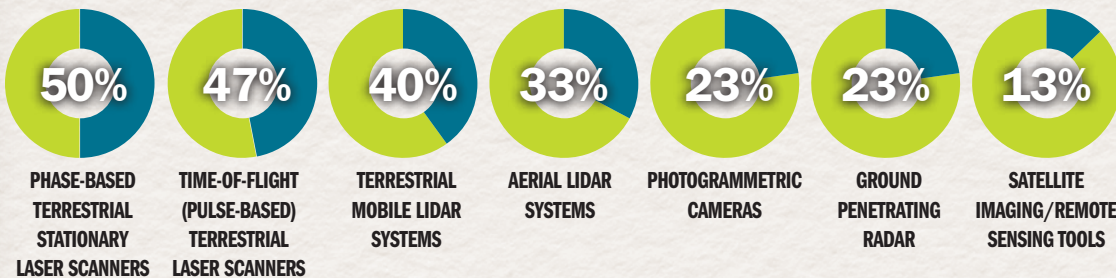


Laser Scanning Trends in Surveying

As laser scanning affects more surveyors, *POB* would like to know more detailed information on trends involving those tools. For the second year, BNP Media's market research division worked with *POB* to conduct a study on trends in laser scanning surveying.

The study looked at the usage of laser scanning tools in workflow, previous training received for laser scanning tools, the interest in and likelihood for future training and attitudes toward how laser scanning tools are influencing surveying. The study found most of the surveyors who participated use total stations and GPS/GNSS, however, those with experience using laser scanners has increased over last year.

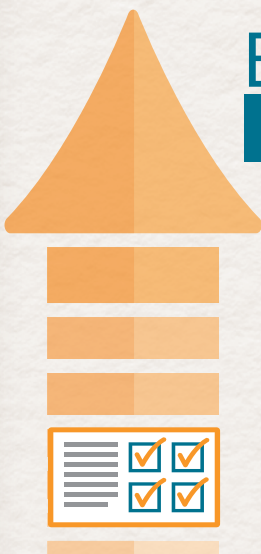
LASER SCANNING/IMAGING TOOLS USED



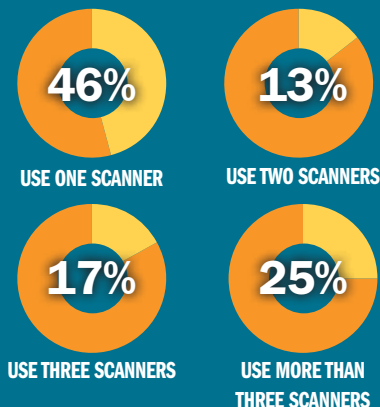
RESPONDENTS WHO USE AERIAL LIDAR SYSTEMS INCREASED BY 83% FROM LAST YEAR, AND... 42% MORE SURVEYORS THIS YEAR ARE USING TIME-OF-FLIGHT TERRESTRIAL STATIONARY LASER SCANNERS.

EXPERIENCE IS INCREASING

WHILE **59%** OF LASER SCANNER USERS LAST YEAR DIDN'T HAVE ANY SCANNERS THREE YEARS PRIOR (2010), ONLY **41%** OF LASER SCANNER USERS SURVEYED THIS YEAR WERE NOT USING SCANNERS IN 2011. CURRENTLY, MORE THAN HALF OF LASER SCANNER USERS ARE USING MORE THAN ONE SCANNER.



MORE SCANNERS BEING USED

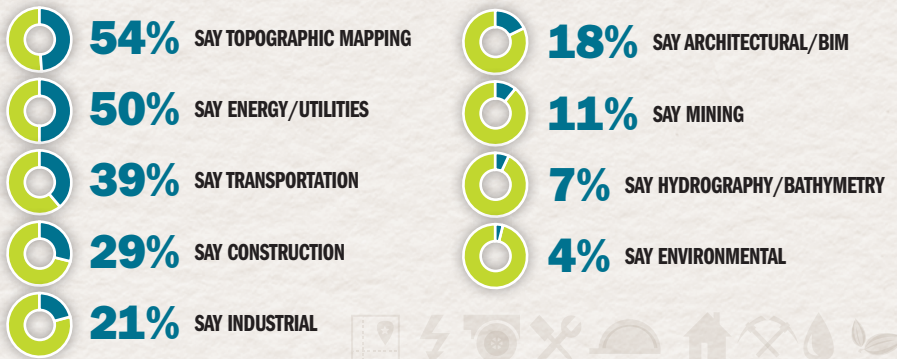


THE AVERAGE NUMBER OF SCANNERS USED BY RESPONDENTS IS **2.63**, WHILE LAST YEAR THE AVERAGE WAS **1.88**.

