



**PWYLLGOR DIWYLLIANT, POBL A DATBLYGU SEFYDLIADOL  
PEOPLE, ORGANISATIONAL DEVELOPMENT & CULTURE COMMITTEE**

<b>DYDDIAD Y CYFARFOD: DATE OF MEETING:</b>	17 April 2023
<b>TEITL YR ADRODDIAD: TITLE OF REPORT:</b>	TriTech Business Plan Report
<b>CYFARWYDDWR ARWEINIOL: LEAD DIRECTOR:</b>	Prof. Philip Kloer, Executive Medical Director and Deputy CEO
<b>SWYDDOG ADRODD: REPORTING OFFICER:</b>	Prof. Chris Hopkins, Head of Trittech and Innovation.

**Pwrpas yr Adroddiad (dewiswch fel yn addas)  
Purpose of the Report (select as appropriate)**

Er Sicrwydd/For Assurance

**ADRODDIAD SCAA  
SBAR REPORT**

**Sefyllfa / Situation**

The People, Organisational Development and Culture Committee (PODCC) are being asked to review and take assurance from current performance against the Key Performance Indicators (KPIs) contained within the agreed TriTech Institute five-year Business Plan.

**Cefndir / Background**

The Trittech Institute, on its formulation, developed a 5-year Business Plan that was agreed by PODCC and Board. The 5-year Business Plan identified 12 KPI's as key targets that Trittech should achieve and could be monitored against. Progress towards the KPI's in the Business Plan were agreed to be presented and reported through the PODCC meetings.

**Asesiad / Assessment**

An appendix to this report is provided, detailing the current progress of each of the 12 KPI's. In nearly all areas, the TriTech Institute has exceeded the targets contained within its Business Plan. The only exceptions are; on time delivery of project deliverables; and the number of publications target. The first KPI exception relates to one project (NGPod) and was agreed with the company, which has subsequently reported very positively about the output delivered. There is a plan in place to ensure that the second exception is resolved by the end of the financial year. The TriTech Institute team are confident this will be addressed as reports conclude, with associated outputs published.

**Argymhelliad / Recommendation**

The PODCC are being asked to:

- Review and take assurance from the KPI performance against the Business Plan.

<b>Amcanion: (rhaid cwblhau)</b> <b>Objectives: (must be completed)</b>	
Committee ToR Reference: Cyfeirnod Cylch Gorchwyl y Pwyllgor:	2.5 To provide assurance that the organisation is discharging its functions and meeting its responsibilities with regard to the research and innovation activity carried out within the Health Board.
Cyfeirnod Cofrestr Risg Datix a Sgôr Cyfredol: Datix Risk Register Reference and Score:	1511 – Regulatory Climate 1510 – Timely Delivery of Project Outputs 1509 – TriTech and Innovation: Competitors 1508 – Clinical Leadership 1507 – TriTech and Innovation: Financial Delivery Year 2 1506 – Workforce Retention
Parthau Ansawdd: Domains of Quality <a href="#">Quality and Engagement Act (sharepoint.com)</a>	7. All apply Choose an item. Choose an item. Choose an item.
Galluogwyr Ansawdd: Enablers of Quality: <a href="#">Quality and Engagement Act (sharepoint.com)</a>	4. Learning, improvement and research Choose an item. Choose an item. Choose an item.
Amcanion Strategol y BIP: UHB Strategic Objectives:	3. Striving to deliver and develop excellent services Choose an item. Choose an item. Choose an item.
Amcanion Cynllunio Planning Objectives	5b Research and innovation Choose an item. Choose an item. Choose an item.
Amcanion Llesiant BIP: UHB Well-being Objectives: <a href="#">Hyperlink to HDdUHB Well-being Objectives Annual Report 2021-2022</a>	4. Improve Population Health through prevention and early intervention, supporting people to live happy and healthy lives Choose an item. Choose an item. Choose an item.

<b>Gwybodaeth Ychwanegol:</b> <b>Further Information:</b>	
Ar sail tystiolaeth: Evidence Base:	N/A
Rhestr Termiau: Glossary of Terms:	N/A
Partïon / Pwyllgorau â ymgynhorwyd ymlaen llaw y Pwyllgor Diwylliant, Pobl a Datblygu Sefydliadol: Parties / Committees consulted prior to People, Organisational Development & Culture Committee:	R&I Sub Committee

<b>Effaith: (rhaid cwblhau)</b> <b>Impact: (must be completed)</b>	
<b>Ariannol / Gwerth am Arian:</b> <b>Financial / Service:</b>	N/A
<b>Ansawdd / Gofal Claf:</b> <b>Quality / Patient Care:</b>	N/A
<b>Gweithlu:</b> <b>Workforce:</b>	N/A
<b>Risg:</b> <b>Risk:</b>	N/A
<b>Cyfreithiol:</b> <b>Legal:</b>	N/A
<b>Enw Da:</b> <b>Reputational:</b>	N/A
<b>Gyfrinachedd:</b> <b>Privacy:</b>	N/A
<b>Cydraddoldeb:</b> <b>Equality:</b>	N/A

