SLOVENIAN TRAFFIC SAFETY AGENCY

SOUTH EAST EUROPE
Transnational Cooperation Programme

ROSEE
ROad safety in South East European regions

Programme co-funded by the EUROPEAN UNION

Traffic safety research

(Interviewing and analysis carried out under ROSEE project)

Research Report

Slovenian Traffic Safety Agency

Ljubljana, June 2014

MEDIANA
Beyond numbers

CONTENT OF RESEARCH REPORT

- Project definition
- Results summary

- 1. Web research
- 2. Field research – Ljubljana
- 3. Field research – Maribor

RESEARCH GOALS AND RESEARCH METHOD

- Slovenia traffic safety agency is developing a pilot model in the Central Slovenian region and Podravska region, where effective measures for traffic safety of cyclist will be executed
- In Ljubljana, a bicycle counter was placed in the area of Dunajska road in April 2014. In Maribor, a „sharrow“ zone was implemented – a common traffic surface with enables the cyclists to share the traffic lane by using the space in the middle of the roadway.
- The purpose of the study was to gain insight into public opinion about the traffic safety and the conduct of participants, above all cyclists, car drivers and pedestrians, in traffic at the locations of the bicycle counter (Ljubljana) and the implemented „sharrow“ surface (Maribor) before and after the implementation of these measures.

- **Method**
  - **1. Web survey by use of Mediana Web Panel**
    - General public, aged 18+
    - Before measure (ex-ante): N=305
    - After measure (ex-post): N=324
    - Interviewing was conducted between 23rd and 26th of September (ex-ante) and 8th to 11th of April 2014 (ex-post)
  - **2. Field interviewing in Ljubljana**
    - General public, aged 15+
    - Before measure (ex-ante): N=151 (in front of Delo building, Bavarski Dvor, opposed to Union brewery – Celovška cesta)
    - After measure (ex-post): N=150 (near the counter, in front of Delo building)
    - Interviewing was conducted between 26th and 27th of September (ex-ante) and 4th to 7th April 2014 (ex-post)
  - **3. Field interviewing in Maribor**
    - General public, aged 15+
    - Before measure (ex-ante): N=150 (Slomškov square)
    - After measure (ex-post): N=150 (Slomškov square)
    - Interviewing was conducted between 6th and 8th of November (ex-ante) and 4th to 26th of April 2014 (ex-post)

SUMMARY AND EVALUATION OF RESULTS

SUMMARY (1)

- Perception of traffic and traffic safety in general – **Slovenia**

  - Over 80 % of respondents are worried because of traffic safety in Slovenia.
  - Over 60 % of respondents think that our roads are not safe or not safe at all.
  - Among suggestions for improvement of traffic safety, respondents most often mentioned: renovation of traffic infrastructure and improvement of traffic culture among participants in traffic.

  - Most respondents (about 40 % of all) use car the most on a daily basis
  - Two thirds of respondents need up to 40 minutes to get to work/school; about two tenths of participants need more than an hour to get there.
  - Largest share of participants goes to work/school by car, but would prefer to get there on foot.
  - Among factors that would contribute to larger use of bicycles as means of transport to work/school, we can find: maintenance of bicycle paths, distance and better options of parking for the bicycles.

SUMMARY (2)

Bicycle counter – **Ljubljana**

- At the location in Ljubljana, over a fifth of respondents already experienced a conflict traffic situation before the measure implementation → the same is true for a tenth of participants after the implementation.
- At the location of interviewing before the measure, 45 % of respondents didn‘t feel threatened, which is also true for 58 % of respondents at the location of interviewing after the measure implementation.
- About two thirds of respondents noticed its implementation.
- Almost all respondents find the bicycle counter noticeable and think that it‘s noticed the most by pedestrians.
- About half of the respondents before the implementation and 40 % of respondents in the research after the implementation think that the bicycle counter improves the traffic safety at the location.
- 80 % of respondents before implementation and 84 % respondents after implementation support the implementation of bicycle counter at the location
- In order improve the traffic safety, respondents suggest tighter control of the traffic and improvement of culture of participants in traffic.
- About two thirds of respondents in Ljubljana evaluate the road as safe or very safe.

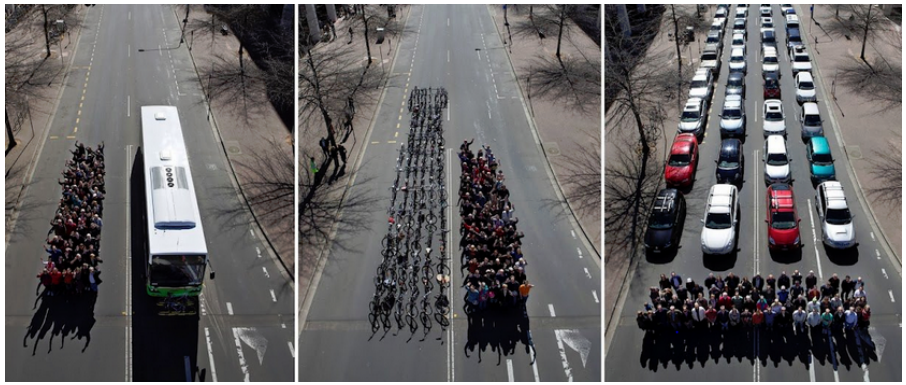
SUMMARY (3)

Sharrow zone – **Maribor**

- At the location in Maribor, 28 % of respondents already experienced a conflict traffic situation before the measure implementation → the same is true for 14 % of participants after the implementation.
- At the location of interviewing 25 % of respondents felt threatened before the implementation → after the implementation this share went down to 18 %
- Almost three quarters of drivers or cyclists noticed Sharrow after its implementation
- Generally, respondents think that sharrow is noticed more by cyclists as it is by car drivers.
- Participants think that the main purpose of sharrow is greater traffic safety, greater safety of cyclists and increased attention of car drivers regarding the cyclists.
- More than 80 % of respondents think that sharrow contributes to larger safety in traffic; over 80 % of participants would support the implementation of sharrow on other similar locations in the city.

- About three quarters of respondents in Maribor evaluate the road as safe or very safe.

1. WEB RESEARCH - SLOVENIA

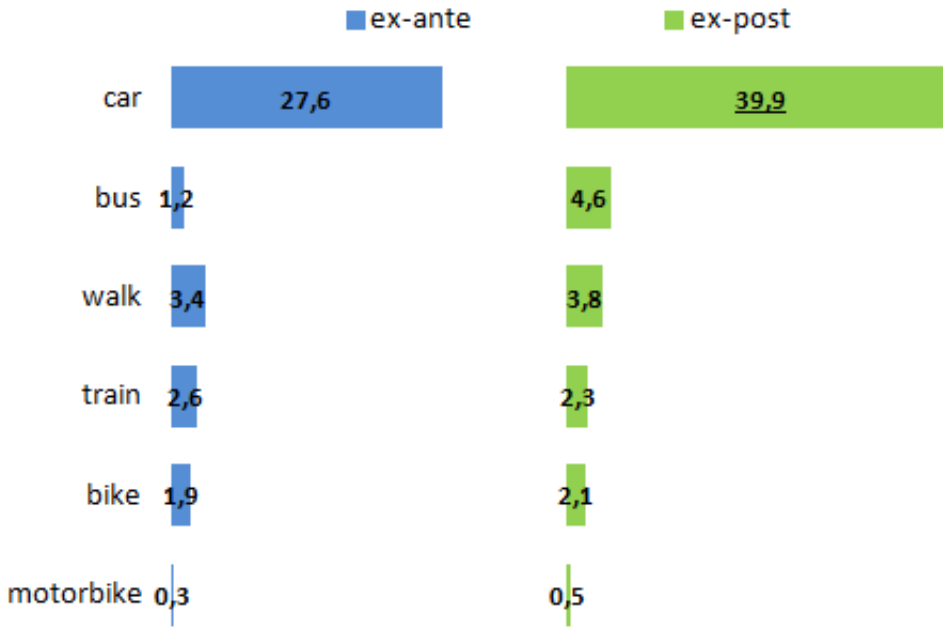


1.1 WEB RESEARCH

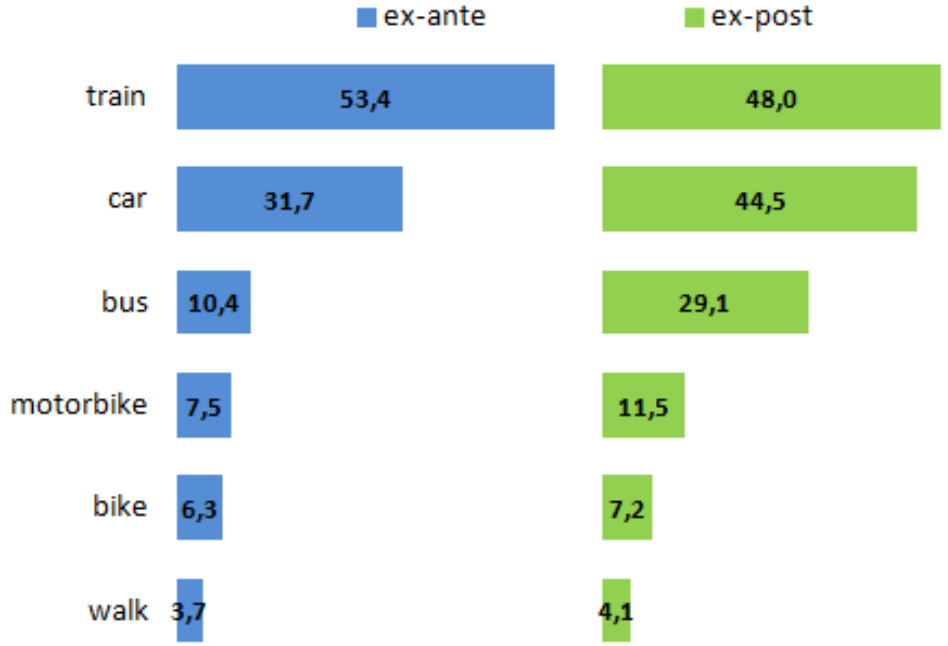
TRAFFIC RELATED HABITS

AVERAGE NR. OF KM / DAY
Daily, most of the mileage is made with car

How many kilometres do you make per day with...?



Base: all respondents



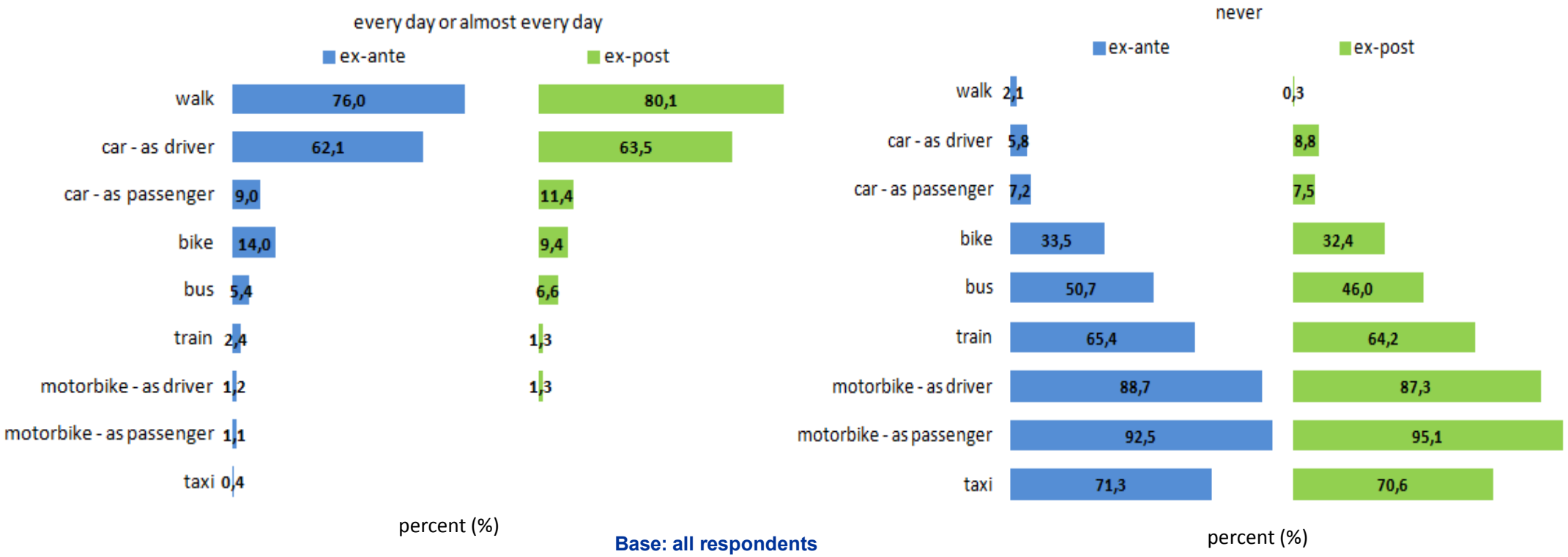
Base: only respondents that use certain mean of transportation

- In both survey waves all respondents answered that they do most kilometers per day by car and the least with the motorbike
- Among those who use the means of transport used, respondents do the most mileage by train, followed by car
- In ex-ante wave drivers performed an average of 6.3 km, with bike, in the ex-post wave 7.2 km

DIFFERENT TRANSPORT MEANS USAGE

Car driving and walking are most common means of transport, motorbike is used the least often.

How often did you use the following forms of transport in the last year?



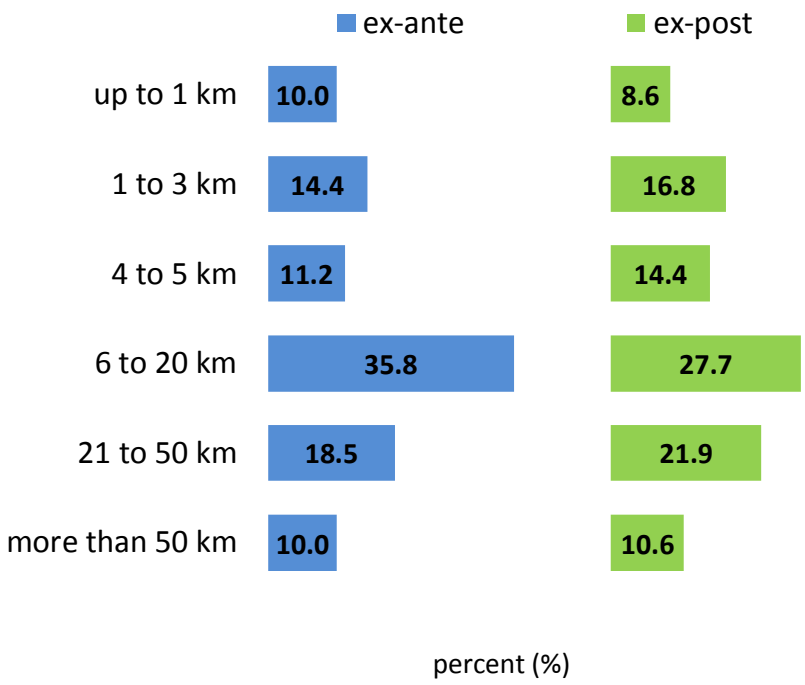
Base: all respondents

→ The respondents in the ex-ante and ex-post waves responded that most often go on foot, followed by the car – as driver.

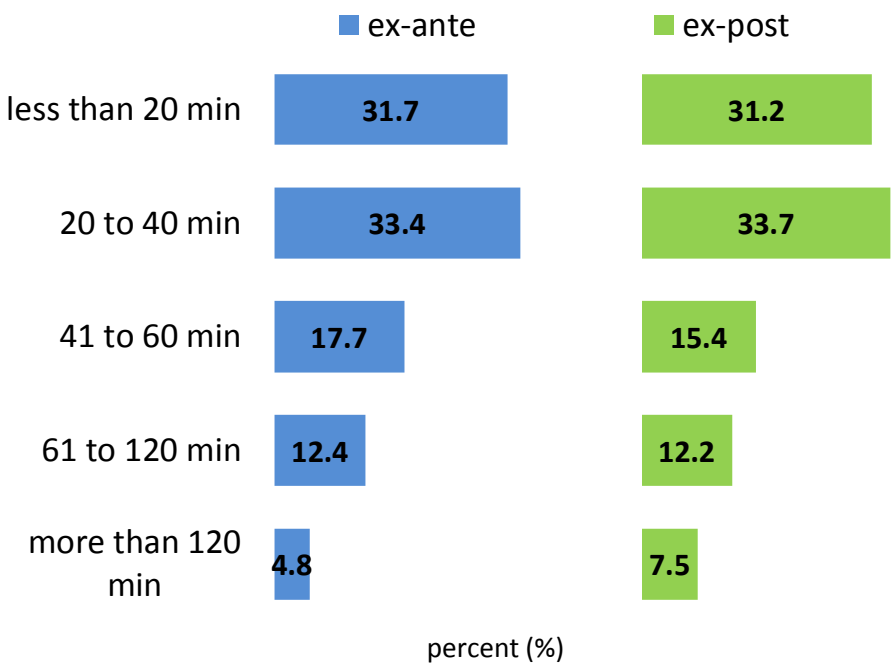
DISTANCE FROM WORK / SCHOOL AND TIME SPENT FOR ARRIVAL

Two thirds of respondents need up to 40 minutes for transport to work/school

How far is your workplace or. school from your home?



On average - how much time daily do you spend for getting to work or school and back home (in both directions)?



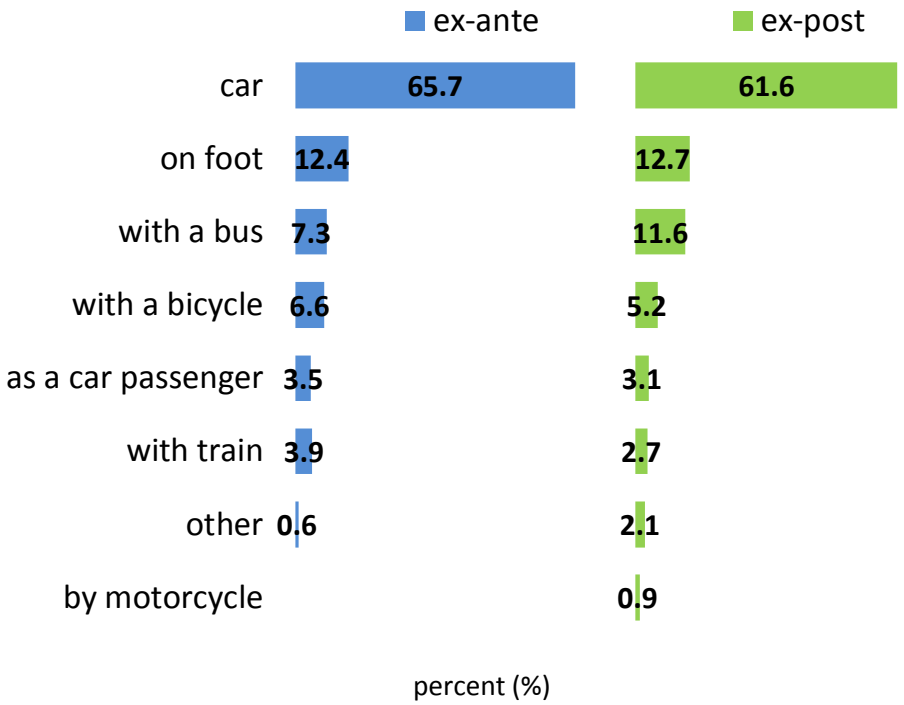
→ Two thirds of employed/schoolchildren need up to 40 minutes for transport to work/school
→ More than 20% need more than one hour.

Base: employed/ in school

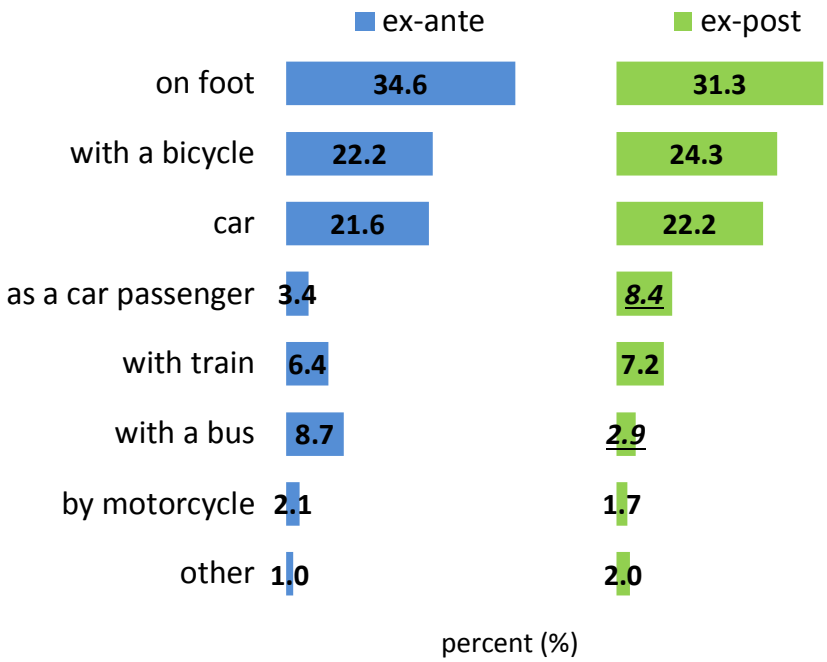
NORMAL AND DESIRED WAY OF TRANSPORTATION

The largest share of respondents comes to work/school by bus, but would prefer to go on foot

How do you usually get to work/school?



If you could choose, what would be your favorite method to get to work/school?

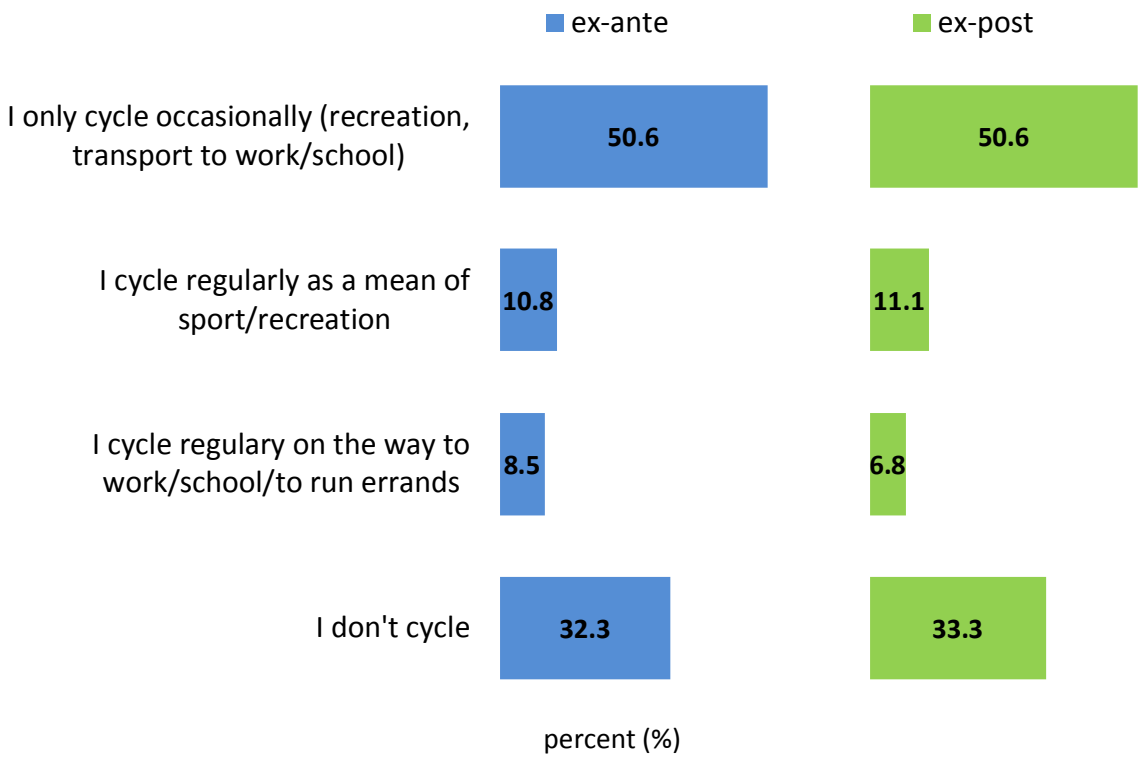


Base: employed/ in school

- About two thirds of employed/respondents in school come to work/school with car, about a tenth walk
- About a third of respondents would choose walking as their favorite mean of transportation, followed by bicycle and car in third place

TYPES OF CYCLISTS
About a half of respondents only cycle occasionally, a third never cycle

Which of the following statements best describes you as a cyclist? (several answers possible)



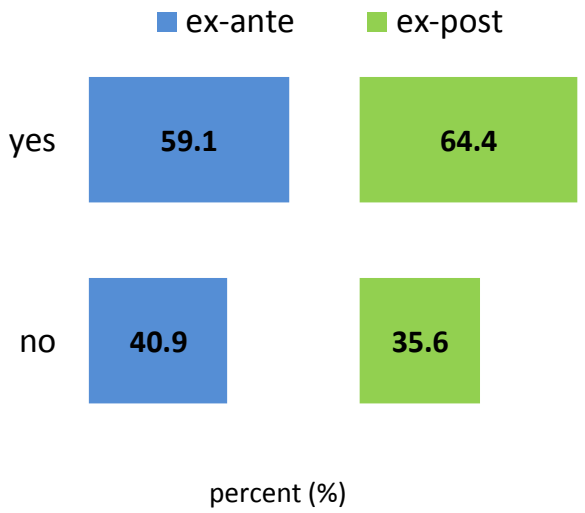
→ About a half of all respondents only cycles occasionally, a tenth cycles regularly for sport/recreation
→ A third of respondents in both waves of research never cycles

Base: all respondents

WILLINGNESS FOR MORE FREQUENT CYCLING TO WORK/SCHOOL

Maintenance of bike paths, long distances and bike parking contribute to the willingness

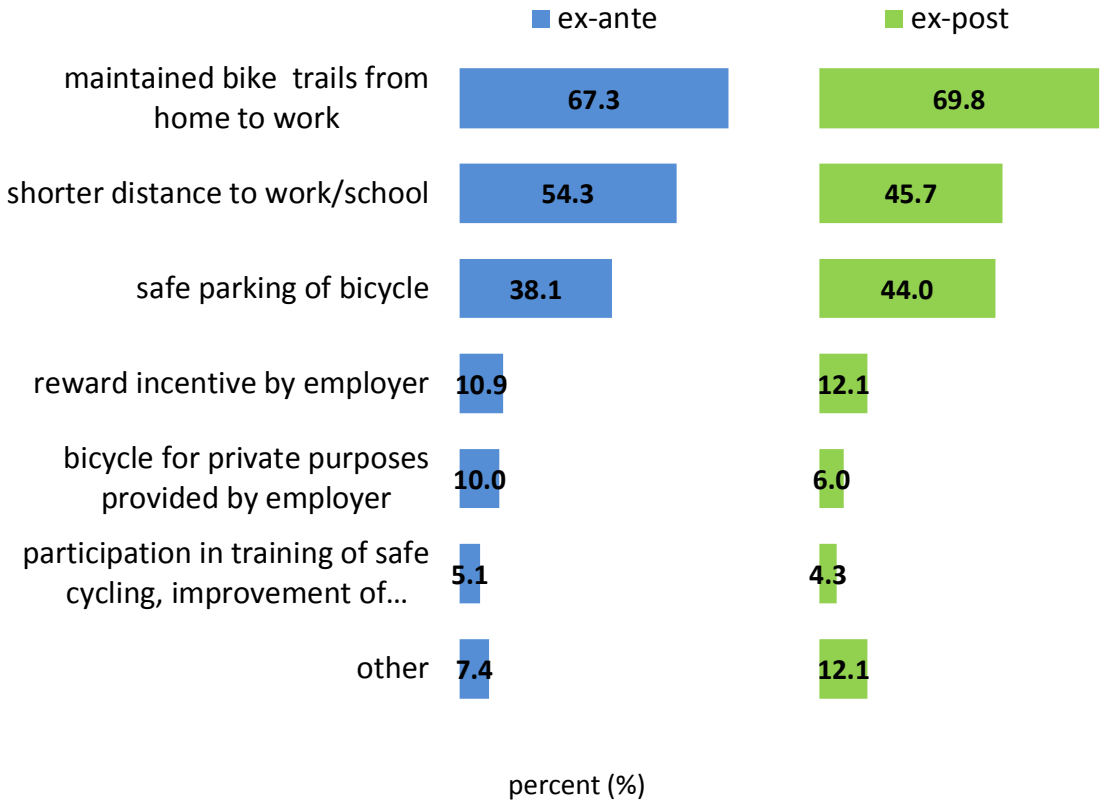
Would you be willing to use a bicycle for travel to work/school on a regular basis?



Base: those who don‘t cycle to work/school

→ About two thirds of respondents would be willing to use a bicycle for travel to work/school → their actions would mostly be influenced by maintained bike paths, shorter distances and safe parking of the bicycles

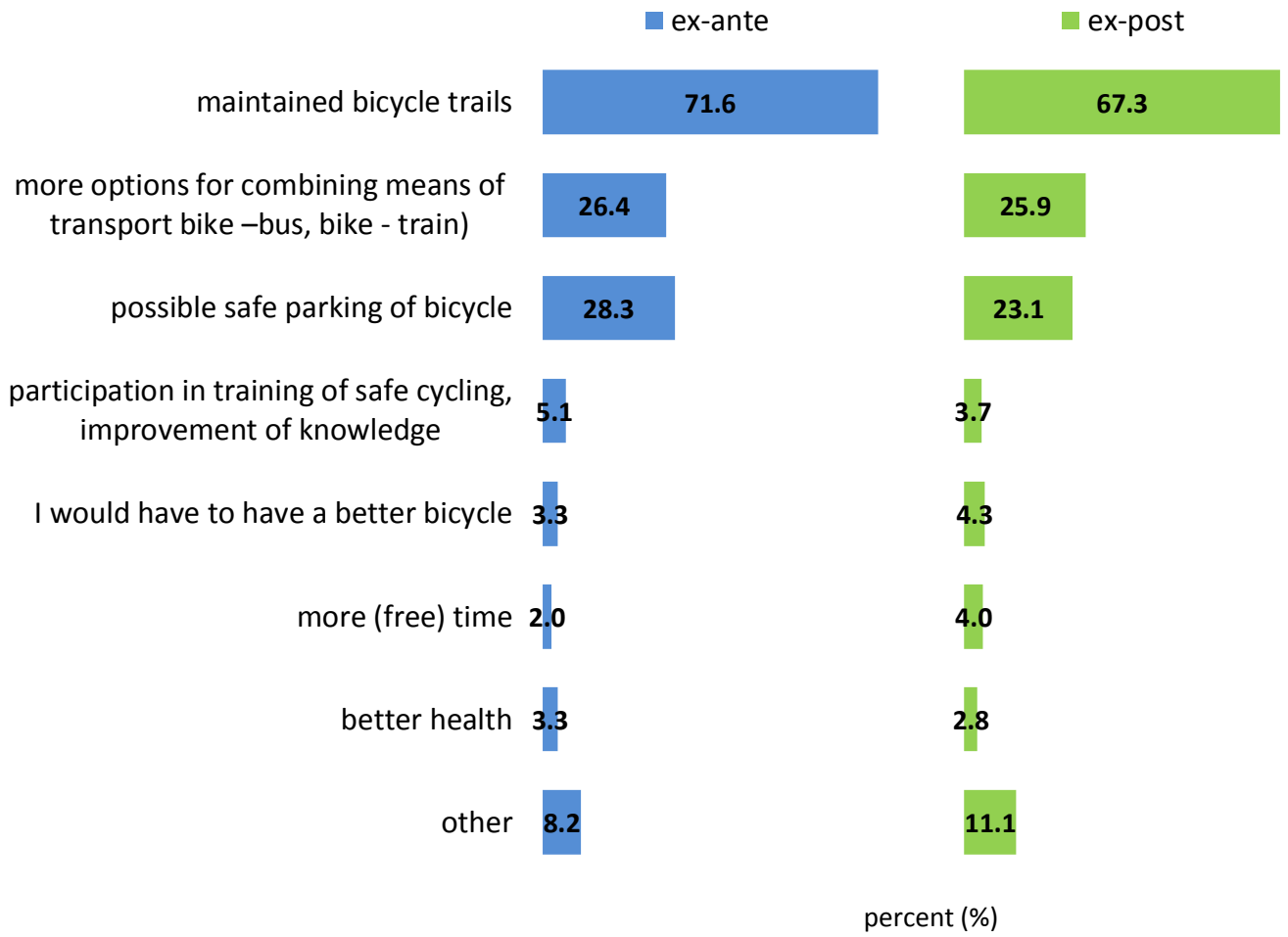
If yes, what conditions would have to be fulfilled in order for you to come to work/school with bicycle more often? (several answers possible)



Base: those who don‘t cycle to work/school and would be willing to use bicycle more often

FULFILLED CONDITIONS FOR MORE REGULAR CYCLING
Respondents miss well maintained bike paths the most

Which conditions would have to be fulfilled in order for you to cycle more in general? (several answers possible)



→ Generally, respondents in both waves of research answered that they would cycle more if they had maintained bike paths available
  → They would also be largely convinced by options to combine means of transport and possibility of safe bicycle parking

Base: all respondents

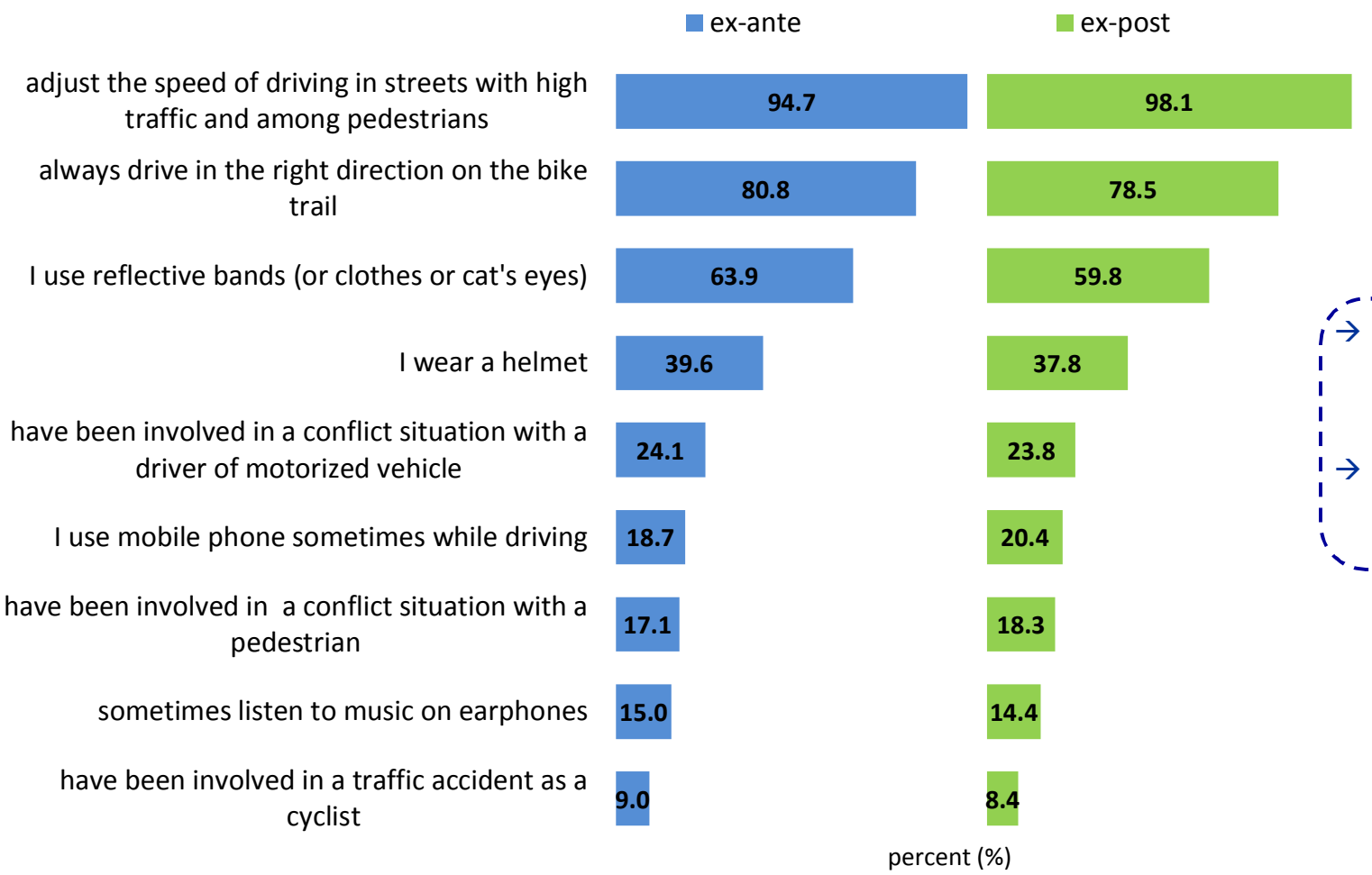
1.2 WEB RESEARCH

CYCLISTS IN TRAFFIC

CYCLIST BEHAVIOUR

Cyclists most often adapt the speed and comply with the correct direction of driving

(DO YOU) as a cyclist…?



