

The Future of Digitisation in Life Sciences

Q4 2023

Welcome to today's webinar which will begin shortly.



Privacy

- This session is being recorded so please be mindful of this when sharing any information.



Questions

- Type questions using your Q&A button.
- We will endeavour to answer them at the end.
- The Q&A box will remain open throughout the presentation.
- These questions can only be seen by the panelists.



Other

- If you have any issues with audio or video, please let us know via the chat button.



The Future of Digitisation in Life Sciences

7th November 2023



Agenda

1

Welcome & Introductions

2

Current Landscape, Opportunities and Challenges within the sector

3

Digital Innovation in Drug Development

4

Future considerations for Digital Transformation in Life Sciences

5

Panel Discussion and Q&A

Meet the Panel



Fiona Dunne

Director and Life Sciences
Lead

Grant Thornton



Matt Moran

Director

BioPharmaChem Ireland



Ciaran Dunne

Director, Strategy
Execution

MSD



Donal Cronin

Manager

Grant Thornton



INTRODUCTION

BPCI published an industry plan in 2022 – it outlines how the manufacturing sector will support rapid delivery to market and support patient needs.

What are the future trends the industry needs to take note of in the future ?



Make Ireland the Global Leader in Sustainable Biopharmaceutical and Chemical Manufacturing

A strategy for the
sector 2023-2027

Our vision: Ireland will be the globally recognised centre of excellence for innovation and development in the sustainable manufacture and supply of biopharmaceuticals, pharmaceuticals, and chemicals; and the location of choice for the launch of new products.

Our mission: BioPharmaChem Ireland will support and represent the sector in realising its vision by bringing together all relevant stakeholders; industry, government, the research community and the public; to communicate the unique position of Ireland as the leading global location for the manufacture and supply of biopharmaceuticals, pharmaceuticals and chemicals.

A profile of Ireland's BioPharmaChem Sector



Biopharmaceutical and chemical sector had an export value of

€106bn

in 2020 – the first time a sector has exceeded the €100 billion mark in a single year.

11.2bn

Covid-19 vaccine doses produced in a single year



85+
companies

67%

of the total goods exported from Ireland



A profile of Ireland's BioPharmaChem Sector / continued



**Over
€10bn**
in capital
investment

12
of the top-
selling
medicines
manufactured



**Over
80,000**
employed directly
and indirectly by
the sector



50
FDA-approved
pharma and
biopharma plants



A profile of Ireland's BioPharmaChem Sector / continued



19

of the top 20
global pharma
and biopharma
companies
based in Ireland

25%
of all PhD
researchers
in the Irish
industry are
employed in
the sector.



