

# Future Life Sciences Report



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# Introduction

In 2024, Unispace released a sector-specific Life Sciences and Pharmaceuticals survey, drawing from our broader [Global Workplace Insights](#) study of over 10,000 employees across 13 countries. The data revealed a clear link between workplace design and employee satisfaction — with life sciences professionals (“let-down labsters”) 11% less satisfied than peers in other industries.

As talent attraction and retention remain key challenges, life sciences organizations need more than just functional labs — they need adaptable, human-centered environments that support innovation and growth. Unlike many office-based industries, labs must balance scientific precision, regulatory compliance, and safety, while staying flexible enough to accommodate evolving research, technology, and equipment needs.

From smart technology integration and sustainability, to modular layouts and wellness-focused spaces, the future lab must deliver on multiple fronts — scientific, environmental, and human. **But how are leaders prioritizing these needs?**

This report explores the perspectives of 400 senior and mid-level decision-makers across the United States, United Kingdom and Ireland, Switzerland, and India, spanning biotechnology, pharmaceutical manufacturing, and medical technology.



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# About Unispace Life Sciences

Unispace Life Sciences creates future-ready environments for the world's most innovative science-led organizations. With deep sector expertise and a science-first mindset, we deliver strategy, design, and construction solutions for laboratory and workplace environments across biotechnology, pharmaceutical, medical technology, and healthcare industries.

Our qualified and certified experts, including scientists, strategists, architects, designers, and engineers, as well as professionals accredited in Green Star, LEED, BREEAM, and WELL, approach lab design with the same focus on performance, well-being, and beauty as high-performing corporate workplaces.

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ZEISS, BANGKOK, THAILAND

Spark Brilliance.

# Executive summary

## Foundation for the future

The future of laboratory design is being shaped by four interconnected drivers: Science, Technology, Humans, and the Environment. Central to this evolution is a "science-first" approach that positions scientific capability and adaptability as fundamental to lab infrastructure. Flexibility and modularity have emerged as strategic imperatives, enabling labs to swiftly respond to rapidly advancing research demands, technological innovation, and shifting workforce expectations.

This shift reflects a broader trend where laboratory spaces are designed not as static facilities but as dynamic environments that support ongoing innovation and long-term operational value.

While adaptability is generally perceived positively across global markets, regional and industry variations remain. Executives in the US and India report higher confidence in their labs' ability to support organizational growth, while many European leaders see room for improvement. The Pharmaceutical sector shows greater satisfaction with lab adaptability than the Biotech sector, where significant challenges persist.

Across sectors and regions, flexible and modular designs are consistently prioritized, with over half of leaders identifying them as top design features essential for future-ready workspaces. This emphasis is especially pronounced in the US and UK, where executives link flexible lab environments closely to employee satisfaction and operational success.

## Technology driving innovation

The integration of smart technologies is now the cornerstone of future-ready laboratory design, with tools such as IoT, AI, and digital simulation fundamentally transforming lab operations. These technologies enable real-time monitoring, predictive analytics, and workflow automation, shifting labs from traditional workspaces to highly connected, efficient environments. Advanced data management and cloud-based connectivity further support seamless collaboration, data security, and compliance, making these capabilities essential for modern, interdisciplinary research.

Despite significant progress, survey findings reveal a divide between strategic leadership and functional teams on the readiness of labs to integrate new technologies. While IT leaders express high confidence in technological support, board-level executives remain more cautious. Across the US, UK and Ireland, and India, access to productivity-enhancing tools is identified as a critical factor for employee satisfaction, reinforcing the need to align technology integration with workforce needs and leadership expectations.

Ultimately, smart technologies and robust data infrastructure are not optional but foundational for laboratories preparing for the future. They enable labs to optimize energy, space, and equipment performance while fostering flexible, collaborative work environments. Cloud platforms and decentralized lab networks are increasingly vital to supporting researcher flexibility and cross-functional teamwork, ensuring labs remain adaptable and innovative amid rapidly evolving scientific demands.

## Designing for humans

Life sciences organizations increasingly recognize that laboratory design plays a crucial role in attracting and retaining top talent in a highly competitive global market. Beyond competitive salaries, creating human-centered lab environments that prioritize collaboration, well-being, and comfort has become essential. Features such as flexible workspaces, ergonomic furniture, natural light, and green elements not only enhance daily comfort and safety but also foster innovation and long-term employee satisfaction. This holistic approach supports diverse working styles and is especially valued in regions facing challenging working conditions, making it a strategic priority for many life science leaders.

Collaboration is at the heart of modern lab design, with open, shared spaces and dedicated zones becoming key to enabling interdisciplinary teamwork and driving research excellence. Over three-quarters of industry leaders affirm that current labs support cross-functional collaboration, and nearly half see purpose-built collaboration areas as vital for employee satisfaction.

Moreover, the inclusion of wellness and recharge spaces is gaining prominence, reflecting a broader shift toward sustainable, human-focused lab environments that nurture both productivity and mental well-being. Safety also remains paramount, with ventilation, temperature control, and emergency preparedness integrated into design strategies to protect researchers and optimize working conditions.

## Sustainability and energy efficiency

Sustainability and energy efficiency have become imperative priorities in life sciences laboratory design, driven by mounting regulatory pressures, investor demands, and internal commitments to climate responsibility. Labs are now expected to incorporate eco-friendly construction materials, smart lighting, energy-efficient HVAC systems, and innovative waste and water management strategies. While these sustainable practices offer long-term operational savings and environmental benefits, balancing them with upfront budget constraints and maintaining laboratory performance presents a significant challenge for design leaders. Importantly, sustainability is no longer viewed merely as compliance but as a strategic necessity.

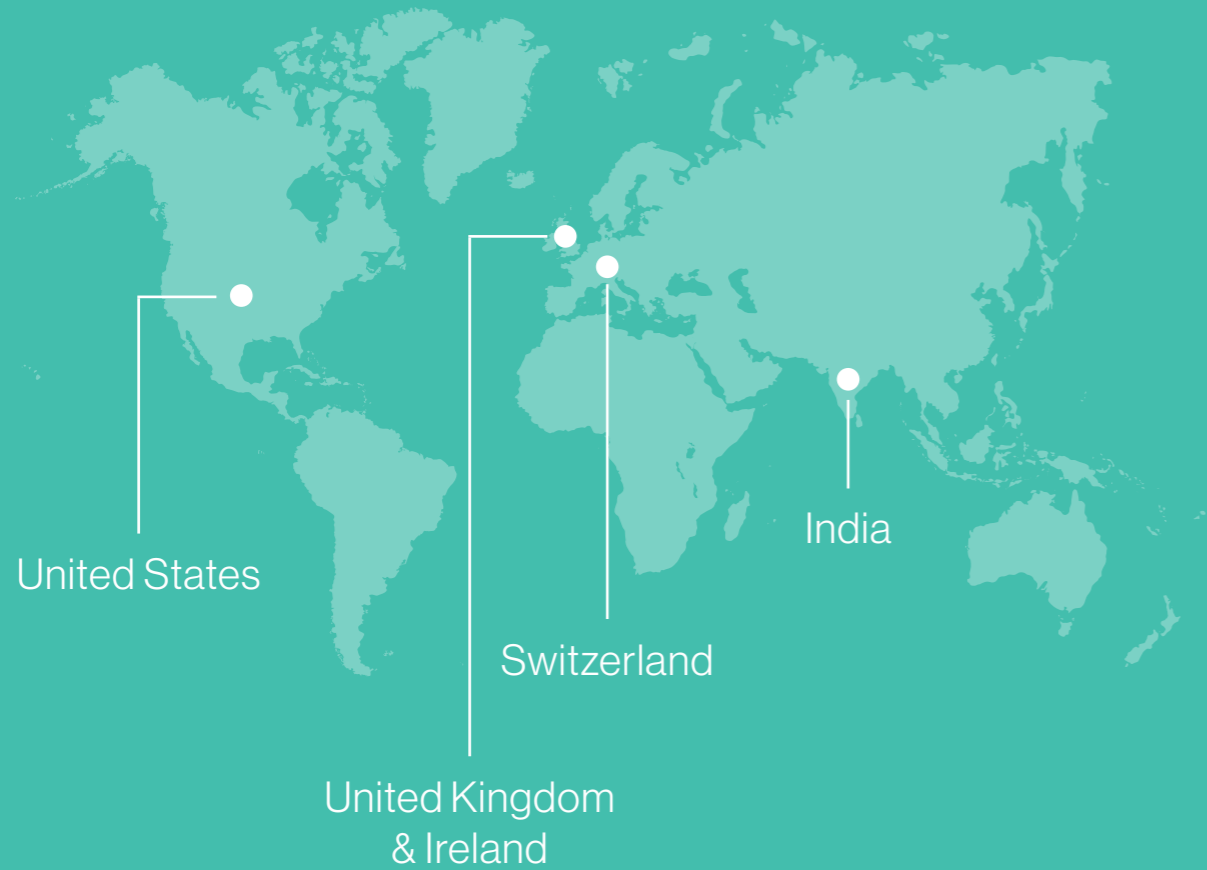
Industry leaders across markets, especially in emerging regions, emphasize the importance of sustainable design in minimizing environmental impact and reducing waste. Nearly half of respondents identify sustainability as a top influence in lab design decisions, with regulatory compliance, particularly regarding emissions control and hazardous waste management, also ranking highly. Achieving compliance while meeting performance and budget goals requires early, integrated planning to navigate increasingly complex environmental standards.