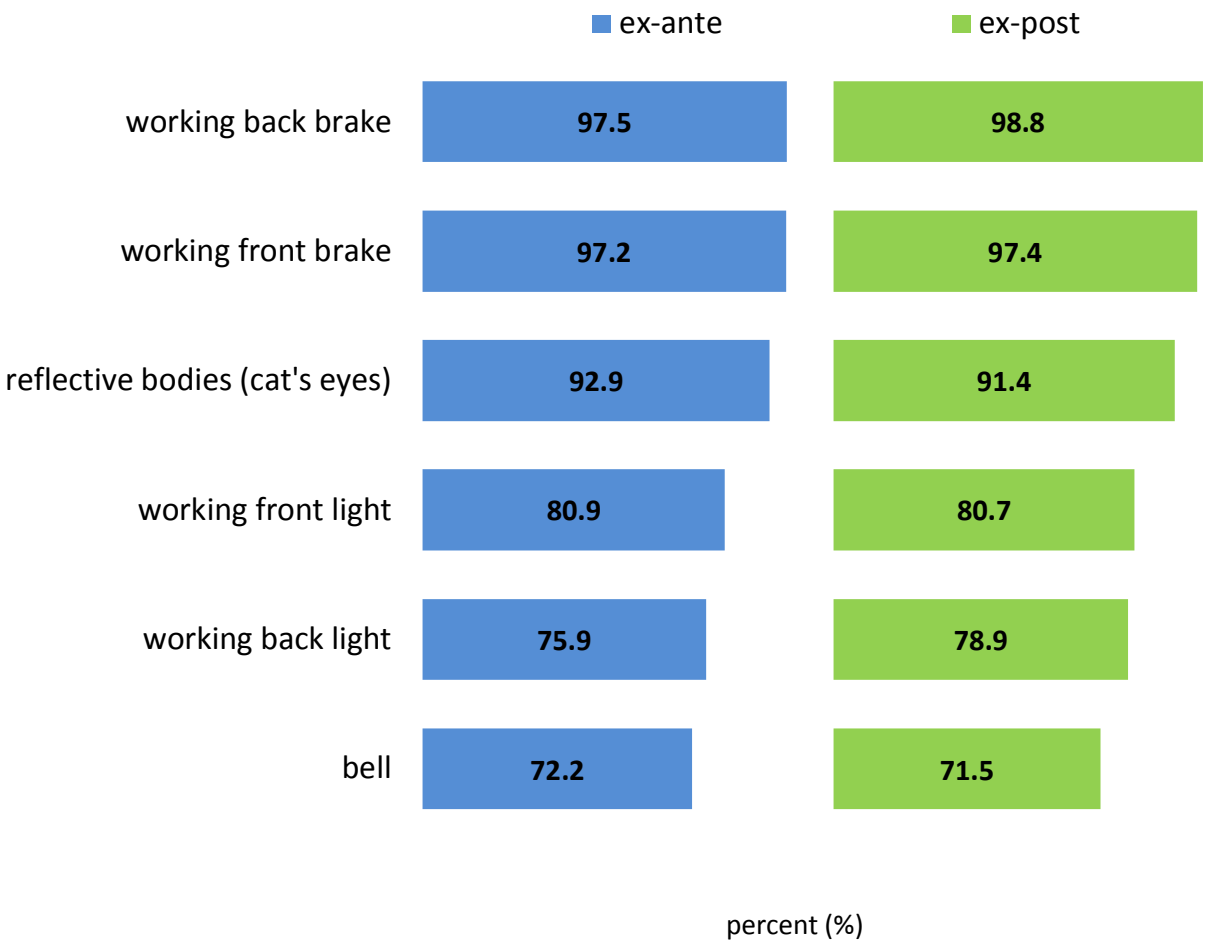
- Cyclists in both waves of research most often answered that they adapt their speed, comply with the correct direction of driving and use cat's eyes
- A little under a tenth of respondents have already been involved in a traffic accident as a cyclist

Base: cyclists

CYCLIST EQUIPMENT

Most cyclists have both working breaks and cat‘s eyes on their bikes, the fewest have a bell

How is your bicycle equipped?



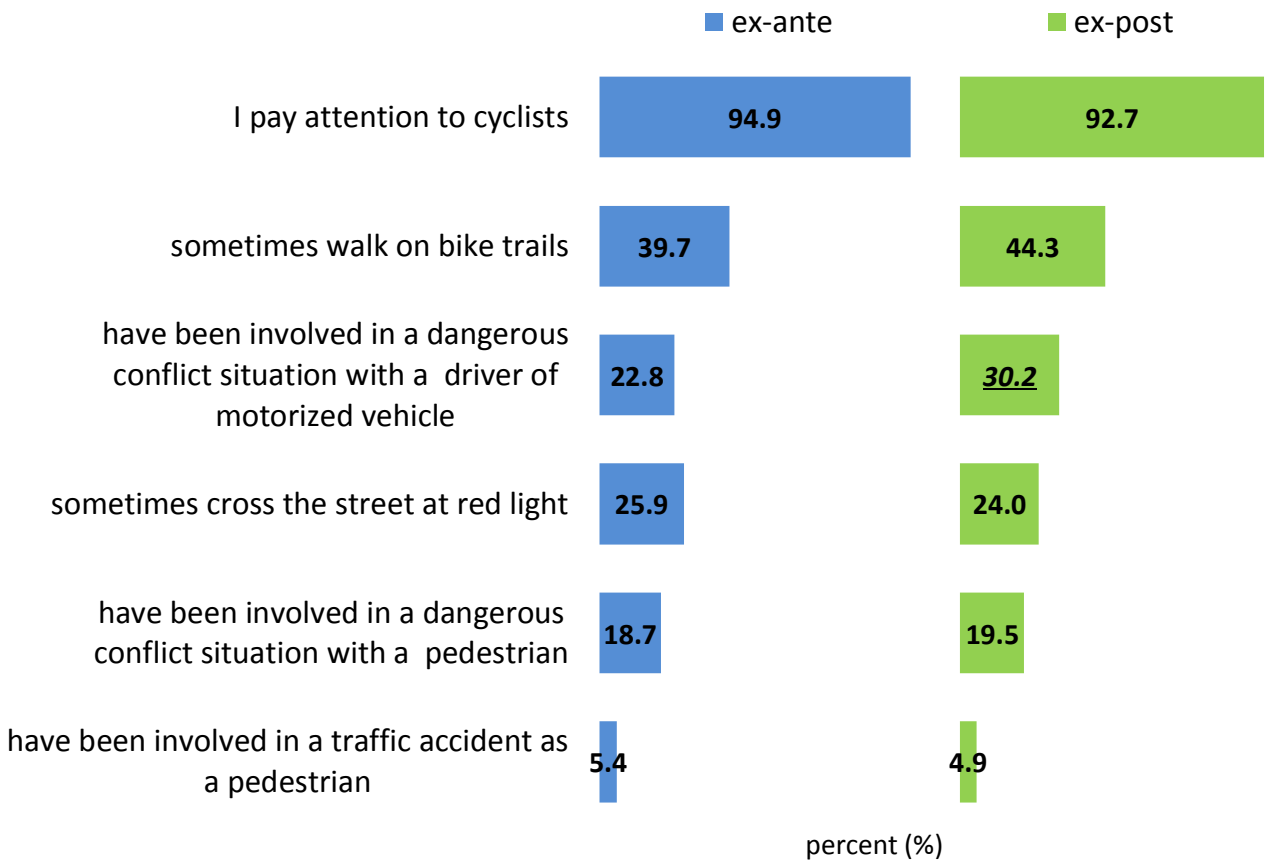
- The largest share of cyclists have their bicycle equipped with working front and back brake, the fewest have a working bell
- No significant differences between both waves of interviewing

Base: cyclists

BEHAVIOUR OF PEDESTRIANS IN REGARD TO THE CYCLISTS

Pedestrians are in most cases more observant of the cyclists; almost a half sometimes walk on bike paths

(DO YOU) As a pedestrian…?



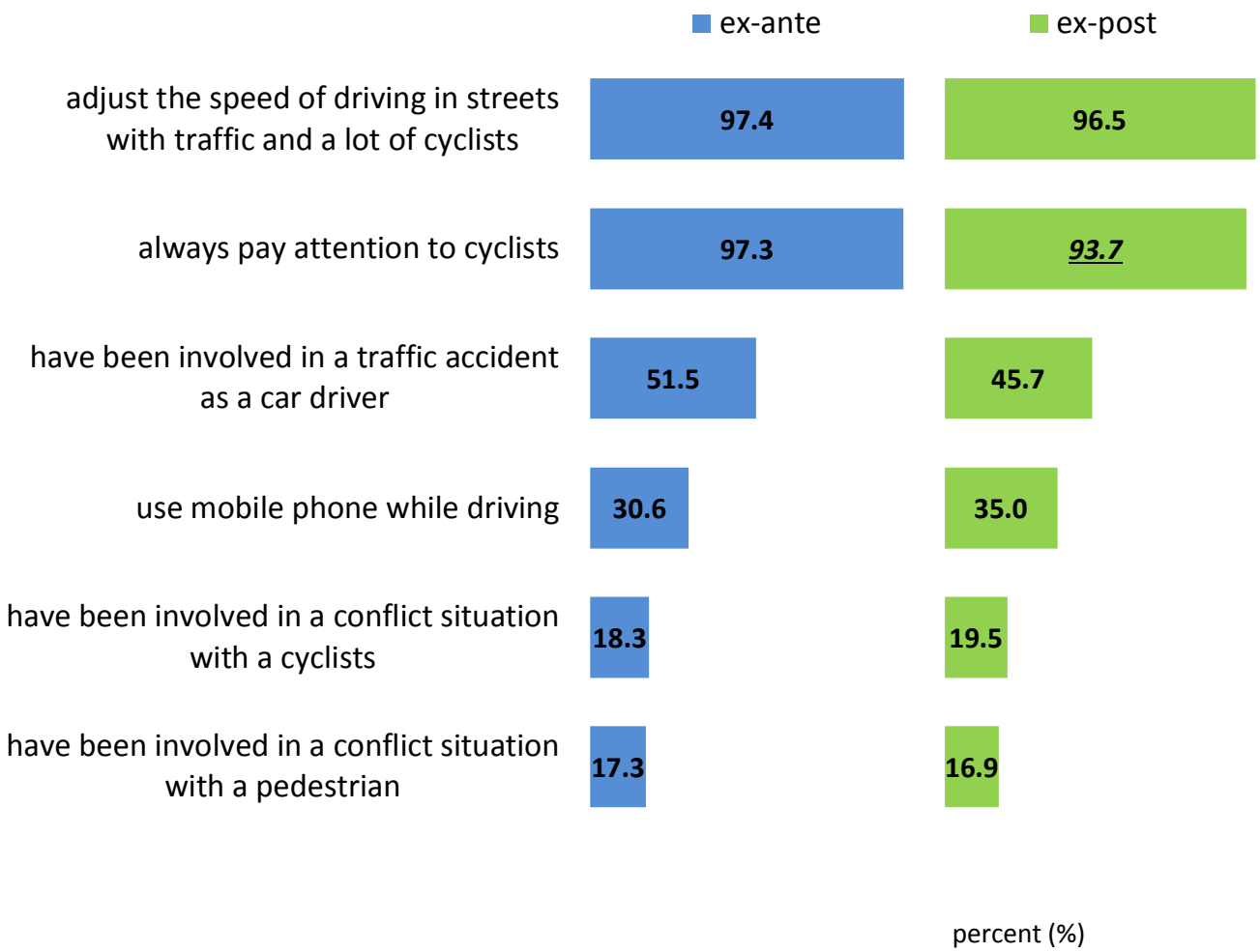
- Pedestrians most often answered that they pay attention to the cyclists; almost a half of them admitted to sometimes walking on bike paths
- In ex-post wave, almost a third of respondents answered that they were already involved in a dangerous situation with a driver of a motorized vehicle

Base: pedestrians

BEHAVIOUR OF CAR DRIVERS IN REGARD TO THE CYCLISTS

Car drivers mostly adapt the speed of driving and pay attention to cyclists

(DO YOU) As a driver?



- Car drivers most often answered that they adapt the speed of driving in streets with high traffic where there are many cyclists and that they always pay attention to the cyclists
- About a half of respondents was already involved in a traffic accident as a car driver

Base: car drivers

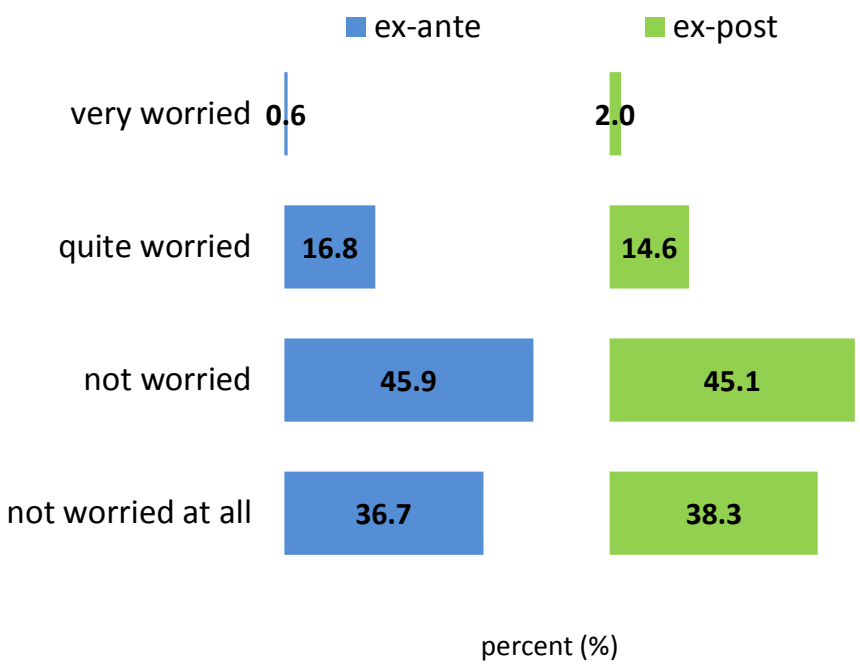
1.3 WEB RESEARCH

TRAFFIC SAFETY EVALUATION

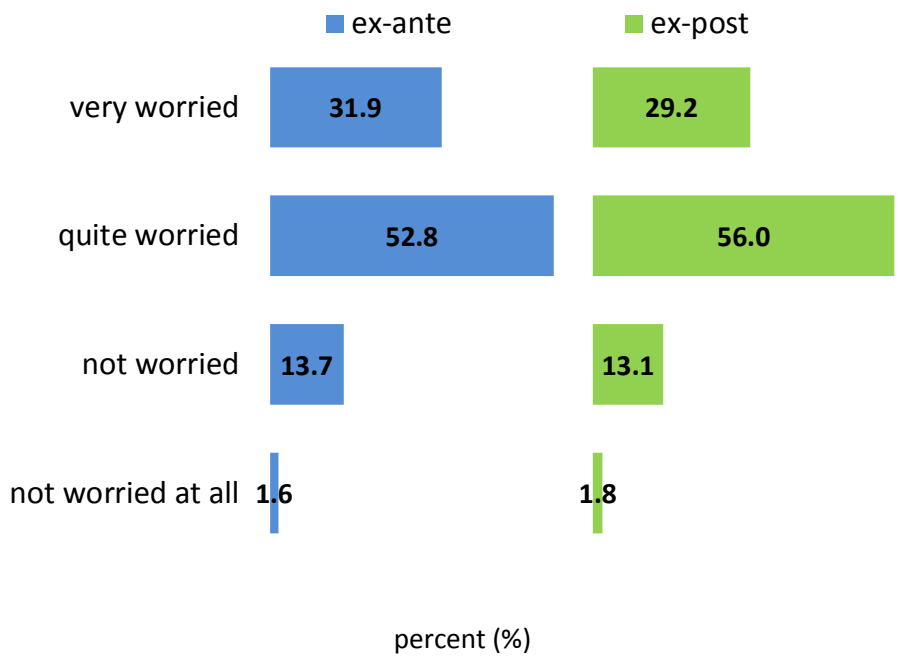
CONCERN ABOUT THE STATE OF TRAFFIC SAFETY IN SLOVENIA

More than 80 % of respondents are worried about traffic safety in Slovenia

How worried do you think the government is about the state of traffic safety in Slovenia?



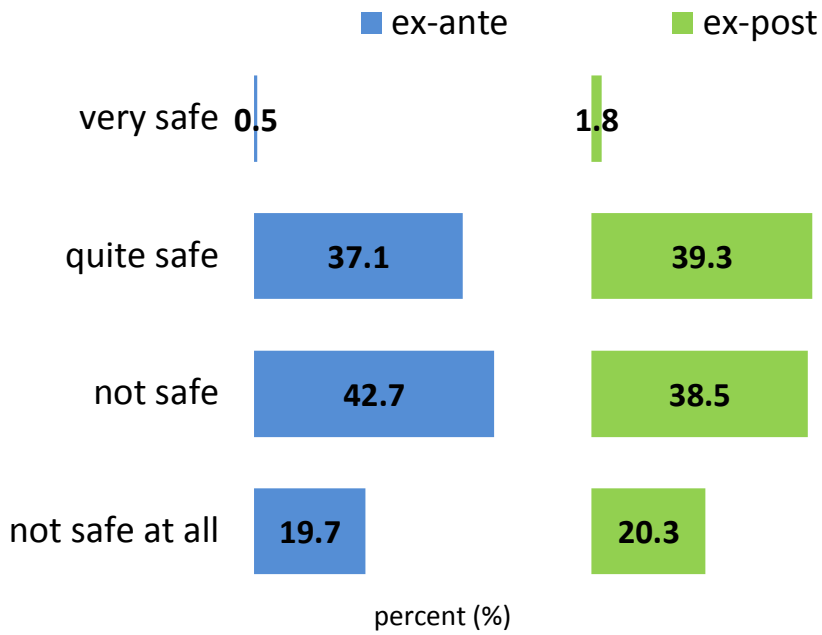
How worried are you about the traffic safety in Slovenia?



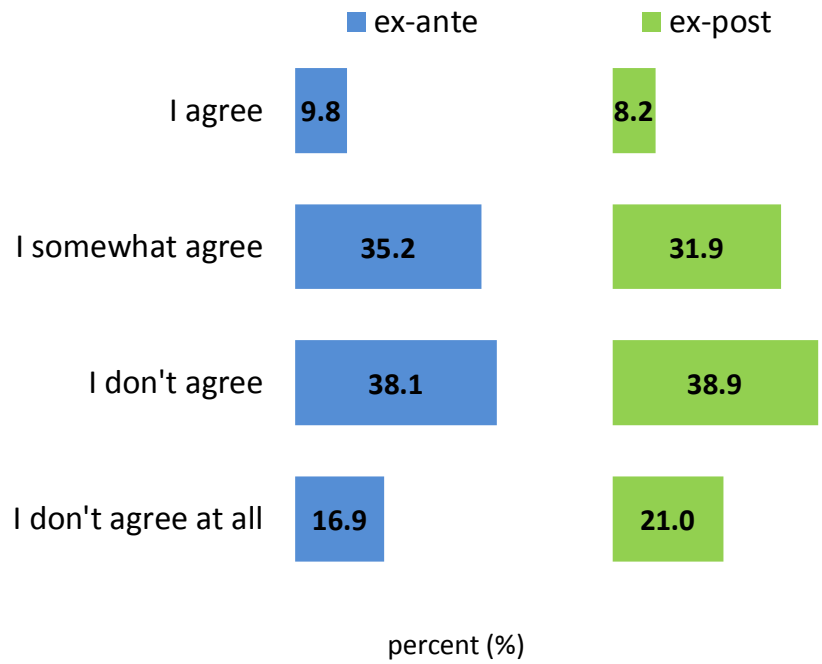
→ More than 80 % of respondents think that the government is not concerned (at all) about the traffic safety → on the other hand, about an equal share of respondents say that they are concerned about this issue

ROAD SAFETY
More than 60 % of respondents think are roads are not safe (at all)

If you consider the risk of being involved in a traffic accident, how safe do you generally consider our roads?



To what extent do you agree with the statement that our roads have become safer in the last 10 years?

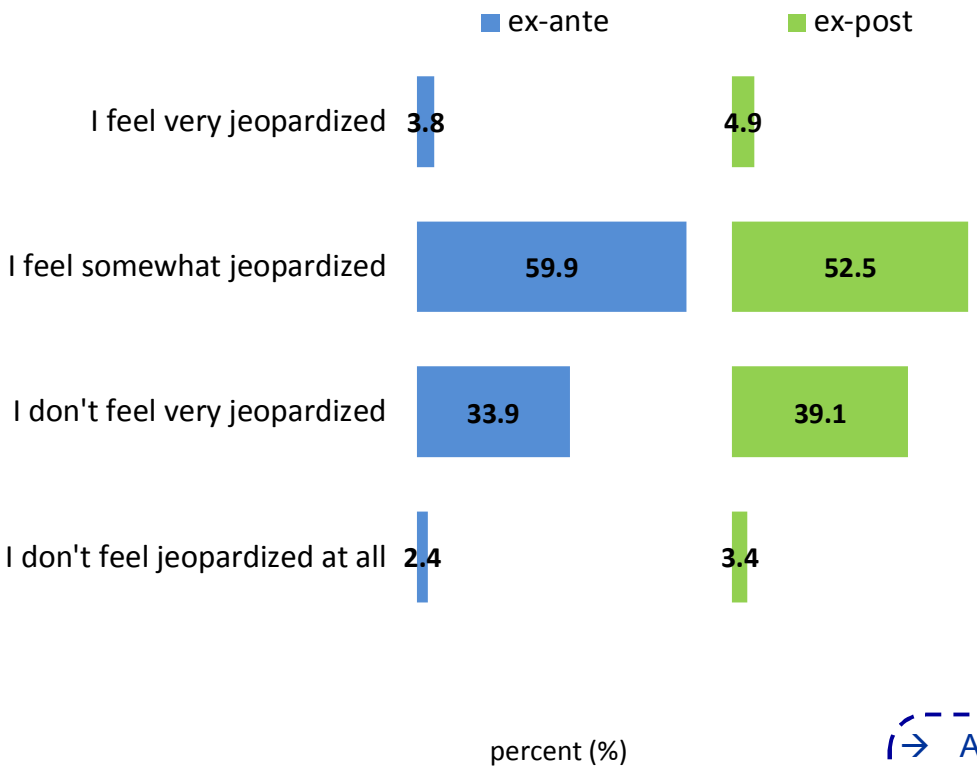


→ About 40 % of respondents evaluate our roads as very safe or safe
→ About the same share at least partially agree that our roads have become safer in the last 10 years

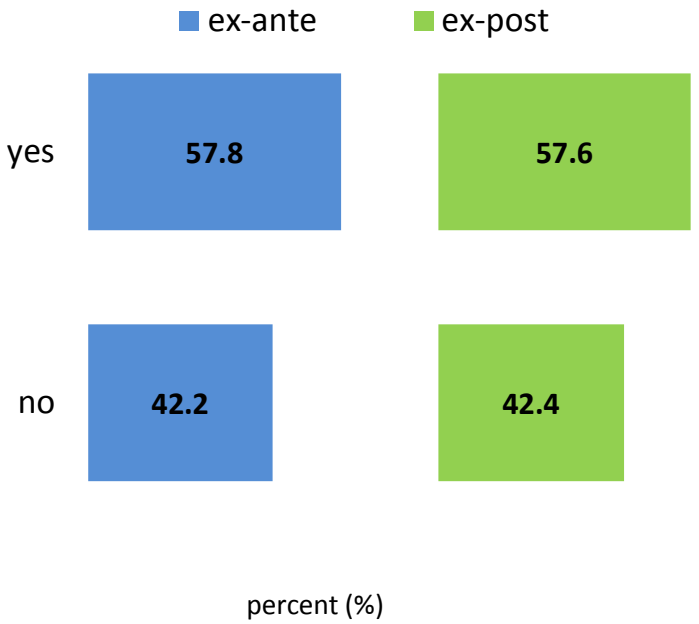
FEELING OF JEOPARDY AND INVOLVEMENT IN CONFLICT TRAFFIC SITUATION

More than half of respondents were already involved in a conflict traffic situation

How jeopardized do you feel in regard to your traffic safety?



Were you ever involved in a conflict traffic situation?

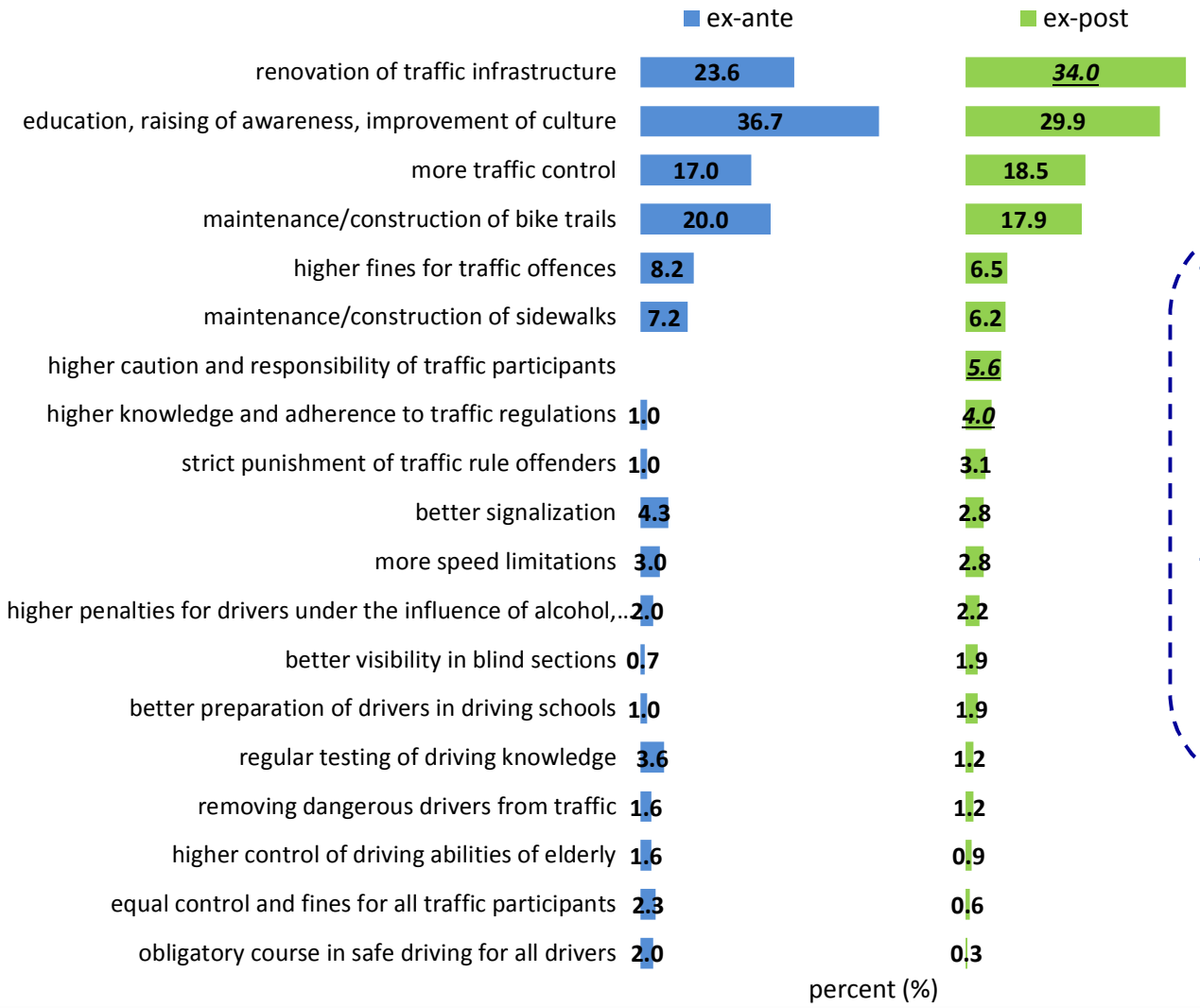


- → About two thirds of respondents feel at least partly jeopardized about their own traffic safety → almost 60 % were already involved in a risky traffic situation
- → There are no statistically significant differences among ex-ante and ex-post results

MEASURE FOR IMPROVEMENT OF TRAFFIC SAFETY

Renovation of traffic infrastructure and traffic culture would improve traffic safety

What measures would in your opinion be most effective to improve the traffic safety?



- To improve traffic safety, respondents in the ex-ante wave of research most often suggested education and raising of people‘s awareness regarding traffic culture, renovation of traffic infrastructure, maintenance or. Construction of bike paths and tightened control
- In ex-post wave of interviewing the respondents mentioned the renovation traffic infrastructure even more often, but they also stressed the importance of carefulness and responsibility of participants in traffic

Base: all respondents

In the graph, only answers with at least 5 mentions are shown.

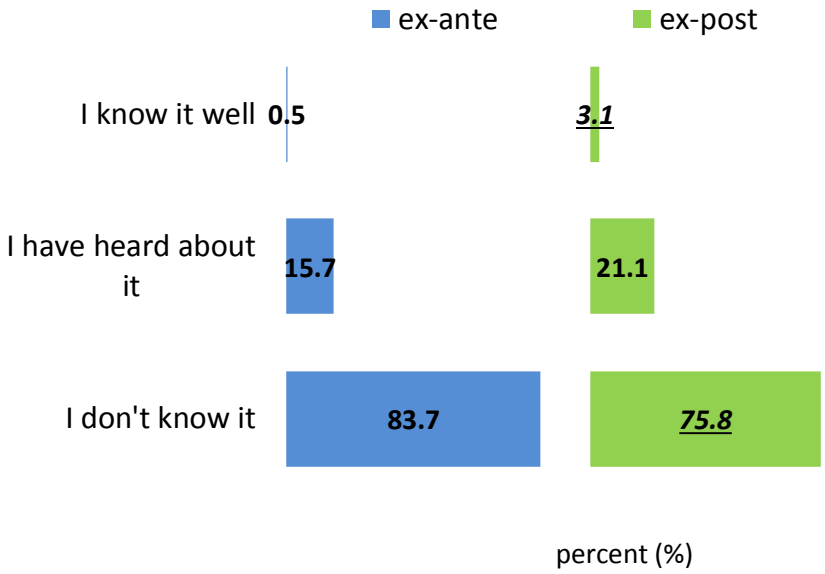
1.4 WEB RESEARCH

BICYCLE COUNTER AND "SHARROW"

BICYCLE COUNTER

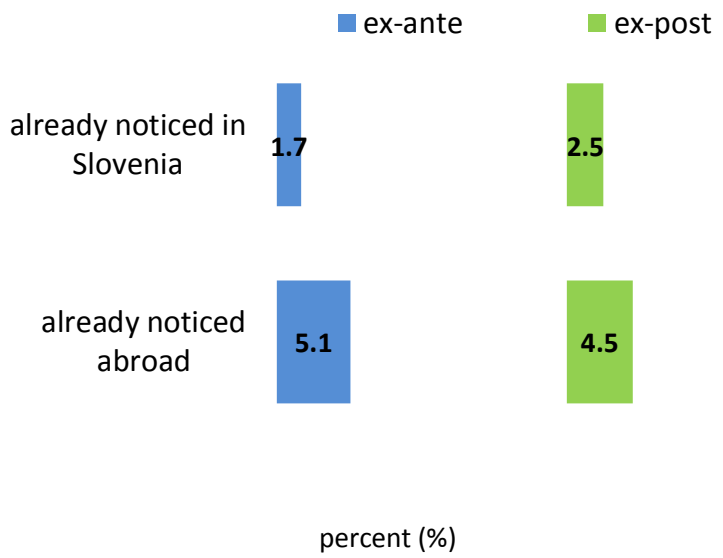
About a fifth of respondents already heard about bicycle counter

Do you know a „bicycle counter“? It‘s a board set on a visible place that automatically counts all the cyclists that pass by.



Base: all respondents

Have you ever noticed a bicycle counter before?

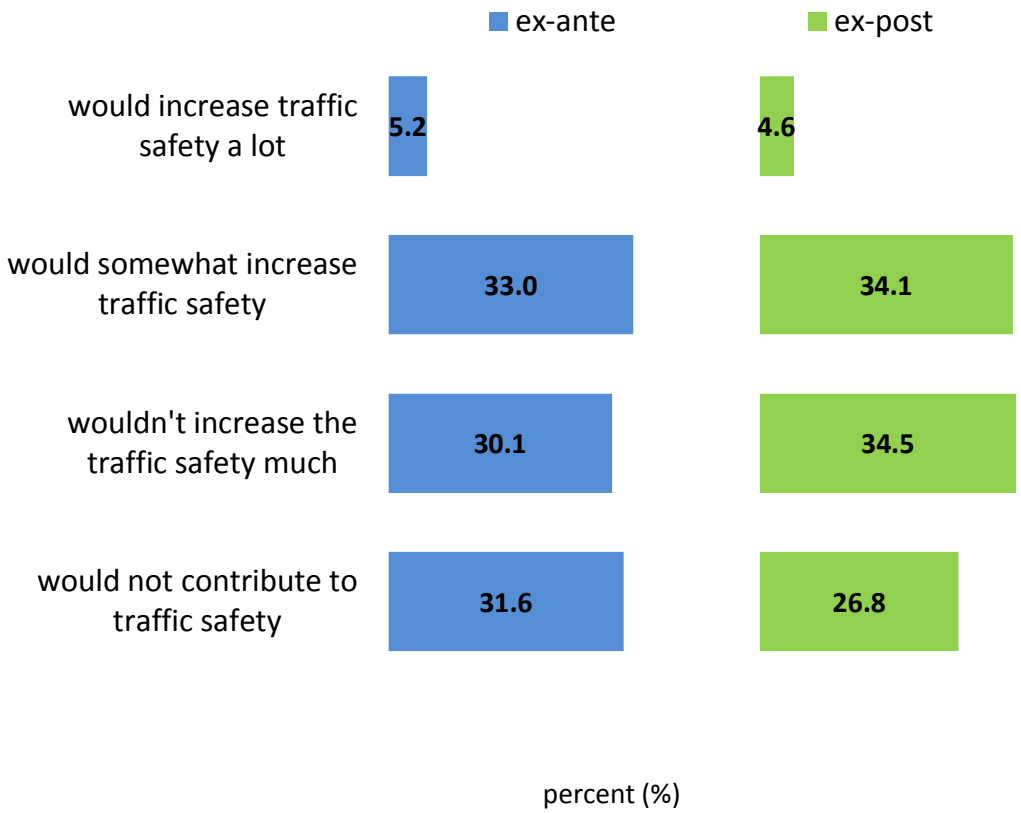


→ Bicycle counter was well know by less than 1 % in the ex-ante research wave and by 3 % in the ex-post wave → share of those who don‘t know a bicycle counter at all went down by 8 %

PERCEPTION OF USEFULNESS OF BICYCLE COUNTER FOR SAFETY IMPROVEMENT

About a third ex-ante and fourth ex-post respondents think that the bicycle counter wouldn‘t improve the safety

Do you think that a bicycle counter would help improve the traffic safety?

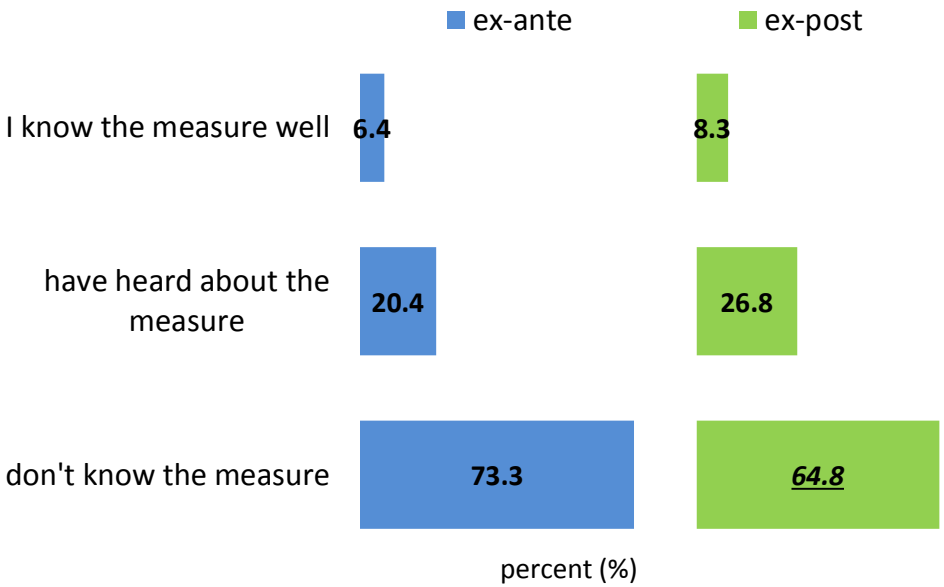


→ About 40 % of respondents think that the bicycle counter would help a lot or at least somewhat to the improvement of traffic safety → differences between waves of interviewing are not statistically significant

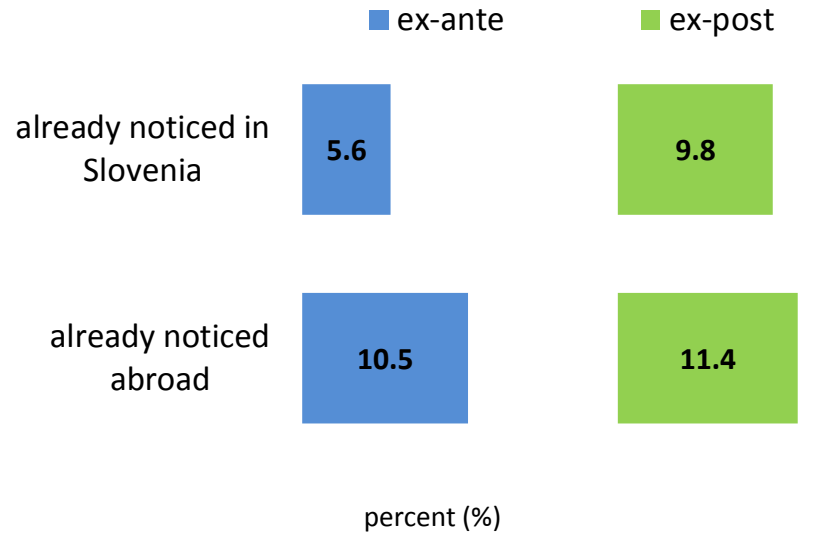
Base: all respondents

"SHARROW"
¾ of ex-ante and two thirds of ex-post respondents never heard of Sharrow before

Do you know the traffic measure called 'sharrow' – common use of traffic lane with cyclists?



