

Open Food Facts

Il potere dei dati alimentari liberi nelle mani per tutti

26-10-2024 Linux Day - Torino

Sommario

- Cos'è?
- Come funziona?
- Come partecipare
- Q&A





Cos'è?



Come scegliere il prodotto migliore?



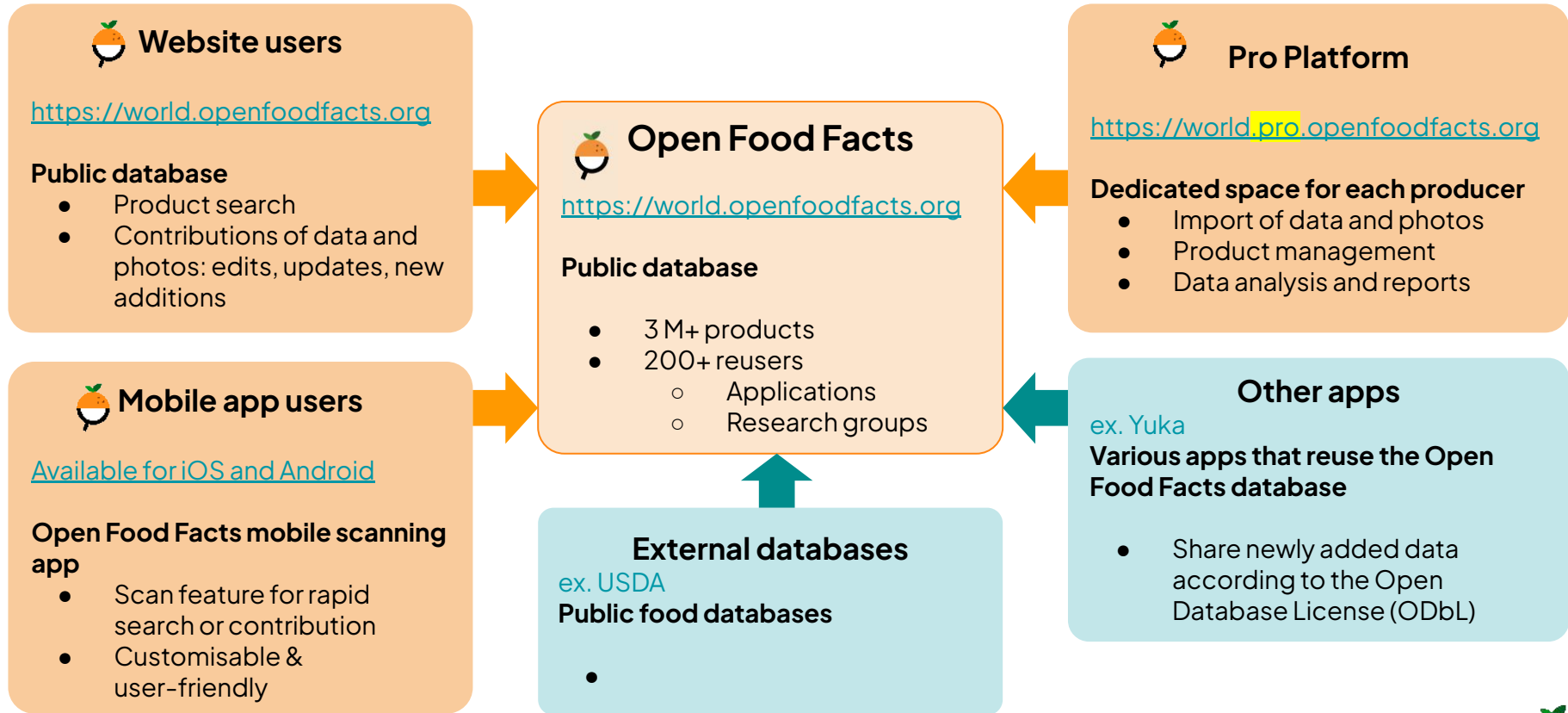
Troppe informazioni da processare

FR BE LU 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, saf, 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

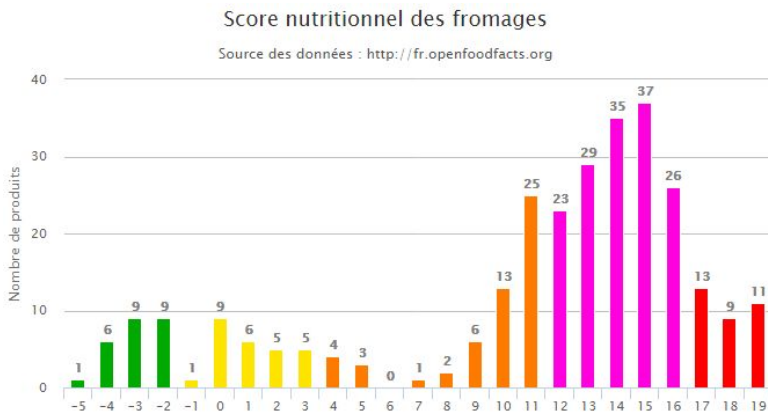
	100g	1 biscuit (12,5g)	%* / biscuit
Énergie / Energie / Energiewert	1675 kJ/400 kcal	210kJ/50kcal	3 %
Graisses / Vetten / Fett	12,5 g	1,6 g	2 %
dont acides gras saturés / waarvan verzadigde vetzuren / davon gesättigte Fettsäuren	6,1 g	0,8 g	4 %
Glucides / Koolhydraten / Kohlenhydrate	66 g	8,3 g	3 %
dont 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 %

How is food data collected?

