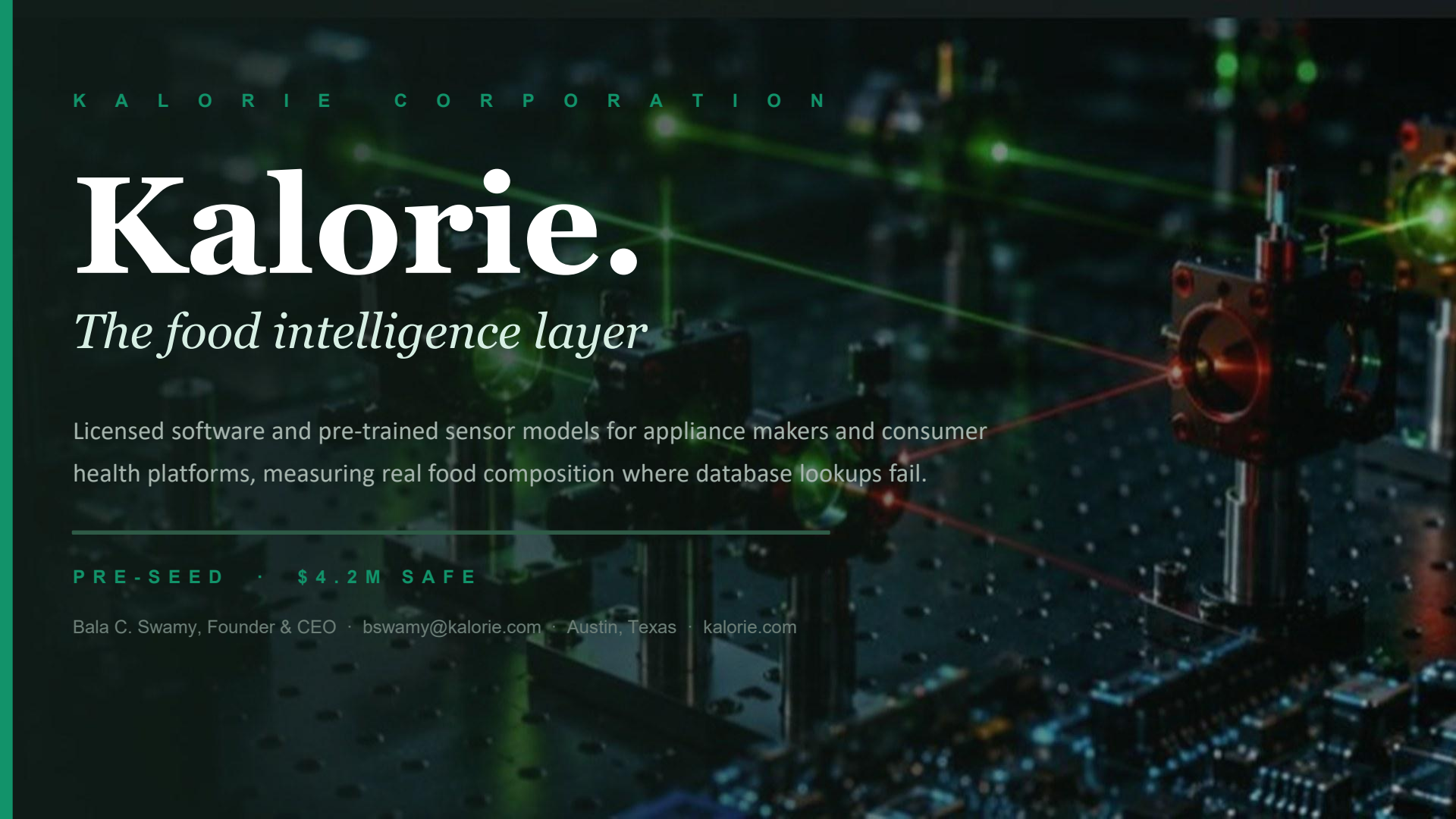


K A L O R I E C O R P O R A T I O N

Kalorie.

The food intelligence layer

Licensed software and pre-trained sensor models for appliance makers and consumer health platforms, measuring real food composition where database lookups fail.

