1. Introduction
This document has been compiled in order to address gaps in the provisions set out in the current national marine planning framework baseline report under section 14.0 Marine Aggregates (MA) as one of the key sectoral activities described in the report.

It is now 10 years since the IMAGIN [1] project submitted the findings upon which section 14 is based. Whilst the basic resource maps and other key findings are still highly regarded and remain valid today, it is essential that attention is drawn to the current situation in relation to Ireland’s land-based aggregate supply chain, and the prevailing incentive to secure strategic supplies from offshore sources. This will place the IMAGIN findings in a contemporary context, expanding in particular on the key evidence and issues for delivery, ensuring that those with responsibility for guiding subsequent steps in the evolving MSP framework can proceed on a fully informed basis.

This submission has been compiled by the same UCC research team (now in MaREI and iCRAG) that conceived and carried out the IMAGIN study and has been informed through recent (2018) in-depth discussions with leading players in the Irish aggregates market, the Irish Concrete Federation, and leading aggregates consultants from SLR Ltd.

The future outlook for exploitation of MA in Ireland is strongly influenced by two key factors: the balance of demand and available supply in key (mainly urban) markets; and the nature and stability of the planning and consenting regime. Prior to the 2008 economic crisis, with Ireland’s aggregate requirement running at 30 times the EU average, a shift to MA appeared imminent. Following the readjustment of intervening years, recent economic trends and ambitious construction programmes coupled with ongoing investment in coastal protection infrastructure have led to renewed interest, and at least one national major aggregates supplier is actively pursuing this option through official channels.

It is important to recognise that whilst the IMAGIN project successfully delineated broad areas of high resource potential, this assessment was based on sediment samples, vibro-cores and expert interpretation of seismic profiles. In line with industry standard practice, the appropriate next step is to establish the consistency, quality and recoverability of these potential resources by conducting a well-monitored trial-dredging programme using commercial dredging plant. Such a trial is considered a vital next step in order to progress towards delineation of more specific areas capable of sustaining commercial extraction operations (e.g. workable deposits of concreting sands) within the broader areas defined under IMAGIN.

2. Current Supply Situation and Future Outlook
With the current high demand for construction aggregates in Dublin and Cork due to a resurgence in the building sector, securing access to certain grades of construction aggregate is becoming increasingly challenging. Existing local resources remain depleted since the pre-2008 construction boom as these supplies are non-renewable. There is a noted scarcity of “sharp” sand required for concrete products with available supplies being supplemented by crushed rock. This has further
negative implications since concrete products made with crushed rock fines require a higher cement content than concrete made using natural sand. The additional energy and CO₂ required for crushing must also be taken into account. These factors are now starting to impact on the availability and cost of supply of materials to the building sector. Rising construction costs are causing delays in projects and plans, with measurable impacts on the delivery of affordable housing, commercial space and infrastructure, all of which will contribute to financial instability and further budgetary inflation moving forwards [2]. The social and economic importance of establishing access to adequate long-term supplies of construction aggregate is widely recognised [3] [4], and should be seen as a vital step in securing several of the strategic development goals outlined in forward looking government policy [5] [8]. Bringing tangible logistical and sustainability benefits, marine aggregates are a well-established component of material supply chains in the EU and globally, where they form an important bastion against regional supply deficits [7].

3. Actions Required to Access Irish Marine Aggregate Deposits

The effects of Ireland’s sole reliance on land based aggregate deposits can be mitigated by realising a marine alternative [6], [7], [8]. This is in line with the vision set out in Harnessing Our Ocean Wealth [9]. Undertaking the proposed dredging trial is seen as an important step in establishing the key technical, economic and environmental parameters that govern feasibility of undertaking full scale commercial operations. The knowledge and experience gained will provide the essential body of evidence required to inform strategic decision making such as MSP for the developers, competent authorities, and other interested parties and stakeholders. The proposed trial will also enable any subsequent commercial operations to be optimised by focusing in on the most productive deposits, thereby maximising efficiency, and hence minimising spatial requirements and the potential for impacts on the environment and other marine users.

4. Specific Recommendations
   a. In the line with the forgoing we believe that direct actions to create a solid platform of technical and commercial knowledge to inform the development of Irish MA resources are essential in the near term (1-2 years), and that these should be regarded as vital inputs to the MSP process, and hence not be postponed awaiting its final outcome.
   b. We also believe that such action will provide an essential bridge connecting the marine resource with strategic aggregate mineral supply provisions that are included in development plans at Regional/County and Local Area level.
   c. We recommend that representatives of the main aggregate supply companies with an interest in developing MAs are given direct representation on the external National Advisory Group to the MSP process. The leading producers are in the process of forming a representative body (e.g. Irish Marine Aggregate Producers Association) that would be able to represent a unified joint industry position.
References


