The International Union of Railways (UIC) is the worldwide professional association representing the railway sector and promoting rail transport. UIC leads an innovative and dynamic sector, helping our members find opportunities and build success. The purpose of UIC's Ecological Effects of Railways on Wildlife (rEvERsE) project is to understand railway's role in the loss and gain of biodiversity and its habitats in Europe. It will seek to set out how railways can manage land in an ecologically sensitive way, providing solutions and best practice examples.

HS2

uic

ECOLOGICAL EFFECTS OF RAILWAYS ON WILDLIFE
REVERSE

UIC is seeking solutions and best practice to manage rail lineside in a way that can help **halt and reverse the loss of biodiversity**.

This poster provides information about Theme 5:
"Robust, cost-effective and safe methods for collecting data (to establish a baseline)"

UNITED KINGDOM

How HS2 uses integrated asset information management in a BIM environment.

THE SOLUTION

In January 2018 HS2 Ltd. took an important first step with the planting of 23,000 of up to 7 million trees along the first stage of the project in the West Midlands. By the end of the 2019/20 planting season this figure had risen to over 500,000 trees and shrubs. Before it comes into operation, Phase 01 of the HS2 Project intends to create around 650 ha of new woodlands, to provide new habitats, screen communities and blend the new line into the landscape. This huge task is fully integrated with the construction programme, utilising integrated Asset Information Management to efficiently collect and manage information throughout the build and operation of HS2.

Using BIM to achieve HS2 aims is enabled through integrated design, which, in turn, improves supply and construction coordination, and informs management and maintenance of assets throughout the Project's lifecycle. During Scheme Design, the efficient management of data within a
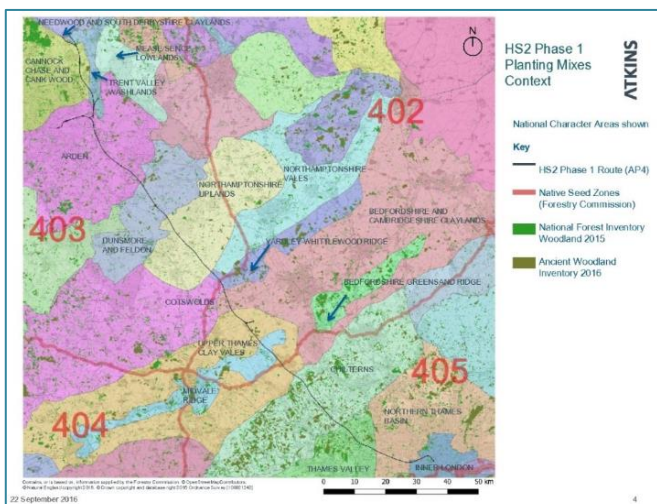
Common Data Environment has helped reduce potential impacts arising from construction by, for example, recording baseline information to minimise the loss of existing trees and hedgerows and validate the design decisions. Such benefits extend through the Detailed Design and Construction stages.

The quality of data capture and the use of a Common Data Environment to integrate datasets from across the environmental and engineering disciplines. This has improved early design decision making that influences land management. Cost efficiencies are delivered by enabling HS2 Ltd. to plan, construct and manage soils, landscape, and woodland assets throughout the lifetime of the project.

Outcomes

This baseline information enables efficient and stable transfer of design data between contractor's design teams. This data has been used to work with stakeholders to develop the Green Corridor strategy and of habitats, access and recreational opportunities that is delivering benefits to communities along the route which link up with those delivered by HS2.

Keywords: BIM, data collection

HS2 Phase 1 Planting Mixes Context
ATKINS

National Character Areas shown

Key
— HS2 Phase 1 Route (AP4)
Native Seed Zones (Forestry Commission)
National Forest Inventory Woodland 2015
Ancient Woodland Inventory 2016

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