



## FORBIO

Fostering sustainable feedstock production  
for advanced biofuels on underutilised land  
in Europe

**Workshop - The contribution of FORBIO project to  
the sustainable development of bioenergy**

27 November 2018

Rome, Italy

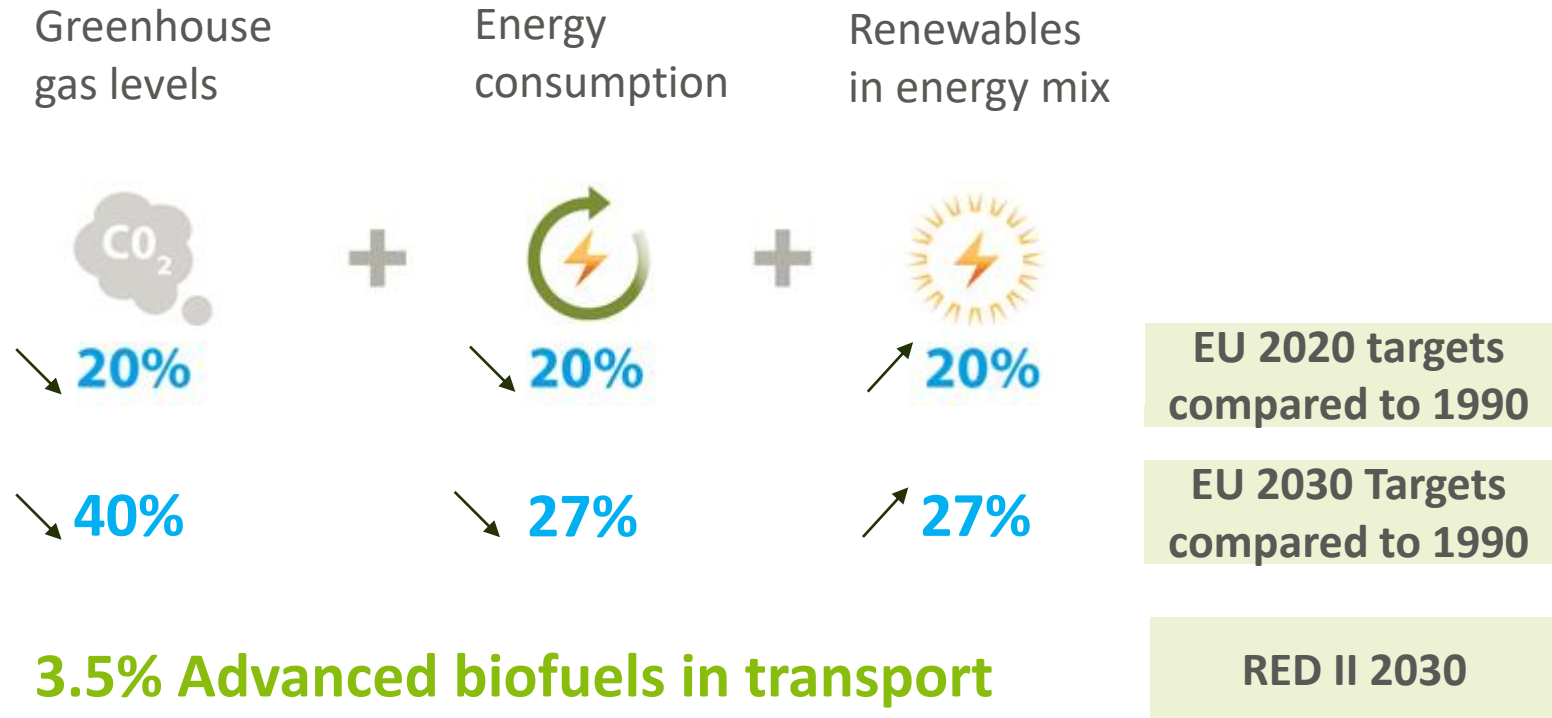


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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No691846.

