

1

Supplementary figures

2 **Phosphorus excretions cycling in French agroecosystem and potential for food self-**
3 **sufficiency.**

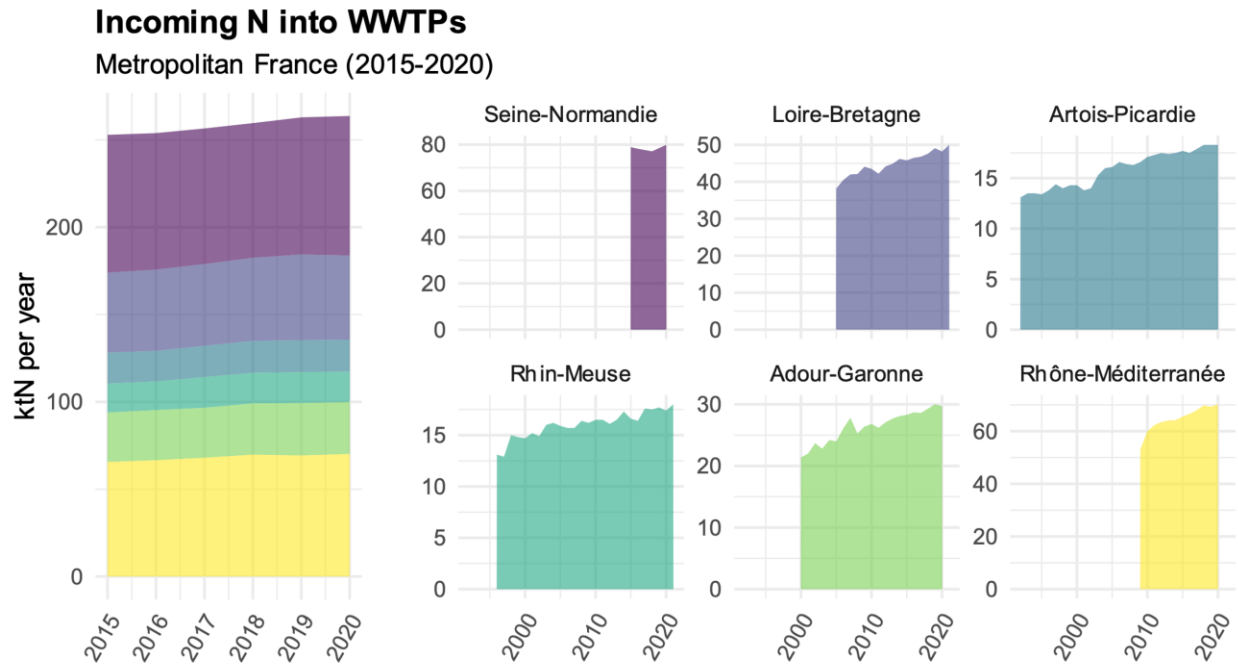
4 Thomas Starck^{1*}, Tanguy Fardet¹, Fabien Esculier^{1,2}

5 *Corresponding Author. E-mail: thomas.starck@polytechnique.org ; ORCID 0000-0003-3559-
6 2379

