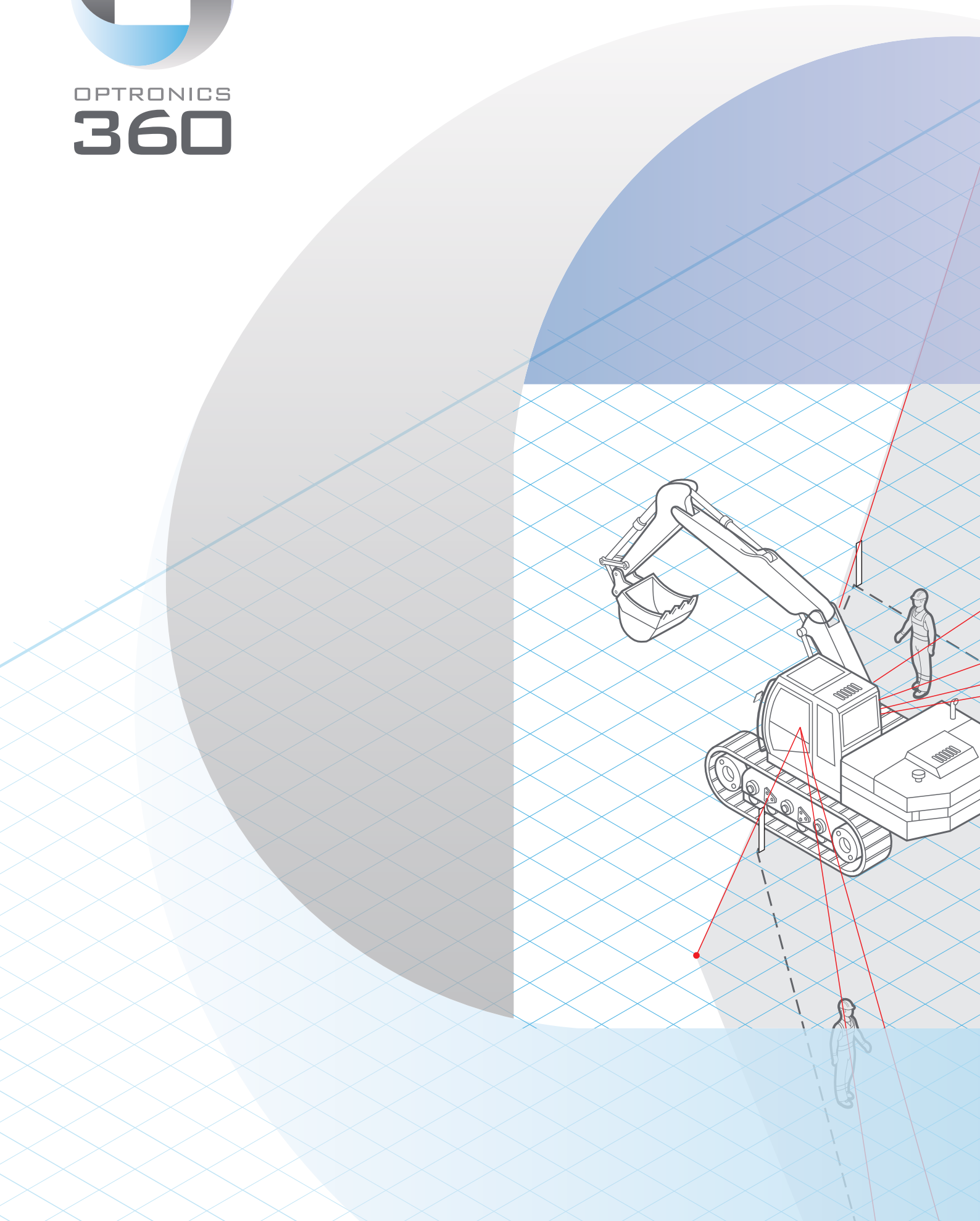


OPTRONICS  
**360**

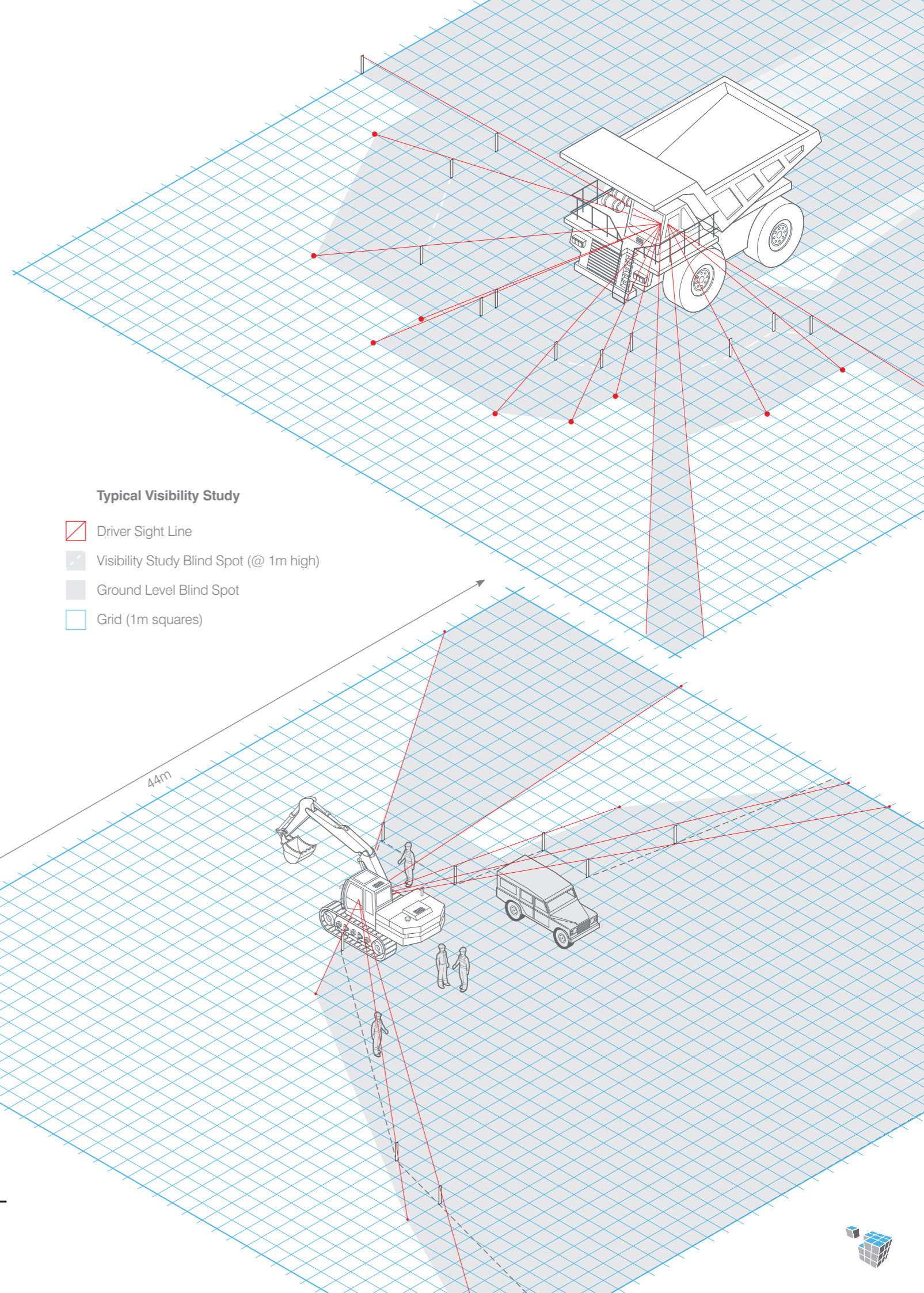
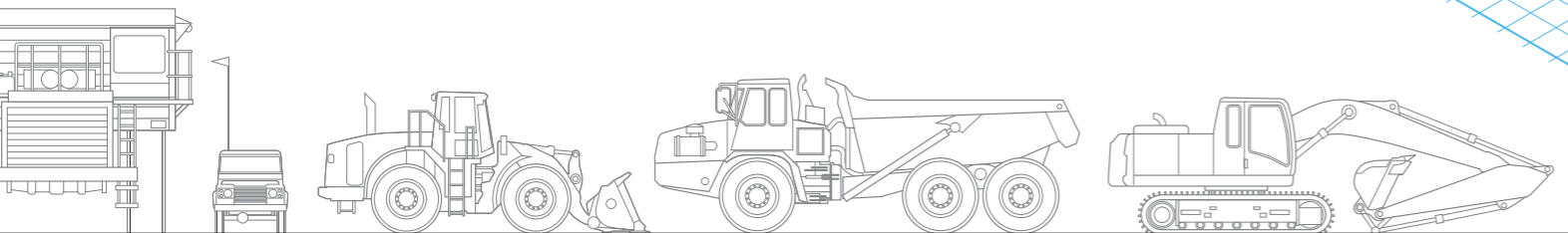


# Kill the blind spots before the blind spots can kill.

When the worst happens – and someone is killed or seriously injured by heavy machinery or a commercial vehicle – it's too late to discover that it was caused by a blind spot. Too late to realise that it could have been easily rectified with the right safety aids, properly installed. Too late to make sure that the driver could see all around the vehicle, and at a distance to be able to stop in time.

