BIP Task Force 3

Dr Nick Primmer
Policy Lead
Future Biogas

Leader of TF3.1

BIP Europe
Biomethane Industrial Partnership

Introduction to the BIP and Task Force 3

About the Partnership

The launch of the BIP by EVP Timmermans and Commissioner Simson on the 28th of September during the European Sustainable Energy Week.

- The Commission's REPowerEU plan set the target of 35 BCM of biomethane by 2030.
- A new Biomethane Industrial Partnership (BIP) was established upon the REPowerEU plan to *'support the achievement of the target and create the preconditions for a further ramp up towards 2050'*.
- Scaling up the biomethane production is vital because of:
    1. The need to reduce European dependency on natural gas imports from Russia;
    2. To achieve EU energy independence;
    3. The high energy prices;
    4. The aggravation of the climate crisis.

Task force 3

Potential of innovative and sustainable biomass sources

3.1	3.2	3.3	3.4
EU-wide potential assessment for sustainable **rotational and sequential cropping**	EU-wide potential assessment for feedstock production on **marginal and contaminated land**	**Environmental co-benefits** through integrated food and energy systems	Identification of additional **innovative** sustainable biomethane feedstocks

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Potential of innovative and sustainable biomass sources

Rotational and sequential cropping	Marginal and contaminated land	Environmental co-benefits	Innovative

Nordzucker

VATTENFALL

Task force 3

Potential of innovative and sustainable biomass sources

Rotational and sequential cropping	Marginal and contaminated land	Environmental co-benefits	Innovative

Marco Buffi

Scientific Project Officer
JRC

Piero Gattoni

President
Consorzio Italiano Biogas

Philipp Lukas

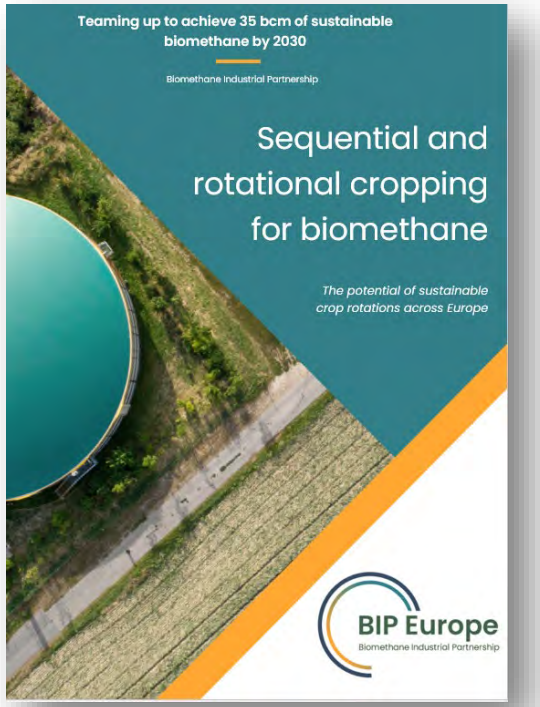
CEO
Future Biogas

Co-Chairs

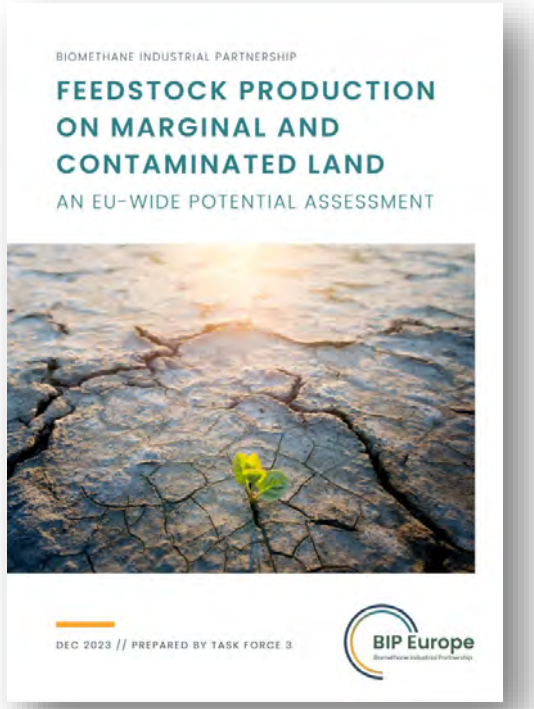
Task force 3

Potential of innovative and sustainable biomass sources

Rotational and sequential cropping	Marginal and contaminated land	Environmental co-benefits	Innovative



