

How maintenance contributes to fleet's global performance ?



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ECOlogistics for our future

CFL cargo



CFL cargo provides high-quality **regional feeder services** and **international rail freight services**, in cooperation with its subsidiaries in Denmark, Germany, France and Sweden, and in cooperation with sister-company CFL multimodal and its subsidiaries.

CFL cargo also offers **single wagon load services** and has extensive experience with **oversize load transportation**.

Certifications

- ISO 9001:2008
- OHSAS 18001:2007
- SMS (directive 2004/49/CE)
- ECM certification - maintenance system according to regulation (EU) No 445/2011 – Appendix III
- AEO certification
- SQAS attestation for the activities in Luxembourg and in France

Railway licence

Safety certificate Part A (SMS), Part B for Luxembourg, France and Belgium

With 307 employees, CFL cargo provides customer-orientated services, including international long distance rail freight transport, regional rail freight trains and local feeder services, shunting and marshalling yard operations and oversize load transportation.

History

- 1997:** Creation of EuroLux Cargo
- 2006:** Creation of CFL cargo and its subsidiaries
CFL cargo Deutschland & CFL cargo Danmark
- 2008:** CFL cargo takes over Ateliers de Pétange
- 2010:** Creation of CFL cargo France in 2013
- 2012:** Acquisition of CFL cargo Sverige
- 2015:** Reorganisation of the freight activities of the CFL group,
closer cooperation with CFL multimodal and its subsidiaries

Headquarters

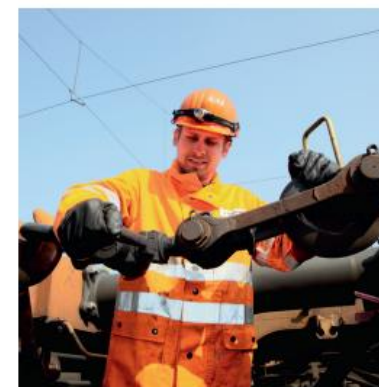
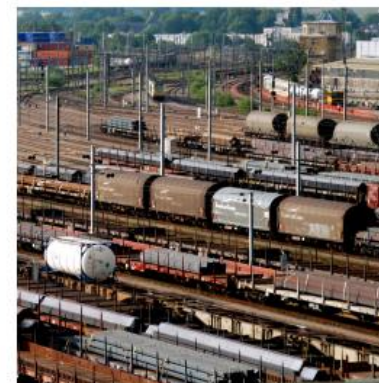
100, Z.A.E. Wolser E
L-3437 Dudelange

Subsidiaries

CFL cargo Danmark
CFL cargo Deutschland
CFL cargo France
CFL cargo Sverige
CFL technics

