ON THE MENU
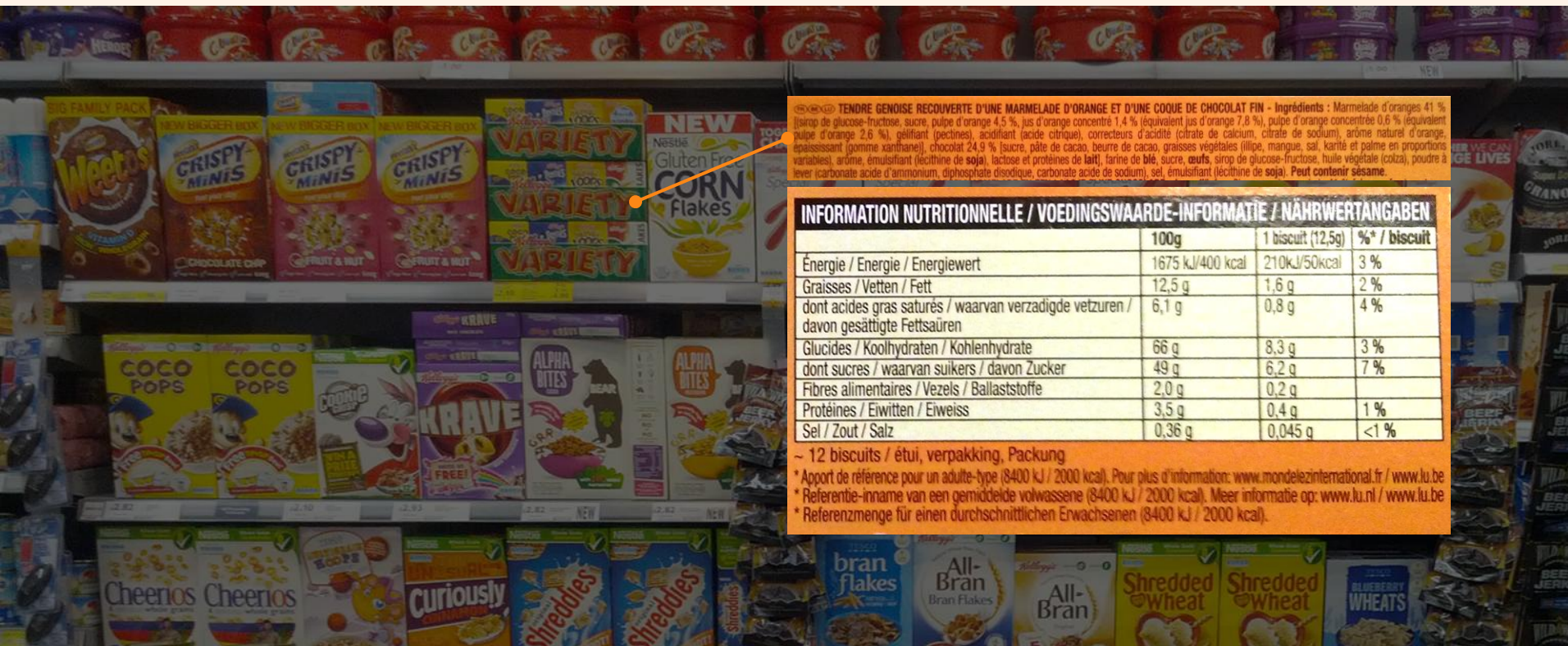
1 **OPEN FOOD FACTS**

2 **NUTRI-SIGHT**

3 **DRG & OFF**

How do you choose the best product?

A nutritional table extremely hard to comprehend.

TENDRE GENOISE RECOUVERTE D'UNE MARMELADE D'ORANGE ET D'UNE COQUE DE CHOCOLAT FIN - Ingrédients : Marmelade d'oranges 41 % [(sirop de glucose-fructose, sucre, pulpe d'orange 4,5 %, jus d'orange concentré 1,4 % (équivalent jus d'orange 7,8 %), pulpe d'orange concentrée 0,6 % (équivalent pulpe d'orange 2,6 %), gélifiant (pectines), acidifiant (acide citrique), correcteurs d'acidité (citrate de calcium, citrate de sodium), arôme naturel d'orange, épaississant (gomme xanthane)], chocolat 24,9 % [sucre, pâte de cacao, beurre de cacao, graisses végétales (illipe, mangue, sal, karité et palme en proportions variables), arôme, émulsifiant (lécithine de soja), lactose et protéines de lait], farine de blé, sucre, œufs, sirop de glucose-fructose, huile végétale (colza), poudre à lever (carbonate acide d'ammonium, diphosphate disodique, carbonate acide de sodium), sel, émulsifiant (lécithine de soja). Peut contenir sésame.

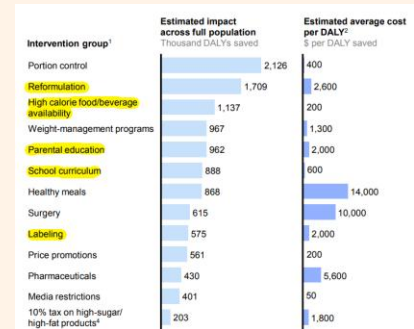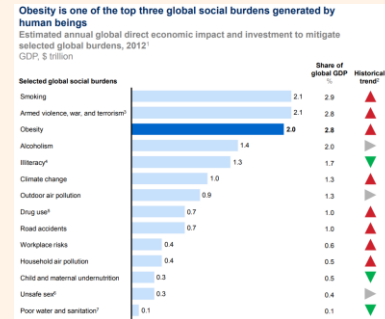| INFORMATION NUTRITIONNELLE / VOEDINGSWAARDE-INFORMATIE / NÄHRWERTANGABEN	100g	1 biscuit (12,5g)	%* / biscuit
Énergie / Energie / Energiewert	1675 kJ/400 kcal	210kJ/50kcal	3 %
Graisses / Vetten / Fett	12,5 g	1,6 g	2 %
dont acides gras saturés / waarvan verzadigde vetzuren / davon gesättigte Fettsaüren	6,1 g	0,8 g	4 %
Glucides / Koolhydraten / Kohlenhydrate	66 g	8,3 g	3 %
dont sucres / waarvan suikers / davon Zucker	49 g	6,2 g	7 %
Fibres alimentaires / Vezels / Ballaststoffe	2,0 g	0,2 g	
Protéines / Eiwitten / Eiweiss	3,5 g	0,4 g	1 %
Sel / Zout / Salz	0,36 g	0,045 g	<1 %

~ 12 biscuits / étui, verpakking, Packung
* Apport de référence pour un adulte-type (8400 kJ / 2000 kcal). Pour plus d'information: www.mondelezinternational.fr / www.lu.be
* Referentie-inname van een gemiddelde volwassene (8400 kJ / 2000 kcal). Meer informatie op: www.lu.nl / www.lu.be
* Referenzmenge für einen durchschnittlichen Erwachsenen (8400 kJ / 2000 kcal).

