



# Driving Performance : Building from a Legacy PI System to the Full Power of OSIsoft Solutions

Southern Water, UK



# Southern Water

Bringing new value from a legacy PI System by exploiting the full power of OSIsoft solutions



## CHALLENGE

- Long-term use of the PI System simply as a “bucket of historical time-series data”
- Manually intensive data interpretation and manipulation by system “experts”

## SOLUTION

- To exploit the core components of OSIsoft “that we have already through our licence!”
- Treat the PI System as a business critical resource to drive day-to-day operational performance

## RESULTS

- Automated detection and classification of events
- Improved data consistency whilst maintaining flexibility to adjust
- An invaluable source of data to drive improved operational performance across our Water and Waste businesses

# About Southern Water

One of the UK's largest water and wastewater companies,  
Supplying over 500 million litres of drinking water every day

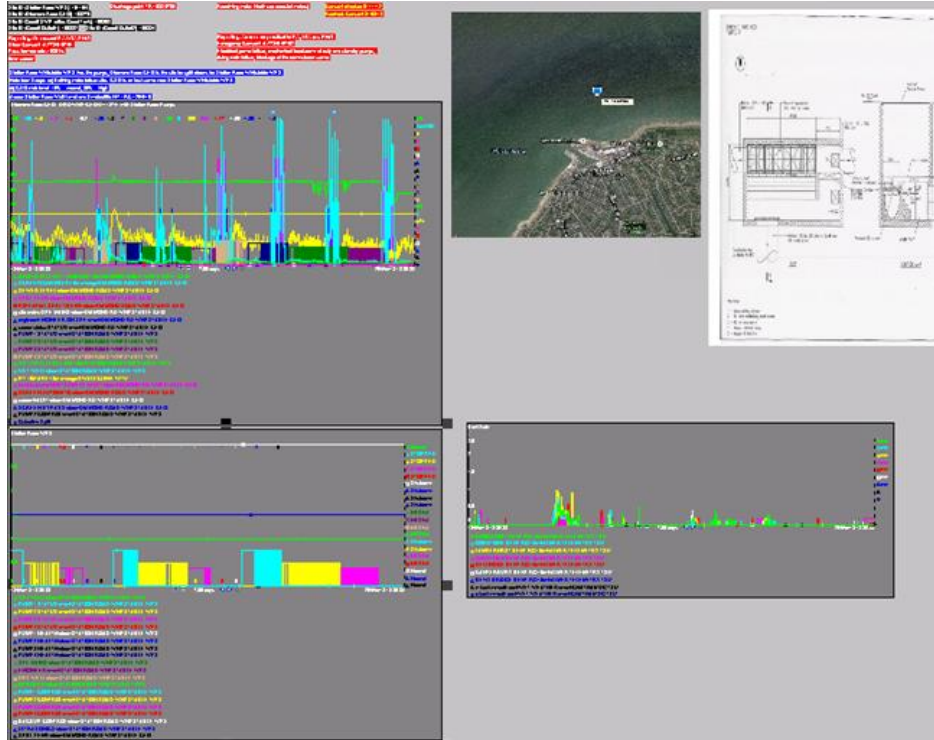
83 water treatment works  
13,837 km of water mains

365 sewerage treatment works  
2,375 sewerage pumping station  
39,600 km of sewers