Shareholders

66.7% CFL
33.3% ArcelorMittal



Our Rolling Stock Organisation

- 44 locomotives (12 Elec + 32 Diesel) + 2500 wagons



CFL cargo

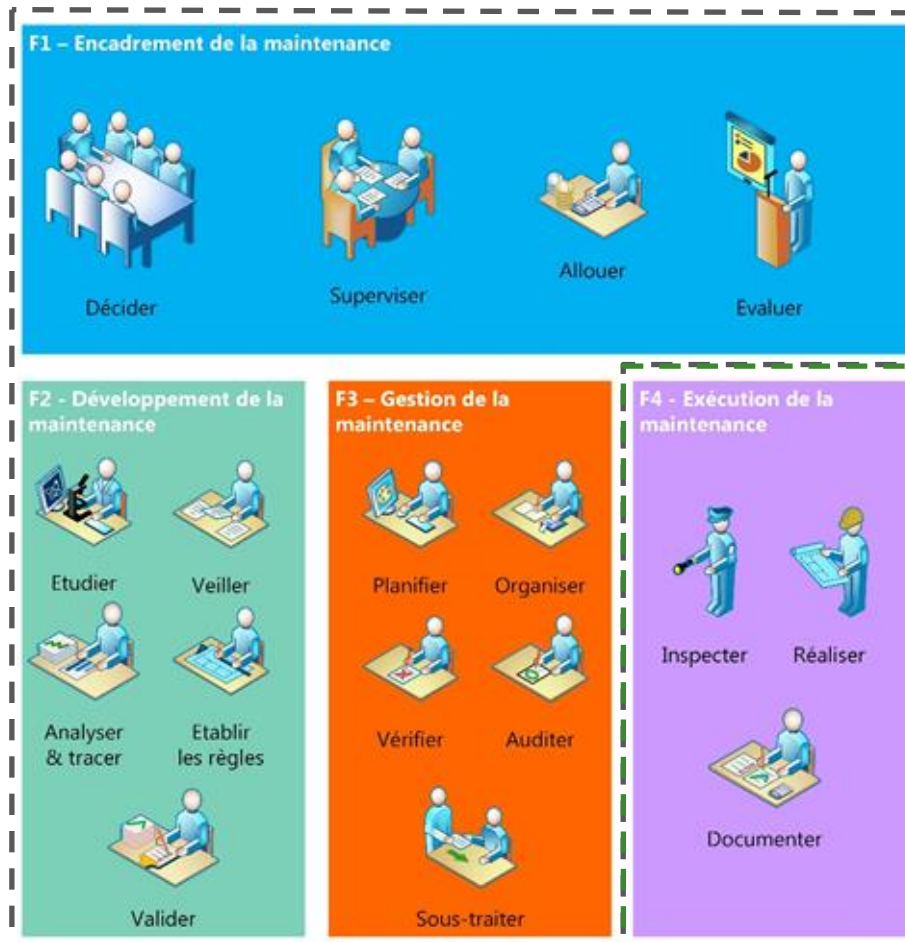
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CFL cargo



