

Our partners



Motivation

- **2.8 million** potentially contaminated sites, just across the EU-28
- **Global problem** → 20 million ha of land where the soils are contaminated by potentially toxic elements
- Liquid biofuels are **critical for decarbonization** of transport – but high risk of taking land away from agriculture → **Food vs Fuel**
- High quality land is **not sufficient or sustainable** for biofuel production
- **Second generation** lignocellulosic bioenergy crops **can be grown on contaminated land**

Aims and objectives

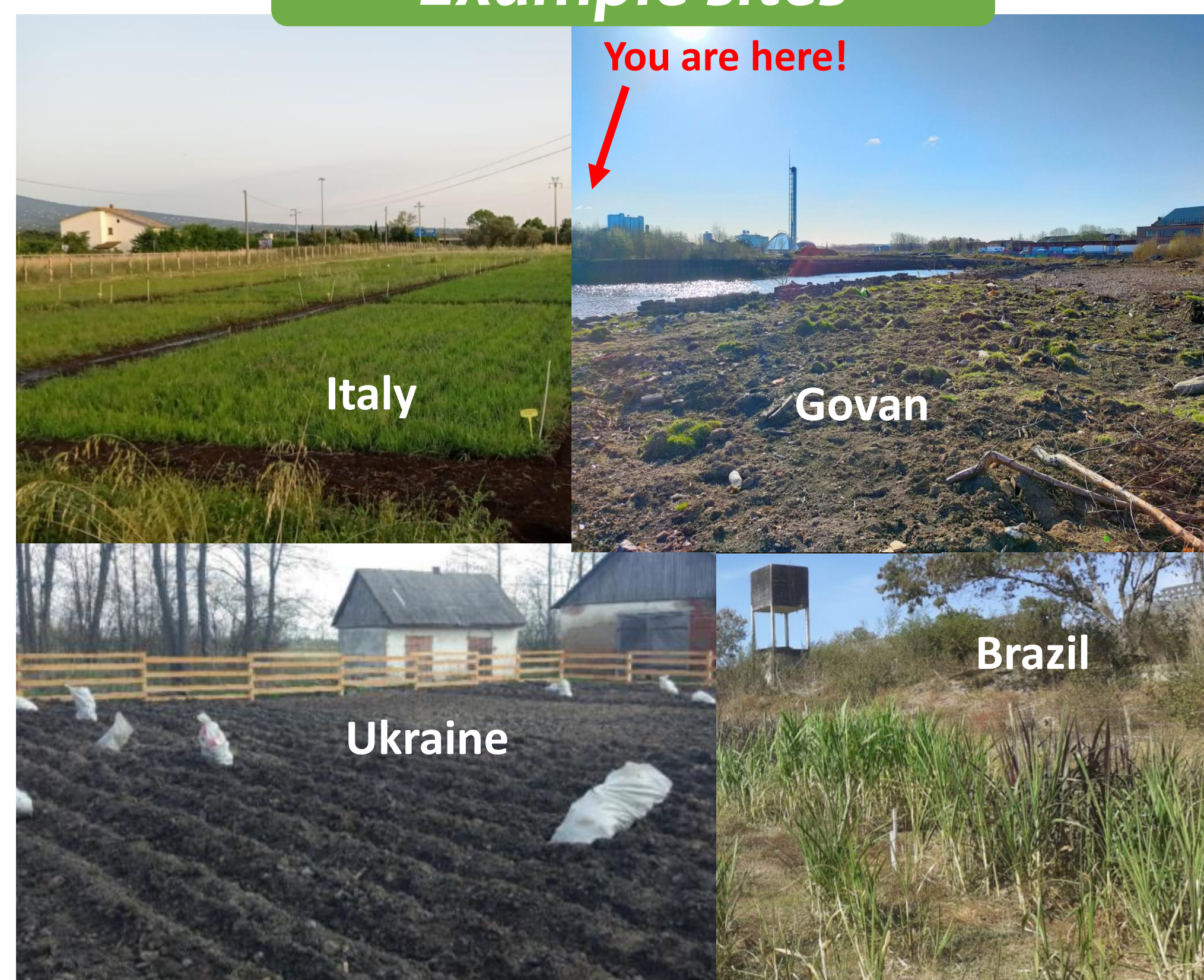
Aim: CERESiS aims to develop, assess and validate **integrated biofuel production pathways linking land decontamination to appropriate bioenergy crops** and environmentally & economically efficient **advanced biofuel production** → WIN-WIN

Objective 1: Demonstrate the **suitability and effectiveness** of various conventional and novel species of energy crops for **phytoremediation** purposes in contaminated land, against a variety of the most common contaminants globally

