



Aplicaciones de la gestión de datos al Análisis de Mercados

Agenda

- Customer Analytics (1)
- Case study: Geointel Analytics

Data & Analytics: application areas

CONSUMER INSIGHTS

- ❑ Social listening
- ❑ Trends
- ❑ Neuro-testing
- ❑ Segmentation
- ❑ Ethnography

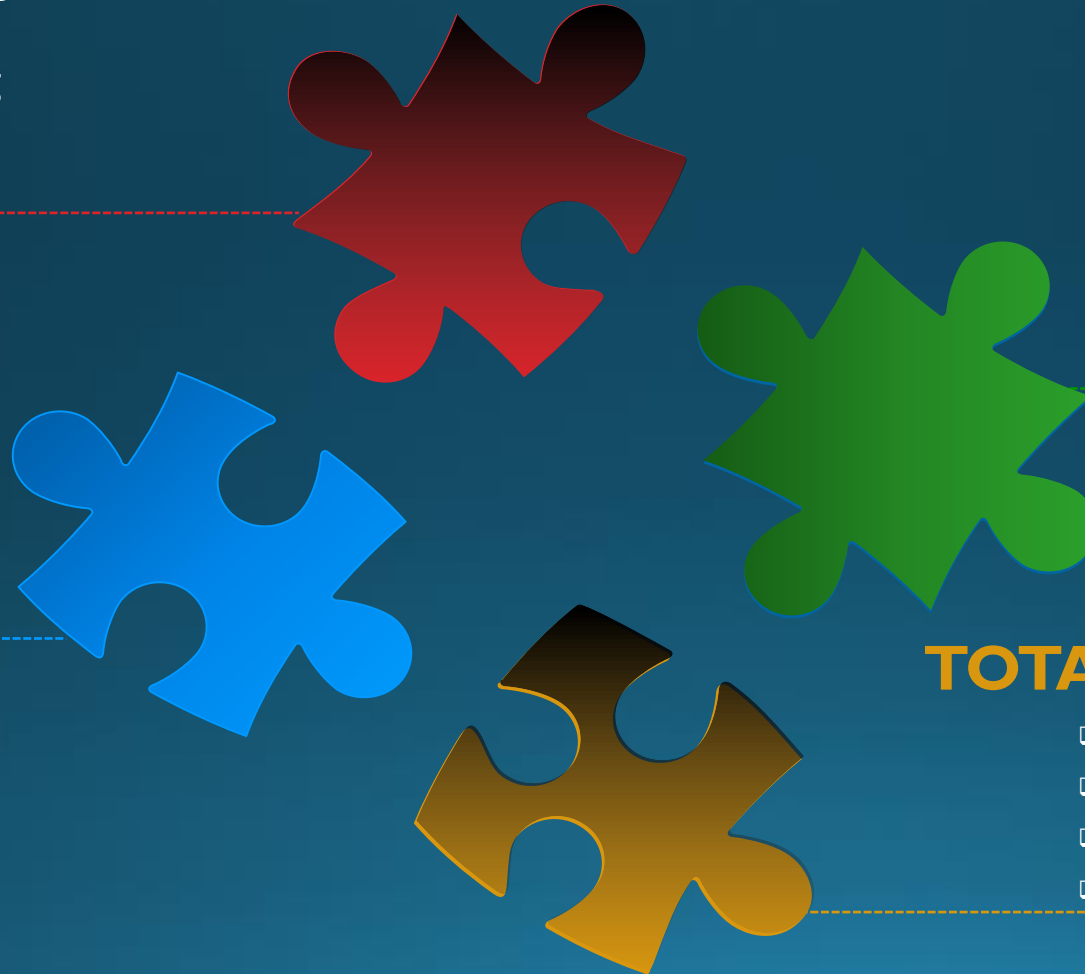
CUSTOMER INSIGHTS

- ❑ Price elasticities, price pack curves
- ❑ TPM, TPO
- ❑ Assortment & Mix
- ❑ Shelf
- ❑ Point of sales data
- ❑ Shopper/loyalty card data statistical analysis
- ❑ Field insights
- ❑ Image recognition

INSIGHTS INTEGRATION

TOTAL BUSINESS MODELING

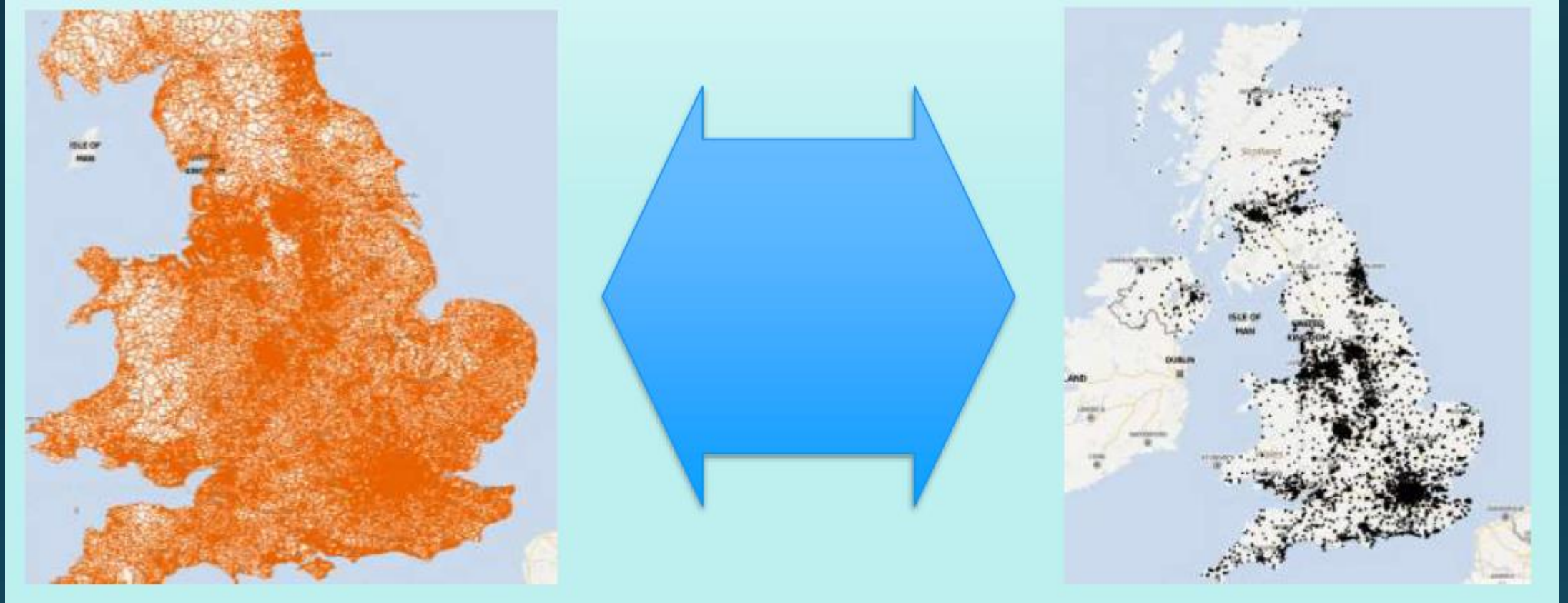
- ❑ Marketing Mix Modeling
- ❑ Market structure
- ❑ Omnichannel
- ❑ Scenario planning