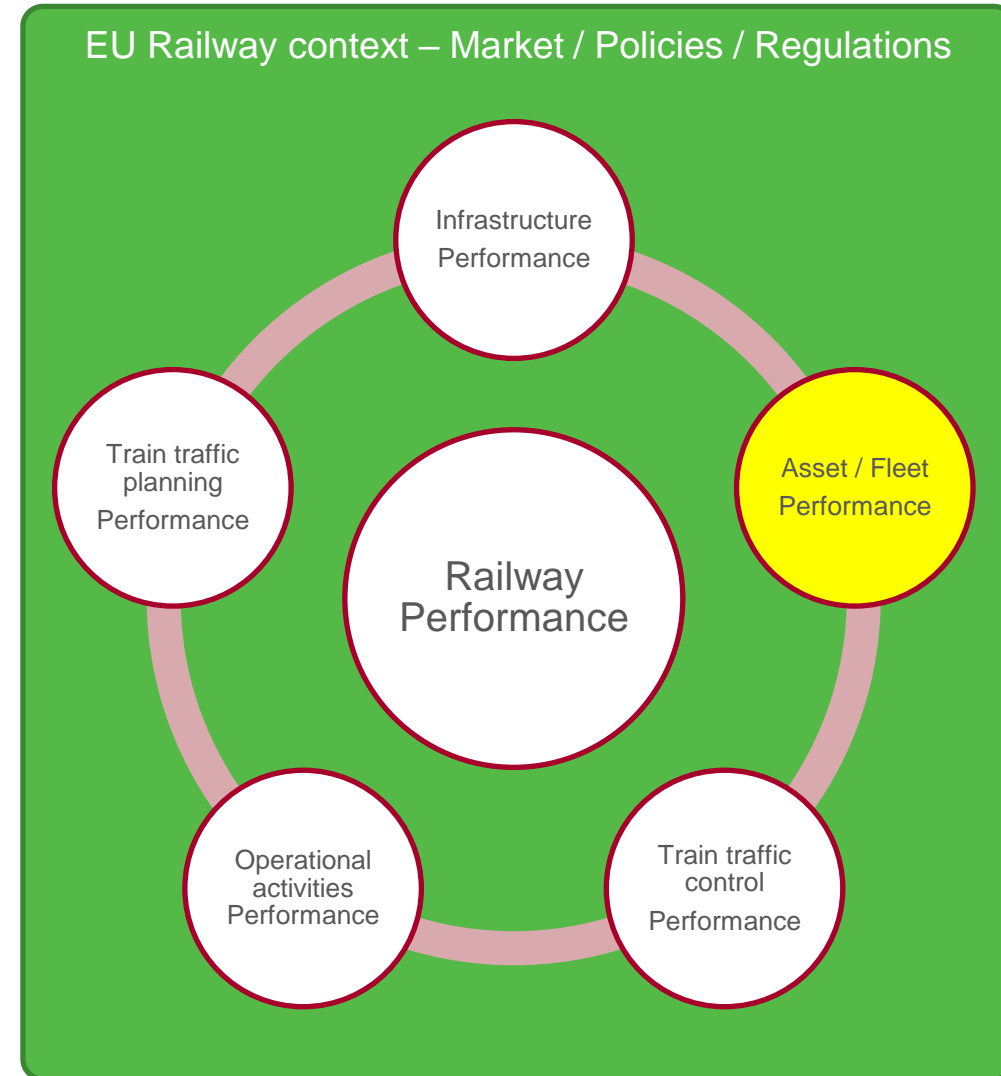
CFL technics

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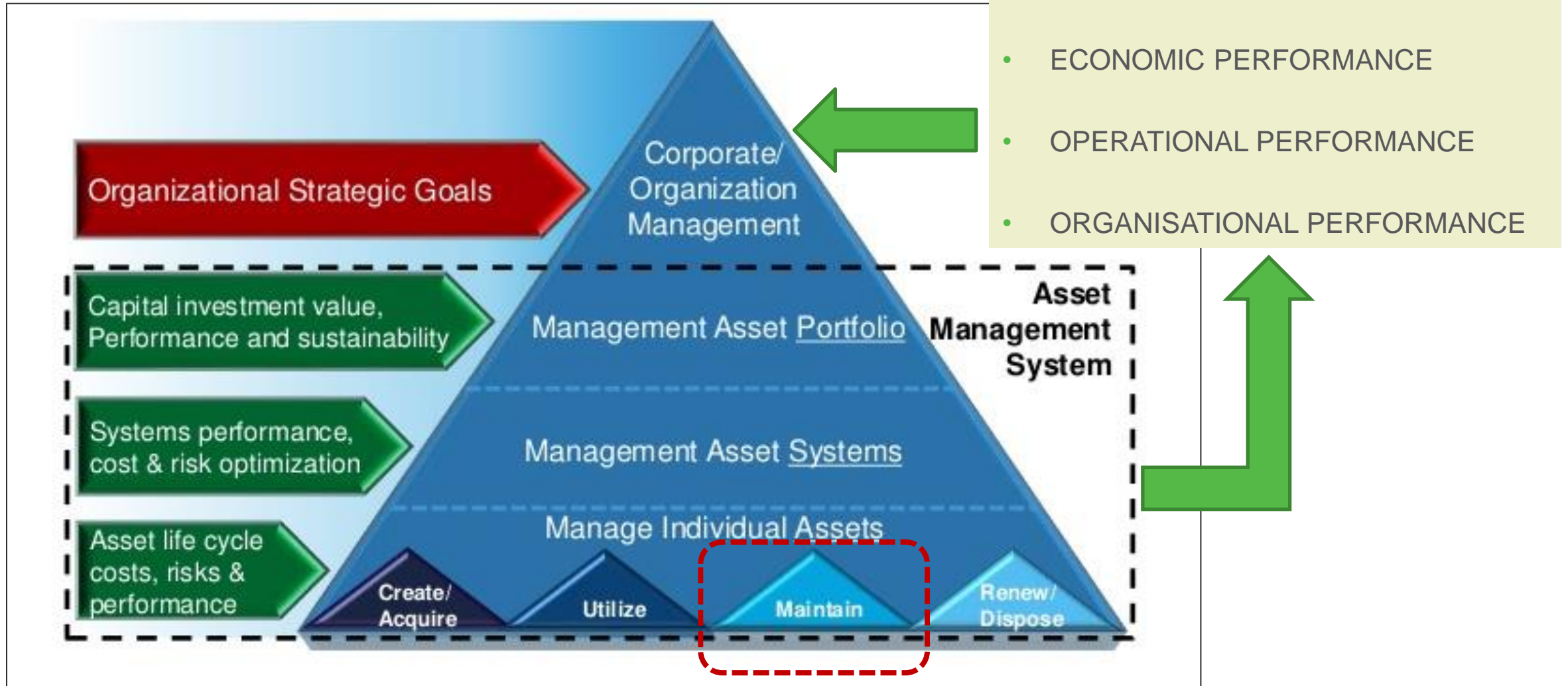


