**Product / Service:** Printers / Photocopiers / Multi-Function Devices (Purchase / Lease / Managed Service / Consumables / Maintenance)

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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 equipment (carbon impact)
* Vehicle fuel & emissions (carbon impact) – high order frequency of paper / ink & multiple maintenance visits
* Equipment & consumables may be delivered in excessive packaging
* Use of paper – deforestation & water use in production (uses scarce resources / impacts biodiversity)
* Use of ink – may include hazardous substances & non-renewable oils (also used in production process)
* Disposal of equipment & parts (short-life span / rapid obsolescence) – adding to landfill
* Disposal of plastic ink cartridges
 | * Managed (or centralised) print to reduce number of machines (decline in production / energy use / disposal)
* Energy efficient equipment (e.g. EnergyStar)
* Consolidated orders & reduced delivery frequency of paper / ink
* Low CO2 vehicles for delivery & maintenance visits
* Alternatives to maintenance staff physically attending site e.g. remote access support
* Consolidate maintenance visits across sites / consider on-site engineers
* Reduce levels of packaging / use recycled packaging
* Paper with increased recycled content (ideally at least 50%) & chlorine free processing
* Vegetable based ink / high yield ink cartridges
* Equipment recycling / stripping assets for re-use
* Ink cartridge re-use / recycling
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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 maintenance staff (long hours / low pay)
* Frequency & timing of deliveries & maintenance visits – congestion & noise impacting residents
 | * Maintenance staff - local employment / living wage
* Apprenticeship opportunities
* Consolidated orders, deliveries & maintenance visits (including shared contracts)
* Donation of equipment or over-orders to charity / schools
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|  | **Negative Impacts / Risks** |  | **Positive Opportunities** |
| **Economic** | * Multiple purchases of individual desk-top printers (potential duplication)
* Under-utilisation (depreciating asset)
* Poor inventory management may result in over-ordering of consumables / leftover stock / high storage costs
* High wastage of paper & ink – non-essential printing
* Cost of energy used by equipment
* Multiple maintenance visits across sites – inefficient & costly
* Waste disposal costs
 | * Managed (or centralised) print to reduce number of machines (overall cost reduction / cheaper consumables)
* Consider whole life cost of purchase v lease
* Reduce waste through effective inventory management / redistribute over-orders of consumables internally
* Minimising printing (default double-sided, black & white, font to minimise ink usage)
* Energy efficient equipment (e.g. EnergyStar) – reduce energy bills
* Consolidate & align maintenance contracts across sites
* Sell old machines for parts/metal scrap
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**RELATED PROC HE:** KB / PC / PE / SG