



Università  
degli Studi  
di Torino



**UniToGO**

UNIVERSITÀ DI TORINO  
GREEN OFFICE

# Mobility Governance of a Mega-atheneaeum: the case of Turin

U-Mob Conference - Krakow, 14-15 March 2019

*Andrea Scagni*

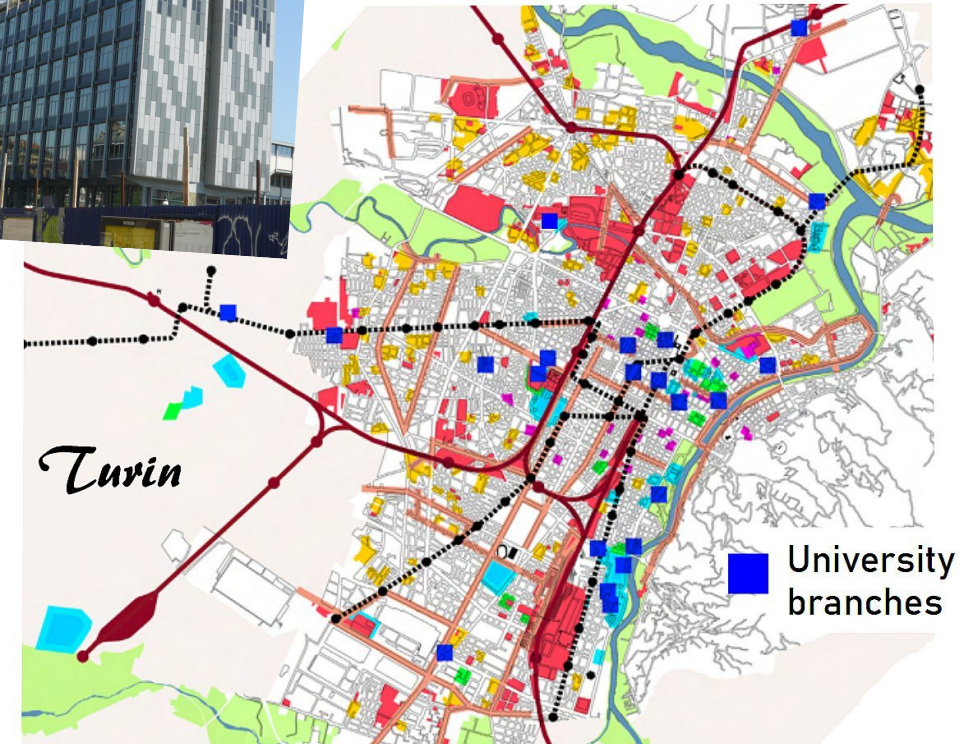
Head of Mobility Team  
UniTO Green Office

*Micol Maggiolini*

staff  
UniTO Green Office

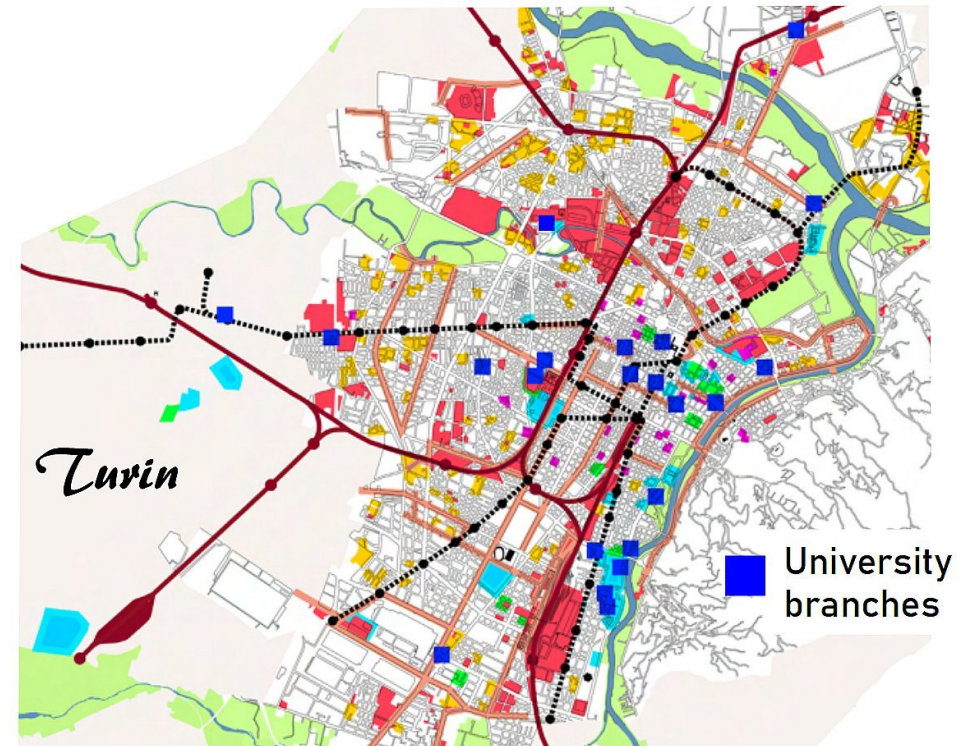
# UniTo – the University of Turin

- A large, mega-atheneum with a sparse structure, about 120 branches in different locations around the city (and the suburbs)
- Its daily activities induce a significant part of the Turin metropolitan area mobility
- With a community of around **75.000**, distances covered every single day are way above **100.000 kms.**

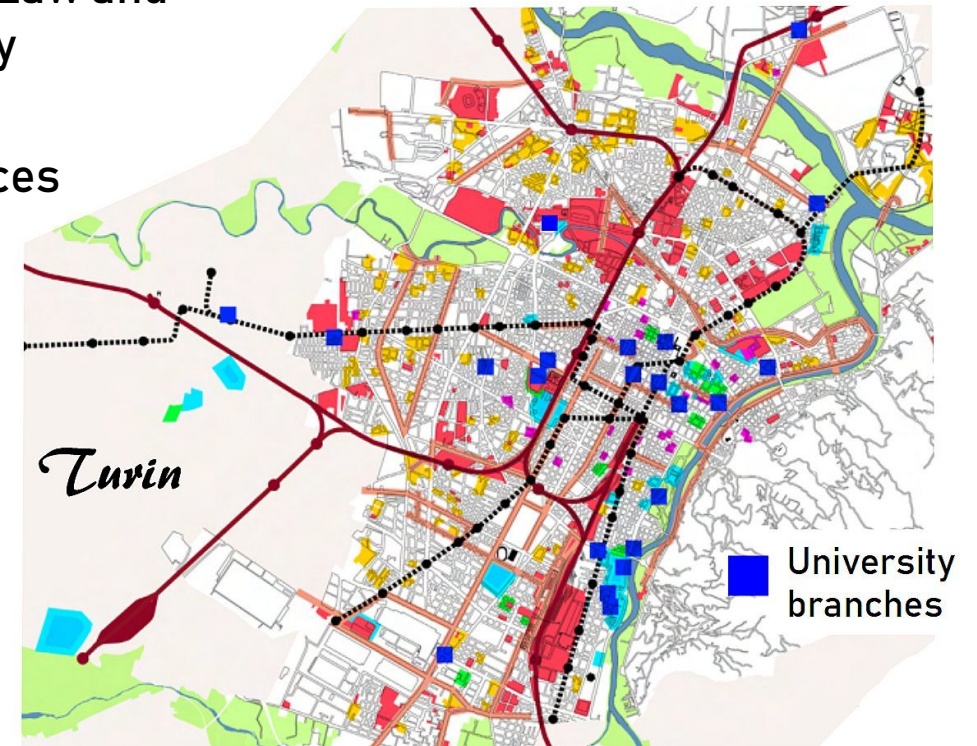
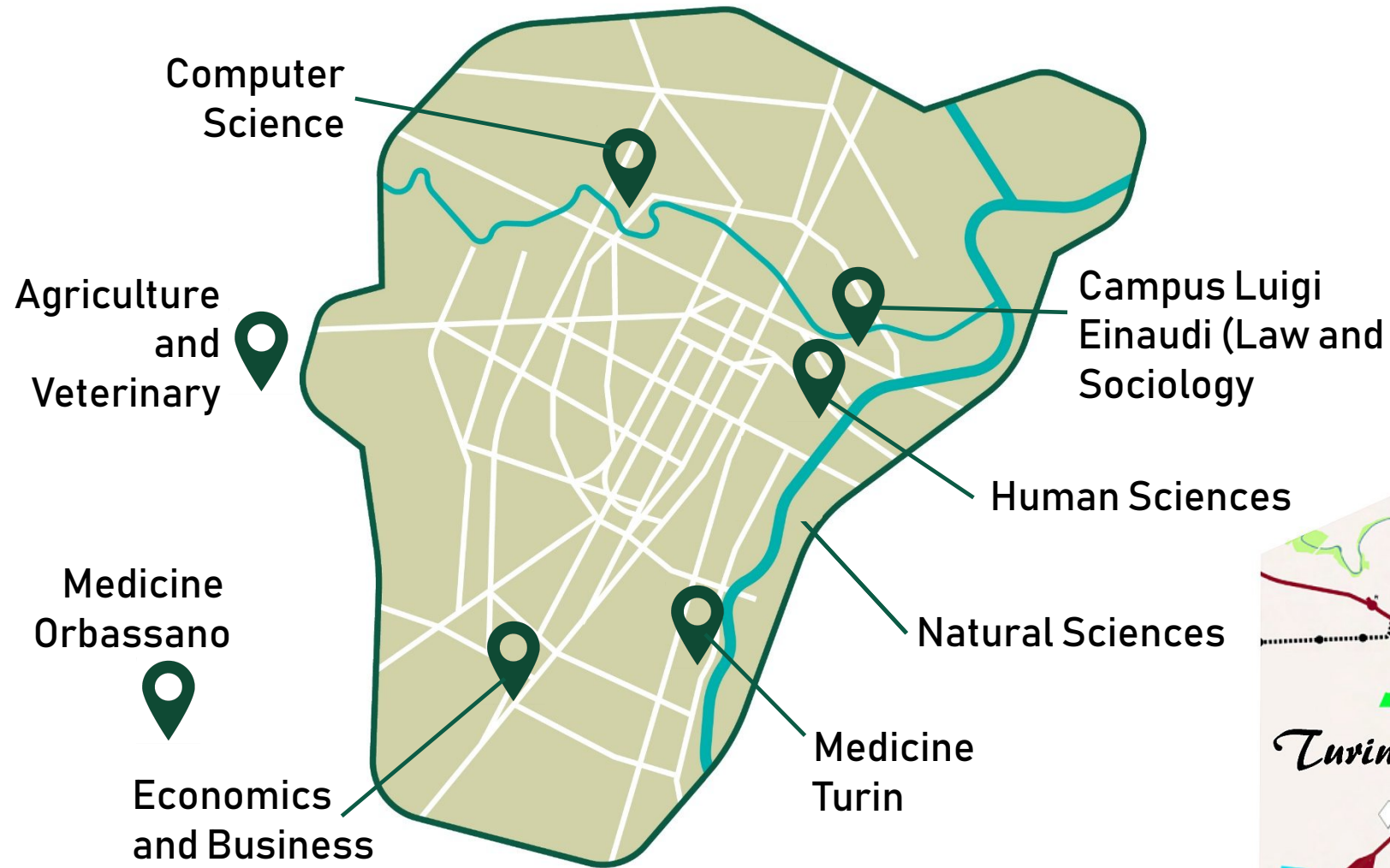




