



CASE STUDY

KERRY INTERNATIONAL DARK SKIES PROJECT

John Griffin
Kerry County Council

Presentation Outline

Context

Role of Council

Policy Framework

Harnessing the Potential – *Community of Support*

Council Actions

Ingredients for Success

IRELAND

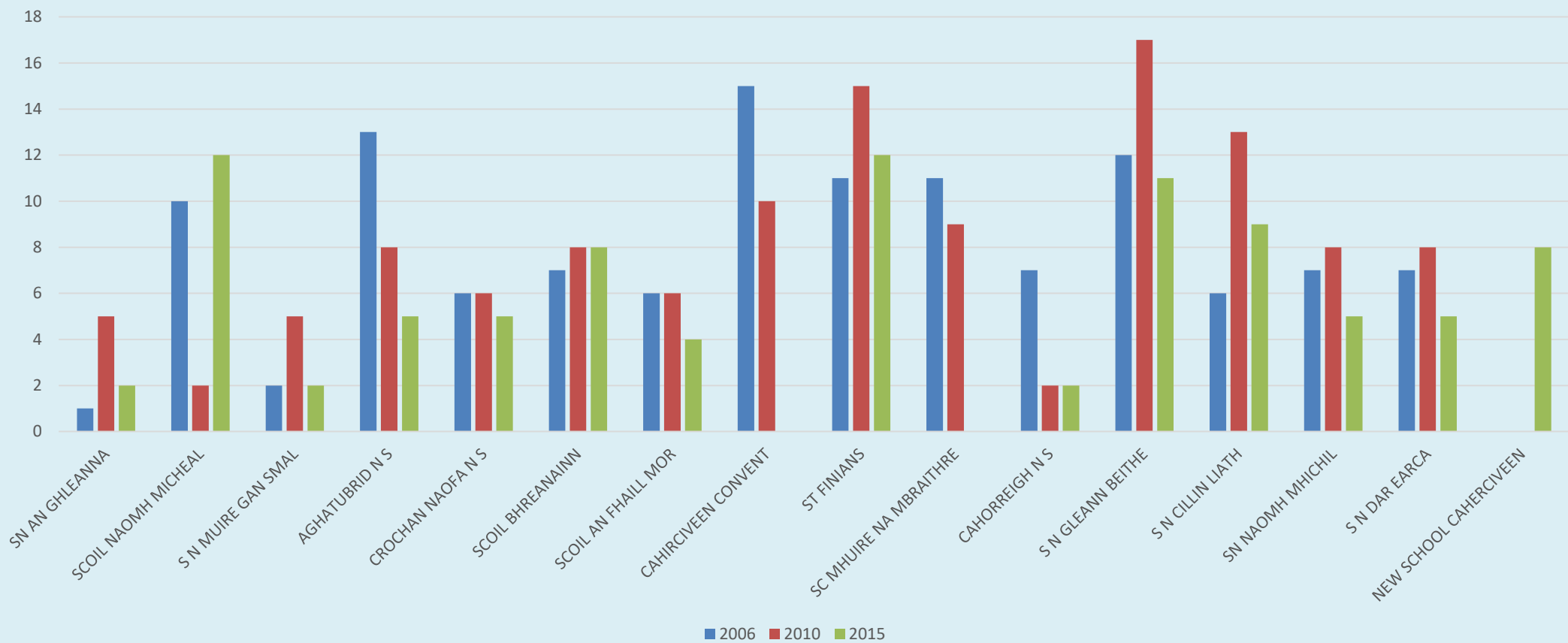




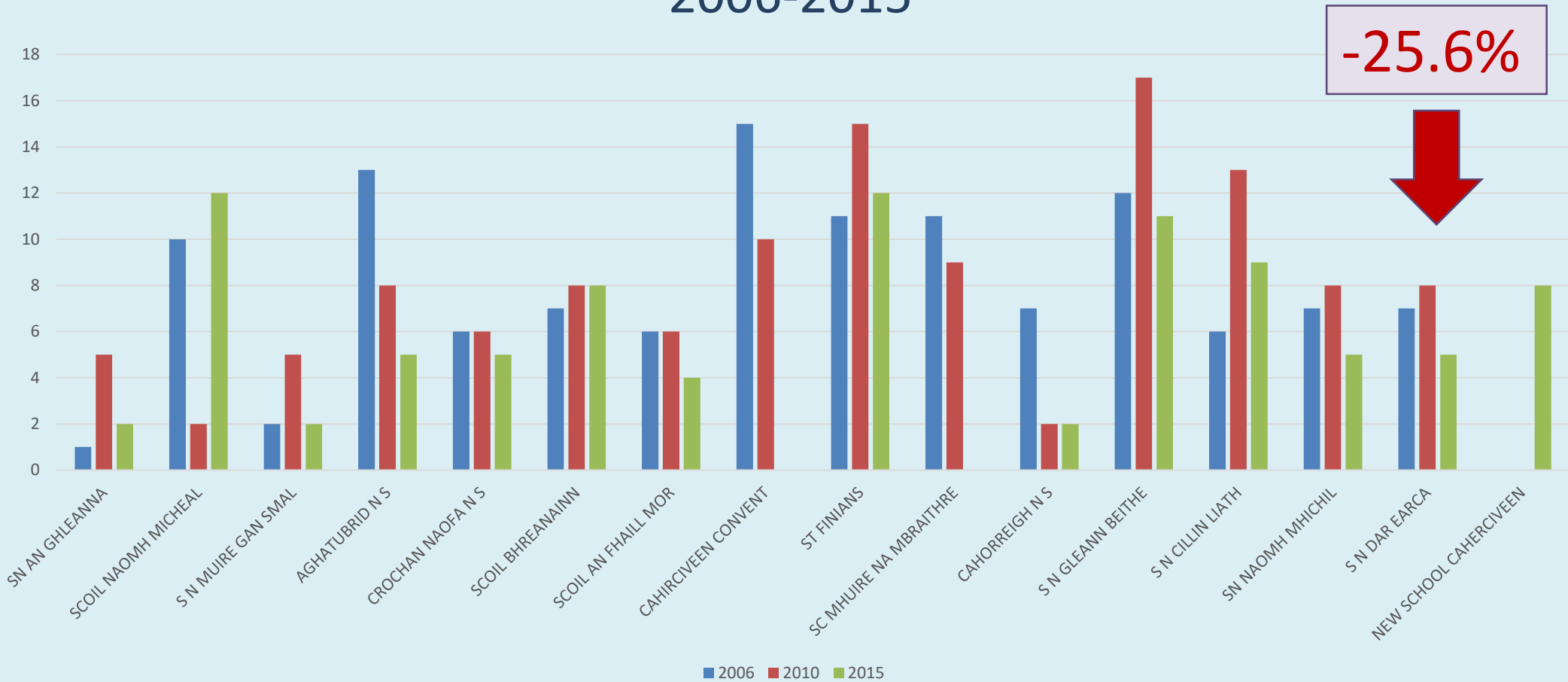
Context

- Area of Outstanding Natural Beauty
- Located on Ring of Kerry and Wild Atlantic Way, Skellig Michael
- Attracts circa 1m visitors – majority day visitors from Killarney
- However,
- Tourist Season is short – summer months
- Region is suffering from economic decline and de-population
- Population of Cahersiveen declined by 15% from 2002 to 2016.
- One of the lowest disposable incomes in country
- School enrolments in sharp decline

