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Food and Beverages Labels Explorer – FABLE website

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Abstract

The intakes of specific nutrients of concern (i.e., salt, sugars, and total fat and saturated fat), associated with non-communicable diseases (NCD), are above the recommended intake in adults across the European Union (EU). Composite food products made up of a range of ingredients and often pre-packed can drive the excessive intakes of these nutrients. Policies that promote reformulation of these products for wider and healthier food and beverage choices are among the policies recommended to tackle unhealthy diets, the so-called NCD Best Buys due to their effectiveness and efficiency; such policies can lower the intake of these nutrients of concern. Regular monitoring of food environments and such related-policies is however lacking; good quality and representative data about the food offer in supermarkets are difficult or expensive to obtain and are essential to gauge and further improve the effectiveness of such policies. The Food and Beverages Labels Explorer (FABLE - <https://food-labels-explorer.jrc.ec.europa.eu/en>) hosts data on branded food and beverage products across Europe collected within three public-funded projects, EUREMO, JANPA and Best-ReMaP. The harmonised food product nomenclature makes for more effective data analysis and comparability between countries. FABLE is designed so that future data collection efforts can be easily incorporated in the database. Its dynamic dashboard enables users to explore, interact with and visualise data on the nutritional content of branded food and beverage products across Europe. It encompasses a wide range of food categories such as bread products, breakfast cereals, soft drinks, and dairy products. FABLE allows for (1) country comparisons for specific nutrients and food groups, (2) deep dives into each country/food category-specific nutrient of concern, and (3) the possibility of making time comparisons on the progress of the nutritional quality of the food offer.

Executive summary

Policy context

Healthy people, healthy societies and a healthy planet: these are the core values of the European Green Deal and the Farm-to-Fork Strategy. Yet, looking at our plate, it's evident we have a considerable journey ahead to truly embrace healthy and sustainable diets.

Many packaged foods and beverages still contain excessive salt, sugars, total and saturated fats. These nutrients are closely linked to serious health concerns, including diabetes, cardiovascular diseases and certain types of cancers. European adults consume more than the dietary recommendations set by European Food Safety Authority or the World Health Organization.

Improving the nutritional profiles of these products will facilitate and accelerate the pivot towards healthier diets. Because many of these pre-packaged food products are composed of different ingredients, reformulating our food can lead to healthier and more sustainable diets.

Policy makers at national and European level are introducing measures to promote healthy diets, by facilitating healthier choices of consumers (for example by the provision of food information to consumers), and providing rules and incentives to promote healthier choices being offered to consumers (for example by defining which foods can be offered at schools using specific public food procurement criteria or setting compositional thresholds/requirements for packaged products).

To assess trends and evaluate the effectiveness of such measures, sound and independent monitoring of progress is required, open to the public and transparent, to hold food system actors accountable and adjust policy making, if necessary. In recent years, public funds have been increasingly invested in collecting food composition data in Europe, for example through Joint Actions. What was missing, though, was a publicly accessible way to make relevant information and trends available in an easily understandable way to policy makers and the public.

Key conclusions

The Food and Beverages Labels Explorer (FABLE) closes the information gap by making data collected on branded food and beverages through EU-funded projects publicly available for researchers, policy makers and the public.

FABLE hosts data on branded food and beverage products across Europe collected through joint efforts at European level, within JANPA, EUREMO and Best-ReMaP (>100 000 products across >20 countries). Several food categories are covered, like bread products, breakfast cereals, soft drinks, and dairy products.

FABLE offers a range of visual tools to explore the data in an accessible way also to non-experts. It also allows downloading the underlying data for researchers or anyone wishing to explore it further, scrutinise trends and (lack of) progress.

As such, FABLE promotes transparency and allows citizens and the civil society to participate in dialogues important for progress in public health.

Main findings

For the very first time, data have been collected across several countries in Europe using an agreed methodology for the data collection and using a harmonised nomenclature for the food (sub-)categories across the projects. Its design allows for the addition of data coming from future data collection efforts.

Users can interact with, explore and visualise data in an easy way. FABLE allows for:

- country comparisons for specific nutrients and food groups;
- deep-dives into each country/food category specific nutrient of concern;
- the ability to compare the nutritional quality of food offerings over time.

