GHD Digital

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Welcome

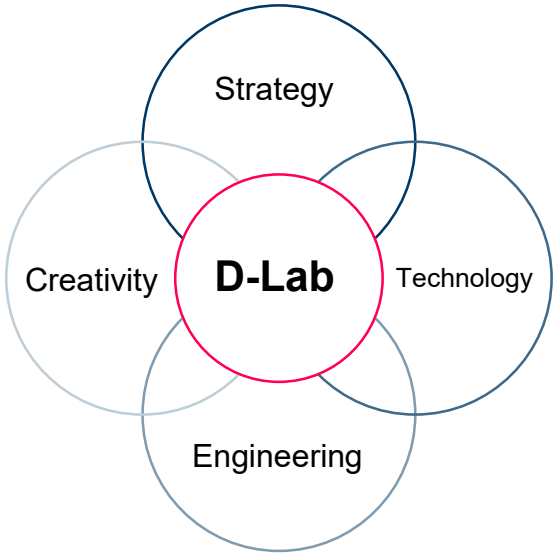
GHD Digital

Applied Innovation
A method & mindset for solving complex challenges

→ D-Lab, GHD Digital

D-Lab is GHD's global innovation practice

D-Lab delivers a suite of innovation services; discovering, designing, developing, disrupting and delivering transformational ways of working and thinking. We thrive at the intersection of business strategy, engineering, technology and creativity.



Our role in D-Lab is to help make the complex simple, the imagined possible and change more empowering, so we work with you to design your approach, share our insights, transfer knowledge, help on-board the right people and enhance your capability.

And, we're a virtual 'Lab'…

We leverage virtual, digital and collaborative technologies and techniques to help teams globally: explore, test, learn, design, incubate and create new and inventive outcomes.

What is ‘Applied Innovation’?

Applied Innovation is D-Lab’s integrated, design thinking-led approach to help you explore complex challenges in new ways and deliver untapped value for your organisation, your customers and communities.

We'll work with you to customise an Applied Innovation approach with the right:

Process & Tools

A proven process to embed empathy into the design and delivery of solutions, backed by a range of innovation tools and techniques

Mindsets

The ability to collaborate, harness collective intelligence and integrate new ways of thinking to foster and embed ongoing positive change for your organisation

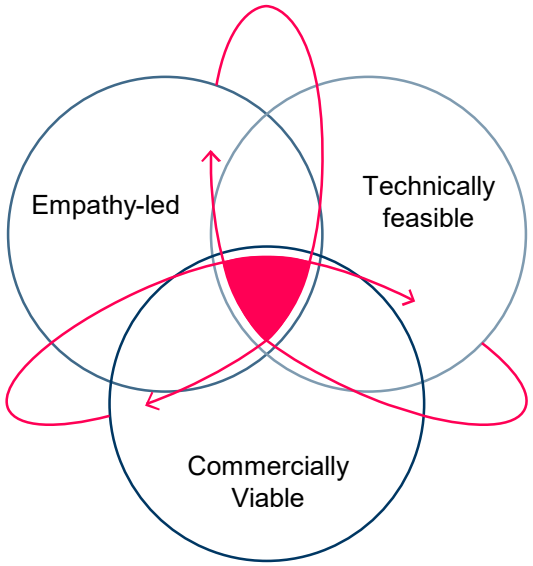
People & Skills

Identifying and drawing in the right people, with the right range of skills and experience to help drive the innovation process and deliver tangible outcomes

Innovation isn't just a buzzword; with the right approach it delivers tangible results

People are the heart of complex systems. To distil and innovate within complexity, we need an approach which starts by understanding the people within the system and then balancing this by exploring what is actually possible to deliver.

Applied Innovation



Our Applied Innovation approach is:

- **Empathy-led** through focusing on the needs and wants of the people in your complex system
- Considerate of **technical feasibility** by tapping into deep domain and technical expertise
- Grounded by assessing **commercial viability**, drawing on a range of mechanisms such as partnering, co-creation and optioneering.

GHD's breadth of capabilities together strengthen how we provide our Applied Innovation offering to you:

GHD — Engineering, architecture, science and construction specialists across water, energy, transport, environment and property.