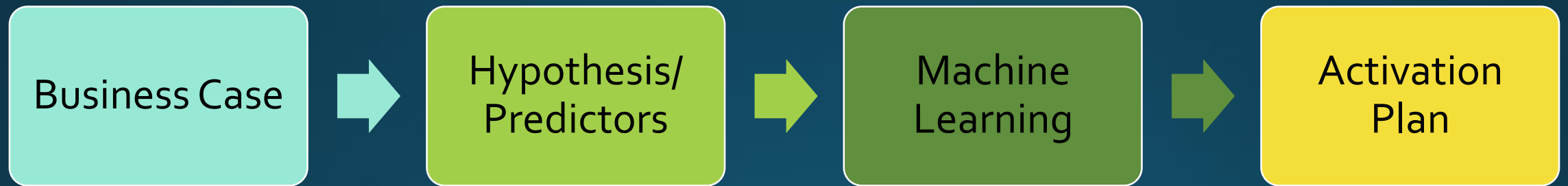
APPLICATION: Geospatial Analytics



Application: Geointel



Application: Geointel

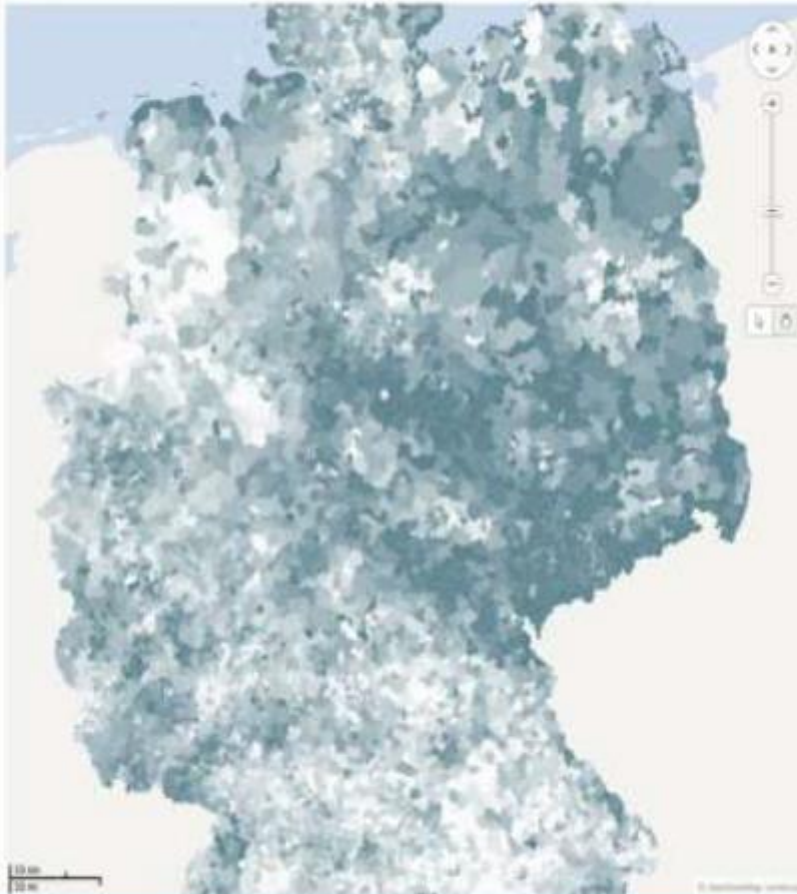


Demographic Canvas

Unemployment in UK



60+ consumers in DE



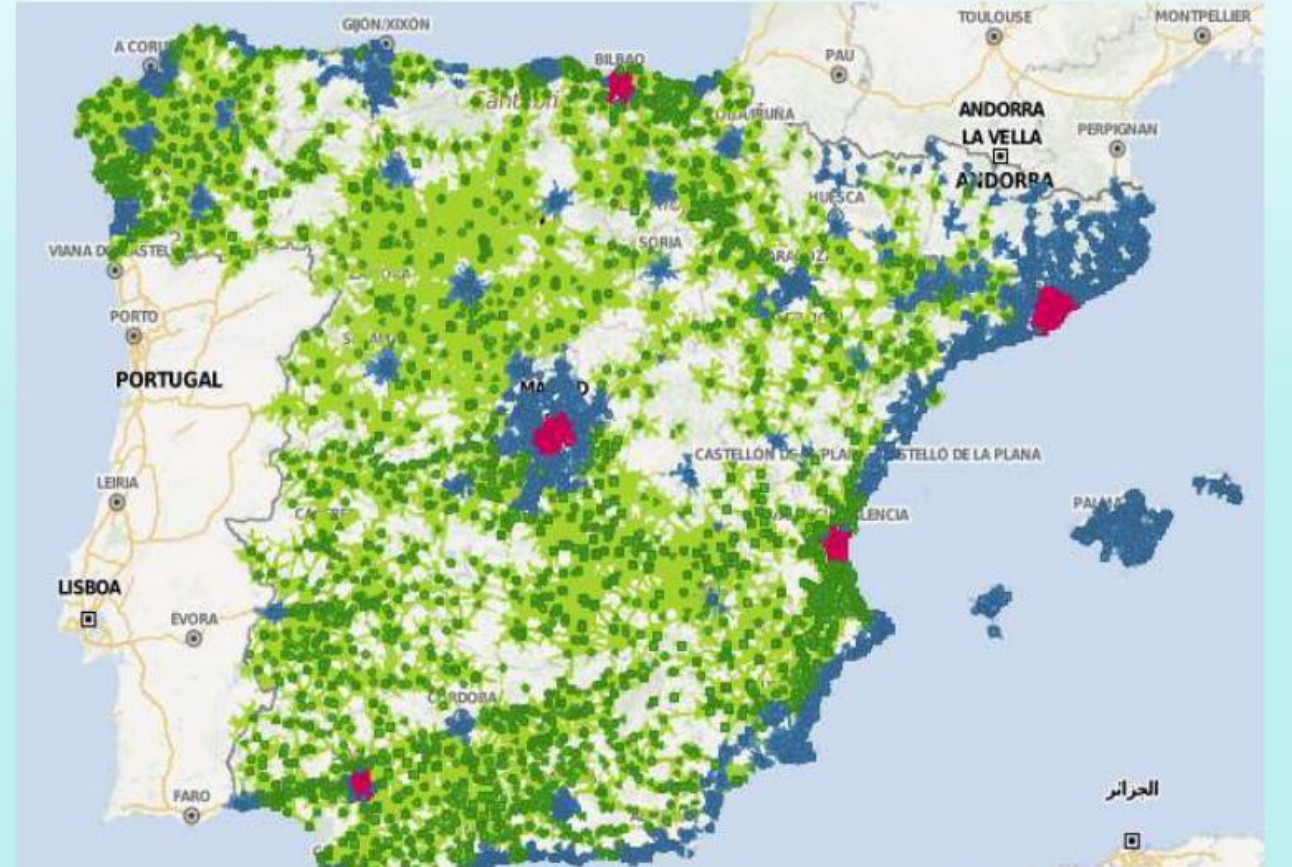
Features:

- Population density
- Age groups
- Purchasing power
- Unemployment
- Consumer type
- Ethnicity
- Religion
- Housing
- Industry
- Social Media behaviors
- Consumption behaviors
- Shopping behaviors
- Distance to competition
- Store saturation
- Distance to services

Stores Clustering

Stores clustered by local characteristics within radial distance:

- Household density
- Population density
- Household average size
- Percentage renters
- Average household income
- Population growth
- Proximity to transportation system
- Number of competitors

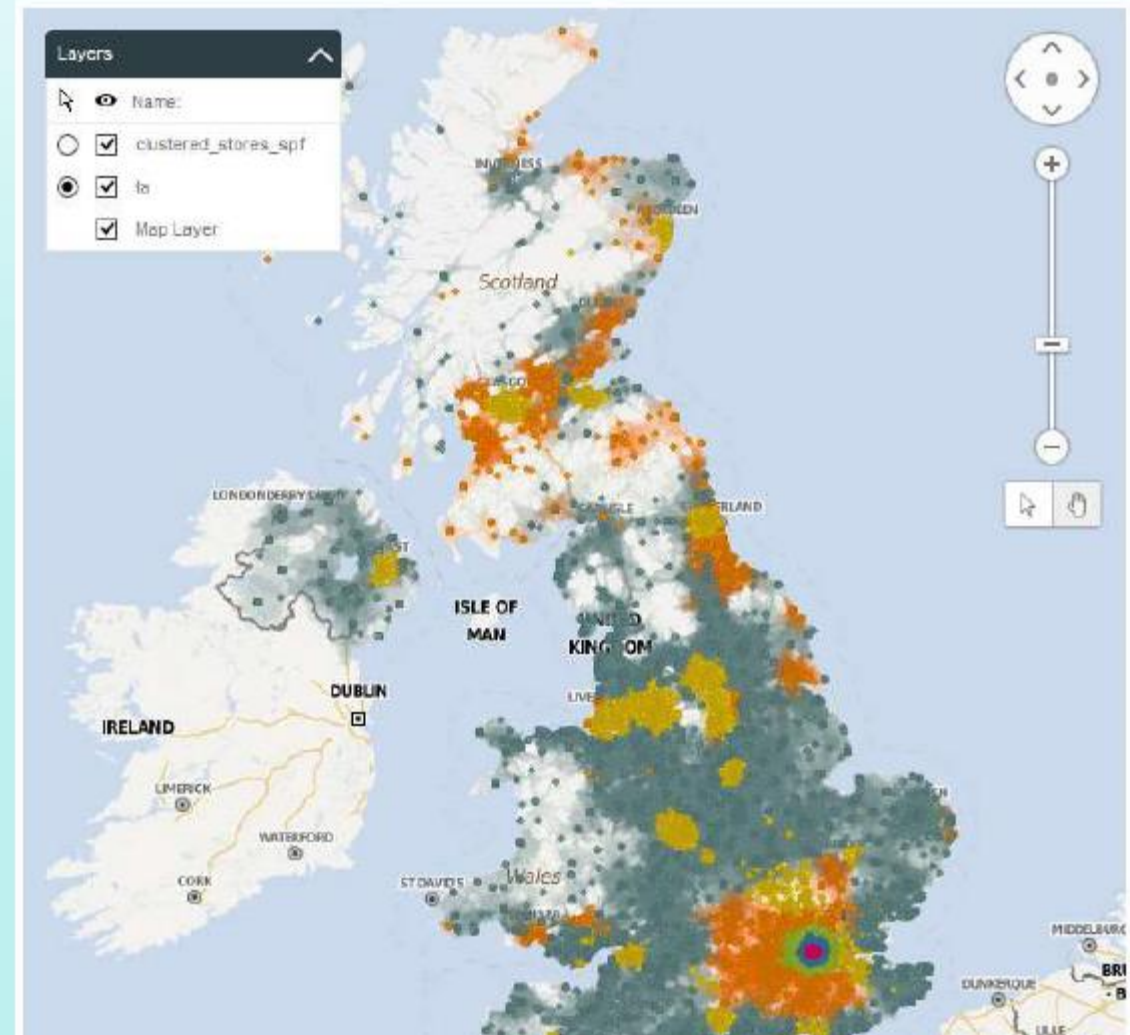


Stores' Trading Areas

- Store centric trading areas with drive time defined for each stores clusters



Dark red: drive time based trading area
Light red: neighborhoods touched by the trading area