Global Performance of Railway System

- Rolling stock performance is driven by the enterprise culture, the deployed management system and operational process and obviously people engaged in the organisation
- Market and Regulation defines what are the minimum level of performance required
- Fourth railway package ensures a single railway area with
 - fair competition,
 - homogeneous infrastructure management,
 - technical harmonization,
 - reduced administrative requirements.
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Asset / Fleet Management Performance

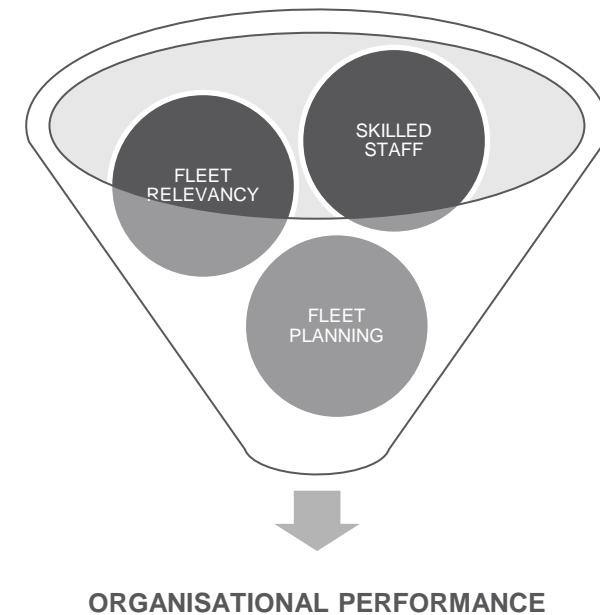
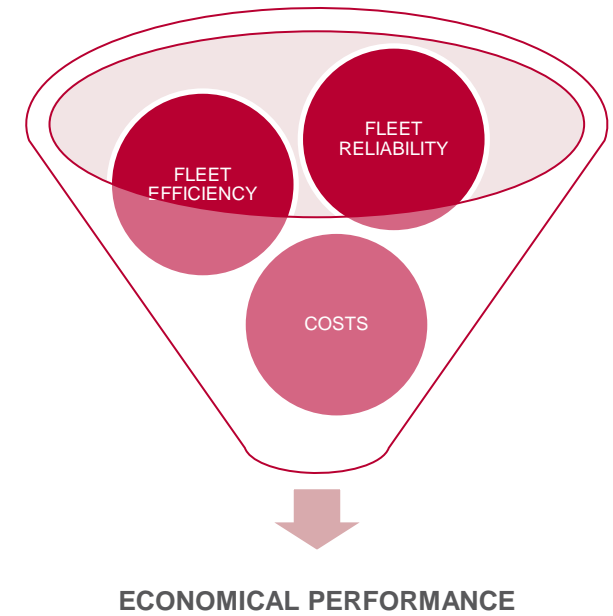
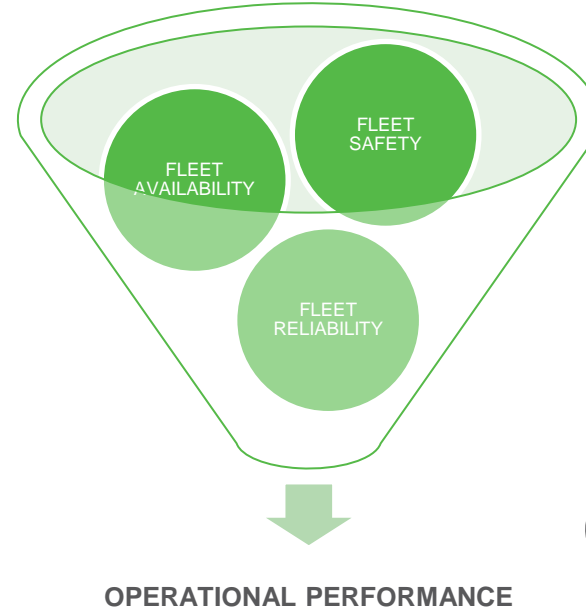


Asset / Fleet Management Performance

- + ECONOMICAL PERFORMANCE
- + OPERATIONAL PERFORMANCE
- + ORGANISATIONAL PERFORMANCE

= **FLEET GLOBAL PERFORMANCE**

Minimum « acceptable » level is the consequence of market requirements, rules and applicables regulations



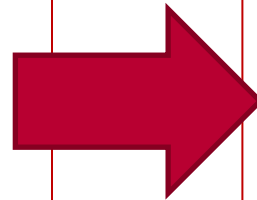
Fleet Performance's Keys – What is behind the words ?