Therefore, FABLE gives Europe's citizens and organisations the chance to monitor the nutritional quality of the food offer. This can in turn incentivise reformulation efforts, help identifying priorities for efforts by businesses and policy making, and lead to an improved food offer, thereby making healthier choices more available to consumers.

Related and future JRC work

FABLE will be regularly updated to incorporate new features. Additional analyses, dashboards and more modules (for example, on ingredients, time trends, and country factsheets) will become available during 2024. In addition, feedback from key users will be taken on-board to further improve its usability and user-friendliness. The JRC will continue to engage with stakeholders through the dedicated website form or through direct communication with the users. The standard metrics used for public websites will be applied.

The Member States will continue their work during the upcoming Joint Action Prevent NCDs (expected start in January 2024), and FABLE aims to support them in other policy areas where food offer monitoring is crucial, such as protecting children from harmful food marketing and sustainable public food procurement.

1 Introduction

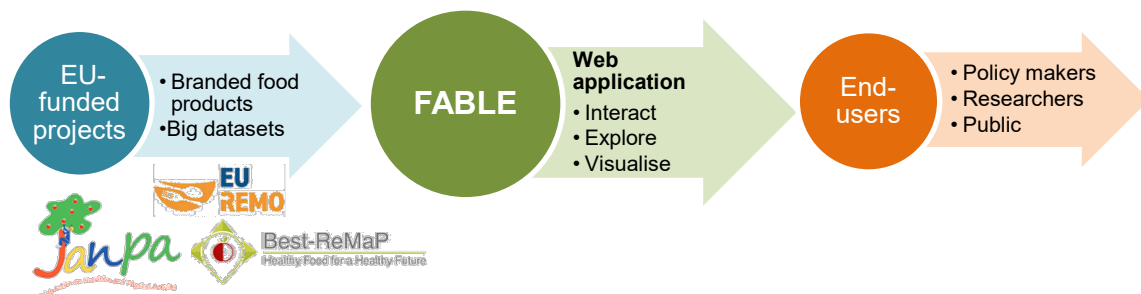
Healthy people, healthy societies and a healthy planet: these are the core values of the European Green Deal¹ and the Farm-to-Fork Strategy². Yet, looking at our plate, it's evident we have a considerable journey ahead to truly embrace healthy and sustainable diets. High intakes of salt, sugars, total and saturated fats have been linked with higher prevalence of various noncommunicable diseases (NCD). However, the actual range of intakes in adults across Europe for all these nutrients of concern is above the recommendations^{3, 4, 5}.

According to the World Health Organization (WHO), 'reformulation policies for healthier food and beverage products' is one of the NCD Best Buys to tackle unhealthy diets⁶. To monitor the evolution/change, there needs to be a systematic collection of data across EU countries, and it needs to be available to the key stakeholders.

However, currently there is a 'black box': no systematic approach exists to collect and access data to allow a continuous monitoring of the food supply, making it difficult to verify data independently and have a clear overall picture of the landscape.

The Food and Beverages Labels Explorer (FABLE), developed by the Joint Research Centre (JRC), closes this information gap by making data collected on branded food and beverages through EU-funded projects publicly available for researchers, policy makers, the food industry (especially smaller operators), and the public. Users are able to interact with, explore and visualise data in an easy way. This allows for the public monitoring of the food supply across the EU (see Figure 1). An overview of the policy context that led to the development of FABLE is presented in Figure 2.

Figure 1 Schematic representation of how FABLE aims to bridge the gap between research outputs and the end-users



Source: European Commission, 2023

Figure 2 Overview of the policy context that led to the development of FABLE

¹ European Commission (2019) The European Green Deal https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en (last accessed 22/11/2023)

² European Commission (2020) Farm to Fork strategy https://food.ec.europa.eu/horizontal-topics/farm-fork-strategy_en (last accessed 22/11/2023)

³ European Commission (2023) Health Promotion and Disease Prevention Knowledge Gateway: Dietary salt/sodium https://knowledge4policy.ec.europa.eu/health-promotion-knowledge-gateway/dietary-saltsodium_en (last accessed 22/11/2023)