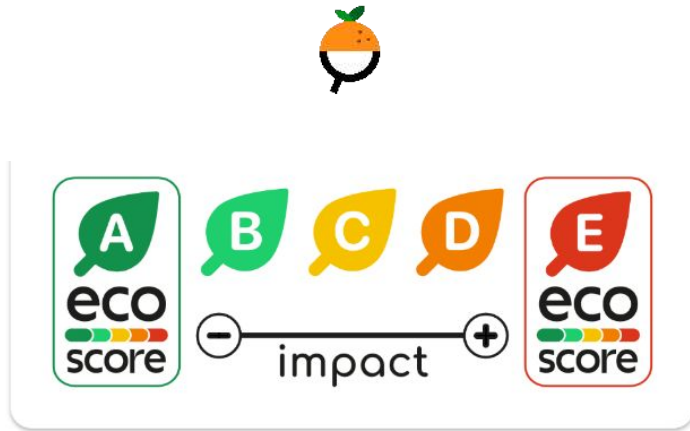


Nutrition research and public health policies

I dati di Open Food Facts utilizzati per studi di ricerca



Eco-Score computation



Source image :
ScanUp.fr (membre du consortium Eco-Score)

Additional environmental impacts



Mode of production (13 labels taken into account)
Presence of labels testifying to environmentally friendly production (e.g. organic, etc)



Origin of raw materials
Pollution linked to the transport of goods and the environmental policy of the producing country



Material and circularity of the packaging
Pollution linked to the production and end of life of the packaging



Endangered species
Presence of ingredients that indicate a risk to certain species (palm oil, fish)



Data enables scores

Data required for score computation



- Nutritional information **INCO**
- Product category (for accurate categorization)
- *Ingredients** (vegan, vegetarian, gluten free, halal, kosher..) **INCO**
- *Product name**
- *Allergens** **INCO**
- *Quantity/volumes** **INCO**
- *Packshots**



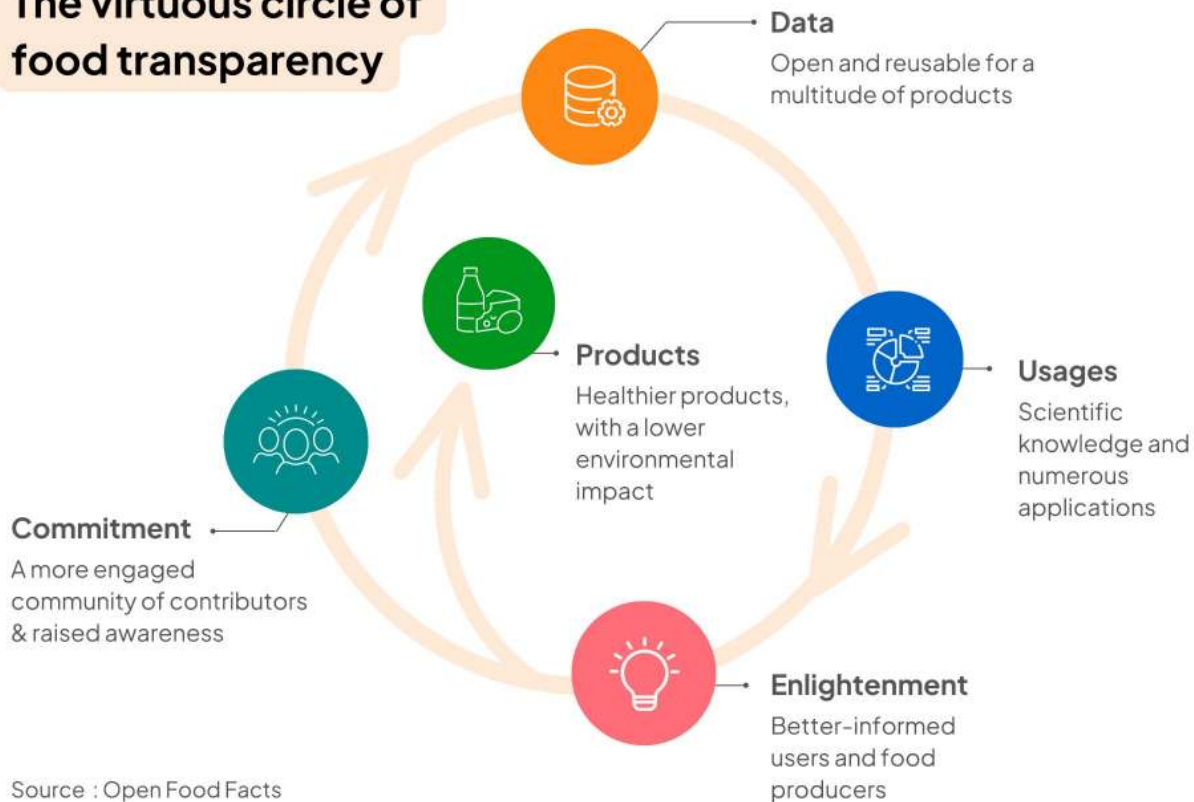
- Packaging recyclability
- Labels
- Origin of ingredients
- Precise product category

**optional but strongly recommended for an optimal user experience*



The virtuous circle of food transparency

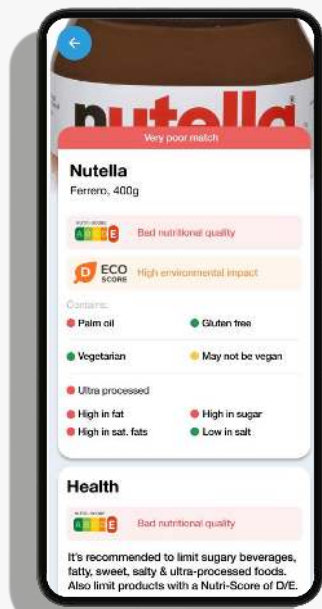
The virtuous circle of food transparency



COME?



La nostra missione



Permettere a
consumatori, produttori,
ricercatori, governi...
di misurare e cambiare
su larga scala
**l'impatto del cibo sulla nostra
salute e sul pianeta.**

Cos'è?