The growing negative impacts of food on health and the planet

- A global epidemic of obesity
  - Europe: 3% of GDP wiped (OECD)
  - France: 1 in 2 adults and 1 in 5 children are overweight
  - Annual cost: 20.4 billion euros (Public Treasury – 2016)
- Globally, food accounts for 1/3 of carbon emissions, 70% drinking water consumption & the majority of packaging waste.
- It is important and urgent to act.

Obesity is one of the top three global social burdens generated by human beings
Estimated annual global direct economic impact and investment to mitigate selected global burdens, 2012[1]
GDP, $ trillion

Selected global burdens		Share of global GDP %	Historical trend[2]
Smoking	2.1	2.9	▲
Armed violence, war, and terrorism[3]	2.1	2.8	▲
Obesity	2.0	2.8	▲
Alcoholism	1.4	2.0	▶
Illiteracy[4]	1.3	1.7	▼
Climate change	1.0	1.3	▼
Outdoor air pollution	0.9	1.3	▶
Drug use[5]	0.7	1.0	▲
Road accidents	0.7	1.0	▲
Workplace risks	0.4	0.6	▲
Household air pollution	0.4	0.5	▲
Child and maternal undernutrition	0.3	0.5	▼
Unsafe sex[6]	0.3	0.4	▶
Poor water and sanitation[7]	0.1	0.1	▼

Intervention group[1]	Estimated impact across full population Thousand DALYs saved	Estimated average cost per DALY[2] $ per DALY saved
Portion control	2,126	400
Reformulation	1,709	2,600
High calorie food/beverage availability	1,137	200
Weight-management programs	967	1,300
Parental education	962	2,000
School curriculum	888	600
Healthy meals	868	14,000
Surgery	615	10,000
Labeling	575	2,000
Price promotions	561	200
Pharmaceuticals	430	5,600
Media restrictions	401	50
10% tax on high-sugar/ high-fat products[4]	203	1,800

Cost of obesity treatment in the UK: £54 billion euros / year (McKinsey 2014) incl. £6.1bn on the NHS

Empower users to have an impact

DON'T PANIC,

ORGANISE!
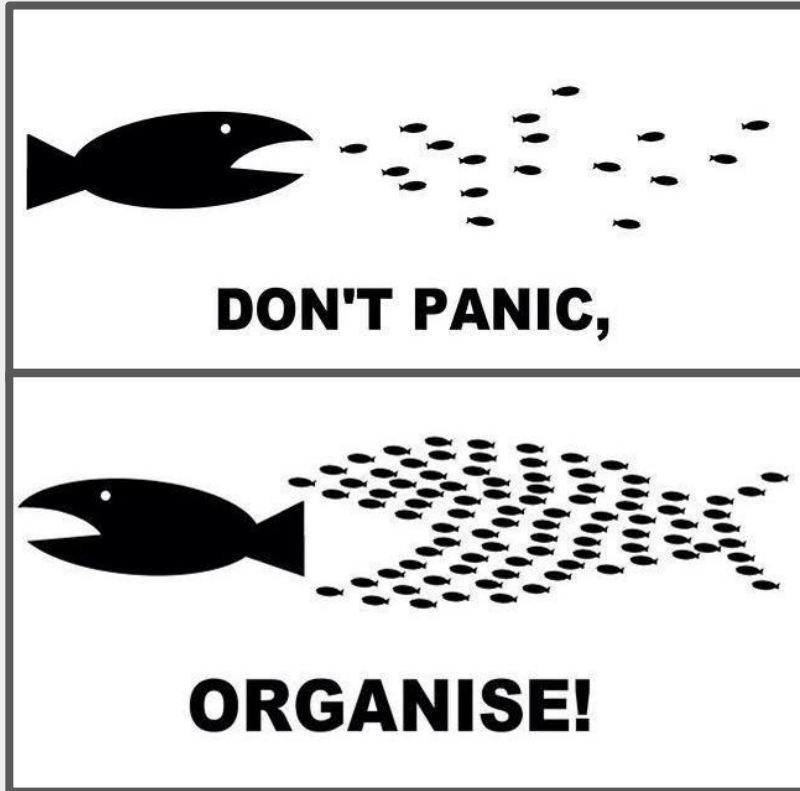
➔ on their own health
➔ on the environment
➔ on the food system

Communities that build digital commons

A free & open global database

- **Data of public interest**
  - For consumers
  - To improve products
  - For research
  - For public action
- **Open data & Open Source**
  - Reusable freely and free of charge
  - Open Database License

open source

https://fr.openfoodfacts.org/data

Open Food Facts in numbers

- created in 2012
- exists thanks to more than 20,000 contributors
- 4M food products in 160 countries
- More than 4M users / month directly

Be the **CHANGE**

Open Food Facts is a collaborative and open source project made by all!

You can add a product or informations to a product anytime!

We're helping tackle UN–SDG goals 3, 12 & 13

Strongly aligned with Digital Responsibility Goals (since we created Open Food Facts, 12 years ago)

1 Digital Literacy

2 Cybersecurity

3 Privacy

4 Data Fairness

5 Trustworthy Algorithms

6 Transparency

7 Human Agency & Identity

Our mission
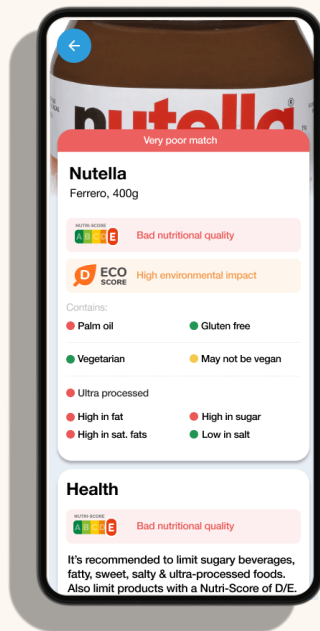
Empower consumers, researchers, producers, public decision-makers, etc., to measure and modify on a large scale the impact of food on our health and on the planet

Information and knowledge to take action

Scannez les ALIMENTS de votre QUOTIDIEN

Un scan qui vous RESSEMBLE vraiment!
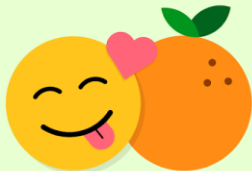
Un produit qui vous correspond !

