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Department of Communications,
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**Geological Survey of Ireland Research Programme
- Short Call 2015, Final Report -**

Name of Lead Investigator	Maxim Kozachenko
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Organisation name	Geocoast Research Centre Ltd
Organisation type:	☐ HEI ☐ Public Sector (other) ☒ Private Sector
Department/section	

Project Title	Geocoast guide to the Wild Atlantic Way (A guide to coastal geology and landscapes of the Wild Atlantic Way)
Contract No.	2015-sc-010



2. Project information:

Title of project	GEOCOAST guide to the Wild Atlantic Way (A guide to coastal geology and landscapes of the Wild Atlantic Way)
Did you make any formal amendment to the project work plan/budget?	yes ☐ no ☒ If yes, please specify:

Project Report (max 1500 words, excluding figures and headings):

(i) Objectives and scientific/engineering targets beyond the state of the art

The main objective of the project was to produce a printed pocket size book entitled "GEOCOAST guide to the Wild Atlantic Way" (Figure 1). This objective has been achieved by means of desktop research / GIS work and fieldwork along the Wild Atlantic Way tourist route (Figure 2). The western coast of Ireland has been investigated in detail and places interesting from the geological and geomorphological point of view mapped, photographed and described.

This book is building on and complementing existing initiative of the Wild Atlantic Way (<http://www.wildatlanticway.com/>). It is envisaged that it will contribute towards dissemination and outreach of scientific knowledge in the area of coastal and marine geology / geomorphology / processes to a wider audience including millions of tourists visiting Ireland every year and people living in Ireland - thus, raising peoples' awareness and appreciation of Ireland's natural/geological heritage and the rich and exciting geological history of this island.

Selected sample chapters from the guide have been submitted for peer review to Cork University Press (CUP) in April 2016. The review of these materials have been completed in October 2016. One of the reviewer's comments stated: *"It is a potentially important contribution to the modest range of books written about geology and the landscape that are for the public at large."*

Regarding the potential market for the new book - reviewer's opinion was as follows:

"If the right level of plain language is reached and the presentation of the book made attractive then I see no reason why it could not be a very popular title (if priced right). Tourists wanting both a guidebook and a souvenir might select this title. The Irish audience could be wide ranging from the many people with a general interest in their landscape, to hillwalkers and surfers. I would expect there would be an audience of specialists amongst the geological community who would also value the book, and a range of student fieldtrips that would appreciate it, but the prime audience should be others."

Following the review process, Cork University Press has agreed to publish this book and a contract for publication signed in November 2016. The book is now being prepared for publication and will be published in 2017.

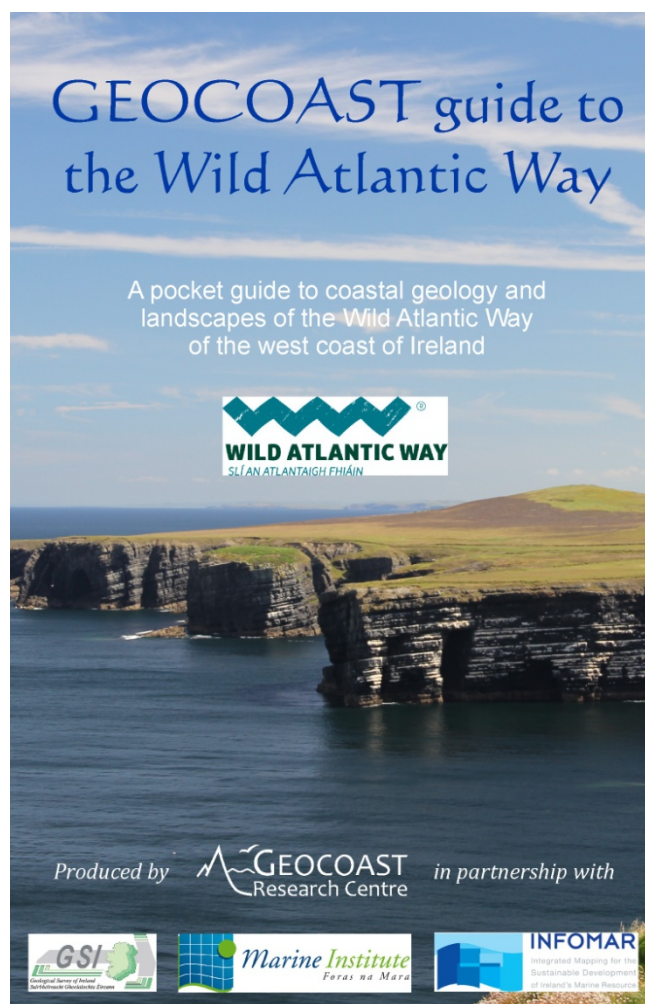


Figure 1: Provisional book cover of the pocket size guide produced by the current project. Book type: paperback; Page size: 198 x 128mm; c.176 pages.

