



User Guide

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● Optimise the value of your customers, prospects, and locations

Understanding consumers has never been so important. People expect to be treated as individuals, but the process of analysing and anticipating consumers' demands has become increasingly complex. Acorn is a highly effective and simple tool that supports you in keeping up with these demands.

Acorn is a geodemographic segmentation, which provides a vast amount of insight into the demographics, lifestyles and behaviours of your customers in a digestible way. This then allows you to focus on optimising the value of your customers, prospects, and locations.

Launched in 1978, the Acorn segmentation tool has been used extensively to support organisations with their innate consumer understanding and has continuously evolved to meet the needs of the UK population. Our latest version of Acorn is the best yet - it handles massive amounts of data and takes advantage of the latest Deep Learning techniques to build the segmentation, while also providing an enhanced user experience through our range of visualisation tools.

● Why CACI?

CACI has been building robust classification systems which have been trusted and used by brands and organisations across the UK for over 40 years. CACI was the first agency to be given permission to use Census data, and over the years we've developed a deep and intricate understanding of the census data, how to analyse and group the data to create the Acorn segmentation, identify any gaps in that data and how to fill them.

Our team of data scientists are known for their rigorous statistical expertise, turning vast amounts of data into useful, actionable, insights. To ensure the Acorn segments can be seamlessly activated to address a range of business challenges, CACI's Data Science and Insight team create a range of supporting collateral to support Acorn users, with additional support provided by our Account Management team to showcase and maximise its value.

“
Acorn allows us to enhance our support insights and ensure that our communications are relevant and timely.
”

Anton Ivankiv
Head of Business Planning
& Strategy, The RSPB

“
Using Acorn data, we have built and refined models over the years that give us a clear view of how water is being used. We need this information to help us reduce water consumption by monitoring and controlling leakage, testing and maintaining network assets and influencing consumer behaviour.
”

Martin Walton
Asset Planner, Scottish Water

Introduction to Acorn

Powerful Geodemographics, Customer Insight, and Resource Targeting

Acorn is a powerful geodemographic classification tool that segments the UK population by postcode. By analysing demographic data, social factors and consumer behaviour, Acorn provides an innate understanding of people and places across the country.

Acorn enables you to make more informed decisions to assist your planning and marketing strategies by painting a detailed picture of the kinds of people living in your catchment or region, buying your goods, or using your services.



How can Acorn help your organisation?

Understanding detailed information about your consumers enables you to create effective business strategies. From personalising content to resonate with different audiences to ensuring you locate your next store in the best possible location, Acorn provides the insights you need to help you plan and prepare for the future.

Customer Insight

By applying Acorn segments to your own customer data, you can identify the demographics and lifestyle characteristics of cohorts of customers, explaining why they buy certain products or behave in a particular way. Using the extensive knowledge provided about each Acorn segment in our supporting assets, you can create different and thought-provoking customer journeys for particular customer groups.

Acorn applies innate human understanding to a variety of datasets. It extracts and defines the 'who' from data on movement of people around city centres and provides insights on brand affinity through applying Acorn to transactional spend data. The power of CACI's data is amplified when applying Acorn, as it provides our clients with valuable information into their customers' needs and motivations.

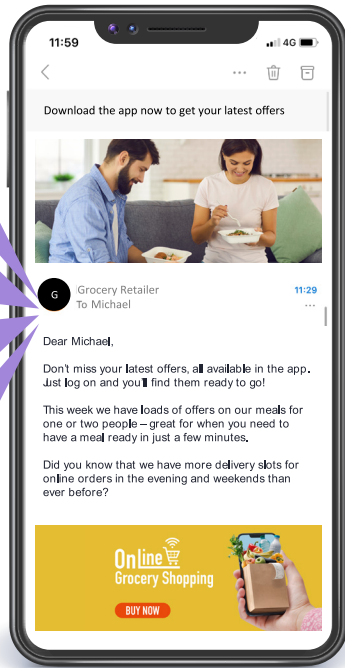
Up-and-Coming Urbanites

Younger people with busy social lives who feel that they don't have time to prepare food.

More likely to make regular, smaller shops, with a lower than average weekly spend on groceries.

Typically living in flats, without a car – highlight the convenience of online delivery.

Confident with tech and transacting on their phones, so encourage them to download the app.



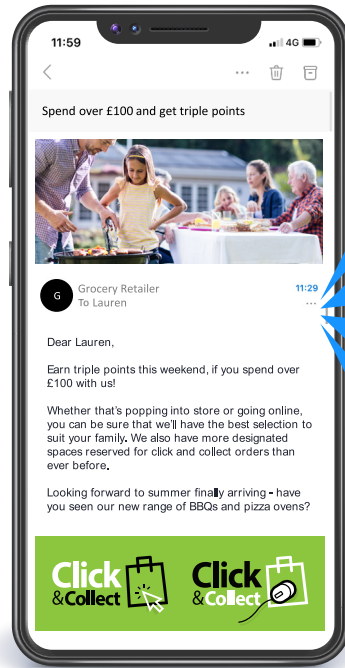
Commuter-Belt Wealth

More likely to be families with kids, who have a car – highlight ease of click and collect.

