

Interreg



2 Seas Mers Zeeën USAR

European Regional Development Fund

Using Sediment As a Resource



Regional Water
Authority of
Schieland and the
Krimpenerwaard



ARMINES
Research
Centre



Brightlingsea
Harbour
Commissioners



Flemish
Waterways



Westcountry
Rivers Trust



Westcountry
Rivers Trust

Introduction

The USAR project (Using Sediment As a Resource) aims to introduce technologies, methods and tools for the use of dredged sediments in novel ways by water managers across the 2seas area and beyond. This is a challenging aim because sediment is generally regarded as a 'waste' rather than a 'resource'.

This booklet features a brief overview of the key project outputs including three test pilots to validate new uses of sediments and an Inventory Catalogue that collates possible uses of sediment. Also a Recycling Strategy that supports sediment recycling plans, and a piece of software that shows water managers how to use sediment as a resource!

For more information on the USAR project go to: www.hhsk.nl/usar

This document has been brought together by the partners working on the Using Sediment as a Resource project. USAR is an Interreg 2 Seas project, part-funded by the European Regional Development Fund under subsidy contract No 2S01-065, running from 2016 to 2020.

Guido Verweij
Project Leader

“Legislation often blocks the reuse of dredged sediment, we make recommendations to improve legislative possibilities for recycling sediment.”

Regional Water Authority of Schieland and the Krimpenerwaard
Rotterdam, the Netherlands
More info: www.hhsk.nl/usar



Flemish Waterways
Flanders, Belgium

More info: www.vlaamsewaterweg.be/usar

“

We use 260,000m³ of sediment to renovate a flood plain whilst also restoring fresh water mud flats and marshes on the river banks.

”

Hans Quaeyhaegens
Project Manager



James Thomas
Harbour Master

“

We proved that waste sediment is suitable for habitat restoration and that this nature-based solution can be adapted anywhere in the world.

”

Brightlingsea Harbour Commissioners
Essex, UK

More info: www.brightlingseaharbour.org/commercial-activity/usar/

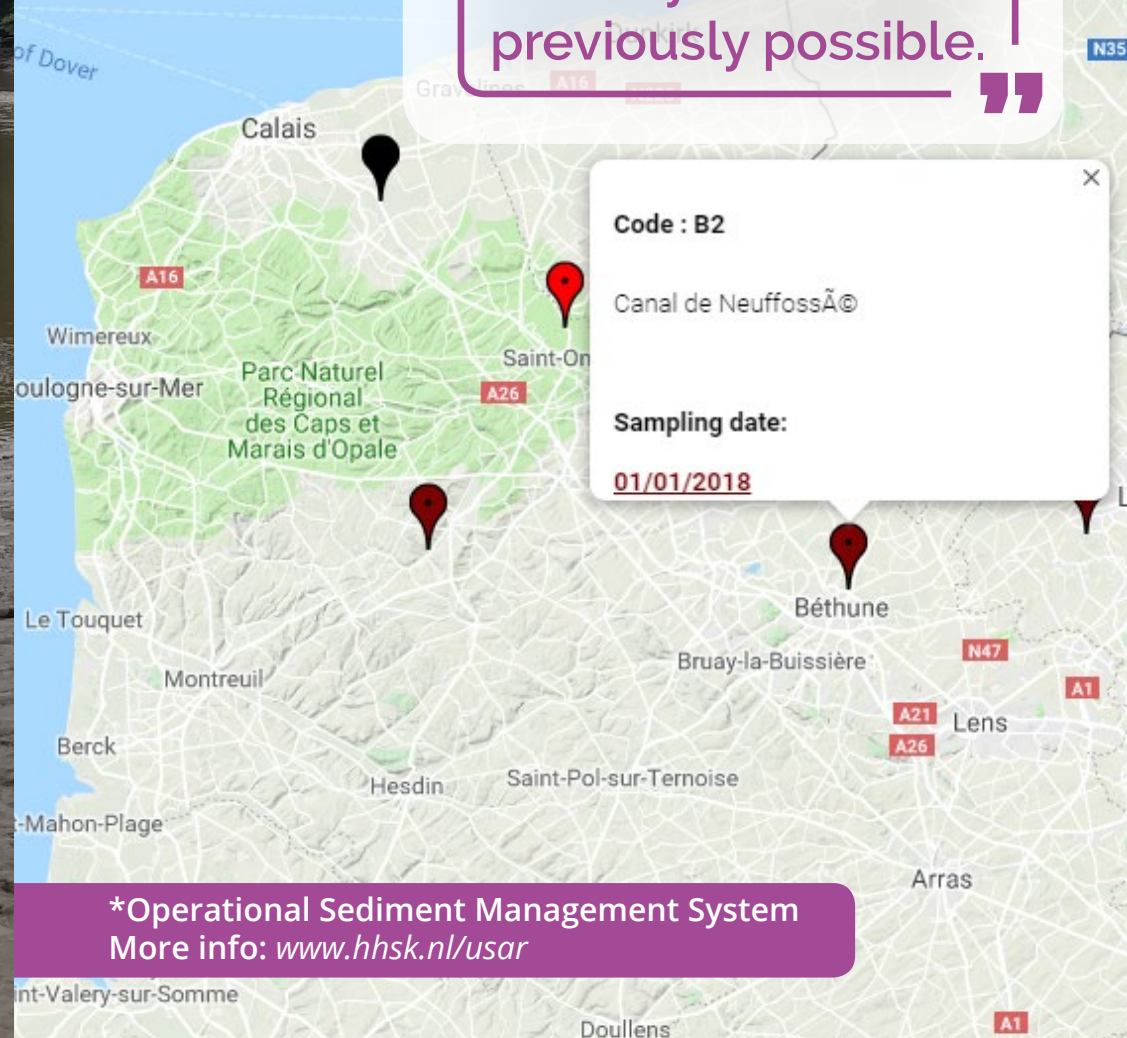
Westcountry Rivers Trust
South West England, UK
More info: www.wrt.org.uk/project/usar/

