

Asset Management

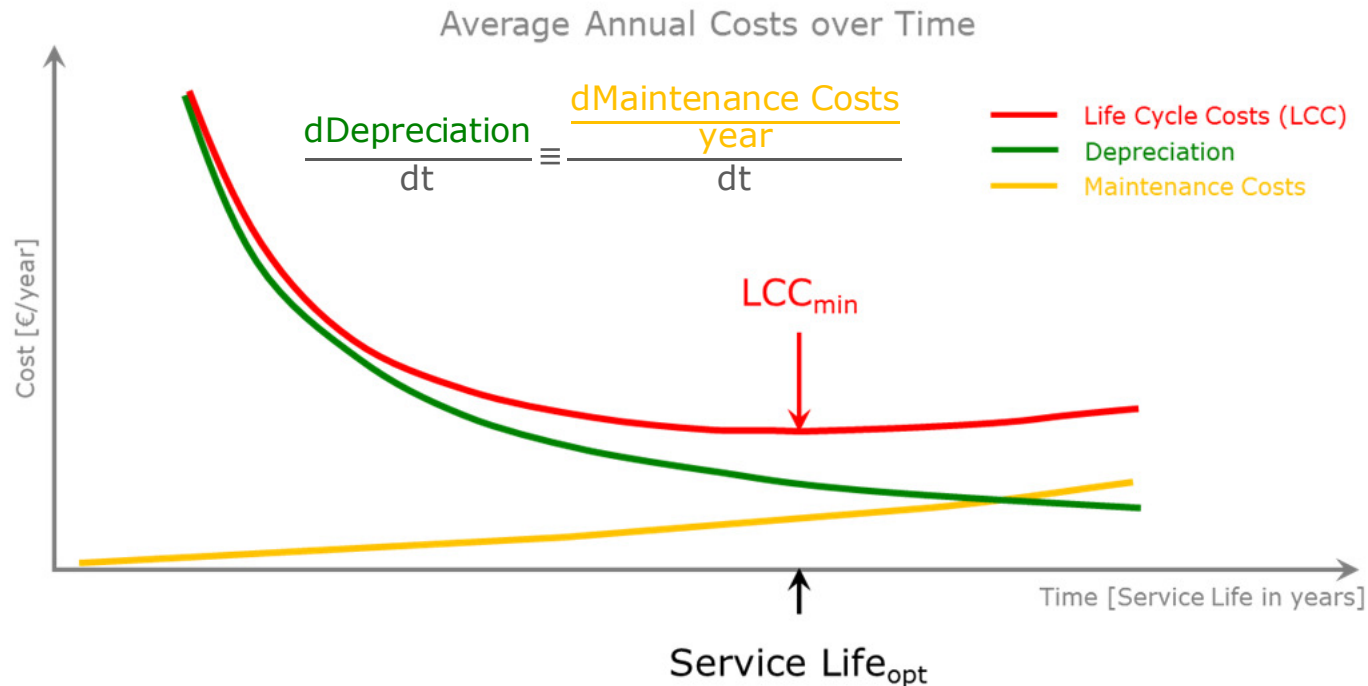
Assoc.Prof. Dipl.-Ing. Dr. techn. **Stefan Marschnig**
jÖVG Anlagenmanagement Infrastruktur
Wien, 18.06.2018

Asset Management – Ensuring highest Value for Money

Value = constant → Ensure the lowest Cost

↙ on a long term!