Operational supply area  
of 10,530 km<sup>2</sup>

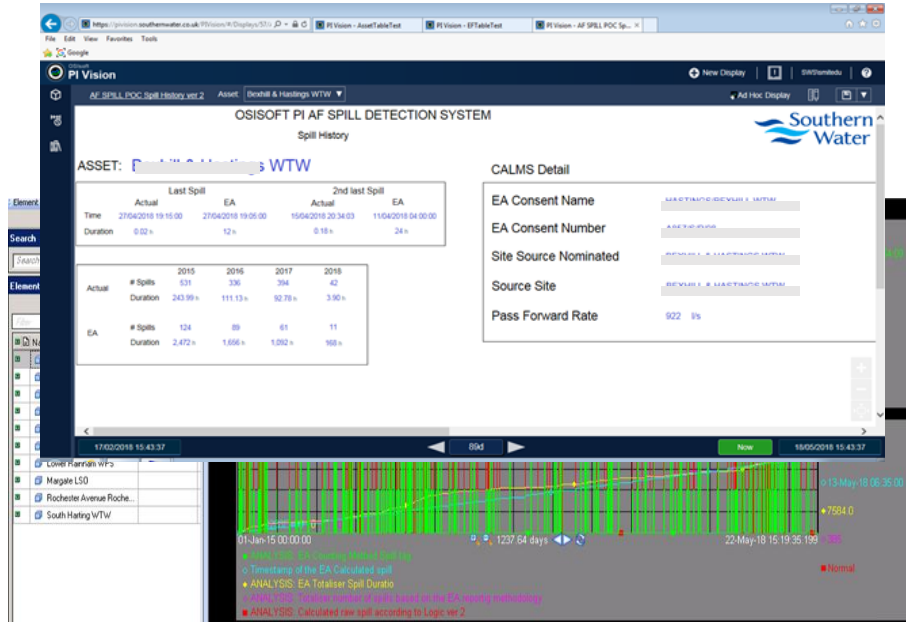


# Legacy Approach to Operational Analytics



- Time consuming, manual interpretation
- Risk of inconsistency leads to multiple layers of supervisor checks
- Reactive : Post event reporting
- Mysterious domain of PI Experts ...

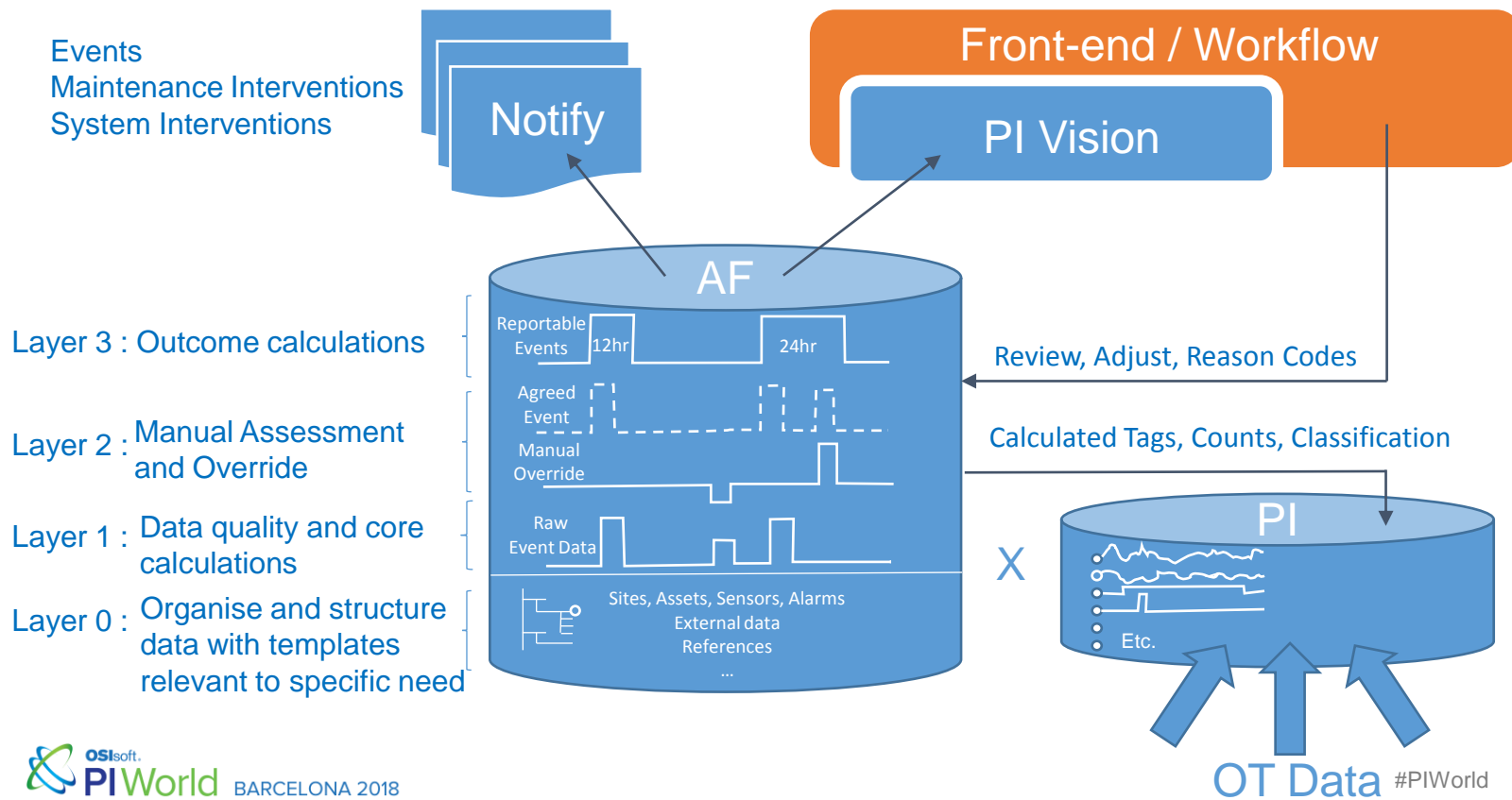
# A New Way of Working



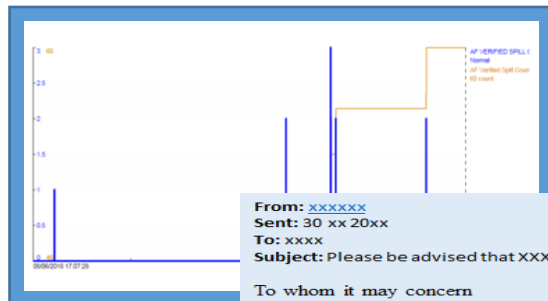
- Automatic detection and classification of events
- Consistent results whilst maintaining flexibility to adjust based on operational judgement
- Potential to move from REACTIVE to PROACTIVE operational performance

