

DESIGN IMPACT CASE STUDY

MEDICAL TECHNOLOGY

Inventia Life Science
Sydney, New South Wales

INVENTIA

LIFE SCIENCE

Inventia Life Sciences exemplifies how embedding design from the very beginning can transform complex scientific technology into accessible, impactful, and commercially viable solutions.

The company showcases a design-led philosophy embedded from the inception of its innovation journey.

Their ability to define a clear problem, deeply empathise with users, ideate across disciplines, rapidly evaluate through prototyping, and launch with clarity has positioned them as a leader the medical technology sector.



INVENTIA LIFE SCIENCE VIDEO CASE STUDY



INVENTIA LIFE SCIENCE DESIGN PROCESS MATURITY

| DESIGN PROCESS STAGES | KEY LEARNINGS |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>1. Define</p> | <p>The define stage began during the founder's early research career, where he identified a critical gap in disease modelling. Traditional cell culture methods using flat surfaces failed to replicate the complexity of human biology.</p> <p>This core insight established a clear objective: to create a three-dimensional biological environment outside the human body that would allow for realistic and scalable disease modelling.</p> <p>The intent was to improve accuracy in research, enhance reproducibility, and reduce complexity in operation.</p> |
| <p>2. Empathise</p> | <p>In the empathise phase, user experience became the central design driver.</p> <p>The team considered not only who the end-users would be - scientists, pharmaceutical researchers, and academics, but also how they would interact with the technology. They prioritised accessibility and intuitiveness, deliberately eliminating barriers such as the need for extensive training.</p> <p>The result was a user experience model that parallels the simplicity and immediacy of consumer technology, where instruments can be used straight out of the box without a manual.</p> |

INVENTIA LIFE SCIENCE DESIGN PROCESS MATURITY

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| <p>3. Ideate</p> | <p>The ideation process brought together a multidisciplinary team encompassing industrial design, software, mechatronics, engineering, chemistry, material science, and biology.</p> <p>Unified under a common goal, this collective explored how to develop an integrated instrument that aligns with existing research workflows while advancing scientific capability.</p> <p>The choice of a striking pink design, inspired by the cell growth medium's colour, reflects both bold aesthetic intent and thematic relevance, establishing a distinct identity without compromising professional utility.</p> |
| <p>4. Evaluate</p> | <p>During the evaluate stage, the company emphasised rapid prototyping and design iteration.</p> <p>With the support of industrial design consultancy, Design + Industry (D+I), the first functional prototype was assembled in just three days, a testament to the clarity of vision and cohesiveness of design execution.</p> <p>Feedback from early users affirmed the instrument's ease of use, validating the company's foundational principle: if a manual is needed, the design has failed.</p> |
| <p>5. Launch</p> | <p>Finally, the launch phase was underpinned by intentional simplicity and seamless integration.</p> <p>The instrument's intuitive nature and compatibility with existing laboratory processes enabled swift adoption in both commercial and academic environments.</p> <p>The design-led development process not only reduced the learning curve but also positioned Inventia Life Science as a user-centric innovator in biomedical research tools.</p> |

INVENTIA LIFE SCIENCE EMBEDDING DESIGN TO DELIVER IMPACT

| DESIGN IMPACT PILLARS | KEY LEARNINGS |
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| <p>1. PEOPLE AND CULTURE</p> <p>Designing to improve the quality of life for society and citizens and to acknowledge and shape culture in a respectful and inclusive manner.</p> | <p>Inventia Life Science places societal benefit and cultural awareness at the heart of its innovation.</p> <p>By addressing complex health challenges through accessible technology, the company enables broader participation in biomedical research.</p> <p>The intuitive design fosters inclusivity across varied user skill levels and backgrounds, and the collaborative, interdisciplinary approach reflects a culture of openness, respect, and shared purpose.</p> <p>Even aesthetic decisions such as the striking pink colour scheme, stem from thoughtful reflection on both user experience and symbolic relevance.</p> |
| <p>2. PLANET</p> <p>Designing for Environmental Sustainability and Circularity.</p> | <p>Inventia Life Science's commitment to minimising resource waste is implicit in the design of reproducible, high-throughput biological systems.</p> <p>By facilitating efficient research processes with less reliance on animal models or redundant testing cycles, the technology holds potential for more sustainable scientific practices.</p> |

INVENTIA LIFE SCIENCE EMBEDDING DESIGN TO DELIVER IMPACT

| DESIGN IMPACT PILLARS | KEY LEARNINGS |
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| <p>3. PROSPERITY</p> <p>Designing for Commercial and Economic Return.</p> | <p>From a business perspective, Inventia Life Sciences' design-led strategy has resulted in a compelling commercial offering.</p> <p>The instrument's ease of integration into existing workflows minimises disruption and maximises adoption, accelerating time-to-market.</p> <p>By creating a highly differentiated product that meets the real needs of pharmaceutical and academic researchers, the company has laid a strong foundation for long-term economic viability and growth.</p> |

DESIGN FOR A BETTER AUSTRALIA

We champion the power of design capability to deliver meaningful impact that fuels economic growth, strengthens communities, and shapes a more sustainable and prosperous Australia.

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