IPAF's eXtended Reality strategy
How VR, AR, Sims and headsets can make MEWPs safer.

Giles Councell
IPAF Director of Operations

2019 6 MARCH IPAF summit

IPAF's eXtended Reality strategy

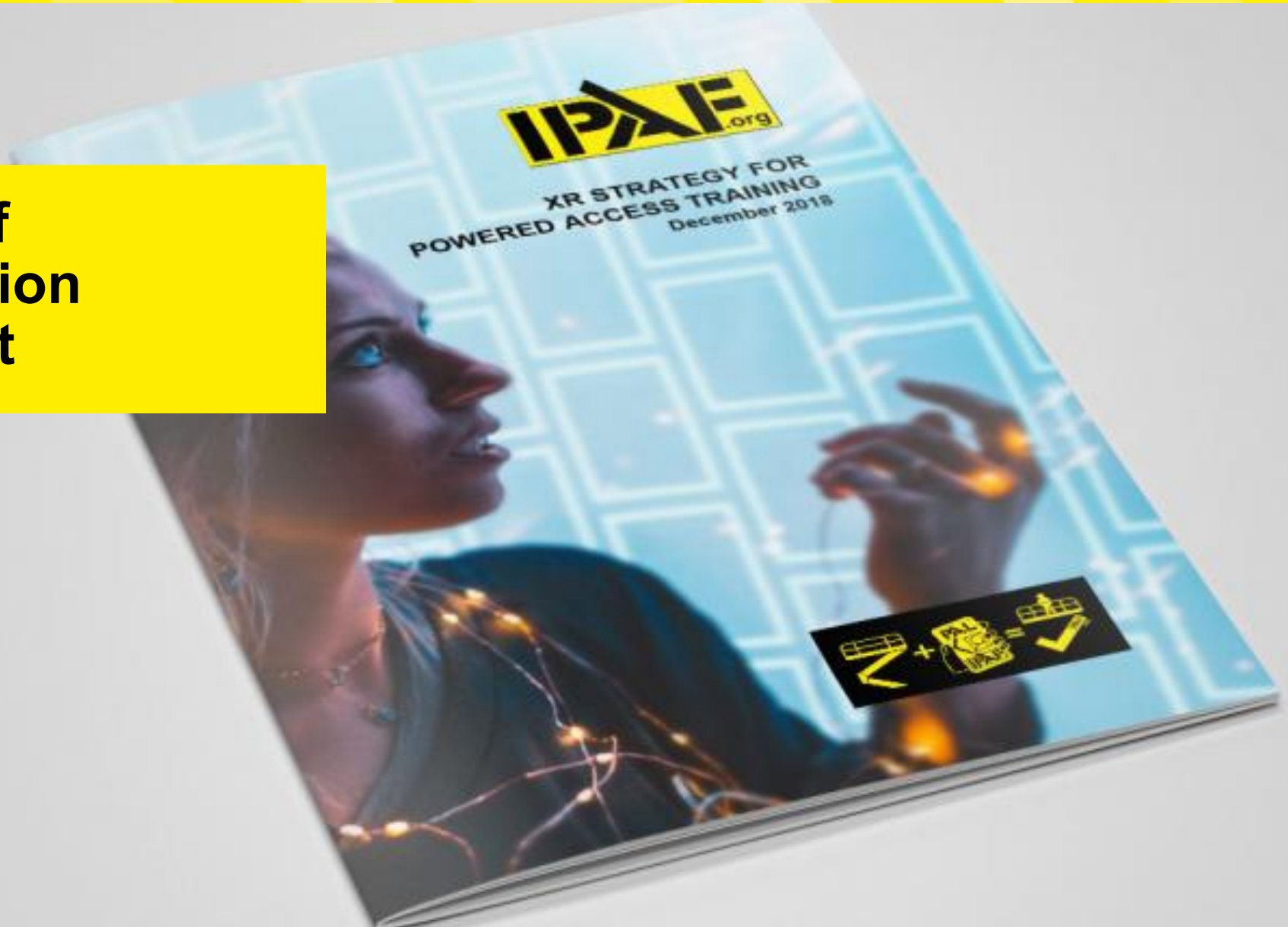
A primary area of focus identified by the IPAF Board is:

Developing and implementing a strategy to optimise the use of virtual reality (VR), simulators and our expanding eLearning offer, while integrating the Smart PAL Card into systems to deliver a full digital experience.

