

Strategic Pipeline Alliance Project 13

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Water Resources Challenges

Population growth

- We serve 20% more properties now than we did in 1998.
- Regional population is expected to increase by 20% over the next 25 years compared with population levels in 2011-12.
- Total impact is 109 MI/d by 2045.

Climate change

- Climate change is one of the most significant threats we face.
- Total impact is 58 MI/d by 2045.

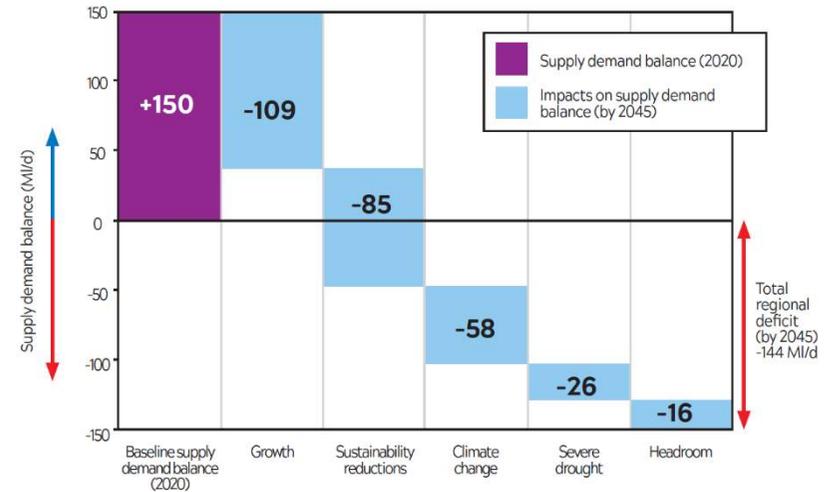
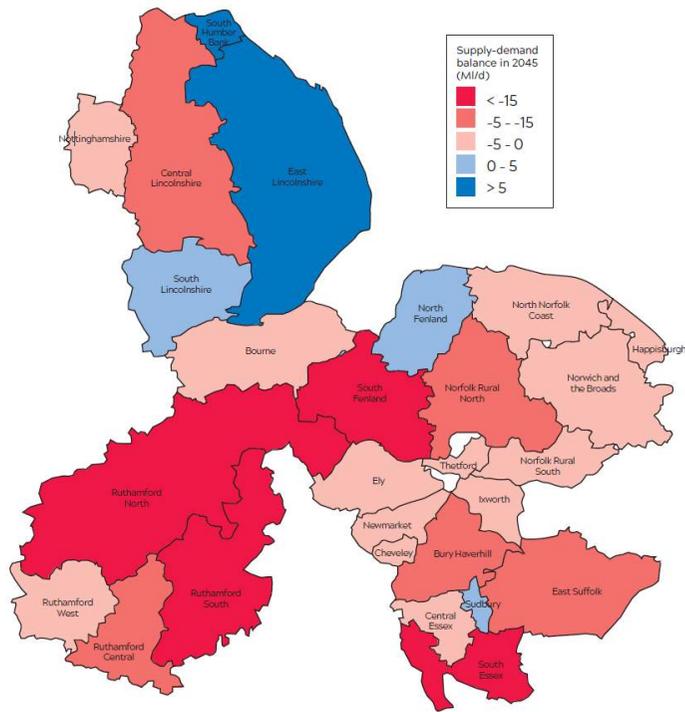
Environmental needs

- Our region is environmentally sensitive and home to many internationally important wetland ecosystems that need protecting.
- We need to reduce our abstractions to prevent actual or potential environmental harm.
- Total impact is 85 MI/d by 2045

Drought resilience

- Our customers have told us that the use of severe restrictions is not appropriate or acceptable.
- But parts of our system are vulnerable to severe drought, so we need to act now to reduce this risk.
- Total impact is 26 MI/d by 2045

