

PHENOLIVES

Reinventing the Olive Industry for the Future of Food

Creating a new generation of food ingredients from one of the world's most underutilized natural resources - delivering nutritional, environmental, and economic value.

Olive oil production worldwide



Worldwide, more than 3M tons of olive oil are produced each year in about 25K mills and processing plants from more than 800M olive trees.



The European Union produces about 78% of all olive oil in the world and consumes about 53% of the world's olive oil consumption.



Most of the production takes place around the Mediterranean basin (96%).



PhenOlives' upcycling solution is transforming how olive oil mills work



Today:

15% of the olive is used to make olive oil

The remaining 85% becomes waste that is unfit for human consumption and creates significant damage to the environment



With the PhenOlives system, olive oil mills can use 100% of the olives

Current condition,
only 15% use

Phenolives system,
complementary to 100%
use of the olive fruit



From POC to commercial system

- During 2022-2024 we completed 3 seasons using a manual POC system in the Assi Olive Oil mill in Israel
- We successfully stopped the oxidation of the olive oil waste and produced olive flour
- For the 2025 season we successfully installed and operated a fully automated commercial system – a huge milestone for the company
- In 2026 we plan to produce 100+ tons of olive flour
- The system is now fully tested and ready to be installed in olive oil mills around the world



Watch our TV interview with i24 News about our new system here ([link](#))

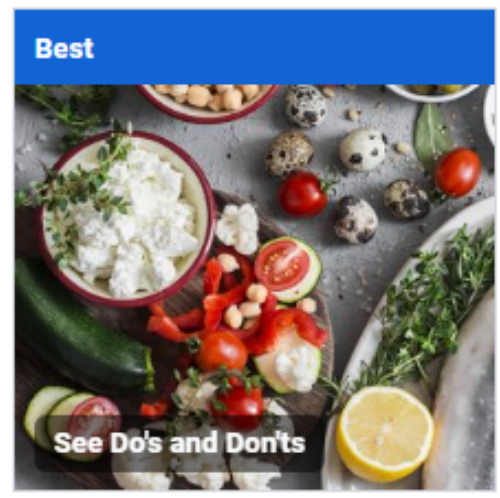


Introducing: Olive flour - A gluten-free flour with the health benefits of olive oil

[Int J Mol Sci.](#) 2022 Dec; 23(24): 16002.
Published online 2022 Dec 15. doi: [10.3390/ijms232416002](#)

Olive Oil in the Mediterranean Diet and Its Biochemical and Molecular Effects on Cardiovascular Health through an Analysis of Genetics and Epigenetics

PMCID: PMC9782563
PMID: [36555645](#)



Mediterranean Diet

The Mediterranean diet focuses on quality and lifestyle rather than a single nutrient or food group. Numerous studies have shown that this dietary model reduces the risk of certain chronic health conditions, such as cardiovascular disease and Type 2 diabetes, while promoting longevity and improving quality of life. [Read More »](#)

Best Diets Overall Score
85.1%
2024
Best Diets Overall Rank
#1



What makes olive flour different



**Gluten
free**

**Neutral
taste**

**High in
fiber &
antioxidants**

**Low calories
Low carbs
Low sugar**

**Increased
water
retention**

**Crustier and
more aerated
dough**

**Prolongs
shelf life**

Low price



100%



Olive Flour nutrition profile vs wheat flour and other gluten - free flours

	Olive flour	Wheat flour	Almond flour	Coconut flour	Orange lentils	Chickpea flour
Fiber	82	2.7	8.1	35	10.8	9.6
Calories	234	347	616.5	469	345	387
Carbohydrates	2.1	76	21.7	19.5	59.1	45.9
Sugar	0.5>	1.2	4.1	19.4	2.3	4.4
Fats	5.9	1	49.5	13.9	2.2	6.69
Proteins	7.28	11	21.2	16.6	24.9	21.4
Sodium	37	2	10	40	7	9

All values are in grams per 100 grams flour.
* Mg for sodium, kcal for calories



Hidden Healthy Elements in Olive Flour



Olive oil



Olive flour

673	2150	PP
0.87	125	HT+Tyrosol
800-1800	156	SQUALENE

40g of olive flour contains about 5mg of HT and its derivatives - the daily minimum required in order to have a proven health effect (in accordance with a health declaration allowed for labeling in the European Union for olive oil).