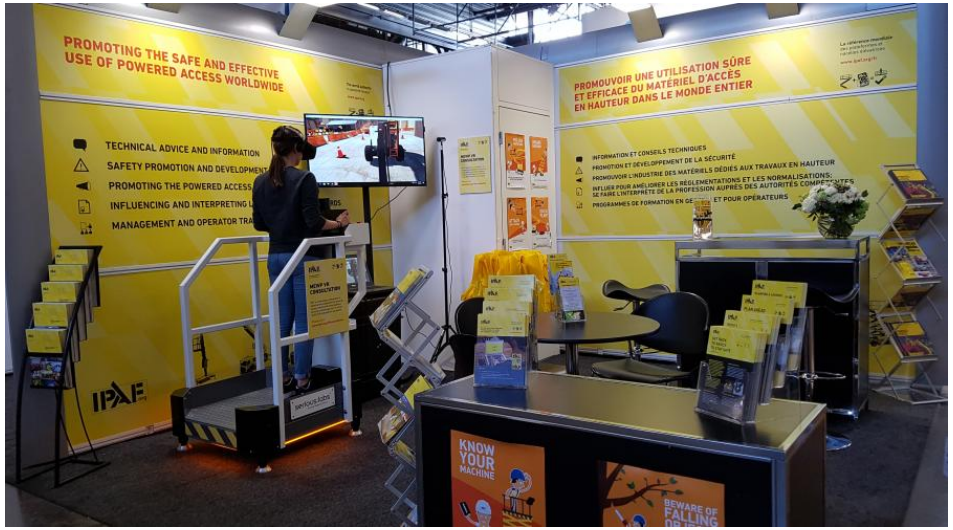
Source: Section 2 of IPAF's three-year strategic plan 2018-2020