Una **community** di persone convinte che l'impatto alimentare sia troppo importante perché i dati alimentari possano essere lasciati all'oscuro

Il più grande **dataset** mondiale di prodotti alimentari, per ricercatori e utilizzatori

Un **website & app mobile community-based** per conoscere l'impatto del cibo che mangi sulla tua salute e sul pianeta

The world's largest open source food database



2012

Lancio della ONG Open Food Facts



2015

Score 5 colors

2016

Nutri-Score is voted in French law



2018

Rating of ultra-processed foods with Nova

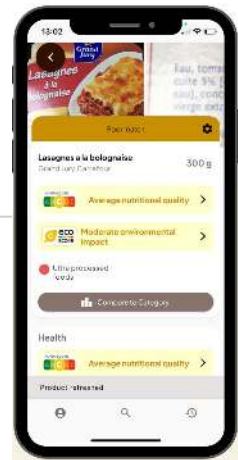
01-2021

Launch of the Eco-Score



2022

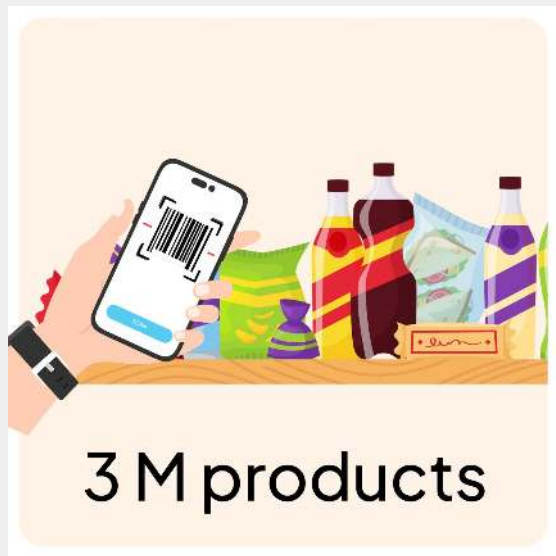
New App & international expansion



2,9 M users/month



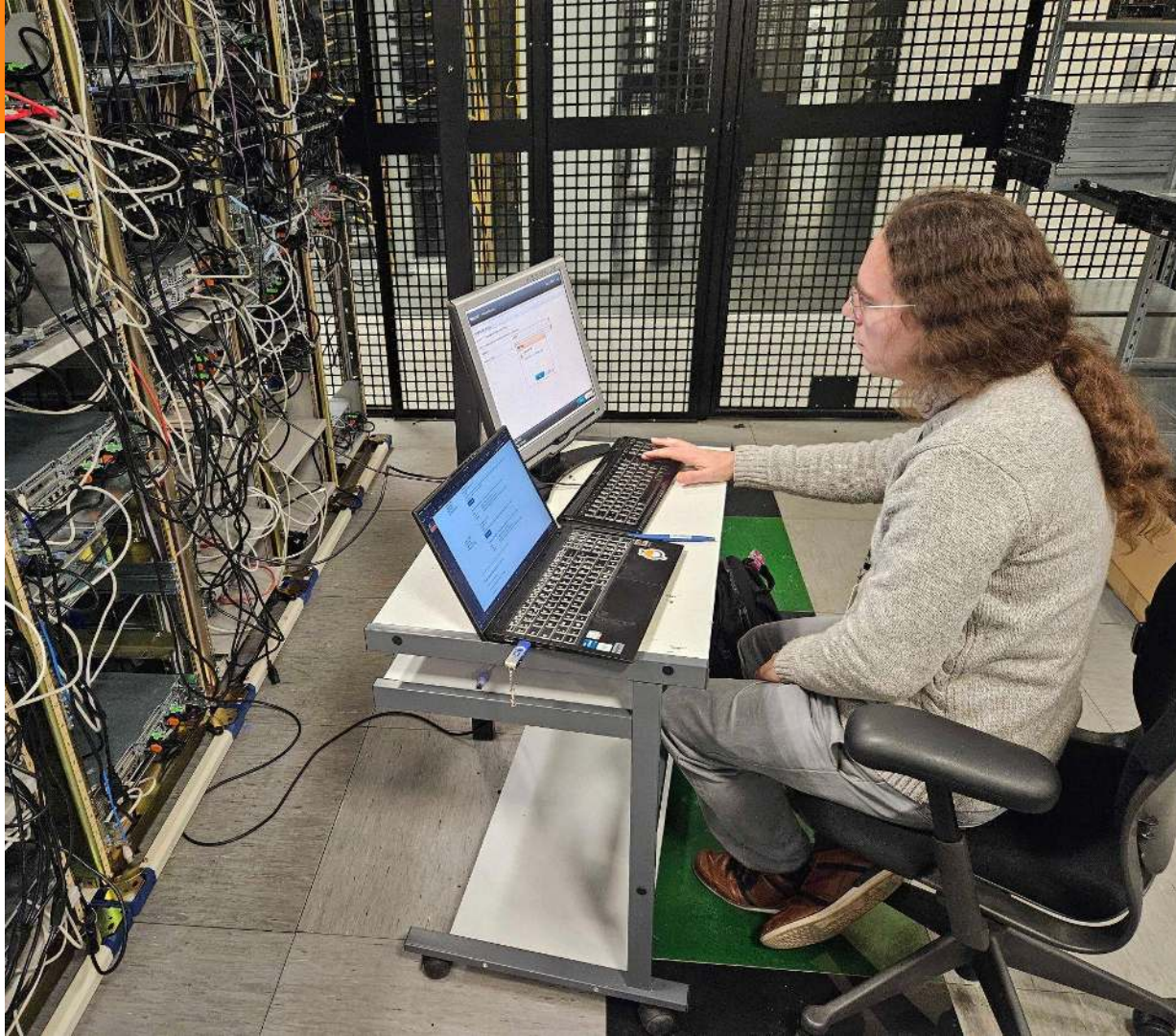
Overall progress



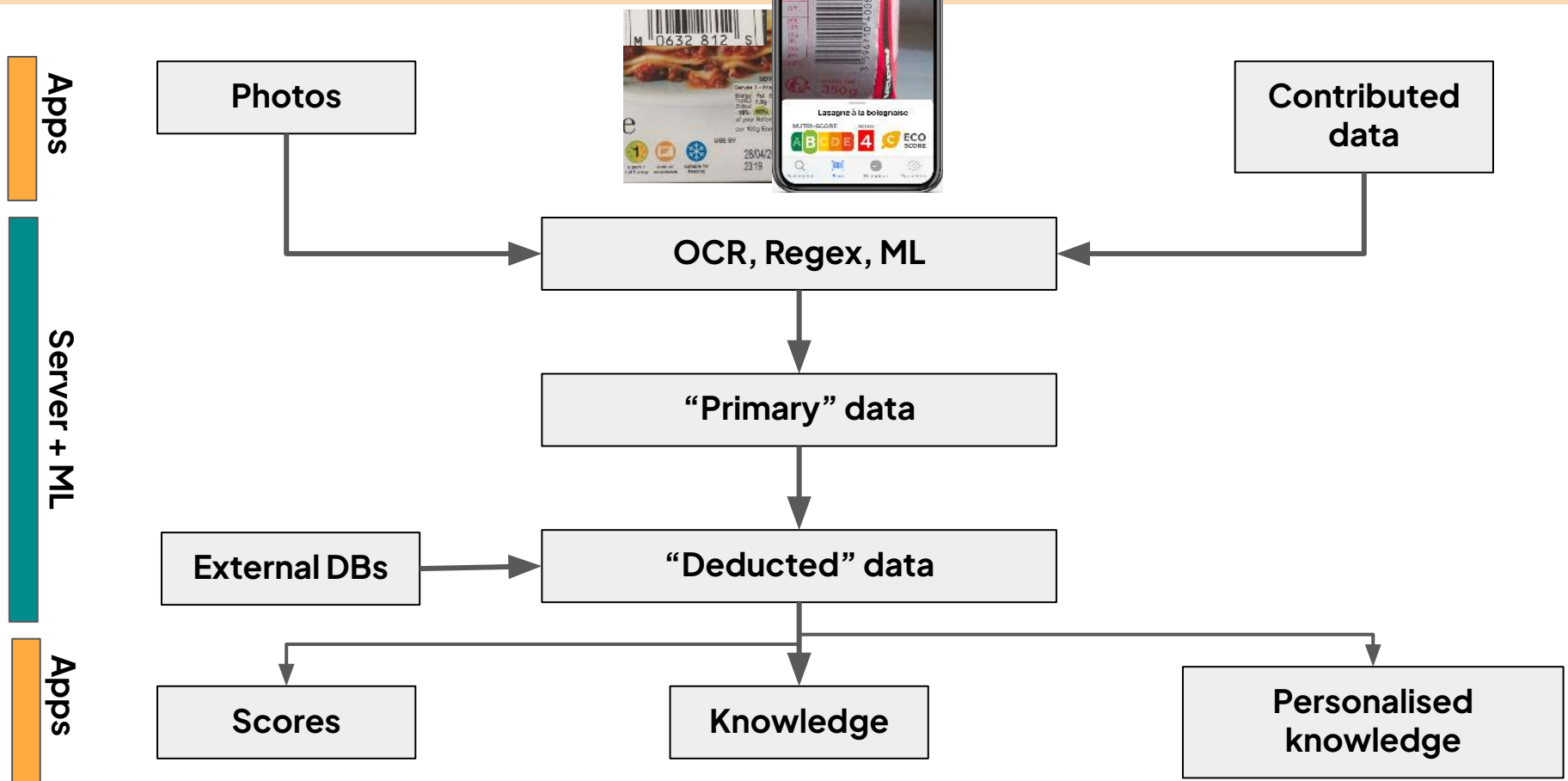