Serious accident rates and fatalities in construction, mining and quarrying are still too high. Even one is too many. And every one brings in its wake a tragic trail of human loss, compromised duty of care, possible prosecution, compensation claims, and irrecoverable reputational damage.

It simply isn't safe to assume that machines and vehicles have no blind spots. They do. Visibility studies prove it, time and time again. Even the operators may not realise it. Even when mirrors and cameras are fitted, poor installation can still leave blind spots. And blind spots kill.



# Eliminating the blind spots

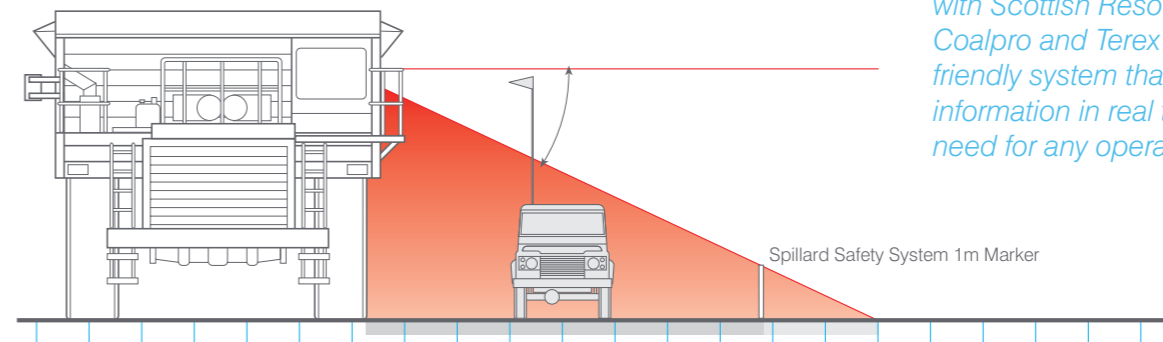
Optronics 360 is the world's first 360 degree surround view camera system for industrial and commercial vehicles. It takes visibility up to the next level – literally.

