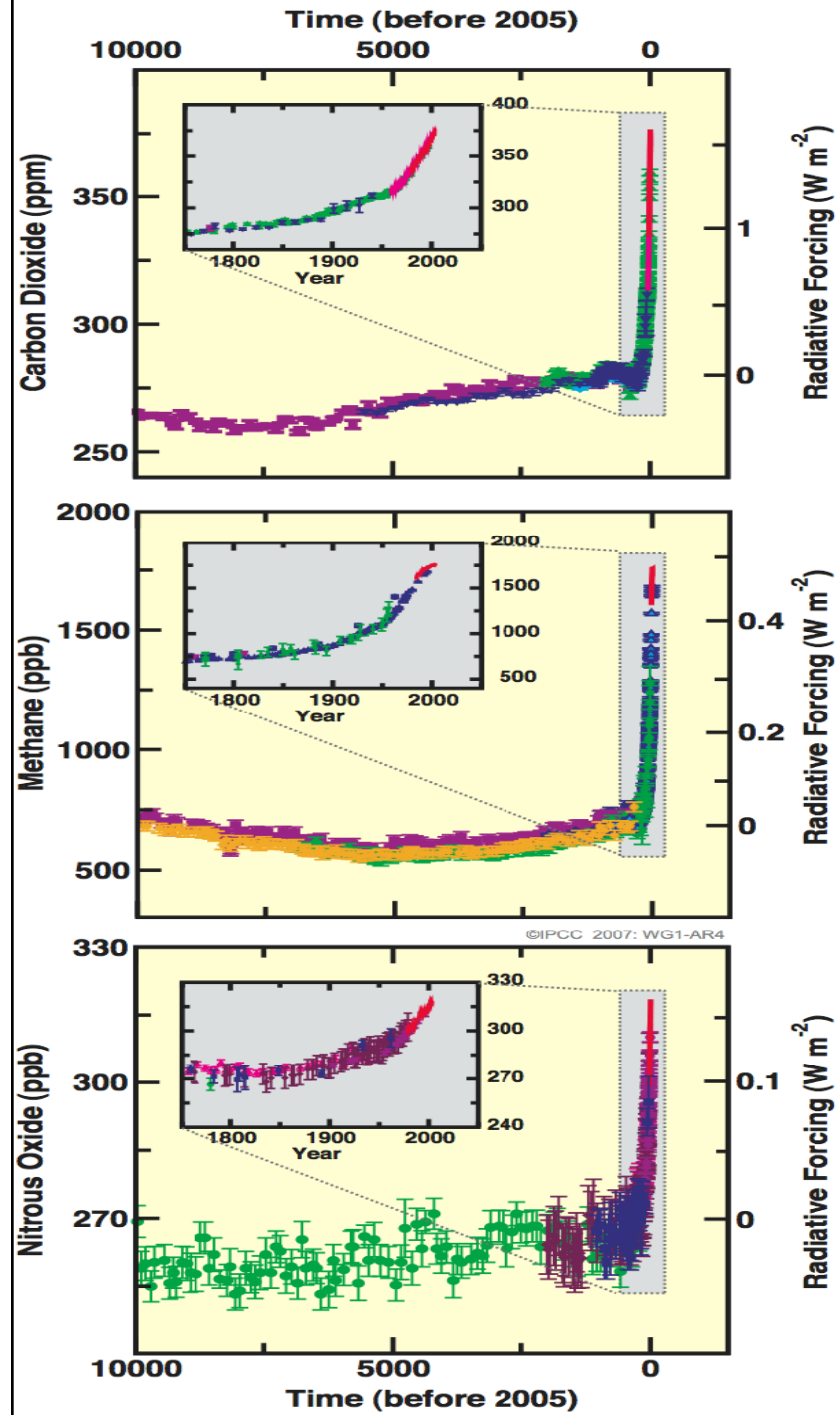
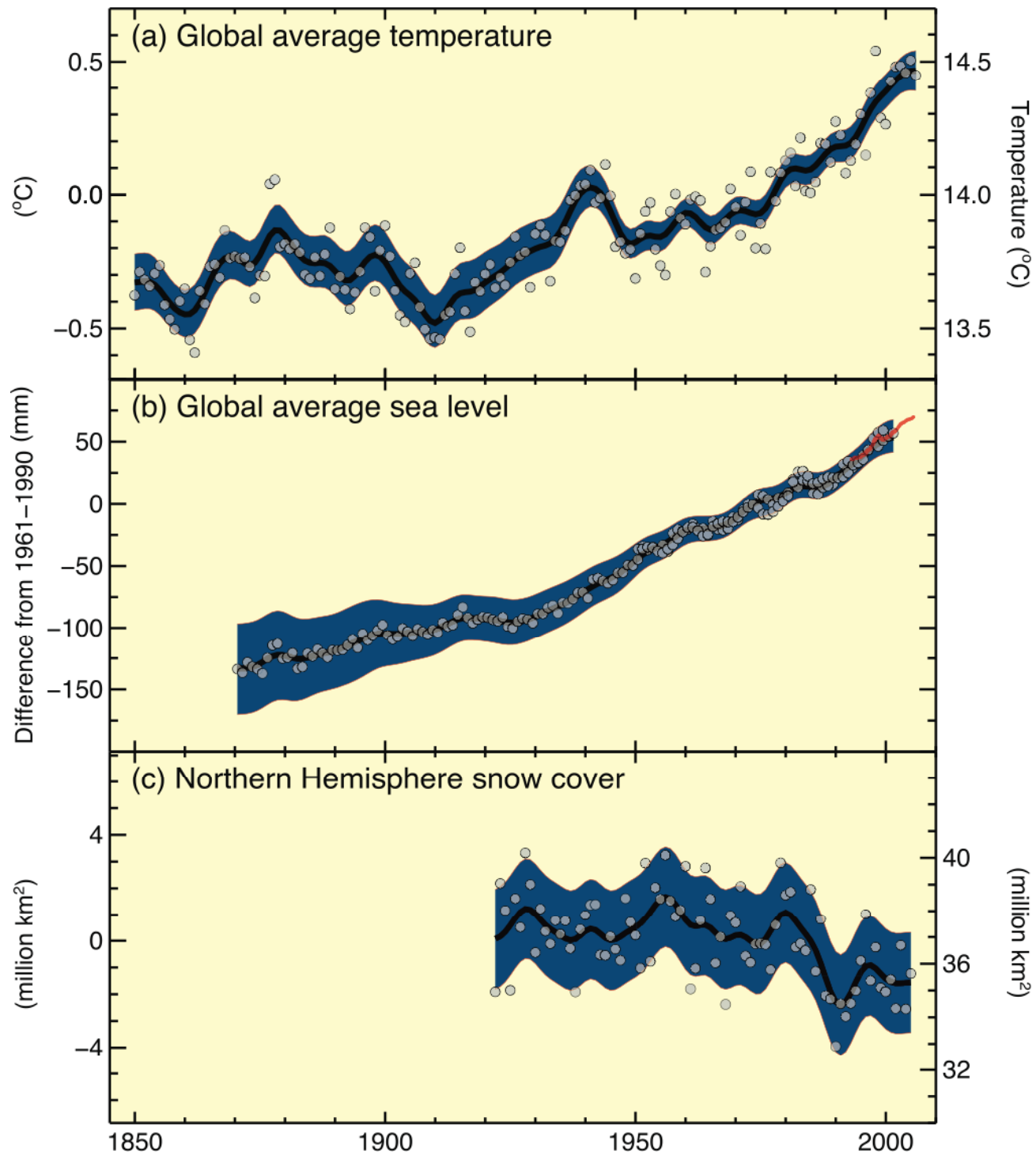
