

MODELING OF THE TECHNICAL AND ECONOMIC CONSEQUENCES OF THE TRANSFORMATION OF A CONVENTIONAL DAIRY FARM INTO AN ORGANIC DAIRY PRODUCTION SYSTEM



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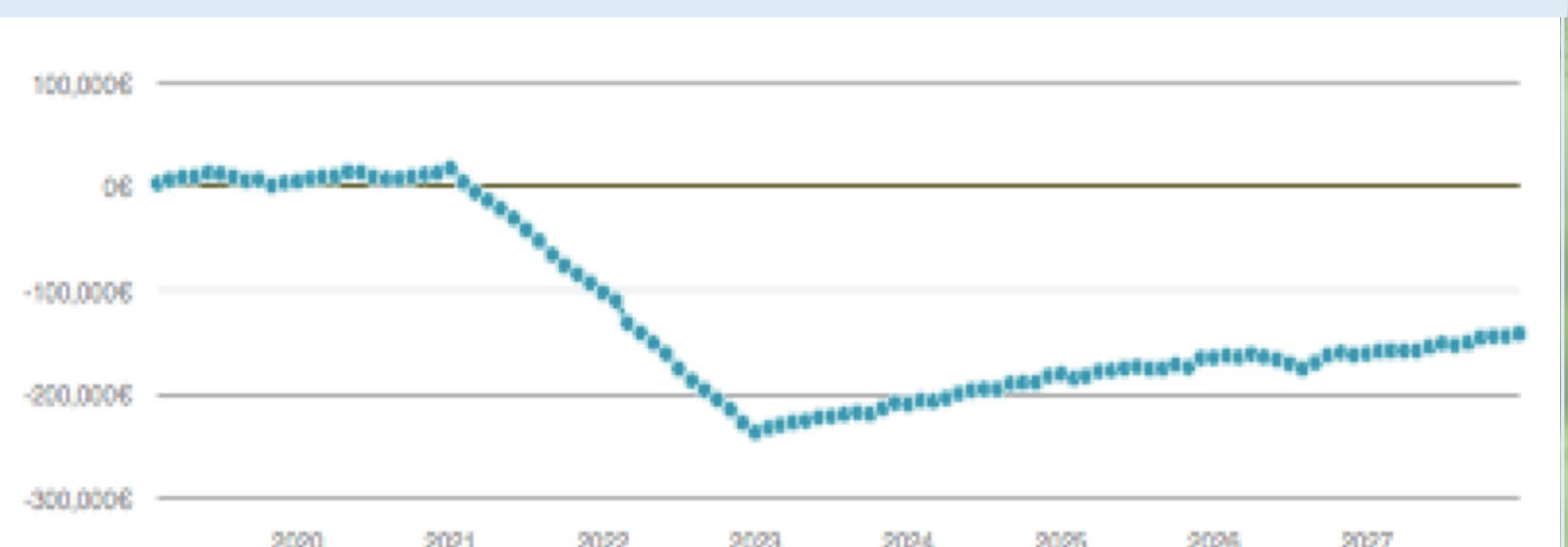
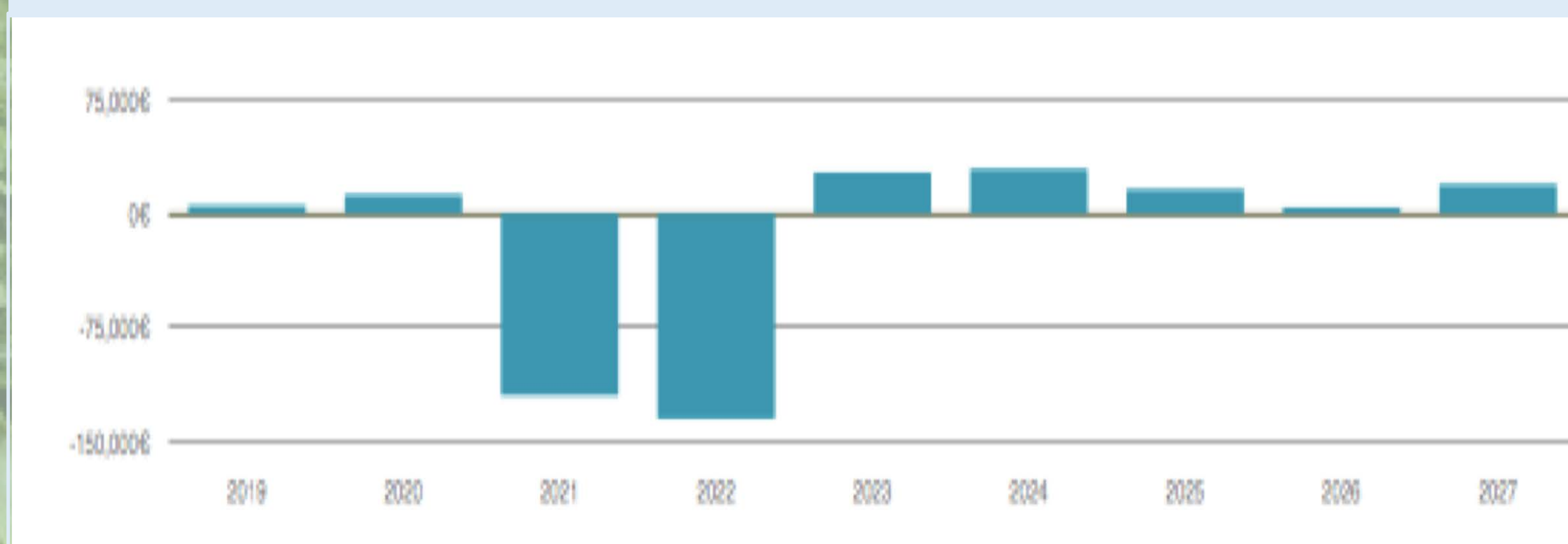
OBJECTIVES

