



Moving into the future with MEWPs Technologies & Innovations

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LET'S DARE TOGETHER

Mobile Elevating Work Platform (MEWP)



- ✓ Devices designed for lifting people.
- ✓ Enable users to access temporary workplaces at height with the necessary tools and equipment.
- ✓ MEWPs improve working conditions & safety of the workers.
- ✓ As a manufacturer, we comply with International standards such as EN280, ANSI, AS/NZS...
- ✓ They define the rules (design & calculations) for safeguarding persons and objects against the risk of accidents associated with the operation of MEWPs.
- ✓ The strict compliance to these standards allow a high safety level provided by the MEWPs.

Why using a MEWP?

Falls from height : risk of ladder usage

Accidents : some facts & Figures

47%

of all workplace accidents are caused by falls from height
Source : Health & Safety Executive, United Kingdom



Ladder falls are the leading cause of workplace fatalities
Source : Occupational Safety & Health Administration, United States



Ladder and scaffolding falls cause 4 times more fatal accidents than aerial work platforms
Source : International Powered Access Federation (IPAF)

All falls have consequences

For a worker it represents Musculoskeletal disorders affecting :



Falls can also cause :

- Fractures
- Open wound.
- Contusion & crushing injury
- Disease of the musculoskeletal system
- Sprains & strains of joints and adjacent muscles

Source : Workplace Access & Safety, Australia

Falls from height

One of the main causes of fatalities (construction industry)



- 15,000 falls per year (3)
- Cost of a fall for one Company: 27,000\$ (4)
- Each fall fatality costs companies more than \$1 million (5)



- 2/3 of all major work at height injuries are caused by low falls (2m or less) (1)