7 ¹ LEESU, Ecole des Ponts, Univ Paris Est Creteil, Marne-la-Vallée, France

8 ² METIS, Sorbonne Université, CNRS, EPHE, Paris, France

9

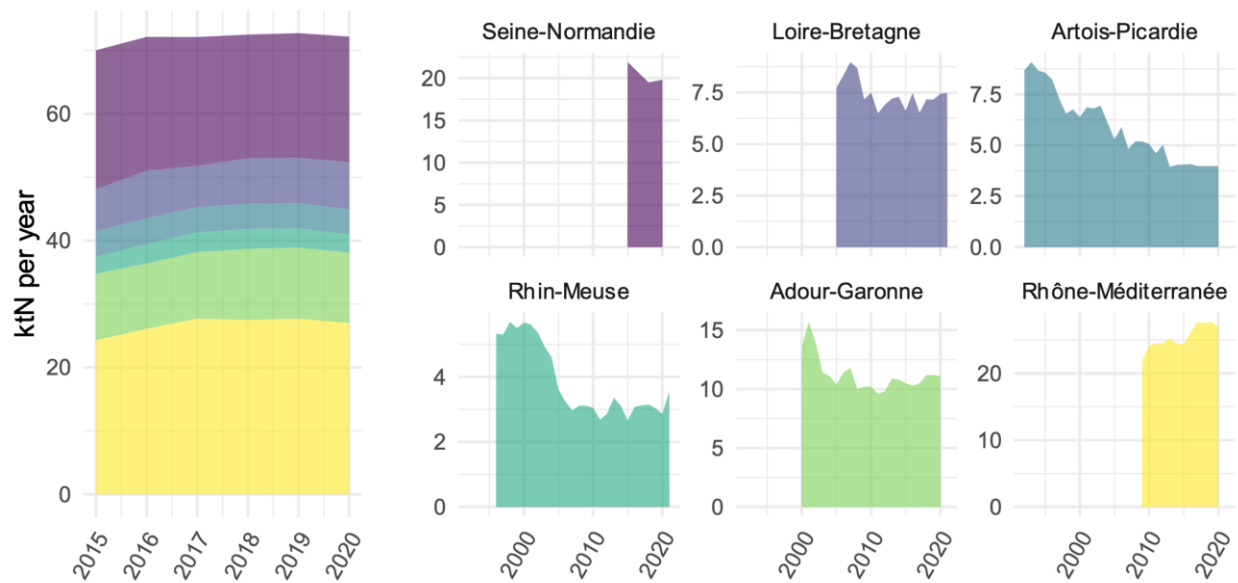


11

12 *Figure S1. Reported N flows entering Waste Water Treatment Plants (WWTPs) at the national*
 13 *scale (left) and in the 6 water agencies, after data cleaning. For the national scale, only the*
 14 *reference period (2015-2020) is shown; for the 6 basins, all available data is shown. Actual*
 15 *flows may differ as reporting rates increase over time.*

16

N discharged by WWTPs
Metropolitan France (2015-2020)

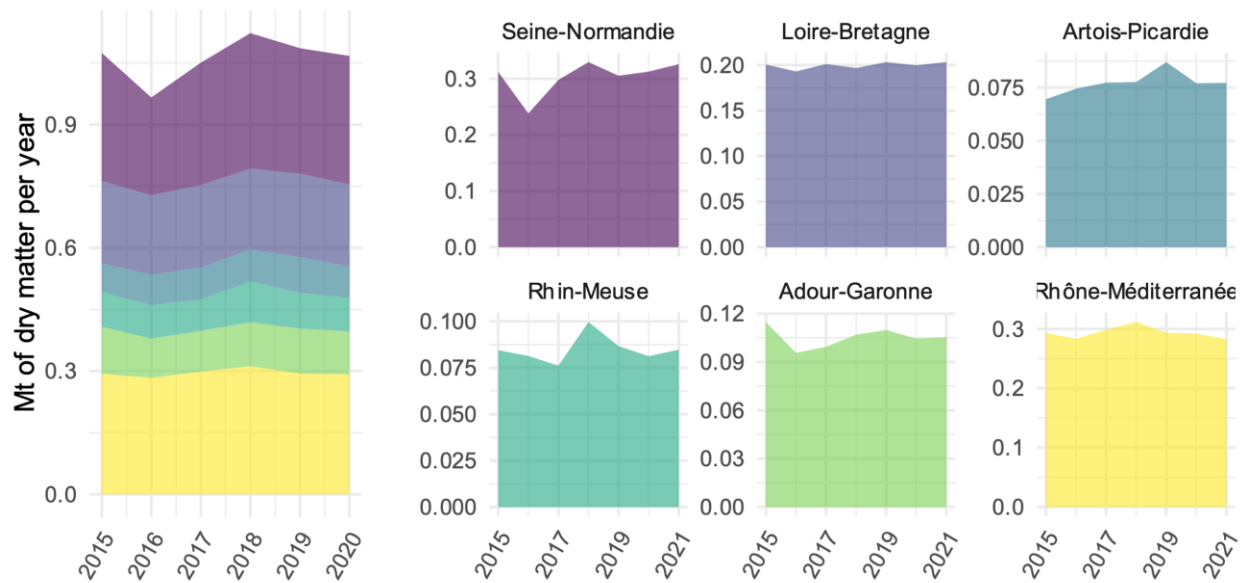


17

18 *Figure S2. Reported N flows discharged by Waste Water Treatment Plants (WWTPs) at the*
 19 *national scale (left) and in the 6 water agencies, after data cleaning. For the national scale, only*
 20 *the reference period (2015-2020) is shown; for the 6 basins, all available data is shown. Actual*
 21 *flows may differ as reporting rates increase over time.*

22

Sludge Production
Metropolitan France (2015-2020)

