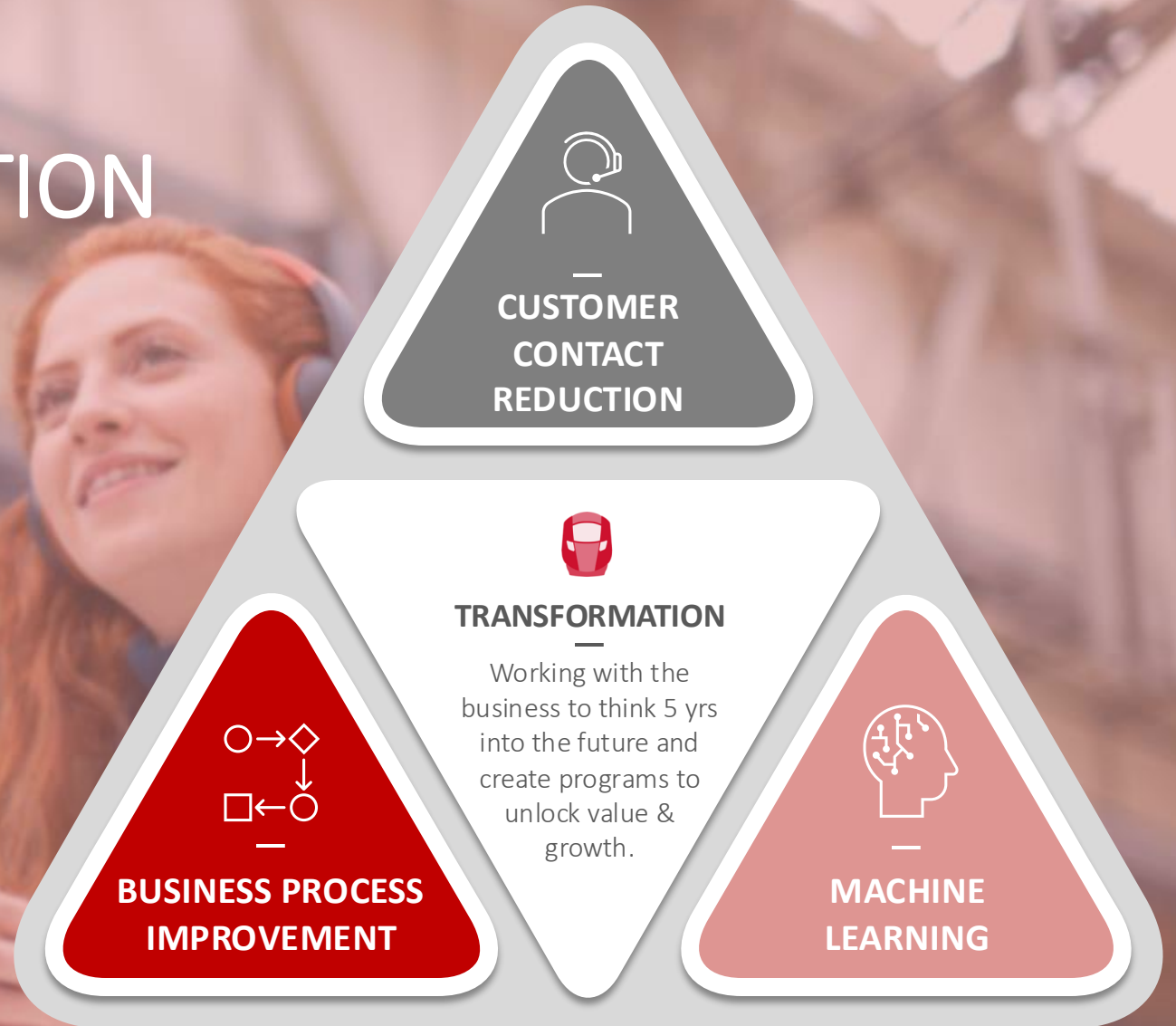


DIGITAL ARCHITECTURE

Ensure we build in the right way, for LNER and the industry.

BUSINESS TRANSFORMATION

Working with teams to take a step back, understand challenges and opportunities, thinking +5 years, and tackle the big impact issues that will super-charge growth, and unlock value for our people, and our customers



BUSINESS TRANSFORMATION PILLARS

EMPOWER OUR PEOPLE TO TRANSFORM LNER + SUPPORT CHANGE ACROSS DOHL AND GBRTT



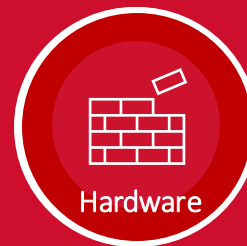
BETTER WAYS OF WORKING

Review & redesigning processes, Automation, AI, digital tools, and Machine Learning techniques. Reviewing our Target Operating Model



NEW REVENUE OPPORTUNITIES

Identify, new opportunities & revenue models to generate more revenue outside of farebox, using Machine Learning & AI



NEW TECHNOLOGIES & PLATFORMS

Identify the new / future hardware 'platforms' & environments required to transform our workforce & enable, scalable change



NEW SKILLS & CHANGE CULTURE

Identify the new & future skills required to enable our change journey, & foster a culture of 'trial' & 'change' – build network of change agents

Challenge led: working with the business to be user and business driven, solving challenges

Data led: working with the data to demonstrate the issue and sizer, and track benefits

To prioritise investments to achieve the highest impact—on both efficiency and strategic value—in both the short and long term

WE VISUALISE (FOCUS) ON WHERE WE'LL GET TO ONCE WE'VE DELIVERED

Written Press Releases

High harnessing data and machine learning technologies to enable proactive data-led decisions
Published by: Steven Lloyd

and machine learning to transform their Employee and Customer Experience. Delivering savings, employee satisfaction, and revenue growth – a data-led decision revolution!

- Reducing costs, and increasing revenue by £1.5m, and employee satisfaction scores by +30% this financial year.
- Identified and prioritised £10m+ of headroom to be unlocked across HQ.
- Working together with the industry (Northern South-eastern, and TPE) to tackle fraud, one of the biggest industry challenges.

LNER's award winning machine learning team has unlocked huge value across their teams by enabling real time use of data, to drive much better decision across all areas of the business which has led to a seismic shift in performance – and a data culture, revolution.



