

# MAIN LINE

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## Workshop targeted to Central and Eastern Europe

Budapest, Hungary  
15 May 2014



*This project is co-funded  
by the European Commission with the FP7*

# Agenda Thursday 15 May

## 15/05/14 – Public Workshop

09:00	<i>Welcome/coffee</i>	
09:30	<b>Introduction</b>	Björn Paulsson, UIC/Trafikverket
09:45	<b>The role of LCAT in asset management</b>	David Castlo, Network Rail Justin LeBlanc, SKM
10:15	<b>Asset degradation &amp; intervention strategies</b>	Marios Chryssanthopoulos, University of Surrey
10:45	<i>Break</i>	
11:15	<b>Methods to extend life of assets</b>	Lennart Elfgren, Luleå University of Technology
12:00	<b>Q&amp;A</b>	
12:15	<i>Lunch</i>	
13:15	<b>Replacement of assets</b>	Britta Schewe, Deutsche Bahn
13:45	<b>Degradation monitoring: gaps &amp; opportunities Case study presentation</b>	Polyvios Polyviou, TWI Zoltán ORBÁN, University of Pécs
14:30	<b>Demonstration of the LCAT</b>	Justin LeBlanc, SKM
15:30	<b>Q&amp;A</b>	
15:45	<b>Feedback and conclusions</b>	Björn Paulsson, UIC/Trafikverket
16:00	<i>Break – end of workshop</i>	
16:30	<b>Advisory Committee meeting</b>	AC + EB members
18:00	<i>End of meeting</i>	

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# THE ROLE OF LCAT IN ASSET MANAGEMENT

# Content

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- What is asset management?
- Why is asset management important?
- What is the LCAT?
- How will the LCAT help me?
- How does the LCAT work?

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# WHAT IS ASSET MANAGEMENT?

# What is asset management?

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- Asset Management is:  
« *The coordinated activities of an organisation to realise value from physical assets* »

Definition from International Standard ISO 55000.



# What is asset management?



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# **WHY IS ASSET MANAGEMENT IMPORTANT?**



