

Fact Sheet

Di Rollo House, Ullapool

General description	<p>This 110m² house responds to the sloped South-East facing site by forming three roughly equal terraces with a single sloping roof. The terraced levels step back one by one to allow direct solar gain and views.</p> <p>The roof is finished with turf, and untreated European larch cladding was employed to the external walls. The cladding will weather to a silver-grey colour over time.</p>
Feedback/comment	<p>“Drawing inspiration from the strong and highly developed timber construction culture of alpine Europe, MAKAR have honed their knowledge of modern construction methods to get the optimum performance from homegrown timber. Not only does this reduce the carbon footprint of MAKAR's buildings, it also stimulates a regional industry that feeds investment into the economy.”</p>
Project team	
Client	
Architect/designer(s)	MAKAR Ltd
Contractor	MAKAR Ltd
Construction	<p>The superstructure and timber panels were manufactured off-site in the MAKAR workshop and craned into position on site.</p> <p>Working off-site enables construction to progress in a controlled environment. This reduces the risk of delays caused by adverse weather conditions and improves the quality control of assembled components.</p> <p>The MAKAR team is responsible for complete project delivery. Mass customization and lean processes, involving repeat element relationships allow production efficiencies.</p>
Homegrown timber	
Reason(s) for use of homegrown timber and any comments	<p>Scottish timber is an abundant yet under-utilised renewable resource that covers much of the Scottish Highlands. MAKAR has established a progressive timber-based design and build system that is rooted in the resources of Scotland.</p>
Homegrown timber - source, species & supplier(s)	<p>Locally sourced timber materials including Scottish larch, spruce and Douglas fir, used to a non-chemically treated specification.</p>

	Larch - cladding Spruce - carcassing Douglas fir- post and beam
Whole building information	
Additional energy and sustainability information	<p>The aim was to create a healthy living environment by using natural building materials including timber, cellulose and sheep's wool that enable the home to breathe. We avoided the use of materials that are made from petro-chemicals that are known to off-gas toxins into the air. After the lifespan of the build, the materials we have chosen will not have a negative impact on the environment.</p> <p>The building is very well insulated and energy efficient with triple glazed windows and a high level of airtightness. Natural solar heating is supplemented by solar hot water panels, an air source heat pump and integrated solar collectors connected to a thermal store and under floor heating.</p> <p>The home includes adaptable features that create flexible spaces that can change with changing needs.</p>
Completion date	2009

June 2015