The team has embedded transformative products across major business areas:

- **Tackling Delays:** A step change in how station teams prevent delays using a predictive tool
- **Transforming how the fraud team find fraud cases** - delivering £500k of value in its first year

- **Catering Predictive ordering:** Bringing the catering ordering solution into the 21st Century using ML algorithms
- **Hyper-personalisation:** Enabling the marketing team's strategies to be 80% more effective through machine learning powered propensity models

The team did not stop there though and continued to explore innovative uses of machine learning to tackle challenges across the business addressing the £10m+ headroom identified. Successful proof of concepts such as Pricing Optimisation led to the creation of a roadmap of opportunities to enhance how the pricing team works. Further projects of a roadmap of opportunities business areas found value such as reducing LNER's traction energy usage helping business towards meeting its Net Zero targets.

Whether from delivering product roadmaps in proven value areas or exploring new opportunities it is clear the Machine Learning team is here to stay and continue to transform how LNER operates.

Head of Revenue Strategy & Optimisation, Eric Campbell-Westland

"The ML team opened our eyes to the opportunities to transform how we use data to drive yield". Head of Revenue Strategy & Optimisation, Eric Campbell-Westland

streamline the financial workload, and empower employees and passengers. Aims to drive innovation and excellence. Key components of the Business Transformation Programme include **Automation of Business Processes:** deploying state-of-the-art automation solutions to streamline repetitive tasks and admin processes across the business from Safety, and Operations, Fleet, Commercial, Business Services, Digital IT. By automating routine activities, employees are spending more time to strategic initiatives and delivering personalised service to customers – leading to a surge in CSAT scores from customers, and +25% increase in revenue. **Making better business decision**

"It's great to transform fundamental and critical operational processes, that are radically changing how we make decision; deliver better outcomes, supported by data. Designed with the subject matter experts, to ensure we've got it right, and have solved the challenges for our people, and our customers". Adrian Varma, Head of Business Transformation.



operational efficiency, staff to focus on higher-value activities, elevating the overall efficiency and response times, ultimately elevating the customer experience. **Enhanced Customer Experience:** At the heart of the transformation is a user-centric design approach, LNER has tailored solutions to enhance customer experiences. By adopting a user-centric design approach, personalised interactions powered by AI. The solutions meet the needs of its customers. From intuitive self-service platforms to personalised customer preferences with ease. **Revenue Growth:** The transformative impact of the program extends beyond operational enhancements, directly translating into significant revenue growth for LNER. By integrating retail opportunities increase in both direct and indirect revenue. **Colleague Empowerment:** Through the removal of silos and the consolidation of systems and processes, a new revenue stream serves as a testament to the program's success in driving tangible business value. **Colleague Empowerment:** Through the removal of silos and the consolidation of systems and processes, a new revenue stream serves as a testament to the program's success in driving tangible business value. **Colleague Empowerment:** Through the removal of silos and the consolidation of systems and processes, a new revenue stream serves as a testament to the program's success in driving tangible business value.

amazon
Culture of
Innovation



What will the impact be? The benefit(s)!



Headlines, what information is important?



Who is the target audience?



What will it feel like to users? The differences



What will the business owner think and feel?

TRANSFORMATION PROGRAMME STAKEHOLDER MAP



Benefits &
Impact

**Leadership,
Executive and HoDs**
(key stakeholders)

Measurement, results (benefits and impact), prioritisation, progress, challenges, risks, learnings & reflections – key to fund & support the programme

AFG (quarterly), InvestCo., Business Planning



Design &
Deliver

**Delivery, IT, Technology,
and Governance**
(delivery stakeholders)

Early engagement, design considerations, support, enablement, build, test, deploy, learnings, feedback to improve – key to deliver the programme

Tech Board, DA, Programme Board, Stand Up



Support &
Promote

**The teams we're supporting,
Our People**
(client engagement)

Identify, co-create, build, promote, re-use technology, learn, iterate, and improve approach, vital, ultimately own solutions (benefits) – enterprise solutions

Check-Ins, reviews, wash-ups



Build &
Leverage

**Our citizens,
Service Users**
(client services & community)

Build community, iterate, improve Employee-CSAT, advocates, beyond delivery team – testimonials & communicate

Forums, networks, DOHL, conferences

BUSINESS PROCESS IMPROVEMENT 'AUTOMATION'

UiPath on Tour, London

WHY WE NEED TO PRACTICE BUSINESS PROCESS IMPROVEMENT



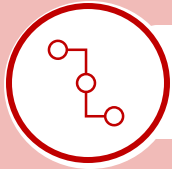
Very manual, repetitive tasks, take a lot of time to complete



High risk, errors, re-working, high variation & lack of standardisation



Some processes haven't changed in 40yrs



OpModel linked to timetable & inefficiency



Business critical roles not documented

UNLOCKING BENEFITS AND PRODUCTIVITY ACROSS THE INDUSTRY



Improve our colleague experience



Focus on more value add, complex tasks



Unlocking productivity (+£ and/ -Cost)



Reduce/ remove errors (cost avoidance)



Grow the business, not our cost base

MAPPING OUR PROCESSES

We want to build a map of our processes and tasks across HQ

A roadmap, to better **navigate** plans, and design processes with our people. To standardise where possible, and unlock productivity across teams