# Seven main campuses

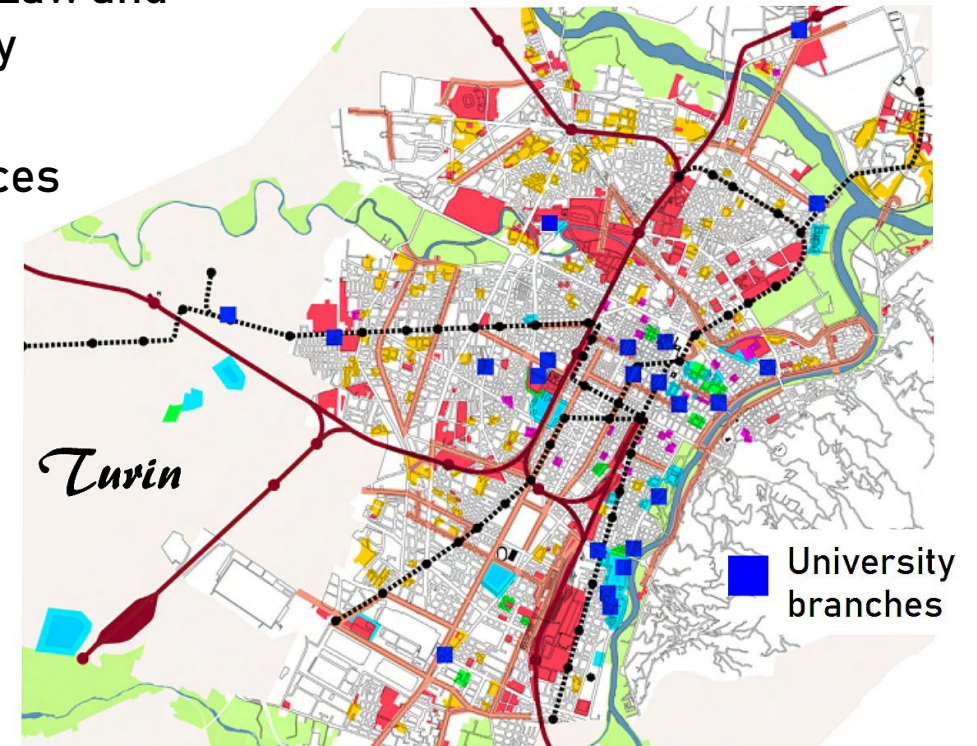
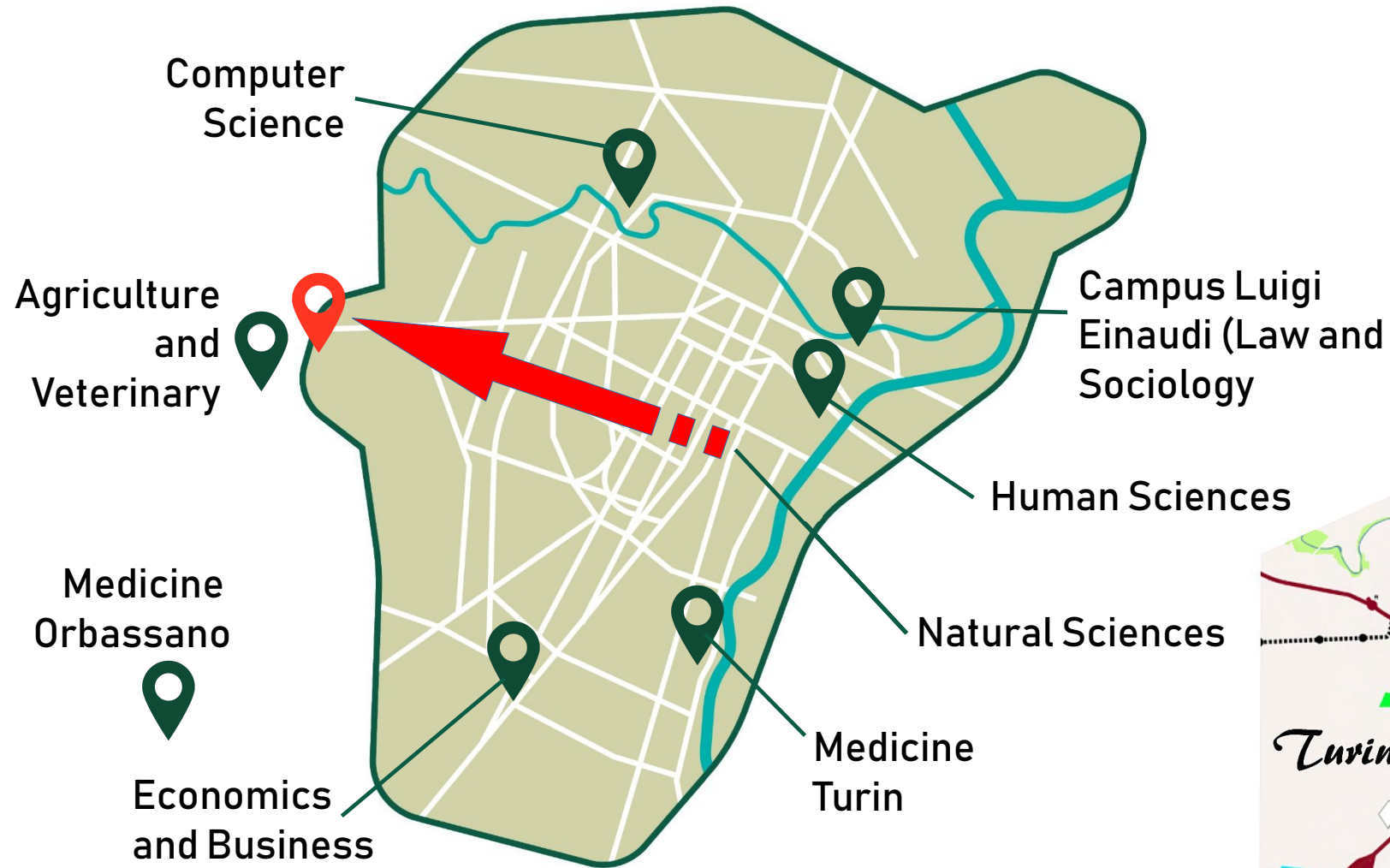


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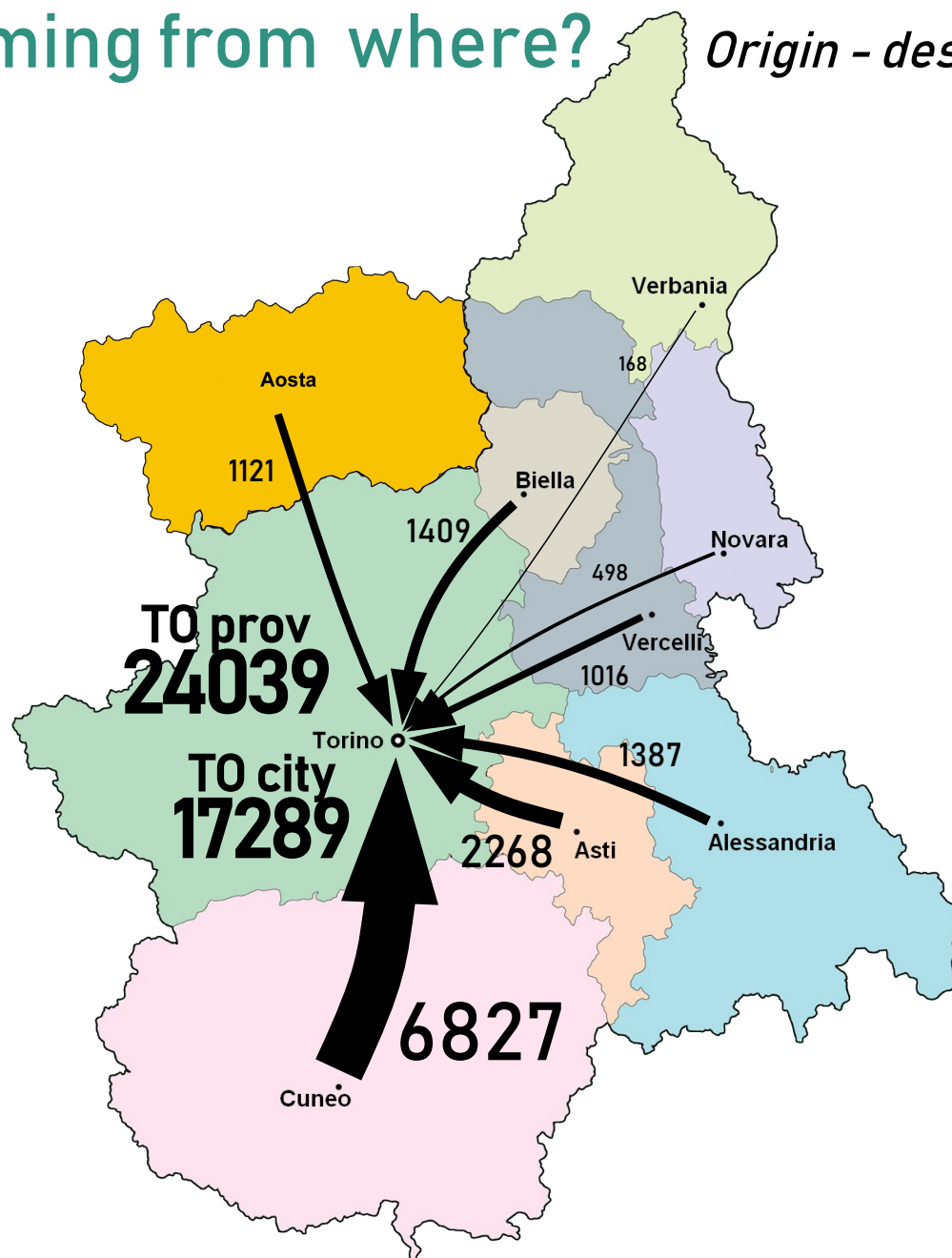