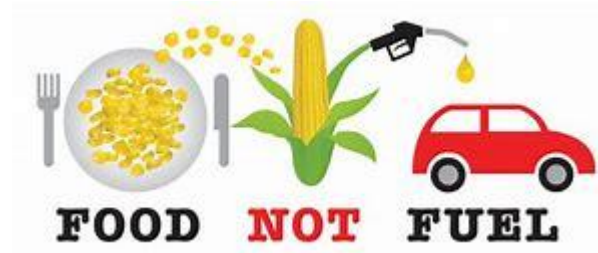
# Background



=> More bioenergy needed



# Background

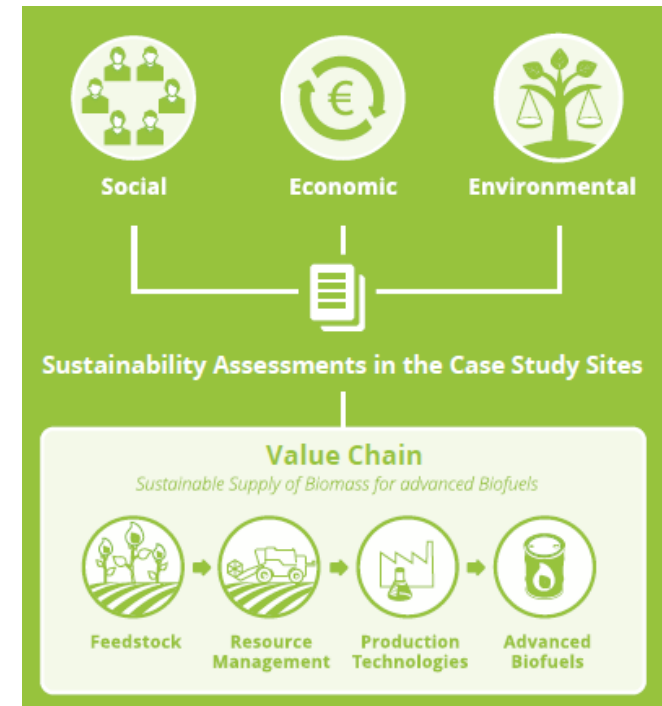


- But, Bioenergy may compete with food / feed production
- Underutilised land offer an alternative to produce sustainable bioenergy without competing with food / feed
- FORBIO demonstrated the viability of using these lands for sustainable bioenergy production



# FORBIO objectives

- ✓ Identify social, economic, environmental and governance-related **opportunities and challenges**
- ✓ Evaluate **agronomic and techno-economic potential** of the selected bioenergy value chains
- ✓ Assess environmental, social and economic **sustainability**
- ✓ Analyse economic and non-economic **barriers to the market uptake**
- ✓ **Encourage** European **farmers** to produce sustainable biomass feedstock
- ✓ **Build capacity** of stakeholders for setting up sustainable bioenergy supply chains



# Profile

Project duration: January 2016 – December 2018

Funded by the EU H2020 under the call H2020-LCE-2015-3

Estimated project cost: 1,941,581 €

Coordinator: WIP Renewable Energies & GEONARDO



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# Project Consortium



**WIP Renewable Energies**

Contact: Rainer Janssen, Cosette Khawaja, Dominik Rutz



**Food and Agriculture Organisation of the United Nations**

Contact: Marco Colangeli, Lorenzo Taverno



**Geonardo Environmental Technologies Ltd.**

Contact: Ömer Ceylan, Peter Gyuris, Attila Udersky



**Consiglio per la Ricerca in Agricoltura e l'Analisi dell'Economia Agraria**

Contact: Guido Bonati



**Biochemtex Spa**

Contact: Stefania Pescarolo



**Blacksmith Initiative - UK**

Contact: Valeriia Kovach



**Scientific Engineering Centre "Biomass" Ltd**

Contact: Oleksandra Tryyboi



**Center for Promotion of Clean and Efficient Energy**

Contact: Nicoleta Ion



**Forschungsinstitut für Bergbaufolgelandschaften e.V.**

Contact: Dirk Knoche, Raul Köhler



**Polish Biomass Association**

Contact: Maria Smietanka, Magdalena Rogulska



**European Landowners' Organization**

Contact: Marie-Alice Budniok



**University of Limerick**

Contact: JJ Leahy



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# Case studies

## CASE 1

**ITALY**  
Sulcis, Portoscuso

**Contaminated land from industrial activities**

22,000 ha



## CASE 2

**UKRAINE**  
Kyiv oblast, Ivankiv region

**Underutilised marginal agricultural land**

Over 20,000 ha



## CASE 3

**GERMANY**  
Metropolis region  
Berlin & Brandenburg

**Sewage irrigation fields & lignite mining**

1,140-3,917 ha and 7,295-11,795 ha



- **Agronomic and technoeconomic feasibility studies of the case studies**
- **Potential value chains of bioenergy production on underutilised land**
- **Sustainability assessment of the most promising value chains**



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# Knowledge transfer & Capacity building

Country		Info days		Capacity building	
		In target region	In another region	First event	Second event
Target countries	Italy	13-14 October 2016, Carbonia, Sardinia	20 June 2018, Rome	7 June 2018, Cagliari, Sardinia	19 September 2018, Ferrara
	Ukraine	12 December 2017, Kiev	16 May 2018, Cherkasy	21 February 2018, Kiev	17 May 2018, Cherkasy
	Germany	6 September 2017, Finterwalde	27 June 2018, Potsdam	7 April 2018, Goßmar	12 June 2018, Neuperhain
Outreach countries	Belgium			22 May 2018, Westmalle	28 July 2018, Libramont
	Poland			24 May 2018, Warsaw	04 September 2018, Płońsk
	Romania			18 July 2018, Bacau	31 August 2018, Targoviste
	Hungary			6-7 June 2018, Gödöllő	
	United Kingdom			6-7 June 2018, Lincoln	







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# Barriers

	GERMANY	ITALY	UKRAINE
Air quality			
Soil quality			
Water quality			
Water availability/stress			
Biodiversity			
Landscape/LUC			
Land tenure			
Employment			
Income			
Health conditions			
Novelty acceptance			
Financial Security			
Use of multi-purpose feedstock			
Profitability			
Access to credit			
Incentives			
Capacity development			
Agronomic needs			



# Thank you for your attention!

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