# TriTech & Innovation Group Progress against the Business Plan KPI's

## On-time Delivery of Projects

No.	Objective	KPI Descriptor	Rationale	Measure	Baseline (21/22 performance)	Frequency & Mechanism
1	Ensure on time delivery of project contract deliverables	Effective delivery of signed contract	Maintaining reputation, trust, return business, and income	100% of contract deliverables achieved	100% contract delivery on time in 2021/22	Monthly through the TriTech Institute Management Group
2	Tackle all incidents and customer or patient complaints in a timely manner	Complaints are acted upon in a timely manner	All incidents should be investigated appropriately within a timely manner and reported on accordingly	90% investigated and acted upon appropriately within 30 days	No incidents reported in 2021/22	Quarterly, through QMS review meetings
3	Reduce non-conformance events involving the use of the level 2 procedure, level 3 SOP's and support docs or any other areas identified as non-conforming or unsatisfactory	Non-conformance events acted upon promptly	This is a QMS requirement to ensure we maintain ISO 13485 registration	90% investigated and acted upon appropriately within 60 days	No non-conformance events in 2021/22	Quarterly, through QMS review meetings
4	Increase income generated	Maintaining and growing customer base	Supports the financial position of the TriTech Institute whilst supporting the overall UHB position.	15% increase year on year	Recurrent budget (see budget forecast)	Annually
5	Ensure the TriTech Institute is governed effectively, and its activities are of high quality	Quality Assurance system in place backed by an appropriate suite of Standard Operating Procedures (SOPs)	This is a regulatory requirement within the UK for all new clinical investigations on medical devices. Ensures the TriTech Institute is governed effectively and provides quality assurance on all projects undertaken	Full accreditation to ISO 13485 with BSI before September 2022 followed by an annual review to maintain registration	First audit scheduled for May 2022	Annually
6	Increase the number of clinical leads capable of taking on clinical investigations or evaluations on new technologies	Number of clinicians with dedicated time to lead projects	The TriTech Institute can only take on research and evaluation with clinical investigators capable of leading	20% year on year increase from baseline position	6 in 2021/22	Annually
7	Increase in formal collaborations with universities	Number of projects, placements, and/or joint posts	Working with universities improves the skills mix and capabilities of the TriTech Institute, enabling it to take on more projects and secure greater impact	Eight joint posts and four collaborative projects	Four joint posts in 2021/22 and two collaborative projects in 2021/22	Annually (By Year 5)

No.	Objective	KPI Descriptor	Rationale	Measure	Baseline (21/22 performance)	Frequency & Mechanism
8	Increase the number of publications arising from project activity	Proportion of projects resulting in a publication	Securing peer reviewed publications supports confidence and impact arising from findings. Publications also bring brand reputation and confidence	25% of projects with a publication in any given year	Zero published in 2021/22	Annually
9	Increase in IP secured and commercialisation of IP	Ownership of IP agreed in contracts  Income generated through exploitation of IP	Securing IP can provide a vital source of income, which can be re-invested in improving health outcomes for the population of Hywel Dda UHB	IP secured in a minimum of 40% of contracts signed per year  15% of the TriTech Institute's income derived through exploitation of IP	IP secured in two contracts (20% of all contracts)  Zero income through commercialisation in year 1	Year 5
10	Increase the machine learning and artificial intelligence projects undertaken by Hywel Dda UHB	Proportion of total projects involving machine learning and IP	Artificial intelligence (AI) and machine learning is widely understood to be key to reducing diagnostic waits, improving accuracy, and improving efficiency. It is key to Hywel Dda UHB's managed recovery	30% of all projects involving machine learning and AI by year 5	10% in 2021/22	Year 5
11	Increase grant income to support research	Number of grants applied for. Number of successful grants	Supporting research is more likely to result in securing IP than real world evaluations, where the IP is typically already secured	A minimum of five applications a year by year five, with a 60% success rate	1 secured in 2021/22	Year 5
12	Support local economic growth	The number of small local businesses supported	The TriTech Institute wants to support local businesses to grow and develop, helping a cluster of medical technology companies in South West Wales	Work with 10 local businesses during the 5-year period	2 in 2021/22	Year 5

# KPI1

## On-time Delivery of Projects

No.	Objective	KPI Descriptor	Rationale	Measure	Baseline (21/22 performance)	Frequency & Mechanism
1	Ensure on time delivery of project contract deliverables	Effective delivery of signed contract	Maintaining reputation, trust, return business, and income	100% of contract deliverables achieved	100% contract delivery on time in 2021/22	Monthly through the TriTech Institute Management Group

