



***Recent and future developments of DKV  
the local public transport company of Debrecen***

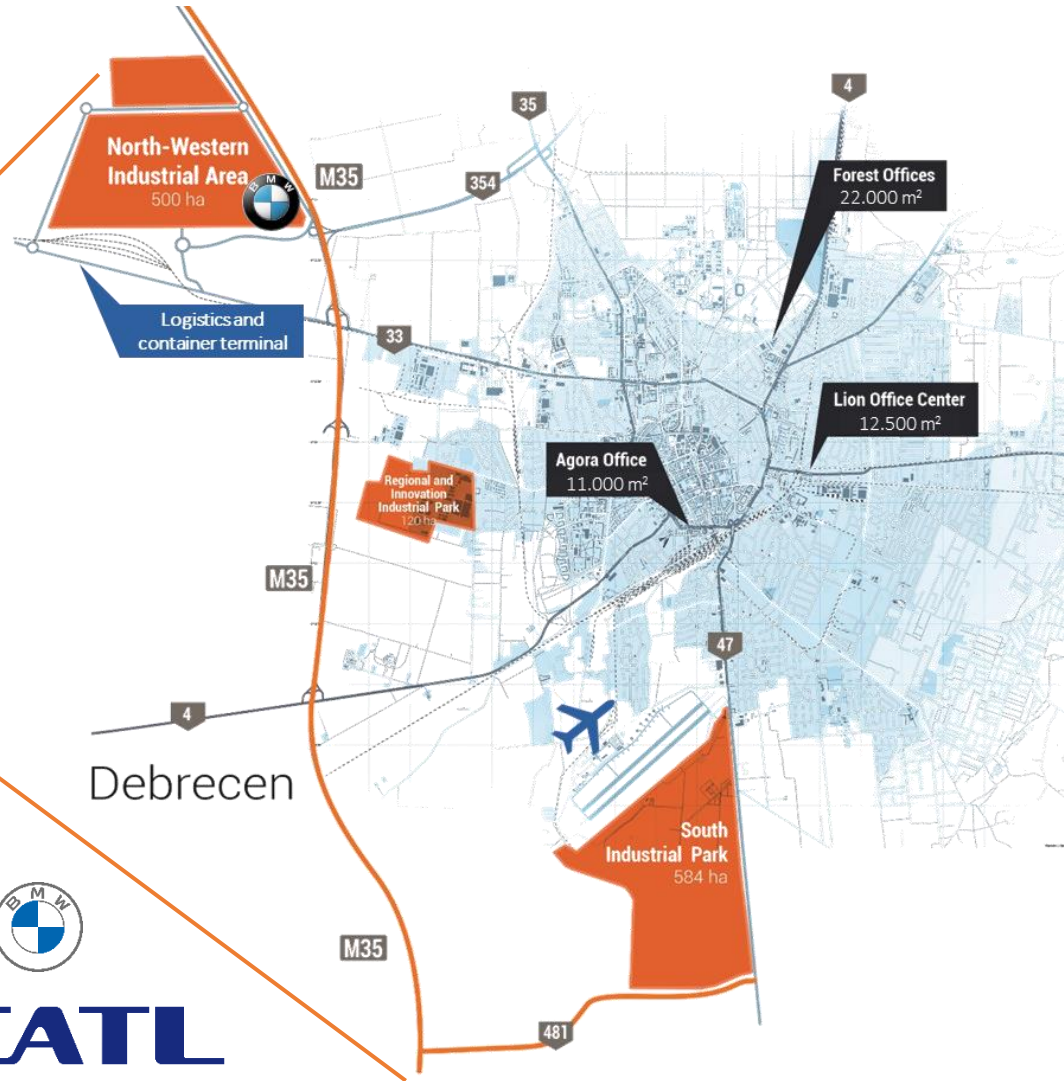
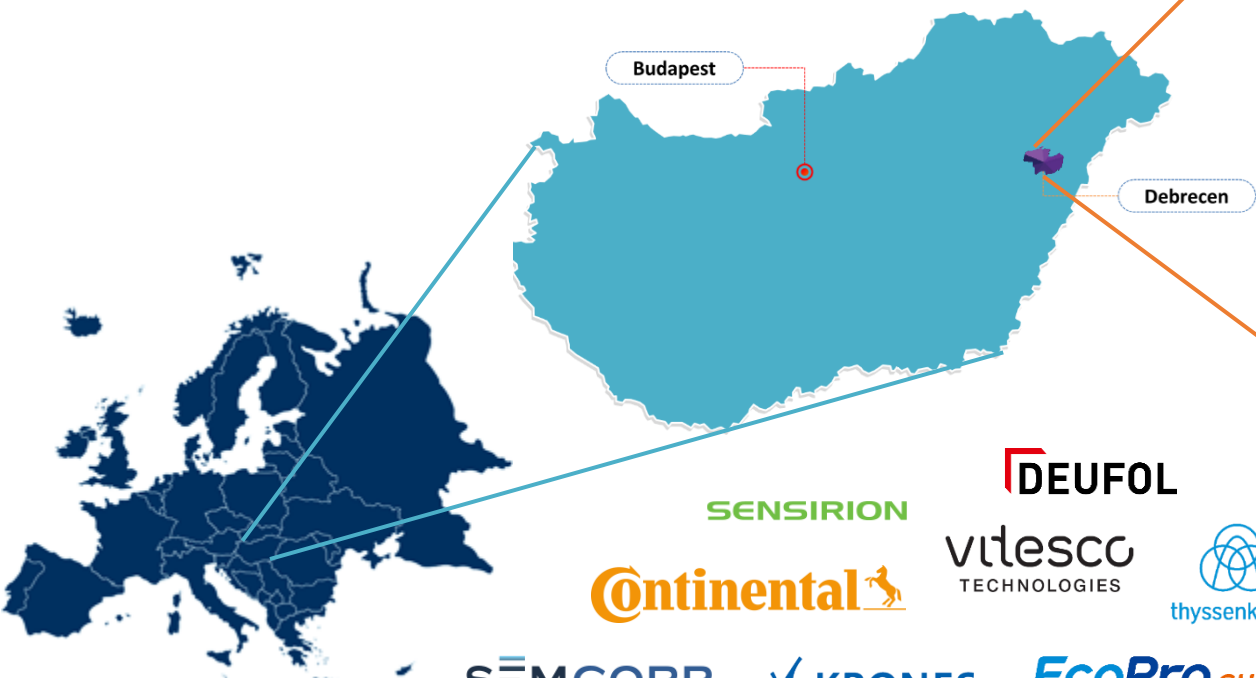
*László Mátyus  
Director of Innovation and service development, DKV Debrecen  
Debrecen, 24<sup>th</sup> of October, 2023*