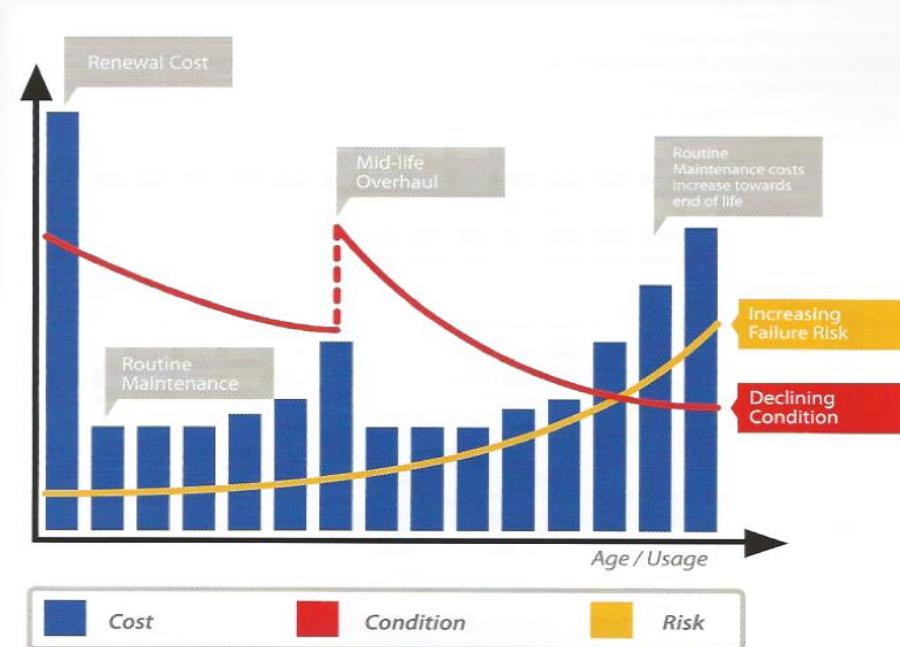
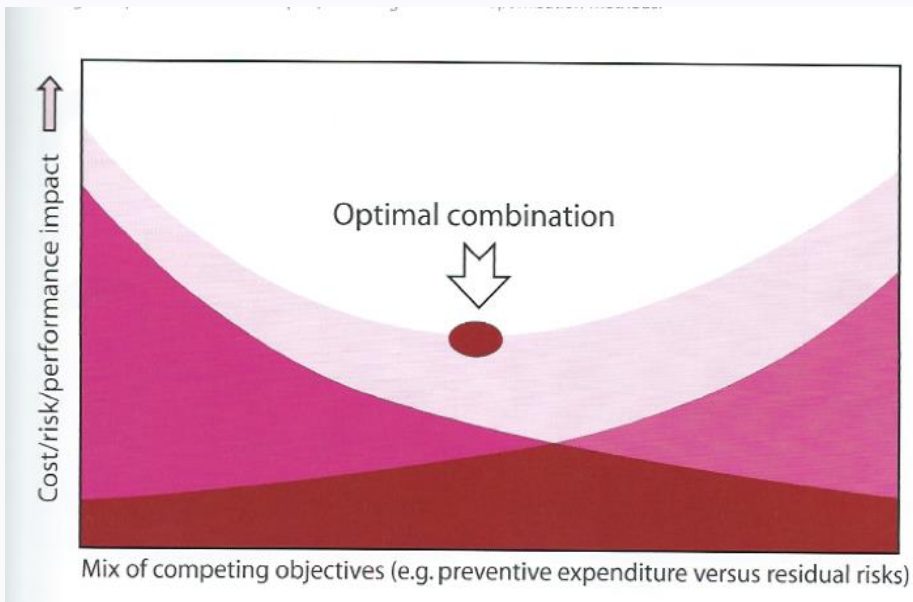
# Why is asset management important?

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- Less funding is available for railways due to the European recession.
- Asset Management will help Infrastructure Managers to:
  - Prioritise and justify works
  - Spend efficiently
  - Coordinate access/posessions
  - Define levels of safety and service

# Why is asset management important?

- Asset management will help to prove:
  - Value for money
  - Financial sustainability



# Why is asset management important?

- Asset management helps define minimum condition levels and safety limits based on engineering knowledge and experience



# WHAT IS THE LCAT?

# What is the LCAT?

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The Life Cycle Assessment Tool (LCAT) can compare different maintenance/replacement strategies for track and infrastructure based on a life cycle evaluation.

The evaluation quantifies:

- Direct economic costs
- Availability (delay costs / user cost)
- Environmental impact costs

# What is the LCAT?

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- It uses Microsoft Excel as this is familiar software.
- Flexible to suit different users across Europe.
- Can be adapted to suit different working practices.

# What is the LCAT?



Soil Cuttings



Track



Metal Bridges

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# HOW WILL THE LCAT HELP ME?



# How will the LCAT help me?

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## Financial Savings

- If a 5% reduction in whole life cost could be achieved through better decision making by using the LCAT; for bridges alone, a benefit of 250M€ could be realised across Europe.

## Gives evidence / justification to decisions as the LCAT:

- Uses degradation data gathered from across Europe.
- Clearly displays trade-off between condition and financial costs.
- Shows environmental impact of a scheme.