Produit
Marque, 250g

NUTRI-SCORE A B C D E — Très bonne qualité nutritionnelle

eco score A — Faible impact environnemental

Contient:
- Sans huile de palme
- Végétarien
- Sans gluten
- Végétalien

Découvrez l'essentiel Pour votre SANTÉ

Santé

NUTRI-SCORE A B C D E — Très bonne qualité nutritionnelle

Il est recommandé de limiter les boissons sucrées, les aliments gras, sucrés, salés et ultra-transformés. Limitez également les produits avec un Nutri-Score de D/E.

226 kJ pour 100 g
Correspond à 13 minutes de marche

5 par jour
Contribue aux 5 portions de fruits et légumes recommandées

Découvrez l'essentiel Pour la PLANÈTE

Environnement

eco score A — Faible impact environnemental

Empreinte carbone
Équivaut à parcourir 2 km en voiture
1.87kg CO2 / kg de produit

Conditionnement
Bouchon (Liège)
Etiquette (Carton)
Bouteille (Verre)

Aucun

RAPPORT

Propositions pour un nouvel élan de la politique nutritionnelle française de santé publique

dans le cadre de la Stratégie Nationale de Santé

1ère Partie :
Mesures concernant la Prévention nutritionnelle

Rapport rédigé par
Pr Serge Hercberg

PU-PH Nutrition,
Université Paris 13/Département de Santé Publique Hôpital Avicenne Bobigny)
Directeur Unité de Recherche en Epidémiologie Nutritionnelle,
U557 Inserm/Inra/Cnam/Université Paris 13
Président du Programme National Nutrition Santé
PNNS 2001-2005, 2006-2010, 2011-2015

Avec l'aide du **Dr Chantal Julia** *(Assistante Hospitalo-Universitaire, Université Paris 13/Département de Santé Publique, Hôpital Avicenne, Bobigny)*

15 novembre 2013
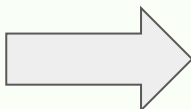
Découvrez les notes 5 couleurs de 10 000 produits alimentaires sur Open Food Facts

Notes nutritionnelles des plats préparés à réchauffer au micro-onde

Source des données : http://fr.openfoodfacts.org

Matières grasses / Lipides (g pour 100 g / 100 ml)

20

15

10

5

0

Hachis Parmentier – Bolino

B

pour 100 g / 100 ml :
Sucres : 6.73 g
Matières grasses / Lipides : 2.5 g

0   2   4   6   8   10   12

Note nutritionnelle : **A** **B** **C** **D** **E**
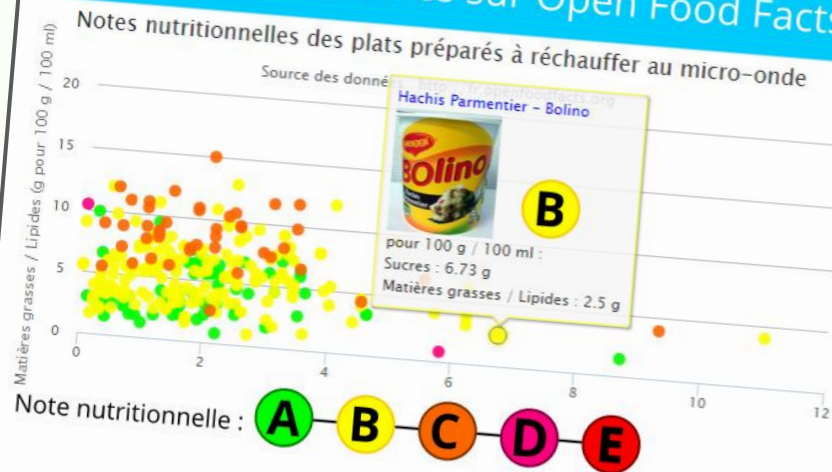
fr.openfoodfacts.org

Our impact with Nutri-Score
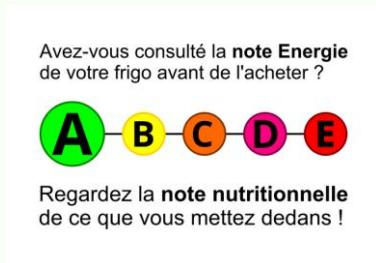
Started displaying "Score 5C" on 15k products in 2015

Now computed worldwide on 630k products, using mobile crowdsourcing
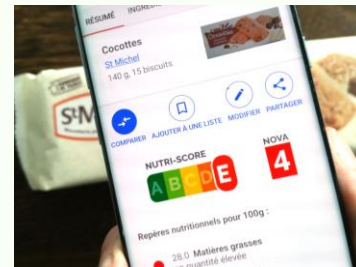
Anyone can get it, even without manufacturer cooperation
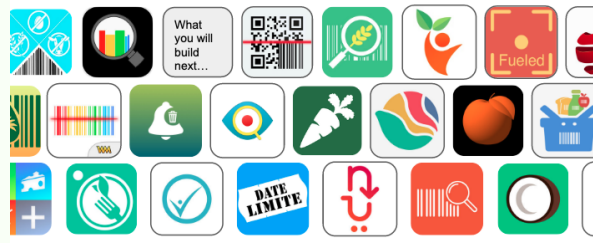
Created an ecosystem around the Nutri-Score

Now available in real-life in 5 EU countries and under EU review
30% of French products have a printed Nutri-Score
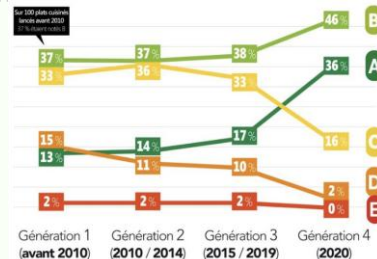
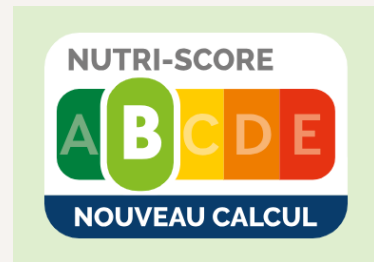Newly-launched products have a better nutritional profile