# Seven main campuses



# Coming from where?

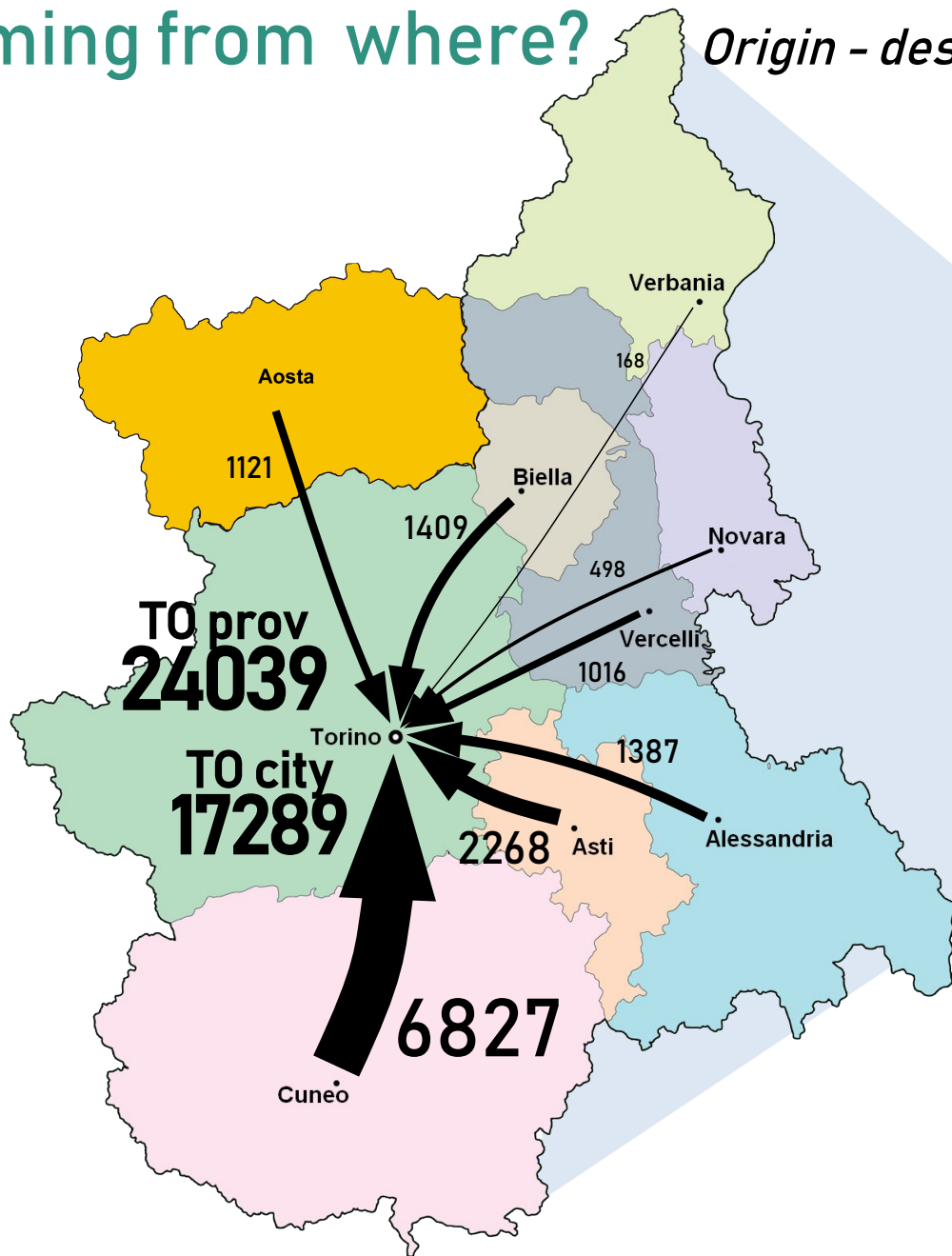
*Origin - destination matrix*





# Coming from where?

Origin - destination matrix



Foreign countries 1157



Italy excl. Piedmont 12764



# UniToGO - *Green office*

- A dedicated team that works with a combined *research + action* approach on all topics concerning the sustainability of the university day-to-day activities
  - Created at the end of 2016, includes people from faculty, students, staff and is granted specific funding
  - It is an active member of the RUS (*Rete Università Sostenibili*) national network





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  - It is an active member of the RUS (*Rete Università Sostenibili*) national network
  - Organised in 5 working groups:



## Working Groups

Each group has an academic, a technical, a researcher representative and several students involved for thesis projects.



# UniToGO - *Sustainable mobility working group*

- The main goal is to build cultural, normative and structural conditions that can motivate the members of the UniTo community to change their mobility choices towards sustainability





# UniToGO - *Sustainable mobility working group*

- The main goal is to build cultural, normative and structural conditions that can motivate the members of the UniTo community to change their mobility choices towards sustainability

The *Modal share* of home-to-work and home-to-school should increase for:

- ♦ *active mobility* (walking & cycling)
- ♦ Regional and local public transport (road or rail)
- ♦ Standard or new forms of *sharing mobility*



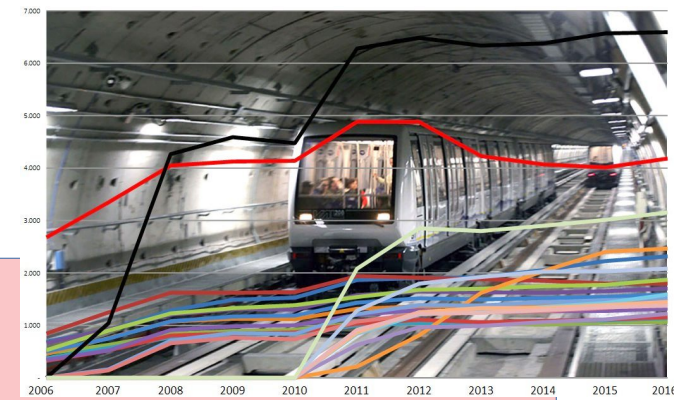
  
**UniTo GO**

*Let's go to university  
in a better way*

The 3 STEPS of our approach:

*Learn*

- Acquire data and information on the present status of mobility choices and on the accessibility of all university buildings and locations, both internal and from public road network;

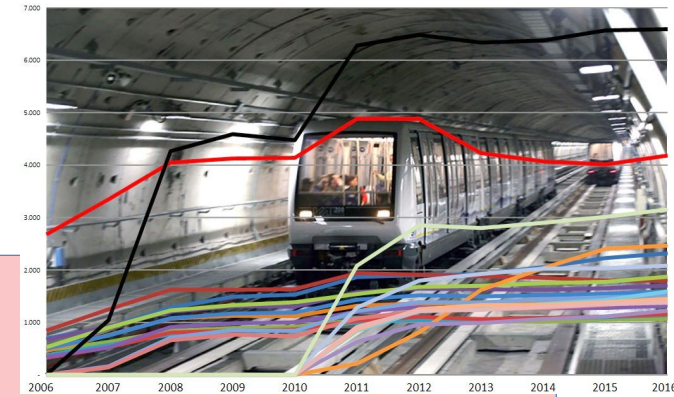




## The 3 STEPS of our approach:

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### *Engage & motivate*

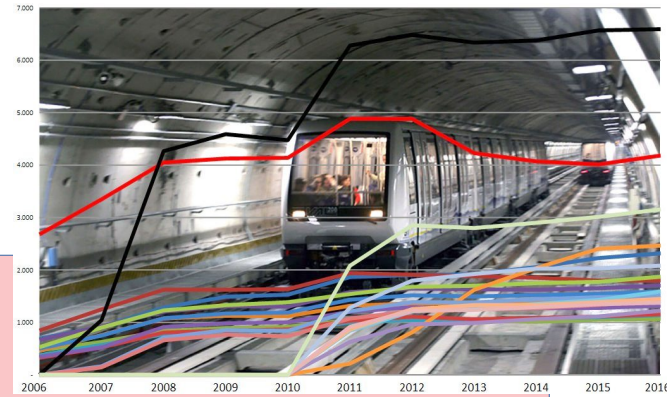
- Increase the community awareness on the potential for a cleaner, more efficient mobility as part of an overall effort to improve environmental standards of the Athenaeum;
- create a wide network with other higher education institutions, local authorities, firms and associations to develop and share a joint approach to sustainability combining scientific, technical and administrative know-how



