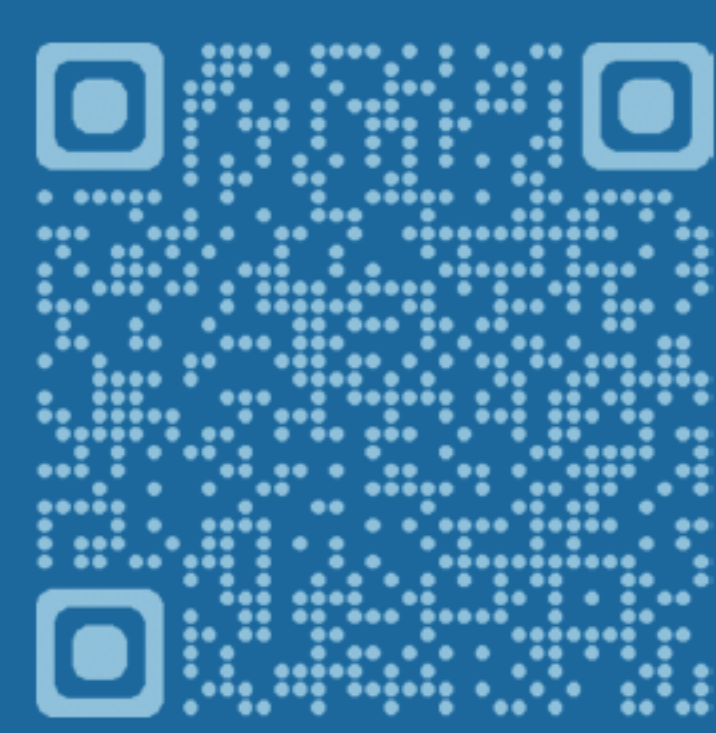


# LAB AUTOMATION



Sample preparation is a critical part of every analytical procedure, and one of the greatest practical challenges faced by all types of laboratories. The quality of the prepared sample has a direct impact on the accuracy and precision of analytical results; as well as the validity, robustness and reproducibility of research, clinical trials, process development...

Liquid handling, pipetting and dilution, reagent additions, liquid-liquid or solid-liquid extractions are tedious, repetitive, and often hazardous operations. Highly trained scientists and lab technicians spend hundreds of hours carrying out these monotonous tasks, often resulting in lapses of concentration, errors, accidents, and low job satisfaction.

Automated systems are perfect for this type of work. They do not get bored, tired, or suffer repetitive strain injuries (RSI) and they can free us, their human counterparts, to do more rewarding and valuable work.

We have already seen automated systems entering our labs, and it is clear that we will experience a revolution in lab automation in the coming years. Crawford Scientific are getting ready to support you on this exciting new journey.