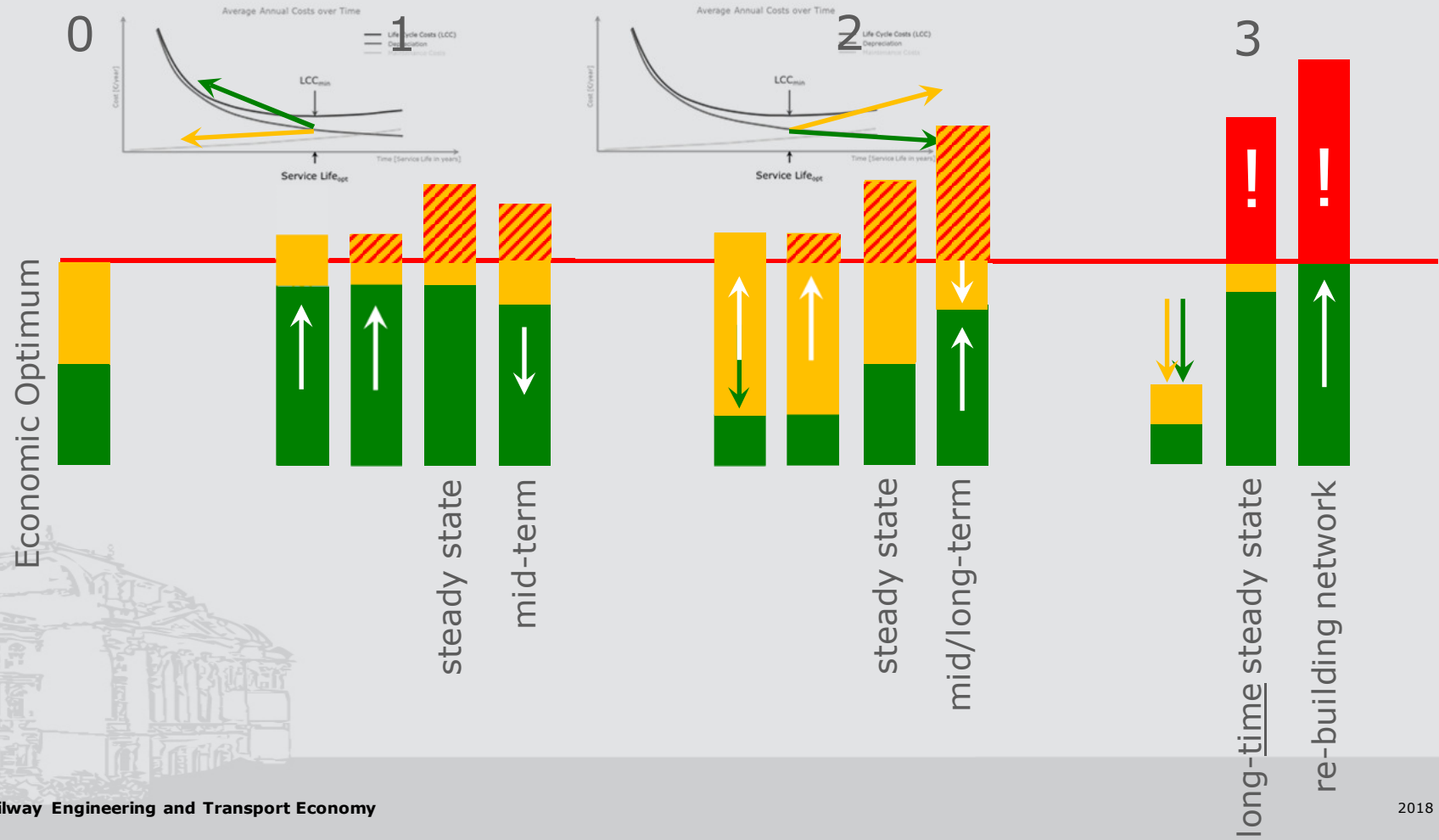
↘ Life Cycle Costs



Scenario

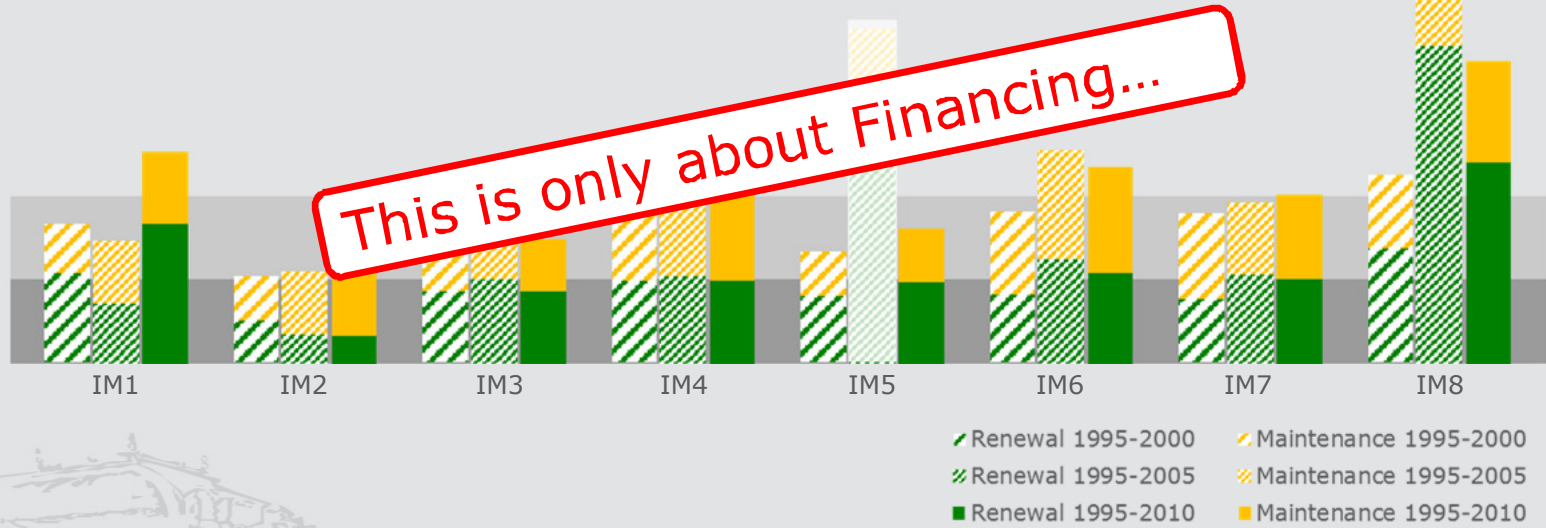
0 Short-term Savings:
Reduce Maintenance