Have a high weekly spend on groceries.

More likely to purchase premium products.

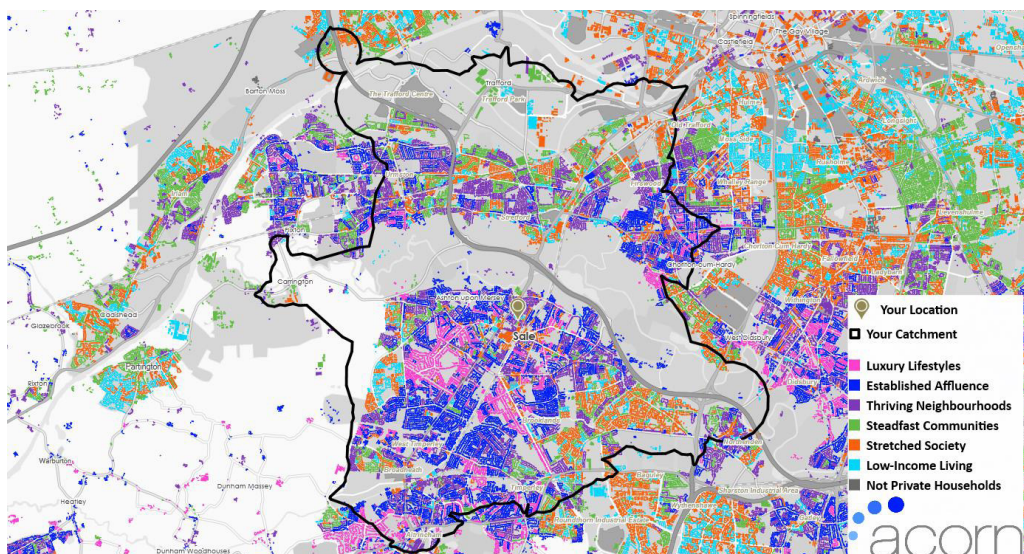
Living in larger homes with gardens and have high disposable income, so this group may be more open to non-food offers.



Leveraging knowledge from each Acorn segment enables you to tailor your communications to specific Acorn segments with the most effective language and messaging.

Optimise your Location Planning

Acorn is used by brands across the retail, leisure, financial services, and property sectors for location planning. Once you understand your customers' Acorn profiles, you can find areas of the UK that have similar profiles. This enables you to select the most profitable sites, optimise your branch network, analyse store potential, tailor your services, and secure the right tenant mix for your asset.



Ten minute drivetime catchment around a retail store in Sale.

Market Sizing

Acorn provides you with the size of the UK population and the number of households at postcode sector level for each Category, Group and Type., This enables you to quickly gauge how many consumers within the Acorn segments most relevant to your business are present across the country. This information helps support headroom calculations at local geographies, so you can:

- Find lookalike audiences
- Size the market potential & prioritise activity
- Understand regional differences & identify high-value areas to target
- Execute marketing based on qualified and quantified insight



Penetration map showing market potential of the Group Semi-Rural Maturity around the Caerphilly area.

Identify, Support and Target Vulnerable Communities

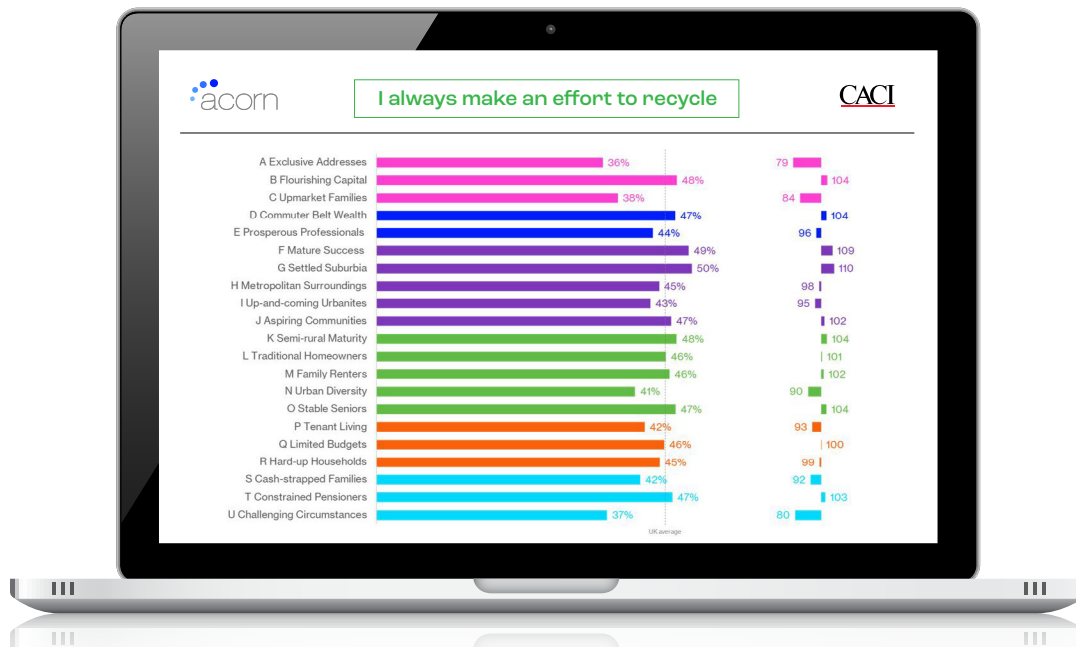
Acorn is used by organisations across both private and public sectors to understand the demographic, lifestyle, and behavioural characteristics of residents and service users to prioritise and deliver services to those most at risk and vulnerable across the community.