100 grm of olive flour extraction

Chromium – 424% of Sufficient daily intake

Copper – 9% of recommended daily consumption

Molybdenum – 33% of recommended daily consumption

Potassium – 11% of recommended daily consumption

Polyphenols and squalene in olive flour (ppm)

Minerals in the olive flour extraction





Winner of Outgenia Competition 2023 in spain



Outgenia is a competition to identify the most promising international food startup for spain

Organiezed by FIAB - the representative body of 30,000+ food companes in spain

Olive flour products

Pancake 50% olive flour

Bread 20% olive flour

Pasta 50% olive flour

Crackers 100% olive flour

Chocolate muffins 50% olive flour

Olive flour products



Hellenic Agricultural Organization DIMITRA





Dutch Organic Baking School



Mount of olives

PhenOlives' unveiling of olive flour introduces a sustainable and functional ingredient, writes **Chen Lev Ari**, CEO of PhenOlives

Crackers.
Image credit: PhenOlives

food and drink
technology, May 24

Circularity in motion by start-up PhenOlives: Olive flour from olive oil waste



Author: Chen Lev Ari
CEO of PhenOlives

Innovations in food
technology, May 24

So you haven't heard of olive flour yet?

At PhenOlives, we have been able to repurpose the waste from the pressing and production of olive oil and create olive flour – a gluten-free flour with all the health benefits of olive oil. Olive flour has an impressive nutritional profile, with 82% fibre content, low calories, and high polyphenols—essential components of the renowned Mediterranean diet. Furthermore, its neutral taste and competitive pricing position makes it a versatile and accessible ingredient for culinary enthusiasts and health-conscious consumers alike.

All innovation begins with a question

And ours was: if 85% of the olive oil process becomes waste – can we avoid this waste and use this for a sustainable source of food?

Worldwide, more than 3 million tons of olive oil are produced each year and given that about 15% of the olives become olive oil, the remaining 85%, which oxidizes and becomes olive oil waste, constitutes a huge opportunity – some 15 to 20 million tons of opportunity.



Food waste to flour: PhenOlives stops oxidation in olive oil production and transforms baked goods

12 Mar 2024 --- Utilizing waste from olive oil pressing in a new way has enabled PhenOlives to deal with a problem that has plagued olive oil production for thousands of years. The Israel-based firm has unlocked a new method to combat olive oil oxidation and the waste associated with it.

PhenOlives has been working with Assi Olive Oil Mill to tackle a problem rife across the olive oil sector which not only leads to significant amounts of waste but also soil contamination issues linked to how the waste oil is disposed of.

Addressing food and agricultural challenges

PhenOlives worked with olive oil experts, mechanical engineers, food technologists, farmers and academia to come up with an innovative solution for not only waste management in the olive oil sector but also the utilization of all the healthy nutrients in this waste to produce a beneficial food source.



Flour upcycled from olive waste a 'revolution' for industry

By Flora Southey

10-Apr-2024 - Last updated on 10-Apr-2024 at 08:18 GMT



PhenOlives is making flour from pomace – a side stream of the olive oil production process. Gettyimages/Sgura

Transformando el orujo de olivo en una "superharina"

Esta start-up fue la ganadora de la 1ª edición de los Premios OUTGENIA 2023 entregados en la pasada edición de Alibetopías



Este proceso pionero reduce significativamente el impacto ambiental de la producción de aceite de oliva./Foto: PhenOlives

A top-down view of several bowls and a wooden spoon filled with different types of flours and grains. The flours vary in color from white to yellow to brown. Some bowls contain whole grains or seeds. The items are arranged on a light-colored wooden surface.

As a professional baker, understanding alternative flours is essential for adapting to changing consumer demands, whether for gluten-free, low-carb, or simply more nutritious products. Alternative flours can significantly affect the texture, flavor, and structure of baked goods, so it's important to know how to use them effectively.

rth

In the millennia-old quest to find a commercial use for olive-mill waste, PhenOlive flour may have the answer for mills, farmers, and the environment.



Israel21c, September 24

Crackers made with PhenOlives' olive flour. Photo courtesy of PhenOlives

- **PhenOlive:** The start-up extracts valuable phenolic compounds from olive byproducts, creating olive flour

Padaria sustentável: Upcycling de azeitona gera novo ingrediente para a indústria

Home / Matérias-primas vegetais / Padaria sustentável: Upcycling de azeitona gera novo ingrediente para a indústria

**Kennedy's Bakery
production, January
2025**

A FLOUR FOR THE FUTURE

Identifying new approaches that not only reduce waste and restore ecosystems but also redefine what's possible for the future of food.

Both companies are setting new standards for sustainability in the food industry. PhenOlives and ADM share a vision of innovation that aligns environmental responsibility with high-quality ingredients. Whether it's olive flour's unique nutritional benefits or Nature's Gold's connection to regenerative agriculture, these products reflect a growing shift towards more responsible, future-focused food systems.

