



UIC Asset Management Global Conference 2015

Asset Rationalization in Iarnród Éireann

**Jude Carey – Head of Infrastructure Finance
Iarnród Éireann
Session 1 – 12 October**

*Putting your assets
on the right track*



Jude Carey

- Head of Finance & IT for Infrastructure
- Lead on Commercial Asset Management
- 8 Years in Irish Rail, initially in the CME (Fleet Maintenance) and last 5 years in Infrastructure
- Member of the UIC Asset Management Working Group since 2011



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Each week:

4,300 train services run

726,000 passengers carried

638 carriages in our fleet

144 stations served countrywide

2,400 kilometres in our network

325,000 kilometres travelled

Asset	Unit	NETWORK TOTAL
Track	KM	2,400
Bridges	No.	5,092
P&C	No.	1,250
Fencing	KM	4,000
Level Crossings	No.	2,000

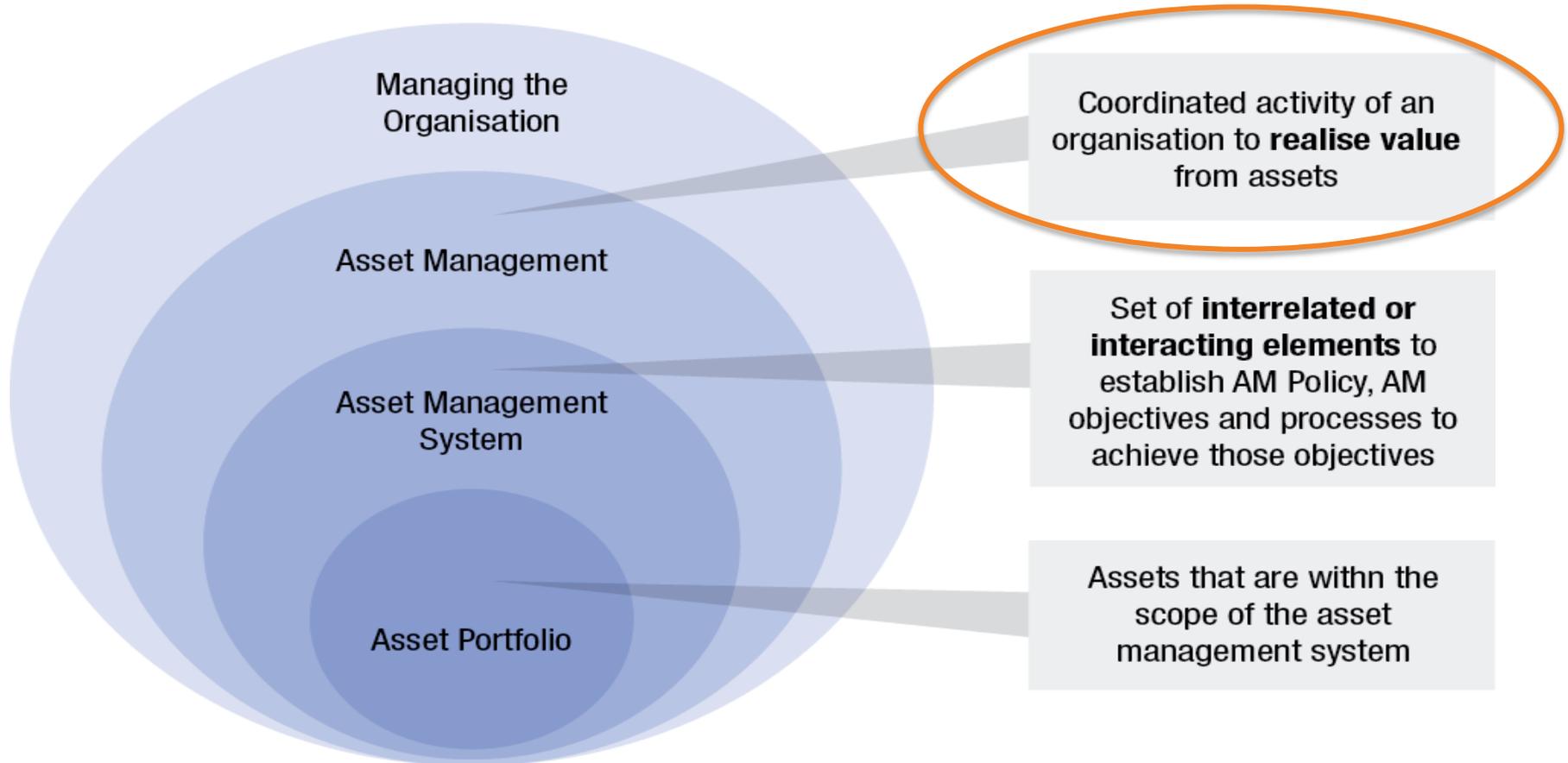


Iarnród Éireann
Irish Rail



ISO 55000 – focus on value

Relationship between key terms



S&C



Benchmarking confirms this is second highest driver of cost in European Rail Infrastructure