2 Short-term Savings:
Reduce Renewals



Real World?

1/3 second stage 2/3 early stage 1 early stage 0 2 second stage 0 0 3 steady state



Based on LICB Data of UIC

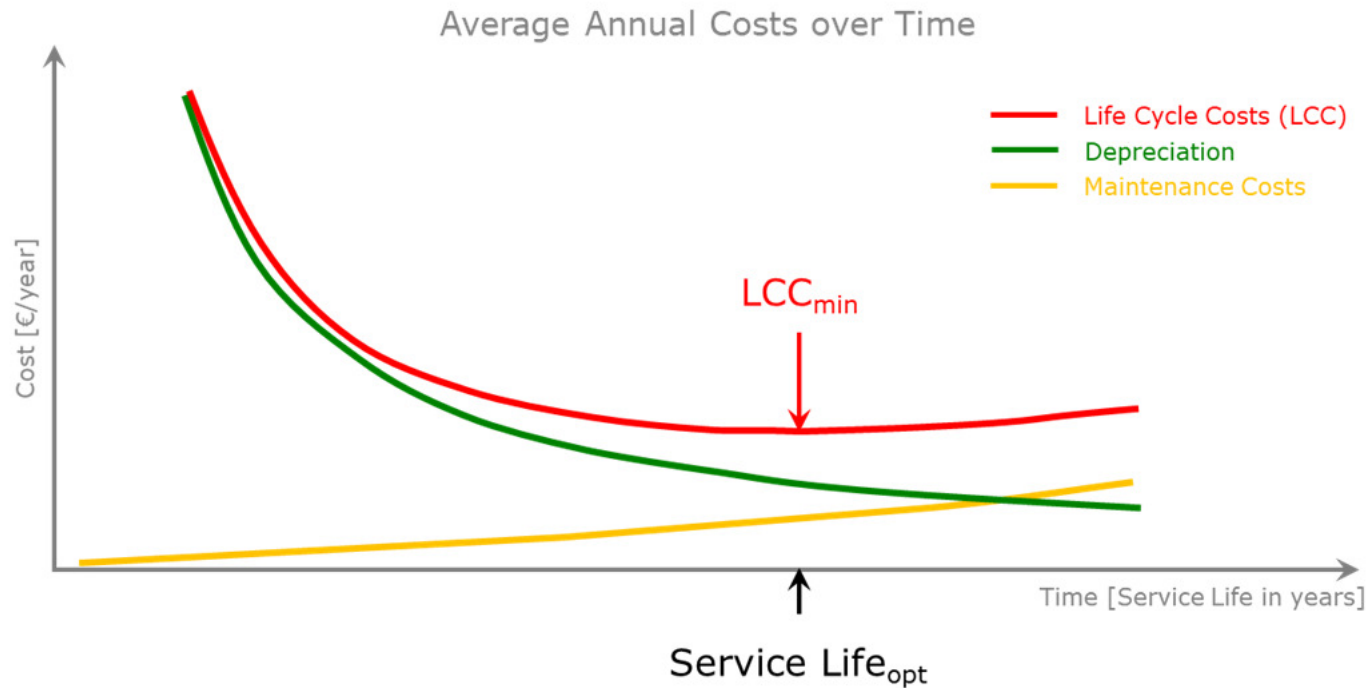


Asset Management – Ensuring highest Value for Money

Value = constant → Ensure the lowest Cost

No Speed Restrictions!

