

Satrosphere science centre, Aberdeen

Operation and transformation 2008-2011

Report by Dundee Science Centre
October 2011

Three years ago, Dundee Science Centre was asked to support Satrosphere science centre through a very difficult period. Following the closure of Scotland's fifth science centre, the Big Idea in Irvine, in 2002, both Dundee Science Centre and the Scottish Government were keen to ensure that Satrosphere science centre, Aberdeen, should not suffer the same fate.

Dundee Science Centre is proud to have worked with Satrosphere throughout its transformation into a successful visitor attraction and credible community learning resource. Satrosphere's achievements in this period have ranged from securing a four star rating from VisitScotland to gaining an excellent review from Her Majesty's Inspectorate of Education.

This report documents the achievements of Satrosphere under the leadership and management of Dundee Science Centre, from October 2008 to September 2011. The following report will cover areas of implementation of basic operational systems and standards, and strategic development.



At this time, we end our formal management role, and look forward to enjoying an ongoing strong partnership with Satrosphere for the benefit of science learning across North East Scotland.

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Operations

The ability of Satrosphere to continue to open its doors and evade closure in autumn 2008 relied upon a complete overhaul of operating systems directed and managed by Dundee Science Centre. Dundee Science Centre carried out a complete restructure and recruitment of Satrosphere's team, including appointing management staff. To address and fully transform the ethos of the organisation, the new team experienced in-depth and high quality external and internal training courses covering supervisory skills, how to train colleagues, assertiveness and personal effectiveness. New recruitment, staff induction and management systems were created and implemented, with all support documentation and tools provided by Dundee Science Centre. Human resources and health and safety processes were created and implemented and documents were provided (including job descriptions, interview procedures, employment contracts, annual leave and absence records, staff appraisal, performance management, and maternity and paternity policies) replicating procedures developed at Dundee Science Centre over its nine year history, and benefitting from the combined expertise of a wide management team.

Continuing staff development was provided, including executive coaching by senior staff of Dundee Science Centre, ongoing knowledge transfer, and training on areas including evaluation systems, and how to implement peer review for further internal learning and development. Additionally, further development opportunities were researched and sourced, including a fully-funded course on school engagement at the Deutsches Museum, Munich, attended by the Education Manager, and attendance at the European Ecsite science centre conference by all three senior managers, including visiting science centres in Milan, Dortmund and Warsaw.

Dundee Science Centre managers implemented initial procedures to meet legal standards, including providing initial and ongoing training on national Cooksafe standards, ensuring Satrosphere's catering service could meet basic standards. They also overhauled all management systems and offered ongoing hands-on support to ensure compliance with all employment law, health and safety legislation, including fire regulations, food hygiene and electrical testing. Additionally, Satrosphere's Tramsheds Coffee House has maintained international Starbucks service standards, Proudly Serving Starbucks beverages.

Streamlined procedures for recording and calculating monthly wages were created and implemented, and a job banding exercise was carried out to ensure appropriate pay structures. An efficient payroll provider was sourced, to offer an improved service. Dundee Science Centre dealt with and responded to all payroll and pension queries.

A new intranet and online bookings diary was also added, with new efficient bookings procedures put in place.

Moreover, all public programmes and services were initiated using Dundee Science Centre models: schools and public science show and workshop scripts were provided to Satrosphere's new team, as were content for children's birthday party programmes and celebratory event formats, in order to allow Satrosphere to offer a quality and trustworthy product to its visitors.

These operational changes enabled Satrosphere to be transformed from a failing and legally non-compliant centre close to closure, to an operational, legally compliant and stable visitor attraction within a matter of months.

Formal recognition

The many achievements of Satrosphere have been recognised at a national level by leaders of the educational and science centre sectors.

A poor HMIE report in 2007, highlighting weakness in leadership and ethos, was a key catalyst for significant change. Dundee Science Centre implemented an action plan to address all areas of concern, including team development, programming and strategic direction. In 2009 during the review inspection, Inspectors explicitly recognised the commitment, professionalism and motivation of the redeveloped team.

The continuing transformation – encompassing quality assurance, peer review, evaluation, exhibition development, community reach, and the linking of all schools programmes to Curriculum for Excellence – resulted in recognition from the Scottish Government’s Office of the Chief Scientific Advisor, in the form of a significant increase in funding in 2010-11. It is particularly significant that, at a time of restricted and decreasing budgets, Satrosphere was recognised as an efficient and beneficial investment of public funding. Additionally, Professor Anne Glover, Chief Scientific Advisor to the Scottish Government, has publicly spoken of Satrosphere’s impressive recovery and subsequent development.

Not only an educational resource, Satrosphere is also an important part of Aberdeen’s tourism offering. Initially under threat of being downgraded from its ‘excellent’ VisitScotland grading, to a three-star ‘good’ attraction status, Satrosphere followed a rigorous improvement plan and has since secured and maintained a four star grading.

