



FOODSWITCH

Project Name:	C4L Food Scanner - Packaged food Data
Client:	[REDACTED]
Contact:	[REDACTED]
The George Institute:	[REDACTED]
Date:	March 2021

1.BACKGROUND AND BRIEF

1.1. Business Background

Public Health England (PHE) operate a series of educational apps to encourage healthier lifestyles, including the Change4Life Food Scanner app.

The Food Scanner app requires data on packaged foods to operate which it currently sources from Nielsen / Brandbank and The George Institute for Global Health (TGI) via its local partner - the Wolfson Institute at Queen Mary University, London.

1.2. Client Brief

PHE wish to utilise crowdsourcing via the Food Scanner app to enhance its dataset and improve the overall user experience of the app – by offering a continuation of the user journey in the event of a product being unavailable in the app. The crowdsourced data provided by users will require processing and provisioning back to PHE in a suitable format for infusion into its main dataset.

1.3. Supplier / Project background

TGI operates a unique data / technology system known as FoodSwitch, which it has developed and evolved over the last 10 years. This proprietary system has refined the process of receiving label images, processing the label data and cleaning and enhancing the data with proprietary algorithms contained in its Content Management System (CMS).

TGI has previously assisted PHE and PHE's contractor – Flipside Group, to create a crowd-sourcing feature in the Food Scanner app based on the same feature contained in TGI's FoodSwitch app. Additionally, TGI has created (at its own cost) an API to receive the crowd-sourced data from PHE's Food Scanner app into its FoodSwitch data system.

In respect of the above, this proposal benefits by leveraging established technical systems and the significant nutrition and data knowledge held by TGI to minimise costs to the client.



2. Supplier Background

2.1. The George Institute for Global Health

The George Institute (TGI) has projects in more than 50 countries around the world, and has raised over 500 million dollars for global health research since 1999. The George Institute has been ranked among the top 10 research institutions in the world for scientific impact by the SCImago Institution Rankings World Report in 2011, 2012, 2013 & 2014.

The Food Policy Division at TGI has a strong track record in both academic output and policy translation. The Division has a large number of projects underway focusing mainly on food reformulation, monitoring changes in the food supply, and developing and testing innovative approaches to encourage consumers towards better food choices. A key component of innovation and collaboration in this field is FoodSwitch, an award winning data / technology platform that supports a system-wide approach to improve the food environment.

Internationally, The George Institute was last year designated as a World Health Organization Collaborating Centre on Population Salt Reduction with a remit to support countries to achieve the new global targets for reducing salt by 30% by 2025.

The George Institute works closely with key players across government, the food industry and NGO's. It is regularly called upon to provide data in support of efforts related to improving the healthiness of the food supply. Specific recent examples include: the provision of data and analyses for the Access to Nutrition Foundation's (ATNF) Global Product Profile; a comprehensive nutrition benchmarking review for Australia's largest retailer, Woolworths; data provision to Discovery - South Africa's largest Health Insurer, to power its wellness programme; data provision to the Food Health Bureau of the government of Hong Kong; data and analyses for various projects within Australian state and federal government health departments; and data provision to Data Analytics companies Nielsen and Quantum.