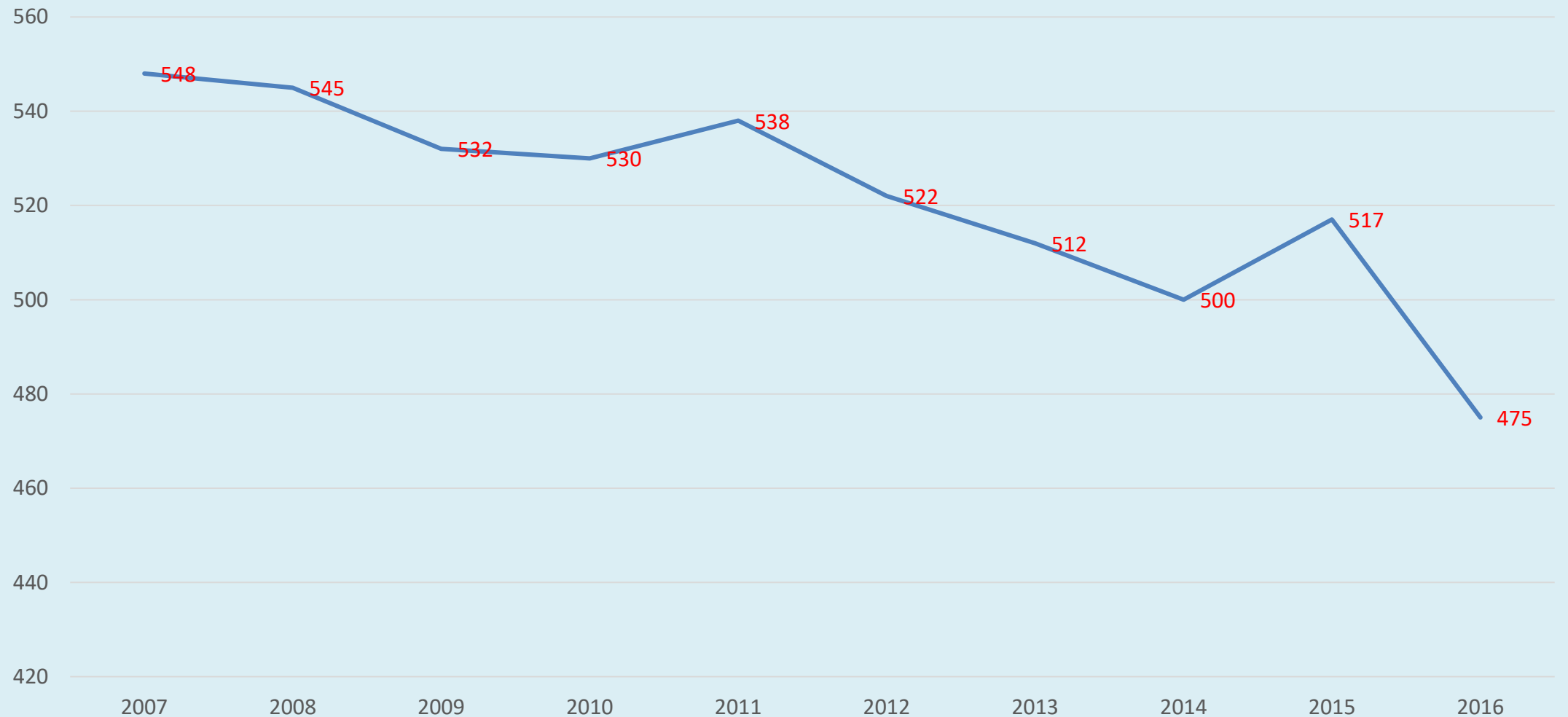
Primary / National School Enrolments in Skellig Region, 2006-2015



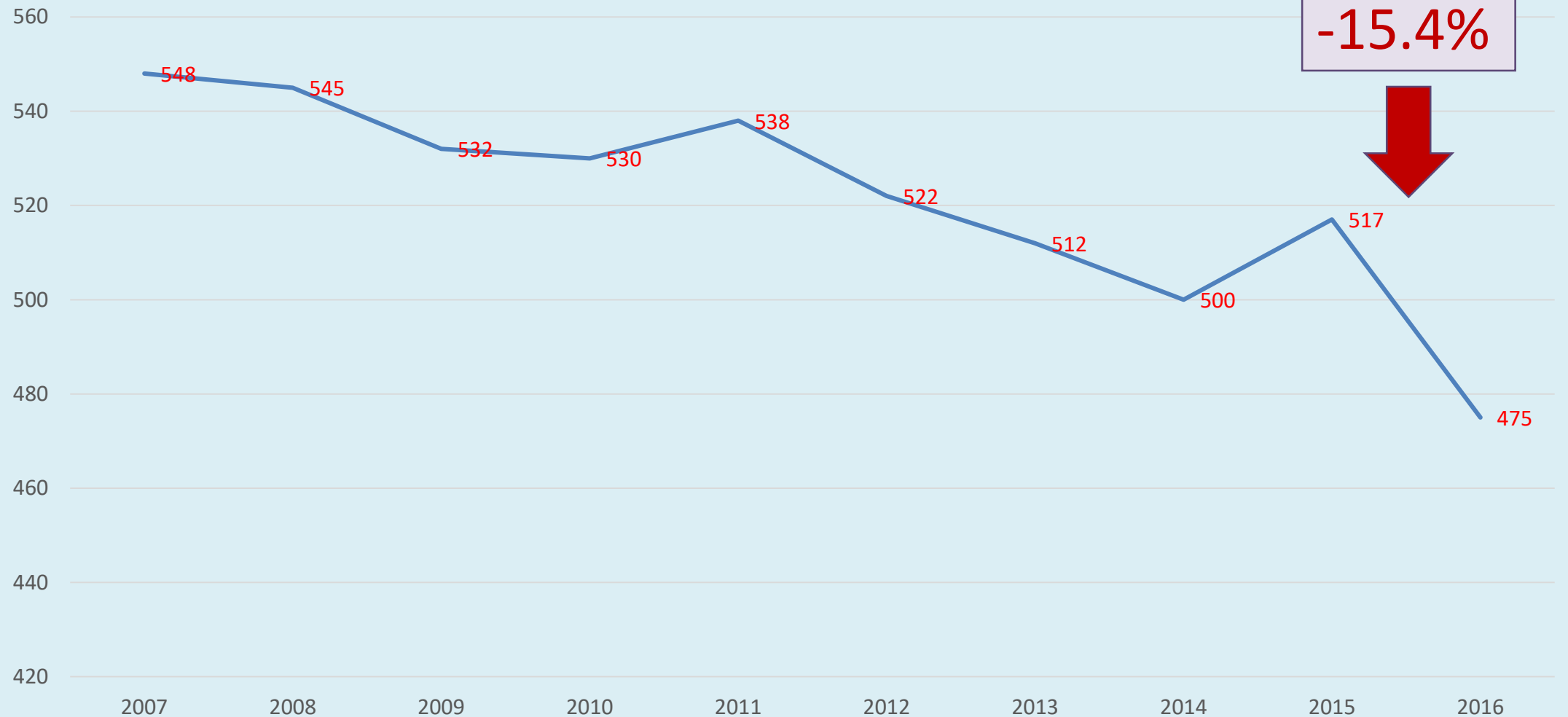
Primary / National School Enrolments in Skellig Region, 2006-2015



Total Enrolments in Coláiste na Sceilge Secondary School, Cahersiveen, 2007-2016



Total Enrolments in Coláiste na Sceilge Secondary School, Cahersiveen, 2007-2016





Launch of Kerry International Dark Sky Reserve, Jan 2014

First Gold Tier Dark Sky
Reserve in Europe





Light Pollution in Europe

Light pollution is
not only a
hindrance to
astronomy, but
it also impacts
the
environment.

