# Armagh Observatory and Planetarium Business Plan 2013/14

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#### 1. Réamhrá



Is ábhar dóchais í an chuid seo d'Éirinn ó thaobh an chultúir, na n-ealaíon agus na fóillíochta de. Tá éachtaí déanta ag daoine éagsúla ó na naoi gcontae i gCúige Uladh le blianta beaga anuas; baineadh gradaim Oscar, ghlac lúthchleasaithe páirt sna Cluichí Oilimpeacha agus Parailimpeacha, baineadh boinn i gCraobhchomórtais an Domhain, i gCraobhchomórtais na hEorpa agus i gCraobhchomórtais uile-Éireann.

Áit bheag í Tuaisceart na hÉireann; is féidir athrú suntasach agus substaintiúil a bhaint amach. Is léir le fiche bliain anuas go bhfuil sé sin amhlaidh. Tá i bhfad níos mó oibre le déanamh, áfach, go háirithe i dtaca le dul i ngleic le míchothromaíochtaí eacnamaíochta agus sóisialta. Bhí geilleagar inbhuanaithe agus cúrsaí comhionannais ag croílár Straitéis Buiséid agus Infheistíochta an Fheidhmeannais atá mar chuid de Chlár an Rialtais agus tá an scéal amhlaidh fós. Ina theannta sin, tá gach roinn rialtais faoi cheangal ag oibleagáidí uileghabhálacha dlí poiblí.

Is é an phríomhthosaíocht agus an ceann is tábhachtaí ag an Roinn Cultúir, Ealaíon agus Fóillíochta – is é sin, mo Roinnse agus a cuid comhlachtaí ar neamhchomaoin (ALBs) – 'Comhionannas a chur chun cinn, agus Dul i nGleic le Bochtaineacht agus le hEisiamh Sóisialta'.

Tá an tosaíocht polasaí poiblí seo frámaithe go soiléir ag Ráiteas Misin athbhreithnithe RCEF: "Comhionannas sóisialta agus eacnamaíochta a chur chun cinn agus dul i ngleic le bochtaineacht agus le heisiamh sóisialta, trí shamhail gheilleagrach inbhuanaithe a chur chun cinn go córasach agus acmhainní suntasacha a dhíriú go réamhghníomhach ar earnálacha a bhfuil an mhíchothromaíocht is mó le fáil iontu, sa chomhthéacs níos leithne a bhaineann le deiseanna inláimhsithe agus torthaí intomhaiste a fhorbairt go héifeachtach le feabhas agus comhionannas a chinntiú i gcúrsaí cultúir, ealaíon agus fóillíochta, agus sochaí mhuiníneach, chruthaitheach, eolasach agus shláintiúil a chruthú sa chuid seo d'Éirinn."

Ní le cultúr, ealaíona agus fóillíocht amháin a bhaineann RCEF. Oibríonn an Roinn ar mhaithe leis an gheilleagar agus ar mhaithe le comhionannas fosta. Tá mo Roinnse tiomanta d'acmhainní poiblí spriocdhírithe a sheachadadh, go háirithe, do na hearnálacha agus do na grúpaí sin inár sochaí ar gá dóibh aghaidh a thabhairt ar na míchothromaíochtaí is mó laistigh de cheantair a bhfuil an riachtanas oibiachtúil is mó le fáil iontu. Tá cultúr, ealaíona agus fóillíocht ina ngnéithe tábhachtacha d'fhás geilleagrach inbhuanaithe agus is uirlisí riachtanacha iad maidir le cur chun cinn an chomhionannais. Is iad na spriocanna a bheidh againn ná gnóthachtáil den chéad scoth agus cuirfidh comhionannas i leith torthaí taca faoi sin.

Le fócas úr agus dírithe ar fheabhas agus ar chomhionannas, ar rochtain agus ar rannpháirtíocht, caithfidh foireann iomlán RCEF a chinntiú anois go n-athróidh ár múnlaí seachadta le feabhsuithe sóisialta agus eacnamaíochta atá fíor agus buan a sheachadadh ar fud an Tuaiscirt.