Optronics 360 consists of a combination of a camera system, a monitor and a high performance programmable electronic control unit (ECU) that uses heavy duty image processing to display a 360° quadraspherical bird's eye image of the vehicle and surroundings, eliminating blind spots.

Already proven in the high end passenger car market on the BMW 5 series and the Land Rover, Range Rover models, all the advantages of this highly sophisticated system are now available for use on mining, quarrying and construction machines and commercial vehicles.

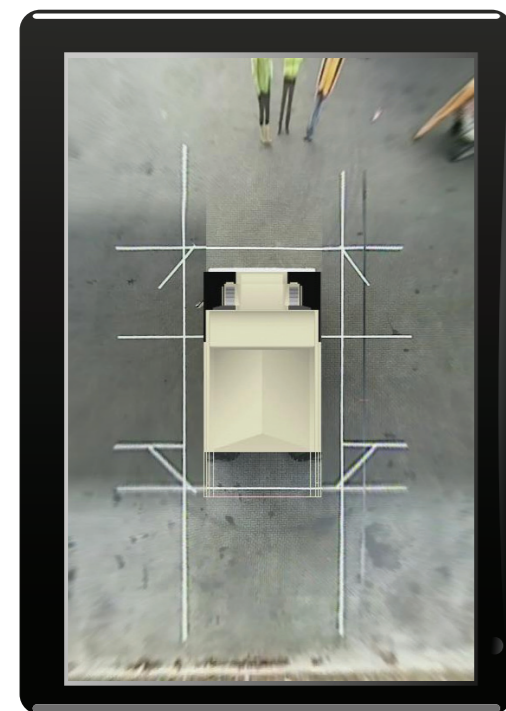
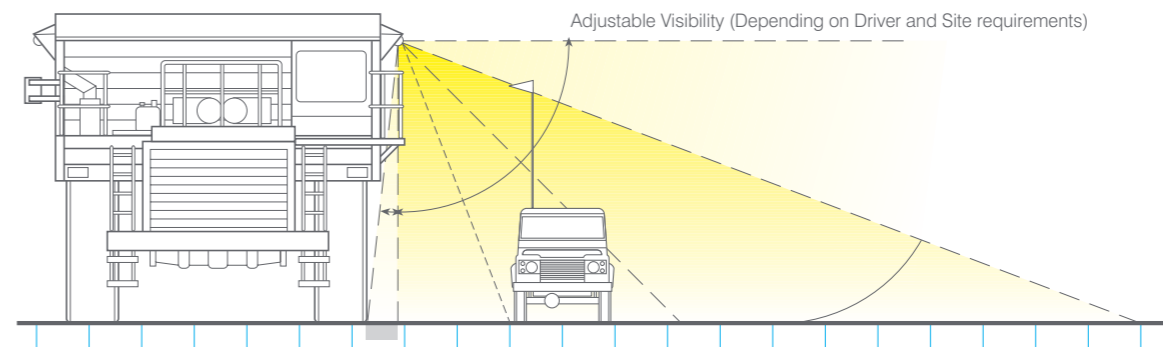
No compromise. No cutting corners. And no limitations on all round visibility when people's lives and safety are at stake.

Typical Existing Blind Spot



*The system has been developed with Scottish Resources Group, Coalpro and Terex to deliver a driver friendly system that provides clear information in real time - without the need for any operator intervention.*