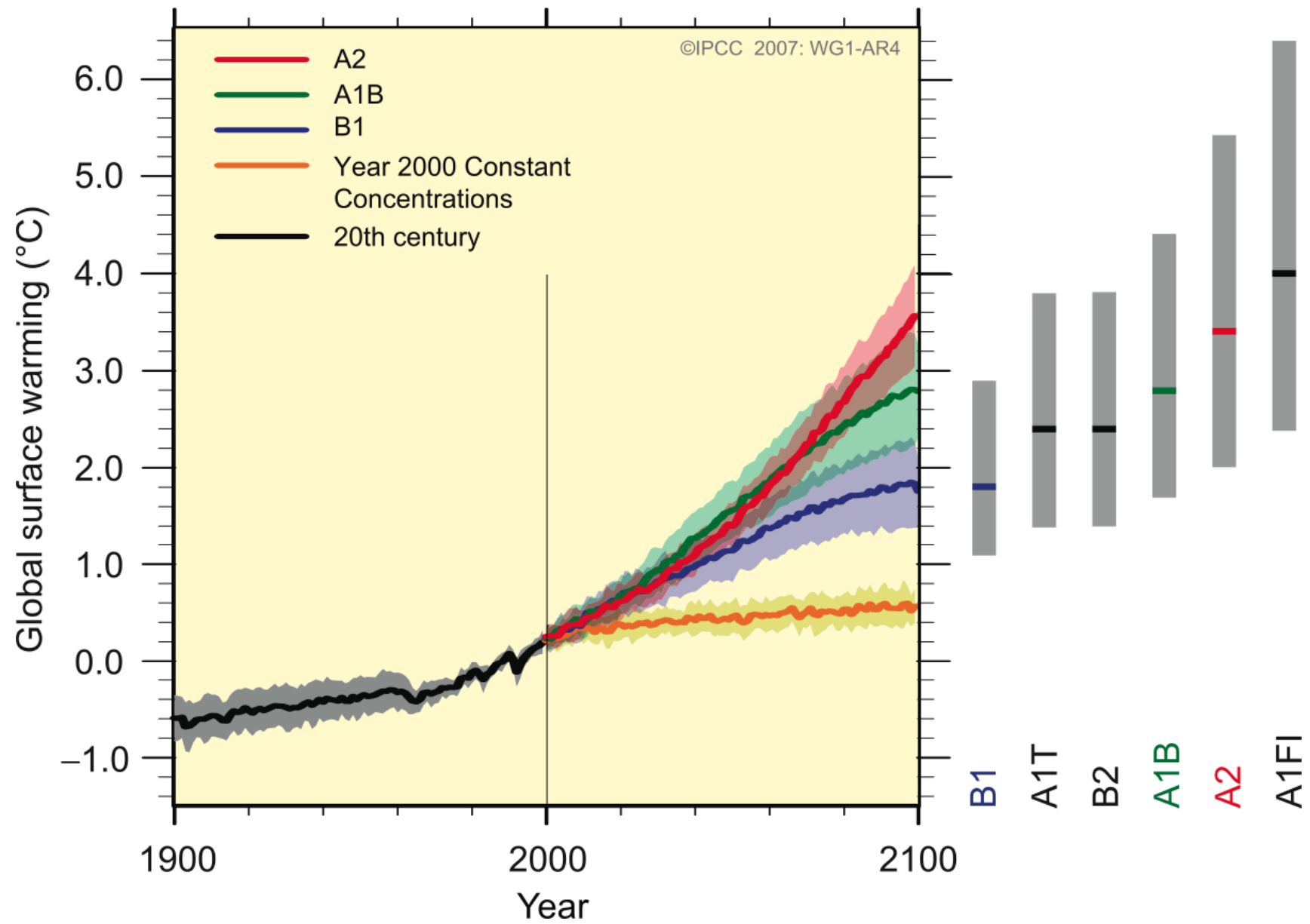


