

Europe's Growing Need for Lab Data Management Solutions



Investments in cloud-based laboratory information management systems (LIMS) are part of Europe's eHealth strategy. Specifically, increasing demand for genetic and molecular testing data management solutions will drive growth in Europe's LIMS market, according to a new report from Frost & Sullivan. Market revenues are estimated to reach \$394.1 million in 2021, up from \$303.5 million in 2014.

LIMS providers in Western Europe focus on offering hosted software-as-a-service with free automatic upgrades and built-in customisations. To cash in on the new market trend, LIMS providers should ensure that their products meet the needs of diagnostic, speciality and hospital laboratories, which demand low turnaround times for patient samples.

"The development of LIMS that support genetic and molecular testing requirements can speed up these processes and have a high impact on preventative medicine in Western Europe," said Frost & Sullivan Healthcare Industry Analyst Srinivas Sashidhar. "For the specialised process of genetic testing, however, traditional LIMS will have to undergo modifications to suit the workflow requirements of a genetic laboratory. The integration of such features with traditional LIMS is also necessary to respond to the unique needs of complex diagnostic sectors such as cytogenetics, human leukocyte antigen typing and flow cytometry."

LIMS must evolve to have higher data storage capacity as well as the ability to detect genetic arrangements and access sample records that contain gene database information. "This will make capabilities such as high-speed computing and processing, and sophisticated software for specimen tracking, quality assurance, and quality control documentation crucial for success," the analyst said.

While all this can be achieved, justifying the return on investment after replacing old LIMS will be a challenge for vendors in Western Europe, especially in the case of expensive high-end enterprise LIMS modules.

The Frost & Sullivan also cites a new trend towards integration of LIMS with electronic laboratory notebooks so that data from laboratory instruments can be automatically transferred back and forth in real time. Integrating LIMS with hospital information systems (HIS) is also an upcoming trend in Europe.

"Instead of each laboratory operating its own LIMS and having vendors maintain the systems individually, a remotely located LIMS hub can support all laboratory operations within the region," explained Sashidhar. "The hospital laboratories integrated with this chain will also establish web-enabled electronic patient records. Overall, this Service Integrated Architecture model will be an easier and cost-effective method for laboratory management."

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