Did you ever before notice 'sharrow' – common use of traffic lane with cyclists?



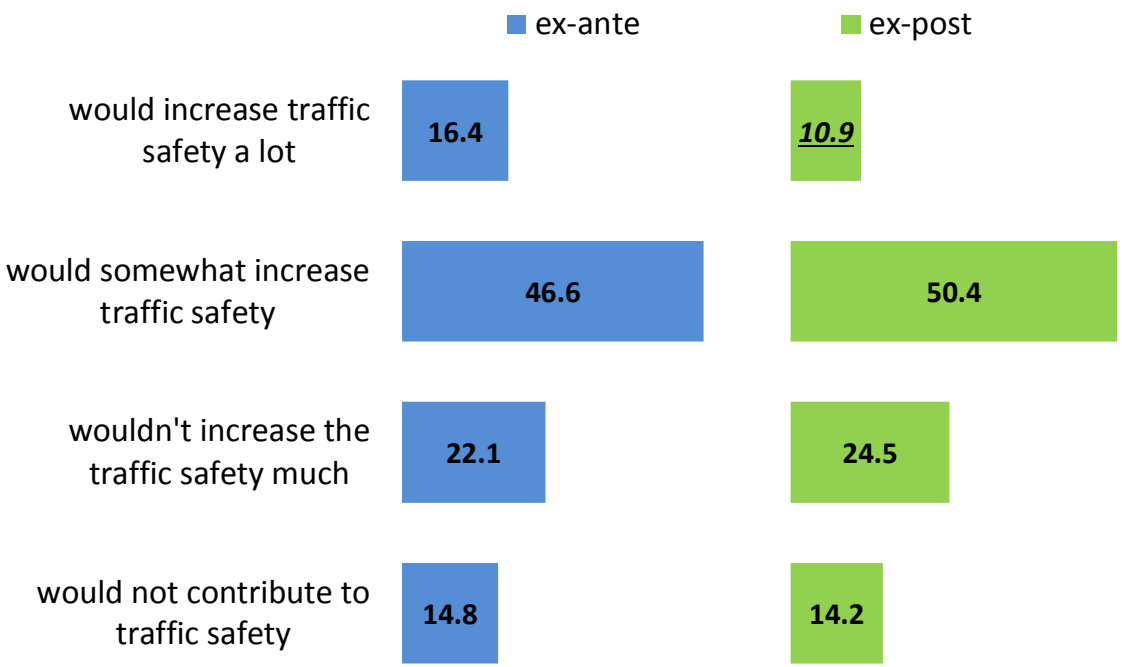
Base: all respondents

- → Sharrow was well known by 6 % of respondents in the ex-ante wave and 8 % of respondents in ex-post wave of research
- → The share of those who don't know sharrow at all went down by 8 % in the ex-post wave of research

PERCEPTION OF SHARROW USEFULNESS FOR TRAFFIC SAFETY IMPROVEMENT

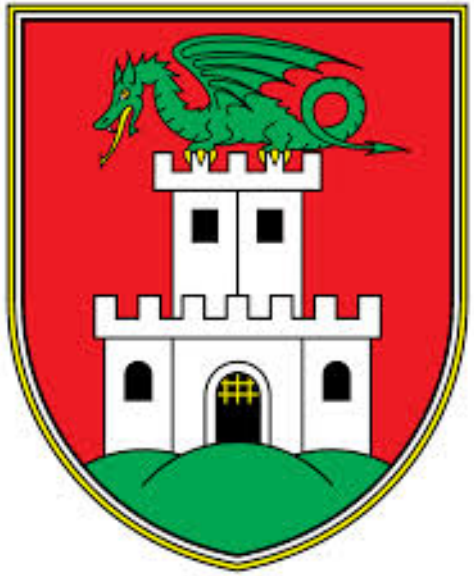
Sharrow is seen as a positive solution for traffic safety improvement by about 60 % of respondents

Do you think that „Sharrow“ (common use of traffic lane with cyclists) would help improve the traffic safety?

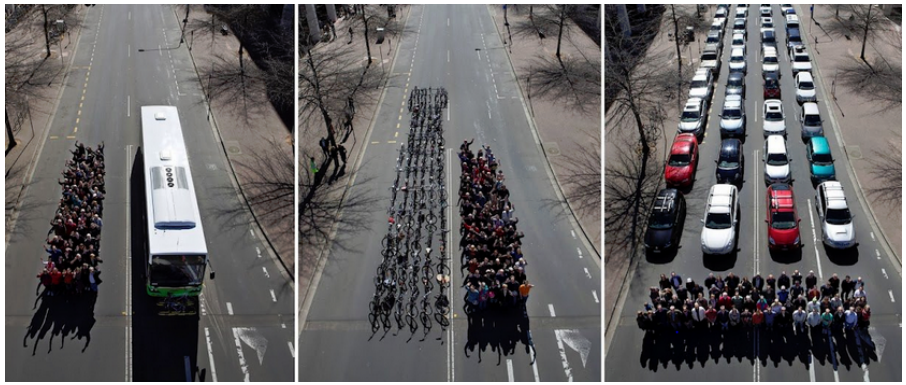


Base: all respondents

→ About 16 % of respondents in the ex-ante wave evaluated sharrow as being highly contribution to the traffic safety → in the ex-post wave this share is statistically significantly lower at 11 %



2. FIELD RESEARCH- LJUBLJANA

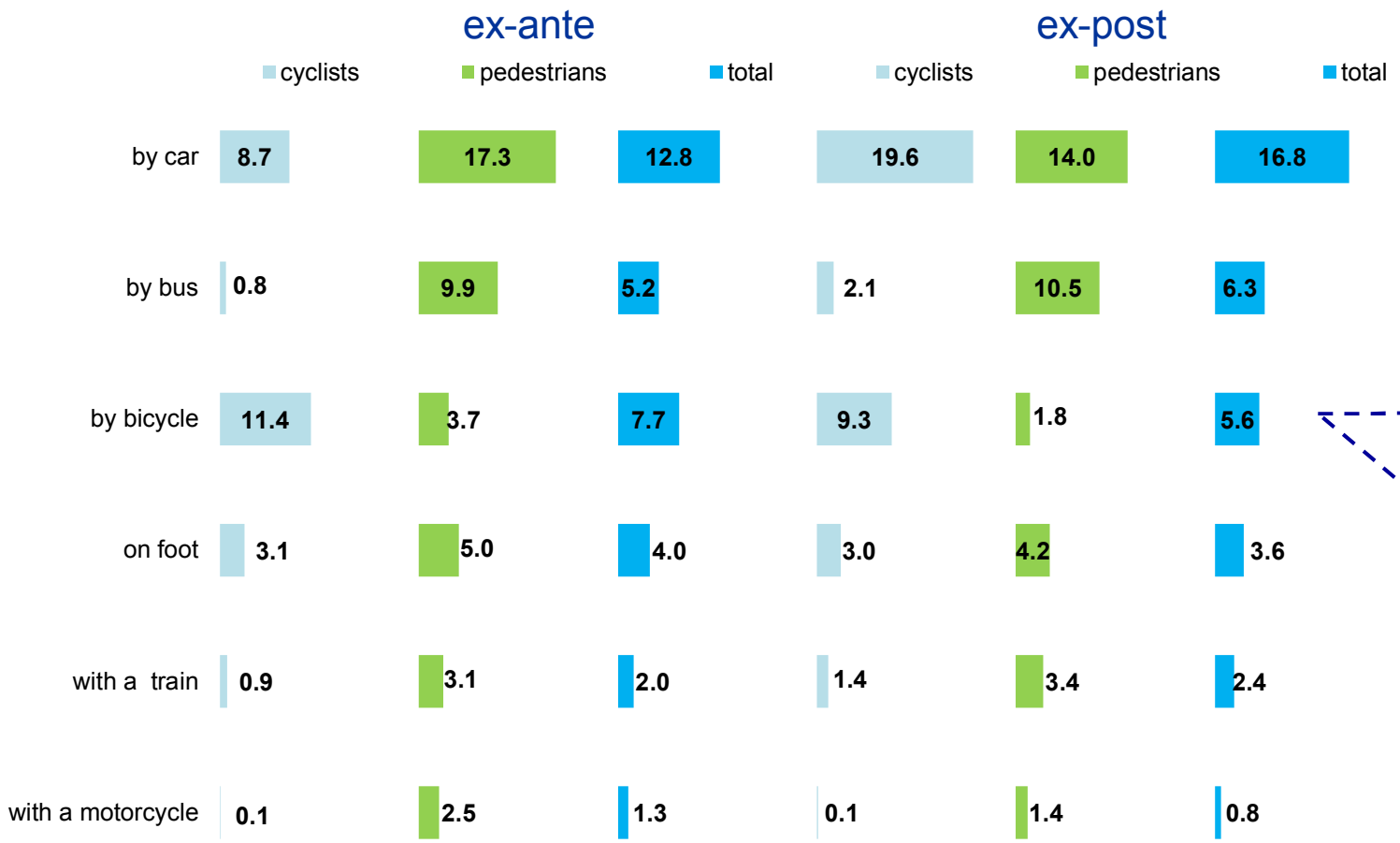


2.1 FIELD RESEARCH - LJUBLJANA

TRAFFIC RELATED HABITS

AVERAGE NUMBER OF KM PER DAY
Daily, respondents do most kilometers by car

How many kilometers do you on average do per day?



Base: all respondents

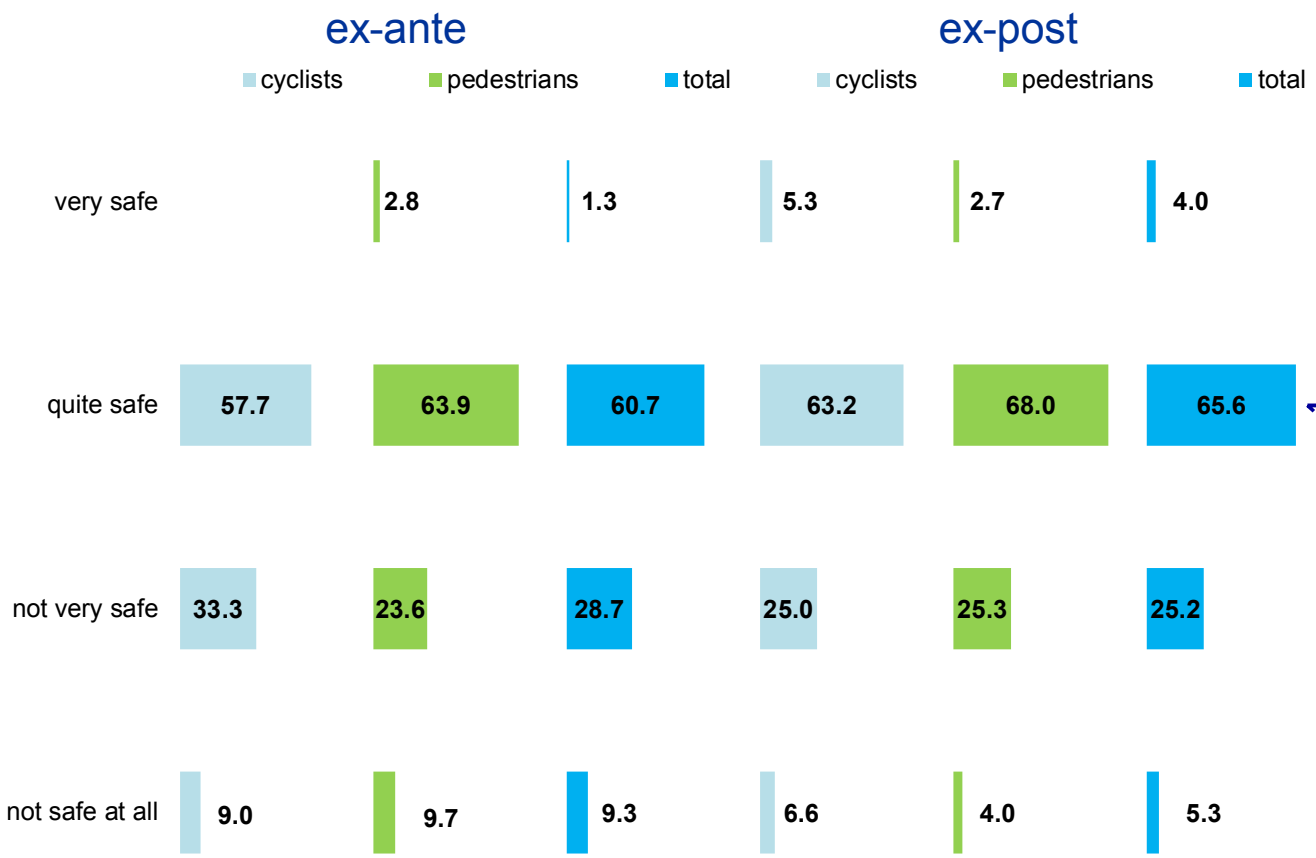
- In both research waves respondents answered they do most kilometers daily by car and the least by motorcycle
- In ex-ante wave, respondents on average did 7,7 km daily by bike, in ex-post wave the average was 5,6 km

2.2 FIELD RESEARCH - LJUBLJANA

TRAFFIC SAFETY EVALUATION IN GENERAL

ROAD SAFETY I.
About two thirds of respondents evaluated our roads as safe or very safe

If you consider the risk of being involved in a traffic accident, how safe do you generally consider our roads?



- About two thirds of respondents consider our roads safe or very safe → no statistically significant differences between both waves of research
- 1,3 % in ex-ante and 4,0 % of respondents in ex-post wave evaluated our roads as every safe

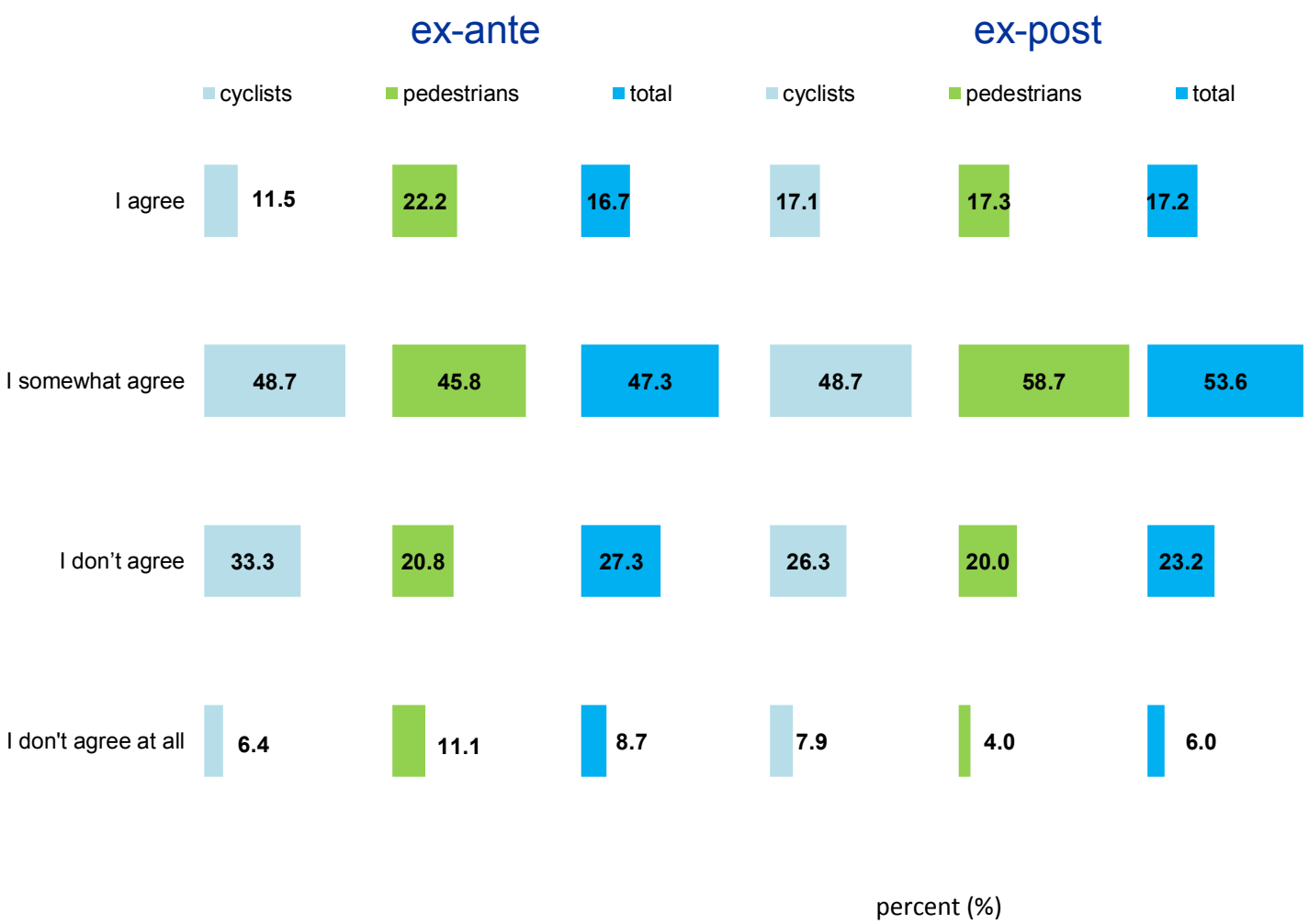
percent (%)

Base: all respondents

ROAD SAFETY II.

About 70 % of respondents in the ex-post wave agree that our roads became safer in the last 10 years

To what extent do you agree with the statement that our roads have become safer in the last 10 years?



- About two thirds of respondents in ex-ante research agreed that our roads have become safer in the last 10 years; in ex-post wave, this share increases to 81 %, but the difference is not statistically significant
- Among those in ex-post wave that agreed our roads have become safer, there is an above average representation of younger respondents (up to 24 years of age)

Base: all respondents

BICYCLE EQUIPMENT
Most cyclists have a working front and back brake on the bicycle

How is your bicycle equipped?

- Practically all respondents have working back and front brake on their bicycle
- In ex-post research, statistically significant higher share of cyclists had cat's eyes on their bicycles

Base: cyclists

Underlined results: statistical significant differences.

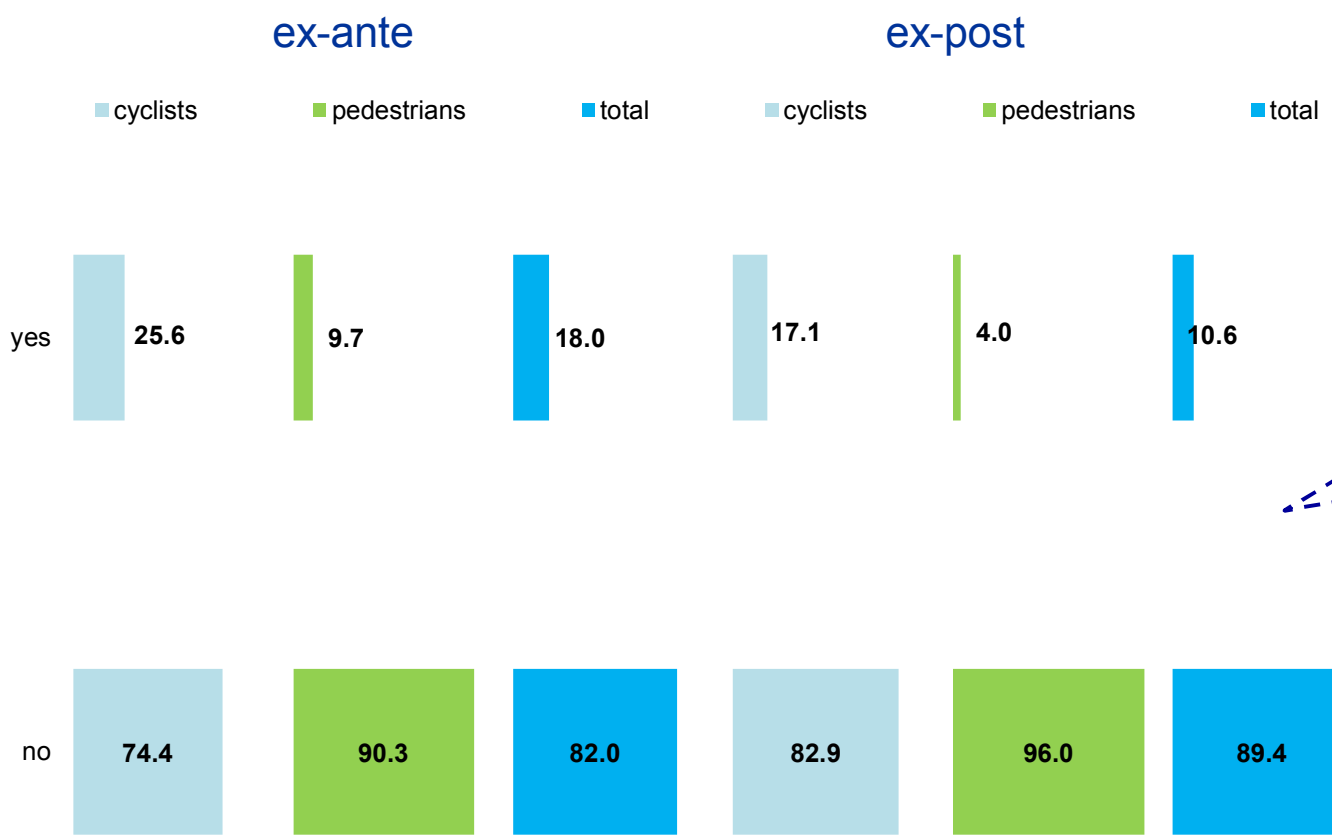
2.3 FIELD RESEARCH - LJUBLJANA

SAFETY AT THE SPECIFIC LOCATION

CONFLICT TRAFFIC SITUATIONS

About a fifth of ex-ante and a tenth of ex-post respondents already had a conflict traffic situation at the location in Ljubljana

Did you already have a conflict traffic situation at this location?

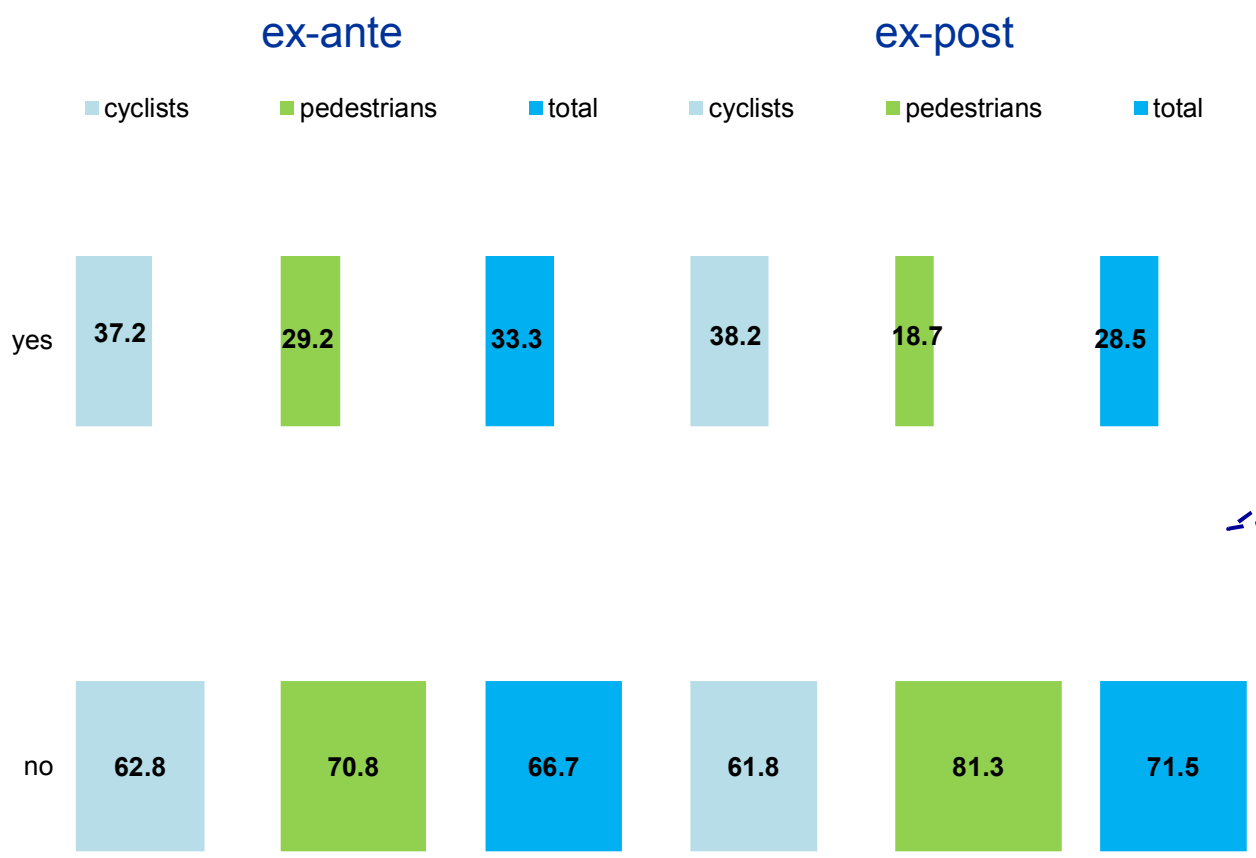


→ At the interviewing location in Ljubljana, 18 % of ex-ante and 11 % of ex-post respondents already experienced a conflict traffic situation → the difference is not statistically significant

Base: all respondents

DANGEROUS LOCATIONS I.
About a third of respondents listed other dangerous locations

Do you find any other location close to the current location especially dangerous?



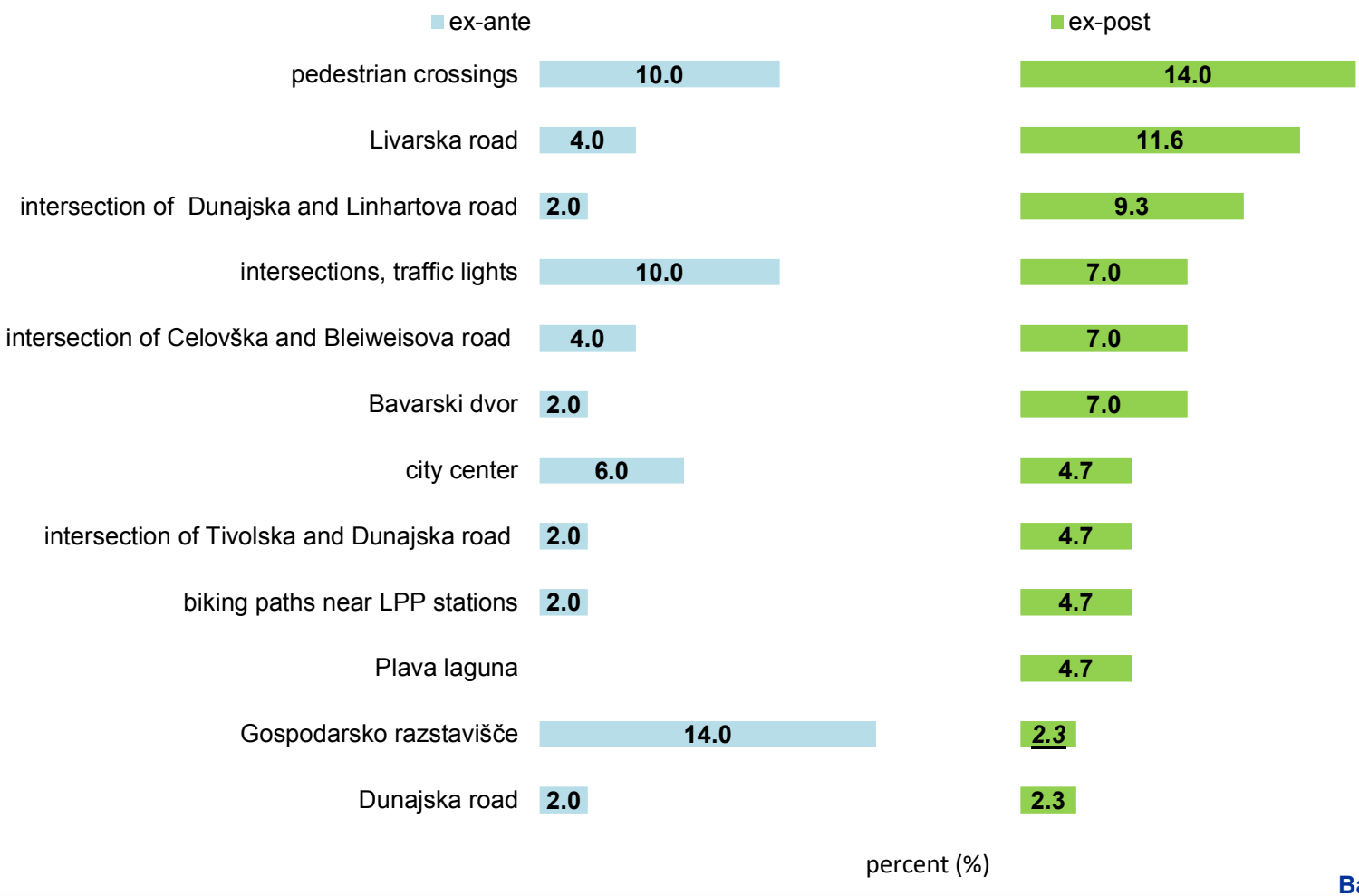
→ About a third of respondents in ex-ante research and a little over a fourth of respondents in ex-post research also mentioned other areas close to interviewing location that they find especially dangerous

Base: all respondents

DANGEROUS LOCATIONS II.

V Ljubljana, crosswalks, Livarska street, area around Gospodarsko razstavišče, intersections and traffic lights were mentioned as being especially dangerous

Which areas (do you find especially dangerous)?



- In ex-ante wave of research, respondents mentioned crossroads, intersections, traffic lights and specifically the area around Gospodarsko razstavišče to be more dangerous
- In ex-post wave, Gospodarsko razstavišče was mentioned less frequently as a dangerous location

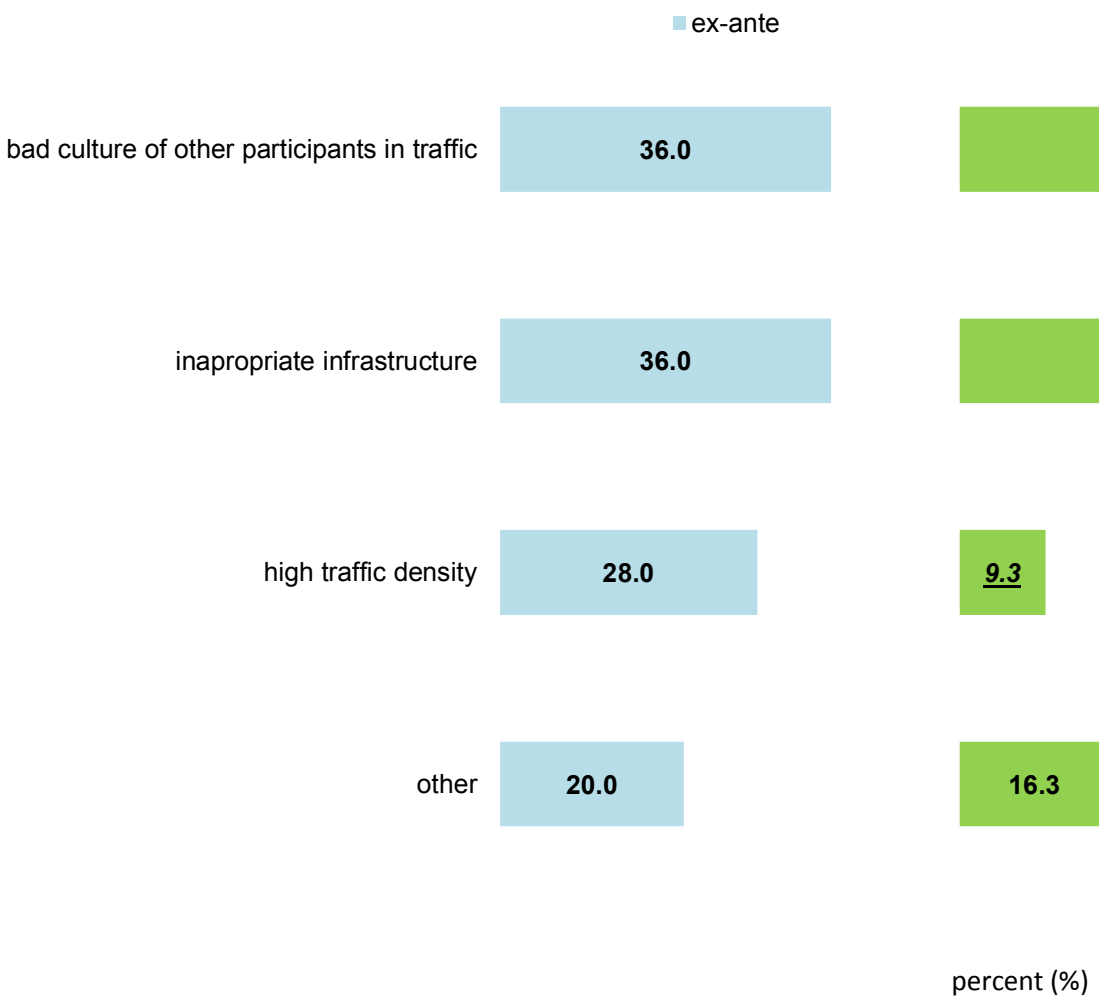
Base: those who find other areas to be especially dangerous

Underlined results: statistical significant differences.

DANGEROUS LOCATIONS III.

Respondents find these areas especially dangerous because of bad culture of traffic participants, and also because of insufficient infrastructure

Why?



- Respondents in ex-ante research attributed the danger of the location equally to the bad culture of other participants in traffic and insufficient infrastructure; high traffic density was also mentioned more often
- In ex-post wave, the danger of location was less frequently attributed to the high density of traffic

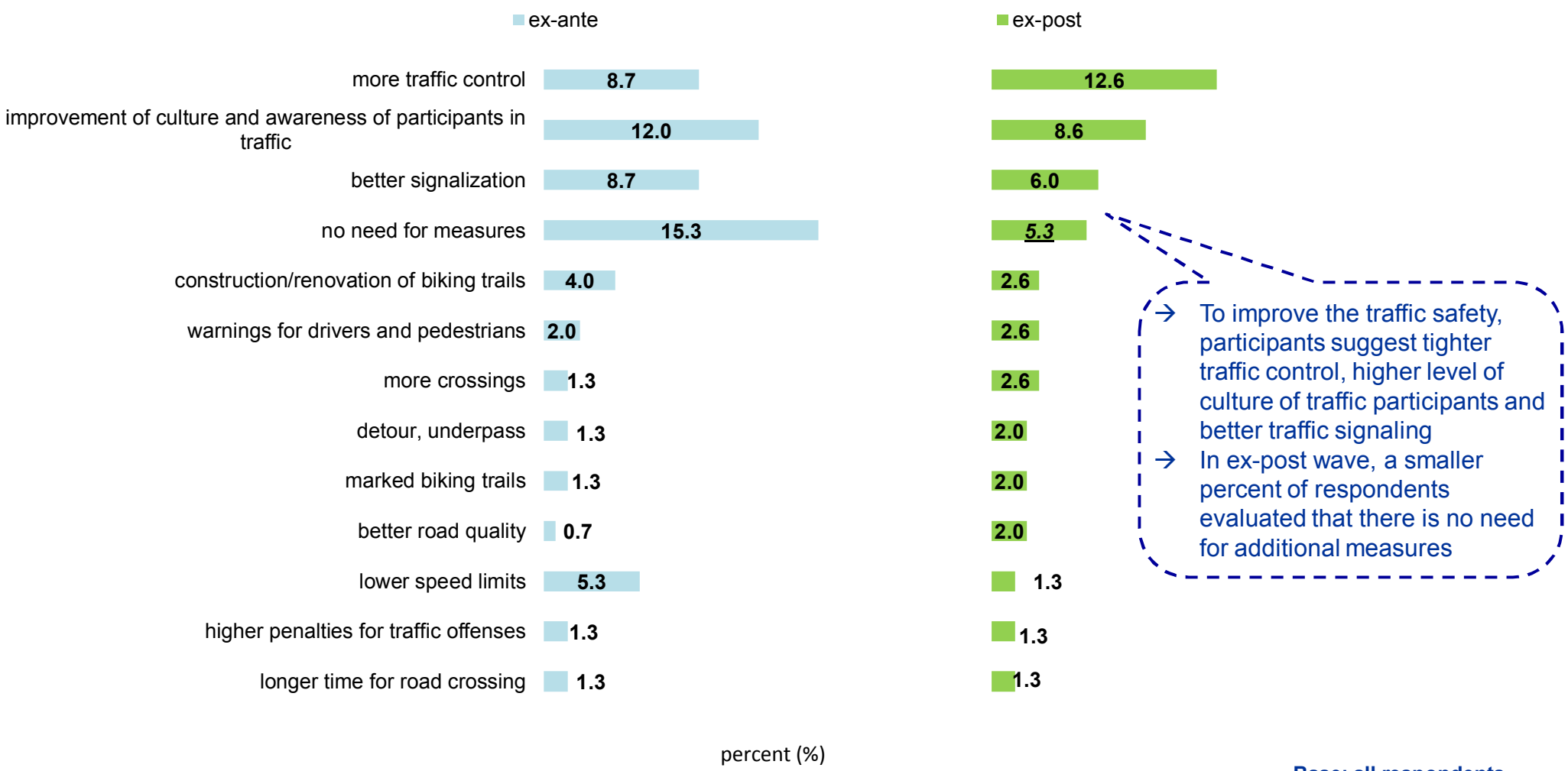
Base: those who find other areas to be especially dangerous

Underlined results: statistical significant differences.

