



Control Systems@HIAB

Overview of research topics and challenges in the load handling segment

**BUILT TO
PERFORM**



HIAB

HIAB

WHO ARE WE?



WE ARE HIAB

https://www.youtube.com/watch?v=FlZRydm_cs8&t=31s



LOCATED NEAR OUR CUSTOMERS



3800
Employees



13 R&D and
production sites



69 Own service
centres





Hans Lyngbäck, Manager Loader Crane Control Systems

HIAB Hudiksvall, Sweden

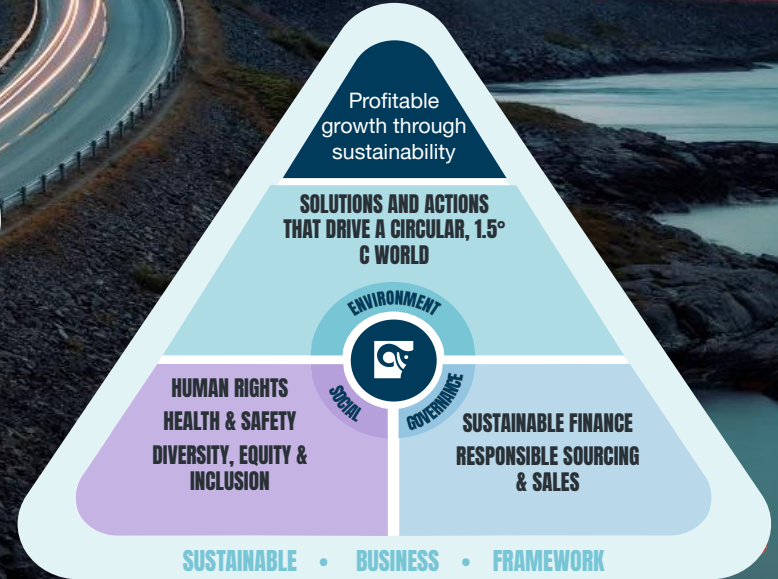
- 20+ years of experience developing control systems
- 13 years@**HIAB**



ified targets via Cargotec

SUSTAINABILITY IS GOOD BUSINESS

1.5



RESEARCH TOPICS



EYE

Sensors

Radars

Ultrasonic

UWB

Cameras

GPS/GNSS



HEART

Energy efficiency

Advanced Hydraulic

Electric Actuators

Electrification

Systems layout



BRAIN

Electronics

Motion control

Energy efficiency

Advanced Control

Image recognition

RESEARCH TOPICS / PRODUCT DEVELOPMENT



HIVislon

<https://www.youtube.com/watch?v=gYz84LLsNrM&t=44s>

- Revolutionizing Forestry Crane Operation
- VR Headset with User Interface
- Accurate & Efficient Log Handling
- Enhanced Productivity and Safety



RESEARCH TOPICS



HiVision - Remote

- Remote operation for forestry cranes
- HiVision over 4G/5G
- Safety
- Part of autonomous roadmap

<https://www.svt.se/nyheter/lokalt/vaster-norrand/norrlands-forsta-5g-nat-invigt>



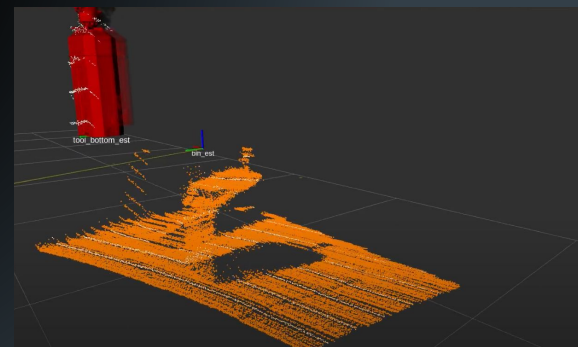
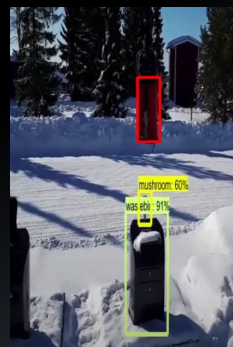
RESEARCH TOPICS



