

REC's SUSTAINABLE COMMUTING INITIATIVE and 'TRANSPORT MONITORING TOOL'



Jerome Simpson, Smart Cities and Mobility

Monday 5th September, 2016

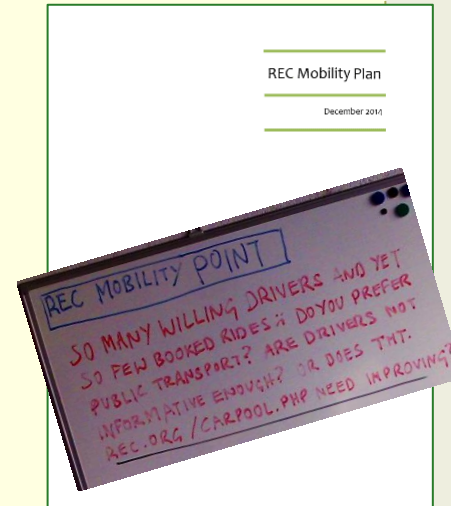
29th session of the UNECE

Working Party on Transport Trends and Economics

ORGANISATIONAL MOBILITY PLAN

- Encourages the sustainable travel to the office of the staff, chiefly in favour of more active modes;
 - ✓ Bicycle group & facilities;
 - ✓ Smart' monitoring tool; and
 - ✓ 'Ride-sharing platform
 - × renting out REC's vehicle fleet
 - × parking management
 - × REC shuttle to Budapest (but ✓ as HÉV/Volánbusz 'feeder')
- REC IT Innovation!
- Sustainability in practice!
- Scoring diverse interest

About REC



- Helps “solve environmental problems in the region”
- 20km north of Budapest, in a ‘bedroom community’ of 20,000
- 80 staff who often travel, have flexible working hours & enjoy free parking. Its Budapest-based 50% are travel ‘subsidised’

Morgan Stanley



REGIONAL ENVIRONMENTAL CENTER

www.rec.org




BICYCLE GROUP & FACILITIES

- Establish a focus point for storage, repairs, information
- Improve the shower & drying facilities
- Also make storage simpler for visitors (signage, security)



SMART MONITORING TOOL

- Software-based app., scripted by REC's IT dept
- Surveys daily commuting patterns
- User-based pop-up
- Can be completed any time
- Remotely accessible
- Benzene/HUF saved; CO₂ emitted/saved; calories burnt pop-up
- Share 

Transport Monitoring Tool 1/2

Hello, how did you get to work today?

- On foot
- By bike
- By Motorbike/moped
- With public transport
- Your car (without REC passengers)
- Your car (with REC passengers)
- Someone else's car (as passenger)
- HEV-REC shuttle
- Telecommuting (you worked from home)
- Multiple modes (i.e. more than one) - in percentage

On foot

By bike

By Motorbike/moped

With public transport

Your car (without REC passengers)

Your car (with REC passengers)

Someone else's car (as passenger)

HEV-REC shuttle

Telecommuting (you worked from home)

Multiple modes (i.e. more than one) - in percentage

Transport Monitoring Tool

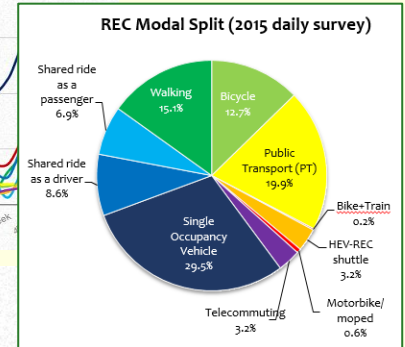
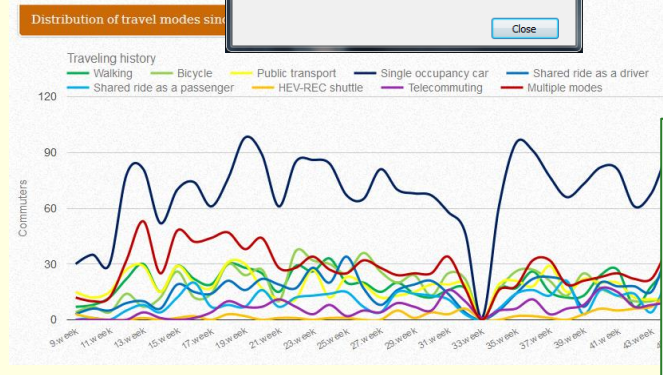
Congratulations!