Stores' Trading Area Mapping to Neighborhoods

1. Estimate each neighborhood probability of shopping at a given store destination

- Taking into account travel time and store attractiveness

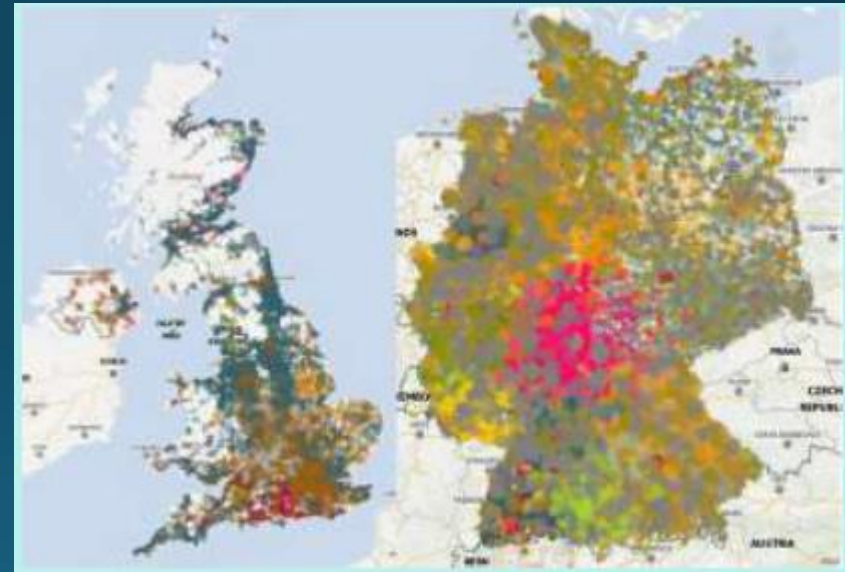
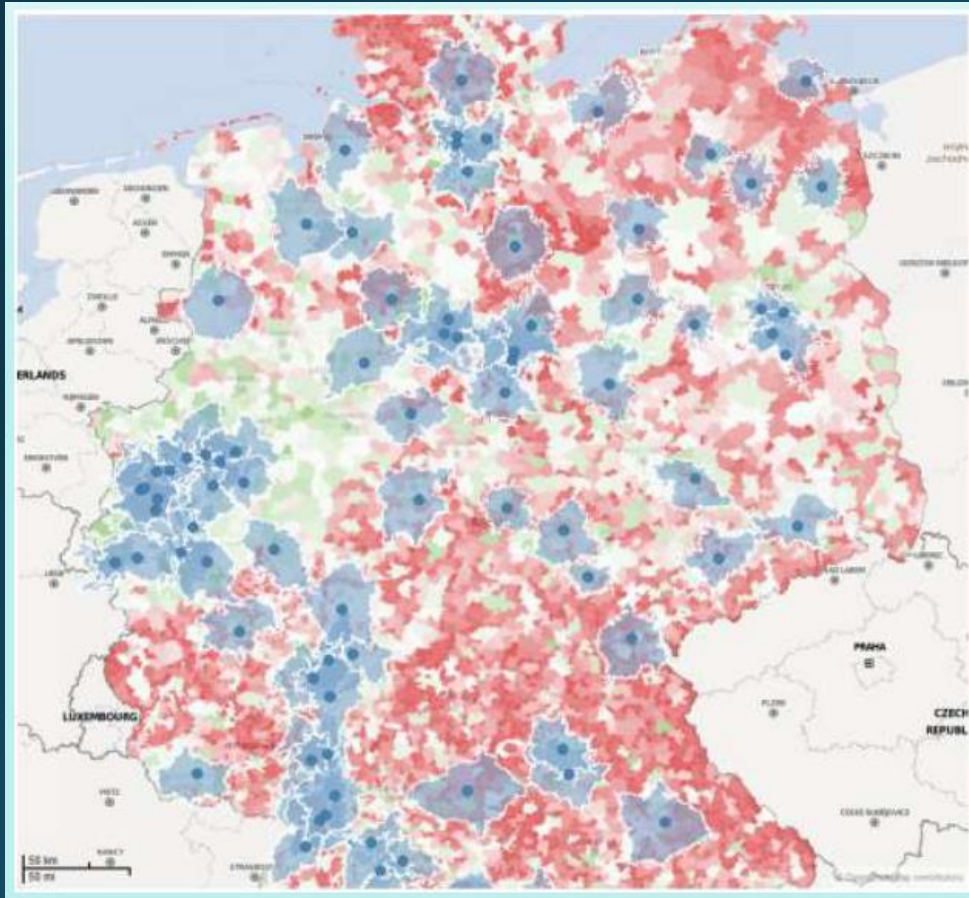


2. Normalize neighborhoods' probabilities within each trading area



Store Level Demographics

Summarizing demographics facts based on neighborhoods mapping



Application: Smart Assortment



Smart Assortment – Local Hero SKUs

amazon.it

Seleziona per categoria: Libri > Big Data

Libri > Big Data

Big data. Architettura, tecnologie e metodi per l'utilizzo di grandi basi di dati Copertina flessibile – 20 nov 2013
di Alessandro Pezzani (Autore)
★★★★★ 3 recensioni clienti

Visualizza tutti 12 formati e le edizioni

Copertina flessibile
EUR 22,10

10 Maggio 2015 9,22, 12

Vuoi riceverlo domani? Ordina entro 4 ore e 35 min e scegli la spedizione 1 giorno. [Dettagli](#)

Ogni giorno nel mondo vengono creati miliardi di dati digitali. Questa iniezione di informazione proviene dal notevole incremento di dispositivi che automatizzano numerose operazioni: record delle transazioni di acquisto e segnali GPS dei cellulari, per esempio - e dai Web: foto, video, post, articoli e contenuti digitali generati e diffusi dagli utenti tramite i social media. L'elaborazione di questi "big data" richiede elevate capacità di calcolo, tecnologie e risorse che vanno ben al di là dei sistemi convenzionali di gestione e immagazzinamento dei dati. Il testo esplora il mondo dei "grandi dati" e ne offre una descrizione e classificazione, presentando le opportunità che possono derivare dal loro utilizzo. Descrive le soluzioni software e hardware dedicate, riservando ampio spazio alle implementazioni Open Source e alle principali offerte cloud. Si propone dunque come una guida approfondita agli strumenti e

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Questo articolo: Big data. Architettura, tecnologie e metodi per l'utilizzo di grandi basi di dati di Alessandro Pezzani. Copertina flessibile. EUR 22,10

Big data. Una rivoluzione che trasformerà il nostro modo di vivere e già minaccia la nostra libertà di voto di Viktor Mayer-Schönberger. Copertina rigata. EUR 16,81

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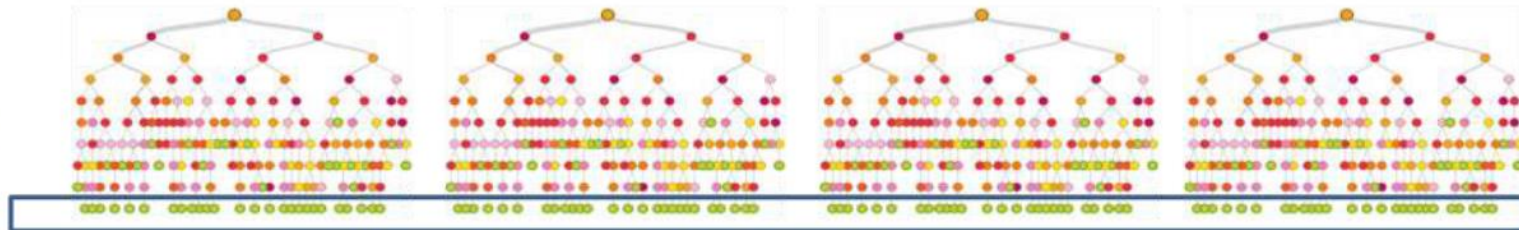
- Reapplication of Amazon's Collaborative filtering algorithm
- Type of output:
 - «Stores A,C,D,F would highly benefit from SKU's 1 and 3 because it performs great in similar stores to them»
- Similarity based on either:
 1. POS data (similar pattern of performing SKU's)
 2. NAS Neighborhood sociodemo (similar context)

Application: Geo-based Store benchmarking

Isolates stores underperforming vs their real potential calculated based on store characteristics, socio-demos and competitive environment

2nd Iteration prototype for StoresYY in France

Random
Forest (n=80)
R2=84%



Application: Mass Precision DTCM (Direct to Consumer Marketing)

