

## Mémoire

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**Faculté :** Faculté des Sciences

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# MOBILITY

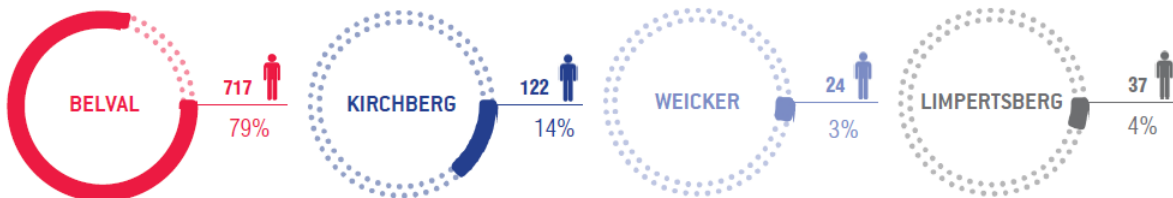
## Travel Survey 2020



- ▼ The 2020 University student travel survey was conducted between **3 March and 6 April** 2020.

## STUDENTS

- ▼ In total, 1,032 students began to complete the survey and, after data cleaning, **900 data entries were validated** and analysed. Of these 900 data points, 607 were Bachelor students and 293 were Master students.
- ▼ Consequently, **the student participation rate is 19.2%**. This means that extra care should be taken when carrying out multi-variable analysis.



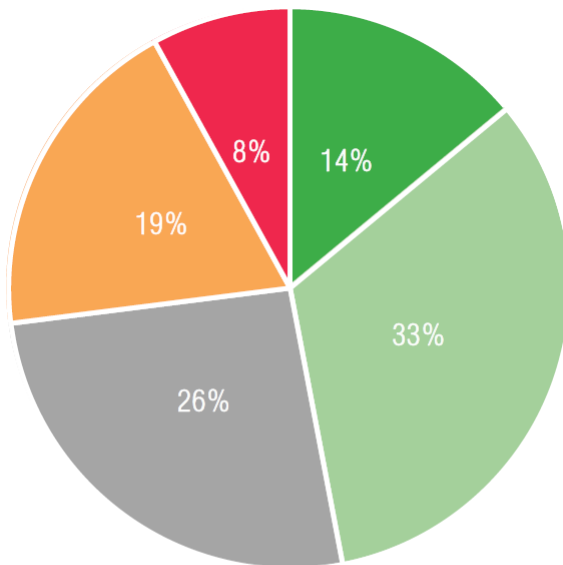
## STAFF

- ▼ In total, 1,344 staff members began to complete the survey and, after data cleaning, **1,115 data entries were validated** and analysed.
- ▼ Consequently, for the working community (including PhD students), the **participation rate is 45%**. This is 10% higher than the 2016 travel survey.
- ▼ The composition of staff who responded to the survey consisted of non-academic staff (465 respondents), academic and research staff (363 respondents) and PhD candidates (287 respondents).



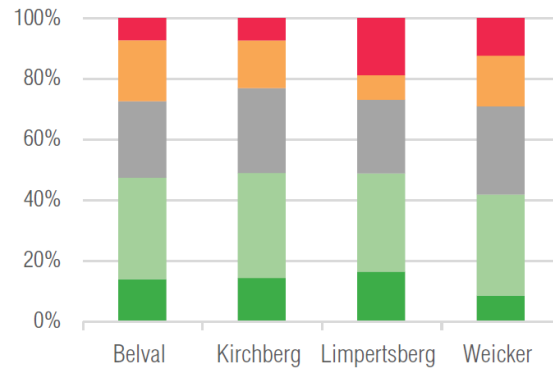
## STUDENTS

### COMMUTING SATISFACTION



- Very satisfied
- Rather satisfied
- Neither satisfied nor dissatisfied
- Rather dissatisfied
- Very dissatisfied

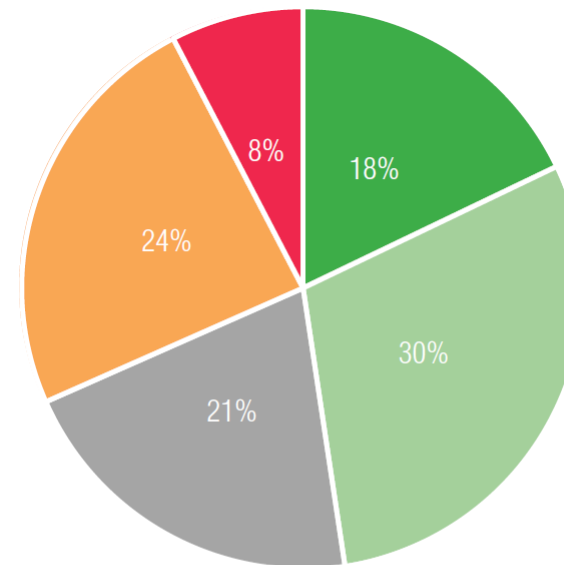
### SATISFACTION BY CAMPUS



- 47% students are satisfied with their home-campus trips (« very satisfied » and « rather satisfied » considered) and 27% are dissatisfied or very dissatisfied