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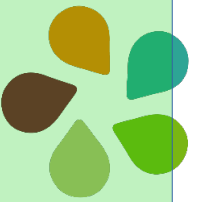


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### *Change*

- define and apply incentive policies with economic bonuses and tariffs, regulation and rationalization of parking spaces;
- Analyse the urban road and local transport networks that reach and serve university locations, develop goals and proposals to improve their ability to favour sustainable mobility



# The Network of the working group

## Local partners



■ Piedmont Region



■ Agenzia per la Mobilità



■ 5T (data analysis)



■ Turin Metropolitan Authority



■ City of Torino



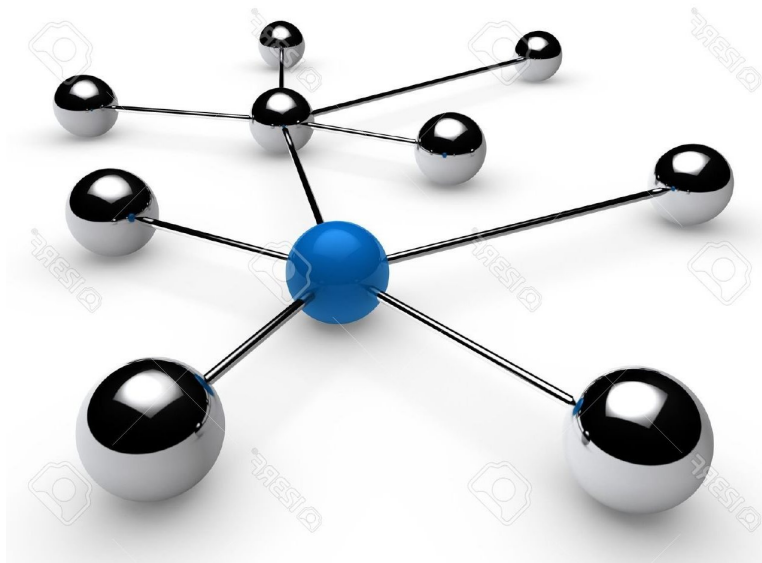
■ GTT (public transport)



■ To-Bike (bike sharing)



■ Fiab (grassroots advocacy)





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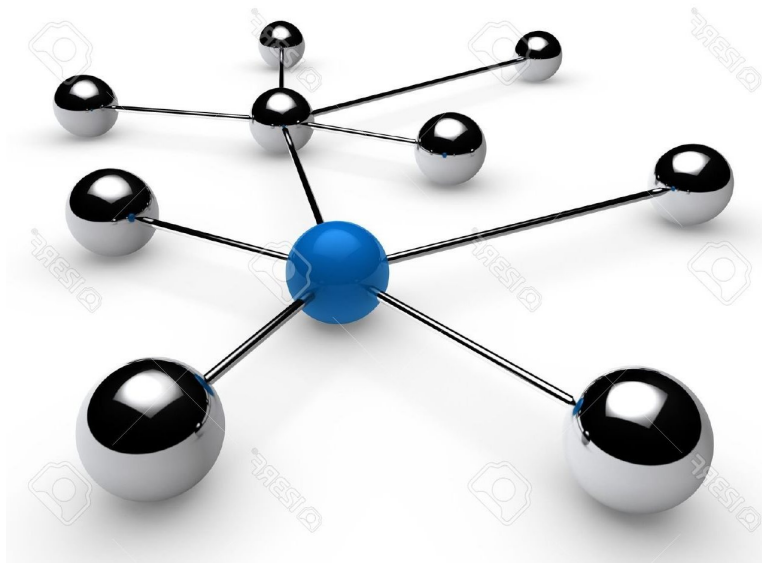
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## Inside Unito

- University governance
- Administration branch
- Press office
- Sustainability Report
- Personnel Training Branch
- Part-time students
- GreenTo (grassroots advocacy)



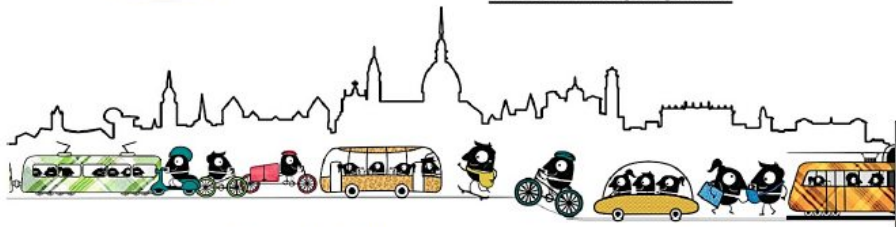
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- On-line questionnaire, both PC and mobile friendly
- 17.500 responses
- 2 units of dedicated staff

Come vieni  
in Università?  
Rispondi al  
questionario



UNIVERSITÀ DEGLI STUDI DI TORINO



# MobilitaUniTo

**come ti muovi, per noi conta.**

Indagine nazionale sulla mobilità universitaria



17

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FOR SUSTAINABILITY

 UNIVERSITÀ DEGLI STUDI DI TORINO

**ATTENZIONE!**  
INDAGINE PROROGATA  
FINO AL 20/04/2017



# MobilitaUniTo

**come ti muovi, per noi conta.**  
Indagine nazionale sulla mobilità universitaria

*A huge effort to gather  
knowledge*

- UNITO Newsletter
- Social media of all kinds
- Local promotion events
- Vocational training courses
- Prize draw for students
- Specific letters from *rector magnificus*





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UniToGO  
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FOR SUSTAINABILITY

17 MARZO DALLE 8 ALLE 16  
ATRIO DELLA SCUOLA  
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**MOBILITAGRUGLIASCO**  
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*A local promotion event*



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## MobilitaUniTo

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*Come vieni in Università? Rispondi al questionario*

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## MOBILITAGRUGLIASCO

**come ti muovi, per noi conta.**  
Indagine nazionale sulla mobilità universitaria

*A local promotion event*



# MobilitaUniTo *how you travel matters to us*

## *A deep insight on behaviour and choices*

- Detailed, possibly multimodal *home2university* journey with info on each stretch mode and time
- Separately reported by season and weather
- Bike (and other) sharing specific section
- Subjective perception of critical issues regarding cycling and public transport (and the combination)
- Mobility assets and options actually available to the individual
- Travelling between university locations





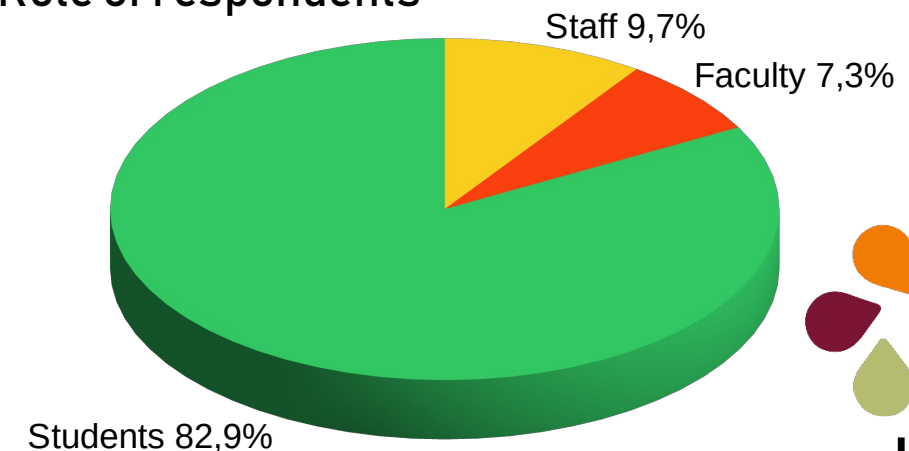
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## Role of respondents



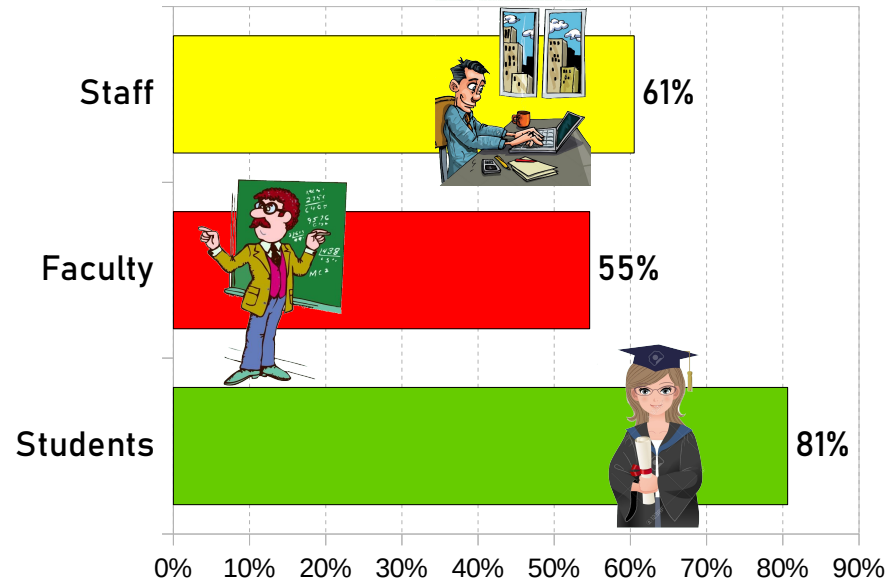
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# MobilitaUniTo: a glimpse on the results