Publishing ASAP



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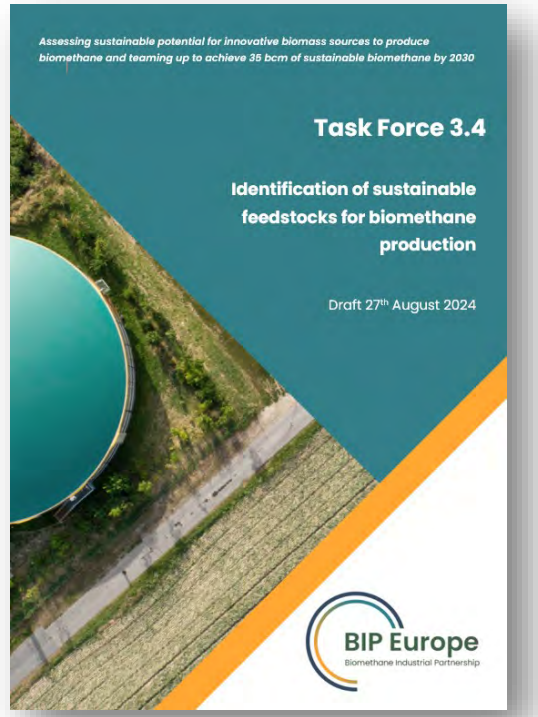
Re-focusing work



Draft complete

Rotational and sequential cropping

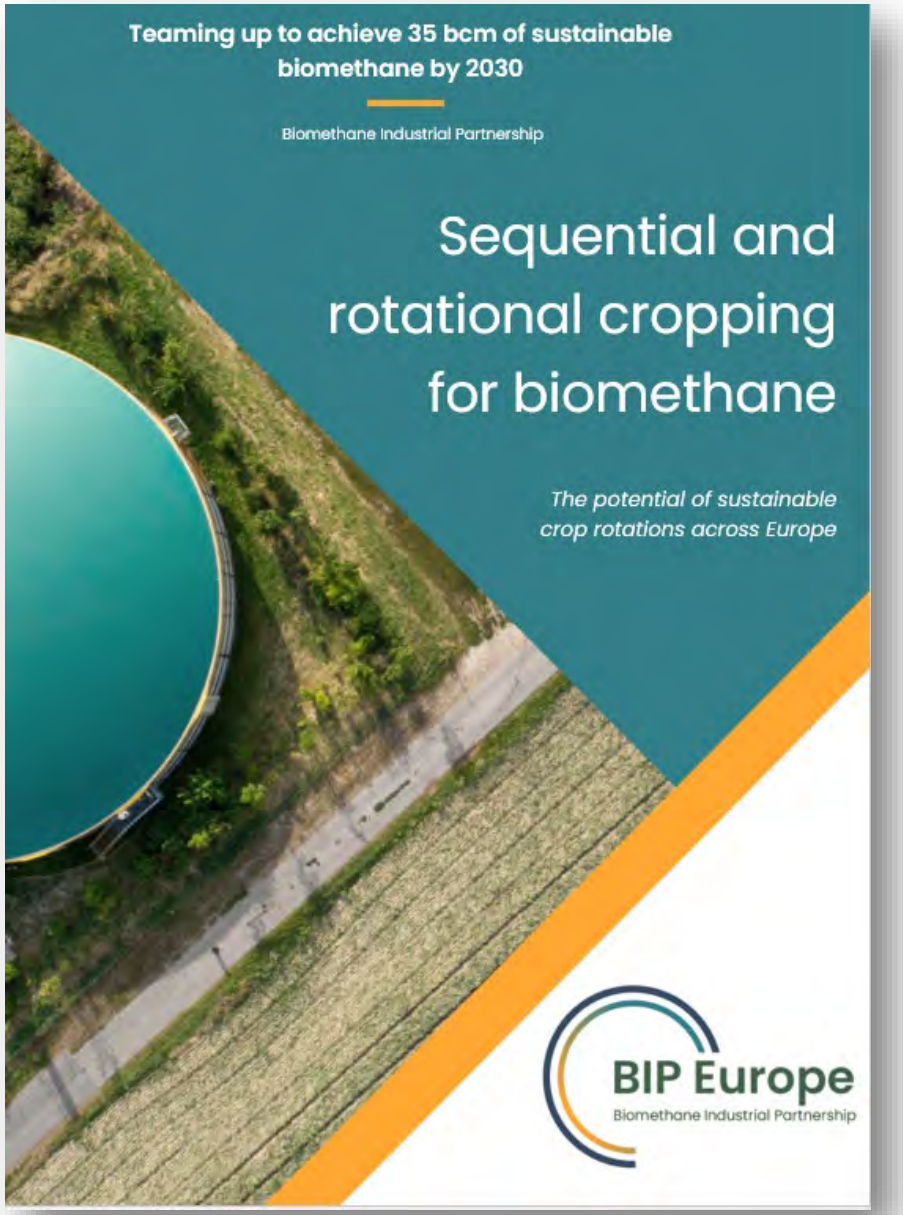
Sequential and rotation cropping for biomethane:

The potential of sustainable crop rotations across Europe

- ✓ Improve agricultural resilience
- ✓ Restore soil health
- ✓ Sequester carbon in soils
- ✓ Diversify agricultural incomes
- ✓ Enrich biodiversity
- ✓ Enhance food security

AND

- ✓ Increase the production of biomethane

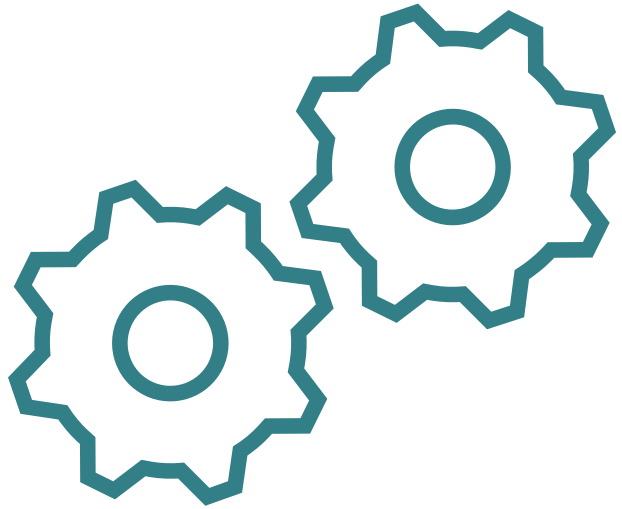


Rotational and sequential cropping

Principles for sustainable growth

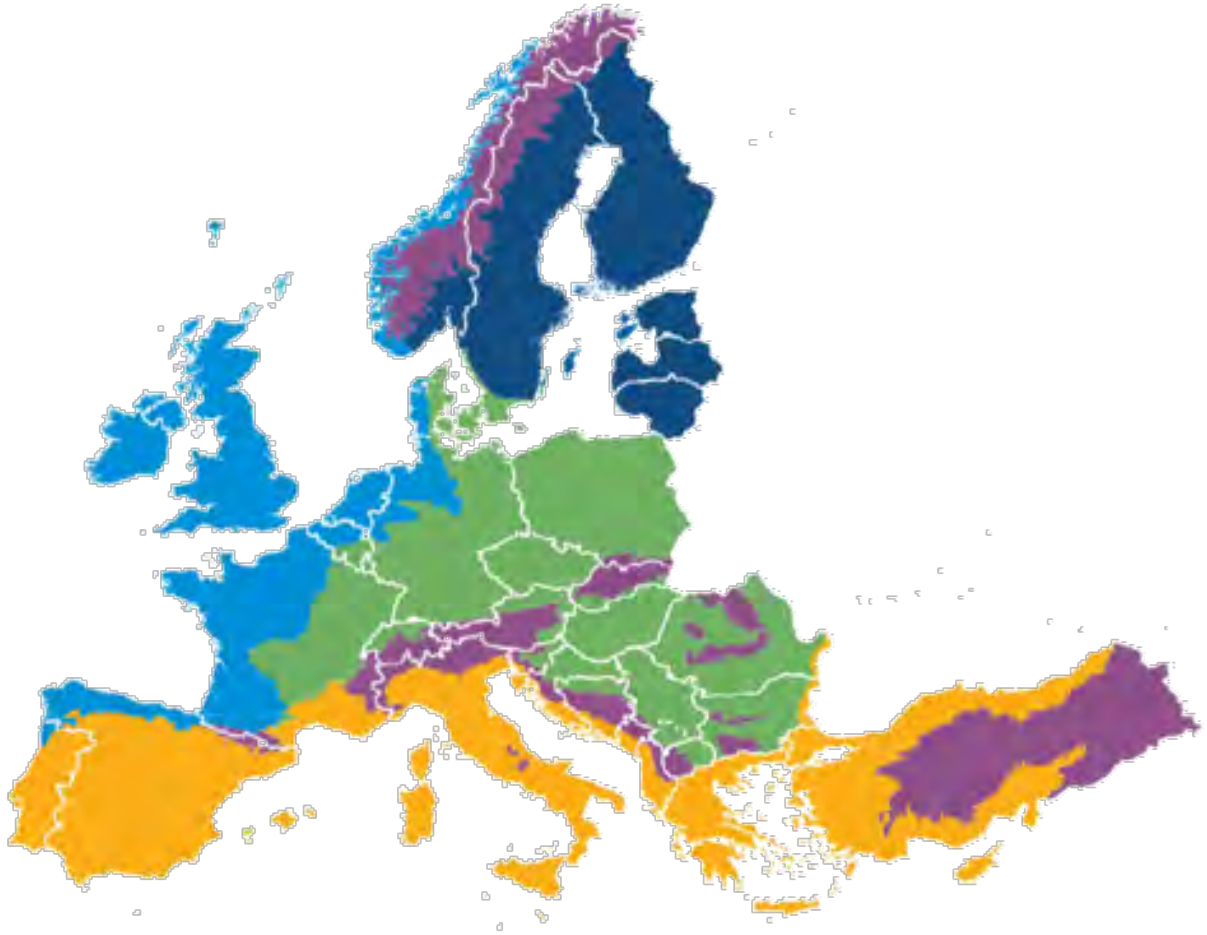
Explores a set of principles in which arable farms should seek to align with when growing crops for biogas – the following introduces the key considerations:

1. GHG emissions
2. Soil health
3. Carbon Sequestration
4. Biodiversity
5. Agricultural resilience
6. Productivity
7. Pollution and contamination



Analysis:

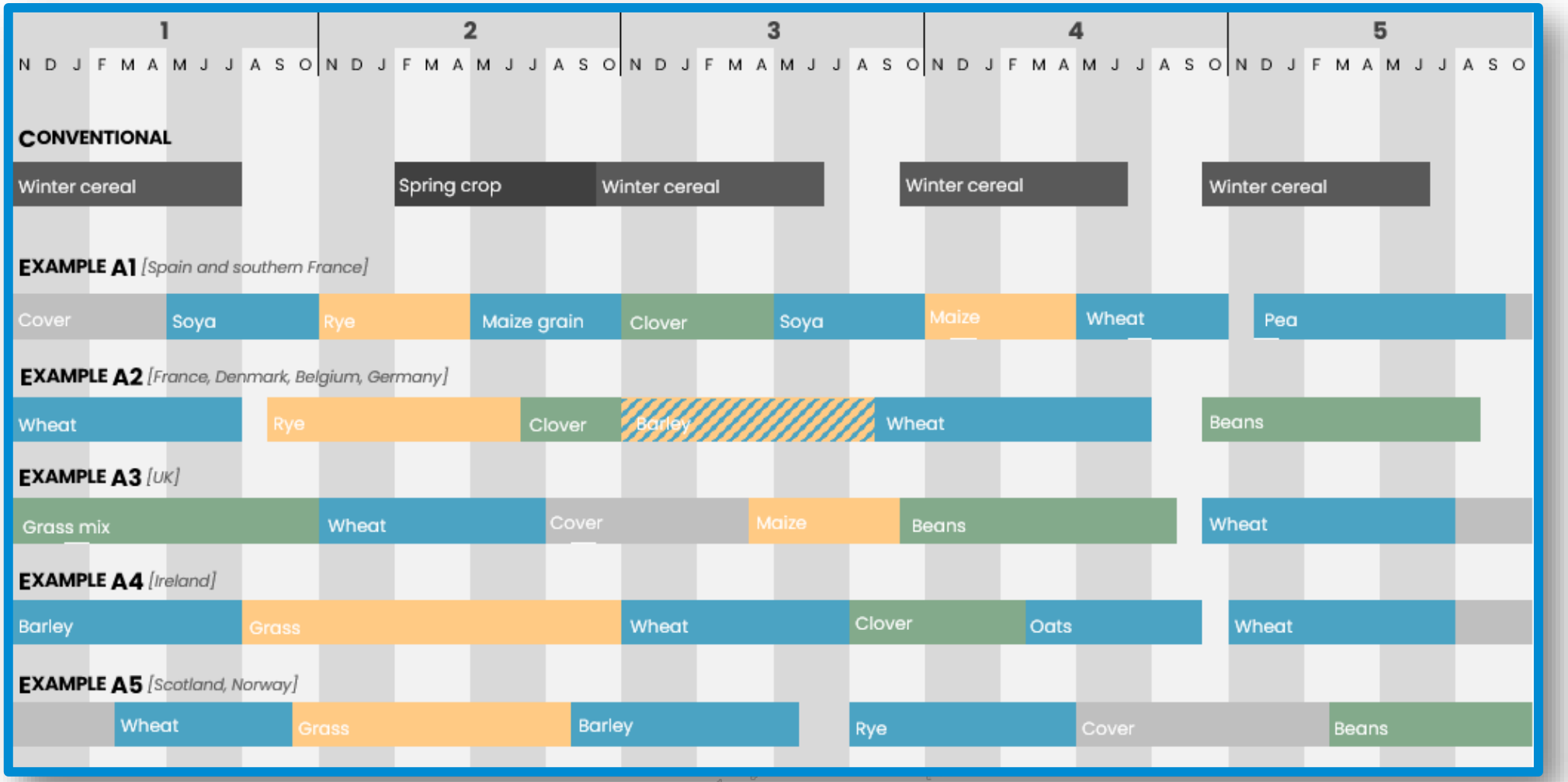
Developed potential crop rotations for each European region



Analysis:

Developed potential crop rotations for each European region

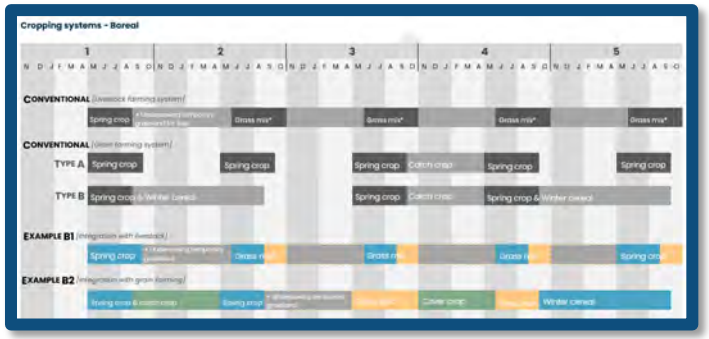
Atlantic



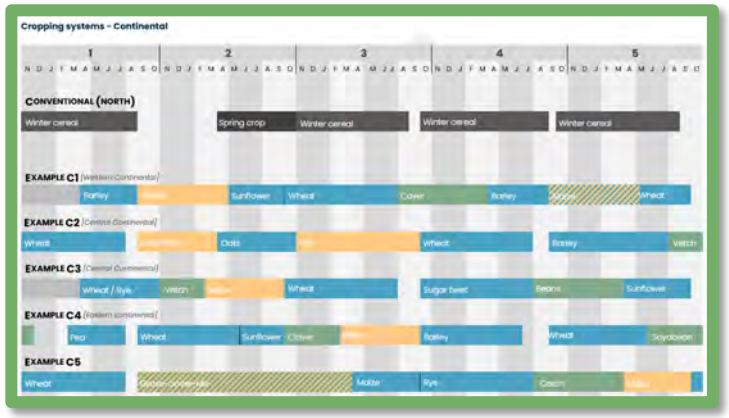
Analysis:

Developed potential crop rotations for each European region