IPAF's eXtended Reality strategy

Review of consultation document



IPAF's eXtended Reality strategy



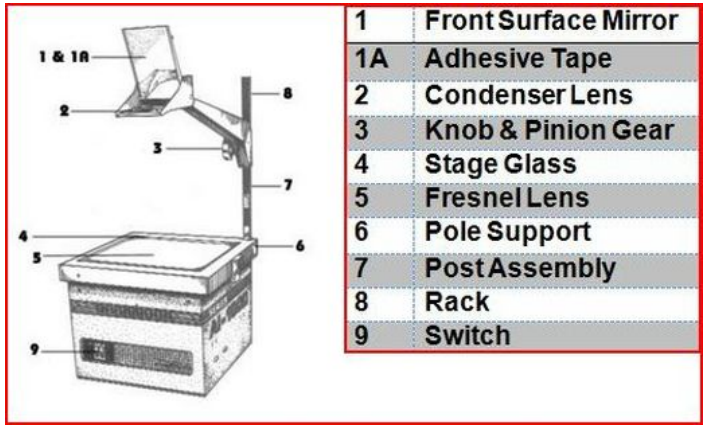
Consultation with the Industry

Events

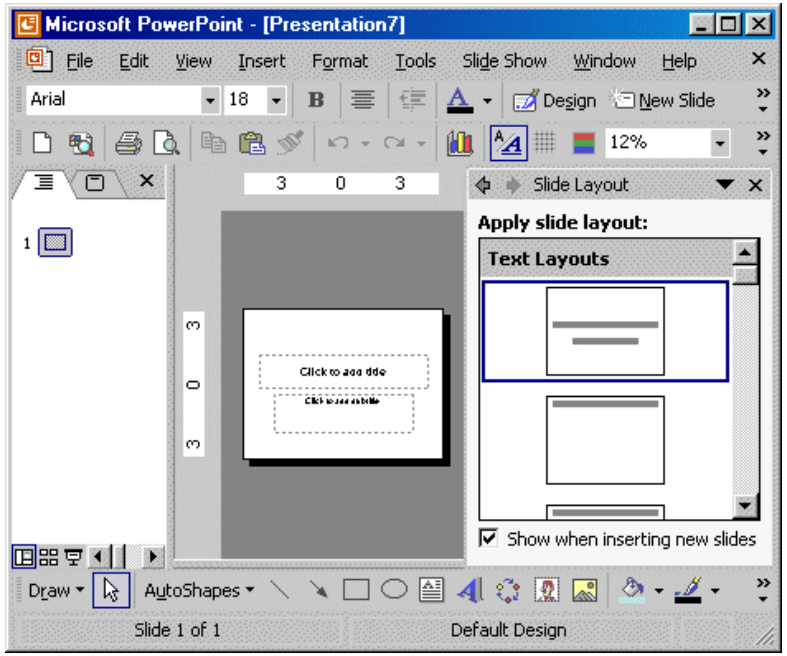
Questionnaire

IPAF's eXtended Reality strategy

Training has come a long way



1	Front Surface Mirror
1A	Adhesive Tape
2	Condenser Lens
3	Knob & Pinion Gear
4	Stage Glass
5	Fresnel Lens
6	Pole Support
7	Post Assembly
8	Rack
9	Switch



IPAF's eXtended Reality strategy

How to engage the workforce

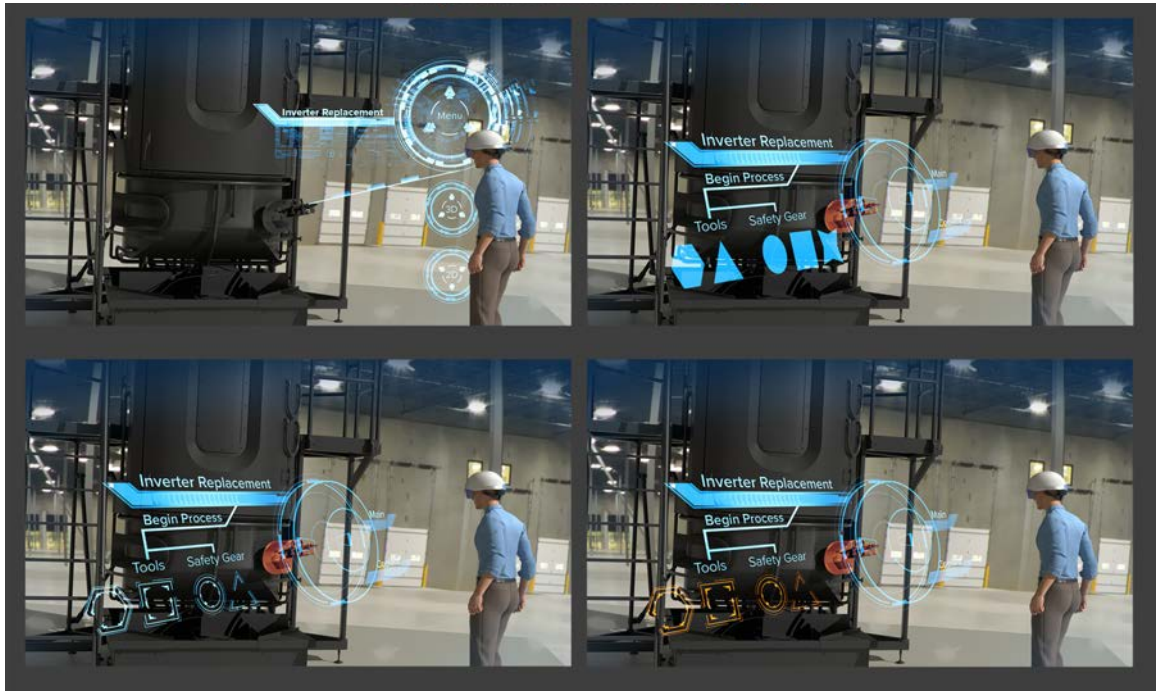
IPAF's eXtended Reality strategy

What is eXtended reality?

Extended reality (*XR*) is a term referring to all real-and-virtual combined environments and human-machine interactions generated by computer technology and wearables.