Identify most potential shopper groups for our brands and reach them with DTC plans directly in the neighborhoods where they live

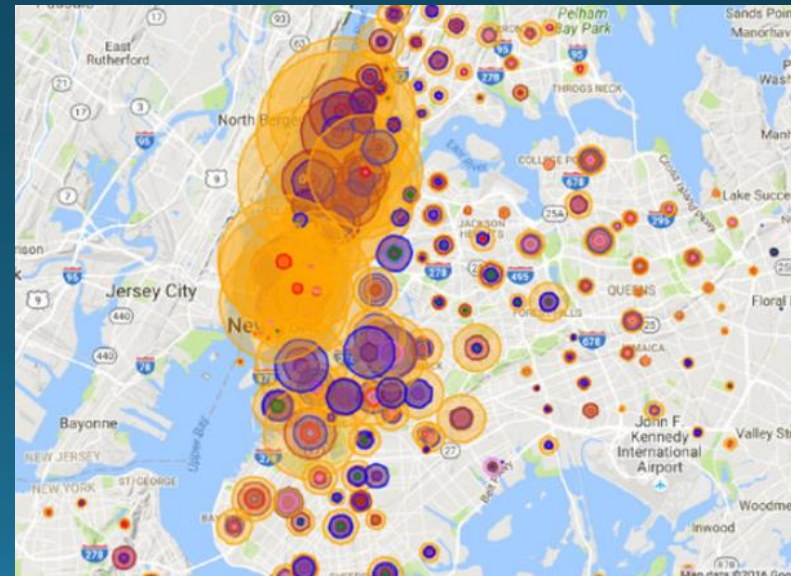


Mass Sampling


1) Definition of Profile:

- Age 30-49
- Kids < 6 years
- 3+ people at home
- Mid-High affluence

2) Scoring each neighborhood based on previous profile



Application: identifying Sales Potential

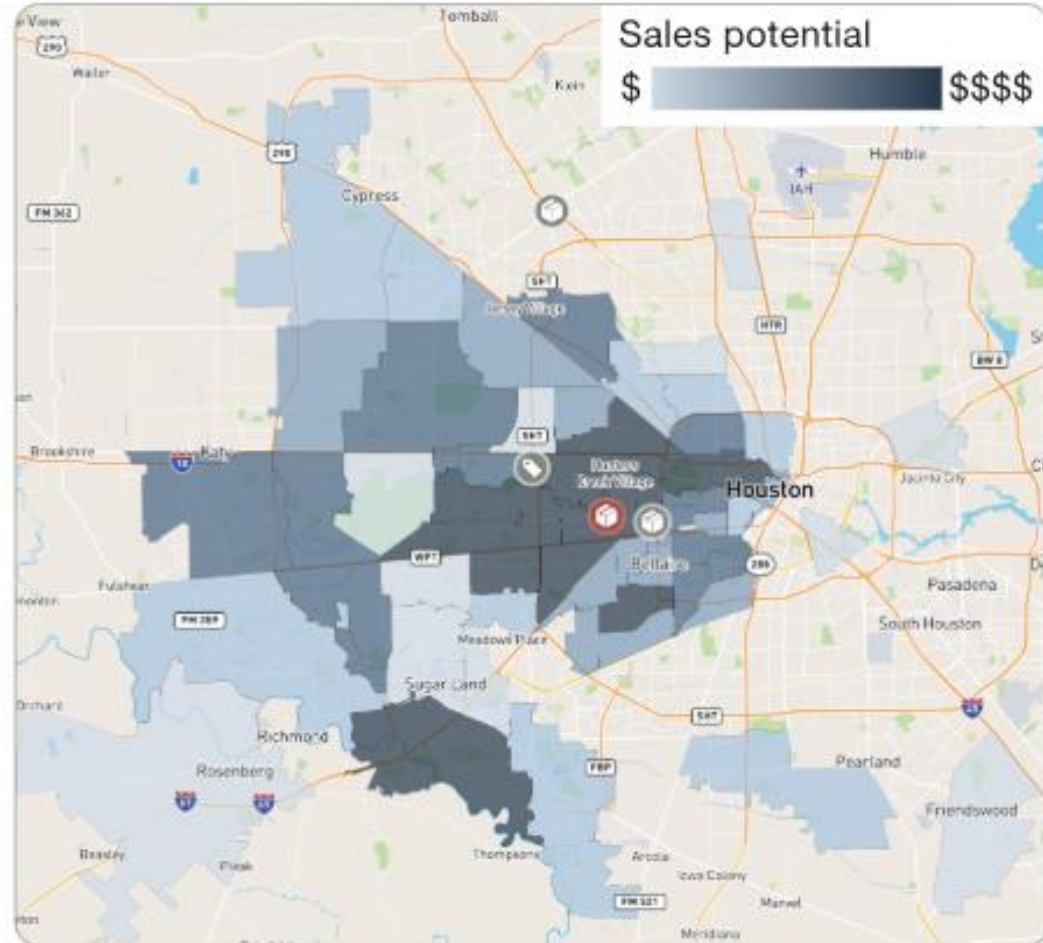
- Global specialty retailer selling omnichannel: own physical stores, online store, distributor
 - Declining sales due to strong competition
 - Business Question: how to reverse sales trend across the network
- 
- Analytical model customized for the brand (internal & external data)
 - Tested hundreds of variables and leveraged geospatial machine learning to identify factors with greatest positive or negative impact in zip code's total sales

Application: identifying Sales Potential

Sales drivers in every zip code,
most important to least important

	Impact
Proximity to larger owned full-price stores	↑↑↑
High proportion of young, urban professionals	↑↑↑
Primary competitor store within 5 miles	↓↓
High number of wholesale stores within 5 miles	↓↓
High store-manager ratings in nearest owned stores	↑
High online spend in category	↑
Low tourist spending	↓
High weekend foot traffic around nearest owned store	↑

Omnichannel sales potential by zip code, \$



Application: identifying Sales Potential

Step 1:

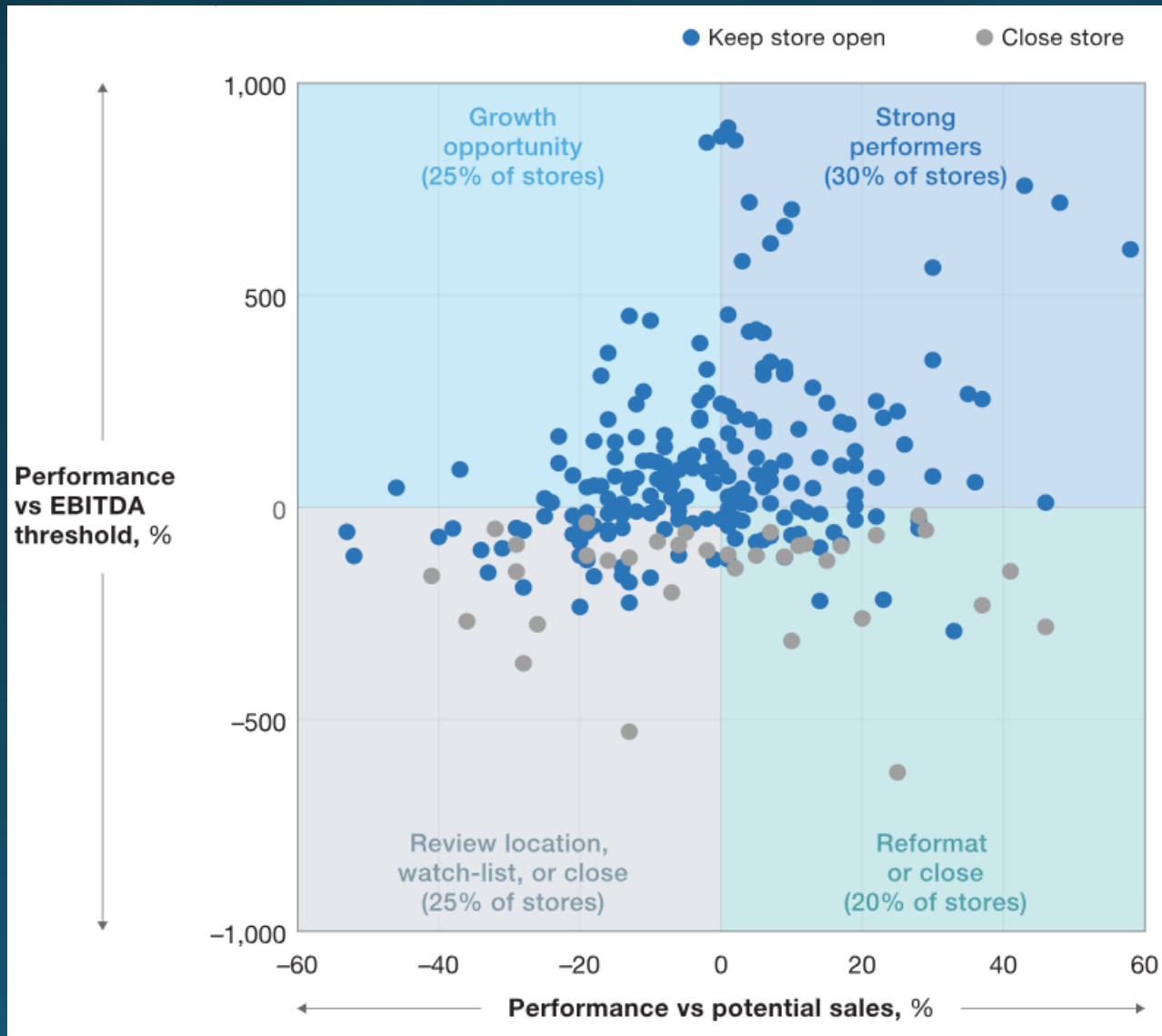
- Predict retailers potential sales by zip code and store
- Compare potential vs actual sales
- Isolate unique factors that contribute to e-commerce halo



