

Description of best practice

Best practice	
Title	Ponsse Scorpion King
Picture	
Domain	Logistics Sustainable management and planning
Source of wood	Stemwood
Location	Vieremä, Finland
Implementers	Entrepreneurs, Forest companies
Actual status	Running
Approach	Finland has a lot of peatland and other areas with soft terrain. The challenge is that the soft terrain does not enable harvesting in summer time.
Main results	Scorpion King is a three-frame harvester equipped with a fork boom. Its balancing keeps the cabin horizontal in all conditions. In addition, visibility from the cabin is perfect thanks to large glass surfaces and as the crane does not block the view in any direction. Its double-circuit hydraulics ensure that power does not run out even in difficult conditions. The balanced machine is at its best in demanding conditions and uneven terrain.
Lessons learned	The stability of harvester comes from its eight wheels and active stabilization system. The patented stabilization system is based on detecting the crane direction and position, on the basis of which the rear frame is pressed in the working direction. Pressing the rear wheels against the ground and the weight of the rear frame improve the machine's stability significantly when working on the side of the machine – also when the machine is moving. The Cabin leveling, balances the cabin, also in difficult terrain. The frame

	of the machine consists of three parts linked by rotating joints. The cabin is located in the middle frame, which is kept hydraulically balanced, while the front and rear frames tilt according to the terrain.
Contact information	sampo.pulju@ponsse.com
Link to website	https://www.ponsse.com/en/web/guest/products/harvesters/product#/scorpion_king
Code	BP_FI_21

Best practice assessment

Region	Finland
Time scale	Running
Mobilization Potential	Not possible to assess
Kind of wood concerned	Stemwood
Sustainability Potential	Positive
Impact on environment & biodiversity	Positive
Ease of implementation	Medium
Economic impact	Medium
Job effect	Positive
Income effect	Positive
Specific knowledge needed	Good driving skills
Costs of implementation	High
Technical readiness level	Applicable
Key information for adoption	Access to forest assets in challenging terrains