

Using Ecosystem Feedback to Improve Product Adoption

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Executive Advisor, Radical Innovation, Ruter As





Christian Willoch

354 friends



This is not a friend

This is not a car





This is not
food delivery

This is not
public
transportation





Over **40 %** of Norway's population live their lives in the Oslo region.

55 % percent of Norway's public transport trips are carried out by Ruter.

An aerial night view of a busy city street. A blue tram is moving along a dedicated track in the center. To its right, a red bus is also moving. The street is filled with pedestrians, cars, and city lights. Buildings in the background are lit up, and there are signs for 'ES ON', 'Sportes', and 'vituspotek'. A large white text overlay reads «Sustainable Freedom of Movement for All». A red text overlay reads 'Ruter #'.

«Sustainable Freedom of Movement for All»

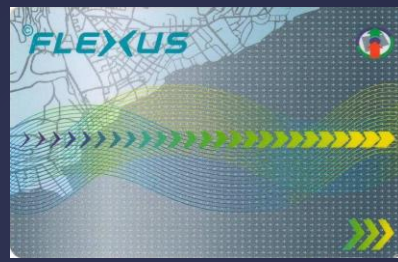
Ruter #



27th September
1825



Paper



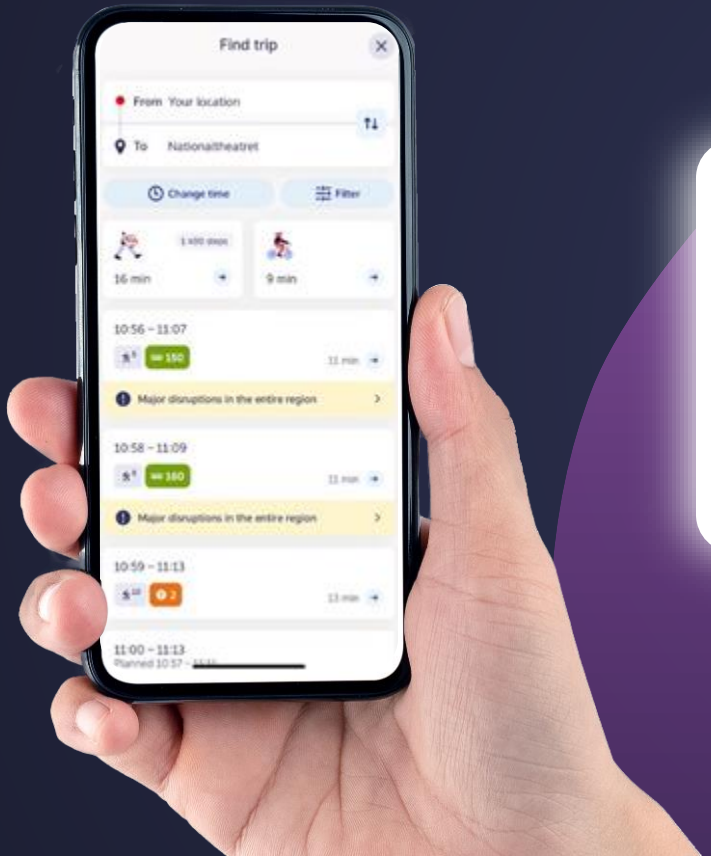
NFC 2005



Smartphone 2012







1490 steps



16 min



9 min



From a Legacy of Several Proprietary Systems To a Datacentric Solution Based On Standards

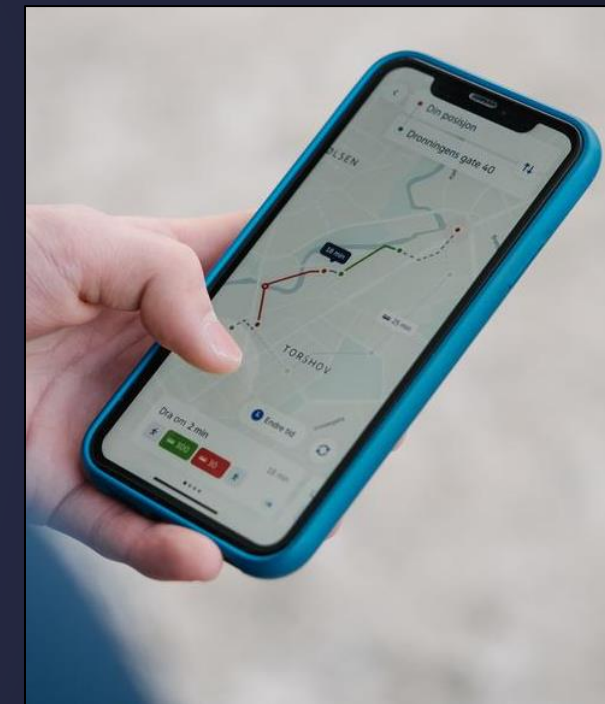


The front facing the customer has been digitized and changed.. but the underlying information is based on historical methods