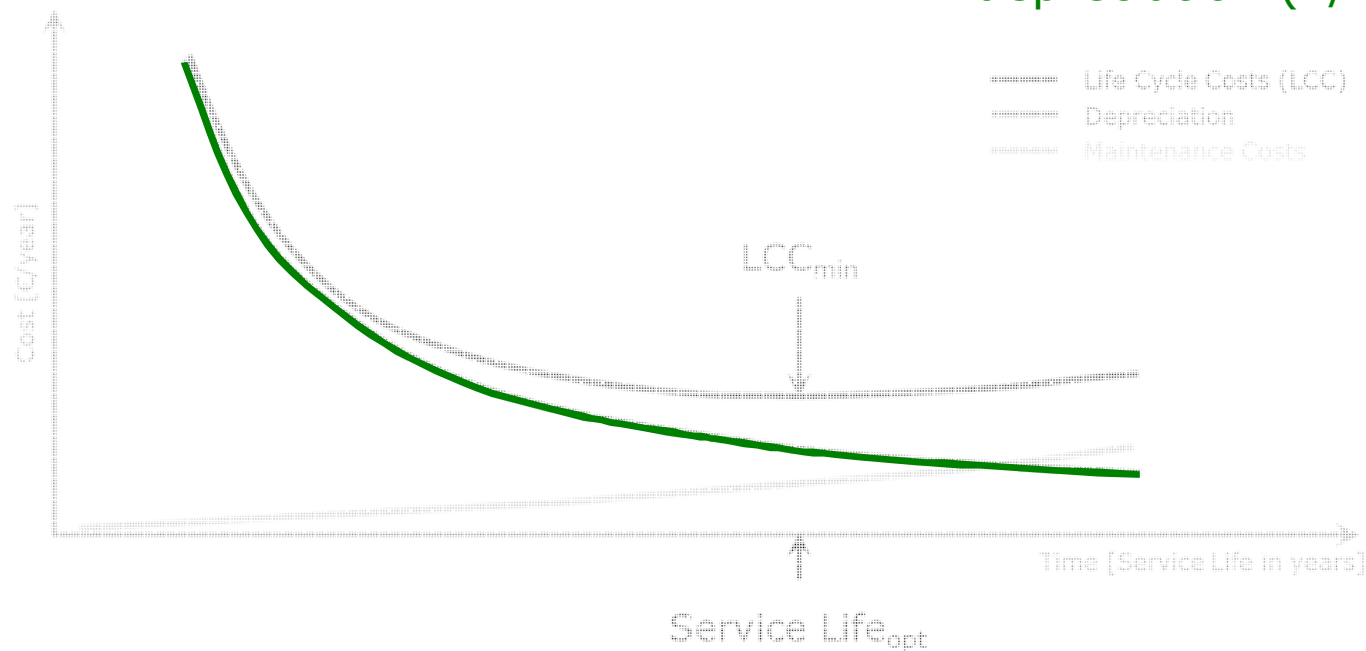
Without loss of quality, there's no postponing of maintenance or renewal.



Asset Management – Ensuring highest Value for Money

Value = constant \rightarrow Ensure the lowest Cost

The green curve is not the challenge:
 The longer the service life, the lower the depreciation (1/n function)