What's the plan

Buy and install new servers to handle increasing traffic (on-going)

That's Alex doing geeky stuff with the servers ;)



On the tech side



La qualità delle informazioni

Per migliorare la qualità dei dati esistono **4 weapons**:

Community

- costate aggiunta di dati e foto
- revisori dei dati presenti.

“Business Rules”

messi in atto per **identificare errori** nelle schede dei prodotti.
Per esempio, la somma del peso degli ingredienti e maggiore del peso del prodotto è una anomalia

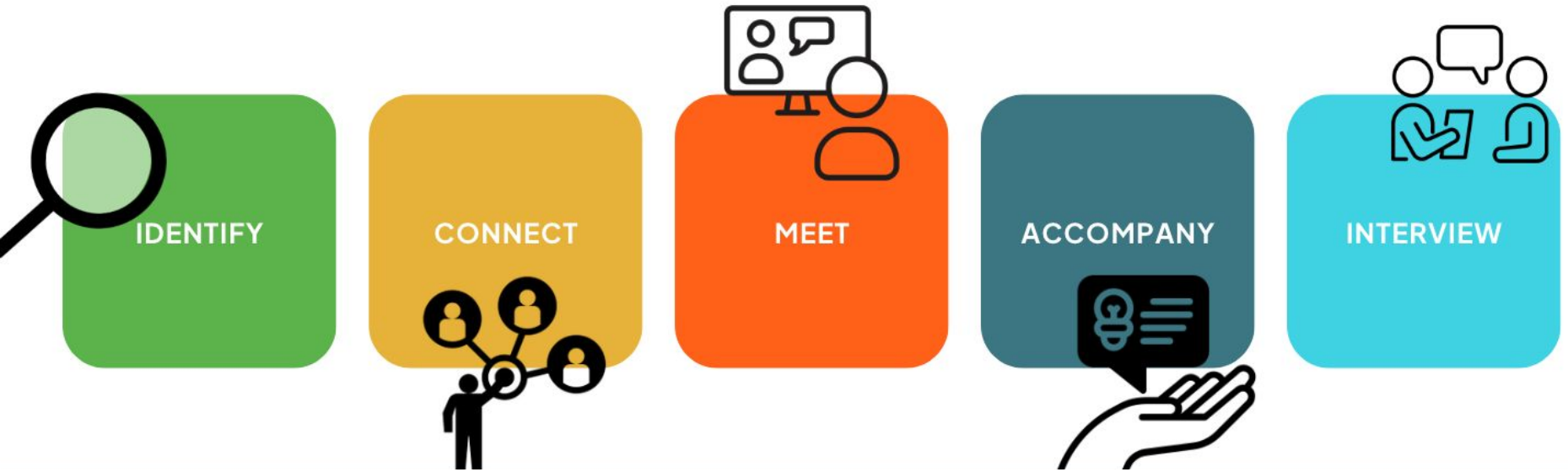
Machine Learning

limitare il rischio in inserimento di dati errari.
Estrazione del testo dalle foto scattate dai contribuitori.

Pro Platform

questo portale permette ai produttori di fare **upload massivo dei loro dati** and e correggere/completare i contributi della community.