IDA – International Dark Sky Association

THE UNIVERSE
YOURS TO DISCOVER



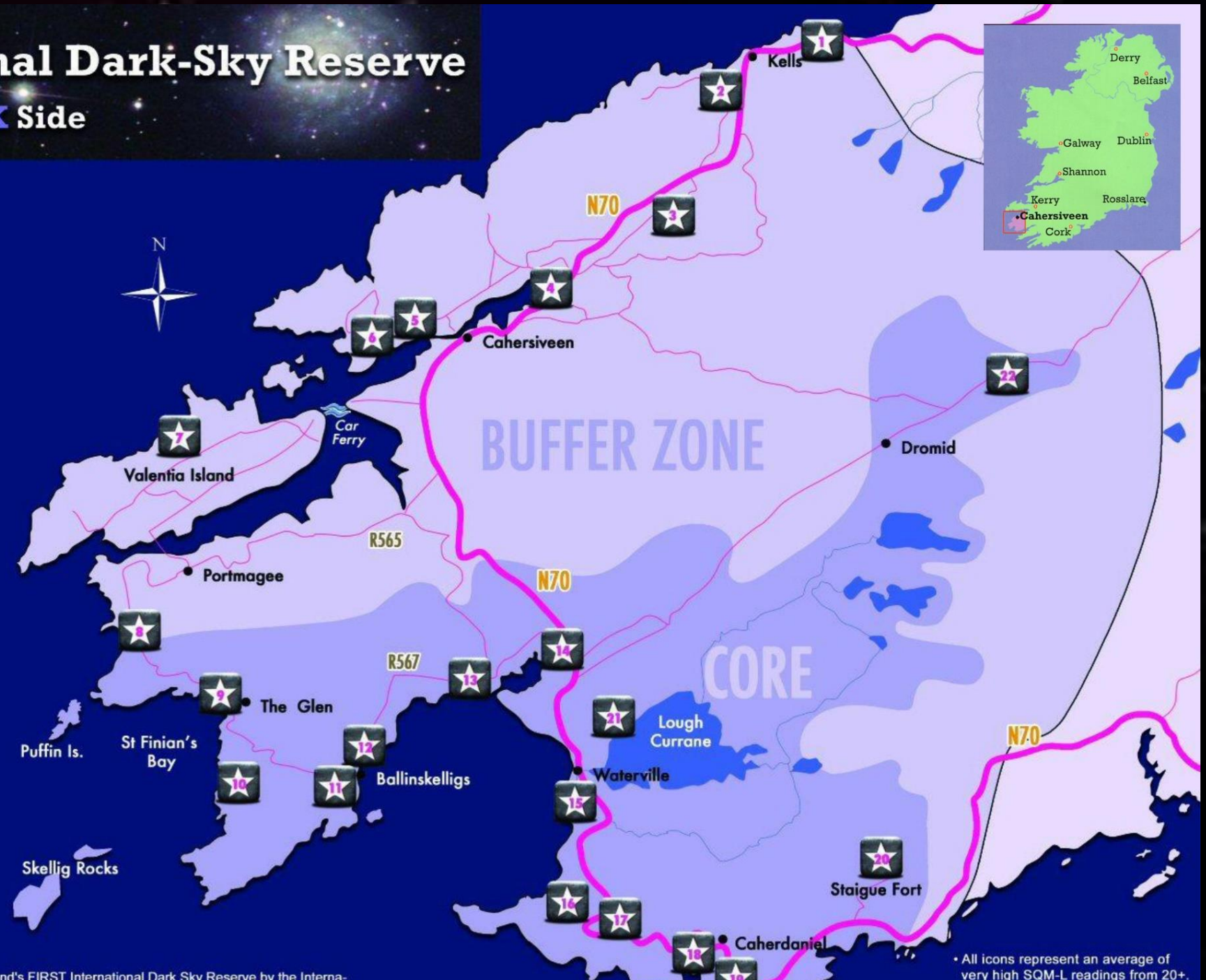
B E Y O N D
INTERNATIONAL YEAR OF
ASTRONOMY

Kerry International Dark-Sky Reserve

Discover Kerry's **DARK** Side

- ★ Kells - lay-by on N70 (across from Dingle Bay)
- ★ Kells - lay-by on N70 (across from Dingle Bay)
- ★ Foilmore
- ★ Carhan Bridge
- ★ Ballycarbery
- ★ White Strand
- ★ Geokaun Mountain
- ★ Coomanaspig
- ★ St. Finian's Bay
- ★ Duchalla
- ★ Ballinskelligs Beach
- ★ Ballinskelligs GAA Car Park
- ★ Reenroe Beach
- ★ Inny Bridge
- ★ Skellig Bay Golf Club Car Park
- ★ Coomakista
- ★ Beenarourke
- ★ Derrynane Beach
- ★ Derrynane House & Gardens (4 Car Parks)
- ★ Staigue Fort
- ★ Lough Currane Car Park
- ★ Bealach Oisin

Core Zone = Darkest part of the reserve
Buffer Zone = Peripheral area around core



• All icons represent an average of very high SQM-L readings from 20+.

Certified IDA International Dark Sky Reserves (11)

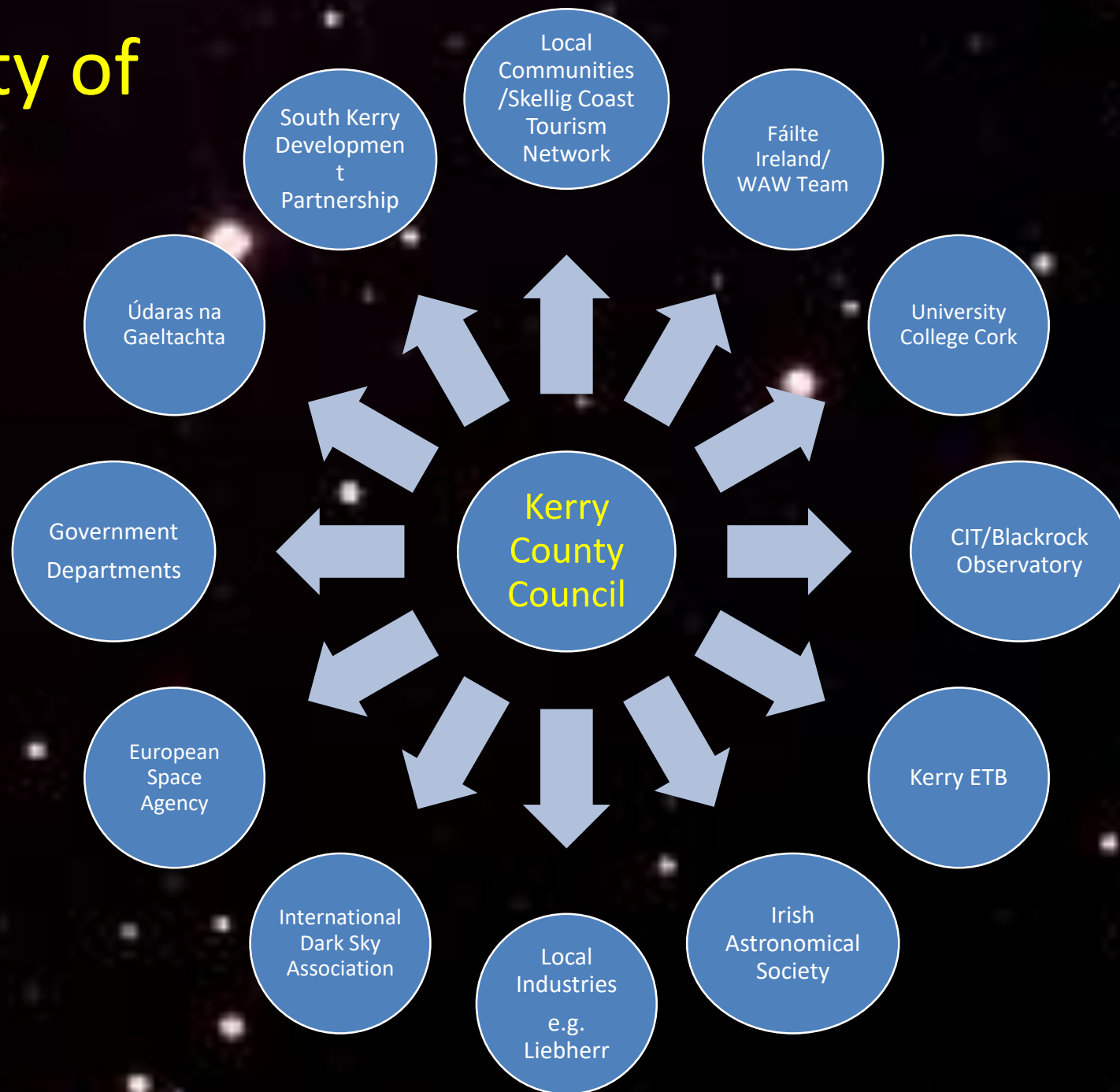
3 GOLD TIER RESERVES GLOBALLY:

- Aoraki Mackenzie (New Zealand)
- NamibRand Nature Reserve (Namibia)
- Kerry (Ireland)

Council's Role – Encourage, Facilitate, Support

- Supported Local Community Secure the Dark Sky Designation
- Commitment through its planning policies and work programmes to maintain and enhance the Dark Sky Reserve
- Maximise the opportunity of the international designation to promote Astro-Tourism - a growing niche within international tourism and year-round visitor activity.
- Build a national and international ***Community of Support*** for the project
- Help to build a local knowledge base to support astronomy and Astro-Tourism development
- Provide funding supports for Dark Sky Activities – festivals etc.

