GOOD PRACTICES IN SME

Ecodriving

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What is Ecodriving?

Eco-driving is a conscious and controlled driving technique, which aims to make the process optimal, cost-effective, safe and having the lowest possible environmental impact.

What are the advantages of introducing ecodriving into a small or medium enterprise?

Advantages of eco-driving:

- Decreased risk of collision and accidents,
- Lower fuel consumption (by as much as 1,5 l/100 km),
- Decreased mechanical wear of the car's subsystems – especially the brakes and tires,
- Decreased CO_2 and sound emissions.

The rules of Ecodriving

The cardinal rule of Ecodriving is smooth driving, without redundant acceleration and breaking. The driver should be focused on the road and his surroundings, so that he can react to changes quickly, but gently.

Pic. 1 autoświat

Before the journey:

- Adjust the tire pressure at least once a month (low tire pressure increases fuel consumption),
- Regularly change oil and lubricant,
- Remove excess items from the car. An additional 50% inside the car increases fuel consumption by 1-2%,
- Park the car in the shade during sunny days. Air the car out by opening two doors, before turning on the air conditioning.

Starting the car and accelerating:

- Do not press the accelerator when starting the car,
- Do not warm up the engine during stops,
- When dynamically accelerating, press the gas pedal ¾ of the way down. After achieving optimal engine RPM (usually between 2000-2500 RPM, dependant on the engine), shift to a higher gear and continue accelerating until the desired speed is reached.

Driving:

- Drive in the highest appropriate gear, with the lowest possible engine RPM – this is method of driving optimizes fuel consumption,
- Switch to a higher gear as soon as possible:
  - First gear should only be used for moving off,
  - Switch to second gear after travelling a couple of meters,
  - Use third gear when travelling 30-50 km/h,
  - Use fourth gear when travelling 40-50 km/h,
  - Use fifth gear when travelling 50-60 km/h,

- When possible, skip intermediate gears (e.g. switch from third to fifth)
- Do not use a higher gear when travelling at lower speeds, because it leads to increased fuel consumption,
- Do not exceed the engines optimal RPM – 2500 RPM for a petrol and 2000 RPM for a diesel engine,
- When possible, maintain a constant speed while driving,
- Do not exceed 120 km/h while driving – air resistance and fuel consumption increase significantly at higher speeds.

Breaking:

- When road conditions allow use engine breaking – decrease speed by shifting to lower gears. It does not consume fuel and additionally decreases the wear of the brake pads,
- Turn of the engine during stops longer than 30 seconds.

How much can be saved using ecodriving? – the ECOWILL Project

In the ECOWILL project drivers from several cities were trained in ecodriving. The research was conducted on various car brands. The trainers reported the following results:

1. Poznań: 105 drivers took part in the training. When using ecodriving, the average fuel consumption decreased by 15,7%, which was equivalent to an average fuel saving of 1,19 litres of fuel per 100 kilometres.
2. Lublin: 60 drivers took part in the training. When using ecodriving, the average fuel consumption decreased by 8%, which was equivalent to an average fuel saving of 0,7 litres of fuel per 100 kilometres.
3. Bielsko-Biała: 53 drivers took part in the training. When using ecodriving, the average fuel consumption decreased by 17,1%, which was equivalent to an average fuel saving of 1,3 litres of fuel per 100 kilometres.
4. Warszawa: 29drivers took part in the training. When using ecodriving, the average fuel consumption decreased by 9,2%, which was equivalent to an average fuel saving of 0,67 litres of fuel per 100 kilometres.
5. Wrocław: 8 drivers took part in the training. When using ecodriving, the average fuel consumption decreased by 15,5%, which was equivalent to an average fuel saving of 0,43 litres of fuel per 100 kilometres (in this city all drivers used the same car model).
6. Łódź: 93 drivers took part in the training. When using ecodriving, the average fuel consumption decreased by 10,7%, which was equivalent to an average fuel saving of 0,65 litres of fuel per 100 kilometres.

Source: KAPE