

Med Tech Seminar

Galway, 18th October 2019

Summary Points.

Prepared by Dr Majella Giblin and Prof Jonathan Levie
Whitaker Institute, NUI Galway.



NUI Galway
OÉ Gaillimh

Outline

- Purpose of the Med Tech Seminar
- Overview of sector in Galway
- MNC subsidiary site evolution – enablers and outcomes
- Early entrepreneurship - characteristics
- Recent entrepreneurship - characteristics
- The Evolving Policy Context
- Future of Galway Med Tech: Opportunities, Challenges and Needs



Purpose of Med Tech Seminar, 18th October 2019

- Purpose of this seminar: to understand the evolution of the **Galway med tech cluster**. More specifically;
 - to learn the factors contributing to its emergence and subsequent growth
 - to identify current challenges and potential opportunities for the future development of the med tech cluster in Galway, as well as lessons learned for the sector that could be applied to other industries in Ireland
- This first seminar is Galway-centric. While there are significant developments in Med Tech in other regions in Ireland, including Sligo, Castlebar and Limerick, these are not included in the analysis at this point, given the purpose of this seminar.



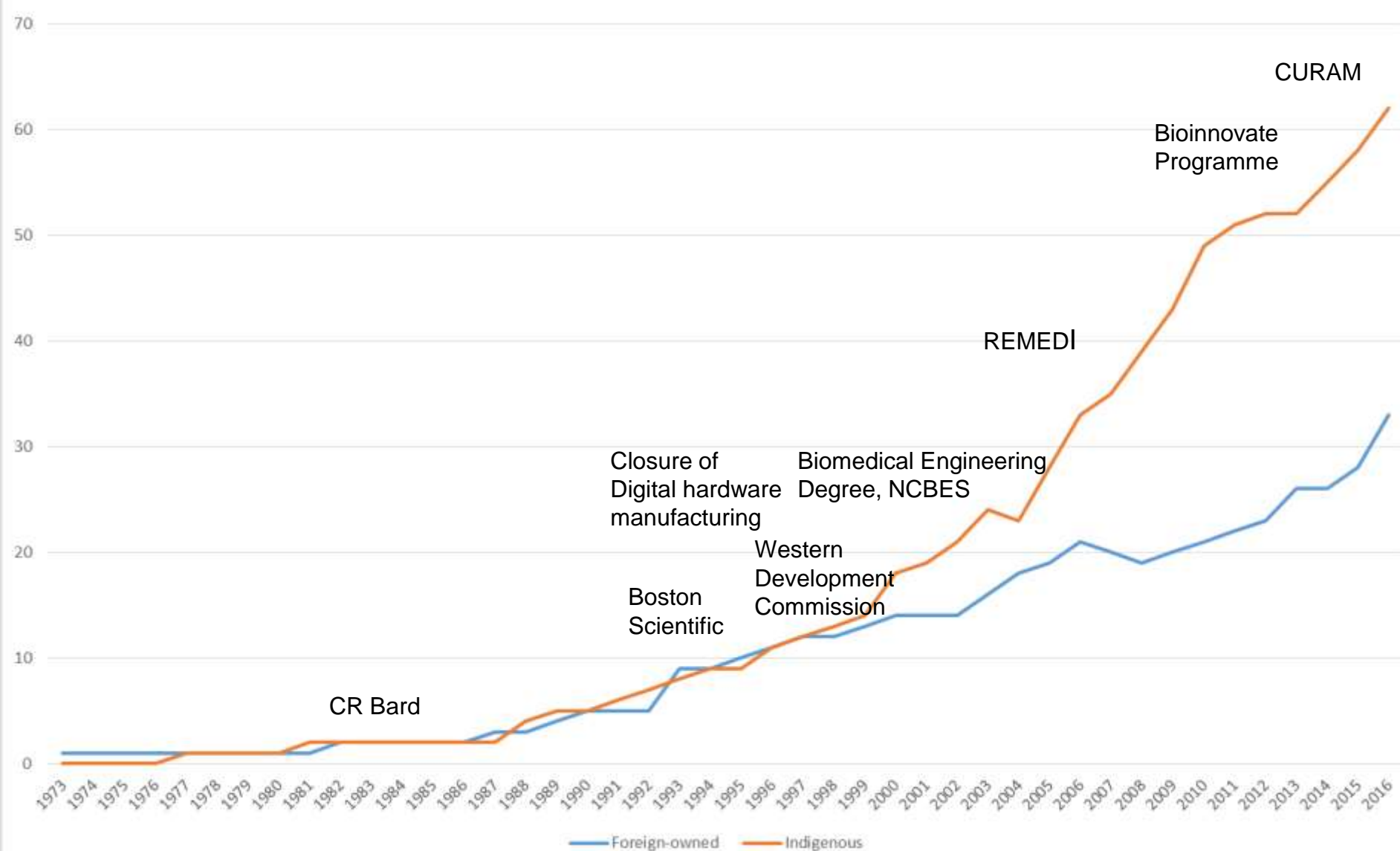
Med Tech Event Schedule Overview

- Introduction: Overview of the Med Tech Sector in Galway
- Panel discussion 1: How did the cluster develop? (historical perspective on sector evolution in Galway)
- Panel discussion 2: How well is the Galway Med Tech sector positioned for the future? Are there lessons?