Within the Public Sector, Acorn can be used to understand how different areas within your community might respond to different services from adult social care to recycling.



For regulated industries, it supports organisations in meeting expectations around customer service. Financial Services industries can adopt Acorn insights to support their Consumer Duty strategy, ensuring customers are provided the products and services most suitable to their needs.

For utility organisations, Acorn supports water poverty calculations – ensuring protection for their customers and reducing the risk of debt.



Understanding the Acorn levels

Available in a hierarchical structure, Acorn segments the UK population at three levels: Category, Group & Type, with each level having its own purpose.

Category is the broadest level with only 7 segments. As an easy-to-understand view of affluence ranging from the most to least affluent, with rising and comfortable segments in the middle, it is typically used as a snapshot on overall wealth distribution.

The next level down is **Group**, consisting of 22 different segments. Group level is the most widely used, as it shows enough differentiation in characteristics and behaviours of the Acorn segments while being a manageable number to work with. Group level tends to be the lens through which organisations engage with customers or service users, therefore, it is often used for personalisation strategies, product and proposition development and catchment analysis and mapping.

The lowest level is **Type**, which contains 65 segments and is seen as the most granular Acorn view. Type tends to be used for tactical campaign selections and reporting as well as drilling into finer details when only a few Groups have been identified within a cohort of customers. Type level can also be used as an input for building propensity models.

Beyond these three segmented levels is one additional level, the **microsegment**, containing 282 segments. This detailed level tends to be used for modelling or building bespoke segmentations and is available as an add-on for purchase by interested organisations. Therefore, it does not have the same supporting collateral, or segment names as the other Acorn levels.

How has Acorn been built?

Acorn has been developed by combining the comprehensive detail provided in the Census with the wealth of data included in CACI's Postcode Spine to ensure the data is consistently up-to-date and provides an accurate view into the UK population.

1. Multiple Data Sources

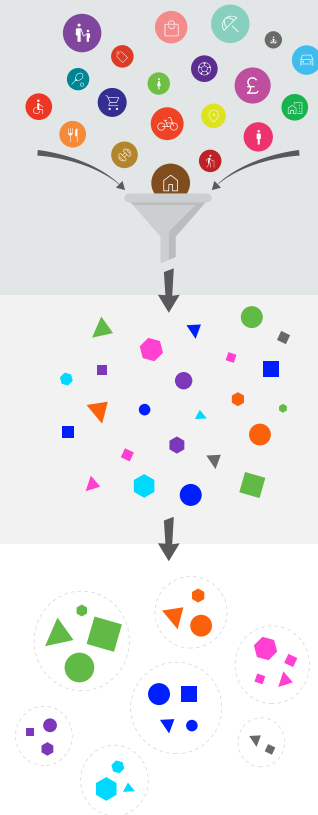
Over a billion data points are aggregated to postcode level, creating an enormous dataset about the UK population.

2. Compress Data Using AI

Deep Learning techniques are used to draw down the data from a higher to lower dimension.

3. Acorn Segments

ML Clustering techniques are used on the lower dimensional data to generate the most optimal segments.



Large volumes of updateable data sources combined with the Census

CACI's Postcode Spine has been built by combining millions of data points from dozens of sources to create a file of updateable information available at postcode level to build a complete picture of the UK population. It includes data on property type and tenure, house prices, student housing, gentrification, urban and rural areas and much more.

The Census data provides a complete picture of the UK population as of the date of the Census. It covers a range of questions including details about the demographics of those who live in the house, particularly their age, ethnicity, occupation, and education. It also includes information related to the property they live in, such as the house type, tenure, and size.

CACI took a snapshot of the Postcode Spine data on the date of the Census to provide a common baseline for us to update this data with further information, which is refreshed regularly. The benefits of using non-Census data include the finer level of geographic detail and better affluence indicators as well as the ability to update Acorn more frequently, whereas the Census data provides full coverage across the UK.

Combining these two datasets provides an extremely powerful base to build the Acorn segmentation from.

