



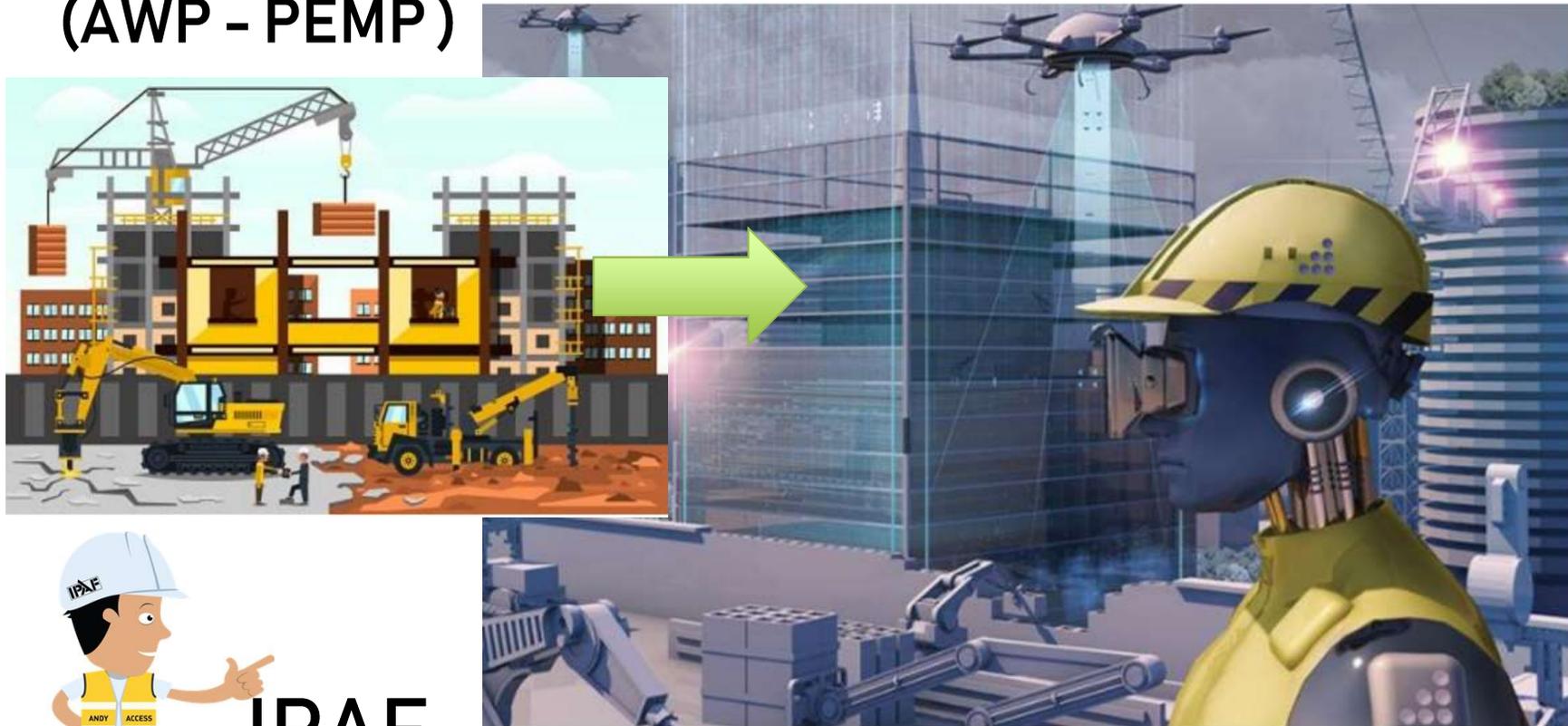
New Technologies in Safety
Andrew Delahunt
IPAF Director Technical & Safety

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MEWP : Mobile Elevating Work Platforms (AWP - PEMP)



IPAF

International Powered Access Federation

“promote safe use of powered access”