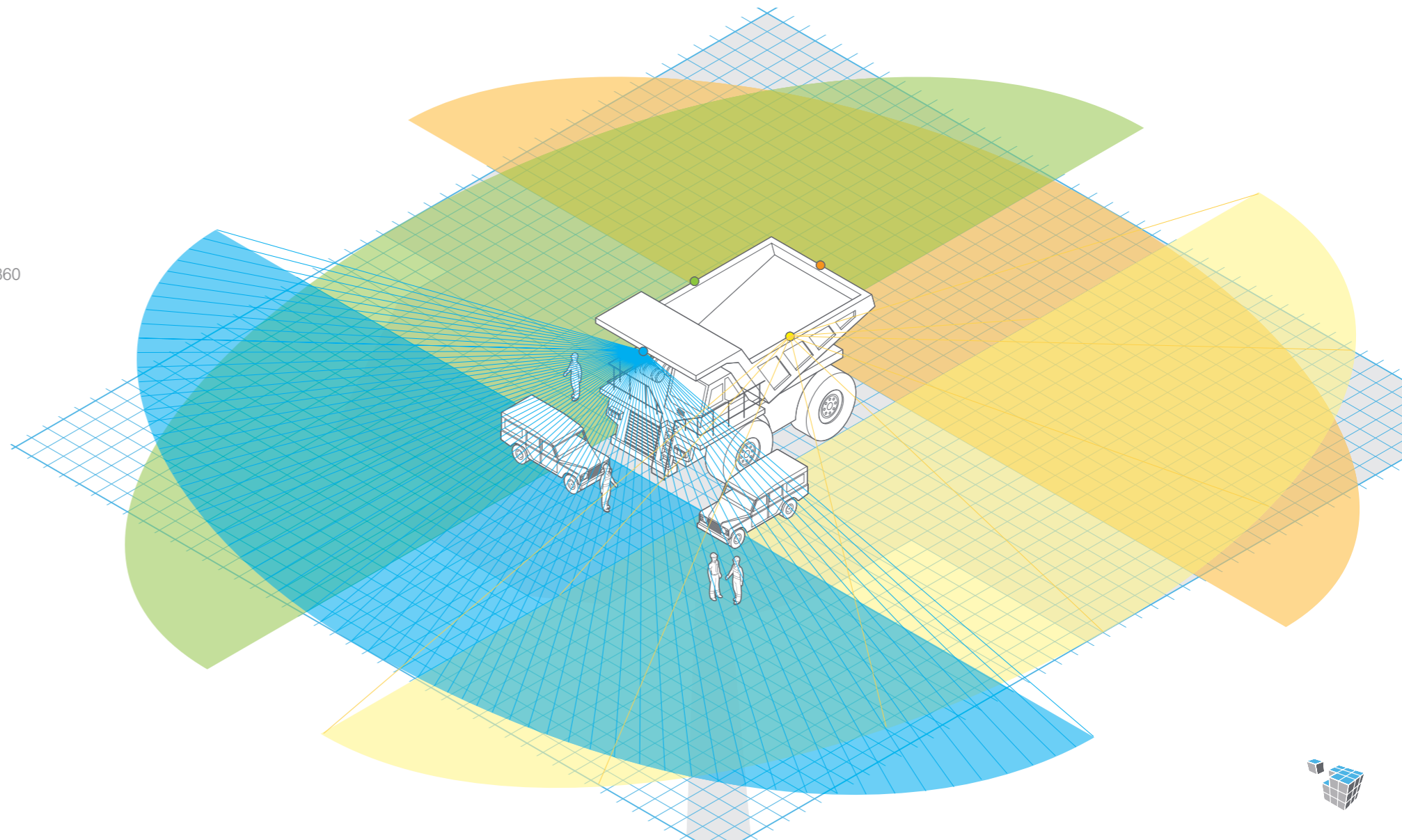
Typical Impact of Optronics 360



## Eliminating the blind spots

Four cameras combine to provide total 360 coverage with quadraspherical vision.

- Driver Sight Line
- Driver Blind Spot
- Visibility Study Blind Spot (@ 1m high)
- Ground Level Blind Spot
- Quadraspherical Camera 1
- Quadraspherical Camera 2
- Quadraspherical Camera 3
- Quadraspherical Camera 4
- Grid (1m squares)