Boreal



Continental



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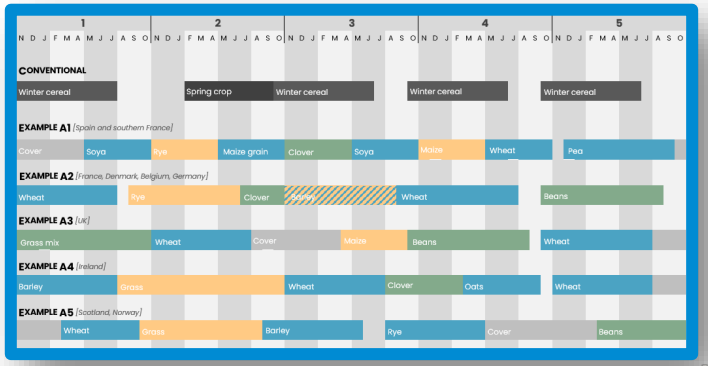
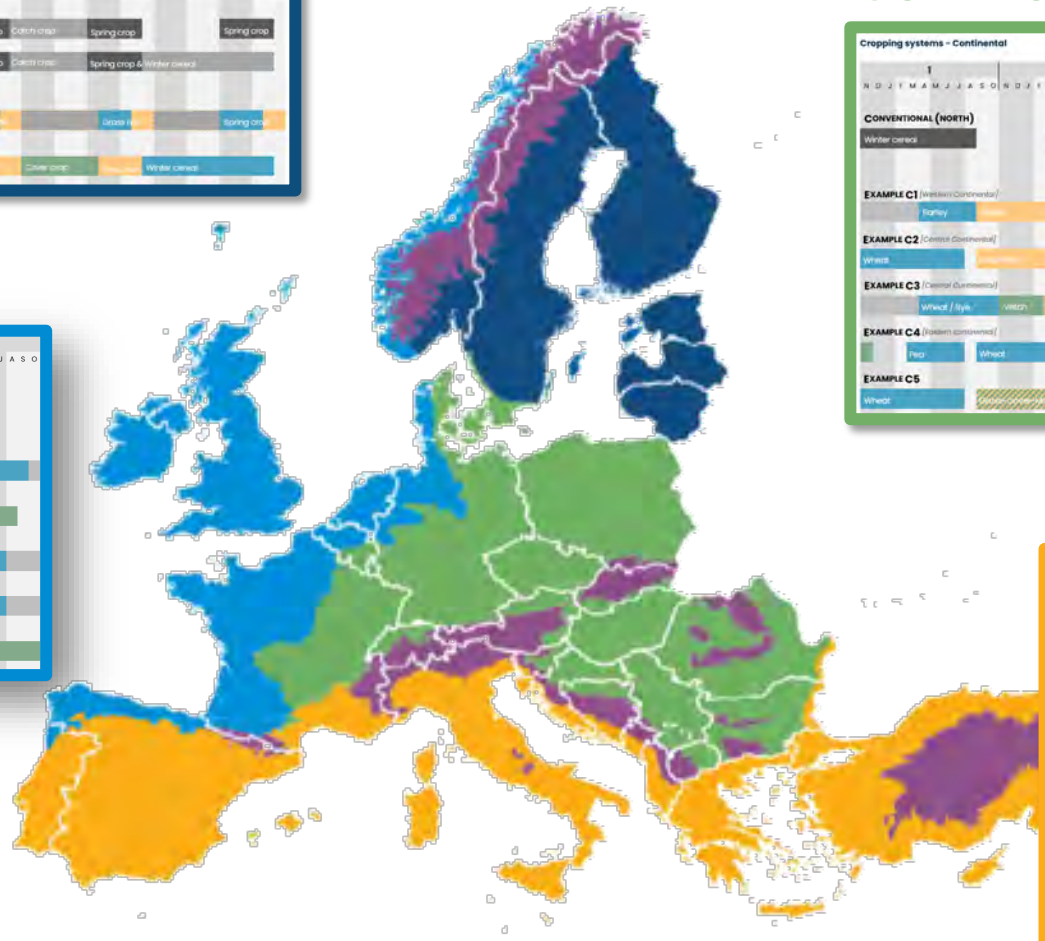
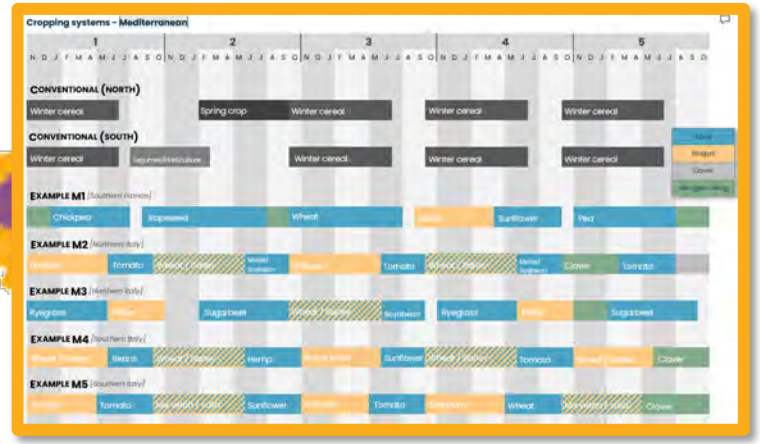