### 2022

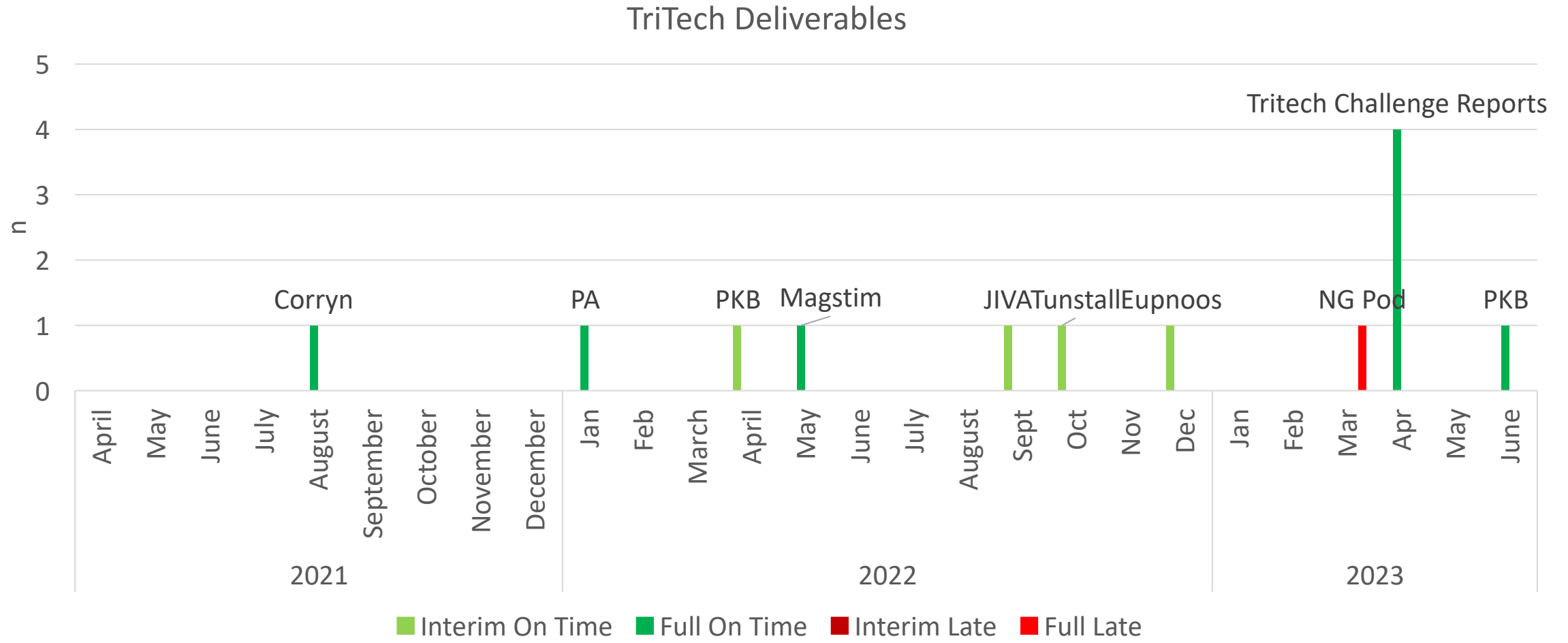
- 100% of deliverables in 2022 produced on time (4 Interim Reports, 2 Full Reports).

### 2023

- 6 reports have been produced in 2023 (1 was not produced on time but a revised timeline was agreed with the company and reflected a mutual interest in exploring particular themes in greater detail)

# KPI1

## TriTech Deliverables 2021-23



# KPI2

## Incidents and Customer Complaints

No.	Objective	KPI Descriptor	Rationale	Measure	Baseline (21/22 performance)	Frequency & Mechanism
2	Tackle all incidents and customer or patient complaints in a timely manner	Complaints are acted upon in a timely manner	All incidents should be investigated appropriately within a timely manner and reported on accordingly	90% investigated and acted upon appropriately within 30 days	No incidents reported in 2021/22	Quarterly, through QMS review meetings

- No complaints received last quarter.

# KPI3

## Non-conforming Events

No.	Objective	KPI Descriptor	Rationale	Measure	Baseline (21/22 performance)	Frequency & Mechanism
3	Reduce non-conformance events involving the use of the level 2 procedure, level 3 SOP's and support docs or any other areas identified as non-conforming or unsatisfactory	Non-conformance events acted upon promptly	This is a QMS requirement to ensure we maintain ISO 13485 registration	90% investigated and acted upon appropriately within 60 days	No non-conformance events in 2021/22	Quarterly, through QMS review meetings

- No non-conforming events identified last quarter.