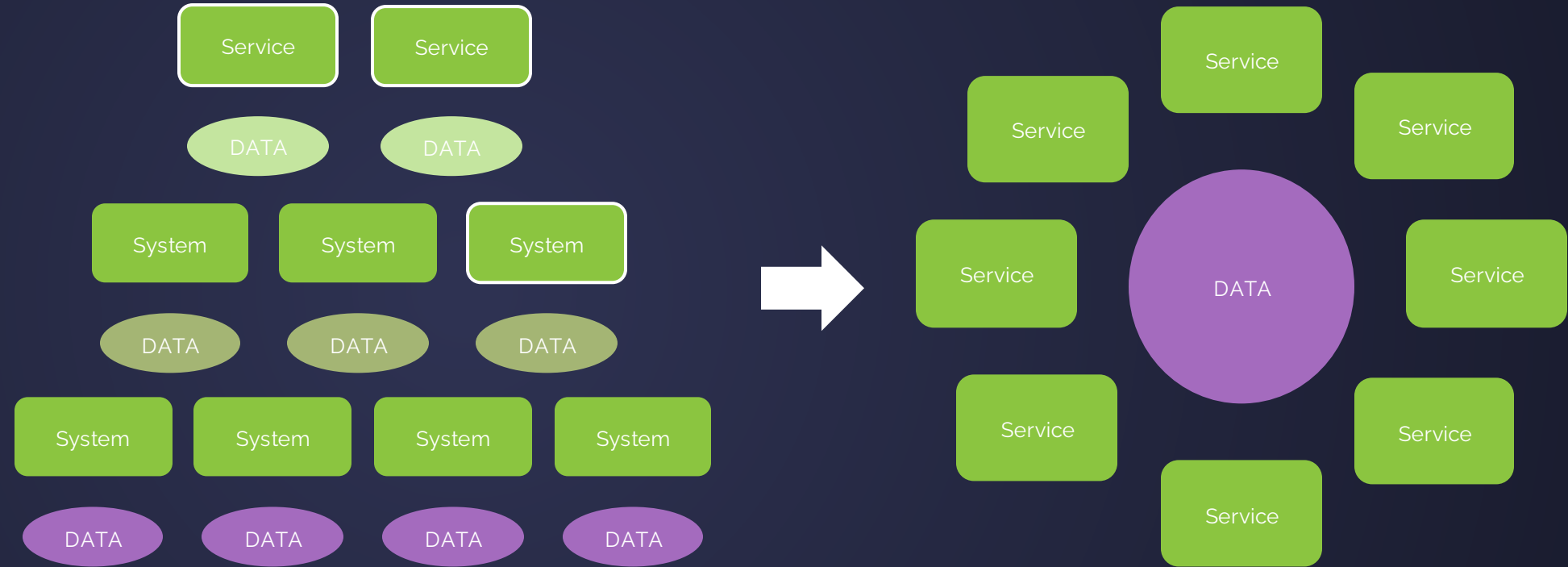
110 Oslo bussterminal - Lillestrøm
 Gyldig fra: 30.06.2019

Mandag - fredag Monday - Friday

	Oslo bussterminal	Galgebærg	Hølsfyr T	Ulvenkysset	Fokvognveien	Visperud	Rosta senter	Vollerudveien	Triøden	Finstadlia	Lørskog kirke	Ahus	Stasjonsveien	Sagdeolen	Lillestrøm bussterr
Første first	0538	0543	0547	0549	0556	0559	0602	0604	0605	0608	0611	0616	0621	0624	0628
	0553	0558	0602	0604	0611	0614	0617	0619	0620	0623	0626	0631	0636	0639	0643
	0608	0613	0617	0619	0626	0629	0632	0634	0635	0638	0641	0646	0651	0654	0658
	0623	0628	0632	0634	0641	0644	0647	0649	0650	0653	0656	0701	0706	0709	0713
Fra from	0635	0640	0644	0646	0653	0656	0659	0701	0702	0705	0708	0713	0718	0721	0725
Hvert every	45	50	54	56	03	06	09	11	12	15	18	23	28	31	35
10 min	55	00	04	06	13	16	19	21	22	25	28	33	38	41	45
	05	10	14	16	23	26	29	31	32	35	38	43	48	51	55
	15	20	24	26	33	36	39	41	42	45	48	53	58	01	05
	25	30	34	36	43	46	49	51	52	55	58	03	08	11	15
	35	40	44	46	53	56	59	01	02	05	08	13	18	21	25
Til to	1955	2000	2004	2006	2013	2016	2019	2021	2022	2025	2028	2033	2038	2041	2045
Fra from	2008	2013	2017	2019	2026	2029	2032	2034	2035	2038	2041	2046	2051	2054	2058
Hvert every	23	28	32	34	41	44	47	49	50	53	56	01	06	09	13
15 min	38	43	47	49	56	59	02	04	05	08	11	16	21	24	28
	53	58	02	04	11	14	17	19	20	23	26	31	36	39	43
	08	13	17	19	26	29	32	34	35	38	41	46	51	54	58
Til to	0038	0043	0047	0049	0056	0059	0102	0104	0105	0108	0111	0116	0121	0124	0128
Siste last	0053	0058	0102	0104	0111	0114	0117	0119	0120	0123	0126	0131	0136	0139	0143



