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Mobilidade Sustentável: Mudanças Climáticas

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CLIMATE CHANGE AND THE 450 SCENARIO

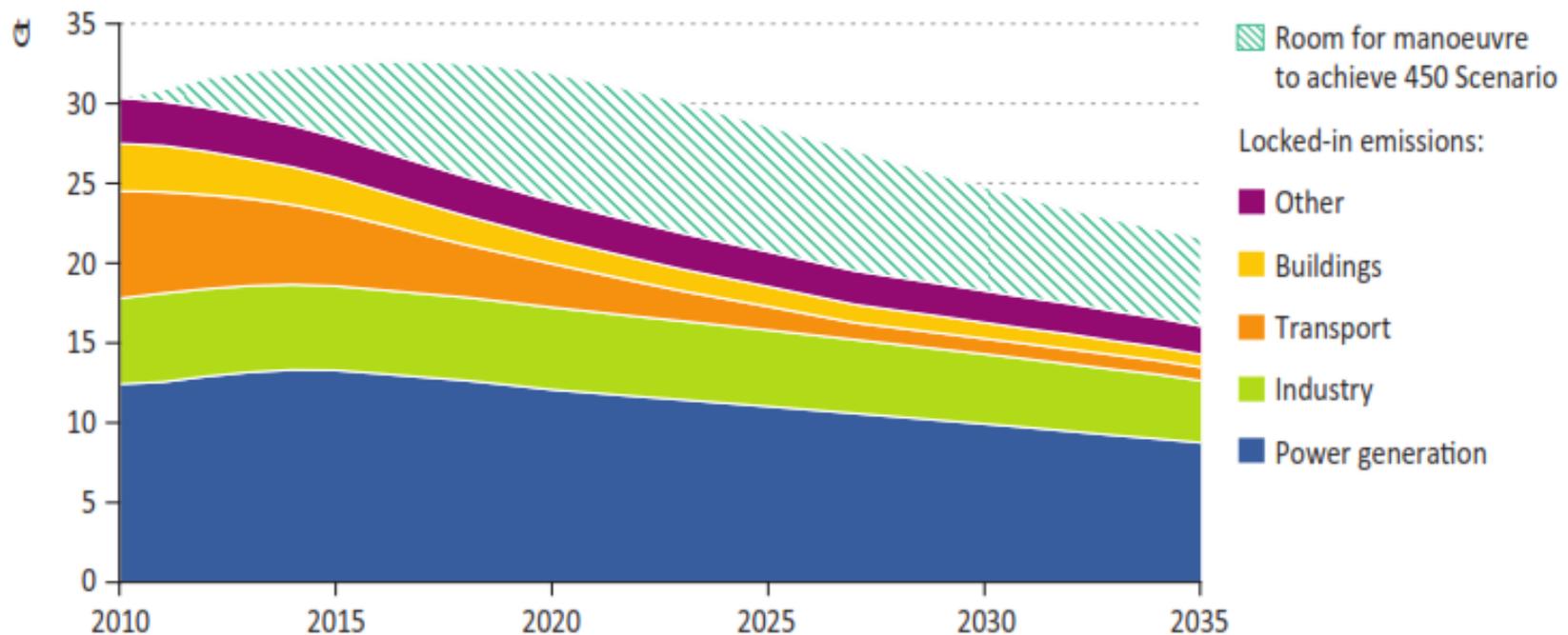
The door is closing, but when will we be “locked-in”?