# KPI4

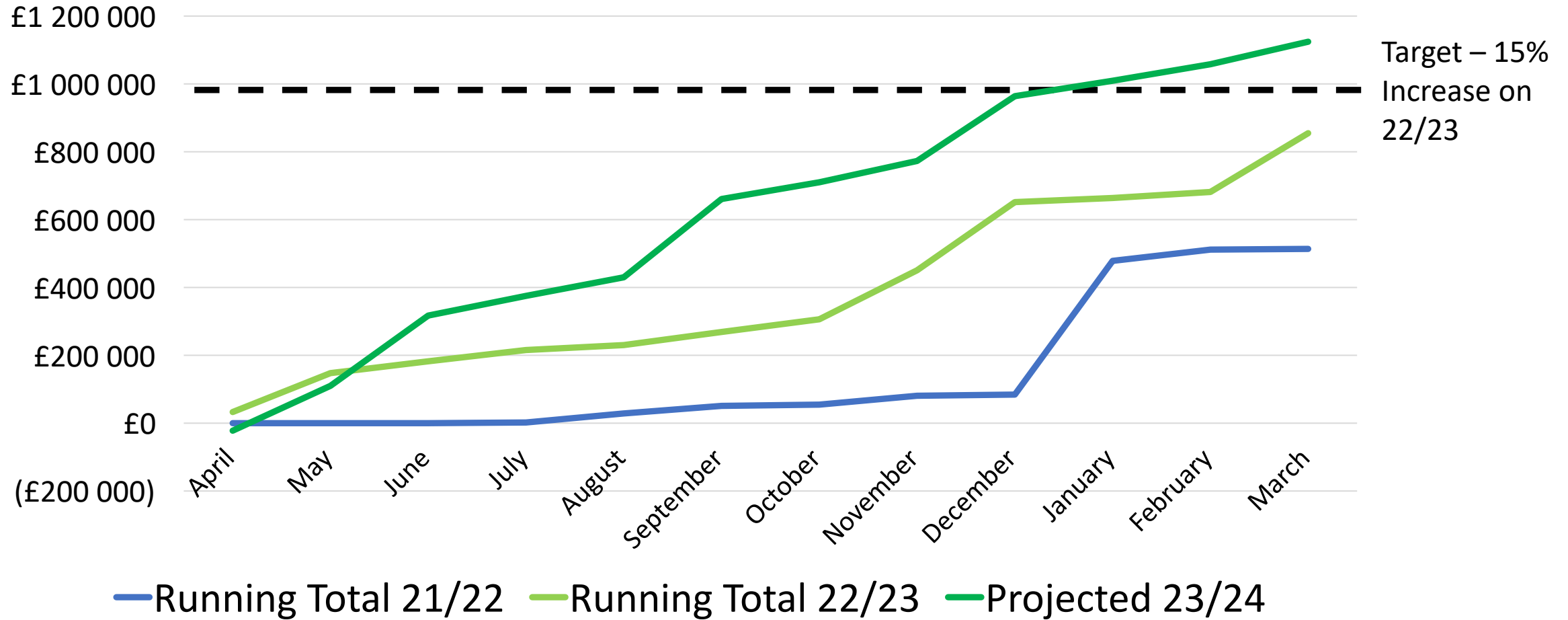
## Increase Income Generation

No.	Objective	KPI Descriptor	Rationale	Measure	Baseline (21/22 performance)	Frequency & Mechanism
4	Increase income generated	Maintaining and growing customer base	Supports the financial position of the TriTech Institute whilst supporting the overall UHB position.	15% increase year on year	Recurrent budget (see budget forecast)	Annually

- Forecast M2 total income generated £1,124,388 for 2023/24.
- **23.9%** increase on 2022/23 (£854,787).
- Forecast M2 variance generated £83,891 for 2023/24.
- **72.9%** decrease on 2021/22 (£309,128).

# KPI4

## Increase Income Generation – Current and Projected Income



# KPI5

## Effective Governance

No.	Objective	KPI Descriptor	Rationale	Measure	Baseline (21/22 performance)	Frequency & Mechanism
5	Ensure the TriTech Institute is governed effectively, and its activities are of high quality	Quality Assurance system in place backed by an appropriate suite of Standard Operating Procedures (SOPs)	This is a regulatory requirement within the UK for all new clinical investigations on medical devices. Ensures the TriTech Institute is governed effectively and provides quality assurance on all projects undertaken	Full accreditation to ISO 13485 with BSI before September 2022 followed by an annual review to maintain registration	First audit scheduled for May 2022	Annually

- BSI recommendation for ISO13485 7.3 (Design) was successfully achieved 15/11/22.
- Follow up surveillance audit due for September 2023.

