



Business Plan 2019 – 2020



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1. Introduction

Armagh Observatory and Planetarium's (AOP) Corporate Plan 2018-21 was developed in line with the objectives of the Northern Ireland Executive's draft Programme for Government (PfG) 2016-2021. The Plan sets out a three-year strategy to achieve stability for the organisation and provide a firm foundation for the future, upon which a greater ambition can be realised. AOP's Corporate Plan consists of 4 pillars: Research, Education and Community Outreach, History and Heritage, and Leadership and Governance.

The long-term vision is to provide facilities that will secure the future of its international frontline scientific research as well as excelling in the delivery of public outreach and education and enabling AOP to take advantage of future opportunities for growth and innovation.

In 2018-19, with the support of the Department for Communities (DfC) and the Strategic Investment Board, AOP completed a Strategic Outline Case (SOC) to set out a high-level project concept and options for the future of the whole site. The SOC was approved in January 2019 which demonstrates a confidence and optimism for the future of AOP and its contribution both locally, nationally and internationally to research and public outreach in science. Work has now commenced to develop an Outline Business Case which will identify and provide details on all options.

This Business Plan 2019-20 sets out AOP's objectives to deliver Year 2 of the AOP Corporate Plan.

2. Progress in 2018-19

Much progress was made in 2018-19 across all 4 of AOP's strategic pillars.

Leadership and Governance:

- New governance arrangements have been established and are working well;
- New and robust accounting practices are in place;
- Action to address outstanding audit issues has been successful;
- AOP is now on track regarding its laying of accounts;
- Appointment of a Head of Research (August 2018) and Education and Outreach Manager (February 2019) has completed the senior management structure required to support the new unified organisation;
- Outstanding issues such as action to fill vacancies on Board of Governors and Management Committee, including attracting more female representation are being addressed.

Education and Outreach

In May 2018 the Planetarium celebrated its 50th Anniversary through a series of events which included a collaborative outreach project in local schools together with the Ulster Orchestra and a successful Women in Science engagement event. The presence of Dame Jocelyn Bell Burnell for two days of celebrations enriched the experience for all those involved and left a lasting resolve within AOP to continue to develop and excel in the delivery of public outreach and education in science.



Dame Jocelyn Bell Burnell and other invited guests with the Director and members of the Planetarium Education Team at the 50th Anniversary Celebrations

Our education programme has been expanded to include a wide range of options from pre-school to A Level. The A level collaboration with the Armagh Learning Community in 2017-18 and 2018-19 proved very successful and will be repeated in 2019-20. Another addition – ‘toddlers’ takeover’ – has also proved very popular, introducing the next generation to the cosmos at an early age.



Professor Simon Jeffery and AOP PhD students teaching the Astrophysics module of the A Level curriculum to members of the Armagh Learning Community

History and Heritage

Significant progress has been made towards making an application for Museum Accreditation.

AOP has forged strong links with Armagh City, Banbridge and Craigavon Borough Council in respect of tourism and heritage led projects.

Research

In September 2018 AOP hosted an international conference for over 50 Astronomers from 16 nations to discuss and debate their current research about Hydrogen-Deficient Stars. AOP was chosen to host this conference as three of its astronomers play a world-leading role in this field of research.



AOP Director, Professor Michael Burton addresses delegates at the conference on Hydrogen-Deficient Stars

Sponsor Department Resource Grant-in-Aid Budget 2018-19

	Resource	Capital
Opening budget	£1,179,000	£0
In Year Funding	£571,177	£563,600
Closing budget	£1750,177	£563,000

3. Key Performance Indicators 2019-20

	KPI	Target
1	Number of articles published in refereed scientific journal publications in 2019-20	50
2	Maintain a credible PhD Student Programme of 12 PhD students	10 students by 31.03.20
3	Enhancement of AOP research environment	10 research visitors during 2019-20
4	Increase visitor numbers	55,000 visitors by 31.03.20
5	Visits from schools who have not visited in the last 5 years	10 new schools during 2019-20
6	Visits for schools eligible for Extended Schools Programme	40% of total school visitors by 31.03.20
7	Post primary school pilot	5 schools during 2019-20
8	Visits from community groups outside normal target audience of schools and families	20 group visits by 31.03.20
9	Increase tours promoting AOP wider assets (Astropark, Observatory)	30 events during 2019-20
10	Progress long term strategy	By 31.03.20 to have developed an OBC for consideration by DfC/DoF
11	Improve Employee Satisfaction at work through increased training, development etc.	Achieve above 50% average ratings 4 or higher in December 2019 employee survey (from 38.3% in 2018)
12	Increase income from commercial activity (admissions, facility hire, shop and café sales)	£260,000 gross income by 31.03.20 (from £239,000 actual gross income in 2018-19)