Baseline supply-demand balance

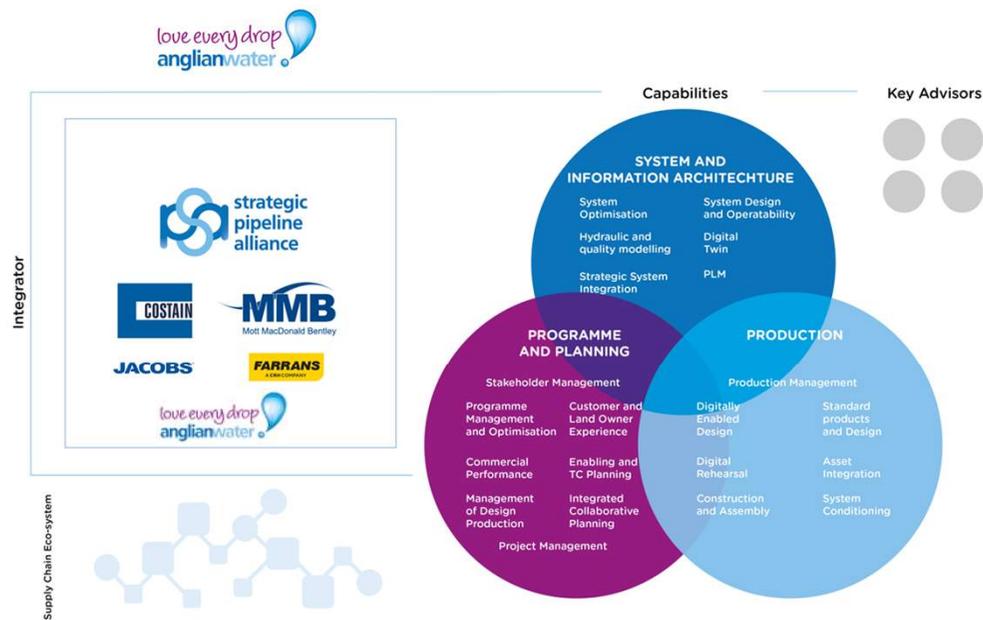


Baseline supply-demand balance in 2044-45 (DYAA scenario)

SPA Integrator & Capabilities

"Our purpose is to make the East of England resilient to the risks of drought and to secure water supplies for future generations"

Anglian Water has established a new Enterprise, The **Strategic Pipeline Alliance** [SPA] following the sustained success of its alliancing approach.



SPA Organisational Principles

- A collaborative, capability based organisation with 4 strategic partners
- Operates as the Integrator in a virtual shareholding model
- Incentivised commercial model
- Complete visible alignment to business plan and customer outcomes
- High performing integrated teams
- Leadership commitment to behavioural change and the need to deliberately deliver differently
- Explorative culture of continuous improvement and learning
- A model and organisation that adopts Project 13 enterprise principles

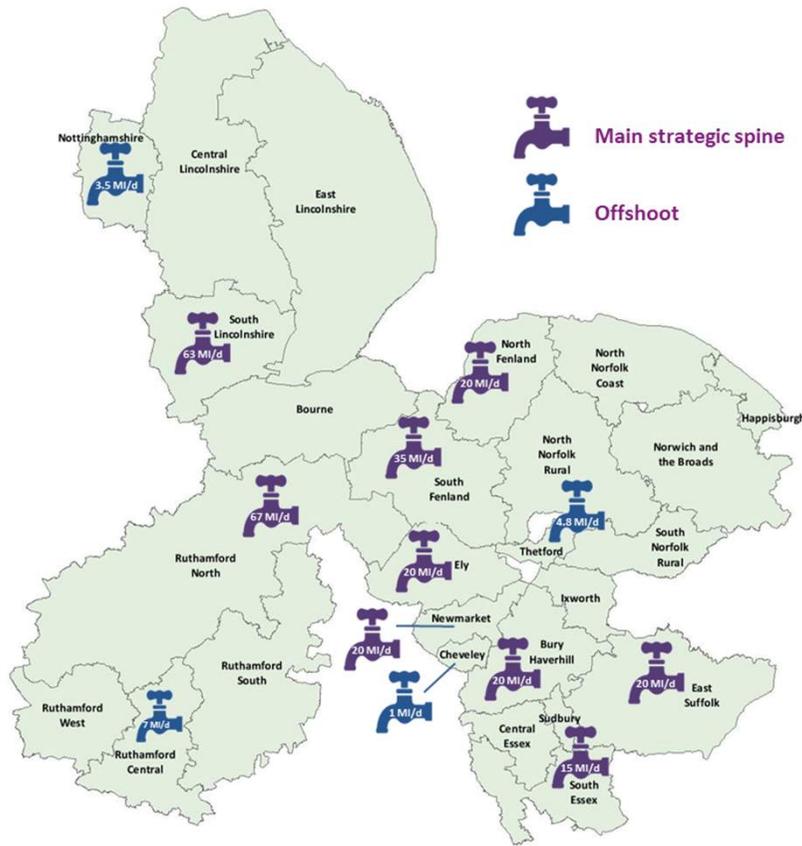
Core P13 Principles of SPA

- Full Alignment with AW Customer Outcomes
- Back to Back arrangement with AW Business Plan
- Top Down Commercial Model (Reward for out-performance)
- Supply Chain Eco-System
- Digital Transformation
- Best for Task for Programme