# KPI6

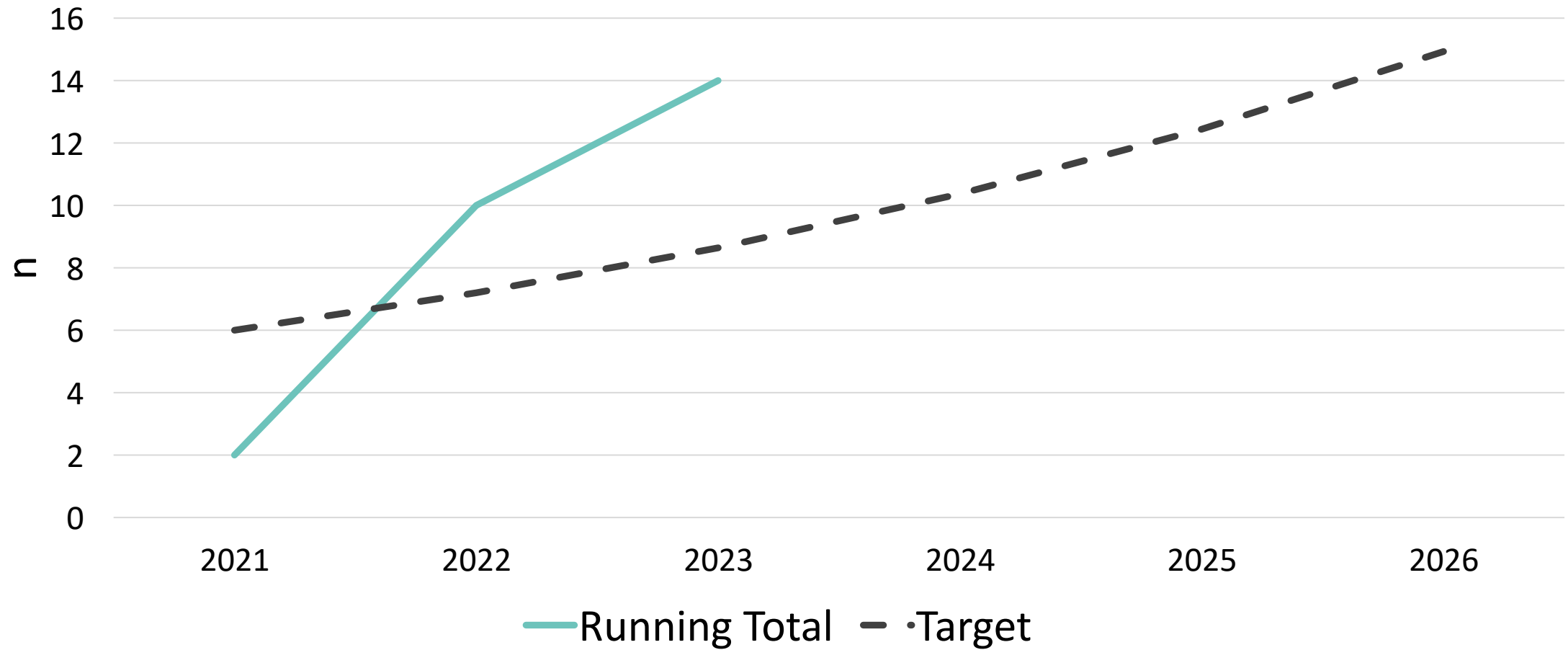
## Clinical Leadership

No.	Objective	KPI Descriptor	Rationale	Measure	Baseline (21/22 performance)	Frequency & Mechanism
6	Increase the number of clinical leads capable of taking on clinical investigations or evaluations on new technologies	Number of clinicians with dedicated time to lead projects	The TriTech Institute can only take on research and evaluation with clinical investigators capable of leading	20% year on year increase from baseline position	6 in 2021/22	Annually

- Target: **9** Clinical Leads by end 2023.
- Current Position: **14** Clinical Leads as of June 2023. With another potential **10** Leads being identified through a recent internal advertisement within Hywel Dda.

# KPI6

## Clinical Leadership – Running Total vs Target



# KPI7

## Academic Collaborators

No.	Objective	KPI Descriptor	Rationale	Measure	Baseline (21/22 performance)	Frequency & Mechanism
7	Increase in formal collaborations with universities	Number of projects, placements, and/or joint posts	Working with universities improves the skills mix and capabilities of the TriTech Institute, enabling it to take on more projects and secure greater impact	Eight joint posts and four collaborative projects	Four joint posts in 2021/22 and two collaborative projects in 2021/22	Annually (By Year 5)

- Target – **8** Joint posts and **4** collaborative projects by year 5.
- Current Position – **5** Joint posts and **4** collaborative projects.

# KPI8

## Publications

No.	Objective	KPI Descriptor	Rationale	Measure	Baseline (21/22 performance)	Frequency & Mechanism
8	Increase the number of publications arising from project activity	Proportion of projects resulting in a publication	Securing peer reviewed publications supports confidence and impact arising from findings. Publications also bring brand reputation and confidence	25% of projects with a publication in any given year	Zero published in 2021/22	Annually

- Target: **25%** of projects with a publication in any given year.
- Current Position: **6.5%** of projects with a current publication in 2022/23.