User led



Continuous Improvement



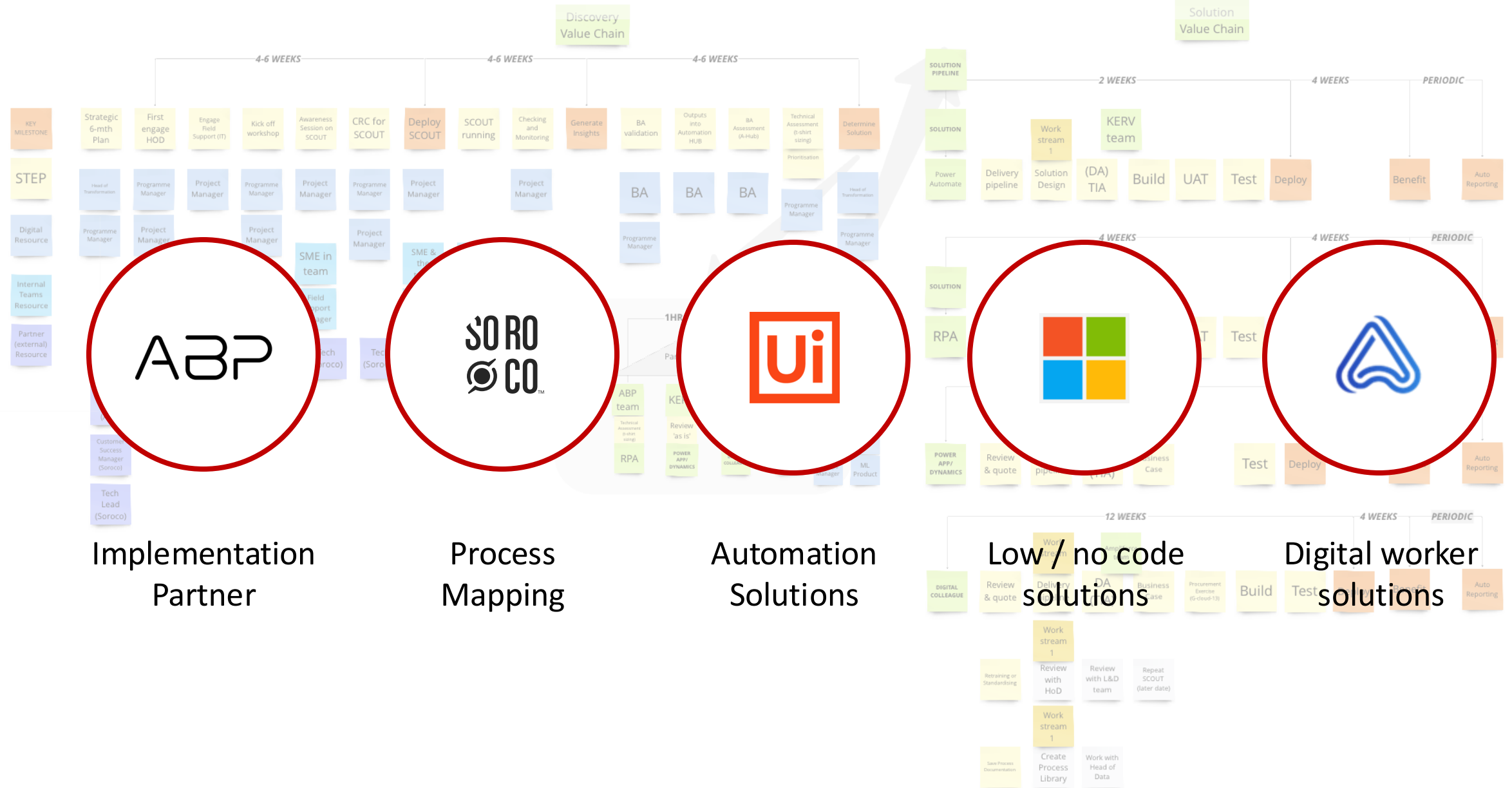
Document & store processes



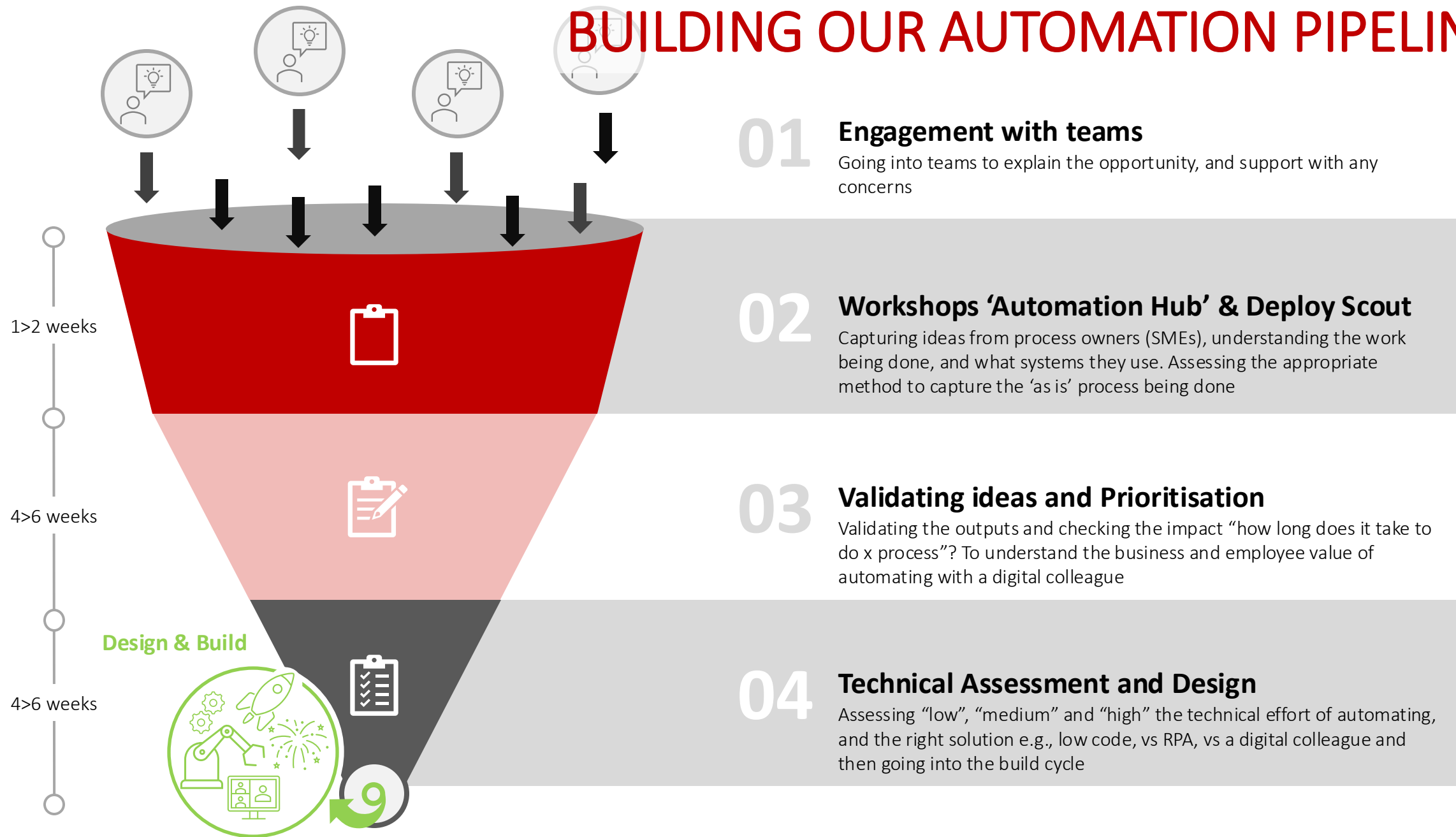
Safeguard Corporate memory



WE'RE PROUD TO BE WORKING WITH BEST-IN-CLASS PARTNERS



BUILDING OUR AUTOMATION PIPELINE



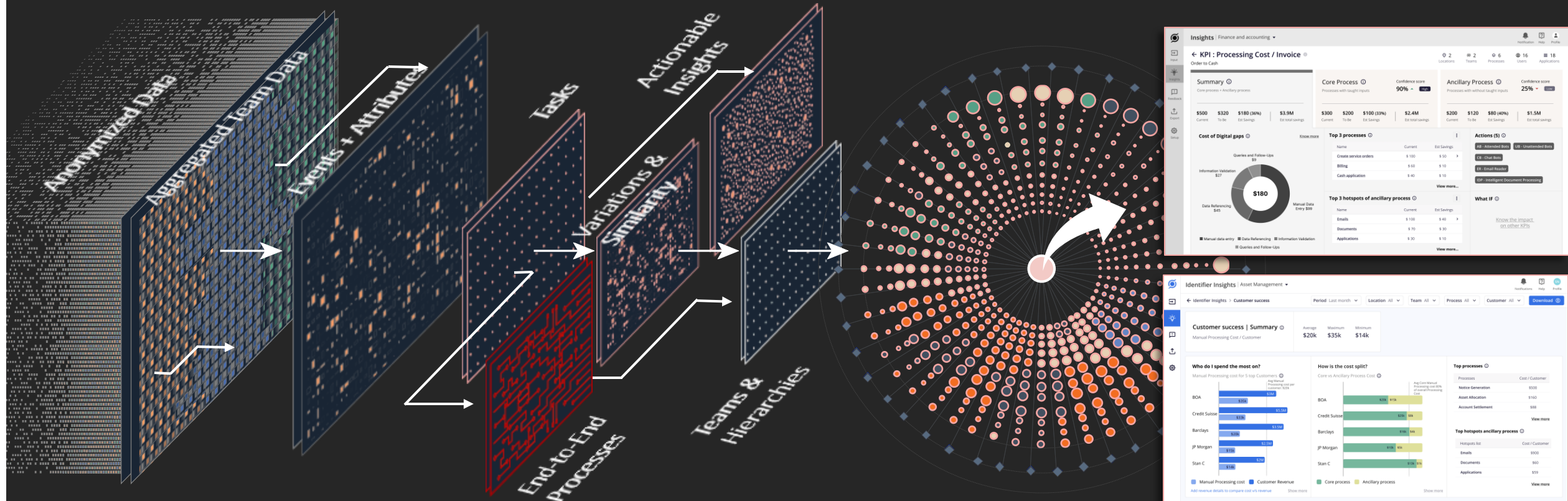
WE'RE USING AI & MACHINE LEARNING TO MAP PROCESSES