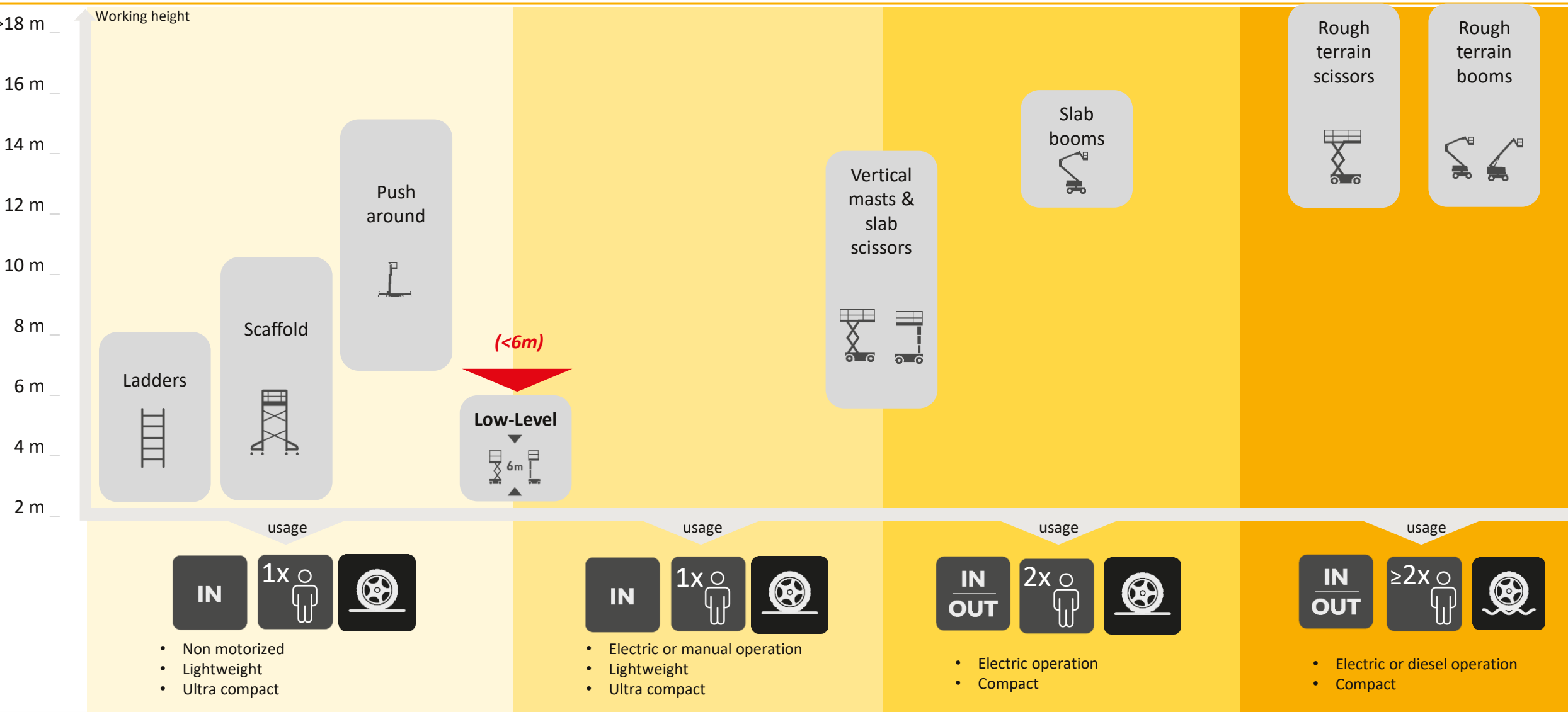


- 8 600 € is the average cost of a fall from height (7)



- Falls from height accounted for 16% of worker fatalities (9)

MEWPs : different types to cover most of the jobsite applications



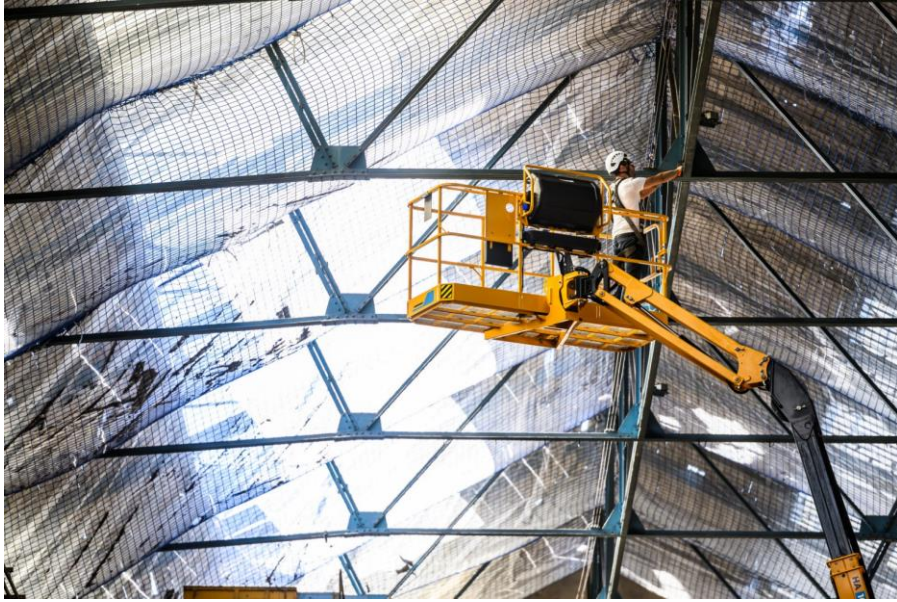
MEWPs must be used & maintained properly

Safe operation of MEWPs (Owner or rental company)



- ✓ Establish a preventive maintenance program in respect with manufacturer's recommendations.
- ✓ Perform periodic inspections in accordance with manufacturer's recommendations and local regulations.
- ✓ All malfunctions and problems identified during the inspection shall be corrected before MEWP is return to service.

Safe operation of MEWPs (Employer)



- ✓ Choose the MEWP carefully, depending on jobsite and job to be done.
- ✓ Train and check the training of users.
- ✓ Authorise the trained user(s) to use the machine.
- ✓ Inform and familiarize the operator with the local regulations.
- ✓ Forbid anyone from operating the machine if under the influence of substances or unfit.



Safe operation of MEWPs (Operator)



- ✓ Comply with safety instructions
- ✓ Use the machine within its performance limits
- ✓ Inspect the machine before use according to manufacturer's recommendations.
- ✓ Ensure that the inspections have been carried out by the owner and that they can use the machine for the purpose intended by the manufacturer.
- ✓ Familiarise themselves with the emergency controls and machine operation in case of an emergency.
- ✓ Has the obligation to stop using the machine in the event of malfunction or safety problems on the machine or in the work area and report the problem immediately.
- ✓ Check the workplace before they move the MEWP and start working.

New technologies & innovations for higher safety



In MEWPs, many technologies could be useful...

... but not all of them are suitable!