Compared with driving your car alone to work today, you've saved:

0.42 Kg CO₂
0.21 Litres benzene
70.41 HUF
and also burnt 62 KCalories.

[Log in](#) to check your annual performance and share today's

Close



REC staff's financial, environmental and health performance since 01.01.2015

Period	Benzene saved in Litre*	Benzene saved in HUF	CO ₂ emitted in Kg	CO ₂ saved in Kg*	Calories burned
April, 2015	1,197.02	427,337	2,252.80	1,988.32	
May, 2015	1,213.73	446,654	2,598.72	1,924.19	
June, 2015	1,263.73	484,008	3,034.26	1,891.97	
July, 2015	1,189.80	459,262	2,828.07	1,570.91	
August, 2015	909.29	354,622	1,456.77	1,291.17	
September, 2015	1,225.51	469,369	3,160.69	1,705.72	
Total	7,616.84	2,835,299	16,620.73	11,863.01	



RIDE-SHARING PLATFORM

- Match-making for riders and drivers
- Virtual board facilitating ride-sharing
- Easy to use online booking system + map-linked destinations
- Small income source for drivers
- Homeward-bound route only



RIDE-SHARING

The following colleagues came by car today. Please check the remarks field for any fee-based, route-related, or departure time-specific conditions and then book a seat in their car by clicking on a green polygon (see tips below).

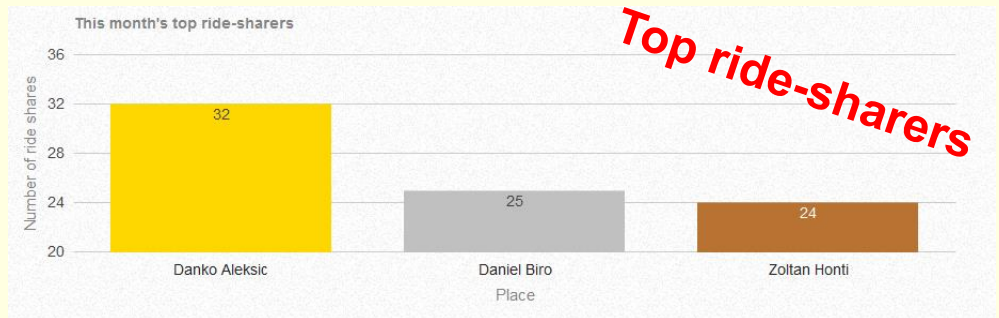
DRIVER NAME	ULTIMATE DESTINATION	SEAT AVAILABILITY	REMARKS
Csaba Mezei	Csillaghegy	■ ■ ■ ■	
Danko Aleksic	Kodaly Korond (District VI)	■ ■ ■ ■	
Daniel Biro	Lipotvaros (District V)	■ ■ ■ ■	
Eva Dunszt	Sztaravoda / Pismány (Szentendre)	■ ■ ■ ■	
Erika Varga		■ ■ ■ ■	
Jozsef Feiler	Isaszeg (south of Godollo)	■ ■ ■ ■	
Jovanka Ignjatovic	Oktogon (District VI)	■ ■ ■ ■	
Maria Magdolna Angyal	Pismány (above Szentendre-Skanzen)	■ ■ ■ ■	
Mozes Kiss		■ ■ ■ ■	
Szilvia		■ ■ ■ ■	
Peter		■ ■ ■ ■	Rides are offered in between occasional family shopping. Swift arrival at the final destination is not a daily guarantee! Check the remarks field for today's diversions.
Cyogy Puppen	Pismány (Szentendre)	■ ■ ■ ■	
Zoltan Honti	Krisztinaváros (Castle / District I)	■ ■ ■ ■	