Changes in Greenhouse Gases from ice-Core and Modern Data







ICT contribution to the emergence of carbon sober social behaviors

- Reduction of the travel needs
- Tracking the ecological print
- Reduction of energy consumption in systems
- Concluding remarks

Travel needs reduction

- Teleworking
- e-government
- Telemeeting
- Telemedicine
- e-commerce

Teleworking saves travel emissions

- 22 000 000 employees in France
- 80% using their own car
- Distance travelled per day : 30km
- 170 g CO₂ per km
- 218 working days per year
- 1/2 teleworkers
- 10 MtCO₂ = 2,5 % of the present French emissions

Teleworking: office buildings emissions saving

- 22 000 000 employees in France
- 25m²
- 415 kWh/m² per year
- ½ teleworkers
- 114 000 000 000 kWh per year
- 10 Mtep per year
- 40 Mt CO₂ per year = 10% of the present French emissions

e-Commerce

- 30 kg of products bought every week
 - Distance travelled back and forth 20km
 - 170g CO₂ per km
 - 8 families will emit 27 kg CO₂
-

1 commercial vehicle emitting 438g per km and per ton could deliver the 240 kg to the 8 clients within a 20 km journey with 2,1kg CO₂ emissions.

Annual saving : 1t CO₂ per 8 families

States actions

in favor of teleworking

- promoting experiences in particular in the public administration,
- promoting adequate managers training.

in favor of teleconferencing

- fiscal incentives

Local authorities actions

- Setting up telecenters, located near public transportation nodes in the city center, to be rented in a flexible way.
- Setting up teleconference facilities open to public, offering via broadband communications channels the transmission of images, sound and data with a quality which compares with the face-to-face situation

ICTs and carbon tax

- RFID technologies can provide a knowledge of the carbon content which could be taken into account by some customers or transformed into a more convincing signal for all customers, through a carbon tax.
- ICTs are a basic complement to a carbon tax. They would reduce the impacts of such a tax on the costs and would translate the price signal into real GHG emissions reductions. The exact way in which they will be used will depend upon the producers and consumers creativity.