

## Bread and Bakery Food Waste Reduction by Supply Chain Stage

LOGISTICS	Drivers & Solutions	B2B Collaboration Opportunities
	<b>Delivery delays:</b> Real-time GPS tracking, flexible distribution hubs	<b>Temperature/humidity:</b> Supply chain-wide climate control monitoring
	<b>Temperature/humidity:</b> Automated environmental sensors with real-time alerts	<b>Storage/distribution/packaging/delivery:</b> Collaborate on industry logistics challenges
	<b>Human error/staff training:</b> Automate processes, standardise training and SOPs, multilingual training tools, gamification and incentives for waste reduction	
	<b>Packaging/handling:</b> Strengthen bread bags and securing mechanisms for transit	
	<b>General:</b> Measure waste, monitor waste hotspots, foster continuous improvement culture with targets & KPIs (where appropriate)	
	<b>Diversion from landfill:</b> Investigate best waste disposal destinations to reduce environmental/climate impact of food waste (e.g. anaerobic digestion, composting)	
MILLING	Drivers & Solutions	B2B Collaboration opportunities
	<b>Varying wheat quality:</b> Use real-time grain-quality sensors, redirect off-spec wheat to value-added processing	<b>Storage/distribution/packaging:</b> Consult on supply requirements and design stronger packaging formats
	<b>Human error/staff training:</b> Automate processes, standardise training and SOPs, multilingual training tools, visual aids, gamification and incentives for waste reduction	<b>Supplies arriving out of spec:</b> Implement stricter quality checks and collaborate on the causes of rejections from the supply chain.
	<b>Storage issues (weevils):</b> Environmental monitoring and pest detection in silos	



# Kai Commitment

BUSINESSES LEADING FOOD WASTE REDUCTION

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	<b>Diversion from landfill:</b> Investigate best waste disposal destinations to reduce environmental/climate impact of food waste (e.g. anaerobic digestion, composting)	
MANUFACTURING	Drivers & Solutions	B2B Collaboration opportunities
	<b>Human error/staff training:</b> Automate processes, standardise training and SOPs, multilingual training tools, gamification and incentives for waste reduction	<b>Contractual agreements:</b> Build the case for alternative, lower waste arrangements, use data and global best practice options, include waste reduction in supply meetings
	<b>Machinery inefficiencies:</b> Allocate time to conduct routine maintenance programme for equipment to prevent breakdowns and batch losses. Invest in/support pilot interventions, equipment or technology upgrades	<b>Competitor promotions:</b> Enhanced forecasting across SKUs taking into account competitor promotional activities
	<b>Packaging/handling:</b> Improve design of tags to reduce failure rate. Automated sensors for rack stacking.	<b>Forecasting:</b> Integrated information sharing, technology-enabled platforms
	<b>Inventory control:</b> Demand-driven ordering, digital inventory platforms	<b>Storage/distribution:</b> Partner with millers on packaging improvements
	<b>General:</b> Measure waste, monitor waste hotspots, and implement continuous improvement culture with targets and KPIs (where appropriate). Use data insights to justify investment in improvements (e.g. forecasting technology, process improvement expertise, equipment)	<b>Delivery delays:</b> Collaborate on common industry logistics challenges
	<b>Diversion from landfill:</b> Strengthen food rescue and animal feed initiatives and investigate upcycling partnerships. Investigate best waste disposal destinations to reduce environmental/climate impact of food waste (e.g. anaerobic digestion, composting)	<b>Merchandising delays:</b> Coordinated and more efficient delivery-to-shelving schedules