Step 2:

- Identify stores not meeting their Sales and Profit potential
- Identify Zip codes with untapped growth opportunities
- Size of Price: +20% EBITDA by closing, relocating or reformatting stores

Application: identifying Sales Potential



Application: identifying Sales Potential

- Combine self-service data data quality with globally curated data sets
- Type of data: (ALL ANONYMISED- GDPR compliant)
 - Address
 - Mobile data
 - Purchasing behavior
 - Purchase history
 - Census data
- Merges data from different sources
- Data quality, rules and relationships to be able to use the data

Data Management

Agenda

- Customer Analytics (1)
- Case study: Geointel Analytics

Case Study

GEOSPATIAL ANALYTICS BUSINESS CASE



One of our leading brands “IVORINE” has been performing very well in some stores, while our share of market has been declining in some others. Its main competitors include “TROIDE”, “MAPLAN” and “DISTORBO”.

The Marketing Team wants to help boost our brand by sampling within stores and by sending coupons to some consumers.

They want you to **find an explanation** for this inconsistency, recommend them **which stores** to focus their effort on and find out **which consumers** to send coupons to.

Find out ideas for digging up an explanation and come up with an algorithmic way of recommending stores and consumers to the “IVORINE” Team! The dataset has been randomized so, even if you do not find relevant information within the dataset provided, try to think “HOW” you would approach the problem with such data.

Also think about how you would technically implement your solution if you would have been given data at a national scale (i.e. all stores and all neighborhoods of a given country).

At your disposal, our data science team gathered the following documents :

- Map of stores where our products are distributed
- Map of neighborhoods around the stores
- Selection of some demographic features matching neighborhoods of interest
- Selection of in-store sales for “IVORINE” and competitive products

Main Questions (1/2)

1. How would you allocate sales to neighborhoods via Trade Areas??

- Help questions: Can you find relationship between store sales and demographic data? How can you mix both? Can you come up with an algorithm that would help understand what geographical area is reached by which store? Is “distance to the store” accurate enough?

2. Understand sales per neighborhood and compare

- How can we assess if a neighborhood is good or not for us? How can we compare a store against another?

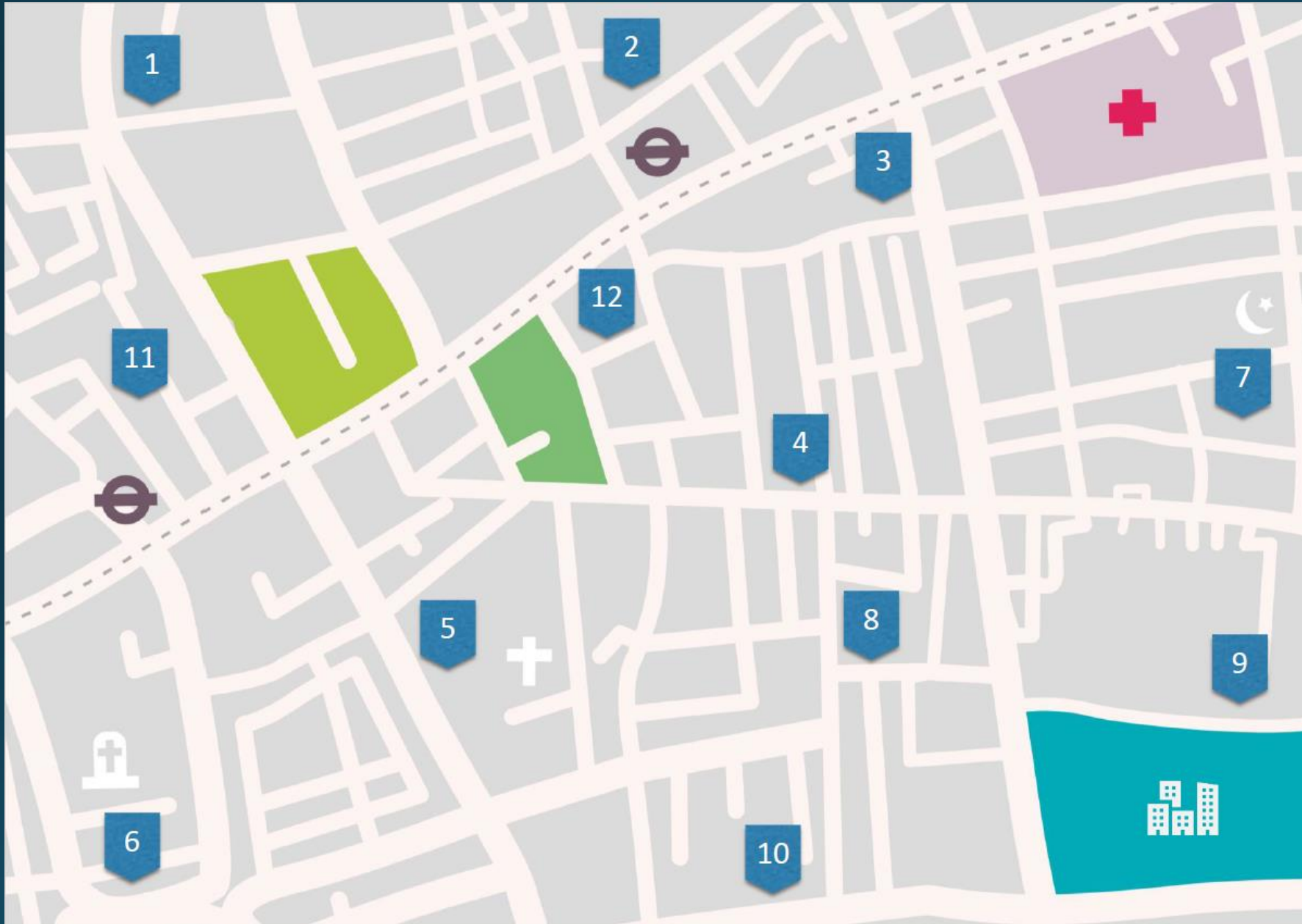
Main Questions (2/2)

3. Give a recommendation on which stores to maintain sampling/stop/start sampling based on potential. Same for neighborhoods

- Help questions: now that you have identified that a store is good or bad, can you figure where the main opportunities are? Where can we grow our market? Which neighborhoods /stores are the most interesting for us?

4. Explain findings + think about how to solve the problem up to country level (scale)

- How would you explain your conclusions to business people who are not familiar to this dataset? What about if we had 600 demographics and 35MM rows, how would you approach the question programmatically?



Store Location
geog_id

1. mig1034
2. den9286
3. coo0281
4. ald0128
5. mig0291
6. coo2180
7. den9182
8. mig9382
9. ald2312
10. coo1223
11. mig8271
12. coo1832

 A	 B	 C	 D	 E	 F	 G	Neighborhood Location Nh_id <ul style="list-style-type: none"> A. 101 Rue Centrale B. 102 Chauderon C. 103 Le Flon D. 104 Montbenon E. 105 Gare/Petit-Chêne F. 106 Georgette G. 107 Avant-Poste H. 108 Marterey I. 109 Cité J. 110 Riponne/Tunnel K. 201 Maupas L. 202 Av. d'Échallens M. 203 Montétan N. 204 Chablière O. 205 Valency P. 301 Rue de Morges Q. 302 Rue de Sébeillon R. 303 Tivoli S. 304 Prélaz T. 305 Gare de Sébeillon U. 306 Av. de Provence V. 307 Malley W. 401 Montoie X. 402 Vallée de la Jeuness Y. 403 Pyramides Z. 404 Prés-de-Vidy AA. 405 Bourget BB. 406 Bourdonnette
 H	 I	 J	 K	 L	 M	 N	
 O	 P	 Q	 R	 S	 T	 U	
 V	 W	 X	 Y	 Z	 AA	 BB	