P R E - S E E D · $ 4 . 2 M S A F E

Bala C. Swamy, Founder & CEO · bswamy@kalorie.com · Austin, Texas · kalorie.com

0 1 · THE STAKES

Diet drives disease. We cannot measure the input.

70% of chronic disease is caused by diet, yet 98% of people have no accurate way to know what they are eating.

For the hundreds of millions managing diabetes, weight, and metabolic health, the most important input is the one they still estimate.

1.0B+

obese adults globally

World Health Organization

537M+

adults living with diabetes

IDF Diabetes Atlas

200M+

coronary heart disease patients

British Heart Foundation

18M+

new cancer diagnoses per year

WCRF / AICR

If we cannot measure the food, we cannot manage the disease.

Nutrition apps run on database guesses.

±30%

typical error on real mixed meals

Database apps (MyFitnessPal, USDA FDC, Nutritionix) assume standardized foods. Real meals vary in portion, prep, and ingredient ratios, shifting composition.

WHAT BREAKS

01 **Metabolic health platforms fail their core question.**

CGMs, Function Health, Levels, and Oura must answer what caused a glucose response. Database estimates cannot.

02 **Connected appliances cannot deliver personalized cooking.**

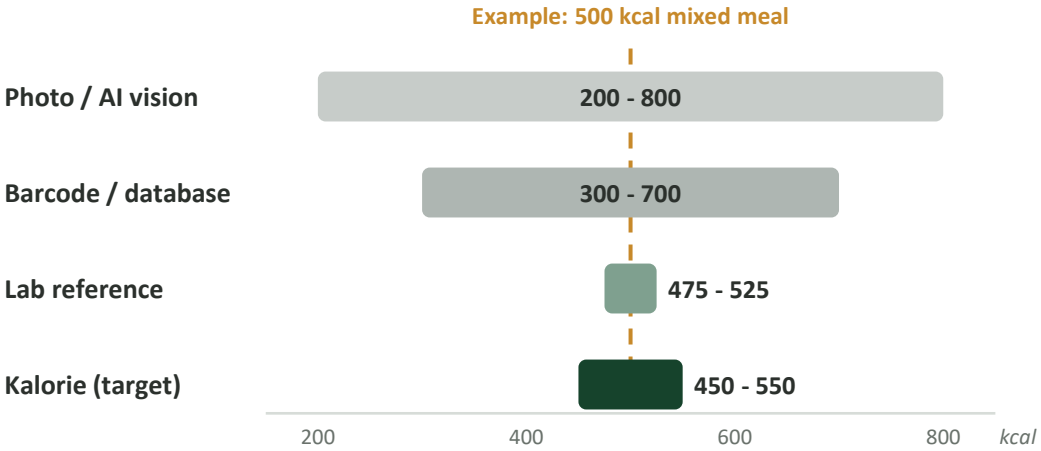
Samsung, LG, and Whirlpool embed cameras and recipe apps, but without real composition they cannot cook to actual macros.

03 **Lab testing works, but it is not a consumer product.**

Mérieux, SGS, and Eurofins measure to 2-5%, but at $200-$800 per sample over 7-14 days. Not a daily loop.

Everyone else guesses. Kalorie measures.

Typical calorie error on a real mixed meal



WHY EACH FALLS SHORT

Photo / AI vision up to ±60%
Hidden oil, sugar, sodium and portions are invisible.

Barcode / database up to ±40%
Real meals have no barcode; values are estimates.

ISO 17025 laboratory reference ±2–5%
Ground truth for validation, not a consumer device.

Kalorie ≤10% (target)
Measures food directly: full profile in one scan.

Kalorie measures food directly through multiple sensor fusion rather than estimating from images or databases, targeting near-lab accuracy in seconds at appliance-scale cost.

One scan returns the full nutrient profile: calories plus protein, fat, carbs, sodium, and fiber.

Kalorie's ≤10% is a design target, not yet measured; it will be validated against ISO/IEC 17025 lab analysis. Calories, protein, and fat are the committed targets; carbs, sodium, and fiber are reported, with targets set after validation. Competitor figures are published error ranges.

The missing input in the longevity stack.

Every input above food is already instrumented. Sleep, glucose, heart rate, VO2, recovery, biomarkers. All measured.

