
Armagh Observatory and Planetarium

Business Plan 2014/15

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1. Minister's Foreword



DCAL is committed to harnessing culture, arts and leisure to promote equality and tackle poverty and social exclusion. Over the course of the last year, DCAL and its arm's length bodies have made good progress transforming delivery so that as much public resource as possible is invested in these key priority areas in a way which will bring about lasting and meaningful change to as many people as possible, but in particular to those who are most disadvantaged.

The theme for the year ahead will be to continue this journey. There will be particular emphasis on making culture, arts and leisure more accessible, promoting and supporting our cultural identity, lifelong learning, and excellence in service delivery. Exciting and innovative programmes and projects are set to come on-stream across the entire field of DCAL's operations. Importantly, a new strategic focus will be brought to our work in promoting equality, tackling poverty and social exclusion which will involve delivery, advocacy, partnership development, knowledge sharing and networking.

In order to successfully deliver our ambitious objectives work will continue behind the scenes to ensure that DCAL further develops partnerships, enhances its processes, and invests in its people.

Carál Ní Chuilín
Minister of Culture, Arts & Leisure

Réamhrá

Tá RCEF tiomanta do leas a bhaint as cultúr, ealaíona agus fóillíocht le comhionannas a chur chun cinn agus le dul i ngleic le bochtaineacht agus le heisiamh sóisialta. Le bliain anuas, tá dul chun cinn maith déanta ag RCEF agus ag a cuid comhlachtaí ar neamhthuilleamaí maidir le soláthar a bhunathrú chun feabhais ionas go n-infheistítear an oiread acmhainne poiblí agus is féidir sna heochair-réimsí tosaíochta sin ar bhealach a bhainfidh amach athrú buan agus lánbhri don oiread daoine agus is féidir, go háirithe dóibh siúd is mó atá faoi mhíbhuntáiste.

Leanúint ar aghaidh ar an turas sin an téama a bheidh ann don bhliain atá romhainn. Beidh béim faoi leith ar chultúr, ealaíona agus fóillíocht a dhéanamh níos inrochtana. Ina theannta sin, tabharfar tacaíocht dár bhféiniúlacht chultúrtha, d'fhoghlaim ar feadh an tsaoil agus do shármhaitheas i soláthar seirbhíse agus cuirfear na nithe sin uile chun cinn. Tá cláir agus tionscadail spreagúla agus nuálacha le tosú trasna réimse iomlán oibríochtaí RCEF. Is tábhachtach go dtabharfar fócas úr straitéiseach dár gcuid oibre maidir le comhionannas a chur chun cinn, dul i ngleic le bochtaineacht agus le heisiamh sóisialta agus beidh soláthar, tacaíocht, forbairt chomhpháirtíochta, comhroinnt eolais agus líonrú mar chuid di.

Lenár gcuspóirí uailmhianacha a bhaint amach go rathúil leanfar den obair ar chúl stáitse lena chinntiú go ndéanann RCEF breis forbartha ar chomhpháirtíochtaí, go bhfeabhsaíonn sí a cuid próiseas, agus go n-infheistíonn sí ina cuid daoine.

Carál Ní Chuilín
An tAire Cultúir, Ealaíon & Fóillíochta

2. Welcome and Introduction

- 2.1. The Armagh Observatory is the oldest scientific institution in Northern Ireland and the longest continuously operating astronomical research institute in the UK and Ireland.
- 2.2. The cultural and heritage importance of Armagh Observatory and Planetarium is significant, and almost as important as our scientific credentials. It was founded in the late 18th Century, through the 1791 Act, passed by the Irish Parliament for *“settling and preserving a Public Observatory and Museum in the City of Armagh for ever”*.
- 2.3. The addition of the Planetarium on the same site in 1968 has greatly enhanced the organisation’s public face and outreach activities. The fact that we have a working Observatory with a vibrant research element strengthens our status nationally and internationally.