Community of Support





Senior Management Structure



But... all directorates are involved to a lesser or greater extent

National Policy



Putting People First

reducing their carbon footprint and expenditure on heat power and light,

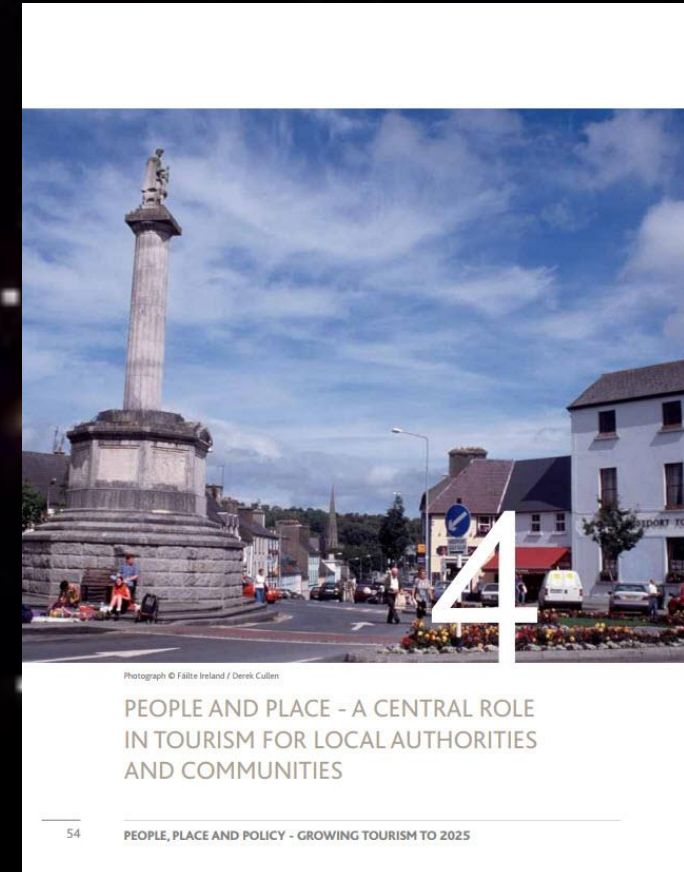
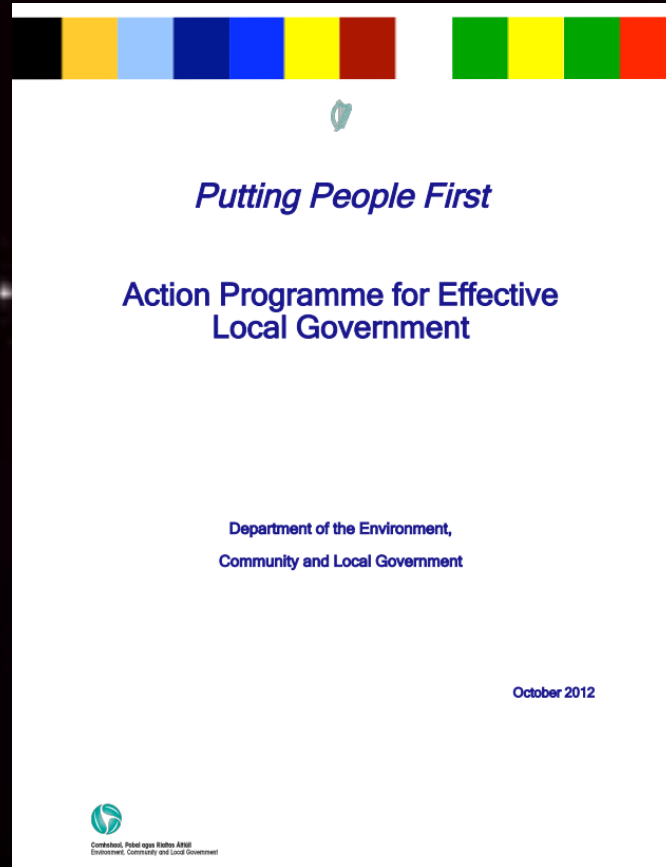
- local authorities are well placed to identify economic potential and requirements to realise it and most already actively promote economic development and promote/market their areas for tourism, investment, and enterprise;
- local government functions have an important bearing on key local attributes such as the quality of its environment, accessibility, physical character, and quality of life generally, which

October 2012

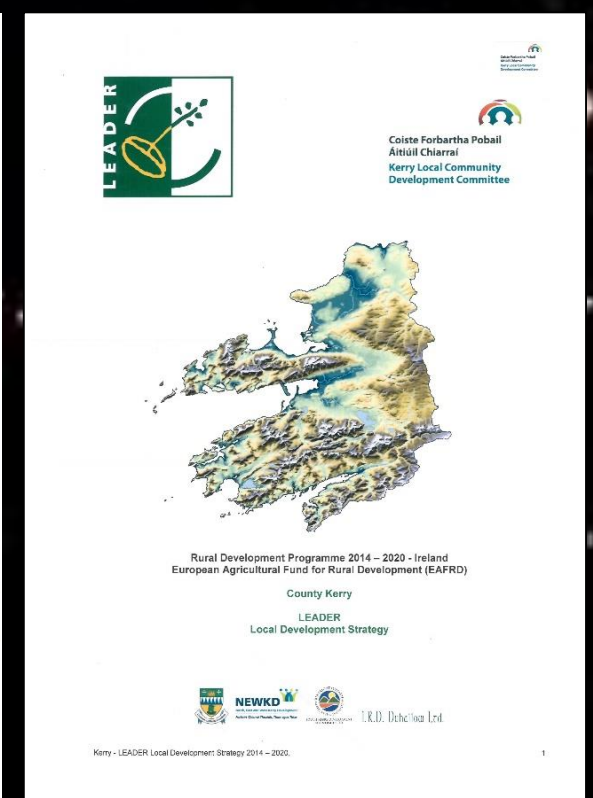
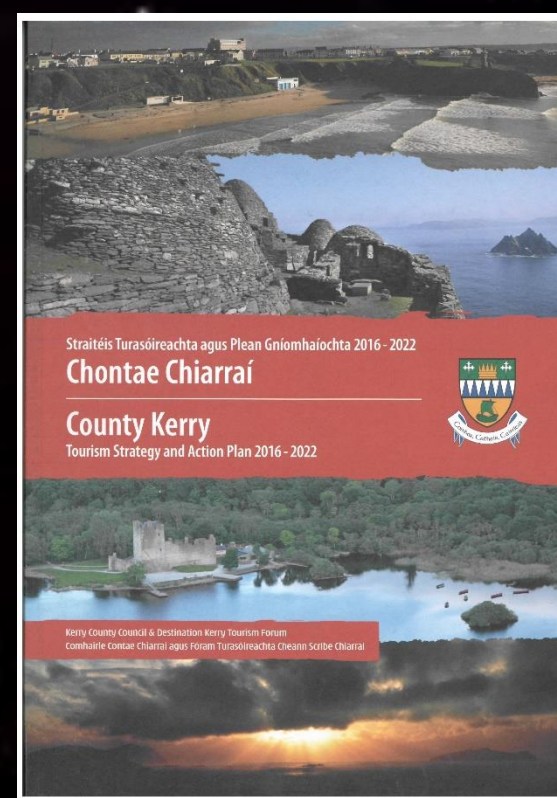
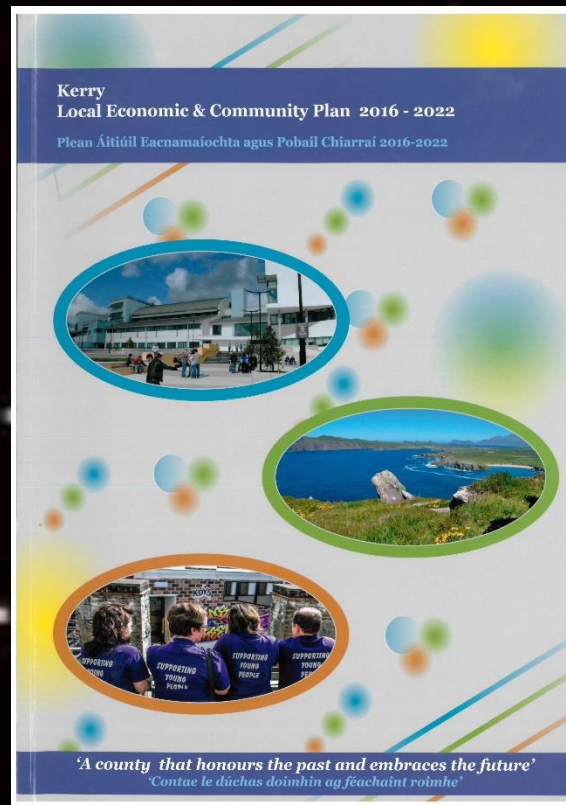
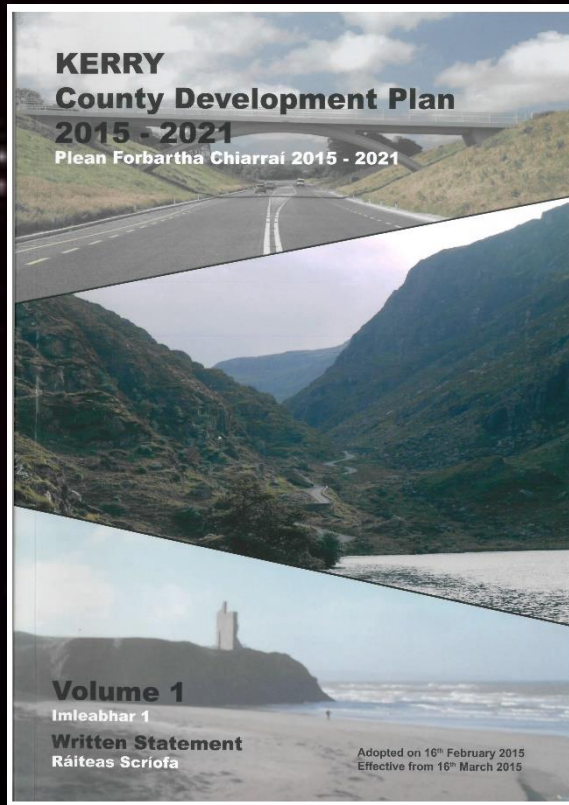