# KPI8

## List of Publications

Title of Publication	Lead Author	Date of Publication	Journal	Issue	Page(s)	DOI	Related Project
SAIL study of stroke, systemic embolism and bleeding outcomes with warfarin anticoagulation in non-valvular atrial fibrillation (S4-BOW-AF)	Daniel Harris	13/04/2023	European Heart Journal Open	3	1-10	<a href="https://doi.org/10.1093/ehjopen/oead037">https://doi.org/10.1093/ehjopen/oead037</a>	N/A
Incident atrial fibrillation and adverse clinical outcomes during extended follow-up of participants recruited to the Remote Heart Rhythm Sampling Using the AliveCor Heart Monitor to Screen for Atrial Fibrillation The REHEARSE-AF Study	Elizabeth Ellins	03/05/2023	European Heart Journal Open	3(3)	1-6	<a href="https://doi.org/10.1093/ehjopen/oead047">https://doi.org/10.1093/ehjopen/oead047</a>	N/A
Setting up a Lung Cancer Triage Phone Line in West Wales	Pat Rees	22/05/2023	International Conference on Integrated Care 2023	TBA	TBA	TBA	Lumen
Real-World Evaluation of Technology Enabled Care for Remote Patient Monitoring of COPD in West Wales	Gareth Davies	21/09/2023	European Conference on Innovation and Entrepreneurship	TBA	TBA	TBA	Tunstall TEC
Developing an easy access lung cancer telephone triage service	Richard Davies	21/09/2023	European Conference on Innovation and Entrepreneurship	TBA	TBA	TBA	Lumen



# KPI9

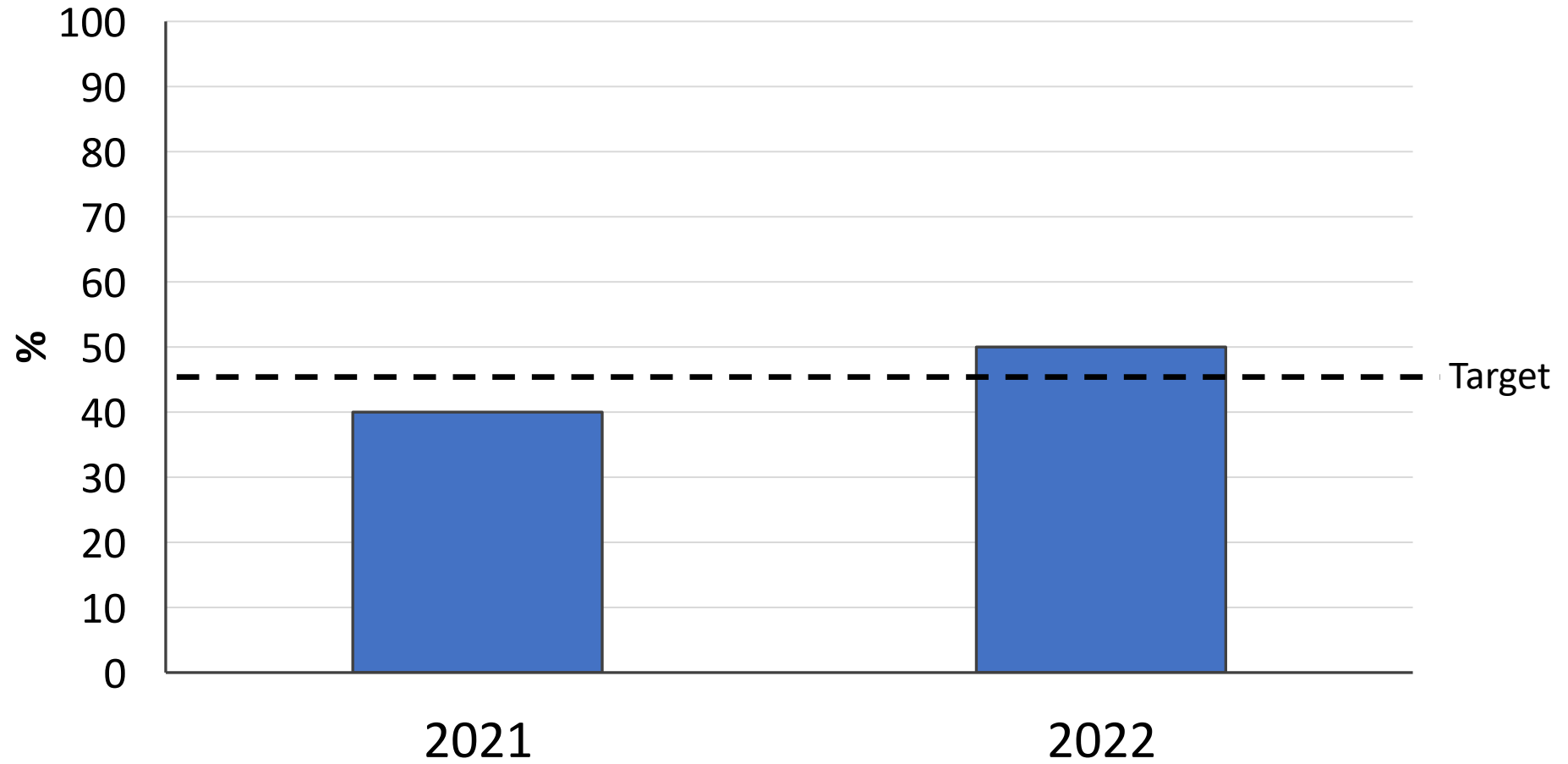
## IP and Commercialisation

No.	Objective	KPI Descriptor	Rationale	Measure	Baseline (21/22 performance)	Frequency & Mechanism
9	Increase in IP secured and commercialisation of IP	Ownership of IP agreed in contracts  Income generated through exploitation of IP	Securing IP can provide a vital source of income, which can be re-invested in improving health outcomes for the population of Hywel Dda UHB	IP secured in a minimum of 40% of contracts signed per year  15% of the TriTech Institute's income derived through exploitation of IP	IP secured in two contracts (20% of all contracts)  Zero income through commercialisation in year 1	Year 5

