

# **Influence of the Temperature over CO2 Emissions (First Results)**

**WLTP/DTP**

**Zurich 12/04/2011**

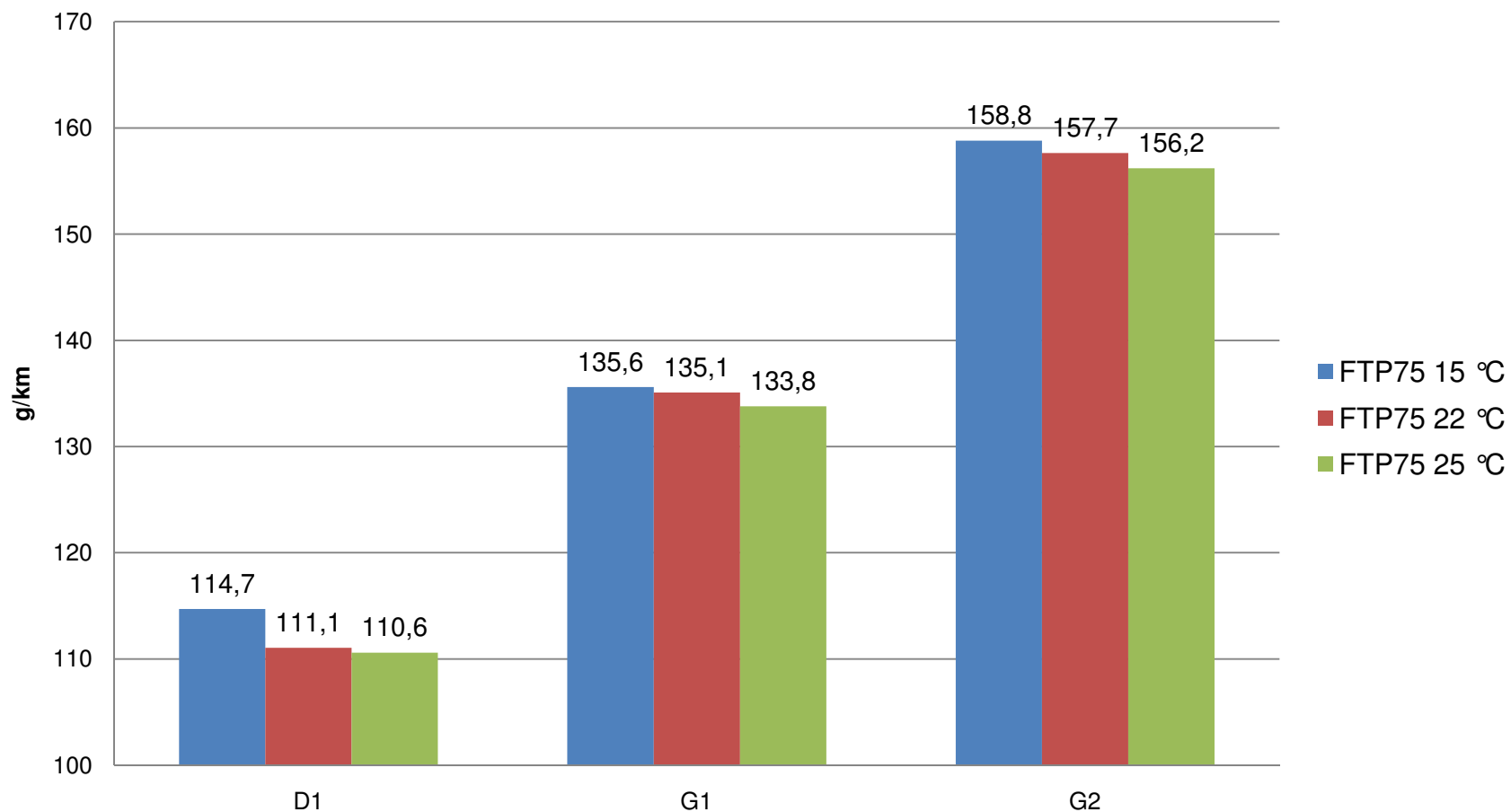
- 3 Vehicles (10 kkm)
  - 1 Diesel (D1)
  - 2 Gasoline (G1 & G2)
- 2 Test Cycles
  - FTP75
  - NEDC
- 3 Temperatures
  - 22°C
  - 25°C
  - 15°C