Comhaltas, Párlaimint na hÉireann
Environment, Community and Local Government

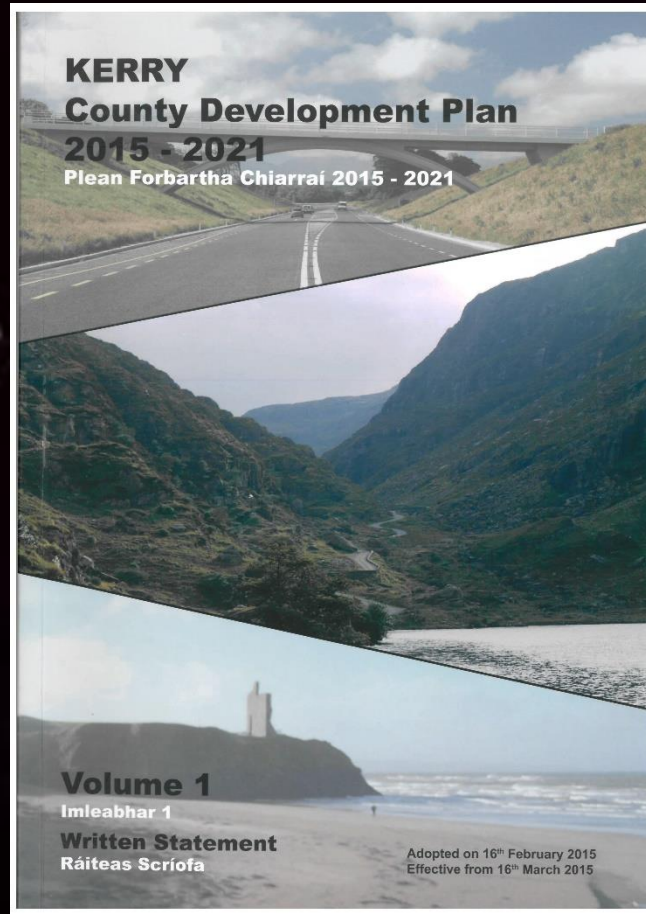
National Policy




Regional & County Planning



Regional & County Planning



10 Natural Environment & Flood Risk Management

Kerry County Development Plan 2015 - 2021

The following are flood risk management objectives of the Planning Authority to be adhered to as part of the Development Management Process.

Flood Risk Management

It is an objective of the Council to:-

NE-76

Ensure that development proposals which would be sensitive to the effects of flooding, or which would be located in flood prone or marginal areas are accompanied with Flood Impact Assessments, detailed Justification Tests and detailed mitigation measures within the context of the DoEHLG (2009) guidelines on Flood Risk Management.

NE-77

Ensure that developments, which in the opinion of the Planning Authority would have an unacceptable risk of flooding or which would result in an unacceptable risk of flooding elsewhere will not be permitted.

NE-78

Ensure that significant developments in upland areas, such as wind farm developments, roadway construction, peatland drainage and forestry proposals, provide sufficient storm water attenuation so as to avoid the occurrence of river erosion or flooding downstream.

NE-79

Support and facilitate Agencies in the sustainable provision of flood defences at appropriate locations throughout the County which are identified as vulnerable to flooding, including those identified in Catchment Flood Risk Management Plans (CFRAMS).

10.20 Kerry International Dark-Sky Reserve

International Dark Sky Reserves (www.darksky.org) are areas recognised as possessing an exceptional or distinguished quality of starry nights and nocturnal environment specifically protected for scientific, natural, educational, cultural, heritage or public enjoyment. The accreditation also means that a brand new branch has opened in the Irish Tourism Industry called Astro-tourism.

The Kerry International Dark-Sky Reserve (as the area will be known) measures approximately 700 km² and includes Kells/Folimore, Cahersiveen, Portmagee, Valentia Island, Dromid, The Glen, Ballinskelligs, Waterville and Derrynane/Caherdaniel.

Kerry County Council supports this project and where resources allow intends to replace the public lighting system throughout Kerry with a more energy efficient, money saving, dark-sky compliant lighting system.

Kerry International Dark-Sky Reserve

It is an objective of the Council to:-

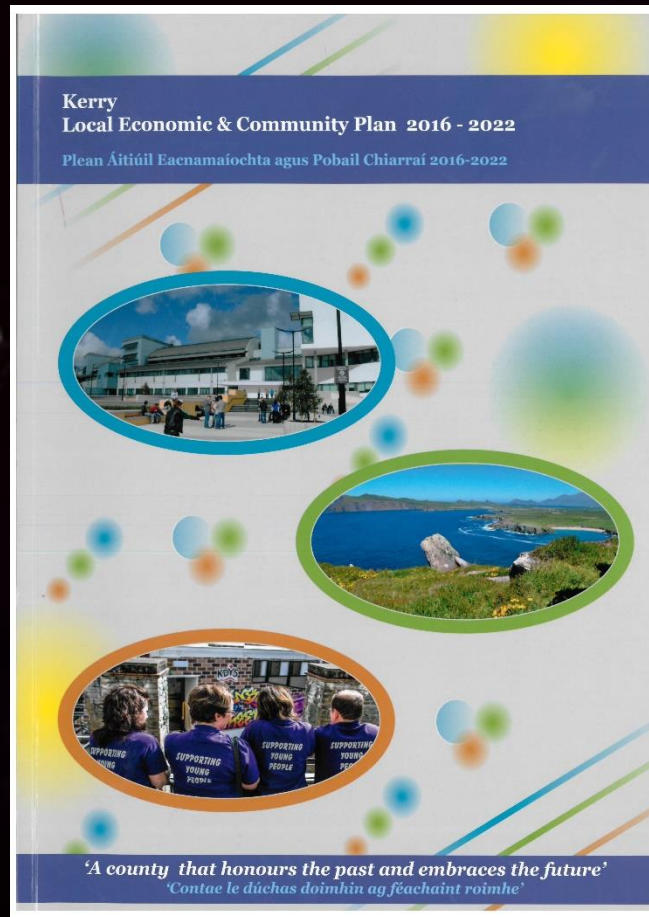
NE-80

Encourage measures to support the Kerry International Dark-Sky Reserve throughout the lifetime of the Plan.

Kerry County Development Plan 2015 - 2021	
Topic	Standards / Guidelines
Light Pollution	<p>The limitation of light pollution is important in the interests of nature conservation, residential amenity and energy efficiency. External illumination shall be minimised taking into account the minimum required for security and health and safety; therefore all external lighting:-</p> <ul style="list-style-type: none">• shall be properly cowed and directed away from the public roadway and shall also not be visible from any point more than 200 metres away from the light,• shall not point upwards,• shall be sensor controlled,• shall be energy efficient,• shall be sensitive to protected species, where applicable.• <u>shall take account of the 'Campaign for Dark Skies' issues where appropriate.</u>
Management Agreements/ Company	<p>For development where there are two or more dwellings that share infrastructure the developer shall be required to establish a management company for the upkeep and maintenance of the development (two or more houses and/or access road is defined as a housing estate). The management company shall remain in place until the development is taken in charge by the Council. Procedures for taking in charge are detailed in Circular letter PD 1/08 issued by the Department of the Environment, Heritage and Local Government and in Kerry County Councils 'Policy on taking in charge of housing estates' (2008).</p>
Noise Pollution	<p>Noise pollution has become an increasingly important issue as it affects quality of life and also has health impacts. The Council will require applicants to reduce noise and/or vibration at site boundaries or within adjacent sensitive areas, especially residential areas, by measures such as layout, design and/or attenuation mechanisms.</p>
Peat Extraction	<p>A number of strategies/plans are being prepared nationally in relation to bogs, namely <i>A National Raised Bog SAC Management Plan</i> by the Department of Arts, Heritage and the Gaeltacht and a <i>Peatlands Strategy</i> by The Peatlands Council. The Council will have regard to these strategies/plans.</p>
Playgrounds	<p>Proposals for development for playgrounds will be determined with regard to the Kerry County Councils publication 'Developing Play in Kerry' and EN1176 (the European Standard for playground equipment).</p>