→ The most common fleet management's targets are:

- Ensuring safety
- Increasing efficiency
- Improving reliability
- Increasing customer satisfaction
- Controlling costs

→ The key aspects to manage are :

- Safety and User/Driver Human factors or behavior
- Cost Control and Budget Allowance
- Maintenance management and downtime prevention
- Optimal Vehicle Selection and life cycle management
- Energy consumption
- Compliance and Inspections



Main related MAINTENANCE's PERFORMANCE GOALS

- SAFETY

Maintenance is the state of not being dangerous or harmful

- RELIABILITY

The probability that a component or system will perform a required function for a given time when used under stated operating conditions

- AVAILABILITY

The probability that a system is not failed or undergoing a repair action when it needs to be used.

- EFFICIENCY

The ability to consistently make the asset available for use. Consider the time an asset is available as a percentage of total time. (uptime/downtime ratios).

Context : Technical pillar of 4th Railway Package



European Commission

Directive (EU) 2016/798 on railway safety

A renewed framework for railway safety

- Extension of scope for the certification of entities in charge of maintenance
- Possibility to propose new safety methods, e.g. harmonisation of the elements of the safety management system
- New article on supervision and clarification of the role of NSA in performing this task
- Introduction of the concept of safety culture and common occurrence reporting

@Transport_EU

Mobility and Transport

CONNECTING EUROPE

Safe and reliable travel = Safe and reliable network + Safe and reliable rolling stocks + Safe and reliable organisation

How maintenance contributes to rolling stock performance ?

- Rolling stock performance must be assessed regarding the global system outcomes, and how it contributes directly to the system in term of :
 - SAFETY / RISKS for users / customers and workers concerned by the system
 - SERVICE LEVEL / QUALITY perceived by the users and community
 - COSTS / PROFITS for stakeholders
 - IMAGE for users / customers
 - COMPLIANCE with regulations and standards

4th Railway package integrates this global approach and technical pillar specifies what is behind Rolling Stock Performance expectations especially for SAFETY and RELIABILITY that are concerned by MAINTENANCE

Rolling stock Maintenance in EU Regulation ... Back to the basics

ECM regulation purpose ... (https://www.era.europa.eu/activities/certification-entities-charge-maintenance_en)

An Entity in Charge of **MAINTENANCE** (ECM) **plays** an important **Maintenance role** in the European railway system **by ensuring** that the **vehicles** for which it is in charge are in **a safe state of running** by means of **a system of maintenance**.
This European system of certification for ECMs has been set up in Regulation 2019/779.

→ **Safety definition :**

Safety is the state of being safe from harm or danger OR the state of not being dangerous or harmful.