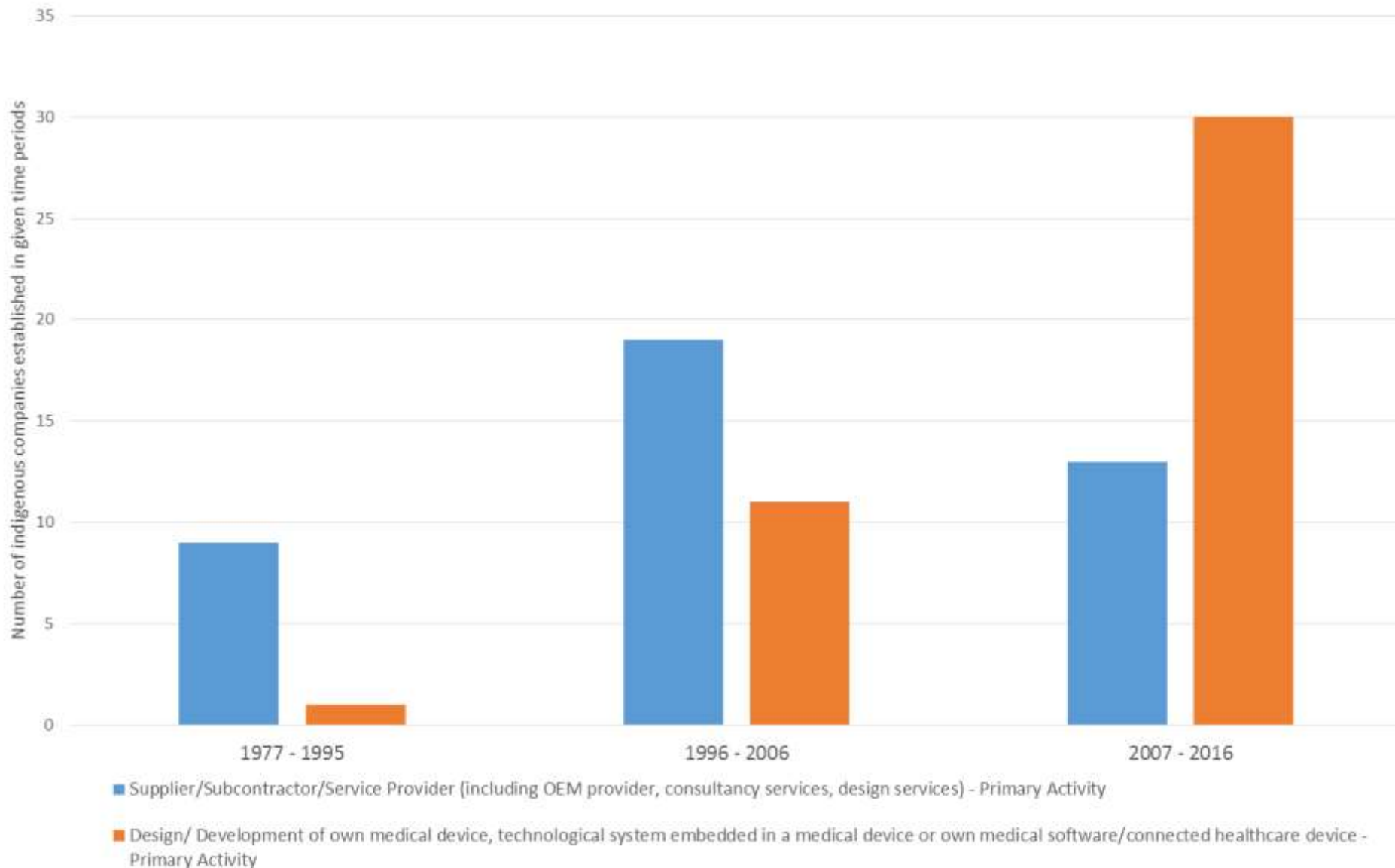
Sector Overview in Galway

Number of indigenous and foreign owned companies in each year, 1973 - 2016



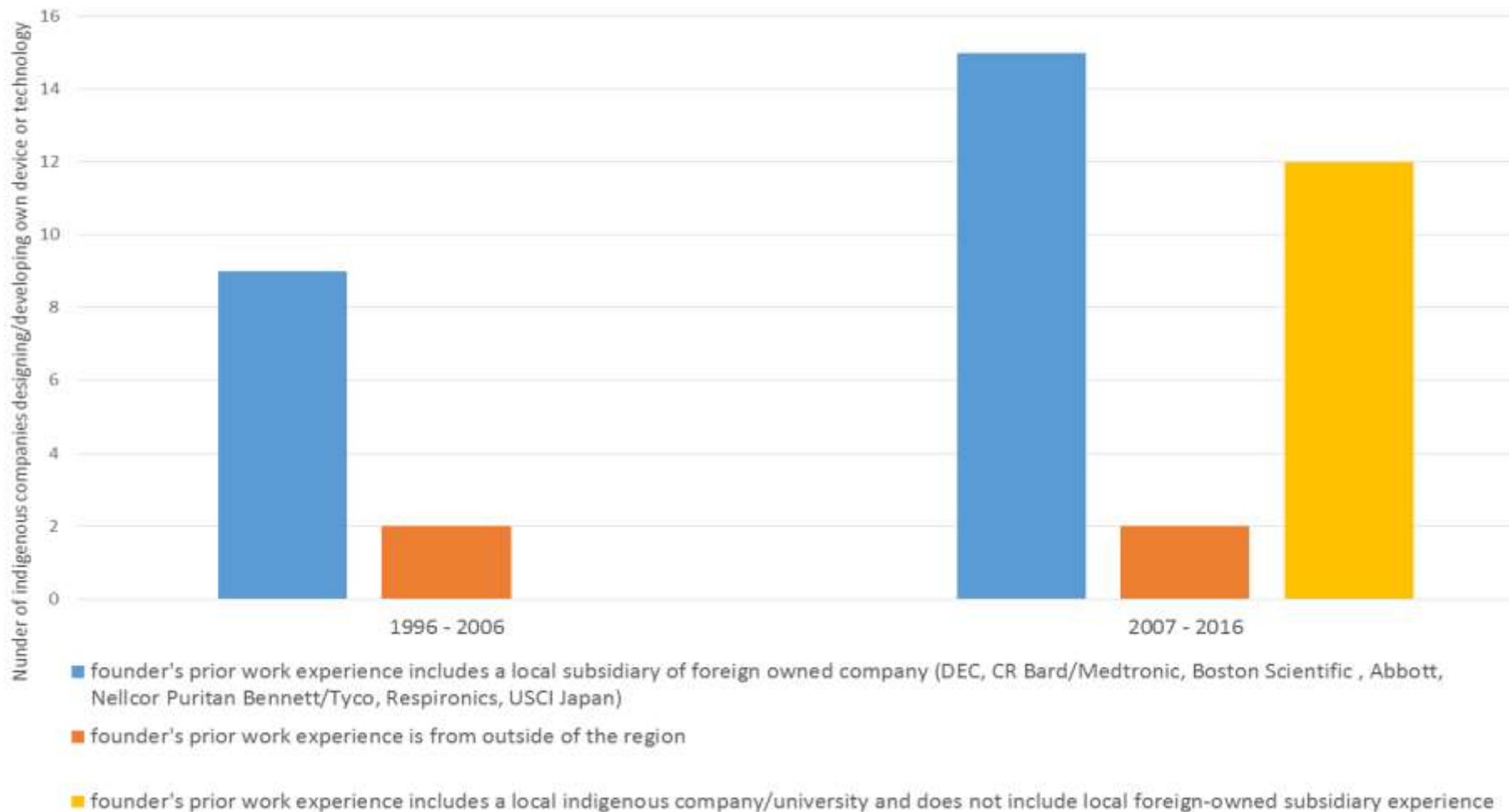
Sector Overview in Galway

Primary Activity of Indigenous Companies Established in Given Time Periods



Sector Overview in Galway

Founders' Prior Work Experience
-Indigenous companies (designing/developing own device or technology) established in given time periods



MNC Subsidiary Site Evolution

- Subsidiaries started as ‘implementers’ (executors of HQ mandates) and transitioned to ‘contributors’ (generating new knowledge that adds value to the corporation)
- A challenging transition:
 - *Required transformational leadership* – strategic and expert leaders, leading by best practice; depth of *technological knowledge*; *remaining agile*
 - *Enabled by training people in the US/* bringing people from the US to Galway
 - *Facilitated by transfer pricing*, the availability of *first-class engineers locally and quality management*, the building of *physical facilities* that allows customer contact
 - *Resulted in significant project wins* for the sites e.g. full product design



The future for MNC subsidiaries

- Now they need to move from being ‘contributors’ to ‘strategic partners’ to HQ (a critical player in the corporation where significant decisions are made), or risk being phased out through the consolidation process – and this applies also to key suppliers.



