

SEVERN

TRENT

DIGITAL ACCELERATION IN WATER INVESTMENT



The current landscape

The water industry currently faces digital limitations rooted in traditional practices. However, a transformative shift is underway as the sector increasingly acknowledges the potential for digital solutions to revolutionise water management.

Despite challenges such as legacy systems and resistance to change, opportunities for modernisation are emerging, driven by the recognition that digital transformation can enhance operational efficiency, enable sustainable resource management, and address evolving regulatory requirements.

As we approach AMP8, we find ourselves at the threshold of a digital evolution, poised to embrace technological advancements for a more resilient and agile future in water management.

Where we started...

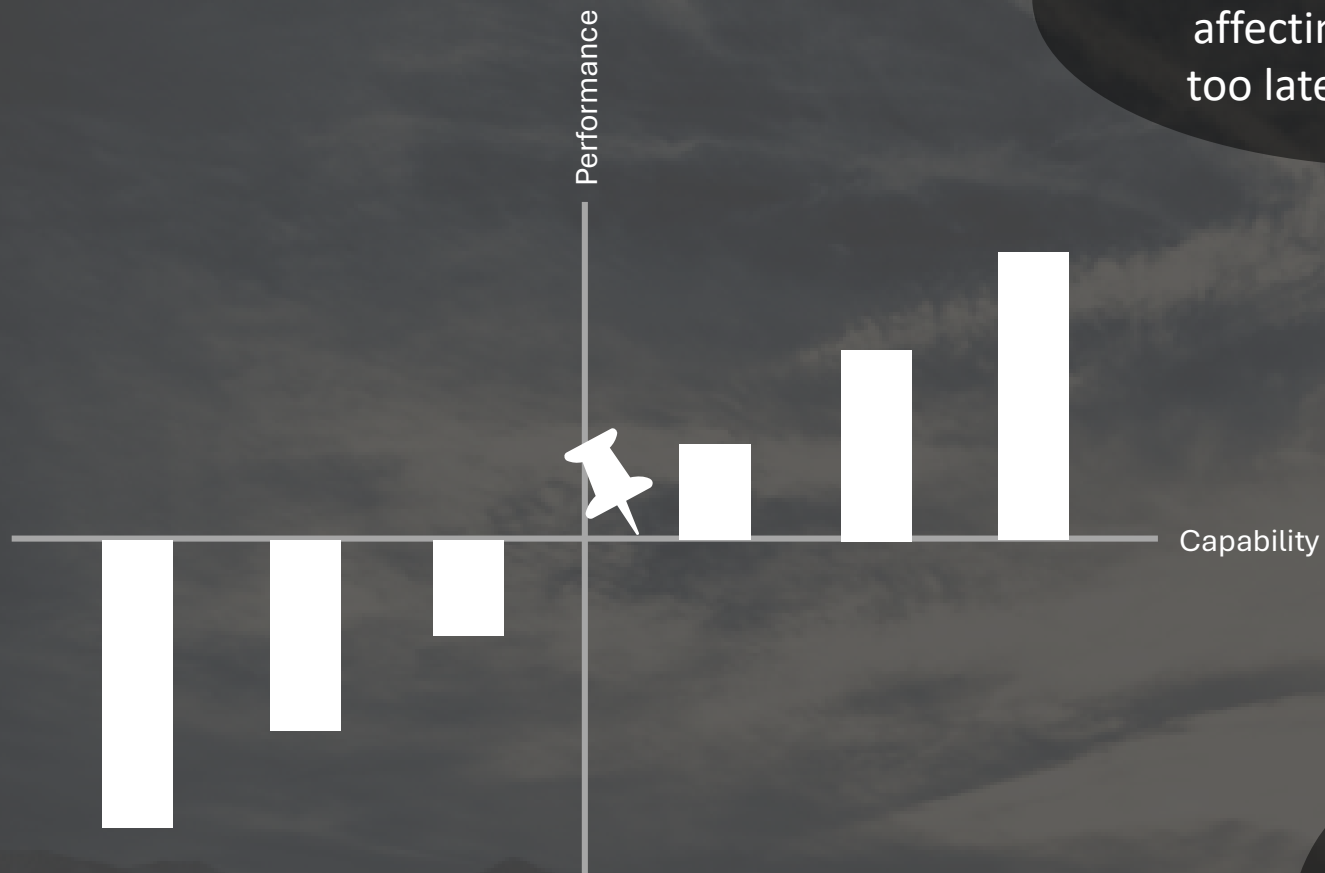
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What our teams told us