Another objective of the project was to produce a number of FREE brochures with site specific information for selected places of interest dealt with in the guide. These will be printed in substantial quantities and distributed along the Wild Atlantic Way route. This will be done in few phases

between 2017-2020 in accordance with WP 5 of the project proposal.

Therefore, the project will contribute towards dissemination and outreach of scientific knowledge in the field of coastal and marine geology/geomorphology to the broader public. When published, the book and free brochures will improve the quality of people's holiday experience in Ireland and will be of use for students of Irish and foreign universities who are brought to the west coast of Ireland on their fieldtrips.

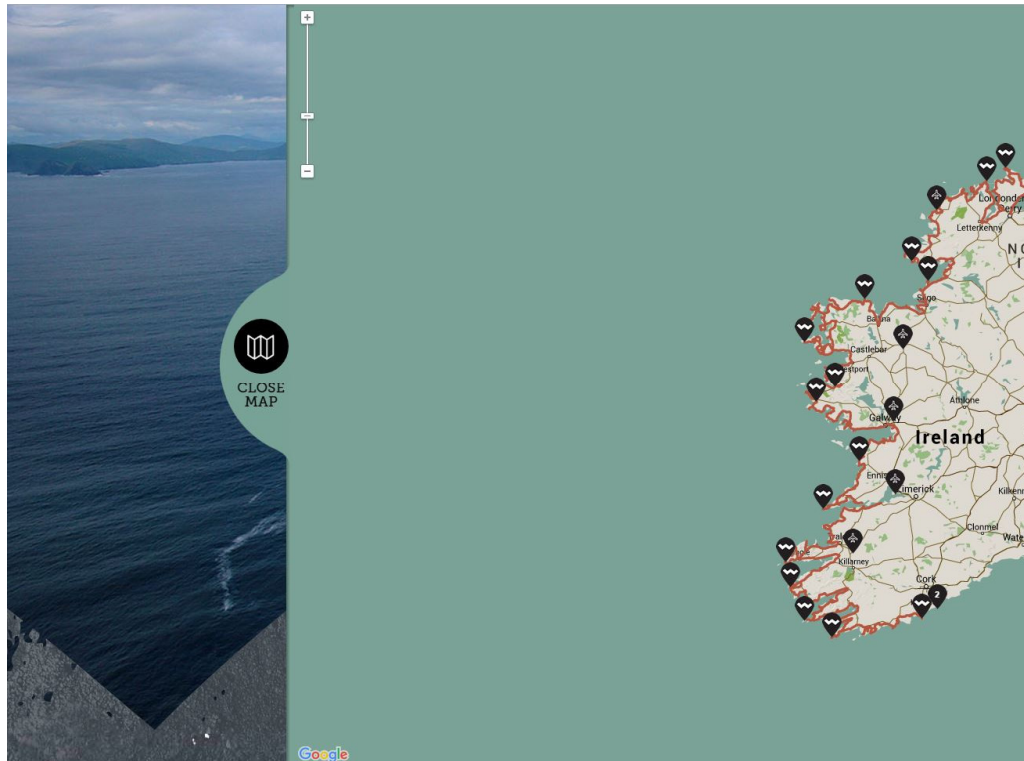


Figure 2: Screen grab from the <http://www.wildatlanticway.com/> showing the extent of the Wild Atlantic Way. For a more detailed map showing distribution of discovery and signature points refer to the poster in Appendix 2.

(ii) Implementation (including reference to timelines, milestones, management)

The project was undertaken in a number of stages as outlined in the project proposal mainly adhering to the proposed work plan.