⁴ European Commission (2023) Health Promotion and Disease Prevention Knowledge Gateway: Sugars and sweeteners https://knowledge4policy.ec.europa.eu/health-promotion-knowledge-gateway/sugars-sweeteners_en (last accessed 22/11/2023)

⁵ European Commission (2023) Health Promotion and Disease Prevention Knowledge Gateway: Dietary fats https://knowledge4policy.ec.europa.eu/health-promotion-knowledge-gateway/dietary-fats_en (last accessed 22/11/2023)

⁶ WHO (2023) More ways, to save more lives, for less money: World Health Assembly adopts more Best Buys to tackle noncommunicable diseases <https://www.who.int/news/item/26-05-2023-more-ways--to-save-more-lives--for-less-money----world-health-assembly-adopts-more-best-buys--to-tackle-noncommunicable-diseases> (last accessed 22/11/2023) The Best Buys are evidence-based cost-effective public health interventions to prevent and control NCDs.

EU frameworks

- Salt reduction framework
- Framework for selected nutrients (incl. annexes on saturated fat and on added sugars)

MS priorities

- High Level Group on food reformulation identified monitoring as key tool for success in food reformulation
- Food reformulation monitoring prioritised by Member States as a best practice for an implementation Joint Action
- Member States to continue work on food reformulation monitoring during new Joint Action Prevent NCDs

EU-funded projects (and collected data)

- Joint Action on nutrition and physical activity (JANPA) piloting a possible transfer of France's OQALI nutrition monitoring system (Austria and Romania as piloting countries)
- EU project EUREMO (EU Reformulation Monitoring) – 'Feasibility study for a monitoring system on reformulation initiatives for salt, sugars and fat' – data on food composition from labels collected across 16 European countries
- JA Best-ReMaP to transfer the top three best practices to a large number of Member States – one of them being Processed Food Monitoring and Reformulation

Policy needs

- In the context of the Farm-to-Fork strategy, the Commission will seek opportunities to facilitate the shift to healthier diets and stimulate product reformulation
- No tool to make publicly available the data collected as part of EU-funded projects on nutritional quality of the food supply.

Source: European Commission, 2023

2 The FABLE website

The FABLE website (<https://food-labels-explorer.jrc.ec.europa.eu>) has been launched in September 2023 during the Best-ReMaP⁷ final conference; thus ensuring that key stakeholders and users were aware of its existence, and getting valuable feedback and suggestions on additional features that could be included. Figure 3 provides a screenshot of the FABLE home page.

Figure 3 The FABLE Home page (accessed 22/11/2023)

The screenshot shows the FABLE website home page. At the top left is the European Commission logo. To the right, there are links for 'English' and 'Log in'. The main header is a dark blue bar with the text 'FABLE - Food and Beverages Labels Explorer'. Below this is a navigation menu with links: 'Home', 'Explore the data', 'Background and methodology', 'Publications', 'News', and 'FAQs'. The central part of the page features a large image of a grocery store shelf with various food and beverage products. Overlaid on this image is a white box with the text 'Explore the data' and 'FABLE - Food and Beverages Labels Explorer', with a yellow 'Enter >' button. Below the image is a search bar containing the text 'FABLE in Paris' and a '2 of 2' indicator with navigation arrows. The 'Background and methodology' section contains a paragraph explaining the project's goal to close the information gap between research and end-users, mentioning EU-funded projects and data collected during EUREMO and JANPA. The 'Data sources' section displays three logos: EUREMO, Best-ReMaP (Healthy Food for a Healthy Future), and JANPA (Joint Action on Nutrition and Physical Activity). The 'Publications' section lists a 2022 publication: 'EU REformulation MOnitoring (EUREMO): Feasibility study for a monitoring system on reformulation initiatives for salt, sugars and fat : final report'. At the bottom, there is a dark blue footer with links for 'FABLE - Food and Beverages Labels Explorer', 'Contact us', 'About us', and 'FABLE Privacy Statement'. A small note states 'This site is managed by: Joint Research Centre'.

Source: European Commission, 2023

⁷ Joint Action Best-ReMaP. For more information on Best-ReMaP, see <https://food-labels-explorer.jrc.ec.europa.eu/en/best-remap>

2.1 Methodology and data sources

FABLE hosts data on branded food and beverage products across Europe collected through EUREMO⁸, JANPA⁹ and Best-ReMaP⁷. Its design allows for the addition of data coming from future data collection efforts.