POSSIBLE MEASURES FOR TRAFFIC SAFETY IMPROVEMENT

To improve the traffic safety respondents suggest tighter traffic control and improvement in the culture of traffic participants

What measure would in your opinion help improve the traffic safety the most in this location?



- To improve the traffic safety, participants suggest tighter traffic control, higher level of culture of traffic participants and better traffic signaling
- In ex-post wave, a smaller percent of respondents evaluated that there is no need for additional measures

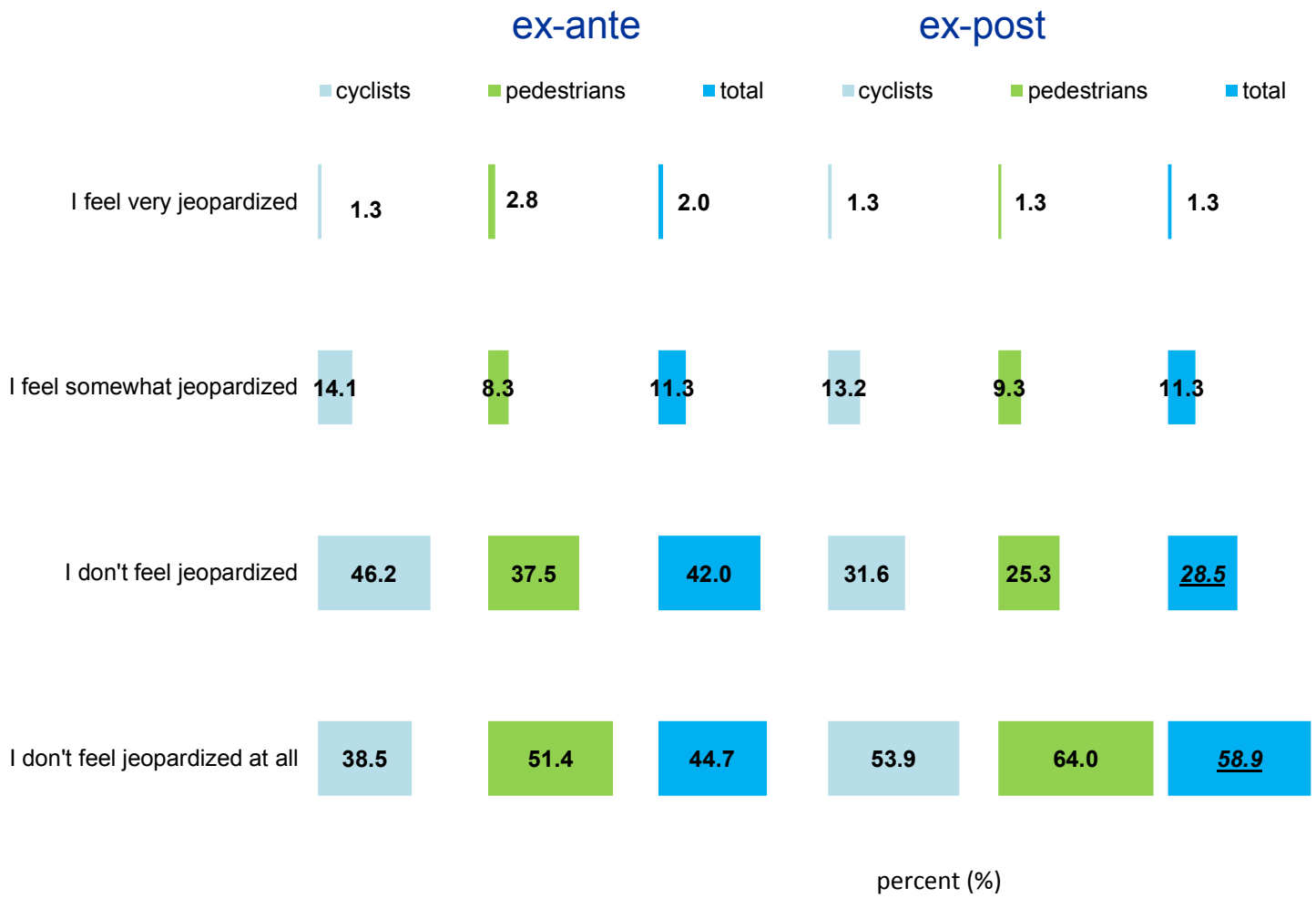
Base: all respondents

Underlined results: statistical significant differences.

PERCEPTION OF JEOPARDY IN LOCATION

About 15 % of respondents feel jeopardized at the interviewing location

To what extent do you feel your traffic safety is jeopardized at this location?



- About 87 % of respondents in ex-ante wave of research evaluated that they don‘t feel jeopardized at all
- This share didn‘t increase in a statistically significant manner in ex-post wave, but the ratio changed → 59 % of respondents don‘t feel jeopardized at all (ex-ante: 48 %)
- Among those that don‘t feel jeopardized at all, the group of younger respondents (up to 24 years) is overrepresented in the sample

Base: all respondents

Underlined results: statistical significant differences.

PERCEPTION OF SAFETY FOR INDIVUAL PARTICIPANTS IN TRAFFIC

Respondents find the traffic safety the highest for car drivers, followed by pedestrians

How safe do you find this traffic location where we currently stand for… ?

		ex-ante			ex-post		
		cyclists	pedestrians	total	cyclists	pedestrians	total
pedestrians	very safe	48.7	36.1	42.7	59.2	44.0	51.7
	quite safe	46.2	48.6	47.3	34.2	41.3	37.7
	not very safe	3.8	11.1	7.3	3.9	14.7	9.3
	not safe at all	1.3	4.2	2.7	2.6		1.3
cyclists	very safe	39.7	22.2	31.3	48.7	26.7	37.7
	quite safe	48.7	44.4	46.7	40.8	60.0	50.3
	not very safe	11.5	27.8	19.3	10.5	13.3	11.9
	not safe at all		5.6	2.7			
motorcycle drivers	very safe	33.3	23.6	28.7	34.2	21.3	27.8
	quite safe	51.3	56.9	54.0	46.1	57.3	51.7
	not very safe	14.1	13.9	14.0	18.4	20.0	19.2
	not safe at all	1.3	5.6	3.3	1.3	1.3	1.3
car drivers	very safe	62.8	45.8	54.7	65.8	49.3	57.6
	quite safe	34.6	47.2	40.7	32.9	46.7	39.7
	not very safe	1.3	5.6	3.3	1.3	4.0	2.6
	not safe at all	1.3	1.4	1.3			

percent (%)

Base: all respondents

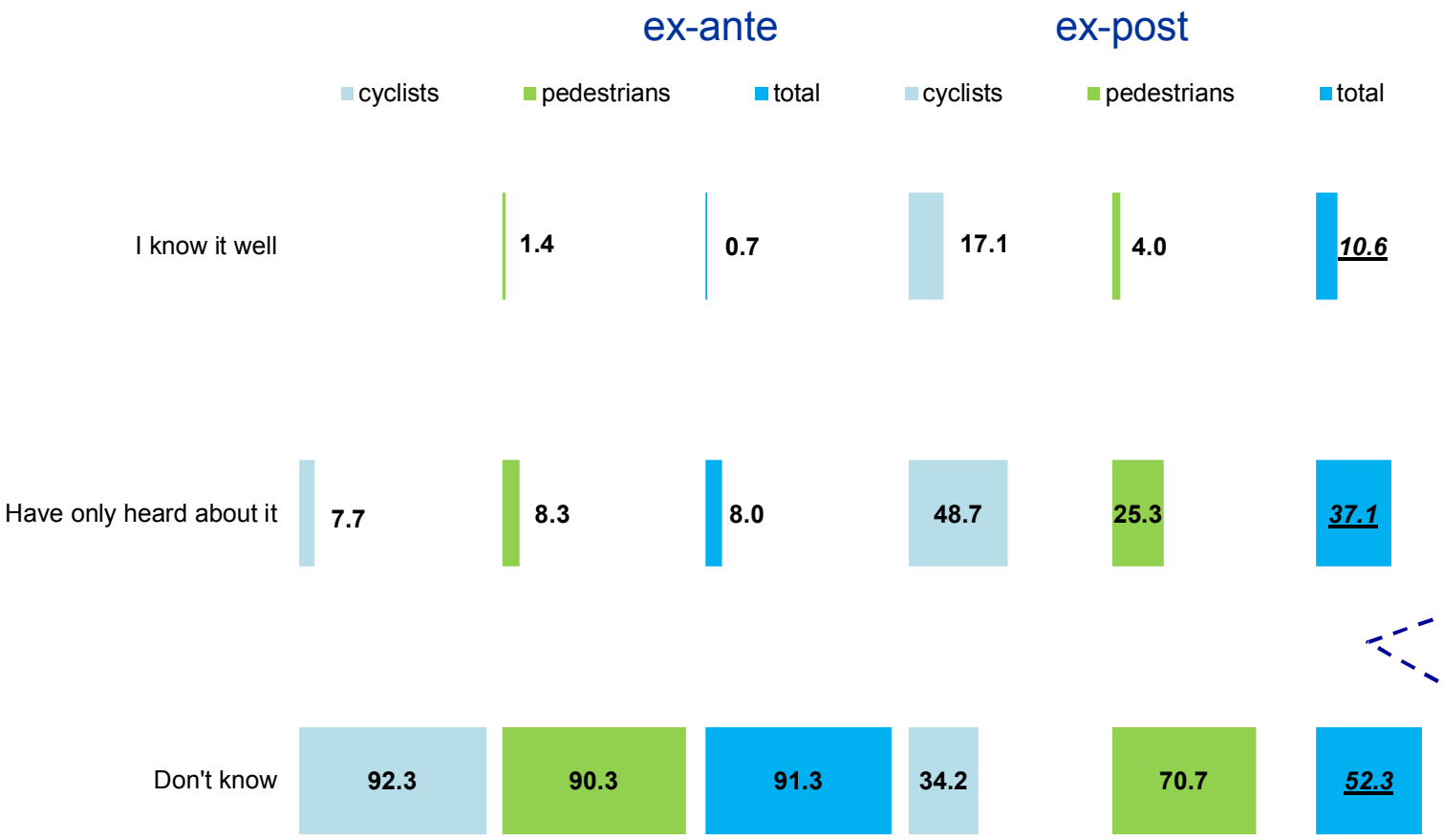
2.4 FIELD RESEARCH - LJUBLJANA

BICYCLE COUNTER

AWARENESS OF BICYCLE COUNTER

Less than 10 % of respondents already heard of bicycle counter in ex-ante research → this share amounts to almost 50 % in ex-post research

Do you know the bicycle counter, as it is pictured in the photo above?
It is a board set in a visible space that automatically counts all the cyclists passing by.



- → In ex-post wave, a statistically significantly higher share of respondents mentioned they know the bicycle counter very well or have at least heard about it before
- → Share of those who don‘t know the bicycle counter went down from 91 % to 52 %

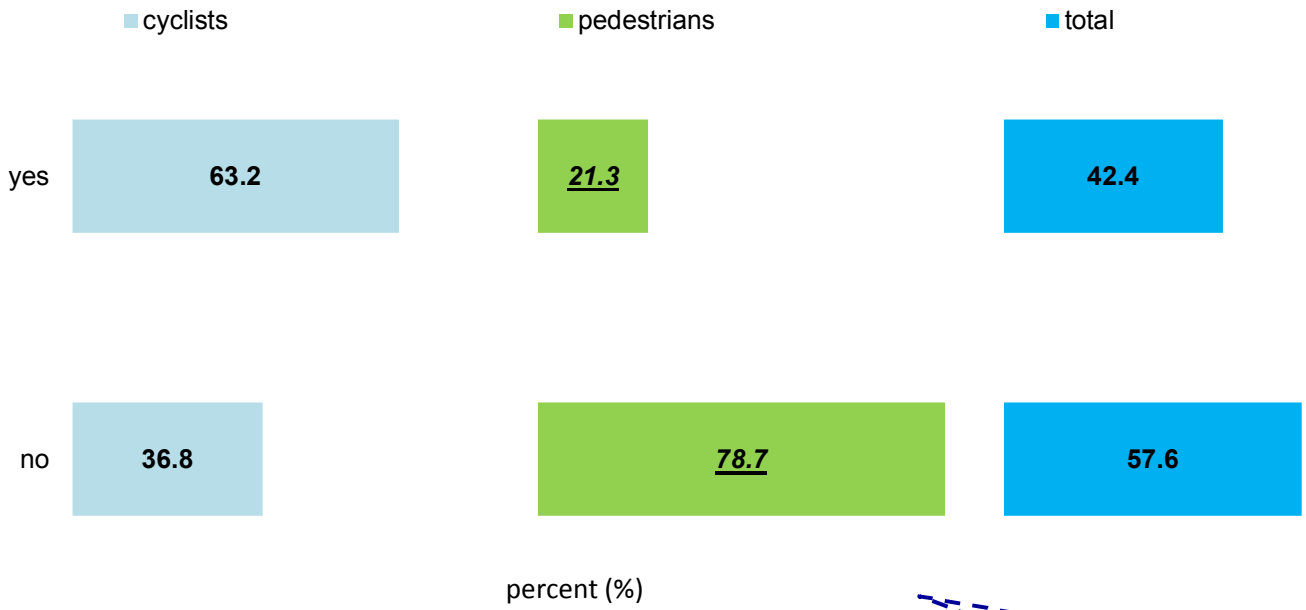
Base: all respondents

Underlined results: statistical significant differences.

NOTICEABILITY OF BICYCLE COUNTER– EX POST I.

The bicycle counter was noticed by almost two thirds of cyclists after its implementation

Did you notice the bicycle counter with the display nearby?



→ After the implementation the bicycle counter with display was noticed by about 42 % of all respondents

→ The comparison among pedestrians and cyclists shows that the latter noticed the counter more → it was noticed by almost two thirds of all cyclists

Base: all respondents

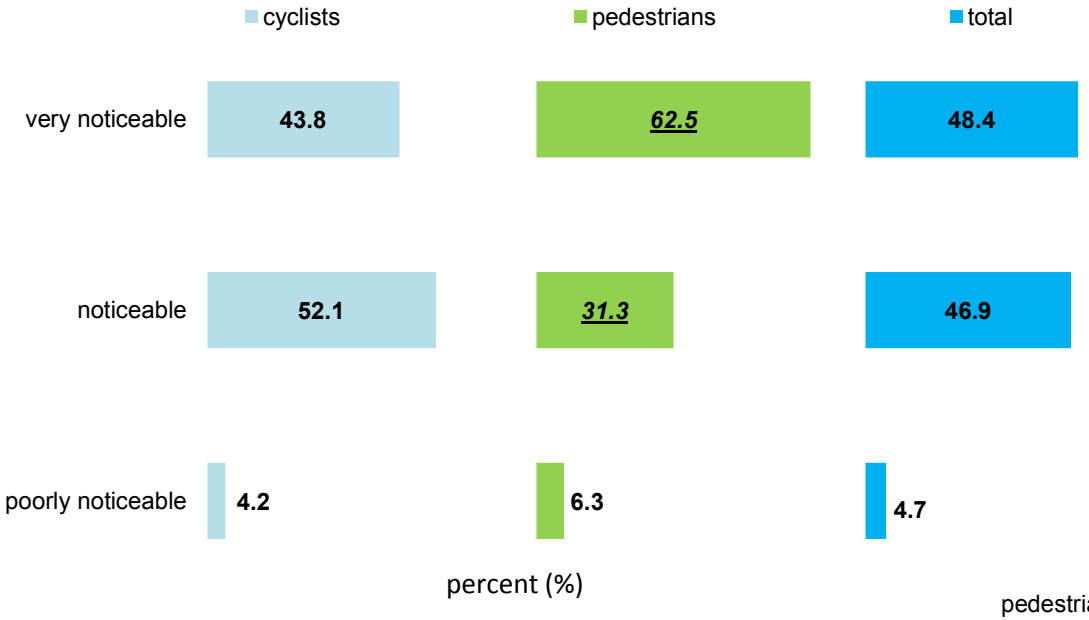
Underlined results show statistically significant differences between cyclists and pedestrians in the second (ex-post) research wave.

NOTICEABILITY OF BICYCLE COUNTER – EX POST II.

The bicycle counter seems noticeable to almost all respondents and they think that it‘s noticed the most by pedestrians

How noticeable do you find the bicycle counter with the display?

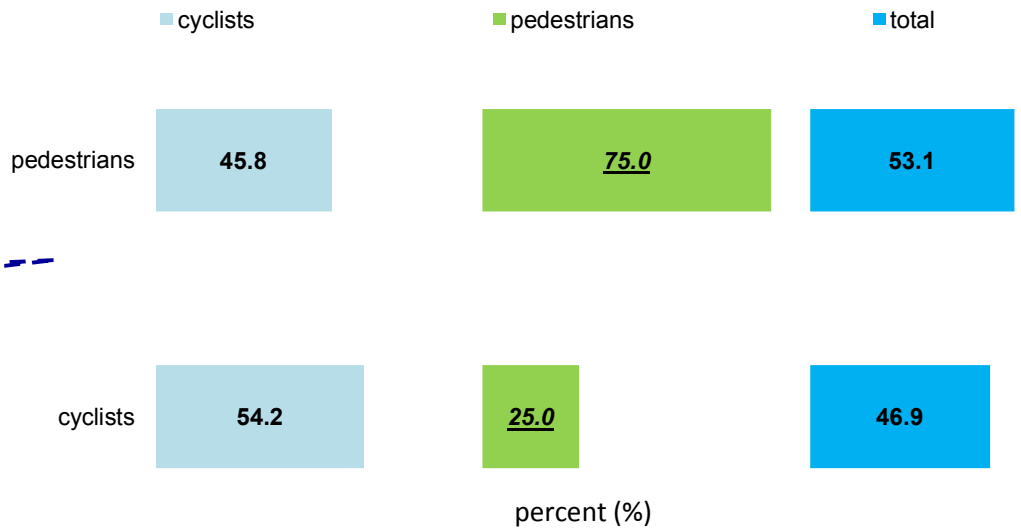
Base: those who noticed the counter



→ Bicycle counter seems more noticeable to the pedestrians

→ Only 4,2 % of cyclists and 6,3 % of pedestrians evaluated the counter as being badly noticeable

Who do you think notices the bicycle counter the most?

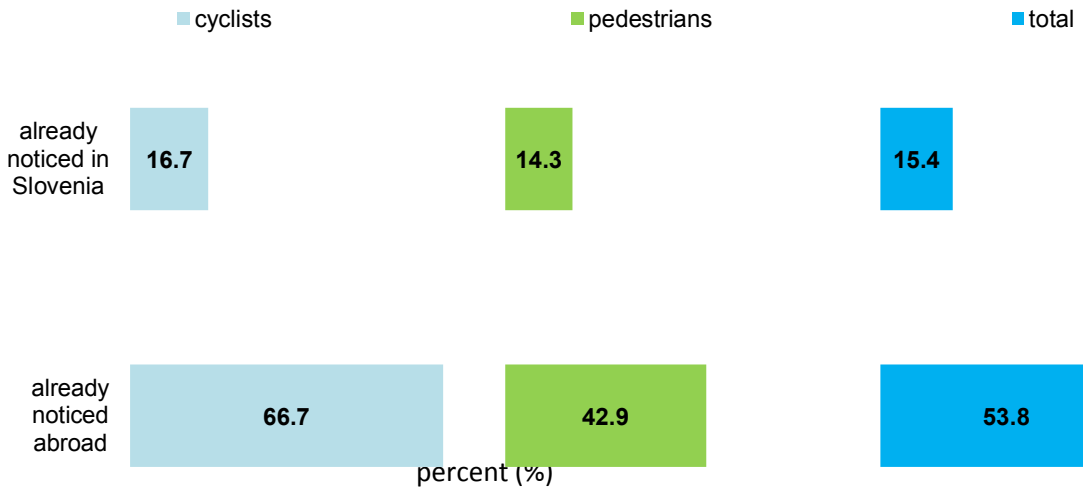


→ Pedestrians evaluated themselves as being more aware of the bicycle counter with display as the cyclists

NOTICEABILITY OF BICYCLE COUNTER

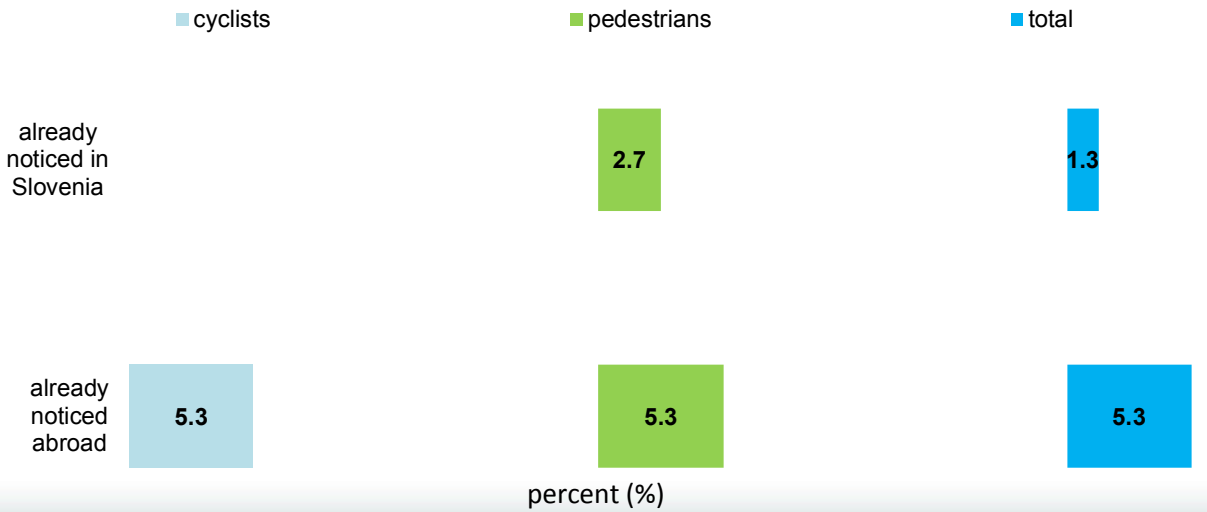
Before implementation, about 20 % of respondents already noticed the bicycle counter in Slovenia

Have you ever noticed the bicycle counter before? *Ex-ante research wave*



→ In ex-ante research wave about 15 % of respondents stated that they already noticed the counter in Slovenia, while 54 % mentioned they already noticed it abroad

Have you ever noticed the bike counter before? *Ex-post research wave*

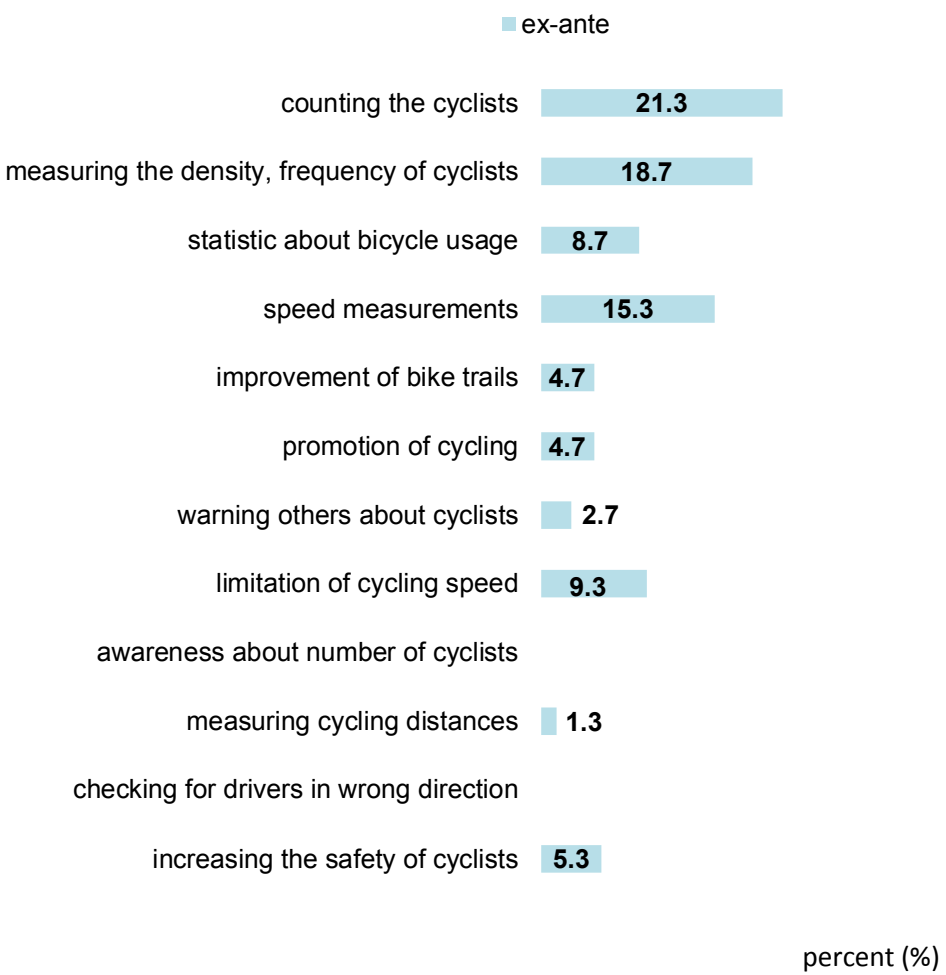


→ In ex-post research wave about 5 % of respondents mentioned they already noticed the counter abroad and about 1 % that they already noticed it in Slovenia

PURPOSE OF BICYCLE COUNTER I.

The main purpose of bicycle counter is counting the cyclists or measuring the density of cyclists

Ex-ante: In your opinion, what would be the purpose of the mentioned counter?
Ex-post: In your opinion, what is the purpose of the mentioned counter?



- In both research waves the main share of participants stated the main purpose of the counter being counting of cyclists or measuring their density
- In ex-ante research, the respondents mentioned statistically significantly more often the purpose of counter being limitation of cycling speed

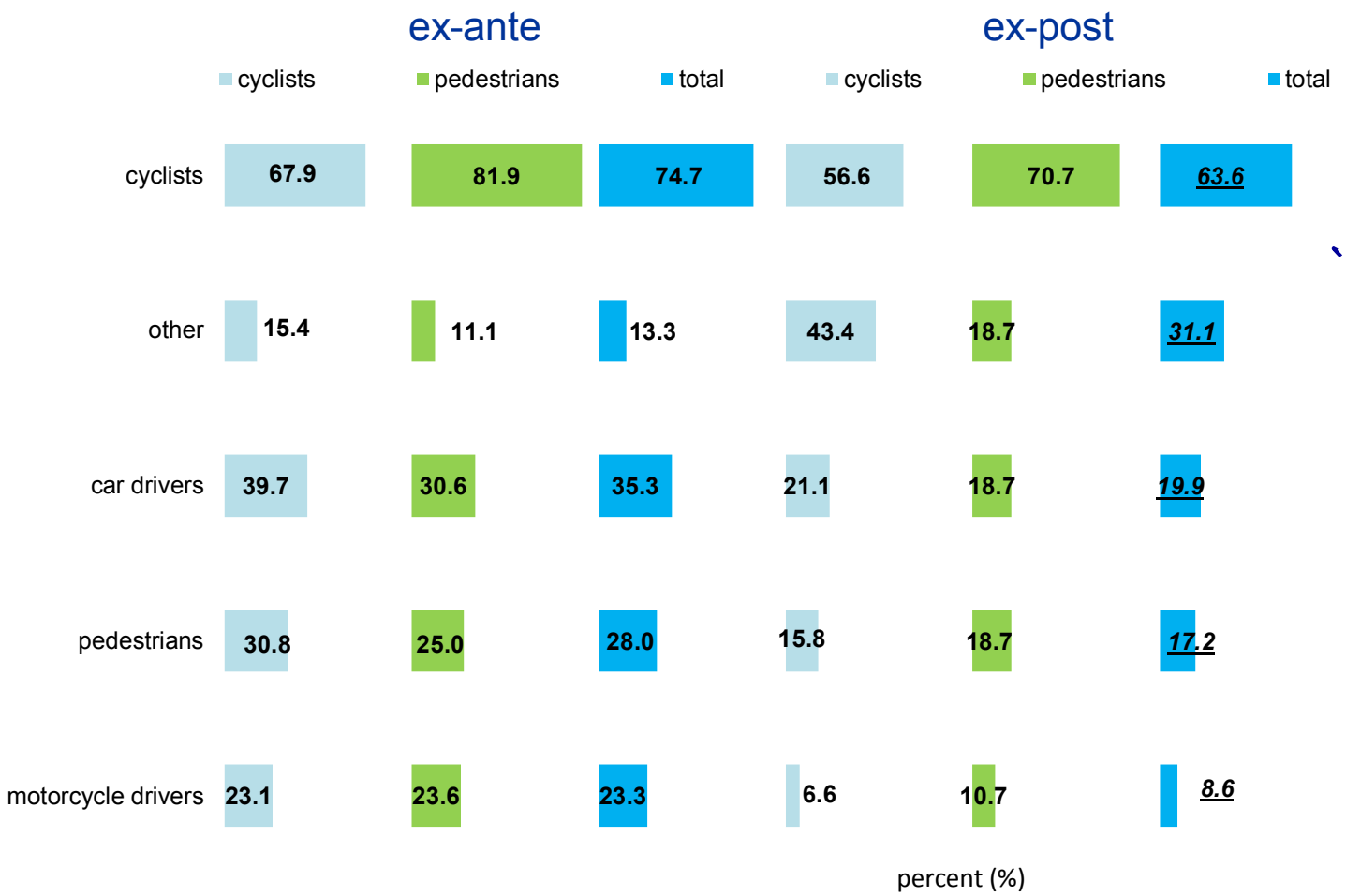
Base: all respondents

Underlined results: statistical significant differences.

PURPOSE OF BICYCLE COUNTER II.

Respondents think that the bicycle counter is primarily intended for cyclists

Ex-ante: Who do you think that the bicycle counter would be primarily intended for?
Ex-post: Who do you think that the bicycle counter is primarily intended for?



- In ex-post research, respondents less frequently stated that the counter is intended for cyclists, car drivers, pedestrians and motor drivers
- Among those that evaluated the counter being primarily intended for cyclists, the group of younger respondents (up to 24 years) was overrepresented in comparison to total sample

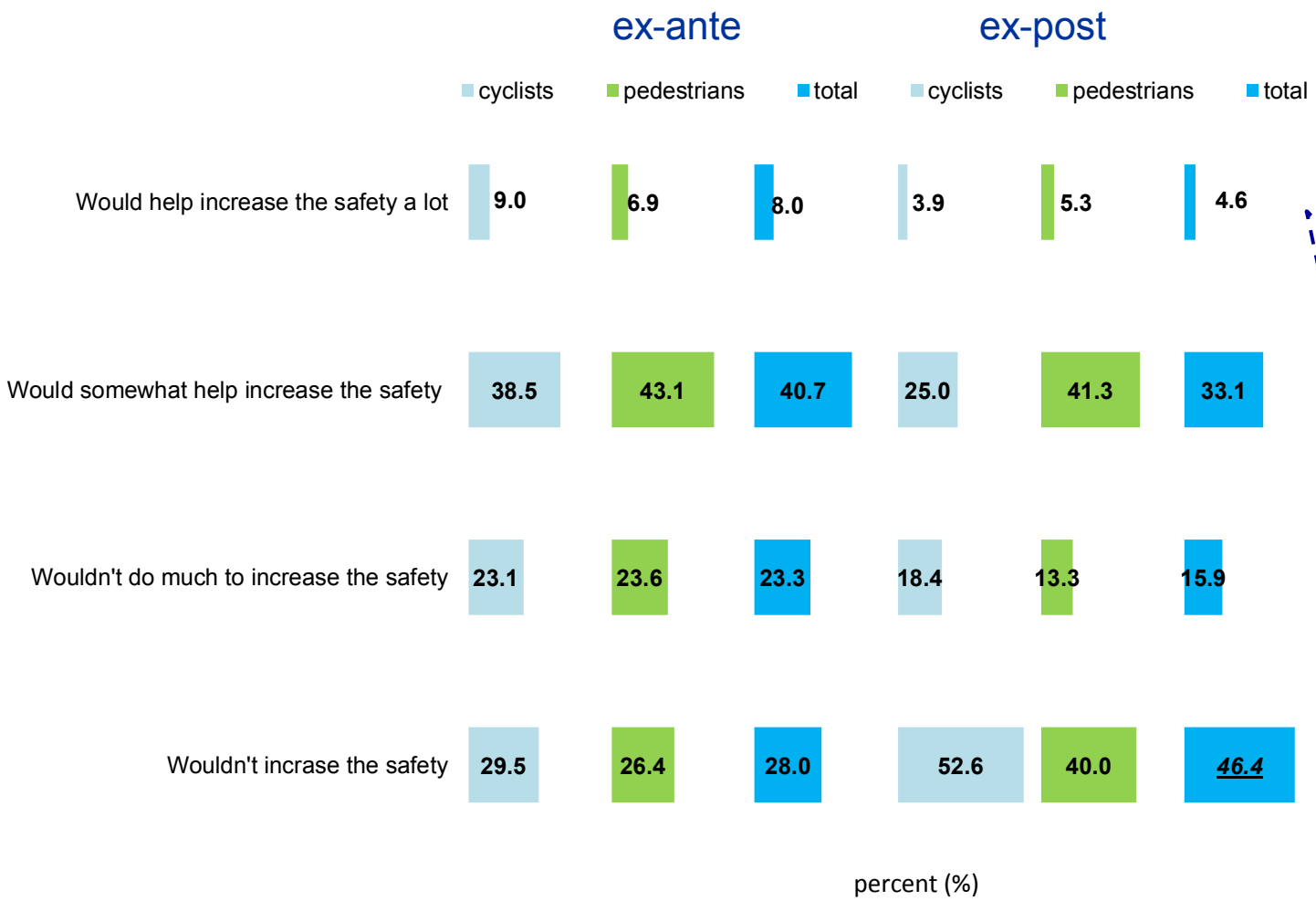
Base: all respondents

Underlined results: statistical significant differences.

BICYCLE COUNTER AND IMPROVEMENT OF TRAFFIC SAFETY

About a half of ex-ante respondents and 40 % of ex-post respondents think that the bicycle counter contributes to the improvement of traffic safety at the location

Ex-ante: Do you think that a bicycle counter would contribute to improvement of traffic safety at this location?
Ex-post: Do you think that a bicycle counter contributes to improvement of traffic safety at this location?



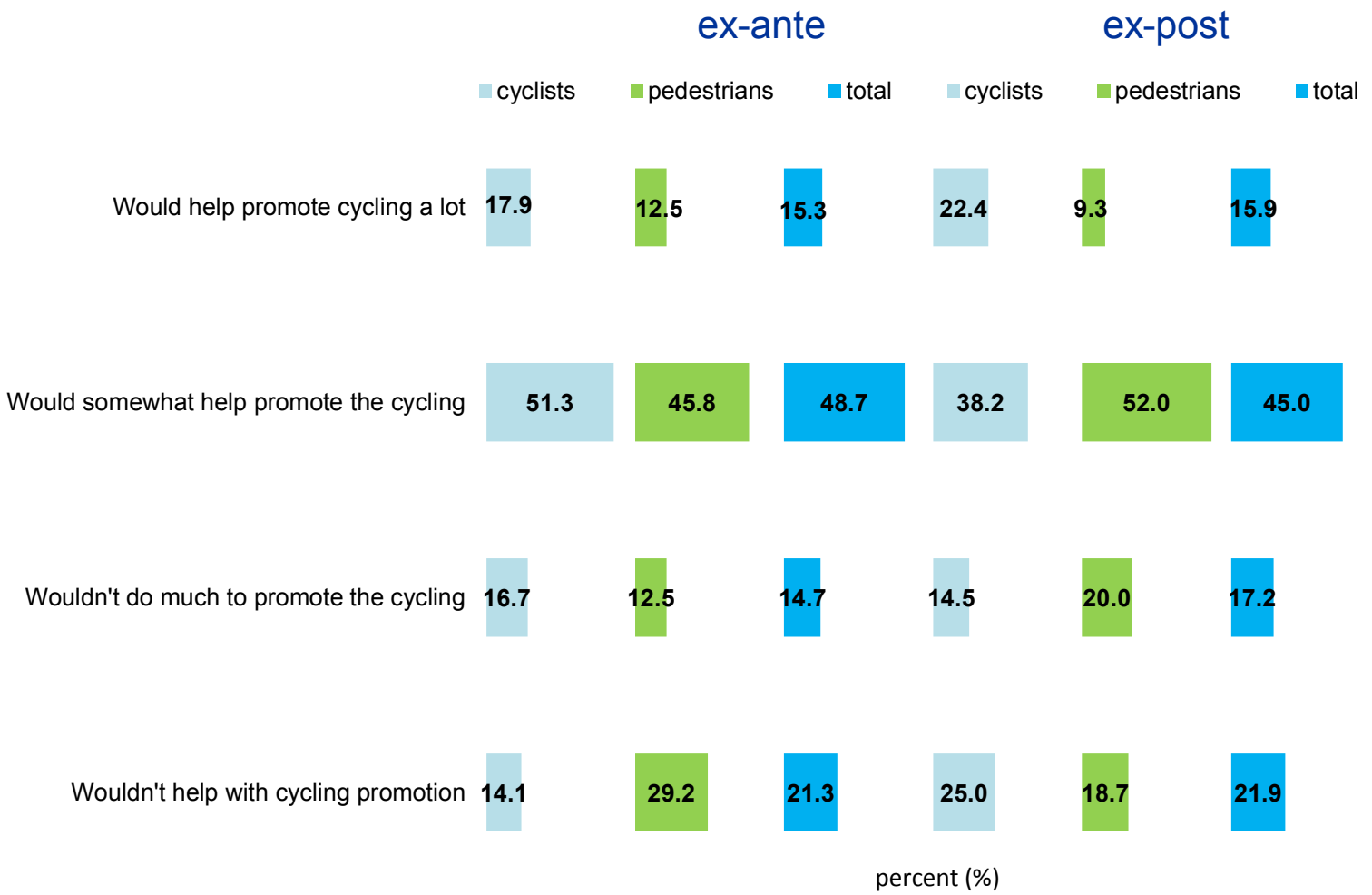
- In ex-ante wave, 28 % of respondents evaluated that the counter would not contribute to larger safety
- In ex-post wave this share was statistically significantly higher as 46 % of respondents thought that the counter doesn‘t improve the safety
- Among those in ex-post wave who stated that the counter contributes (a lot) to the traffic safety, younger participants (up to 24 years old) were overrepresented compared to total sample

Base: all respondents

BICYCLE COUNTER AND PROMOTION OF CYCLING IN GENERAL

About 60 % of respondents evaluated that the bicycle counter contributes to promotion of cycling in general

Ex-ante: Do you think that a bicycle counter would contribute to the promotion of cycling in general?
Ex-post: Do you think that a bicycle counter contributes to the promotion of cycling in general?