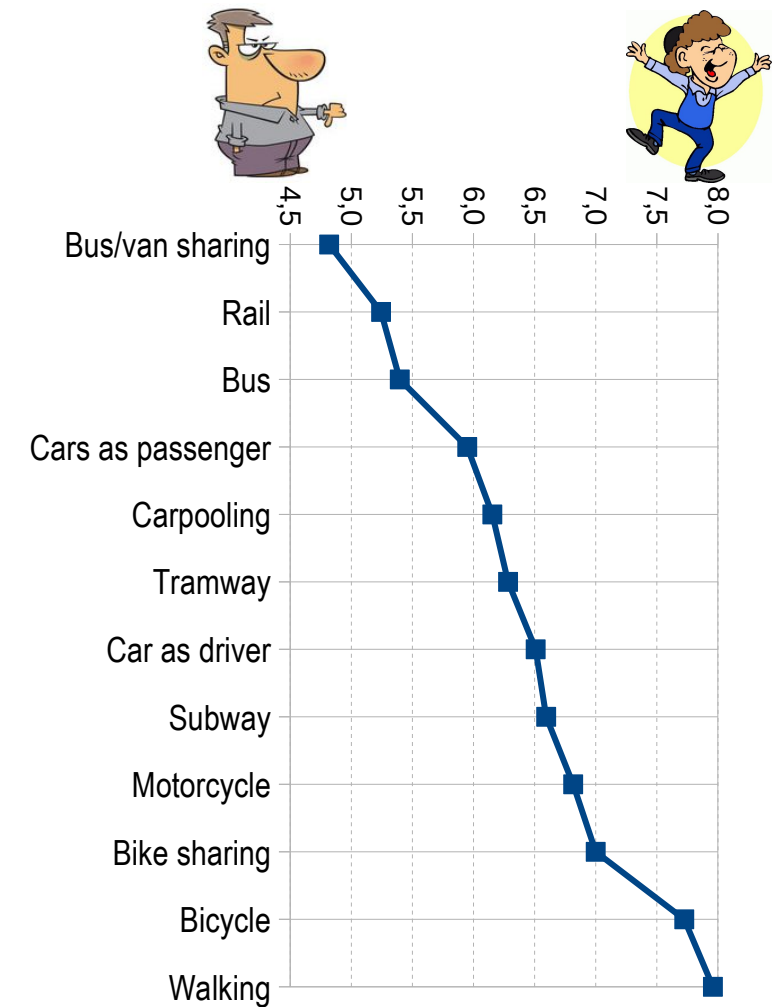
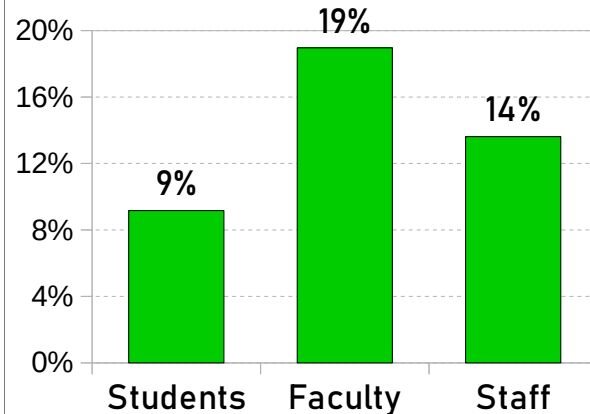
## Multimodality

n. stretches	%
1	52,7%
2	29,4%
3	14,4%
4	3,2%
5	0,3%
<b>Total</b>	<b>100,00%</b>

## Fully sustainable journeys



## Cycling on the home2univ journey (summer)



## Complete journeys in detail - WINTER

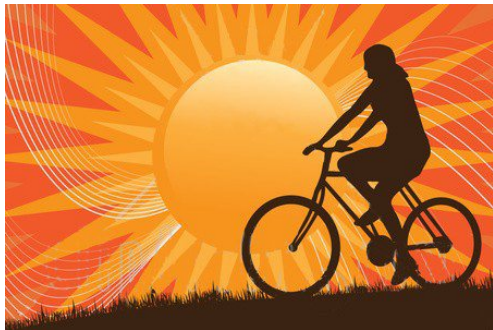
### Multimodality count

n. sections	N. cases	%
1	7308	52,90%
2	4080	29,54%
3	1972	14,28%
4	424	3,07%
5	30	0,22%
<b>Total</b>	<b>13814</b>	

Section 1	Section 2	Section 3	Section 4	% cases	N. of people	distance in KM.
Road public transport				20,9%	14.410	9,4
Car				15,5%	10.705	22,0
Walking				11,0%	7.630	4,9
Road public transport	Walking			9,1%	6.290	12,4
Road public transport	Road public transport			7,4%	5.140	18,6
Train	Road public transport			6,2%	4.290	57,9
Bicycle				3,9%	2.710	5,2
Car	Train	Road public transport		2,6%	1.795	57,8
Train	Road public transport	Walking		2,4%	1.635	54,3
Road public transport	Road public transport	Walking		1,9%	1.340	19,2
Train	Walking			1,8%	1.235	70,3
Car	Walking			1,7%	1.155	24,5
Car	Road public transport			1,6%	1.085	28,3
Car	Train	Road public transport	Walking	1,2%	810	55,5
Road public transport	Road public transport	Road public transport		1,0%	705	18,6
Car	Road public transport	Road public transport		1,0%	680	30,3
Car	Train	Walking		0,9%	630	69,9
Car	Road public transport	Walking		0,9%	615	27,3
Motorcycle/scooter				0,6%	410	10,1
Walking	Road public transport			0,5%	375	11,7
Walking	Road public transport	Walking		0,5%	375	11,7
Walking	Road public transport	Road public transport		0,5%	360	16,0
Sharing Mobility				0,5%	360	9,7
Walking	Train	Road public transport		0,5%	325	43,9
Train	Road public transport	Road public transport		0,5%	320	46,1
Road public transport	Train	Road public transport		0,4%	285	52,2
Train				0,4%	270	56,1
Walking	Train	Road public transport	Walking	0,3%	220	38,9
Walking	Road public transport	Road public transport	Walking	0,3%	210	18,0
Car	Road public transport	Road public transport	Walking	0,2%	155	28,4

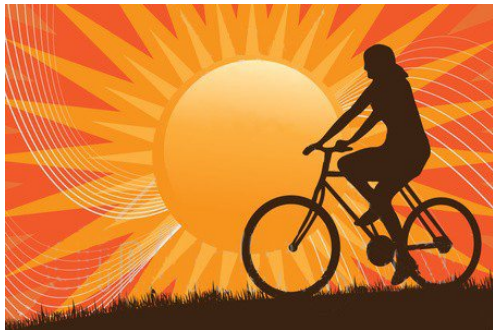




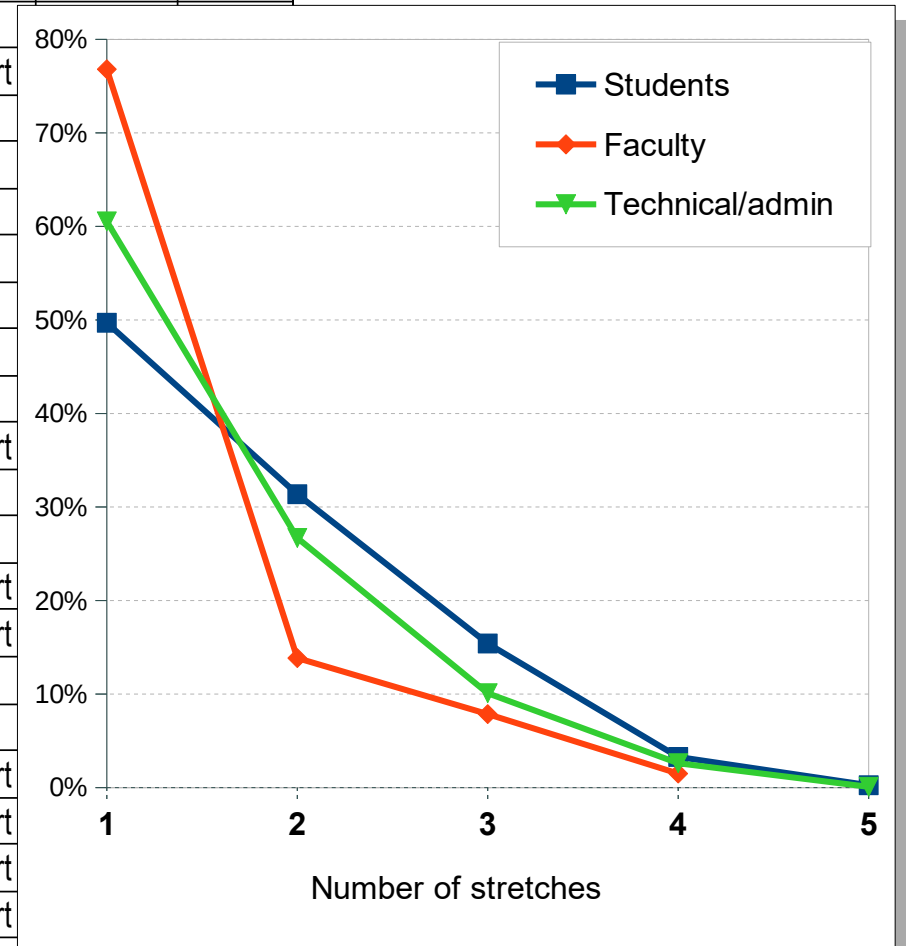


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0,83	Road public transport				17,3%
0,91	Car				14,1%
1,13	Walking				12,5%
0,89	Road public transport	Walking			8,1%
1,93	Bicycle				7,6%
0,92	Road public transport	Road public transport			6,8%
0,94	Train	Road public transport			5,9%
0,93	Car	Train	Road public transport		2,4%
0,98	Train	Road public transport	Walking		2,3%
1,17	Train	Walking			2,1%
1,01	Road public transport	Road public transport	Walking		2,0%
0,91	Car	Walking			1,5%
0,96	Car	Road public transport			1,5%
2,72	Sharing Mobility				1,4%
2,04	Motorcycle/scooter				1,2%
0,98	Car	Train	Road public transport	Walking	1,1%
1,10	Car	Train	Walking		1,0%
1,05	Car	Road public transport	Walking		0,9%
0,91	Road public transport	Road public transport	Road public transport		0,9%
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1,04	Walking	Road public transport	Walking		0,6%
1,00	Walking	Road public transport			0,5%
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0,97	Train	Road public transport	Road public transport		0,4%
0,92	Walking	Train	Road public transport		0,4%
0,96	Road public transport	Train	Road public transport		0,4%
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0,96	Road public transport	Train	Road public transport		
0,98	Train				0,47%
1,00	Walking	Train	Road public transport	Walking	0,3%
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# Inventory: *the existing bicycle parking lots*