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Not-for-profit

70 Countries

1350 Members

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**Safety is
number 1**



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Design Of MEWPs

- Load sensing – real time monitoring of loads

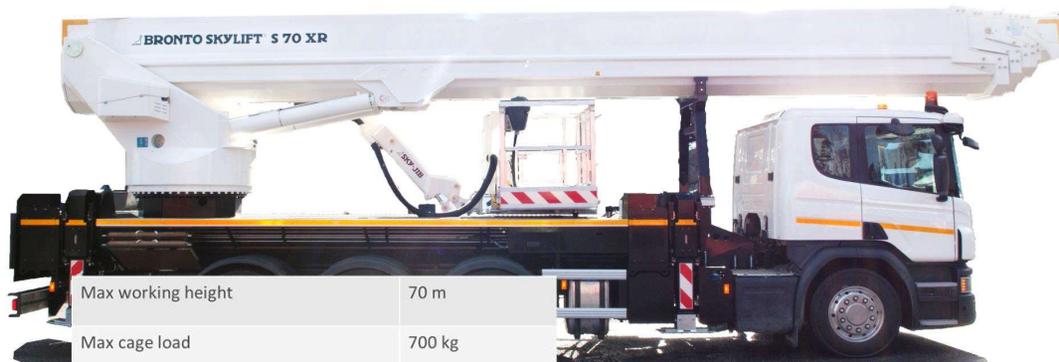


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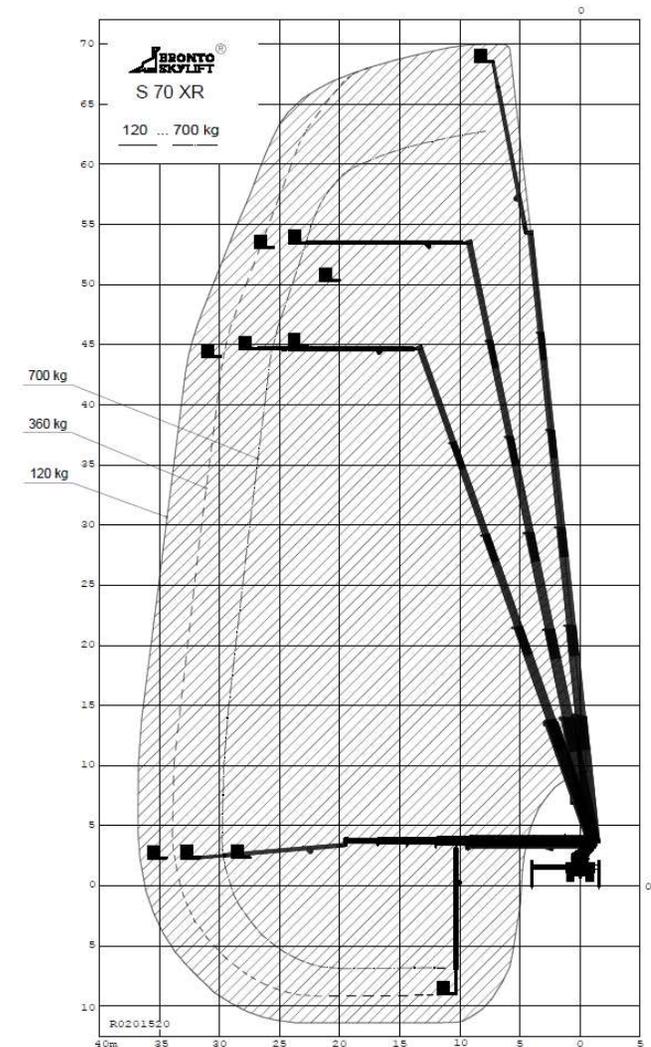


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Design Of MEWPs - restricted work envelopes Bronto Skylift S 70 XR