10

of the top
10 world's
Biopharma
companies



Ireland
has an
exemplary
compliance
record with
regulatory
agencies



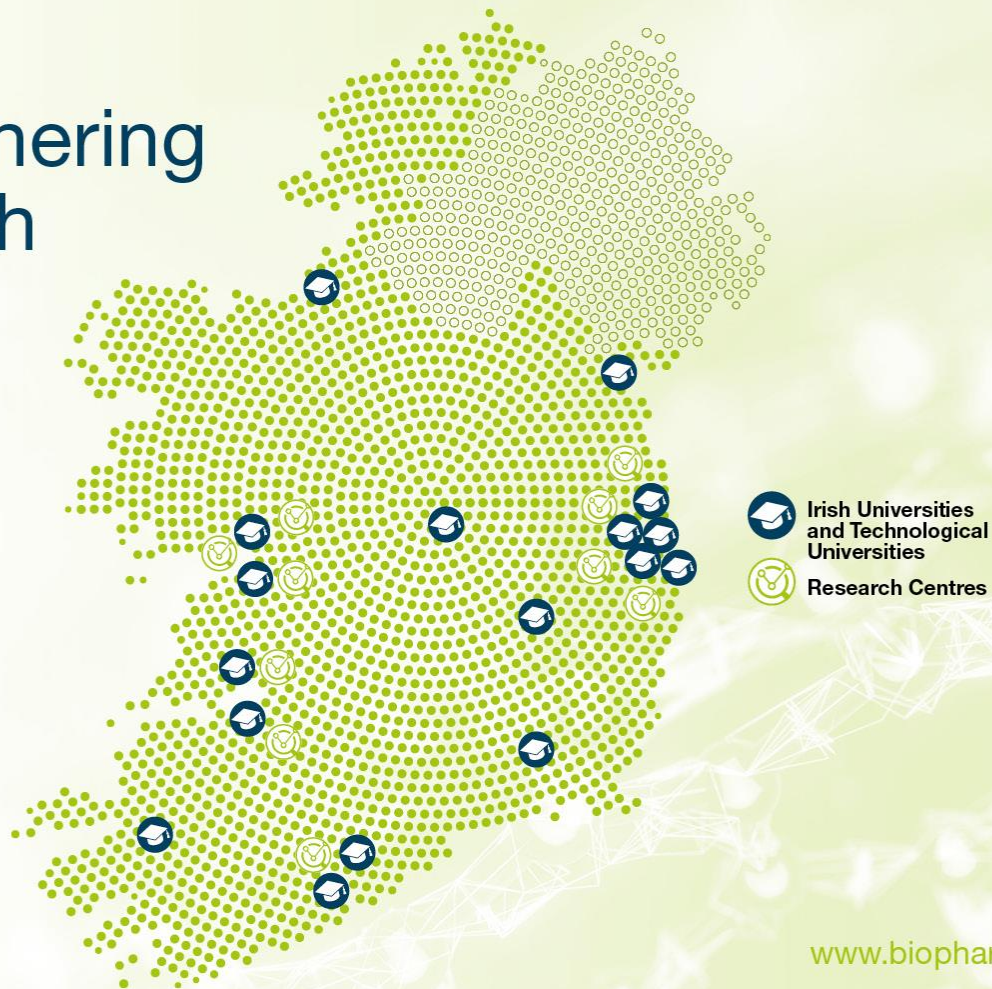
47%

of 25-64 year-
olds have third
level degrees

BioPharmaChem Ireland members 2022



Industry partnering with Research



A sample of investments in the sector in 2022



€400m

invested in Limerick



€440m

invested in Cork



€150m

invested in Cork



€140m

invested in Tipperary



€100m

invested in Dublin



€36m

invested in Dublin



IPSEN
Innovation for patient care