5 missions on the shelf

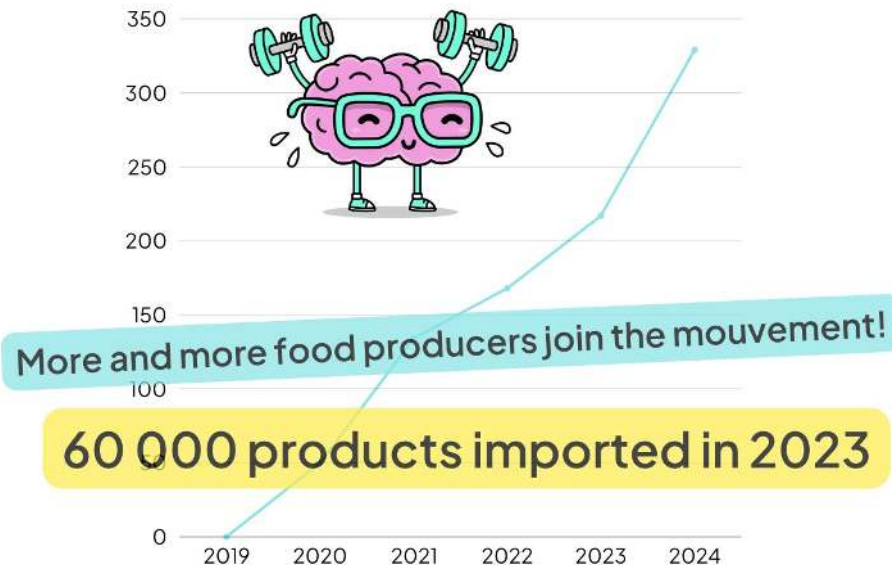


- You can pick 1 or several mission(s)
- To be notified about the next call, join **#partnerships** and add your name to the [Team spreadsheet](#)
- We communicate via Slack and email



Open Food Facts & the food manufacturers

The community behind this hunting exercise 🕵️

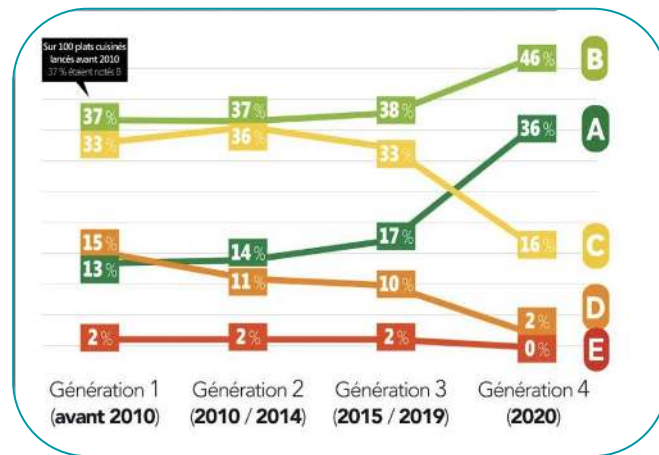


Improve the formulation of products

TOWARDS HEALTHIER PRODUCTS



Open Food Facts pushes **recommendations** to producers based on automatic **analysis of product data** and **comparison with similar products** on the market



Improved nutritional profile over time



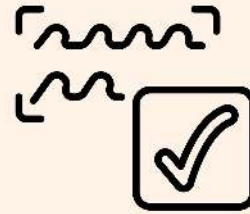
What's new since last year?



Nutri-Patrol



Nutri-Score v2



Ingredients
spellcheck with LLMs

Extract ingredients: the problem

Butterfett (2,5%), Weizenstärke, Kakaomasse, Emulgator Lecithine (Soja), Sahnepulver, Kakaobutter, Backtriebmittel Natrium-

Ingredients list is cut
(Leci - thine)



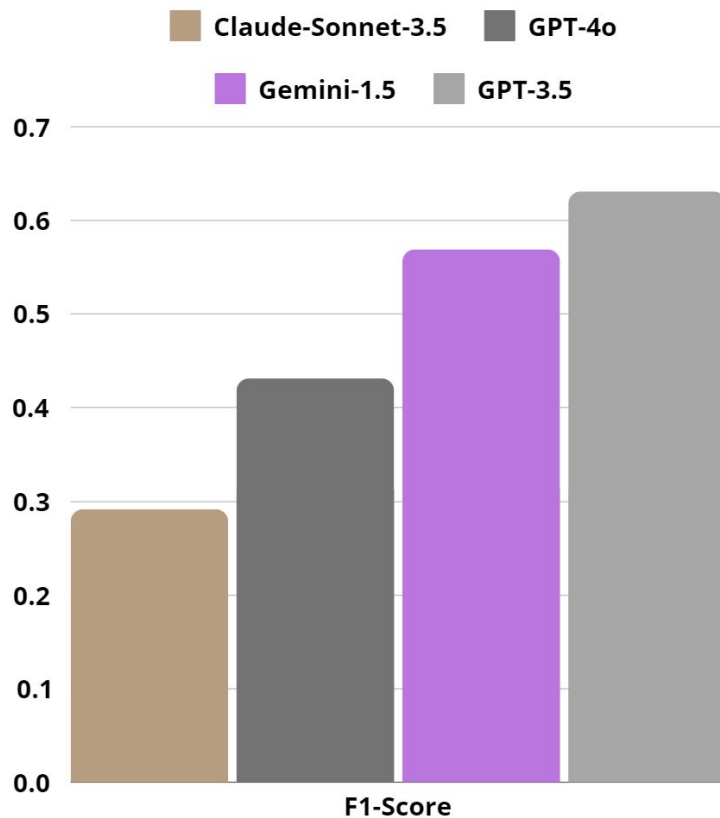
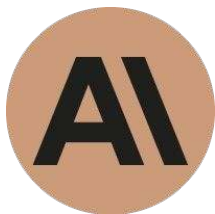
Curved