# HOW DOES THE LCAT WORK?

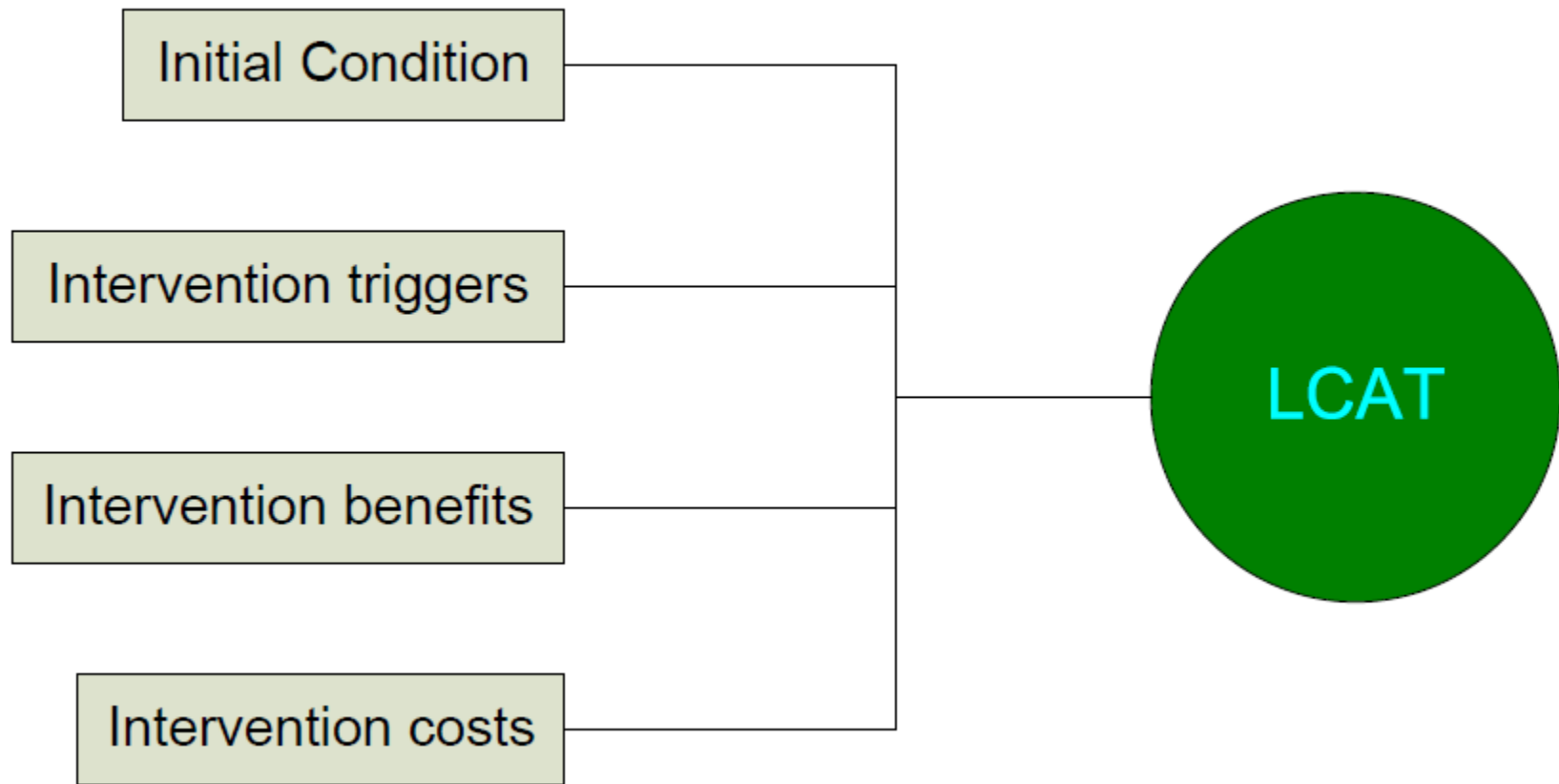
# How does the LCAT work?