Food is the only driver still estimated. Kalorie is the layer underneath every consumer health platform.

Sleep	Oura · Whoop · Eight	LIVE
Glucose	Dexcom · Abbott · Levels	LIVE
HRV	Whoop · Oura · Apple Watch	LIVE
VO2 Max	Garmin · Apple · Polar	LIVE
Biomarkers	Function · Levels · Oura	LIVE
Food	*(still estimated)*	GAP

A HEALTHKIT MOMENT FOR FOOD

What Oura did for sleep.

What Dexcom did for glucose.

Kalorie does for food.

Place food. Get composition. In seconds.

1 PLACE

OEM APPLIANCE

2 SCAN

SCANNING

< 30 seconds

- Physics layer active
- Cross-modal fusion
- ISO calibration applied
- Composition computed

Multiple synchronized sensors active

3 RESULT

COMPOSITION OUTPUT

ISO/IEC 17025 calibrated

Calories	485 kcal
Protein	38 g
Fat	18 g
Carbs	42 g
Moisture	62 g
Fiber	6 g

Initial wedge: countertop NutriPad. OEM appliance integrations follow. Kalorie licenses the food intelligence. The OEM builds the hardware.

The operating system for food measurement.

We are the operating system for food measurement. Every sensor configuration runs on Kalorie.
Like ARM inside every phone, or Dolby inside every TV, regardless of who builds the device.

Intel -> Computers	Dolby -> Audio	ARM -> Phones	**Kalorie -> Food**

LICENSEES DEPLOY

3 to 11 sensors

Microwave (3): NIR + RF + RGB. Range hood (5): NIR + RGB + HSI + acoustic + fluorescence (standoff, no RF). NutriPad (11): full stack. BOM $500-$2,000 at volume.

KALORIE SHIPS

The model library

Up to 16,383 model subsets (8,191 validated), one per sensor combination. Licensee picks sensors; the library returns calibrated composition with uncertainty bounds.

OUTPUT

Composition, in real time

Protein, fat, carbs, fiber, sodium, calories per 100g. Per-zone reconstruction on mixed plates. ISO/IEC 17025 calibrated.

Multi-modal sensor fusion with physics.

TL;DR: One physics stack · up to 16,383 models · Any sensor · Any appliance

LAYER 3

Physics Constraints

Mass balance · Atwater energy · Bayesian priors

LAYER 2

Cross-modal Attention Fusion

Multi-head attention across all sensor signals

LAYER 1

Physics-informed Features

Beer-Lambert · Bruggeman · Wood's Equation

SENSORS

14 modalities

NIR · MIR · Raman · HSI · RGB · RF · Acoustic · Fluor · E-nose · EIS · Thermal · XRF · Load cell · 14th TBD

2^14 - 1

16,383

MODEL SUBSETS

One model per combination; 8,191 validated at the gate.

Accuracy monotonic by construction.

PROVISIONAL PATENT FILED · APRIL 10, 2026

US Application No. 64/035,197

Methods and Systems for Food Analysis

Inventor assignment recorded, clean chain of title.

Reel 74337, Frame 0610 · Mertzlufft Law PLLC

The moat is structural, not narrative.

01

TECHNICAL MOAT

Physics-based accuracy, by construction, validated at the ISO gate

Accuracy improves monotonically with each sensor, by construction, validated against ISO/IEC 17025 ground truth. No competitor replicates this without rebuilding the physics layer.

02

IP MOAT

16,383 model combinatorics, structural IP

The patent covers all 2^14 - 1 sensor-subset combinations. A rival with one model has one product; Kalorie has 16,383. Every OEM deal compounds the moat.

03

DATA MOAT

First calibrated food intelligence dataset

1,130 ISO/IEC 17025-validated samples across five complexity blocks, the only calibrated ground-truth food dataset of its kind. Each new sample improves every model.

The economics of food sensing just changed.

What cost $50,000 as a benchtop instrument in 2020 is a $500-$2,000 appliance module today.

Embedded food intelligence became economically viable in the past 18 months.