Early Entrepreneurship

- Funding:
 - The challenge of raising finance was significant; VC funding in Ireland was thin
 - Western Development Commission and Enterprise Ireland were (are) important actors as sources of funding (*For example, the Western Development Commission has to date invested €20m in med-tech/lifesciences businesses in the Western region*)
- People capability landscape:
 - The scale of thinking among people tended to be on the execution of an R&D project from inception and making incremental improvements
- The growing manufacturing base instigated a strong, locally-focused supplier base



Recent Entrepreneurship

- Funding:
 - Evolving VC market, continued support of EI and WDC, local angels
- People capability landscape:
 - Talent pool has grown in size
 - There is a significant breadth and depth of knowledge among people within and across functions
 - Scale of thinking has shifted to innovation (solving unmet needs) and big market opportunities
- Locally to globally-focused supplier base
- Culture of entrepreneurship has evolved - no stigma starting



The Evolving Policy Context

- IDA Ireland and Enterprise Ireland: separate remits
- Supporting enterprise: a move from grant-givers to investors
- Significance of European Union membership
- 12.5% Corporation tax: a transformer for attracting investment but not a sustainable national competitive advantage
- Acknowledging the need to create IP in Ireland
 - Science Foundation Ireland: for world-class thinking, problem solving, crossing disciplines, supporting and encouraging innovative people
- Culture creation: awards for businesses and entrepreneurs



Future of Galway Med Tech

- Significant Opportunities

1. Converging technologies and exploiting emerging trends

- Scoping opportunities for new products that involve the convergence of technologies that are yet underexplored (e.g. biotech, biopharma, biologics, biomaterials, electronics-med device, robotics/implantable sensors, IT-med device)
- Exploring emerging trends (e.g. wellness, connected healthcare, improving quality of life in the community)
- Entrepreneurial opportunities arising from changing regulations
- Extent of funding available is better than ever
- Bio-Innovate Programme: source of new entrepreneurs and needs-driven businesses



Future of Galway Med Tech

- Significant Opportunities

2. Scaling businesses

- Creating a team for scaling and the availability of talent in the region for scaling (e.g. people working in MNEs) who can be attracted to an entrepreneurial team to make the transition from a start-up to a scale-up
- Availability and significance of mentorship available in the region now
- Significant research and knowledge-creation expertise in the region to become market leaders



Future of Galway Med Tech - Significant Opportunities

3. Broadening the scope of the cluster; regional to a national locus
 - Opportunity for more collaboration between Galway and other regions particularly as sector moves from bio-mechanical products to include more technologies such as data analytics, electronics, sensors. For example, opportunity of developing digital health in collaboration with sectors in Dublin
 - Shifting from regional competition to ‘co-opetition’



Future of Galway Med Tech

– Challenges and Needs

- Building a salesforce to scale, obtaining sales and marketing expertise
- Funding mechanisms can inhibit scaling: pressures for an exit strategy
- Research and innovation requires:
 - Clinicians performing research and being involved in start-ups: this requires an understanding of their role in needs-driven business development
 - Access to key opinion leaders
 - Developing the research infrastructure in clinical trials
 - R&D spend to rise to international standards: more ‘R’ but need to de-risk the risk, more harnessing of the technology produced by academics
 - Multi-disciplinary people to allow convergence of technologies and cross fertilisation across disciplines in the University



Future of Galway Med Tech

– Challenges and Needs

- Better gender and national representation is required as diversity is important for creativity
- Infrastructure upgrading (e.g. road) is required
- Dealing with the challenge of regulatory changes
- There is a constant need for the transformation of product, people, process
 - Need leaders of cross-functional global teams, labour mobility from MNCs to start-ups and vice-versa especially for scaling businesses
- MNCs are shifting to fewer, multi-business subsidiary campuses (and fewer suppliers) with less control from HQ. Fragmented entities on a site presents a new challenge for leadership
- Regional ‘competition’ with Dublin; the usefulness of defining geographical boundaries and the need to move towards a model of ‘co-opetition’
- Differentiators of the past are not the differentiators of the future; attention should now be focused on people capabilities and competencies



Summary Learning Points – Opportunity for growth

1. Converging technologies and exploiting emerging trends
2. Scaling businesses
3. Broadening the cluster scope; from regional to national locus

