**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)
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| **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

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