10x

Sensor cost collapse

MEMS NIR (Hamamatsu, InnoSpectra, SiWare): $150-$500 at volume. Snapshot HSI (imec, Cubert): $50K down to $1,500-$3,000. MEMS Raman miniaturizing; Tier 2 by 2027.

5x

ML capability

Physics-informed nets, cross-modal attention, and federated learning did not exist when SCiO tried this in 2014. The architecture now does.

2x

Consumer demand

GLP-1 adoption, CGM mainstreaming, and Function Health growth make accurate food measurement commercially urgent for the first time.

Three industries. One intelligence layer.

TAM	SAM (5-7 years)	3-YR TARGET	CONSUMER INTENT
$50B+	$5-10B	$500M-$1B	92%

PRIMARY

$22-42B

Smart kitchen appliances

Connected ovens, refrigerators, microwaves, range hoods, cooktops.

TARGETS: Samsung · LG · Whirlpool · Haier · Bosch-Siemens

Mordor Intelligence, MarketsandMarkets (2025)

SECONDARY

$25-27B

Food safety testing

Contaminant screening, allergen verification, QA.

TARGETS: Eurofins · SGS · Intertek · Mérieux

Fortune Business Insights (2025)

ROYALTY

$5-10B

Digital health (addressable)

CGM ecosystems, metabolic-health, precision nutrition.

TARGETS: Function · Levels · Oura · Whoop · Zoe

Grand View Research, wearables subset

One IP asset generates value across all three segments, without competing with any incumbent.

How $3/unit becomes a $1B company.

The OEM per-unit rate looks small. The math is not.

$3/unit x 50M appliances/yr = $150M ARR from a single OEM partner at scale

Samsung ships 60M+ appliances/yr, LG 50M+, Whirlpool 20M+. One design-in = platform-wide recurring revenue.

60-75%

OF REVENUE

PRIMARY

OEM Appliance Licensing

WEDGE: Countertop NutriPad first; OEM integrations (e.g. microwave) follow. Shortest path to a first OEM term sheet.

Licensed SDK + pre-trained model library under multi-year design-in contracts.

TARGET PARTNERS

Samsung · LG Electronics · Whirlpool

Haier (GE Appliances) · Bosch-Siemens

$0.50-$3 per unit at appliance-scale volumes

25-40%

OF REVENUE

SECONDARY

Health Platform Royalty

Co-branded NutriPad reference product bundled with health platform subscriptions.

TARGET PARTNERS

Function Health · Levels Health

Oura · Whoop · Zoe

$3-8 PMPM

What is already in place: the proof points.

Kalorie was incorporated in April 2026. Across roughly six weeks from late March, the following milestones were signed, filed, and submitted.

Mar 25, 2026	**Mérieux NutriSciences: Letter of Support signed** Carmen Alvarez, Dir. Business Development. ISO/IEC 17025 analysis on 1,130 samples committed.	SIGNED
Mar 26, 2026	**USDA AFRI grant application submitted** University of Arkansas lead. Up to $10M non-dilutive capital.	SUBMITTED
Apr 10, 2026	**Provisional patent filed: US Application 64/035,197** Assignment recorded at USPTO (Reel 74337/0610). Clean chain of title. Mertzlufft Law PLLC.	FILED
Apr 2026	**Softeq Development Corporation: Master Services Agreement signed** Phase 1 engineering partner. 25+ yrs IoT and embedded systems. Houston-based.	SIGNED
Q1 2026	**Tier 1 OEM targets identified** Samsung, LG, Whirlpool, Haier, Bosch-Siemens. Outreach-only, gated on validation.	TARGET
May 2026	**Capital Factory: All Access application, in review** Application to the Capital Factory All Access program, under review.	IN REVIEW

What is already in place.

MERIEUX

ISO/IEC 17025 calibration laboratory selected

Mérieux NutriSciences calibration lab. 1,130 samples across five complexity blocks; generation begins on close.

SOFTEQ

Master Services Agreement signed; SOW executes on funding close

Softeq (Houston; 25+ yrs IoT and embedded) engaged as Phase 1 prototype build partner.

GRANT

USDA AFRI + University of Arkansas collaboration

Up to $10M non-dilutive pending. Kalorie is the measurement-tech contributor in an academic consortium.

