PLUG AND PLAY

NOVEMBER 19-21 2024

SILICON VALLEY SUMMIT

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ANIMAL HEALTH EXPO

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Lindsay Lebahn

Director
Plug and Play Tech Center



Mark McAllister

Ventures Associate
Plug and Play Tech Center



Stefano Olcese

Ventures Analyst
Plug and Play Tech Center



Anne Gunden

Program Manager
Plug and Play Tech Center

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THANK YOU TO OUR PARTNERS!

Hill's®

go topeka

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NEW NINE-MONTH PROGRAM

SV SUMMIT

Tech Explorations

Informational event led by subject-matter experts geared to drill down into a specific topic area defined by the **partners**' given interests. **Startups** may be invited to pitch.

- 1-2 hours
- Anywhere
- Virtual

Startup Programming

Informative content **for batch startups**. Corporate partners, investors and mentors are also invited to participate.

- 8 months
- Anywhere
- Virtual

Workshops

Content experts will lead business development educational sessions for batch **startups**, who will have the opportunity to interact with and ask questions of the presenter.

Mentor Sessions

Industry Experts & Corporate Advisors will be matched with **batch startups** based on startups' needs and pain points.

Pod Power Hours

Program alumni will share their founders' story and experience centered around a specific topic, after which **startups** will have the chance to discuss in whole and small group settings.

SEPTEMBER · OCTOBER · NOVEMBER · DECEMBER · JANUARY · FEBRUARY · MARCH · APRIL · MAY · JUNE

Batch Kickoff

Kickoff event focused on **corporate** <> **batch startup** networking and an introduction to the verticals' tech focus areas.

- 1 day
- Chicago (TBD)

Startup Orientation

Orientation for batch **startups:** meet the Plug and Play,; become familiar with available resources, program cadence, etc.

- 2 weeks, 4-6 hrs
- Anywhere
- Virtual

Corporate Focus Weeks

Partners will pitch to **startups** about collaboration opportunities. **Partners** will then begin meeting with their priority **startups**.

- 1 day, 2-3 hrs
- Anywhere
- Virtual

Topeka Innovation Week

Multi-day event featuring pitch sessions, meetings with regional resources, and a golf tournament! Other alumni and regional startups are also invited to attend.

- 3 days
- Topeka, KS

November Summit

Content event for **partners**: breakout sessions, meetings, and pitches from portfolio and alumni startups. **Batch startups** are welcome to attend but will not pitch.

- 3 days
- Sunnyvale, CA

Topeka Expo

Official graduation event hosted in Topeka: industry content, pitches and demos from **batch startups**, and networking. Additional content for startups will be offered.

- 3 days
- Topeka, KS

Sunnyvale Summit

Bonus pitch and demo opportunity for **batch startups**. Event also provides ample opportunity to network.

- 3 days
- Sunnyvale, CA

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NEW PROGRAM HIGHLIGHTS

Batch Kickoff Event





Partners and batch startups gathered in Chicago to kickoff the new program and kickstart their relationships.

Topeka Innovation Week





Batch and other area startups toured the innovation facilities of local universities and learned more about the resources the Midwest has to offer.

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BATCH 8



ControlPoint™ DIAGNOSTICS

Earthodic™

Hinalea™

HTVET

MEDIPUPS®

MICRO HARVEST

natáur

ProPet™ DX

Queva™

SNAPDNA™

PLUG AND PLAY

ANIMAL HEALTH

NEW PARTNER

go topeka



*The Go Topeka / Kansas State University partnership has resulted in **NINE** tech validation or research & development projects so far!*

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AWARD



Washburn University Pitch Competition

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KEYNOTE SPEAKER

Candise Goodwin

Principal
Outlier Advisors

#PNPTCSiliconValley

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CONSUMERS ARE DRIVING CHANGE
Let's Explore what's New
Candise Goodwin, Founder
Outlier Advisors
November 21st, 2024
Outlier Advisors