“we often identify issues affecting deliverability too late in the project”

“we start every project from scratch because we can't find existing documents to reuse”

“the information we need is split across lots of disparate systems”

“we find ourselves doing design rework as new information is received”

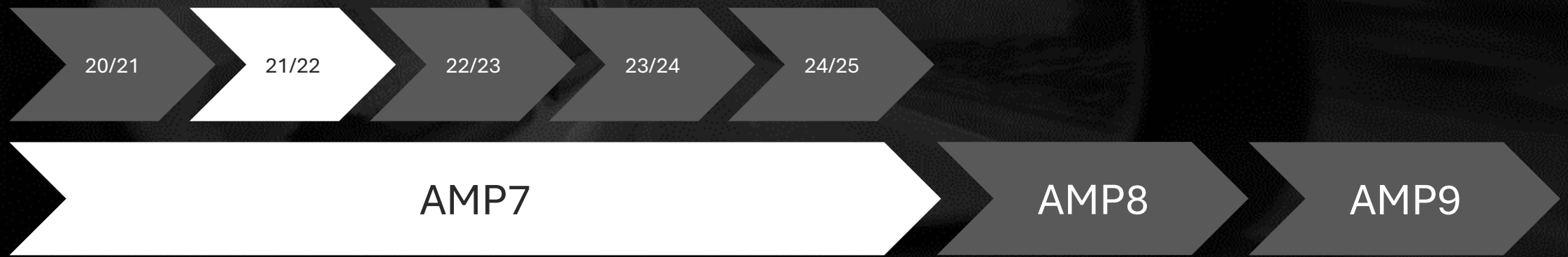
“we have trouble sharing information with our contractors which can add delays”

Summer 2021 - We were not even on the pitch

STW Digital Design Capabilities
"2/10"

- Multiple challenges with IT infrastructure including:
- Redundant software versions
 - Excruciatingly slow applications
 - Multiple platforms with limited integration
 - Manual data editing and transfer

- Low productivity
- Low efficiency
- Low engagement



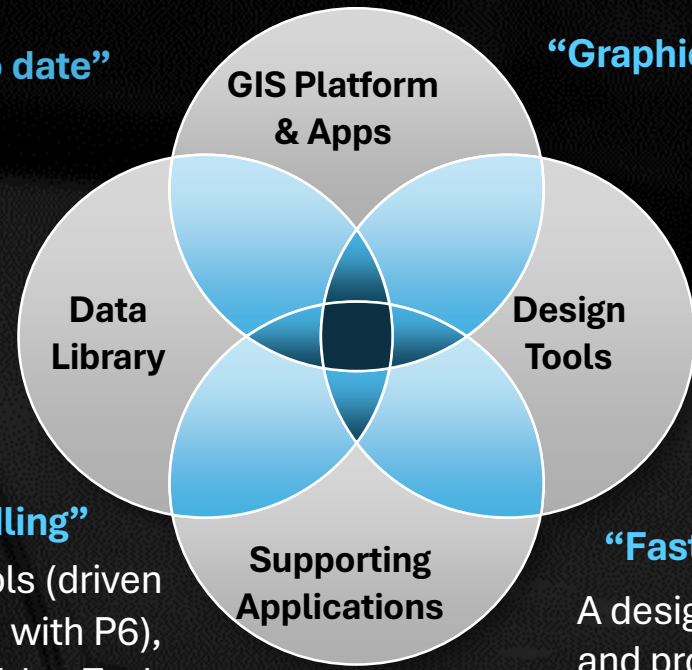
End of 2022 - Digital Design Strategy

“One version of the truth, always up to date”

Holds design components plus associated modelling, costing and scheduling information. Data repository for `as is` for existing sites and all in-flight design

“Graphical data in one place, quickly & easily accessible”

GISST plus the repository for all topological, geotechnical and cloud-point datasets
MAPInfo and ArcGIS Apps