2.2. The FoodSwitch Programme

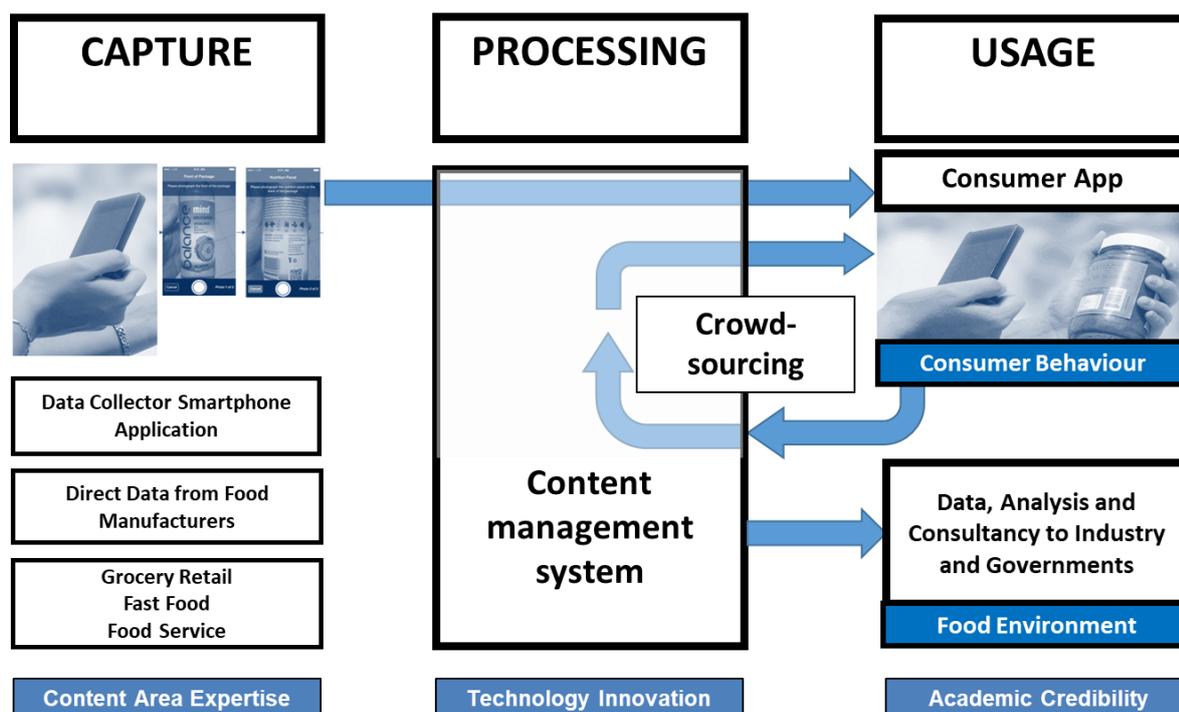
The George Institute's FoodSwitch programme has been in operation since 2008 and now constitutes a technology platform to collect and manage data, a large food composition database, and front-end applications - its FoodSwitch consumer smartphone app and its website. At present, FoodSwitch is live in Australia, New Zealand, India, China, South Africa, UK, Hong Kong, Fiji, Kuwait and the US. It is anticipated that coverage will continue to expand, with additional countries, Europe, Africa and South America to be setup over the next 12 months.

2.3. The FoodSwitch dataset

The FoodSwitch datasets contains data on individual packaged food items each linked to their unique barcode. The attribute data is based on information contained on the product pack label. Information from the front and back of packaging labels are captured and loaded into a country-specific database or Content Management System (CMS).



Figure 1 – FoodSwitch Platform



2.4. Data Accuracy

The data entry system incorporates quality rules and system logic to minimise data errors. These in-built data quality checks alongside multi-stage manual checks targets a data accuracy of 98%.

2.5. Categorisation

The individual barcoded items held in the FoodSwitch database are each placed within a category structure or 'tree' which has been developed based on the UN / WHO CODEX food category system. This category tree is very detailed – branching down to around 730 individual leaf-level categories. This granular categorisation gives the FoodSwitch system capability to enable analyses of products at a very specific level, or to group categories at higher levels or within custom aggregations.

2.6. Nutrients and Profiling

FoodSwitch holds data on all labelled macro and micronutrients as well as many other labelled attributes. Additionally, through the application of algorithms and calculations, FoodSwitch applies different nutrient profiling systems to the data e.g. the Australian system of Health Star Ratings (HSR).

3. Services

The George Institute (TGI) will undertake the following tasks and output the following deliverables

3.1. Data Collection

TGI will make available its API to receive data into a Content Management System from the Food Scanner app.

3.2. Data Processing

TGI will process the crowdsourced images received via the API to create useable data of selected attributes declared on the food packaging label.

It is anticipated that multiple submissions of individual food items will be submitted via the Food Scanner crowdsourcing feature. TGI's existing system can manage incoming images bases on their associated barcodes to avoid processing multiple submissions of the same item and minimising processing effort / cost.

3.3. Data Output

The proprietary systems within FoodSwitch will categorise items and map them to the PHE category system. The FoodSwitch system will perform necessary data manipulation and calculations to provide **Datasets** to PHE in the required format.