LASER SCANNING TOOLS ADDED

NEARLY **HALF** OF USERS SURVEYED HAVE NOT ADDED ANY LASER SCANNING/IMAGING TOOLS IN THE PAST **12 MONTHS**, **BUT** of users have added phase-based terrestrial stationary laser scanners and/or terrestrial mobile LiDAR systems in the past **20% 12 MONTHS.**

APPLICATIONS SEEING STRONGEST GROWTH



WHILE TOPOGRAPHIC MAPPING REMAINS ONE OF THE HIGHEST APPLICATIONS SEEING GROWTH IN DEMAND, HALF OF USERS ARE SEEING DEMAND GROWTH IN ENERGY/UTILITIES, WHICH IS A 100% INCREASE COMPARED TO LAST YEAR.



ATTITUDES TOWARD TRENDS

MORE THAN **2/5** of both users and non-users **AGREE** that the surveying profession has the opportunity to lead in laser scanning/imaging implementation but isn't moving quickly enough.

MORE TRAINING WANTED

- 67%** OF LASER SCANNER USERS DON'T BELIEVE COLLEGES AND UNIVERSITIES ARE ADEQUATELY TRAINING THE NEXT GENERATION OF SURVEYORS TO CORRECTLY APPLY LASER-SCANNING/IMAGING TECHNOLOGY, AND 30% OF NON-USERS AGREE.
- 50%** OF USERS DON'T BELIEVE PROFESSIONAL SOCIETIES/ORGANIZATIONS ARE ADEQUATELY ADDRESSING THE CHALLENGES BEING CREATED BY LASER SCANNING/IMAGING TECHNOLOGY, AND 34% OF NON-USERS FEEL THE SAME WAY.
- 57%** OF USERS DON'T BELIEVE THERE IS ADEQUATE AVAILABILITY OF LASER SCANNING/IMAGING EDUCATION COURSES AND TRAINING OPPORTUNITIES FOR SURVEYING PROFESSIONALS, WHILE 36% OF NON-USERS AGREE.

PLANNING TRAINING

WHILE **2/3** OF USERS PLAN TO TRAIN IN THE **NEXT 12 MONTHS**, LESS THAN **1/3** OF NON-USERS PLAN TO TRAIN.

1/2 OF USERS AND A **1/3** OF NON-USERS ARE INTERESTED IN RECEIVING LASER SCANNING/IMAGING EDUCATION THROUGH PRINT AND ONLINE ARTICLES.

AMONG USERS AND NON-USERS, COLLEGE AND/OR UNIVERSITY COURSES HAVE THE LEAST INTEREST.

- 53%** of users have interest in training through print and online articles
- 53%** of users have interest in video training, an 11% increase over last year
- 53%** of respondents who use laser scanners have interest in video training, a 26% increase from last year

DEMAND CHANGING

25%

OF USERS BELIEVE DEMAND FOR LASER SCANNING HAS GREATLY INCREASED

43%

OF USERS BELIEVE DEMAND HAS SLIGHTLY INCREASED

25%

OF USERS BELIEVE DEMAND HAS REMAINED THE SAME

7%

OF USERS BELIEVE DEMAND HAS GREATLY DECREASED

PURCHASE DECISIONS

IN THE NEXT 12 MONTHS, almost **HALF** of users plan to purchase some type of laser scanning/imaging tools, with **23%** planning to buy phase-based terrestrial stationary laser scanners. The **MAJORITY** of non-users do not plan on purchasing any laser scanning/imaging tools in the next 12 months.

For more information about how the Laser Scanning Trends in Surveying study was conducted, visit www.pobonline.com.