Max working height	70 m
Max cage load	700 kg
Max cage load, extendable cage	600 kg
Max outreach 700/400kg	30,0/37,0m
Max permitted wind speed	12,5 m/s
Min operating weight	47 t
Typical chassis GVW	< 32 t

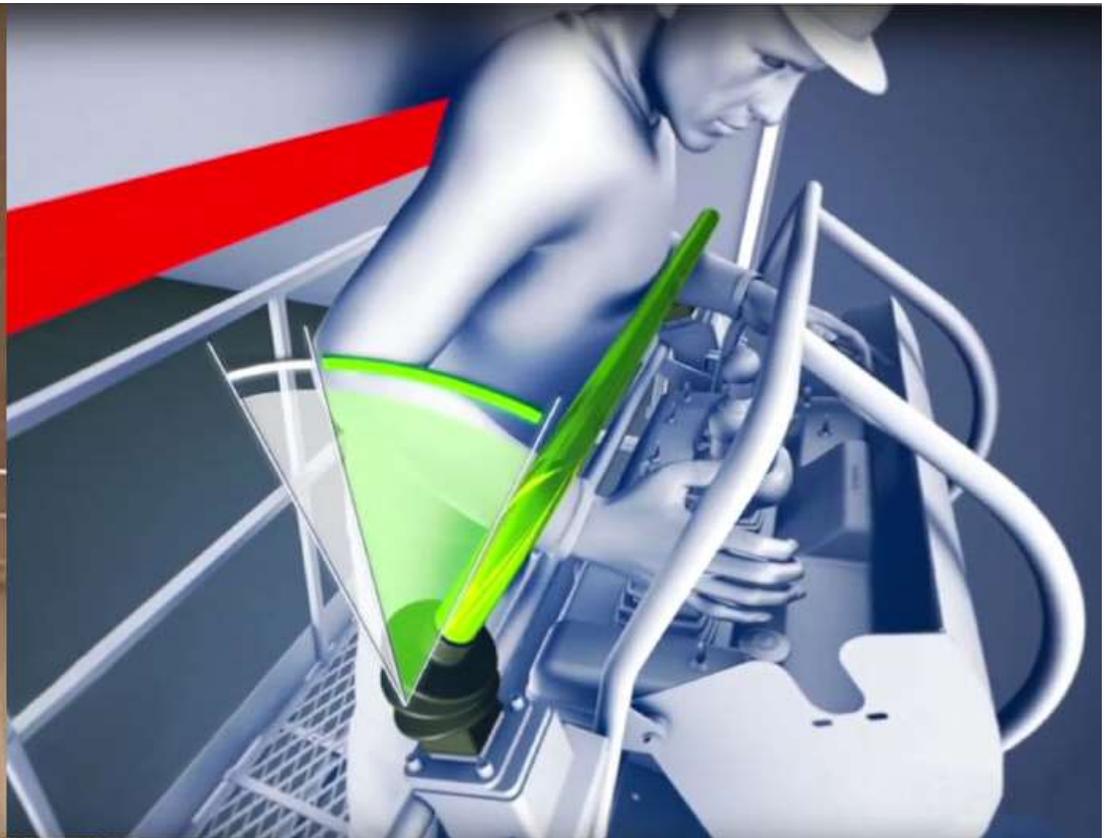


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Design Of MEWPs Secondary Guarding