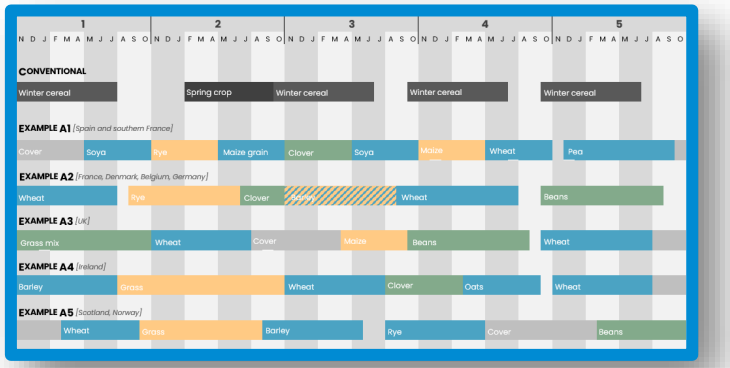
Mediterranean



Analysis:

Developed potential crop rotations for each European region

Atlantic



Country	Total arable land (ha)	Proportion of land within the Atlantic biogeographical region (%)	Crop rotation assumed	Average annual biomass grown for AD (tonnes)	Biomethane max potential per year (bcm)
Belgium	870,420	50%	2	1,175,067	0.3
Denmark	2,357,950	30%	2	1,909,940	0.6
France	18,044,450	50%	$1^{(10\%)}$ & $2^{(90\%)}$	26,976,453	8.7
Germany	11,657,900	20%	2	6,295,266	1.9
Ireland	434,940	100%	4	1,043,856	0.2
Netherlands	1,003,450	100%	2	2,709,315	0.8
Spain	11,732,660	10%	1	6,570,290	2.1
Non-EU					
Norway	804,310	15%	5	193,034	0.0
UK	5,857,460	100%	$3^{(50\%)}$ & $5^{(50\%)}$	12,886,412	3.4