Energy efficiency is similarly gaining prominence, as labs seek to reduce their substantial energy consumption without compromising safety or functionality. Innovative solutions such as natural ventilation, solar panels, and smart HVAC systems are being adopted to lower operating costs and environmental footprints. This marks a strategic shift toward investing in future-ready infrastructure that supports both sustainability objectives and long-term growth, particularly in resource-constrained biotech environments.

### Research and surveying

# 5 countries

400 respondents



# 3 industries



Biotech



Pharmaceutical  
Manufacturing



MedTech and  
Digital Health

# 30-2000+

in size organizations

# 400

Senior leaders and middle level managers

Owner/Proprietor	Chief Executive	Board Level Manager/Director
Partner	Managing Director	Senior Manager or Executive Director
Chairman	Non-Executive Director	Middle Manager

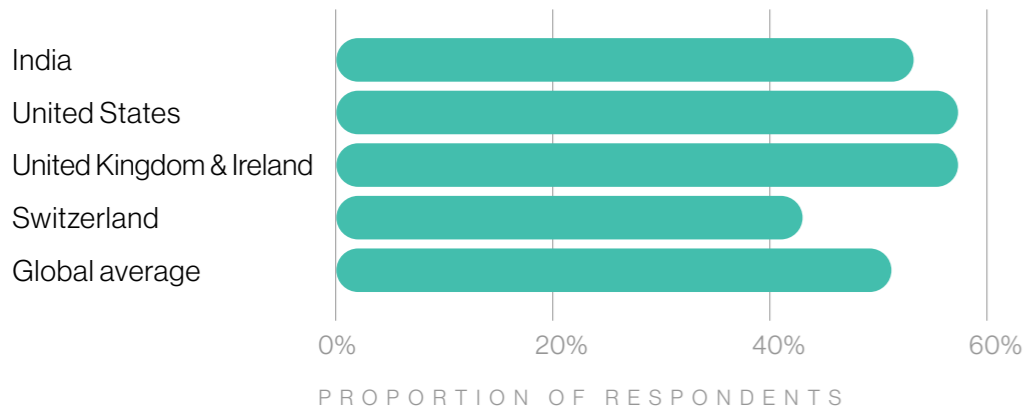
### Functional decision makers

CEO/President/Founder	Director	Research Manager/ Lab Manager
Chief Scientific Officer/ Chief Medical Officer	Associate Director	Research Scientist
	Senior Manager	

### Decision makers

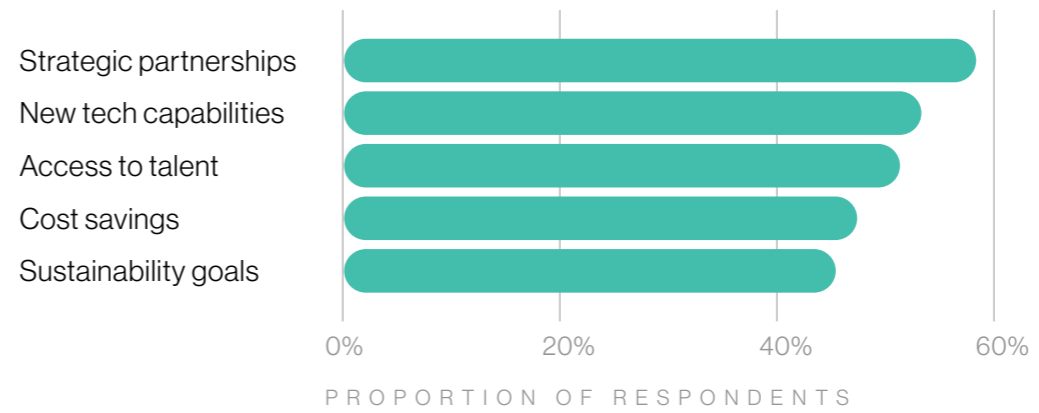
Accounting	IT	Research & Development
Finance	Inventory/Supply Chain	Sales/Business Development
HR/P&C	Office/Facilities Management	

### Labs that fully support cross-functional collaboration



Life sciences leaders are rethinking what labs need to deliver—today and tomorrow. Just over half say their labs fully support cross-functional collaboration, with India and the US ahead of the global average.

### Top drivers for investing in new lab facilities



Strategic partnerships and new tech capabilities are driving investment decisions, while user experience is gaining traction, especially in MedTech, where 61% of leaders are prioritizing inclusive, comfortable environments.

#### The takeaway?

Future-ready labs aren't just high-performing—they're human-centered.



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BOSTON SCIENTIFIC, MADRID, SPAIN

# Foundation for the future

How can lab workplaces be ready for the future design demands?

“

Our unwavering commitment to a ‘Science First’ approach is grounded in a fundamental understanding of why laboratories exist: they are the sanctuaries of humanity’s quest to explore and understand the natural world. Science is a constant — ever-evolving and continuously reshaping the way we live. Technology, as the applied extension of science, is inextricably linked to it.

Today, we are entering a breakthrough era in which technology is transforming the landscape of basic science. In response, we are reimagining the laboratories of the future — spaces designed to harness smart, integrated technologies that advance discovery.”

**Manisha Kulkarni**, PhD, MBA, Director of Science and Technology, Bulb interiors (London)

# Foundation for the future

## Overview

Unispace's **'Future Labs'** report, released in 2024, identified four critical drivers shaping the evolution of laboratory environments: Science, Technology, Humans, and the Environment. These dimensions are not isolated forces but deeply interconnected elements that together influence how laboratories are conceived, designed, and operated. Our latest research continues to support this view, highlighting a prevailing "science-first" approach — one that places scientific capability and adaptability at the core of facility planning. In this context, laboratory infrastructure is increasingly viewed not as a static shell but as an enabler of innovation, capable of keeping pace with the rapidly advancing needs of research and development.

Given the accelerating pace of scientific discovery and the growing complexity of research programs, there is a pressing need for lab environments that are flexible and modular. While these principles are not entirely new to laboratory design, the way they are being prioritized and implemented is evolving. Our exploration of stakeholder insights reveals that flexibility is no longer viewed as a desirable feature — it is now regarded as a strategic necessity.

Modular design solutions are being recognized for their potential to accommodate shifting research priorities, interdisciplinary collaboration, and emerging technologies with minimal disruption. As developments in technology, shifts in workforce expectations, and increasing environmental considerations continue to influence the lab of the future, adaptability must be embedded not only in infrastructure but also in design thinking. Creating spaces that can evolve in step with innovation is key to ensuring long-term value and performance in laboratory environments.

## Adaptability for growth

Although life science leaders broadly perceive their current lab environments as adaptable for managing growth in their organizations, this is not consistent across the board. Over two-thirds of leaders responsible for labs in countries such as the US and India are seen to support adaptability for growth extremely well. However, fewer than half of European leaders share this sentiment.

Although over 40% of European life science leaders still believe their labs support adaptability quite well, this implies that these leaders still perceive that there is room for improvement in their propensity to adapt.

We also find that the Pharmaceutical industry feels their labs support adaptability extremely well (71%), the same cannot be said for the Biotech industry, where less than half of leaders (48%) echo this sentiment, and whilst the majority of the remaining leaders (41%) still believe their lab environments to be adaptable, there is still a sentiment that room for improvement remains.



**Modular and flexible lab designs are critical to the future of lab space. They enable laboratories to adapt quickly to new research requirements and technological advances in emerging markets where rapid growth is expected.**



**The modular and flexible design makes it easy to expand, reorganize, and adapt laboratories to new technologies and changes in research direction.**



**The difficulty of quickly adapting traditional facilities integrated into the laboratory to new research directions is a challenge we are currently facing.**

## Flexibility continues to dominate decisions

# 53%

**of life sciences leaders say flexible, modular design is one of the top three features needed in a future-ready lab.**

Not only is the flexibility and modularity of lab workspaces one of the most important aspects of lab design with 53% of leaders identifying it as one of their top 3 features needed for a future life sciences workspace, but that 45% of them also cited planning for adaptable, future-ready spaces was a core part of their current design strategy.