The latest Deep Learning techniques

Our team of data scientists have used several artificial intelligence (AI) and machine learning (ML) techniques throughout the Acorn build, from data processing all the way through to the generation of new segments.

In the data processing stage, more advanced statistical techniques and Deep Learning techniques have been used to refine the driver variable values and extract a measure of rurality from satellite imagery.

In the generation of new Acorn segments, leading-edge machine learning techniques have been deployed to improve both the segmentation quality and the algorithm speed. For segmentation, a cutting-edge Deep Learning technique has been used to extract the best representation of the driver variable values, ready for segment creation. Thereafter, ML techniques have been used to automatically interpret the segments, leading to a much faster turnaround in segment outputs from driver variable inputs. This enabled many iterations until the best solution was reached.

The Acorn Explore dashboard has also been rebuilt annually with the latest information that reflects everchanging consumer trends as they emerge.



Once we built the segmentation, we applied it to every postcode in the country to create the Acorn directory.

Rich descriptive data provides detailed insight

To provide the rich, descriptive data that Acorn is known for involves applying Acorn to survey data from market research companies such as YouGov, Ipsos FRS and Kantar's TGI. This enables us to provide detailed descriptions of each segment, including their demographic composition, financial status, lifestyle interests and attitudes.

This information feeds into our Acorn Explore dashboard and Knowledge Sheets which provide detailed information about each Acorn segment in an easily accessible way, helping you get the most out of Acorn by enabling you to:

- Decide the appropriate messaging that will resonate with each group
- Understand preferred communication channels
- Develop appropriate products, propositions and services for various consumer segments

Acorn supporting information and documentation

One of Acorn's greatest strengths is its powerful collateral that provides enormous amounts of information to help you get the most out of the product and tailor your strategies accordingly.

As a licence holder, you will be provided with Pen Portraits for each segment, a powerful Dashboard and Excel Knowledge Sheet so you can dive into exploring Acorn at a more granular level, and an Acorn Profiler tool to better understand your own data through the Acorn lens.

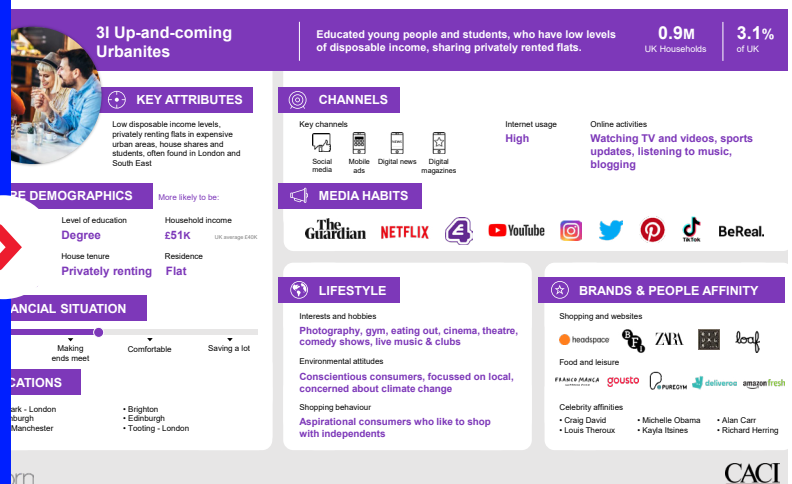
The Acorn microsite also makes it easy to download the latest information to support your use of Acorn and provides an easy way to look up a postcode by using our data coding API to pull back the associated Acorn segment.



Explore & visualise Acorn data through Pen Portraits

Our Pen Portraits are designed to be a visual snapshot of the characteristics of each Acorn Category, Group and Type, instantly giving you a feel for the segments which feature most prominently in your database or catchment area.

