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MOBILITY: WHAT WILL TRANSPORT OF THE FUTURE LOOK LIKE?

Date: Monday, 28 January 2013 (14:00-15:30 CET)

Target groups: secondary school, students age 15 - 18

INTRODUCTION

Sustainable mobility refers to any means of transport with low impact on the environment. It includes non-motorised transport, for example walking, cycling, green vehicles, car sharing and building or protecting urban transport systems that are fuel-efficient, space-saving and promote healthy lifestyles. Sustainable Mobility makes a positive contribution to the environmental, social and economic development and at the same time meets the travel needs of the population.

Light materials for aircrafts, trains or road vehicles! The chemical industry helps reduce fuel consumption and CO₂ emissions. And there are many more applications available or still in the pipeline. Find out how chemistry and science are helping build a sustainable world on "[Your Formula](#)", an online platform to give young people a place to discover and discuss how chemistry and science is helping build a sustainable world.

In addition to fun and inspiring articles, we collect videos, news and events, sharing the great innovations taking place in Europe and hinting at a more sustainable future. We recently launched a new section called 'Your Views', where you can find short video interviews with different citizens concerned with our future and sustainability. 'Your Views' follows 'Your Formula', where our **young contributors** blog about chemistry and sustainability, and 'Your News', where we **monitor the latest news** from industry and innovation.

SUGGESTED TOPICS FOR DISCUSSION

1) The periodic table of cars

To start the online chat, the students have to look closely at the [periodic table of elements](#), an important tool in any chemistry course. Students should explore the periodic table and identify some major chemical elements needed for the production of cars.

For example: Magnesium is a chemical element with symbol **Mg** and atomic number 12. Magnesium is the third most commonly used structural metal, following iron and aluminium and is the lightest useful metal. Magnesium, in its purest form, can be compared with aluminium, and is strong and light, so it is used in several high volume part manufacturing applications, including automotive and truck components. High-grade car wheels of magnesium alloy are called "mag wheels".

2) Future car technologies & Smart Mobility

How can we make cars safer, more comfortable, sustainable and enjoyable?? Smart cars are getting smarter, thanks to chemistry. Working together, the chemical and automotive sectors have produced some futuristic products. One of the latest is an electrical concept vehicle that combines exceptional design with innovative technologies in the areas of energy efficiency, lightweight construction and temperature management. Transparent organic solar cells, transparent organic light-emitting diodes, all-plastic wheels, new lightweight body components and infrared-reflective films and coatings all lower energy consumption - and all made possible through chemistry.

Innovative and advanced technologies will play an important role for years to come to make sure that our mobility is maintained.

Download blog post: [3,2,1...Go! The Future of mobility has started!](#)

Watch the video: [smart for vision: Transparent Organic Solar Cells](#)

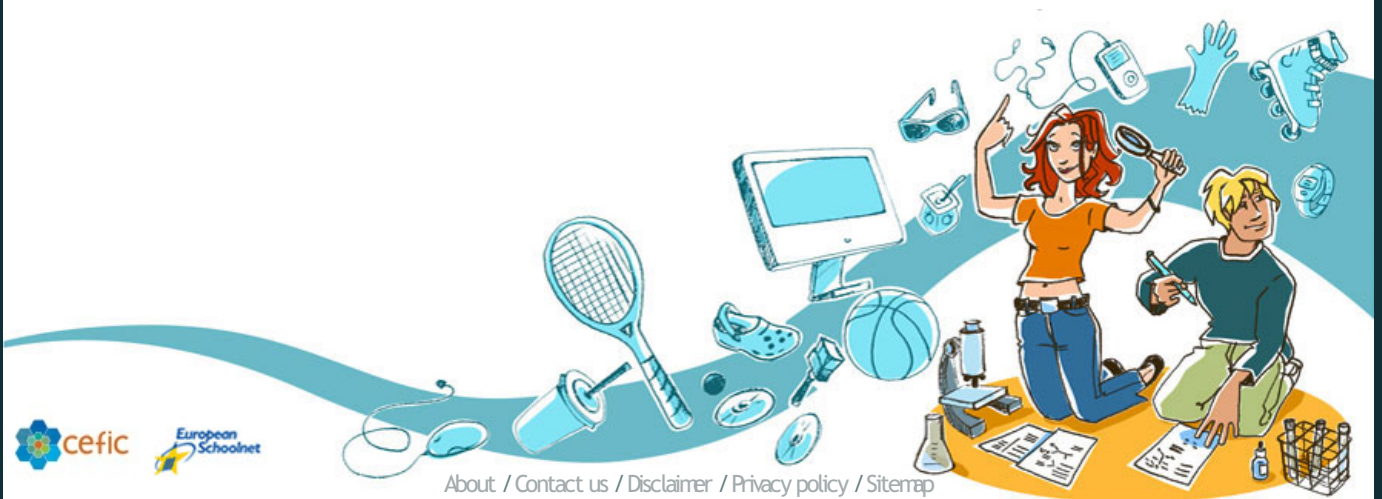
3) Electric cars: is now the time to plug in?

Did you know that transport accounts for around 20% of all EU greenhouse gas emissions? The automotive industry has a major part to play in reducing this impact. Lowering vehicle fuel consumption to reduce CO2 emissions, achieving energy saving over the vehicle life cycle, eliminating pollutant emissions: all these are technological challenges faced by the carmakers.

Potential future car technologies include varied energy sources and materials, which are being developed in order to make automobiles more energy efficient with reduced regulated emissions.

Electric mobility is a key objective in order to provide a sustainable solution for emissions reduction and alternative transport methods and will make an important contribution towards ensuring sustainable mobility.

Download blog post: [EU Energy week 2012: Let's Move sustainable](#)



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