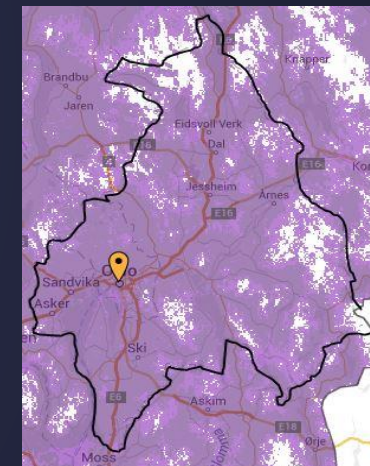
Transition From a SYSTEM Centric Architecture to DATA Centric Architecture

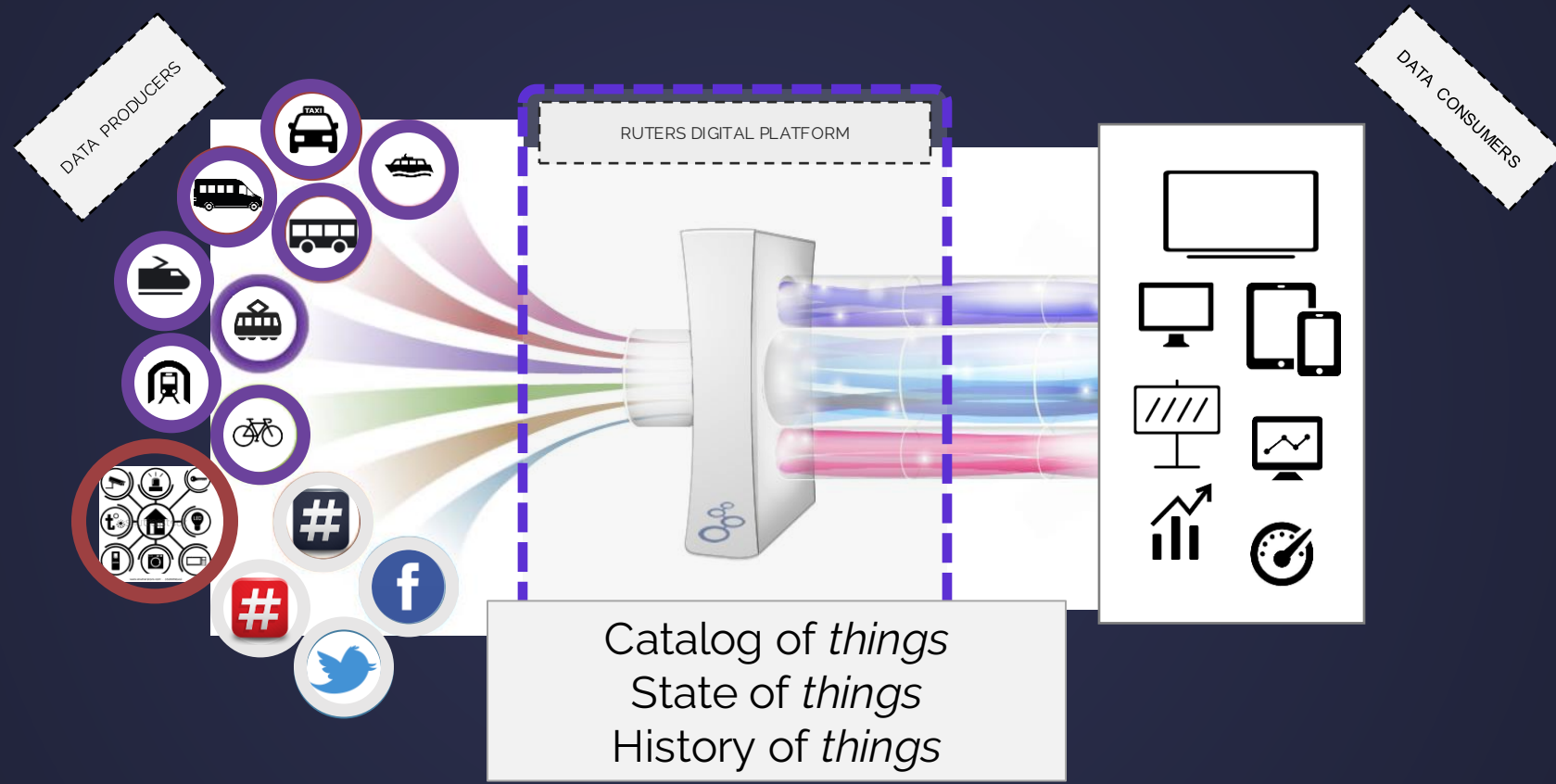


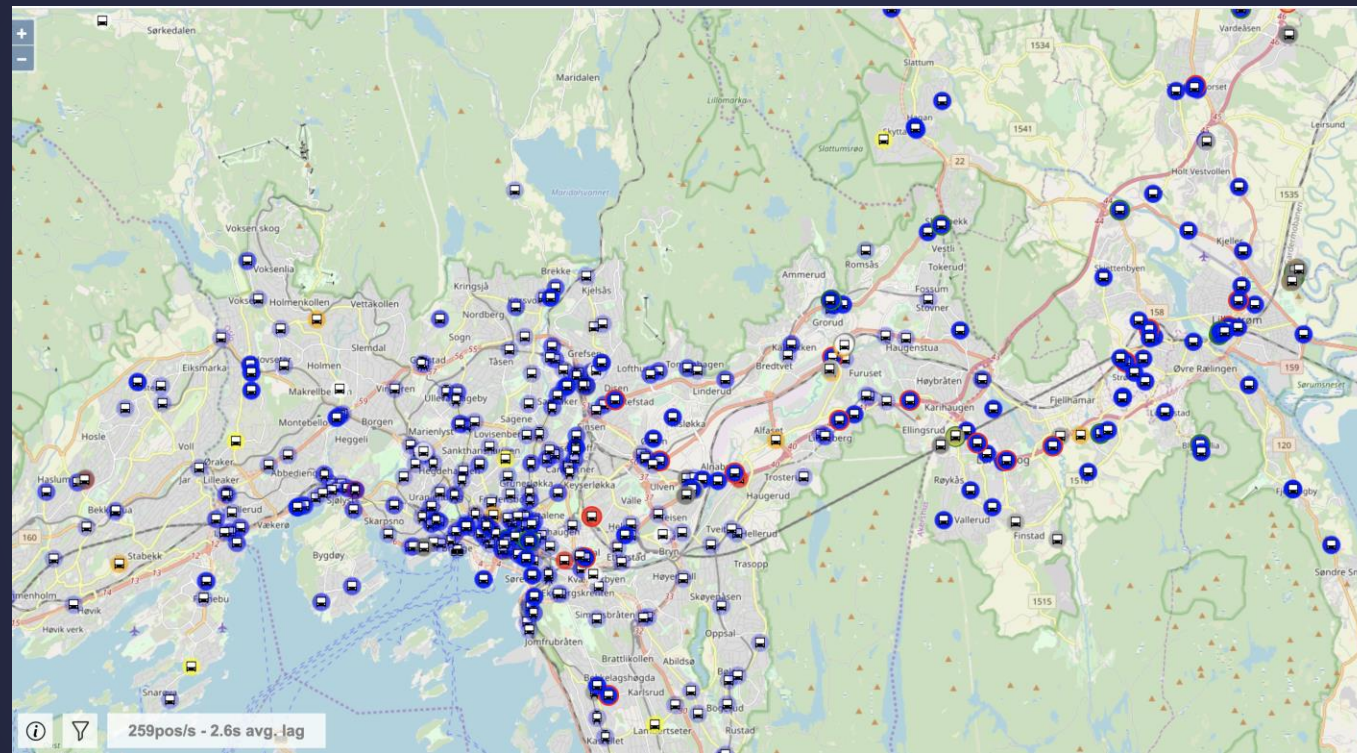
Our Customers Are