2021 ScanUp study

Nutri-Score – Nutritional quality

● Grade from A to E

+ : fruits and vegetables, fiber, proteins

- : energy, saturated fat, sugars, salt

● 200 manufacturers
● 25% of processed foods (OQALI 9/2019)
● Adopted in 7 EU countries

Citizens can create their own benchmark in 3 clicks
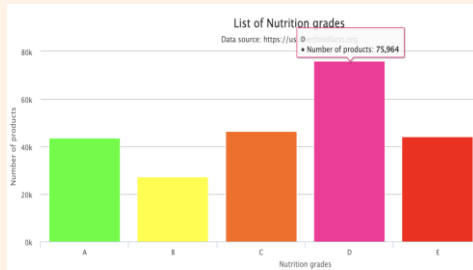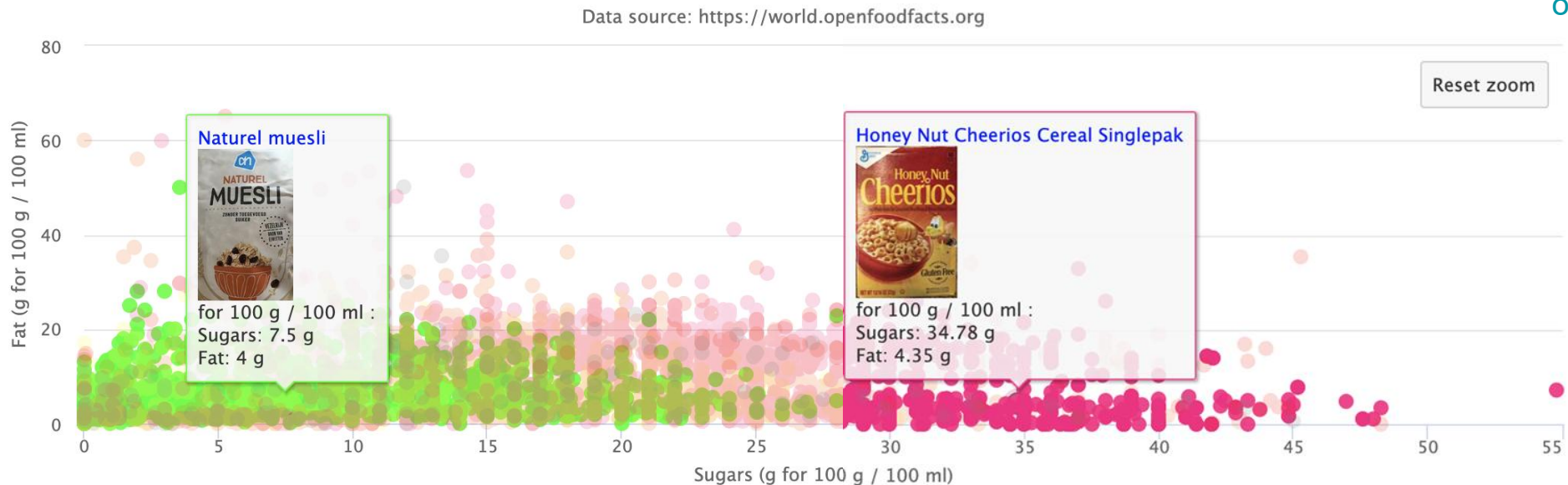
➔ **Highly customizable**
➔ **From overviews to slice & dice**

Fostering science through open data

Iris Van Dam & Stefanie Vandevijvere (**2022**)
Benchmarking the nutrition-related commitments and practices of major French food companies
https://link.springer.com/article/10.1186/s12889-022-13780-y

… For packaged food and non-alcoholic beverage manufacturers and supermarkets (own-brand products), the healthiness of the complete product portfolios was analysed using Open Food Facts data for France in 2018...

As of May 16th 2025, Google Scholar returns :
866 results for « Open Food Facts » :
https://scholar.google.com/scholar?q=%22open+food+facts%22

...liday, Anna Leibinger, Oliver Huizinga, Carmen Klinger, Elochukwu Okanmelu, ...ert, Eva Rehfuess, Peter von Philipsborn (**2023**)
...plication of the WHO Nutrient Profile Model to products on the German market: ...plications for proposed new food marketing legislation in Germany
...ps://www.medrxiv.org/content/10.1101/2023.04.24.23288785v1

...Methods. We applied the WHO NPM to a random sample of 660 food and ...verage products across 22 product categories on the German market drawn from ...en Food Facts, a publicly available product database. …

Lino Galiana, Milena Suarez Castillo (**2022**)
Fuzzy matching on big-data: An illustration with scanner data and crowdsourced nutritional data
https://www.linogaliana.fr/pdf/JMS2022/S28_2_ACTE_GALIANA_JMS2022.pdf

... In this paper, we enrich a large retailer dataset with nutritional information extracted from Open Food Facts, completed with the ANSES Ciqual dataset…

Gero Laurenz Höhn, Martijn Huysmans...
Healthy Food Traditions? Nutriti...
Geographical Indications
https://lirias.kuleuven.be/retrieve...

… Thus, we base our quantitative... database of OpenFood Facts(ht... to thousands of observations inc... from 10 countries…

...tprint of food products from packaging data.
...joss.03329.pdf

...n interfaced to the Open Food Facts ...ng packaging information…
...s contributors for creating the database this

Rodríguez-Martín, N.M.; Córdoba, P.; Sarriá, B.; Verardo, V.; Pedroche, J.; Alcalá-Santiago, Á.; García-Villanova, B.; Molina-Montes, E. (**2023**)
Characterizing Meat- and Milk/Dairy-like Vegetarian Foods and Their Counterparts Based on Nutrient Profiling and Food Labels. *Foods* **2023**, *12*, 1151.
https://doi.org/10.3390/foods12061151

… Nutritional data of the food products were obtained from websites of supermarket and food companies, and from Open Food Facts. The latter was the main information source used to retrieve the food products. …

Rakhmawati, N. A., Firmansyah, A. A., Effendi, P. M., Abdillah, R., Cahyono...
Auto halal detection products based on euclidian distance and cosine simila...
Journal on Advanced Science, Engineering and Information Technology, 8(...
https://doi.org/10.18517/ijaseit.8.4-2.7083

In this study, we build a system that can compare products that have... certified halal with halal certified products based on its ingredients. T... are collected from Open Food Facts, Institute For Foods, Drugs, And... Indonesian Council Of Ulama (LPPOM MUI) and our halal system. …

... Open Food Facts (https://world.openfoodfacts.org/), a crowdsou... database system provides some of the products that are labelled as...