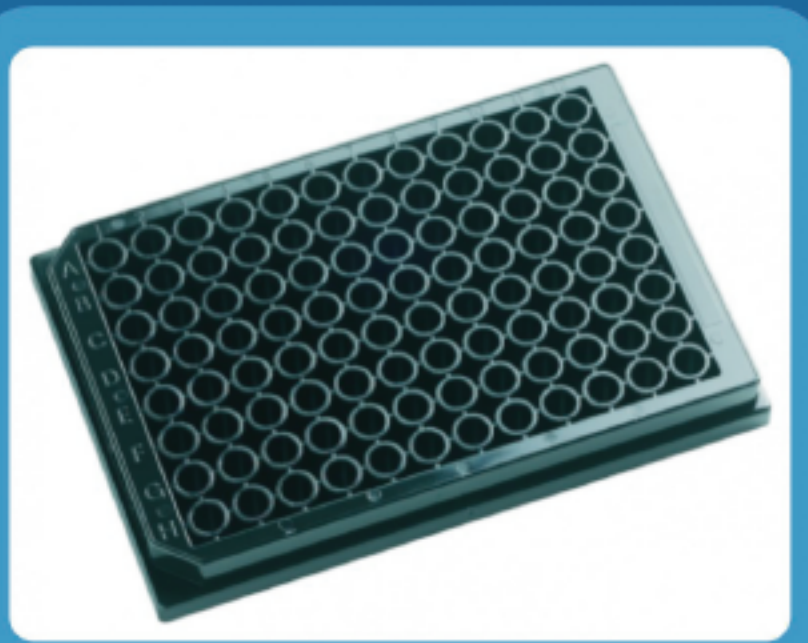
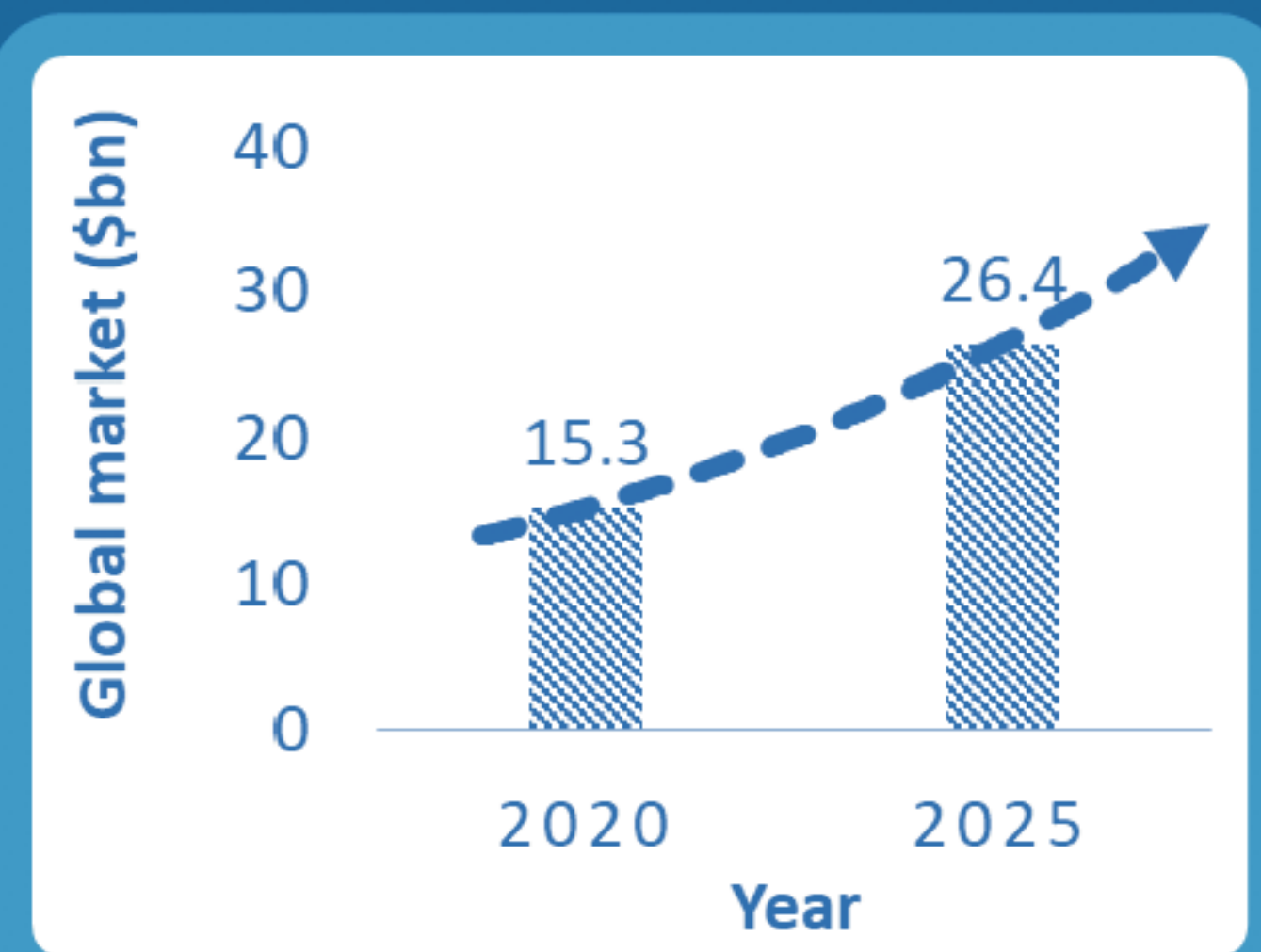
## Automation Drivers

### High Throughput

Drug discovery  
Biochemical screening  
Life sciences

Global market for HT screening is set to grow at a CAGR of 11.5% from 2020 to 2025.