- Quantity
- Safety
- Efficient use of space
- Easy to access and close to the site

## **REPORT SULLA CICLABILITÀ DISPONIBILITÀ RASTRELLIERE**

### **Economia e Amministrazione aziendale**

- stazioni Tobike : 1 stazione con 28 postazioni
- rastrelliere comunali: 12 archi
- rastrelliere universitarie: 36 posti bici

### **Agraria e Medicina Veterinaria**

- stazioni Tobike : 1 stazione con 14 postazioni;
- rastrelliere comunali: no;
- rastrelliere universitarie: 1x8 posti; 2x 10 posti; 3 archi;

### **Polo scientifico di via Giuria (Scienze Geologiche, Chimica, Fisica, Farmacia, Neuroscienze)**

- stazioni Tobike : 2 stazioni con 15 postazioni ciascuna;
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### **Medicina (Molinette)**

#### **Dipartimento di Biotecnologie Molecolari e Scienze per la salute**

- stazioni Tobike : 1 stazione con 21 postazioni (Piazza nizza 46);
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#### **Dipartimento di Neuroscienze (sede di c.so Massimo D'Azeglio)**

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# Bicycle parking: *new opportunities and solutions*

- Protected spaces for 100% safe parking



**NUOVO  
PARCHEGGIO  
PROTETTO  
BICICLETTE**

PARCHEGGIO  
SOTTERRANEO  
CAMPUS EINAUDI  
BLOCCO D4

PER INFORMAZIONI  
[WWW.UNITO.IT/ATENEQ/STRUTTURE-E-SEDI/SEDI/SEDI-METROPOLITANE-TORINO-E-PROVINCIA/CAMPUS-LUIGI-EINAUDI/IL](http://WWW.UNITO.IT/ATENEQ/STRUTTURE-E-SEDI/SEDI/SEDI-METROPOLITANE-TORINO-E-PROVINCIA/CAMPUS-LUIGI-EINAUDI/IL)

APERTURA  
23/05/2018  
CAMPUS LUIGI EINAUDI  
LUNGO DORA SIENA  
100, TORINO

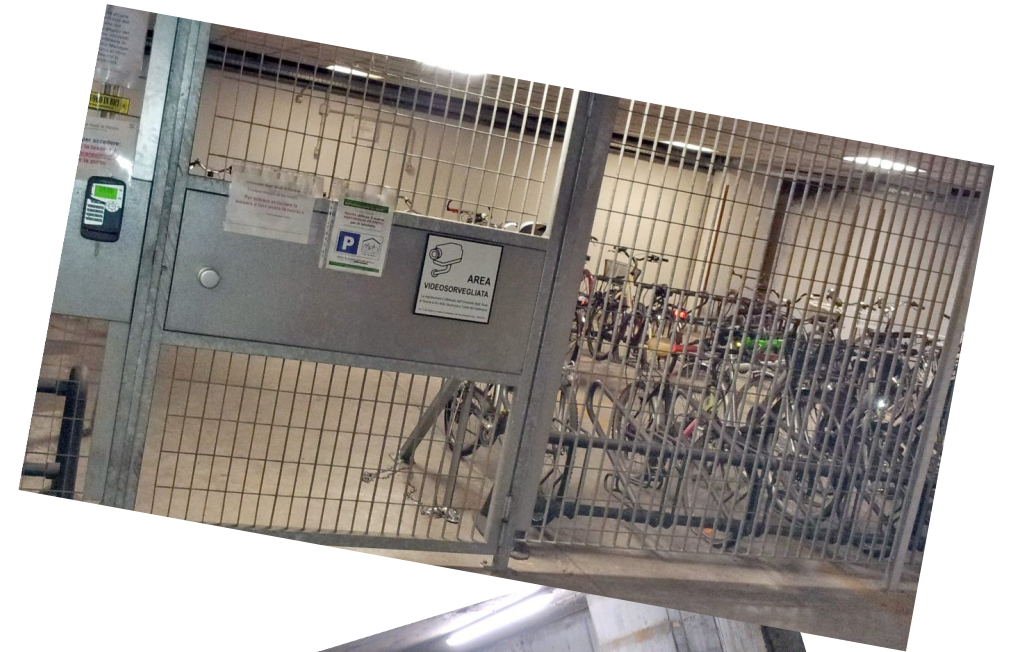


**NUOVO  
PARCHEGGIO  
PROTETTO  
BICICLETTE**

PARCHEGGIO  
SOTTERRANEO  
CAMPUS EINAUDI  
BLOCCO D4

PER INFORMAZIONI  
[WWW.UNITO.IT/ATENEQ/STRUTTURE-E-SEDI/SEDI/SEDI-METROPOLITANE-TORINO-E-PROVINCIA/CAMPUS-LUIGI-EINAUDI/IL](http://WWW.UNITO.IT/ATENEQ/STRUTTURE-E-SEDI/SEDI/SEDI-METROPOLITANE-TORINO-E-PROVINCIA/CAMPUS-LUIGI-EINAUDI/IL)





# Car parking: *new smart data-based policies*

We want to discourage car use... but how?



Animistic prayer?



# Car parking: *new smart data-based policies*

We want to discourage car use... but how?



Animistic prayer?



Desperate cry?





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Desperate cry?

Emotionally charged advice?



# Car parking: *new smart data-based policies*

We want to discourage car use... but how?



Animistic prayer?



Desperate cry?

**>>>>> leverage car parking rules!**

Emotionally charged advice?

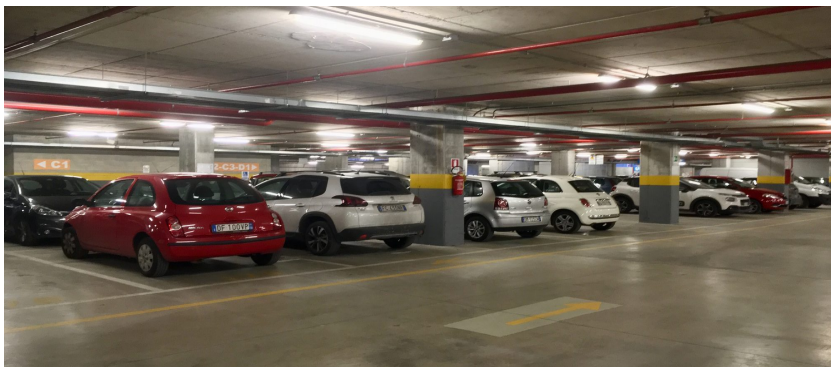




# Enter project S.U.S.T.A.I.N.: ***Specific User Sustainability Through Accurate Index Number***

## Background

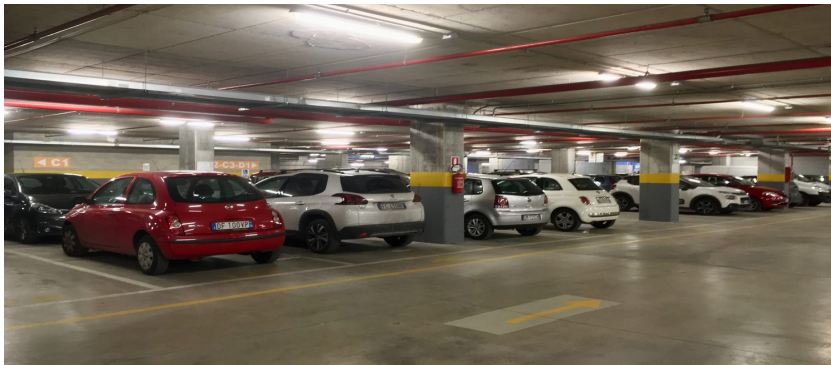
- In 2012 the new Campus “Luigi Einaudi” (CLE) was opened, aggregating many teaching and research activities and involving several thousands people.
- Due to existing laws it had to include a large car parking (about 500 places), to avoid a “car plague” on the neighbourhood environment.



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- In 2012 the new Campus “Luigi Einaudi” (CLE) was opened, aggregating many teaching and research activities and involving several thousands people.
- Due to existing laws it had to include a large car parking (about 500 places), to avoid a “car plague” on the neighbourhood environment.
- It remained largely unoccupied for years (monthly fee of 10€ - low but not free),
- It became a sought-after commodity in 2017 when public areas around the campus became toll parking at prices **7 times higher** than the internal parking fees.