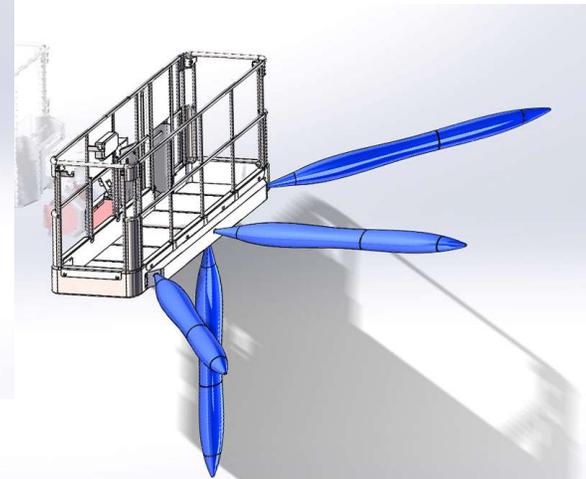
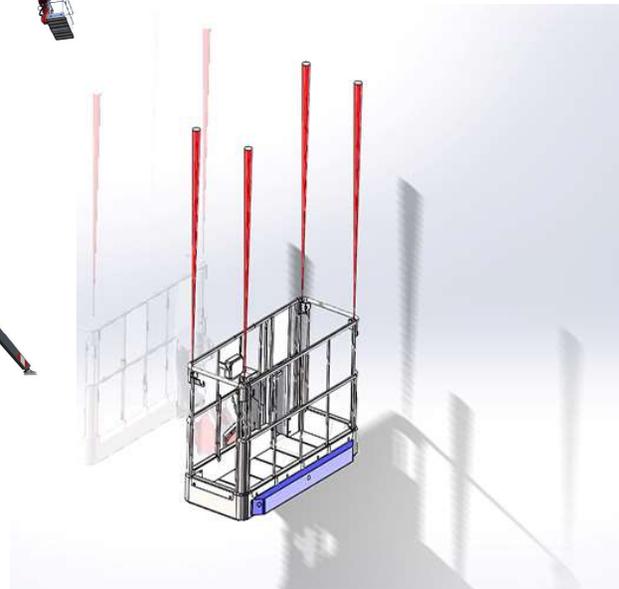


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Design Of MEWPs - Collision avoidance Palazzani



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Safe Use

- Lighting systems for unloading



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Training - Identifying what training is required Accident Reporting Portal



IPAF ACCIDENT REPORTING

Username

Password

SUBMIT [Forgotten Your Details ?](#)

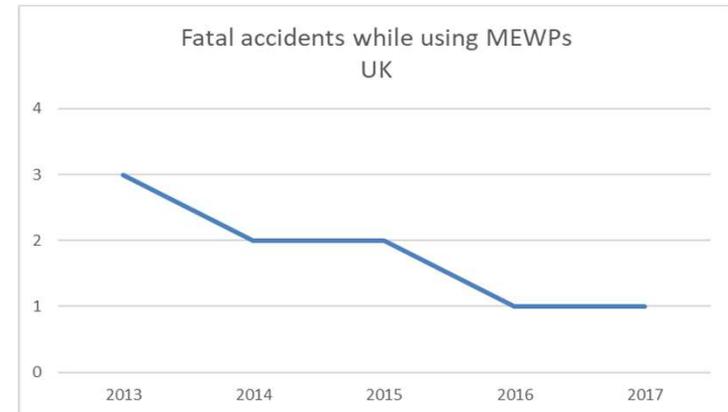
Not Registered ?
 Sign Up !

The preferred way to report an accident is to register your details (above) and obtain a secure password to access the confidential reporting database.

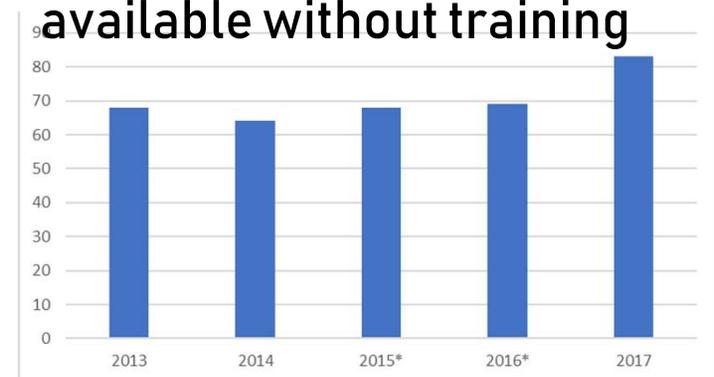
If you are unwilling to register to use this reporting system, please click on the box below to inform IPAF of any fatal accident involving powered access equipment.

