# Supernode

## Health Tech and Resilient Communities Industry Workshop Summary

### Problems/Challenges

**Ecosystem & Commercialisation**
- Emerging challenge is the transition from a focus on hard infrastructure towards a connected and innovative community
- The ecosystem has a high level of expertise and innovation but commercialisation is difficult - specialised experts need more opportunity to engage and collaborate with commercialisation partners
- Cost and complexity of commercialisation means you need to be in for the long game
- We operate within a risk-averse culture (especially with investment)
- Need to close the adoption gap of emerging technologies within health (eg. AI, AR, imaging)

**Skills and pathways**
- Highly skilled engineers being pulled into non-innovative companies
- MoE streaming creates barriers for young people, particularly young Māori, interested in STEM
- Need more employable 'next-generation' tech students (AI, Mixed Reality, Data)

**Attraction (& retention)**
- Businesses not used to taking on new internationals
- Too many growing businesses go offshore and take the IP and talent with them

### Solutions

**Ecosystem & Commercialisation**
- Create a Commercialisation Unit – a panel of leaders inside CDHB who can inform and support 3$^{rd}$ party innovators
- Processes need to be fine-tuned in order to pilot health-tech at scale. We need to create a successful model.
- There's no doubt AI will transform efficiencies in the health system – making datasets open to innovators and researchers could stimulate growth. Also need better data collection and analysis skills tied into health sector.
- Form Communities of Practice – working groups that regularly connect and collaborate
- Utilise international connectedness to realise commercial opportunities

**Skills and pathways**
- Better short course training options using tertiary resources
- Develop a model where the learning experience and talent pipeline is on the agenda of industry boards and fed directly to education – with the goal that the boundaries between education and industry merge
- Mandatory work placement – either promote it or make it mandatory
- Multi-faculty (micro-) degrees that reflect products and services in real world (commercial) or post-grad diploma.
- Make health aspirational to young students – expose school students to the health industry earlier
- Careers advisors need up-to-date, inspiring information – Supernode champions train advisors on growth areas and talent needs
- Support for experts to learn new areas quick – 'student internships' for professionals
- Develop a long-term strategy to include more young Māori in healthcare, like Otago university has done with Te Whakapuāwai
- Focus on developing transferable skills – critical thinking, collaboration, working with diversity, problem solving

**Attraction (& retention)**
- Leverage the scale of the Health Precinct and sell ourselves as the health hub – perception becomes reality
- Create a full attraction package to incentivise talent and companies to move here (tax relief, scholarships, lifestyle, education)
- NZTE to focus on *retaining* growing businesses in CHCH/NZ
- Directly integrate the 'healthy lifestyle' story into the health sector narrative
- A calendar of public workshops that highlight some of the exciting work happening in the sector
- Med-tech professional Visa

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## Opportunities

- Antarctica Centre of Excellence: research for extreme environments, isolation, mental health resilience, research with UC/Med School/CDHB
- Commonwealth Health-tech Hub: Leverage the Australian opportunity - Canterbury health landing pad in key locations to manage international clients
- Attraction: The health innovation hub for start-ups and big business globally – a global centre for health innovation. Positioning Christchurch as a hub for big international companies to prototype here.
- Orthopaedics Centre of Excellence: Establish the local Orthopaedics expertise as a global platform for growth
- Commercial Opportunities: realise commercial opportunities within an agile, forward thinking health system
- Cost-effective, global R&D, rapid prototyping and testing platform: become the world's proving ground within an integrated product development eco-system
- Bespoke rapid medical manufacturing
- Research leader: Diabetes, smart devices, biomechanics, orthopaedics, clinical research, 3D printing bio materials, remote places (Antarctica/Space)

## Recommended next steps

Short term & *Medium Term*

### Eco-system

- Map out all the players on a page – better understanding of the eco-system
- Identify areas of specialisation
- Grow NZTE-led network group
- Company commitment to diversity
- Identify the 3-4 key initiatives where we can make the biggest impact

### Skills and Pathways

- Develop and deliver careers advisor training
- Education changes that reach and attract younger students, especially Māori
- Attract more engineering, teacher and health students
- Develop health-tech programmes for youth (10-13yo's)
- Support WIL (work integrated learning) development
- *Develop multi-discipline education options*
- *Improve tertiary rankings to attract students and international students*
- *Tech apprenticeships as a pathway to higher level qualifications*

### Attraction

- Get stories out to a global audience of successful students/graduates in Christchurch
- Create a brand to support the eco-system – sell Christchurch as the 'City of Choice' both nationally and internationally
- *Increase focus on internationalisation and marketing – grow international connectedness to realise commercial opportunities*
- *Attract health-tech companies*
- *Introduce funding and incentives*

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