The data has been collected using an agreed methodology and is presented in FABLE using a harmonised nomenclature for the food (sub-)categories across the projects. More details on the data collection and other methodological aspects can be found in the Background and Methodology page of FABLE¹⁰.

Table 1. List of countries and food categories for which data collection was performed during EUREMO, JANPA and Best-ReMaP

Project	Data collection	Food categories	Countries
JANPA ⁹	2016	Breakfast cereals and soft drinks	Austria and Romania
EUREMO ⁸	2019-2022 ¹¹	Fourteen product categories (sugar-sweetened beverages; sugar-sweetened dairy and dairy imitates; breakfast cereals; bread and bread products; confectionary; cakes and biscuits; ready meals and soups; savoury snacks and crisps; sauces and condiments; sugar-sweetened desserts, ice cream; canned fruits and vegetables; meat and fish products; cheeses; and energy drinks and sport drinks).	Sixteen European countries (Austria, Belgium, Bulgaria, Denmark, Estonia, Finland, France, Greece, Hungary, Italy, Lithuania, Malta, Portugal, Romania, Slovenia and the United Kingdom).
Best-ReMaP ⁷	2021-2023	Five priority food categories (bread products, delicatessen meats, soft drinks, breakfast cereals and dairy products)	Twenty-one European countries (Austria, Belgium, Bosnia Herzegovina, Croatia, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Malta, the Netherlands, Poland, Portugal, Romania and Slovenia)

⁸ EU Reformulation Monitoring (EUREMO) – ‘Feasibility study for a monitoring system on reformulation initiatives for salt, sugars and fat’. For more information on EUREMO, see <https://food-labels-explorer.jrc.ec.europa.eu/en/euremo>

⁹ Joint Action on Nutrition and Physical Activity (JANPA). For more information on JANPA, see <https://food-labels-explorer.jrc.ec.europa.eu/en/janpa>

¹⁰ <https://food-labels-explorer.jrc.ec.europa.eu/en/background-and-methodology>

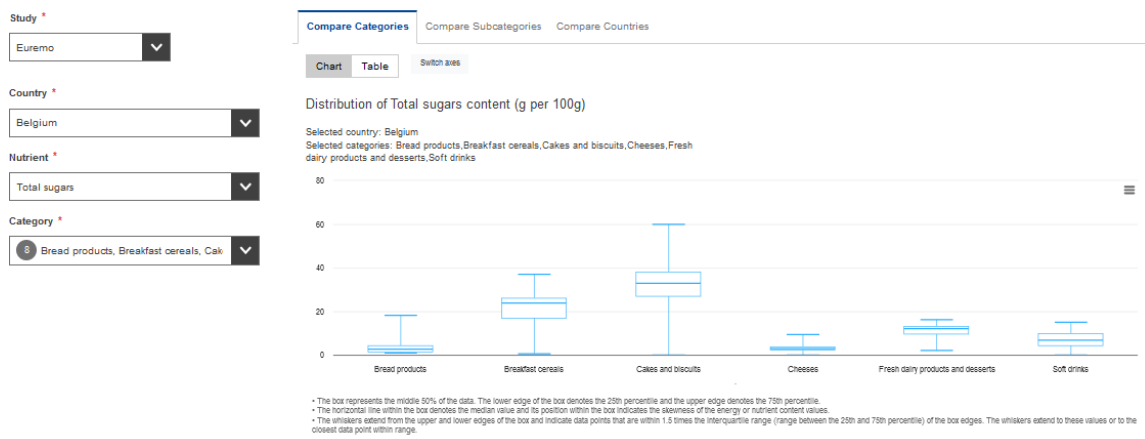
¹¹ For France, pre-existing data from 2011-2018 were used.