ANONYMOUS REPORTING

A decrease in fatalities in the UK



An increase globally as MEWPs are available without training

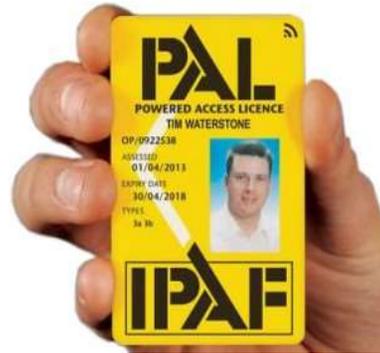


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Training



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Training E-learning

It's important to know what is under the ground as well as at the surface. There are many different underground hazards that may not be obvious, but their existence can lead to sudden ground failure.

Which two hazards look most likely here?

Select the 2 correct choices.

Hardcore or thin paving overlaying soft weaker material

Backfilled excavations and service trenches

Shallow pipes, culverts and other services

Covered shafts and manholes

Voids under old concrete foundations

Cellars and basements

Hidden geological features such as sink holes, other voids and fissures

Poor ground adjacent to slopes sensitive to slip failure



It's time to take a closer look at the different parts of a MEWP by building one.

Select the parts of this construction site and build a suitable MEWP as you go.



Hierarchy of Falls

MEWP personal fall protection relates directly to the hierarchy of falls.

Select the 5 parts of the hierarchy.



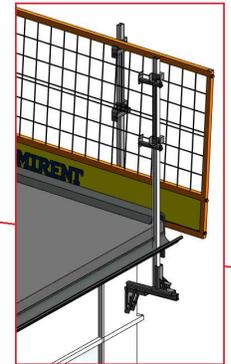
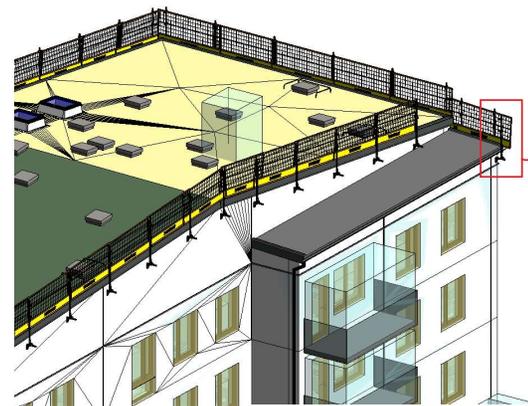
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Planning & Pre-use - BIM

HUS B - Fallskydd runt taket



RAMIRENT



<p>★ IPAF</p>  <p>Vertical Lift International Powered Access</p> <p>Download</p> <p>Add to bundle</p>	<p>★ IPAF</p>  <p>Static Boom Vehicle Mounted International Powered Access</p> <p>Download</p> <p>Add to bundle</p>	<p>★ IPAF</p>  <p>Mobile Boom - Telescopic International Powered Access</p> <p>Download</p> <p>Add to bundle</p>
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Planning & Pre-use – Potential savings Impact of BIM technology



Reference:
Norwegian Road
Administration in
coop. with Vianova
Systems AS, 2013.

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Training - Virtual Reality Simulators



- IPAF should not develop simulators, but work with manufacturers in their development
- IPAF should approve/accredit simulators for different uses, if they meet proposed requirements
 - IPAF should use and develop VR/AR models and 360° for the training programmes
 - The market is not ready to accept that operators could be exclusively trained on Simulators and currently require a practical test on actual machines

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Training – Augmented Reality



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Future

**More Automation,
Increased use of Robotics**



Auto Load/Unload



RISKS : All technologies have a downside, and introduce new risks
IPAF is working to ensure to ensure regulations support safe workplaces with Telematics, Remote access , Robotics and co-robotic workplaces



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Information provided by the following

Gracias Thank-you



New Technologies in Safety
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