

# Cat-Macro

## Store space optimisation

**Enhance your trading space performance and determine the optimal fixture space for each category in your store**

### Why use a macro space optimisation solution?

- When you analyse a store's performance against the space that has been allocated you need to identify high and low performing areas, optimise positioning and customer flow.
- Additionally you need to understand trends and seasonal variation, consider inventory rules to ensure the correct space is achieved and ensure the space between departments is balanced effectively.
- All of this takes time and many hours invested in continual analysis on spreadsheets.
- Cat-Macro will complete all these tasks in minutes and allow the user to spend time on the important 'What Ifs' to ensure the final decision has considered all of the above

### Rules-Based

- You can set the rules, trends and minimum and maximum space restrictions.
- Also allow for the product size to be included, use elasticity, consider bay rounding restrictions or restrict bay changing to aisles.

### Results

- Once the Rules have been set the solution will produce a recommendation analysis.
- This will include the change in sales and profit, and a cost analysis of implementing the changes in the store.

### Post Analysis

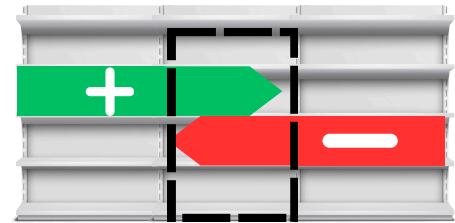
- The only way to validate decisions made is to re-assess performance after a short period of time.
- The solution has a feature where you can import a new file after 2-3 months, and it will assess what effect the actual performance had on the initial proposal.

### Space Elasticity - Store view of bay changes



### By Category

Where do you add space?  
Where do you reduce space?



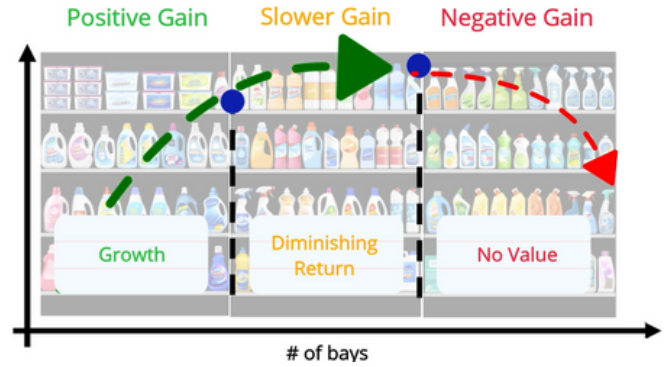
### Full analysis and cost of change (£)

Department Name	Number	Space Group Name	Adjusted Bays	Adj User Ratio	Bay Changes
Instore Bakery	14	Bread	5.00	4.00	-1.00
Instore Bakery	12	Cakes	3.00	3.00	
Instore Bakery	10	Instore Bakery	1.63	2.00	0.38
Instore Bakery	11	Rolls	3.00	3.00	
Instore Bakery	13	Sandwiches	2.00	2.00	
			<b>14.63</b>	<b>14.00</b>	<b>-0.63</b>
Edible Grocery	20	Ambient Soup	3.00	3.00	
Edible Grocery	21	Canned Meat & Fish	3.00	3.00	
Edible Grocery	22	Canned Vegetables	5.00	6.00	1.00
Edible Grocery	23	Condiments	4.00	4.00	
Edible Grocery	24	Oils & Vinegar	2.00	3.00	1.00
Edible Grocery	26	Sauces & Pickles	9.00	7.00	-2.00
Edible Grocery	25	World Foods	19.00	17.00	-2.00
			<b>45.00</b>	<b>43.00</b>	<b>-2.00</b>
Edible Grocery	29	Eggs	2.00	4.00	2.00
Edible Grocery	28	Free From	4.00	5.00	1.00
Edible Grocery	30	Healthy Foods	1.00	1.00	
Edible Grocery	27	Home Baking & Sugar	7.00	7.00	
Edible Grocery	31	Long Life Milk	3.00	2.00	-1.00
			<b>17.00</b>	<b>19.00</b>	<b>2.00</b>

