**Product / Service:** Gases (Science)

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|  | **Negative Impacts / Risks** |  | **Positive Opportunities** |
| **Environmental** | * Limited natural resource
* Damage to rock strata from natural gas extraction
* Risk of air or water course pollution from gas processing plant
* Vehicle fuel & emissions (carbon impact) – regular order frequency
* Gases may be hazardous by nature (risks in handling & storage) and result in hazardous waste (expensive to transport, store & dispose of)
 | * Computer modelling techniques in research may avoid use
* Consolidated orders & reduced delivery frequency (bulk orders)
* Low CO2 vehicles for delivery
* Capture waste gases for re-use/re-sale
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| **Social** | * International manufacturing supply chains (potential for issues such as child labour / poor pay & working conditions / health and safety breaches)
* Working conditions of delivery staff (health & safety / long hours / unsocial hours / low pay)
* Frequency & timing of deliveries – congestion & noise impacting residents
 | * 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** | * Inefficient storage or transport – gas leakage
* Potential duplication of purchases across multiple sites - disconnected orders / multiple delivery charges
* Poor inventory management may result in over-ordering / leftover stock / high storage costs / rental costs for obsolete cylinders
* Waste disposal costs
 | * Rationalise suppliers & deliveries (common gases)
* Reduce waste through effective inventory management / redistribute over-orders internally
* Spend supports investment in new products / medical research by suppliers
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**RELATED PROC HE:** LN