€27m

invested in Dublin

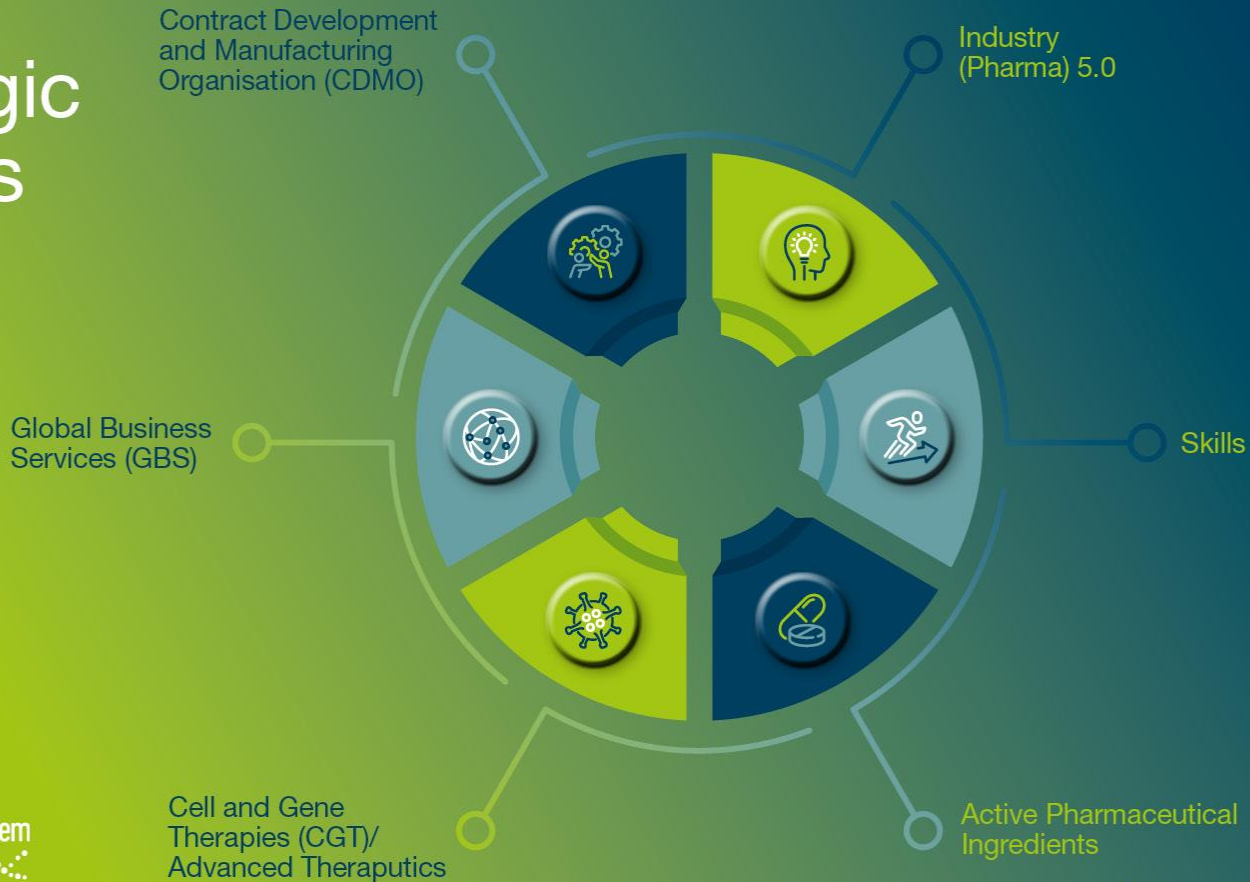


eirgen
PHARMA

€12m

invested in Waterford

Strategic themes 2023-2027



WHAT DOES THE FUTURE BRING ?

Advanced Therapeutics- Cell and Gene Therapies

Supply Chain Challenges- Security of Supply – National Responses

Sustainability – Carbon Footprint – Access to Renewables

Will there be sufficient talent ? Quantity and Quality

Affordability of medicines

Capacity to manufacture in third world i.e., Sub Saharan Africa

Are we prepared for the next pandemic ?

