

TIDE BUSS

Roger Harkestad, CEO



THIS IS TIDE

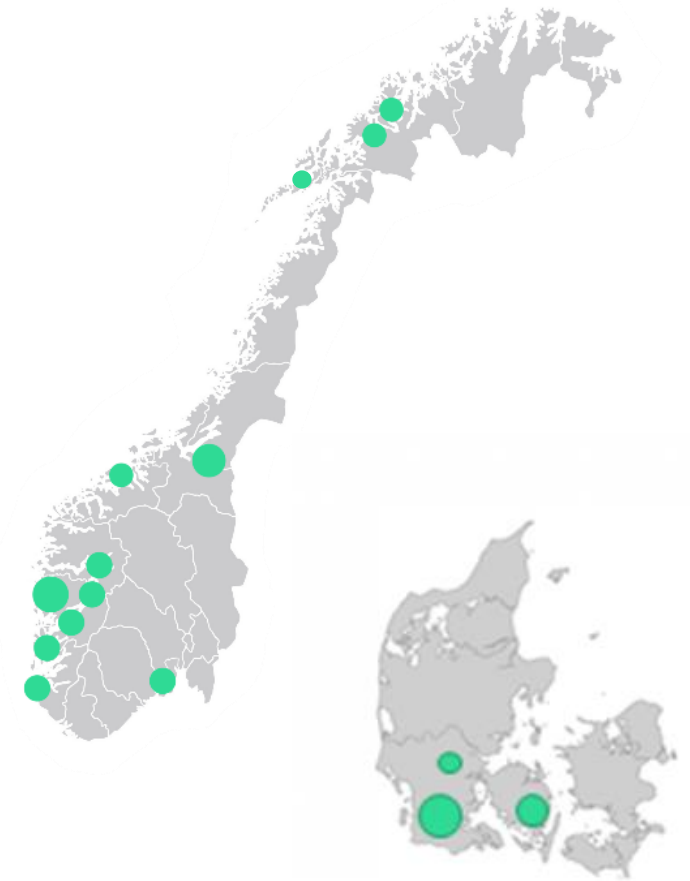
Second largest bus company in Norway, and the fourth largest bus company in Denmark. In 2018 Tide had a turnover of NOK 2,9 billion, and an order backlog of NOK 30 billion.

EMPLOYEES

The company has a total of 4900 employees with close to 4000 located in Norway, and over 900 in Denmark. Tide is a company with great diversity and over 50 different nationalities among our employees.

BUSES

Tide has about 2150 buses, after purchase of about 770 in 2019.



Our vision

«Excellent travel experiences
every day»





Starting up
important
tenders

	TRONDHEIM	TROMSØ	BERGEN SØR	BERGEN VEST	MIDT-TROMS	ESBJERG	SUM
Annual turnover MNOK	400''	283''	279''	226''	120''	94'' MDKR	1436''
Employees	420	277	218	203	103	166	1387
Buses	140	171	149+11	146	102	58	777
Contract duration	10	8 + 2	9 + 1 + 1	9 + 1 + 1	9+1+1+1	2 + 1 +1	-
Technology	El, hybrid, biogas, HVO	HVO	HVO	HVO	HVO	Diesel	-



770 large new buses on the roads
- upgrades in environment, comfort and safety



«What we do in Trondheim is creating interest in Northern Europe, and most people agree that it is in this direction the development is going.»

Jan-Helge Sandvåg
Technical Director of Tide



VJ 14957

12448

VJ 15389

VJ 15064

VJ 15011

VJ 15012

VJ 15013

VJ 15014

Our perspectives on the supplier market for electric buses

- Electric bus technology is still at an early stage
- Mostly low floor / low-entry available
- First articulated bus arrived Norway in the summer of 2019
- Chinese manufacturers have progressed further in development than European manufacturers
- Limited selection of buses and equipment adapted to the Nordic climate
- Demand for electric coaches and long distance buses



Tide is constantly adopting new, environmentally friendly technology

- Trondheim 2019-2029
- Contract value over NOK 4 billion
- Started august 2019
- 139 buses in total
- 400 employees
- 35 electrical buses
- 14 metro buses



Our experiences with introducing electric buses in large scale in Trondheim:

- Positive experience
 - Quiet buses - well received by the drivers
 - Pantograph charging with Volvo buses works well
 - Depot charging works well
- Areas for improvement
 - Communication against pantographs - a critical factor
 - Response time to repairs – pantographs
 - People with the right expertise and the right tools available at start-up
 - An advantage if the bus types have had some running time before
 - Optimize the control systems against the operating systems



How to succeed with electric buses?

- Increased and good interaction between the client and the operator
- Clear interfaces and clarification of responsibility between the operator and the client
- Which charging method chosen, pantograph or depot, will have consequences for route planning and the cityscape
- Enough time from tenders is assigned to start-up





Thank you for your attention!

Roger Harkestad

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