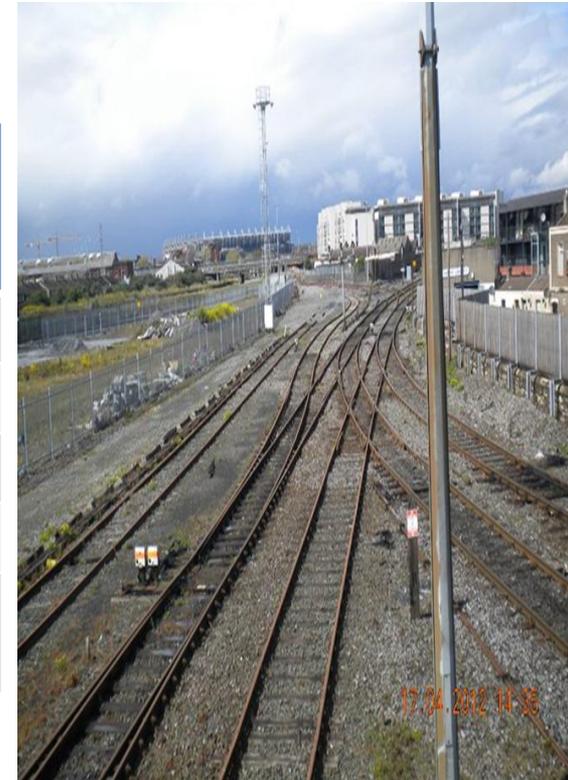
- More complex signalling
- Specialised Tamper
- Expensive to renew compared to plain line
- Requires 4 inspections per year

The Business Case

Description	Option 1 Do nothing	Option 2 Replace like for like	Option 3 Rationalise
Civils	€198,252	€2,100,000	€909,981
Signalling	€90,000	€500,000	€101,500
Operations	€129,510	€129,510	€0
Savings	€0	€0	€374,999
Pay back period	N/A	N/A	2.7

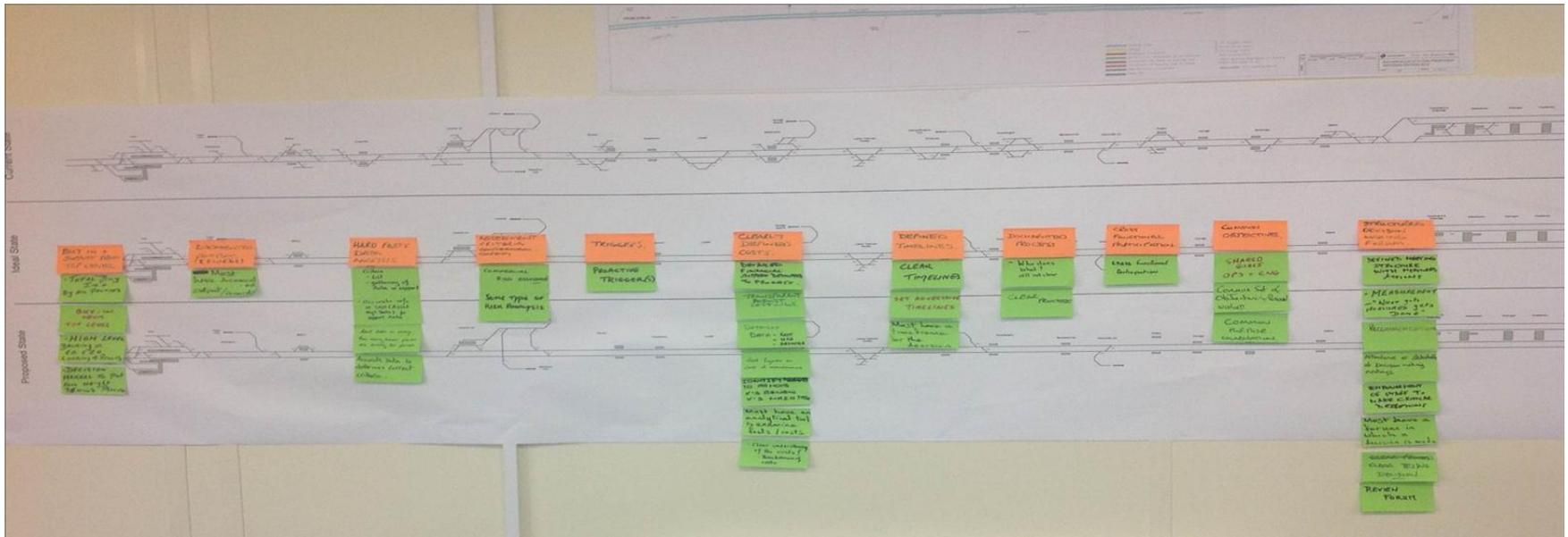
- Annual cost of €417k to maintain the existing state
- Investment of €2.6m to renew like for like
- Investment of €1m assets removed and signal cabin closed. Pay back in 2.7 years with an average operational saving of €375k per year