IPAF's eXtended Reality strategy

Augmented Reality



IPAF's eXtended Reality strategy

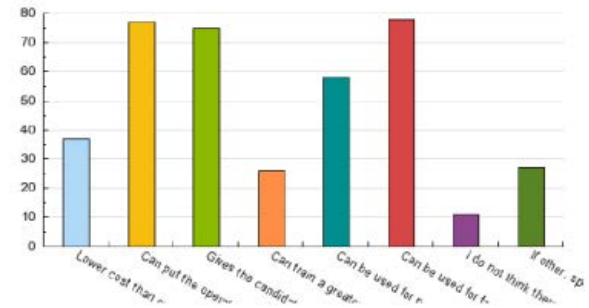
Simulation

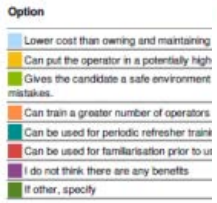
IPAF's eXtended Reality strategy

CONSULTATION SURVEY RESULTS

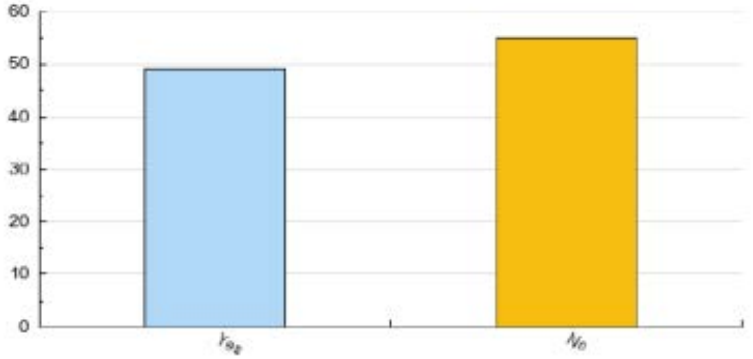
- Almost 200 responses to IPAF's survey were received.
- XR can only make the industry safer.
- IPAF should be at the forefront of the use of XR.

What do you think are the advantages of using a simulator. Please tick all that apply:





Have you used a VR Simulator?*



Option	Answers	% Answered	% Total
Yes	49	47.1%	47.1%
No	55	52.9%	52.9%

0 skipped this question

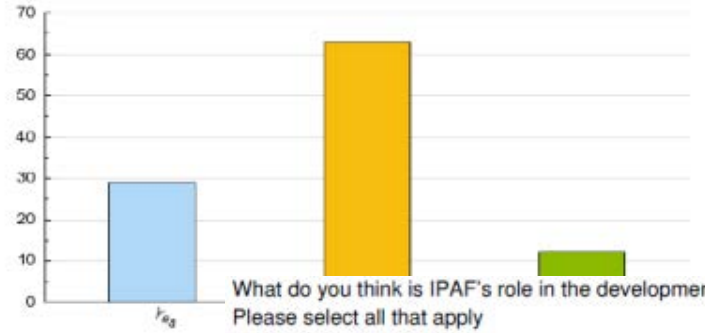
IPAF's eXtended Reality strategy

CONSULTATION SURVEY RESULTS

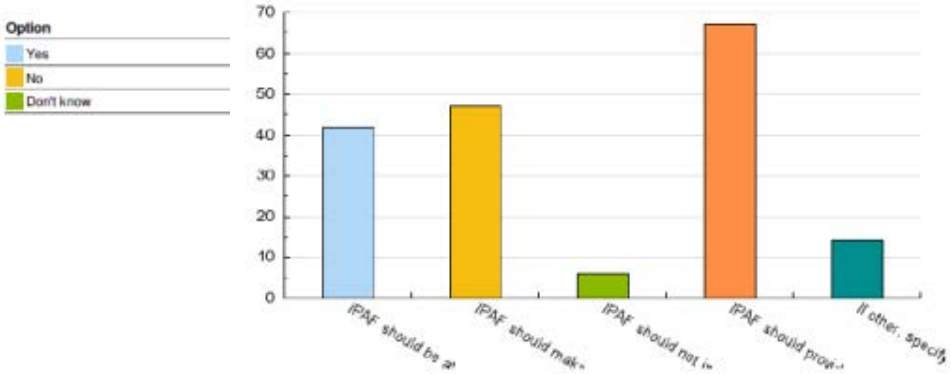
- 50% of the respondents had used a simulator.
- VR could be used to aid training in high-risk scenarios.
- Should not be used on its own.
- Can effectively simulate actual "operator anxiety".