Demographic Features Definition



EW	Population: total
EW_M	Population: male
EW_W	Population: female
MGL_A_HH	A - Sophisticated Singles
MGL_B_HH	B- Bourgeois Prosperity
MGL_C_HH	C - Career and Family
MGL_D_HH	D - Comfortable Retirement
MGL_E_HH	E - Routine Service Workers
MGL_F_HH	F - Hard Working Blue Collar
MGL_G_HH	G - Metropolitan Strugglers
MGL_H_HH	H - Low Income Elders
MGL_I_HH	I - Post Industrial Survivors
MGL_J_HH	J - Rural Inheritance
MGL_U_HH	U - Unknown
KK_KON_EW	Purchasing power - consumer goods - € per capita
KK_KON_IX	Purchasing power - consumer goods - index per capita (country=100)
EW_0014_P	Population by age: 0 - 14 years, total
EW_1524_P	Population by age: 15 - 24 years, total
EW_2544_P	Population by age: 25 - 44 years, total
EW_4564_P	Population by age: 45 - 64 years, total
EW_65_P	Population by age: 65 years and above, total
CFIW_1_HH	Affinity for fitness and Wellness Activities – 1 No Affinity
CFIW_2_HH	
CFIW_3_HH	
CFIW_4_HH	
CFIW_5_HH	
CFIW_6_HH	
CFIW_7_HH	
CFIW_8_HH	
CFIW_9_HH	Affinity for fitness and Wellness Activities – 9 Very High Affinity

<p>A - Sophisticated Singles</p> <p>Sophisticated Singles contains young people, mostly single and well educated, who positively enjoy the variety and stimulation afforded by life in large cities. Typically international in their outlook and with a rich network of personal contacts, they are quick to explore and adopt new social and political attitudes and are important agents of innovation, both in terms of lifestyles and the adoption of consumer products. Most are at the stage of their lives when the development of 'human' capital, i.e. skills, contacts, knowledge, continue to take precedence over the maximisation of their incomes or indeed the accumulation of financial assets and much of their income is spent on 'experiences', such as entertainment, eating out, travel, books and magazines, rather than on equipment. They exhibit a variety of household arrangements and typically marry and have children late in their lives. Such people gravitate towards the smarter downtown areas of major cities where they spend short periods of time living in small, rented apartments.</p>	<p>D - Comfortable Retirement</p> <p>Comfortable Retirement are typically people who are retired or close to retirement, who have accumulated significant financial assets, and who now want to enjoy an active retirement in a pleasant physical environment and in the company of people of similar life stage and social attitudes. Typically living in suburban locations, in tourist regions or near the ocean, sometimes in apartments but very often in single storey accommodation, these people will often have re-located to their current home on retirement and now tend to live some distance away from their grown-up children. Often enthusiastic gardeners and supporters of the arts and charities, they are confident in engaging with other members of their local community and often lead active social lives. Their homes are often full of furniture, pictures and household equipment from earlier stages of their lives and relatively more of their expenditure goes on the purchase of services than on consumer durables. Management of their financial assets is a major source of consumer interest. They often purchase by mail order but appreciate personal contact when they visit shops.</p>	<p>G - Metropolitan Strugglers</p> <p>Metropolitan Strugglers contains people who live in less sought after neighbourhoods in large population centres and who often battle against high levels of crime, drug addiction and social disorder as well as difficult physical environments. Often poorly paid in low skill service jobs such as office cleaners, parking attendants, security staff, transport workers, these people are seldom able to afford to buy their own homes and typically live in cramped rented apartments, very often in social housing schemes. Here those that are employed and who have partners and children are typically mixed in with a significant minority of others who may have lost their jobs, who do not have the skills to get a job, ex-offenders and drug addicts as well as single parents and people in transient household arrangements. The presence of these minorities often causes the most ambitious members of the community to leave, resulting in the continuing social decline of these neighbourhoods. These are areas where many households don't have access to a car, where consumer credit is hard to come by and where it is often difficult to find retail outlets other than those that appeal to the discount market.</p>
<p>B- Bourgeois Prosperity</p> <p>Bourgeois Prosperity contains people who have achieved a high level of material comfort. Typically middle to late middle aged, married and with older children, they live in spacious accommodation in traditional, quiet suburban locations. Most of this group will have been born into middle or upper middle income families, have enjoyed the benefit of a good standard of education and will have worked their way up to achieve positions of responsibility in large organisations. A significant minority will own and run their own businesses. People of this sort typically own their own homes and will by this stage in their life have accumulated significant equity in the homes, pensions and investments.</p>	<p>E - Routine Service Workers</p> <p>Routine Service Workers are typically people of middle incomes but at various stages in their life cycle who tend to live in older houses in established suburbs and who typically work in intermediate white-collar service jobs and office functions which involve a daily commute to the town or city centre. Working both in large cities and small towns, these neighbourhoods typically accommodate clerical workers, secretaries, shop workers, sales people, hairdressers, proprietors of local service businesses whose jobs involve contact with consumers but seldom a very high level of technical knowledge. Whilst some of these people will be owner-occupiers of modest suburban houses, others will rent apartments in mid-market neighbourhoods. Members of this group tend to be relatively well informed about social trends and well adjusted to their work and neighbourhood. However, they are seldom at the cutting edge of innovation, preferring social contacts and security to the challenge of entrepreneurship or of new ideas.</p>	<p>H - Low Income Elders</p> <p>Low Income Elders are typically people who are retired or close to retirement, who have accumulated few if any financial assets and who are now almost entirely reliant on modest state pensions for their income. Typically renting small houses or apartments, whether from private landlords or from the public sector, they content themselves with very modest lifestyles devoid of all but the most basic luxuries. Many of these people struggle to find the means to pay for their utilities, particularly fuel, and have few financial resources to fall back on in times of emergency. However, brought up in times when money was scarce, most of this group are content with modest pleasures and gain satisfaction from watching the television, conversations with neighbours or with local shopkeepers, visits from grown-up children, an occasional cigarette and from participating in competitions and lotteries. Their tastes in food are traditional and they prefer established and trusted brands. Few people are computer literate and hardly any access the internet.</p>
<p>C - Career and Family</p> <p>Career and Family contains people in good careers who are very much at the nest-making stage of lives. Typically in their late twenties to their early forties, married and with young children, they tend to live in new private estates in outer suburbs of economically successful cities from which they commute by car to work in high technology jobs in large, progressive companies, often in modern office parks. Many of this group will be enjoying greater material prosperity than their parents' generation. Typically in jobs requiring specialist technical or professional skills, they can often find it a challenge to meet the combined responsibilities of career and family. Many households have two full-time workers and people often commute long distances to work. Newly built homes are decorated in modern styles, people undertake leisure activities as a family and children as well as parents are often early adopters of latest consumer products especially those incorporating new technologies.</p>	<p>F - Hard Working Blue Collar</p> <p>Hard Working Blue Collar are typically families on average or slightly lower than average incomes whose competence lies in their craft or practical manual skills rather than in their 'intellectual' know how. Many of these people will not have shone at school but will have had the sense of personal responsibility and applied skills to achieve a reasonably good standard of living in occupations such as a technical engineer, an overseer in a garage, a fitter or installer. In a post industrial economy these skills are in increased demand. Whilst some of this group will traditionally have rented their homes from city councils, an increasing number will have become first-time owners, whether in cheaper older properties or in newer estates developed by national house builders. Such people tend to be married and to have children and to devote much of their leisure time to home improvement, much of which they undertake themselves. They enjoy outdoor rather than intellectual leisure pursuits and a key target audience for most massmarket brands. They are well equipped with domestic appliances but tend to purchase cheaper models and brands. This group has conservative social attitudes and dislikes 'benefit cheats'.</p>	<p>I - Post Industrial Survivors</p> <p>Post Industrial Survivors are typically people on low incomes who live in older properties, mostly single family houses rather than flats, in provincial towns traditionally dependent on coal, steel and chemicals. The people typically work in poorly-paid manual occupations which provide few opportunities for advancement. Many of them are worried about losing their jobs and the difficulty of finding other sources of employment whilst a significant minority do not work either from unemployment, sickness or disability. Such neighbourhoods typically contain an older than average population profile, with few young single people but many widows and widowers. These neighbourhoods tend to be particularly close knit and parochial in outlook, suspicious of outsiders and slow to adopt new social behaviours as well as innovative products or services. Typically people know and can rely on their neighbours in times of need; children and extended families often live nearby and people walk to local shops rather than drive to modern retail parks and shoppers select established brands from familiar product categories. People are poorly travelled, take few holidays and seldom read about what happens in other countries.</p>

G - Metropolitan Strugglers

Metropolitan Strugglers contains people who live in less sought after neighbourhoods in large population centres and who often battle against high levels of crime, drug addiction and social disorder as well as difficult physical environments. Often poorly paid in low skill service jobs such as office cleaners, parking attendants, security staff, transport workers, these people are seldom able to afford to buy their own homes and typically live in cramped rented apartments, very often in social housing schemes. Here those that are employed and who have partners and children are typically mixed in with a significant minority of others who may have lost their jobs, who do not have the skills to get a job, ex-offenders and drug addicts as well as single parents and people in transient household arrangements. The presence of these minorities often causes the most ambitious members of the community to leave, resulting in the continuing social decline of these neighbourhoods. These are areas where many households don't have access to a car, where consumer credit is hard to come by and where it is often difficult to find retail outlets other than those that appeal to the discount market.