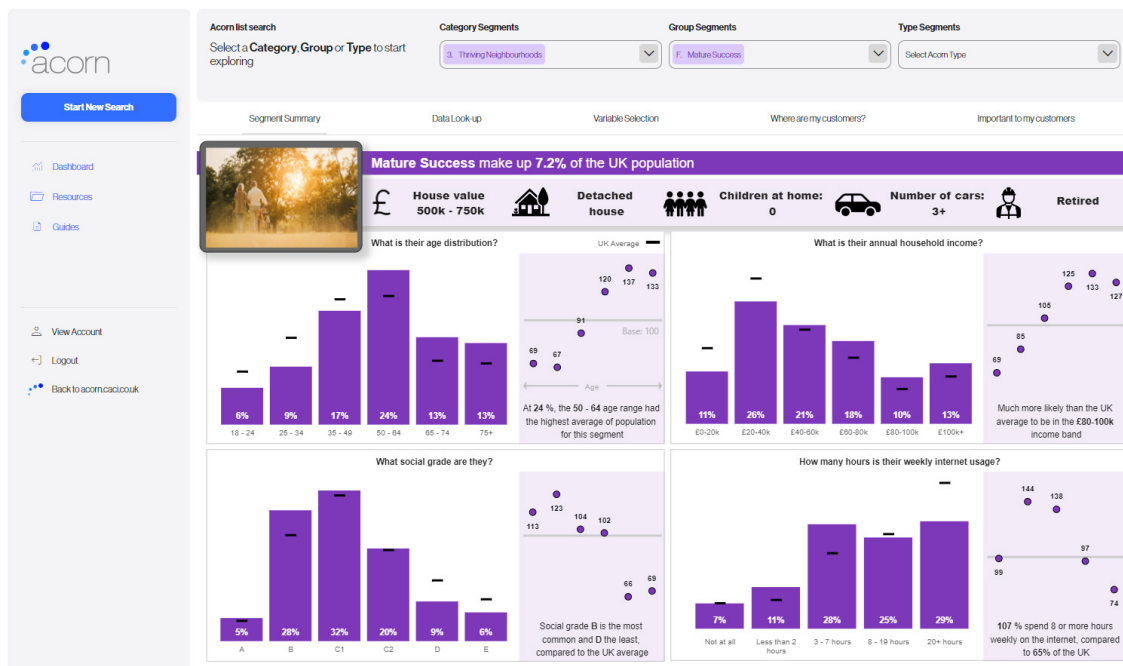
They summarise each of the segments across key demographics, financial status and lifestyle traits, from family structure, income and age to digital attitudes, behaviours and brand affinity, painting a picture of each segment.



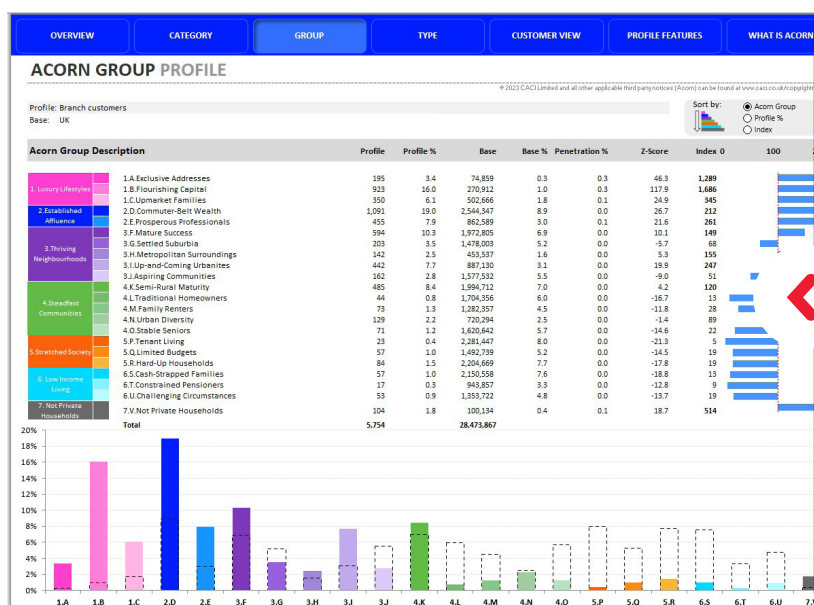
Access granular details & variables through the Acorn Explore dashboard

If you want to know more about specific variables and drill down into more granular information, the Acorn Explore dashboard provides a detailed understanding of each of the Acorn Categories, Groups and Types across numerous subjects, themes, and topics, enabling you to retrieve in-depth knowledge about each segment at the click of a button.

Each of the segment summaries provide a quick and comprehensive representation of each segment measured against UK averages across a range of demographics, as well as top line behaviours and characteristics for the Category, Group or Type that you have selected.



Acorn Explore also allows you to compare different variables, such as a group's likelihood of using digital banking or being a keen recycler. These variables can be crucial when it comes to planning personalised campaigns or developing new products and services.



The knowledge outlined provides you with an opportunity to target, acquire and develop profitable customer relationships and improve service delivery to key neighbourhoods. Whether you are trying to understand your existing customers, identify profitable prospects or allocate resources effectively, Acorn Explore can give you the insight you need to achieve this.

Insight into your consumer data

If you need an additional easy-to-use customer insight tool to further support your customer or service user understanding through the Acorn lens, the Acorn Profiler tool can be provided with your licence.

Acorn Profiler makes it easy to upload and analyse postcode consumer data, giving you an understanding of the dominant demographic groups within your customer base. The postcodes are coded with their respective Acorn segment and are counted to identify any segments which are over or underrepresented within your base. The data can be exported with the segmentation details appended, acting as a coding tool. A report can also be generated to provide a cohesive overview of commentary on the customers, including tables and graphs to showcase the dominance of specific demographics and their respective behaviours.

Profiler helps you understand your own postcode data in more detail, enabling you to answer questions such as:

- Which Acorn segments are more prevalent in my customer base?
- How can I benchmark my customers against the UK population, adults, or households?
- Where are my opportunities for growth?