But it is not a saving to the operator's budget

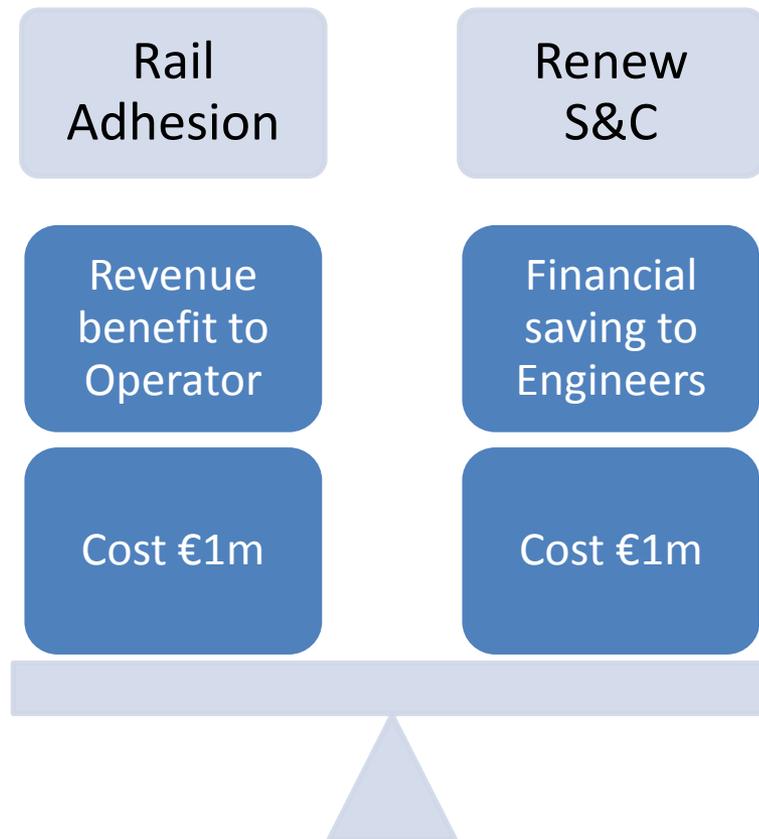


Kaizen - Analyse Future State

We redesigned our key intercity route Dublin to Cork as a new route with S&C as appropriate and then compared it to the current map. This challenged the rationale for existing S&C not on the redesigned route



What might Value mean in practice?



As part of my
planning
process I have
to allocated
my last €1m

Assessing Value for differing activities

	Cost	Risk		Performance				Potential Metric
		Safety	Commercial	Delay Minutes Saved	Punctuality	Passengers impacted	Savings per annum	
Renew S&C	€€m	Risk Reduced by Plain Line	Delay Risk increases slightly for recovery on a vehicle break down especially loco's but offset by reduced risk of points failures	15 minutes increase	One train late every two years	1000 (one train once every 2 years for 30 minutes)	€144k per annum	Cost to save a delay minute per passenger
Increased Rail Adhesion Spend (incl De-greening, Rail / Vehicle Sand Deliver)	€€m	Risk Reduces re SPADs, platform overrun, track circuit issues.	Reduced customers delays.Press profile	Significant	Improved	37.8m journey annually. Say 2 months is 6.3m passengers affected.	Wheel Flats, Damage to Rail reducing its life.	Cost to save a delay minute per passenger



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Cost over 30 years of a S&C

Capital Cost	350,000
Annual Maintenance	<u>450,000</u>
Total Life Cost	<u>800,000</u>

Used once very	Cost to save train quicker
10 Years	266,667
3 Years	80,000
2 Years	53,333
1 Years	26,667

How often
should a switch
be used to
represent value



The Outcome

11% of the Switch population, have been identified and agreed as possible for rationalising.

The average civils annual saving over 30 years is €2.1m per annum or 0.84% of steady state cost.



The Outcome

And spent the savings on LRA in
the following year

Items for our success

Critical

- Leadership

Key

- A sense of value as set out in the Asset Management Framework
- Move from Loco haul to DMU significantly reducing the need to recover trains
- Developing a common understanding of the Case for Change (facilitated by the Kaizen)
- Impartial Process

**If an asset does not realise value
then why do we install and
maintain it**



And finally, because
I am a Commercial
Finance person



Asset Management going forward will be more than an engineer's domain

Asset Management is about getting the desired value required from the asset and not just about maintaining the best assets to a minimum safety standard.

We need to bring together the constraints of both Finance and Engineering.

Asset Management going forward will be more than an engineer's domain

Asset Management is about getting the desired value required from the asset and not just about maintaining the best assets to a minimum safety standard.

- **Are you developing leadership skills and competencies in Commercial Finance?**
- **Could you recruit a Commercial Finance leader?**



**Thank You
and
Questions**