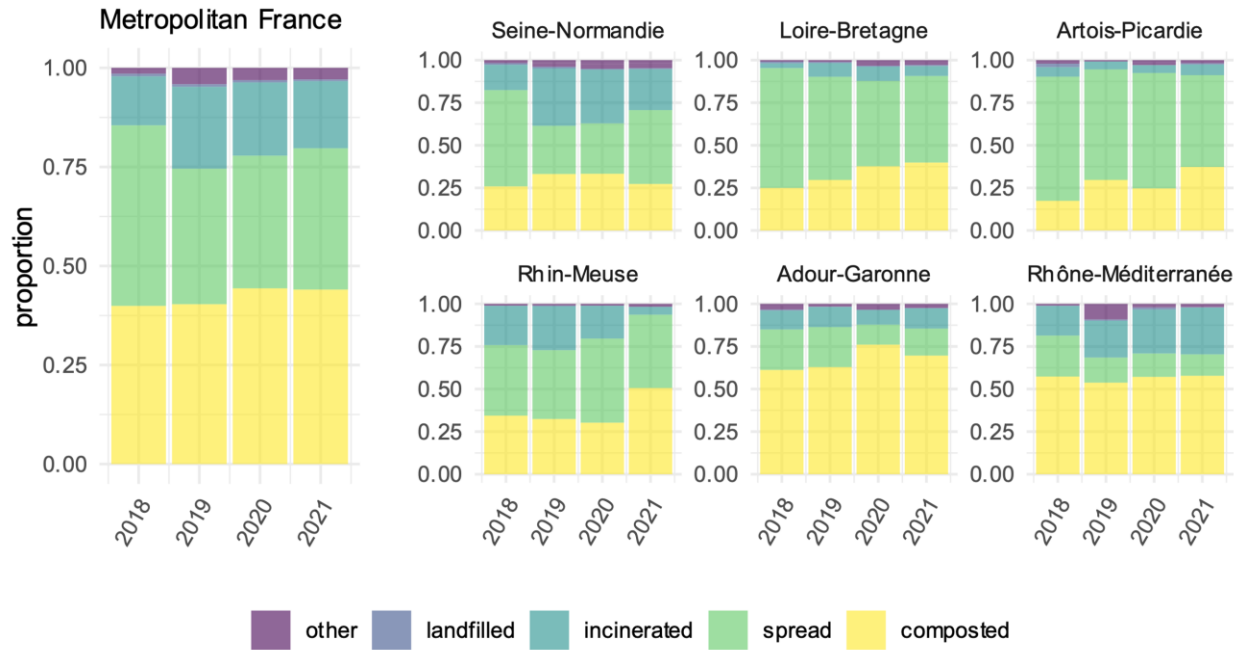


23

24 *Figure S3. Reported Waste Water Treatment Plants (WWTPs) sludge production at the national*
 25 *scale (left) and in the 6 water agencies, after data cleaning.*