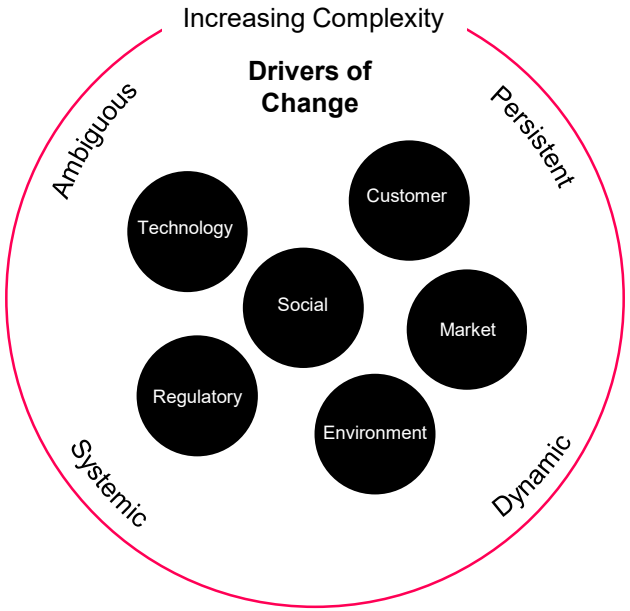
GHD Advisory — Specialties include business case development, asset management, economics, risk, assurance, compliance and regulation.

GHD Digital — Data scientists, immersive digital consultants and technology innovators spanning digital intelligence, experience and transformation.

Why Applied Innovation?

Today's problems can't be solved by yesterday's thinking. Design-led approaches explore wicked problems and produce outcomes which increase revenue, promote engagement and de-risk the investment process.

Wicked Problems



Over the last 90 years, GHD has consistently sought out and applied new ideas, practices and technologies. And, like many of our client organisations, this process must continue as we face increased complexity driven by:

- Technological advances
- Operational constraints
- Increasing customer expectations
- The need to deliver better social, environmental and economic outcomes.

The challenges faced by many organisational leaders are systemic, persistent and not easy or clear to solve. This is where the tools, techniques and mindsets of Applied Innovation can play a role to better understand your unique problems and identify opportunities to respond. Embedding Applied Innovation, or design-led approaches, in organisations has been seen to:

- Grow revenue and returns at nearly twice the rate of traditional approaches*
- Lower the risk and cost associated with solution delivery by ensuring you are developing the right solution and iteratively building and testing**
- Increase employee, customer and stakeholder engagement and buy-in*.

* 'The Business Value of Design', McKinsey, 2018
** 'Why Design Thinking Works', Harvard Business Review, Innovation, 2018

What makes Applied Innovation successful?

We design the Applied Innovation approach with you, considering your specific challenges and setting you up for successful implementation. To do this, we look forward, anticipating and considering methods, skills and possible partners.

What makes it work?

01 A **bespoke approach** drawing on multiple innovation disciplines and techniques

02 A **practiced process** for solving persistent and complex problem solving

03 A **multi-disciplinary team** of designers, innovators and specialists

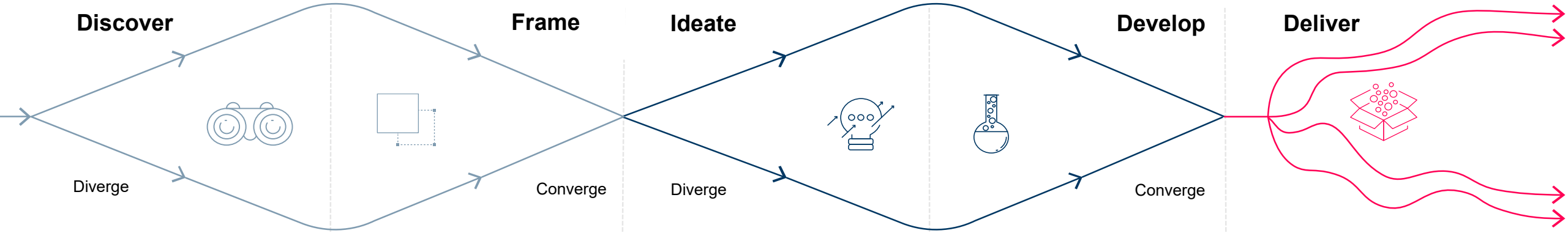
04 A **collaborative exercise** with a genuine commitment to involving stakeholders, testing options and seeking feedback

05 It needs to be **founded on empathy**, ethnography and taking time to gain genuine insights

06 With a strong focus on the **end-to-end** process iteratively learning and scaling solutions

The process follows a design thinking approach; and leverages a range of supporting techniques

1. Process & Tools



Problem Focus | **Solution Focus** | **Implementation**

Understand the system, people, processes and technology

Example Techniques

- Ethnographic research
- Discovery workshops
- Systems mapping
- Data analysis

Identify key insights to redefine the right problem or opportunity

- Insights and story development
- Needs analysis
- Challenge framing
- Customer interviews

Collaboratively produce, refine and prioritise various solutions

- Co-design workshops
- Design sprints
- Prioritisation and evaluation matrices

Iteratively develop ideas drawing on agile and lean methodologies

- Prototype development
- High-level feasibility studies
- User testing
- Commercialisation analysis

