**Product / Service:** Chemicals & Pharmaceuticals (incl. Radiochemicals, Oligos, Primers and Antibodies)

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| --- | --- | --- | --- |
|  | **Negative Impacts / Risks** |  | **Positive Opportunities** |
| **Environmental** | * Production – high carbon production process, including non-recyclable & non-renewable materials & water (impact on biodiversity / mining impacts) * Energy use of storage equipment (carbon impact) e.g. refrigerators * Vehicle fuel & emissions (carbon impact) – high order frequency of chemicals (small volumes) * Products may be delivered in excessive packaging * Products may be hazardous by nature and result in hazardous waste (expensive to transport, store, track & dispose of) | * Computer modelling techniques in research may avoid use * Energy efficient storage equipment (e.g. EnergyStar) * Consolidated orders & reduced delivery frequency of products / consignment stock * Low CO2 vehicles for delivery * Reduction in, or use of recycled materials, in packaging (where this does not introduce health and safety risks in transit/storage) |
| **Social** | * International manufacturing supply chains (potential for issues such as child labour / poor pay & working conditions / health and safety breaches) * Frequency & timing of deliveries – congestion & noise impacting residents * Negative publicity associated with animal use in production (incl. standards of animal husbandry overseas) | * Potential investment in apprenticeships * Consolidated orders & deliveries (including shared contracts) * Potential benefit to society in identifying solutions to medical problems |
| **Economic** | * Potential duplication of purchases across multiple sites - disconnected orders / multiple delivery charges * Waste in purchases as small volumes used (c.f. volumes purchased) * Poor inventory management may result in over-ordering of chemicals / leftover stock / high storage costs * Waste disposal costs | * Rationalise suppliers & deliveries (common chemicals) * Reduce waste through effective inventory management / redistribute over-orders of chemicals internally * Spend supports investment in new products / medical research by suppliers |

**RELATED PROC HE:** LFB / LHC / LUD / LQ / LR / LV / LW / LX