**The biggest challenge was to design a laboratory that was scalable and adaptable to future technologies, and this is the most difficult challenge I faced when developing my current laboratory.**

Nowhere is flexibility and modularity more important than in the US, where 61% of executives believe that flexible workspaces are essential. This was closely followed by UK executives, of whom 59% also ranked flexibility and modularity in the top three features they seek in lab design.



**Modular and flexible lab designs are critical to the future of lab space. They enable laboratories to adapt quickly to new research requirements and technological advances in emerging markets where rapid growth is expected.**

Within organizations, it was more often the functional directors of R&D, Operations, or Facilities themselves who identified the high priority of flexible design, with 58% of them ranking this highly.



**There is a growing demand for flexible workstations and modular furniture in laboratories, allowing the space to be modified as per the laboratory's specific needs.**

Having greater flexibility in where and how work happens also plays a key role in employee satisfaction, as 59% of leaders identified this as one of their top three essential factors to achieve this.

This was particularly clear in the UK and the US, where over 60% of executives ranked flexibility as critical for employee success. Additionally, this was particularly relevant in the MedTech and Pharmaceutical sectors, especially among Chief Scientific and Medical Officers, where over 60% of executives identified flexible workspaces as critical to satisfaction.



**I am convinced that flexible modular designs that require collaboration and adaptability will be crucial. We should focus on integrating smart technologies and sustainable materials to create efficient and comfortable spaces that can adapt to the changing research needs in emerging markets.**



RESPONDENTS COMMENTS

READ THE FULL CASE STUDY

# Technology driving innovation

Is your lab ready for the future?

“

AI has ushered in a bold new era, rewriting the rules of how we collaborate, especially in Life Sciences. At Unispace, we're already designing the next gen of 'collaborative cocoons', where data geeks and R&D visionaries unite in dynamic spaces, turning the workplace into a launchpad for innovation and discovery.”

**Bobby Savarese**, Senior Principal, Business Development - Life Sciences (New York)

Spark Brilliance.

ELEKTA, CRAWLEY, UNITED KINGDOM

# Technology driving innovation

## 54%

of industry leaders — and 57% of senior executives — rank AI and smart technology integration as their top priority for future lab environments.

As laboratories continue to adapt to increasingly sophisticated research demands, the integration of smart technologies has emerged as the most important consideration for future lab design — a trend strongly reinforced by findings from our recent industry survey.

Respondents highlighted the growing role of technologies such as IoT AI, and digital simulation tools in transforming laboratory operations. These tools are no longer viewed as enhancements but as essential components that support real-time monitoring, predictive analytics, and workflow automation. Innovations like digital twins and virtual/augmented reality (VR/AR) are enabling new possibilities for simulation, remote collaboration, and training — especially valuable for laboratories operating in decentralized or resource-constrained contexts.

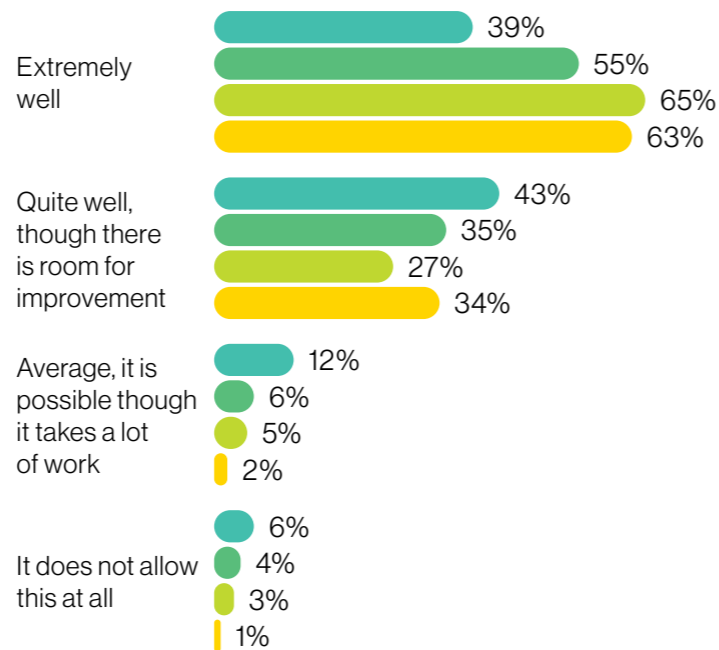
Our survey also highlighted the central role of advanced data management and connectivity in modern laboratories. Participants emphasized the need for robust cloud-based systems, secure data storage, and knowledge-sharing platforms to enable seamless collaboration and efficient data handling. These capabilities are increasingly recognized as critical infrastructure, supporting not only operational efficiency but also compliance with global data protection standards.

As science becomes more collaborative, interdisciplinary, and data-intensive, our findings make clear that the ability to integrate smart, connected technologies into lab environments is no longer optional — it is foundational to future-readiness. For design leaders, this represents a pivotal opportunity to create laboratory spaces that are not only technically advanced but strategically aligned with the evolving nature of scientific discovery.

## Integration of new technologies

Technology integration remains a critical factor in creating future-ready lab environments — but confidence in readiness varies across roles and regions. While 56% of science leaders in the UK, US, and India say their labs support new tech exceptionally well, only 36% of board-level executives agree. In contrast, nearly 60% of IT and Computer Services leaders feel strongly that their labs are well equipped, highlighting a disconnect between strategic leadership and operational teams.

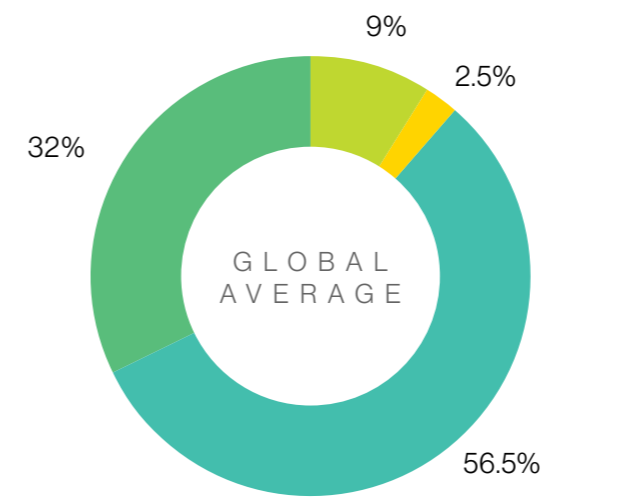
## How well do labs support technology integration?



- Switzerland
- United Kingdom and Ireland
- India
- United States

## What's driving this divide?

Globally, there's growing demand for productivity-enhancing tools. Executives in the UK (65%), India (63%), and the US (61%) rank access to these tools as the top factor influencing employee satisfaction. The trend holds across sectors too, with 62% of MedTech and 60% of Pharmaceutical leaders naming this as a top priority.



- Extremely well
- Quite well, though there is room for improvement
- Average, it is possible though it takes a lot of work
- It does not allow this at all

**I believe that modular, technology-integrated labs can revolutionize access to quality research in emerging markets.**

These insights point to a clear opportunity: aligning leadership expectations with the needs of scientific teams. With the right investment in intelligent systems and integrated technologies, labs can optimize workflows, improve energy and equipment performance, and give researchers better access to data, fuelling innovation at scale.

**Implementing intelligent systems and integrated technology in laboratories to optimize energy, space, and equipment performance, improve workflows, and facilitate data access.**

## The role of smart technologies

Survey findings highlight that the integration of AI and smart technologies is seen as the defining feature of the future life sciences workplace, with 54% of industry leaders naming it their top priority. This view is even more pronounced among senior executives, where 57% regard the adoption of intelligent systems as critical to the next generation of laboratory environments.

**Integrating smart technologies into laboratories can significantly improve data management, productivity, and affinity. Devices with IoT capabilities help track energy consumption, ambient conditions, and equipment performance.**

RESPONDENTS COMMENTS

Notably, the strongest support comes from those most closely involved in delivering these capabilities—61% of IT infrastructure leaders affirmed the importance of integrating smart technologies to enhance performance, efficiency, and innovation across the lab ecosystem. Together, these insights paint a clear picture: smart technology is not just an emerging trend, but a strategic imperative for life sciences organizations preparing for the future.