Anonymised team data

Deep capture & Semantic layering

Work graph Model

Employee Dashboards



← Increasing value →

KPI Dashboards

Customer Experience

Employee Experience

Clarity & knowledge

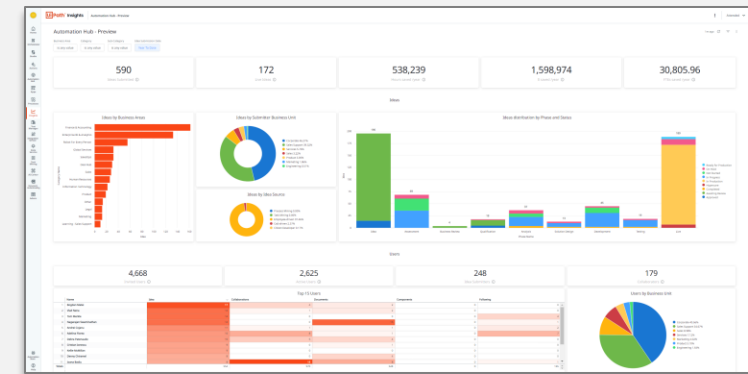
COLLABORATIVE AND INFORMATIVE TOOLS TO SUPPORT DISCOVERY DRIVEN INSIGHTS ACROSS LNER