4. AOP Strategic and Business Plan Objectives

RESEARCH					
Corporate Plan Objective	Outcome Delivery Plan contribution	2018-19 Objective	2018-19 Progress	2019-20 Objective	KPI 2019-20
By March 2021 to have successfully retained a peer-led and externally validated Quality Rating for the AOP Research Programme	Outcome 5: We are in innovative, creative society where people can fulfil their potential We support this outcome by participating in International collaborations and undertaking research which has been ranked as 'world class'	Scope an agreed Research Strategy to include the projects and programmes necessary to achieve success and appropriate methodology for conducting a research assessment exercise	Continuing – schedule for research assessment exercise set.	By March 2020 to have agreed process and arrangements for peer-led external validation exercise By June 2019 to have achieved Project Juno Practitioner Status	Articles published in refereed scientific journals – target 50
By March 2020 to have begun a pilot 'Digital Incubator Hub' project in partnership with other stakeholders	Outcome 9: We are a shared, welcoming and confident society that respects diversity	Scope out a Project Initiation Document and Partnership Arrangement to deliver a viable project	Completed. AR pilot project in partnership with Yellow Design and funded by Tourism NI	Further action will be considered in context of OBC	Maintain a credible PhD student programme – target 12 students by 31.10.21
By March 2019 to have delivered one international scientific meeting showcasing AOP research and outreach	AOP promotes a welcoming and neutral environment, embedded in its motto "We are all equal under the stars"	Corporate plan target delivered	Complete	Deliver one international scientific meeting	Facilitate at least ten research visitors by 31.03.20 so enhancing AOP research environment
By March 2021 to have initiated at least one collaborative research project involving a new strategic direction with a national/international partner	Outcome 10: We have created a place where people want to live and work, visit and invest AOP attracts high calibre staff and students from across the world	Develop a strategy for engagement with international collaborations that best suits AOP's role as a small institution with quality researchers.	Head of Research commenced August 2018 bringing a new field of research and international collaboration to AOP	Establish arrangements for a Fellowship post on a 3-year rotation to increase collaboration and new research	

EDUCATION AND OUTREACH					
Corporate Plan Objective	Outcome Delivery Plan contribution	2018-19 Objective	2018-19 Progress	2019-20 Objective	KPI
By March 2021 to grow total per annum visitor numbers to 55,000 (from 2016 baseline of 48,500)	<p>Outcome 6: We have more people working in better jobs</p> <p>AOP provides education programmes from pre-school to post primary, engendering a passion for STEM subjects from an early age</p> <p>AOP is partnering with the Armagh Learning Community to support the teaching of the astronomy module of A level Physics</p>	Develop a visitor and engagement plan to maximise opportunities arising from the Planetarium's 50 th anniversary year.	<p>2018-19 was a difficult year in terms of staffing therefore opportunities anticipated were not maximised.</p> <p>Work commenced to upgrade and enhance facilities and exhibits</p> <p>Appointment of Education and Outreach Manager February 2019</p>	Develop an annual programme of events and increased targeted marketing	<p>55,000 visitors by 31.03.20</p> <p>10 visits from schools who have not visited in the last 5 years</p> <p>40% of visits from schools on the extended schools register</p>
By March 2020 to have delivered at least 4 post-primary/tertiary education outreach and engagement projects	<p>Outcome 9: We are a shared, welcoming and confident society that respects diversity</p> <p>AOP provides outreach programmes to support TBUC objectives</p>	Deliver and evaluate a collaborative A-level Physics course within the Armagh area learning community and develop a plan for 2019-20	<p>Completed May 2018</p> <p>2019-20 course confirmed</p>	Complete a pilot post-primary school programme to meet identified curriculum need	<p>5 post primary schools to complete pilot programme</p> <p>30 group events from visitors outside normal target audience of schools and families (e.g. community</p>
By March 2021 to increase the percentage of children and young people from Northern Ireland who have participated	Other examples include: Collaborative outreach event with Ulster Orchestra in May 2018;	Develop and deliver a Schools Engagement Programme to engage at least 15,000 children and young people by March 2019	95% achieved	Market testing and engagement including schools not currently involved	

