3Flow™

Your Smart Labs™ Partner

Bridging the gap between lab safety, energy efficiency, and long term sustainability.

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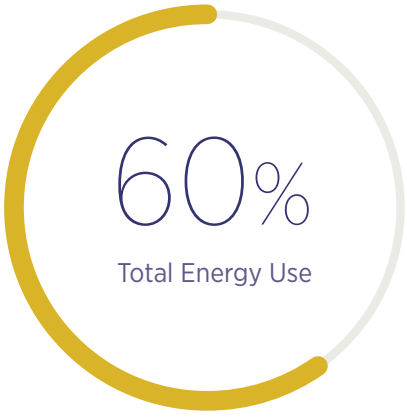
Why Smart Labs™?

Smart Labs maximize safety, minimize energy consumption, and better meet the needs of occupants.

Smart Labs™ Better Accommodate the Dynamic Nature of Labs

- Provide productive and safe environments
- Use a risk-based, demand driven approach
- Track the dynamic nature of labs
- Improve energy efficiency by 50% or more
- Incorporate an integrated team approach
- Bridge the gap between safety, engineering, maintenance, and researchers



The largest single driver of energy consumed in labs are fume hoods and ventilation systems, which account for approximately 60% of total energy use.

SMART FACT: Labs use 100% outside air and an incredible amount of energy is required to condition and move air 24/7.

Smart Labs™ Beginnings

3Flow partnered with University of California at Irvine in the Implementation of Smart Labs™ in their research buildings.

Smart Labs™ was developed at the University of California at Irvine to create environments that are safe, efficient and sustainable to support high quality research and scientific innovation.

3Flow is your licensed partner when implementing Smart Labs™. We bring 25 years of technical expertise and proven processes to mitigate risk and ensure success.

3Flow is licensed to implement Smart Labs™.

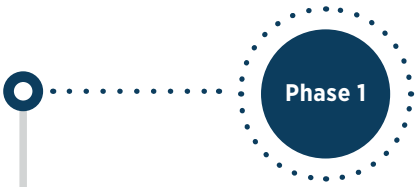
The Smart Labs™ Lifecycle Management Program: A 3 Phase Approach

We enable laboratories to better meet your research objectives.

One of the most challenging issues facing laboratory owners and managers today is the pressing need to promote innovation while reducing operating costs and energy consumption. Our strategic, three-phase approach bridges the gap between safety, engineering, and maintenance by providing the framework to coordinate efforts, integrate resources and achieve strategic goals. The result? Facilities provide enhanced safety and high quality laboratory environments while achieving significant cost savings from energy reduction.

3Flow brings proven processes developed over 25 years to help labs achieve significant cost savings without sacrificing safety or indoor air quality.

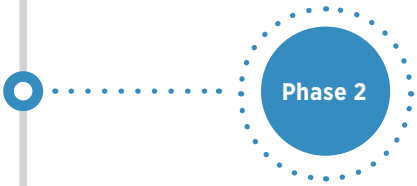
3 PHASE APPROACH



Identify

Risk and operational requirements for safety.

Our team of industrial hygienists and engineers meet with you to identify hazards and establish realistic specifications for proper design and operation of laboratory systems. We help you to ensure conformance with relevant codes, industry standards and guidelines.



Implement

A cost-effective plan to optimize performance of the laboratory systems.

3Flow develops a customized solution for each client and their unique systems and controls. Our team optimizes performance of laboratories to meet the needs of occupants while operating efficiently and effectively. We validate and benchmark performance to verify safety, energy reduction and cost savings.

Manage

Efficient and effective operation of the systems for the lifecycle of the laboratory.

3Flow remains engaged to help manage change and maintain peak performance. We help you implement the Smart Labs lifecycle management program to coordinate the efforts of key stakeholders responsible for maintaining safe, efficient and productive laboratories.

SMART IDEA: The Smart Labs™ Lifecycle Management Program employs a risk-based, demand driven process for optimizing performance of laboratory systems now, and in the future.

Customizing your Smart Labs™ Lifecycle Management Program

We maximize safety, minimize energy consumption, and better meet the needs of the occupants by optimizing your systems, tracking the demand for ventilation, and responding to changes in operational requirements.

The implementation of a Smarts Labs™ Lifecycle Management Program allows for customized adaption to the dynamic nature of a lab, regardless of risk, usage patterns or size.