**Implementing intelligent systems and integrated technology in laboratories to optimize energy, space, and equipment performance, improve workflows, and facilitate data access.**

**Anticipating change: designing for agility and intelligence**

As research workflows continue to evolve, laboratory environments must be designed not only for scientific precision but also for agility and adaptability. Mobile benching and modular infrastructure allow labs to accommodate shifting equipment requirements and emerging technologies. Designing for a variety of bench specifications enables flexibility across a broader range of research applications, while a shift in the wet lab-to-dry lab ratio—and between lab and office space—should be anticipated as research needs change.

At the same time, technologies such as AI and quantum computing are reshaping the R&D landscape. These tools help eliminate redundant experimentation by allowing researchers to access and build upon prior research data, while also generating new variations of formulations or hypotheses. For instance, in drug discovery, AI can accelerate early-stage research, enabling scientists to focus on novel breakthroughs rather than replicating known outcomes. These trends signal a growing need to design lab spaces that are not only physically flexible but also digitally intelligent—supporting collaboration, speed, and precision across disciplines.



**Data management and connectivity**

While the integration of smart technologies is fundamental to intelligent lab design, it is the effective management of data and connectivity that truly enables collaboration—particularly for cross-functional teams and geographically dispersed operations.

As one life sciences leader noted,

**“I would suggest using cloud platforms for data storage and experiment management, which make remote access and collaboration easy and efficient.”**

This sentiment reflects a growing demand for digital infrastructure that supports flexible, connected ways of working.

Just over half (52%) of life science executives report the need for lab spaces that are optimized for cross-functional collaboration. In comparison, over one-third (36%) highlight the importance of lab functionality across multiple regions and hubs. Executives are also increasingly prioritizing researcher flexibility, with 59% citing the ability to work how and where needed as a key driver of employee satisfaction—an emphasis particularly evident in the UK (61%) and the US (65%).

One respondent succinctly captured this shift by calling for “cloud-based solutions for data sharing and decentralized lab networks.” In this context, data becomes the critical link—connecting humans, processes, and platforms across locations, and enabling a truly collaborative, future-ready lab environment.



RESPONDENTS COMMENTS



SMITH+NEPHEW, MUNICH, GERMANY

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**genea**  
WORLD LEADING  
FERTILITY

GENEA, MELBOURNE, AUSTRALIA

**unispace**  
LIFE SCIENCES

# Designing for humans

What makes a lab worth working in?

“

We're seeing a major shift in how life sciences organizations approach their lab environments. It's no longer just about compliance and functionality. Clients want spaces that reflect the same strategic thinking behind modern workplace design for cross-functional teams.

Flexibility, well-being, and the overall employee experience are now central to the brief. Labs are evolving into adaptive, human-centric environments that help attract top talent, support diverse workstyles, and drive long-term engagement.”

**Alex Dupnik**, Principal, Design (Boston)

# Designing for humans

## 72%

of life science executives identified at least one human-centered design priority — this marks a decisive shift toward labs that support both research and the well-being of employees

As life science organizations compete for top-tier talent in a highly specialized and competitive global market, lab design is emerging as a critical lever for talent acquisition and retention. Beyond offering attractive compensation packages, forward-thinking companies are recognizing the need to create workplace environments that actively support collaboration, learning, comfort, and well-being. The physical workspace can either limit or enable productivity and innovation, especially in high-performance research environments where interdisciplinary collaboration and continual skills development are essential. In this context, labs designed with open, shared, and flexible spaces are helping life sciences organizations foster teamwork, spark innovation, and position themselves as employers of choice.

Human-centered design principles are at the heart of this evolution. Adjustable ergonomic furniture, access to natural light, integration of green elements, and robust health and safety features not only enhance day-to-day comfort but also reflect a genuine commitment to employee well-being.

These features reduce fatigue, prevent injury, and create a more engaging and sustainable working environment—factors that play a key role in attracting skilled professionals and supporting their long-term development. In regions with challenging working conditions, these design elements can significantly differentiate an employer. In a sector where continuous training and knowledge sharing are vital, investing in human-centric lab spaces is no longer just a “nice-to-have”—it’s a strategic necessity.



RESPONDENTS  
COMMENTS

## Recognizing the importance of human-centered design

Our research confirmed that life science executives recognize that attracting and retaining top talent was a key element in lab design (41%). This was clearly aligned with prioritizing human-centered design and comfort, as 43% of executives identified this as one of their top considerations for the lab workplace design strategy.



**The demand for top talent in the life sciences is incredibly high, and it’s difficult to compete with larger, more established institutions for the best researchers.**



**Integrate humanized design and provide a comfortable working environment to enhance efficiency.**

Nearly half of life science executives also realize that lab spaces need to be designed to support diverse working styles and well-being. This was especially true in Switzerland, where 57% of Swiss leaders identified this as a top consideration for the workplace. Additionally, 58% of executives in the MedTech sector were also cognizant of this priority.

Aligned to this finding is the recognition by half of life science executives for the need for personalized work settings, thereby enhancing the individual lab employee’s experience at work, ultimately improving productivity.



**Pay attention to the needs of laboratory workers and ensure good ventilation, appropriate temperature, and humidity to reduce worker fatigue and stress and improve work efficiency.**

## Collaboration: the centerpiece of human-centered design

## 75%

of leaders say their current labs support cross-functional teamwork—but nearly half (46%) say purpose-built collaboration zones are still needed for employee satisfaction.

Collaboration is rapidly becoming the cornerstone of high-impact research in the life sciences, with 75% of surveyed industry leaders affirming that their current lab facilities support cross-functional and dispersed teamwork. Yet, there’s a growing consensus that future lab design must go beyond simply supporting collaboration—it must actively enable and inspire it.

Purpose-built zones for collaboration are emerging as a crucial feature, not just for research outcomes but for workplace culture, with 46% of life science leaders identifying them as key to employee satisfaction. As talent attraction and retention remain pressing challenges across the sector, environments that foster connection, creativity, and shared problem-solving are increasingly seen as vital.

Leaders across the industry are clear in their vision: open and shared spaces that foster interdisciplinary exchanges are no longer optional—they are fundamental. As one respondent noted,

**“Open space layout is the best one considering the importance of teamwork nowadays. All the success depends on it.”**

Others echoed this sentiment, calling for “comfortable workspaces with proper design to allow maximum collaboration,” and areas that “promote cross-disciplinary scientific research exchanges.”

These perspectives reflect a shift toward integrated layouts, where collaboration zones, shared equipment areas, and open floor plans are deliberately designed to support both productivity and employees.



# Human-Centered Design in Labs

What's needed?

Creating visually striking spaces that showcase science and brand identity



Upgrading materials, furnishings, or finishes



Incorporating biophilic or nature-inspired design



Creating more inclusive and accessible spaces



Adding rest areas or wellness amenities



Improving lighting, acoustics, or airflow

Our research reveals a growing awareness among life science leaders of the importance of designing lab environments that prioritize the well-being and day-to-day experience of employees. More than half of the surveyed executives (52%) believe that access to wellness, recharge, and rest spaces is essential for maintaining performance and morale. As one leader noted,

**“We are human too and need places to unload and recharge during our shifts.”**

This recognition reflects a shift towards more holistic and sustainable approaches to lab workplace design — where productivity is supported not just by functionality, but by fostering spaces that care for employees.

At the top of the list for enhancing the lab user experience is the creation of inclusive and accessible environments, with 49% of executives identifying this as a key feature — particularly in the US (53%) and UK (52%).

Beyond accessibility, leaders are also advocating for more thoughtfully designed, visually appealing spaces that incorporate natural light, biophilic elements, and upgraded materials. As one respondent put it, “Creating integrated spaces that provide the emotional well-being for our technicians to perform at peak capacity”. Other leaders echoed this sentiment, calling for “green spaces for mental well-being,” “more natural light and a green wall,” and even the removal of harsh fluorescent lighting in favor of a calmer, more comfortable atmosphere.

These perspectives support the fact that successful lab environments of the future will be as focused on employee needs as they are on scientific ones.

## Human-centered design —safety as well as comfort

Human-centered lab design isn't just about comfort — it's about enabling safe, efficient, high-performance work. At Unispace, we take an evidence-based approach, studying how lab personnel move, collaborate, and interact with equipment to inform planning decisions. This insight allows us to design environments that minimize fatigue, support task flow, and reduce the risk of error or injury.

As one executive put it, “We need to ensure the safety of experimental operations and personnel.” That starts with getting the basics right: good ventilation, temperature regulation, clear sightlines, and intuitive circulation.

Another leader noted, “Poor ventilation leads to discomfort in working conditions,” reinforcing how environmental controls directly affect health and performance.