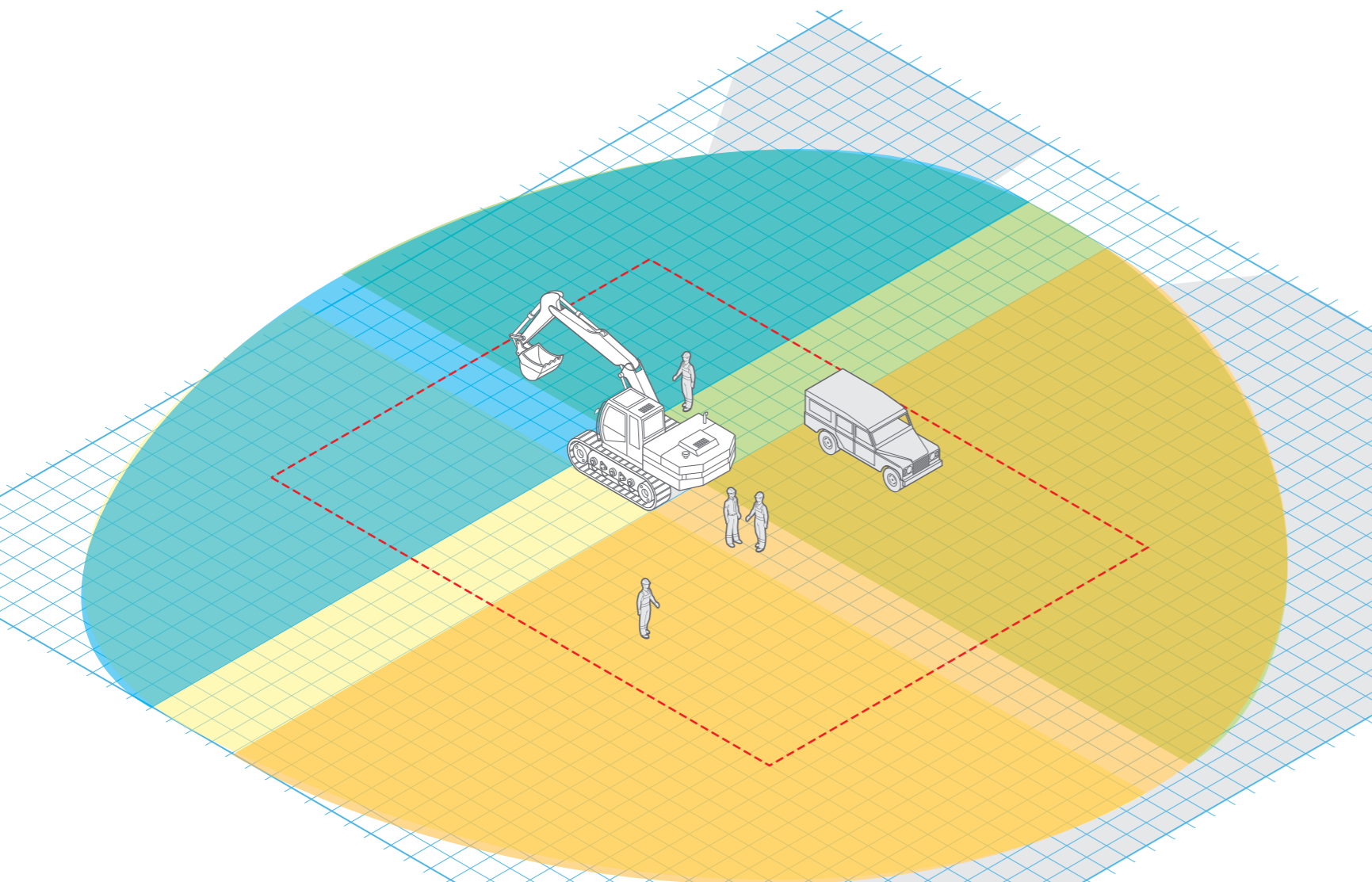
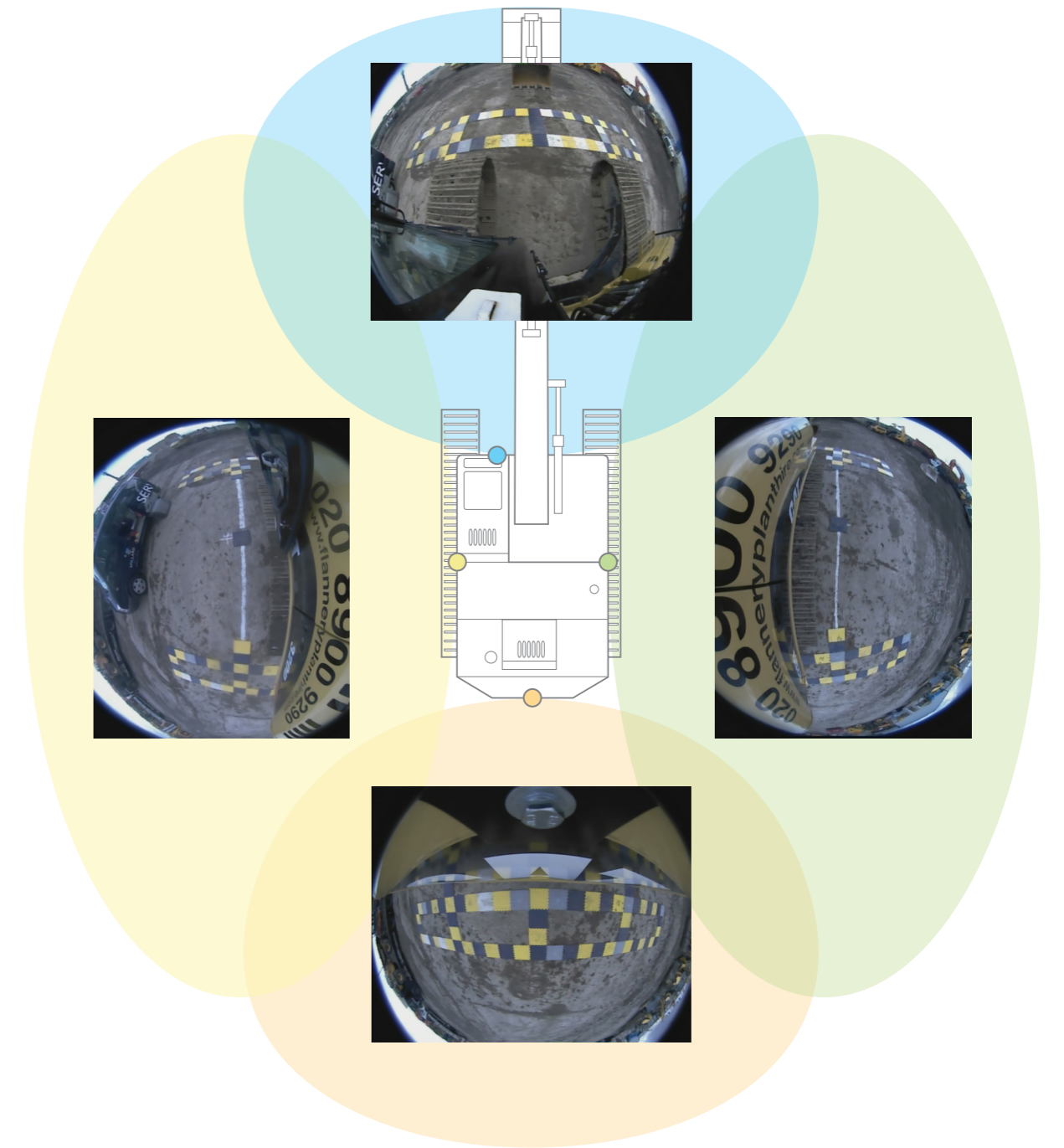
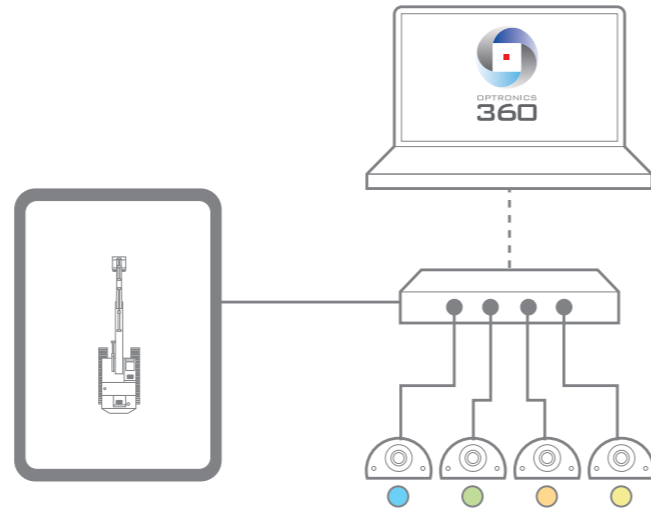


