

DEVELOPING A METRO AUTONOMY PLATFORM



A Global Leader In Railway Systems

The Client engaged PreScouter to support their leadership team in formulating their “make or buy” strategy regarding object detection systems for autonomous railways, with a focus on LiDAR, radar, camera, and inertial sensors.



CHALLENGE

In this Research Support Service Project, PreScouter the Client was interested in developing a metro autonomy platform and tasked PreScouter with (a) providing data and analysis to determine whether to make or buy object detection systems and (b) presenting information regarding the relevant market trends and developments in the subway, metro, and tramway segments including system safety integrity levels, sensors used in object detection systems, and marketing information.



APPROACH

PreScouter launched an analysis to determine a make, collaborate, or buy strategy for sensors and presented to the Client two Intelligence Briefs (IBs) outlining their results. The first IB comprised a landscape of object detection systems applicable to each railway segment type. Based on feedback from the Client, the second IB expanded on the search conducted for the first report and looked into parallel industries (i.e., mining, automotive) for additional object detection systems.



OUTCOME

The PreScouter team identified over 20 relevant object detection systems and key components (hardware, sensors, algorithms, etc.) available from potential suppliers and competitors globally and highlighted the best approach (make or buy) for the three segments explored. A Subject Matter Expert in object detection sensor systems confirmed the trends identified and advised the Client on relevant strategic considerations to keep in mind for product development.