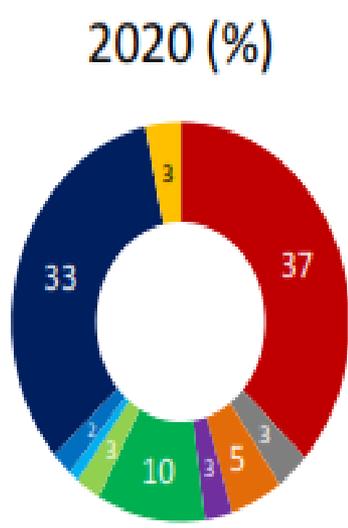
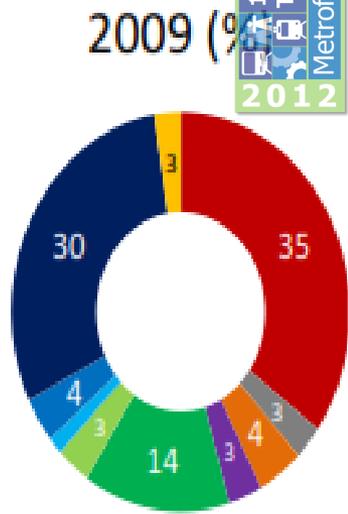
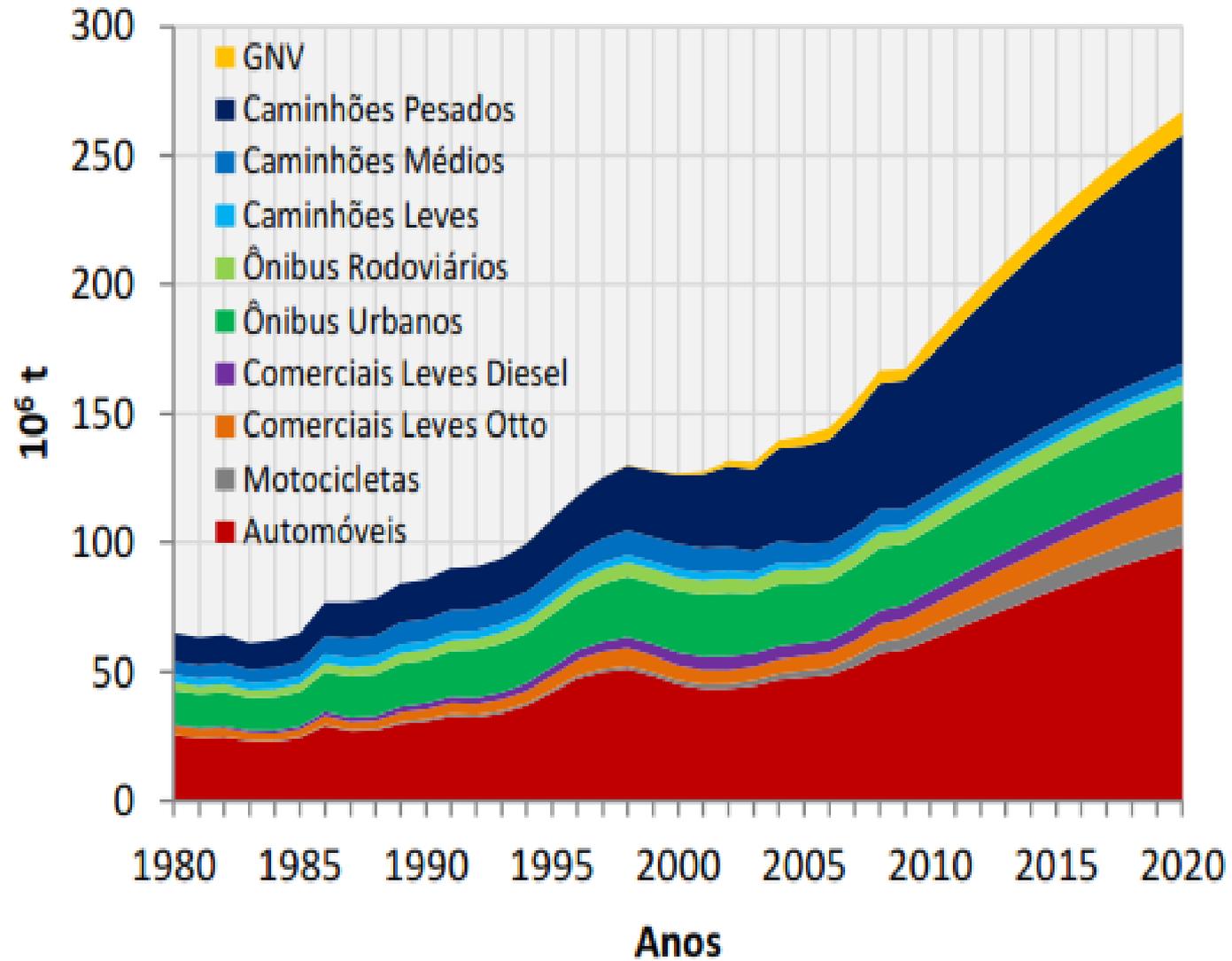
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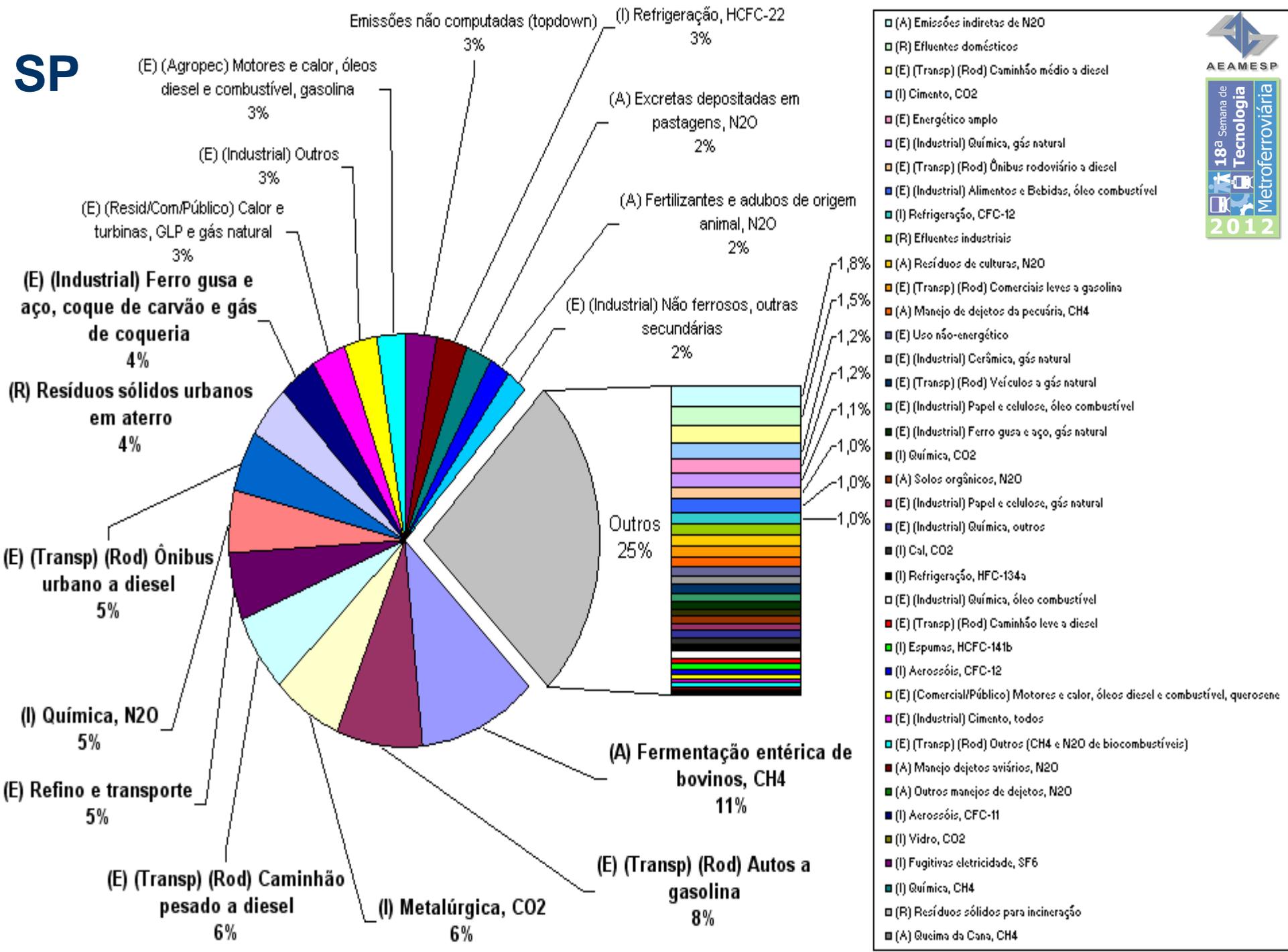
- Global energy-related carbon-dioxide (CO₂) emissions reached 30.4 Gt in 2010, 5.3% above 2009, representing almost unprecedented annual growth. In the New Policies Scenario, our central scenario, CO₂ emissions continue to increase, reaching 36.4 Gt in 2035, and leading to an emissions trajectory consistent with a long-term global temperature increase of more than 3.5°C.
- The 450 Scenario prescribes strong policy action to limit climate change, and results in global CO₂ emissions peaking before 2020 and then declining to reach 21.6 Gt in 2035. The share of fossil fuels in the global energy mix falls from 81% in 2009 to 62% in 2035. Global demand for both coal and oil peak before 2020, and then decline by 30% and 8% respectively by 2035, relative to their 2009 level. Natural gas demand grows by 26%. The 450 Scenario requires additional cumulative investment of \$15.2 trillion relative to the New Policies Scenario, but delivers lower fossil-fuel import bills, reduced pollution and health benefits.