# Omnidirectional Image Processing

At the heart of the Optronics 360 surround view system is a programmable image processing unit.

Calibrated ultra wide cameras produce huge amounts of omnidirectional image data – horizon to horizon in 360°. The image is then manipulated through vision mapping software, creating image regions, which when digitally stitched together produce optimum surround views, reducing blind spots and improving all round visibility.

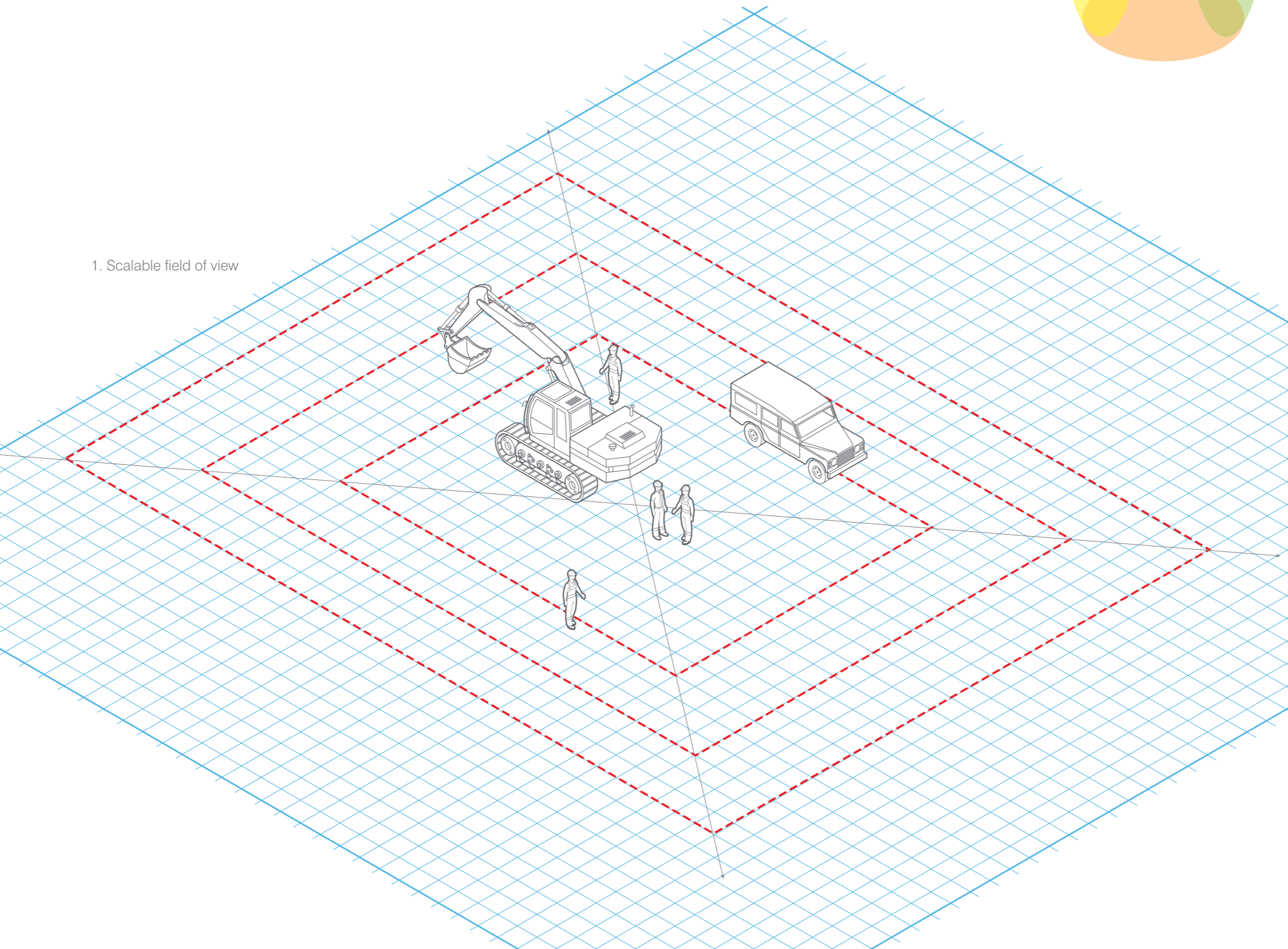
This method of digitally stitching image regions allows us to place the stitching in less critical areas to ensure maximum 360° vision is achieved at all heights, all the time – another critical aid to optimising visibility and avoiding accidents.