Introduction



Donal Cronin

Manager, Consulting

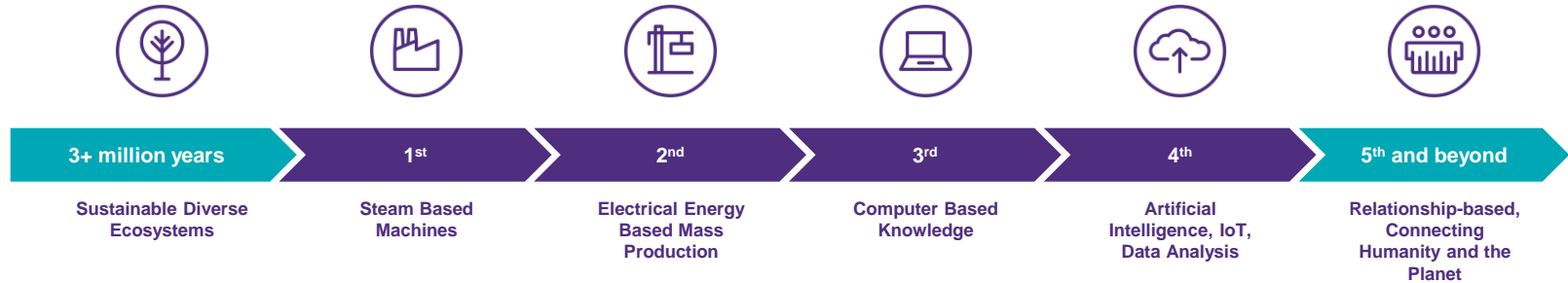
Grant Thornton

Digital Transformation

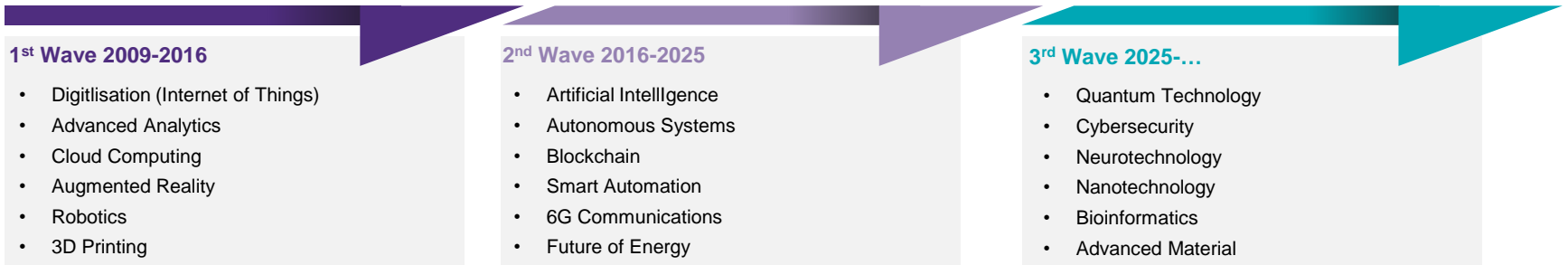
The **cultural, organisational** and **operational** change of an organisation or industry through a smart integration of **digital technologies, processes** and **competencies** across all levels and functions in a staged and strategic way.

Revolution of Industry

The changes and similarities between the 4th & 5th Industrial Revolution



Industry 4.0 can be broken down into three waves

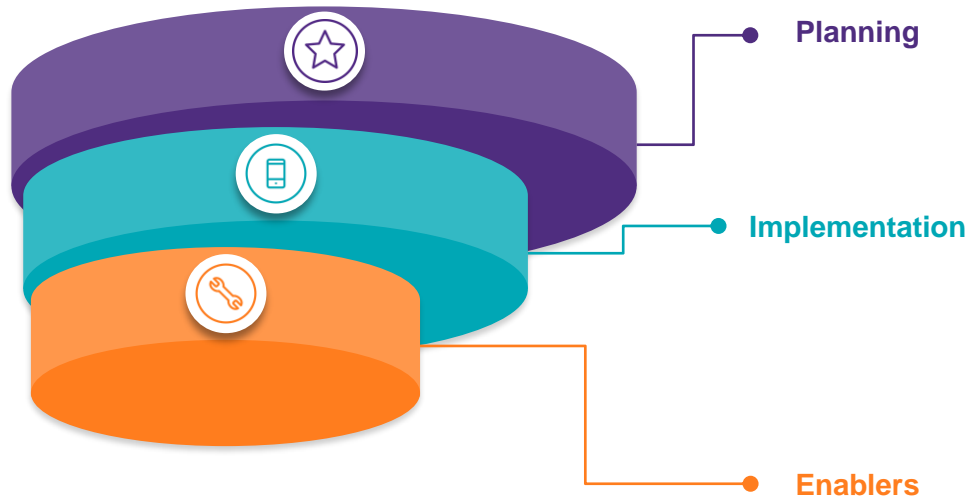


Pharma 4.0 Operating Model

Organisations must consider the importance of data integrity by design (accuracy of data) and digital maturity (implementation capability) as key enablers to realising strategic advantage through digital transformation



3 layers of Digital Transformation



Digital Transformation needs to be part of your **business strategy**



Integration points and mfg. process steps must be implemented and managed carefully to optimize **the core** of the organisation leading to **digital growth**