Carál Ní Chuilínm – Aire Cultúir, Ealaíon agus Fóillíochta

#### Minister's Foreword

This part of Ireland is a beacon of hope across culture, arts and leisure. In recent years, the nine counties of Ulster have brought us Oscar-winners, Olympians, Paralympians, World Champions, European champions and all-Ireland champions.

The North of Ireland is a small place; substantial change and substantive transformation is achievable. The last two decades have proved that fact. However, much more work is needed, especially on tackling economic and social inequalities. A sustainable economy and the equality agenda have been, and remain, at the core of the Executive's Programme for Government, Budget and Investment Strategy. In addition, all government departments are bound by overarching public law obligations.

The top priority, and most important objective, of the Department of Culture, Arts and Leisure - namely, my Department and all its Arms-Length Bodies (ALBs) - is: 'To Promote Equality, and Tackle Poverty and Social Exclusion'.

This public policy priority is explicitly framed by DCAL's revised 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."

DCAL is not merely about culture, arts and leisure, in isolation. Rather it is a department for the economy and a department of equality. My Department is committed to delivering targeted public resources, in particular, for those sectors and groups in our society facing greatest inequalities within areas of greatest objective need. Culture, arts and leisure are important facets of sustainable economic growth, as well as vital tools for the promotion of equality. Our goals will be excellence in achievement underpinned by equality in outcomes.

With a renewed and sharpened focus on excellence and equality, and access and participation, the entire DCAL family must now ensure the transformation of our delivery models in order to swiftly deliver genuine and long-standing social and economic improvements across the North.

Carál Ní Chuilín Minister of Culture, Arts & Leisure

#### 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 18<sup>th</sup> 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 educational 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**

cultural life of the community".

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

## 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 established the objective to "contribute to building a sustainable economic model and tackling deprivation through meeting its Programme for Government commitments and through delivering culture, arts and leisure programmes/projects which promote equality, tackle poverty and address social exclusion".
- 3.4. The Department's Business Plan for 2013/14 also identifies the following key priorities:
  - To promote social and economic equality, tackle poverty and social exclusion, and promote sustainable economic and social interventions;
  - To increase all Ireland co-operation and development to deliver innovative and efficient public services;
  - To promote the positive health impacts of participation in culture, arts and leisure, in particular in relation to suicide prevention; and
  - To promote the STEM/STEAM agenda and the DCAL family's contribution to education and lifelong learning.
- 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, 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 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 – 2013/14

Area		Description	Target
Visitors &			
Events	1	Total number of visitors by 31 March 2014	40,000
	2	Total number of public and school events	12
		Number of visitors to the Observatory's	18 million
	3	websites between 1 January - 31 December	hits
		2013	
		Number of visitors to	
	4	www.armaghplanet.com by 31 March 2014	1 million hits
Outreach			75 teachers
		Deliver primary-sector training courses to	etc.
	5	teachers, science co-ordinators and other	reaching
		staff with the aim of reaching school	3,750
		children	children
		Number of participants at outreach events	
	6	by 31 March 2014	12,000
		Number of work placements offered to	
	7	school children from deprived areas <sup>1</sup>	5
		between 1 January - 31 December 2013	
		(PETPSE)	
		Number of events targeted at areas of	
	8	multiple deprivation by 31 March 2014	6
		(PETPSE)	
Research		Number of articles published in refereed	
	9	scientific journal publications between 1	45
		January - 31 December 2013	
		Number of citations in mass media	
	10	publications between 1 January - 31	250
		December 2013	
Resources		External income as a percentage of total	
	11	income by 31 March 2014	21.5%
	_	Self-generated income (through sales and	
	12	admissions) as a percentage of total income	30%
		by 31 March 2014	
	13	Payments processed within 10 days	90%

<sup>1</sup> 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 215 schools, with direct interventions for schools on the Extended Schools register or with a high proportion of entitlement to Free School Meals (PETPSE);
  - Outreach events reaching an audience of 12,000 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. 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 40,000 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 200 children with special needs. This
  will be achieved by inviting special schools in Northern Ireland to have a free
  visit to the Planetarium. (PETPSE)
- Encourage 60 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

