Sustainable management of the road corridor: addressing safety, assets, condition, and environment with a single mobile LiDAR and imagery survey capture

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SUMMARY

Sustainable management of the road corridor is critical if we are to meet the United Nations' Sustainable Development Goals due to its influence in areas such as safety, health, resilience, and environment. ☐Traditionally, many of these of areas are addressed independently to each other, creating unsustainable inefficiency and wastage. Today's innovation in AI and remote sensing data now means that a vast amount of road corridor products can be delivered from a single mobile LiDAR and imagery survey using Anditi's RoadViewer and RoadCoder software, leading to a sustainable solution that addresses many of the SDGs. ☐Some examples of solutions that can be provided from a single capture include: ☐•Safety – AiRAP Star Rating assessments outline the inherent risk levels in each 100m segment of road, identifying high risk areas that need to be addressed in order to reduce road fatalities and injuries ☐•Health & Environment – As global temperatures continue to rise; it is critical that tree canopy coverage expands. As well as the environmental benefits of reduced temperatures and increased shading, this also improves liveability, well-being and options for active transport. The digital twin allows the calculation and modelling of carbon storage levels and shading from current and proposed trees. ☐•Infrastructure resilience – Mobile surveys also allow asset managers to gain the information necessary to understand the current condition of their assets, where repairs need to be made, and the different performance of different materials. ☐•Accessibility – The same digital twin can be used to automatically assess accessibility in areas such as bus stops and footpaths. ☐These are just some of the ways in which innovation in AI and remote sensing has made sustainable management of the road corridor possible with a single mobile LiDAR and imagery survey through the use of Anditi's RoadViewer and RoadCoder software. ☐This software enables users to successfully address these critical UN SDGs by using one single data capture, greatly improving efficiencies and sustainability. ☐

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