“It was good to come back to Satrosphere for this year’s grading visit and great to be able to experience the newly revamped Tramsheds coffee house... I am pleased to confirm a 4 star award as a result of my visit, where I encountered excellent service and attitudes from all staff”

VisitScotland, June 2011

Satrosphere’s profile has also been raised through representation within a number of national forums, including the Association of Science and Discovery Centres, Association for Science Education Scotland, and the Scottish Public Engagement Forum. Most recently, Satrosphere has been represented within a new grouping of science and learning leaders exploring the advancement of the sector.

Supporting Curriculum for Excellence

In 2008, Satrosphere had six science-based activities aimed at a primary school audience. Today, Satrosphere offers a rich and developing programme for early years, primary and secondary pupils and teachers, in support of Curriculum for Excellence, with nine primary schools activities and five workshops for secondary schools in the core educational offering, with support materials, trails, and a regular series of special events.

With a specific focus on supporting schools’ implementation of Curriculum for Excellence, the team has introduced Little Scientist Days to inspire learners in science at pre-school level. For older and teenage pupils, dialogue activities engage learners with topical and ethical science debate.



Moreover, Satrosphere supports teachers through in-depth continuing professional development, delivering a range of activities in collaboration with the University of Aberdeen, Association for Science Education, and Scottish Schools Education Research Centre (SSERC). Most recently, the centre delivered a week-long summer school for teachers in August 2011, in partnership with Aberdeen City Council and Dundee Science Centre Science Learning Institute, focusing on building primary school teachers' confidence to teach physics and technology.



“Satrosphere’s new management team, skilfully led and supported by senior staff from Sensation [Dundee] Science Centre, had very effectively improved teamwork, communication and morale among staff. All staff had been involved in setting objectives for the centre and in taking forward improvement. Staff increasingly felt a sense of ownership of the centre’s work. They also felt supported and valued, and that their ideas for improvement were welcomed and acted upon. A sense of corporate endeavour had been developed through the following activities”.

Her Majesty’s Inspectorate of Education, 2009

A rich and dynamic programme of public engagement with science for the community

Prior to 2008, Satrosphere had offered a largely unchanging exhibition, and had never before hosted a headlining exhibition for the summer holiday season. Dundee Science Centre immediately implemented a programme of changing temporary headlining exhibitions, with international profile, to engage both tourist visitors to Aberdeen, and – importantly – the local Aberdeen and Aberdeenshire community. As a result, Satrosphere has built a loyal local following of regular visitors seeking to enjoy the changing exhibition and event programme.

2010’s headline exhibition, ‘Animated Adventures with Wallace and Gromit’ won Satrosphere its highest annual visitor numbers in its 21 year history, attracting visitors from across Scotland to Aberdeen. Additionally, exhibitions showcasing the local cutting-edge scientific research of the University of Aberdeen and James Hutton Institute, amongst others, have engaged visitors with local discovery: a key strategic issue for the sector and the Scottish Government.



Between 2008 and 2010, Satrosphere has hosted over 20 travelling exhibits and exhibitions:

- Macmillan Art Show, 2008
- Techniquet classic science exhibits, 2009
- BBC *Walking With Beasts*, headline exhibition 2009
- *Biodiversity – What on Earth is it?*, 2009
- *Darwin Today*, 2009
- *Inside DNA*, 2009
- *Fossils and Funnybones*, 2009
- *Jet, Set, Go!*, 2009
- *Where Tomorrow Begins*, 2009
- Shell Wildlife Photographer of the Year, 2009
- *Vanishing Ice*, 2009
- Homecoming *Great Minds* 2009-10
- BBC *Walking With Dinosaurs*, 2010
- *Animated Adventures featuring Wallace and Gromit*, headline exhibition 2010
- *Molecules for Life*, 2010
- *Wasted: the Trouble with Rubbish*, 2010-11
- SCICOM Renewable Energies exhibition, 2010
- *Monster Creepy Crawlies*, headline exhibition 2011
- Soft play zone, 2010-11
- Planetarium theatre, 2011, on loan from Dundee Science Centre



Historically, Satrosphere offered a weekend event programme aimed at families with young children. Building on this strength, strategic development has led to a rich range of public programmes offering inspiring and engaging experiences for all ages.

Special events and programmes have included:

- *Baby Sensory*, for age 0 to 13 months
- *Little Scientists*, for toddlers and early years
- special family science shows for every key school holiday period
- regular *Discovery Days*: an opportunity for the community to meet real scientists from the University of Aberdeen
- meet-the-scientist: an opportunity to discover research from Robert Gordon University
- *Love under the Stars*: a Valentine's Day evening of astronomy for the adult audience
- *Cafe Controversial*: a unique approach to the cafe scientifique discussion format, engaging adults with topical science issues in the relaxed surroundings of Tramsheds Coffee House



"Excellent way to introduce kids to science."

"You are making future young Scottish scientists."

Visitor feedback, Homecoming Scottish Science Celebration Day

Enhancing local festivals and national events, Satrosphere has become an important cultural venue for the city of Aberdeen, providing:

- a special science-themed ceilidh event as part of Scotland's year of Homecoming, 2009
- science and literacy events for schools during Word Festival, Aberdeen's festival of literature
- *Lunchtime Lectures*: relaxed science talks during Techfest, Aberdeen's annual festival of science
- public and schools programmes as part of Techfest



Partnership

Science centres should be community resources, integrated into their local and national context. As such, collaboration and partnership are key to delivering a high quality and relevant programme for learners.