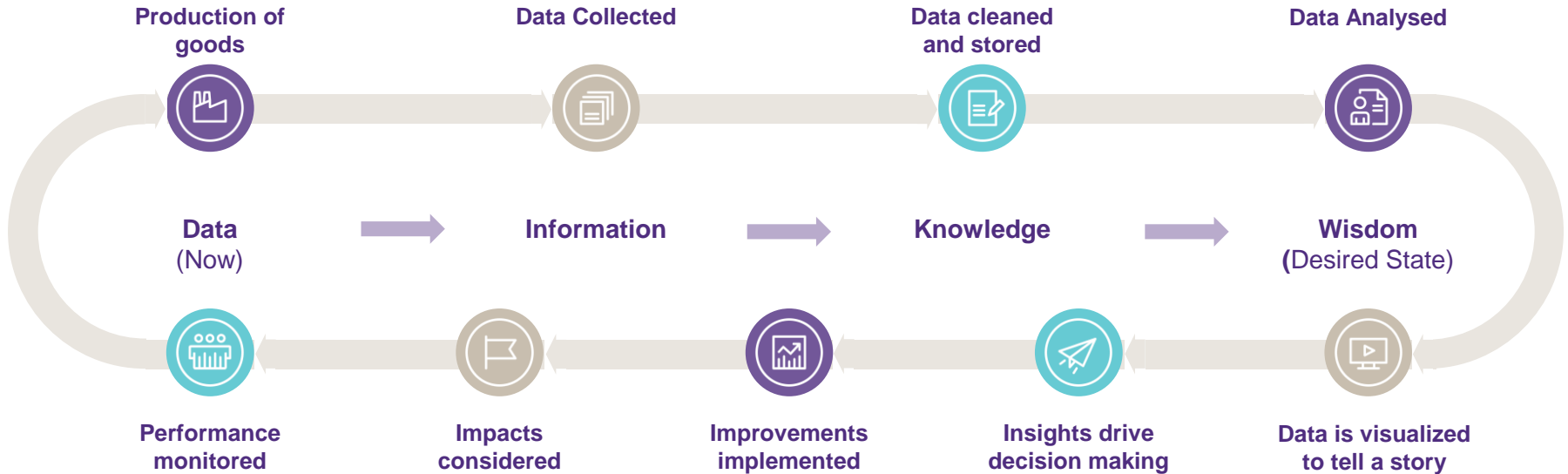


Adopting the **key enablers** for Digital Transformation:

- Data & Business Intelligence;
- Technology;
- People & Culture; and
- Partners / Supply Chain.