Folded / Light reflection



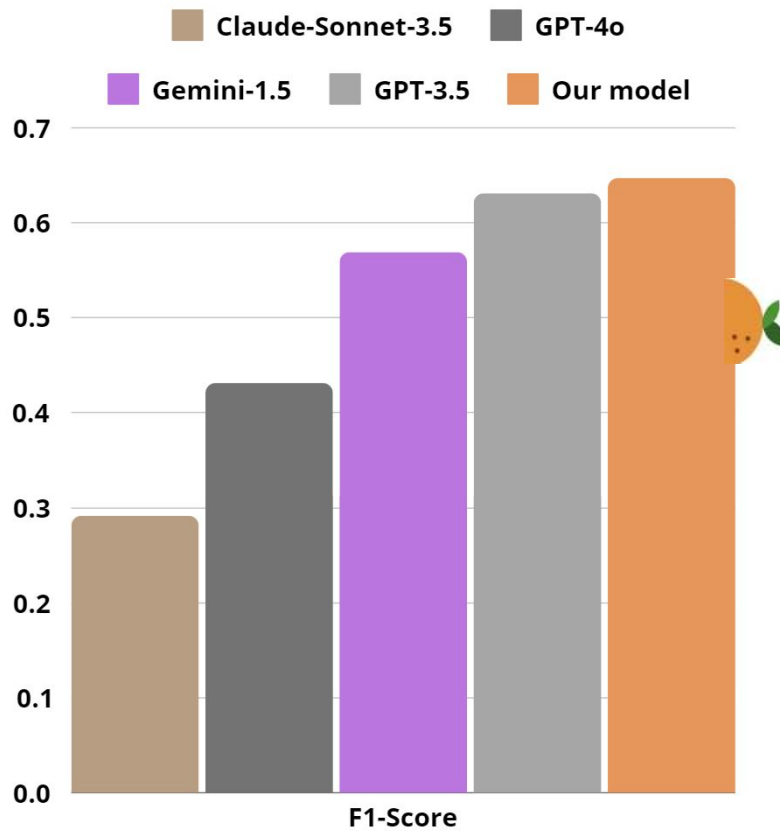
Using LLMs to fix lists of ingredients



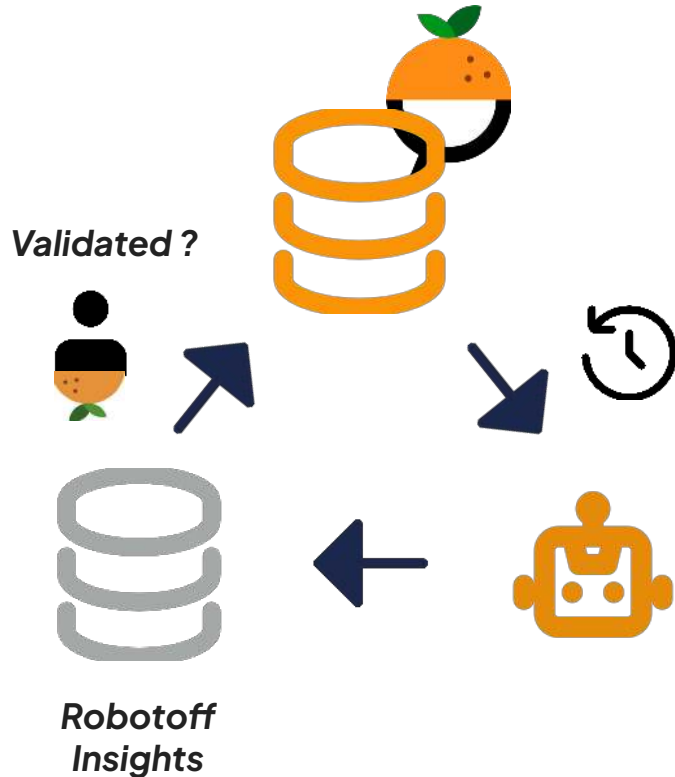
Train our own model



Results



Integration into Open Food Facts



- Reduce by **11%** the number of unrecognized ingredients...
- But the validation remains to **you**!

Test the demo!



Perspectives

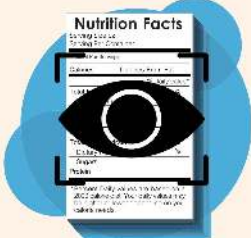
14,028 products



The screenshot displays a grid of 18 product images, each with its name and weight below it. The products include:

- Orbita - 201g - 600 g
- Maple Pure - 100g - 300 g
- Juicy Dip - 100g - 300 g
- Quinn - 100g - 300 g
- Infiniti - 100g - 300 g
- Ch. Maltose - 100g - 300 g
- Ch. Maltose - 100g - 300 g
- Rocky - 100g - 300 g
- Albino B. Lard - 100g - 300 g
- Ch. Maltose - 100g - 300 g
- Quinn - 100g - 300 g
- Lavender K. - 100g - 300 g
- Ch. Maltose - 100g - 300 g
- Rocky - 100g - 300 g
- Pipet - 100g - 300 g
- Ch. Maltose - 100g - 300 g
- Rocky - 100g - 300 g
- Quinn - 100g - 300 g
- Shampoo - 100g - 300 g
- Rocky - 100g - 300 g

 **open PRODUCTS facts**



The image shows a Nutrition Facts label with a large black eye icon overlaid on it. The label text includes:

Nutrition Facts
Serving Size 100g
Amount Per Serving
Calories 100
Total Fat 10g
Sodium 100mg
Total Carbohydrate 10g
Sugars 10g
Protein 10g

Nutrition ML

What's new since last year?



Progetto nato nella Open Food Facts community (especially Raphaël O!)

Dall'idea alla produzione in pochi mesi

Da dove è partita l'idea?

