The carbon footprint of a French chemistry laboratory

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Lab 1. Laboratoire de Spectroscopie pour les Interactions, la Réactivité et l'Environnement — **Lille**
76 agents

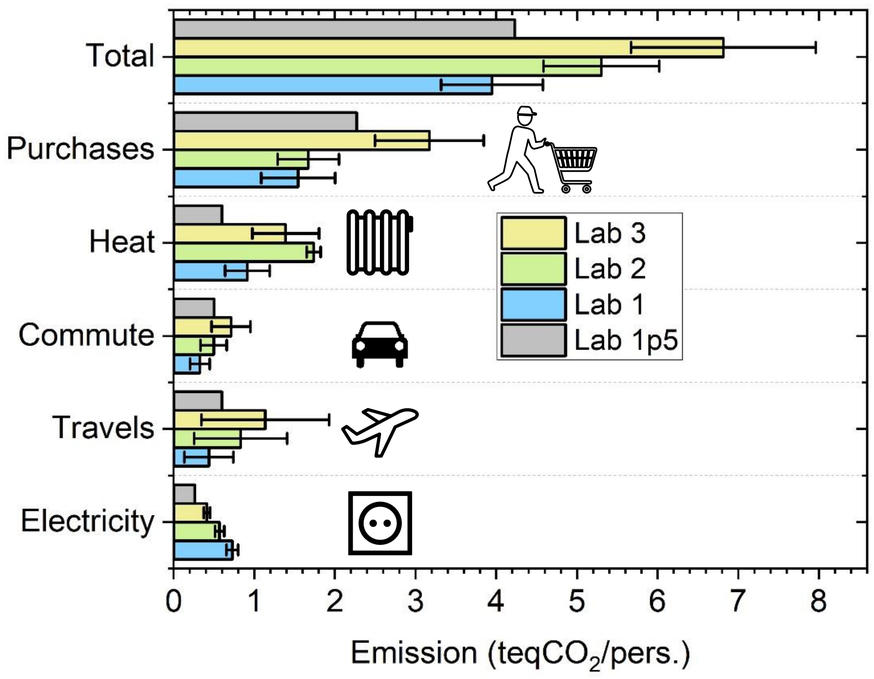
Lab 3. Institut des Sciences Chimiques de Rennes (ISCR) — **Rennes**
464 agents

Lab 2. Institut des Sciences Moléculaires (ISM) — **Bordeaux**
222 agents

Greenhouse Gas Emissions

Total (year 2019)

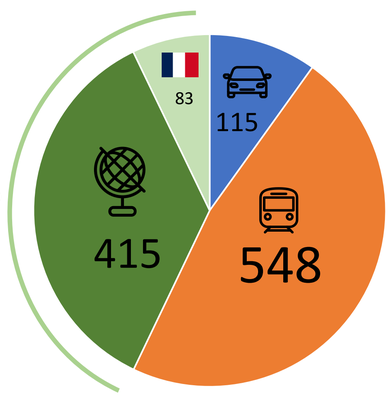
Lab 1. 300 $t_{eq}CO_2$ Lab 2. 1177 $t_{eq}CO_2$
Lab 3. 3163 $t_{eq}CO_2$