# Short introduction of Debrecen

Debrecen, Hungary's 2<sup>nd</sup> largest city

Population: 200.000





*Short introduction of DKV Zrt.*



*DKV Zrt., as legal successor has been serving the citizens of Debrecen for almost 140 years (2<sup>nd</sup> of October, 1884)*





Public service contract : 31<sup>st</sup> of December, 2036

2 tram lines, 4 trolleybus lines

- 17,8 km tram tracks
- 63,34 km overhead line network
- 5.000 m<sup>2</sup> remise, 3.000 m<sup>2</sup> workshop,  
1.600 m<sup>2</sup> trolley repair shop
- 31 trams
- 26 trolleybuses
- 111 thousand tram trips / year
- 142 thousand trolleybus trips / year
- 886 thousand kms ran with trams per / year
- 824 thousand kms ran with trolleybuses / year





## Short introduction of DKV Zrt.

Public service contract: 30<sup>th</sup> of June, 2031.

- 67 lines
- 119 rented diesel buses (69 solo, 50 articulated)
- 4 diesel buses (midi and extra urban)
- 12 electric buses (from 1<sup>st</sup> of September, 2022)
  
- 710 thousand trips / year
- 7.345 thousand kms/ year







## *E-buses of DKV Zrt.*

- 12 Mercedes eCitaro solo buses
- 12+1+1 charging points at 3 locations
- Capacity of charging 18+ buses overnight
- ~315km range
- 1,45 kWh/km
- 450.000-600.000 kms / year





- E-ticket with online purchasing possibility (cashless, paperless)
- Free Wi-Fi on all vehicles
- 3 smart bus stops



**ELEKTRONIKUS ÉRTÉKSZELVÉNY VÁSÁRLÁS**

BÉRLET	KEDVEZMÉNYES BÉRLET	NAPIJEGY	MOBIJEGY
<p>Havi 8350 Ft</p>	<p>Havi 4800 Ft</p>	<p>Havi 4800 Ft</p>	<p>1 1500 Ft</p>
<p>Hóközi 8350 Ft</p>	<p>Hóközi 4800 Ft</p>	<p>Hóközi 4800 Ft</p>	<p>3 3200 Ft</p>
<p>Éves 89000 Ft</p>	<p>Negyedéves 14400 Ft</p>	<p>Negyedéves 14400 Ft</p>	<p>7 4000 Ft</p>
	<p>Havi 4790 Ft</p>		<p>Hóközi 4790 Ft</p>

Additional features: QR code, 60 min timer, and a QR code for mobile tickets.





