CONCERNS about the environment and the future of agriculture in Northern Ireland led partners from very different backgrounds to develop an innovative initiative based on the unusually multifunctional properties of willow.

Londonderry farmer and entrepreneur John Gilliland, concerned that his land was underutilized, became interested in growing willow as a "biomass crop."

Willow loves rain (an Irish staple), grows incredibly fast, and flourishes on nutrients found in human wastes. Scientists from Belfast's Agri-Food and Biosciences Institute, technicians from Omagh College, and foresters from the State University of New York–Syracuse developed an inventive and sustainable plan.

Since 1996, Gilliland has planted his Brook Hall Estate with willow, which he coppices (harvests) every three years. He fertilizes it with solid and liquid waste, which, the willow, in turn, recycles and cleans ("biofiltration").

At harvest, the willow—now twenty-five or more feet in height—is cut, chipped, dried, and burned for energy in highly efficient state-of-the-art boilers, like those at Omagh College. This wood energy provides an alternative to imported fossil fuel, which currently provides 98 percent of Northern Ireland's total energy needs.

Commercial willow cultivation is still in its early stages, but the project provides an excellent example of innovation in contemporary Northern Ireland.

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