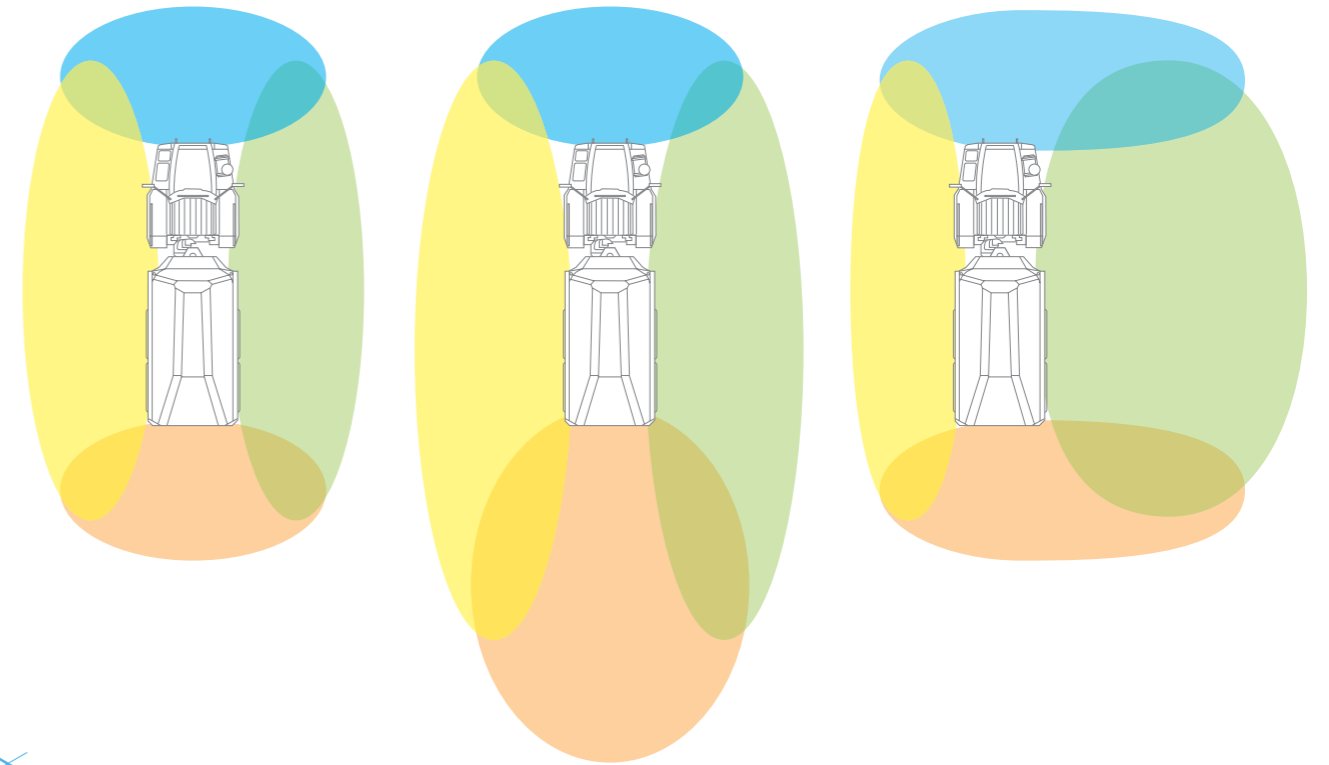
# Flexibility for vehicle, site and environment

The programmability of the Optronics 360 system allows for the image regions to be processed to provide image data specific to your individual requirements, making every installation unique.

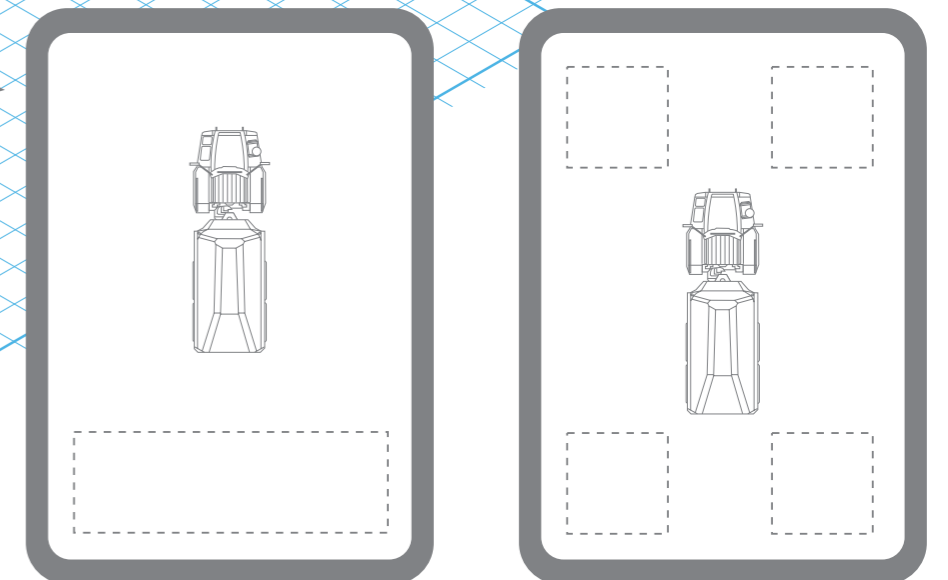
1. Scalable field of view



2. Programmable image regions – even, off-set front back or left right.



3. Picture in picture – image regions can be place on top of surround view to provide additional image data, for example rear view image when reversing.