HOW WE COLLECT DATA ABOUT FOOD

Citizens: a mobile app to collect data

Involving Producers
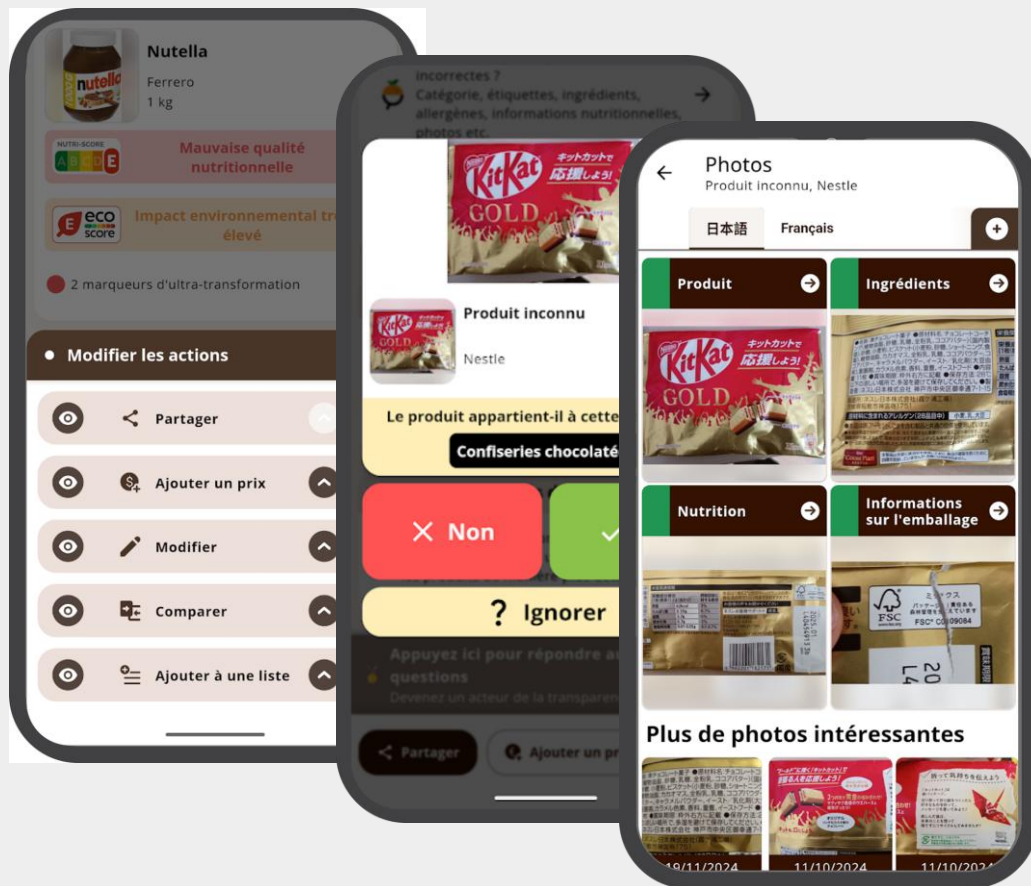
Producers sending their data to Open Food Facts

ARTIFICIAL INTELLIGENCE

What data?

Brand: Monoprix bio

Label: European organic label, French organic label

Category: Chocolate Brownie

What data?

Ingredients: eggs*, cane sugar*,...

Energy kJ/100g: 983 kJ

...

Net weight: 285 g
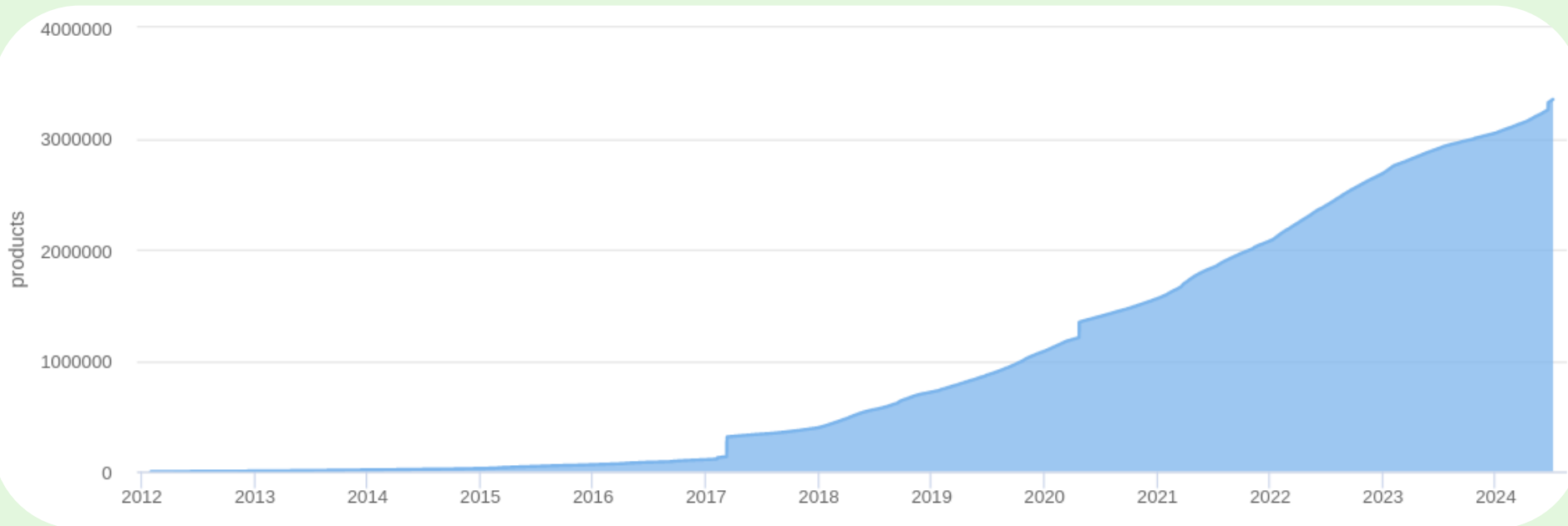
What makes a database good?