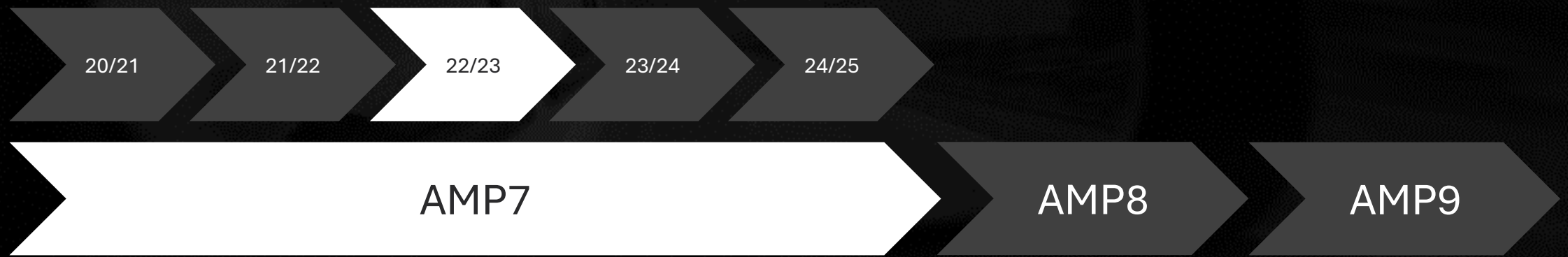


“Integrated systems, reducing manual handling”

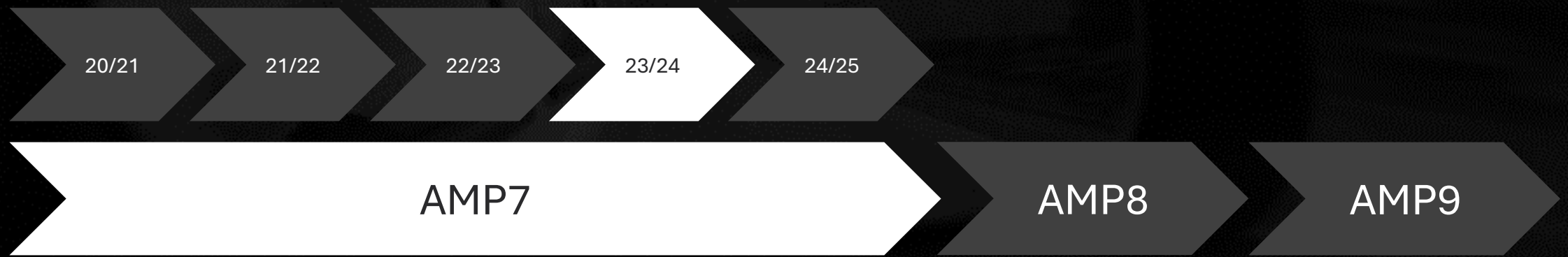
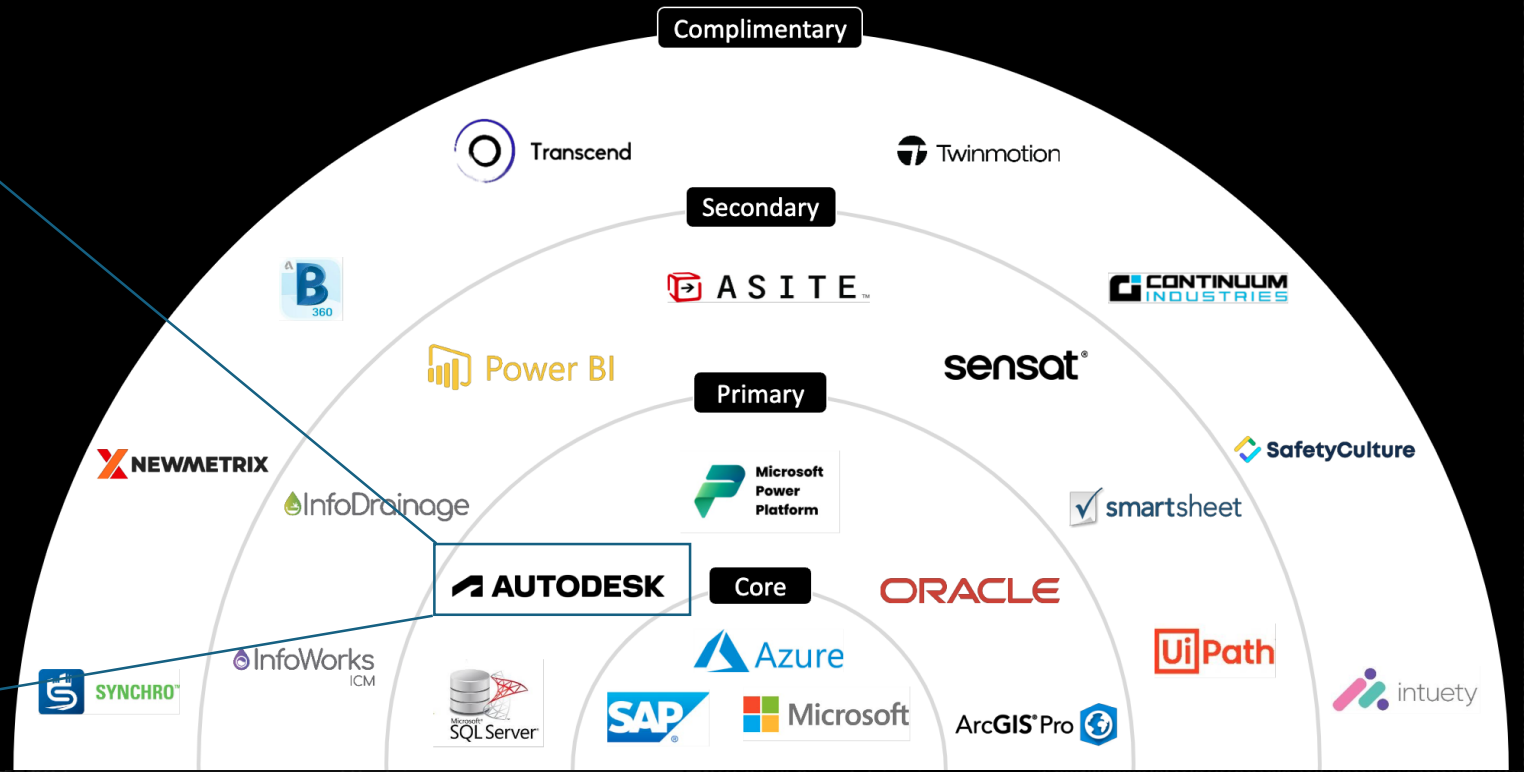
Estimation and schedule generation tools (driven off Design tool datasets - integrated with P6), Carbon calculator and Total Value Tool