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Regional & County Planning

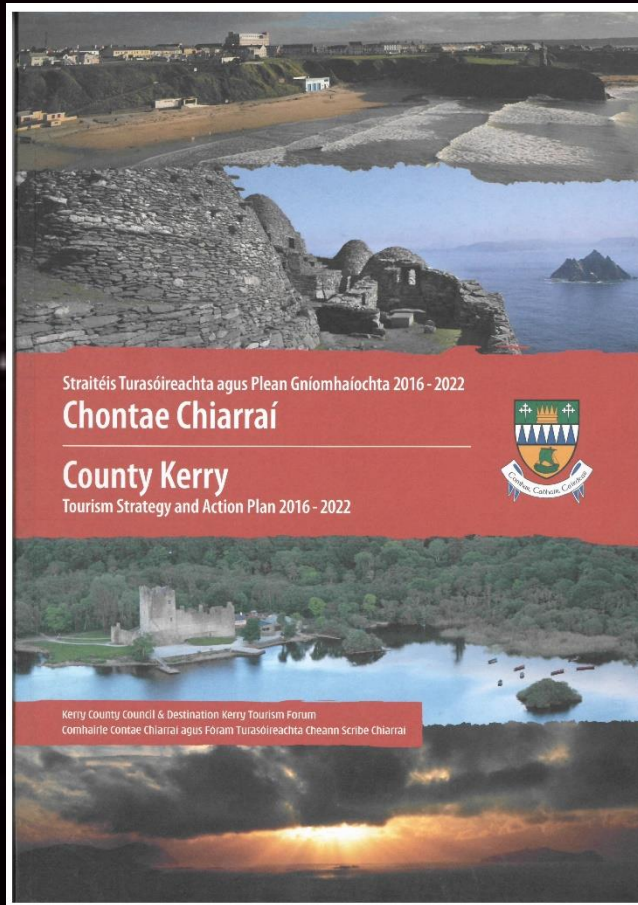


A county that honours the past and embraces the future

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High Level Goal: 2.1							
To work with stakeholders in order to protect the landscape and natural environment of the county as a major economic asset and an invaluable amenity which contributes to the quality of people's lives.							
Sustainable Objectives	Community Development	Actions		Lead	Partners	Outcome	Delivery Timeframe
2.1.2	Protect the rich biodiversity and vulnerable natural areas of the county by implementing the objectives as set out in chapter 10 of the Kerry County Development Plan	2.1.2.1	Objectives NE1 to NE 80 in the following areas:- Designated Conservation Areas Legally Protected Plant and Animal Species Water Services Water Quality Waste Water Treatment Features or Areas of Geological Interest Wetlands Ecological Corridors Riparian Buffer Zones Woodlands and Trees Community Woodlands Green Infrastructure Urban Ecology Habitat Loss and Fragmentation Invasive Species Biodiversity Marine Integrated Coastal Zone Management Coastal Development Coastal Protection Beach Protection Coastal Squeeze(see Acronyms & Glossary) Flood Risk Management and Sustainable Planning <u>Kerry International Dark Sky Reserve</u>	KCC	PPN, An Taisce Local communities, TK, KEEP	Procedures in place to protect the landscape and natural features of the county	ongoing

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1.3 Astro Tourism

Project	Time Frame	Financial Scale €, €, €, €	Lead	Partner
131				

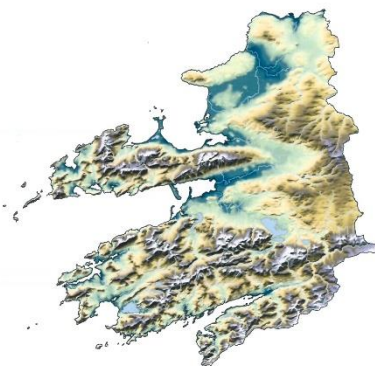
1.3 Astro Tourism

Project	Time Frame	Financial Scale €, €, €€€	Lead	Partner
1.3.6 Provide training opportunities for those in the hospitality industry in astronomy and develop a team of accredited 'night sky' guides.	Short Term	€	KCC, Fáilte Ireland, UCC, CIT, KETB, IT Tralee, Local Communities	KCC, Fáilte Ireland, UCC, CIT, KETB, IT Tralee, Local Communities, SKDP
1.3.7 Support the provision of a Mobile Observatory and/or installation of observatories, at appropriate locations, within the Dark Skies Reserve. This action is to be investigated further at Municipal District Local Area Plan preparation level.	Medium Term	n/a	Fáilte Ireland, KCC	Fáilte Ireland, SKDP, Údarás na Gaeltachta, Local Communities, ACARD
1.3.8 Carry out a Dark Skies assessment for other potential areas of the county. Investigate the possibility of other IDA Designations.	Medium Term	n/a	KCC	SKDP, NEWKD, Fáilte Ireland, SEAI

Regional & County Planning



Coiste Forbartha Pobail
Áitiúil Chiarraí
Kerry Local Community
Development Committee



Rural Development Programme 2014 – 2020 - Ireland
European Agricultural Fund for Rural Development (EAFRD)

County Kerry

LEADER
Local Development Strategy



NEWKD
New Kerry Development Partnership



I.R.D. Duhallow Ltd.

4.1.7 Rural Tourism – Strategic Action 1.1.b

Rural Tourism – Strategic Action 1.1.b Capital & Marketing.

Brief Description of Strategic Action:

This action will provide Rural Communities and businesses with capital and marketing supports to enhance the rural tourism infrastructure in a sustainable manner, develop new tourism products and services and support entrepreneurship and business development. It is underpinned by the aim that all supports envisaged under this strategic action will ultimately seek to protect the natural environment.

Recreation and Amenity Tourism: Support for the development of marine tourism and water based activities, walks and cycling trails, camping and camper parks at appropriate locations. Seek to have Government and EU support for a 'farmer's dividend' under the REPS or similar schemes for landowners who provide free access to their lands for walking and cycling.

Festivals and Events: Maintain and develop community festivals and events and support collective marketing of smaller festivals.

Culture and Heritage Tourism: Development of heritage trails and craft and food trails at appropriate locations.

Eco Tourism: Support existing and new tourism providers develop their product into Eco Tourism businesses and develop eco based tourism products such as angling, bird watching, whale and dolphin spotting.

Wild Atlantic Way: Provide a range of supports including capital and marketing for communities and businesses to develop and enhance their product offering and develop new ideas that will optimise on opportunities presented by the Wild Atlantic Way and enable communities grow jobs locally.

Astro-Tourism: Support for ongoing development of the International Dark Sky Reserve and optimising spin-off opportunities for the development of local businesses.

Agri-Tourism: Encourage and support the development of on-farm agri-tourism based projects.

Tourism Networks & Clusters: Provide a range of marketing supports to local tourism clusters/networks to support and further develop the marketing, branding, promotion and destination building of their regions.

Primary Target Group:

Local Entrepreneurs, Tourism Businesses, Community groups, Walks Committees, Farmers, Tourism Networks & Cluster Groups, Culture and Heritage groups.

Geographic Area:

Co. Kerry - (See also 4.1.32 - 4.1.36).

Organisation who will deliver Action:

This strategic action will be delivered by the LAG implementing partners, South Kerry Development Partnership Ltd, North, East & West Kerry Development Ltd and IRD Duhallow. Each implementing partner will deliver the action in their respective geographic areas.

Collaborating Organisations:

Kerry County Council, Fáilte Ireland, Forestry Service, Coillte, Go Kerry, Destination Kerry, LAG member organisations and agencies, Local tourism networks & clusters.

Timeframe for Delivery of Action:

Q2 2016 - Q4 2020

Programme Indicators & Targets:

Regional & County Planning

Skellig Coast Visitor Experience Development Plan Plean Forbartha Chósta an Sceilig ar Eispéireas Cuaireora



FINAL December 2016

Recommendations Moltaí

D. Ocean Meets Sky at the Edge of the World

Buaileann Aigéan le Spéir ar Imeall an Domhain

D1. Find Nature's Window to the Past (Dark Skies) / Aimsigh Fuinneog Nádúr Chuig an Am Atá Caite (Spéartha Dorcha): For many, the idea of Dark Skies is inspiring, but the opportunity to experience the feeling is missed. Small steps are needed to help guests see beyond the clouds and their current way of viewing the planets and stars, to allow them to appreciate an ancient storybook in the sky.

Recommendations

- D1.1 CATALYST 8: Deliver Dark Skies programmes for visitors and tour operators** with the local communities, and promote them in Ireland and internationally with the support of Fáilte Ireland and Tourism Ireland.
- D1.2** Examine the potential of **developing a mobile observatory in the short term and a permanent planetarium** in the longer term, and encourage the establishment of other observatories (including commercial sites), to enable night sky viewing across the region.

D2. Feel the Power of the Edge / Mothaigh Cumhacht an Imeall: This could possibly be viewed as the most successfully delivered signature experience on the Skellig Coast at present, as there are numerous products and business operators already delivering this. In order to lift this experience, the next step will be to link the landscape to the story of the people to create journeys and moments of reflection.

Recommendations

- D2.1 Package new walks** in line with international best practice to **extend the Kerry Way concept** and to promote trails of high cultural significance such as the Kimego Forest Walk and Cnoc na dTobar.
- D2.2** Examine the potential of the sustainable development of a **network of Blueways**, both coastal and inland, including Cahersiveen to Knightstown and Portmagee.
- D2.3** In consultation with stakeholders examine the potential of the **lighthouses on Skellig Michael and at Cromwell Point** and connect the **Lighthouse families with the Knights of Kerry story** and the fishing industry of the region.

D3. Have an Up-close Marine Encounter / Blioth Dlúth-theagmháil Mara Agat: With marine encounters rapidly evolving into experiences of 'surprise and delight', new products and places are needed to further develop this experience.