Journey Cost Calculator*

kilometers

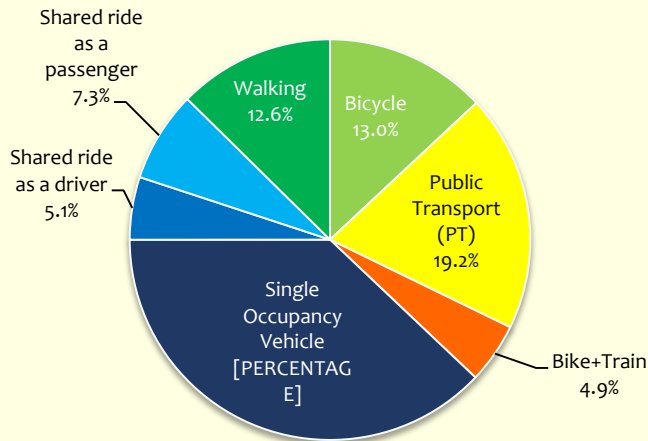
then be received by the driver. Until your request is accepted, the seat remains orange. It will then turn
 any fee-based, route-related, or departure time-specific conditions today (or for tomorrow morning!)

1600hrs reminder email for those who don't walk, bike, drive, telecommute

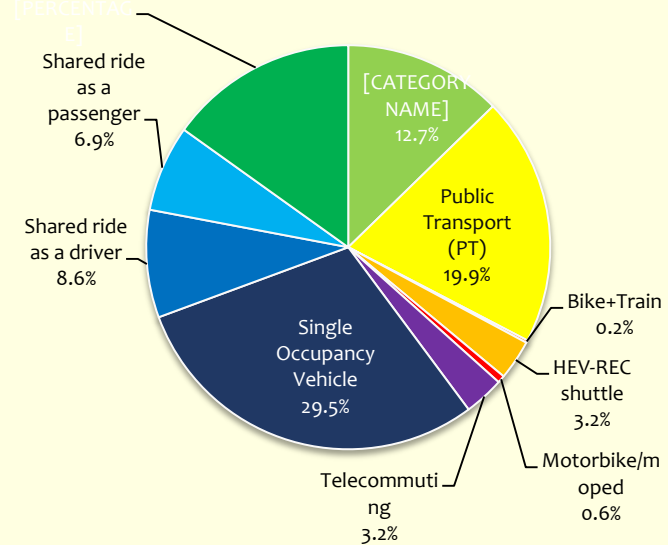


Impacts

REC Modal Split (2014 snapshot)



REC Modal Split (2015 daily survey)



- Single occupancy vehicle use has fallen over 8%; More drivers are ride-sharing (in 2015, 1380 ride-shares occurred, with the three leading drivers contributing 537 rides) .
- Overall car use has fallen cca. 5%; a marginal shift towards more sustainable transport modes (walking and public transport, +3.2%).
- REC’s ride-sharing community has grown (+3.2%); marginal loss of ride-sharing passengers (probably down to reporting multi-modal journeys)
- Bike use has fallen 0.3% or 5% incl. Bike+Train (due to new modes)?