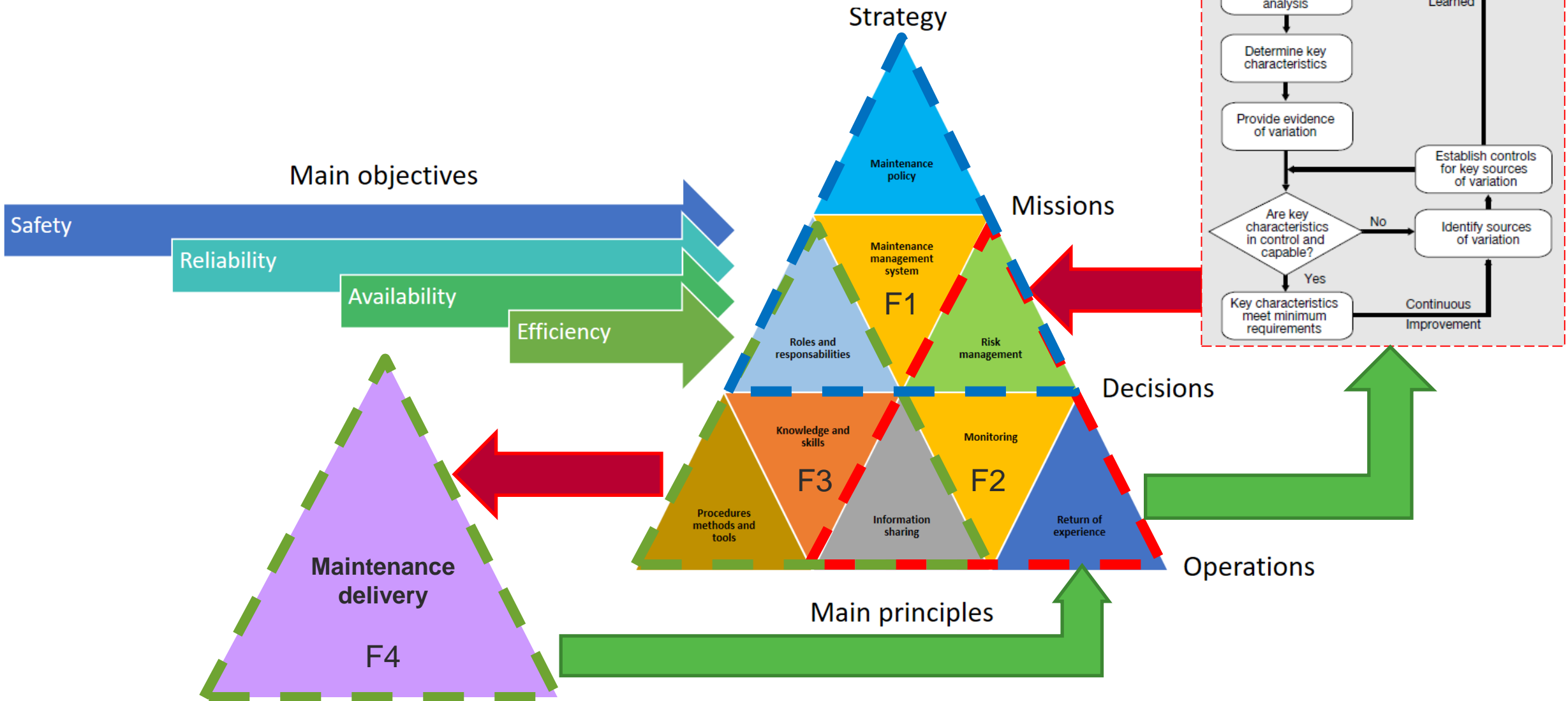
→ **Maintenance definition :**

Maintenance is the work needed to keep a road, building, machine, etc. in good condition

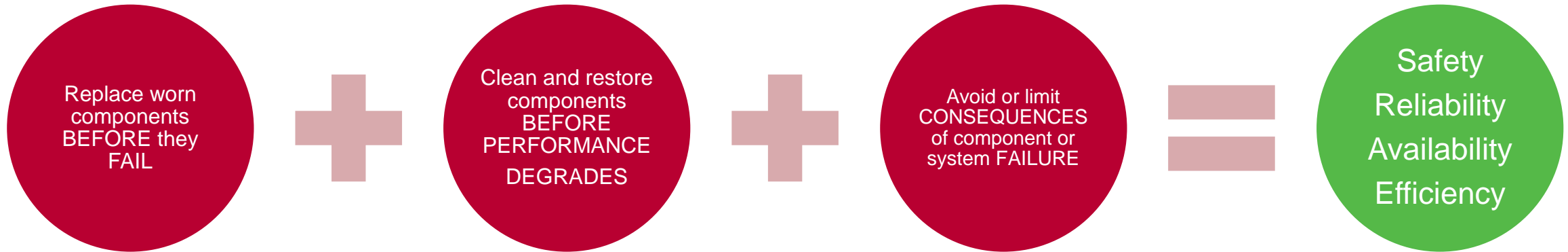
So the Agency ask us (ECM) to keep our fleet in state of not being dangerous or harmful thanks to the maintenance system deployed ...