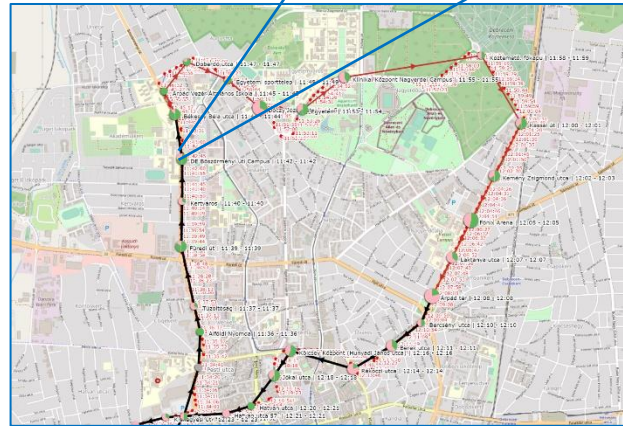


# Recent developments

- Onboard camera based automatic passenger counting systems on 43 buses

Buszmegálló DE Bószörményi úti Campus

Felszállás 17  
Leszállás 6  
Utasok gyakorisága 23  
Érkezés 11:42:11  
Tartózkodás 0:21  
Indulás 11:42:32  
Menetrend 11:40  
Időkülönbség 2:32



Utazás részletei

Utazás napja: 2023. 03. 28. (kedő)  
Vonal: 022  
Út: 112500 (Busz)

Jármű (típus): AAHQ708 (Busz)  
Típus specifikáció: Mercedes Connecto 3 ajtós

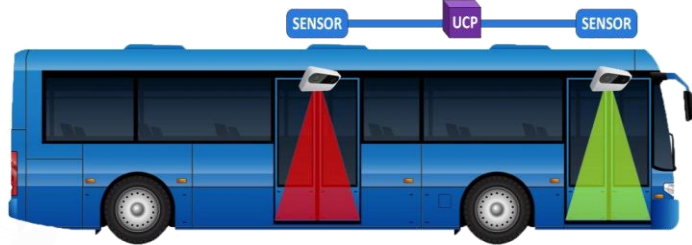
Kapacitások: 50 / 101 (♿ 0, ♿ 1)  
Adat típusa: APC

Shallítási statisztikák | Diagramok | Térkép | Kiegészítők | Elsődleges

Exportálás XLSX formátumban | Szűrő beállítása

Buszmegálló	Táv. tarf.	Érkezés	Tartózkodás	Indulás	TT	ATT	Felszáll	Utasok gyak.	Leszáll.	Elfogl.	Utazási minőség	Kihasztnáltsági ráta
Vincellér utca	11:24:44	0:14	11:24:58	11:25	-0:02		4	4	0	4	80%	40%
Tócsókert tér	11:25:58	0:12	11:26:10	11:26	0:10		5	5	0	9	160%	89%
István út	11:28:11	0:16	11:28:27	11:28	0:27		8	8	0	17	340%	168%
Tózsér utca	11:29:36	0:12	11:29:48	11:29	0:48		7	7	0	24	480%	238%
Érdes Lajos utca	11:30:37	0:15	11:30:52	11:30	0:52		2	3	1	25	500%	248%
Kishegyesi út	11:32:38	0:18	11:32:56	11:31	1:56		3	6	3	25	500%	248%
Pesti utca	11:33:00		11:33					0		25	500%	248%
Árftóci Nyomda	11:36:08	0:16	11:36:24	11:35	1:24		1	1	0	26	520%	257%
Tűzoltóság	11:37:24	0:14	11:37:38	11:36	1:38		1	3	2	25	500%	248%
Füredi út	11:39:10	0:18	11:39:28	11:37	2:28		11	13	2	34	680%	337%
Kertváros	11:40:22	0:13	11:40:35	11:38	2:35		2	6	4	32	640%	317%
DE Bószörményi úti Campus	11:42:11	0:21	11:42:32	11:40	2:32		17	23	6	43	860%	426%
Dékessy Béla utca	11:44:37	0:22	11:44:59	11:42	2:59		13	15	2	54	1080%	535%
	11:49:23	0:19	11:49:42	11:46	3:42		5	7	2	70	1400%	693%