Who We Are

- 2.4. The Governors of the Armagh Observatory and Planetarium is a statutory corporation that operates under the authority of the Armagh Observatory and Planetarium (Northern Ireland) Order 1995.
- 2.5. This Order requires the Governors to maintain and manage the Armagh Observatory and Planetarium for the purpose of *‘developing the knowledge, appreciation and practice of astronomy and related sciences’*. It permits the Governors to take such other action as they think proper for the purpose of acquiring or disseminating knowledge relating to astronomy and related sciences, and in particular to carry out, or assist in the carrying out of research.
- 2.6. The 1995 Order permits the Governors to exercise any of the powers previously provided under the original 1791 Act, which was passed by the Irish Parliament for *“settling and preserving a Public Observatory and Museum in the City of Armagh for ever”*. The Act makes clear that this endowment is not only because of his *“generous inclinations”* but also for the *“encouragement of the Liberal Arts and Sciences”*.

Mission Statement

- 2.7. The Mission of Armagh Observatory and Planetarium is:
“To advance the knowledge and understanding of astronomy and related sciences through the execution, promotion and dissemination of astronomical research nationally and internationally in order to enrich the intellectual, economic, social and cultural life of the community”.

3. Policy Context

3.1. The Northern Ireland Executive has indicated in the Programme for Government that its primary focus for the period 2011-15 is to deliver a vibrant economy which can transform our society while dealing with the deprivation and poverty which has affected some of our communities for generations. The Programme for Government identifies the following five key strategic, complementary priorities:

- Growing a Sustainable Economy and Investing in the Future;
- Creating Opportunities, Tackling Disadvantage and Improving Health and Wellbeing;
- Protecting Our People, the Environment and Creating Safer Communities;
- Building a Strong and Shared Community; and
- Delivering High Quality and Efficient Public Services.

3.2. Particular commitments included within the Programme for Government which have been taken into account in developing this Business Plan are:

- Increase uptake in economically relevant Science, Technology, Engineering and Mathematics (STEM) places;
- Develop and implement a Strategy to reduce economic inactivity through skills, training, incentives and job creation.

3.3. The Department of Culture, Arts and Leisure (DCAL) is the sponsoring body of the Armagh Observatory and Planetarium. In support of its vision of *“a confident, creative, informed and vibrant community”*, DCAL has a mission statement *“To promote social and economic equality, and to tackle poverty and social exclusion, through systematically promoting a sustainable economic model and proactively targeting meaningful resources at sectors of greatest inequality, within areas of greatest objective need, in the wider context of effectively developing tangible opportunities and measurable outcomes for securing excellence and equality across culture, arts and leisure and a confident, creative, informed and healthy society in this part of Ireland.”*

3.4. The Department’s Business Plan for 2014/15 also identifies the following key priorities:

- Promoting equality, tackling poverty and social exclusion;
 - Promoting and supporting lifelong learning;
 - Enhancing north-south links;
 - Promoting and supporting excellence in service delivery;
 - Supporting the creative industries;
 - Together Building a United Community;
 - Making culture, arts and leisure more accessible;
 - Promoting and supporting our cultural identity;
 - Use of social clauses in procurement;
 - Delivering the Regional Stadium Programme; and
 - Delivering the City of Culture legacy.
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- 3.5. During the period of this Business Plan and in the years to come, the Armagh Observatory and Planetarium will play its part in addressing these priorities.

Promoting Equality and Tackling Poverty and Social Exclusion (PETPSE)

- 3.6. We live in a society where much inequality still exists and where everyone does not have an equal opportunity to develop their talents to the full. The Northern Ireland Executive recognises that actions to address poverty and tackle disadvantage are prerequisites for social progress and is committed, through its Programme for Government, to addressing inequality and unfairness and creating conditions that support inclusion and equality of opportunity. Armagh Observatory and Planetarium is committed to providing access to these audiences and will align resources and put structures in place around education, outreach, employability and communications to reach these audiences.