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J - Rural Inheritance

Rural Inheritance contains people who live variously in the countryside, the outback or the prairie, essentially too far away from major centres of employment to attract large number of commuters with urban aspirations and lifestyles. Residents rely for their income on a mixture of agriculture, fishing, forestry and viticulture, servicing the needs of travellers and tourists and, occasionally, on employment in power plants, military bases and other facilities more suited to rural than city locations. Such communities contain people of all ages and income groups, many of whom, if not self-employed, work directly for owner-managers. Often wealth is tied up in the land and the distinction between business and consumer expenditure is blurred. In these neighbourhoods we find very high levels of property ownership, whether of homes, cars, kitchen appliances, garden equipment, and a high level of self-sufficiency. By contrast these are not areas where people regularly eat in restaurants, have their clothes dry cleaned, their lawns mown, their children tutored or their cars valeted. These are neighbourhoods where people know and trust their neighbours and where informal contacts are often more influential than large scale advertising.

Demographic Features 1/2

	EW	EW_M	EW_W	MGL_A_HH	MGL_B_HH	MGL_C_HH	MGL_D_HH	MGL_E_HH	MGL_F_HH	MGL_G_HH	MGL_H_HH	MGL_I_HH	MGL_J_HH	MGL_U_HH	KK_KON_EW	KK_KON_IX	EW_0014_P	EW_1524_P
A	1334	667	667	153	0	0	0	45	287	259	6	0	0	38	13160	80	131	214
B	344	171	173	185	0	1	0	17	42	16	0	0	0	13	15007	91	34	55
C	625	311	314	286	0	0	0	31	14	6	0	4	0	74	14930	91	61	100
D	579	289	290	0	30	2	0	7	42	148	63	0	0	0	14162	86	57	93
E	217	108	109	96	0	1	0	18	0	12	0	0	0	6	13618	83	21	35
F	598	298	300	2	0	0	0	8	108	90	84	0	0	7	13326	81	59	96
G	553	276	277	75	0	0	0	4	101	133	0	0	0	7	13867	84	54	89
H	184	92	92	37	4	0	0	4	42	1	0	0	0	36	16684	102	18	30
I	244	122	122	88	0	8	0	11	0	19	0	0	0	7	12965	79	24	39
J	586	292	294	233	0	5	5	3	103	6	12	0	0	44	14874	91	57	94
K	143	71	72	69	0	0	14	8	0	0	1	0	0	24	18090	110	14	23
L	318	158	160	127	0	0	0	0	1	61	0	0	0	28	14242	87	31	51
M	235	117	118	27	31	5	3	3	3	0	32	0	5	9	17679	108	23	38
N	486	242	244	53	7	2	0	107	53	30	0	0	0	0	16797	102	48	78
O	879	438	441	0	150	2	6	98	118	0	64	0	0	19	15967	97	86	141
P	671	334	337	160	0	46	0	52	46	101	0	0	0	48	14487	88	66	108
Q	846	422	424	237	0	6	0	0	56	208	0	0	0	53	14176	86	83	136
R	533	265	268	111	11	1	49	32	43	2	32	0	0	4	15207	93	52	86
S	298	148	150	1	82	3	25	3	15	0	0	0	0	6	18771	114	29	48
T	555	277	278	290	0	3	0	24	20	21	0	0	0	32	15028	91	54	89
U	916	457	459	149	1	0	17	30	32	207	5	0	0	32	13527	82	90	147
V	316	157	159	9	33	3	58	36	6	0	18	0	0	0	20575	125	31	51
W	493	246	247	257	0	2	0	35	8	5	9	0	0	24	16091	98	48	79
X	780	389	391	268	0	7	0	7	24	230	0	0	0	26	14214	87	76	125
Y	266	132	134	97	0	1	0	34	1	0	0	0	0	2	16293	99	26	43
Z	393	196	197	180	0	0	12	0	19	19	36	0	0	29	14282	87	39	63
AA	190	95	95	36	0	0	19	40	0	2	0	0	0	22	15565	95	19	30
BB	895	446	449	78	0	6	0	14	238	121	0	0	0	0	13030	79	88	144

Demographic Features 2/2

	EW_2544_P	EW_4564_P	EW_65_P	CFIW_1_HH	CFIW_2_HH	CFIW_3_HH	CFIW_4_HH	CFIW_5_HH	CFIW_6_HH	CFIW_7_HH	CFIW_8_HH	CFIW_9_HH
A	439	350	200	35	62	106	164	213	95	85	24	4
B	113	90	52	9	6	20	14	45	63	71	46	0
C	206	164	94	12	18	20	49	90	85	74	59	8
D	191	152	87	22	104	20	48	45	28	18	5	2
E	71	57	33	3	6	5	1	15	31	44	24	4
F	197	157	90	14	34	71	52	76	28	23	1	0
G	182	145	83	6	25	30	88	72	66	32	1	0
H	61	48	28	0	1	9	10	47	17	6	30	4
I	80	64	37	0	0	10	16	34	10	42	0	21
J	193	154	88	8	6	14	37	164	40	61	48	33
K	47	38	21	0	1	6	5	8	19	38	25	14
L	105	83	48	2	8	28	12	88	28	45	4	2
M	77	62	35	7	14	14	16	17	12	12	19	7
N	160	127	73	9	0	23	18	56	37	34	49	26
O	290	231	132	34	48	117	54	74	48	44	20	18
P	221	176	101	1	19	48	47	123	67	87	33	28
Q	279	222	127	12	47	34	67	150	122	83	45	0
R	176	140	80	10	20	22	61	55	48	29	23	17
S	98	78	45	5	6	7	5	26	10	22	38	16
T	183	146	83	4	16	13	38	86	77	62	43	51
U	302	240	137	8	46	50	74	123	71	49	38	14
V	104	83	47	4	4	3	8	23	44	26	37	14
W	162	129	74	9	6	11	39	56	95	81	38	5
X	257	205	117	1	33	58	83	134	100	117	31	5
Y	88	70	40	0	2	3	6	28	39	41	10	6
Z	129	103	59	4	10	17	35	75	52	62	32	8
AA	63	50	28	0	10	1	6	27	30	6	27	12
BB	295	235	134	16	63	106	83	73	45	65	0	6

In-Store Sales Data 1/3

geog_id	p_desc	p_brand	p_category	p_unitprice	p_valuesales	p_unitsales	p_storesTotalSales
den9286	DISTORBO No.83 Bar Soap Sage Rosemary Lavender	DISTORBO	BODY CARE	5.6	2,389,504	426,610	66,828,380
ald2312	MAPLAN Gingembre Scented Soap Coffret 3x100g	MAPLAN	BODY CARE	1.0	559,379	563,304	214,949,876
mig9382	MAPLAN Gingembre Scented Soap Coffret 3x100g	MAPLAN	BODY CARE	1.0	324,555	326,832	116,928,297
mig9382	TROIDE Fine Soaps Vintage Neroli Soap Tin 100g	TROIDE	BODY CARE	3.6	2,120,232	586,735	116,928,297
coo0281	DISTORBO Milk Soap 125g	DISTORBO	BODY CARE	1.8	547,289	308,892	167,028,215
ald2312	TROIDE Fine Soaps Manhattan Soap Tin 100g	TROIDE	BODY CARE	5.3	3,597,552	682,678	214,949,876
coo0281	MAPLAN Shea Butter Extra-Gentle Soap Quartet 1set, 4pcs	MAPLAN	BODY CARE	2.6	509,798	195,006	167,028,215
ald0128	TROIDE Fine Soaps Lemon Soap Tin 100g	TROIDE	BODY CARE	3.1	1,879,508	597,754	116,053,036
mig8271	TROIDE Fine Soaps Lemon Soap Tin 100g	TROIDE	BODY CARE	3.1	1,694,944	539,056	206,236,847
coo1832	IVOR Soap Bar Pink 14.1 Oz Pack Of 3 By Zote Beauty	IVORINE	BODY CARE	1.9	1,170,394	606,347	45,045,807
coo1223	MAPLAN Shea Butter Extra-Gentle Soap Quartet 1set, 4pcs	MAPLAN	BODY CARE	2.6	1,764,921	675,111	73,363,152
mig8271	IVOR Grooming Bar Soap/7.0 oz	IVORINE	BODY CARE	0.5	199,487	410,375	206,236,847
ald2312	DISTORBO No.83 Bar Soap Sage Rosemary Lavender	DISTORBO	BODY CARE	5.6	2,178,257	388,895	214,949,876
coo0281	DISTORBO No.83 Bar Soap Sage Rosemary Lavender	DISTORBO	BODY CARE	5.6	141,255	25,219	167,028,215
mig1034	TROIDE Fine Soaps Lemon Soap Tin 100g	TROIDE	BODY CARE	3.1	1,591,604	506,190	188,810,788
mig1034	TROIDE Fine Soaps Manhattan Soap Tin 100g	TROIDE	BODY CARE	5.3	988,097	187,503	188,810,788
mig0291	IVORINE Bionatur Soap Bar Carpe Diem - Volume: 100g	IVORINE	BODY CARE	5.6	2,344,731	415,595	225,841,162
mig0291	DISTORBO Milk Soap 125g	DISTORBO	BODY CARE	1.8	301,747	170,307	225,841,162
ald0128	MAPLAN Shea Butter Extra-Gentle Soap Quartet 1set, 4pcs	MAPLAN	BODY CARE	2.6	1,240,768	474,614	116,053,036
coo2180	DISTORBO Milk Soap 125g	DISTORBO	BODY CARE	1.8	922,747	520,802	160,493,443
den9286	TROIDE Fine Soaps Lemon Soap Tin 100g	TROIDE	BODY CARE	3.1	1,910,847	607,721	66,828,380
mig0291	TROIDE Fine Soaps Manhattan Soap Tin 100g	TROIDE	BODY CARE	5.3	259,309	49,207	225,841,162
ald0128	IVOR Soap Bar Pink 14.1 Oz Pack Of 3 By Zote Beauty	IVORINE	BODY CARE	1.9	717,435	371,682	116,053,036
den9286	MAPLAN Gingembre Scented Soap Coffret 3x100g	MAPLAN	BODY CARE	1.0	447,692	450,834	66,828,380