When the results of the Acorn Profiler are combined with the Acorn Explore dashboards, you can start to uncover:

- How affluent are my consumers?
- Which consumers would be more likely to migrate to digital platforms?
- What websites are they more likely to visit?
- How do I best engage with my community?

This ultimately provides you with the foundation to enable a data driven approach to your communication and engagement strategy.



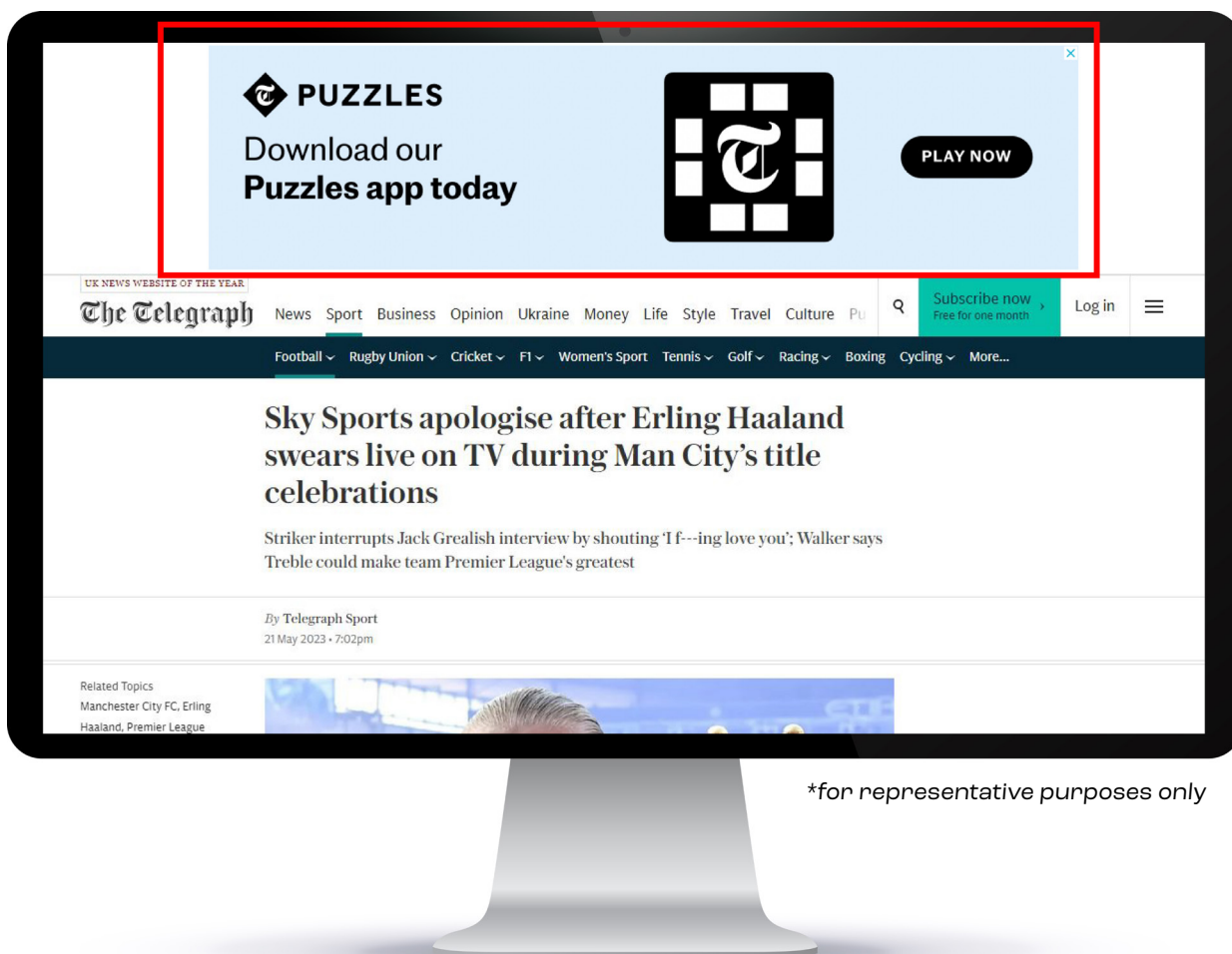
Acorn on consumer research

Acorn is readily available across a range of market research panels.

This enables organisations to build consumer insight, particularly useful where no customer data is available. From Ipsos's Financial Research Survey to YouGov Profiles and Kantar's TGI consumer panel, Acorn can be used to understand the profile of respondents on questions ranging from which type of customers pay for products using their mobile phone to which brands of kitchen appliances you have in your home. These insights provide an in-depth understanding for audience profiling, media planning and buying as well as providing essential information for brands which don't have a direct-to-consumer relationship.

Access Acorn data in your digital advertising platforms

By working with leading partners in the digital advertising world, Acorn is available for activation across DMPs, DSPs and connected TV. This enables the delivery of consistent targeting strategies across display, social, email, TV, and direct mail by using a common targeting language.