2.2 Examples of data analyses

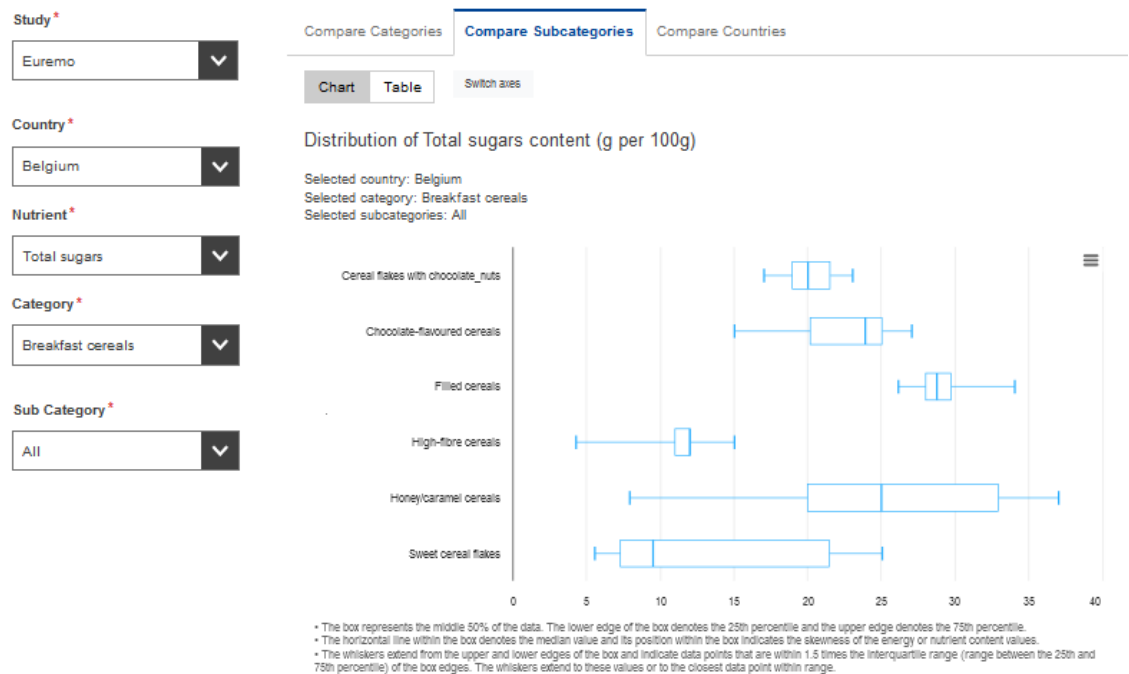
FABLE will be regularly updated to incorporate new features. Additional analysis dashboards and more modules (for example, on ingredients, time trends) will become available in the coming months. In addition, feedback from users will be taken on-board to further improve its usability and user-friendliness. Figure 4 presents some examples of the available charts analysing data from food labels, using Highcharts charting library¹².

Figure 4 Examples of the analyses available at the FABLE website for exploring the nutrient content of packaged products across a) categories, b) food sub-categories and c) across countries

a)



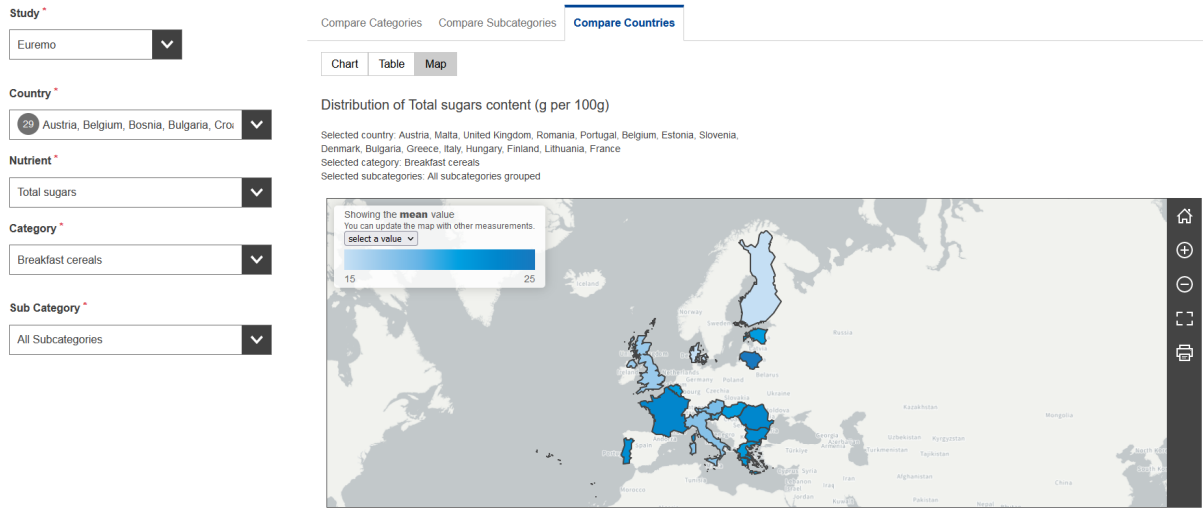
b)



