

# Understanding Key Challenges and Pain Points in the Global Laboratory Market

## Global Analysis

### June 2017

#### Overview

'Understanding Key Challenges and Pain Points in the Global Laboratory Market' is a multi-country survey that compares key challenges in the global laboratory market. The main objective of the survey was to understand the key challenges and pain points that laboratories face, as well as their commonalities, differences and unmet needs.

The survey was commissioned by Agilent Technologies and was conducted by Frost & Sullivan via a 30-minute online questionnaire in 4 countries: Germany, United Kingdom, USA, and China. A total of 700 people were surveyed from across the laboratory employee spectrum, varying in experience, company size, role and primary function.

#### Rationale

Agilent Technologies is dedicated to providing trusted answers to its customers' critical questions and challenges – helping them to achieve superior outcomes in their laboratories, organizations and the world they seek to improve.

As a champion of customer success, Agilent commissioned the independent global survey to better understand some of the key challenges and pain points that are experienced by Lab Managers today. Agilent will use the results to determine how the company can better partner with customers to provide answers to the challenges that its customers are facing, and to ensure that Agilent continues to bring innovation that matters to the market.

#### Global Survey Findings

##### Laboratory Goals

- Developing staff and expanding the services provided are the top two personal goals for the laboratory managers globally. The need to improve working environment for staff and increase customer base is considered essential.<sup>1</sup>
  - When asked about their top 3 laboratory goals, 52% of laboratory managers ranked developing staff as one their top goals, followed by 49% who said expanding services of laboratory and 42% who said improving the working environment for staff.

##### Laboratory Challenges

- Laboratory managers face challenges that are largely linked to maintaining instruments and dealing with the increasing complexity of testing requirements. The majority of

laboratory managers indicated that time consumed on sample preparation is a challenge, along with keeping up with the changing regulations, and the need for better management of data.<sup>2</sup>

- When asked to rank the top five challenges in their laboratory, instrument maintenance/downtime was cited by the most laboratory managers (73%). This was followed by complexity of testing requirements (63%), time consuming sample prep (60%), keeping up with changing regulation (52%), better management of data (50%) and workflow optimization (40%).

### Key Laboratory Objectives

- In the next 18 months, the key objective across the survey respondents is to ensure higher throughput/productivity and to achieve improved system efficiency:<sup>3</sup>
  - When asked to choose their three main objectives over the next 18 months, the largest number of respondents (58%) included ensuring higher throughput/productivity, followed by improved system efficiency (55%) and development of new services needed by the organization (47%).

### Samples Processed

- Just over half of the laboratories process 500 to 1000 samples per week and just under half face pressure to increase this number.<sup>4</sup>
  - 31% processed below 500 samples per week
  - 54% processed between 500 and 1,000 samples per week
  - 15% processed between 1,001 and 5,000 per week
  - 45% of survey respondents said that there is pressure to increase the number of samples over and above their current processing figure

### Key Factors Limiting Productivity

- The productivity of laboratories is limited largely by the time consumed in preparing the sample, instrument downtime due to scheduled maintenance or unplanned downtime and method transfer/validation of new instruments.<sup>5</sup>
- When asked to rank the top five key factors that limit productivity, respondents cited the following factors:
  - Time consuming sample preparation (80%)
  - Instrument downtime due to scheduled maintenance (73%)
  - Unplanned downtime (67%)
  - Method transfer/validation of new instruments (64%)
  - Time for training laboratory technicians (40%)

### Elements to Improve or Increase Productivity

- Over half of the respondents would like to improve or increase productivity by increasing their reliability of results, implementing new technologies and maximizing use of already installed instruments.<sup>6</sup>

- When asked to rank the top three elements to improve or increase productivity, respondents cited:
  - Increase reliability of results (59%)
  - Implement new technologies (57%)
  - Maximize use of instruments/reduce downtime (51%)
  - Get test results faster (43%)

### Unplanned Downtime

- More than 75% of respondents face issues with sample preparation which leads to unplanned downtime. The most popular solutions to reduce unplanned downtime according to respondents is to increase automation, receive better after sales support from manufacturers and reduce instrument troubleshooting time.<sup>7</sup>
- When asked to select the main causes for unplanned downtime, respondents cited:
  - Issues with sample preparation (78%)
  - Instrument breakdown (64%)
  - Operator/technician error (45%)
- When asked to select the main measures to reduce unplanned downtime, respondents cited:
  - Increase the use of automated systems (78%)
  - Better after sales service from manufacturers (73%)
  - Reduce instrument troubleshooting time (55%)

### Laboratory Size/Footprint

- 1 in 5 respondents indicated that size/footprint of their laboratory is a limiting factor affecting operations today.<sup>8</sup>
  - 18% of respondents said that lab size/footprint is a limiting factor affecting lab operations today
- Of those, 75% believe space-saving designs of instruments can help overcome this challenge.<sup>9</sup>
  - According to respondents who indicated that footprint is a limiting factor:
    - 74% cited the need for instruments that have a space-saving design
    - 59% cited the need to re-organise lab equipment to optimize workflow
    - 59% cited the need to expand the laboratory by buying/renting space

### Workflow Optimization

- 41% of respondents find that their current workflow requires optimization.<sup>10</sup> According to those who indicated that this is the case, the main strategic changes that can be introduced to enable this are improving productivity and throughput as well as streamlining processes to manage growing workloads.<sup>11</sup>
  - 51% of these respondents cited improving productivity and throughput as a strategic change required to optimize workflow, followed by 26% who cited streamlining processes to manage growing workload

## References

'Understanding Key Challenges and Pain Points in the Global Laboratory Market?' survey, 2017, Agilent data on file

<sup>1</sup> Base: All global respondents (N=700). Q1. What are your main personal goals for your laboratory? Combined rank 1-3

<sup>2</sup> Base: All global respondents (N=700). Q2. What are the key challenges for you when it comes to your laboratory? Combined rank 1-5

<sup>3</sup> Base: All global respondents (N=700). Q3. Please tell us what your key focus/objective is for your laboratory for the next 18 months

<sup>4</sup> Base: All global respondents (N=700). Q4. On average, how many samples do you process per week? Q5. Is there pressure to increase number of samples processed, over & above your current processing figure?

<sup>5</sup> Base: All global respondents (N=700). Q6. What are key factors that limit productivity of your laboratory? Please indicate up to 5 factors and rank them in order. Combined rank 1-5

<sup>6</sup> Base: All global respondents (N=700). Q7. What are the key working elements within your laboratory that you would like to change/modify in order to improve or increase productivity over the next 18 months? Please indicate up to 3 elements and rank them in order. Combined rank 1-3

<sup>7</sup> Base: All global respondents (N=700). Q14. What are the key causes of unplanned downtime in your laboratory? Q15. In your opinion, what can be done to reduce unplanned downtime in your laboratory?

<sup>8</sup> Base: All global respondents N=700. Q16. Do you consider the size/footprint of your laboratory to be a limiting factor affecting your operations today?

<sup>9</sup> Base: n=160 (Respondents who indicated that footprint is a limiting factor) Q18. What is required to overcome this challenge?

<sup>10</sup> Base: All global respondents N=700. Q19. Is there a need to optimize workflow in your laboratory?

<sup>11</sup> Base: Those who indicated that changes were required to optimize workflow **n=287**. Q20. What strategic changes are required to optimize workflow in your laboratory? Rank 1