Already On-line..

.. And We Have
Network Coverage

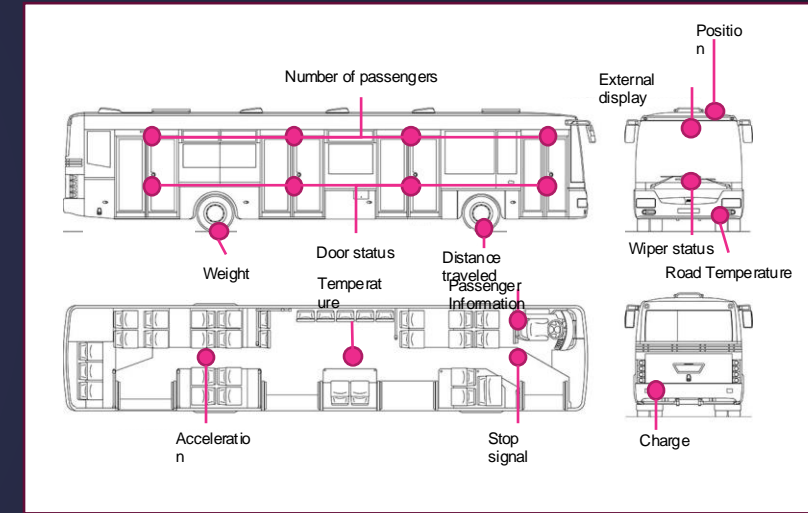
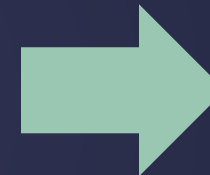
>96 % of the
population have a
smartphone (even
higher numbers
for our
customers)







