

HSE-AG Checklist

for successful fluidics development projects

1) Design of the fluidics architecture

The selected architecture must allow for the necessary performance and reliability.

2) Chemical compatibility of all materials

The materials must be compatible with the chemicals, all types of samples, and the stresses they will encounter over the long term.

3) Ensuring reliability

A strategy to ensure reliability must include systematic and rigorous testing of components under stress.

4) Process monitoring

Appropriate sensor technology with real-time monitoring must detect deviations in a timely manner, thus ensuring the reliability of the system.

5) Efficient maintenance of the entire system

It must be possible to carry out maintenance easily and quickly. This is essential for the long-term cost-effectiveness of the solution.

6) Seamless integration of all components

All components must work together smoothly. A single deviation can slow down the entire system.

7) Compliance with regulations

Compliance with all relevant regulations must be planned from the outset. Subsequent adaptations can be costly.

8) Scalability and adaptability

Future enhancements and development plans must be considered from the outset without jeopardizing the timeline.

9) User experience and workflows

Users must gain tangible added value from their work in the laboratory. They are the ones who determine the success of the solution.

10) Sustainability of the solution

Plastic waste and energy consumption must be systematically minimized. This meets user needs and saves costs.