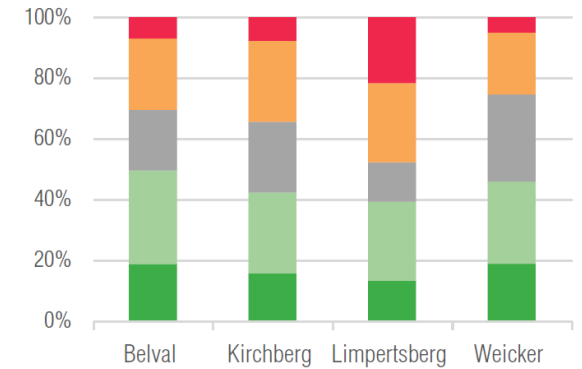
## STAFF

### COMMUTING SATISFACTION



- Very satisfied
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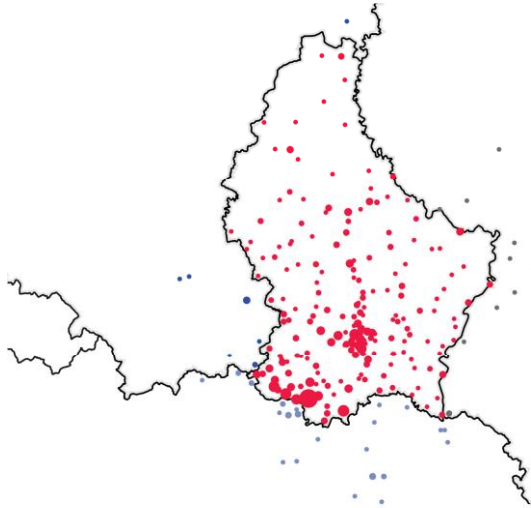
### SATISFACTION BY CAMPUS























- 48% employees are satisfied with their home-work trips (« very satisfied » and « rather satisfied » considered) and 32% are dissatisfied or very dissatisfied

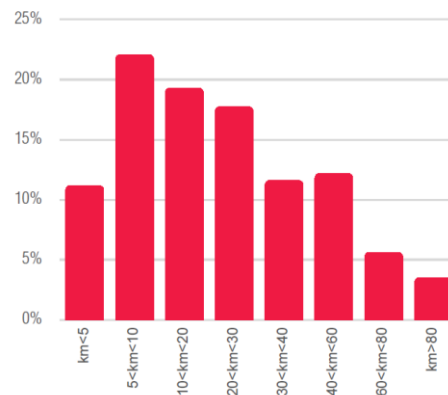
# PLACES OF RESIDENCE AND DISTANCES TO CAMPUS/WORK

## STUDENTS



Luxembourg	 / 152	 / 17
Esch-sur-Alzette	 / 123	 / 14
Sanem	 / 43	 / 5
Differdange	 / 42	 / 5
Dudelange	 / 30	 / 3
Petange	 / 22	 / 2
Mondercange	 / 21	 / 2
Bettembourg	 / 18	 / 2
Schifflange	 / 17	 / 2
Hesperange	 / 16	 / 2

### HOME-TO-CAMPUS DISTANCES

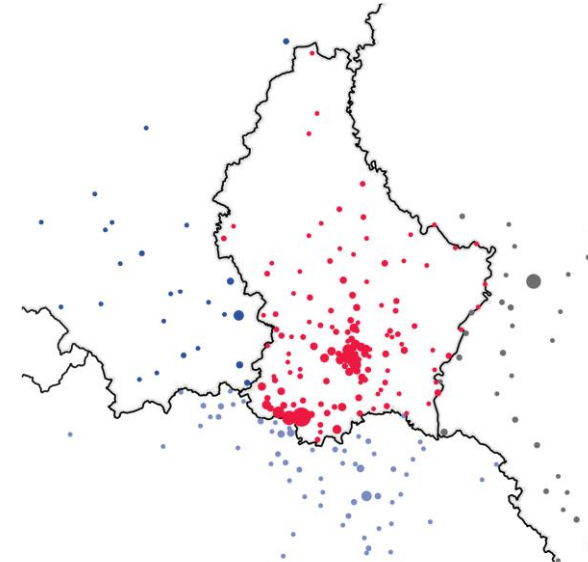






















▼ The average home-to-campus distance for university students is **25.0km**. As expected the **commuting distance between residents (22.7km) and cross-border students (46.0km) varies greatly**. However, surprisingly, students living in Luxembourg have on average a longer trip than staff members.

▼ In one single day, the 900 students who replied to the survey commute 45,000km per day. If we assume these students are representative of the entire student community, this would mean that **the entire University student community travels 234,000km every day!**

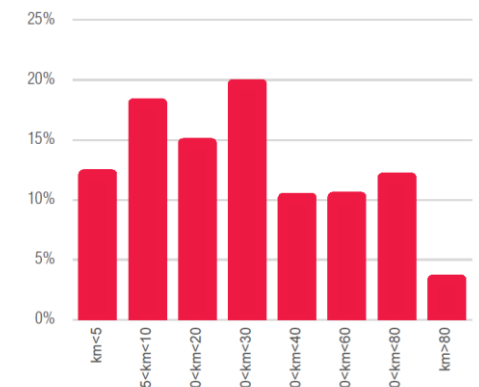
▼ Per year, the total distance travelled would be 47,000,000km, **122 times the distance from earth to the moon**.

