The mobile machine of 2030

FUTURE MOBILE MACHINES ARE MISSION-DRIVEN, ENABLE SEAMLESS OPERATIONS AND DELIVER NEW, UNSEEN VALUE ACROSS THE VALUE CHAIN. SUSTAINABILITY IS BUILT INTO EVERYTHING.

CONNECTED AND COMMUNICATING

- All is connected: Mobile machines operate as efficient, autonomous teams, interacting with each other and exchanging information in real-time in a highly systemic environment.
- All machines are connected to operations management systems and operated with minimal human interference.
- Operations centres have a complete overview of the sites and operational data at all times.
- Ultra-reliable, low-latency connectivity enables high levels of autonomy and maximises the efficiency of operations.
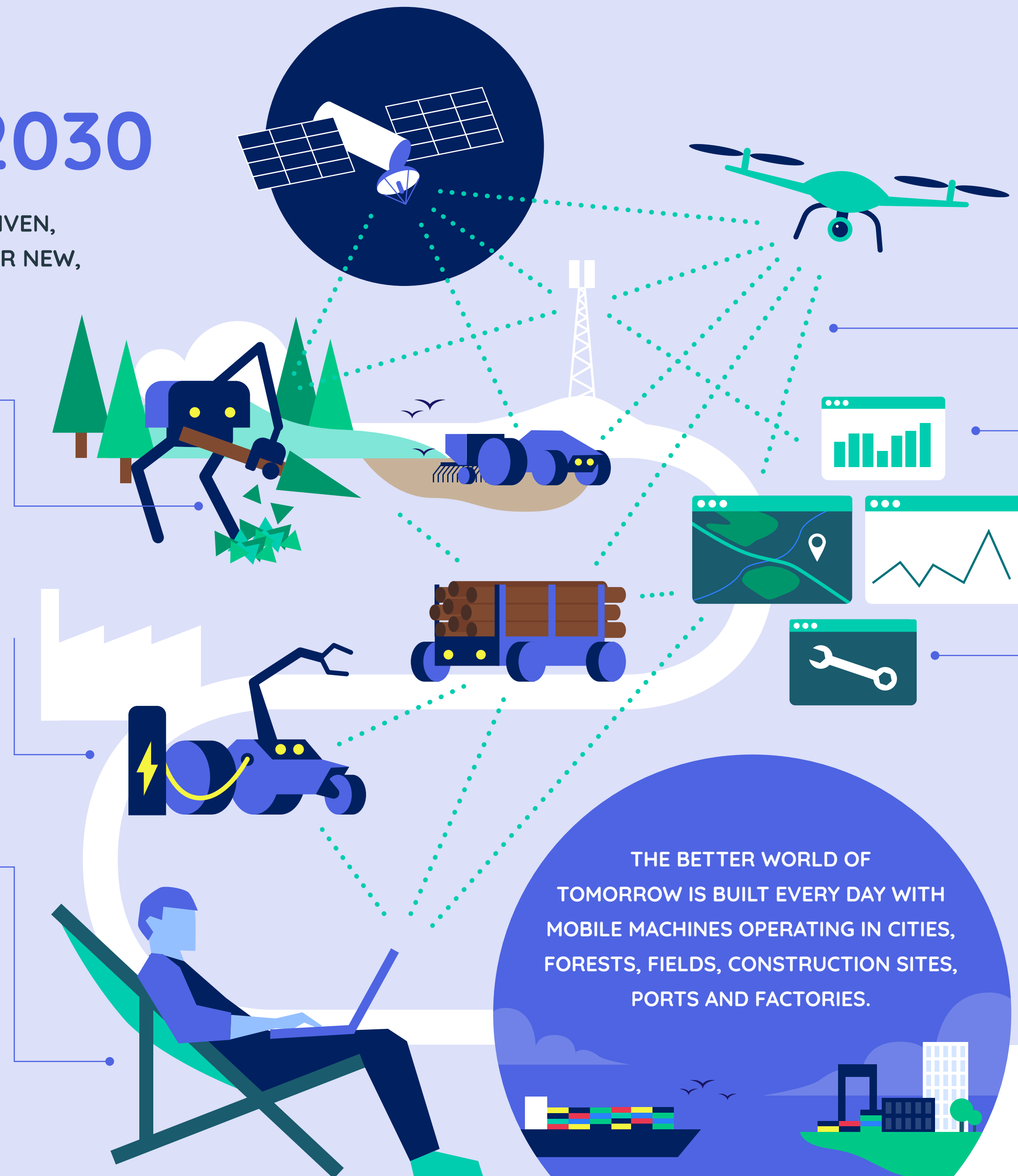
EMBRACING AUTONOMY

- The level of autonomy ranges from full autonomy to driver assistance systems depending on the application (open/closed environment).
- Autonomy is extended from machine level to mission-driven fleet autonomy.
- Autonomy increases the efficiency of the whole operation process.

INTELLIGENT CONTROL SYSTEMS AND BETTER DECISION-MAKING

- Decentralised AI enables autonomous decision-making also on a machine-level.
- Information is processed and refined on the machines before it is shared.
- Machines optimize their performance and routines autonomously based on perceived data and information.

ELECTRIFICATION ENABLES ZERO-EMISSION OPERATIONS AND NEW VALUE

- Electrified machines produce no emissions and are efficient, safer and more reliable.
- The fit-for-purpose design offers precise functionalities and improved performance.
- As a result, machines no longer limit their function.

LEVERAGING DATA FOR NEW BUSINESS OPPORTUNITIES

- Maintenance needs are predicted and services optimized using data throughout the entire life cycle of the machines.
- Machines are transparent in terms of condition and cost. Open interfaces enable data sharing.
- Each machine has a digital identity for full traceability of lifecycle services, re- and de-manufacturing, recycling and novel value adding services.
- Focus is on results instead of machines and services – that is what customers are paying for.
- Machine-generated data creates new business opportunities and added-value.

HUMAN IN THE LOOP - BETTER JOBS

- As machines and systems become smarter, people are freed from monotonous work and can focus on more complex tasks that require decision-making skills.
- As a result, work becomes more meaningful and motivating. Employees suffer from less stress and fatigue and their cognitive load decreases.
- A whole new level of safety is achieved. Intelligent, integrated safety systems allow people and machines to work safely in the same area.
- Work is no longer location-specific thanks to remote operations and increased levels of autonomy.

THE BETTER WORLD OF TOMORROW IS BUILT EVERY DAY WITH MOBILE MACHINES OPERATING IN CITIES, FORESTS, FIELDS, CONSTRUCTION SITES, PORTS AND FACTORIES.

SIX
Sustainable
Industry X

MOBILE WORK MACHINES

SIX Mobile Machines is an industry driven cluster of Finnish mobile machine manufacturers and their key technology providers.