The book will be published as paperback (page size 198 x 128mm [which is a common and convenient size for travel guides]; c.176 pages) with the following structure:

Table of Contents

1. Introduction
2. Map guide
3. Geological timescale
- 4 - 54. Chapters describing interesting from geological point of view locations along the Wild Atlantic Way.
Each chapter c.2-4 pages including maps and photographs
55. Geology and geomorphology basics
56. Illustrated dictionary of geological and geomorphological terms
57. Bibliography
58. Index

When travelling along the Wild Atlantic Way people will discover many interesting places, which have very high natural heritage value. This book will allow the reader to see beyond the scenery and get a fuller understanding and appreciation of the geological, geomorphological and environmental processes, which played a role in shaping the landscape around us.

This guide includes maps showing locations of places of interest described in this book and of the local and regional geology, GPS coordinates for each site, photographs and informative, but not overly lengthy or academic, text treating the coastal landscapes from a perspective of Bedrock and Quaternary geology (e.g. plate tectonics, rock types and how they were formed and placed in the current position, etc.) and environmental processes (e.g. glacial/interglacial, weathering, storms, human activities, etc.) that consequently shaped them.

All photographs illustrating landscape and geological features along the Wild Atlantic Way have been taken specifically for this book during extensive fieldwork. All photograph have been geo-referenced and many of them annotated (Figure 3-5).



Figure 3: A view at the tip of the Old Head of Kinsale, Co. Cork from a view point 2.

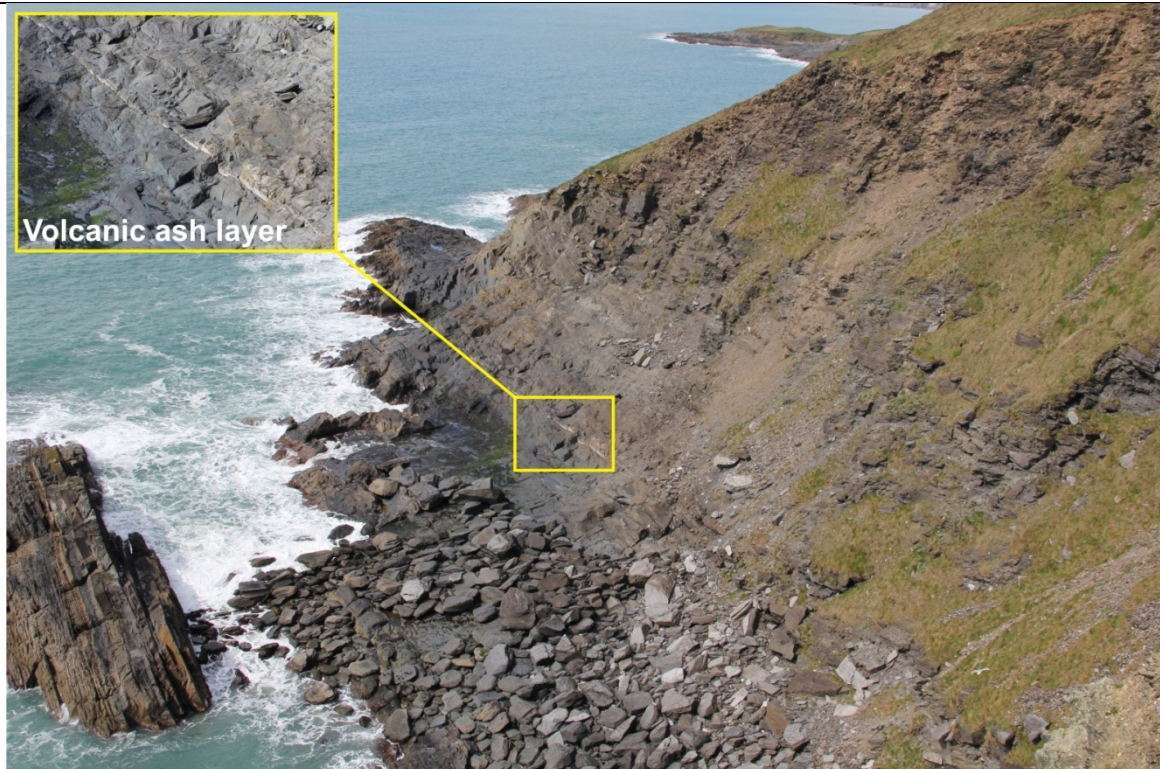


Figure 4: Volcanic ash layer visible at low tide as a white stripe from a view point 1 shown on Figure 3.