## STAFF



Luxembourg	 / 217	 / 19
Esch-sur-Alzette	 / 174	 / 16
Trier	 / 62	 / 6
Sanem	 / 48	 / 4
Metz	 / 29	 / 3
Arlon	 / 24	 / 2
Differdange	 / 23	 / 2
Thionville	 / 23	 / 2
Hesperange	 / 22	 / 2
Bettembourg	 / 20	 / 2

### HOME-TO-WORK DISTANCES



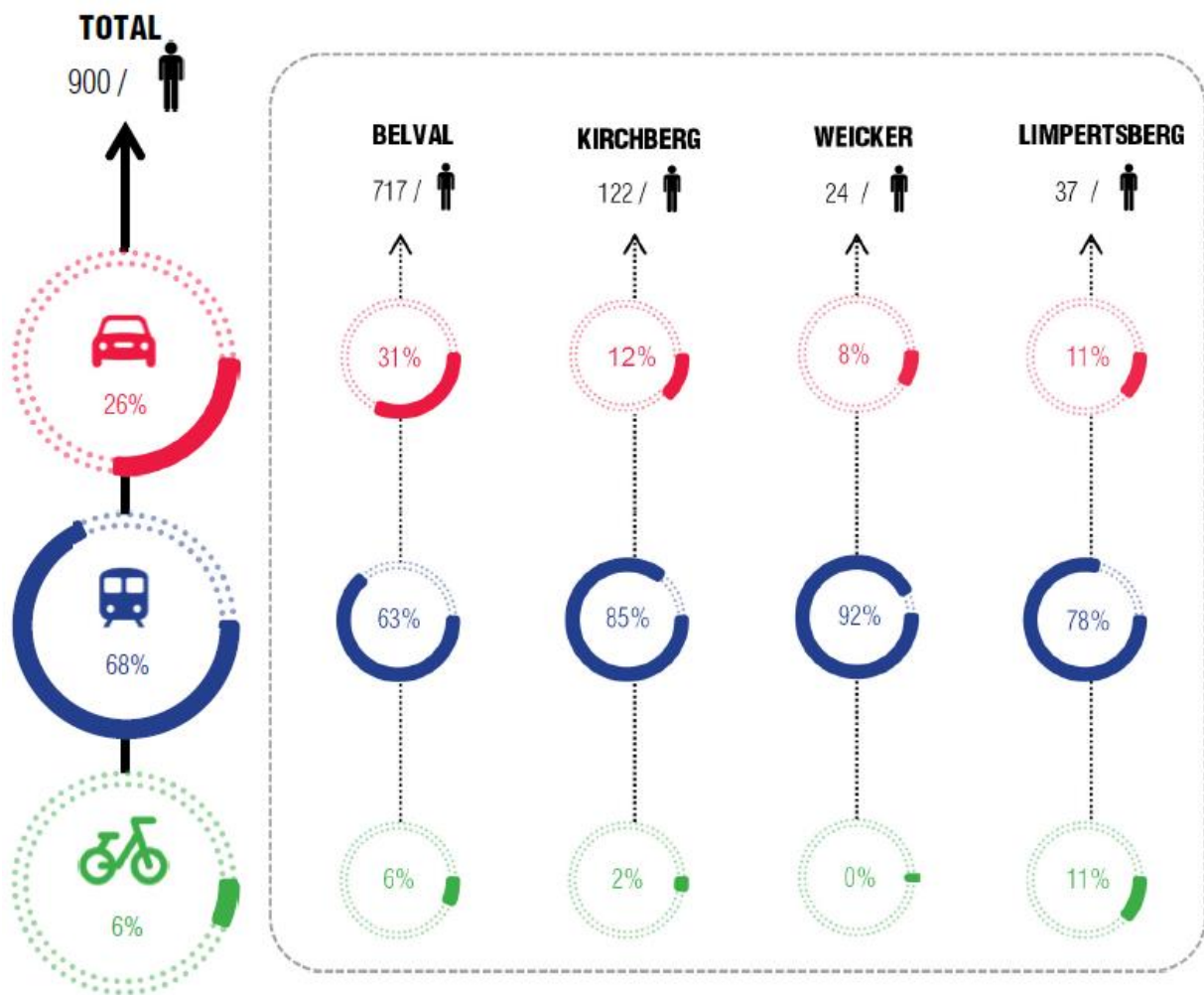
▼ The average home-to-work distance university staff travel on their journey is **28.4km**. The commuting distance varies considerably between residents (16.9km) and cross-border workers (52.9km).

▼ In one single day, the respondents commute 63,000km. Consequently, we can estimate that all **University staff together travel a combined distance of 140,500km every day!**