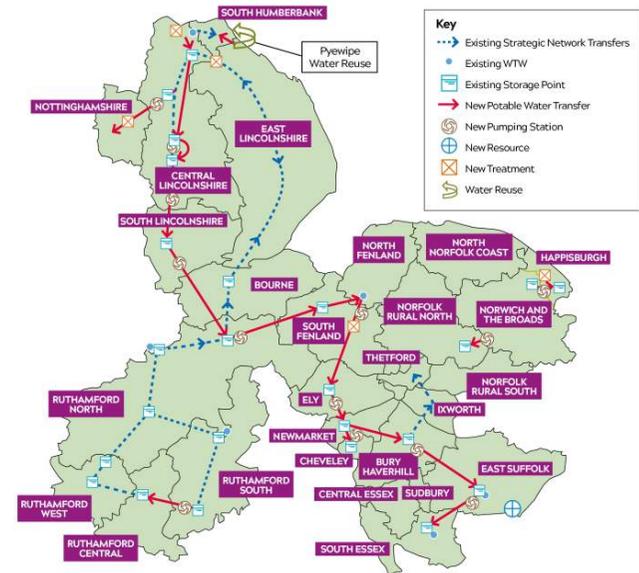
Alignment to Customer Outcomes



OUTCOMES NOT SCOPE!



VS



Strategic Pipeline Alliance Outcomes

CUSTOMER ALIGNED DELIVERY OUTCOMES

RESILIENT BUSINESS



Water Supply Resilience

Percentage of Population Supplied by Single Supply System
In 2015 we had 46.9% of our customers on a single system. By the end of AMP6 we intend to reduce this to 24.7% and by the end of AMP7 we intend to reduce this further to 14.1%.

Regulatory Contract

The regulatory contract will be met (Outcome, Time and Efficiency) and achieve Best Whole Life Value.

A SMALLER FOOTPRINT



Capital Carbon

Percentage reduction of Operational Carbon in New Assets from 2010 baseline
2019 / 20 - 60%
2024 / 25 - 65%

Green Funding

Delivered in a sustainable way to ensure this can be funded through Green Investment Bonds

DELIGHTED CUSTOMERS



Customer Measure of Experience (C-MEX)

Customer Measure of Experience (C-MEX)
Aligned to Anglian Water's Customer Experience Measure (C-MeX). All customer interactions and experiences to be industry leading.

A SMALLER FOOTPRINT



Operational Carbon

Percentage reduction of Operational Carbon in New Assets from 2020 baseline
2024 / 25 - 10%

Green Funding

Delivered in a sustainable way to ensure this can be funded through Green Investment Bonds

OUR PEOPLE: HAPPIER, HEALTHIER, SAFER



Zero Harm

Creation of a Zero Harm Environment

Measures are as follows with final targets still to be agreed:

- AFR
- Lost Time AFR
- Lost Time Incident Rate (Non Riddor Events)

FLOURISHING ENVIRONMENT



Zero Pollutions

Zero Cat 1 / 2 Environmental Incidents.

DELIVERY ALIGNED CUSTOMER/COMMUNITY OUTCOMES

POSITIVE IMPACT ON COMMUNITIES



Generation of Business in the Community

Provision of career opportunities to people in Anglian Water's locality.

Work collaboratively with educational bodies to develop sponsored educational programmes to enable apprenticeship pathways into our Alliances.

POSITIVE IMPACT ON COMMUNITIES



Community Engagement

Positive and leading engagement with communities, businesses, landowners, schools, parish councils, local clubs, charities etc.

SPA Supply Chain Ecosystem

Alignment – commercial relationships should be aligned with achieving the owner's outcomes.

Rewards – the parties rewards should be based on the value they add in achieving the outcomes.

Risks – risks should be limited to those that the parties can manage. Owner's risks are not passed to the supply chain.