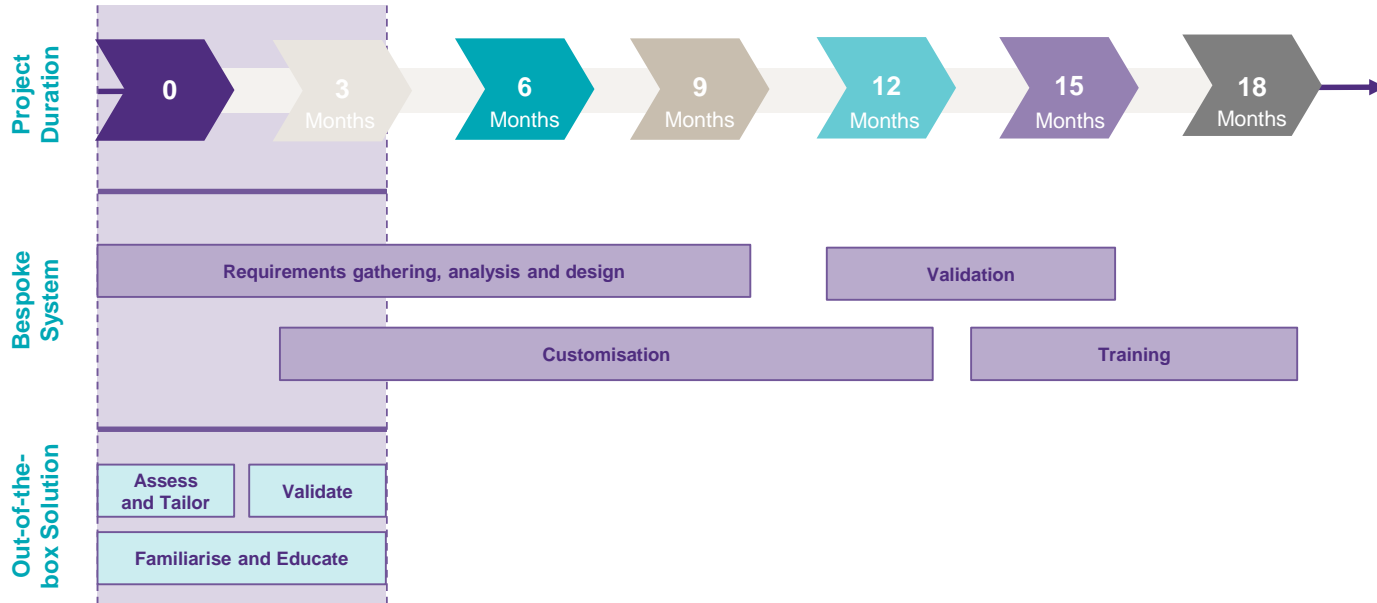
Data and Business Intelligence

Manufacturing Processes are made up of a series of steps/activities connected by data



Technology

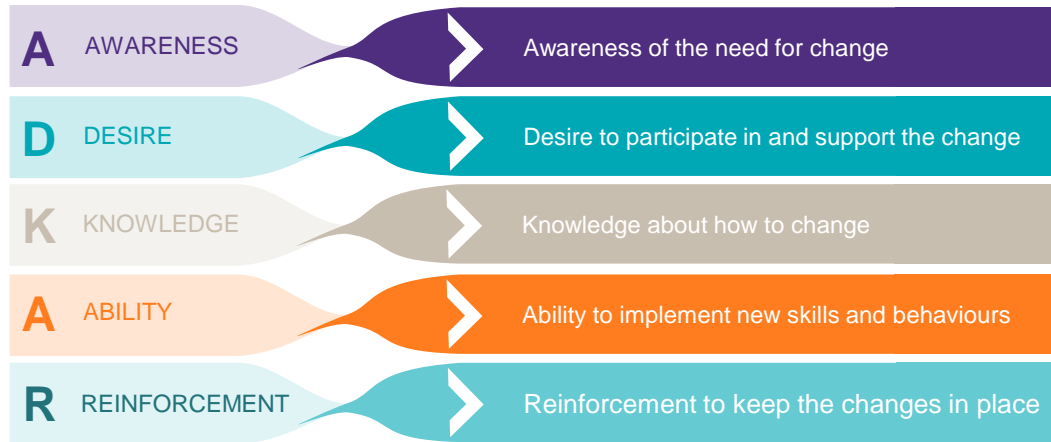
Out of the Box or customised software?



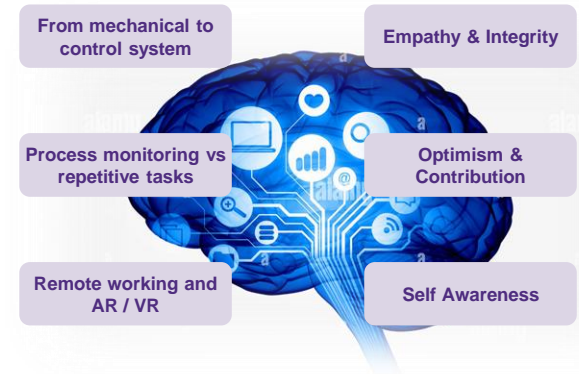
People & Culture

People are enablers of your digital strategy and will ultimately determine its success

