

‘ProPIG’ Challenges and opportunities for on farm pig researchers:

How to collect sound scientific data on animal health, welfare,
nutrition and environmental impact AND
act as a facilitator to improve these aspects at the same time?

Rudolph, G., Bochicchio, D., Brandhofer, R., Berner, A., Butler, G., Dippel, S., Dourmad, J.Y., Edwards, S., Früh, B., Holinger, M., Holmes, D., Illmann, G., Knop, D., Meier, M., Prunier, A., Rousing, T., Salomon, E., Silerova, J., Sorensen, J.T., Urban, J., Vertes, F., Winckler, C., Leeb, C.*

*Corresponding author: University of Natural Resources and Life Sciences, Vienna, Department of Sustainable Agricultural Systems, Division of Livestock Sciences, Gregor-Mendel-Straße 33, A-1180 Vienna; Austria; christine.leeb@boku.ac.at

CoreOrganicII - Project ‘ProPIG’

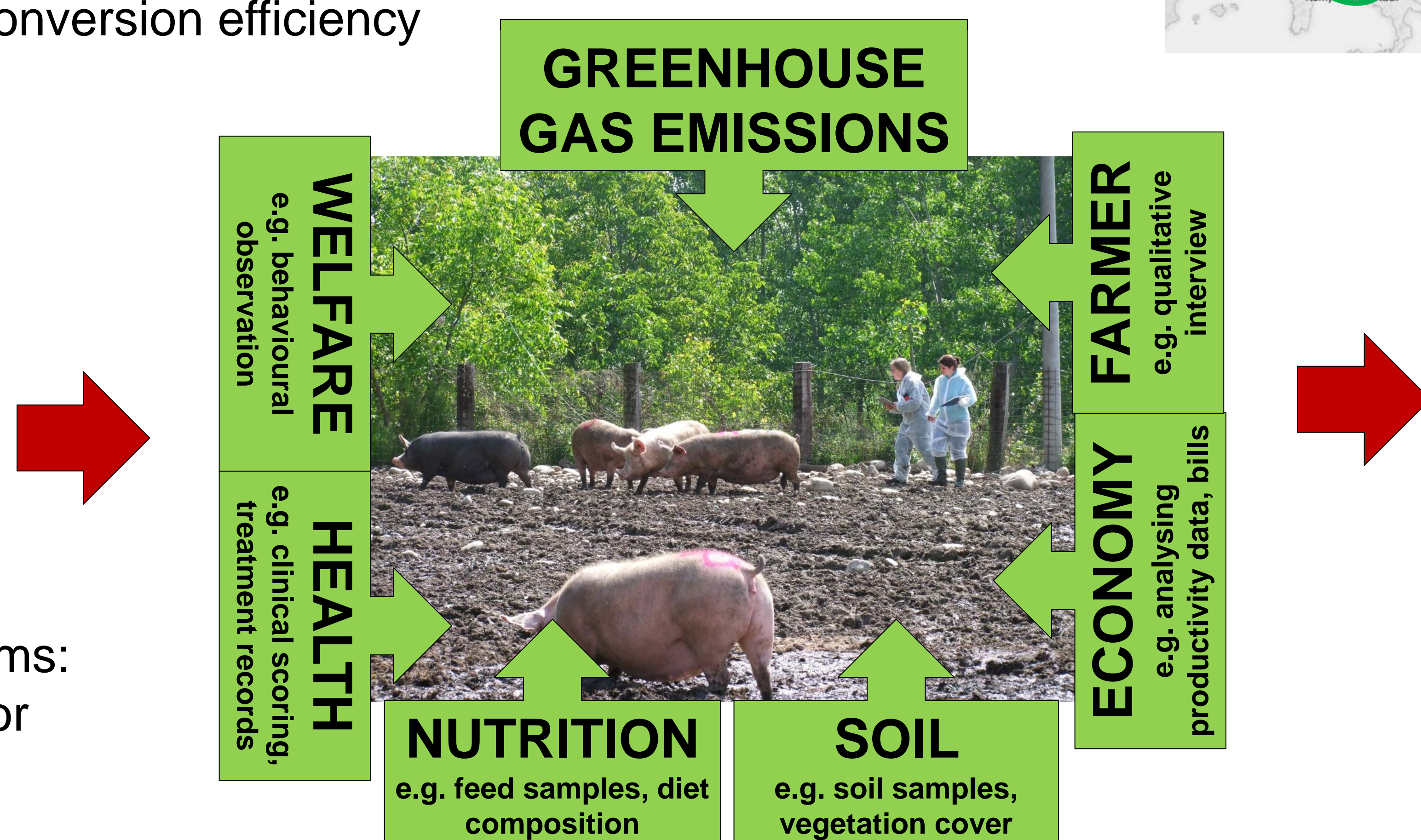
9 partners across 8 countries, 75 organic pig farms, 2011-2014

Robust and competitive organic pig production:

- low environmental impact & good animal health and welfare
- assumption that improving animal health and welfare reduces environmental impact e.g. through decreased medicine use, improved growth rates and feed conversion efficiency



3 types of organic pig systems:
Indoor/partly outdoor/outdoor



Farm individual strategies

Challenges

Multi- and interdisciplinary expertise necessary

- 🐷 new research areas become relevant (e.g. animal welfare scientists need to learn, how to collect and interpret soil samples)

Perform scientifically sound sampling strategies

- 🐷 commonly one day visits to collect data for several disciplines
- 🐷 balance representativeness and detailed description
- 🐷 key parameters of all disciplines versus completeness of parameters in one discipline

Transdisciplinary approach

- 🐷 In some cases/areas farmer knows more than researcher- researcher is no longer “the expert”
- 🐷 new experience/role for researcher to act as facilitator to encourage farmers to improve

Conclusion

Transdisciplinary on-farm research requires from all involved parties:

- Understanding and willingness to learn from each other
- Acceptance, that own field of research is only a part of the whole “on farm picture”
- Sound scientific methods as well as technical tools for support (e.g. tablet PCs)
- Move from being/expecting “experts” towards “facilitation”

www.coreorganic2.org/propig

Opportunities

Facilitating learning across disciplines/levels of experience

- 🐷 various backgrounds: animal scientists, veterinarians, biologists, soil and LCA experts
- 🐷 levels of experience: technicians, PhD- and MSc-students, professors, postdoc researchers

Application and communication on farm:

- 🐷 direct feedback by farmer on relevance/applicability of methods
- 🐷 new knowledge gained from farmers’ experiments and opinions

Combination of data

- 🐷 scientific facts and farmers’ experience: comprehensive catalogue of improvement strategies

- 🐷 Analysis of a „farming system“ from different perspectives

Cross-cutting topics:

- 🐷 Assessment, evaluation and discussion across disciplines
- 🐷 Identification of relationships and potential solutions: e.g. high proportion of thin sows: Impact and solutions on/ within animal welfare (hunger), health (lesions), nutrition (ration, feeding space), environmental impact (LCA), economy (reduced number of piglets).

Acknowledgement

This work is carried out within the framework of the 1st Call on research within COII with funding from national agencies.

The authors would like to thank all involved farmers, technicians, advisors as well as the funding bodies.