Tough working environments

- ☐ Shocks
- ☐ Misuses
- ☐ Dirt, paint, debris, cement...
- ☐ Welding, sandblasting residues
- ☐ Mud
- ☐ Sun, water, snow, humidity...
- ☐ Aggressive atmospheres
- ☐ And so on!





MEWPs are special machinery

- ❑ The driving station is the operator's workplace & the material load space too.
- ❑ Exposed to weather conditions and job activity.



Integration of new technologies is under constrain

SAFETY. Our design standard & international standards (EN280, ANSI) impose high reliability level on safety functions (simple components & sensors, long time-proven technologies, redundant sensors on key functions).

RELIABILITY and aging. Designed to last 15+ years, with a few components to be replaced over the years.



SERVICEABILITY. Reduce maintenance operations and skills required down to a minimum.

EASY TO OPERATE. It improves safety & productivity. Operators are painters, welders, plumbers, carpenters... None of them are AWP professional operators!

Need for new technologies

Be forward
thinking and
keep improving
our machines



IMPROVE THE PRODUCTIVITY & limit the downtime.



SUPPORT THE RENTAL COMPANIES operating a fleet of MEWPs.



PROVIDE ASSISTANCE to operate the MEWP safely.

**Plenty of add-on technologies are
already widely available**

For all MEWPs, help prevent from entrapment situations.

Safety



Secondary
guarding
systems



Safety



Personal Protective Equipments



Operator must wear safety harness... And secure it!



HARNESS
DETECTION



POTENTIAL
OPERATOR FALL
OR EJECTION



ANTI-BYPASS
FUNCTION



WAKE UP
FUNCTION

ACTIVE ANCHORAGE FOR MEWPS

- Tackle a leading cause of MEWP accidents
- Deliver and audible and visual reminder if the operator is not attached to FASTN anchorage
- Provide valuable DATA for safety management

Safety



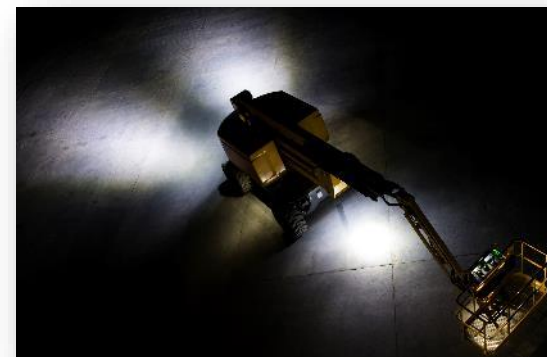
Drive assist
&
operator
awareness



Secondary
Guarding



Advanced systems
for perfect control



Lights to improve visibility



Protective
equipment



Obstacle
detection



Human Machine
Interface



Digital access to safety
& driving info










OR

 YouTube



Monitor
and
manage
the fleet



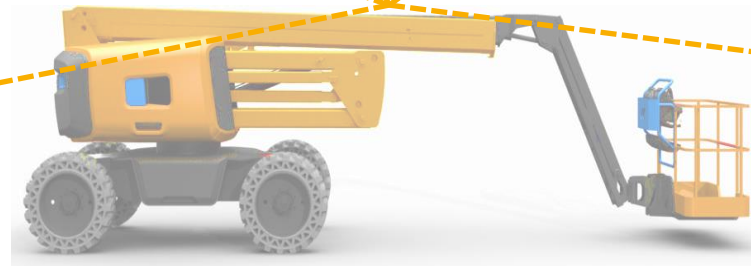
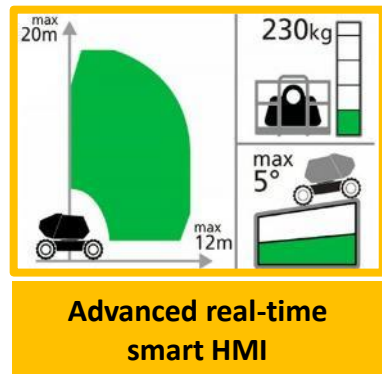
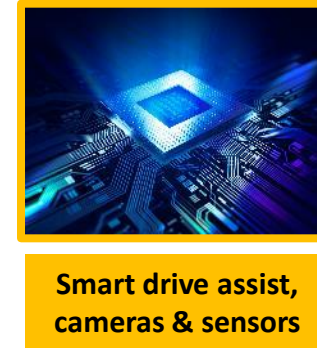
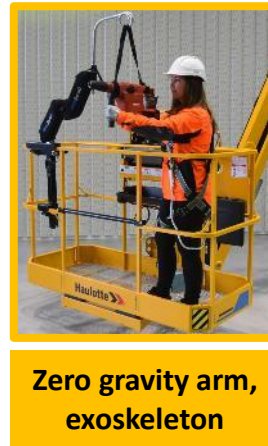
-  **GPS location**
-  **Operating time**
-  **Engine indicators**
-  **Battery indicators**
-  **Maintenance**
-  **Unsafe behaviors**
-  **Fault codes**

What's next?