UiPath™ Automation Hub + **UiPath™ Insights**

Understand discovery
metrics across the
organisation

Empowered to deliver
insights on your
Automation program

ROI Tracking, from
Estimates to Actuals



‘SINGLE SOURCE OF THE TRUTH’
& BI & REPORTING



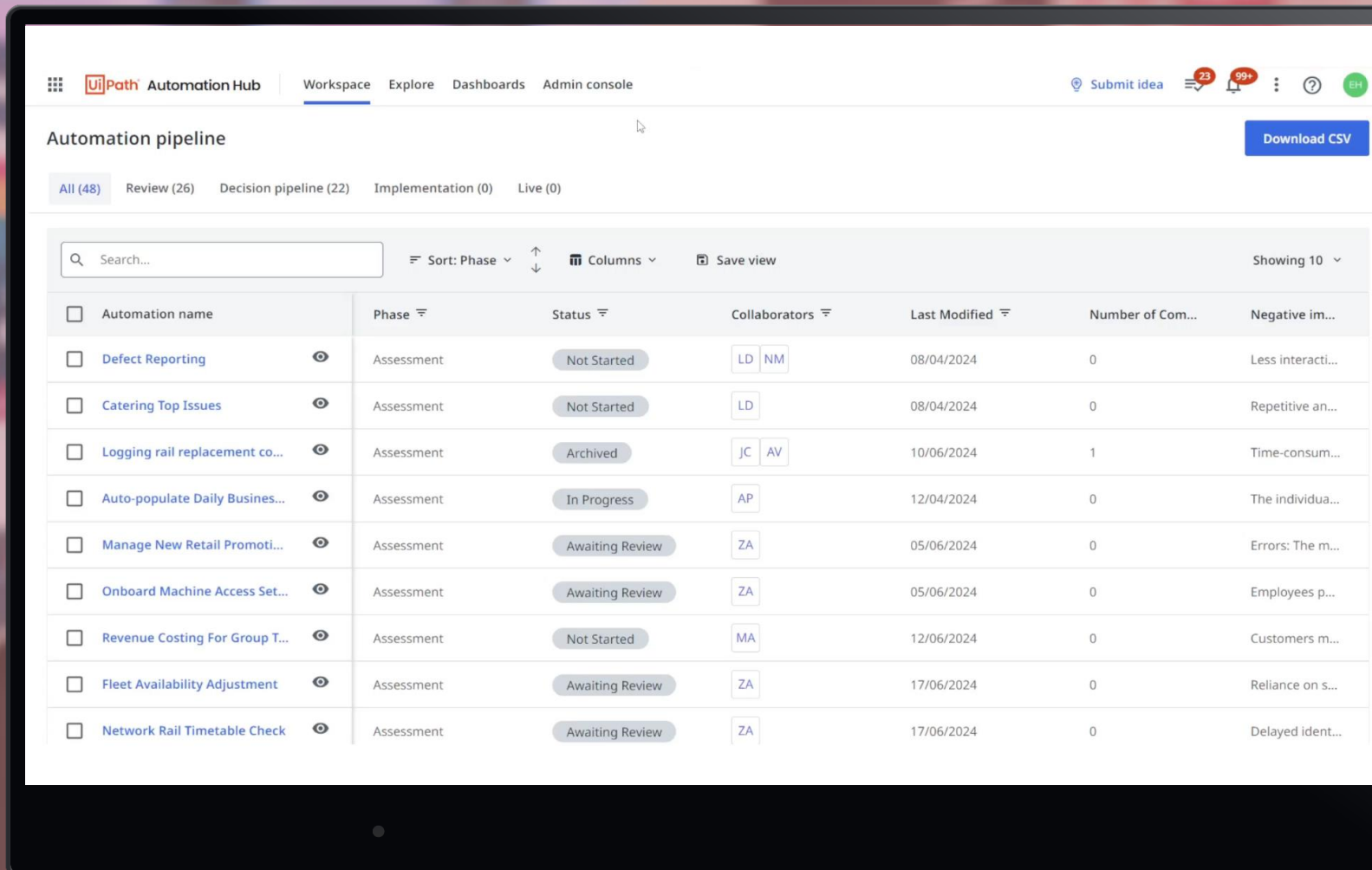
IMPROVED PLANNING &
PRIORITISATION



SUPPORTING COCREATION
& CALABORATION

WE ARE USING THE RIGHT TOOLS FOR THE RIGHT JOBS

UiPath Automation Hub



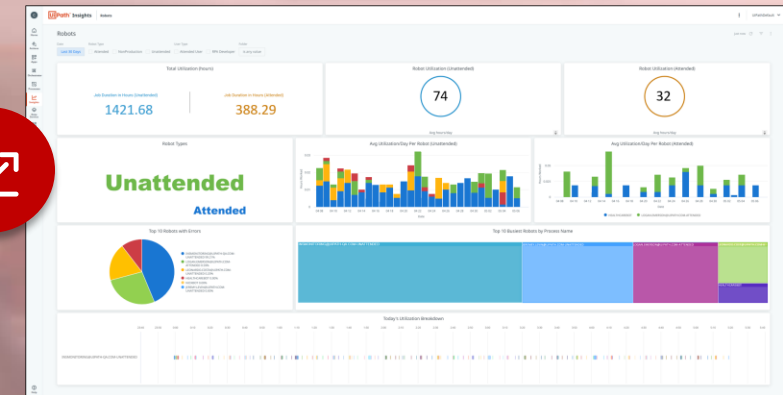
The image shows a laptop screen displaying the UiPath Automation Hub interface. The interface has a top navigation bar with links for Workspace, Explore, Dashboards, and Admin console. On the right of the navigation bar are icons for Submit idea, notifications (23), a bell icon (99+), a help icon, and a user profile icon (EH). Below the navigation bar is a section titled 'Automation pipeline' with a 'Download CSV' button. Under this section are filters for 'All (48)', 'Review (26)', 'Decision pipeline (22)', 'Implementation (0)', and 'Live (0)'. A search bar and sorting options (Sort: Phase, Columns, Save view) are also present. The main area displays a table of automation pipelines with columns for Automation name, Phase, Status, Collaborators, Last Modified, Number of Com..., and Negative im... The table lists several automation pipelines, each with a checkbox, a name, a phase, a status, collaborators, a last modified date, a number of comments, and a negative impact description.

<input type="checkbox"/> Automation name	Phase	Status	Collaborators	Last Modified	Number of Com...	Negative im...
<input type="checkbox"/> Defect Reporting	Assessment	Not Started	LD NM	08/04/2024	0	Less interacti...
<input type="checkbox"/> Catering Top Issues	Assessment	Not Started	LD	08/04/2024	0	Repetitive an...
<input type="checkbox"/> Logging rail replacement co...	Assessment	Archived	JC AV	10/06/2024	1	Time-consum...
<input type="checkbox"/> Auto-populate Daily Busines...	Assessment	In Progress	AP	12/04/2024	0	The individua...
<input type="checkbox"/> Manage New Retail Promoti...	Assessment	Awaiting Review	ZA	05/06/2024	0	Errors: The m...
<input type="checkbox"/> Onboard Machine Access Set...	Assessment	Awaiting Review	ZA	05/06/2024	0	Employees p...
<input type="checkbox"/> Revenue Costing For Group T...	Assessment	Not Started	MA	12/06/2024	0	Customers m...
<input type="checkbox"/> Fleet Availability Adjustment	Assessment	Awaiting Review	ZA	17/06/2024	0	Reliance on s...
<input type="checkbox"/> Network Rail Timetable Check	Assessment	Awaiting Review	ZA	17/06/2024	0	Delayed ident...

