



Ireland's Space Strategy

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Ireland implements and co-ordinates its space activities primarily through the programmes of the European Space Agency (ESA) of which it has been a member state since 1975. Ireland participates in a range of ESA Programmes including;

- Space Science Mission Programme
- Earth Observation Programmes
- Satellite Navigation Programmes (Galileo, GNSS evolution Programme)
- Space Transportation Programmes (Ariane 5 and associated programmes)
- Future Launchers Preparatory Programme (FLPP)
- Satellite Communications Programme, (ARTES)
- Space Science Experiments and scientific payloads (PRODEX)
- European Life and Physical Sciences Programme (ELIPS)
- General Support Technology Programme (GSTP)

The key objectives of Ireland's membership of ESA are;

1. Support the development of a high technology industrial sector in Ireland that supports the European space programme and that can exploit global space market opportunities.
2. Support the development in Ireland of a dynamic research community in space research, as well as in a number of space related technology domains.
3. Promote the use of space based systems for commercial and societal needs.

The strategy comprises a number of inter-related elements, each addressing the objectives identified above.

Images Courtesy of ESA

For further information on ESA programmes and Enterprise Ireland supports available see

<http://www.enterpriseireland.com/en/Research-Innovation/Companies/Access-EU-Research-Innovation-reports/European-Space-Agency-.html>

For further information on Ireland's space industrial capabilities see:

<http://www.enterpriseireland.com/en/Research-Innovation/Companies/Access-EU-Research-Innovation-reports/Space-Industry-Directory.pdf>

1 Industrial Strategy

The primary focus of the industrial strategy is to support Irish companies to develop products and technologies for the global space market. This will be achieved by assisting Irish companies to participate in ESA technology and mission programmes to develop products with the necessary level of qualification for space flight and inclusion in the ESA catalogue for qualified space products. Ongoing developments by Irish industry encompass a range of technology areas including electronics, fibre optics, wireless sensor network, avionics, structures, software and telecommunications.

In addition to developing space flight hardware and software, there is a growing opportunity to develop companies in the “downstream” sector. This includes the development of end user equipment, services and applications that utilise satellite based systems including positioning / navigation satellites, communications and Earth observation satellites.

The main focus of the Irish industrial strategy is to develop knowledge intensive industry in Ireland, by supporting ongoing technology innovation, both in the development of space flight products and in downstream products, services and applications. A key element of this strategy is to facilitate the spin-in of non space technologies to the space programme as well as technology spin-out into a range of other non space applications. The industrial strategy will be co-ordinated by Enterprise Ireland in collaboration with sister development agencies including IDA and Udaras na Gaeltachta.

2 Research Strategy

The principal aim of Ireland's space research strategy is to create a vibrant and dynamic space research community contributing to the goals and objectives of ESA's scientific programmes, while also playing a role in supporting the development of Ireland's 'Knowledge Economy'.

The space research strategy will be implemented by supporting participation of Irish scientists in the development of payloads, experiments and technologies for ESA science missions through participation in relevant ESA programmes. A key element of the research strategy is to foster collaboration between Irish scientists and industry, especially those companies with experience in development of technology and products for space.

The scope of space science activities in Ireland encompasses fundamental astronomy and astrophysics as well as applied science, including life and physical sciences. The strategy will focus on the 'spin in' of non-space technologies and exploit synergies with existing areas of research expertise in Ireland, especially those underpinning the Government's strategy in Biotechnology, ICT and Sustainable Energy and Energy-Efficient Technologies.

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3 Space for Broader Societal Needs

Space systems, including Earth observation systems, satellite navigation systems and satellite communications can be used to support a broad range of applications including environmental monitoring, emergency response and provision of communications services to remote regions. Examples of such applications include;

- Marine (Oil Spill Detection, Rescue, Fish Stock Management)
- Land (Spatial Planning, Agri-Enviro Services)
- Emergency Response (Flooding, Landslides, Volcanic Eruptions)
- Climate Change (Ozone Monitoring, Atmospheric Composition, Air-Sea Exchange)

Key to the successful strategy is the need for Public Sector Agencies, Industry and Academic communities to actively engage in the development of services which will deliver information at local, regional and global levels.

Collaborative research at a pan-European level through ESA and the EU Framework Programme (Space & Environment programmes) is a key element in the strategy underpinning the introduction of new services utilising Satellite based systems.

In the field of Global Monitoring for Environment and Security (GMES) coordination of this strategy takes place nationally with a number of actors principally through the GMES Forum led by EPA, GSI and EI. The European Commission's GMES Partners Board also provides the community an opportunity to influence the top down decision making process linked to the development of new early warning environmental detection/forecasting services.

Successful implementation of this strategy will lead to new opportunities for business development in Ireland by introducing and developing opportunities to apply technology innovation in a number of key sectors including tourism, aquaculture, renewable energies and agriculture.

The Department of Enterprise, Trade and Innovation has overall responsibility for Ireland's membership of ESA. The ESA programmatic, industrial and research strategies are co-ordinated by Enterprise Ireland.

Enterprise Ireland provides a source of expertise for Irish companies in developing and executing their respective space strategies, as well as being a point of reference for international space industry wishing to identify relevant sources of space-related expertise within Ireland.