- In ex-ante wave slightly less than two thirds of respondents evaluated that the counter would help the promotion of cycling at least somewhat → this share doesn‘t change significantly in the ex-post research l
- There is also no significant difference in the share of respondents who evaluated that the counter will not contribute to the promotion of cycling
- Among those in ex-post wave who stated that the counter contributes (a lot) to the promotion of cycling, younger participants (up to 24 years old) were overrepresented compared to total sample

Base: all respondents

SUPPORT TO IMPLEMENTATION OF BICYCLE COUNTER AT LOCATION

Before its implementation at the location, the bicycle counter was supported by 80 % of respondents → after implementation support share was 80 %

Ex-ante: Would you support the implementation of bicycle counter at this location?
Ex-post: Do you support the implementation of bicycle counter at this location?

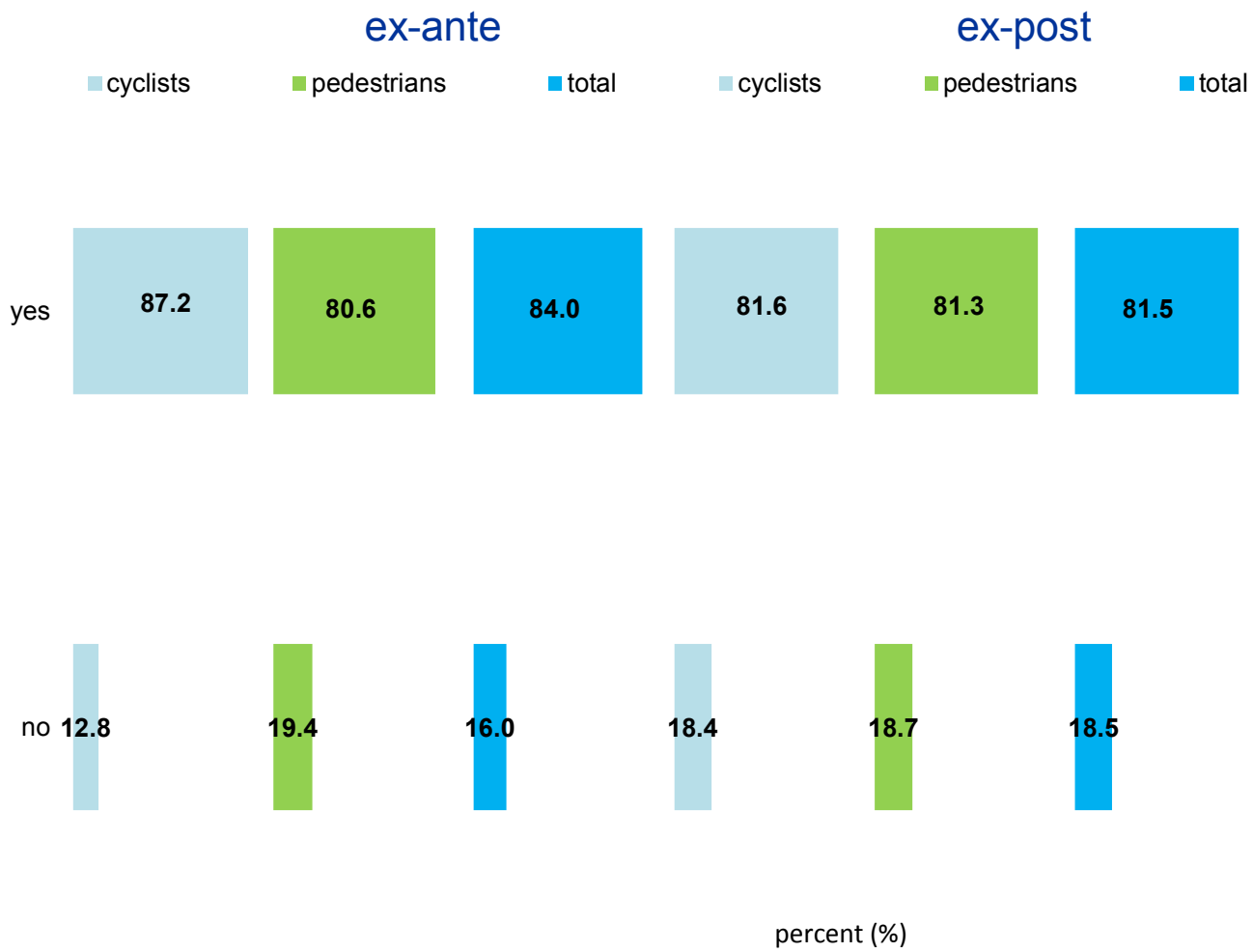
→ In ex-ante wave, the implementation of the counter at the location was contributed by 80 % of respondents, while 84 % supported the implementation in the ex-post wave → the difference is not statistically significant

Base: all respondents

SUPPORT TO IMPLEMENTATION OF BICYCLE COUNTER AT OTHER LOCATIONS

The support for bicycle counter at other location is similar to the support at the location of interviewing

Ex-ante: Would you support the implementation of bicycle counter at other similarly congested or dangerous locations?
Ex-post: Do you support the implementation of bicycle counter at other similarly congested or dangerous locations?



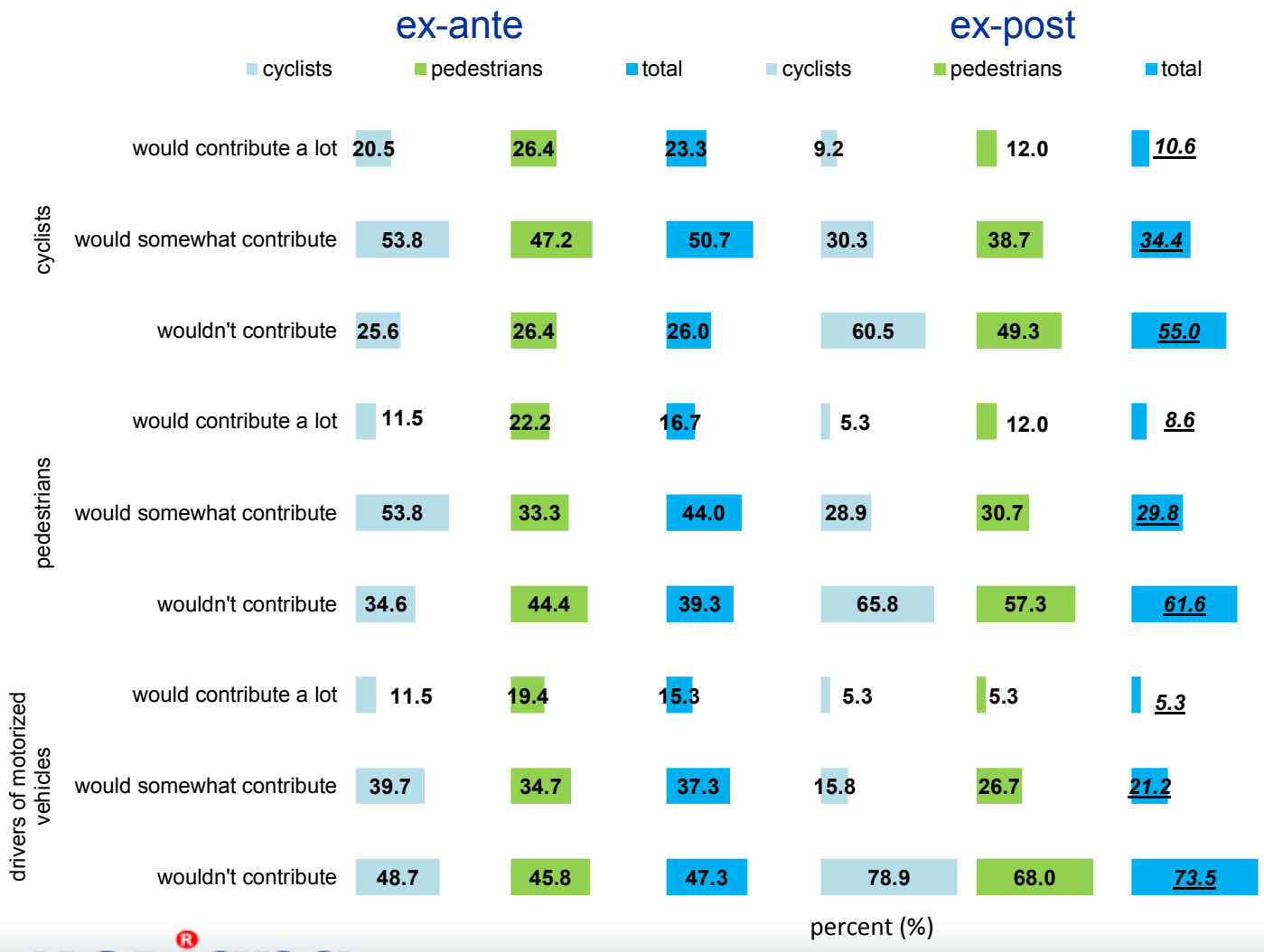
→ Among first and second wave of interviewing the share of respondents who support the implementation of bicycle counter on other locations remained at almost the same level

Base: all respondents

CONTRIBUTION OF BICYCLE COUNTER TO GREATER TRAFFIC SAFETY

Respondents think that the bicycle counter contributes the most to the traffic safety of the cyclists

Ex-ante: To what extent would the implementation of bicycle counter at this location contribute to the greater safety of…
Ex-post: To what extent does the bicycle counter at this location contribute to the greater safety of…



- Compared to the ex-ante wave of interviewing, the respondents in the ex-post wave more often answered that the bicycle counter won't contribute to greater safety of any group of participants in traffic
- By the opinion of respondents, bicycle counter contributes to greater safety of cyclists the most

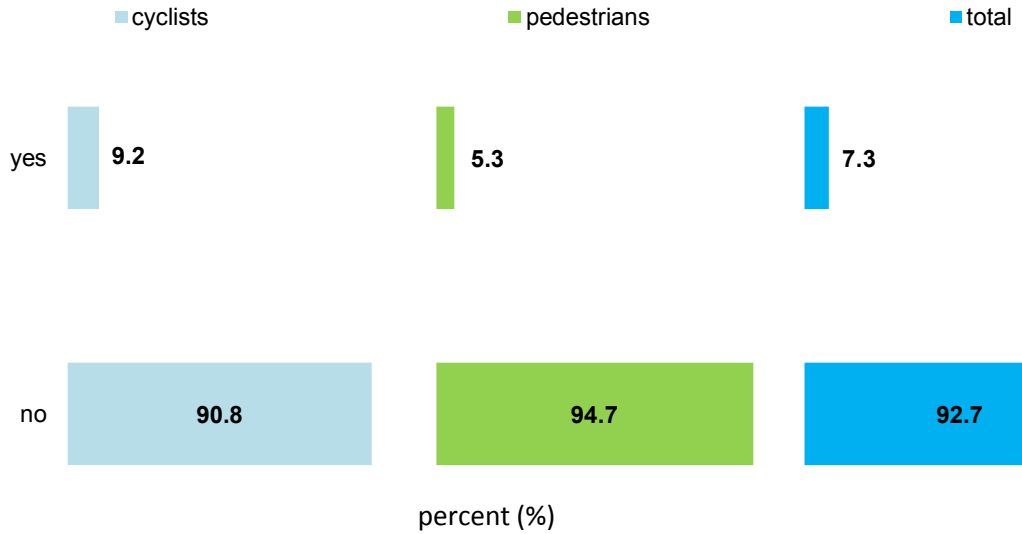
Base: all respondents

Underlined results: statistical significant differences.

AWARENESS OF BICYCLE COUNTER IMPLEMENTATION – EX POST

About a tenth of respondents already knew about the bicycle counter before its implementation

Were you aware of implementation of bicycle counter at this location before?

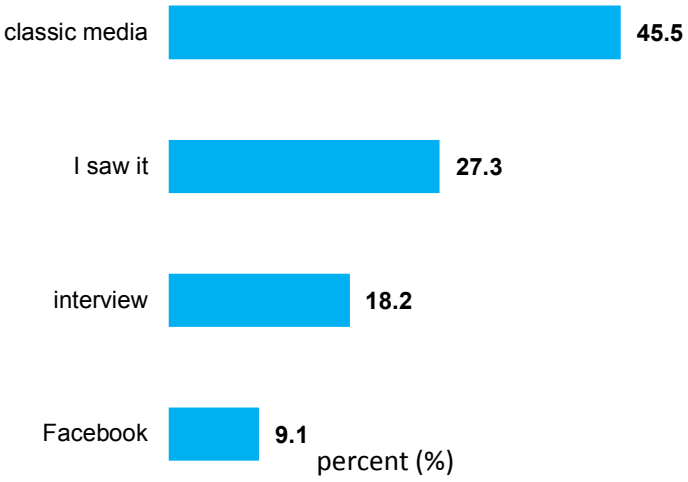


Base: all respondents

→ About 7 % of respondents already found out about the implementation of bicycle counter before it happened

→ Most of those who already heard about the bicycle counter before its implementation, heard about it in the classic media

Where did you find out about the implementation of bicycle counter at this location?

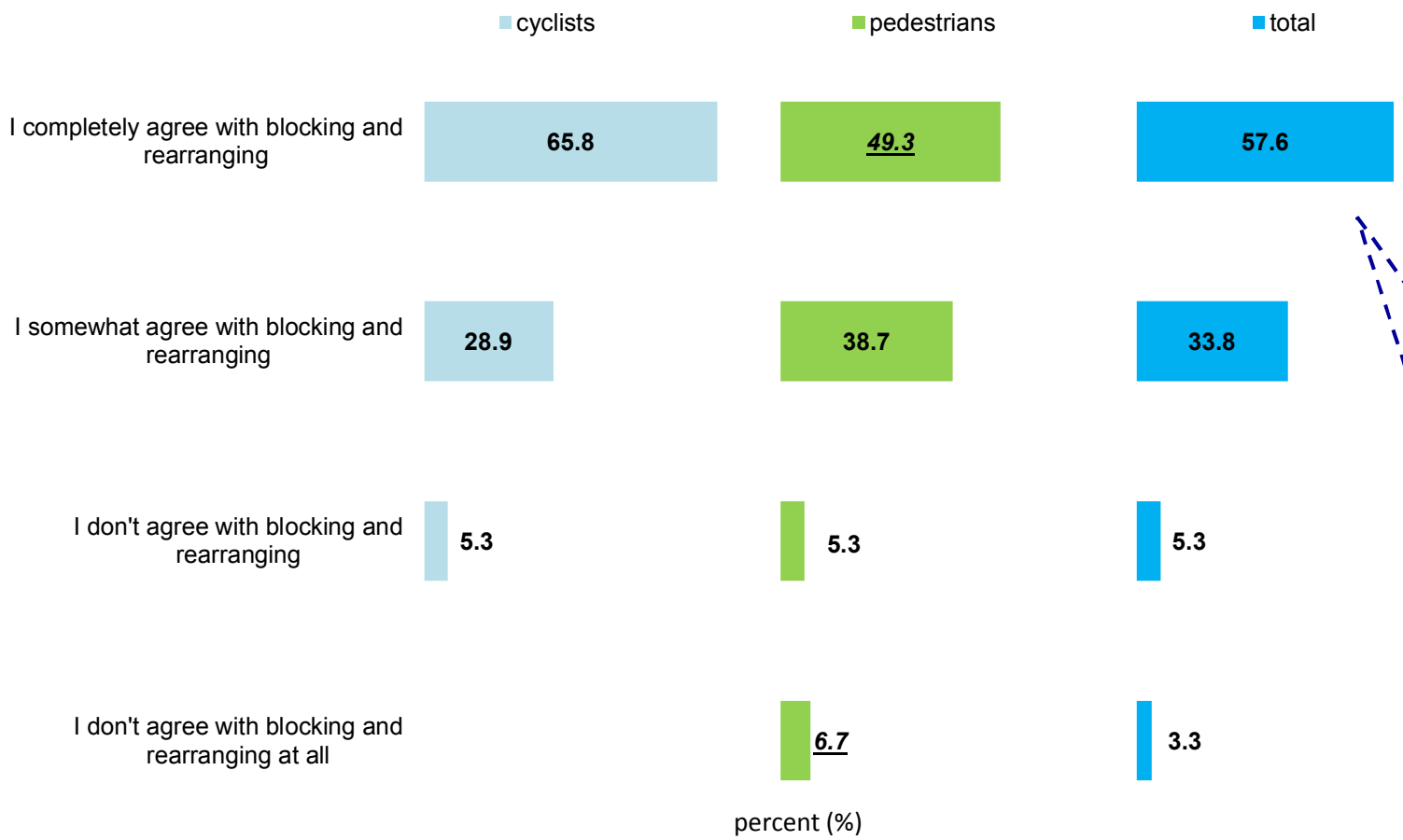


Base: those who knew about counter implementation

AGREEMENT WITH BLOCK OF SLOVENSKA STREET AND REARRANGING OF SURFACES – EX POST

About two thirds of cyclists and half of pedestrians agree with rearranging of Slovenska street

To what extent do you agree with the block of Slovenska street and rearranging of surfaces for cyclists, pedestrians and public transport?



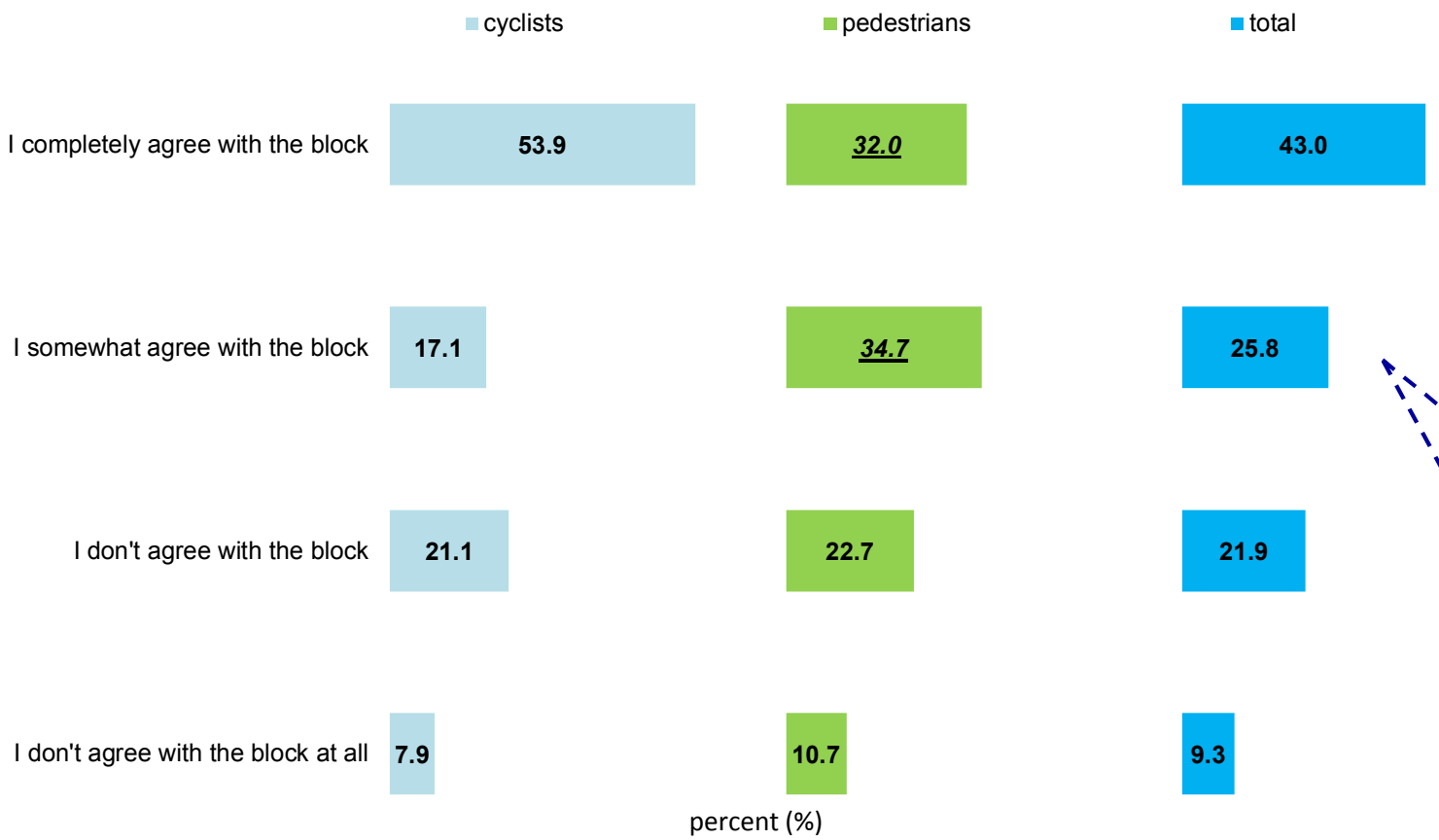
- → Less pedestrians than cyclists agree with block of Slovenska street and rearranging of surfaces → respondents who don't agree with the changes at all are statistically significantly more represented among pedestrians
- → Almost 60 % of respondents agree with the block and rearranging of surfaces

Base: all respondents

AGREEMENT WITH BLOCK OF SLOVENSKA STREET FOR MOTORIZED TRAFFIC – EX POST

About a half of cyclists and less than a third of pedestrians agree with complete block

Do you agree with the block of complete Slovenska street for motorized traffic?



→ More than a half of cyclists and less than a third of cyclists agree with the complete block of Slovenska street → cyclists agree statistically significantly less with the block

Base: all respondents

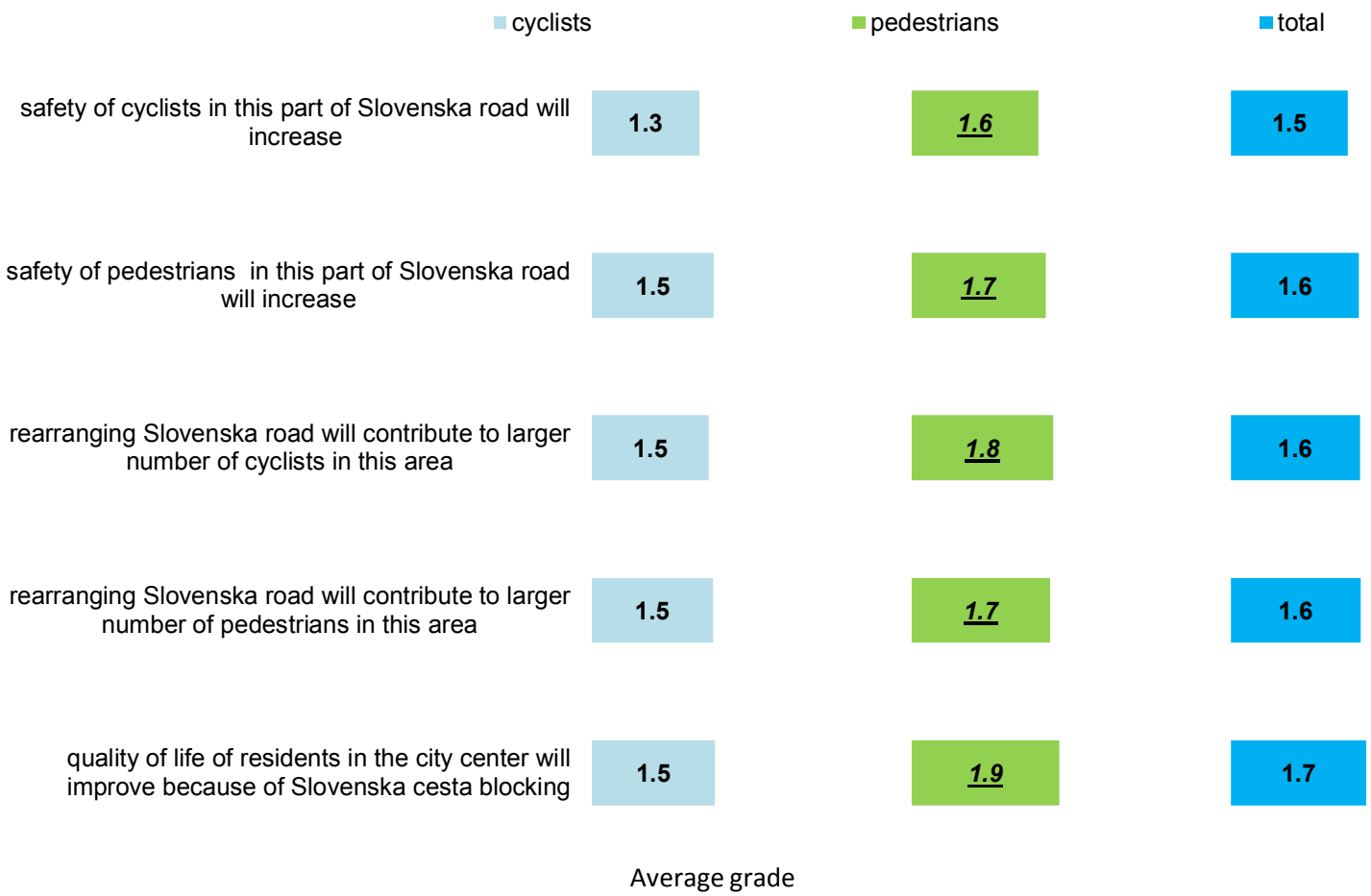
Underlined results show statistically significant differences between cyclists and pedestrians in the second (ex-post) research wave.

AGREEMENT WITH STATEMENTS ABOUT TRAFFIC ORDER OF SLOVENSKA STREET – EX POST

Respondents agree most that the safety of cyclists will improve in this part of Slovenska street

To what extent do you agree with the following statements?

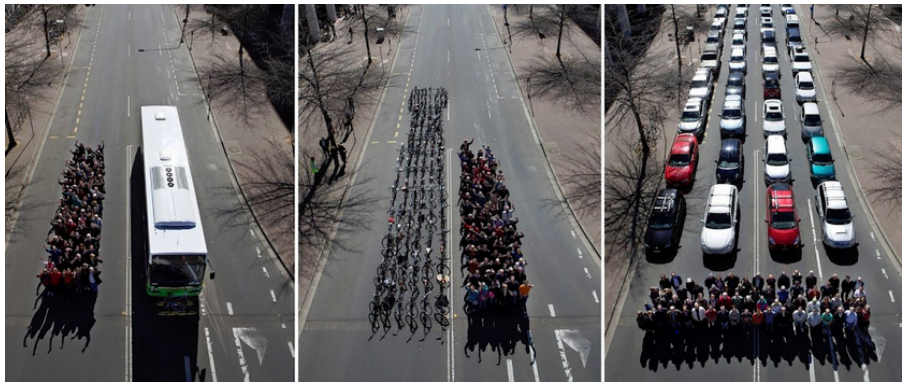
Base: all respondents
Average grades on a scale from 1 ("completely agree") to 5 ("don't agree at all")



- Respondents agreed the most that in this part of Slovenska street the safety of cyclists and pedestrians will improve
- In comparison to pedestrians, cyclists agree less with all of the statements in a statistically significant manner
- High grades for all the statements

Underlined results show statistically significant differences between cyclists and pedestrians in the second (ex-post) research wave.

3.
FIELD RESEARCH-MARIBOR

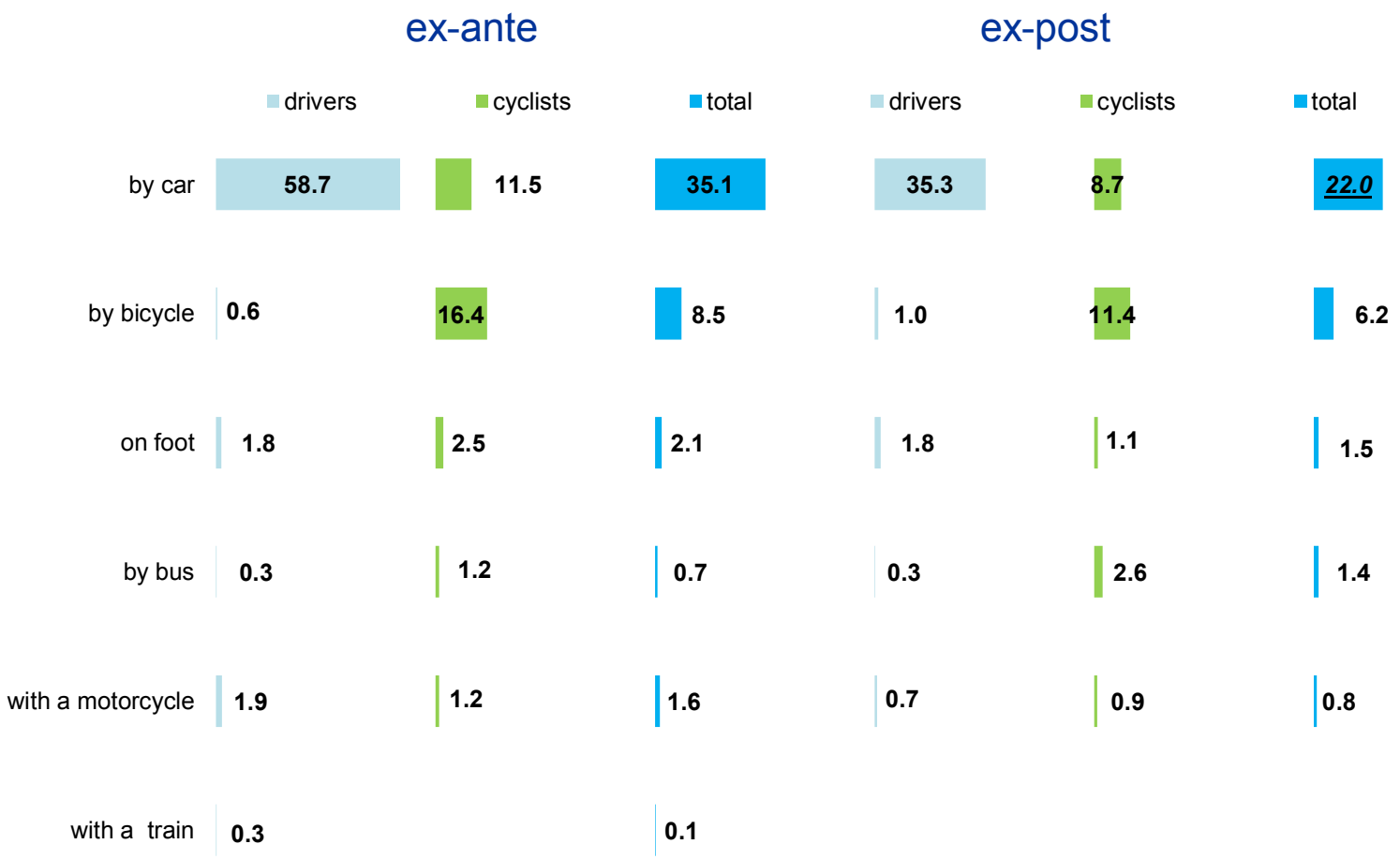


3.1 FIELD RESEARCH - MARIBOR

TRAFFIC HABITS

AVERAGA NUMBER OF KILOMETERS PER DAY
Respondents do the most km per day by car

How many kilometers do you make per day with...?



percent (%)

- In ex-post wave of interviewing the number of kilometers done daily by car was statistically significantly lower compared to ex-ante wave of interviewing
- Few or none kilometers daily are done by respondents wit train; also low shares for transport with motorcycles

Base: all respondents

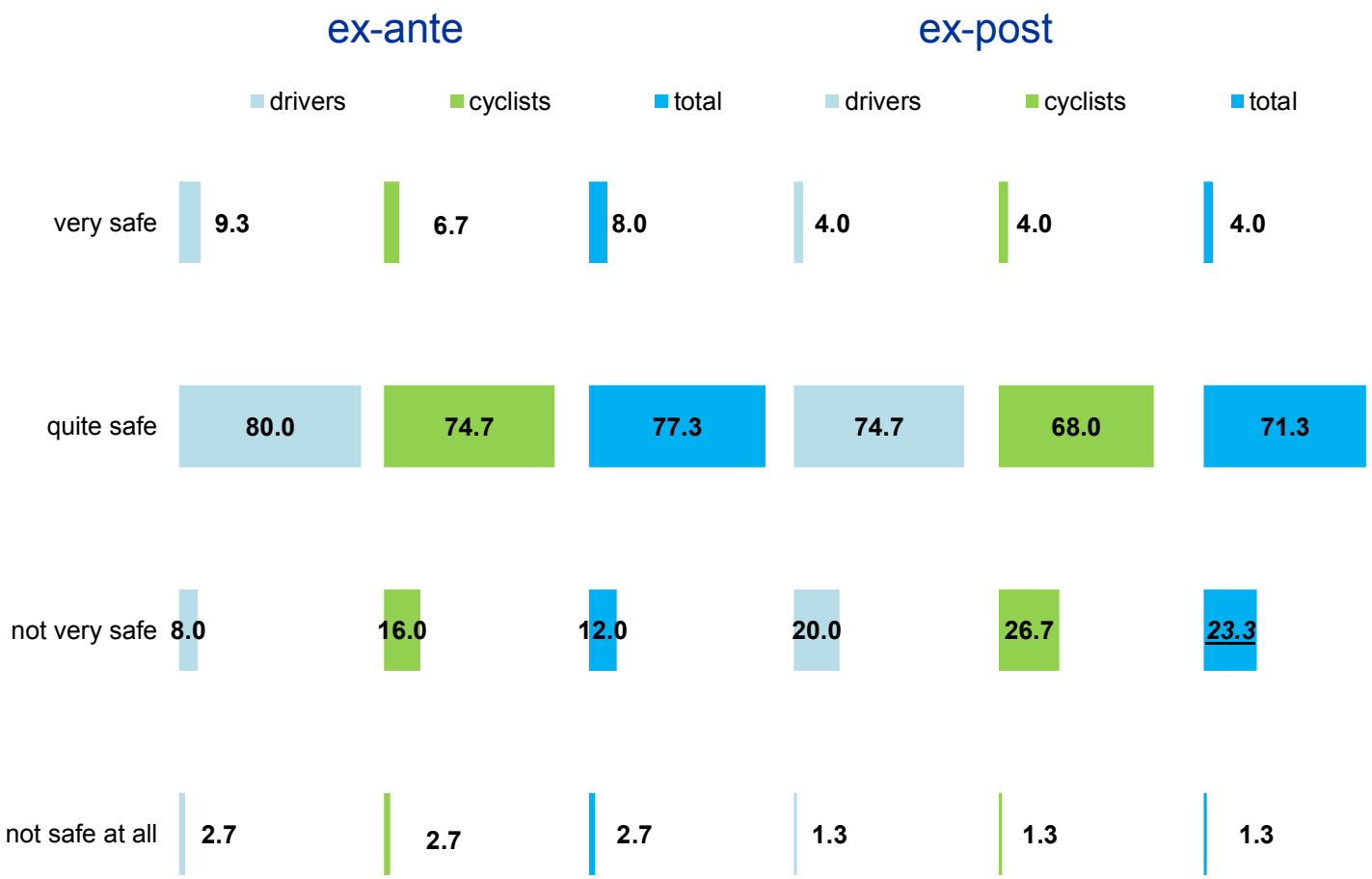
Underlined results: statistical significant differences.

3.2 FIELD RESEARCH - MARIBOR

TRAFFIC SAFETY EVALUATION IN GENERAL

ROAD SAFETY I
About 75 % of respondents find our roads safe or very safe

If you consider the risk of being involved in a traffic accident, how safe do you generally consider our roads?