All Ireland Work

- 3.7. The Armagh Observatory and Planetarium has good working relations with cross-border bodies. Its Management Committee has representation from universities in Dublin, Nottingham and Leeds. Its cross-border activity includes, for example, working with the European Space Agency Educational Resource Organisation teacher training project, the Discover Science and Engineering programme, the delivery of primary-sector teacher training courses in Border counties, membership and service on the committees of the Royal Irish Academy. Other cross-border activities include the use of the supercomputer FIONN through a collaboration with the Dublin Institute for Advanced Studies (DIAS), delivery of lectures at Trinity College Dublin (TCD), the supervision of Transition-Year school work-experience students and TCD final-year undergraduate Physics students' projects, visits by undergraduates from TCD, and the postgraduate Lindsay Scholarship Programme.
- 3.8. The Armagh Observatory and Planetarium also is part of the Irish Astronomy Trail. This trail covers observatories, visitor centres and astronomical research institutes across the whole island of Ireland. This heritage and cultural tourism initiative aims to link the most interesting astronomy centres on the island of Ireland on a trail that can be followed, in whole or in part, by individuals, families or groups on organized tours.

4. Key Performance Indicators – 2014/15

Area		Description	Target
Visitors	1	Total number of visitors by 31 March 2015	44,000
	2	Percentage of visitors from schools on the Extended Schools Register or with high proportion of Free School Meals by 31 March 2015 (PETPSE)	20% of total
	3	Number of visitors to the Observatory's websites between 1 January - 31 December 2014	18 million hits
	4	Number of visitors to www.armaghplanet.com by 31 March 2015	1 million hits
	5	Number of participants in STEAM programmes by 31 March 2015	1,600
Outreach	6	Number of participants at outreach events by 31 March 2015	15,000
	7	Number of work placements offered to school children from deprived areas ¹ between 1 January - 31 December 2014 (PETPSE)	7
	8	Number of events targeted at areas of multiple deprivation by 31 March 2015 (PETPSE)	6
Research	9	Number of articles published in refereed scientific journal publications between 1 January - 31 December 2014	40
	10	Number of citations in mass media publications between 1 January - 31 December 2014	200
Resources	11	External income as a percentage of total income by 31 March 2015	18%
	12	Self-generated income (through sales and admissions) as a percentage of total income by 31 March 2015	25%
	13	Payments processed within 10 days	90%

¹ A deprived area is denoted by a school a) with 20% or greater entitlement to Free School Meals and/or b) registered on the Extended Schools Programme

5. Strategy and Delivery

Cross-Cutting Themes

- 5.1. The Extended Schools Programme aims to improve levels of educational achievement and the longer term life chances of disadvantaged children and young people by providing the necessary additional support which can enable those children to reach their full potential. The Armagh Observatory and Planetarium will, through our work with schools, focus resource on targeting the schools represented on the Extended Schools Programme or which have a high proportion of children entitled to Free School Meals.
- 5.2. More broadly the Armagh Observatory and Planetarium will harness our resources in ways that meet the needs of people who face the most significant and urgent problems in our society. **The following activities will be delivered:**
- A curriculum based learning programme will be delivered to 235 schools, with direct interventions for schools on the Extended Schools register or with a high proportion of entitlement to Free School Meals(PETPSE);
 - Six outreach events will be delivered across Northern Ireland, targeted at areas with high levels of deprivation (PETPSE);
 - Eighteen work-experience placements will be available within the Observatory, aimed at nurturing the ambitions of future scientists, technologists, engineers and mathematicians. These will be targeted at schools on the Extended Schools register or with a high proportion of children eligible for Free School Meals (PETPSE);
 - Free visits to the Planetarium will be offered to all forty special schools in Northern Ireland (PETPSE); and
 - Therapeutic work placements will be available to two adults with complex needs aimed at increasing their knowledge, self-confidence and communications skills. (PETPSE)

Visitors

- 5.3. The Armagh Observatory and Planetarium will engage with the widest possible audience and will develop specific initiatives to increase awareness in target areas and communities of greatest need. Initiatives will include special events and use of promotional opportunities, installing a new outdoor exhibit 'aroundNorth' in the Observatory grounds and working with partner organisations on the project 'The Waking of Brian Boru', to celebrate the 1,000th anniversary of the Battle of Clontarf and the death of Brian Boru on Good Friday, 1014. Engagement with existing visitors will be important for achieving our visitor target, creating word of mouth referrals and reaching those who are visiting friends and relatives living in Northern Ireland.