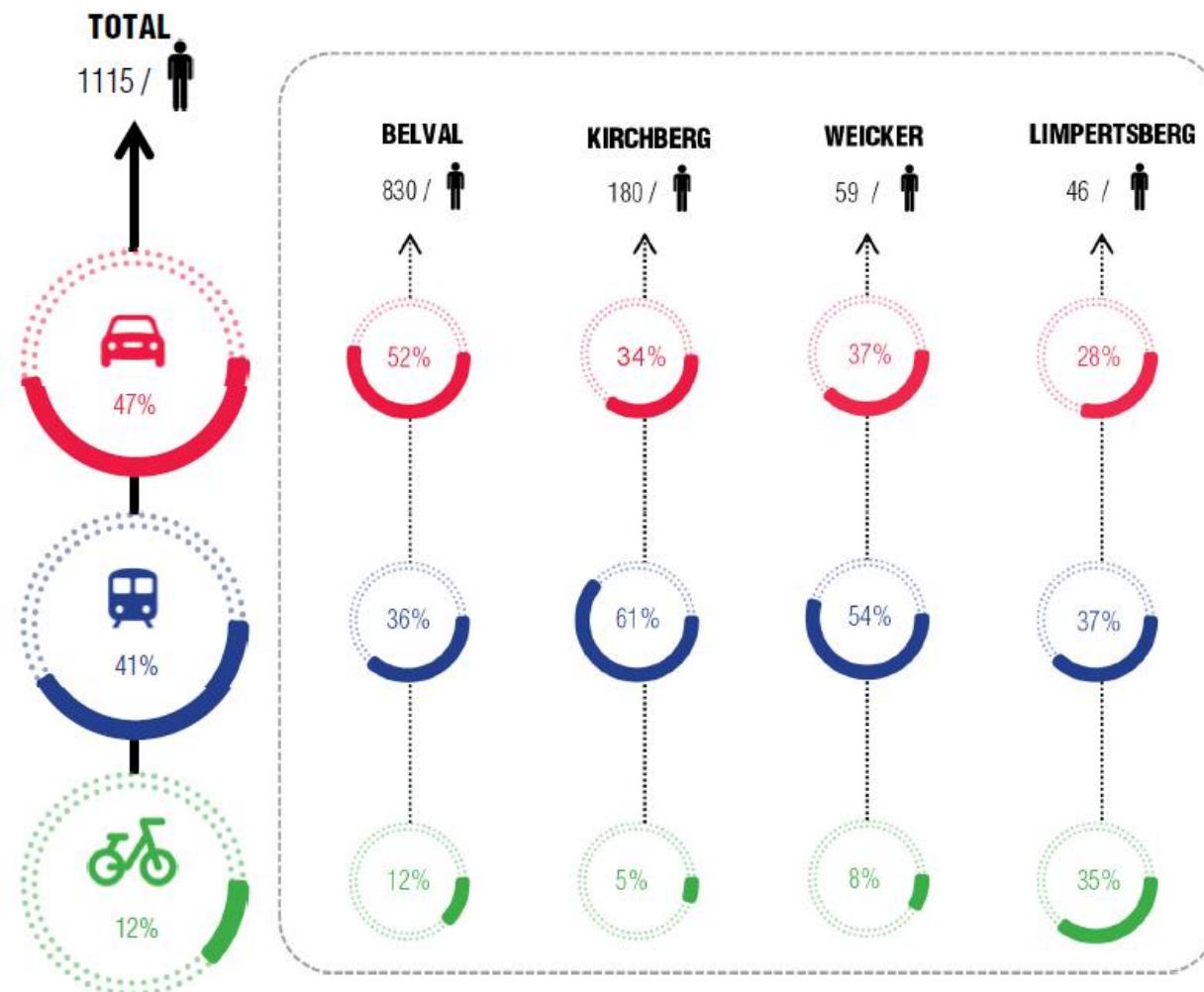
▼ Per year, the total distance travelled is 28,000,000km, **70 times the distance from earth to the moon**.