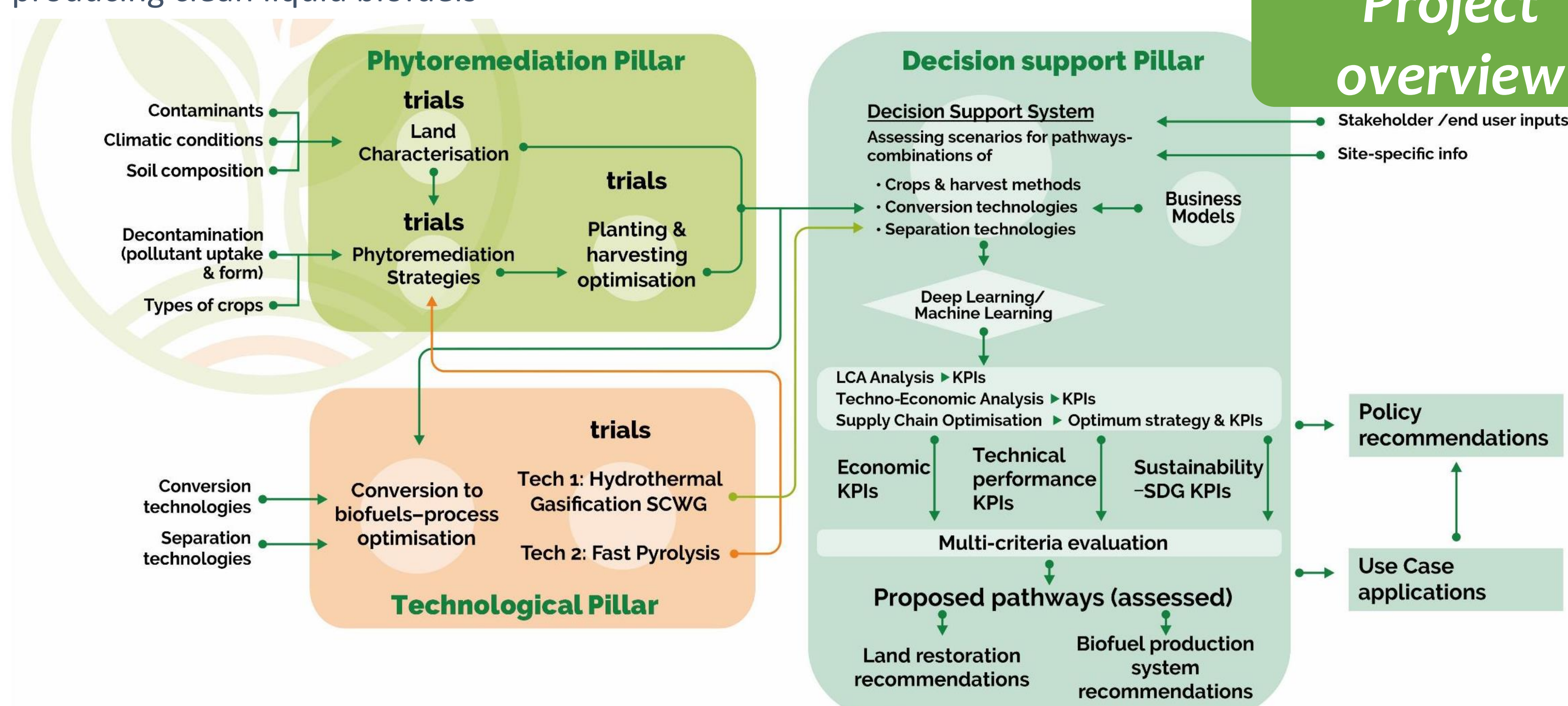
Objective 2: Demonstrate the **potential of two novel thermochemical processes**, i.e. Supercritical Water Gasification (SCWG) and Fast Pyrolysis (FP), for the **production of biofuels and key biofuel precursors**

Objective 3: Provide **decision support to stakeholders and policy makers** in order to achieve **optimal win-win solutions** for site-specific land decontamination through phytoremediation while simultaneously producing clean liquid biofuels

Example sites



Project overview



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101006717



This project has received funding from the Brazilian Fundação de Amparo à Pesquisa do Estado de Goiás under grant number 202110267000220



This project has received funding from the Canadian New Frontiers in Research Fund under grant number NFRFG-2020-00148 and the Canadian Fond de recherche Société et culture – Québec under grant number 308509



Poster presented by
Benjamin Nunn
Research Associate

benjamin_nunn@strath.ac.uk

University of Strathclyde
Civil and Environmental
Engineering department



@BenNunn7