IPAF believe the market would not currently accept a PAL Card being issued to an operator who had never been tested using a real machine.

Do you believe that MEWP VR simulators could replace practical MEWP training in any context?*



What do you think is IPAF's role in the development of VR MEWP simulators?*
Please select all that apply



Option	Answers	% Answered	% Total
IPAF should be at the forefront of VR development	42	40.4%	40.4%
IPAF should make use of the developments made by other industry leaders	47	45.2%	45.2%
IPAF should not invest in new technologies as it is too expensive	6	5.8%	5.8%
IPAF should provide leadership and guidance on how the new technology can be part of quality assured training	67	64.4%	64.4%
If other, specify	14	13.5%	13.5%

0 skipped this question

IPAF's eXtended Reality strategy

	Visual feedback	Auditory feedback	Physical feedback	Realistic physical input	Realistic physical feedback
VR & simulator (with motion/haptic feedback)	Y	Y	Y	Y	Y
VR & simulator (without motion/haptic feedback)	Y	Y	Y	Y	N
VR (with motion/haptic feedback)	Y	Y	Y	N	N
VR (without motion/haptic feedback)	Y	Y	N	N	N
AR	Y	Y	N	N	N
360° videos	Y	Y	N	N	N

IPAF Approved XR

IPAF should approve or accredit the technology, including products like MEWP simulators and the software they use.

IPAF's eXtended Reality strategy

Simulators

- IPAF PAL+
- Refreshers courses
- Competency verification
- Prior knowledge

IPAF's eXtended Reality strategy

Advanced Operator Training

IPAF PAL+ is an optional, additional one day of category-specific training aimed at operators working in higher risk or challenging environments.