Das fábricas, não saem apenas caminhões.

Market Size & Opportunity for Olive Flour

\$5B

Gluten-free flour market

6%

Projected annual growth

0.5% market share = \$25M revenue
=> 10,000 tons of olive flour (@ \$2,500/ton)

Requires 5 PhenOlives system installations
=> represents 0.2% of global olive oil waste

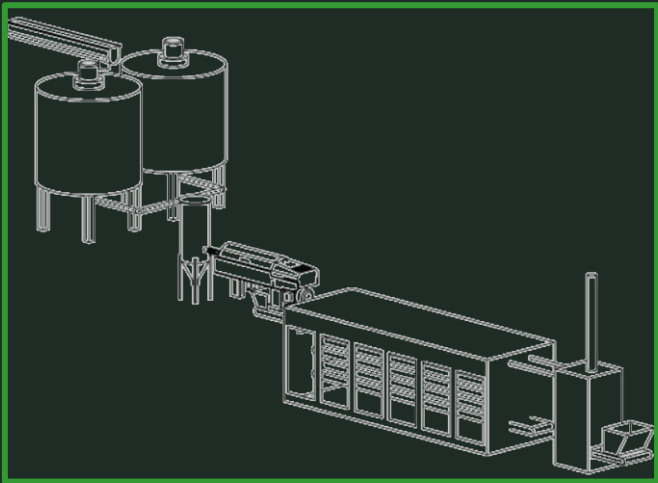
BEYOND GLUTEN-FREE

Functional Food Ingredients

A versatile, fiber-rich ingredient for broader food applications

Business model

1. PhenOlives installs and finances the system in the olive oil mill



2. The olive oil mill operates the system



3. PhenOlives pays the olive oil mill for system expenses plus a profit



4. PhenOlives sells the olive flour (and later the polyphenol concentrate)



PHENOLIVES REVENUE MODEL

B2B ingredient sales

Target selling price

\$2,500 / ton

Annual revenue potential per system

\$2.25M–\$4.5M*

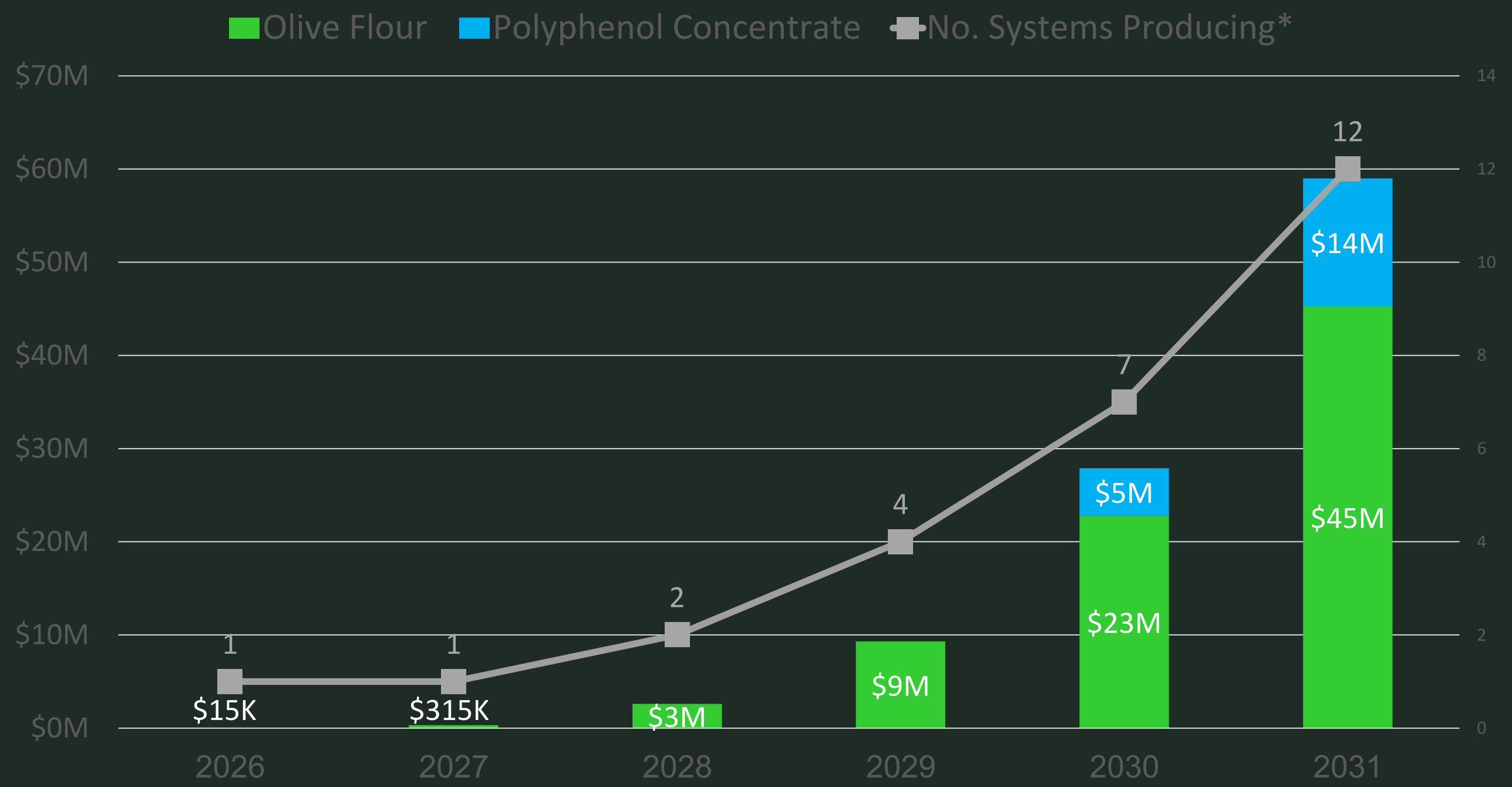
* Olive Flour today; polyphenol concentrate planned as a future product.