FLEET in OPS + MAINTENANCE SYSTEM = FLEET in initial conditions of use
= NOT dangerous FLEET = SAFE FLEET

MAINTENANCE SYSTEM ... HEAD AND ARMS

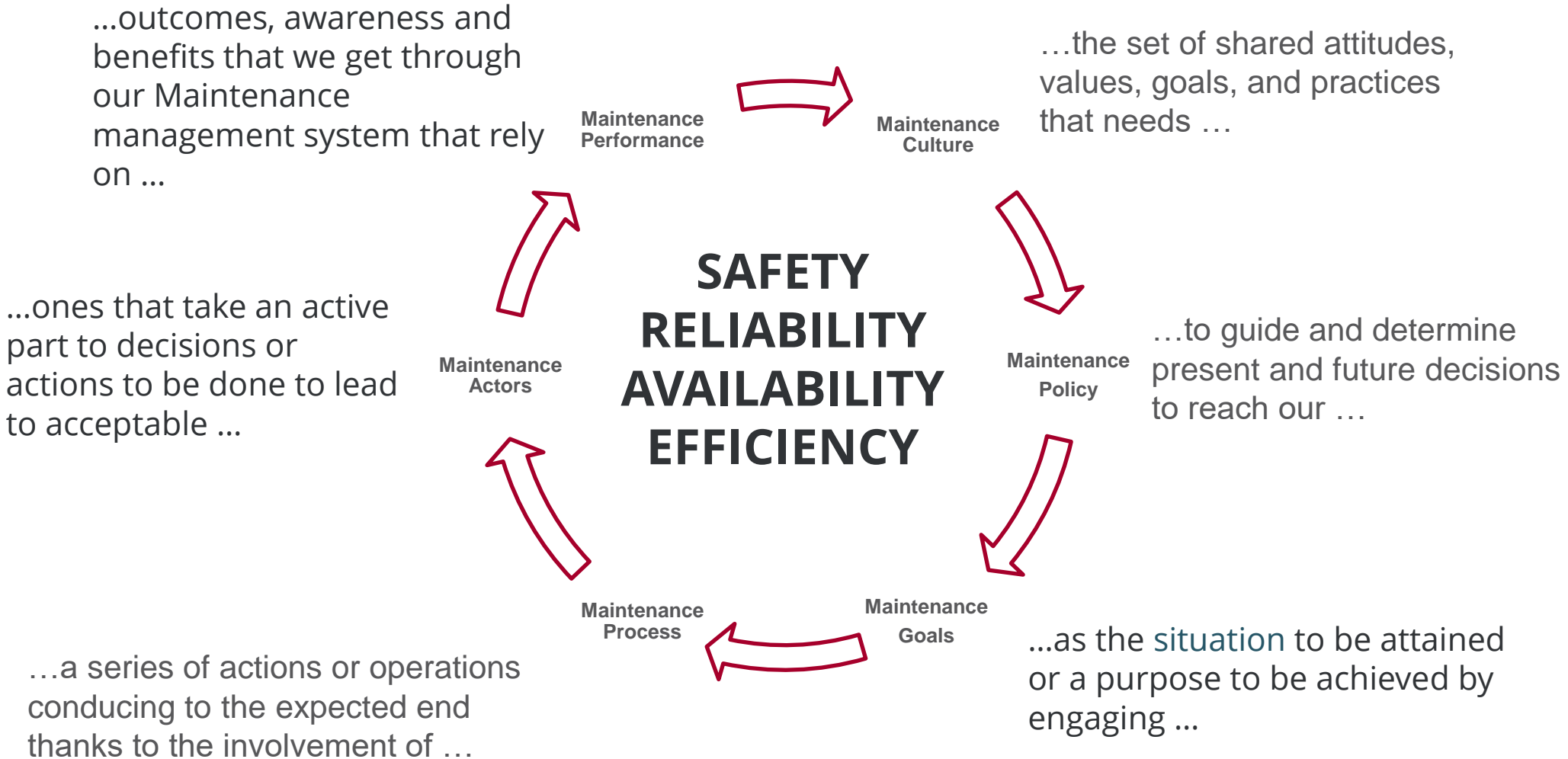


MAINTENANCE DIRECT BENEFITS ... NO PAIN NO GAIN



INDIRECT COSTS	DIRECT COSTS	CUSTOMER SERVICE
Minimize overtime	Reduce cost of maintenance systems by extending the useful life of assets	Improve reliability and availability
Minimize accidents	Reduce the cost of employing reactive maintenance personnel	Improve service performance
Minimize breakdowns	Reduce inventory costs	Reduce customer complaints
	Increase cost-effective decision making using historical data	Maximize product quality
		Maximize service delivery