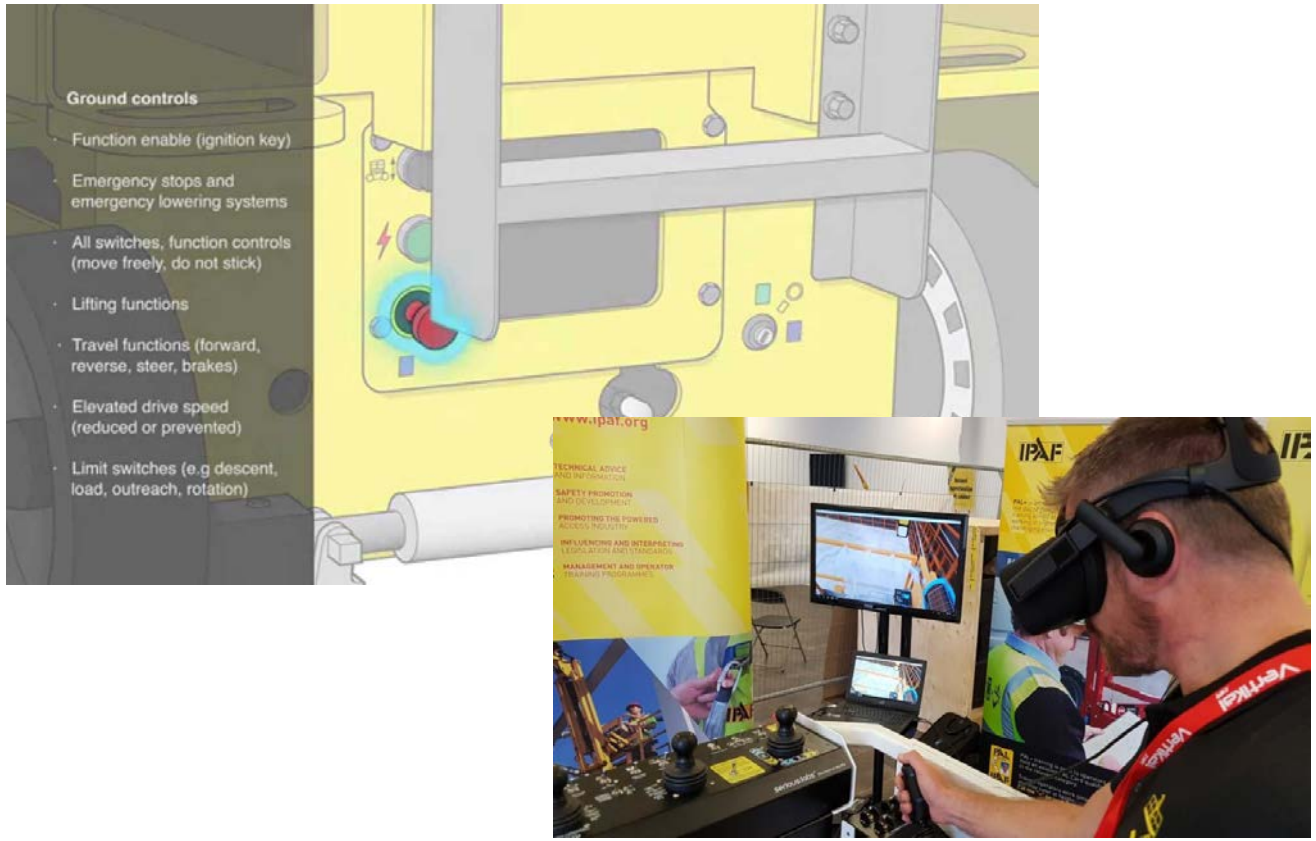
Retraining

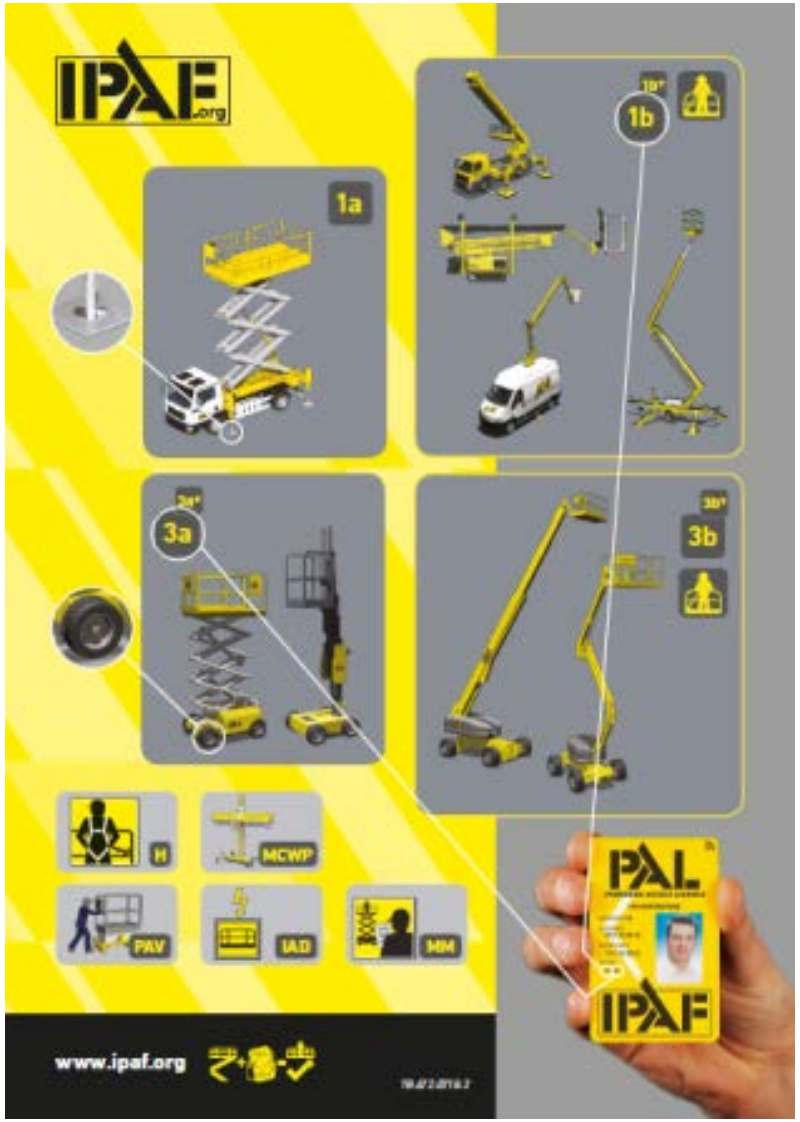
➔ Verification of knowledge

Verification of competency

- Does the operator still have the ability to perform the task