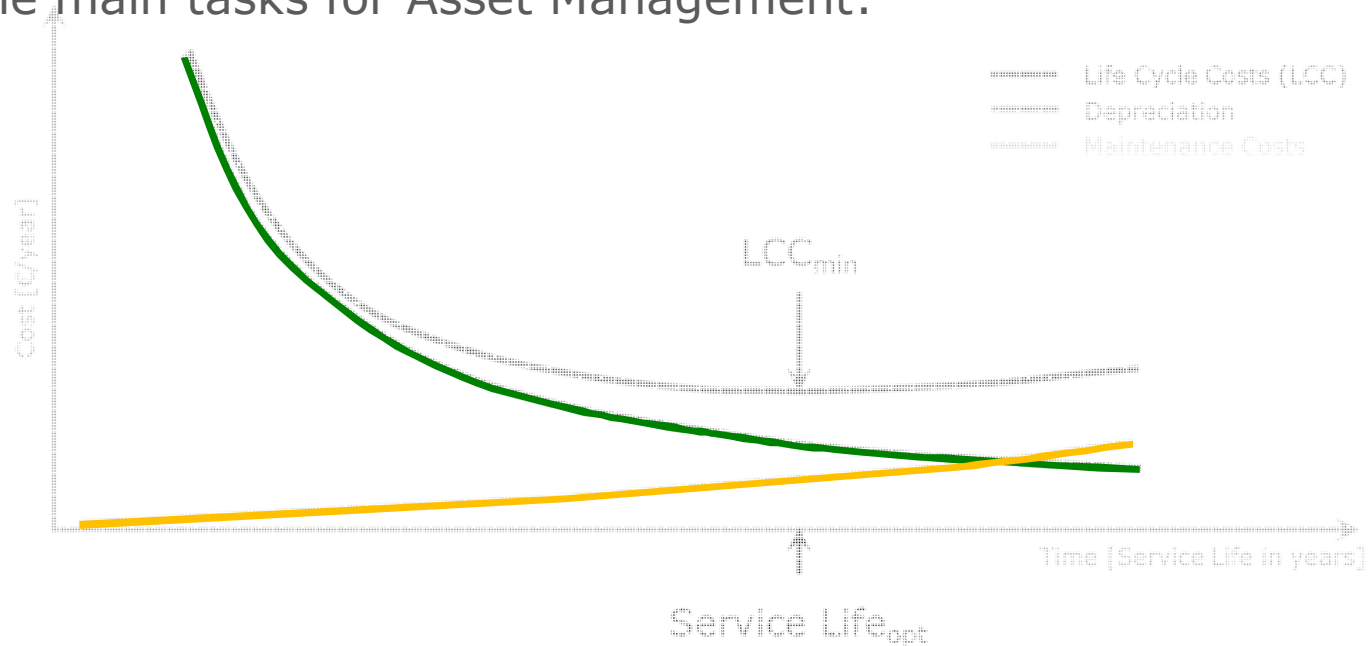


Asset Management – Ensuring highest Value for Money

Value = constant \rightarrow Ensure the lowest Cost

It's all about the maintenance costs!

This gives the main tasks for Asset Management:



Asset Management – Ensuring highest Value for Money

Value = constant → Ensure the lowest Cost

It's all about the maintenance costs!

This gives the main tasks for Asset Management:

I Monitoring of the Asset Quality

And of course smart!

- s specific (components)
- m measurable (and reproducible)
- a achievable (only net-wide information is real information)
- r reliable
- t time-phased (with a frequency necessary)

Asset Management – Ensuring highest Value for Money

Value = constant → Ensure the lowest Cost

It's all about the maintenance costs!

This gives the main tasks for Asset Management:

- I Monitoring of the Asset Quality
- I Documentation of executed Maintenance

Smart, of course! **s**pecific (which work)
measurable (from km to km)
achievable (only net-wide information is real information)
reliable
time-related (when was the work done)

Asset Management – Ensuring highest Value for Money

Value = constant → Ensure the lowest Cost

It's all about the maintenance costs!

This gives the main tasks for Asset Management:

- I Monitoring of the Asset Quality
- I Documentation of executed Maintenance
- I Recalculation/Monitoring of Unit Costs
- I Monitoring and Forecasting of Traffic

Smart! specific (traffic segment, vehicles)
 measurable (forces, not tons!)
 achievable (line-wise)
 realistic
 time-related

Asset Management – Ensuring highest Value for Money

Value = constant → Ensure the lowest Cost

It's all about the maintenance costs!

This gives the main tasks for Asset Management:

- I Monitoring of the Asset Quality
- I Documentation of executed Maintenance
- I Recalculation/Monitoring of Unit Costs
- I Monitoring and Forecasting of Traffic
- I Predicting Wear/Damage
- I Deciding for Maintenance (which one?) or Renewal
- I Inventing new Technologies and Tools (components, machinery, measuring/monitoring, maintenance, infrastructure pricing)

Danke für Ihre Aufmerksamkeit!

Assoc.Prof. Dipl.-Ing. Dr.techn. **Stefan Marschnig**
mob: +43664608736717
mail: stefan.marschnig@tugraz.at
web: www.ebw.tugraz.at