Travels

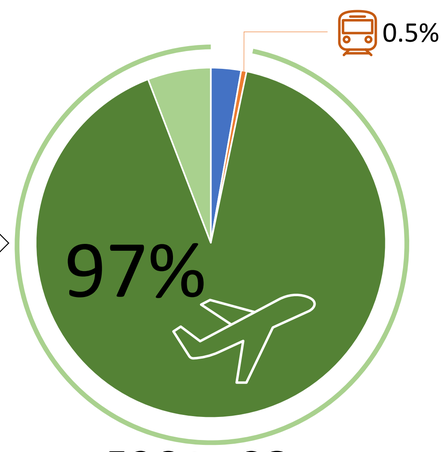
Exemple. Lab 3

43%



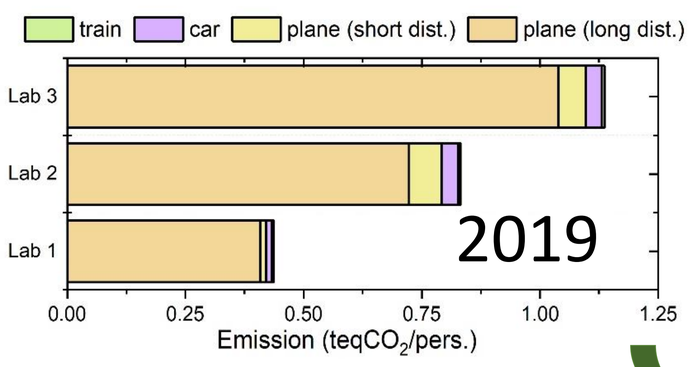
1160 missions

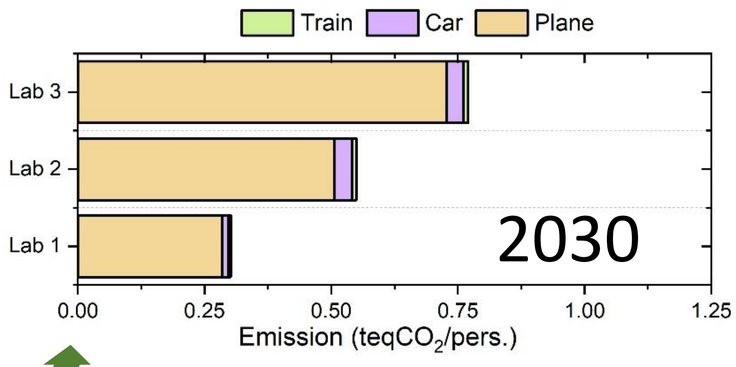
eq CO_2

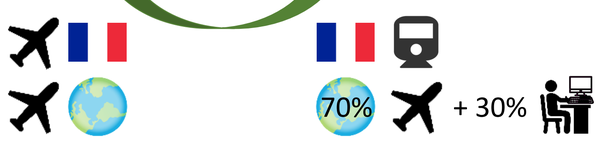


526 $t_{eq}CO_2$
(17 % of total)