26

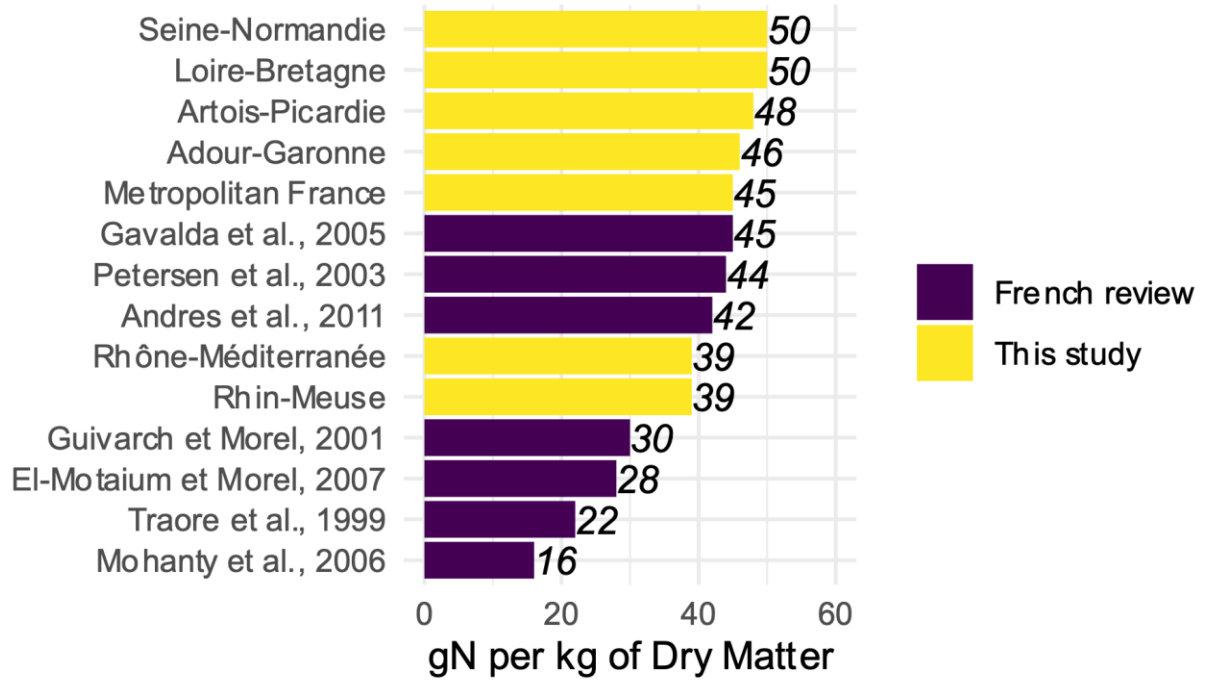
Relative destination of WWTP sludge



27

28 *Figure S4. Reported Waste Water Treatment Plants (WWTPs) sludge relative destination at the*
 29 *national scale (left) and in the 6 water agencies, after data cleaning. Only the 2018-2021 period*
 30 *is shown, as previous years have very scarce and incoherent data.*

31

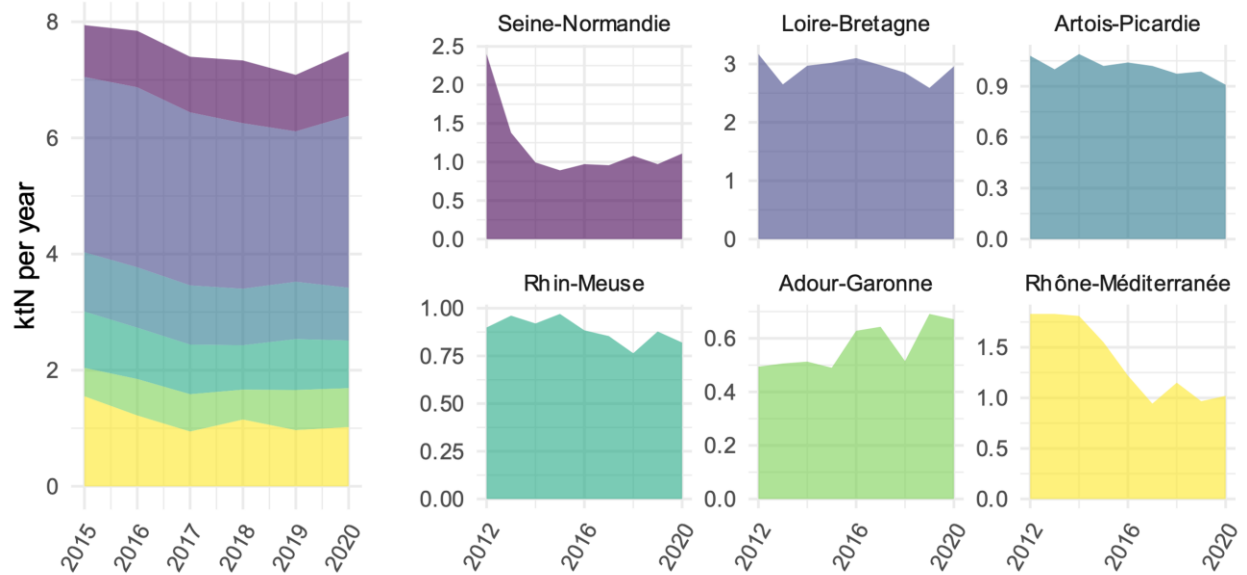


32

33 *Figure S5. Comparison of sludge N content in Fuchs et al. (2014) and the value obtained from*
 34 *our P budget, at the national scale and in the 6 water agencies basins.*

35

Large industries N discharge in sewers
Metropolitan France (2015-2020)



36

37 *Figure S6. Reported N discharged by large industries at the national scale (left) and in the 6*
38 *water agencies, after data cleaning.*

39



40

41 *Figure S7. Comparison of actual measurements of N excretions in the literature to our study*
 42 *value.*