

Universities & research institutes

Enabling discovery. Protecting valuable research. GxP where it applies.

XILTRIX | Nothing left to chance.

	 1. Research setup Safety Compliance	 2. Experiments Data integrity	 3. Sample storage Preservation	 4. Shared facilities Multi-user	 5. Fieldwork Global	 6. Archive & data Traceability
	- Project & lab setup - Equipment installation - Access control - Safety & risk assessment	- Sample handling - Experiments & analyses - Equipment monitoring - Data logging	- Short- & long-term storage - LN₂ storage with auto-fill - Inventory management - Sample tracking	- Core lab equipment - Multi-user environments - Utilisation monitoring - Preventive maintenance	- Remote location monitoring - Mobile sensors & loggers - Transport (via partners) - Off-grid solutions	- Storage & archiving - Data management (LIMS) - Audit & reporting - Research continuity
	Key processes - Lab commissioning - Risk & safety assessment - Method development - Equipment onboarding	- Research & experimentation - Sample processing & analysis - Equipment utilisation - Collaboration projects	- Sample storage & inventory - LN₂ auto-fill & supply - Archive & retrieval - Sample tracking	- Core facility operations - Equipment scheduling - Usage monitoring - Preventive maintenance	- Field data collection - Remote site monitoring - Transport (via partners) - Environmental research	- Data management & archiving - Publication & reporting - Sample preservation - Knowledge transfer
	Locations - Research labs - Teaching labs - Start-up & biosafety labs - Facility onboarding areas	- Wet & dry laboratories - Analytical & imaging labs - Biosafety & containment labs - Teaching & student labs	- Sample storage rooms - Ultra-low freezer rooms - LN₂ storage areas - Central research repositories	- Core facilities & shared labs - Imaging centres - Sequencing & omics facilities - Central equipment rooms	- Field stations - Remote research sites - Temporary field labs - Mobile research units	- Archive & record rooms - Long-term storage facilities - Data centres - Institutional repositories
	Assets to monitor - Lab refrigerators (2–8°C) - Freezers (–20°C / –80°C) - Incubators & shakers - Safety cabinets	- Incubators (CO₂/O₂) - Centrifuges & analysers - Microscopes & imaging - Specialised equipment	- Ultra-low freezers (≤ –80°C) - LN₂ tanks & auto-fill supply - Sample storage cabinets - Backup power & alarms	- High-value instruments - Environmental rooms - HVAC systems - Gas supplies (CO₂, N₂, O₂)	- Remote sensors & loggers - Portable freezers - Transport containers - Solar/battery powered units	- Archive freezers & LN₂ tanks - Storage room environment - Backup HVAC & power - Building management
	Environmental parameters - Temperature - Humidity - Door status - Room pressure	- Temperature - Humidity - CO₂ / O₂ - Vibration / shock	- Temperature (to –196°C) - LN₂ level, pressure, fills - Humidity - Door & power status	- Temperature - Humidity - CO₂ / O₂ - Room T/RH/pressure	- Temperature - Humidity - GPS & shock (via partners) - Battery status	- Temperature - Humidity - CO₂ / O₂ - Room environment & power
	Compliance & standards Local university regulations - Biosafety (BSL 1–4) - Health & safety - Risk management	GLP (where applicable) - Biosafety regulations - Chemical storage compliance - Data integrity (ALCOA+)	ISO 20387 (if applicable) - Research best practice - Data integrity - Audit & documentation	GLP (core facilities) - Equipment qualification - Data integrity - Shared facility compliance	Transport regulations (IATA) - Cold chain compliance - EM standards - Research permits	ISO 20387 (if applicable) - Data management (FAIR) - GDPR (personal data) - Long-term data preservation
	XILTRIX value - Fast, reliable deployment - Supports research continuity - Early-warning alerts - LIMS link via REST API	- Real-time monitoring & alerts - Less equipment downtime - Early warning for research - Multi-user environments	- Auto-fill: level & pressure - Closed valves flagged early - Inventory tracking - LIMS link via REST API	- One system across facilities - Better equipment utilisation - Actionable alarms - Supports cost efficiency	- Flexible, scalable set-up - Remote monitoring & alerts - Field samples (via partners) - Global visibility	- Long-term sample integrity - Audit-ready evidence - Multi-site oversight - Data integrity & compliance

Beyond monitoring



IT expertise

In-house IT know-how: SSO with Active Directory, ISO 27001, full encryption, REST API to LIMS, BMS and EMS.



Consultancy & validation

Risk inventory, URS and validation support (IQ/OQ), from design to inspection.



Visualisation, built in

Zoomable floor plans and live dashboards on any device; wall screens built into your lab.



Proven since 1987

No customer has lost irreplaceable material because our monitoring failed



24/7 technical support

Monitoring chain watched around the clock; alarms escalate to your own on-call team



GxP where it applies

GLP | ISO 20387 | local regulations: validated monitoring, audit-ready