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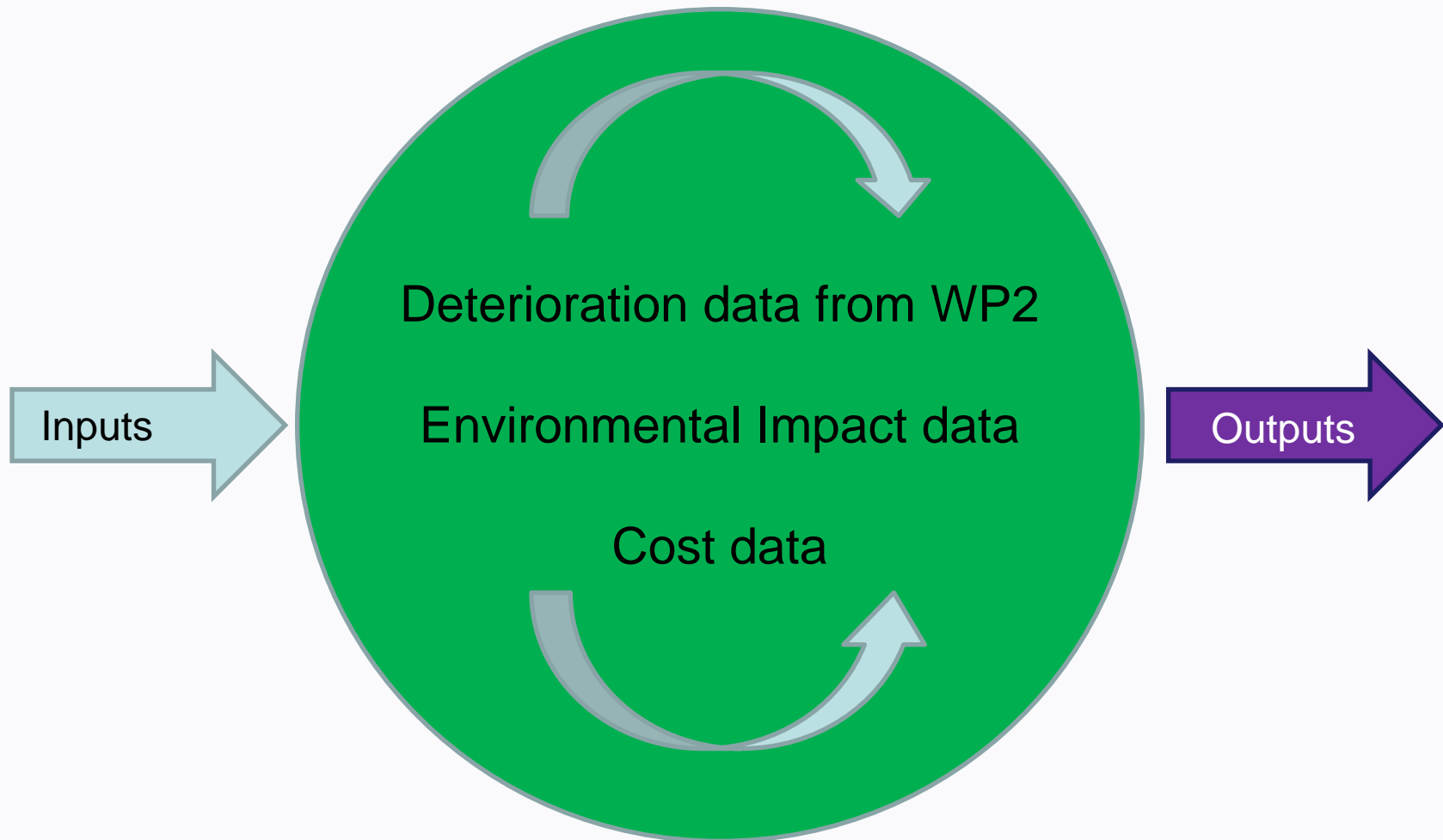
The LCAT uses the outputs from the other MAINLINE work packages and data from Infrastructure Managers. This is essential to validate:

- Degradation rates
- Disruption costs
- Techniques for life extension and monitoring
- Methods for replacement
- Environmental impact