Success Factors

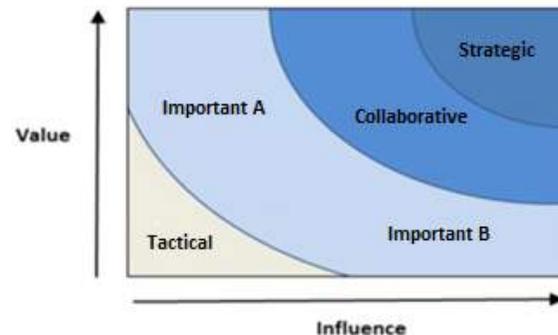
Engagement - the ecosystem should be engaged as early as possible in the creation of the asset.

Scale - the ecosystem yields greatest benefits when applied across complete portfolios.

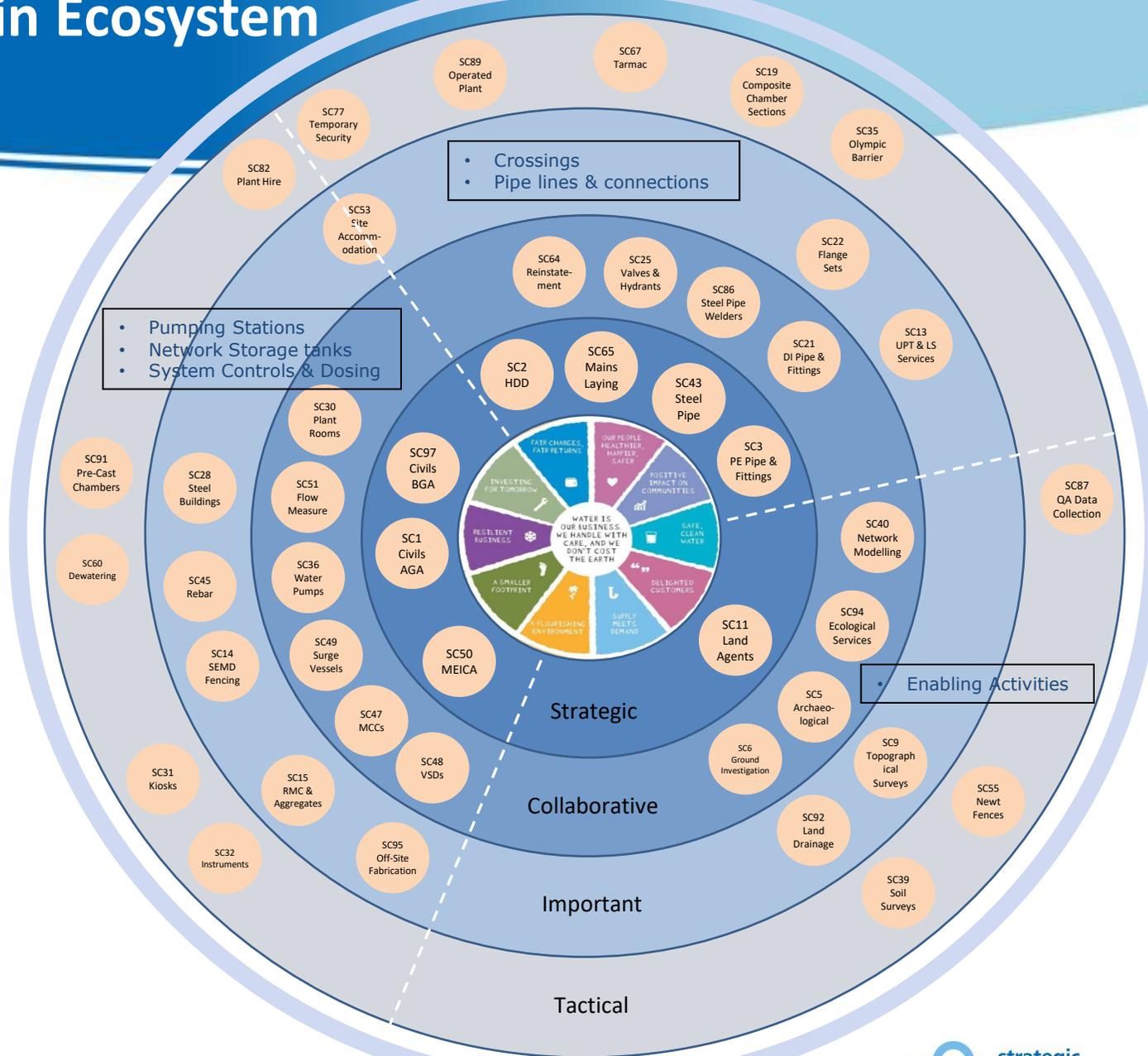
Duration - the ecosystem will improve performance over time. The longer it works the better it will get.