Recommendations

- D3.1 CATALYST 9:** Examine the potential of delivering a **Sea/Wild Atlantic Centre** that is dedicated to the sea based in Waterville and a **Marine Education and Citizen Science Facility (WEAVE)** in Cahersiveen.
- D3.2 CATALYST 10:** Support the continued operation of a **marine eco-tour from Portmagee, Cahersiveen or Valentia Island** as an alternative or addition to the Skellig Boat journey (including Puffin Island and the Kerry Cliffs), and to Beginish Island and Knightstown.



Other Dark Sky Actions by Council

- Hosted Dark Skies Information Day in Cahersiveen. Speakers included Brecon Beacon Dark Skies Team from Wales. 120 local people attended.
- Organised UCC accredited star gazing guide courses for locals in 2016 and 2017. 60 people now accredited.
- Have retro-fitted public lighting in all villages within dark sky reserve with dark sky compliant lighting. This work will continue in 2018 and 2019.
- Set up expert working group to develop a mobile observatory as a *shared resource* between communities within the Dark Sky Reserve.
- Supported numerous events – Skellig Star Party, Messier Marathon, Visit of Vatican Astronomer, media visits.



Graduation Ceremony of Star Gazing Guides in UCC, 26 April 2016


County Planning – changed approaches

The Tourism Unit, Kerry County Council and
the Destination Kerry Tourism Forum
WELCOMES YOU TO

STAR POWER

Astronomy Course
Organised by University College Cork
& Cork Institute of Technology

26th to 28th February 2016



Skellig Star Party

Europe's Darkest Skies

SCHEDULE 2016



MESSIER MARATHON

Charles MESSIER catalogued
110 night sky objects in the 1700s

Join top notch astronomers attempting
to observe them all in one night
in the Kerry International Dark Sky Reserve

Keynote speaker Dr Matthieu Husson of the Observatoire de Paris
Planetarium Shows from CIT Blackrock Castle Observatory
Astronomy Equipment Stand with Itec Telescopes.
Special deals with Hostels Guest House and Hotels.

MARCH 24TH/25TH 2017

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IMMERSE YOURSELF IN DARKNESS ON THE EMERALD ISLE

Those seeking to look deep into the night sky, free of light pollution, can find sanctuary not far from the UK in south-west Ireland at the Kerry International Dark-Sky Reserve. **Greg Smye-Rumsby & Rachel Lovera** report

Orion stands magnificent against a truly dark background, revealing faint stars not normally seen by the naked eye from many locations. Image: Gareth Loughran (www.flickr.com/photos/garethloughran/)



A new high-tech all-weather observatory is due to hit the road in Kerry giving visitors the chance to experience presentations on the dark-sky environment. Amateur astronomer George Doyle (above) has photographed the area's skies extensively.

Mobile observatory aims to be star tourist attraction

Project hopes to take advantage of Kerry International Dark-Sky Reserve

ANNE LUCEY

Plans for a one-off mobile observatory, the first of its kind in Europe, are under way in Kerry. The observatory would operate day and night in all weathers, and could be moved throughout the 700sq km Kerry International Dark-Sky Reserve.

While thousands of tourists arrive to catch a glimpse of the jagged monastic island of Skellig Michael because of its role as a location for the *Star Wars* films, hundreds are now also feeling the force of the Skelligs area because of its status as an international gold-standard dark-sky reserve – the only one in the northern hemisphere, and one of only three in the world.

It received the accreditation in early 2014 from the International Dark Sky Association, based in the US, after submissions by local astronomer Julie Ormonde, who is based in Waterville.

Backed by mountains and stretching towards the sea, the area from Kells Bay to Smeragh and out into the Atlantic as far as Skellig Michael, the Kerry International Dark-Sky Reserve has rare night-sky clarity and is the least light-polluted in the world, the association found.

Now a high-tech all-weather mobile observatory is under way, with UCC's department of physics, the European Space Agency and the Irish Astronomical Society all making an input.

The national tourism agency Fáilte Ireland is promoting it too, as it says astrotourism is a growing area, with more city dwellers wanting to see the constellations.

The tourism section of Kerry County Council has set the provision of a mobile planetarium as "a key objective" to achieve before 2022.

Cost-effective

There had been plans for permanent planetariums in Valentia island at the end of the Leishen peninsula and along south Kerry. However, the benefit of a mobile observatory was that it would move around from Portmagee to Kells to Knightstown

and thus be cost-effective, according to Steve Lynott and other locals who are helping to develop the dark-sky reserve.

"There is growing awareness of the whole dark-sky thing, of eliminating light pollution and such," said Mr Lynott. There is no major city or town in that part of south Kerry, only ocean and sky, and it is "a pristine environment" for observing the skies, he said.

UCC-accredited weekend courses introducing astronomy and involving archaeology have been held this year on Valentia Island.

On March 25th and 26th, a weekend of a new moon, the reserve played host to 160

international stargazers for a "Messier Marathon" – an attempt to log all 110 planetary objects catalogued by the French astronomer Charles Messier in the 1700s.

Council executives announced the council's involvement in the observatory in a short report to council members this week. It will be able "to operate in all weathers and during the day as well".

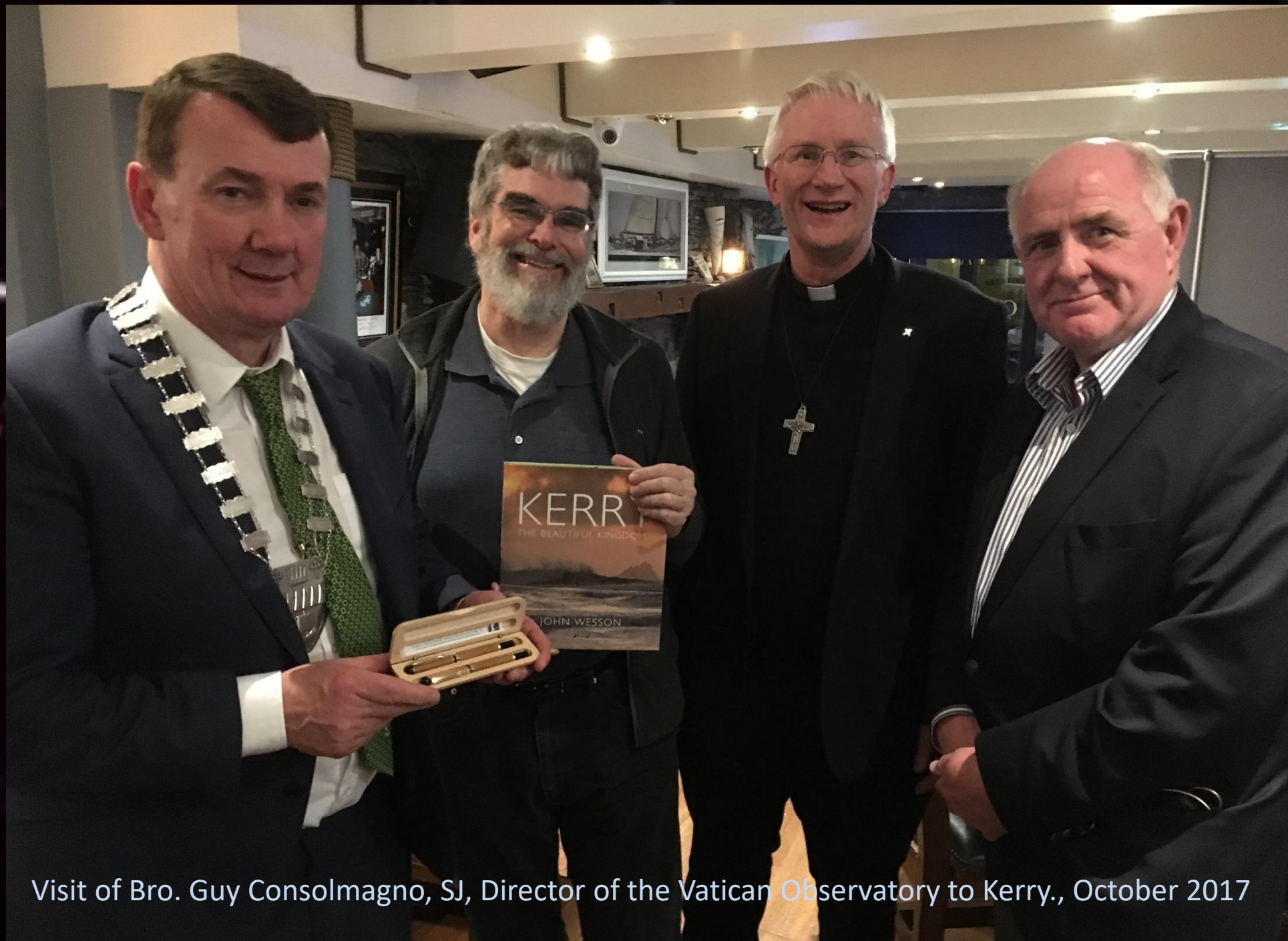
'Astro-tourism'

"It will be the only such facility in Europe and give the Kerry dark-sky reserve an advantage over competitor astro-tourism destinations," the council said.