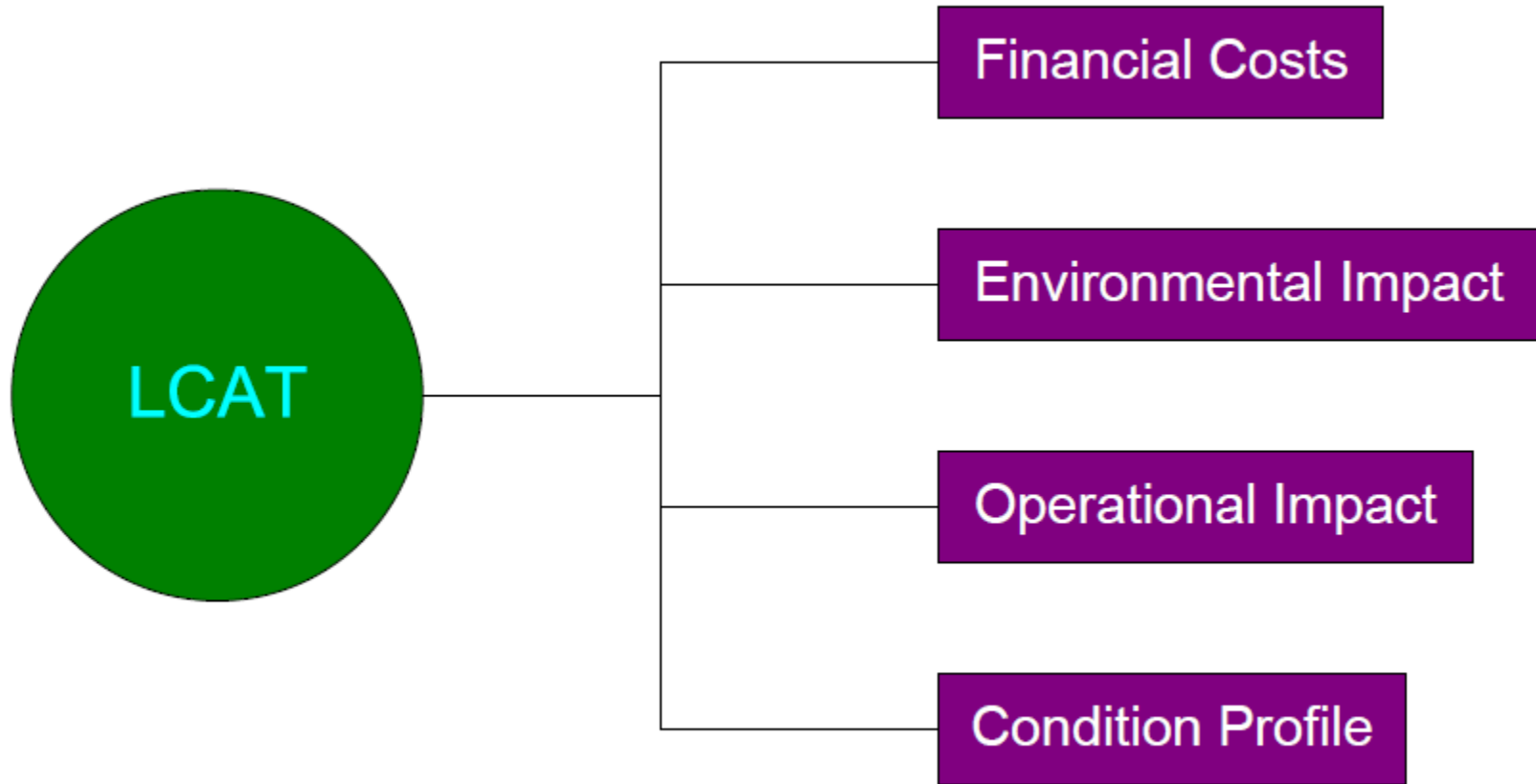
# LCAT – Inputs



# LCAT – Processing



# LCAT – Outputs



# How does the LCAT work?

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The LCAT will be demonstrated this afternoon.

The next presentation on “Asset degradation and intervention strategies” begins to show how all these elements tie together....

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Thank you !