Scenario. Reduce plane travels

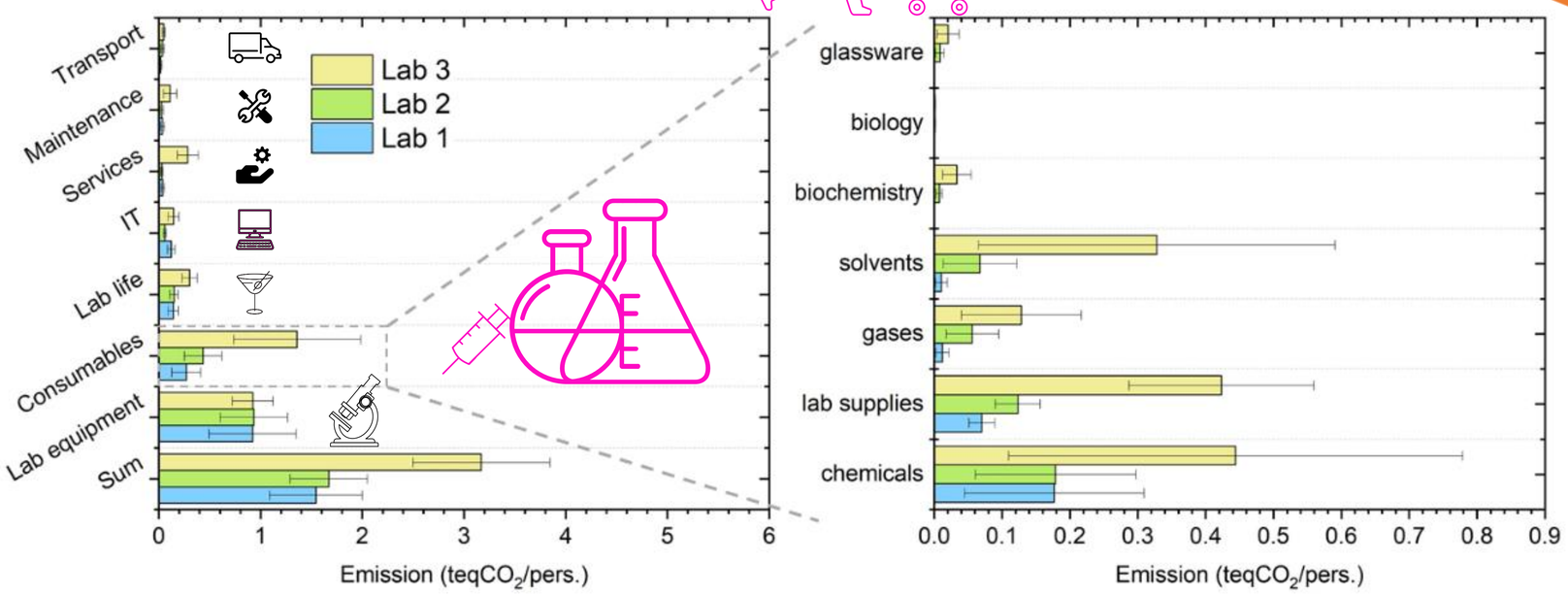






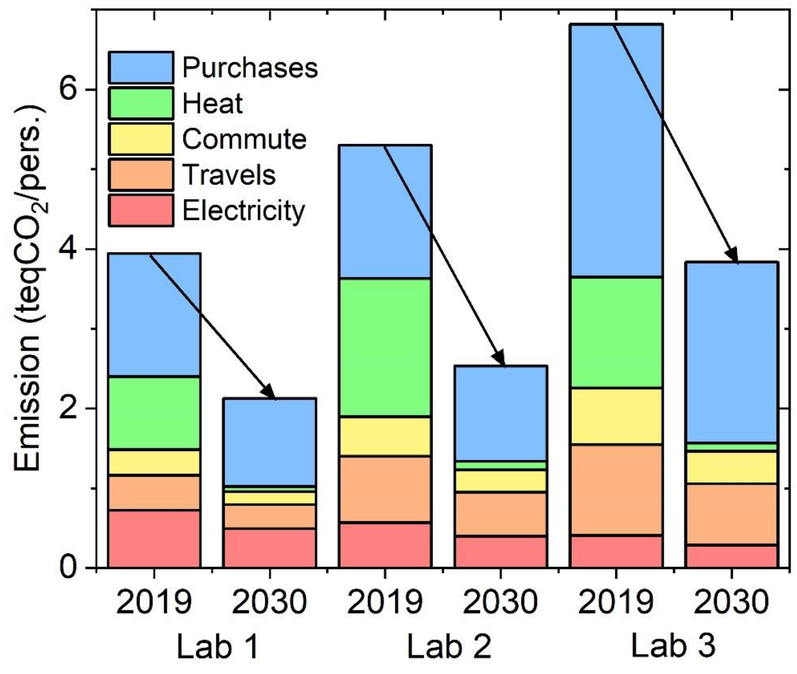
70% + 30%

Purchases



Scenario 2030

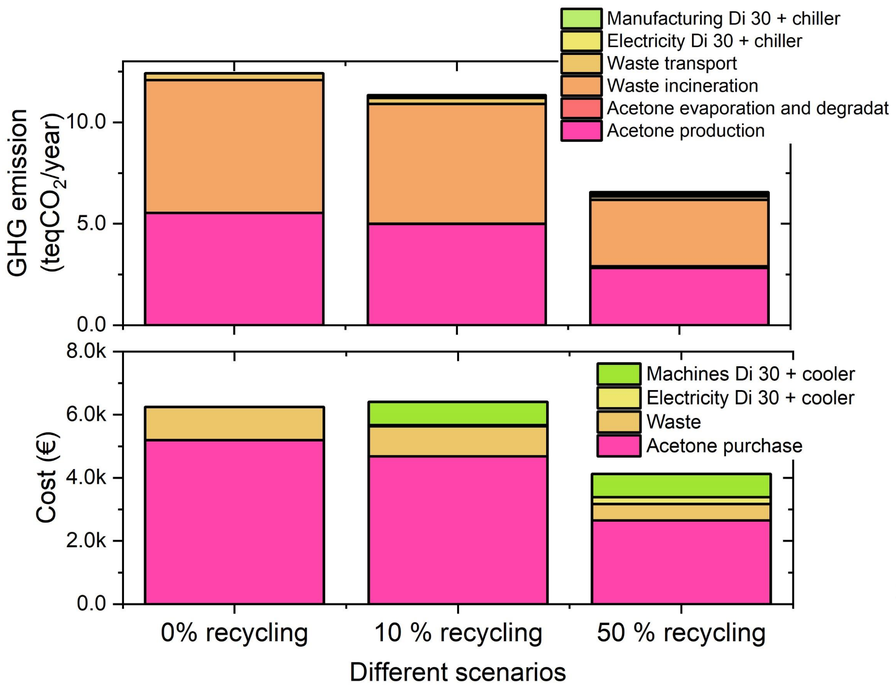
Low-carbon transition
=
cumulate ALL actions

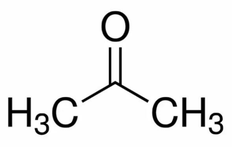


Exemple. Acetone recycling in Lab 2

Scenario.
50 % recycling
saves
6 $t_{eq}CO^2.an^{-1}$
(0.5 % of total)

saves
2 k€.an^{-1}





Solvent recovery system
Di 30 (Formeco)

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The carbon footprints are evaluated with the GES1.5 application from the 'groupe de recherche' Labos1.5.