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		<b>Consumer behaviours:</b> Flexible loaf sizes, resealable packaging, shelf-life extension, consumer engagement on correct use of date labelling, storage advice, reuse of products.
		<b>Temperature/humidity:</b> Supply chain-wide climate control monitoring with alerts
		<b>Supply chain breakdown:</b> Localised backup supply options
WHOLESALE	Drivers & Solutions	B2B Collaboration opportunities
	<b>Poor forecasting/inventory:</b> AI-based demand forecasts, data sharing for better lead times	<b>Temperature/humidity:</b> Supply chain-wide climate control monitoring with alerts
	<b>Delivery delays:</b> Integrated tracking systems for fresh food delivery prioritisation	<b>Packaging/handling:</b> Communicate to manufacturers on recurring damage/spillage issues
	<b>General:</b> Measure waste, monitor waste hotspots, implement continuous improvement culture with targets and KPIs (where appropriate). Invest in/support pilot interventions. Create internal champions who motivate and organise staff engagement activities.	
	<b>Diversion from landfill:</b> Strengthen food rescue and animal feed initiatives and investigate upcycling partnerships. Investigate best waste disposal destinations to reduce environmental/climate impact of food waste (e.g. anaerobic digestion, composting)	



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RETAIL	Drivers & Solutions	B2B Collaboration opportunities
	<b>Poor inventory management:</b> Collaboration with merchandisers from supply chain partners on sales stats and shelf level analytics for accurate reordering. Use centralised dark stores in urban areas for stock management.	<b>Contractual agreements:</b> Collaborate with supply chain partners on drivers of waste due to B2B arrangements, processing and practices
	<b>Packaging/handling:</b> Upgrade packaging, limit shelf overfilling	<b>Consumer expectations:</b> Education on cost savings to motivate customers to waste less. Raise awareness of correct use of date labels and other information at POS (e.g. storage, reuse) packaging innovations, promote quality over freshness, pilot stock level variations
	<b>Vendor placing waste in skips:</b> Lock waste bins, monitor with sensors/cameras	<b>Forecasting:</b> Integrated information sharing platforms
	<b>General:</b> Measure waste, monitor waste hotspots, implement continuous improvement culture (Set targets, KPIs, track progress, and share visual data reporting with teams). Provide regular staff training and support pilot interventions. Create internal champions who motivate and organise staff engagement activities.	<b>Delivery/merchandising delays:</b> Coordinated schedules, industry logistics collaboration
	<b>Diversion from landfill:</b> Strengthen food rescue and animal feed initiatives and investigate upcycling partnerships. Investigate best waste disposal destinations to reduce environmental/climate impact of food waste (e.g. anaerobic digestion, composting)	<b>Temperature/humidity:</b> Supply chain-wide climate control monitoring with alerts
		<b>Promotional activity:</b> Collaborate with manufacturing to mitigate waste caused by competitor promotions (within competition laws)
		<b>Supply chain breakdown:</b> Localised backup supply options

FOOD SERVICE	Drivers & Solutions	B2B Collaboration opportunities
	<b>Fluctuating patronage:</b> Dynamic demand planning with event/weather/historical data	<b>Contractual agreements:</b> Collaborate with supply chain partners on drivers of waste due to B2B arrangements, processing and practices
	<b>Lack of monitoring:</b> Smart waste tracking tools (camera bins, scales) for kitchen waste. Measure customer waste, monitor waste hotspots, implement continuous improvement culture with targets and KPIs for waste reduction, and invest in/support pilot interventions.	<b>Consumer expectations:</b> Engage customers on reduced-choice, low-waste behaviours
	<b>Staff behaviour/communication:</b> Mobile kitchen apps, automate processes, standardise training and SOPs, multilingual training tools, gamification and incentives for reduction, including shared waste reduction targets.	<b>Client premises limitations:</b> Collaborate to improve storage at venues and waste diversion infrastructure options
	<b>Portion management:</b> Standardised serving tools and training. Smaller plate size and single serves.	<b>Forecasting:</b> Integrated information sharing platforms
	<b>Storage/inventory:</b> automated alerts and technology enabled inventory management.	<b>Temperature/humidity:</b> Supply chain-wide climate control monitoring with alerts
	<b>Lack of internal upcycling:</b> Reuse within recipe design, staff incentives for innovation and waste reduction through chef specials etc.	<b>Supply chain breakdown:</b> Localised backup supply options
	<b>Diversion from landfill:</b> Strengthen food rescue and animal feed initiatives and investigate upcycling partnerships. Investigate best waste disposal destinations to reduce environmental/climate impact of food waste (e.g. anaerobic digestion, composting). Emission-tracking software to calculate emissions factors and communicate impact to customers.	