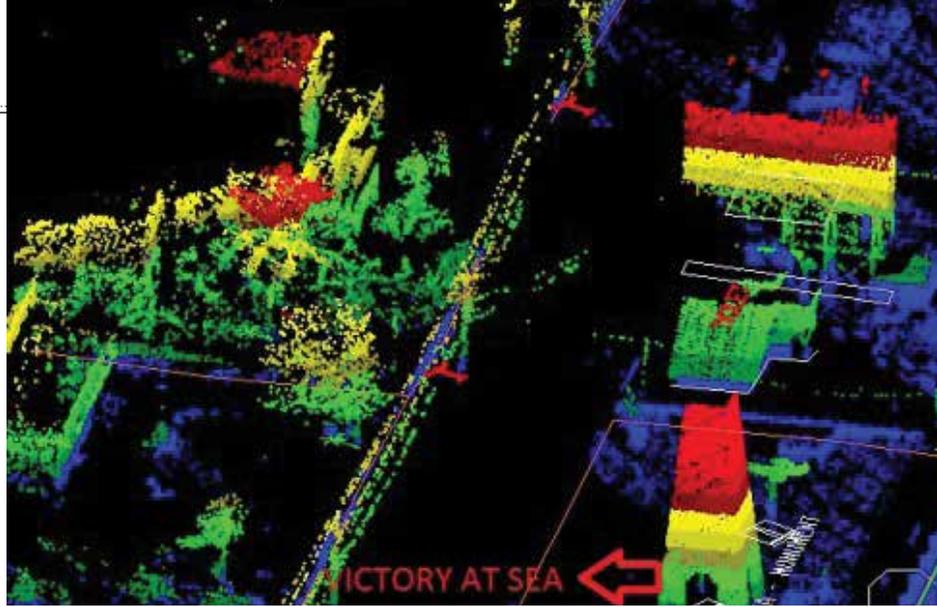


A mobile laser scanning point cloud, created from the laser and spherical imagery, is an immensely valuable asset to any infrastructure project



MAPPING INDIA'S STREETS, THE SMART WAY

As India expands and upgrades its infrastructure, construction companies need to lay thousands of kilometers of pipelines and cables in road corridors — without disrupting the existing services. The traditional way of planning this construction is to manually survey the roads to map routes for pipe or cable trenches. Survey teams cover just a few kilometers each day.

An alternative is to use mobile laser scanning (MLS). Using light detection and ranging (LiDAR) and spherical cameras mounted atop a car,

MLS is able to map road and construction routes at hundreds of kilometers a day.

The specialized equipment records all road features in high-density laser point clouds and, being

mobile, does not disrupt traffic or risk project safety.

AAM India has deployed their StreetMapper MLS to map thousands of kilometers of infrastructure project routes across India. This technology produces dense streetscape point clouds and street maps of all visible assets within a project corridor, faster and in more detail than manual survey methods.

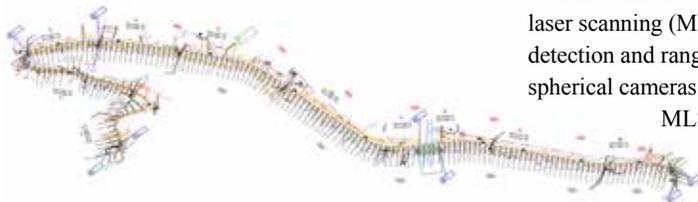
AAM's Senior Corporate Sales Manager, B. Sivaram Kumar, talks about StreetMapper MLS. Excerpts:

India's rapid growth means that we have major projects with ambitious deadlines. How does StreetMapper MLS help?

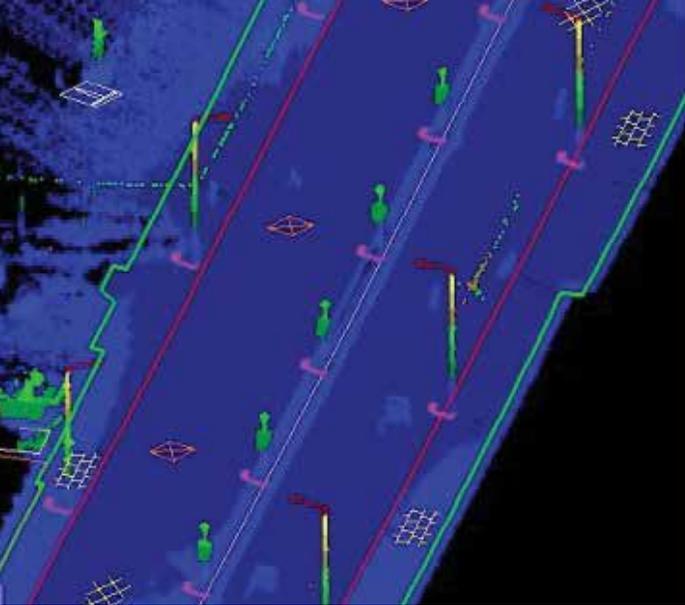
The days of waiting months and months for field surveys using differential GPS and total stations to map corridors 500 to 1,000 kilometers long are over. A mobile laser scan can cover 100 kilometers in a single day.

It appears that possibly the biggest advantage of StreetMapper is that it captures information that customers don't know that they need at the time of the survey. Have you experienced this situation?

On a recent optical fibre project, the client brief didn't include capturing all the manhole covers, but they later realized this was essential data. In



MLS vectors extracted from point cloud



MLS LiDAR over a streetview vector map

the conventional field survey era, this would have meant going back into the field to pick up all of these objects; with StreetMapper, the data was already there.

It is the mobility of the StreetMapper system that appears to revolutionize the route survey capture process. How has this played out in the real world environment?

With StreetMapper, the surveyor no longer needs to disrupt or stop traffic to gain the measurements required. The vehicle can keep moving with the traffic flow and capture the imagery and laser measurements. The type of vehicle the system can be mounted on is incredibly versatile.

India's economic growth is being driven by reform and innovation. This includes the adoption of new technologies in mapping, visualization and asset management. Do you see the up-take of StreetMapper MLS contributing to this growth?

Most certainly! Indian companies and corporations are moving from having to rely upon low-resolution imagery obtained from satellites, such as Google Maps, to having some of the most detailed and accurate data globally. This is a major advancement for projects using StreetMapper Mobile Laser Scanning.

Communicating the benefits of StreetMapper to all sectors and across Indian industries and states will take time. How do you intend to explain this technology?

This is a challenge for AAM India and also for the broader GIS industry. A risk for growing economies is that infrastructure projects may be unaware of efficient new technologies. That is why we are asking all GIS professionals in industry and academia, both here in India and abroad, to take a leadership role in educating all sectors of the benefits of new GIS solutions, such as, StreetMapper MLS.

What are your final words regarding the StreetMapper MLS?

MLS StreetMapper delivers accurate, detailed and clear definitions of the proposed cable or pipeline routes, in a timeframe, cost and level of detail which is not possible with conventional survey methods. An MLS point cloud, created from the laser and spherical imagery, becomes an immensely valuable asset to any infrastructure project. Additional features can be extracted from a point cloud (such as manhole covers) as required, without the need to send survey crews back into the field. And project teams receive accurate as-built drawings, enabling them to optimize trenching operations. 🌍

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MLS camera on vehicle