- In ex-ante wave of interviewing about 85 % of respondents said our roads are safe or very safe, which is true for about 75 % of respondents in the ex-post wave
- In second interviewing wave the share of those who think are roads are not safe at all was statistically significantly higher

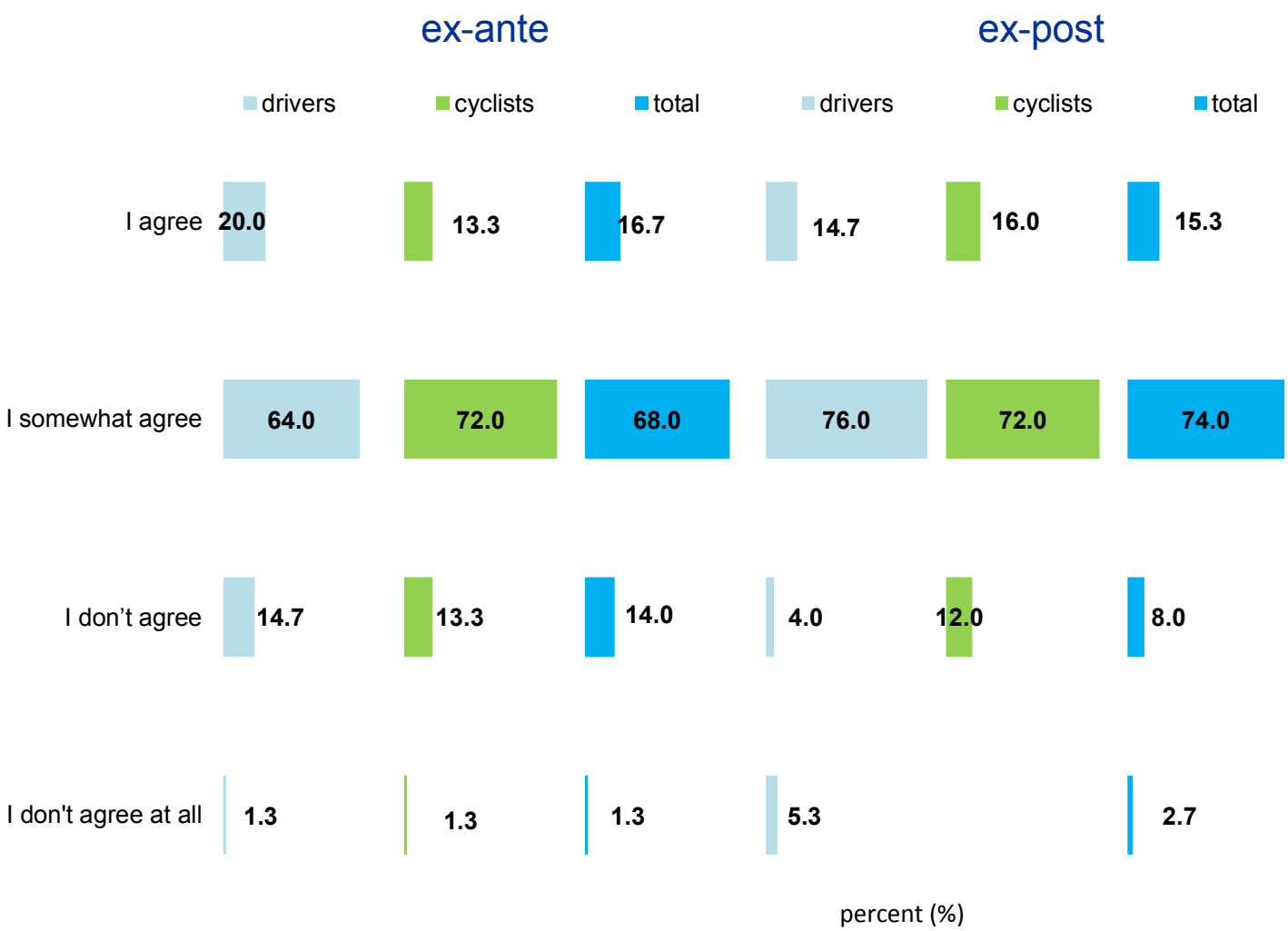
percent (%)

Base: all respondents

Underlined results: statistical significant differences.

ROAD SAFETY II.
About 90 % of respondents in ex-post wave agree that our roads became safer in the last 10 years

To what extent do you agree with the statement that our roads have become safer in the last 10 years?

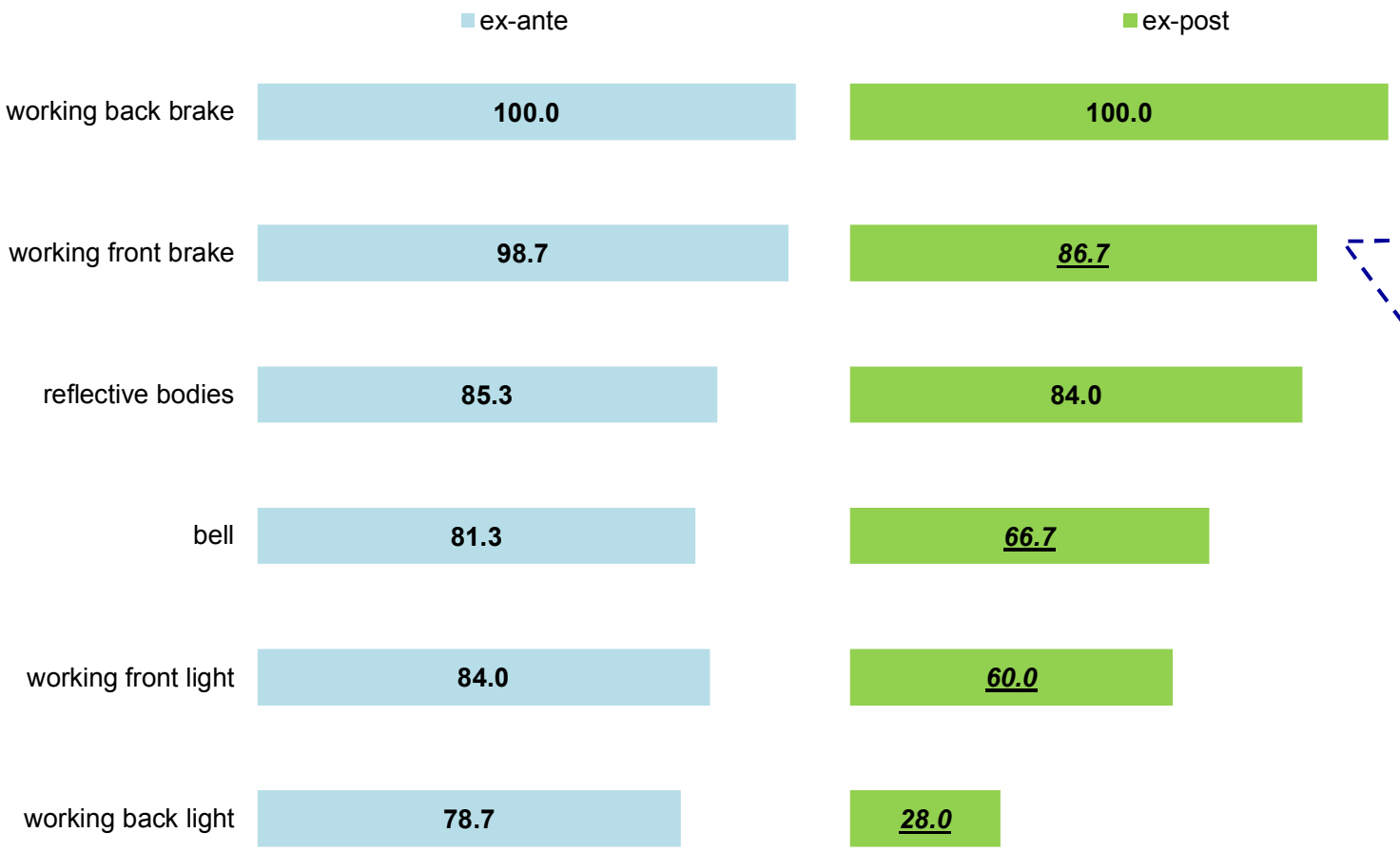


- In ex-ante interviewing about 85 % of respondents agreed that our roads have become safer in the last 10 years; the same is true for almost 90 % in the ex-post wave
- Among those who in the ex-post wave agreed that our roads have become safer, the groups of women is underrepresented and the group of respondents aged 25 to 34 years is overrepresented compared to total sample

Base: all respondents

BICYCLE EQUIPMENT
Most cyclists have a working back and front brake on their bicycle

How is your bicycle equipped?



- In the first and second wave of research all cyclists had a working back brake on their bicycle
- The equipment of bicycles was a bit better among the cyclists in the ex-ante research wave → in ex-post wave, statistically significantly lower share of respondents had a working front brake, bell, working front light and working back light on their bicycle

percent (%)

Base: cyclists

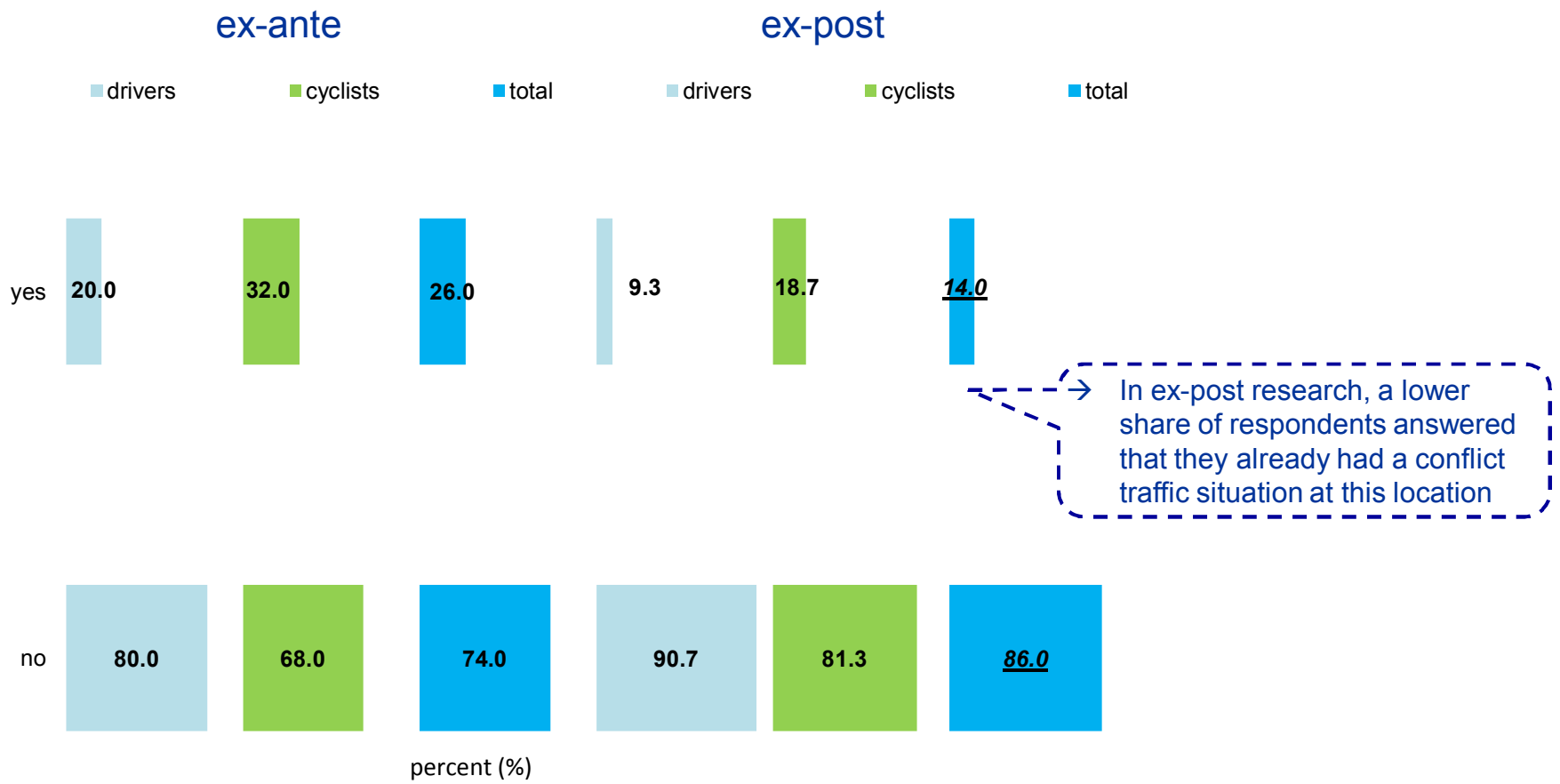
3.3 FIELD RESEARCH - MARIBOR

SAFETY AT THE SPECIFIC LOCATION

CONFLICT TRAFFIC SITUATION

At the location in Maribor, 28 % ex-ante and 14 % ex-post respondents already had a conflict traffic situation

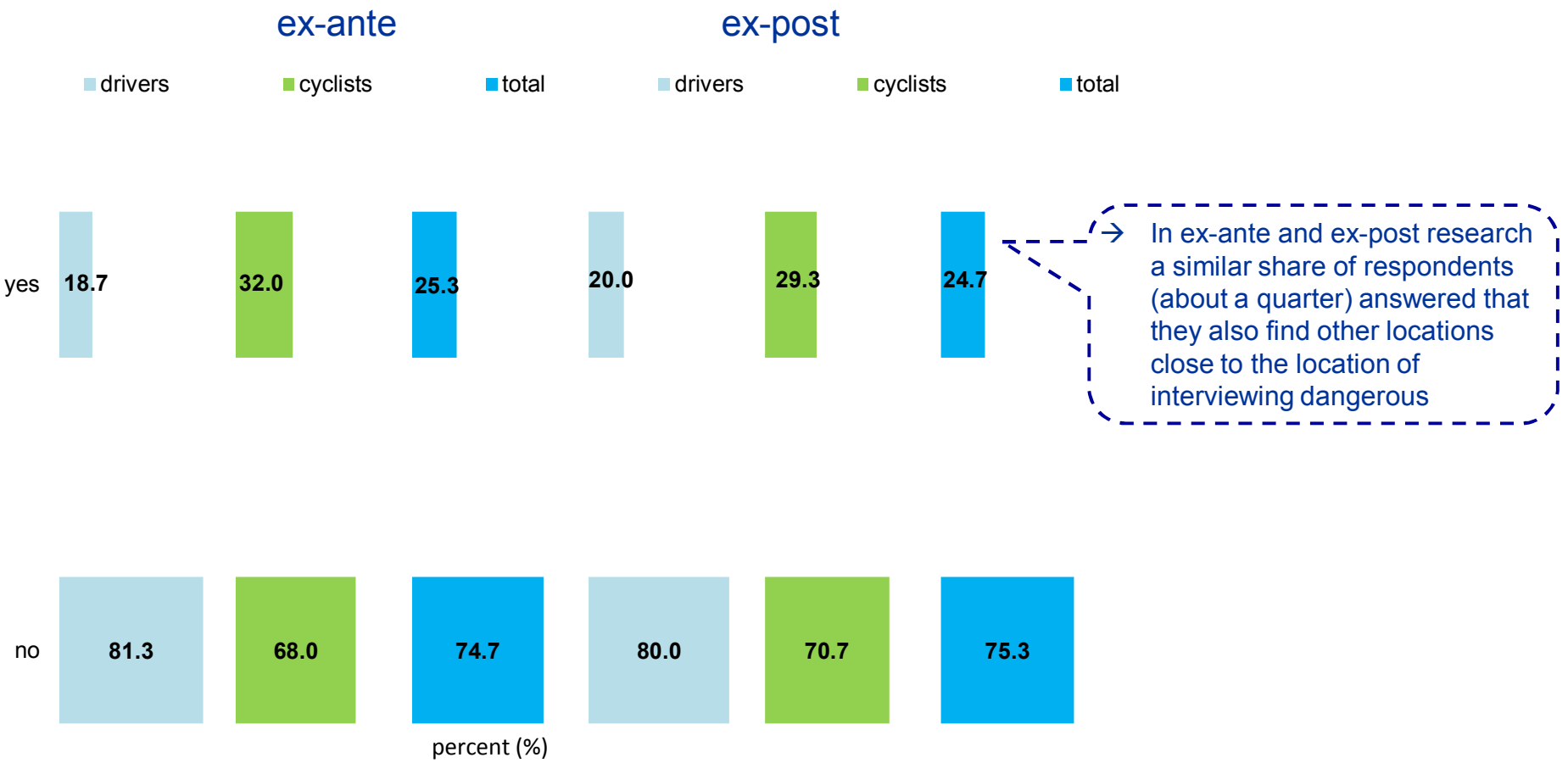
Did you already have a conflict traffic situation at this location?



Base: all respondents

DANGEROUS LOCATIONS I.

Do you find any other location close to the current location especially dangerous?

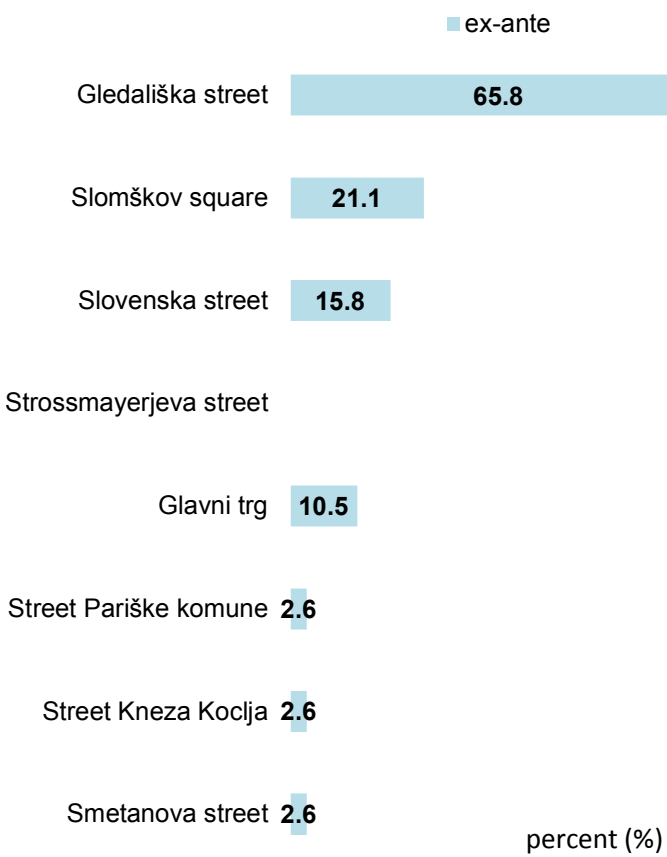


→ In ex-ante and ex-post research a similar share of respondents (about a quarter) answered that they also find other locations close to the location of interviewing dangerous

Base: all respondents

DANGEROUS LOCATIONS II.

Which areas (do you find especially dangerous)?

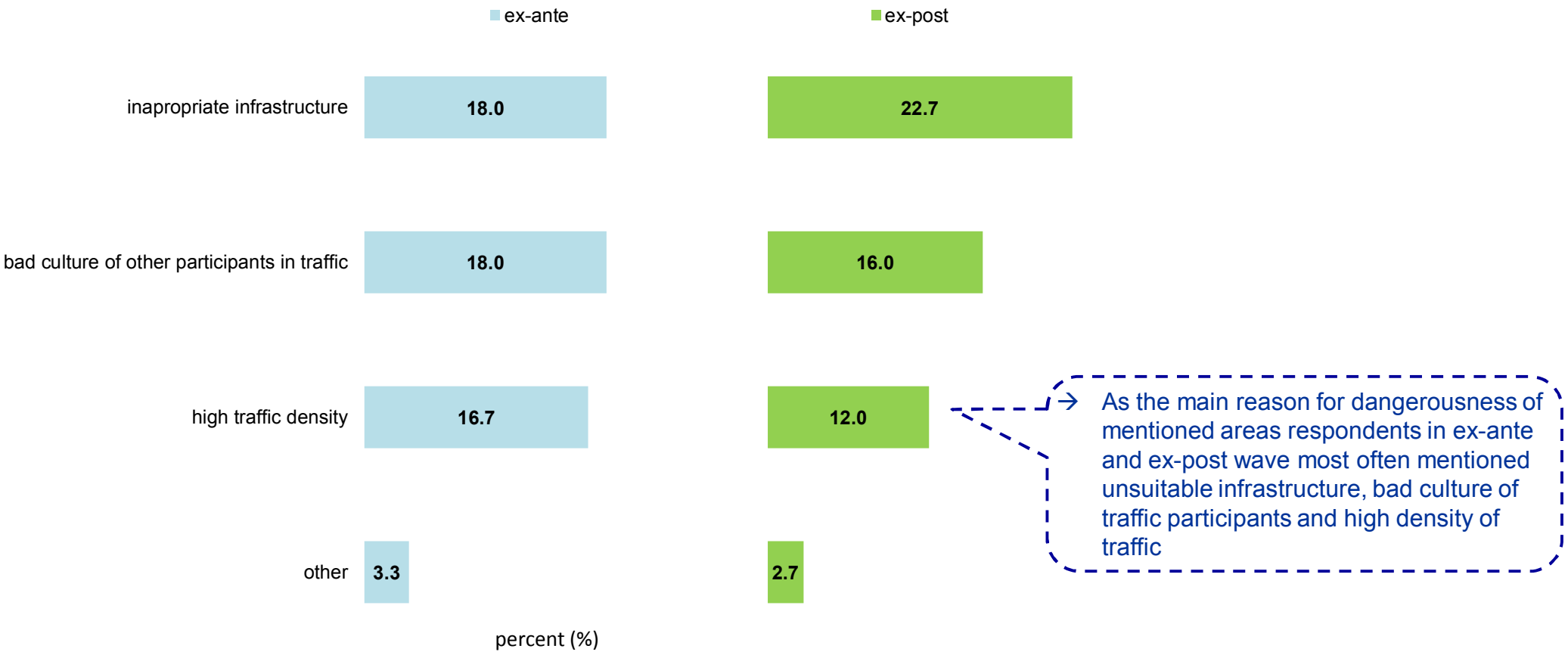


- Among areas they find especially dangerous, respondents in ex-ante wave most often mentioned Gledališka street, Slomškov square and Slovenska street
- In ex-post wave respondents more often mentioned Gledališka street, Slomškov square and also Strossmayer street

Base: those who find other locations dangerous

DANGEROUS LOCATIONS III.

Why?



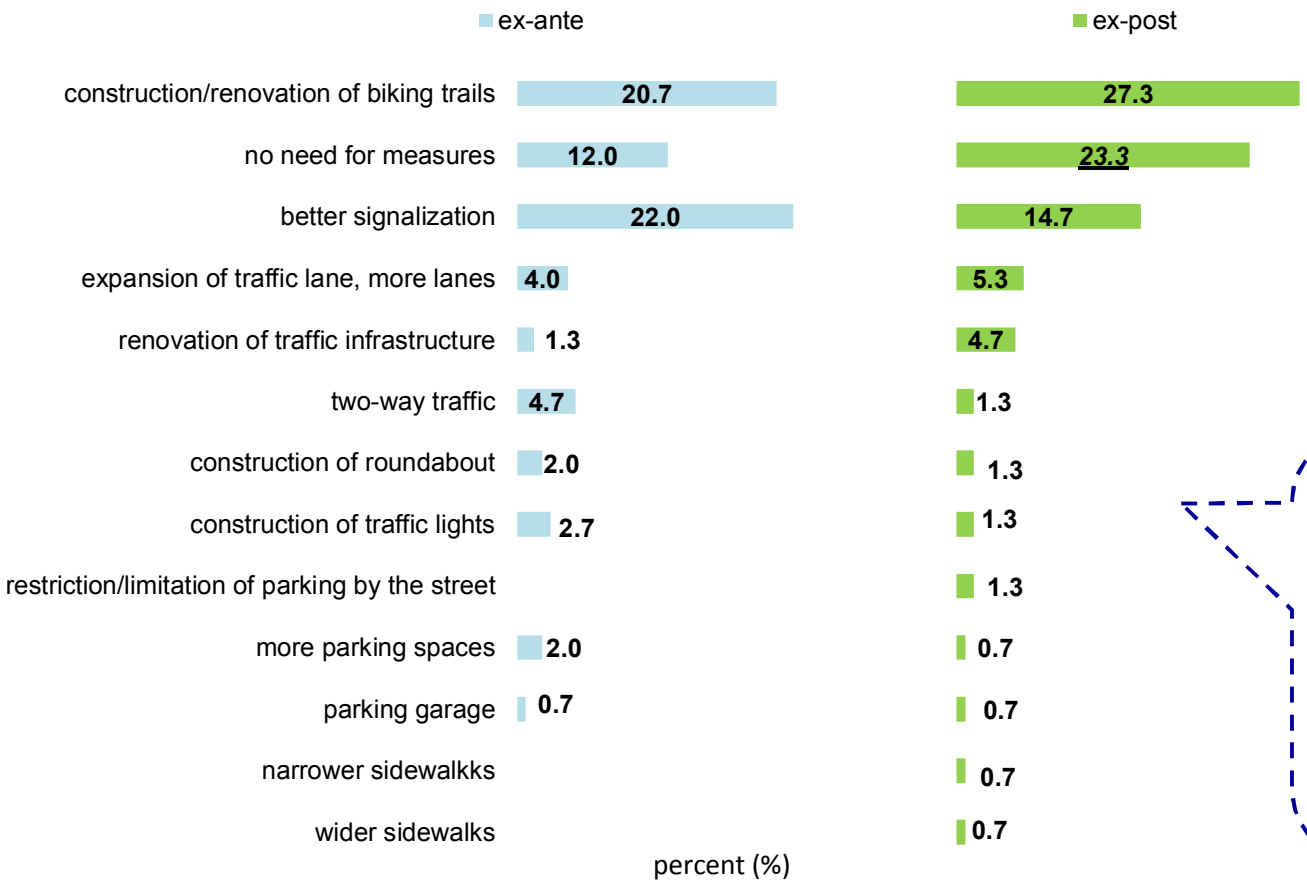
→ As the main reason for dangerousness of mentioned areas respondents in ex-ante and ex-post wave most often mentioned unsuitable infrastructure, bad culture of traffic participants and high density of traffic

Base: those who find other locations dangerous

POSSIBLE MEASURES FOR TRAFFIC SAFETY IMPROVEMENT

For improvement of traffic safety respondents suggest building and renovating of bike paths

What measure would in your opinion help improve the traffic safety the most in this location?



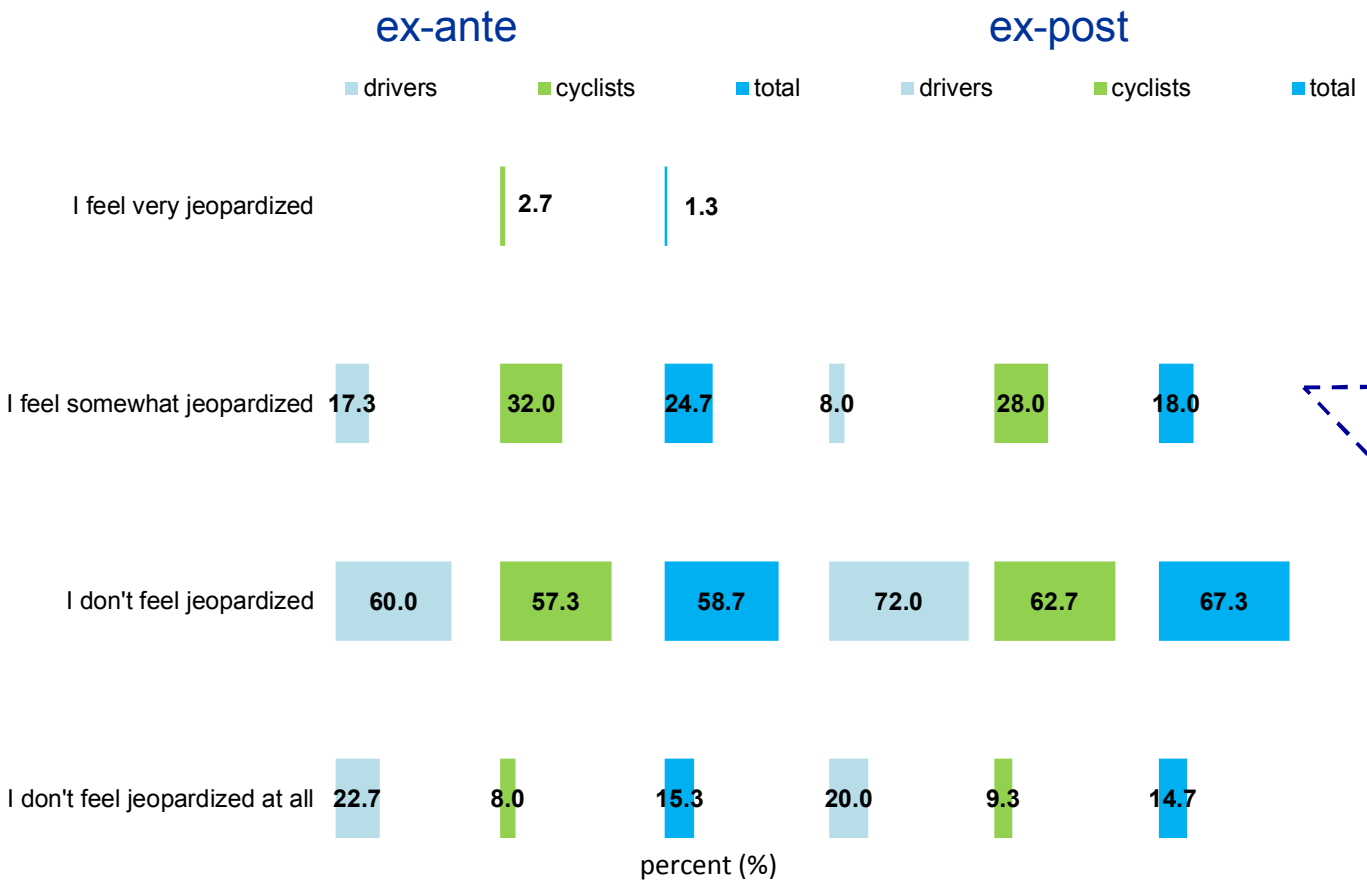
- Respondents in ex-ante wave most often suggested building or renovating bike paths and better traffic signalization as possible solutions for improvement of traffic safety
- In ex-post wave, respondents statistically significantly more often mentioned there is no need for measures to improve traffic safety

Base: all respondents

PERCEPTION OF JEOPARDY AT THE LOCATION

At the location of interviewing, 25 % in ex-ante wave and 18 % of respondents in ex-post wave felt jeopardized

To what extent do you feel your traffic safety is jeopardized at this location?



- In the first wave of research about a quarter of respondents mentioned they feel jeopardized a lot or at least partially jeopardized at the location → this share is lower in the ex-post wave, but the difference is not statistically significant
- About 15 % of respondents don't feel at all jeopardized at the location

Base: all respondents

PERCPTION OF SAFETY FOR INDIVIDUAL PARTICIAPANTS IN THE TRAFFIC

How safe do you find this traffic location where we currently stand for… ?

	ex-ante			ex-post		
	drivers	cyclists	total	drivers	cyclists	total
very safe	61.3	53.3	57.3	70.7	74.7	72.7
quite safe	36.0	44.0	40.0	29.3	25.3	27.3
not very safe	1.3	2.7	2.0			
not safe at all	1.3		0.7			

very safe	25.3	8.0	16.7	1.3	9.3	5.3
quite safe	66.7	65.3	66.0	82.7	64.0	73.3
not very safe	5.3	21.3	13.3	13.3	17.3	15.3
not safe at all	2.7	5.3	4.0	2.7	9.3	6.0

very safe	26.7	22.7	24.7	8.0	12.0	10.0
quite safe	60.0	58.7	59.3	74.7	74.7	74.7
not very safe	10.7	13.3	12.0	17.3	10.7	14.0
not safe at all	2.7	5.3	4.0		2.7	1.3

very safe	36.0	49.3	42.7	61.3	64.0	62.7
quite safe	56.0	46.7	51.3	34.7	36.0	35.3
not very safe	6.7	4.0	5.3	4.0		2.0
not safe at all	1.3		0.7			

- The area of interviewing seems the safest for pedestrians and car drivers and less safe for cyclists
- In ex-post research wave a smaller share of respondents said that the section is very safe for cyclists and motorist, but a higher share than in ex-ante research said that it's very safe for pedestrians and car drivers

percent (%)

Base: all respondents

Underlined results: statistical significant differences.

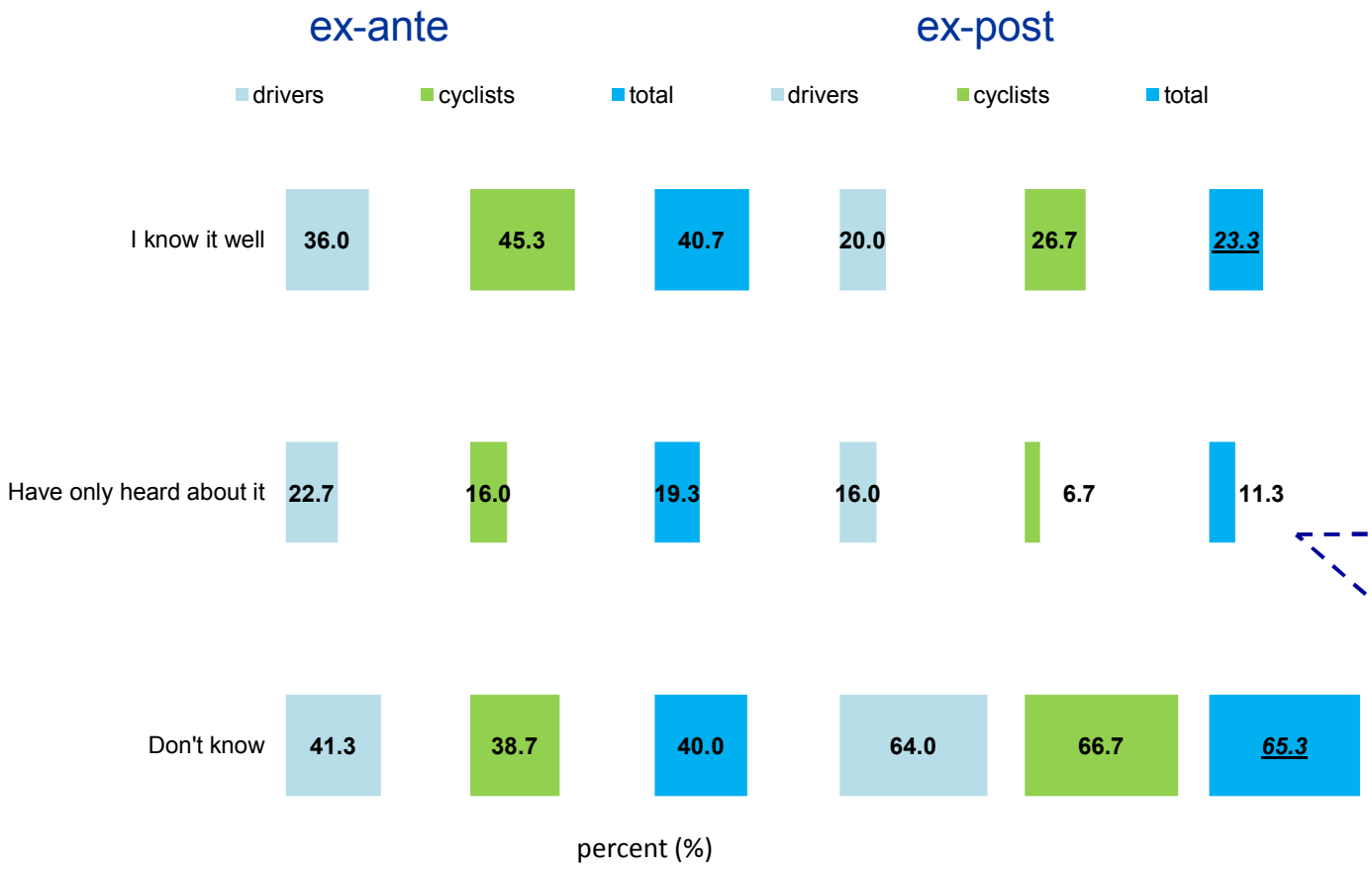
3.4 FIELD RESEARCH - MARIBOR

SHARROW

AWARENESS OF SHARROW

58 % of ex-ante and 34 % of ex post respondents already heard about Sharrow

Do you know the traffic measure called "sharrow" – common use of traffic lane with the cyclist (in the picture)? Sharrow is a part of traffic lane that is marked with special floor markings so it notifies drivers of motorized vehicles of the common use of traffic line with the cyclists.