MILL PARTNER ECONOMICS

**System expenses
+ payment per m³ of olive pomace**

*Estimated to increase
olive oil mill profits by up to 50%*

Sales projections



* Sales begin the year after installation since the production season is October-December of each year

Market Size for antioxidants

(Under development)

\$1.8B

antioxidant
market

7.2%

Projected annual
growth (by 2030)

Global Polyphenols Market

Report Segmentation

Product Outlook

- Grape Seed
- Green Tea
- Apple
- Peach
- Citrus
- Olive
- Others



Regional Outlook

- North America
- Europe
- Asia Pacific
- Central & South America
- Middle East & Africa

Application Outlook

- Functional Beverages
- Functional Foods
- Dietary Supplements
- Cosmetics & Toiletries
- Animal Feed
- Dyes
- Others



Source: www.grandviewresearch.com

Investment highlights

Why PhenOlives is an attractive investment:

- Turns the 85% of the olive that is toxic waste today into a food-grade product.
- Patented, fully automated system proven over a full season in Israel.
- Revenue expected to grows from \$15K in 2026 to \$21.2M in 2030 across 12 installed systems.
- EBITDA expected to turns positive in 2028 and reaches \$5.8M in 2030.
- Two markets: \$5B gluten-free flour and \$1.8B antioxidants.
- Total capital needed across the plan is \$2.73M; \$730K available now in SAFE.



Funding Plan: \$2.73M

CURRENT CAPITAL PLAN TO REACH THE NEXT COMMERCIAL MILESTONES

CURRENT ROUND

SAFE

\$730K

Available for investment



Provides 12–15 months of runway

KEY MILESTONES

- 1 Launch Olive Flour GTM and reach orders for 100+ tons in 2026
- 2 Operate the Israel system in 2026/27 to produce 100+ tons
- 3 Identify and secure the first olive oil mill in Europe for 2027 installation
- 4 Continue advancing black water R&D



NEXT ROUND

Seed

~\$2M

To complete the total capital across the plan and support the next phase of growth.

NEXT PHASE

- European scale-up
- Commercial expansion in key markets
- Development of additional products and revenue streams

Clear two-step financing plan: current **SAFE** → next **Seed** round



Why now:

- **The technology risk is behind us and the commercial window is open:**
- A fully automated system ran a full season in Israel in 2025.
- 40+ food companies sampled the flour; we can now produce at scale.
- Chairman Itzik Saig, ex-CEO of Osem (Nestle Israel), is leading the GTM.
- First European system installs in 2027; 4 systems running by 2028.
- Cash turns strongly positive from 2029, reaching \$8.1M by 2030.

Team



Chen Lev-Ari
CEO



Len Pader
VP Business Development



Revital Mashal
Food Technologist



Christina Legaki, Dr.H.C.
Commercial Director

Board



Itzik Saig
Chairman



Raz nur
BOD



Gavri Eichenwald
BOD



Yossi Ackerman
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Zach Frenkel
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Leeat Bar -Eyal
BOD

Investors



Partners





THANK YOU

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