	NATURE OF RELATIONSHIP	COMMERCIAL ALIGNMENT	LEVEL OF INTEGRATION	STAGE OF INVOLVEMENT
INFLUENCE ON SPA OUTCOMES	STRATEGIC	Incentivised Model where: <ul style="list-style-type: none"> reward is linked to overall reduction in programme cost. risks/opportunities are collaboratively managed 	<ul style="list-style-type: none"> Key people are embedded and co-located with SPA. Supplier is involved in key processes through solution development, product development, production and assembly Full access to relevant demand and supply information. Supplier may be digitally integrated Supplier to Supplier relationships are supported and facilitated by SPA 	<ul style="list-style-type: none"> Early involvement during solution development Supplier likely to be formally engaged and compensated
	COLLABORATIVE	Incentivised Model where: <ul style="list-style-type: none"> reward is linked to overall reduction in programme cost or package cost risks/opportunities are collaboratively managed 	<ul style="list-style-type: none"> Key people may be embedded and co-located with SPA. Supplier is involved in key processes through solution development, product development, production and assembly Full access to relevant demand and supply information. Supplier may be digitally integrated Supplier to Supplier relationships may be supported and facilitated by SPA 	<ul style="list-style-type: none"> Early, pre-assembly, involvement Supplier likely to be formally engaged and compensated
	IMPORTANT	Incentivised Model where: <ul style="list-style-type: none"> reward is linked to overall reduction in package cost risks/opportunities may be collaboratively managed 	<ul style="list-style-type: none"> Key people may be embedded and co-located with SPA. Supplier may be involved in key processes through solution development, product development, production and assembly Supplier is provided access to relevant demand information. 	<ul style="list-style-type: none"> Early, pre assembly, involvement if required Supplier may be formally engaged and compensated
	TACTICAL	Cost Based Model where: <ul style="list-style-type: none"> risks/opportunities may be collaboratively managed 	<ul style="list-style-type: none"> Supplier may be involved in key processes through solution development, product development, production and assembly Supplier is provided access to relevant demand information. 	<ul style="list-style-type: none"> May be involved early, pre assembly, if required.