- **Inflazione**

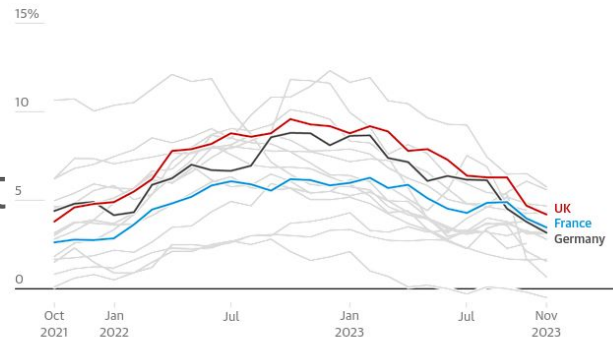
post-COVID, Ukraine, climate change

- **Proteste degli agricoltori sui pagamenti**

- **Mancanza di trasparenza sui prezzi**

INSEE, UFC-Que Choisir, Researchers, Leclerc vs Lidl

Consumer price index for select G20 countries, %



Guardian graphic. Source: OECD, Note: data excludes Argentina and Russia



- **0,05€** de TVA
- **0,05€** vers [logo]
- **0,49€** répartis entre :
 - La laiterie qui collecte et conditionne le lait
 - Le transporteur
 - Le distributeur
- 0,003€ vers l'organisation des producteurs

0,43€ vers l'éleveur

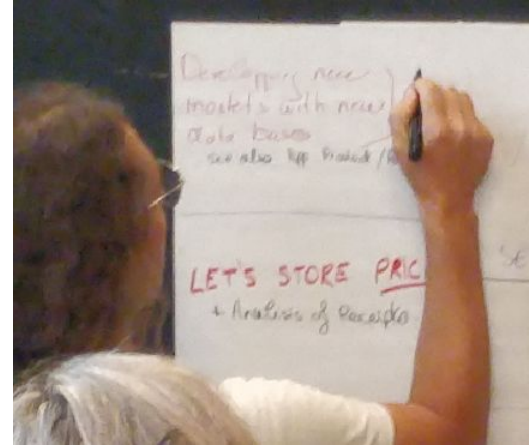


Sécurité Sociale
de l'**Alimentation**



OFFdays 2023...PoC

- Sfruttamento dei 3M dei prodotti OFF
- È “impossibile”, perché non provarci?
- Qualche regola...
 - price + product + location + date + contributor + proof 🤖
 - no web scraping 🤖
 - start from zero, no historical data 🤖



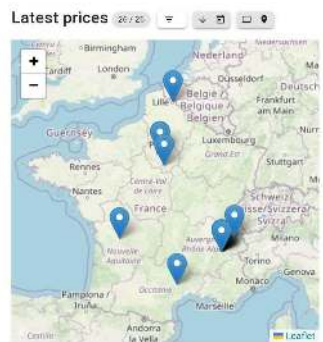
Grazie Justin



How it's going?



A screenshot of the Open Prices app interface. At the top, it says 'Open Prices'. Below that, there's a product card for 'Petites Madeleines pépites chocolat' with a price of 2€ and a weight of 400g. The card also shows '8 catégories' and '9 labels'. There are navigation icons at the top right.



A screenshot of the Open Prices app interface for 'Be Nuts ! - Pâte à tartiner Cacahuète'. The price is 2,67 € (8,22 € / kg) for 325g. The location is 'Auchan Supermarché, Grenoble'. The date is 18/09/2024 and the time is 17h.

A screenshot of the Open Prices app interface for 'Broccoli'. The price is 6,05 € / kg. The location is 'Bio C' Bon, Vincennes'. The date is 16/09/2024 and the time is 19h.

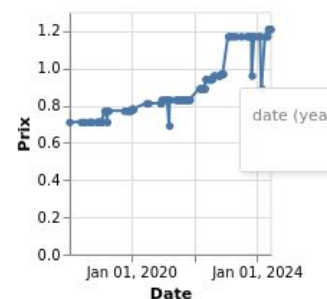
A screenshot of the Open Prices app interface for 'Pesto alla Genovese 135g'. The price is 4,79 € (35,48 € / kg) with a 'Discount' tag. The location is 'Monoprix, Paris'. The date is 18/09/2024 and the time is 21h.

30,000
prices

1000
locations

8000
proofs

400
contributors



https://dmayaux.shinyapps.io/open_prices
<https://prices.openfoodfacts.org/app/stats>

What's next?



ML ON IMAGES

Speed up contribution, metadata

- Proof classification
- Receipts : OCR
(location, date, number of products...)
- Shelves : barcode detection



GDPR & PRIVACY

Industrialize the GDPR request & import
Anonymise contributor's consumption data



EXPLORE & VISUALIZE

Improved search
Price graphs
Product comparison



INTEGRATION IN OFF

Product average price
Shopping list
Better product recommendations
Expand user base (mobile/web)



Want to contribute?

- Dedicated web app : <https://prices.openfoodfacts.org>
- Mobile integration
- Have a fidelity card? GDPR requests 🔥
- Test & give feedback/ideas on Slack **#prices**

And a big thanks to Raphael B & Pierre, Justin, Damien, Didier, Fabrice...





JOIN THE MOVEMENT



Contribute as

An informed consumer

- By **using the Open Food Facts database** to make better food choices for you & for the planet

-By **adding new products** or **filling in the missing data** (this ensures more scores get displayed).

A volunteer

- Help us build this community project by **sharing your skills** in:

Tech
Communication
Copywriting
Mentoring
Admin
and many other aspects!

A producer

- **regain control** over public data
- get **tailored & free recommendations** to improve your products
- spread a **positive brand image**
- get access to benchmark tools for **advanced analysis**.

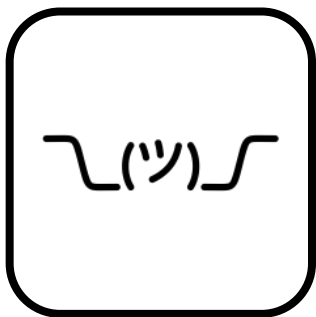
A donor

- Information about what we eat is of **public interest** & needs to be public, free and open.

Your donations ensure the **non-profit's complete independence** of the food industry.



Citizens



Casual users



New parents



Weight loss



Fitness nuts



Diabetics



Religious diets



Food allergies



Sophie, Nutritional Navigator



Sensitive to gluten and lactose

- seeks foods suitable to her dietary needs
- tools to help shopping and eating out

Needs : clear labeling and reliable information on allergens

Challenge : finding affordable options that meet her dietary needs



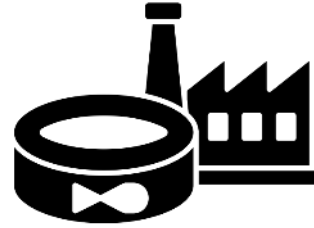
Producers



Food Startups



IOT



Food producers

Aisha, Corporate Custodian



Leads food product development

- data and trends-driven
- focuses on product, brand perception

Needs : input platform for product details: nutritional data, sourcing and sustainability

Challenge : ensuring product information is comprehensive, accurate, and accessible



Researchers



Scientific research



Government



Dietitians/Nutritionists

Dr. Jan, Science Sleuth



Researches long term dietary health impact

- on the lookout for better access to global food system data
- collaborates with industry, government

Needs : tools to analyze impacts of different diets on public health and the environment

Challenge : ensure research is translated into practical solutions for public health policy





HOW CAN I HELP ?