Ut	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000
Ut	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000
Ut	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000



**Elsődleges adat**  
BE: 98, KI: 90

4:56	00:25	3	3	0	3	5%
4:58	00:33	3	3	0	6	9%
4:59	00:40	4	4	0	10	14%
5:01	00:59	12	2	0	22	31%
5:03	00:19	20	27	2	40	56%
5:04	00:56	4	4	0	44	62%
5:06	01:30	17	18	1	60	84%
5:07	00:00	8	8	0	68	95%
5:09	00:14	2	7	5	65	90%
5:11	00:48	7	16	3	69	96%
5:13	01:03	6	12	6	69	96%
5:14	01:14	2	3	1	70	96%
5:16	00:58	6	17	11	65	91%
5:19	00:22	3	17	14	54	75%
5:21	0	0	0	0	54	75%
5:22	00:30	0	24	24	30	42%
5:24	00:16	0	1	1	29	41%
5:26	00:54	1	17	16	14	20%
5:27	00:41	0	6	6	8	9%

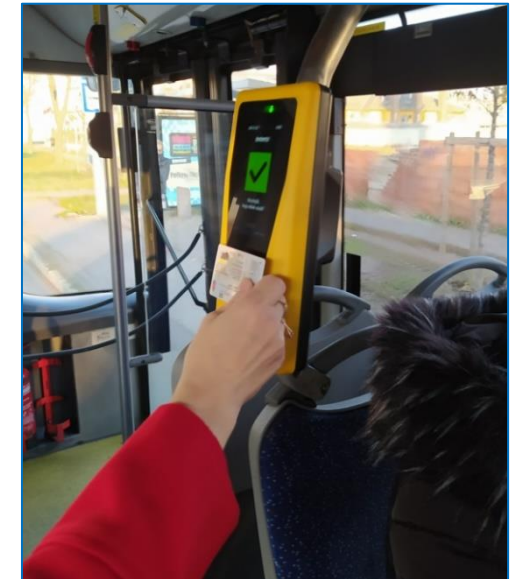
**Kiegészítők**  
BE: 94, KI: 94

4:56	00:25	3	3	0	3	5%
4:58	00:33	3	3	0	6	9%
4:59	00:40	4	4	0	10	14%
5:01	00:59	12	2	0	21	28%
5:03	00:19	19	21	2	38	51%
5:04	00:56	4	4	0	42	56%
5:06	01:30	15	17	1	57	76%
5:07	00:00	7	7	0	64	85%
5:09	00:14	2	7	5	61	80%
5:11	00:48	7	16	3	65	86%
5:13	01:03	6	12	6	65	86%
5:14	01:14	2	3	1	66	88%
5:16	00:58	6	17	11	66	88%
5:19	00:22	3	19	14	48	64%
5:21	0	0	0	0	48	64%
5:22	00:30	0	28	28	23	30%
5:24	00:16	0	1	1	22	31%
5:26	00:54	1	18	17	6	8%
5:27	00:41	0	6	6	6	8%



## Recent developments

- Mobile ticketing since 2021 (single trip, hourly ticket)
- Ticket validation
  - Testing onboard units for all paper and digital tickets
  - Bluetooth beacon
- Awareness raising campaigns

