

Digital Creativity for developing Digital Maturity Future Skills

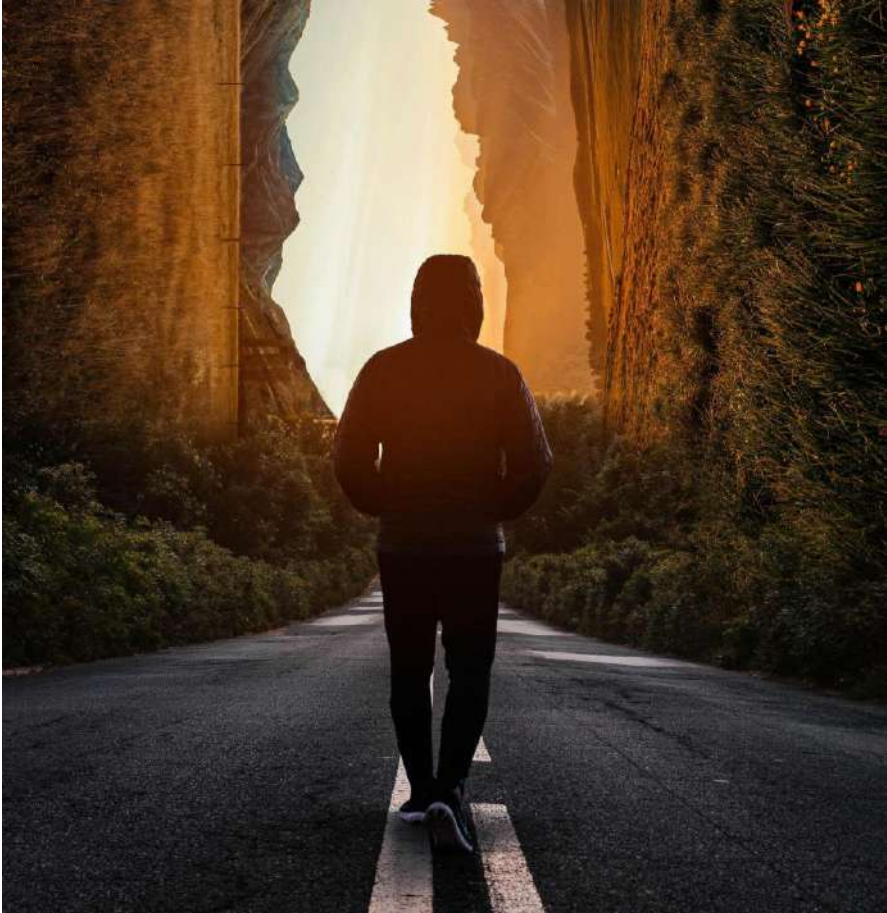
Macro-theme presentation

Mobility and energy

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Energy as the basis for mobility



all mobilities **require energy**

- Walking at 4 km/h for 15 minutes
 - 65 Wh
 - eq. to the energy consumed by LED bulb on for 8 hours

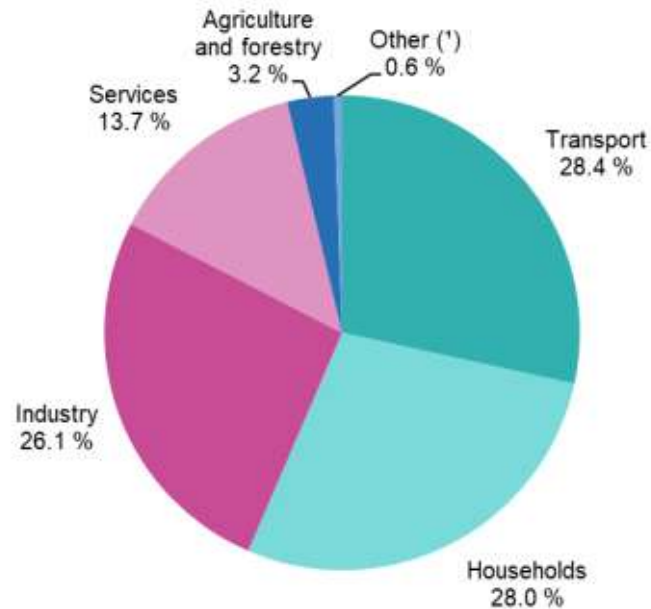
Current context

- Geopolitical: **energy crisis** in Europe
 - Energy supply from Russian Federation
- Environmental: **climate change**
 - Desire to reduce CO2 emissions



Why does it affect mobility?