Results

REC staff's financial, environmental and health performance since 01.01.2015

3.REC Environment Health Financial Report 2015

Period	Benzene saved in Litre*	Benzene saved in HUF	CO ₂ emitted in Kg	CO ₂ saved in Kg*	Calories burned
January, 2015	96.76	36.673	262.78	188.46	47.896.81
February, 2015	280.21	96.391	571.05	557.16	122.367.54
March, 2015	582.72	194.047	1.198.60	1.072.12	130.550.36
April, 2015	1.197.02	427.337	2.252.80	2.261.45	217.572.45
May, 2015	1.213.73	446.654	2.598.72	2.337.29	199.594.51
June, 2015	1.263.73	484.008	3.034.26	2.455.47	219.013.15
July, 2015	1.189.80	459.262	2.828.07	2.282.79	186.984.39
August, 2015	909.29	354.622	1.456.77	1.722.36	151.215.35
September, 2015	1.224.62	469.030	3.156.38	2.367.70	171.954.39
October, 2015	1.076.42	386.435	2.774.71	2.133.44	139.650.62
November, 2015	1.103.65	378.552	2.981.12	2.198.57	137.970.34
December, 2015	911.20	302.518	2.183.75	1.853.28	117.446.72
January, 2016	1.094.78	371.129	2.774.93	2.274.77	140.403.86
February, 2016	816.74	267.892	2.065.86	1.755.18	79.483.31
Total	12,584.72	4,541,486	29,302.50	25,460.05	1,891,840.34

*Compared with universal single occupancy vehicle use
 **Personal data today concerns only journey TO the office

- Ride-sharing has translated into a reduction in car use from 34.5 to 30.5 vehicles, whose knock-on effect is reduction of congestion in host town, Szentendre (as well as in Budapest where half of our employees begin their journey) and a marginal improvement to air quality.
- In 2015, REC saved 21,430.10 Kg of CO₂ emissions and Eur 12,773, while staff pursuing more active or multiple modes of travel burnt 1,842,217.44 calories.



NEXT STEPS

- Workplace travel planning is still a relatively novel concept but already EC policy encourages it while a 2011 Hungarian decree recognises that the adoption of a workplace travel plan can improve energy efficiency by 5-10% and improve air quality through reducing NOx emissions.
- REC's smart monitoring tool has received a great deal of interest from the likes of Toyota, Morgan Stanley, the Hungarian Ministry of Foreign Affairs, Szeged (city and university
- Develop the toolkit (which is currently set up for in-house use only) and ready it for offsite third party use. That involves addressing various challenges (personal data privacy, mobile app development, secure data sharing etc.)



OPEN CALL FOR ASSISTANCE (*deadline Sept. 9*)



The screenshot shows the website for the Regional Environmental Center (REC). The header includes the REC logo, navigation links (Home, About, Our work, Networks, Publications, Contacts), and social media icons. The main content area features a search bar and three circular images. Below the header, there are links for News, Events, and Working for us. The main heading reads: "Sustainable Commuting Initiative / Transport Monitoring Tool Development: IT developers / philanthropists / strategic partners". Below this, it specifies the position number (2016/8a) and the application deadline (September 09, 2016). The "General scope of the call" section states that the REC is inviting expressions of interest for an exciting development project launching in autumn 2016. It lists three categories of interested parties: IT application developers, philanthropists, and strategic partners. A "Background" section explains that the REC has been developing and piloting a tool (<https://tmt.rec.org>) to monitor and help reduce CO2 and pollutant emissions and improve energy efficiency. On the right side of the page, there are sections for "OPEN POSITIONS" and "CALLS AND TENDERS" with corresponding images.

Position number: 2016/8a
Application deadline: September 09, 2016

General scope of the call
The REC is inviting expressions of interest in relation to an exciting development project that it wishes to launch in autumn 2016 from:

- IT application developers (with funded scholarships) to spend up to 15 months interning at the REC;
- philanthropists ready to finance the above intern's development project (detailed below); or
- strategic partners ready to realise the foreseen development work together with the REC.

This assignment will offer interns an opportunity to gain an insight into the activities of an influential international organisation.

Background
Since late 2014, the REC has been developing and piloting on site a tool (<https://tmt.rec.org>) to monitor and help reduce CO2 and pollutant emissions and improve the energy efficiency of its employees' commuting. The data it gathers (including fuel costs, savings and calories burned) feed into a daily ride sharing platform and a website that also offers other information on public transport

OPEN POSITIONS

CALLS AND TENDERS

- Development and subsequent piloting at REC from late 2016 and throughout 2017, in order to..
- encourage its uptake at third parties, with our experts supporting its technical set up, use and management off site.



Thank you!

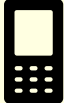
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