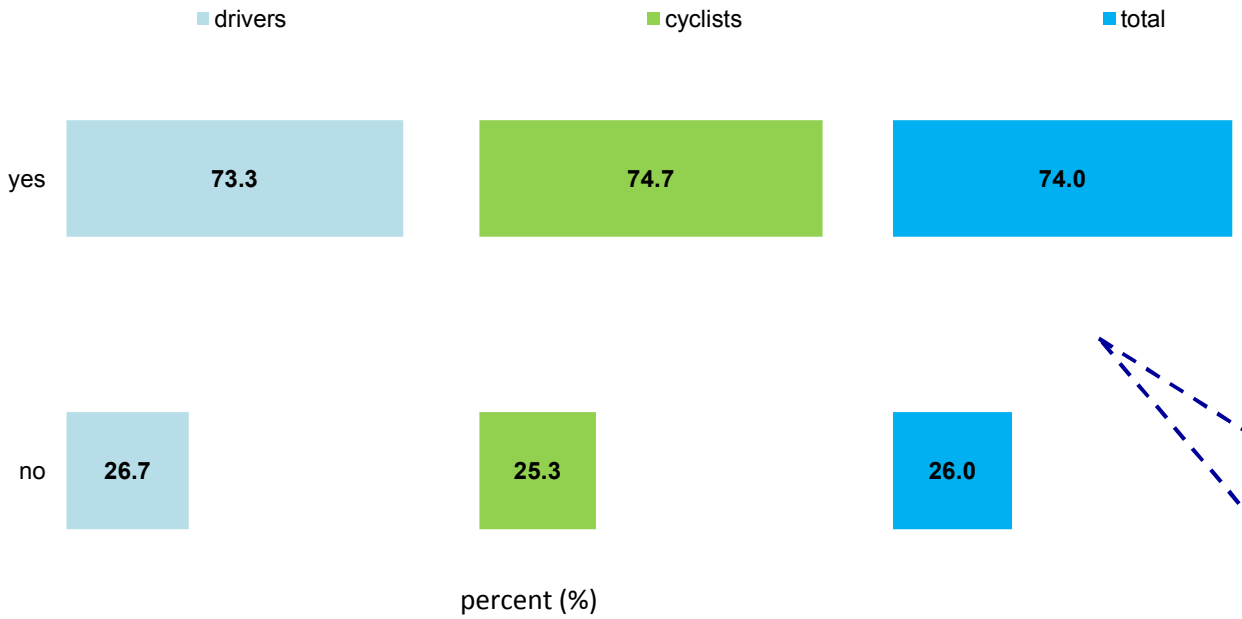
- In ex-ante research about 40 % of respondents evaluated they know sharrow well, while in ex-post research the same answer was given by only 23 % of respondents
- Share of those who don't know sharrow went up from 40 % to 60 % from first to second wave of research

Base: all respondents

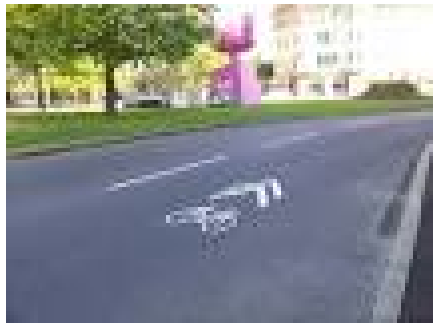
NOTICEABILITY OF SHARROW – EX POST I.

After implementation, sharrow was noticed by almost three quarters of respondents

Did you notice sharrow – common use of traffic lane with a cyclists anywhere nearby?



Base: all respondents

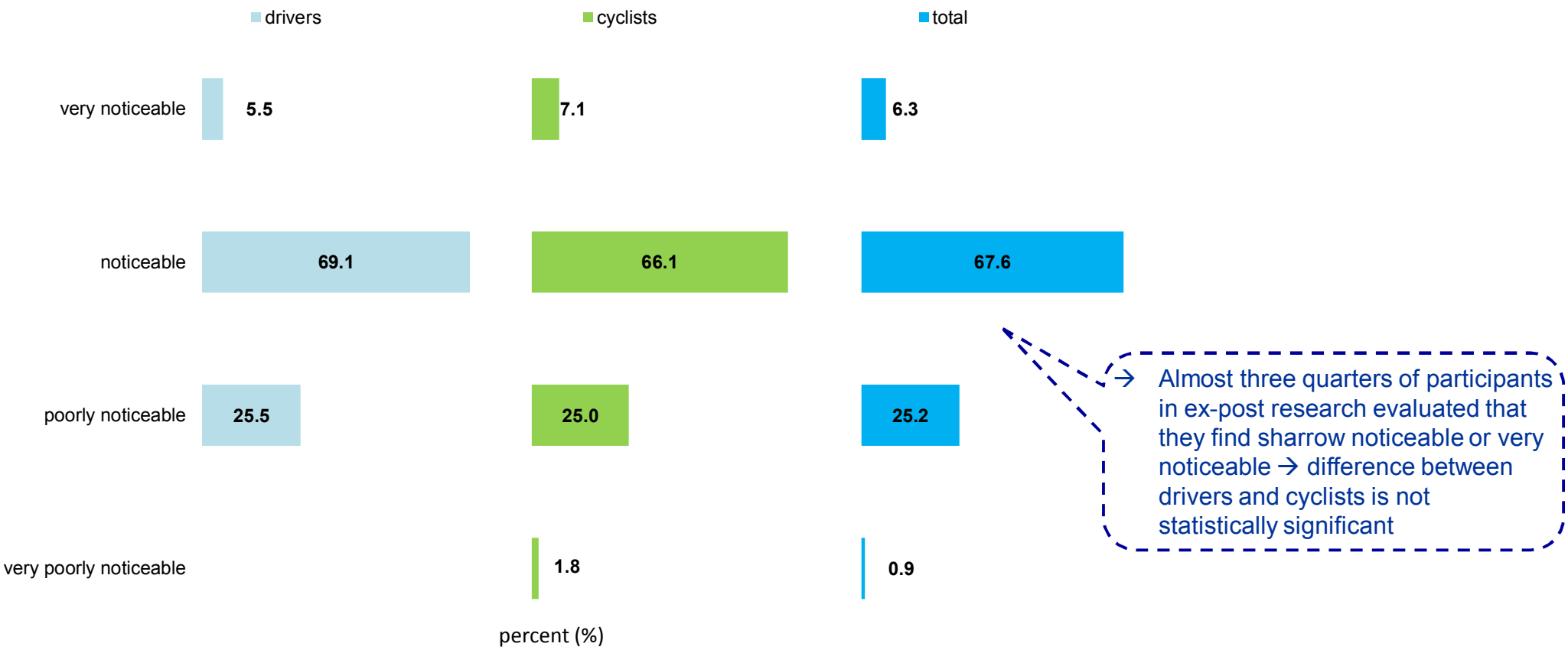


- → Sharrow was noticed by almost three quarters of participants after its implementation → no statistical differences between noticeability among drivers and cyclists
- → Among those who noticed sharrow women are underrepresented compared to total sample results

NOTICEABILITY OF SHARROW – EX POST II.

Three quarters of respondents find sharrow noticeable or very noticeable

How noticeable do you find sharrow?



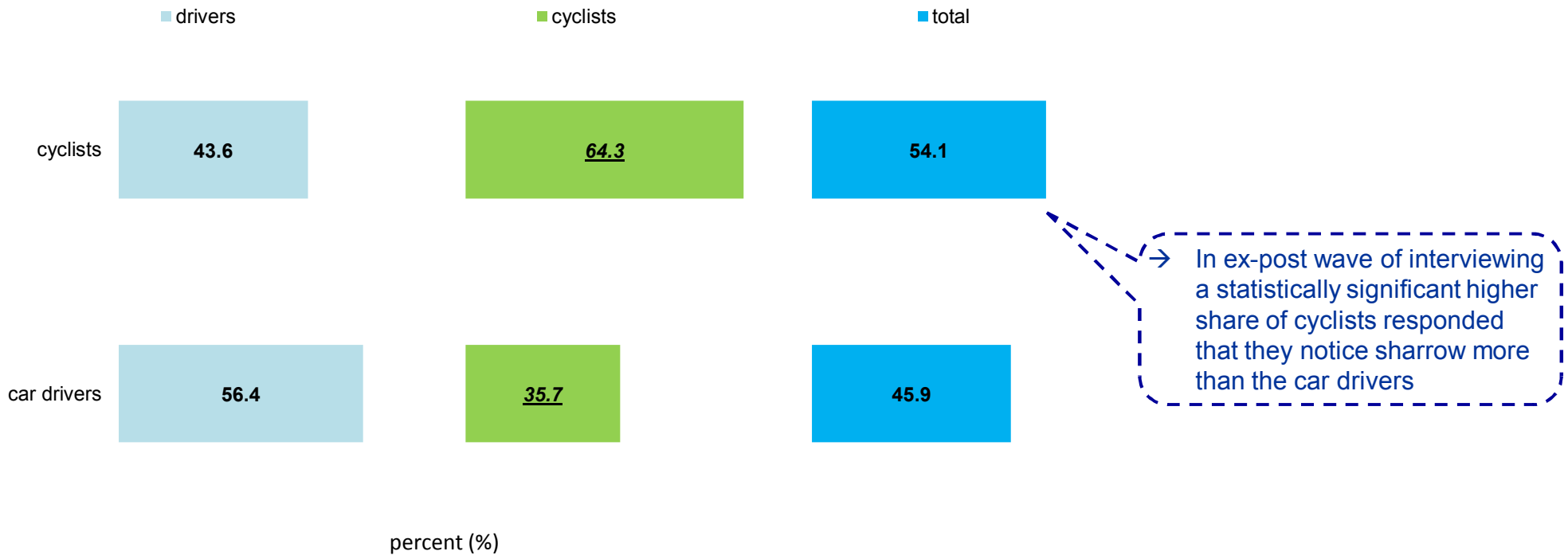
→ Almost three quarters of participants in ex-post research evaluated that they find sharrow noticeable or very noticeable → difference between drivers and cyclists is not statistically significant

Base: those who noticed sharrow

NOTICEABILITY OF SHARROW – EX POST III.

Generally respondents feel that sharrow is noticed more by cyclists as it is by car drivers

Who do you believe notices sharrow – common use of traffic lane with cyclists – more?

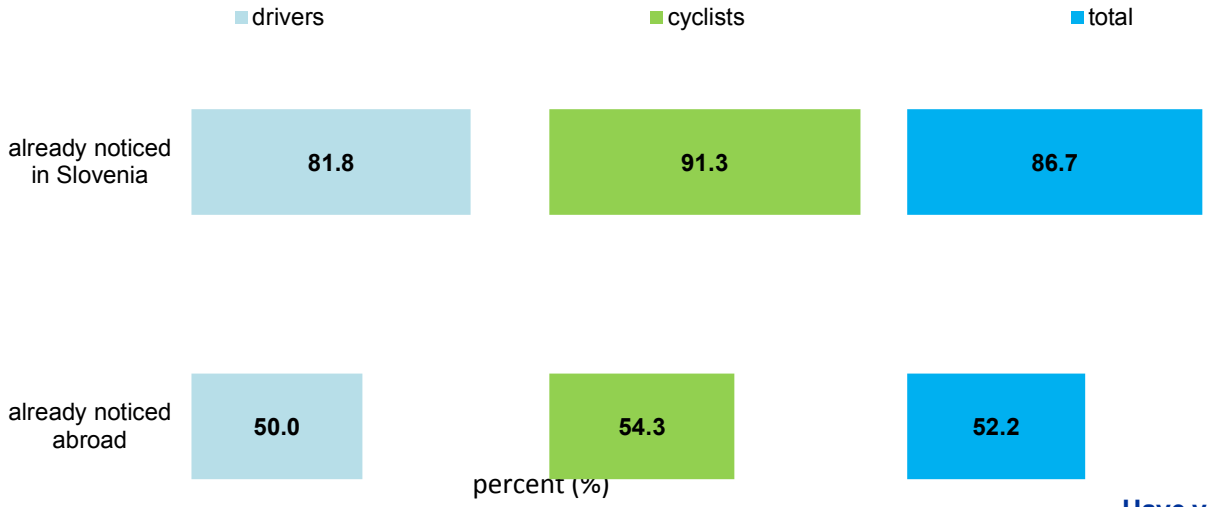


→ In ex-post wave of interviewing a statistically significant higher share of cyclists responded that they notice sharrow more than the car drivers

Base: those who noticed sharrow

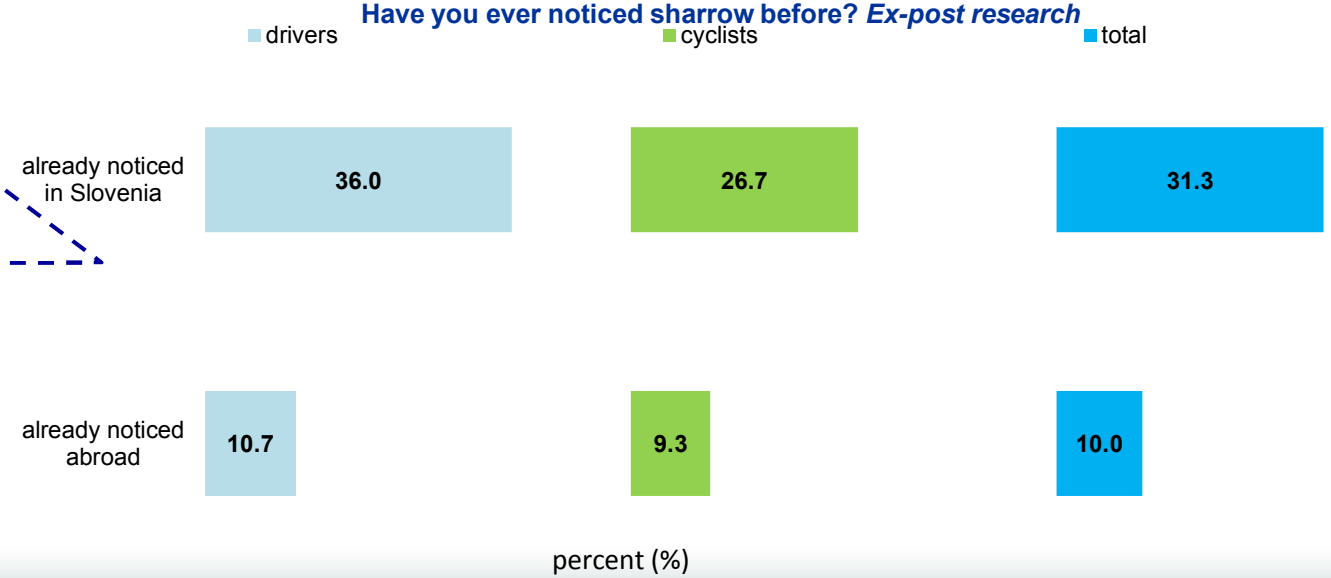
NOTICEABILITY OF SHARROW IN THE PAST

Have you ever noticed sharrow before? *Ex-ante research*



→ In ex-ante research wave 87 % of respondents answered they already saw sharrow in Slovenia and 52 % they noticed it abroad → difference between car drivers and cyclists is not statistically significant

Have you ever noticed sharrow before? *Ex-post research*

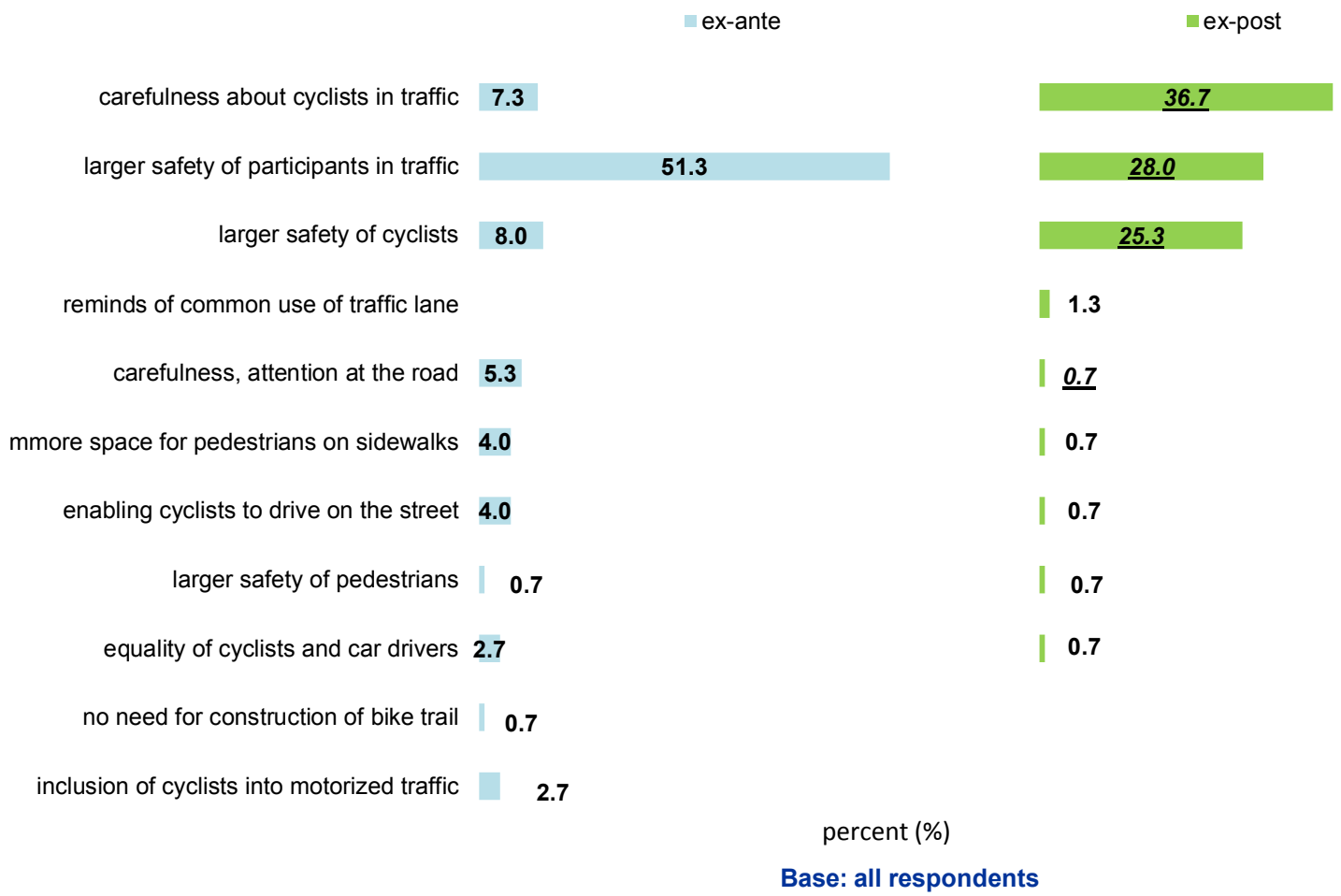


→ In ex-post wave 31 % of respondents answered they already noticed sharrow in Slovenia and 10 % they already noticed it abroad → difference between car drivers and cyclists is not statistically significant

PURPOSE OF SHARROW I.

According to respondents, the main purpose of sharrow is greater safety (of cyclists) and larger attention to the group

Ex-ante: What do you think would be the purpose of sharrow – common use of traffic lane with cyclists?
Ex-post: What do you think is the purpose of sharrow – common use of traffic lane with cyclists?

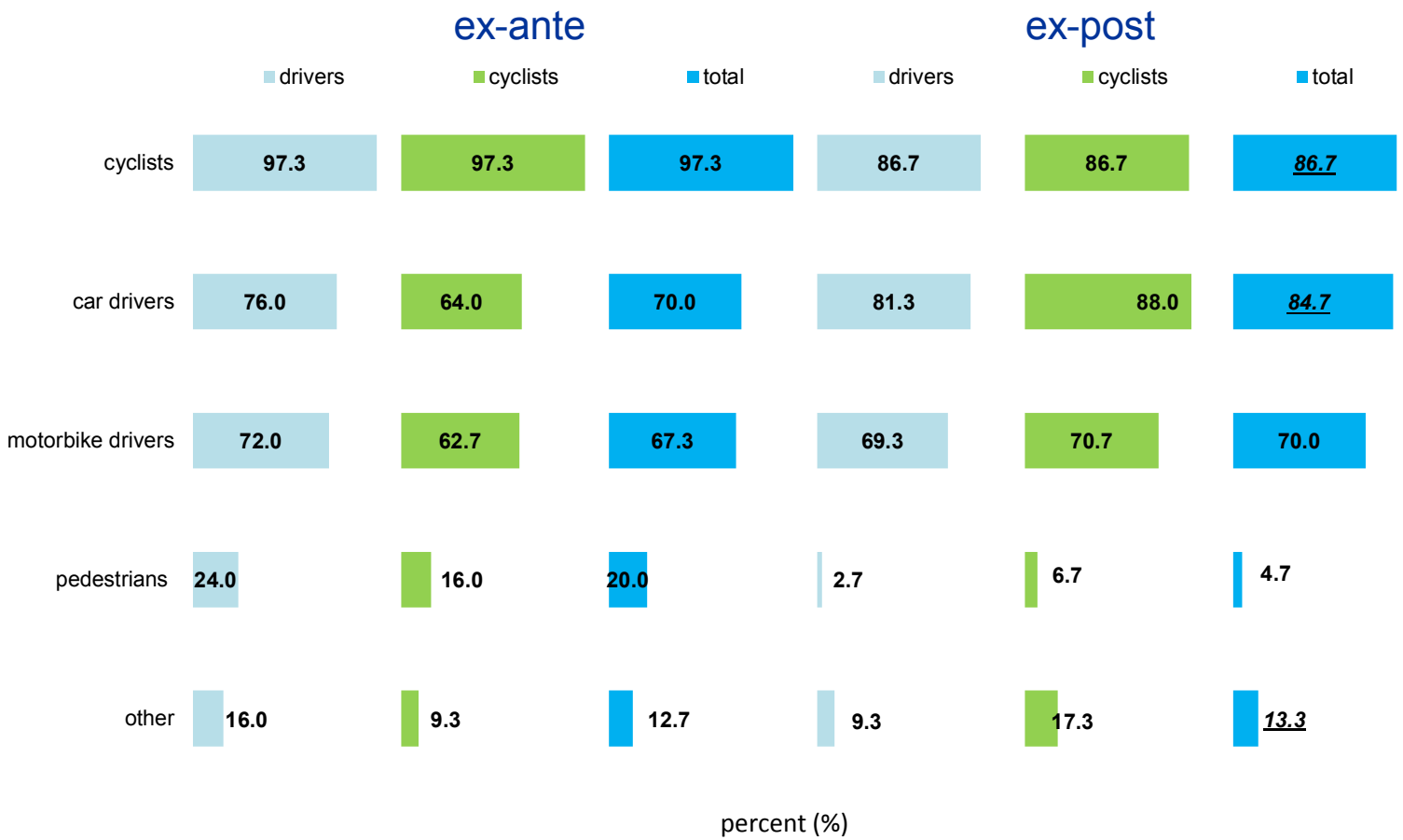


Base: all respondents

- Respondents in ex-ante wave see the purpose of sharrow in increasing the safety of participants in traffic
- In ex-post wave respondents statistically significantly more often mentioned the main purpose of sharrow being greater attention to cyclists and greater safety of cyclists, but they mention safety of all participants in traffic to a lesser extent

PURPOSE OF SHARROW II.

Ex-ante: Who do you think would benefit from sharrow – common use of traffic lane with cyclists?
Ex-post: Who do you think benefits most from sharrow – common use of traffic lane with cyclists?



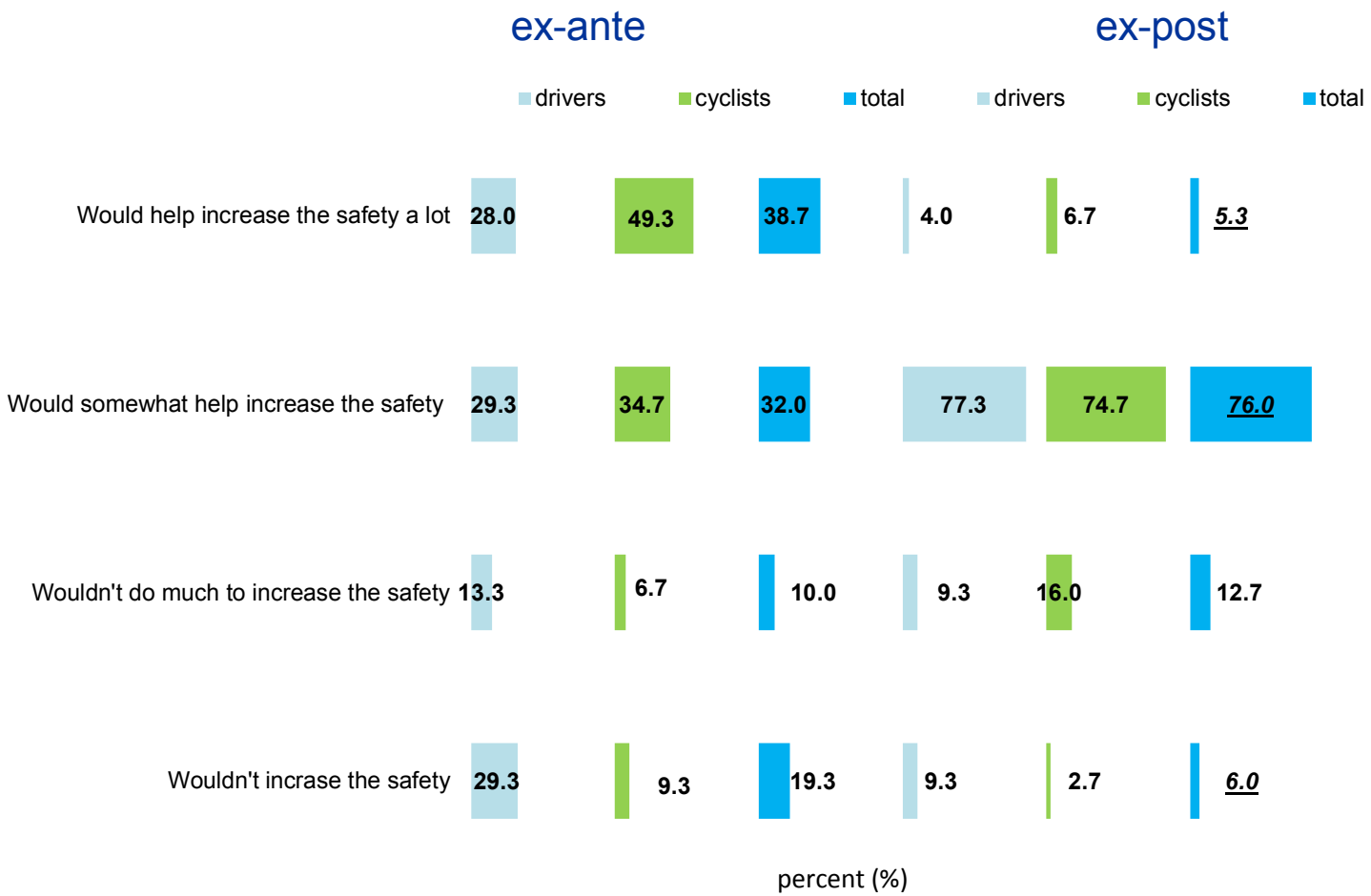
- In ex-ante wave, sharrow was most often perceived as a measure for cyclists, followed by car drivers and motorists
- In ex-post wave respondents more often mentioned car drivers and less often cyclists
- Among those in ex-ante wave who find sharrow to be meant for cyclists and those who see it as a measure for motorists, the group of respondents aged 25 to 34 years was represented above average

Base: all respondents

SHARROW AND IMPROVEMENT OF TRAFFIC SAFETY

More than 80 % of respondents think that sharrow contributes to greater safety

Ex-ante: Do you think that sharrow would contribute to improvement of traffic safety at this location?
Ex-post: Do you think that sharrow contributes to improvement of traffic safety at this location?



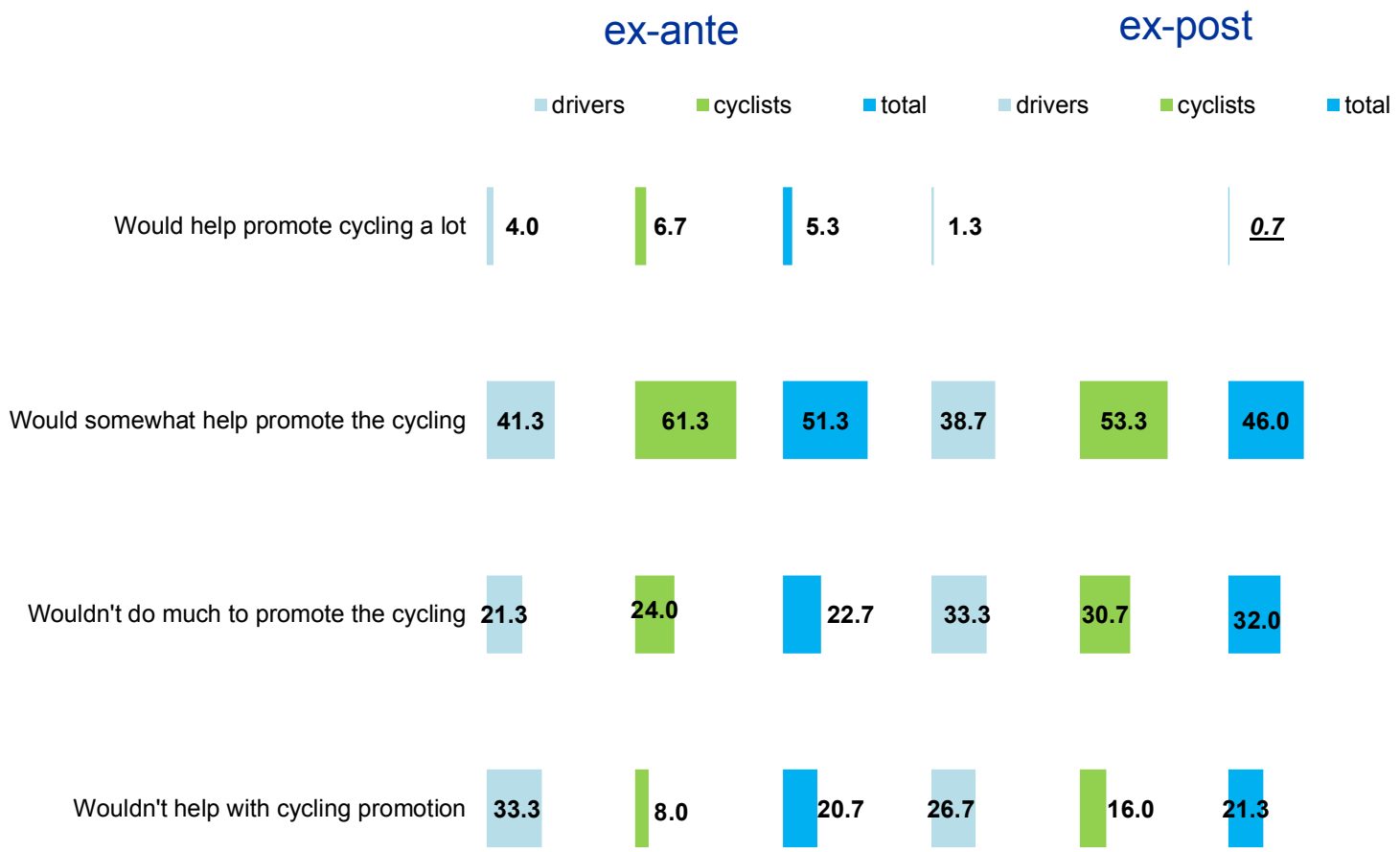
- In ex-ante research, 39 % of respondents mentioned that sharrow would largely contribute to improving the safety at the location → in ex-post research only 5 % were of similar opinion
- On the other hand, the share of those who think that sharrow contributes to the traffic safety to some extent more than doubled –the difference is statistically significant

Base: all respondents

Underlined results: statistical significant differences.

SHARROW AND PROMOTION OF CYCLING IN GENERAL

Ex-ante: Do you think that sharrow would contribute to the promotion of cycling in general?
Ex-post: Do you think that sharrow contributes to the promotion of cycling in general?



- In ex-ante wave 5 % of respondents mentioned that sharrow would largely contribute to promotion of cycling – the same is true for less than 1 % in ex-post wave
- In both waves of interviewing about a half of respondents answered that sharrow would somehow contribute to promotion of cycling in general
- Among those in ex post wave who think that sharrow contributes to the promotion of cycling, men were represented above average compared to total sample

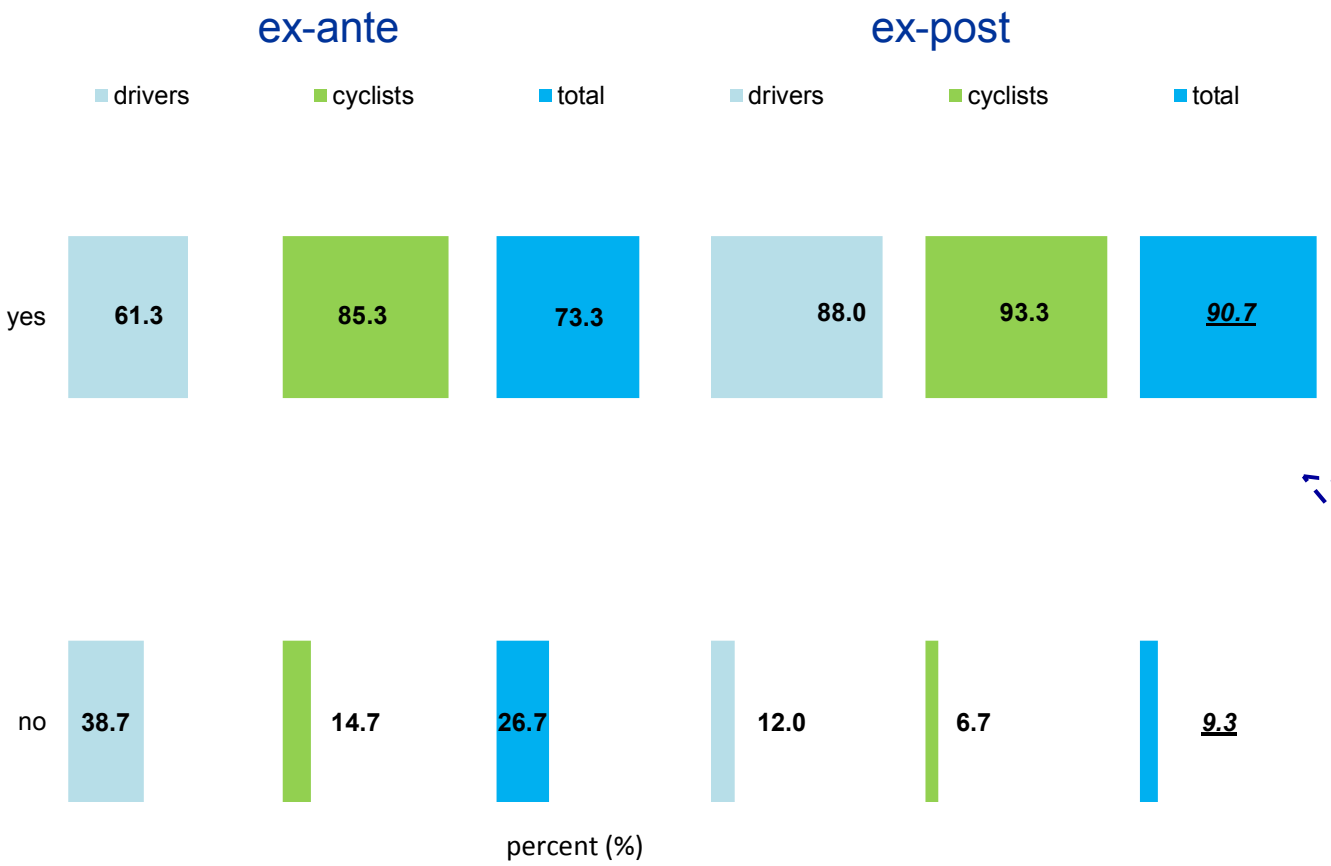
Base: all respondents

percent (%)

SUPPORT TO IMPLEMENTATION OF SHARROW AT THE LOCATION

More than 80 % of respondents would support/support the implementation of sharrow

Ex-ante: Would you support the implementation of sharrow at this location?
Ex-post: Do you support the implementation of sharrow at this location?



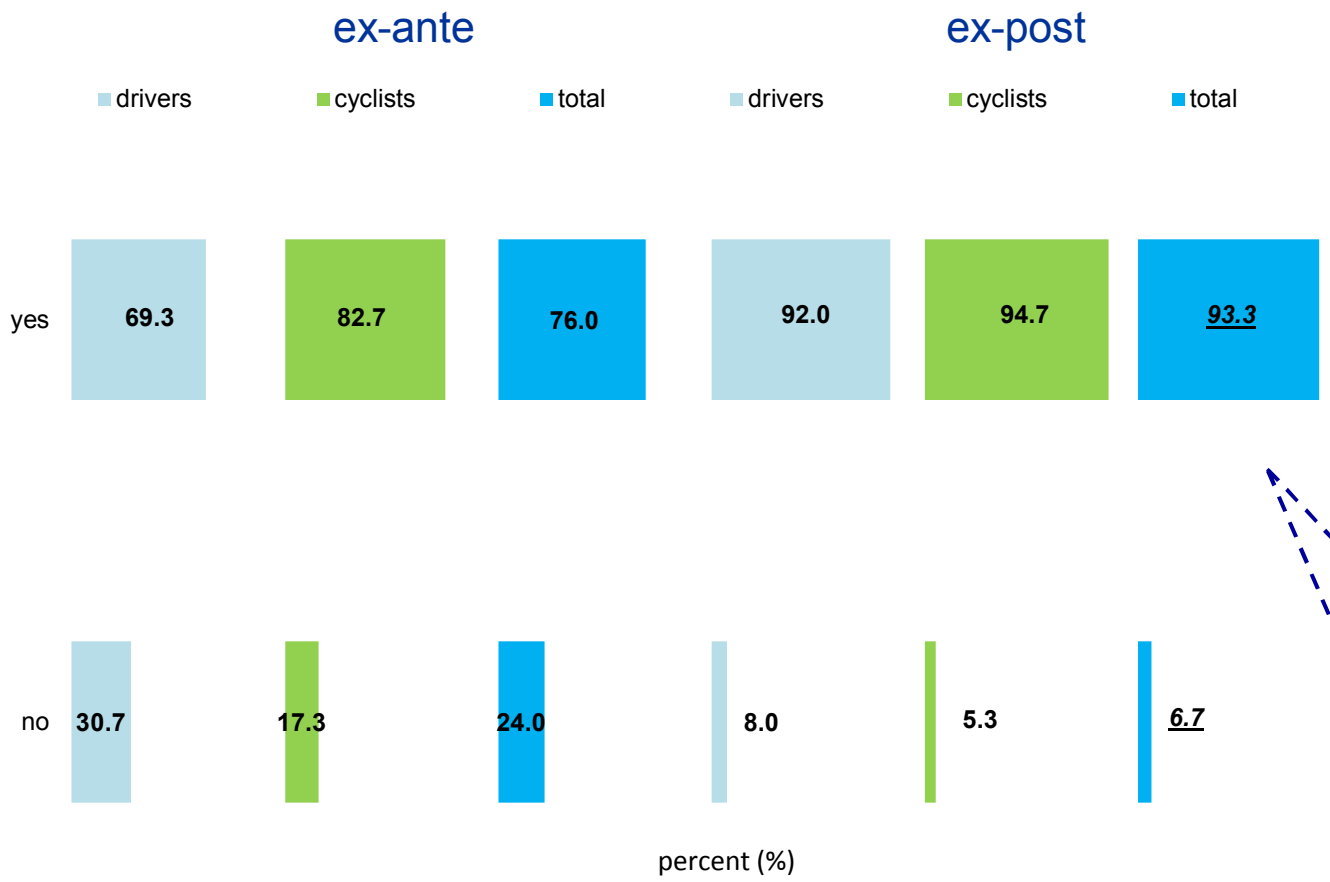
→ In ex-ante wave, about three quarters of respondents supported the implementation of sharrow, which is also true for over 90 % of participants in ex-post research → statistically significant difference

Base: all respondents

SUPPORT TO IMPLEMENTATION OF SHARROW AT OTHER LOCATIONS I.

