Digital twins report: Introduction

2.1.   One of the key objectives of this project was to identify current and future opportunities for deploying advanced technologies in the offal inspection process, and identify the Key Performance Indicators (KPIs), causes of delays, inefficiencies, and opportunities.

2.2.   The second objective was to develop a model to facilitate virtual testing of technology, people, and process configurations and to explore 'what-if' scenarios for predicting and optimising the impact of interventions on offal inspections.

2.3.   The third objective was to simulate a live connected abattoir to understand the effectiveness and appropriateness of digital twin applications for virtual testing of potential interventions and investment opportunities to improve offal inspections.

2.4.   This report explains the discrete event simulation model, which has been developed for a generic pig abattoir process flow to provide policy makers with a flexible test bed for visualising how an inspection process can be transformed and optimised using technologies. In addition, this proof of concept aims to help the FSA understand the impact of technology intervention at different critical control points to inform the development of future inspection strategies that consider the right balance of technology and workforce deployment.