Positive, long-term, mutually beneficial relationships with important stakeholder organisations have been established, which integrate Satrosphere in the community of Aberdeen and Scotland.

Satrosphere now has a very strong relationship with both Aberdeen City Council and Aberdeenshire Council, working with both to deliver programmes to support Curriculum for Excellence in schools across the region. Most recently, Satrosphere worked closely with Aberdeen City Council to deliver an innovative summer school for primary school teachers, in August 2011. Also to support teachers, Satrosphere now works with the Scottish Schools Education Research Centre (SSERC) as a North East Scotland venue for teacher CPD. Additionally, involvement in the committee of the Association for Science Education (ASE) Grampian has led to Satrosphere's integration in local ASE CPD programmes.

"The practical elements of the course were great fun and informative. Great confidence building for teachers with limited science experience/knowledge. Varied and practical."

Delegate, residential teacher CPD course run in conjunction with the University of Aberdeen



To support public engagement with current and local scientific research and discovery, Satrosphere now has a strong relationship and ongoing dialogue with the University of Aberdeen, particularly through its Public Engagement with Science office. This has enabled many meet-the-scientist *Discovery Days* and *Cafe Controversial*, as well as ongoing communication to facilitate engagement between research scientists and the community. Similarly, Satrosphere has a very

positive relationship and established links with Robert Gordon University, James Hutton Institute (previously MacAulay Institute), and the Outreach and Public Engagement Network (OPEN) North East, having collaborated in exhibition and meet-the-scientist projects with all of these important partners.

Satrosphere's partnership with local industry has included a high-profile relationship with Shell, particularly Shell's support of Satrosphere's 2010 headline summer exhibition, *Animated Adventures*. Partnerships with the Society for Petroleum Engineers and Peterkins Solicitors, Aberdeen, have also supported projects ranging from Little Scientist Days to schools outreach.

Through support from the Association of Science and Discovery Centres (ASDC), Satrosphere's team has benefitted from visits to the UK's leading science centres, and specialist science dialogue training through the Dialogue Academy project.

Moreover, Satrosphere maintains an ongoing dialogue with, and the kind support of, the Scottish Government's Office of the Chief Scientific Adviser, ensuring Satrosphere supports national strategies, particularly the current Science and Engineering 21 Action Plan.

Public profile

Satrosphere's public profile was initially overhauled, with the complete redevelopment of the centre's website, complete with interactivity, a content management system to facilitate easy and ongoing updating, audience-specific integrated e-newsletter functions, and web search optimisation services.



"With more than fifty thousand visitors that pass through the doors of the Satrosphere Science Centre, it has not only become a popular attraction with tourists, but is seen as a valuable educational tool for children."

www.scotland.com

Ongoing marketing throughout 2008-11 has covered all areas of Satrosphere's functions, with targeted communications for diverse audience sectors, from schools to business. This has included an annual tourist/leisure brochure, distributed widely in Scotland; schools programme brochures; AA road signage for major headline exhibitions; PR; major route billboard posters; online and print listings in event guides; and regular print and online marketing for special and seasonal events.

Assets and capital developments

Throughout the last three years, Satrosphere's assets have been vastly expanded and revamped, providing the centre with a much-improved resource for all operations.

The centre's show theatre, meeting rooms and teaching spaces have been refurbished, improving learning spaces, as well as greatly improving corporate hire facilities.

Tramsheds Coffee House has been fully redesigned, refurbished and rebranded, now providing a comfortable coffee shop atmosphere, internet stations, and new outdoor signage. Now attracting new visitors and revenue streams, this resource has even greater potential for further development of audiences.

Through partnership, fundraising, and internal technical development by Dundee Science Centre's team, a significant number of iconic and valuable exhibits have been added permanently to Satrosphere. These include the *Magic Mirror*, thermal imaging camera, *Joking Computer*, and outreach mathematics mini-exhibits, and between them greatly enhance both the exhibition experience and educational outreach capacity of Satrosphere.

In total, these infrastructure and asset projects have contributed an equivalent value of over £120,000 to Satrosphere.

Conclusion

From October 2008 to September 2011, Satrosphere science centre has achieved a profound transformation, not only evading imminent closure, but developing into a valuable and quality learning resource, with a committed team.

Dundee Science Centre is proud to have led Satrosphere's team through these achievements

Science centres are an important element of the cultural provision and learning resources of any city, and Dundee Science Centre is pleased to have played a role in preserving and developing Satrosphere science centre for the city and community of Aberdeen.

Satrosphere Science Centre is a non-profit organisation whose ambitious and dedicated Education Team aims to provide:

- an important and valuable educational resource for the whole community where people of all ages, backgrounds and abilities can come and engage with science and be enthused and inspired.*
- science learning experiences that encourage active involvement in learning with hands-on exhibits, investigative workshops and exciting shows and demonstrations.*
- an environment that promotes curiosity and life-long learning.*

**Satrosphere science centre's educational mission statement,
formulated and implemented under the leadership of Dundee Science Centre
2008-2011**