# MODAL SPLIT BY CAMPUS

## STUDENTS

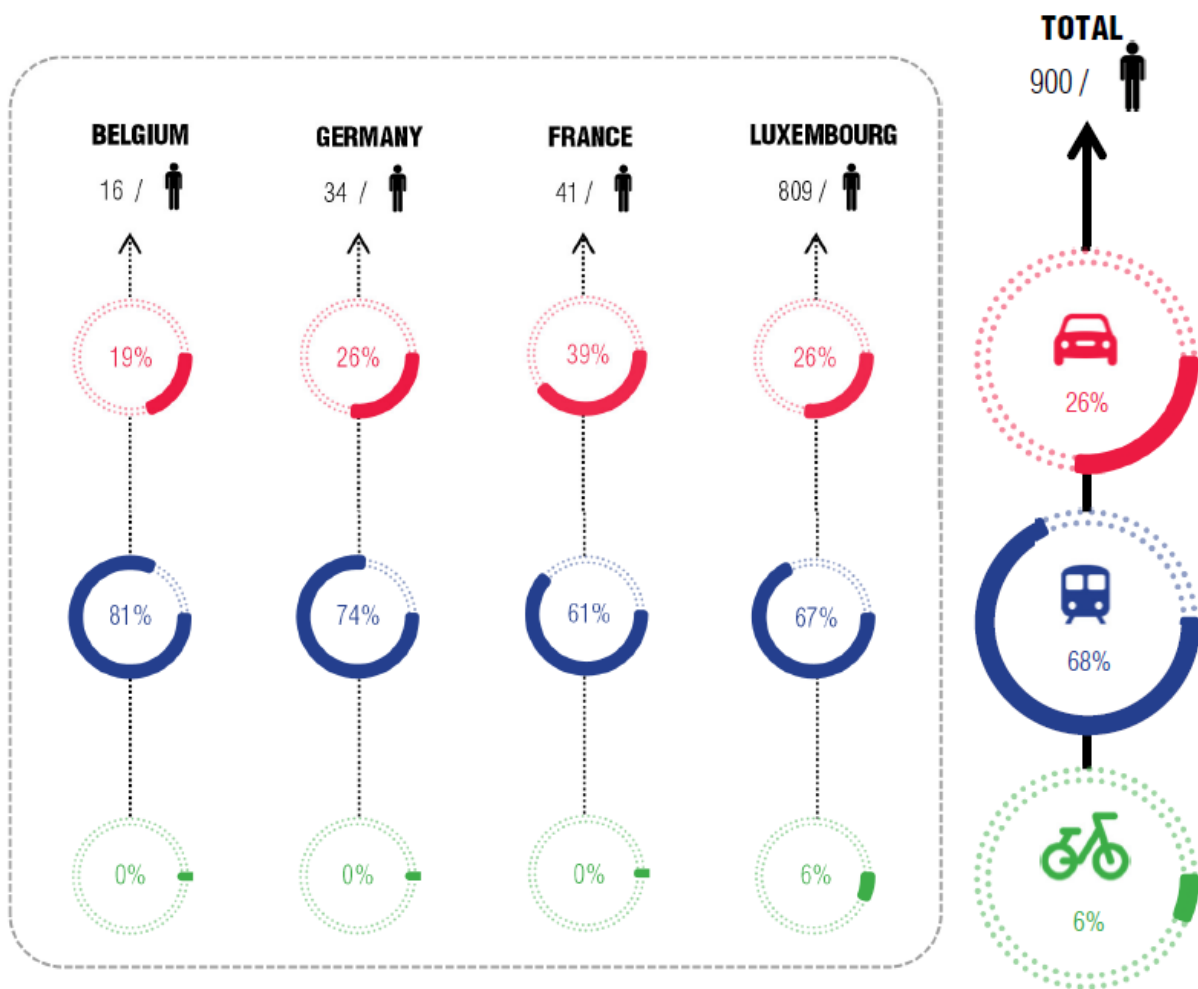


## STAFF

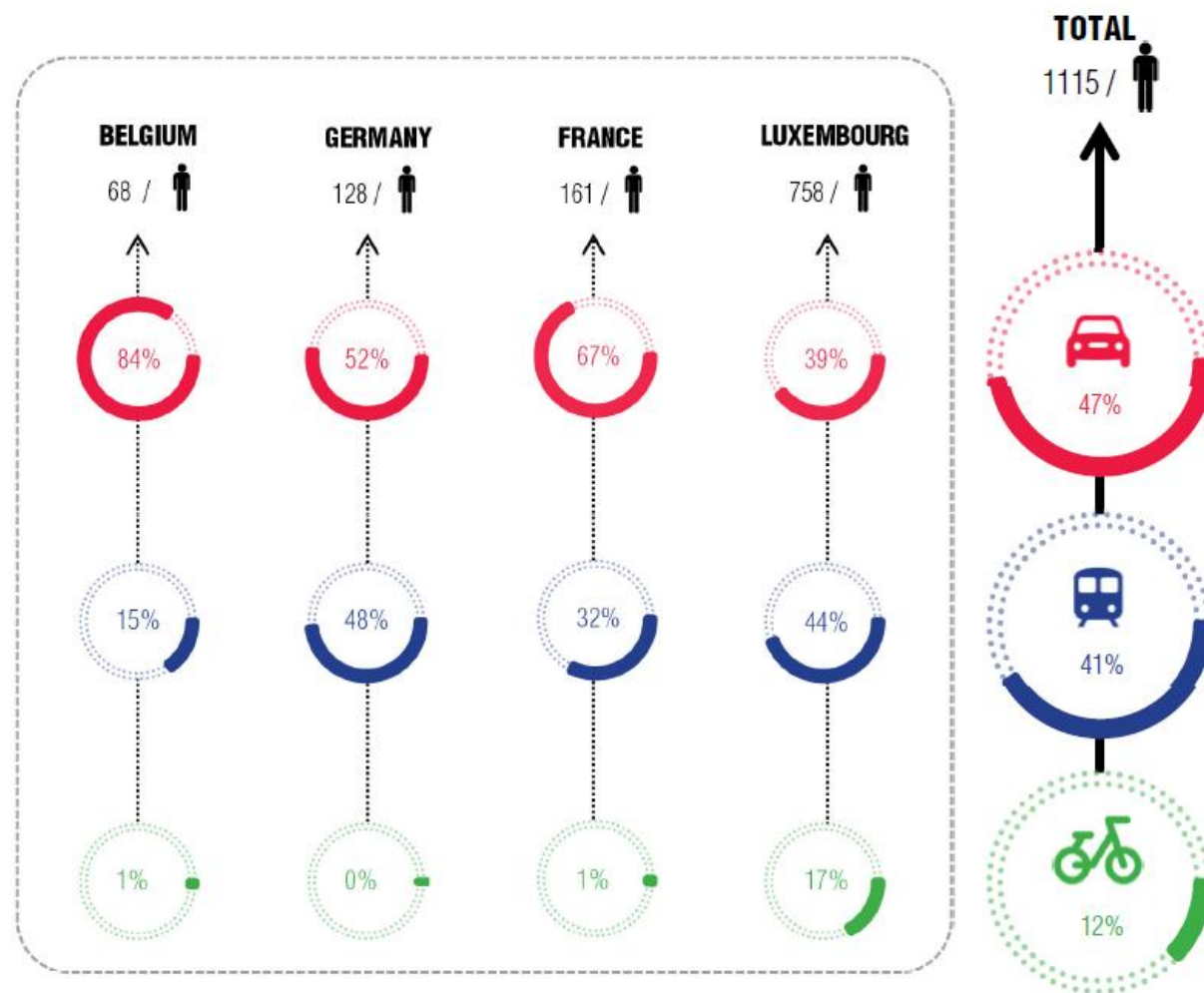


# MODAL SPLIT BY COUNTRY OF RESIDENCE

## STUDENTS






## STAFF



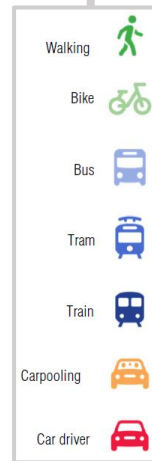
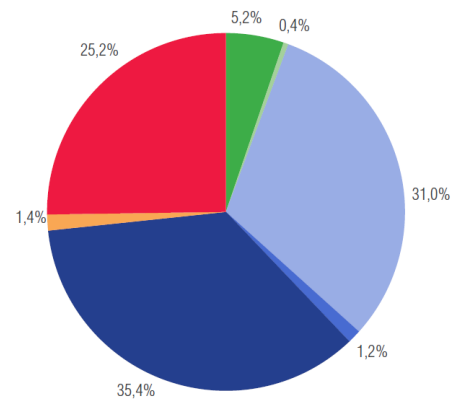
# COMMUTING MODES, DETERMINANTS AND TRAVEL TIMES

## STUDENTS

### DETERMINANTS PER MODE CHOICE

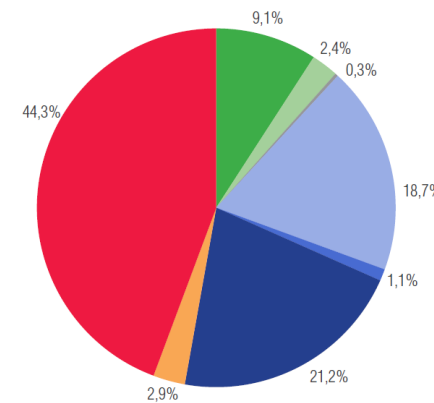
	 Car users	 Public transport users	 Walking/cycling users
1	Travel time	Cheap	Travel time
2	Comfort	Environment	Comfort
3	Flexibility	Travel time	Environment