PATENT

Provisional patent filed, assigned to company

US App 64/035,197, filed April 10, 2026. Assignment recorded at USPTO (Reel 74337/0610); clean chain of title.

CONSUMER

92% purchase intent in consumer survey

92% of 1,000 surveyed would buy a device offering real-time nutrition and safety insights. Targets: Samsung, LG, Whirlpool, Haier, Bosch-Siemens.

FOUNDER

Founder-inventor with prior exit

Bala C. Swamy: 25+ yrs deep-tech (Delphi/GM, Harley-Davidson, Chevron). Moonjee: 1M+ users, founder-led exit.

Founder-Inventor. Proven Technology Commercialization.

Bala C. Swamy

FOUNDER & CEO

Founder-inventor · prior exit

25+ YEARS · DEEP-TECH · OEM COMMERCIALIZATION

SELECTED COMMERCIALIZATION EXPERIENCE

Delphi / General Motors	Power sliding door & liftgate. 1994-2003.
Harley-Davidson	Consumer product innovation. 2003-2005.
Chevron Corporation	Global analytics & insights. 2005-2019.
Moonjee Corporation	Founder/CEO. Consumer AI, 1M+ users; exit.
Kalorie Corporation	Founder/CEO. Inventor of the platform.

EDUCATION

B.E. Mech Eng, U. Madras · M.S. Human Factors, LSU · MBA Core, Michigan Ross

KEY HIRES · FUNDED BY SERIES A

VP / Head of Machine Learning

Physics-informed AI, sensor fusion, foundation models.

Principal Sensor Engineer

NIR · Raman · HSI · RF · embedded sensing.

VP / Head of Business Development

OEM licensing & digital-health partnerships.

WHY THIS FOUNDER CAN BUILD KALORIE

- Commercialized complex tech for 25+ years
- Works with global OEMs and Fortune 500s
- Spans hardware, software, AI, sensing, UX
- Understands invention and commercialization
- Building a licensing platform, not hardware

Composition first. Contaminants next.

Food composition measurement is the defensible anchor. Contaminant detection rides the same sensor stack and model library, added after core composition models are validated.

PHASE 1 · NOW: Food composition measurement

Months 0-18

Workstream 1 sensor bench build, up to 13 modalities, XRF deferred · Non-provisional patent conversion.

Months 17-23

KFID calibration at Mérieux (1,130 samples) · KML training and validation against ISO/IEC 17025 ground truth.

Months 23-24

Accuracy gate · published validation report · NutriPad EVT prototype (Softeq, pre-seed) · first OEM term-sheet conversations.

Month 24+

Series A ($14M) closes · NutriPad build to manufacture-ready begins · contaminant layer development begins.

PHASE 2 · NEXT: Contaminant screening layer

Heavy metals

XRF-based detection of Pb, Cd, As, Hg at FDA-threshold levels.

Mycotoxins

Fluorescence EEM detection in grains, nuts, spices.

Microplastics

Raman + FTIR + HSI fusion; screening indicator level.

Allergens

Macro-level detection for peanut, tree-nut, soy, dairy, wheat-gluten.

Raising $4.2M.

To validate the composition model against ISO/IEC 17025 ground truth, the milestone that unlocks OEM licensing conversations and supports up to $10M non-dilutive grant capital.

INSTRUMENT	VALUATION CAP	DISCOUNT	INTEREST
Post-money SAFE	$21M	20%	0%

Round in progress · Active investor conversations underway · Target close: Q3 2026

WHAT $4.2M DE-RISKS

1 IP risk eliminated

Provisional converts to full utility patent. 16,383 model subsets fully protected across all sensor combinations. Defensibility established.

TRIGGER: by April 2027

2 Validation risk eliminated

ISO/IEC 17025 ground truth dataset generated at Mérieux. Model performance confirmed against a lab-grade standard, plus a working NutriPad EVT prototype. OEM conversations can begin.

TRIGGER: Month 24

3 Non-dilutive capital unlocked

USDA AFRI grant activates on validation milestone. Up to $10M non-dilutive funds the next phase alongside equity. Series A trigger set.

TRIGGER: Month 24+

Every meal. Every home. Every health journey.

Let's talk.

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