More than 80 % of respondents would support/support the implementation of sharrow at other locations

Ex-ante: Would you support the implementation of sharrow at other similarly congested or dangerous locations?
Ex-post: Do you support the implementation of sharrow at other similarly congested or dangerous locations?



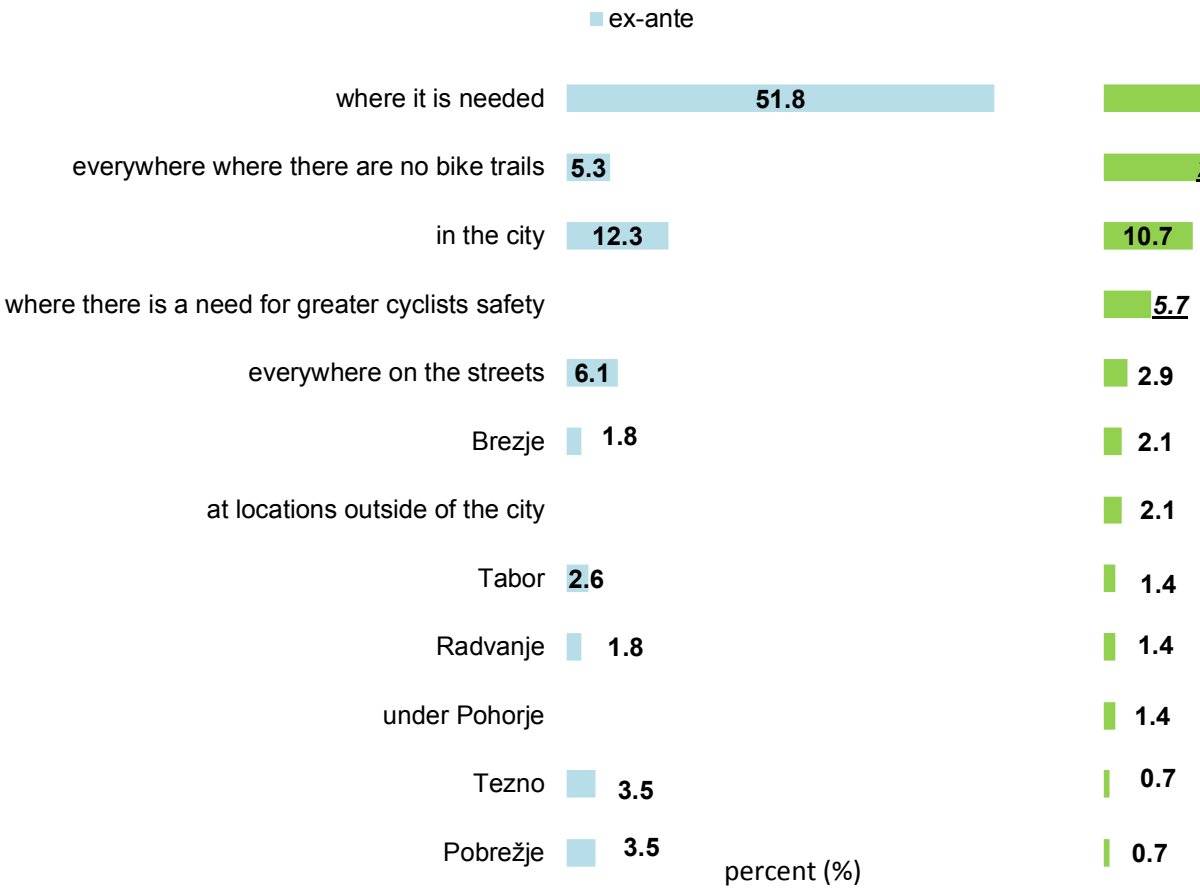
- → The implementation of sharrow was supported by about three quarters of respondents in ex-ante and more than 90 % of respondents in ex-post wave of research → statistically significant difference
- → The implementation of sharrow at other locations is supported by a bit higher share than the implementation at the location of interviewing

Base: all respondents

Underlined results: statistical significant differences.

SUPPORT TO IMPLEMENTATION OF SHARROW AT OTHER LOCATIONS II.

At which locations?

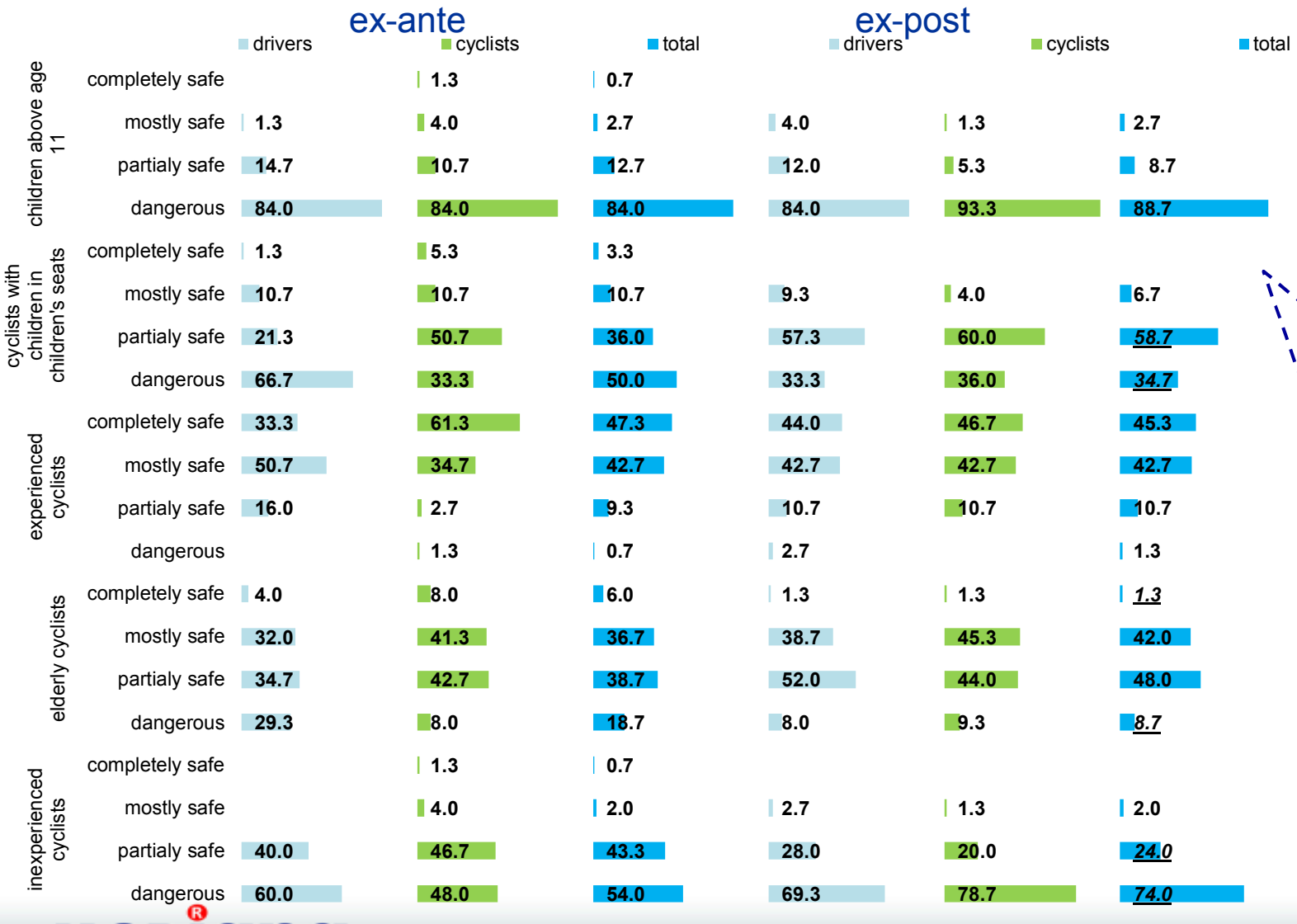


- Respondents in ex-ante and ex-post wave most often answered that sharrow should be implemented where it would be needed
- In ex-post research, respondents more often mentioned locations with no biking trails or locations with greater need for safe cycling

Base: those who support implementation of sharrow at other locations

CONTRIBUTION OF SHARROW TO THE GREATER SAFETY OF CYCLIST SUBGROUPS

Ex-ante: How safe would you find sharrow for the following groups of cyclists? Ex-post: How safe do you find sharrow for the following groups of cyclists?



- Interviewers see sharrow as being most dangerous for children and inexperienced cyclists and the most safe for experienced cyclists
- In ex-post wave of research respondents evaluated sharrow as being more safe for cyclists with children in children's seats and older cyclists

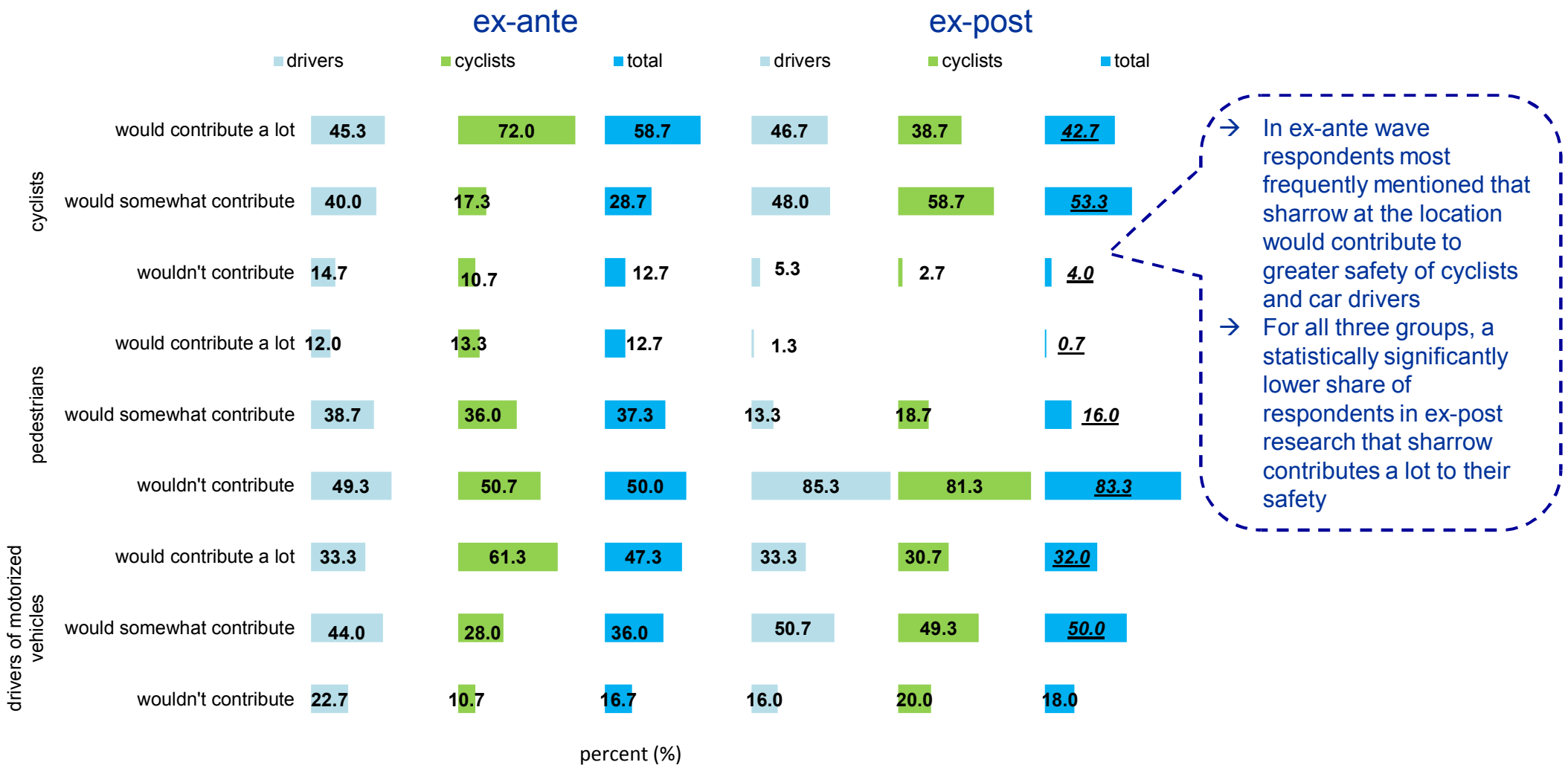
percent (%)

Base: all respondents

Underlined results: statistical significant differences.

CONTRIBUTION OF SHARROW TO THE GREATER SAFETY OF ALL PARTICIPANTS IN TRAFFIC

Ex-ante: To what extent would the implementation of sharrow at this location contribute to the greater safety of…
Ex-post: To what extent does the sharrow at this location contribute to the greater safety of…



- In ex-ante wave respondents most frequently mentioned that sharrow at the location would contribute to greater safety of cyclists and car drivers
- For all three groups, a statistically significantly lower share of respondents in ex-post research that sharrow contributes a lot to their safety

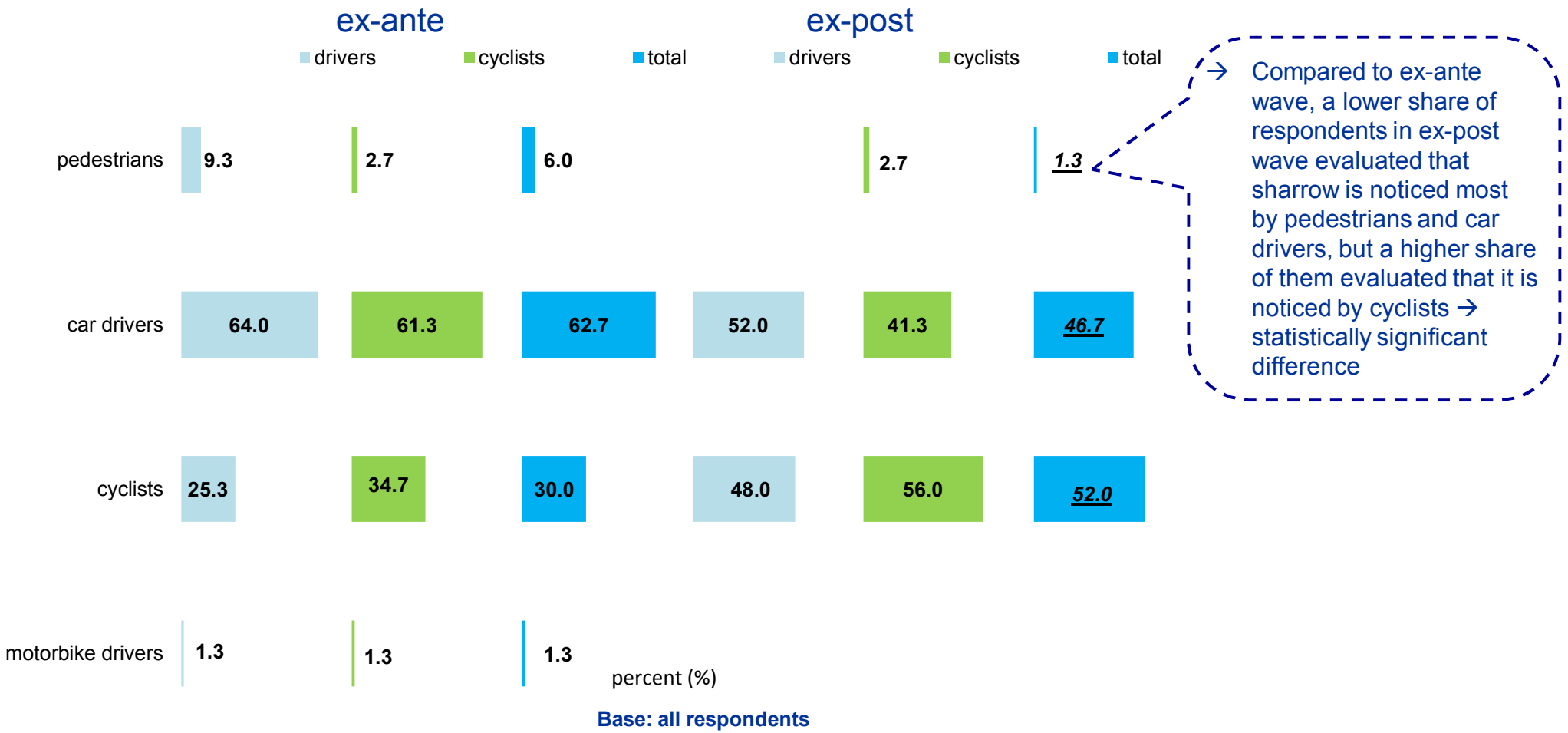
Base: all respondents

Underlined results: statistical significant differences.

NOTICEABILITY OF SHARROW AMONG PARTICIPANTS IN TRAFFIC

Participants in ex-post research think that sharrow is noticed the most by cyclists

Ex-ante: Who do you think would notice sharrow the most?
Ex-post: Who do you think notices sharrow the most?



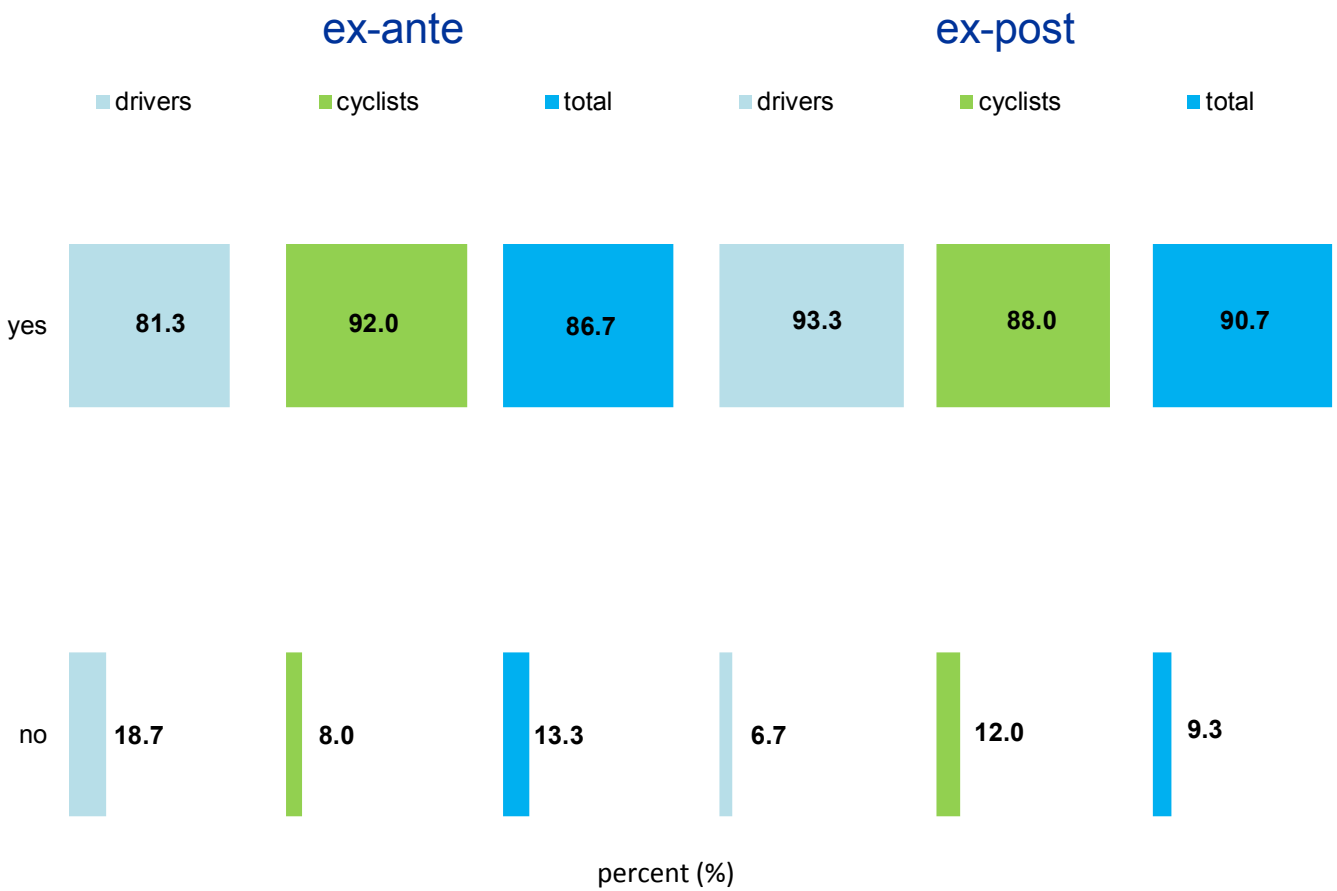
→ Compared to ex-ante wave, a lower share of respondents in ex-post wave evaluated that sharrow is noticed most by pedestrians and car drivers, but a higher share of them evaluated that it is noticed by cyclists → statistical significant difference

Base: all respondents

ATTENTION OF PARTICIPANTS IN TRAFFIC I.

Car drivers and cyclists both think that sharrow contributes to greater attention of drivers of motorized vehicles

Ex-ante: Do you think that drivers of motorized vehicles would pay more attention to cyclists because of sharrow – common use of traffic lane with cyclists?
Ex-post: Do you think that drivers of motorized vehicles pay more attention to cyclists because of sharrow – common use of traffic lane with cyclists?

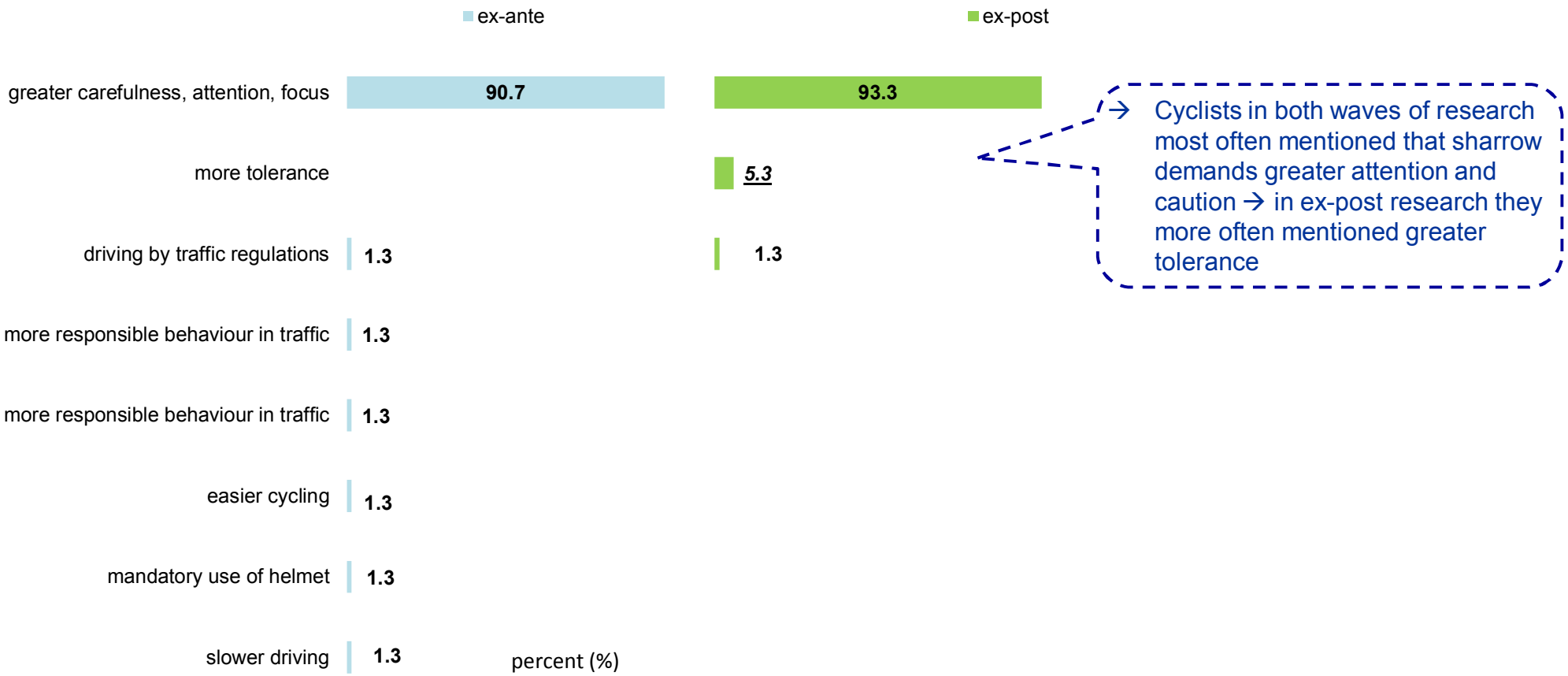


→ In both waves of research almost 90 % of all participants evaluated that the attention of drivers of motorized vehicles would increase as a consequence of sharrow → difference among waves is not statistically significant

Base: all respondents

ATTENTION OF PARTICIPANTS IN TRAFFIC II.

Ex-ante: What actions would sharrow (common use of traffic lane with cyclists) demand from you as a cyclists?
Ex-post: What actions does sharrow (common use of traffic lane with cyclists) demand from you as a cyclists?

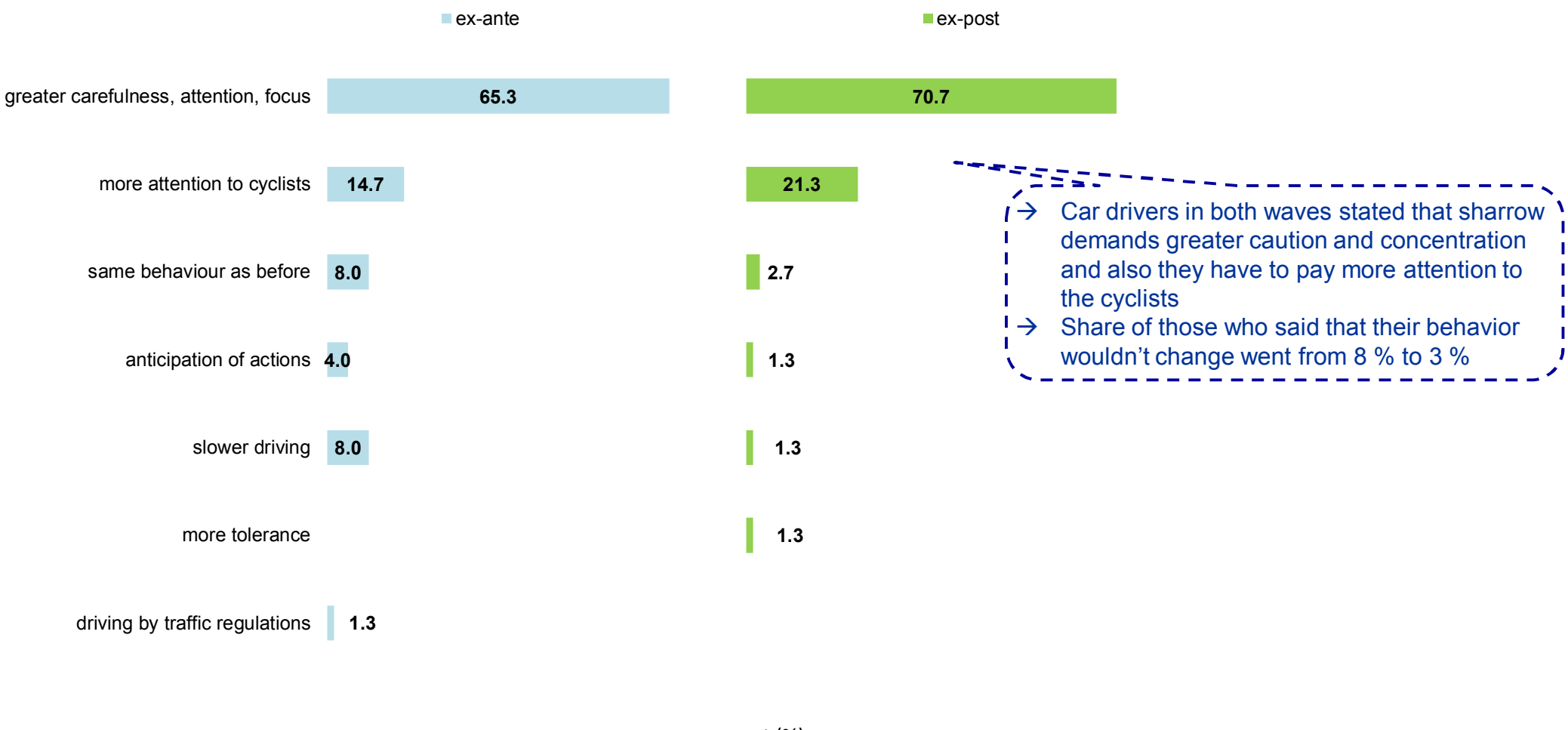


→ Cyclists in both waves of research most often mentioned that sharrow demands greater attention and caution → in ex-post research they more often mentioned greater tolerance

Base: cyclists

ATTENTION OF PARTICIPANTS IN TRAFFIC III.

Ex-ante: What actions would sharrow (common use of traffic lane with cyclists) demand from you as a car driver?
Ex-post: What actions does sharrow (common use of traffic lane with cyclists) demand from you as a car driver?

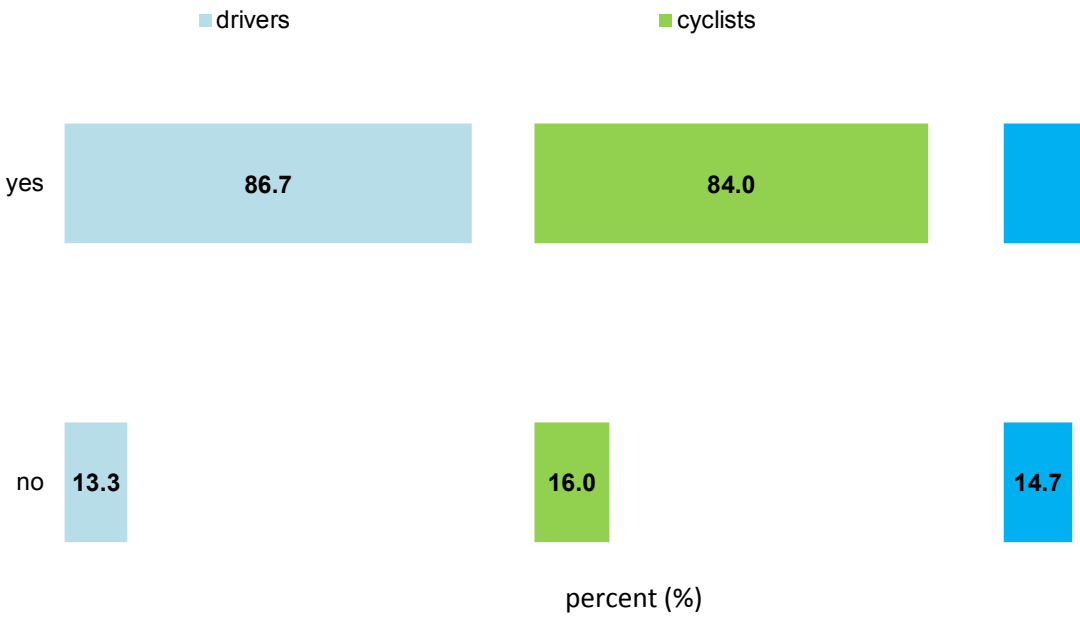


- Car drivers in both waves stated that sharrow demands greater caution and concentration and also they have to pay more attention to the cyclists
- Share of those who said that their behavior wouldn't change went from 8 % to 3 %

Base: car drivers

ATTENTION OF PARTICIPANTS IN TRAFFIC IV. – EX POST

Do you think drivers of motorized vehicles pay more attention to the cyclists because of the notification board?



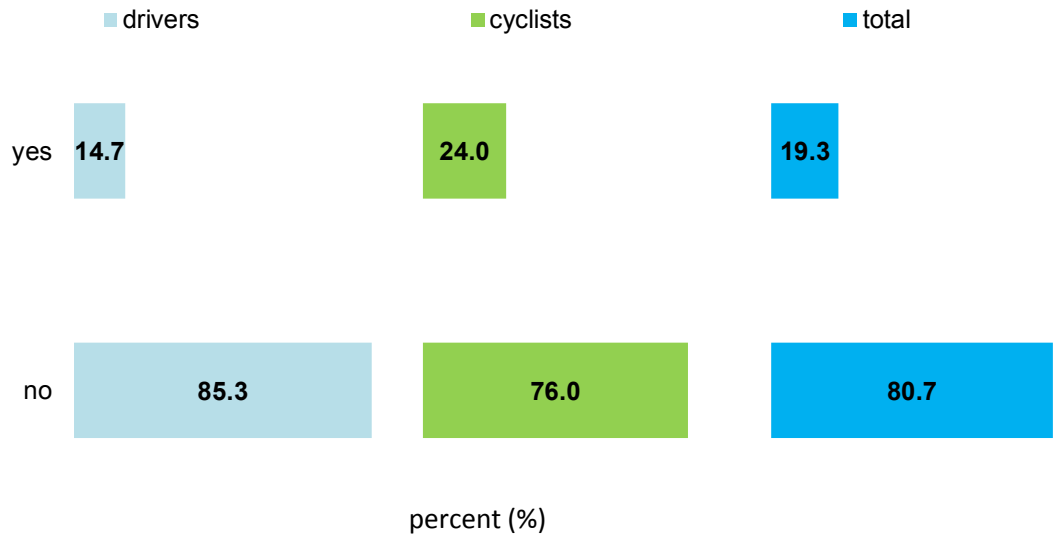
Base: all respondents

→ About 85 % of cyclists and drivers in ex-post wave of interviewing answered that the drivers of motorized vehicles pay more attention to cyclists because of the notification board → difference among groups is not statistically significant

AWARENESS OF SHARROW IMPLEMENTATION – EX POST

About two tenths of sharrow knew about it's implementation before it happened

Were you informed about / aware of implementation of sharrow before it happened?

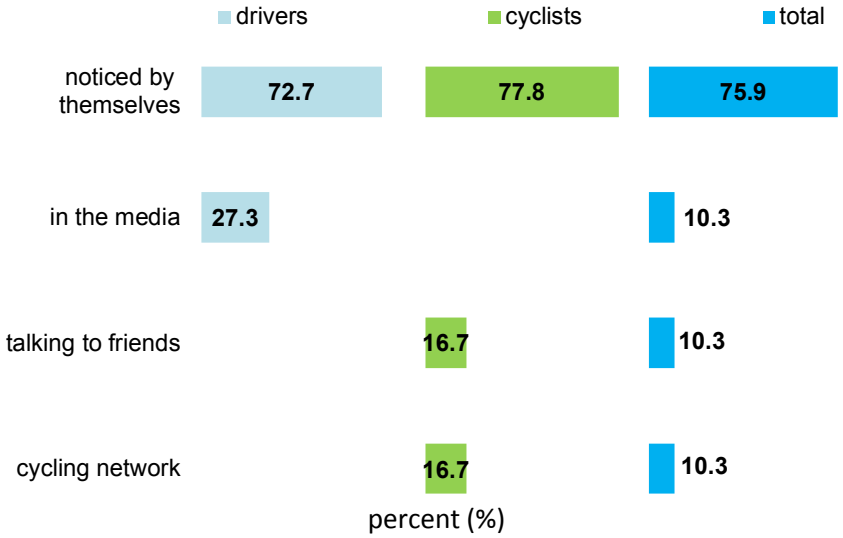


Base: all respondents

→ Before its implementation, about 15 % of drivers and almost a quarter of cyclists were aware of the implementation

→ Most respondents noticed the implementation in person, drivers found out about sharrow from media, while cyclists heard about it from friends and cycling network

Where did you find out about implementation of sharrow at this location?



Base: those who were aware of implementation

SLOVENIAN TRAFFIC SAFETY AGENCY

SOUTH EAST EUROPE
Transnational Cooperation Programme

ROSEE
ROad safety in South East European regions

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