- Technical and economic analysis of the transformation of a conventional dairy farm into an organic dairy production system using the Dairy Farm Simulator of SNIBA (UAB).
- Viability of the transformation of a little dairy farm (56 cows) in Barcelona.
- Time needed to get benefit in organic milk production.

LEGISLATIVE ACTS ON ORGANIC PRODUCTION

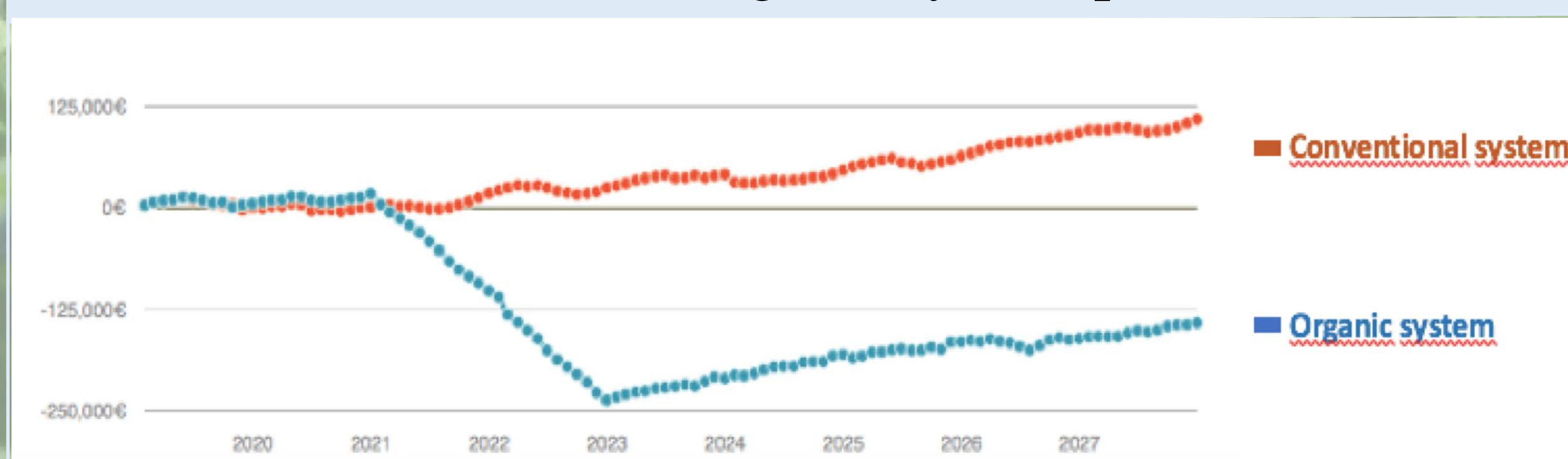
- Regulation (EU) 2018/848 on the European Parliament and of the council, of 30 May 2018.
- 60% of DM from forage.
- Permanent access to pastures.
- Forbidden antibiotic and chemical drug prophylaxis. The use needs veterinary justification (double withdrawal time).
- Livestock density < 170 kg organic nitrogen.

RESULTS & DISCUSSION



Results of the transformation into an organic dairy production system. It shows 2 years on conventional production, 2 years of transformation and 5 years on organic production. During transformation the economic losses ↑ and on the organic system profits ↑.

Economic evolution during transformation and on organic milk production. The organic system is profitable but not enough to recover the losses during transformation.



Comparative study between 9 years on conventional production and 9 years on transformation and organic milk production system. The difference is due to the fact that the costs of organic production are twice the conventional costs and the milk price is the same during the transformation.



On organic milk production system the time needed to be profitable are 20 years.

Until 2040 the investment during transformation is not recovered.

CONCLUSIONS

- Specific analysis for each dairy farm.
- Old farm → need to invest in facilities.
- 20 years to recover the invest during transformation.
- In the simulated conditions, this transformation is not viable due to the size, the conditions of the farm and the milk price (0'57€/L)

REFERENCES

- Bonet AV, Salcedo Díaz G. 2011. Recomendaciones para la mejora de la calidad de la leche ecológica. [accessed 2019 Jan 13]. http://cifacantabria.org/Documentos/cifa_leche.pdf.
- PAE. 2008. Principals requisits i recomanacions per a la conversió de granges de bestiar herbívor a producció ecològica. :1–6.
- Unión Europea. Reglamento (UE) 2018/848 del Parlamento Europeo y del Consejo, de 30 de mayo de 2018, sobre producción ecológica y etiquetado de los productos ecológicos y por el que se deroga el Reglamento (CE) nº 834/2007 del Consejo. Diario Oficial de la Unión Europea. L 150:1–92.