



UIC Asset Management Global Conference 2015

**Asset Age No Longer Matters – It is the rate
of ageing that dictates**

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*Putting your assets
on the right track*



Who Am I?

- Asset Director of Costain Engineering
- Costain a listed UK infrastructure company
- Engineering solutions through the full asset life cycle of Design/Construction/O&M
- Active across the Rail/Water/Highways/Oil & Gas/Power sectors



The Client In Question

- Oil and Pipelines Agency (OPA)
- Government Agency of the Ministry Of Defence (MOD)
- Storage and distribution of aviation fuel to every UK airport
- Recently privatised to Spanish company CLH



The Asset In Question

- 2500 km of pipelines and storage capacity throughout the UK and linking all airports
- Built in 1939 at start of 2nd World War
- Only invested in at times of crisis
- 10% only of military use currently



The Problem

- Total lack of investment in a 60 year old asset
- Little or no knowledge of assets and condition
- “If not broken, do not fix it” attitude
- Extensive backlog maintenance and defects
- Health & Safety Executive threat of closure

The Solution

- Whole life age is no longer relevant
- Risk assess the whole system for critical points
- Measure condition of asset at critical points
- Assess rate of ageing since construction
- Establish remaining life of asset and extrapolate across whole system



The Science

- Risk based assessment to API 570
- Isometrics produced of pipeline system
- Expose pipe at critical points
- Undertake Spot/Long Range Ultrasonic tests
- Extrapolate whole system from results

Some Interesting Points

- The extent we over designed previously
- Just how good our 60 year old assets were
- Defects confirmed as poor installation or physical damage, not through ageing process
- But we now have the proven evidence
- Commended by the HSE as the way forward



The Future Is Ageing

- Life cycle replacement was never cost effective
- Condition Based Maintenance is the future
- Remote monitoring through sensors
- Need for automated diagnostic coefficients
- A transformation in Asset Management