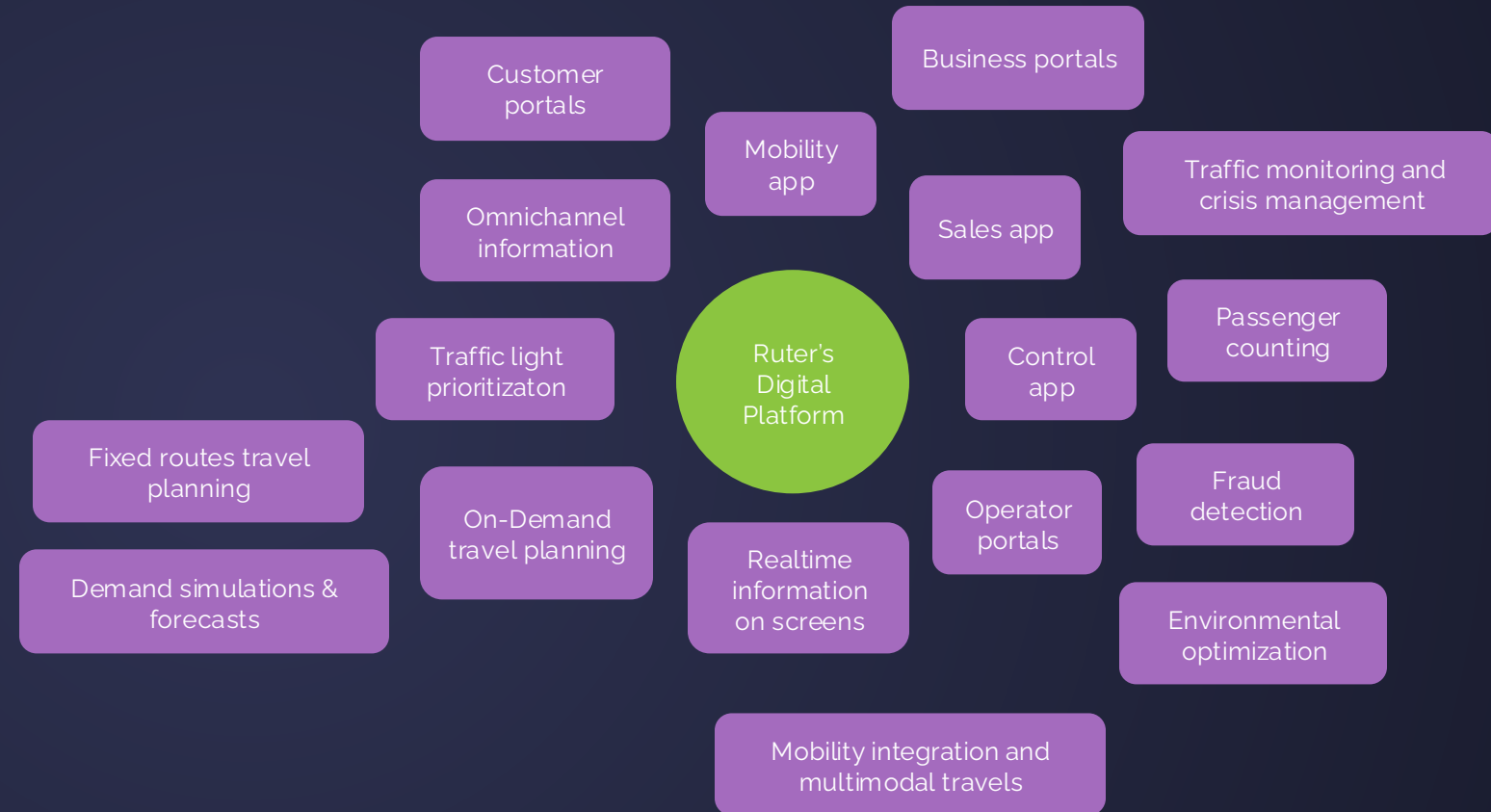
The Digital Twin (Of a «Thing»)



Other Twins...



An Ecosystem for Capturing Feedback, Continuous Delivery and Ensuring Product Adoption






