



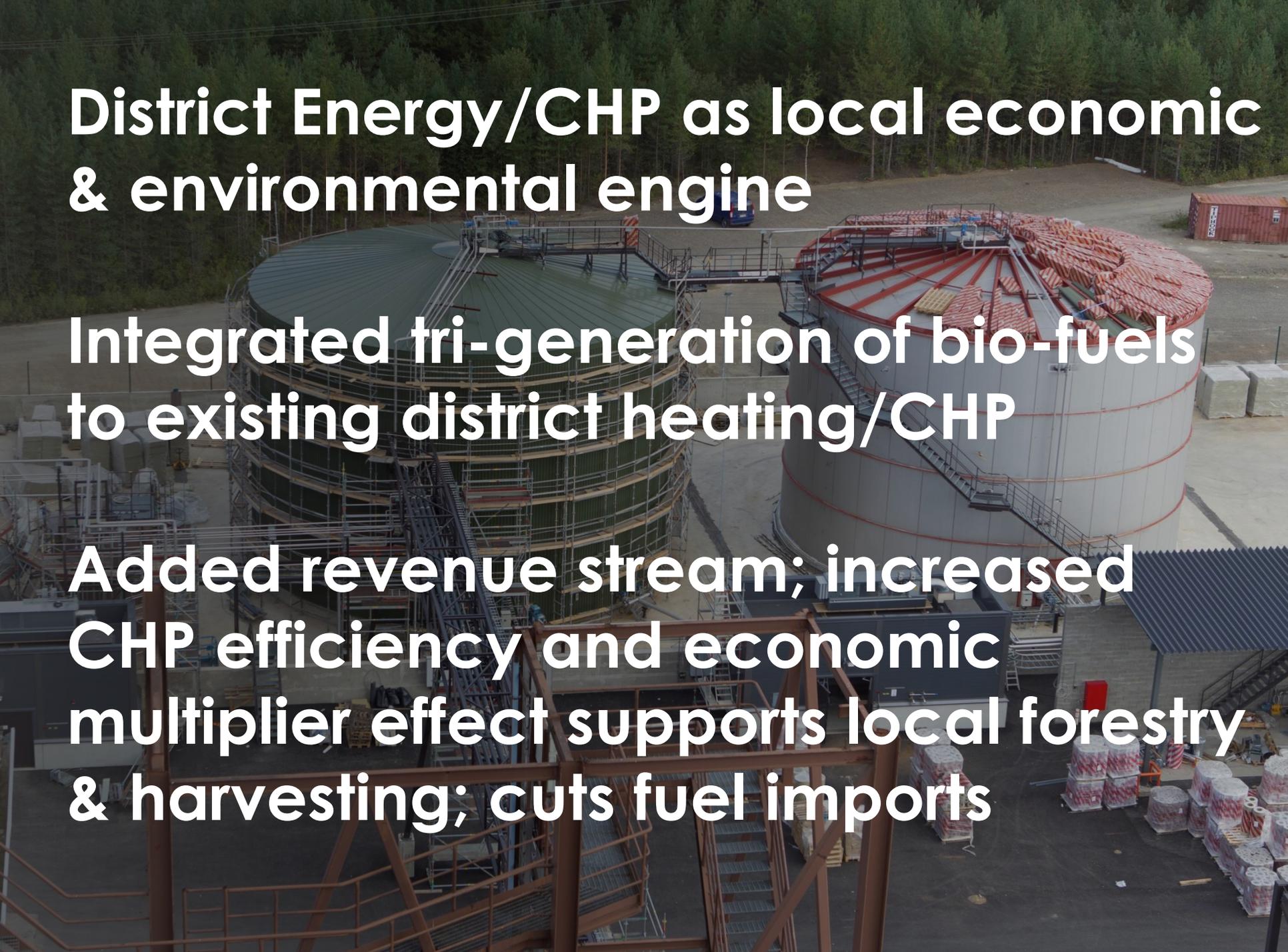
3RD GLOBAL
DISTRICT
ENERGY
CLIMATE
AWARDS

September 23 , 2013 | New York City

Special Award: Innovation

JOENSUU FINLAND

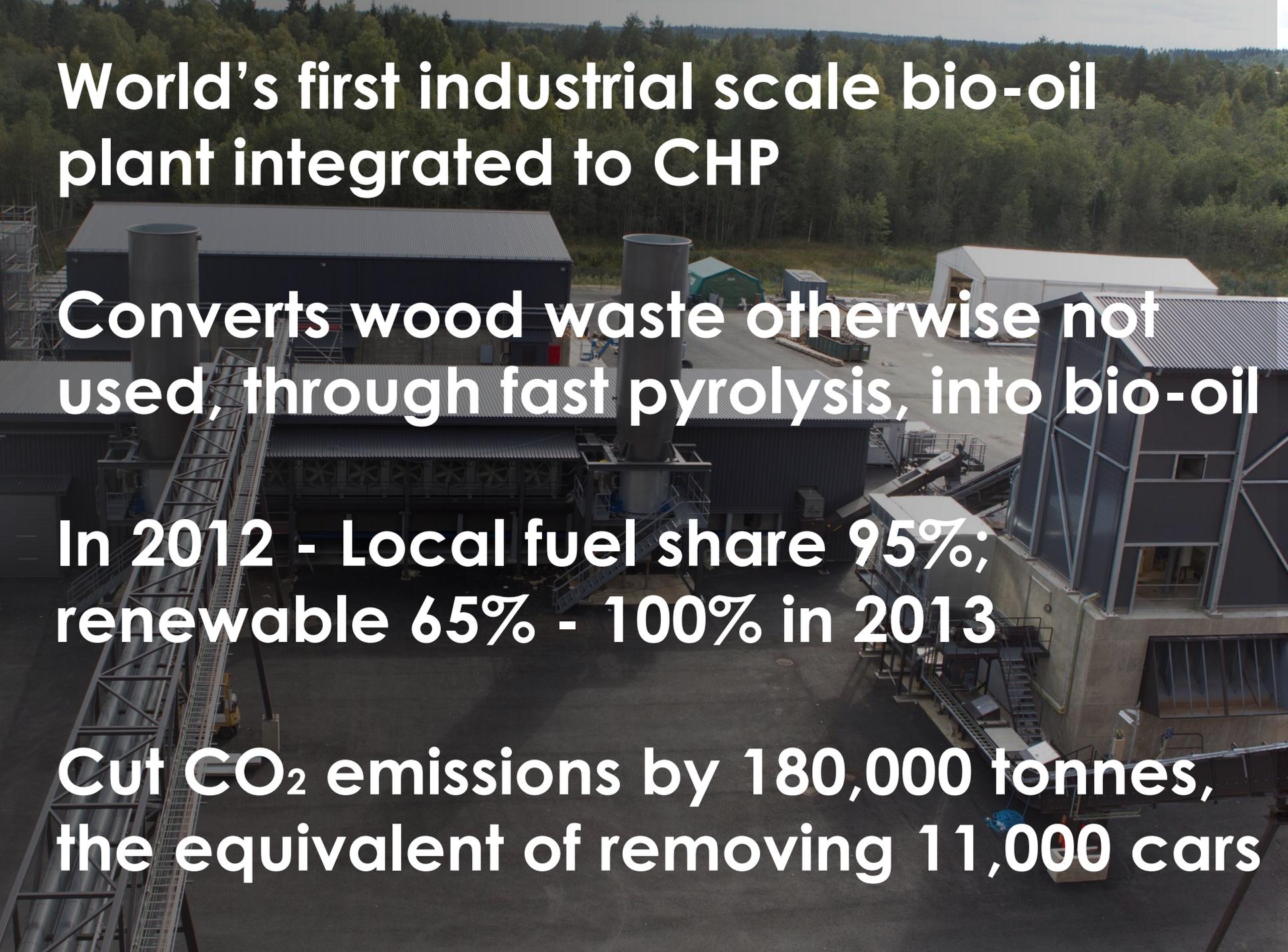




District Energy/CHP as local economic & environmental engine

Integrated tri-generation of bio-fuels to existing district heating/CHP

Added revenue stream; increased CHP efficiency and economic multiplier effect supports local forestry & harvesting; cuts fuel imports

An aerial photograph of a large industrial facility, likely a bio-oil plant. The facility features several large, dark-colored buildings with corrugated metal roofs. Two prominent, tall, cylindrical storage tanks are visible in the center. A complex network of metal walkways, ladders, and pipes connects different parts of the plant. In the background, there are more smaller buildings and a dense forest of green trees under a clear sky.

World's first industrial scale bio-oil plant integrated to CHP

Converts wood waste otherwise not used, through fast pyrolysis, into bio-oil

In 2012 - Local fuel share 95%;
renewable 65% - 100% in 2013

Cut CO₂ emissions by 180,000 tonnes,
the equivalent of removing 11,000 cars

3RD GLOBAL
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SPECIAL AWARD: INNOVATION

Awarded to **City of Joensuu and Fortum:**
District Energy + Bio-Oil Production 

September 23, 2013 | New York City, NY

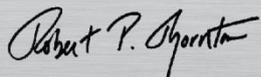
 JOENSUU

 Fortum



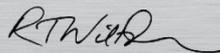
This is to certify that the **City of Joensuu and Fortum** have been officially recognized by a team of international experts chaired by the International Energy Agency (IEA) Technology Network, for their outstanding achievement in demonstrating local District Energy leadership in providing clean, sustainable energy solutions to protect against the risk of climate change.

 INTERNATIONAL
DISTRICT ENERGY
ASSOCIATION



Robert Thornton
President & CEO, IDEA

 **iea**
Energy Technology
Network



Robin Wiltshire, Technical Director, BRE
Chair, IEA Implementing Agreement
on District Heating & Cooling

 **EUROHEAT
& POWER**



Frederic Hug
President, Euroheat & Power