Change Management is key to managing the human side of a project

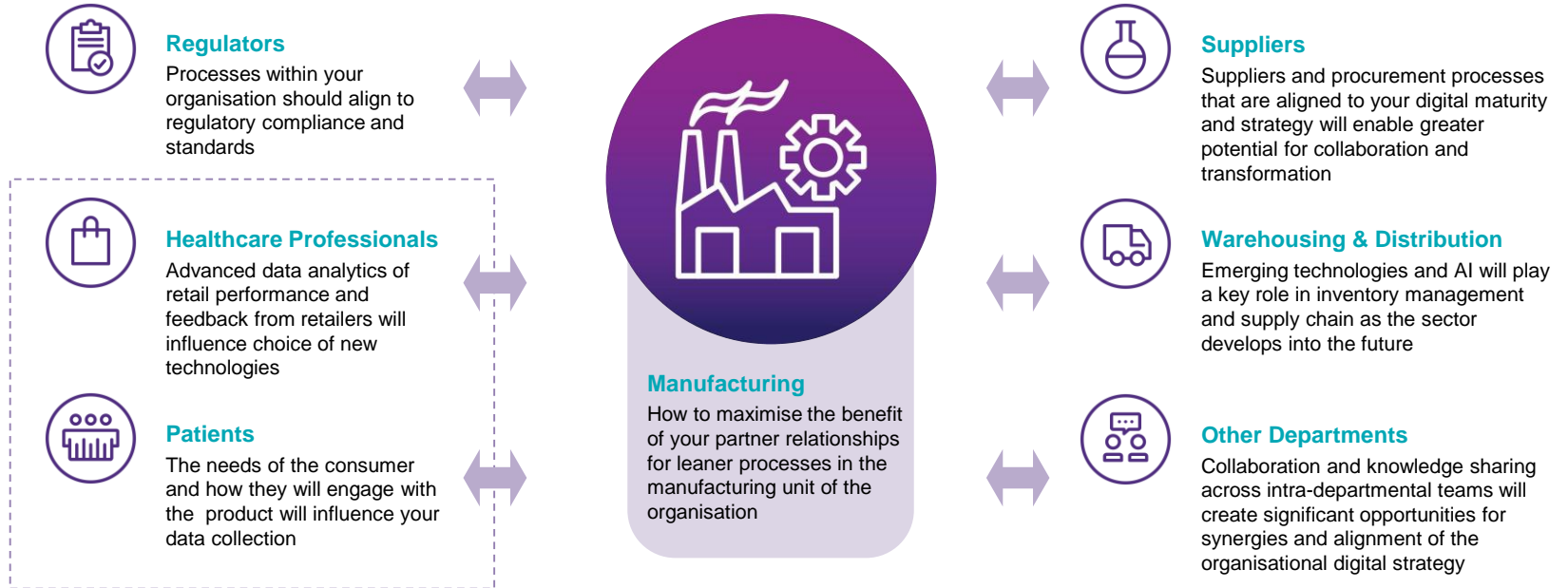


Workforce of the future

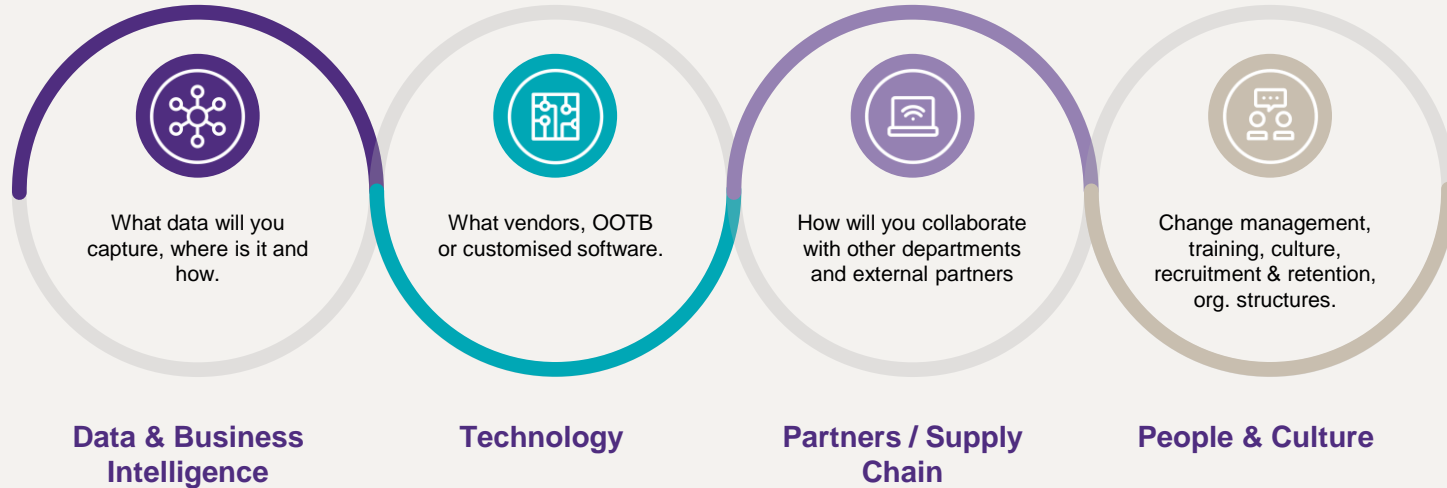


Partners & Supply Chain

How you collaborate with partners will determine the potential for Digital Transformation