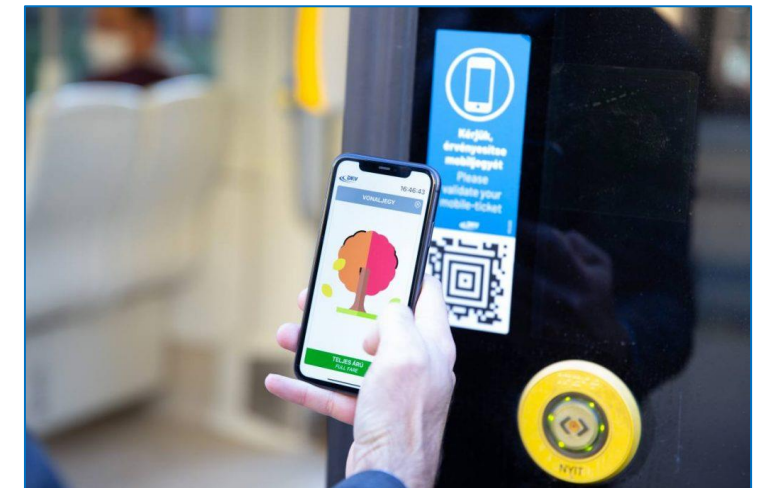


RMD-051



Kérjük,  
érvényesítse  
mobiljegyét

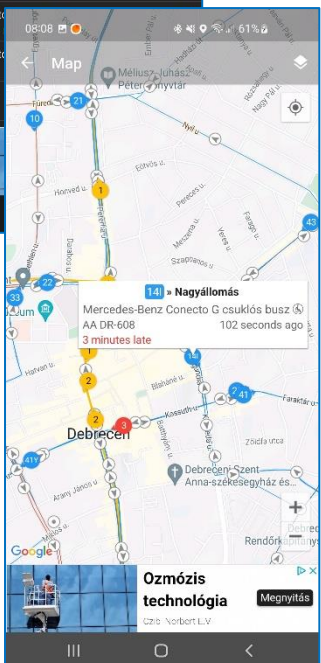
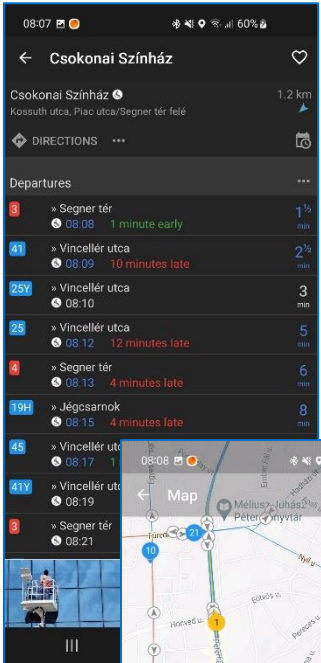
Please  
validate your  
mobile-ticket





# Recent developments

# GTFS-RT



**menetrend.app**

18 cities in one app: Budapest, Debrecen, Szeged, Miskolc, Pécs, Nyíregyháza, Kecskemét, Dunaújváros, Kaposvár and others...

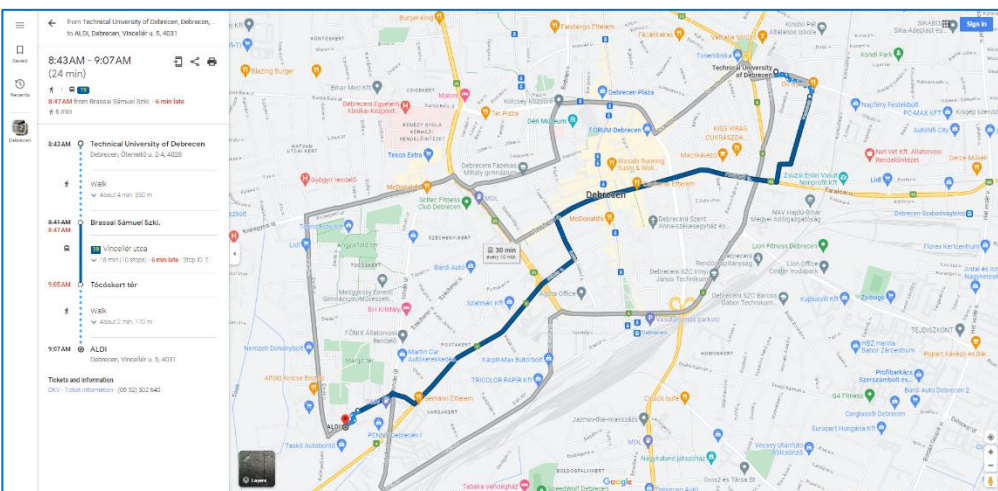
**Four languages**

**Real-time data**

Follow vehicles on a map or plan your journey with real-time information, where available (currently in Budapest).

**No WiFi? No Problem!**

Almost all of our features work offline, including the journey planner.