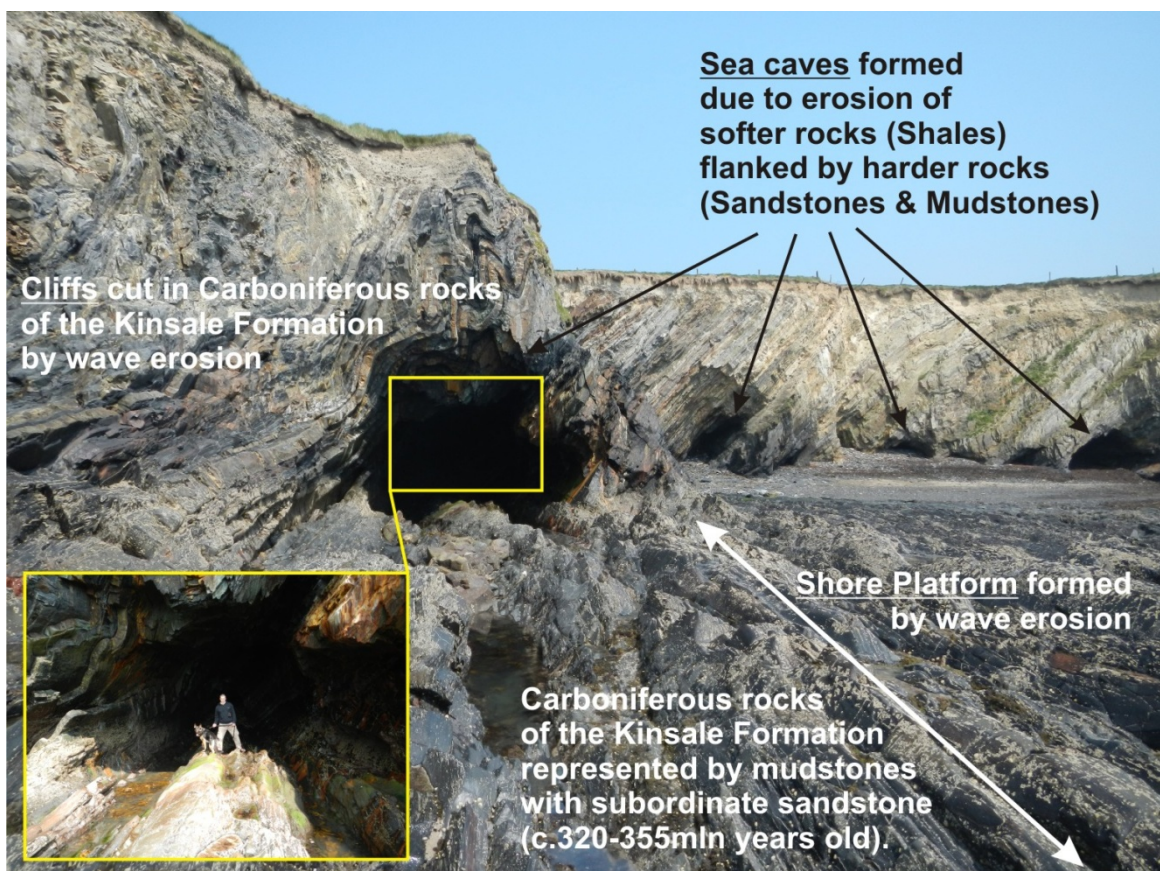


Figure 5: Sea caves formed in the lower part of the cliffs at the Old Head of Kinsale, Co. Cork, Ireland. Also note shore platform exposed at low tide and rock cliffs.

The first edition of the FREE (A4 folded in three) brochures with site specific information for selected places of interest dealt with in the guide will be published at the same time as the first edition of the book as they are aimed to promote the new book. The consequent editions of free brochures will be published in phases during 2017-2020 as specified in the project proposal.

(iii) Outputs (please use bullet points)

- **Printed pocket size peer-reviewed guide book** (page size 198 x 128mm; c.176 pages) to coastal geology and landscapes of the Wild Atlantic Way with maps, annotated photographs, diagrams, GPS coordinates of places described and informative easily understandable by non-professional readers text. The book is currently under contract with Cork University Press (CUP) and will be published in 2017.
- In addition to the printed version of the book it will also be converted to and sold as **e-book**, which could be downloaded and viewed on a variety of platforms including tablets and smart phones.
- **FREE printed brochures** (A4 folded in three printed full colour on 170gm gloss paper) with site specific information for selected places of interest dealt with in the guide. These will be printed in substantial quantities (1000s) between 2017-2020 and distributed along the Wild Atlantic Way route in accordance with *Work Package 5: Dissemination and outreach*, therefore, promoting GSI/INFOMAR and the new book, which will be available to purchase online and at bookshops nationwide.