- Soaking & Test cell at  $T \pm 2^{\circ}\text{C}$
- Type approval CD values at  $20^{\circ}\text{C}$  corrected with test temperature (GTR draft RLD)

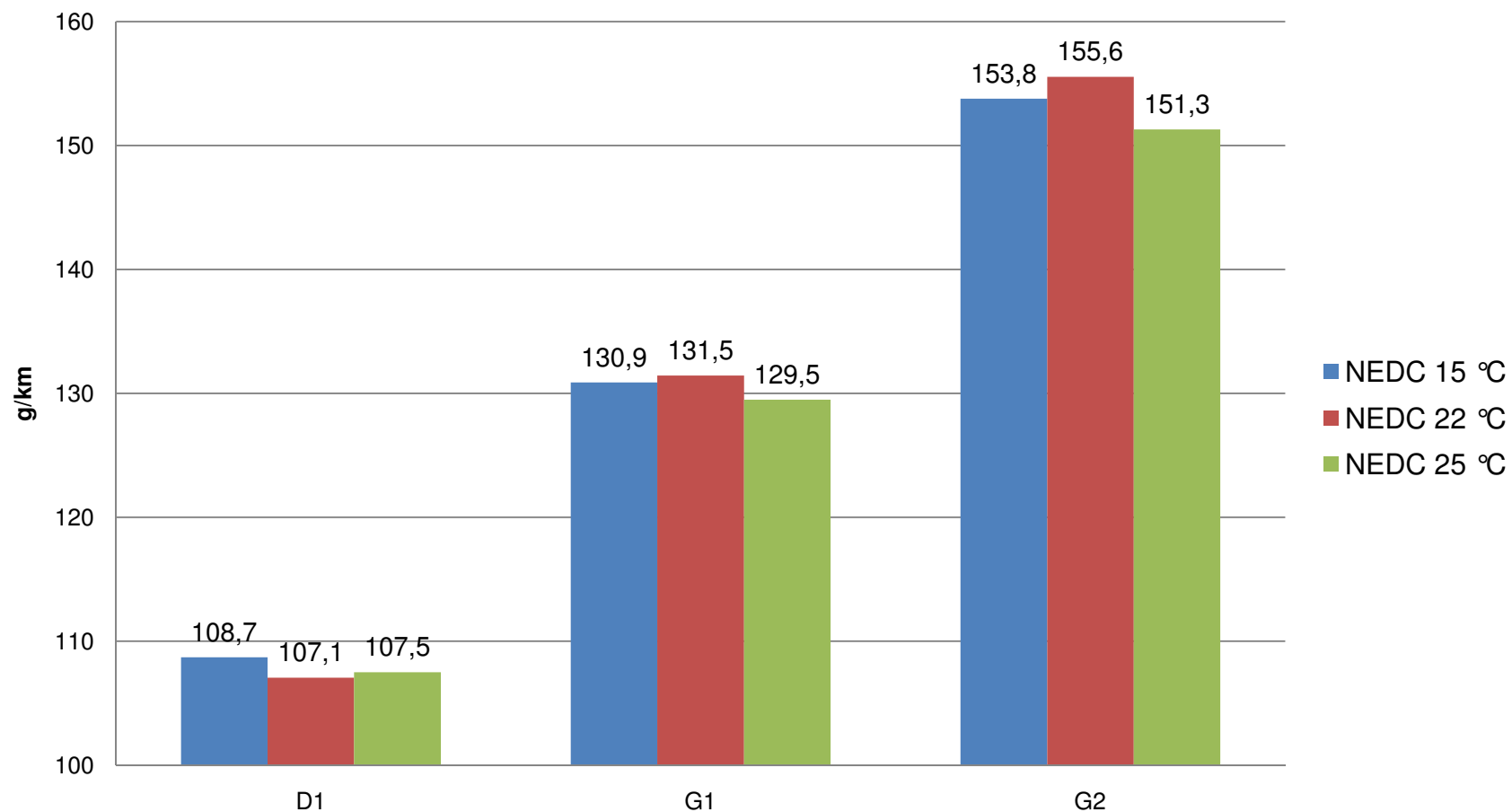
Influence of T on forces (compared to  $20^{\circ}\text{C}$ )