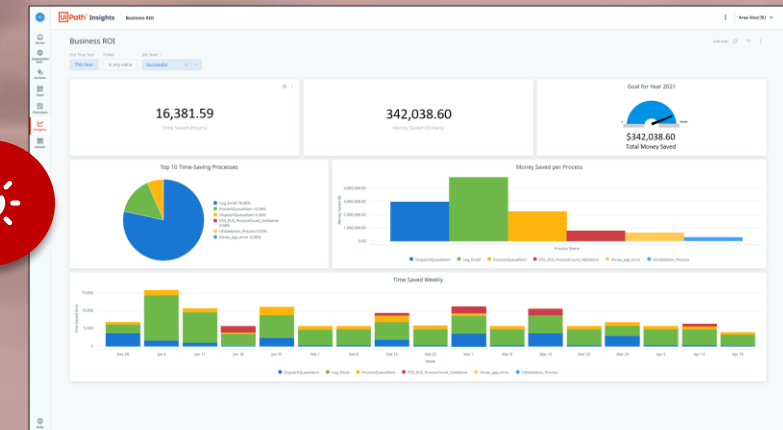
WE ARE USING THE RIGHT TOOLS FOR THE RIGHT JOBS

Transparent RPA Operations

Orchestrator
& Robot Data



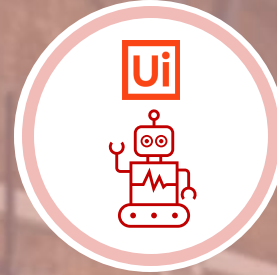
ROI & Performance Reporting



THE SPECTRUM OF AUTOMATION SOLUTIONS



LOW/ NO CODE AUTOMATION



BOTS (RPA)



DIGITAL ASSISTANTS

DEFINITION

The use of workflow automation to perform simple rules-based tasks within a single platform

Use of software to automate semi-complex tasks across multiple platforms

Use of software that are designed to complement/ augment or replicate complex human work

COMPLEXITY

Low

Medium

High (to very high) Complexity

METHODS

Rules based workflow e.g., Power App, Power Automate, Microsoft Dynamics

Robotic Process Automation (RPA)

AI, computer visioning, and emergent technologies

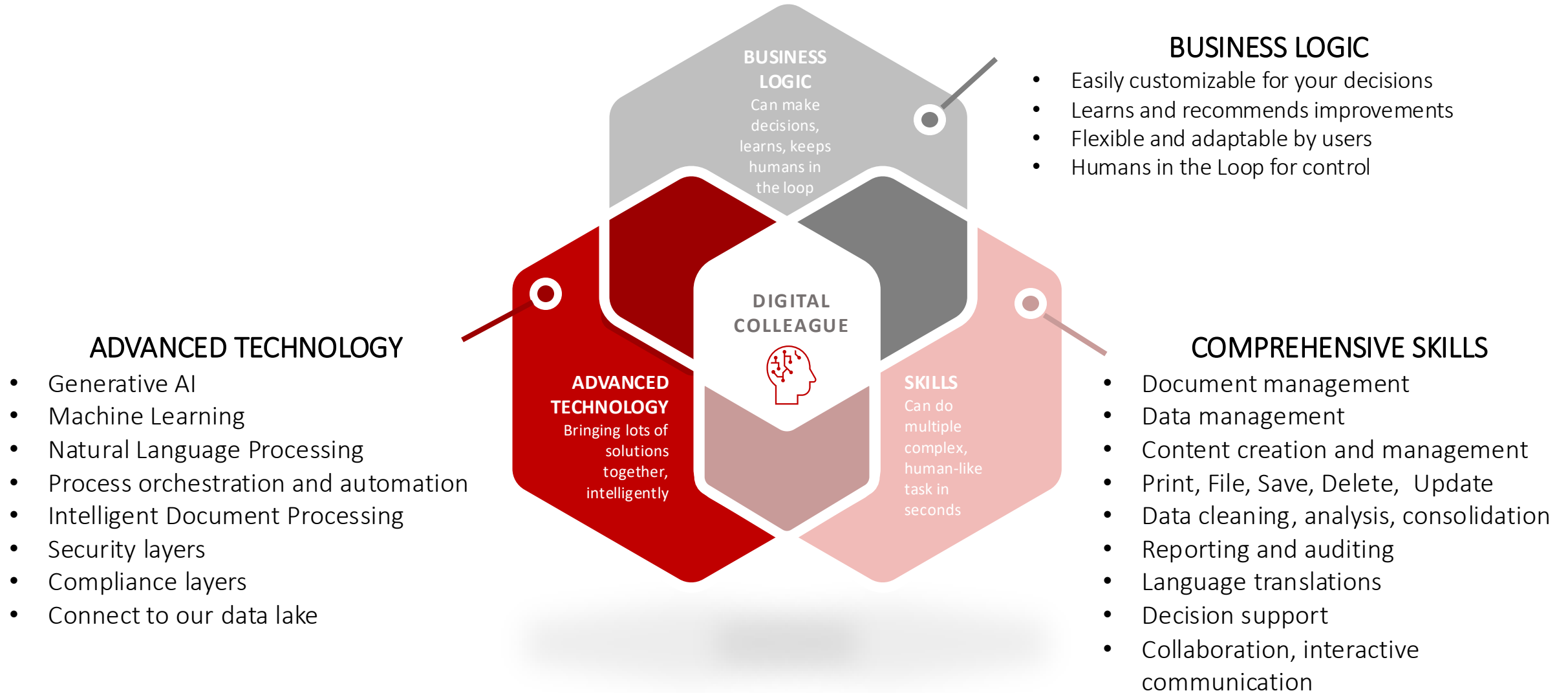
EXAMPLES

Data entry, invoice processing, email sending

Data Entry and processing generating reports, chatbots, marketing automation

Fraud analysts, medical diagnosis assistants, customer service representatives

'DIGITAL COLLEAGES', GOING BEYOND AUTOMATION



HUMAN AND DIGITAL COLLEAGUES WORKING TOGETHER

Our goal is to work with teams to understand how AI & automation can aid in our operational delivery and unlock productivity. Designing new teams:

1. Creating better teams
2. Better structures (new OpModels)
3. Producing better outcomes (saving cost/ generating more revenue)
4. To growing the business, not the cost base

TODAY



6 people doing the work of 6

TOMORROW

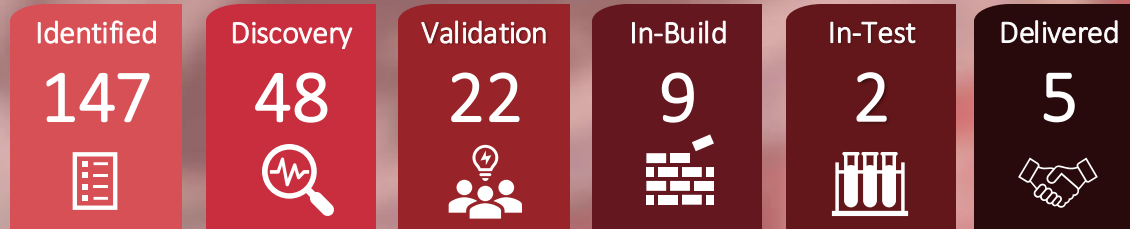


1 person doing the work of 6
(with a digital assistant)

THREE WORKSTREAMS ARE UNDERWAY IN AUTOMATION

Business Process Improvement

Automation Programme



Value Measures



3 Workstreams of activity

01

AUTOMATION DISCOVERY

An automated process of working across teams to map the processes and tasks carried out, by deploying software on our peoples' machines. The outputs give us (users of the processes) the ability to redesign the process, retrain, and automate manual tasks, and quantify the hours saved.



02

AUTOMATION SOLUTIONS

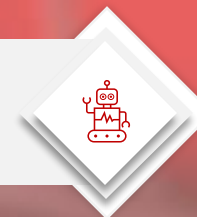
Using (low/ no code tools) e.g., Power Platforms and Dynamics, to unlock productivity gains for users in their day-to-day roles, and teams. And building a "citizen developers" community across LNER. Coded RPA solutions through ABP and UiPath.



03

COMPLEX BUT HIGH VALUE AUTOMATION SOLUTIONS

Tackling high value, high complex business processes that have been too difficult to automate traditionally – only now available with 'digital workers' that use sophisticated new technology.



+£10m
headroom
Identified

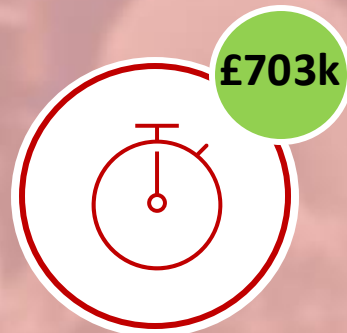
USING AUTOMATION TO SOLVE OUR CHALLENGES

£4m



£70k

FINANCE, VAT
RETURNS



£703k

PERFORMANCE
PLANNING
TOOLS



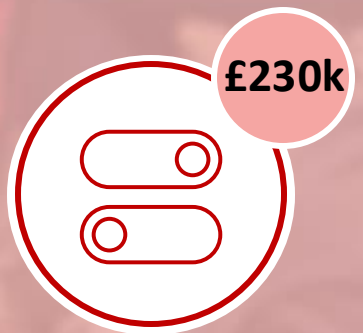
£250k

FLEET
AVAILABILITY &
MAINTENANCE



£450k

TIMETABLE
CHECKING FROM
NETWORK RAIL



£230k

TRAIN SWAPS,
OPS DELIVERY



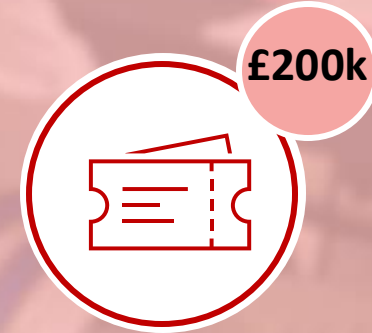
£300k

COMPLIANCE
& AUDIT



£2m

SERVICE
DELIVERY (RAIL
OPERATIONS)



£200k

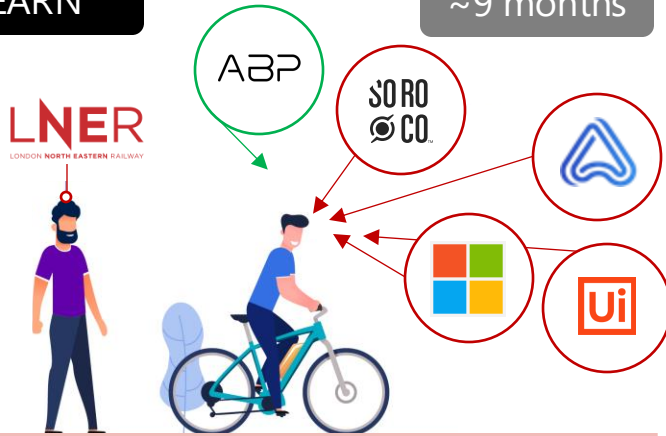
TIMETABLE INTO
RESERVATION FOR
SALE

APPROACH (STEP 1, 2 AND 3) 'LEARNING TO RIDE A BIKE'