<b>Bay Changes</b>	46 - 58%
<b>Hours Unload</b>	95
<b>Hours Fill</b>	143
<b>Total Cost</b>	£3,566.53

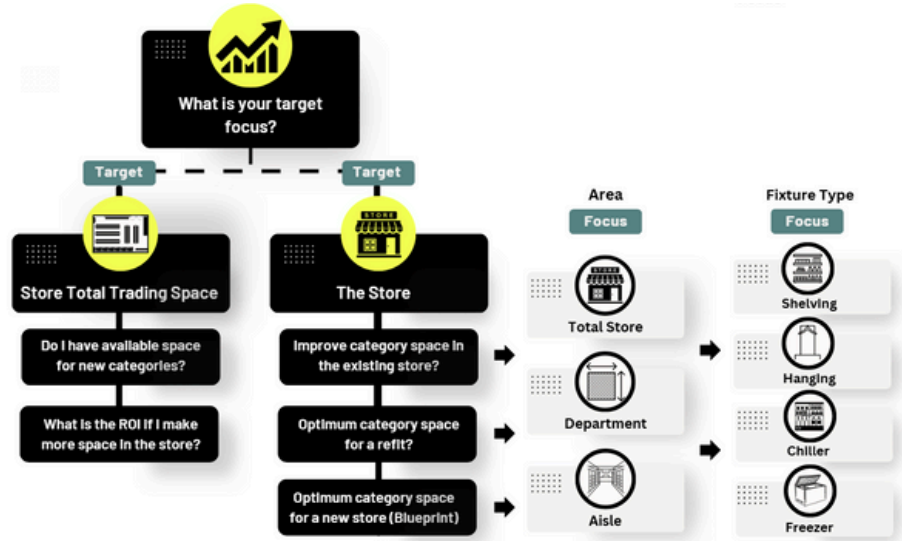
## The diminishing returns impact of adding inventory to space

- Grasping the concept of space elasticity is essential for maximising the efficiency of retail trading areas.
- How many bays should be assigned to a category before the principle of diminishing returns takes effect?
- In practice, the following points are crucial:
  - Allocating extra space does not yield any further financial advantage.
  - This allocation incurs costs related to product distribution and inventory management.
  - Moreover, it detracts from another category that could benefit more from additional space.
  - There may also be potential to introduce new categories that would enhance the shopping experience for customers.