37 Nydalen T 15:22

5 min ↑ Nordahl Bruns gate
33

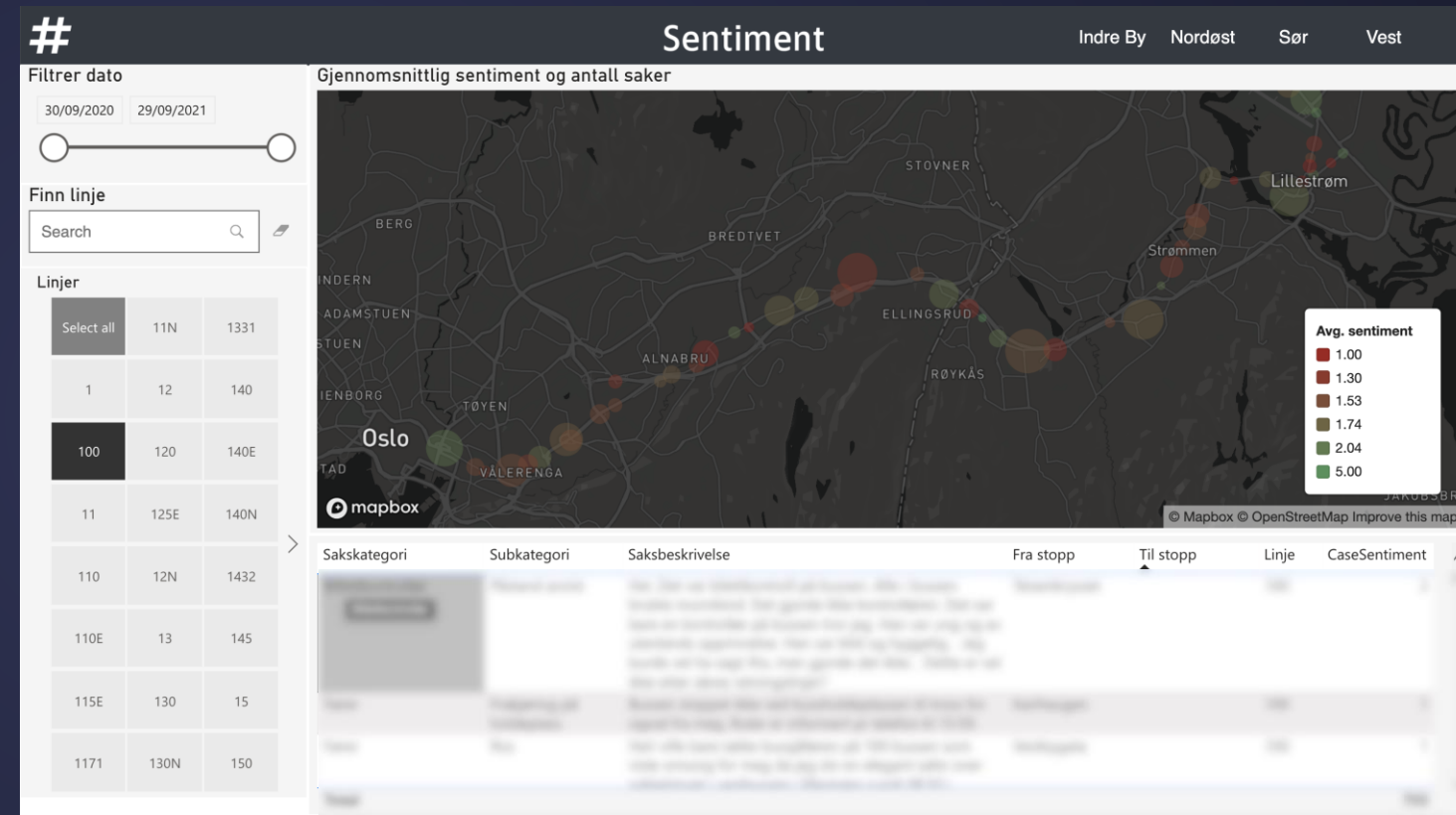
4 min ↑ Keyzers gate

2 min ● Hammersborggata
150 160 250(E) 255E

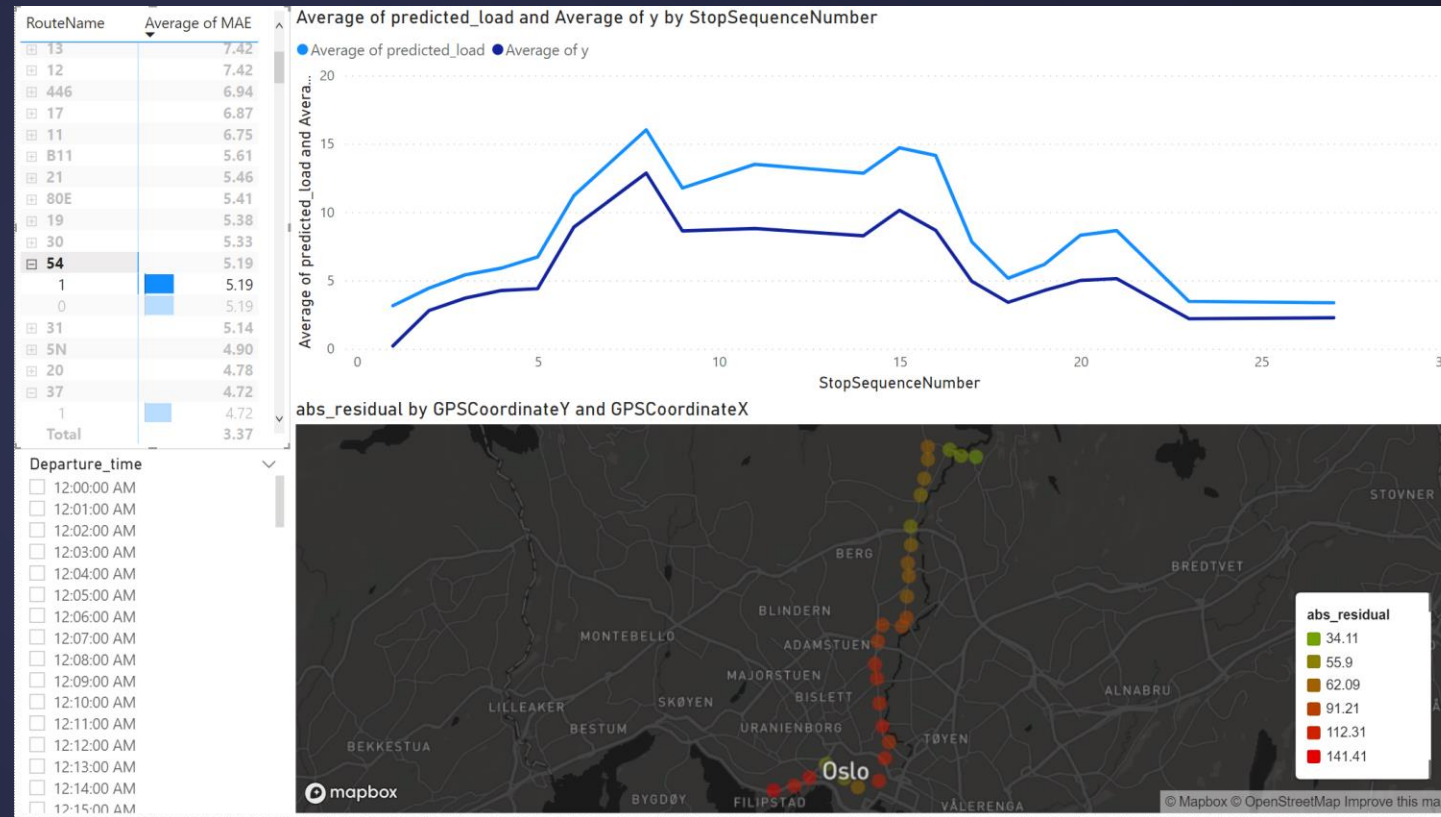
There are 34 e-scooters and 21 city bikes at Hammersborggata



How Mad Are Our Customer At Us – And Where?



Capacity Prediction



Capacity Predictions

The image displays two screenshots from a mobile application, likely for public transport, showing capacity predictions and a feedback mechanism.

Left Screenshot: Departure - Capacity

Map showing the route from Bishop Heuch's gate to Tjuvholmen. The route is marked with red dots and a red line. The stops are:

- 08:55 Sofies plass
- 08:56 Bislett
- 09:08 Homansbyen
- 09:10 Uranienborgveien (highlighted with a red dot and a red line) - Vanligvis god plass >
- 09:11 Riddervolds plass
- 09:13 Lapsetorvet
- 09:14 Observatoriegata
- 09:16 Tjuvholmen