<p>in AOP activities at least once in the last 12 months to 15%</p>	<p>Collaborative outreach with other ALBs to support their programmes such as LNI summer programme 2017 and Celebration of Sport 2019</p>			
<p>By March 2019 to strengthen and improve AOP's contribution to and engagement with civic society (measured through a stakeholder survey)</p>	<p>Outcome 10: We have created a place where people want to live and work, visit and invest</p> <p>AOP visitor numbers – 44,000 in 2018/19</p> <p>Outcome 12: We give our children and young people the best start in life</p> <p>AOP provides education programmes from pre-school to post primary, engendering a passion for STEM subjects from an early age</p> <p>AOP is partnering with the Armagh Learning Community to support the teaching of the astronomy module of A level Physics</p>	<p>Deliver Corporate Plan objective as a baseline for future objectives and targets</p>	<p>AOP contributing to the establishment of the Armagh City Civic Trust</p> <p>Participated in facilities survey managed by ABC Council</p>	<p>Market testing and engagement</p>

groups, tour groups)

HISTORY AND HERITAGE					
Corporate Plan Objective	Outcome Delivery Plan contribution	2018-19 Objective	2018-19 Progress	2019-20 Objective	KPI
By March 2021 to achieve Museum Accreditation demonstrating AOP's commitment to managing its collection effectively for the enjoyment and benefit of its users	<p>Outcome 5: We are an innovative, creative society where people can fulfil their potential</p> <p>Collaborative partnership with a private sector company to deliver an AR project supported by Tourism NI</p>	Develop a project initiation document scoping the process and timelines to achieve museum status	Exceeded – new target for museum status August 2020	By March 2020 to have positioned the necessary resources to achieve and maintain museum accreditation within the Education structure	By March 2020 to have developed an OBC for consideration by DfC/DoF
By March 2020 to be engaged in the development of innovative digital solutions that enable a global audience to experience, appreciate and understand the contribution of AOP to knowledge creation through the ages	<p>Outcome 10: We have created a place where people want to live and work, visit and invest</p> <p>Museum project to open up AOP rich history and assets to tell the story of over 200 years of astronomy in Armagh as a unique offering not available elsewhere in NI</p> <p>Working in partnership with ABC council to promote Armagh's rich heritage</p>	Work in partnership with other stakeholders to develop a business case and identify resources to deliver a digital architecture and heritage project	<p>AR now prime focus collaborating with Yellow Design and funded by Tourism NI to produce a prototype space park for 50th anniversary of the Moon Landings.</p> <p>Include digital architecture within the scope of Observatory future role as part of OBC and future National Lottery Heritage Fund bid</p>		
By March 2019 to contribute to the development and implementation of 'Place' within Armagh	<p>Outcome 9: we are shared, welcoming and confident</p>	Deliver Corporate Plan Objective and develop objectives for future years to further embed and	AOP contributed to ABC council community planning process under the theme Enhanced and Revitalised Place.	Deliver a summer programme in collaboration with other Armagh City facilities bringing 5,000 visitors to	

<p>and regional tourism strategies, recognising the uniqueness and special contributions of AOP</p>	<p>society that respects diversity</p> <p>AOP motto 'we are all equal under the stars' providing a shared and neutral environment enjoyed by all</p> <p>Outcome 2: "we live and work sustainably – protecting the environment</p> <p>AOP is responsible for two Grade A listed buildings and historic gardens that are unique and special</p>	<p>enhance collaboration and partnership</p>	<p>AOP contributing to Armagh tourism sector through collaboration and engagement with other visitor attractions developing city wide activities.</p> <p>AOP collaborated with an external provider to leverage £30,000 grant funding from Tourism NI towards an AR pilot project</p> <p>AOP received £10,000 grant from ABC council Financial Assistance to assist with the social element – promoting the Borough to International Visitors</p>	<p>the wider Armagh area (Museum of the Moon and IAU Exhibition) during July 2019</p>
<p>By March 2019 to develop and implement an Estates Management Strategy that respects, protects and preserves the built and natural heritage of AOP</p>		<p>Deliver Corporate Plan Objective and develop objectives for future years</p>	<p>SOC Lifecycle surveys</p> <p>£563,000 investment in capital projects to enhance and maintain assets</p> <p>SOC approved allowing I enabling progress to develop OBC</p> <p>Engagement with Ministerial Advisory Group recognises AOP future plans represent a project of international significance</p> <p>SIB support provided to engage Hamilton Architects to assist with reviewing options</p>	<p>By March 2020 to have in place a Conservation Management Plan to safeguard the future of AOP's Grade A listed building and wider estate</p> <p>By March 2020 to have developed an OBC for consideration and approval of DfC/DoF</p>