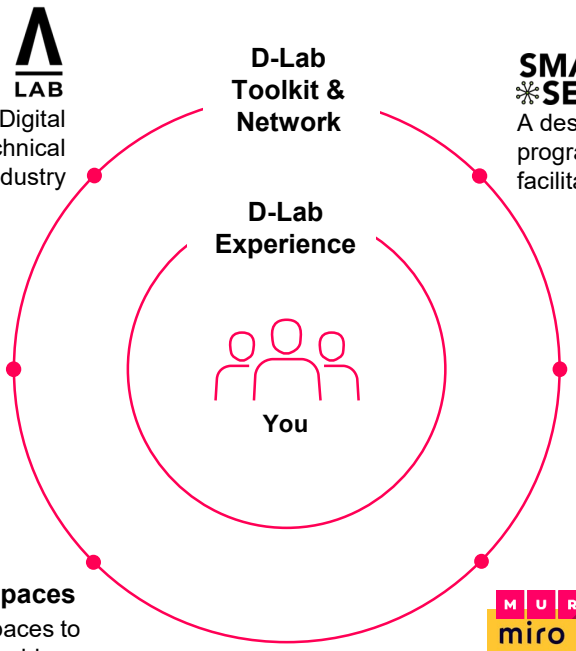
Deliver at scale, leveraging technical specialists and partnerships

- Detailed design development
- Operating model definition
- Partners management
- Value realisation measures

We provide a broad innovation ecosystem

1. Process & Tools

D-Lab Innovation Ecosystem



LAB
AquaLAB is a GHD Digital initiative to foster technical excellence in the water industry

SMART SEEDS™
A design-led client innovation program designed and facilitated by D-Lab.

University and research partnerships to access knowledge and expertise

GHD Digital IdeaHub
A collaborative innovation tool that allows you to deliver innovation campaigns and crowdsource across your organisation or externally

GHD Digital D - Spaces
Creating unique spaces to collaborate, solve problem, build teams and deliver innovative results

MURAL miro
A collaborative innovation tool that allows you to deliver innovation campaigns and crowdsource across your organisation or externally

D-Lab's active participation in the wider innovation ecosystem allows you access to a range of thought leaders, innovators and virtual collaboration tools.

Most forms of innovation benefit from collaboration and partnering, often with other organisations. D-Lab's ecosystem offers a connected approach to collaboration and harnessing tools.

You no longer have to engage multiple service providers. It's all part of the D-Lab end-to-end experience.

An Applied Innovation approach will help you cultivate an innovation mindset

2. Mindsets

It's about embodying new ways of thinking and doing, leading to lower risk, continuous improvement and increased engagement.

The process and tools are important, but they are not the only elements required for successful innovation. True game-changing innovation comes from adopting and applying an innovation mindset.

This mindset will help you think about your challenges in new ways so that you can continually test and learn. Through adopting this mindset, you can de-risk your investments by first making sure you are designing the right thing, continually evolve your innovations and increase engagement with your employees, customers and stakeholders*.

D-Lab can support you and your team to cultivate and embed these mindset principles, equipping you for continual innovation success.

01 **Focus on community & customer**
Take a human-centred approach to problem solving and solutions

02 **Collaborate diversely**
Engage diversity of perspective whenever possible

03 **Know less to learn more**
Be curious, consistently consider the 'why' and surface internal biases

04 **Be data & insight-driven**
Avoid assumptions and seek information that evolves understanding

05 **Dream big, dream different**
Be bold and aspirational when developing ideas

06 **Experiment & iterate**
Try, test and fail - it's the best way to learn and evolve ideas

D-Lab's skills and diversity are critical to the success of our approach

3. People & Skills

Our D-Lab team has a physicist, engineers, innovation specialists, business analysts, entrepreneurs, educators and even a lawyer. The common thread is we're all guided by the principles of deep listening, empathy, creativity, curiosity, sharing knowledge and co-creating - ready to partner with you to solve your most complex challenges.

We have delivered Applied Innovation for many clients

Applied Innovation can be used to explore and solve many different and complex challenges.

D-Lab has partnered with clients to solve challenges including:

- How might we deliver valued and scalable solutions to assist **disrupted commuters**?
- How might we address the wastewater overflow experience in order to continually **meet customer expectations**?
- How might we reassess **our ten-year airport strategy** in response to COVID-19?
- How might we develop a roadmap to integrate leading edge technologies to help **run our mine more efficiently**?
- How might we **drive step-change improvements in the construction industry**?

We would love to hear from you

Let's discuss what success looks like for you and how to best achieve the results.

Together we can:

- Enhance the way we meet the increasing expectations of your customers and communities
- Harness the power of data and analytics for outstanding customer experiences and organisational outcomes
- Adopt new technology to realise safer, more efficient ways of working
- Transform your products and services to respond to market, digital and regulatory forces
- Integrate services across traditionally siloed functions to deliver more value from your existing operations
- Commercialise your innovations and expand your services to capture more market opportunities

Please reach out to us:

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GHD Digital

*Thank You

→ ghd.com/digital