“Fast design tools which seamlessly interact”

A design sketchpad, BIM360 environment and process modelling tools all of which can exchange datasets



2023 – Establishing Primary Systems





Introducing Our Vision for AMP8

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Guaranteed by Design

Our ambition is to unlock unprecedented **efficiency**, accelerate our **pace**, and systematically **reduce risk**

We wish to lead the evolution of capital through transformative **digital solutions** with the **golden thread of information** fostering a dynamic ecosystem where **AI** is ubiquitous.

We want to get to a place where constructability, affordability and performance of our projects is **Guaranteed by Design**.

NEW DIGITAL STRATEGY

Powered by **COLLABORATION**

Streamlining teams by getting everyone on the same page

Driven by **DATA**

Helping our teams make more informed decisions and creating a digital thread across the whole asset life

Enabled by **AUTOMATION**

Combining our expertise with artificial intelligence to move faster

AMP7

AMP8

AMP9

TRANSFORMATION ROADMAP

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- Information Framework
- CDE (Common Data Environment)
- AR / VR

- Digitalisation of asset information
- Digital Project Portfolio Management
- AI based risk validation

START



NEXT

- Automated Optioneering
- Digital Content Library
- GeoBIM – GIS Refresh

- Carbon and BNG modelling
- Centralised 2D & 3D Takeoffs
- Low code / No code apps

December 2024

June 2025

FUTURE

- Generative Design
- Digital Commissioning and handover
- AI based Asset optimisation
- Hyperautomation
- Guaranteed by design

- 4D BIM – Scheduling info in models
- Predictive risk management through GenAI
- Digital Product Design (PLM – P&P)

- Digital Twin
- Robotic Process Automation
- Custom APIs

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BENEFITS OF DIGITAL



Powered by Collaboration

Using **ACC** we are now seeing huge improvements in:

Design Reviews → **150%** faster
3D Coord → **635%** faster
Data Access → **220%** faster

Co-working now being coordinated from within ACC (meetings, decisions and actions are now real-time)

Driven by Data

Using new graphical solutions, we can gather information faster and earlier, gain sign from Operations and validate 'buildability' with our contractors from the start



70% faster site starts

Enabled by Automation

Generative design tools, combined with improved in-house capabilities are enabling us to revolutionise our long-standing technical sign on processes



60% quicker design

WHERE NEXT?



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