LEADERSHIP AND GOVERNANCE					
Corporate Plan Objective	Outcome Delivery Plan contribution	2018-19 Objective	2018-19 Progress	2019-20 Objective	KPI
By March 2019, develop a single organisational brand and identity that clearly demonstrates AOP's Vision and Values and supports the delivery of the AOP Vision	Enablers to support delivery of outcomes	Deliver Corporate Plan objective	Complete	Improve brand awareness Implement external and internal public signage strategy	50% of average ratings 4 or higher in Employee survey Achieve gross commercial income of £260,000 (£239,000 in 2018-19)
By March 2020 to have delivered an agreed and resourced restructuring proposal and embedded HR Strategy to develop a culture which mirrors AOPs Values		Develop and implement a HR strategy to maintain a stable organisation structure, minimise risk and improve employee satisfaction levels (improving on 2017 baseline survey)	2018-19 Action Plan 70% complete; 2019-20 Action Plan approved by SPRC 2018 employee survey demonstrated improved ratings across all themes (2017 baseline 6.4%; 2018 results 38.3%); Leadership and Team Development Programme commenced with SMT	Continue to deliver a HR strategy and support the development of staff to gain the knowledge, skills and attitude necessary to deliver AOPs objectives	
By March 2019 create an effective performance culture focused on delivery of		Deliver Corporate Plan objective	New appraisal process implemented	Included in HR strategy objective	

<p>AOP Corporate Strategy within a well-defined path from Vision Pillars – Corporate Plan themes and objectives – business plan objectives – team plans – individual objectives</p>			<p>Leadership and Team development programme commenced with SMT</p> <p>New training budget established for 2019-20</p> <p>Bi-annual staff engagement day embedded</p>		
<p>By March 2021 develop proposals for a further review of governance arrangements and a more commercial approach to funding</p>		<p>Engage with DfC sponsor branch to secure core funding necessary to complete the modernisation and change project to achieve a single organisational structure</p> <p>Develop a strategy to increase commercial funding</p>	<p>2019-20 budget confirmed</p> <p>SIB supported review on Economic Sustainability Options completed</p> <p>£478,660 in year resource funding secured in 2018-19</p> <p>£542,600 capital projects delivered in 2018-19</p> <p>2016-17 and 2017-18 Annual Accounts laid and 2018-19 external audit programme agreed</p> <p>2018-19 Annual Internal Audit Opinion 'Satisfactory'</p>	<p>Complete Legacy record review</p> <p>Complete an OBC for future development needs</p>	

5. Total AOP Budget 2019-20

Resource

INCOME

Sponsor Department Resource Grant-in-Aid	£1,729,000
Net trading income (Admissions, shop, café)	£109,008
Other income (rents, etc)	£24,150
Total Income / Grant-in-Aid	£1,862,158

DIRECT COSTS

Salaries (Academic & Education)	£769,090
Student Costs	£63,107
Library & Conservation	£14,400
Travel, Meetings & visitor costs	£26,000
Technical consumables, minor technical equipment	£35,000
Other research costs	£16,500
	<u>£924,097</u>

GOVERNANCE COSTS

Management Committee costs	£3,600
Audit	£30,000
Professional & legal Fees	£12,000
Recruitment & Training	£17,800
	<u>£63,400</u>

ADMINISTRATION & SUPPORT COSTS

Salaries (Management, finance & admin)	£652,790
Heat, Light, Insurance & Rates	£97,180
Buildings, Grounds & Property Maintenance	£138,481
Post, Stationery, Telephony & Printing	£38,610
Other expenses	£9,729
	<u>£936,790</u>

LESS	Overheads subsidised by external grants	-£62,129
	TOTAL EXPENDITURE	£1,862,158
	SURPLUS / (DEFICIT)	£0

External grant Income from scientific organisations	£235,407
Expenditure funded by external grants	
Salaries	£84,974
Student Costs	£59,144
Travel, Meetings & visitor costs	£27,600
Technical equipment and consumables	£960
Other costs	£600
Overheads funded by external grants	£62,129
	<u>£235,407</u>

Note: The table above shows research grants received from external scientific organisations for specific projects which are accounted for independently of DfC resource funding. These include a contribution (£62,129) towards organisation overheads.

Capital

A capital budget of £880,000 was allocated at the start of the year, made up as follows:

	£
Observatory repairs	160,000
H&S to protect existing assets	50,000
Refurbishment shop and café areas	90,000
Digistar Projector replacement	500,000
Bailey House & Gatelodge upgrade	80,000

AOP has submitted an easement of £110,000 in respect of Observatory repairs as the work will not be completed in this financial year and has also been allocated a further £25,000 for additional work to the Bailey House & Gatelodge upgrade.