# Project S.U.S.T.A.I.N.: **S**pecific **U**ser **S**ustainability **T**hrough **A**ccurate **I**ndex **N**umber

## The general approach

- Establish innovative and rational criteria to promote sustainable mobility through the whole university
- Explore ways to move beyond generic, broad appeals in the vein of “*please care for the environment*”, “*please use your car less*” that just invoked individual goodwill



# Project S.U.S.T.A.I.N.: *Specific **U**ser **S**ustainability **T**hrough **A**ccurate **I**ndex **N**umber*

## The general approach

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- Explore ways to move beyond generic, broad appeals in the vein of “*please care for the environment*”, “*please use your car less*” that just invoked individual goodwill
- Acknowledge that different people may have differing constraints and needs in terms of mobility, involving heterogeneous levels of actually achievable sustainability
- Obtain best results through data-based combination of choices and opportunities
- Optimizing the overall sustainability levels while allowing for special needs and more difficult situations to maintain less environmentally friendly journey modes



# Project S.U.S.T.A.I.N.: **S**pecific **U**ser **S**ustainability **T**hrough **A**ccurate **I**ndex **N**umber

## The general approach

- Establish innovative and rational criteria to promote sustainable mobility through the whole university
- Explore ways to move beyond generic broad appeals in the vein of “*please care for the*”
  - *Allow access to car parking to those who most need it, disincentive others*
  - *obtain information seamlessly and transparently from web platform*
  - *establish, test and deploy criteria easily extensible to other contexts*
- Act on needs and opportunities
- Obtain resources through data based combination of services and opportunities
- Optimizing the overall sustainability levels while allowing for special needs and more difficult situations to maintain less environmentally friendly journey modes





# Project S.U.S.T.A.I.N.: ***Specific User Sustainability Through Accurate Index Number***

## Allocation criteria:

- Family related constraints (number and age of children, not self-sufficient elderly parents or relatives)
- Eco-friendly cars (electric, hybrid, sharing and pooling)
- Journey sustainability index
  - For any couple of origin-destination locations look at the comparative advantage of the standard door-to-door car journey versus the best multimodal solution involving active mobility plus public transport (including sharing) of any kind.
  - Automatically computed through already existing geographical routing engines maintained by the Piedmont Region to power web platforms offering transport info to citizens ([www.muoversinpiemonte.it](http://www.muoversinpiemonte.it))

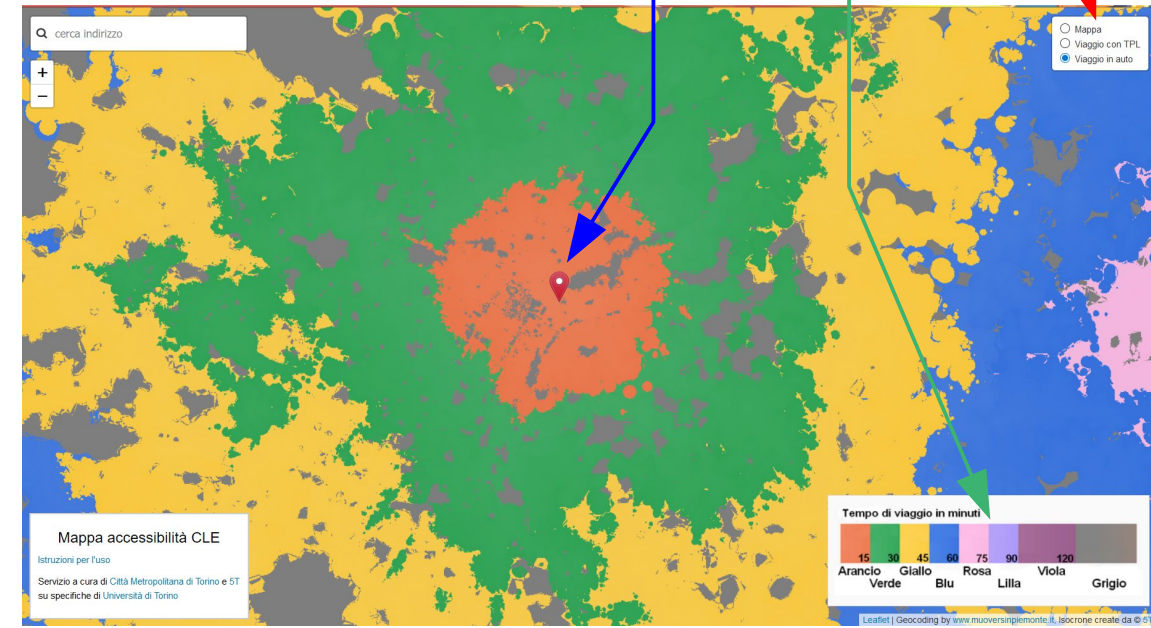
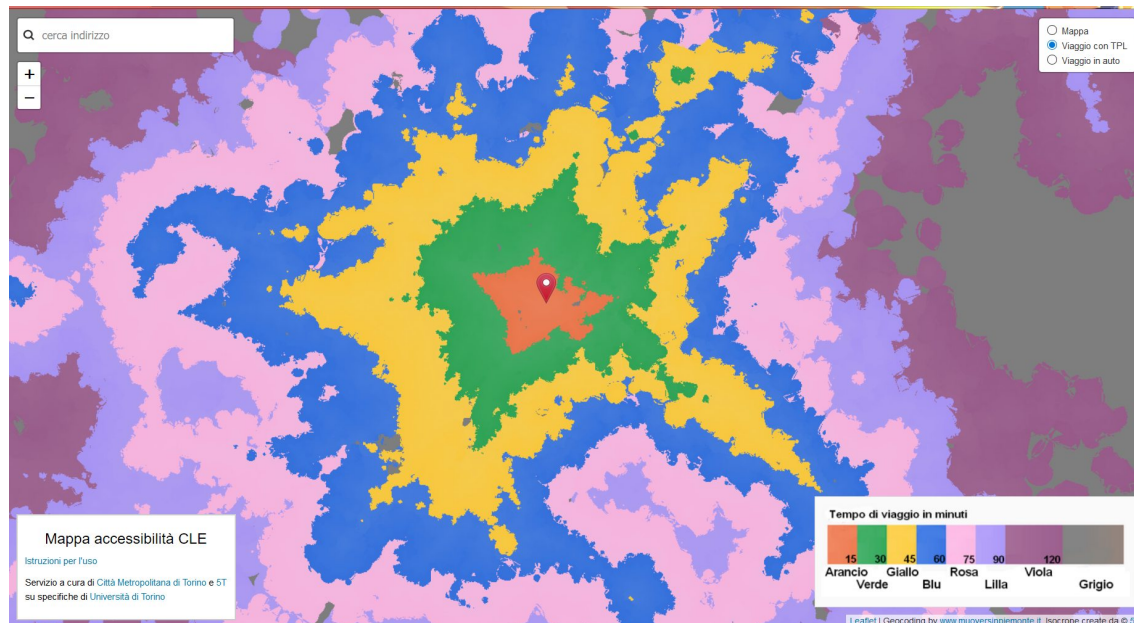




# Project S.U.S.T.A.I.N.: *Specific User Sustainability Through Accurate Index Number*

## First Stage

- the Campus identified as the single arrival location;
- isochrone mapping of the whole region spatially classified in terms of home-campus travel time in two different journey modes:
  - unimodal car only;
  - multimodal combinations of any kind, but excluding own car.
- The mappings drew areas from where the campus could be reached in the two modes within specific time frames.



Journey mode

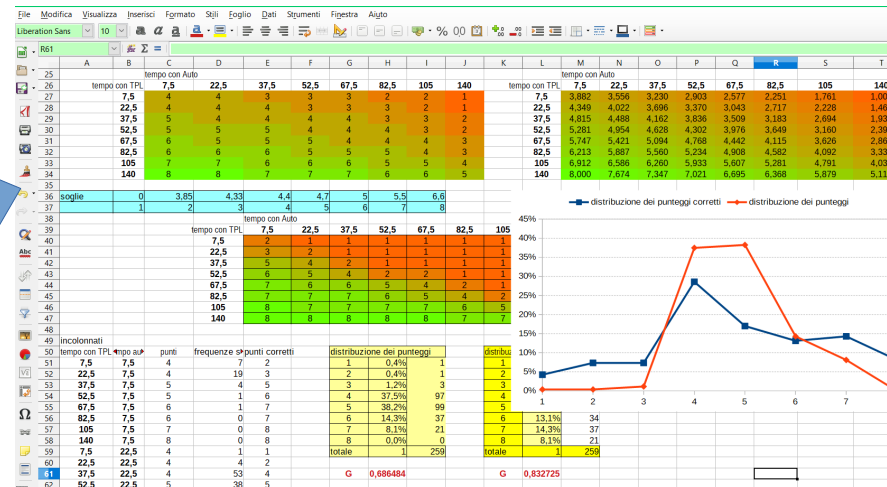
Isochrone timeframe

Central Turin

# Project S.U.S.T.A.I.N.: **S**pecific **U**ser **S**ustainability **T**hrough **A**ccurate **I**ndex **N**umber

## First Stage

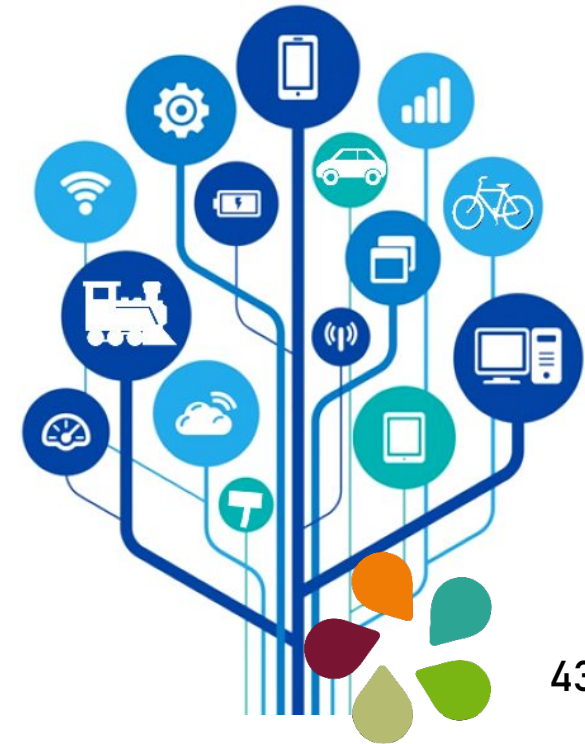
- The desired index was derived as a function of the difference of isochrones on the two mappings (*car only* and *sustainable*) for any home address of a community member submitting a permit request.
- The individual has to identify the colours of his home area in the two mappings on the web platform; this simple information is then processed through an *ad hoc* algorithm that translates it into a final number.