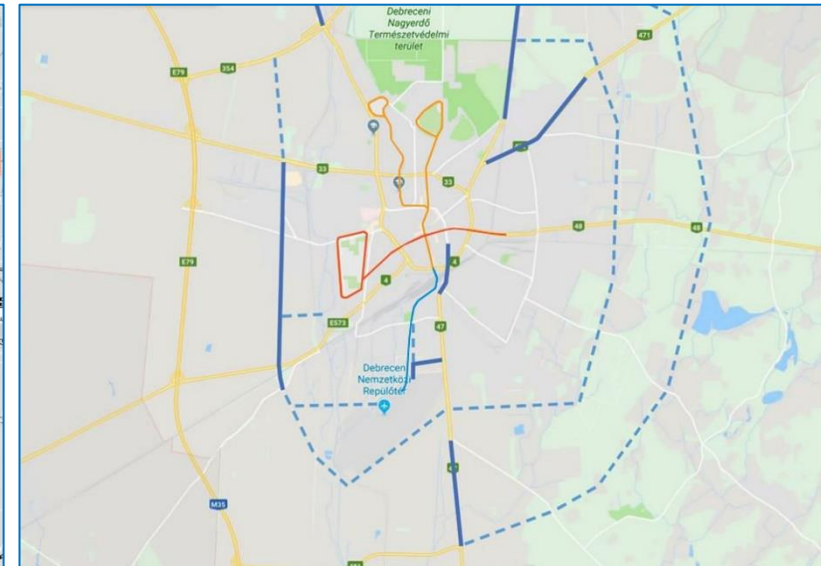
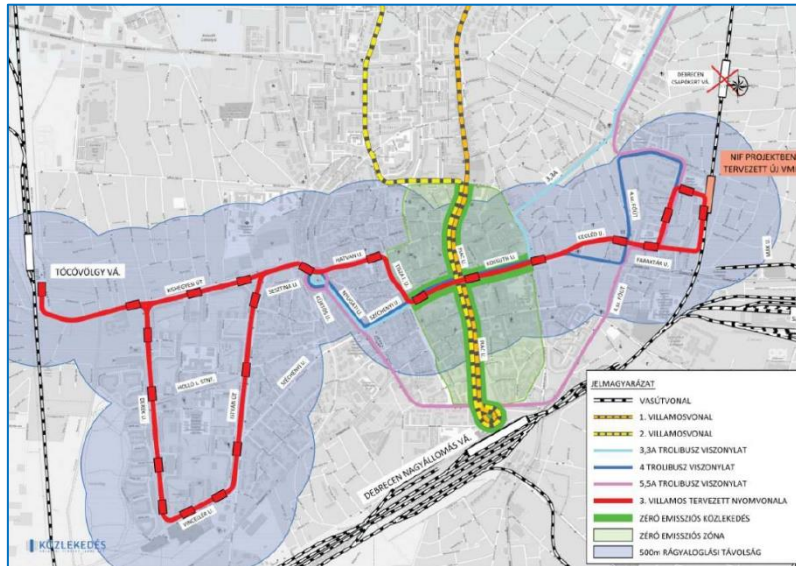
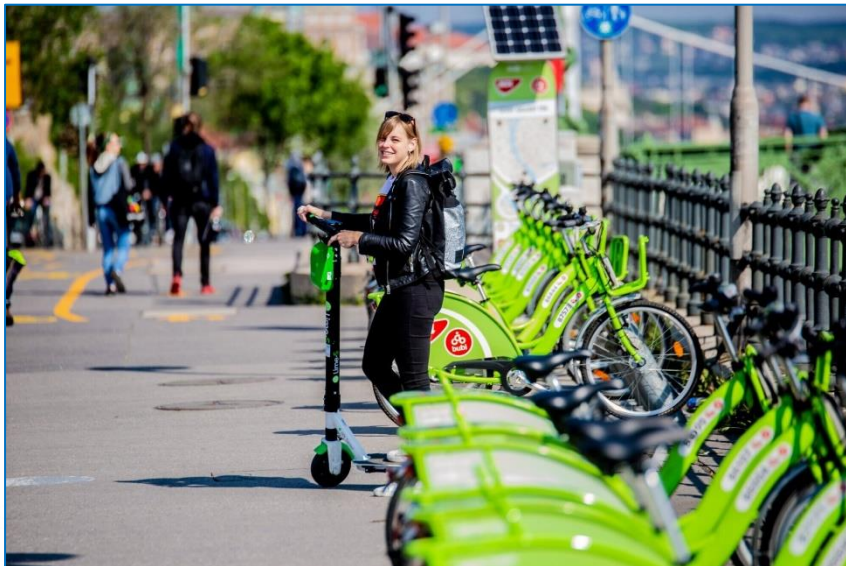


Ozmózis technológia  
© 2019



# Planned developments

- Reconstruction of tramline 1
- New tramline 3 and 4
- Micromobility





*Thank you for  
your attention!*



**László MÁTYUS**

Director of innovation and service development

matyus.laszlo@dkv.hu

+36 20 911 5070