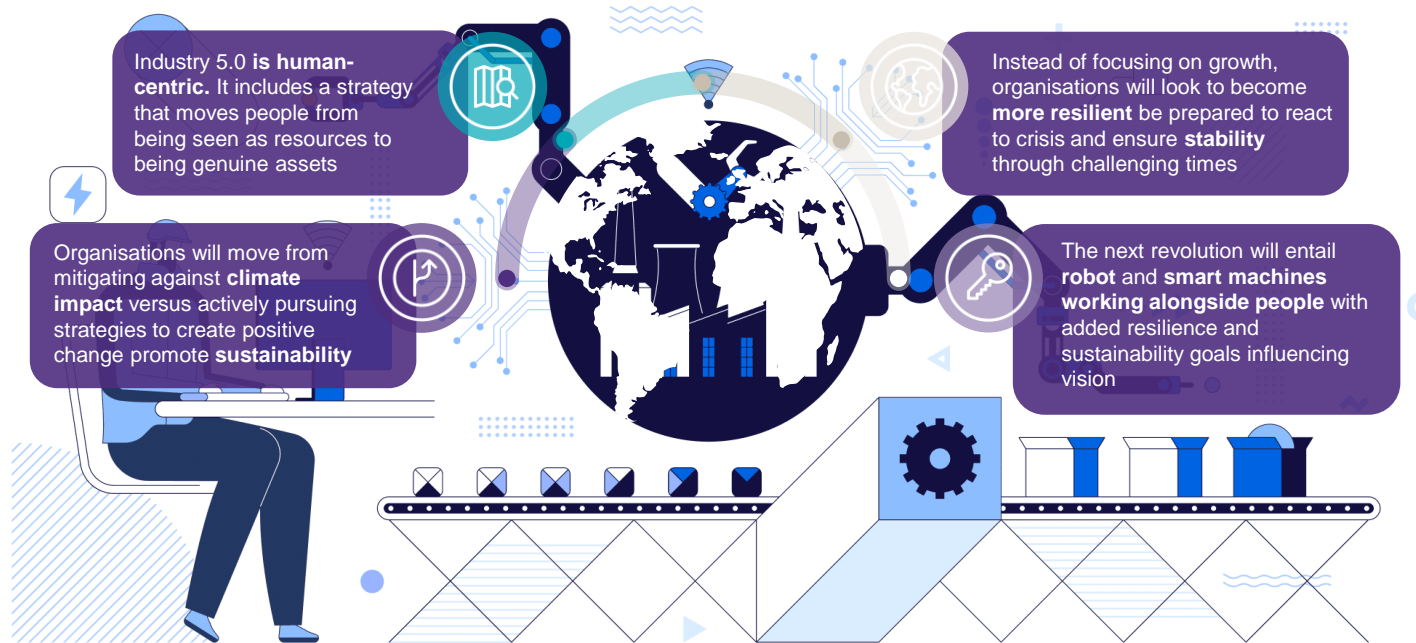


Enablers of Digital Transformation



Industry 5.0

A human-centric approach



Preparing for the future

Change can be complex and bring challenges for people in an organisation. Important to consider the support structures through **training, empathy** and effective **communication**



People

Assessing how existing infrastructure and organisational structures will impact the adoption of digital processes. **Leaning the processes** and incorporating **data analytics** can deliver immediate value.

Understanding and knowledge of your organisations data and how to align with the business and people to realize the full benefits of digital transformation.



Technology

Process



Panel Discussion

Thank you for your time.

Questions?