# Project S.U.S.T.A.I.N.: ***S**pecific **U**ser **S**ustainability **T**hrough **A**ccurate **I**ndex **N**umber*

## Second Stage (2019/20)


- Web platform will compute in real time the specific journey time in the two modes based on any source and destination points. The engine will be configurable by:
  - setting mode-specific constraints (no more than *XX* km. on foot, *YY* km. by bike, or even by car - when fully sustainable option may not exist, first few miles by car could allow connection to public transport network)





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- 

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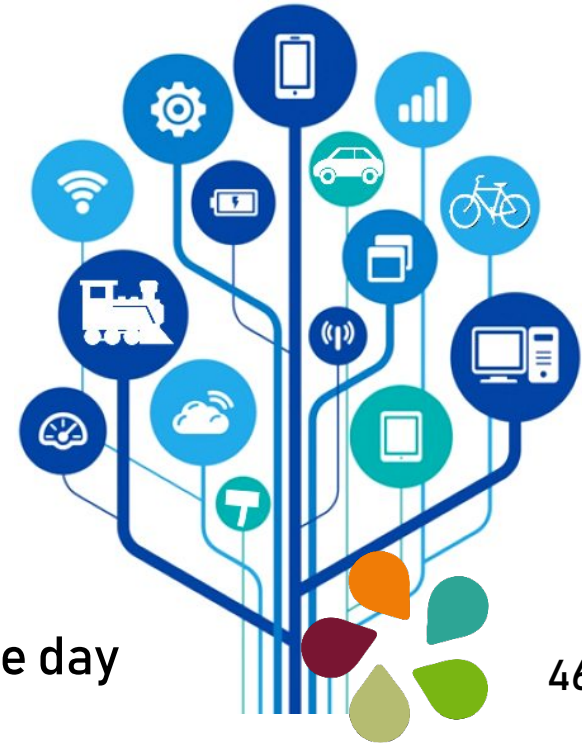
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    - length and mode of the first and last stretch
    - number and length of transfers for intermediate connections
    - their timing compared to “ideal” connection time (e.g. too risky if under 10 minutes, too long if above 15 minutes)



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  - the involved transportations services running frequency during the whole day or for particular time frames could also be taken into account.





# Bike Sharing: *a part of the students' package*

*A successful service, with a bright development outlook*

- Special cheap fares for all students offered on enrolment
- Both *station based* and *free floating* services
- In-depth data analysis on how the service is used by the academic community and citizens at large



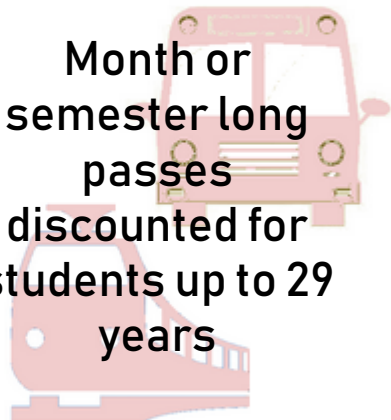


# UniTo incentives **for** smart mobility

For students



Month or semester long passes discounted for students up to 29 years



All tickets can be uploaded and used on a single smartcard

for staff



20% refund of monthly Bus pass



20% refund of monthly Rail pass



All tickets can be uploaded and used on a single smartcard



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# Infrastructure: *fast, easy & safe cycling routes to the academia*

*Working with public administrations to help plan a better network of cycle routes between linking university sites and the main transport hubs*

- Many students attend/faculty teach courses in different university sites
- Turin has a large population of students from the whole region - linkage with the 4 main rail stations is crucial





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- Turin has a large population of students from the whole region - linkage with the 4 main rail stations is crucial
- Verifying the efficiency and usability of tram/bus routes to the main campuses
- Cooperating with public authorities, advocacy groups like FIAB, other institutions to help define the best routes and the right mix of protected lanes, signposting, traffic moderation to ensure smooth, safe cycling



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## Infrastructure: *keep an eye on what is being done*

### Bike lane from the centre to the Law/sociology Campus

- After 8 years the bike lane was at last completed!!
- Some details far from ideal
  - Two-way bike lane with no physical protection side by side with heavy traffic road with cars and bicycles coming opposite ways rubbing shoulders
  - Stopping space for vehicles right on bike lane, not before





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# Events and workshops: *spread the news on mobility*



**Lunedì 2 maggio 18.30-20.00**  
**BIKES VS CARS** (Fredrik Gertten) 2015, 87'. Il clima, le risorse del pianeta, le città le cui intense superfici sono consumate dalle automobili. L'industria del traffico privato investe ogni anno miliardi in azioni di lobbying e pubblicità. Nel film incontreremo attivisti e pensatori che lottano per città migliori con maggiore spazio per un mezzo che potrebbe contribuire a offrire una soluzione. Dibattito con: A. Scagni (Dip. Economia e Statistica, Unife).

**Lunedì 16 maggio 18.30-20.00**  
**YEARS OF LIVING DANGEROUSLY** (A.A.V.V.) 2014. L'arrivo i famosi Ford Viaggio in Indonesia per investigare come la fame di olio di palma - presente in qualunque cosa, dalla merendina al colorificio per lavatrice - sia stata causa di una insensibile deforestazione e abbia trasformato il paese in uno dei maggiori produttori mondiali di roccia nera. Dibattito con: G. Vercellotti e R. Maloni (Dipartimento di Scienze Ambientali, Fribourg).

**EUROPEAN MOBILITY WEEK**  
16-22 SEPTEMBER 2017

**A/R TORINO - UNITO**  
ANALISI DEGLI SPOSTAMENTI CASA - UNIVERSITÀ  
PER UNA MOBILITÀ CITTADINA PIÙ SOSTENIBILE  
21/09/2017 CAMPUS LUIGI EINAUDI LUNGO DORA SIENA 100, TORINO  
10.00 - 11.30 SEMINARIO AULA D1



**Lunedì 15 maggio 2017 ore 14.00 - 17.30**  
Città metropolitana di Torino - Auditorium, corso Inghilterra 7 - Torino

**CONVEGNO**  
**SMART MOBILITY, STRONG ECONOMY:**  
il ridisegno della mobilità a partire dai poli aziendali e universitari

**MOBILITÀ E TRASPORTI: PIANI, PROGRAMMI E PROGETTI DI CITTÀ METROPOLITANA DI TORINO E REGIONE PIEMONTE**

Assessore delegato ai trasporti Città metropolitana di Torino, Assessore ai trasporti Comune di Torino, Assessore ai trasporti Regione Piemonte

**LA MOBILITÀ A PARTIRE DAI POLI UNIVERSITARI**

prima indagine nazionale sulle scelte di mobilità universitaria anche a UNITO: dalla conoscenza alla programmazione per una efficace transizione alla sostenibilità - Università degli Studi di Torino  
attività di indagini ed azioni di Mobility Management - Politecnico di Torino

**OPPORTUNITÀ E MECCANISMI PREMIALI PER IL MOBILITY MANAGEMENT**

mobilità sostenibile: progetti e strumenti per il territorio e per le aziende - Città metropolitana di Torino  
sure adottate dalla Città di Torino sui dipendenti e iniziative di mobilità sostenibile - Città di Torino  
strumenti con i cittadini: il living lab SETA per la mobilità pubblica e ciclabile - Torino Wireless

oggetti PREPAIR e PHIRE - Regione Piemonte

sure incentivanti l'uso dei mezzi pubblici negli spostamenti casa-lavoro dei dipendenti - GTT

il bike, il bike sharing per lo spostamento casa-lavoro - Bicicittà srl

otta: una piattaforma per il supporto al car-pooling - Achab Group

sultati del progetto "Bike2Work" - FIAB onlus

cus su Torino: una panoramica sui dati raccolti durante la Challenge 2016 di Bike2Work - 5T Srl

**PREMIAZIONE DELLE AZIENDE VINCITRICI**



Federazione Italiana Associazioni Bicicliste



Associazione Mobilità Piemonte



Bicicittà



[to]BIKE



achab

No collaborato alla  
programmazione organizzativa



**MOBILITÀ, ACCESSIBILITÀ  
e DIRITTO allo STUDIO**

**SAVE the DATE**

**10 Maggio 2017**  
ore 14.00 - 18.00

Università di Milano-Bicocca  
Auditorium G. Martinotti  
Edificio U12  
Via Vizzola 5, Milano

**UNIVERSITÀ DEGLI STUDI DI MILANO-BICOCCA**

**RUS** Rete delle Università per la Sostenibilità

Registrazione entro il 3 Maggio:  
[www.unimib.it/convegnomobility](http://www.unimib.it/convegnomobility)



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# Bike2Work project: *strong partner and competitor*

The screenshot shows the 'LOVE TO RIDE TORINO' website. At the top, there's a navigation bar with links: HOME, CLASSIFICHE, INFO, ISCRIVITI, and LOG IN. Below this, the main content area features the University of Turin logo and name. The profile section is titled 'PROFILO AZIENDA/ORGANIZZAZIONE' and lists 'Università degli Studi di Torino – Docenti, Personale, Assegnisti, Dottorandi'. A user profile for 'Maria Cristina Caimotto' is shown with a 'CHAMPION' badge. A statistic indicates '3.1% PARTECIPAZIONE'. Three bicycles are illustrated at the top right.

- Co-sponsored with
- Piedmont region
  - Turin metropolitan area
  - Turin city council

The banner for 'BIKE TO WORK Torino' features a red and yellow background. It includes the date '16 settembre - 31 ottobre 2016' and the website 'BIKE TO WORK.IT'. Logos for the University of Turin, LOVE TO RIDE, and FIAB are present. Text on the right says 'HO SCELTO DI ANDARE AL LAVORO IN BICI' and 'sono più libera!'. At the bottom, it mentions 'Partecipa, pedala e vinci con UNITO' and 'APP LOVE TO RIDE' with mobile app icons. Various logos for sponsors like the Ministry of Environment and the European Union are also visible.





# Video production: *exploiting the smartest media*



A news video for the launch of the new Smart mobility UNITO WebSite, shot in the historical Rectorate building courtyard



A national television news video for the bike2work campaign, shot directly on Campus



A video showing students starting their journey with ToBike sharing scheme



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