SPA Supply Chain Ecosystem



Digital Transformation

Digital Twin Roadmap 2019 - 2035

2019

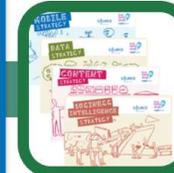
Outcomes and Decisions



Strategic Pipeline Integration



Proof of Concept



Existing Strategy Convergence

2025

Automated Lifecycle Planning



Enterprise Predictive Operations



Scale Across Our Assets



Digitally Enabled Physical Assets

2030

AI Controlled Assets



National Digital Twin Integration



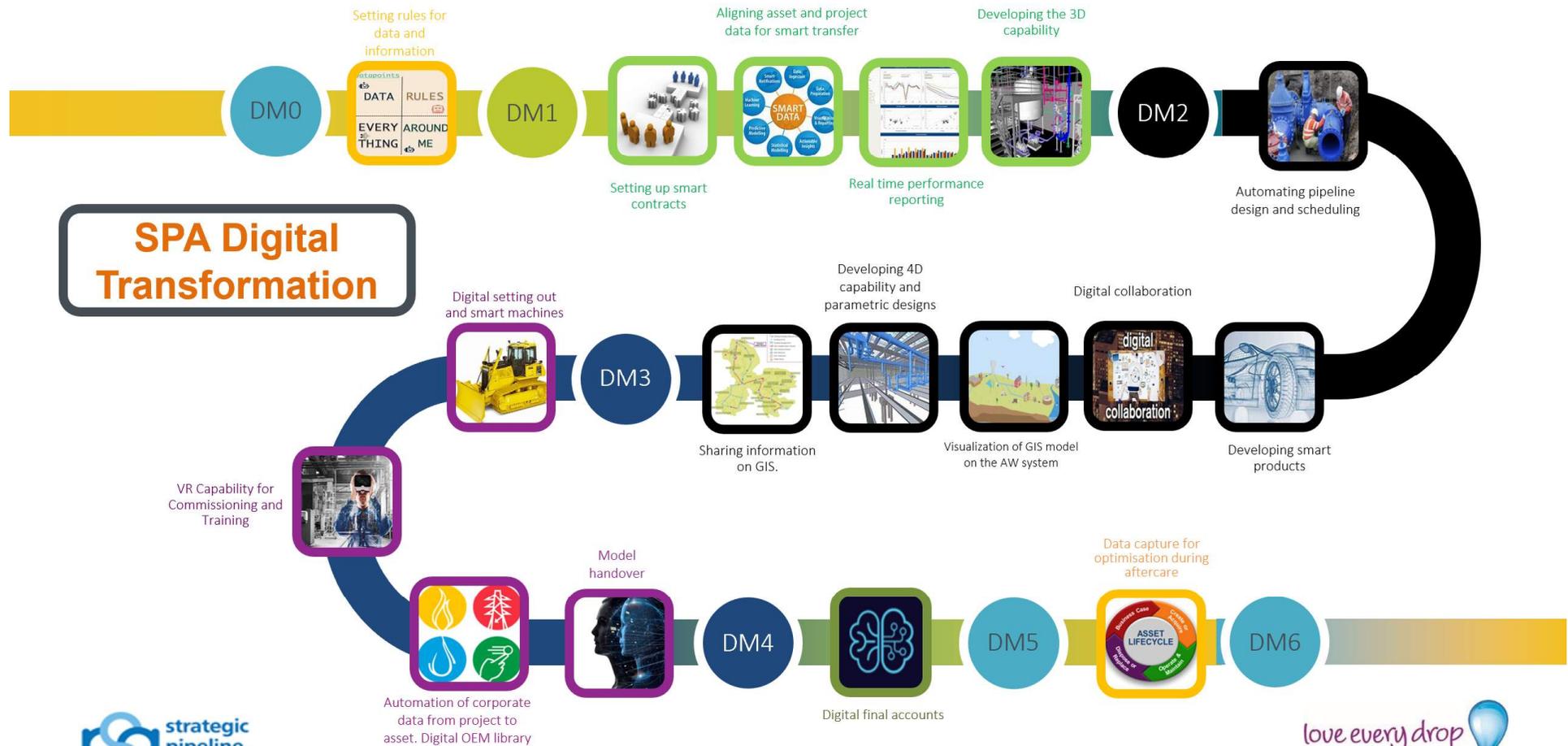
Adjoining Water Utility Integration



Multi-Utility Integration

2035

Digital Transformation



Digital Twin Delivery Key Components

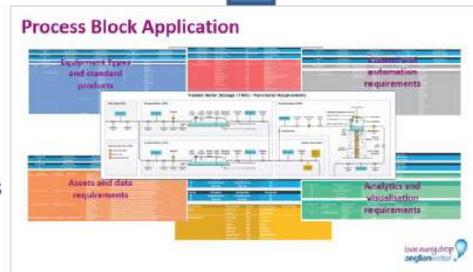


AW and Digital Twin Outcomes

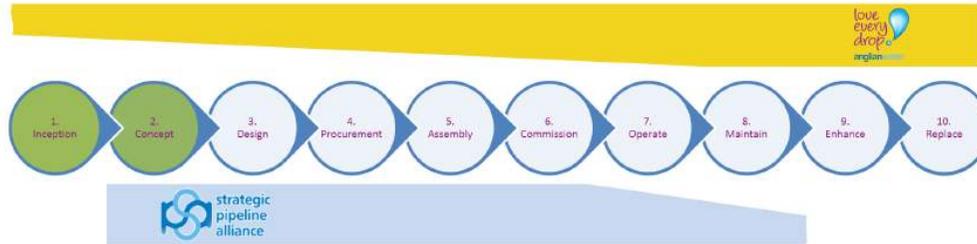


User Story benefits

enabled by... modular and repeatable application process



delivered through...



Lifecycle Activity Plan - Anglian Water

Phase	1	2	3	4	5	6	7	8	9	10
1. Inception	2. Concept	3. Design	4. Procurement	5. Assembly	6. Commission	7. Operate	8. Maintain	9. Enhance	10. Replace	

Lifecycle Activity Plan - SPA

Phase	1	2	3	4	5	6	7	8	9	10
1. Inception	2. Concept	3. Design	4. Procurement	5. Assembly	6. Commission	7. Operate	8. Maintain	9. Enhance	10. Replace	



Thank you



Any Questions

Deliberately Delivering Differently

Our Production Based Operating Model