Collaborative documentation on our wiki

Category:Open Products Facts

[?](#) Help

Category for Open Products Facts

Get in touch [\[edit | edit source \]](#)

Slack channel

[#openproductsfacts](#)

Pages in category "Open Products Facts"

The following 24 pages are in this category, out of 24 total.

A

- Artificial Intelligence/Open Products Facts

B

- Brands/Open Products Facts

F

- Fields ideas for Open Products Facts
- Folksonomy Engine/How to use it on Open Products Facts

G

- Global labels taxonomy logos/Open Products Facts

K

- Knowledge panels for Open Products Facts

L

- LCA

M

- Mobile App/Open Products Facts

O

- Object donation websites
- Open Products Facts
- Open Products Facts Insights
- Open Products Facts scores
- Open Products Facts taxonomies
- Open Products Facts use cases
- Open Products Facts/Category analysis
- Open Products Facts/Products without a barcode

- Open Products Facts/Reuse
- Project:Open-Prices/Open Products Facts
- Operation Phonebox
- Operation Phonebox/Folksonomy Engine

P

- Platform for producers/Open Products Facts

R

- Repair and maintenance providers

V

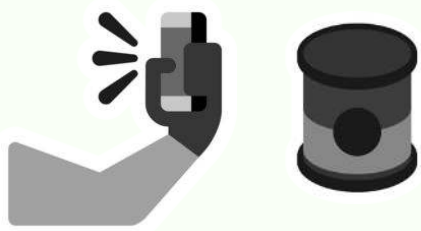
- Verification/Open Products Facts

W

- Warranties

Category: Topics

Great ! How can I contribute ?



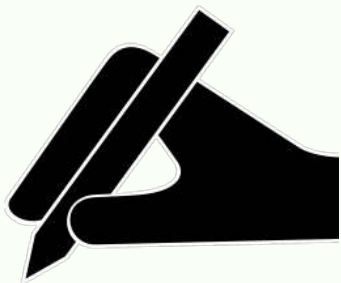
Scan & Add new products



Translations



Wordspreading



Taxonomies & Design



Hacking

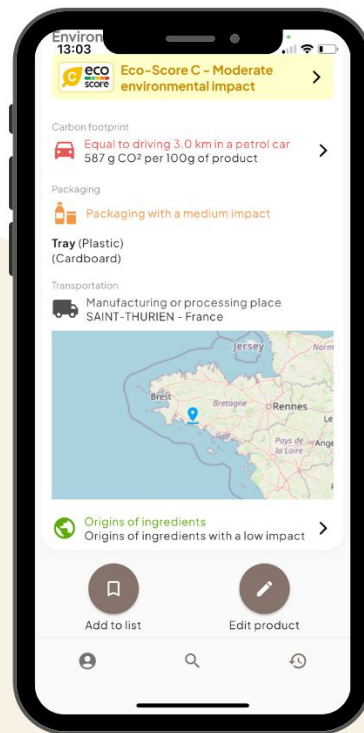
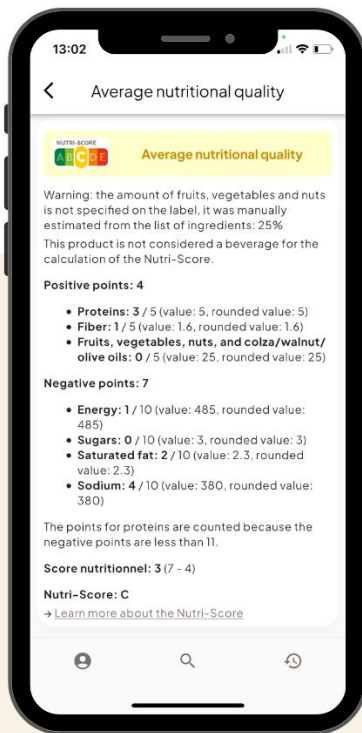
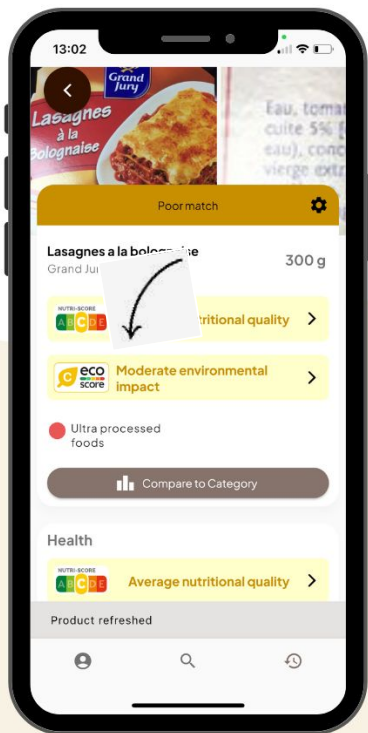


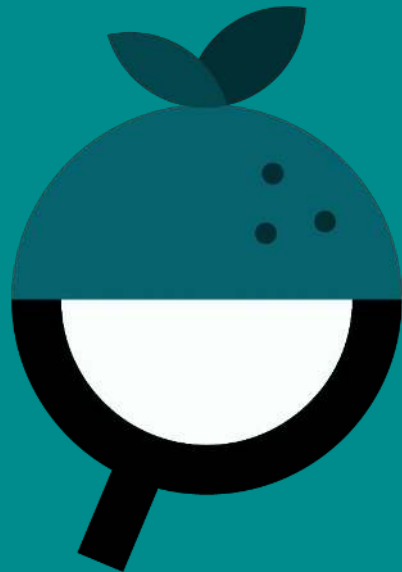
Fixing

Partners



Open Food Facts mobile app





THANKS

contact@openfoodfacts.org



