Automation of Rotary Snowplows using QZSS

Automatisation des chasse-neige rotatifs utilisant le système QZSS

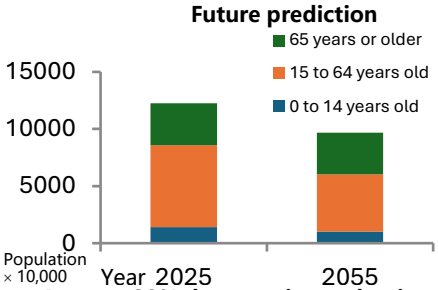
Background

A wide variety of skilled ice operations

A rotary snowplow removing snow at a low speed from the shoulder of the road

Declining workforce and retirement of skilled workers

Future prediction



Approx. 30% decrease in productive-age population during 2025–2055*

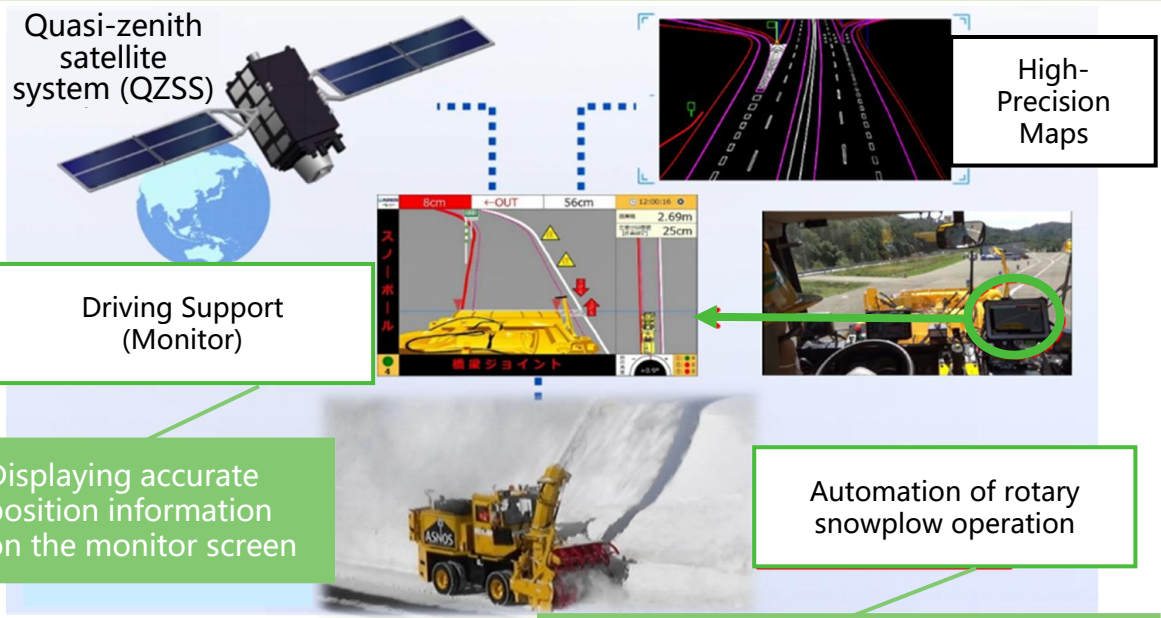
Development of snow and ice operation technologies to carry out operations safely and reliably without depending on experienced operators in order to enhance the level, efficiency, and safety of winter road management

There are days when visibility is almost completely lost.

"Even when lane marking and roadside structures (e.g., guardrails) are not visible due to snow and blowing snow, the system identifies their positions and automates driving and snow removal."

Safe and reliable operation is made possible.

System overview



Rotary snowplow in operation

Sharing position information with snowplows and automating their self-driving and snow removal operation

Contributing to labor savings, efficiency improvement, and performance enhancement, this approach addresses the anticipated manpower shortage by reducing the number of operators from two to one.

* Fig. 2-(1)-1 Changes in productive-age population in Japan and future projection, prepared from previous data (https://www.mhlw.go.jp/stf/wp/hakusyo/roudou/21/backdata/02-01-01.html)

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