# Session #4

The criticality of resources, material trading costs and environmental externalities, which one matters the most in decision making?

<table>
<thead>
<tr>
<th>Pr. GUIDO SONNEMAN</th>
<th>Dr. STEPHANE MOREL</th>
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<tbody>
<tr>
<td>Universite Bordeaux,</td>
<td>RENAULT</td>
</tr>
<tr>
<td>Professeur</td>
<td>Senior Specialist</td>
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<tr>
<td>Analyse du Cycle de Vie et Chimie Durable (CyVi)</td>
<td>Material Efficiency</td>
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</tbody>
</table>
One in five people still lacks access to modern electricity
2.6 billion people have gained access to improved drinking water sources since 1990, but 663 million people are still without

Half of humanity – 3.5 billion people – lives in cities today

By 2030, almost 60 per cent of the world’s population will live in urban areas
WHICH MATERIALS LIFE CYCLE TO SUPPORT SOCIETY TRENDS?

Why critical raw materials are important?

Why raw materials have value?

ec.europa.eu/growth/sectors/raw-materials/

Renault.fr
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Université de Bordeaux, France represented by Pr. Guido Sonnemann

Gingko 21, France represented by Anne-Claire Asselin Hélène Teulon

University of Cambridge, United Kingdom represented by Dr. André Cabrera Serrenho

Ecole Centrale Lille, EPFL France represented by PhD Naeem Adibi