Analysis:

Applied correction factors

Maximum
biomethane potential
= 90.7 bcm
(EU27 + UK, Switzerland and Norway)

		Example data
1.	Food vs Fuel	100%
2.	Biomass competition	98%
3.	Arable competition	89%
4.	Soil readiness	78%
5.	Climate change	Unknown
6.	Uncertainty	80%

Deliverable
biomethane potential
= 45.7 bcm
(EU27 + UK, Switzerland and Norway)

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Analysis:

Comparison with other estimates


agronomy

MDPI

Article

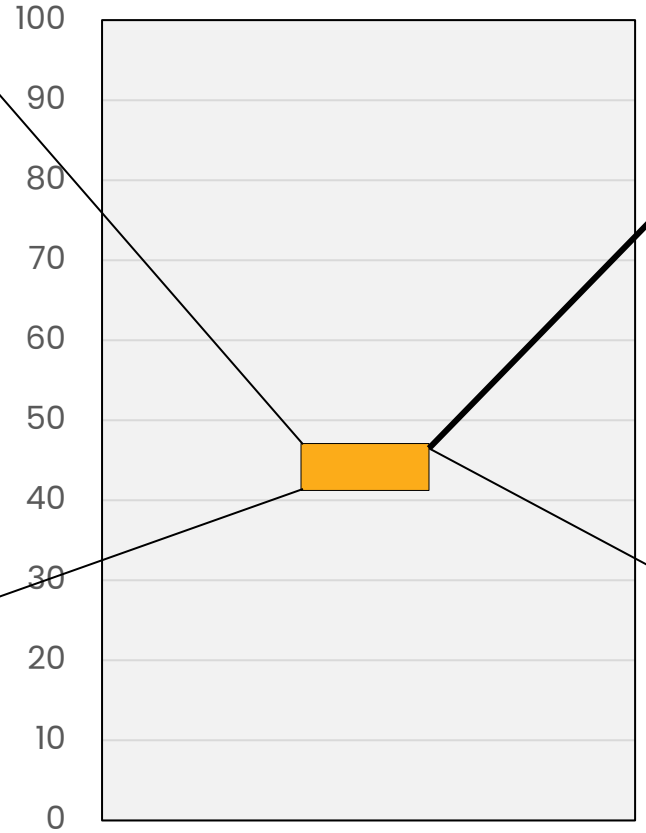
The Role of Sequential Cropping and Biogasdoneright™ in Enhancing the Sustainability of Agricultural Systems in Europe


Title: The Potential for Expanding Sustainable Biogas Production in Selected Countries and Some Possible Impacts in Specific Countries

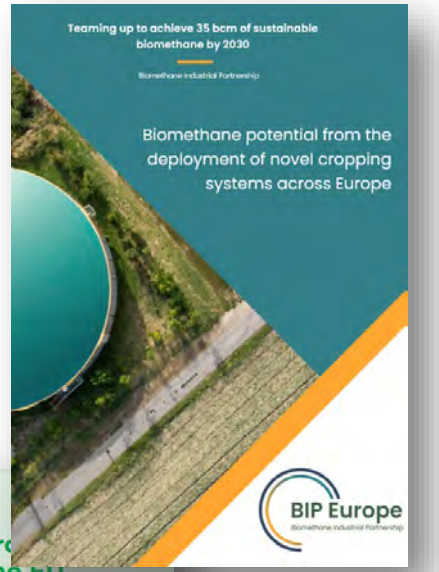
Abstract

Max
46 bcm
Magnolo et al. (2021)

Min
40 bcm
Dale et al. (2020)



Deliverable
44-46 bcm
BIP (2024)



46 bcm
Gas for Climate (2022)

Thank you

Any questions

BIP Europe

Biomethane Industrial Partnership