STEP 1: WORK WITH EXPERTS, GET GOING QUICKLY

LEARN

~9 months



1

WATCHING & LEARNING, FROM THE EXPERTS

STEP 2: DEVELOP OUR SKILLS WITH SUPPORT

PRACTICE

~9-18 months



2

SUPPORTED BY THE EXPERTS & DEVELOPING OUR SKILLS

STEP 3: TAKE THE LEAD WITH IN-HOUSE CAPABILITY

MASTER

18+ months



3

BUILDING ON EXPERIENCE & HAVE BUILT IN-HOUSE CAPABILITIES



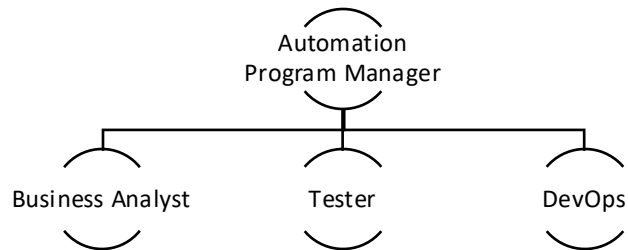
We are here

PHASED RESOURCES, ALLOWING US TO SCALE WITH CONFIDENCE

STEP 1: WORK WITH EXPERTS, TO MOVE QUICKLY

CORE TEAM

~9 months

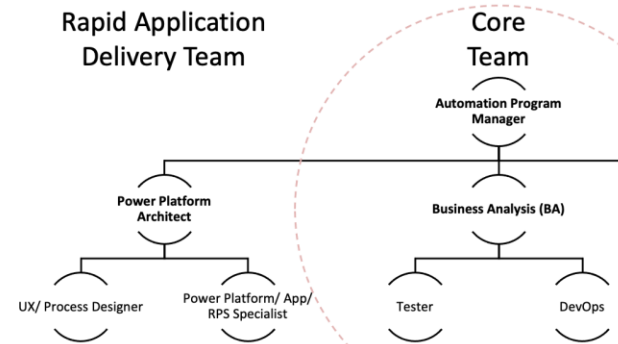


1 CORE TEAM TO WORK WITH THE BUSINESS, MANAGE PARTNERS, AND SOLID BUILD A PIPELINE

STEP 2: DEVELOP OUR SKILLS WITH SUPPORT

CORE TEAM + RAD

~9-18 months

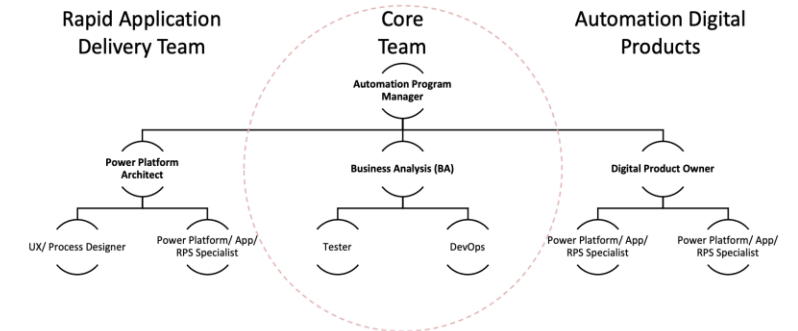


2 LEARNING, DEMONSTRATING IMPACT, SPOTTING WHERE RESORCE AND NEW SKILLS ARE NEEDED TO DELIVER

STEP 3: TAKE THE LEAD WITH IN-HOUSE CAPABILITY

CENTRE O.E.

18+ months

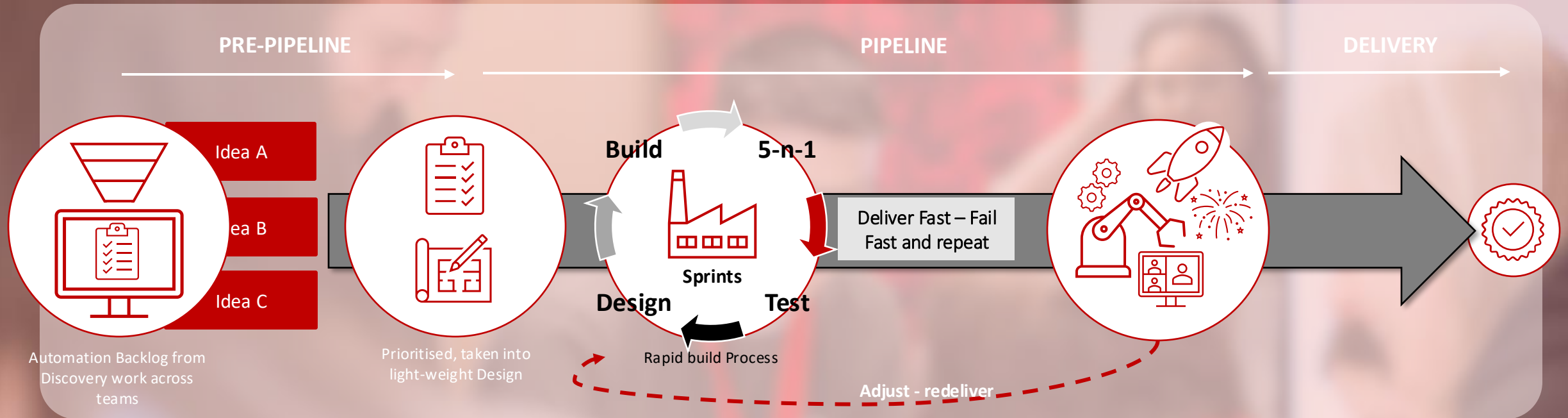


3 BUILDING ON EXPERIENCE AND BUILD IN-HOUSE CAPABILITIES, THAT CAN SERVE DOHL, BASED ON PROVEN DELIVERY



We are here

RAPID APPROACH, “CONVEYOR BELT” ALLOWING US TO GO FROM IDEA, TO PRIORITISE, DESIGN, BUILD, TEST, & DEPLOYMENT, QUICKLY



BUILDING A BACKLOG FROM TEAM ENGAGEMENT, AND BUILDING TRUST WITH TEAMS WHO CAN SEE THE IMPACT FROM ENGAGING WITH THE PROGRAMME

REFLECTING ON LESSONS LEARNT SO FAR

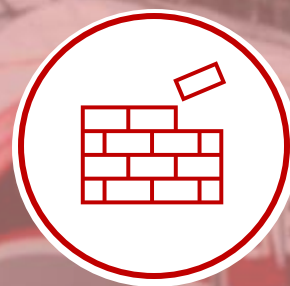
THE JOURNEY HAS BEEN EXCITING. WE'VE LEARNT A LOT AND MADE MISTAKES, BUT WE ARE LEARNING FROM THEM AND MATURING AS A TEAM



Data,
Access,
Governance,
Environments,
Skills



Demonstrate value
quickly,
Adapt,
Build confidence,
Exploration
vs Exploitation



Build in phases,
Qual & Quant,
Target OpModel,
Prove the value



Shout about
Successes,
Internal
Communication,
User impact,
Storytelling &
testimonials



THANK YOU

UiPath on Tour, London 2024