Key Tasks and Supporting Actions:

- Provide access to the Planetarium for 44,000 visitors. This will be achieved by running specially adapted programmes in the Digital Theatre, special events throughout the year, especially during holiday periods.
- Provide access to the Planetarium for 250 children with special needs. This will be achieved by inviting all special schools in Northern Ireland to have a free visit to the Planetarium. (PETPSE)
- Encourage 65 visits from schools in the Extended Schools Programme or with a high proportion of Free School Meals. (PETPSE)
- Provide online access to the Observatory's history and heritage as well as to its scientific results in astronomy, meteorology and related sciences, and to facilitate 'virtual' visits to the Observatory, reaching a total of 18 million website hits.
- Provide online access to the Planetarium's resources and latest astronomy news by continuing to promote our blog and Astronotes pages, aiming to achieve 1 million website hits.
- Provide at least 12 events throughout the year aimed at supporting the STEAM agenda to nurture the ambitions of future scientists, technologists, engineers, artists and mathematicians
- Increase and improve visitor information, monitoring and feedback by delivering a programme of research to track visitor numbers and attitudes to the Planetarium.

Outreach – Science in the Community

- 5.4. The Armagh Observatory and Planetarium plays a key role in inspiring young people to value education and pursue careers in Science and Technology. We will provide a fresh range of opportunities for those interested in astronomy and the world we live in. The initiatives will include reaching out to schools from deprived areas to offer seven work-experience placements for children aged 16 years upwards, scheduling specific events in areas of high multiple deprivation and reaching out to 15,000 people who would not find it easy to come to the Planetarium in Armagh. We also make a unique contribution to increasing skills and knowledge of two adults with complex needs.

Key Tasks and Supporting Actions:

- Deliver organised programmes for 15,000 people away from the Planetarium site. For example, a new programme of outsourced projects starting with Planetaliens, a new workshop "Seeing the Invisible", Cosmic Dragons and BT Young Scientist event in the RDS, Dublin.
- Deliver seven work-experience placements to school children from deprived areas to encourage them to pursue careers in STEM industries. (PETPSE)

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- Deliver six events targeted at areas of high multiple deprivation. (PETPSE) Deliver two work-experience placements for adults with complex needs to increase their skills and knowledge. (PETPSE)
 - Deliver a STEAM programme in conjunction with other partners e.g. National Museums NI & Libraries NI.

Research

- 5.5. Staff at Armagh Observatory maintain a high level of research activity. Through the presentation of research on the international stage, the Observatory makes a major contribution to promoting the City of Armagh and Northern Ireland.

Key Tasks and Supporting Actions:

- Publish 40 articles in refereed scientific journal publications.
- Achieve 200 citations in mass-media publications on astronomy and meteorology related topics. These often contain significant educational content; they reflect the Observatory's success in contributing to lifelong learning and wider public understanding of science. The mass media can often reach millions of people simultaneously.
- To cooperate with the independent review of the Observatory's research function. The outcome of the review will provide DCAL with an assurance of the research work of the organisation.
- To prepare for a new Library, Archives and Historic Scientific Instruments building by engaging with potential partner organisations and funding agencies.

Resources

- 5.6. Armagh Observatory and Planetarium faces budgetary pressures during this financial year. We will seek to maximise the value of our funding from central government through efficiency and effectiveness and we will continue to develop strategic partnerships that help to fund joint initiatives as well as bid for grant funding and other income from external sources. Armagh Observatory and Planetarium resources will be aligned to address our statutory commitments and public policy obligations.

Key Tasks and Supporting Actions:

- Achieve income through grants and other income for the Observatory of approximately 18% of total income by 31 March 2014, by maintaining existing projects and by applying for additional funding from external funding bodies. The Observatory will also continue to use UK and international facilities located abroad or in space, which provide further significant external support 'in kind', for example by obtaining research time on facilities belonging to the European Southern Observatory and the European Space Agency.
- Achieve self-generated income of 25% of total income from the Planetarium by 31 March 2015.