Data quality

Data completeness

What makes a database good?

Data quality

Data completeness

ML @ OFF

How can we scale ?

Time-consuming tasks for contributors

INFORMATIONS NUTRITIONNELLES MOYENNES / AVERAGE NUTRITIONAL INFORMATION	pour 1 portion de 47,5 g / Per one serving of 47,5 g	pour 100 g / Per 100 g
Energie / Energy	963 kJ 231 kcal	2020 kJ 485 kcal
Matières grasses / Total fat	15 g	31 g
dont acides gras saturés / of which saturates	4,6 g	9,6 g
Glucides / Carbohydrate	21 g	45 g
dont sucres / of which sugars	16 g	33 g
Fibres / Fibre	1,0 g	2,2 g
Protéines / Protein	2,5 g	5,3 g
Sel / Salt	0,12 g	0,26 g

Cet étui contient environ 6 portions. / This pack contains approximately 6 portions.

Take a photo and crop the image: 15 seconds
Enter the nutritional values: 45 seconds

For 3.3 million products:
55,000 hours
6.2 years for 1 person 24/7

Our goals with artificial intelligence

Automate repetitive tasks

Automatic data completion

Increase contributor's outputs

From photos to food enlightenment
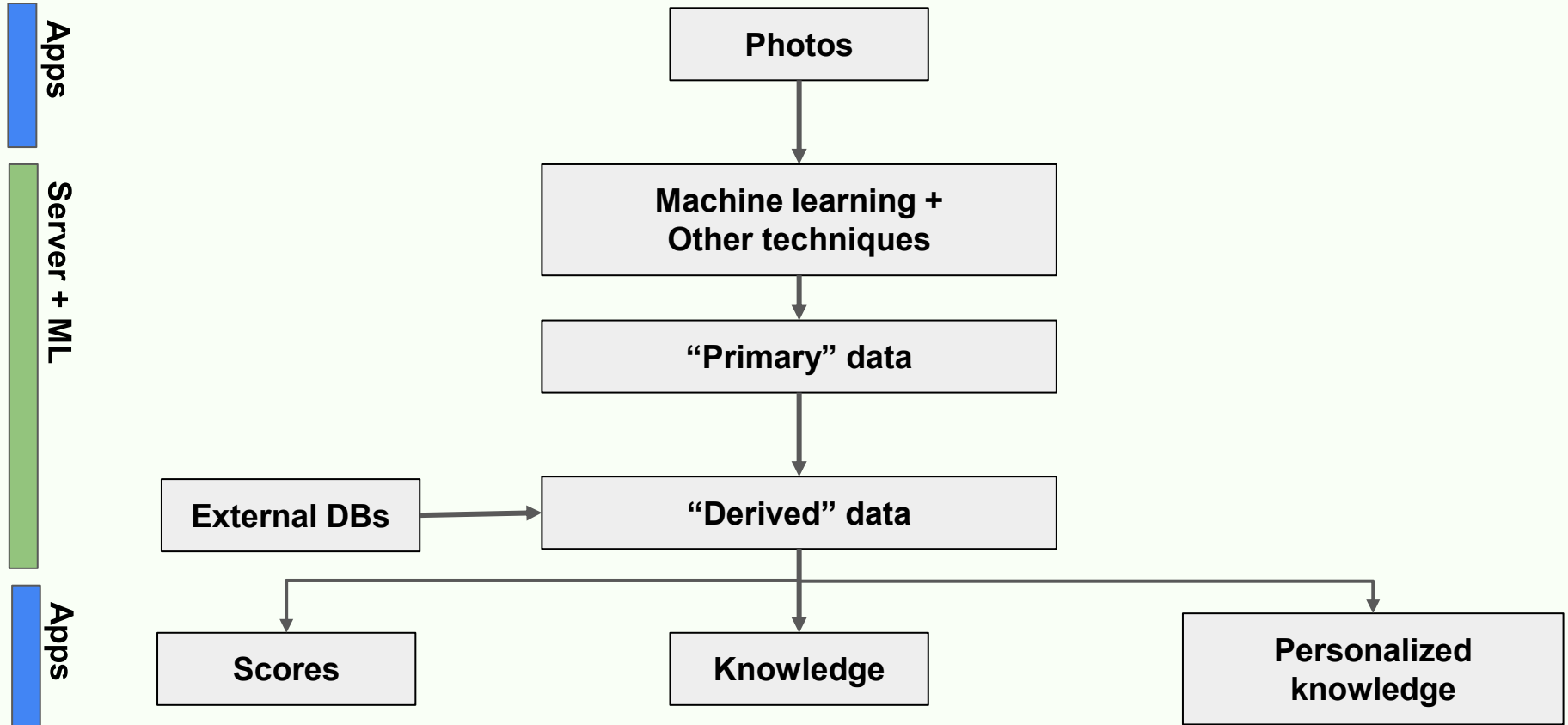
NUTRI-SIGHT

Extraction of nutritional tables

Key Challenge:
Unlocking Table Extraction at Open Food Facts Scale

Bringing AI Assistance to the Open Food Facts website
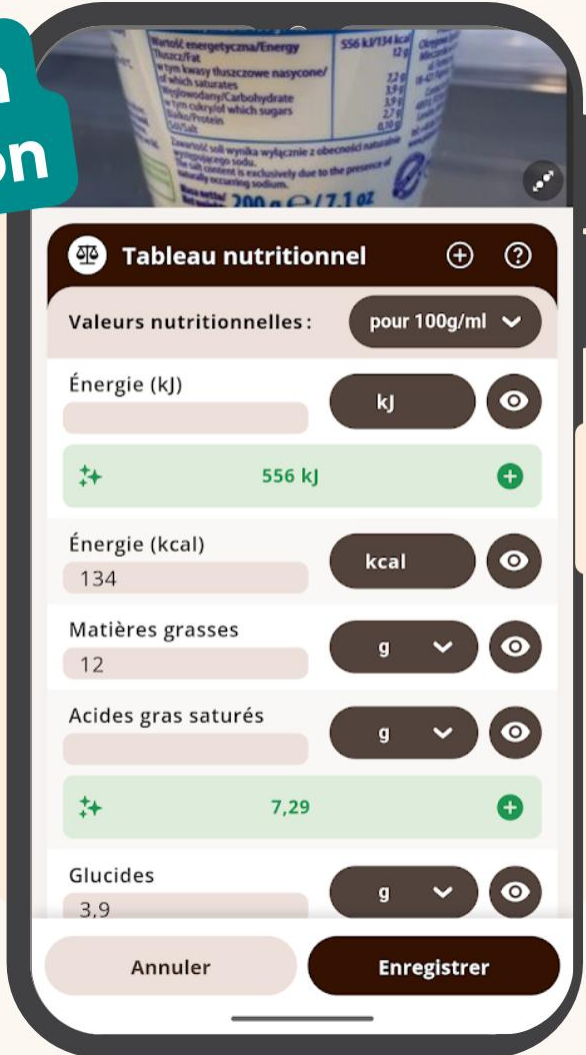
Nutrition extraction