Safety and comfort aren't separate goals — they're fundamentally connected. As one respondent explained, “Pay attention to the needs of laboratory workers and ensure good ventilation, appropriate temperature, and humidity to reduce worker fatigue and stress and improve work efficiency.”

### The takeaway?

When labs are designed around humans, they don't just feel better — they work better, too.

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READ THE FULL CASE STUDY



UNIPHAR, DUBLIN, IRELAND

# Sustainability and energy efficiency

The time is now!

“

Long-term, sustainable water management systems like recycling and purification technology are essential to reduce the environmental footprint.”

Pharmaceutical Manufacturing CEO, India

# Sustainability and energy efficiency

## 46%

of respondents rank sustainability as one of the top three factors influencing their lab design decisions.

As life sciences organizations face growing pressure to comply with stringent environmental regulations and demonstrate climate responsibility, sustainability and energy efficiency have become essential considerations in laboratory design. These factors are no longer optional—they are integral to how labs are conceived, constructed, and operated.

Regulatory demands, investor expectations, and internal sustainability commitments are pushing organizations to prioritize environmental performance while ensuring long-term operational resilience.

Key areas of focus now include the use of recyclable and eco-friendly construction materials, smart lighting systems, energy-efficient HVAC solutions, and innovative waste and water management strategies. While these practices support environmental goals and can reduce operating costs over time, they must also be balanced with upfront budgetary constraints. The challenge for design and facilities leaders is to integrate sustainable solutions without compromising financial viability or laboratory performance. In this context, sustainability in lab design is not just about compliance—it's a strategic imperative that demands smart, cost-conscious innovation.

## Sustainability: overcoming the challenges and achieving balance

Our latest research reveals that embedding sustainability into laboratory design is not just a growing priority—it's becoming a fundamental expectation across the life sciences sector.

Nearly half (46%) of industry leaders cite sustainability as one of the top three factors influencing the design of their lab spaces. This sentiment is especially pronounced in emerging markets, where leaders emphasize the role of sustainable materials and waste reduction in minimizing environmental impact. As one executive put it, "Sustainable design is essential in emerging market laboratories; waste reduction and environmentally friendly materials help minimize environmental impact."

The push for sustainability is not driven solely by environmental concerns, but rather a result of recognizing that sustainable design contributes to long-term operational savings. As one leader succinctly noted, "Using eco-friendly materials and tools makes labs cheaper to maintain and better for the planet—something that matters more and more everywhere."

Yet, despite these clear benefits, many leaders acknowledge the tension between ambition and reality. Budget constraints remain a significant barrier, with another executive pointing out, "Balancing the adoption of sustainable practices and technologies with budget constraints and legal obligations is challenging." Moreover, the pressure to comply with increasingly complex environmental regulations is intensifying, as half of life science leaders identified regulatory compliance as one of their top factors in lab design. Leaders flagged issues such as emissions control, hazardous and biowaste disposal, and overall environmental compliance as pain points that must be addressed early in lab planning.

As one respondent put it, "Regulatory compliance is complex and needs to meet various safety and environmental protection requirements." This makes clear that the future of lab design must not only be sustainable—it must be strategically aligned with compliance, cost-efficiency, and global responsibility.

## Energy efficiency: powering the lab of the future

Energy consumption in laboratory environments is substantial, driven by the diverse and often resource-intensive demands of life sciences research—from around-the-clock ventilation and refrigeration to lighting and specialized equipment. As sustainability rises on the agenda, life science leaders are increasingly aware that improving energy efficiency is not just an environmental obligation but a strategic imperative. However, achieving the right balance between energy optimization, lab functionality, and adherence to safety regulations remains a significant challenge.

**It can be difficult to get a balance between safety regulations, lab functionality, and sustainability goals, especially when it comes to resource use.**

**Adding renewable energy forms of lab increases cost and complexity of lab.**

To meet these demands, industry leaders are turning to innovative solutions that deliver long-term savings and reduce environmental impact. There is growing emphasis on passive and active strategies such as natural ventilation, solar panels, and smart HVAC systems—all of which are designed to lower operating expenses in both high and low-resource settings.

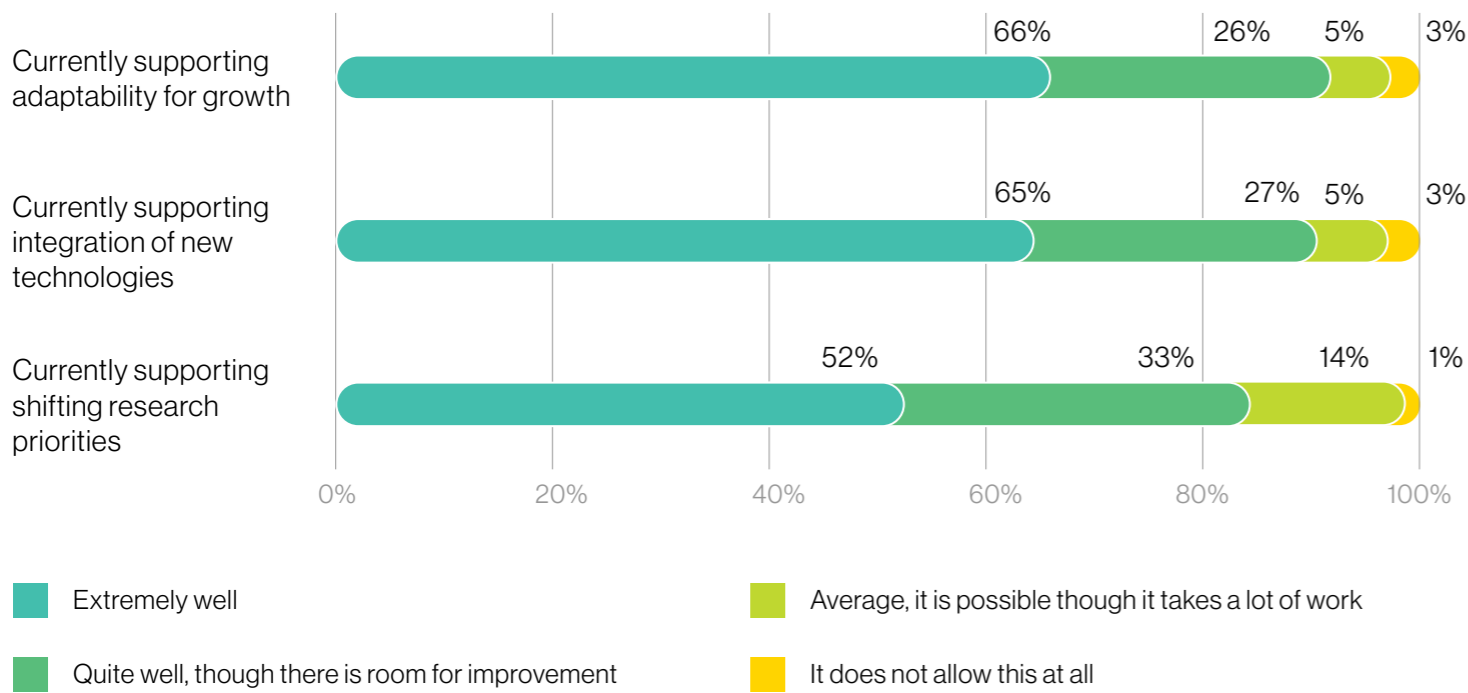
**Energy-efficient designs, like natural ventilation and solar panels, can lower operating expenses in limited environments.**

**Smart HVAC systems and energy-efficient equipment lower operating costs and their negative effects on the environment, which is essential for long-term lab expansion in biotech industries with limited resources.**

These perspectives underscore a shift in lab planning—from short-term expenditure thinking to future-focused infrastructure investment that not only enhances sustainability but also supports strategic growth across the sector.

# India

## Ready for the future



### Is the current lab environment working?

Indian life science executives express strong confidence in the current lab environments' ability to support evolving industry demands. A notable 66% believe their labs are highly adaptable for future growth, and 65% say their facilities are already well integrated with new technologies—both figures standing significantly above the global averages of 56%. These findings reflect a forward-thinking approach among Indian leaders who are actively aligning their labs with long-term strategic goals.

Indian labs are also seen as well-prepared to handle shifting research priorities, with 52% of executives indicating their spaces are extremely well-positioned to adapt—again, above the global benchmark of 48%. However, there is room for improvement in enabling collaborative work across dispersed or cross-functional teams. While 80% of Indian executives believe their labs fully or at least partly support this kind of collaboration, this figure trails the global average of 85%, highlighting a potential focus area for future investment and design refinement.