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- Achieve 90% compliance with the NI Executive’s ten-day prompt payment target.
 - To co-operate in the Management Committee initiated Review of the Management and Organisation of Armagh Observatory and Planetarium:
 - Engage with the review team
 - Provide information and advice on future options.
 - Further develop best practice in governance and accountability:
 - Providing Quarterly Assurance Statements in line with DCAL guidelines
 - Delivering draft Annual Report and Accounts
 - Providing Year End Governance Return
 - Implementing procurement guidelines
 - Implementing audit recommendations against agreed target dates
 - Providing induction training to new Management Committee members
 - Promoting equality and best employment practice.

Planned Events During 2014/15

5.7. The following events are planned throughout 2014/15.

1 – 2 May 2014	‘The Waking of Brian Boru’ Concerts (Col Cathedral, Armagh)
July – August 2014	Summer Programme of special weekend events at Planetarium
13 September 2014	European Heritage Open Day – Tours of the Observatory
November 2014	Georgian Day —Tours of Observatory building, telescope domes and grounds offered to members of the public
December 2014	Programme of evening open nights for Christmas
January 2015	Participation in BT Young Scientist of the Year event, RDS Dublin
17 March 2015	Participation in 2015 St Patrick’s Day Events: Tours of Observatory building, telescope domes and grounds offered to members of the public

6. Governance

6.1. Membership of the Board of Governors of the Armagh Observatory and Planetarium consists of:

- the Church of Ireland Archbishop of Armagh;
- the Dean of the Church of Ireland Cathedral of Armagh;
- the other members of the Chapter of the Church of Ireland Cathedral of Armagh;
- one DCAL nominee;
- one Queen's University Belfast (QUB) nominee; and
- up to three additional members nominated by the Board of Governors.

6.2. The Board has established a Management Committee to provide specialist advice and expertise relating to Scientific Research and Education, and to fulfil certain duties of governance oversight and challenge. The Management Committee comprises:

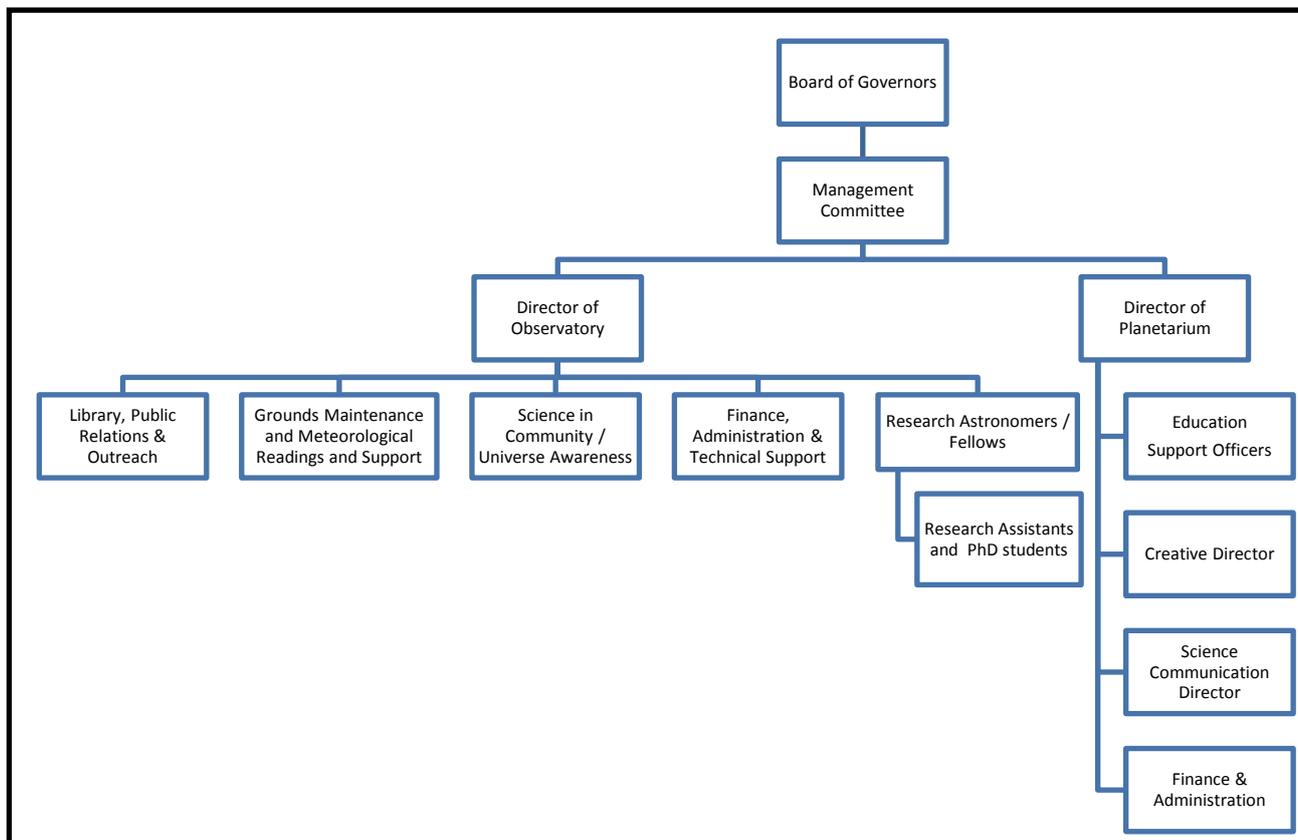
- the Church of Ireland Archbishop of Armagh (Chair) or his nominee (appointed as Chair);
- three nominees from the Board of Governors;
- six nominees from the Department of Culture, Arts and Leisure;
- one nominee of the Queen's University, Belfast;
- one nominee from the Science and Technology Facilities Council (STFC);
- one nominee from the Dublin Institute for Advanced Studies (DIAS); and
- up to three additional members co-opted by the Board of Governors.

6.3. The Director of the Observatory and the Director of the Planetarium are the Accounting Officer for their respective areas of the organisation. Each Accounting Officer is responsible for:

- safeguarding the public funds for which he has charge;
- ensuring propriety and regularity in the handling of those public funds; and
- the respective day-to-day operations and management of the Armagh Observatory or Armagh Planetarium.

7. Organisational Structure

The structure of the Armagh Observatory and Planetarium is displayed below. There are approximately 45 staff and students.



8. Budget

Zero Based Budgeting Exercise Outcome

- 8.1. In 2013/14 an exercise was carried out to consider the alignment of activities carried out by the Armagh Observatory and Planetarium against DCAL Ministerial priorities. This showed that 92% of the organisation's budget is expended on meeting its statutory obligations, with a proportionate level of governance, oversight and administration. Armagh Observatory and Planetarium has adapted to the DCAL Minister's new direction and is actively seeking to promote these obligations and target those most in need, wherever practicable and relevant to its core functions.
- 8.2. The indicative budget allocation from DCAL for 2014/15 is £1.527m of Resource per annum. The following tables set out the DCAL grant-in-aid Resource allocation to the Armagh Observatory and Planetarium.

Observatory		
Salaries (permanent research/support)	635	
Salaries (Fixed Term research/support staff)	95	
Student fees/grants	160	
Other research costs	135	1025
LESS Research income/grants received		(235)
Net Research Expenditure		790
Buildings and grounds maintenance costs	128	
Salaries (administration/governance)	95	
Other administration/governance costs	30	
Net expenditure		1,043

Planetarium		
Salaries (Education)	311	
Salaries (Shop/Front Desk)	30	
Salaries (Administration/governance)	62	
Subtotal		403
Other educational costs/shows/ promotional material		65
Buildings and grounds maintenance costs		139
Other general administration expenditure		46
Gross expenditure		653
LESS other income/grants/admissions		(169)
Net expenditure		484