“ A sediment trap helping a farmer save 10 tonnes of fertile soil per year was successfully created, turning a potential waste into a resource. ”

Simon Browning
Senior Data &
Evidence Officer

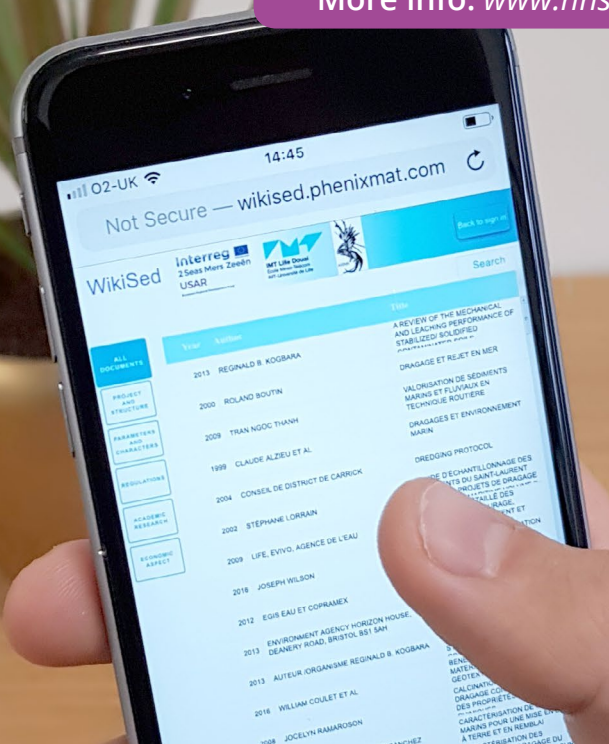
Prof. Mahfoud
Benzerzour

“ OSMS* is an original piece of software spear-heading valorisation of dredged sediments in a way that wasn't previously possible. ”



*Operational Sediment Management System
More info: www.hhsk.nl/usar

WikiSed
More info: www.hhsk.nl/usar



Simon Browning
Senior Data &
Evidence Officer

“ Our Sediment Recycling Strategy provides a strategic guide to sediment managers with options for more sustainable management of dredged material. ”

“ WikiSed constitutes a substantial source of information, knowledge and consultation documents dedicated exclusively to sediments all within a free database. ”

Walid
Maherzi

Sediment Recycling Strategy
More info: www.hhsk.nl/usar





Summary

The USAR project has jointly developed technologies, methods and tools for the use of dredged sediments. These were introduced and demonstrated to water managers across the 2seas area and beyond.

Although innovative methods and unique breakthroughs were delivered, the reuse of sediment as a resource remains challenging due to the legislative barriers. Efforts continue to be made to change mindsets from regarding sediment as a waste, towards a resource with potential end products with a monetary value.

The USAR outputs as described in this report are publicly available for all water managers and engineers to adopt into their routines. Future solutions to a sediment management problem can be developed with ease due to the tools and methods made available by the USAR project.

By employing the waste hierarchy, that prioritises prevention of sediment entering waterways a potentially becoming a waste, problems can be negated at an early stage. If sediment is present within a water course, the tools and methods developed within the USAR project can be employed to establish recycling and reuse plans.

Depending on the type of sediment and the local environment, this can be delivered through habitat creation, agricultural spreading, construction, flood defence works and much more.

The USAR partners welcome future collaboration and further development of methods and technologies, based on the USAR results. We look forward to hearing about your solutions!

Lessons Learned

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European Regional Development Fund

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www.hhs.nl/usar



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