### What is driving the future development of Indian labs?

In India, the future of lab development is expected to be shaped by a strategic blend of innovation, collaboration, and sustainability. According to 66% of Indian life sciences executives surveyed, funding for new lab infrastructure will increasingly be driven through strategic partnerships and co-development initiatives. These collaborations are seen as essential to unlocking both capital and capability, particularly in a fast-evolving research and development landscape.

Indian executives have a clear vision for the next generation of lab environments. More than half (56%) see the integration of digital, smart, and AI technologies as a top priority, while 54% highlight the need for highly flexible, modular designs optimized for cross-functional collaboration. Distributed lab networks across different regions of India are also gaining traction, with 41% citing this as important—higher than the global average of 36%. As one leader observed, "Including emerging technologies like Artificial Intelligence could inspire futuristic lab developments with greater innovations."

Alongside this digital evolution, energy efficiency stands out as a key concern. Indian executives emphasize the importance of smart, sustainable infrastructure, including LED lighting, motion sensors, natural ventilation, and solar power. One executive noted that "energy-efficient tools...can cut costs and boost sustainability in labs in emerging markets," while another highlighted the importance of resilience: "Power backup systems...provide continuity of operation in unreliable electrical areas." Together, these insights reflect India's strong focus on building future-ready lab spaces that are not only technologically advanced but also adaptive and sustainable.

### The most important features of Future Labs in India

Indian life science leaders are increasingly focused on shaping lab environments that not only drive productivity but also enhance the well-being and satisfaction of their teams. A majority of executives (63%) believe that equipping labs with the right tools to reduce manual tasks is central to improving performance and efficiency. In parallel, there is a growing emphasis on creating spaces that support employee wellness, with 57% identifying access to recharge and rest zones as essential, and 53% recognizing the value of purpose-built zones that facilitate collaboration and team cohesion.

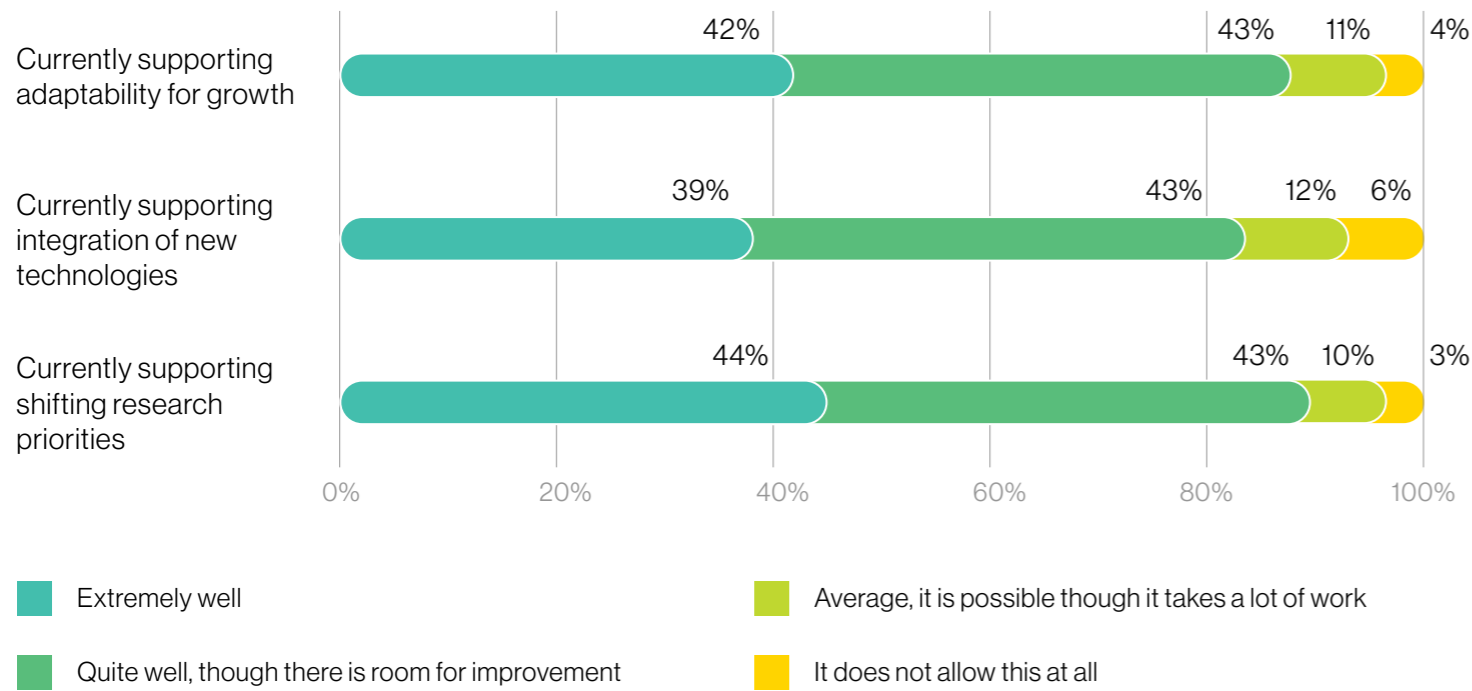
Looking to the future, Indian executives are placing strong importance on lab environments that offer more than just functionality. Visually striking and well-furnished spaces are increasingly prioritized, with 53% highlighting the value of impactful aesthetics and 48% calling for upgraded furnishings and finishes. Nature-inspired design also holds a place in the future lab vision, cited by 44% of respondents as necessary for promoting emotional well-being. Interestingly, while lighting and acoustic improvements are key focus areas in other global regions, only 38% of Indian executives view this as a top priority—suggesting that design strategies in India may lean more heavily towards visual and functional enhancements that support productivity and collaboration at scale.

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# Switzerland

## Looking to do even better



### Is the current lab environment working?

Swiss life science executives acknowledge that while their labs are functional, there remains significant potential for improvement—particularly in supporting adaptability and technological integration. Only 42% of Swiss executives believe their lab environments are extremely well-positioned to support growth, falling below the global benchmark of 56%. Similarly, 43% recognize that their labs could be improved in this regard, aligning with the global average.

This cautious outlook is even more pronounced when it comes to technology integration. Just 39% of Swiss executives say their labs support new technology adoption extremely well—substantially lower than the global average of 56%. Furthermore, 43% report a need for some improvement, and 12% say their labs require a lot of improvement—double the global figure of 6%. A similar pattern emerges when assessing readiness to support shifting research priorities. While 44% of Swiss leaders believe their labs manage these shifts extremely well, and 42% see room for improvement, these numbers still lag slightly behind global sentiment.

Support for collaboration is another area where Swiss labs appear to fall short. Although 75% of Swiss executives believe their lab environments at least partially support cross-functional and dispersed teams, this is 10 percentage points below the global average of 85%. Notably, a quarter of Swiss leaders say their labs offer only limited or no support for this kind of collaboration—significantly higher than the 16% reported globally. This gap highlights an opportunity for Swiss labs to better align their environments with the demands of today’s highly interdisciplinary research landscape.

### What is driving the future development of Swiss labs?

Swiss life science leaders are aligning future lab design with priorities that reflect their workforce culture and operational goals. The most cited drivers include supporting diverse working styles and promoting employee well-being (57%), as well as enhancing cross-functional collaboration (52%) and advancing digital integration with smart technologies (49%).

These preferences reflect Switzerland’s emphasis on creating thoughtful, human-centered environments that support both productivity and satisfaction.



**Innovation thrives by providing spaces for collaboration. Laboratories create an environment conducive to the emergence of new ideas and the acceleration of research progress.**

Interestingly, modularity and flexibility—features that rank highly in many other countries—are seen as less of a priority in Switzerland, with only 39% of Swiss executives highlighting them as important, compared to 53% globally. This divergence may stem from Switzerland’s relatively lower concern with infrastructure and budget constraints. While 40% of Swiss leaders acknowledge talent shortages or turnover as a significant challenge (slightly higher than the global average of 36%), concerns about budget pressures are notably lower at just 24%, compared to 33% globally. Similarly, resistance to change (22%) and outdated infrastructure (21%) are seen as less problematic in Switzerland than elsewhere, suggesting a more stable and progressive foundation on which to evolve lab spaces.



**Facilitate teamwork and multidisciplinary work through an open laboratory layout. This arrangement encourages teamwork and communication between scientists, both of which are crucial for creative research.**



## The most important features of Future Labs in Switzerland

While Swiss life science leaders place slightly less emphasis on productivity-enhancing tools compared to their global peers (48% vs. 59%), they place greater value on tailoring lab environments to individual needs. Over half (55%) of Swiss executives view personalized work settings and experiences as key to employee satisfaction—surpassing the global average of 50%. This suggests a strong focus in Switzerland on designing labs that prioritize the employee experience as much as operational output.