In-Store Sales Data 2/3

geog_id	p_desc	p_brand	p_category	p_unitprice	p_valuesales	p_unitsales	p_storesTotalSales
coo1832	IVORINE Bionatur Soap Bar Carpe Diem - Volume: 100g	IVORINE	BODY CARE	5.6	3,917,768	694,410	45,045,807
coo2180	MAPLAN Shea Butter Extra-Gentle Soap Quartet 1set, 4pcs	MAPLAN	BODY CARE	2.6	592,278	226,556	160,493,443
coo1223	IVOR Grooming Bar Soap/7.0 oz	IVORINE	BODY CARE	0.5	388,519	799,242	73,363,152
ald2312	TROIDE Fine Soaps Vintage Neroli Soap Tin 100g	TROIDE	BODY CARE	3.6	173,164	47,920	214,949,876
den9182	TROIDE Fine Soaps Vintage Neroli Soap Tin 100g	TROIDE	BODY CARE	3.6	1,103,196	305,289	190,989,046
den9182	IVORINE Bionatur Soap Bar Carpe Diem - Volume: 100g	IVORINE	BODY CARE	5.6	226,809	40,201	190,989,046
coo1832	TROIDE Fine Soaps Lemon Soap Tin 100g	TROIDE	BODY CARE	3.1	1,655,220	526,422	45,045,807
mig8271	MAPLAN Shea Butter Extra-Gentle Soap Quartet 1set, 4pcs	MAPLAN	BODY CARE	2.6	1,116,190	426,961	206,236,847
coo2180	IVOR Grooming Bar Soap/7.0 oz	IVORINE	BODY CARE	0.5	184,954	380,479	160,493,443
mig9382	DISTORBO No.83 Bar Soap Sage Rosemary Lavender	DISTORBO	BODY CARE	5.6	1,211,130	216,229	116,928,297
mig8271	TROIDE Fine Soaps Vintage Neroli Soap Tin 100g	TROIDE	BODY CARE	3.6	2,514,607	695,871	206,236,847
coo0281	TROIDE Fine Soaps Lemon Soap Tin 100g	TROIDE	BODY CARE	3.1	424,176	134,904	167,028,215
ald2312	IVORINE Bionatur Soap Bar Carpe Diem - Volume: 100g	IVORINE	BODY CARE	5.6	3,365,322	596,491	214,949,876
coo1223	TROIDE Fine Soaps Vintage Neroli Soap Tin 100g	TROIDE	BODY CARE	3.6	1,755,141	485,703	73,363,152
ald0128	DISTORBO Milk Soap 125g	DISTORBO	BODY CARE	1.8	475,264	268,241	116,053,036
mig9382	TROIDE Fine Soaps Manhattan Soap Tin 100g	TROIDE	BODY CARE	5.3	3,695,317	701,230	116,928,297
mig1034	DISTORBO No.83 Bar Soap Sage Rosemary Lavender	DISTORBO	BODY CARE	5.6	686,084	122,490	188,810,788
coo1223	IVORINE Bionatur Soap Bar Carpe Diem - Volume: 100g	IVORINE	BODY CARE	5.6	26,144	4,634	73,363,152
den9286	DISTORBO Milk Soap 125g	DISTORBO	BODY CARE	1.8	747,800	422,061	66,828,380
coo1832	DISTORBO No.83 Bar Soap Sage Rosemary Lavender	DISTORBO	BODY CARE	5.6	2,222,058	396,715	45,045,807
mig1034	IVOR Soap Bar Pink 14.1 Oz Pack Of 3 By Zote Beauty	IVORINE	BODY CARE	1.9	1,080,418	559,733	188,810,788
mig0291	MAPLAN Shea Butter Extra-Gentle Soap Quartet 1set, 4pcs	MAPLAN	BODY CARE	2.6	1,938,372	741,459	225,841,162
ald0128	TROIDE Fine Soaps Vintage Neroli Soap Tin 100g	TROIDE	BODY CARE	3.6	2,535,331	701,606	116,053,036
den9182	TROIDE Fine Soaps Manhattan Soap Tin 100g	TROIDE	BODY CARE	5.3	2,141,701	406,413	190,989,046
coo1832	MAPLAN Gingembre Scented Soap Coffret 3x100g	MAPLAN	BODY CARE	1.0	584,834	588,938	45,045,807

In-Store Sales Data 3/3

geog_id	p_desc	p_brand	p_category	p_unitprice	p_valuesales	p_unitsales	p_storesTotalSales
ald0128	IVOR Grooming Bar Soap/7.0 oz	IVORINE	BODY CARE	0.5	185,508	381,619	116,053,036
mig8271	DISTORBO Milk Soap 125g	DISTORBO	BODY CARE	1.8	1,266,056	714,567	206,236,847
coo0281	IVOR Soap Bar Pink 14.1 Oz Pack Of 3 By Zote Beauty	IVORINE	BODY CARE	1.9	612,719	317,432	167,028,215
coo2180	TROIDE Fine Soaps Vintage Neroli Soap Tin 100g	TROIDE	BODY CARE	3.6	1,611,132	445,851	160,493,443
den9182	DISTORBO No.83 Bar Soap Sage Rosemary Lavender	DISTORBO	BODY CARE	5.6	511,676	91,352	190,989,046
mig8271	IVOR Soap Bar Pink 14.1 Oz Pack Of 3 By Zote Beauty	IVORINE	BODY CARE	1.9	444,273	230,165	206,236,847
mig0291	TROIDE Fine Soaps Vintage Neroli Soap Tin 100g	TROIDE	BODY CARE	3.6	975,270	269,888	225,841,162
den9286	IVOR Soap Bar Pink 14.1 Oz Pack Of 3 By Zote Beauty	IVORINE	BODY CARE	1.9	1,415,011	733,076	66,828,380
mig1034	MAPLAN Gingembre Scented Soap Coffret 3x100g	MAPLAN	BODY CARE	1.0	84,587	85,181	188,810,788
coo0281	MAPLAN Gingembre Scented Soap Coffret 3x100g	MAPLAN	BODY CARE	1.0	24,998	25,173	167,028,215
mig0291	IVOR Grooming Bar Soap/7.0 oz	IVORINE	BODY CARE	0.5	131,442	270,397	225,841,162
den9182	MAPLAN Gingembre Scented Soap Coffret 3x100g	MAPLAN	BODY CARE	1.0	186,898	188,210	190,989,046
coo1223	DISTORBO Milk Soap 125g	DISTORBO	BODY CARE	1.8	167,621	94,606	73,363,152
mig9382	IVORINE Bionatur Soap Bar Carpe Diem - Volume: 100g	IVORINE	BODY CARE	5.6	2,357,651	417,885	116,928,297
ald2312	IVOR Grooming Bar Soap/7.0 oz	IVORINE	BODY CARE	0.5	320,016	658,321	214,949,876
den9182	IVOR Grooming Bar Soap/7.0 oz	IVORINE	BODY CARE	0.5	308,970	635,599	190,989,046
den9286	MAPLAN Shea Butter Extra-Gentle Soap Quartet 1set, 4pcs	MAPLAN	BODY CARE	2.6	438,149	167,599	66,828,380
coo2180	IVOR Soap Bar Pink 14.1 Oz Pack Of 3 By Zote Beauty	IVORINE	BODY CARE	1.9	1,123,152	581,872	160,493,443
coo1223	TROIDE Fine Soaps Manhattan Soap Tin 100g	TROIDE	BODY CARE	5.3	381,336	72,363	73,363,152
coo1832	TROIDE Fine Soaps Manhattan Soap Tin 100g	TROIDE	BODY CARE	5.3	3,388,701	643,046	45,045,807
mig1034	IVORINE Bionatur Soap Bar Carpe Diem - Volume: 100g	IVORINE	BODY CARE	5.6	3,671,935	650,837	188,810,788
mig9382	IVOR Grooming Bar Soap/7.0 oz	IVORINE	BODY CARE	0.5	333,212	685,468	116,928,297
coo2180	TROIDE Fine Soaps Lemon Soap Tin 100g	TROIDE	BODY CARE	3.1	2,358,876	750,211	160,493,443