MAINTENANCE MANAGEMENT SYSTEM ... WHEEL SPIN



Our Fleet Performance (Wagons)

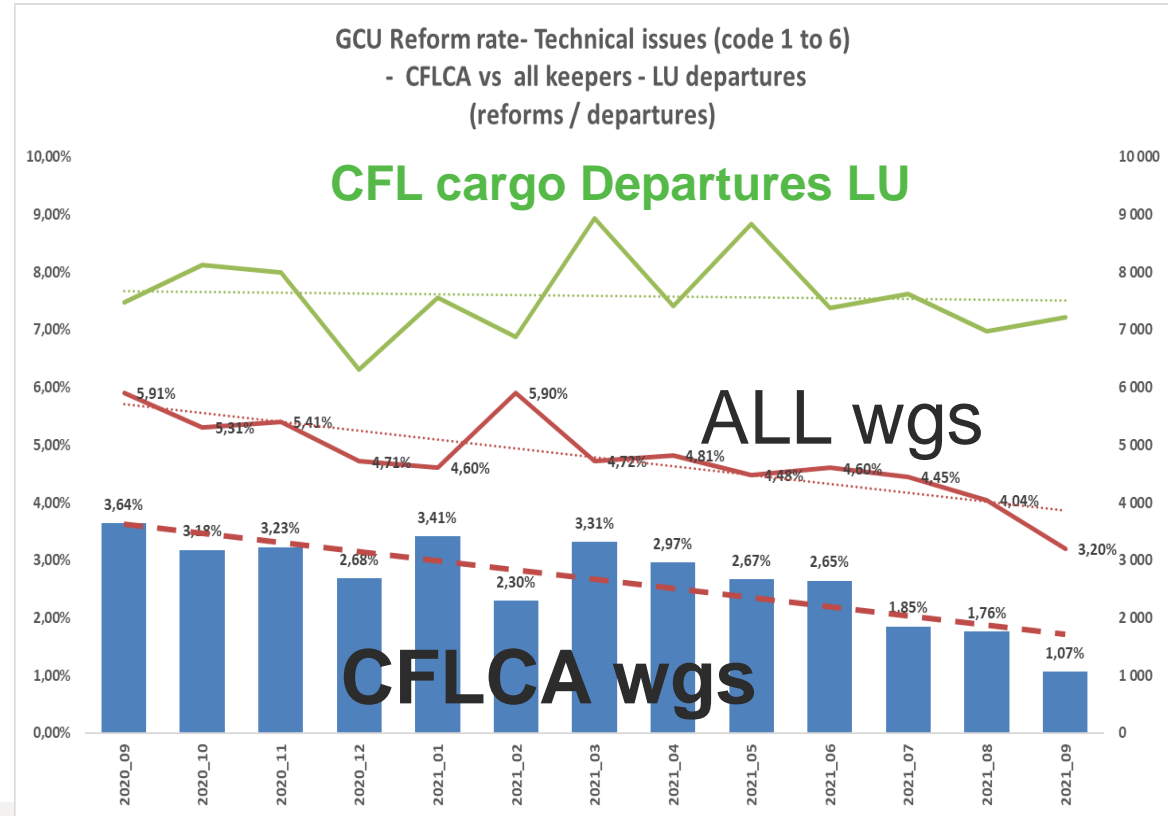
wag-ops-3: Taux de disponibilité opérationnelle de wagons Primaires



Type de wagon	Type UIC	Série	Loué/Propriété
<input checked="" type="checkbox"/> 18m <input checked="" type="checkbox"/> 24-25m <input checked="" type="checkbox"/> choc <input checked="" type="checkbox"/> tombereau	All	All	<input checked="" type="checkbox"/> Autre <input checked="" type="checkbox"/> Loué <input checked="" type="checkbox"/> Propriété



GCU Reforms rate < 3%



MAINTENANCE REALLY CONTRIBUTES TO FLEET PERFORMANCE !!

Maintenance main outcomes

- Safe state of service
- Suitable for service
- Reliability of service
- High availability of vehicles
- Cost efficiency of vehicles
- Energy efficiency of vehicles
- Sustainability of vehicles

Maintenance performance positives impacts

- Safety of users and workers
- Service level
- Service quality
- Competitiveness
- Profits
- ROI
- Environnement
- Company image

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Thanks for your attention !!

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