**In terms of ergonomics, it would be important to consider furniture and interior designs that promote the well-being of employees. For example, adjustable chairs, standing workstations, and natural lighting not only increase productivity but also reduce fatigue and long-term injuries. This could have a significant impact on laboratories in emerging markets, where working conditions are sometimes difficult.**

In line with this focus, Swiss executives identified several key features for enhancing user experience in future labs. Improved lighting, acoustics, and airflow top the list at 53%, reflecting a strong desire to create more comfortable and functional environments. Close behind are the addition of rest areas and wellness amenities (47%) and the incorporation of nature-inspired design elements (45%), both of which aim to support mental well-being and foster a more pleasant and productive workspace.



**A green wall in the lab can relieve stress for researchers and improve air quality.**



RESPONDENTS  
COMMENTS

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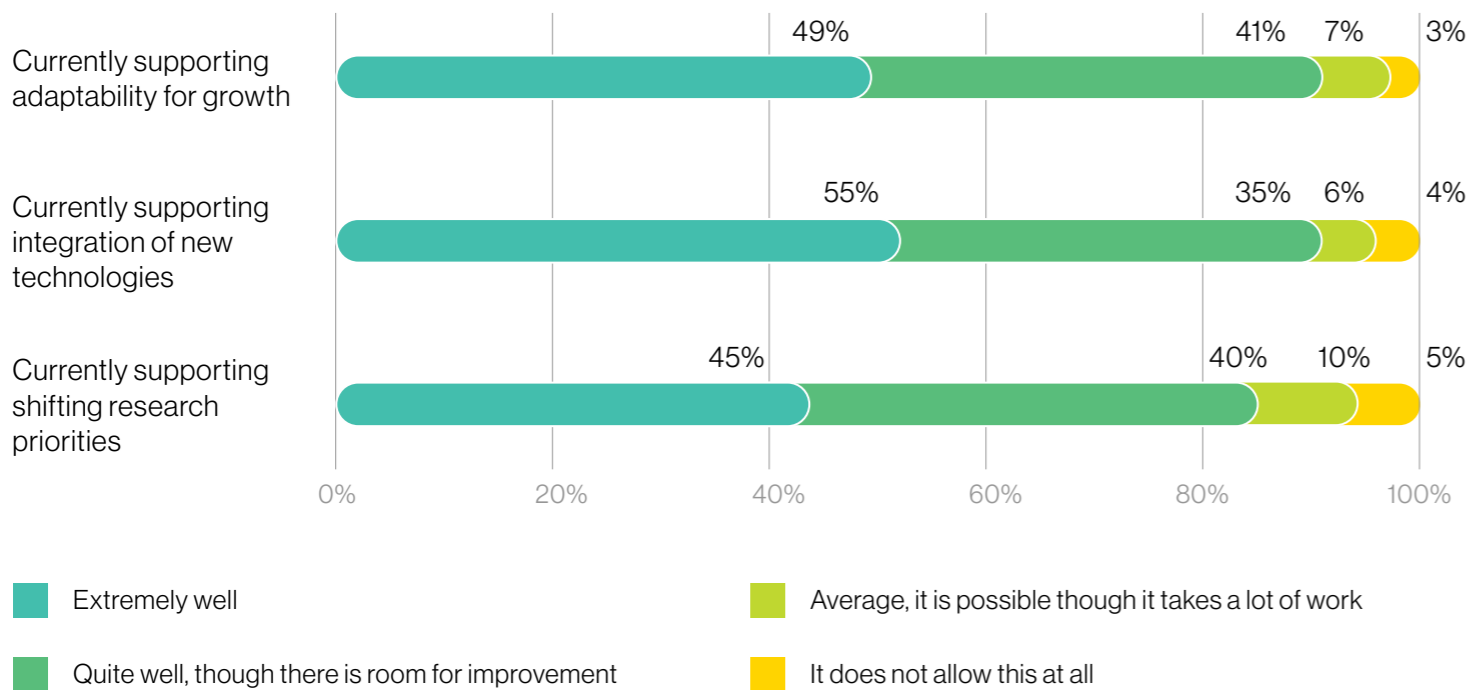


BIOGEN, BAAR, SWITZERLAND

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# United Kingdom and Ireland

## Appetite for improvement



### Is the current lab environment working?

UK life science executives express cautious optimism about the current state of their lab facilities. While just over half (55%) believe their laboratories are well equipped to integrate new technologies, such as automation, AI, or digital platforms, there remains a clear appetite for improvement, particularly in areas that support future scalability and flexibility.

When it comes to adaptability for growth, only 49% of UK leaders feel their labs are performing extremely well. This figure lags behind the global average of 56%, suggesting that while technological readiness is relatively strong, UK labs may be under greater pressure to modernize infrastructure and spatial design to support evolving research needs and expansion. Moreover, 41% of UK executives believe there is some room for improvement, indicating that many organizations are aware of latent barriers to future-readiness.

Despite these concerns, UK lab facilities support collaborative work practices, with 89% of executives reporting that their labs enable cross-functional and dispersed teamwork to a full or partial extent. This figure surpasses the global benchmark of 85%. It also suggests that even where physical infrastructure may need enhancement, cultural and organizational practices within UK labs remain strong drivers of teamwork and productivity.

### What is driving the future development of UK labs?

In the UK, flexibility and modularity remain the cornerstone of future lab development, with 59% of life science executives identifying these features as essential for the next generation of laboratory environments. In line with global trends, digital integration is also a high priority, cited by 54% of UK leaders as crucial to their long-term lab strategy. Maintaining effective cross-functional collaboration is similarly important, with 51% of executives recognizing it as a foundational element of successful lab design.

Employee satisfaction is also tied to workplace functionality, with 65% of UK executives agreeing that equipping labs with tools that enhance productivity and reduce manual tasks is critical.

Additionally, 61% stress the importance of enabling greater flexibility in how and where work takes place—highlighting the shift toward more dynamic and responsive lab environments.

However, UK labs face distinct operational pressures. Regulatory change is a notable concern, with 48% of executives identifying it as a significant challenge—considerably higher than the global average of 37%. Budgetary constraints are another pressing issue, impacting 41% of UK lab leaders, compared to just 33% of their international peers. These factors are shaping a pragmatic approach to lab design and investment, with a focus on cost efficiency and adaptability.

As one executive succinctly put it, “I am trying to make the labs more economically smart so that we do not face budget constraints and make developments faster.”

### The most important features of Future Labs in the UK

In the UK, enhancing workflow and boosting research productivity is a central focus of future lab design, with 53% of life science executives identifying it as a strategic priority. To support this, executives are placing strong emphasis on creating inclusive and accessible environments (52%) and incorporating wellness amenities and rest areas (49%)—both seen as critical to elevating the overall user experience and supporting high-performance work.

This human-centric approach is closely tied to the growing importance of talent attraction and retention in the UK. Nearly half of UK executives (47%) view this as a major driver of lab strategy, a notably higher proportion than the global average of 41%, suggesting that competitive, supportive workplaces are key to staying ahead in the UK life sciences sector.

“Incorporating flexible, modern, and sustainable design elements, such as adaptable layouts, energy-efficient systems, and integrated safety features, could inspire future lab developments in emerging markets, fostering innovation, efficiency, and collaboration.”

This perspective reflects a broader ambition not only to optimize operational outcomes but also to build lab spaces that support innovation, collaboration, and well-being in a fast-evolving scientific landscape.

