

# Organic farming could feed Europe by 2050

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## Agro-ecological scenario for Europe in 2050

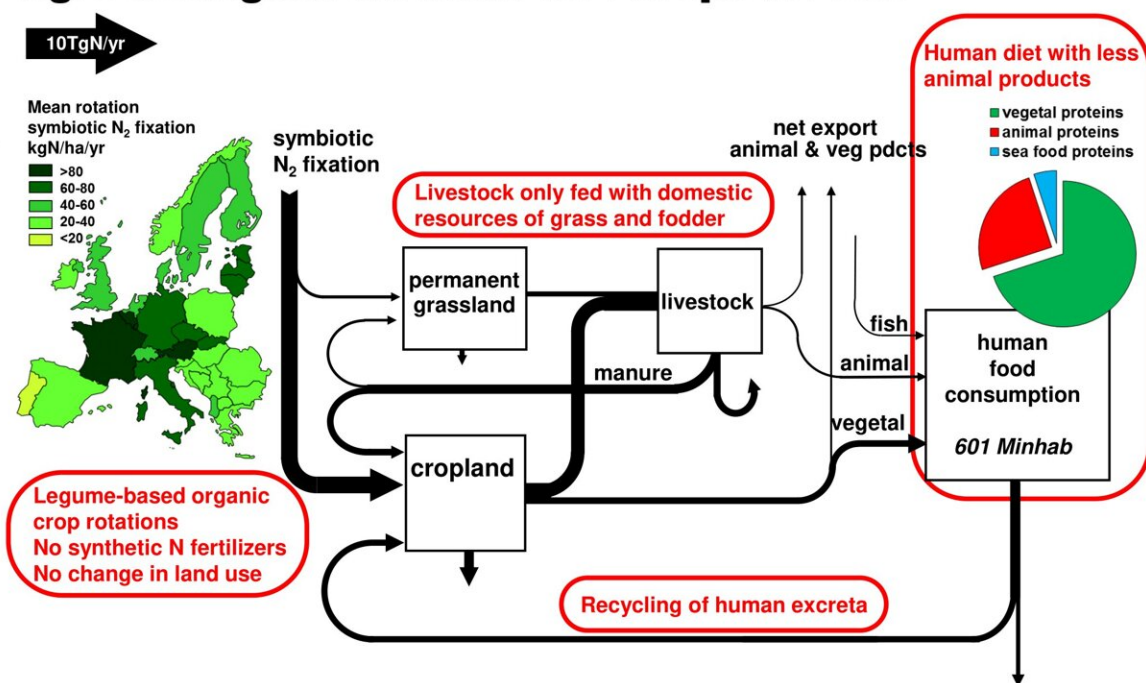


Diagram of a possible agro-ecological scenario for 2050. Credit: © Gilles Billen

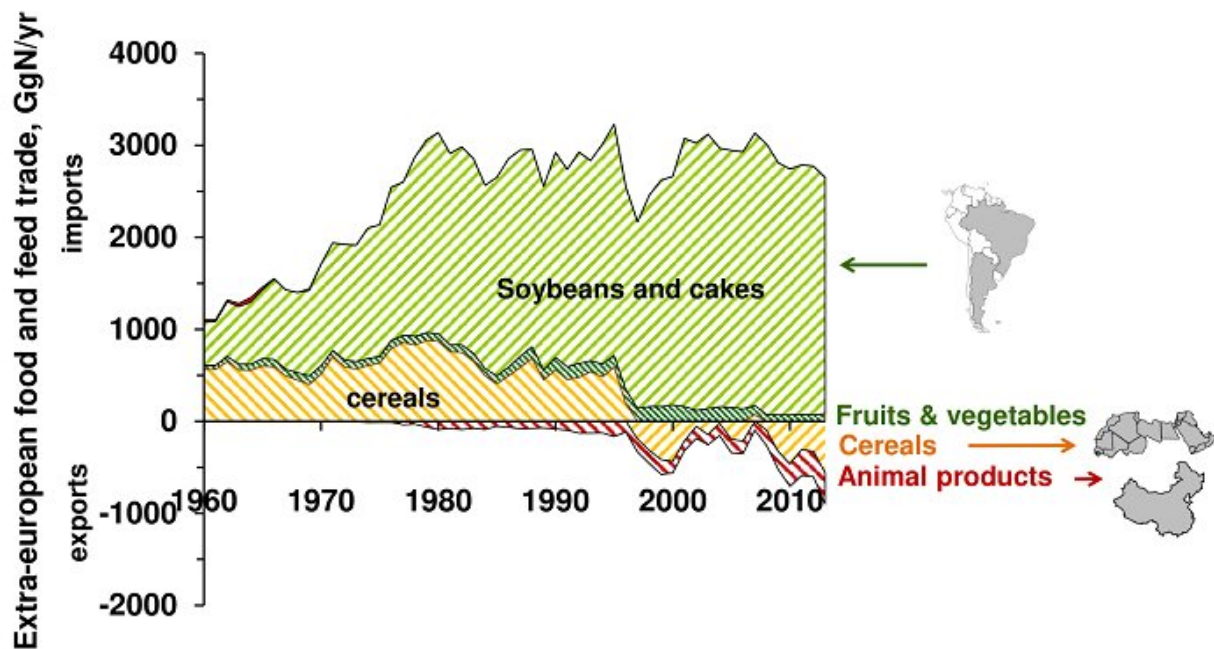
Food has become one of the major challenges of the 21st century. According to a study carried out by CNRS scientists, an organic, sustainable, biodiversity-friendly agro-food system, could be

implemented in Europe and would allow a balanced coexistence between agriculture and the environment.

The scenario proposed is based on three levers. The first would involve a change in diet, with less consumption of animal products, making it possible to limit intensive livestock farming and eliminate feed imports. The second lever would require the application of the principles of agroecology, with the generalization of long, diversified crop rotation systems incorporating nitrogen-fixing legumes, making it possible to do without synthetic nitrogen fertilizers and pesticides. The final lever would consist in bringing together crops and livestock, which are often disconnected and concentrated in ultra-specialized regions. This would allow optimal recycling of manure.

According to this scenario, it would in this way be possible to reinforce Europe's autonomy, feed the predicted population in 2050, continue to export cereals to countries which need them for [human consumption](#), and above all substantially reduce [water pollution](#) and [greenhouse gas emissions](#) from agriculture.

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50 years evolution of European food and feed trade exchanges, counted in terms of protein fluxes, shows an increased dependency on soybean imports, as well as an increased specialization into cereal and livestock production for export.

Changes in Europe's external trade in food products over the past 50 years.  
Credit: © Gilles Billen

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