(Source)



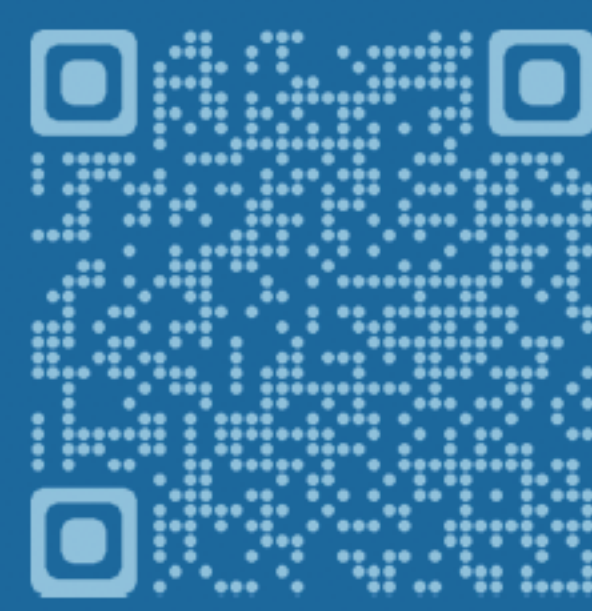
### High Throughput Consumables

96 and 384 well plates are a key technology in HT applications:

Sample collection and storage  
Sample filtration  
SPE plates  
Assay plates

Crawford Scientific can supply a wide range of well plates from world class manufacturers.

- Agilent
- Porvair
- Silicycle
- Tecan
- Thermo Scientific



### High Complexity

Sample preparation robots with flexible functionality can process complex tasks efficiently and reliably.

User-friendly software helps automate complex workflows for maximum accuracy and efficiency.

Modular systems can be extended and adapted to future requirements.

Automated sample preparation is a logical and powerful tool for method development and optimisation, especially when applying sophisticated Design of Experiments.

### High Throughput Instruments

PAA Automation

S-LAB Automated Plate Handlers

Compatible with microplate readers, cell imagers, reagent dispensers, plate washers, plate incubators and hotels.



KX-2 Collaborative Laboratory Robots

Continuous 360° rotation. Open-bench or enclosed applications. Compliant with safety standard ISO 10218-1:2011

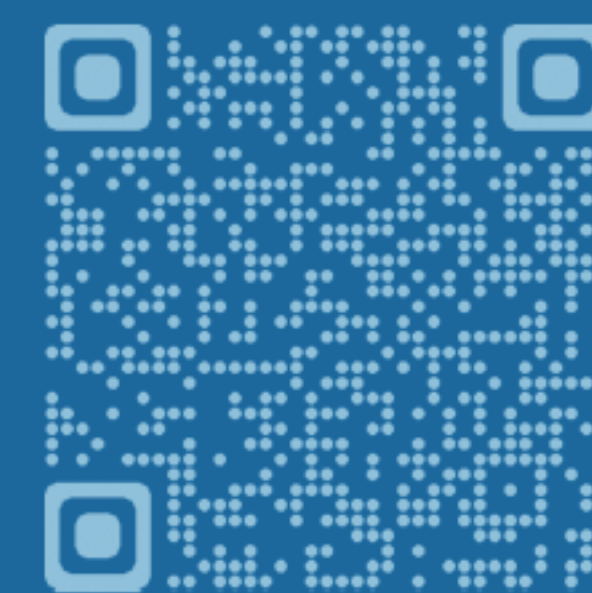


Porvair Sciences

Plate Evaporators  
Plate Sealers  
Sample Concentrators



Talk to our sister company Anatune about the MPS system.



### High Reproducibility

More than 70% of researchers have tried and failed to reproduce another scientist's experiments, and more than half have failed to reproduce their own experiments.

(Source)

### Consumables for MPS

Crawford Scientific now supply all consumables for the MPS systems and Anatune applications, including Sample Preparation, GC-MS and LC-MS sample management.



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