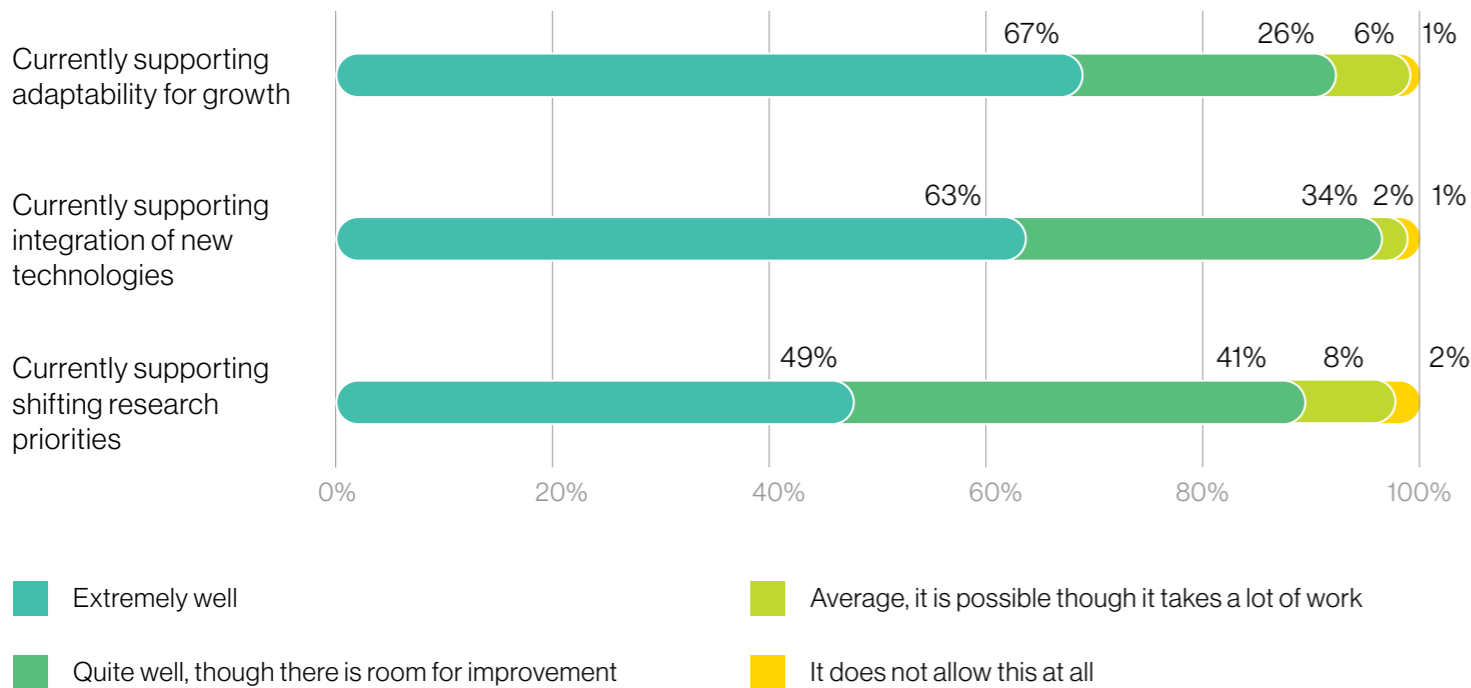
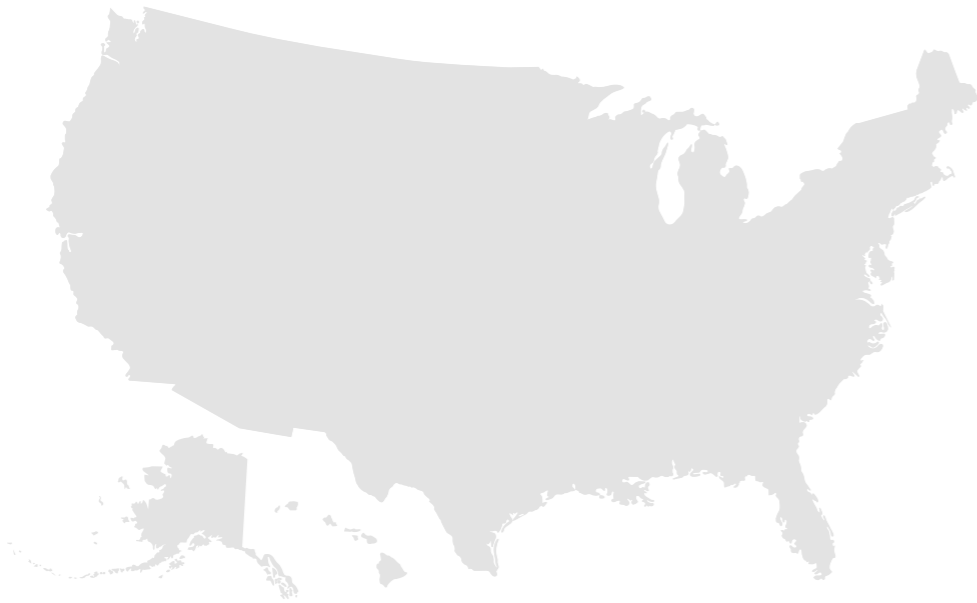
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# United States

## Steady as she goes in lab design



### Is the current lab environment working?

Perceptions of current lab environments among US life science executives are notably positive, particularly in terms of adaptability for growth (67%), integration of new technologies (63%), and shifting research priorities (49%) being supported exceptionally well. These figures are among the highest across all countries surveyed, highlighting a strong sense of confidence in the capability and resilience of US lab workspaces.

This confidence is further underscored by the fact that 94% of US executives believe their lab facilities fully or partially support cross-functional and dispersed teams—well above the global average of 85%. This suggests that collaboration and workplace agility are already embedded features of the US lab ecosystem.

Yet, despite these strong results, US leaders are not complacent. There is a clear drive to remain at the forefront of innovation by continually evolving lab design to integrate cutting-edge technologies while also prioritizing employee well-being.

“Future advancements in emerging markets will be shaped by flexible, eco-friendly, and technologically advanced lab designs that put affordability and safety first.”

### What is driving the future development of US labs?

Flexible, modular spaces remain the foremost priority shaping the future of laboratory design in the United States. A significant 61% of US executives identify this as a critical driver—substantially higher than the 53% of their global counterparts. Alongside this, the digital integration of smart technologies, cited by 58%, continues to be essential, as does the optimization of cross-functional collaboration within lab environments.

“There is a growing demand for flexible workstations and modular furniture in laboratories, allowing the space to be modified as per the laboratory’s specific needs.”

US executives place greater emphasis on these core elements compared to their international peers. Features such as supporting diverse working styles (41%) or managing operations across multiple hubs or regions (37%) are a lower priority.

To maximize employee satisfaction, US lab design is increasingly driven by flexibility—not only in the physical workspace but also in where and how work is conducted, with 65% of executives highlighting this factor. Additionally, 61% stress the importance of equipping teams with tools that enhance productivity and reduce manual tasks, further streamlining operations.

Nonetheless, future lab development in the US faces notable challenges. Resistance to change remains a significant barrier, cited by 34% of executives—higher than the 28% reported globally. Coupled with this is a prevalent concern over the return on investment, with 52% of US executives expressing apprehension, 5% above the global average. Overcoming these hurdles will be essential to realizing the full potential of innovative lab design.

### The most important features of Future Labs in the US

With many functional elements of their laboratories already operating effectively, US executives tasked with lab design are now prioritizing human-centered approaches. Features such as inclusive and accessible spaces (53%), visually striking environments that showcase scientific work (51%), and the upgrading of materials and furnishings (48%) are emerging as key focus areas. While improvements to lighting and airflow remain important considerations (45%), the predominant emphasis is clearly on enhancing the aesthetics and comfort of lab spaces to support the evolving needs of users.

“Workspace that allows the comfort to encourage work process flow,” encapsulates this shift towards environments that not only serve technical functions but also foster well-being and efficiency.

Furthermore, there is a growing recognition of the need to blend technology with natural elements. As one executive noted,

**“Providing smart systems and balancing them with nature like sunlight, plants, and other things will make the workplace more flexible and productive.”**

This holistic approach reflects a broader commitment to creating labs that are adaptable, engaging, and conducive to both innovation and employee satisfaction.

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## CONCLUSION

# Smarter labs Faster discovery Greater advantage

The future of life sciences isn't slowing down. It's accelerating — driven by scientific innovation, digital transformation, regulatory pressure, and a new generation of researchers demanding more from the spaces they work in.

Our research gathered in Q2 2025 confirms what many industry leaders already know: the next wave of discovery won't happen in outdated labs or siloed facilities.

It will emerge from spaces designed for adaptability, connected by smart technology, and built to support the well-being of the humans behind the science.

This isn't about checking boxes on compliance or design trends. It's about shaping labs that become a strategic advantage — flexible, intelligent, human-centric spaces where great science can thrive.

“

Globally, flexible and modular lab spaces are becoming the norm — not the exception. As life sciences leaders in the US, UK, and India double down on adaptability, Australia must keep pace. At Unispace, we're uniquely placed to bring global best practice to local projects.

The science may be cutting-edge, but attracting talent still comes down to the workplace. Labs must now be designed not just for research, but for the researchers. Comfort, connection, and collaboration are key to retaining top talent in an increasingly competitive market.”

**Sam Gill**, Head of Life Sciences, ANZ (Sydney)


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ELEKTA, CRAWLEY, UNITED KINGDOM

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This report was prepared in May 2025  
in collaboration with James Keene, Marketing PhD Researcher and Academic at the University of Technology Sydney,  
and Unispace Group's subject matter experts, using data and research collected by Opinium LLP.

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