¹² Highcharts, Highsoft AS, Norway <https://www.highcharts.com>

Figure 4 continued

c)



3 Use of FABLE in different nutrition and food policy areas

3.1 Facilitating the packaged food offer monitoring in Europe

Currently, FABLE hosts data collected through EUREMO⁸, JANPA⁹ and Best-ReMaP⁷; it analyses these data to support policy work on packaged food monitoring and reformulation. FABLE's dynamic dashboard allows users to explore, interact with and visualise data on the nutritional content of branded food and beverage products across Europe. Several food categories are covered, like bread products, breakfast cereals, soft drinks, and dairy products. FABLE allows for: 1) country comparisons for specific nutrients and food groups, 2) deep dives into each country/food category specific nutrient of concern, and 3) the possibility for making time comparisons on the progress of the quality of the food offer.

FABLE will be regularly updated to incorporate new features. Additional analyses, dashboards and more modules (for example, on ingredients, time trends, and country factsheets) will become available during 2024. In addition, feedback from key users will be taken on-board through the dedicated website form or through direct communication to further improve its usability and user-friendliness. The standard metrics used for public websites will be applied.

3.2 Exploring the use of FABLE in other policy areas

There have been discussions with Member States to explore how FABLE could be used to support efforts to protect children from harmful food marketing and to support procurement officers in the selection of healthier and more sustainable food options. These will be explored further in collaboration with Member States within the upcoming Joint Action Prevent NCDs.

Table 2 lists potential ways of how FABLE could support these additional policy areas. Several challenges have been identified and are listed in Table 2; further discussions with Member States on these suggestions are warranted.

Table 2. Potential ways of how FABLE could support other policy areas such as protecting children from harmful food marketing and supporting public food procurement

Policy area	How FABLE could support this area	Potential challenges
Protecting children from harmful food marketing	<ul style="list-style-type: none"> Apply WHO Europe Nutrient Profile Model across all products collected and define which proportion of products available at the market are ineligible for food marketing to children Dataset could be used to link the nutritional information with the food and beverages in commercial communications 	<ul style="list-style-type: none"> Linking the correct (version of the) product with each specific commercial communication.
Supporting public food procurement	<ul style="list-style-type: none"> Apply public food procurement criteria across products to identify the products that could be considered in a tender for public food procurement. Area for procurement officers (open or restricted depending on national laws and third-party rights) with access to specific product information that is not on-pack. 	<ul style="list-style-type: none"> Criteria used for public food procurement are not usually displayed on-pack. A different data collection mechanism needs to be implemented. Products for public food procurement are usually bought in bulk, so products collected through Best-ReMaP and EUREMO might not be useful. Who has the right to use the information provided by producers/retailers, if these are submitted at national level? Is it feasible to have a centralised database or it is more realistic to establish secure connection of FABLE to national databases?

Source: European Commission, 2023

4 Conclusions

Until recently, there was no publicly available systematic approach to collecting and accessing data to continuously monitor food offer across Europe. FABLE has closed this gap by making data collected on branded food and beverages through EU-funded projects publicly available for researchers, policymakers, the food industry (especially smaller operators), and the public. Users can now interact with, explore and easily visualise data. This allows for the public monitoring of the food supply across the EU, which can incentivise reformulation efforts, provide feedback to policy makers on the effectiveness of measures, and lead to an improved food offer, making healthier choices more available to consumers.

List of abbreviations

Best-ReMaP Joint Action Best-ReMaP
DG SANTE Directorate General Health and Food Safety
EU European Union
EUREMO EU Reformulation Monitoring
FABLE Food and Beverages Labels Explorer
HaDEA Health and Digital Executive Agency
JRC Joint Research Centre
NCD Noncommunicable Diseases
WHO World Health Organization

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