Emerging & future technologies

On-board the machine

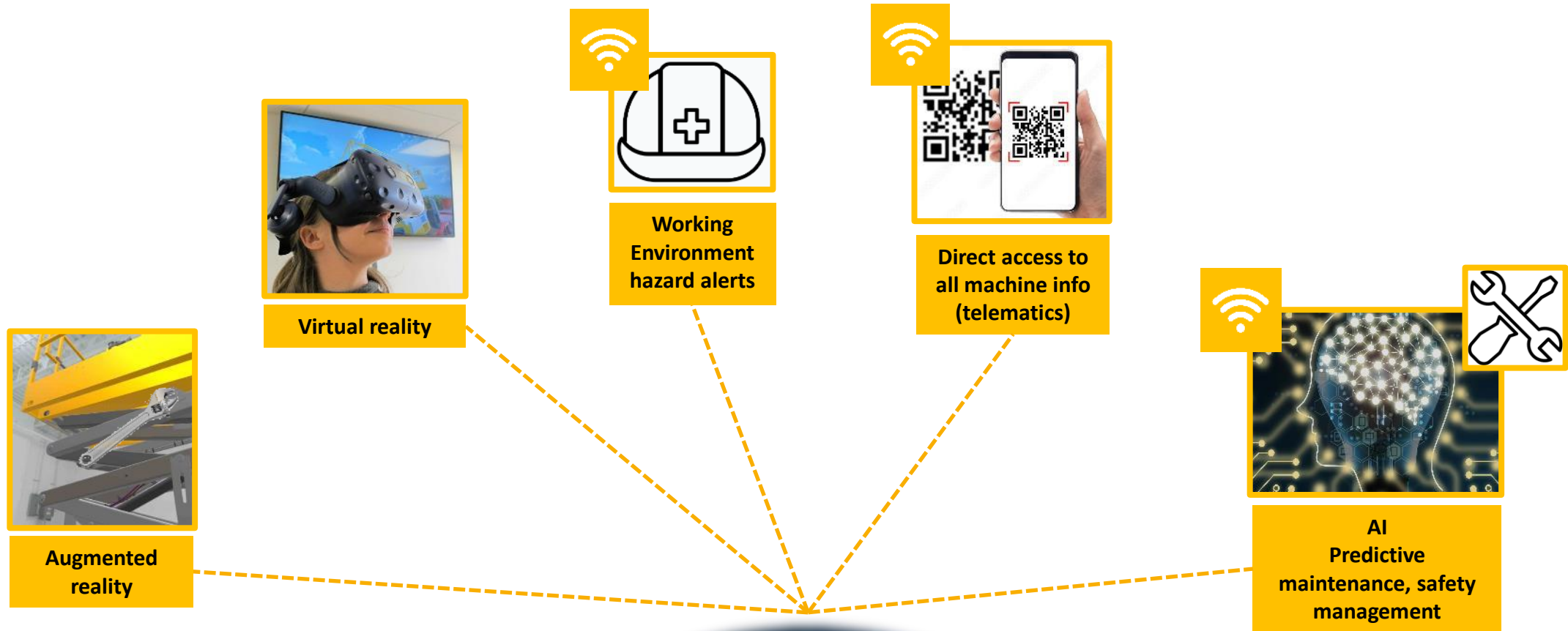
Emerging technologies



Next technologies

What's next?
Emerging & future technologies
Off-board, IoT, digitalisation

Emerging technologies



IoT & Digitalisation

Next technologies

The solution to ensure 100% safety at heights to human workers...

... is to keep them on the floor!

Robots at height



✓ Great for repetitive added value tasks

✗ Construction jobsite work can be very complex & need adaptation

Drones



✓ Great for visual inspections

✗ Only visual

This is the beginning of a long and fascinating journey !

**Thanks for your
attention...**

... And be safe!



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