Right Screenshot: Departure - Capacity - Feedback

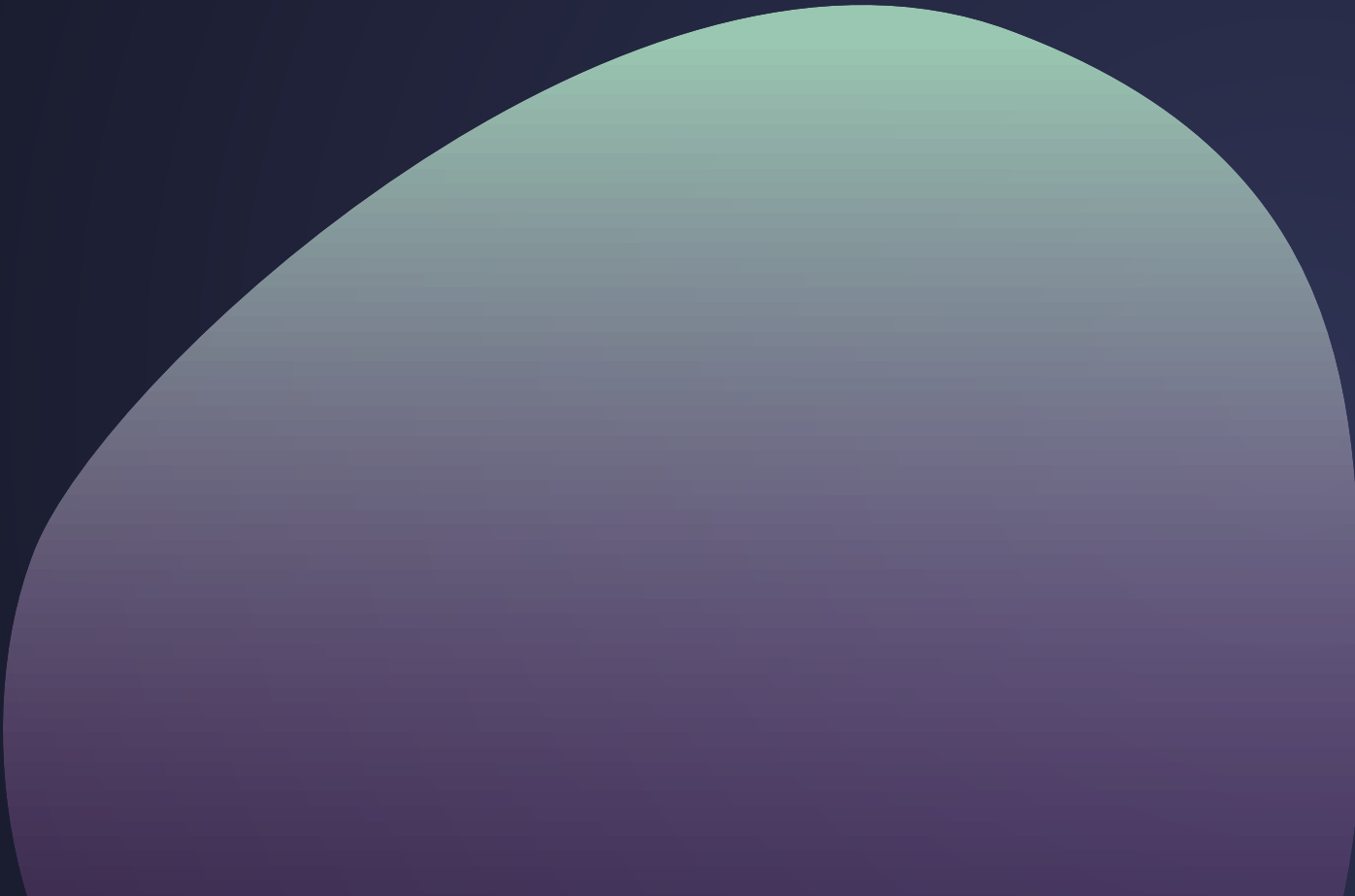
Kapasitet om bord

Vi beregner hvor mye plass det er om bord basert på tidligere passasjertall.

- God plass: Mange ledige sitteplasser
- Noe plass: Noen ledige sitteplasser
- Lite plass: Begrenset med stå- og sitteplasser

Estimerte vi riktig?

Ja (smiley face icon) Nei (frowny face icon)



New habits
for
new inhabitants





Lowest priced in its field—this beautiful new Chevrolet Styleline De Luxe 2-Door Sedan has far less than any competing make costs in its field. (Continuation of standard equipment and size illustrated is dependent on availability of material.)



Enjoy smoother Continental Power
 Engine rides smoothly suspended in a constant, quiet, cushioned motion. Vibration is "smoothed out," power is smoothed out.



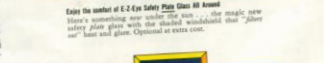
Enjoy Fisher Body style and quality
 More graceful lines and contours, finer workmanship and fabric... plus the famous strength of Fisher Body construction with steel welded to steel all around you.



Enjoy smoother, simpler Powerglide
 Only automatic transmission in its field that's all-steel and all-steel with fewer parts to require service. Optional on De Luxe models at extra cost.



Enjoy a safer, smoother ride
 Chevrolet's latest Knee-Action ride is new! Chevrolet's latest Knee-Action ride is new! Chevrolet's latest Knee-Action ride is new! Chevrolet's latest Knee-Action ride is new!



Enjoy the comfort of U.S. Eye Safety Glass All Around
 There's something new under the sun... the magic new safety glass with the double windshield that "glows out" heat and glare. Optional at extra cost.

The Only Fine Cars PRICED SO LOW!



The private car provides people with a sense of freedom that mass transit often cannot compete with.



gen

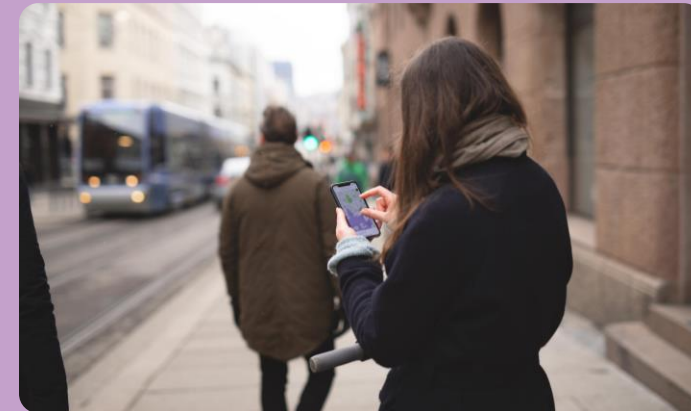
Versting
040 11



Bruk på
til ditt
arrange



Through large volumes of data from various sources, we become acquainted with our customers' habits and preferences.



Through digital customer interfaces, we can provide customized and attractive travel suggestions.

With Data and AI, We Can Create a Fully Automated Transport System



Automatic capacity adjustment in real-time, based on population data.



Automatic infrastructure maintenance, based on information from vehicle sensors.



On-demand transport services tailored to each individual's needs.

Thank you!

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