✓ Our artificial intelligence, Robotoff, can now read nutritional tables

✓ Useful to add and update a product

✓ Works in your language

Tableau nutritionnel

Valeurs nutritionnelles :　pour 100g/ml

Énergie (kJ)　kJ

✨　556 kJ　➕

Énergie (kcal)
134　kcal

Matières grasses
12　g

Acides gras saturés
　g

✨　7,29　➕

Glucides
3,9　g

Annuler　Enregistrer

1. Snap the Nutrition Table
2. AI-Powered Suggestions
3. Intuitive Validation UI
4. Quick Confirmation

Nutri–Sight benefits 600+ app and orgs

600 apps that use & contribute back to open FOOD facts

Benefits for 3rd party apps

➔ Improve the quality & completeness of nutrition data within their own apps (5 min work for the web)
➔ Reduce the friction for their users who want to contribute missing information to get the Nutri-Score
➔ They don't have to reinvent the wheel, and maintain a complex system
➔ Ultimately, contribute to making comprehensive nutritional information more accessible to everyone, everywhere.
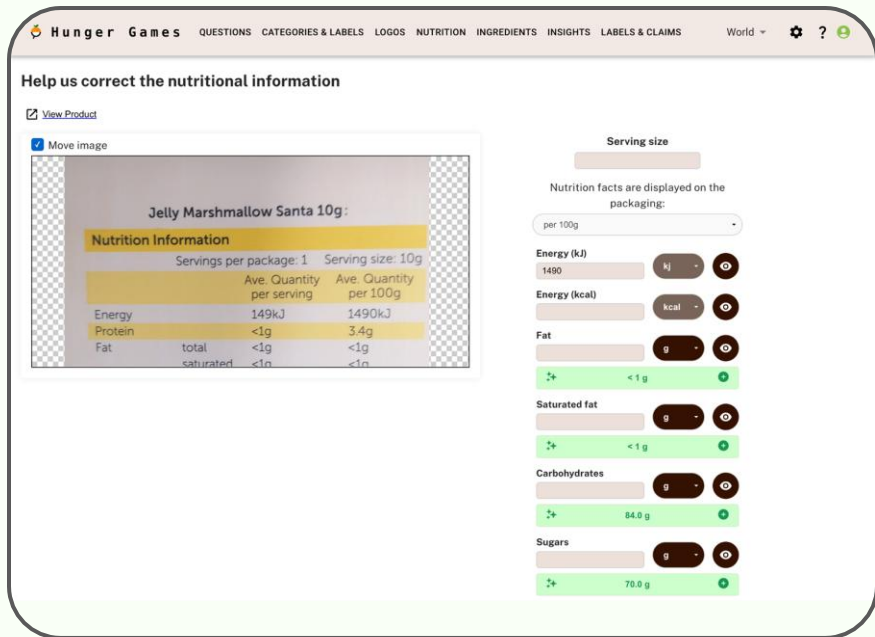
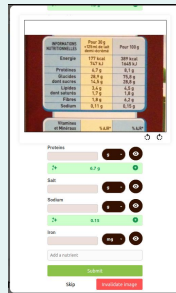# The example of Hunger Games

Validate nutrition by playing

But also: Open Food Facts Explorer

open FOOD facts Nutri-Sight

Open-Weights on Hugging Face !