### COMMUTING MODE BREAKDOWN






## STAFF

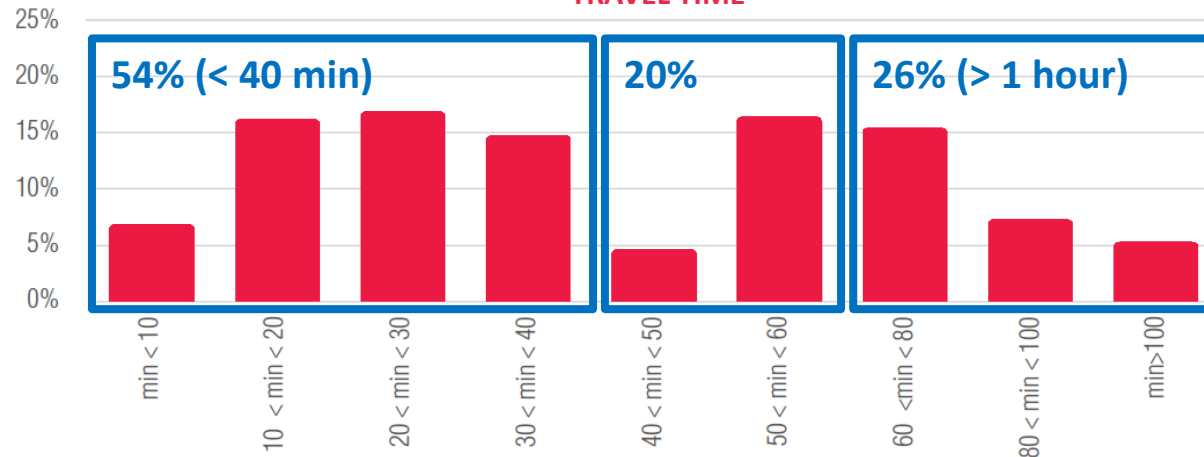
### COMMUTING MODE BREAKDOWN



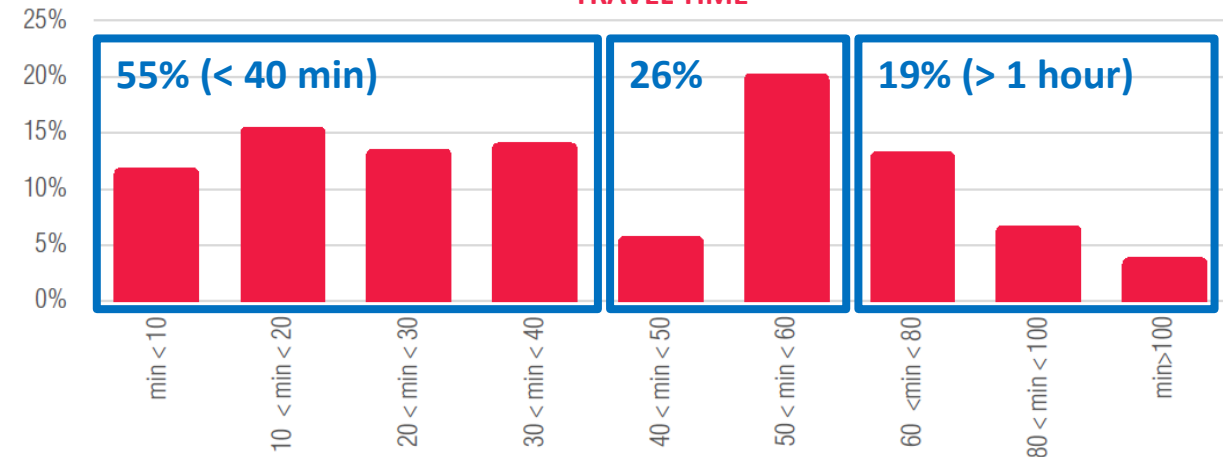
### DETERMINANTS PER MODE CHOICE

	 Car users	 Public transport users	 Walking/cycling users
1	Travel time	Environment	Travel time
2	Flexibility	Cheap	Environment
3	Comfort	Comfort	Comfort

### TRAVEL TIME



### TRAVEL TIME

















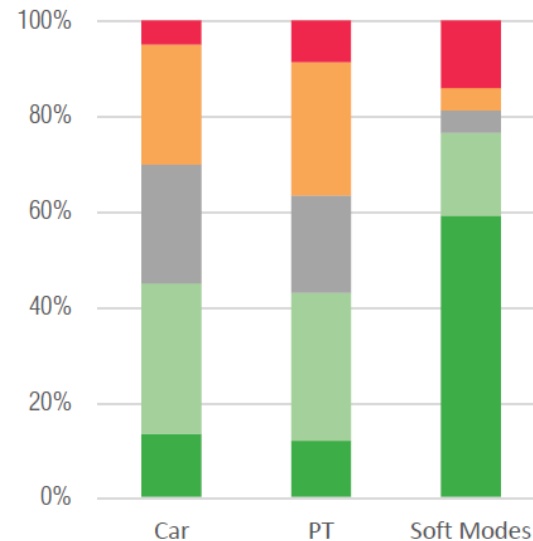
# IMPROVEMENTS TO SOFT MOBILITY

- Potential to increase the uptake of and improve satisfaction for soft mobility options

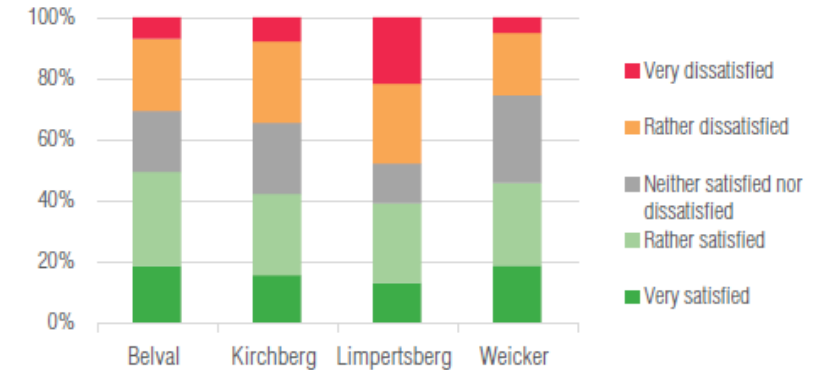
▼ Regarding a potential shift towards cycling, **19% of car users who do not use bikes/electric bikes said they would consider using cycling options** as part of their commute. Bicycle lanes and safer facilities were among the incentives respondents mentioned as considerations in switching to cycling as part of their commute.

	2012	2014	2016	2020
	 / 	 / 	 / 	 / 
 Walking/cycling	9%	6%	5%	12%
 Bus/tram	21%	19%	28%	20%
 Car	51%	54%	44%	47%
 Train	20%	22%	23%	21%
	100%	100%	100%	100%