- Target: IP secured in a minimum of **40%** of contracts signed per year.
- Current Position: IP secured in **50%** of contracts signed

# KPI9

## IP and Commercialisation - % Contracts with IP Secured



# KPI10

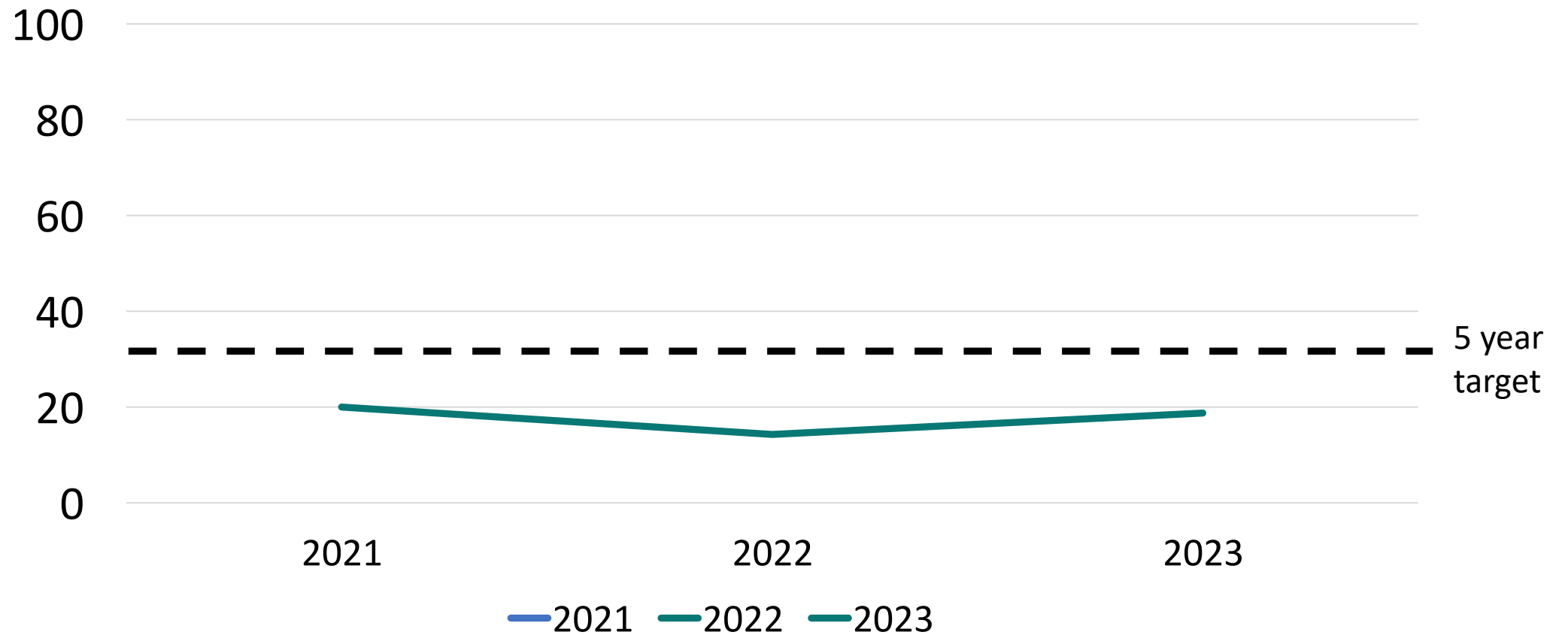
## AI and Machine Learning

No.	Objective	KPI Descriptor	Rationale	Measure	Baseline (21/22 performance)	Frequency & Mechanism
10	Increase the machine learning and artificial intelligence projects undertaken by Hywel Dda UHB	Proportion of total projects involving machine learning and IP	Artificial intelligence (AI) and machine learning is widely understood to be key to reducing diagnostic waits, improving accuracy, and improving efficiency. It is key to Hywel Dda UHB's managed recovery	30% of all projects involving machine learning and AI by year 5	10% in 2021/22	Year 5

- Target: **30%** of all projects involve AI or machine learning by year 5.
- Current Position: **13%** of active projects currently involve AI or Machine Learning. Several project currently being scoped that involve AI/ML.