*We have discovered an invaluable source of data that will drive operational performance across our businesses!*

# Solution Overview – Layered use of PI-AF



# Exploiting Standard OS/soft tools : already in the licence!



Please be aware that the asset listed above made a release at 30/xx/20xx 11:28:35 GMT Standard Time (GMT00:00:00)  
The following details are provided:

Permit Reference: AXXXX / 2

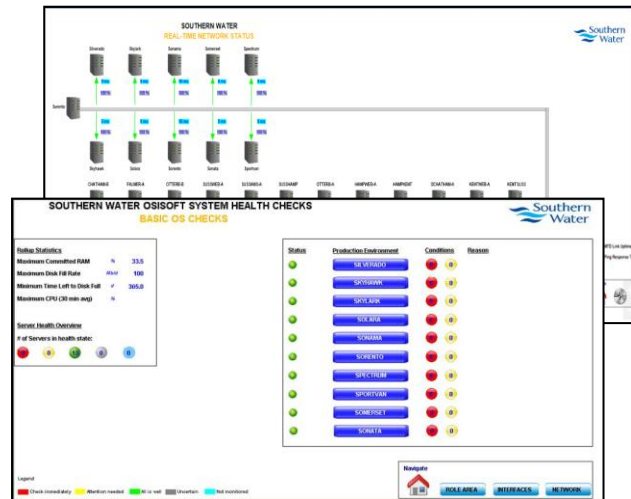
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Pass forward rate at start: 187

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Duration	0.44 h	0.25 h

	2015	2016	2017	2018
			14	17
		3 h	18.60 h	15.95 h



- PI-AF, Event Frames, Notifications, Manual Logger Validation, etc.
- Asset View : multi-site performance insights, element relative displays
- System Monitor : using PI Vision to manage data chains across the real-time infrastructure



# Next Steps – Expanding the Value

The majority of our key operational and regulatory outcome measures are influenced by time series data ...

Therefore, the PI System is a critical solution for driving our success.





# Summary

**Our legacy PI System contains a rich source of data ...**

**... we are exploiting this through PI-AF and other components to help transform to a *new way of working***

## **“Layered” approach to deploying PI-AF**

- *Organise into data structures*
- *Data into Insights via layers of calculations*
- *Manual over-rides to enable flexibility and adjustment*

## **The PI System is becoming a business critical resource**

- *System monitoring and data chain governance are critical for success*

# Contact Information



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# Questions?

Please wait for  
the **microphone**

State your  
**name & company**



# Please rate this session in the mobile app!



THANK YOU

OSIsoft. PIWorld

謝謝 KEA LEBONA  
TAPADH LEIBH 고맙습니다  
BAЯPЛAЛAA MISAOTRA ANAO  
DZIĘKUJĘ CI NGIYABONGA TEŞEKKÜR EDERIM GRACIES  
OBRIGADO شڪرا  
DANKON TANK TAPADH LEAT SALAMAT  
DANKIE TERIMA KASIH  
KÖSZÖNÖM  
СПАСИБО  
PAKMET CIZGE  
GO RAIBH MAITH AGAT  
БЛАГОДАРЯ GRACIAS  
ТИ БЛАГОДАРАМ MAHADSANID  
TAK DANKE  
RAHMAT MERCI  
HATUR NUHUN  
CẢM ƠN BẠN  
WAZVIITA  
FALEMINDERIT  
DANK JE ΕΥΧΑΡΙΣΤΩ GRATIAS TIBI  
AČIŲ SALAMAT MAHALO IĀ 'OE TAKK SKALDU HA  
GRAZZI PAKKA PĒR  
PAXMAT CAĞA  
SIPAS JI WERE TERIMA KASIH  
UA TSAUG RAU KOJ  
ТИ БЛАГОДАРАМ  
СИПОС  
MULTUMESC  
FAAFETAİ  
ESKERRIK ASKO  
HVALA ХВАЛА ВАМ  
TEŞEKKÜR EDERIM  
HVALA  
DZЯKYI  
DI OU MÈSI  
ĐAKUJEM  
MATUR NUWUN