Final energy consumption by sector, EU, 2020
(% of total, based on terajoules)



(*) International aviation and maritime bunkers are excluded from category Transport.

Source: Eurostat (online data code: nrg_bal_s)

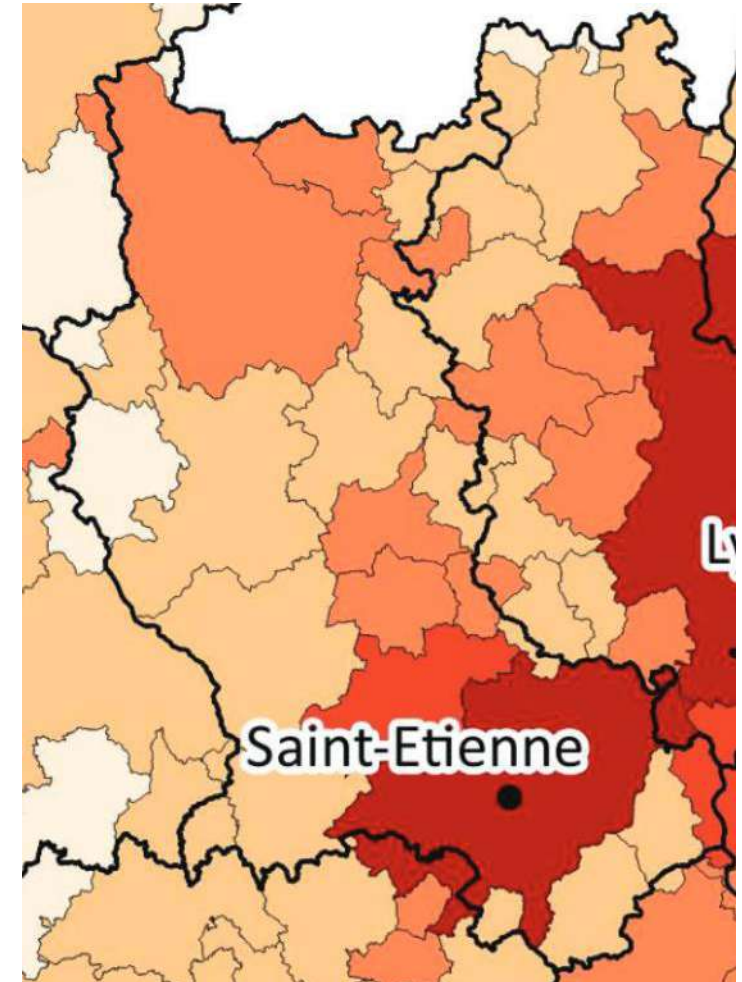
eurostat 

- Means of transport mainly based on imported **fossil fuels: oil products** (> 90 % for transport sector)
- Reduction of energy consumption
- Energy transition
 - Change of **energy sources**
 - > decarbonized and renewables
 - Change of **energy vectors**
 - > electricity, hydrogen

Local situation on energy and mobility

Loire department

- Decarbonized electricity (French electric grid)
- **Heating** systems use mainly **gas** and **oil**
- Significant share of **personal transportation**
- Saint-Etienne, Roanne and surroundings: well served by **public transportation**



population density

Challenges for mobility and energy



- Optimize **all energy consumptions** caused by mobility
- Consider the impact of a change on the **other sectors'** energy consumption (like **industry, heating...**)
- Take into account **people's concerns**:
 - Price
 - Reliability
 - Security
 - Range
 - Material used
 - ...

Start-Up: Raidlay

Travel equipment and accessories
manufacturer



mudguard

use technology to make eco-responsible
objects for mobility



With the support of the
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