#### **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 the delivery of primary-sector teacher training courses throughout the UK and Ireland and an active programme of related outreach and other activities delivered as part of the International Universe Awareness Programme, reaching out to schools from deprived areas to offer work-experience placements for five children aged 16 years upwards, scheduling specific events in areas of high multiple deprivation and reaching out to 12,000 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 primary-sector teacher training courses to 75 teachers, science coordinators and other staff, who will reach up to 3,750 children per year.
- Work with six local libraries to deliver talks and present information about the Universe throughout the year.
- Deliver organised programmes for 12,000 people away from the Planetarium site. For example, a new programme of outsourced projects starting with Planetaliens, Cosmic Dragons and BT Young Scientist event in the RDS, Dublin.
- Deliver five work-experience placements to school children from deprived areas to encourage them to pursue careers in STEM industries. (PETPSE)
- 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)

#### 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 45 articles in refereed scientific journal publications.
- Achieve 250 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 review of Arm's Length Bodies carried out by DCAL.
- 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 21.5% 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 30% of total income from the Planetarium by 31 March 2014.
- Achieve 90% compliance with the NI Executive's ten-day prompt payment target.
- 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; and
- Promoting equality and best employment practice.

#### Planned Events during 2013/14

5.7. The following events are planned throughout 2013/14.

July 2013	World Police and Fire Games - Tours of the Observatory	
July – August	Summer Programme of special weekend events at Planetarium	
2013		
21 September	European Heritage Open Day – Tours of the Observatory	
2013		
September 2013	Society for Popular Astronomy 50 <sup>th</sup> Anniversary Meeting in	
	Northern Ireland - Tours of the Observatory	
30 November	Georgian Day - Tours of Observatory building, telescope domes	
2013	and grounds offered to members of the public	
December 2013	Programme of evening open nights at Planetarium for Christmas	
10 January 2014	Participation in BT Young Scientist of the Year event, RDS Dublin	
12 January 2014	Visit to Planetarium by Commander Chris Hadfield, Astronaut	
17 & 21 February	Community based workshops held in Observatory in connection	
2014	with "The Waking of Brian Boru" project	
22 March 2014	Launch of 'aroundNorth', a new outdoor exhibit for the	
	Observatory Grounds and Astropark	

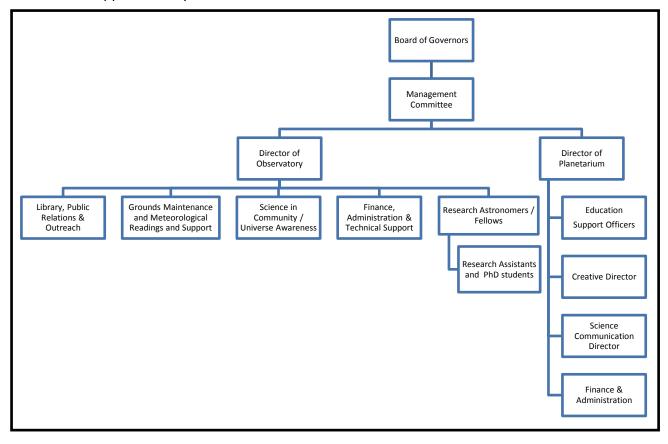
### 6. Governance

- 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

8.1. The indicative budget allocation from DCAL for 2013/14 is £1.612m of Resource per annum. The following tables sets out the DCAL grant-in-aid Resource allocation to the Armagh Observatory and Planetarium.

Observatory		
Salaries (permanent research/support)	616	
Salaries (Fixed Term research/support staff)	110	
Student fees/grants	173	
Other research costs	224	1,123
LESS Research income/grants received		(294)
Net Research Expenditure		829
Buildings and grounds maintenance costs	134	
Salaries (administration/governance)	105	
Other administration/governance costs	30	269
Net expenditure		1,098

Planetarium		
Salaries (Education)	311	
Salaries (Shop/Front Desk)	30	
Salaries (Administration/governance)	62	403
Other educational costs/shows/		95
promotional material		
Buildings and grounds maintenance costs		139
Other general administration expenditure		46
Gross expenditure		683
<b>LESS</b> other income/grants/admissions		(169)
Net expenditure		514