



# MAINTENANCE & PURCHASING DIVISION

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## ○ **Agenda**

- Key objectives and role
- Efficient & Secure Maintenance Management
- Fleet Environmental Monitoring
- Purchasing



# Role and objectives

- As a support function, through **specialisation** of resources we can improve the quality of service, optimise costs and gain flexibility.
- **Main objectives:**
  - Manage network resources of ALSA maintenance workshops:
    - ensure achievement of quality condition and safety standards.
  - Maximise fleet availability and reliability at optimal cost.
  - Fleet investment management.
  - Identify and propose alternatives in terms of environmental technology.
  - Manage the Alsa purchasing function.



## **Efficient and secure management of maintenance**



# A case study: Maximo

- Investment in new maintenance software system prompted by Continental Auto acquisition (management of fleet size);
  - needed to automate maintenance process.
- **Objectives:**
  - Create a working environment that guarantees compliance with safety regulations and safety plans.
  - Improvement in operational excellence.
  - Optimisation of resources (human and vehicles).
  - Improvement of procurement strategies.
  - Inventory optimisation and improvement in the ability to adapt communication with stakeholders:
    - Internal and external customers, departments within each division, employees, inter-company opportunities.



# Main benefits

- ❑ Lower operational staff costs in workshops
- ❑ Reliability Management of key elements in buses
- ❑ Lower inventory costs



# Main benefits

- ❑ Improved Guarantee Management
- ❑ Improved Purchase Management
- ❑ Better management of assets in maintenance facilities



# Fleet Environmental Monitoring







# Fleet Environmental Monitoring

## ○ Objectives:

- The most effective environmental action is to support a change in the transport modality, promoting the use of public transport rather than private transport. To achieve this, public transport must provide an environmentally friendly image.
- Transport Operators should encourage the use of alternative fuels and new technologies with lower emissions. The commitment to environmentally friendly alternatives will be key, for both Municipal or Ministry of Transport (MFOM).
- A priority is to be more environmentally friendly. Evaluating the economic impact of each alternative is a priority.

The use of alternative energy sources is increasing to:

- Reduce the environmental impact and greenhouse gases effect.
- Reduce the current oil dependence.



# Fleet Environmental Monitoring

## **BIODIESEL**

- Alsa's experience with Biodiesel began in 2005, by using a mix rate of 10%, and gradually expanding its use.
- In 2008, tests concluded there were no consequences for fleet maintenance. The financial impact is mitigated by the lower price resulting from the exemption of taxation on biofuels.
- **In 2010 we have extended the use of Biodiesel to 30% of the whole fleet, keeping the expected results.**
- **At the end of 2010 we will have avoided a CO2-eqv. emission of 18,478,114 Kg.**



# Fleet Environmental Monitoring

## **BIOETHANOL**

- 2 vehicles tested in Madrid Urban operations.
- 325 Km. travelled per day.
- Commercial speed: 23,5 km/h.
- 95% Ethanol + 5% Ignition additive.
- Expectation of consumption equilibrium vs. fuel price.
- Training in the fuel supply system.



### **Conclusions:**

- **Improved emissions compared to diesel.**
- **Good feedback from drivers.**



# Fleet Environmental Monitoring

## ***ELECTRICAL***

- Alsa approves the first unit of this type in Spain.
- 100% electric Microbus reduced autonomy.
- Suitable for low-intensity routes of the city centre:
  - Double shift 8h+8h (4 days/week);
  - 8h shift (3 days/week).
- Km. travelled/day: 92
- Commercial speed: 6.1 km/h



### **Conclusions:**

- **Significantly improves the emissions for a diesel, even noise.**
- **Socially highly valued.**
- **Simple maintenance tasks.**
- **Not economically viable despite environmental benefits.**

# Fleet Environmental Monitoring

## HYBRID

- Introduced 3 units in the city of Tres Cantos (Madrid), being the first city with 100% of hybrid buses.
- Km. travelled/day: 250; Commercial speed: 22,2 km/h
- Series hybrid technology might work in pure electric mode.
- Important to carry out training for both drivers and mechanics.



### Conclusions:

- Improved emissions by way of reduction in consumption.
- No operational problems in terms of autonomy.
- It will be a compromise and competitive solution in the medium term.



# Fleet Environmental Monitoring

## ***ALSA HYBRID PROJECT***

- Based on our testing experience in 2010, ALSA prepared the ALSA HYBRID project, including an Investment Plan in hybrid and electric vehicles for the period 2011 - 2013.
- This project was submitted to the IDAE (Institute for Diversification and Saving of Energy).





# Purchasing Savings Plan





# Purchasing

- **New Group Purchasing Director appointed to secure cost savings across all businesses**
  - Review the existing procedures and systems.
  - Identify opportunities for joint action by setting specific targets for savings to be delivered in each business.
  - Deliver cross-business procurement savings.
  - Prioritise and schedule work and responsibilities for each project.
  - Strengthen the exchange of best practice to help control spending.
  - Explore the possibility of incorporating technology tools valid for both cost control and management of the negotiations.





## Q&A