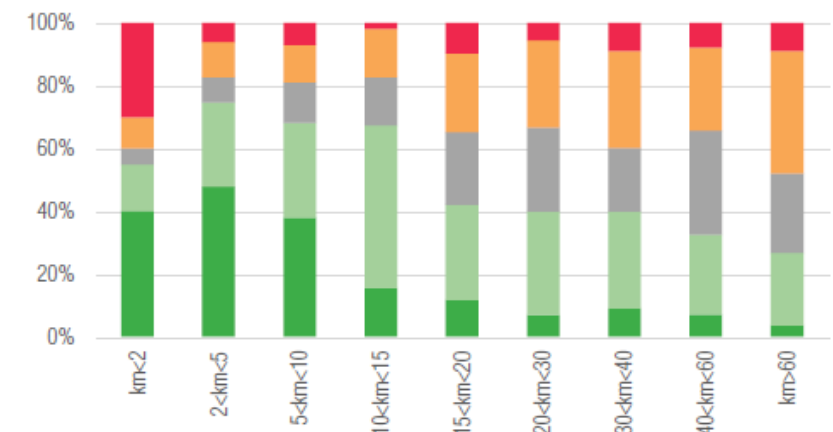
SATISFACTION & COMMUTING MODE



SATISFACTION LEVEL BY CAMPUS



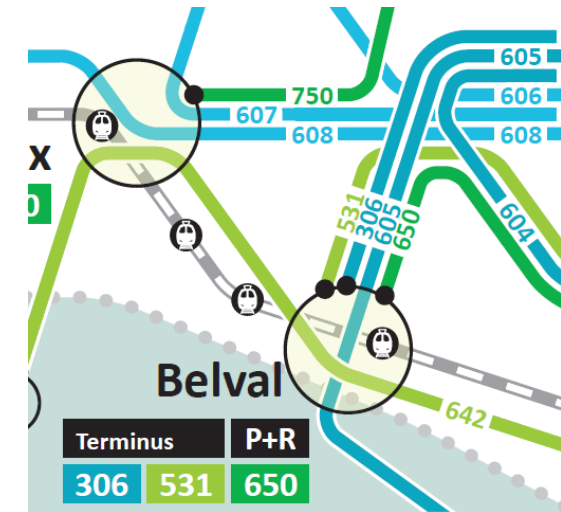
SATISFACTION LEVEL BY DISTANCE



# IMPROVED CONNECTIVITY OF THE BELVAL SITE 2020-2024



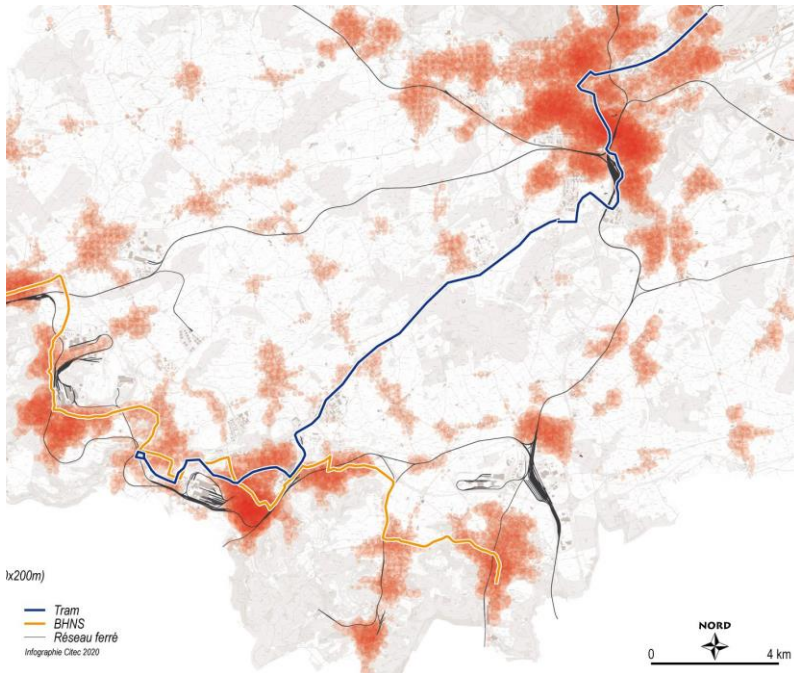
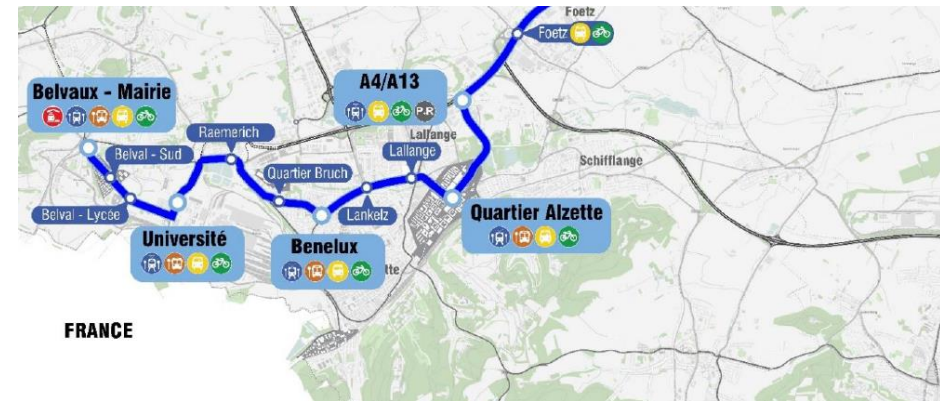
- New RGTR network and bus lines on the Belval site (Cité des Sciences, Porte de France) in 2021/22
  - 306 Belvaux, Lycée Bel-Val - Trier, Theodor-Heuss-Allee
  - 531 Belval- Thionville N
  - 605 Lux-Faiencerie - Micheville M
  - 650 Belval – Bettembourg
  - 750 Belval – Steinfort
- Bicycle and pedestrian bridge to link Belval to Esch-sur-Alzette by 2022/23
- Luxembourg central station connected to the tram by December 2020, Cloche d'Or by 2023
- Construction on new train line from Bettembourg to Howald due to be completed by 2024



# IMPROVED CONNECTIVITY OF THE UNIVERSITY CAMPUSES 2028-2035



- Tram rapide and multi-modal motorway to link Luxembourg city and Belval
- Bus rapid transit system (« Bus à haut niveau de service ») between Pétange et Dudelange



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MOBILITY – Travel survey 2020  
Merci | Thank you | Danke