Impact/value of the project (Max 500 words):

The project's outputs will benefit community including people of Ireland (e.g. students, walkers, holiday makers, nature enthusiasts, sailing enthusiasts and policy makers...) and from other parts of the world (e.g. tourists, students, tour operators...). The project's outputs will promote the Geological Survey of Ireland / INFOMAR as it will be clearly stated that the book and free brochures have been produced with their support. It also has the potential to raise interest towards geology of Ireland among a wider international community, which has the potential of increasing the number of tourists coming to Ireland and the number of international students studying at Irish Universities. It will also be possible to use this guide as supplementary textbook by students who are brought on their fieldtrips to this part of the world - which is a very popular destination among both Irish Universities and internationally.

Appendix 1 – Publications & Presentations:

Kozachenko, M. (2016) GEOCOAST guide to the Wild Atlantic Way. Geoscience 2016 conference, 2nd November 2016, Dublin.

Kozachenko, M. (in prep.) GEOCOAST guide to the Wild Atlantic Way. Cork University Press. Page size 198 x 128mm; c.176 pages.

Appendix 2 – Any additional information not included above: poster presented at Geoscience 2016 conference, 2nd November 2016, Dublin.

GEOCOAST guide to the Wild Atlantic Way

(A guide to coastal geology and landscapes of the Wild Atlantic Way)

Dr Maxim Kozachenko, GEOCOAST RESEARCH CENTRE LTD






The **"GEOCOAST guide to the Wild Atlantic Way"** is a NEW pocket size guide book aimed at anybody visiting the west coast of Ireland from tourists travelling along the Wild Atlantic Way (launched in 2014) to students on a field trip or local people.

When travelling along this route visitors will discover many interesting places with high natural heritage value. This book will allow the reader to see beyond the scenery and get a fuller understanding and appreciation of the geological, geomorphological and environmental processes that played a role in shaping the landscape.

This guide includes **maps** showing locations of places of interest described in the book and of the local and regional geology, **GPS coordinates** for each site, **photographs** with added interpretation and informative text treating the coastal landscapes from a perspective of Bedrock and Quaternary geology and environmental processes that consequently shaped them.

It is envisaged that this book will contribute towards dissemination and outreach of scientific knowledge to a wider audience - thus, raising peoples' awareness and appreciation of Ireland's natural / geological heritage and the geological history of Ireland.

In addition to this guide that will be published in 2017, the Geocoast Research Centre Ltd has also prepared a number of brochures with site specific information for selected places of interest dealt with in the guide. These brochures will be printed and distributed FREE of charge along the Wild Atlantic Way route, therefore, promoting the new book, which will be available to purchase online and at bookshops nationwide.

This project has being supported under the *GSI Geoscience Research Programme (Short Calls) 2015*.



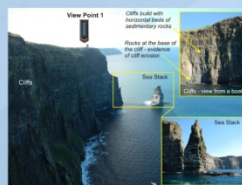
Table of Contents

1. Introduction
2. Map guide
3. Geological timescale
4. - 54. Chapters describing interesting from geological point of view locations along the Wild Atlantic Way. Each chapter c.2-4 pages including maps and photographs (presented here are some examples of graphics).
55. Geology and geomorphology basics
56. Illustrated dictionary of geological and geomorphological terms
57. Bibliography

The GEOCOAST YouTube channel is another initiative by the Geocoast Research Centre Ltd and supported by the INFOMAR programme. This channel aims to broadcast educational videos about Ireland's coastal and marine environments with particular focus on coastal geology and geomorphology. There will be a number of videos produced, which will be linked to the "GEOCOAST guide to the Wild Atlantic Way".

YouTube
<https://www.youtube.com/user/GEOCOAST>

The book is currently under contract with



Cliffs of Moher, Co. Clare, Ireland.



Loop Head, Co. Clare, Ireland.

Bedrock Geology Mapping by Geological Survey of Ireland
 World Ocean Base - Esri, DeLorme, GEBCO, NOAA NGDC, INFOMAR and other contributors

