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**Opinion of organic and free-range pig farmers on animal welfare and the PIGLOW app for animal welfare self-assessments**

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The PIGLOW app was designed for the PPILOW project, enabling organic and free-range pig farmers to monitor the welfare of their pigs. The app is based on the 4 principles of the Welfare Quality protocol: good housing, good feeding, good health and appropriate behaviour. The tool includes automated feedback and anonymous benchmarking. A longitudinal study on 20-30 pig farms has started in order to determine the long-term effect of the use of the app on animal welfare. A survey is being conducted to assess participants' views on animal welfare and their expectations of the app (n=10). Answers are given on a scale of 1 (disagree completely/not important at all) to 7 (agree completely/very important). When asked how they would define good animal welfare, 7/10 farmers included the possibility to express natural behaviour. The farmers scored the importance of 16 welfare aspects addressed in the PIGLOW app. The lowest score was given for thermal comfort ( $\bar{x}=5.3$ ,  $sd=1.1$ ) and the highest score for the availability of drinking water ( $\bar{x}=7$ ,  $sd=0$ ). Thus, even the least important of the indicators were scored above the point of neutrality (score 4). When asked how they think their own farm performs on these same 16 aspects, the scores for all except one (feed structure) were lower than those they gave for the importance of the aspect. The mean difference between these two values was largest for absence of wounds/lesions ( $\bar{x}_{1-2}=1$ ,  $sd=1.3$ ) and absence of lameness ( $\bar{x}_{1-2}=1$ ,  $sd=1.7$ ). It therefore seems likely that these are the welfare aspects for which farmers think improvement on their farm is most desirable. Farmers expect a historical record of their data ( $\bar{x}=5.9$ ,  $sd=1.2$ ) and benchmarking ( $\bar{x}=5.7$ ,  $sd=1.5$ ) to be the most useful aspects of the PIGLOW app. This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N °816172.