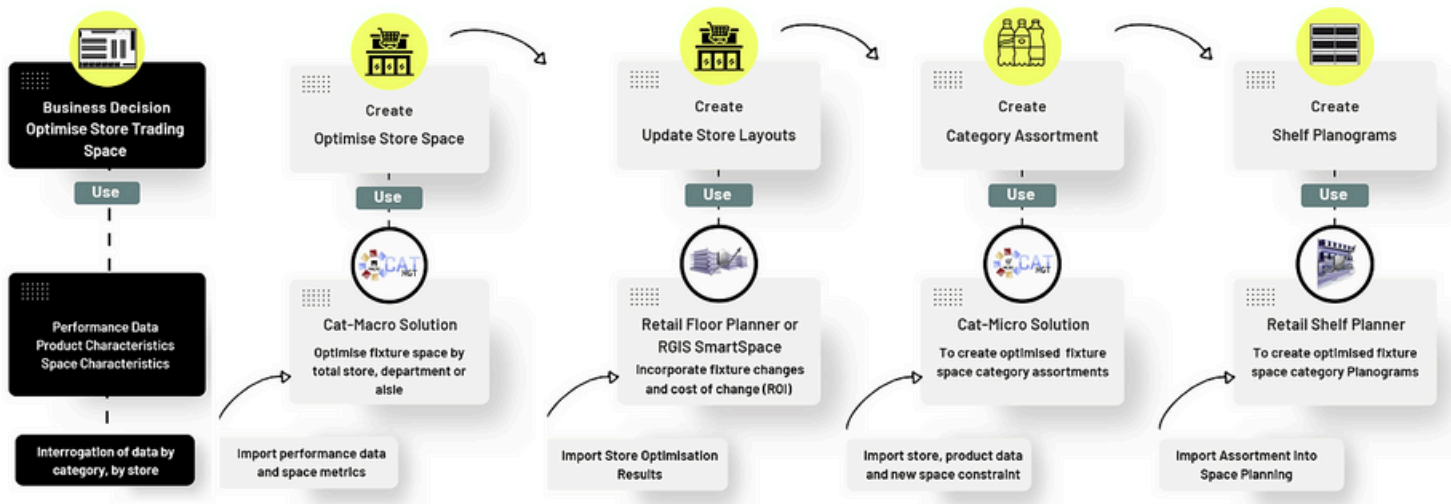
## Establish the goals & targets

- Our solution allows for the execution of various scenarios across multiple stores, clusters, or individual locations with a single data upload.
- Users have the ability to focus on the entire store or on particular sections, including departments, aisles, or specific types of fixtures.



## Process flow of Store Space Optimisation

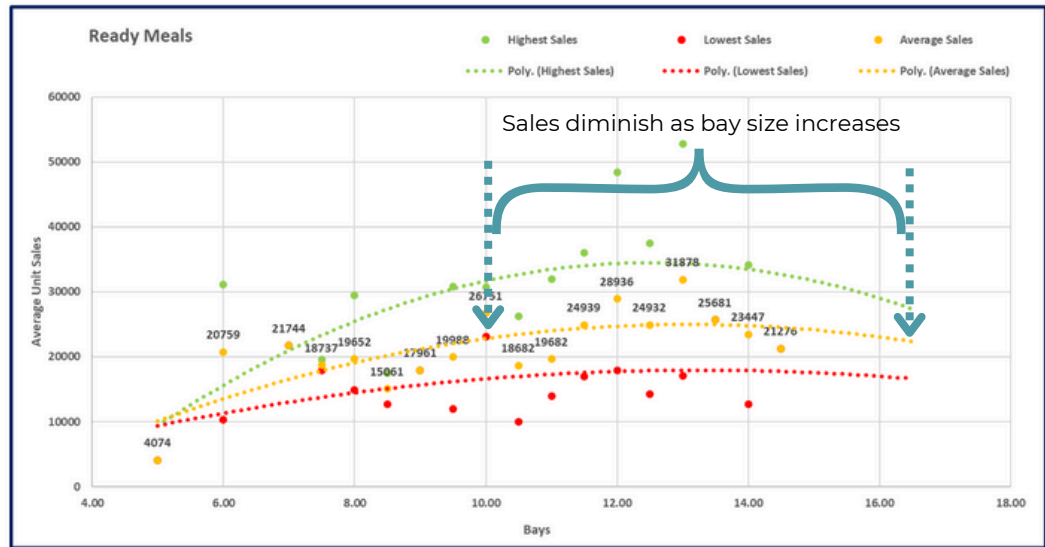
- Below is the business process flow for a top-down optimisation where the total store space is the starting point.
- Store planning remains an integral part of the process to review all the proposed changes.
  - You can feed in the results to obtain a helicopter view of the optimised changes.
- Create a store cluster blueprint of an optimised store and see where quick wins can be implemented across stores. (Note consumer habits shift so ideally store optimisation should be re-run half-yearly or annually.)
- Calculate the cost of fixture change, timings for delivery to stores and overall expected ROI of change.



# Insights

Where does the point of diminishing returns occur in terms of sales as each bay size increases within a specific category?

The retail example on ready meals indicates that expanding beyond 10 Bays is not expected to significantly boost sales.



Where should we increase or decrease space by category at either aisle, department or total store?