Prior knowledge





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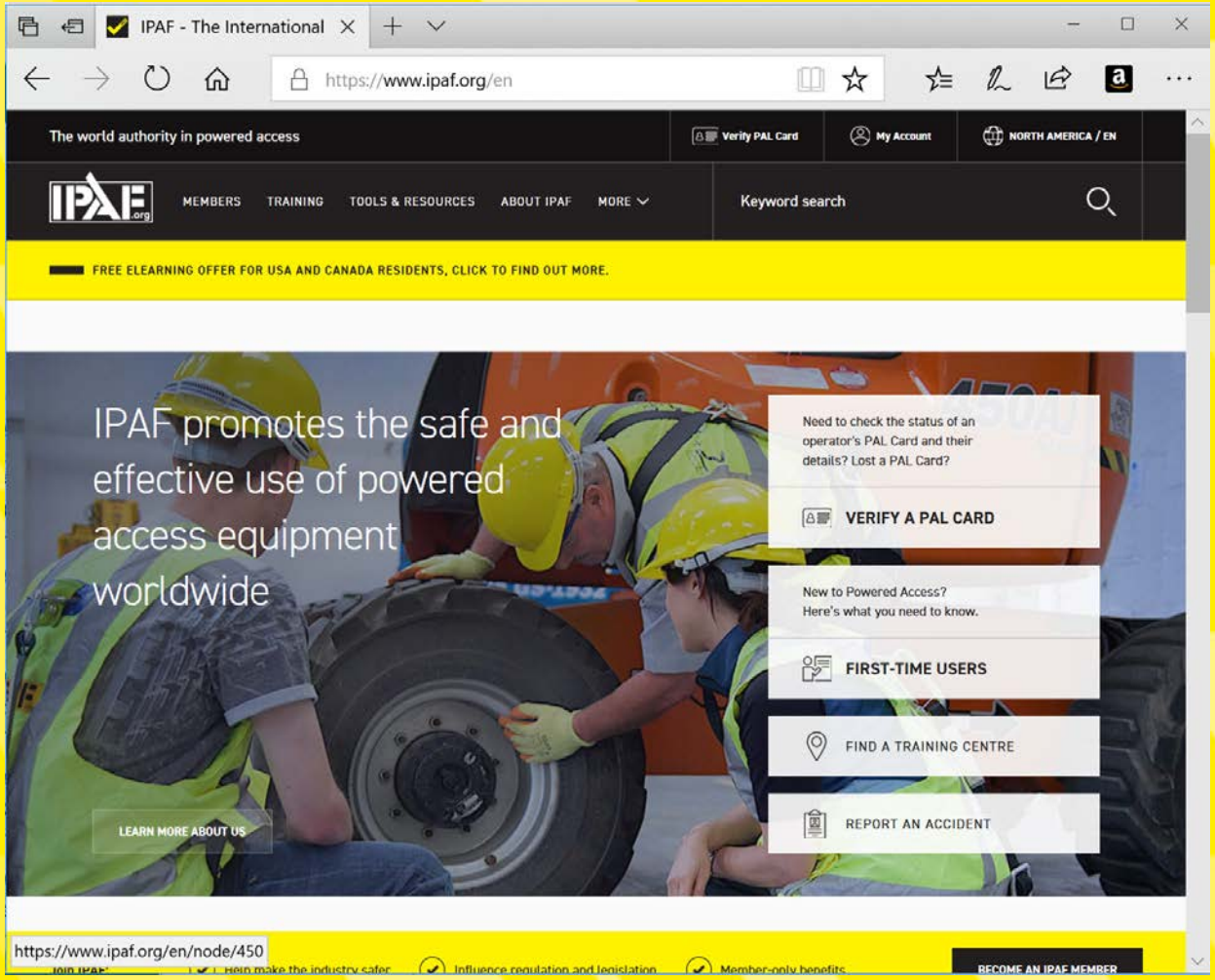

THANK YOU

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