UNICORN

<https://research.chalmers.se/en/project/7879>

- Revolutionizing Waste Collection
- Autonomous Crane System with Camera & LiDAR
- Accurate & Efficient Bin Handling
- Enhanced Productivity, Safety, and Client Satisfaction



PROOF OF CONCEPT / PRODUCT DEVELOPMENT



Hooklifts

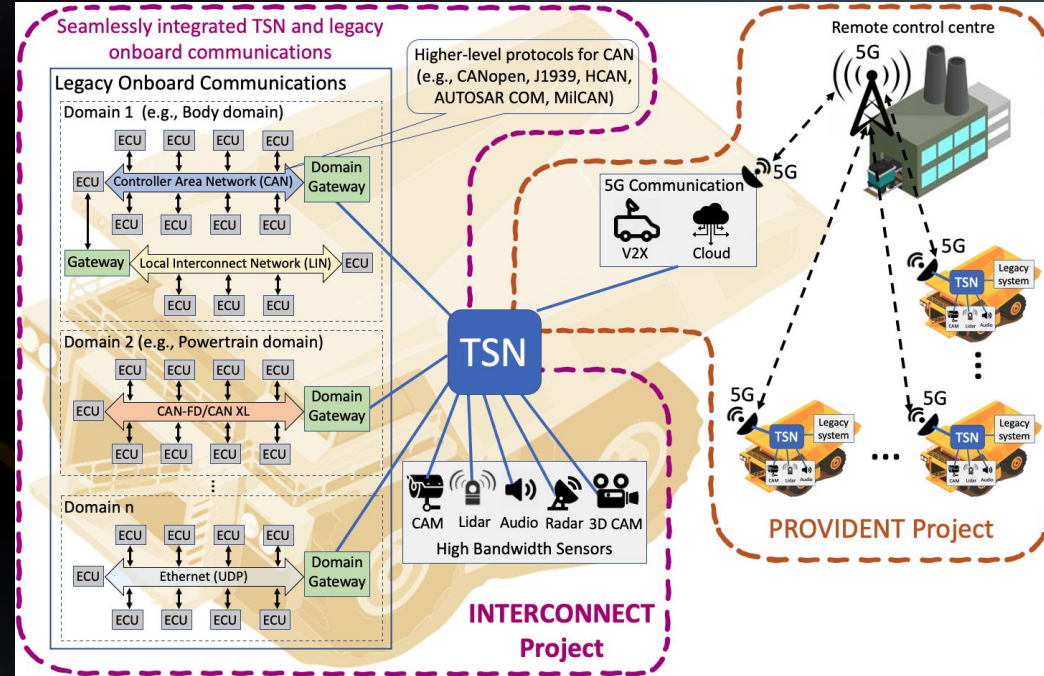
- Revolutionizing user assistance
- Camera & LiDAR object identification, path generation
- Accurate & Efficient Container handling
- Enhanced Productivity, Safety, and Client Satisfaction

<https://www.youtube.com/watch?v=S5-AwDB4JcQ&t=12s>





- Remote operation
- Remote diagnostics/simulation
- 5G / TSN
- Enhanced Productivity, Safety, and Client Satisfaction





A black and white photograph of a herd of elephants walking in a line across a savanna landscape. The lead elephant is in the foreground, facing the camera, with its large ears and trunk clearly visible. The text "BUILT TO PERFORM" is overlaid in large, white, bold, sans-serif capital letters across the middle of the image.

BUILT TO PERFORM

Hiab's iconic elephant logo was created in 1970 and has come to represent performance, pioneering, reliability and caring. For us, the elephant is also a loved animal that underlines our commitment to protecting the environment and mitigating climate change.

