

Micro-scale analysis at farm level

1. Farms grow more crops to decrease concentrate inputs :

	Baseline Situation	Innovative	
C16	2 farms : a specialized pig farms importing feed, a crops farm using mineral fertilizer.	a mix farm with pig slurry fertilizing crops and grain home-consumed .	FR (S.O)
E3	Dairy system, 100% permanent grassland, 12 950 l milk/ha.	Crops (26% crops in AA), Dairy 7340 l/ha, Plants outputs and homeconsumed grains	IR
E5	Organic,100% grassland, Dairy 9040 l milk/ha with concentrate feed bought.	Cereals home product (20% crops in AA), organic with 6190 l milk /ha	UK (Wales)
E8	Crops, milk, beef conventional farm : 31% crops in AA, 2680 l milk/ha, 300 Kg LW/ha.	Organic farms, milk and crops : 37% crops in AA, 2380 l milk/ha, 80 Kg LW/ha.	FR (NE)
E9	Organic sucker cow system : 9% crops in AA, 260 Kg LW/ha : thin young males .	Organic sucker cows and steers : 21% crops in AA , 280 Kg LW/ha - Fattening .	FR (O)

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2. Crop farm introduces animal enterprises

	Baseline	Innovative	
E7	Organic 100% crops no livestock	Organic crops+ sucker cows, pigs, hens .	GE

3. Farms decrease fertilizer inputs by manure cycling and legume

	Baseline	Innovative	
C16	2 farms : a specialized pig farms importing feed, a crops farm using mineral fertilizer.	a mix farm with pig slurry fertilizing crops and grain home-consumed.	FR (S.O)
C1	Crop and dairy system, 6500 l/ha AA 0,9 TDM/ha cash crops (53% crops in AA)	Crop and dairy, 5010 l/Ha, 2 TDM/ha cash crops (67 % crops in AA)- Alfalfa , miscanthus	FR (O)

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4. Organizational evolution to reduce workload

	Baseline	Innovative	
E2	Dairy and crops (47% in AA) : 6800l/ha, 0,09 TDM/ha.	Dairy and crops (47% in AA) : 7240l/ha, 0,7TDM/ha – Milking robot and grazing.	FR (O)

5. ICLS → ICL_ENERGY_S

	Baseline	Innovative	
C1	Crop and dairy system, 6500 l/ha AA 0,9 TDM/ha cash crops (53% crops in AA)	Crop and dairy, 5010 l/Ha, 2 TDM/ha cash crops (67 % crops in AA)- Alfalfa , miscanthus	FR (O)
E4	Dairy and crops (% in AA) : 11910l/ha.	Dairy and crops (% in AA) : 10960l/ha- Biogaz unit, séparation (solid/liquid), injection.	NL
E6	Dairy 26 040l/ha, 0,7 TDM/ha (potatoes).	Dairy 26 040l/ha, 0,7 TDM/ha (potatoes)- Biogaz unit, organic fertilizer sold.	IT