Available on the Web

Available on mobile

Gamified

Built with the OFF JavaScript and DART SDKs

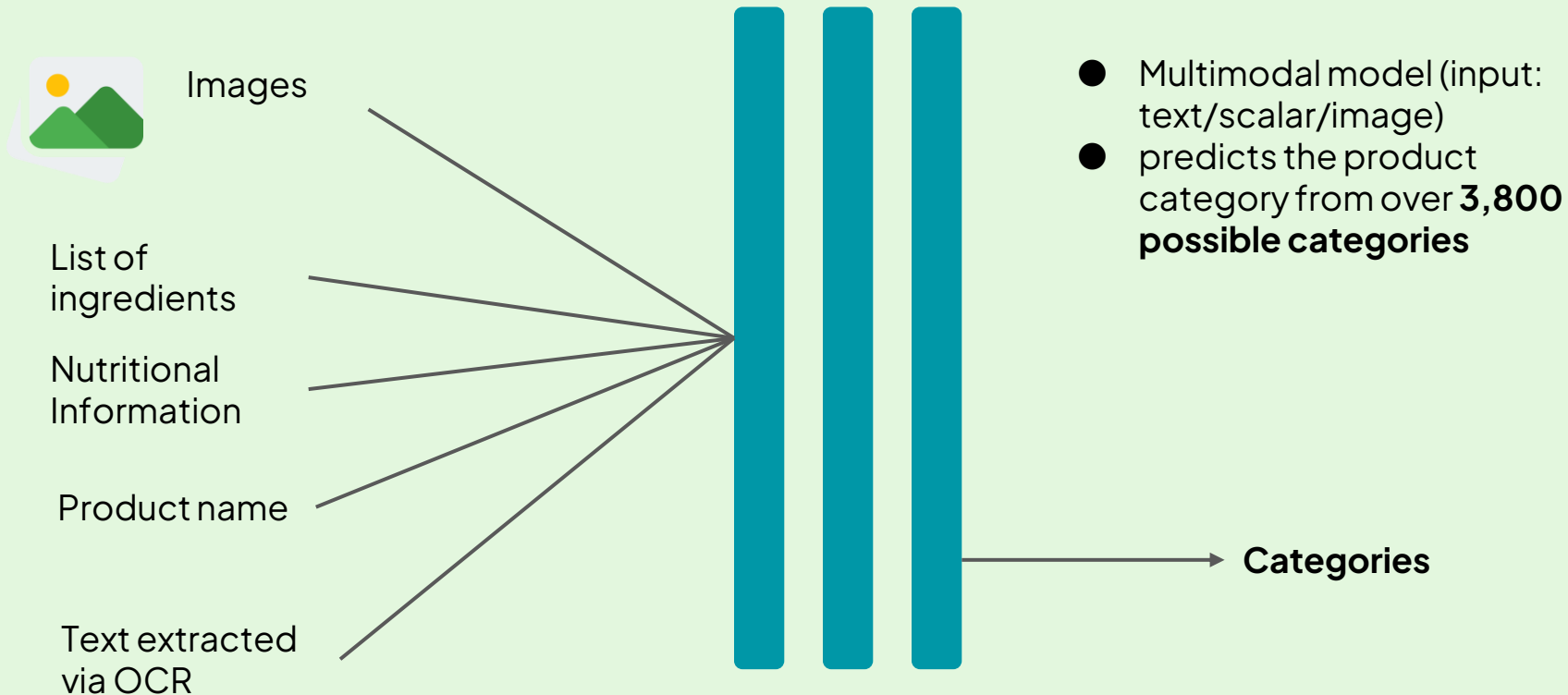
Built with reusable blocks

MORE AI AWESOME

Why product categorization

Interest:

- Calculation of Nutri-score and Eco-score
- Product comparison

>50% of products still do not have a category in the DB yet !

Product categorization

Images

List of
ingredients

Nutritional
Information

Product name

Text extracted
via OCR

- Multimodal model (input:
  text/scalar/image)
- predicts the product
  category from over **3,800
  possible categories**

Categories

Systematic human validation

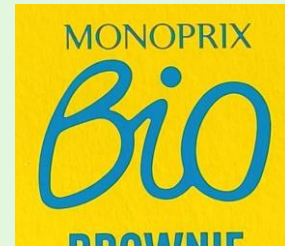## 287 000
added
categories

Labels & logos

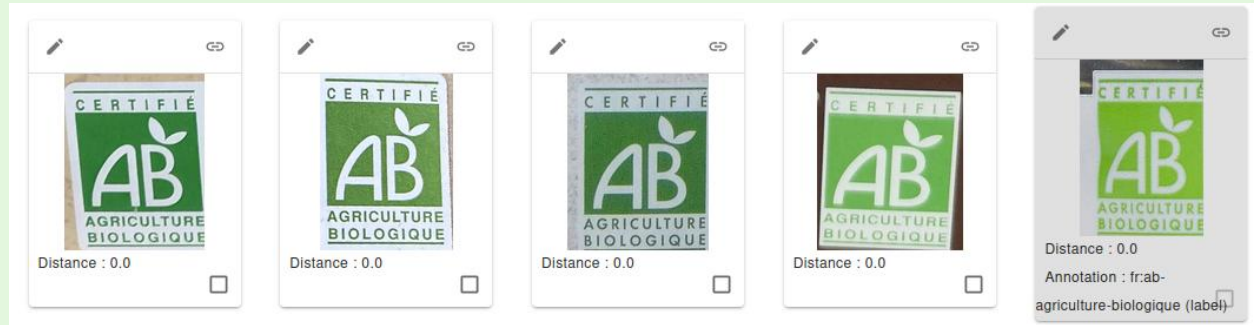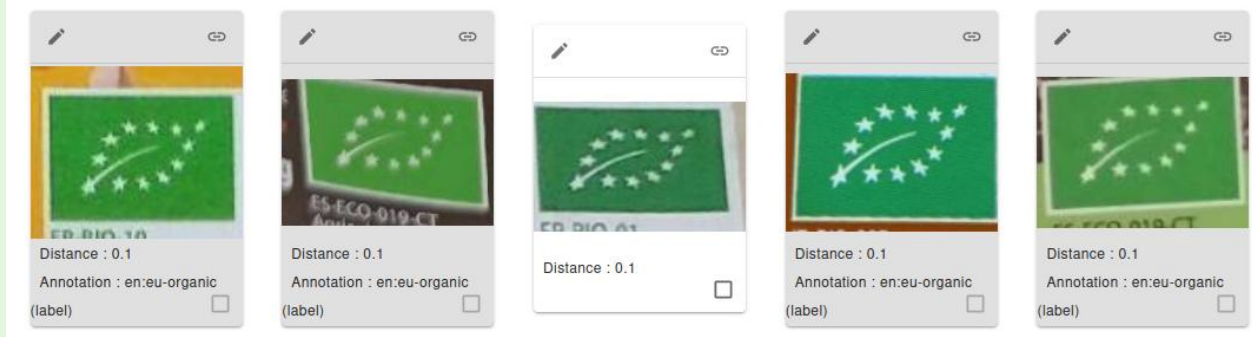Works with all kinds of logos, in a highly scalable manner.

Logo detection – Detection

A single model that detects all logos and labels

Logo detection – Grouping with kNN

Distance : 0.1
Annotation : en:eu-organic (label)

Distance : 0.1
Annotation : en:eu-organic (label)

Distance : 0.1

Distance : 0.1
Annotation : en:eu-organic (label)

Distance : 0.1
Annotation : en:eu-organic (label)

Distance : 0.0

Distance : 0.0

Distance : 0.0

Distance : 0.0

Distance : 0.0
Annotation : fr:ab-agriculture-biologique (label)

Fixing OCR errors

Original

viande de porc [origine : Francel 89%, eau, acidifiant: E326, sel, dextrose dê blè, conservateurs : E262-E250, condiments et épices (betterave, ail, paprika, muscade), antioxydants E301-E300, extraits naturels d'herbes et d'épices, aromes naturels, colorant: E160c

Correction

viande de porc [origine : France] 89%, eau, acidifiant: E326, sel, dextrose de blé, conservateurs : E262-E250, condiments et épices (betterave, ail, paprika, muscade), antioxydants E301-E300, extraits naturels d'herbes et d'épices, arômes naturels, colorant: E160c

Thank you
for your attention

Contacts

- Pierre Slamich – pierre@openfoodfacts.org
- Slack: https://slack.openfoodfacts.org
- https://github.com/openfoodfacts
- Social media: @OpenFoodFacts
- Join us!

GET IT ON **F-Droid**

Download on the **App Store**

GET IT ON **Google Play**