- New country-by-country analysis reveals that 80% of the total CO₂ emitted over the *Outlook* period in the 450 Scenario is already “locked-in” by our existing capital stock (e.g. power plants, buildings, factories), leaving little additional room for manoeuvre. If internationally co-ordinated action is not implemented by 2017, we project that all permissible CO₂ emissions in the 450 Scenario will come from the infrastructure then existing, so that all new infrastructure from then until 2035 would need to be zero-carbon. This would theoretically be possible at very high cost, but probably not practicable in political terms.

Figure 6.12 • World energy-related CO₂ emissions from locked-in infrastructure in 2010 and room for manoeuvre to achieve the 450 Scenario







Alguns números

- de 2009 a 2011 o crescimento do consumo de gasolina foi de 57%; o do diesel, de 27%; o do etanol caiu 34%
- investimento nacional em transporte: 0.4% do PIB em 2012 contra 1,8% em 1975.
- INSS gasta 7,2% do PIB; serviços da dívida pública 5,1% do PIB; educação 5,12% do PIB (meta do PNE é 10%)
- incentivos fiscais nacionais em 2011: ~ US\$60 bi (~3% do PIB), sendo cerca de US\$ 10 bi na indústria automobilística
- investimentos na Copa, Olimpíadas, Trem Bala e Belo Monte: ~US\$ 80 bi
- investimentos em E&P de petróleo no Brasil (2011-2020): entre US\$275,9 bi e US\$302,7 bi

- **investimento total na Linha 4-Amarela do metrô: ~ US\$ 2,8 bi**
- **em 2011 o Metrô gerou uma economia de ~US\$ 3,2 bi para a cidade de São Paulo, considerando os benefícios de sua utilização**
- **metrô evita ao Município de SP um gasto anual de US\$ 18 bilhões com mortes pela poluição**

Proposta ao Metrô: integração

- **integração com uso do solo urbano**
 - Metrô como agente determinante no Plano Diretor Municipal
- **integração com outros modais:**
 - Metrô convivendo e complementado por autos, bicicletas
- **integração energética**
 - Metrô como agente indutor de novas tecnologias