Our Process Is Specific To Each Location and Involves:

- Risk and lab ventilation assessment
- Testing & performance validation
- System diagnostics and optimization
- Ongoing management and coordination of efforts and activities

3Flow bridges the gap between safety, engineering, and maintenance by providing the framework that helps coordinate efforts, integrate resources, and achieve strategic goals. Our team stays engaged with key stakeholders to help them continue to operate, manage, and maintain laboratories to create sustainably safe and productive environments.

SMART APPROACH: Successful operation and management begins with leadership and coordination with the Smart Labs™ team from 3Flow.

The Benefit of a Smart Labs™ Lifecycle Management Program

Our job is to forge alliances and facilitate communication to establish a road map that supports all stakeholders.

The Smart Labs™ Lifecycle Management Program allows for better design, operation, management and maintenance of laboratories at the minimum practical cost and most effective utilization of resources.

Smart Labs™ Lifecycle Management

HEALTH & SAFETY

Ensures compliance with codes and standards through initial risk assessment and ongoing monitoring of systems

OPERATIONS & MAINTENANCE

Utilizes proactive approaches to maintain efficient operation through better use of resources and new standards of care

RESEARCHERS & LAB USERS

Provides safe, productive environments that attract and retain top talent while promoting high quality research

ARCHITECTS & ENGINEERS

Minimizes cost while enhancing performance and mitigating risk

FINANCE TEAMS

Meets or exceeds cost reduction goals while protecting return on investment

Collaborating with 3Flow

As your partner when implementing Smart Labs™, our goal is to help you create and maintain high performance laboratories.

We are committed to helping clients make educated decisions based on a solid foundation of skills and resources. 3Flow works with your teams to establish a “roadmap” with common goals and objectives, which are critical to supporting the operation and management of Smart Labs™.

SMART TOOL: We “bridge the gap” between EH&S, Maintenance and Operations, Engineers and laboratory personnel.

Partnerships we are proud to be a part of

From educational institutions to renowned research facilities, we've helped clients achieve safe and sustainable laboratory buildings.

Indiana University Health

Central Pathology Laboratory Building

The Central Pathology Building provides anatomic and clinical pathology services to Indianapolis, IN regional hospitals and medical centers twenty-four hours a day. Recognizing a need to reduce energy consumption and building operational costs, 3Flow was contacted to assess the ventilation systems, identify methods for optimizing system performance, and provide more stable and predictable environments. Through our assessment and restructuring we successfully achieved multiple operational improvements.

- ~$469K annual reduction in energy costs
- Enhanced ventilation system monitoring capabilities
- Increased stability and predictability of HVAC system operation
- Improved conditioning and temperature control

University of North Carolina at Chapel Hill

Neurosciences Research Building

The Neuroscience Research Building houses the UNC Neuroscience Center, the offices of the Curriculum in Neurobiology, and neuroscientists in the Ophthalmology and Psychiatry Departments, the Department of Cell Biology & Physiology, and the Neurology Department.

We were tasked with achieving a high level of energy efficiency in the building by finding areas of improvement in the building ventilation systems. Through our assessment and restructuring, we identified several areas of improvement that greatly reduced energy consumption.

- ~$343,660 annual reduction in energy costs
- Projections showing a reduction in steam and chilled water usage
- Realized energy reduction of more than 25-30%

University of Irvine, California

The Original Smart Labs™ Initiative

The University of California, Irvine has been ranked among the nation's best universities, noted for its excellent science and research programs and enrolls more than 30,000 students. Because 20% of the buildings on campus are laboratories and consumed 80% of the energy, UCI implemented Smart Labs to realize dramatic improvements in performance and energy efficiency. 3Flow worked with UCI to develop and implement Smart Labs resulting in energy savings of 58%.

- Energy savings in each building were equivalent to taking 125 automobiles off the road for 20 years
- Created a rich "information layer" that made the working environment safer
- Buildings equipped with Smart Lab essential features were safer than prior designs

Let us be your Smart Labs™ partner

Support your occupants and promote scientific development with safe, energy efficient, and sustainable Smart Labs™.

Smart Labs™ maximize safety, minimize energy use, and better meet the needs of users

- Provide productive and safe environments
- Improve energy efficiency by 50% or more
- Ensure compliance with codes and standards
- Bridge the gap between safety, engineering, maintenance, and researchers
- Attract top talent while promoting high quality research

3Flow (Originally named Exposure Control Technologies, Inc.) was founded by Thomas C. Smith in 1994. He is supported by a team of professionals that solve problems and share a common commitment to safer and more efficient labs.

QUESTIONS? CONTACT US TODAY.
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