### How do you use heating, ventilation and air conditioning system in your car?

- I. Respondent data
  - 1. You are
    - a. male
    - b. female
  - 2. Your age
    - a. younger than 30 years
    - b. from 30 till 50 years
    - c. more than 50 years

#### II. Car data

- 1. Fuel type
  - a. gasoline
  - b. diesel
  - c. other
- 2. Powertrain type
  - a. manual transmission
  - b. automatic transmission
  - c. hybrid-electric vehicle
  - d. all electric vehicle
- 3. Car age
  - a. less than 3 years
  - b. from 3 up to 5 years
  - c. from 5 up to 10 years
  - d. more than 10 years
- 4. Heating, ventilation and air conditioning (HVAC) system type
  - a. manual control
  - b. automatic control
- 5. Cabin filter type
  - a. no filter
  - b. dust filter
  - c. carbon filter
- 6. Do you use additional equipment for air purification
  - a. nothing
  - b. additional in-cabin filter
  - c. air purifier other than filter

#### III. Time inside a car

- 1. Do you store your car in a garage
  - a. outside
  - b. car port, roof only
  - c. inside garage
- 2. Do you pre-heat or pre-cool the interior prior to driving, if your answer "no" then skip the next question.
  - a. no
  - b. yes, outside the vehicle with remote key fob or phone application
  - c. yes, while waiting in the vehicle
- 3. What time you usually wait to pre-heat or pre-cool the interior

time	winter time	summer time
a. less than 5 minutes		
b. 5 to 10 minutes		
c. 10 to 15 minutes		
d. more than 15 minutes		

- 4. What total time do you usually drive inside a car daily
  - a. less than ½ hour
  - b. from ½ to 1 hour
  - c. from 1 to 2 hours
  - d. more than 2 hours
- 5. What total time do you usually idle inside a parked car with engine running

time	winter time	summer time
a. never		
b. less than 5 minutes		
c. 5 to 10 minutes		
d. 10 to 15 minutes		
e. more than 15 minutes		

- 6. Have you ever smelled an unpleasant odor inside a car while <u>parked</u> with the engine running
  - a. no
  - b. yes
- 7. Have you ever smelled an unpleasant odor inside a car while <u>driving</u>
  - a. no
  - b. yes

please see next page

IV. Heating, ventilation and air conditioning system (HVAC) operation modes settings

### NOTES:

- o Mark all that apply
- o If automatic "auto" mode is selected some items will be left unmarked

# 1. HVAC operation modes in winter time

	Heating/		Aut	to	n Recirculation			Ventilation speed			Ventilation direction						Temperature setting inside				
Driving	conditioning		Mode													car (deg. Celsius)					
mode	on	n off on off		off	on	off	off min med max		open					₩:	≤18	19-	21-	23-	≥25		
											window			MY		-14		20	22	24	
parking																					
driving																					

# 2. HVAC operation modes in <u>summer time</u>

	Heating/		Auto Recircu			culation	Ventilation speed			Ventilation direction						Temperature setting inside					
Driving	g conditioning		Mode												car (deg. Celsius)						
mode	on	on	on	off	on	off	off	min	med	max	open window	23	'n	<b>(#)</b>	Ž	ile ile	≤18	19- 20	21- 22	23- 24	≥25
parking																					
driving																					