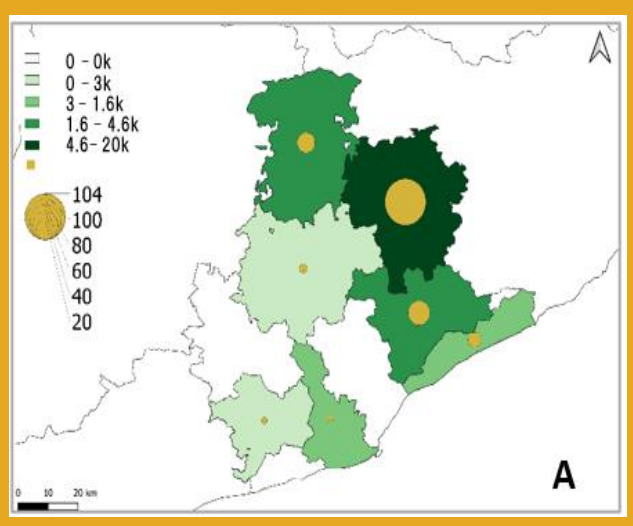
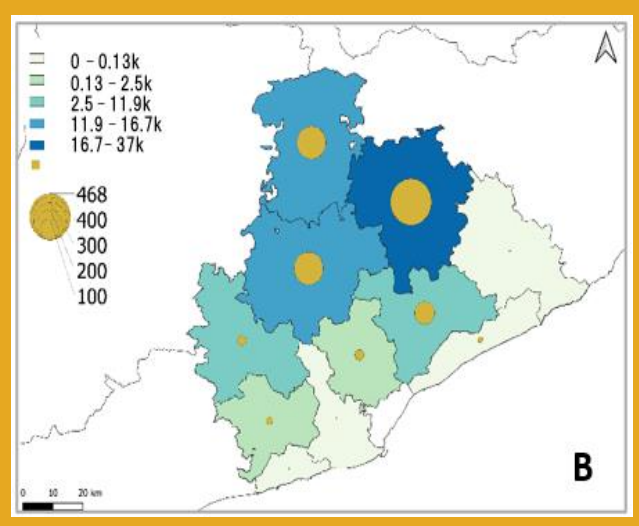
FERTIMANURE

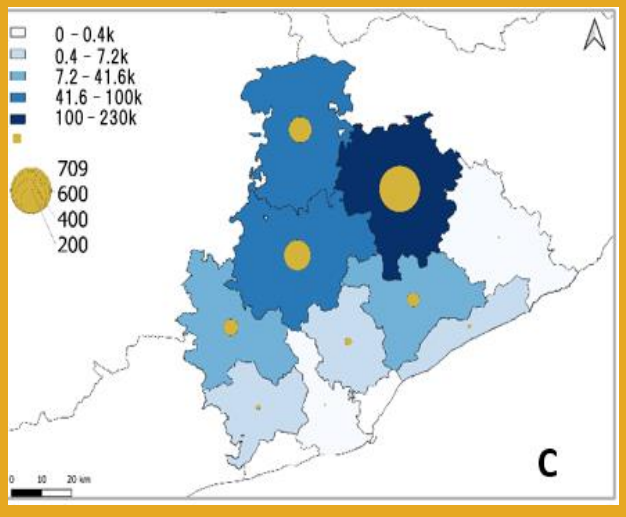
INNOVATIVE NUTRIENT RECOVERY FROM SECONDARY SOURCES – PRODUCTION OF HIGH-ADDED VALUE FERTILISERS FROM ANIMAL MANURE

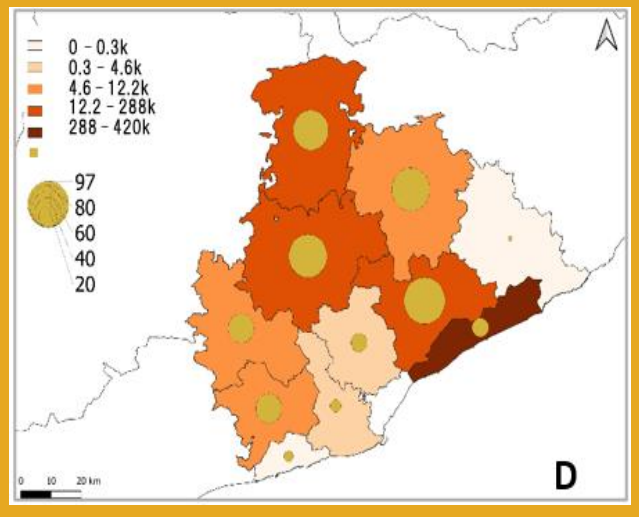
Barcelona (Spain) – Region card

Number of animals (census) per animal type (LSU) per county (NUTS-3)





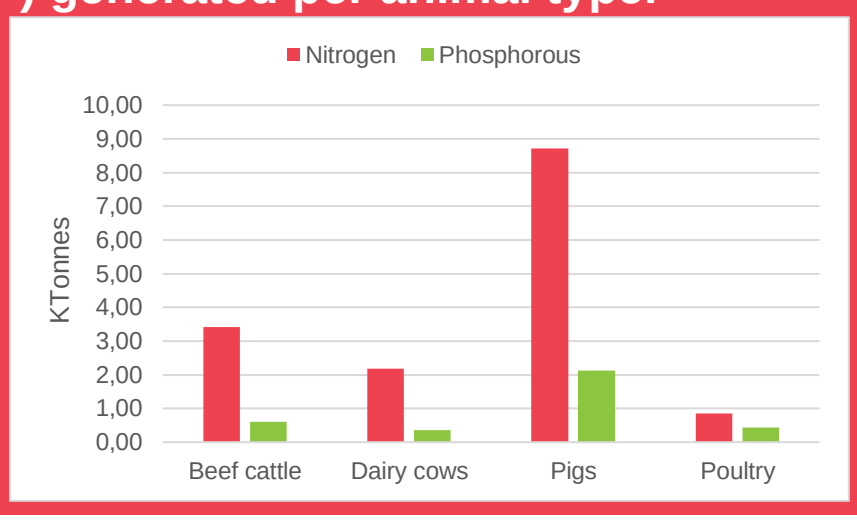




A: Dairy cows; B: Beef cattle; C: Pigs; D: Poultry. Circles represents the number of farms.

Total quantities of nutrients (N and P) generated per animal type.

Barcelona is dominated by pig rearing and N and P production is most intensive in the central area. Osona and Bages are the counties which have the greatest total amount of agricultural land.
There are high added-value crops such as vineyard which may serve as markets for improved fertilisers.



Manure management

Type of treatment	Cost
Separation-centrifuge	3 – 4 (€/m^3 slurry)
Separation- ramps	0.35 – 0.75 (€/m^3 slurry)
Separation- screw press	1 – 1.5 (€/m^3 slurry)
Composting	4 – 6.5 (€/tone manure)
Solar dry	7 – 8 (€/m^3 slurry)
Digestion (only slurry) and electric production (cogeneration)	0.31 (€/m^3 slurry)
NDN	3.6 – 4.5 (€/m^3 slurry)

Manure transport costs

Transport type	Type of matter	Hourly cost	Cost per km
23-tonne truck + spreader	Liquid	65 euros	1.21 €/km (4.26 €/t)
16-tonne tractor + spreader	Liquid	60 euros	5.50 €/km (2.07 €/t)
26-tonne truck	Solid Fraction	70 euros	1.13 €/km (3.51 €/t)

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