● Accessing Acorn data

There are various options for you and your organisation to access Acorn data depending on which best suits your organisation's needs.

1

The Acorn Directory

This option provides you with a CSV file of all 1.6m postcodes in the UK. For each postcode, there is a column showing the Acorn segment. Having this data in-house allows you to code your own consumer data and load it into in-house systems for analysis.

2

Acorn accessed via CACI's API

If your business relies on real time information, then CACI's Data Coding API might be the best solution for you. The API provides immediate coding of a postcode directly into your platforms, enabling immediate personalisation and onboarding.

3

Acorn coded onto your customer base

Acorn licence holders can send CACI their customer postcode data which can be coded with the matching Acorn segment and returned via a secure transfer method.

Acorn can also be provided as a dataset included in GIS solutions such as CACI's InSite. The postcode directory can be used within the tool to provide demographic analysis around locations and store catchments, create detailed maps, and conduct customer profiling.

The screenshot shows a web interface titled "Welcome to Acorn" with a close button (X) in the top right corner. Below the title is the question "How would you like to explore our dashboards?". There are four search options, each with a "Search" button:

- By Postcode Search**: Enter a postcode to show which Acorn segment it falls in to. (This option is highlighted with a red border in the image.)
- From Acorn List**: View data related to one or more Acorn segments.
- Partial Postcode Search**: Identify Acorn segments in your business postcode areas.
- By Specific Characteristics**: Use variables to find the Acorn segments your customers represent.

The Acorn microsite uses CACI's API to pull back the Acorn segment associated with your postcode in real time. Try it now to see it in action and understand how this could benefit your business.

Our consultants have experience in applying Acorn data across a range of project work to deliver the information your business needs in order to make strategic decisions. If you are interested in learning more about any of the available ways to access Acorn, we strongly encourage you to reach out to your account manager directly or contact us at info@caci.co.uk.

1

Luxury Lifestyles

Types

A. Exclusive Addresses	1	High-flyers in luxury apartments and townhouses
	2	Wealthy, gentrified areas
	3	Asset-rich, out-of-town older families
B. Flourishing Capital	4	High-end professionals in city flats
	5	Successful young families in smart urban areas
C. Upmarket Families	6	Executives in expensive suburban houses
	7	Prosperous families in green-belt areas with substantial homes

2

Established Affluence

Types

D. Commuter-Belt Wealth	8	Affluent, older homeowners
	9	Families and couples in comfortable homes
	10	Well-off families in larger semis
	11	Mature and moneyed out-of-towners
	12	Well-to-do empty nesters in detached houses
E. Prosperous Professionals	13	Families in leafy suburbs
	14	Upmarket young families in terraces
	15	Educated professionals renting flats

3

Thriving Neighbourhoods

Types

F. Mature Success	16	Families and couples in detached houses
	17	Older, rural empty nesters and couples
	18	Countryside retirees in spacious houses
	19	Sophisticated couples living comfortably in detached homes
G. Settled Suburbia	20	Mixed lifestages in semi-detached homes
	21	Mid-life suburban living
H. Metropolitan Surroundings	22	Younger families and sharers in city terraces
	23	Culturally diverse suburban families
I. Up-and-Coming Urbanites	24	Young professionals renting city flats
	25	Privately renting students and house sharers
	26	Younger couples and singles in flats
J. Aspiring Communities	27	Professional families and couples in suburban, owner-occupied areas
	28	Families and couples in terraces

4

Steadfast Communities

Types

K. Semi-Rural Maturity	29	Senior home-owning couples
	30	Empty nesters in owner-occupied detached homes
	31	Comfortable, home-owning families and empty nesters
	32	Older comfortable families and couples in detached, rural properties
	33	Retirees in semi-detached and detached properties
L. Traditional Homeowners	34	Older owner-occupier households in semis
	35	Settled communities, semi-detached properties
M. Family Renters	36	Cost-conscious families in terraces
	37	Restricted residents, socially renting
N. Urban Diversity	38	Younger families, multi-occupancy and rented households
	39	Diverse communities in smaller semis and terraces
	40	Young families, limited means in terraced metropolitan areas
O. Stable Seniors	41	Living on modest means in terraces
	42	Retired homeowners in semi-detached and detached houses
	43	Older couples living in detached houses, rural communities

5

Stretched Society

Types

P. Tenant Living	44	Urban, aspiring flat dwellers
	45	Privately renting squeezed professionals in flats
	46	Sharers and students in private rentals
	47	Singles and couples in rented flats
Q. Limited Budgets	48	Routine occupations, socially renting families in semis
	49	Socially renting single adult households
R. Hard-Up Households	50	Single-parent families in terraced housing
	51	Older, single-person households on the outskirts of town
	52	Socially renting families in terraces

6

Low Income Living

Types

S. Cash-Strapped Families	53	Diverse families and sharers in flats
	54	Young families in socially rented semis
	55	Families in low-value terraced housing
	56	Diverse young families in rented terraces and flats
T. Constrained Pensioners	57	Older renters in flats and tenements
	58	Poorer pensioners in semis
U. Challenging Circumstances	59	Students and sharers in multi-occupancy flats
	60	Socially renting single adult households in flats
	61	Socially rented flats, singles and pensioners

7

Not Private Households

Types

62	Students in halls of residence
63	Active communal populations
64	Inactive communal populations
65	Non-residential postcodes



Pen Portraits

2D Computer-Belt Wealth

Well-off older families and empty nesters living in detached properties within easy reach of the major cities.