The solution will show a Heat Map identifying the changes by Space Group by Aisle and Department

Flow Order	Department Name	Space Group Number	Space Group Name	Manual Height Adjusted Bays	Adj User Ratio	Bay Changes
10a	Instore Bakery	14	Bread	5.00	4.00	-1.00
10a	Instore Bakery	12	Cakes	3.00	3.00	
10a	Instore Bakery	10	Instore Bakery	1.63	2.00	0.38
10a	Instore Bakery	11	Rolls	3.00	3.00	
10a	Instore Bakery	13	Sandwiches	2.00	2.00	
10a				14.63	14.00	-0.63
22a	Edible Grocery	20	Ambient Soup	3.00	3.00	
22a	Edible Grocery	21	Canned Meat & Fish	3.00	3.00	
22a	Edible Grocery	22	Canned Vegetables	5.00	6.00	1.00
22a	Edible Grocery	23	Condiments	4.00	4.00	
22a	Edible Grocery	24	Oils & Vinegar	2.00	3.00	1.00
22a	Edible Grocery	26	Sauces & Pickles	9.00	7.00	-2.00
22a	Edible Grocery	25	World Foods	19.00	17.00	-2.00
22a				45.00	43.00	-2.00
22b	Edible Grocery	29	Eggs	2.00	4.00	2.00
22b	Edible Grocery	28	Free From	4.00	5.00	1.00
22b	Edible Grocery	30	Healthy Foods	1.00	1.00	
22b	Edible Grocery	27	Home Baking & Sugar	7.00	7.00	
22b	Edible Grocery	31	Long Life Milk	3.00	2.00	-1.00
22b				17.00	19.00	2.00

When chosen, the elasticity feature empowers the user to establish stricter parameters governing the correlation between spatial aspects and financial outcomes.

In figure (a) the green highlighted cells indicate potential elasticity gain however the pink cells indicate no gain above 5% (where the 5% threshold was set by the user).

Space Group Number	Space Group Name	Height Adjusted Bays	User Changes	Adj User Ratio
14	Bread	5.0		4.0
10	Instore Bakery	1.6		2.0
20	Ambient Soup	3.0		3.0
22	Canned Vegetables	5.0		6.0
23	Condiments	4.0		4.0
24	Oils & Vinegar	2.0		3.0
26	Sauces & Pickles	9.0		7.0
33	Canned Fruit	4.0		3.0
80	Beers & Ciders	11.0		8.0
83	Red Wine	8.0		7.0
84	Rose Wines	0.3		1.0
81	Sparkling Wines	1.3		2.0

Value Sales LY	£603,114
Value Sales TY	£636,234
Difference	£33,120
Difference %	5.5%
Value Sales TY	£636,234
Proj Value Sales TY With Trend	£675,823
Difference	£39,588
Difference %	6.2%
Difference using Elasticity	£9,540
Difference % using Elasticity	1.5%

Figure (a)

The review feature allows for importing new data after a few months, analysing the impact of the actual performance on the initial proposal.

	247,402	636,234	256,371	675,823	255,290	674,039	3.2%	5.9%
	At Review	At Review	Projected	Projected	Actual	Actual	Difference	Difference
Department Name	Unit Sales TY	Value Sales TY	Proj Unit Sales TY With Trend Adj	Proj Value Sales TY With Trend Adj	Unit Sales TY Post	Value Sales TY Post	Unit Sales TY Post Diff %	Value Sales TY Post Diff %
Instore Bakery	13651	21,570	13,647	21,403	13665	21,442	0.1%	-0.6%
Edible Grocery	64019	134,133	65,855	138,675	65579	138,056	2.4%	2.9%
Non Edible Grocery	12913	43,750	13,153	44,241	13014	43,769	0.8%	0.0%
HBA	7318	24,171	7,415	24,436	7461	24,573	2.0%	1.7%
Alcohol	10424	86,055	11,707	108,924	11780	109,613	13.0%	27.4%