# KPI10

## AI and Machine Learning – % Active Projects / Year



# KPI11

## Grant Income

No.	Objective	KPI Descriptor	Rationale	Measure	Baseline (21/22 performance)	Frequency & Mechanism
11	Increase grant income to support research	Number of grants applied for. Number of successful grants	Supporting research is more likely to result in securing IP than real world evaluations, where the IP is typically already secured	A minimum of five applications a year by year five, with a 60% success rate	1 secured in 2021/22	Year 5

# KPI11

## Grant Income – Innovation 1

Project Short Title	Grant Organisation / Charity	Grant Amount	Submissions Deadline	Lead Investigator	Collaborating Organisations	Stage	Outcome
Refining metabolomic and proteomic biomarkers for diagnosing and monitoring Asthma and Chronic Obstructive Lung Disease (COPD)	Asthma and Lung UK	~250k	23/01/2023	Keir Lewis	Aberystwyth University	Completed	Pending
Validating and refining smartphone spirometry as a diagnostic tool for asthma	Asthma and Lung UK	~100k	23/01/2023	Chris Hopkins	Eupnoos	Completed	Pending
IntegratedFutureS	EU Horizon	~£165k	March 2023	Sarah Rees	EMPIRICA and EU partners	Completed	Unsuccessful
Adaptix Limited Smart Grant	Innovation Funding Service	~250k	Jun-23	Chris Hopkins	Adaptix Ltd	Completed	Unsuccessful
Evaluation of the health foundation tech-enabled care programme		~100k	Jun-23	Chris Hopkins	ATiC	Completed	Unsuccessful
lechyd Da! A green transition to a healthier Wales Grant	UKRI	~250k	March 2023	Matt Lawrence & Chris Hopkins	Cardiff Met	Completed	Unsuccessful

# KPI11

## Grant Income – Innovation 2

Project Short Title	Grant Organisation / Charity	Grant Amount	Submissions Deadline	Lead Investigator	Collaborating Organisations	Stage	Outcome
Extension - Multimodal AI Analysis of Prostate Cancer Indicators to Reduce Patient Backlogs and Improve Patient Care	Moondance		28/10/2022	Chris Hopkins	JIVA.AI	Completed	Successful
3D imaging in breast reconstruction	Moondance	£10k	September 2021	Asma Munir	N/A	Completed	Successful
AI in prostate cancer	Moondance	£99k	September 2021	Chris Hopkins	Jiva.AI	Completed	Successful
Nurse led triage for lung cancer (LUMEN)	Moondance	£98k	September 2021	Savita Shanbhag	n/a	Completed	Successful
G:DATA A Video Game Based Dementia Automated Test Algorithm	Innovate UK	£418k total (£54k direct to HB)	January 2022	Simon Gerhand	Ascentys Ltd and Durham University	Completed	Successful
Dynamo	EU Horizon/UKRI	£4,998k (£236k direct to HB)	April 2022	Rachel Gemine / Sarah Rees	EMPIRICA and EU partners	Completed	Successful
Dynamo	EU Horizon/UKRI	£4,998k (£236k direct to HB)	April 2022	Rachel Gemine / Sarah Rees	EMPIRICA and EU partners	Completed	Successful

# KPI11

## Grant Income – Innovation 3

Project Short Title	Grant Organisation / Charity	Grant Amount	Submissions Deadline	Lead Investigator	Collaborating Organisations	Stage	Outcome
Invest4health	EU Horizon/UKRI	£5,500k (£309k direct to HB)	April 2022	Rachel Gemine / Sarah Rees	SKANE LANS LANDSTING and EU partners	Completed	Successful
Prostate cancer pathway	CRUK TET	£253k	February 2023	Dr Rachel Gemine/Mr Yeung Ng/Mr Sohail Moosa	Swansea Uni	Submitted	Successful
Development of Universal Prehabilitation online resources	CIIP (Bevan)	£22k	December 2021	Savita Shanhbag/Rachel Lewis	none	Submitted	Successful
Can Sense	Innovate UK	£7.5k	Jun-23	Matt Lawrence & Chris Hopkins	Swansea Uni & ATiC	Submitted	Successful
AI In Colonoscopy Screening to Improve ADR Detection Rates	Moondance		28/10/2022	Dafydd Bowen, Faiz Ali and Mark Narain	Olympus	Application	Unsuccessful
RDC Prostate Ca Pathway	Moondance		28/10/2022	Yeung Ng	NA	Application	Unsuccessful
Haelu	Innovate UK Smart Grant	£95k to HB	January 2023	Sarah Rees	Haelu	Submitted	Unsuccessful
Technology Enable Care Rapid Evaluation Team	NIHR			Chris Hopkins and Rachel Gemine	LSHW and TEC Cymru	Completed	Unsuccessful



# KPI12

## Local Economic Growth

No.	Objective	KPI Descriptor	Rationale	Measure	Baseline (21/22 performance)	Frequency & Mechanism
12	Support local economic growth	The number of small local businesses supported	The TriTech Institute wants to support local businesses to grow and develop, helping a cluster of medical technology companies in South West Wales	Work with 10 local businesses during the 5-year period	2 in 2021/22	Year 5

- Target: Work with **10** local businesses during the 5-year period.
- Current Position: **5** projects involving small local business thus far.