2.5M
UK households

8.9%
of UK

KEY ATTRIBUTES

Ageband: 55+
Level of education: Degree
Household income: £62K

CHANNELS

Internet usage: Moderate
Online activities: News, banking, shopping, maps, leisure bookings, property listings, sports updates

CORE DEMOGRAPHICS

Ageband: 55+
Level of education: Degree
Household income: £62K

MEDIA HABITS

The Telegraph THEiMAGAZINES 4 in twitter sky sky sports sky sports

FINANCIAL SITUATION

Composition: Family with children
House tenure: Home owner
Residence: Detached house

LIFESTYLE

Interests and hobbies: Gardening, holidays, walking out, pets, ballet, theatre and musicals, golf
Environmental attitudes: Influenced by their children
Shopping behaviour: Loyalty card holders, pay more for quality and convenience

BRANDS & PEOPLE AFFINITY

Shopping and websites: W J.P. WALTONS B&Q Lidl M&S CLARINS
Food and leisure: Aldi ASDA
Celebrity affluence: Jessica Wake (Fable Marmite) Mark Kennedy Robert Plant Kevie Allcock Hank Robinson James May

3I Up-and-coming Urbanites

Educated young people and students, who have low levels of disposable income, sharing privately rented flats.

0.9M
UK households

3.1%
of UK

KEY ATTRIBUTES

Ageband: 18-34
Level of education: Degree
Household income: £51K

CHANNELS

Internet usage: High
Online activities: Watching TV and videos, sports updates, listening to music, blogging

CORE DEMOGRAPHICS

Ageband: 18-34
Level of education: Degree
Household income: £51K

MEDIA HABITS

The Guardian NETFLIX 4 YouTube Instagram Twitter Pinterest BeReal

FINANCIAL SITUATION

Composition: Singles and house-shares
House tenure: Privately renting
Residence: Flat

LIFESTYLE

Interests and hobbies: Photography, gym, eating out, cinema, theatre, comedy shows, live music & clubs
Environmental attitudes: Conscious consumers, focused on local, concerned about climate change
Shopping behaviour: Aspirational consumers who like to shop with independents

BRANDS & PEOPLE AFFINITY

Shopping and websites: Asda Matala Primark Next
Food and leisure: Costa Costa Coffee gousto Deliveroo Amazon Prime
Celebrity affluence: Craig David Michelle Obama Alan Carr Louise Thorneycroft Kayla Baines

For more information on each of the Acorn segments, visit our microsite and create your account. Once logged in, you'll then be able to see all of the Pen Portraits for each Category, Group and Type. You'll also have the option to look up your own Acorn code, use our Acorn Explore dashboard to discover key insights on the segments, and access all of our valuable support materials.

16

A broad range of data and marketing services from CACI

CACI helps organisations like yours transform by merging the power of talent, data and technology. We are the UK's leading consumer and market data analysis company, working with global brands across a range of public and private sectors to optimise performance.

We provide a range of services beyond Acorn that leverage geodemographic data to help you better understand the population and location of your customer base and identify any socio-economic factors within your catchment area. Our public sector clients use our data in many cases to accurately target the provision of social services.

What we do



Consumer & Market Data Insights

Our powerful consumer and location data solutions provide you with up-to-date, actionable insights on today's consumer.



Marketing Technology

From the initial decision through to optimisation, our MarTech experts ensure you're equipped with a tech stack that will deliver ROI.



Customer Marketing Solutions

Our unique combination of MarTech expertise and consumer insights means that we can support you in creating the ultimate customer experience.



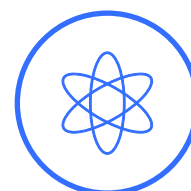
Location Strategy

Our unparalleled understanding of how people interact with places will strengthen your investment and operational decisions. Through data, we'll help you determine location opportunities that will bolster your performance and future growth.



Logistics Planning

We simplify the complex process of logistics planning and management. Our extensive experience in logistics consulting, solutions and delivery helps you overcome challenges and map out optimal approaches for that will maximise your ROI.



Data Science

Our blend of data and technology expertise puts analytics to work in clear, visual and actionable ways. Whether it's store planning or predictive insights, we can help you turn your data into action.

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CACI

acorn