- $22^{\circ}\text{C} \Rightarrow \sim +1.0\% \rightarrow +2.5\%$
- $25^{\circ}\text{C} \Rightarrow \sim +2.0\% \rightarrow +5.0\%$
- $15^{\circ}\text{C} \Rightarrow \sim -2.0\% \rightarrow -5.0\%$

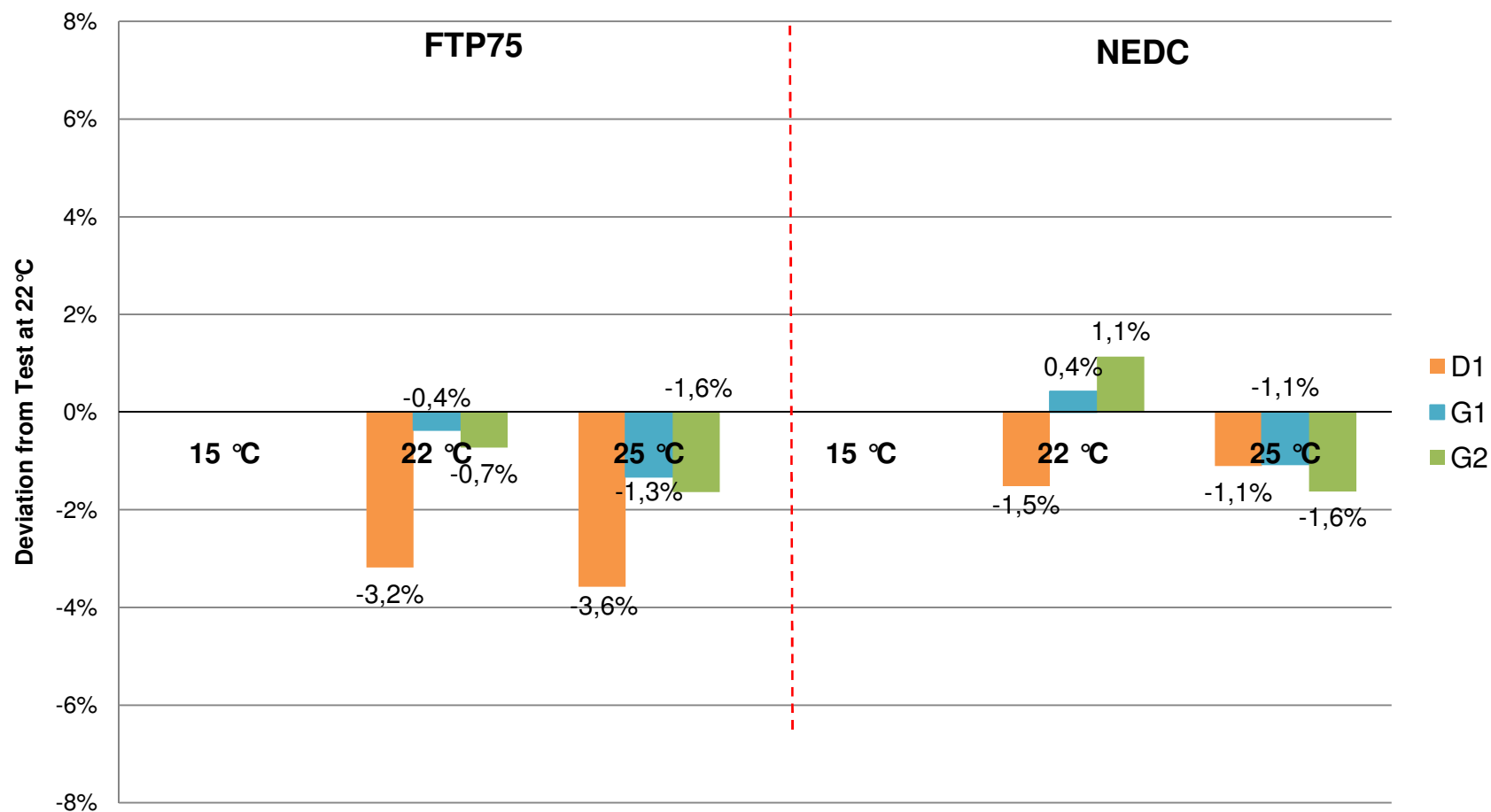
## CO2 Emissions - FTP75



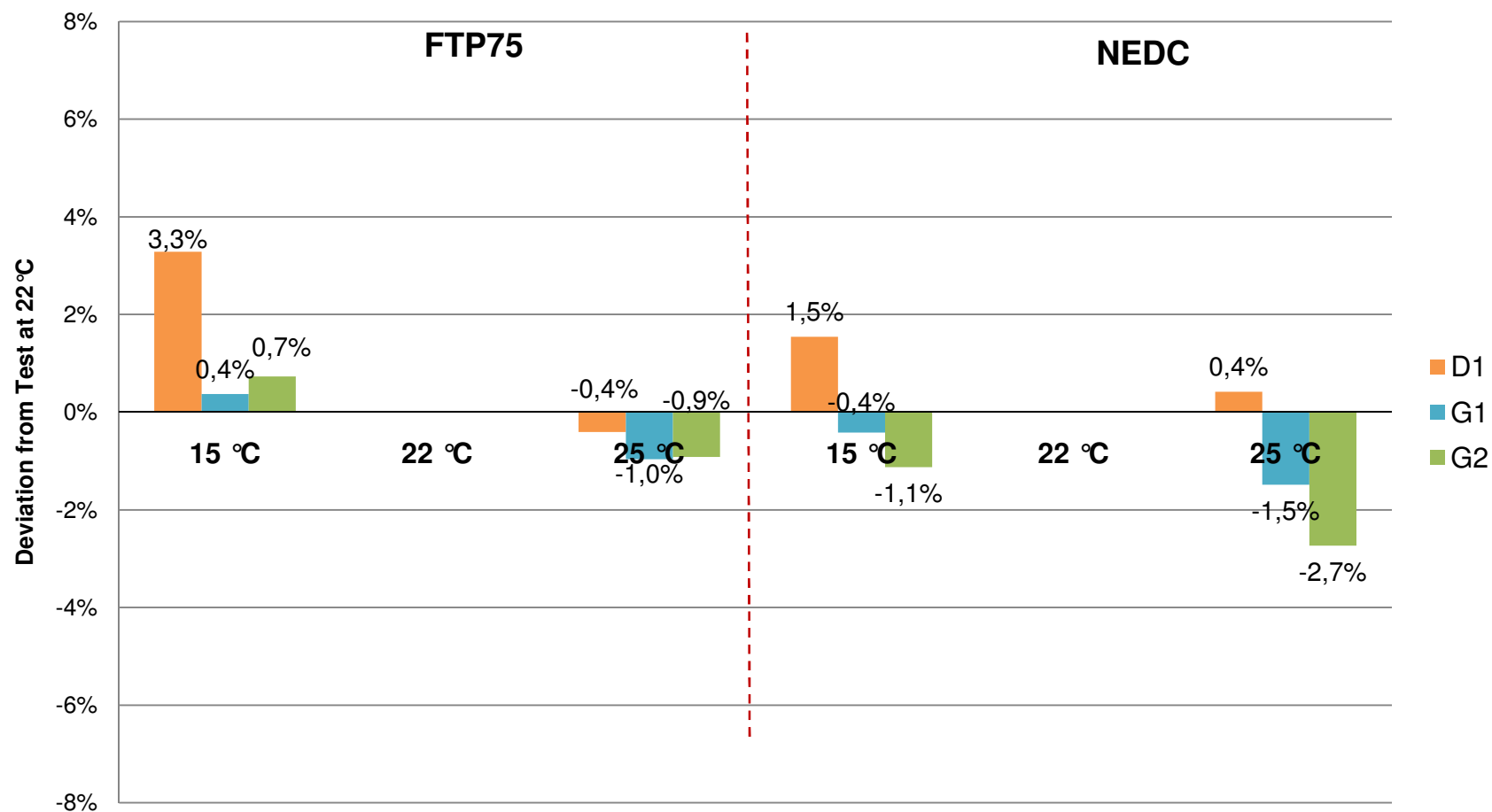
## CO2 Emissions - NEDC



## CO2 Emissions



## CO2 Emissions



The first results take us to the following conclusions:

- No significant influence of the cycle profile
- Low influence of 15 °C (compared to 22/25 °C)
- No significant influence at 25 °C compared to 22 °C