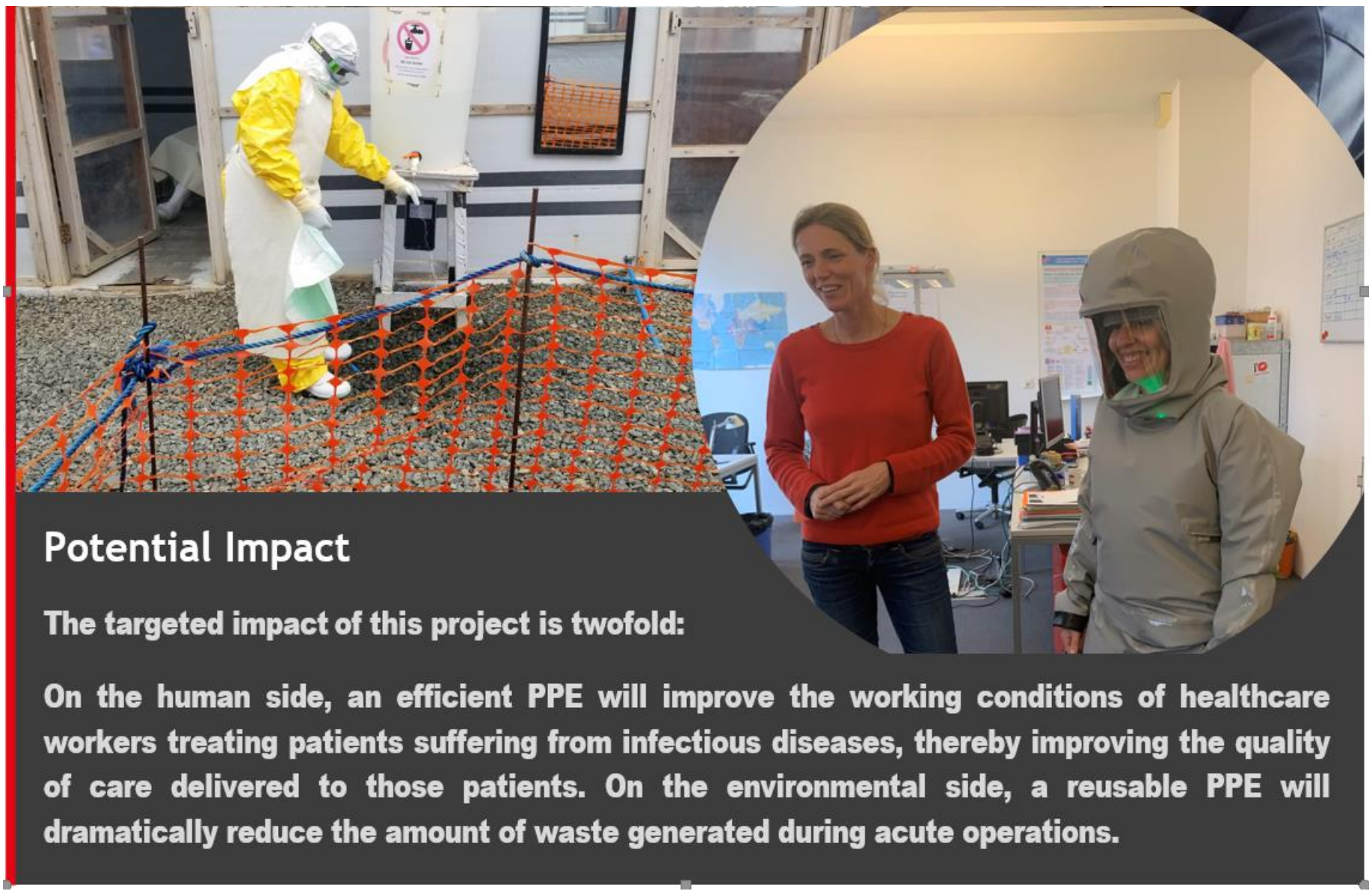
Smart PPE

Problem/need description:

Current Personal Protective Equipment (PPE) against Hemorrhagic Fevers like Ebola are hot, cumbersome, complex, and potentially unsafe. They are sweaty and the goggles fog-up, limiting the health workers to only 1 hour of work before becoming dehydrated and exhausted. Each donning and doffing of PPE comes also with its own contamination risk and copious infectious waste to dispose. Any improvement on this essential protective improvement can be a game changer for patient

Description of the solution:

SmartPPE is a single-piece (plus boots and gloves) reusable ventilated suite that can replace the traditional single-use 8 peace PPE used in Ebola and other filovirus treatment centers (ETC). It is more durable, with better visibility and mechanically ventilated - giving comfort, and mobility to the health worker without compromising protection. It is reusable for more than 100 times and can extend the work shift up to 4 hours without causing fatigue and exhaustion to the health worker.



Potential Impact

The targeted impact of this project is twofold:

On the human side, an efficient PPE will improve the working conditions of healthcare workers treating patients suffering from infectious diseases, thereby improving the quality of care delivered to those patients. On the environmental side, a reusable PPE will dramatically reduce the amount of waste generated during acute operations.