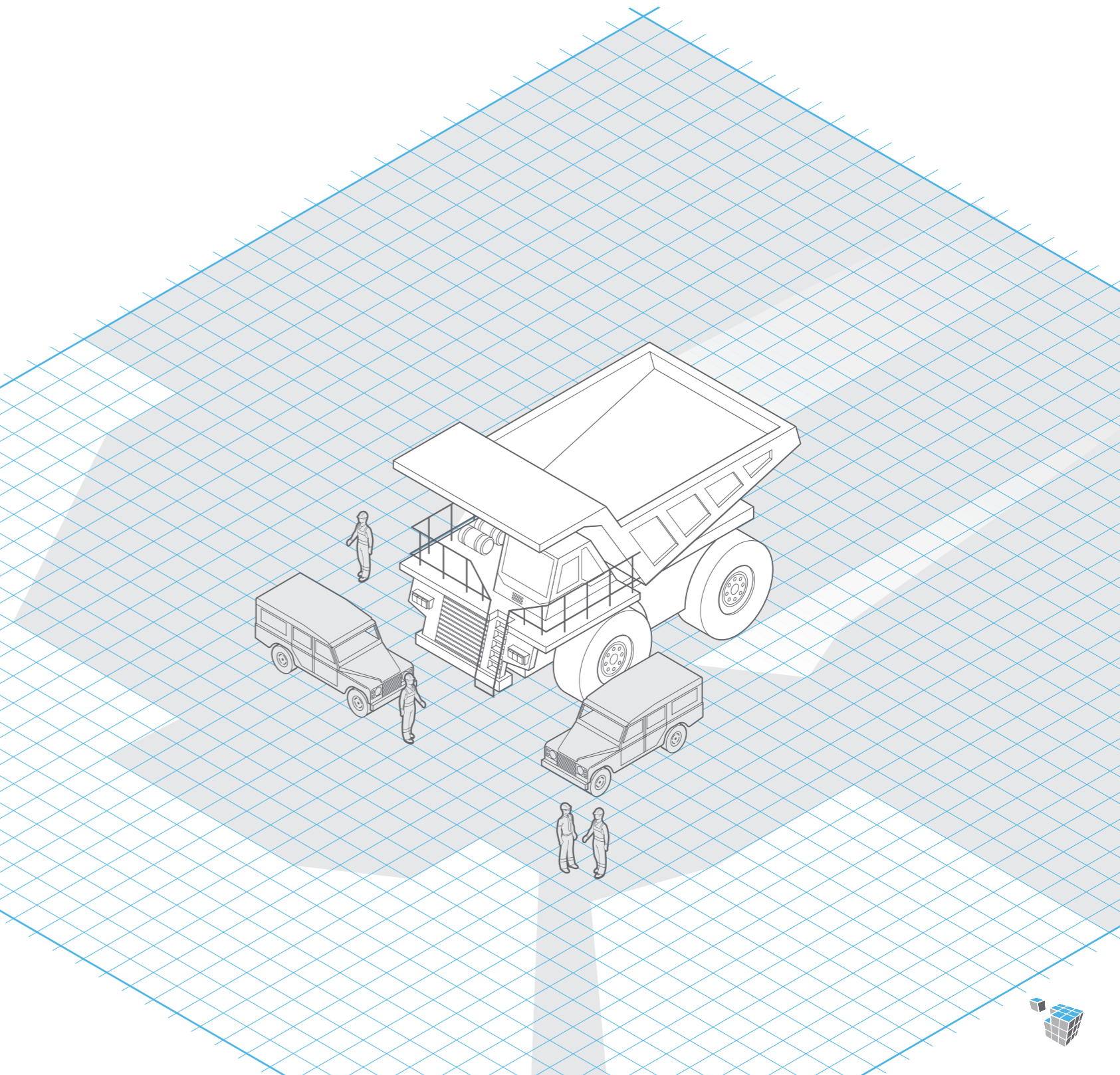
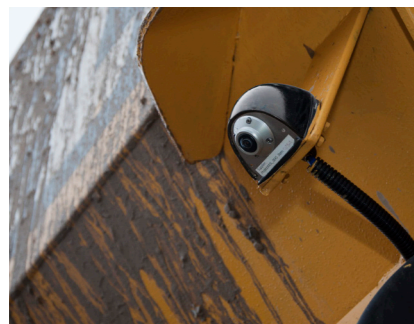
# Installed by experts

At SPILLARD SAFETY SYSTEMS we are committed to providing our customers with the highest levels of service, whether we're installing a sophisticated 360 degree surround system or a convex mirror, our in-house team of fully trained, competent and experienced engineers, pay meticulous attention to detail when carrying out every installation – making sure for example that cameras are in the correct key positions, and that the monitor is in an optimal position in line with the mirrors.

Uniquely we offer complimentary visibility studies, which we've been carrying out since 1995 mapping the blind spots on individual vehicles and machines. (Over two hundred assessments are available to download from our website.) This is a natural starting point for helping to make sure that the safety aids we specify and install are right in every case, and fully effective.

This commitment and attention to detail, along with our continuous improvement policy, has earned our products acknowledgement by the HSE as well as numerous awards and commendations from industry, together with on-going programme management and after-sales support, we believe in building lasting relationships with our clients where customer care and training are as important as finding the right solutions and providing the best equipment.

If you would like to know more about Optronic 360, or simply want to clarify safety requirements that may apply to your machines, please contact our dedicated team or you can always visit our web site at [www.spillard.com](http://www.spillard.com)





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