4. Licensing

The George Institute (TGI) will provide data to PHE in line with the *Intellectual Property Rights in deliverables, materials and output* defined in their Form of Contract template as referenced below where TGI is the Supplier and PHE is the Authority. For the avoidance of doubt, *the Authority shall have no rights to commercially exploit (e.g. by selling to third parties) any deliverables, matter or any other output supplied to the Authority in any format as part of the Services.*

5: Assignment of Intellectual Property Rights in deliverables, materials and output

- 5.1 The Supplier warrants and undertakes to the Authority that either it owns or is entitled to use and will continue to own or be entitled to use all Intellectual Property Rights used in the development and provision of the Services and/or necessary to give effect to the Services and/or to use any deliverables, matter or any other output supplied to the Authority as part of the Services.
- 5.2 Unless specified otherwise in the Specification and Tender Response Document, the Supplier hereby grants to the Authority, for the life of the use by the Authority of any deliverables, material or any other output supplied to the Authority in any format as part of the Services, an irrevocable, royalty-free, non-exclusive licence to use, modify, adapt or enhance such items in the course of the Authority's normal business operations. For the avoidance of doubt, unless specified otherwise in the Specification and Tender Response Document, the Authority shall have no rights to commercially exploit (e.g. by selling to third parties) any deliverables, matter or any other output supplied to the Authority in any format as part of the Services.



5. Commercial Terms

This section outlines the commercial terms of the agreement. Fees are in GBP. VAT / GST charges do not apply

5.1. Contract Value

The Contract Value of this phase of the project is **GBP 40,000**
This covers fees for Licencing and Services below and will operate as a call-off budget.

5.2. Contract Term

The Contact will commence on 1st September 2020 and end on 1st March 2022.
The Services and deliverables will be accommodated within the Term up to the exhaustion of the Contract Value (call-off budget).

5.3. Fees and invoicing

TGI will invoice the Contract Value on 31st March 2021

Datasets will be provisioned as agreed between TGI and PHE and the Fees will be deducted from the call-off budget based on the item volume and the rates given in 5.4 below. TGI will provide a statement of fees and budget balance to PHE with each provisioned Dataset.

5.4. Licensing and Services

The following tables outline the Fees associated with the Licensing of the Dataset and the Services performed by TGI

Licence	Currency	Fees
FoodSwitch Licence (per annum)	n/a	waived

Services	Currency	Fees
Data processing, data filtering, manipulation, categorisation, formatting and provision - <u>per 1000 items</u> including ingredients	GBP	
Technical development API	n/a	waived

Call-off budget to be charged in GBP on provision of each Dataset to PHE and based on the item volume provisioned.

*Rate is based on TGI standard fee of US\$1,500 per thousand items. FX conversion based on L6M ave to 22nd Mar 2021



5.5. Variations

In the event of issues with the data received by TGI from the Food Scanner app, both Parties will agree a plan to correct. This plan may include both technical actions and actions associated with the Services and may include a variation in the Fee per item provisioned.



6.Dataset

The table below lists the data attributes to be provisioned in the Datasets provisioned by TGI to PHE

Field Group	Field
Item Attributes	GTIN
Item Attributes	Brand Name
Item Attributes	Product Name
Item Attributes	Manufacturer (where available)
Item Attributes	Serve Size
Item Attributes	Pack Size
Item Attributes	Serve units
Macronutrients	Protein (g/100g)
Macronutrients	Protein (g/serve)
Macronutrients	Protein (g/pack)
Macronutrients	Total Fat (g/100g)
Macronutrients	Total Fat (g/serve)
Macronutrients	Total Fat (g/pack)
Macronutrients	Saturates (g/100g)
Macronutrients	Saturates (g/serve)
Macronutrients	Saturates (g/pack)
Macronutrients	Carbohydrates (g/100g)
Macronutrients	Carbohydrates (g/serve)
Macronutrients	Carbohydrates (g/pack)
Macronutrients	Sugar (g/100g)
Macronutrients	Sugar (g/serve)
Macronutrients	Sugar (g/pack)
Macronutrients	Salt (g/100g)
Macronutrients	Salt (g/serve)
Macronutrients	Salt (g/pack)
Macronutrients	Fibre (g/100g)
Macronutrients	Fibre (g/serve)
Macronutrients	Fibre (g/pack)
Food Attributes	Ingredients
Food Attributes	PHE Category
TGI Attributes	Total Fat Traffic Light Level
TGI Attributes	Saturates Traffic Light Level
TGI Attributes	Sugar Traffic Light Level
TGI Attributes	Salt Traffic Light Level
TGI Attributes	Time Stamp (not available)



7. Proposal Acceptance

Signed for **PHE** by

[Redacted Signature]

.....
Signature of Representative

[Redacted Name]

.....
Name of Representative (print)

[Redacted Date]

Date

Signed for **The George
Institute** by

[Redacted Signature]

Signature of Representative

[Redacted Name]

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Name of Representative (print)

[Redacted Date]

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Date