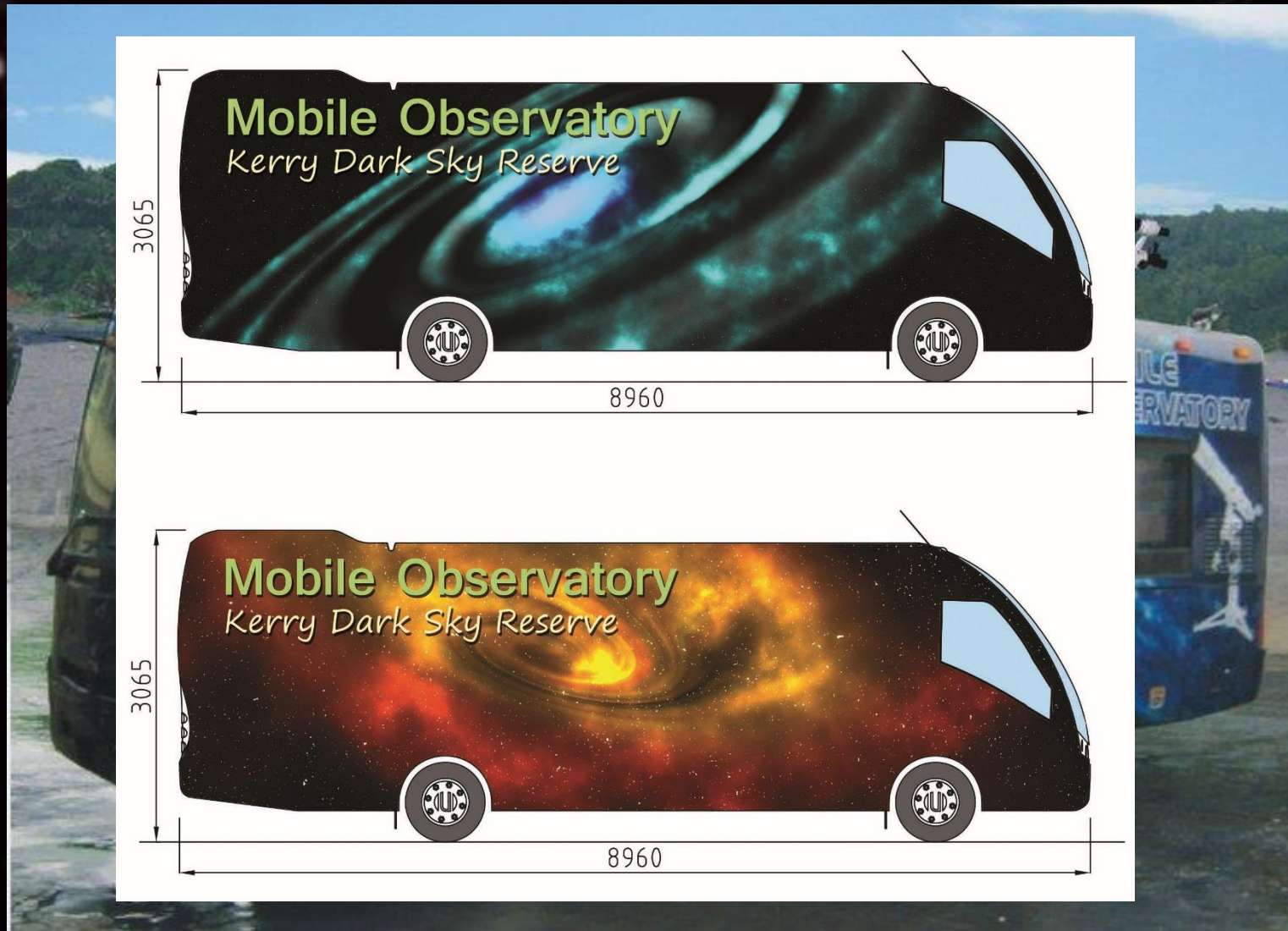
Exactly what the mobile

planetarium will look like has not yet been fully determined, but it will be more than the average rural library van. The next stage is a detailed design of the vehicle, business plan and application for grant support.

"The concept would be similar to a tour bus with an extending body and a sliding roof. When parked it would be locked to ground for stability while using telescopes and it would have audio-visual and remote will access to online scopes and activities. Attendees would enjoy an ability to sit in a modern vehicle while experiencing presentations on the dark-sky environment," Mr Lynott said.

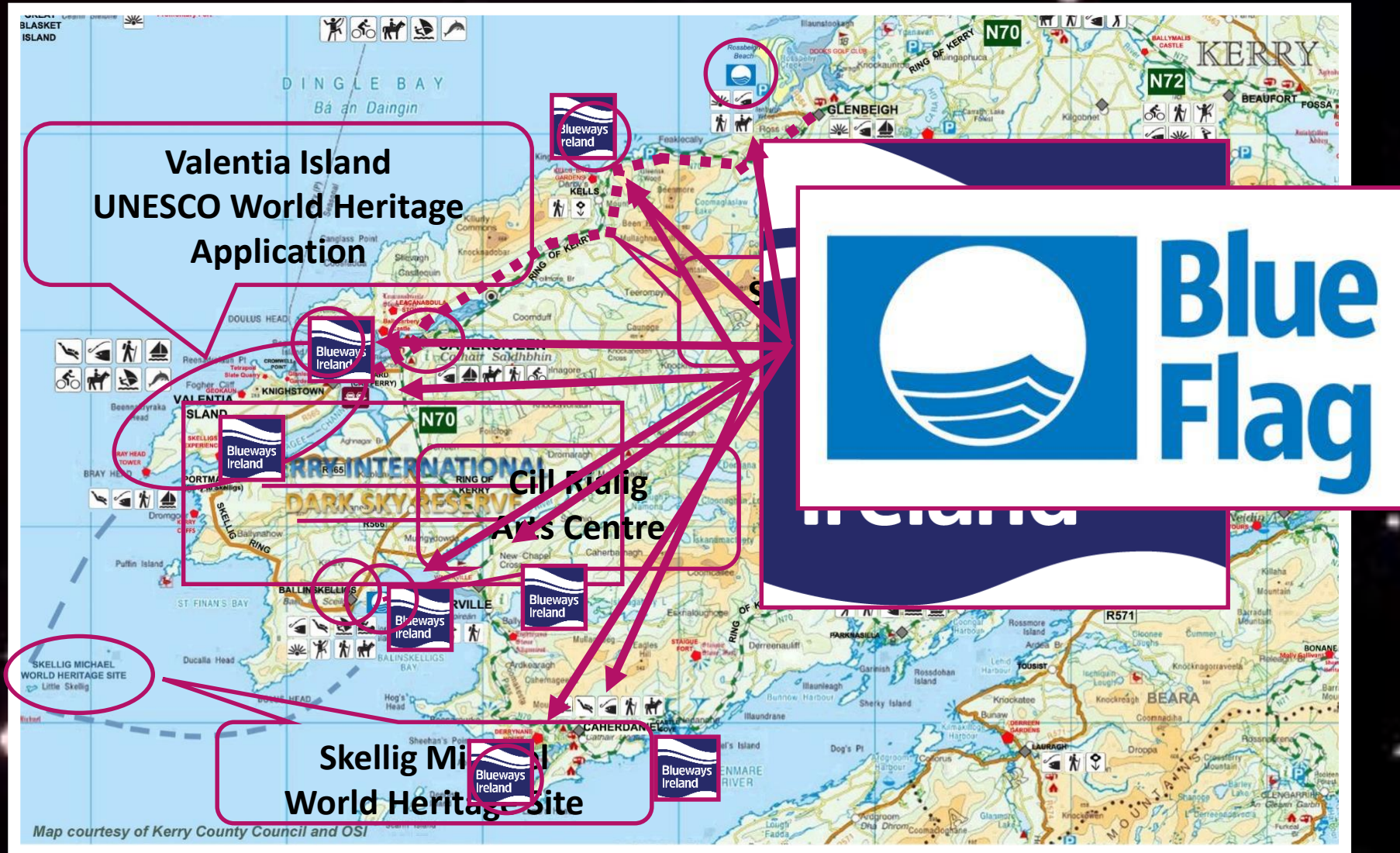


Visit of Bro. Guy Consolmagno, SJ, Director of the Vatican Observatory to Kerry., October 2017



Mobile Observatory

Other Kerry County Council Initiatives in Skellig Region



Ingredients for Success

- Identify Product Gap and provide Unique Offering
- Be ambitious. Think outside the box!
- Strong Community Involvement
- Strong Elected Member Support
- Cultivate Relationships with Community Groups, State Agencies, Third Level Institutions, Expert Groups in Ireland and overseas.
- Shared Vision
- Staffing and Resource Commitment by Council .. coupled by
- Resource commitment by Partners



Gura Maith Agat

THANK YOU