

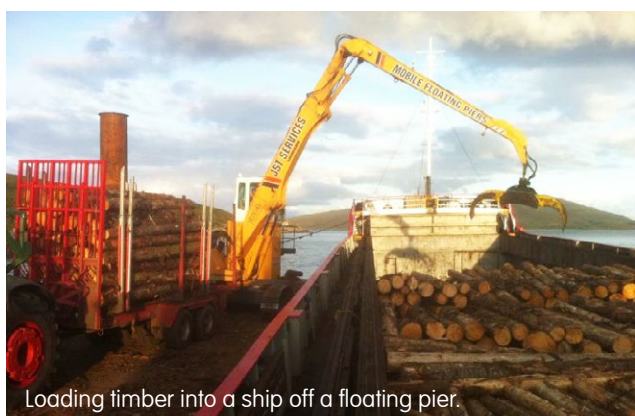


The JST floating pier being used to load timber on Raasay.

Improving timber transport case study

Rathad Mara and the Floating Piers

What?	Floating Pier infrastructure at Glen Etive Estate, Kingairloch, Eilanreach Estate
When?	2006–2009
Where?	Highland
Who?	Scottish Woodlands Ltd, Glen Etive Estate, Kingairloch, Eilanreach Estate
How much?	£285 871 (STTS £189 499)
Timber tonnage	270 000 tonnes over five years or 1.1m tonnes over 25 years



Loading timber into a ship off a floating pier.

Floating piers are making inaccessible coastal forests economically viable and taking lorry traffic off remote rural roads.

Rathad Mara and the Floating Piers

Not so long ago, when timber prices were depressed, many of Scotland's coastal and island forests were expected to be uneconomic to harvest. The long road haul to processors left little margin of profit and Highland Council had concerns about the impact of haulage on the minor roads and the villages en route.

Timber already goes by sea from larger harbours but the challenge was to get logs directly from isolated coastal forests onto boats. This had been done previously on a small scale, by beaching and loading old barges on sheltered shores and towing them out to deeper waters where boats could come alongside and load. A more efficient, larger scale system was required that could load boats more quickly.

In 2006 Scottish Woodlands submitted an application to the Strategic Timber Transport Scheme (STTS) for the Rathad Mara project to lease and trial a floating pier system at Eilanreach, near Glenelg. The STTS panel recognised the potential of developing floating piers but were keen that the system was properly tested. The proposal went through a process of revision and in 2008 was awarded grant support.

The project involved three sites in the north-west Highlands; Glen Etive, Kingairloch and Eilanreach near Glenelg. Each had substantial volumes of timber at the end of weak, minor roads. Eilanreach for example had 1700 ha of commercial forest with around 125 000 tonnes (5000 lorry loads) forecast over the subsequent five years. The road haul passes through the village of Glenelg then ten miles over the single track Ratagan Pass, climbing 1100 ft before winding back down to the A87 near Sheil Bridge. From there it is a further 60 miles or so to processors near Inverness or Fort William. It is a similar story at Glen Etive with a 12 mile haul up the glen to the A82 at Glencoe. From Kingairloch it is 16 miles to the Corran ferry and then across onto the A82 to Corpach.

The STTS funding was requested for the construction of shoreside infrastructure at each site, involving a few hundred meters of roading from the forest to the shore, a stacking area and a pier stub to which the floating piers could attach.

Map showing Floating Pier locations.



Two companies, JST (Floating Piers) Ltd and Boyd Brothers Haulage each took on the task of designing and building a new floating pier with financial support from the Scottish Government's Freight Facilities Grant.

The JST pier used at Eilanreach and Kingairloch involves a 70 tonne arch-backed linkspan that connects a barge to the shoreline infrastructure. Two legs drop down to the seabed, adjusting to the tide. The system takes a 40 tonne crawler tractor and crane that can load 1400 tonnes of timber at 100 tonnes per hour.

The pier stub at Eilanreach was deliberately low-tech, using four old shipping containers filled with rocks as the basis of the structure. This held together well for three years but suffered substantial damage during the severe Boxing Day storm of 2011, causing the linkspan to come away from the pier and cascade to the seabed. Fortunately it was not too badly damaged and, after repairs, the pier was operational again.

Rathad Mara and the Floating Piers

Boyd Brothers had used floating piers previously but designed a new model for the Glen Etive site.

By early 2014, the harvest from the three sites has been slower than expected with only half of the 270 000 tonnes shipped. However at the time of writing all the sites are still in operation and despatching timber by sea.

The floating piers have also been in action on other sites. The JST system has loaded timber onto boats on Raasay and Jura and had a brief stint covering for the Corran Ferry while the slipway was being repaired. A second unit has been built and installed at Pennyghael on Mull. The Boyd Brothers pier has seen service at Fishnish on Mull while a new permanent pier was being built.

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