Key Themes

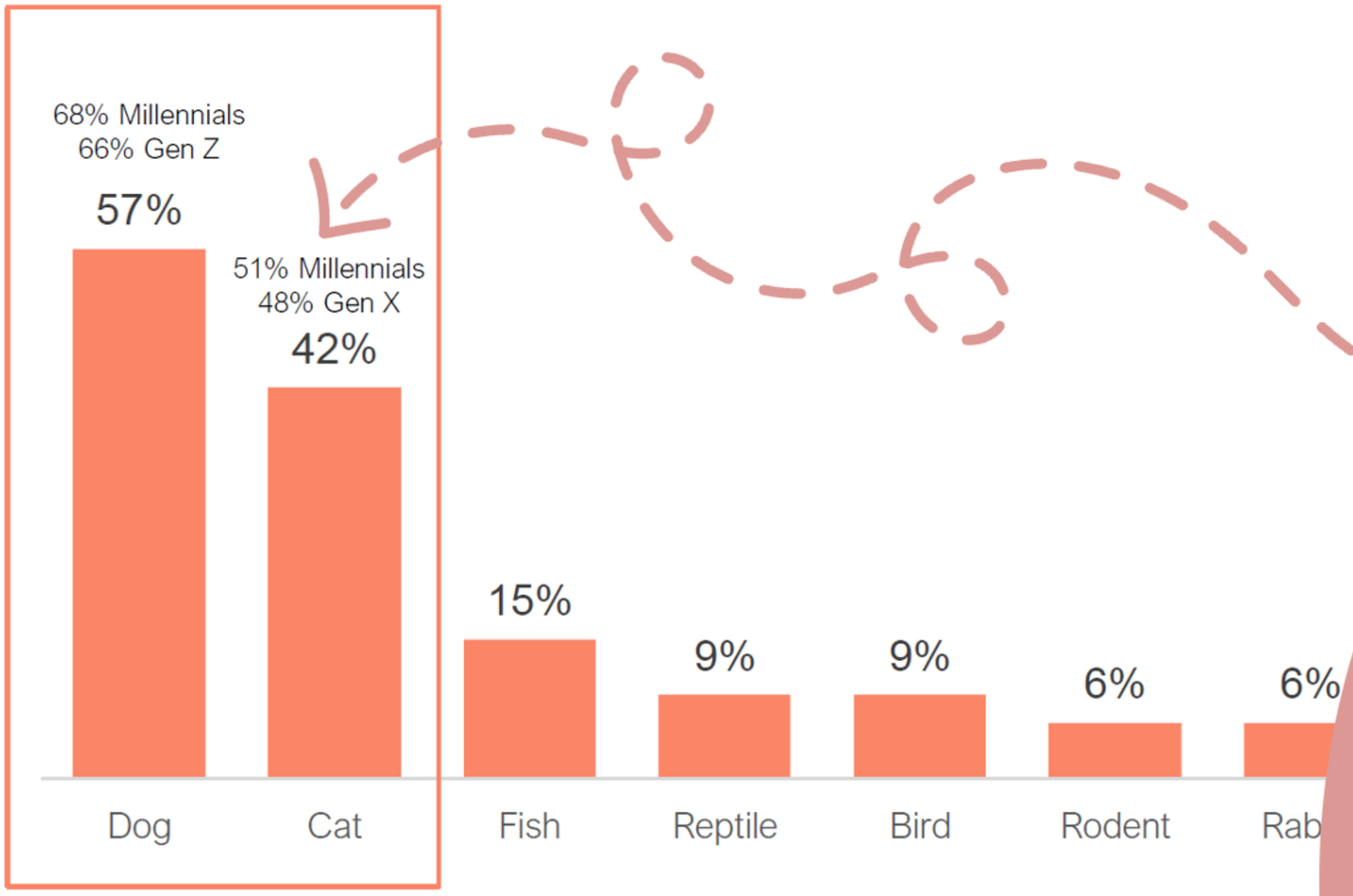
1. Pets as Family
2. Lifestyle Changes
3. What Pawrents want
4. Where they spend $$
5. What's the opportunity?



Let's Dig in

Outlier Advisors

Millennials & Gen Z represent 48% of Pet Parents and are transforming Pet Pawrenthood

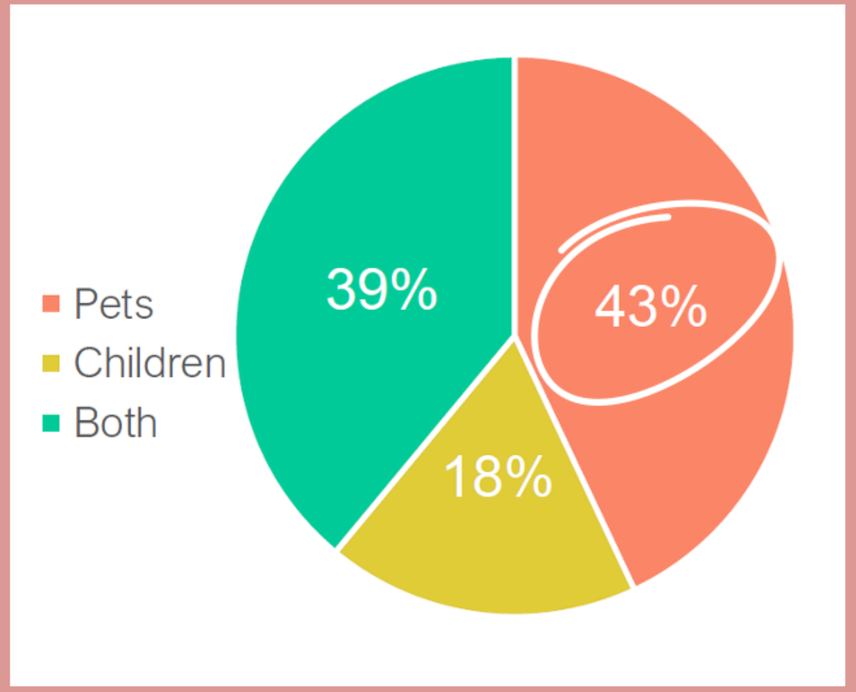




PET1 Please indicate how many of the following types of pets you own. (Total n=2,125)

"Fur Families" are becoming the preferred lifestyle choice over having children in 2024

If you had to choose, which would you prefer in the future?



Why would you prefer having pets over children?

Gen Z & Millennials

1.	Pets are easier to take care of than children	43%
2.	Pets are less of a financial strain than children	42%
3.	Pets are less of a responsibility than children	39%
4.	I am not in the right part of my life to take care of a child	35%
5.	I prefer to choose to be child-free	32%
6.	Raising a pet gives me more fulfillment than raising a child	22%
7.	Pets are not a lifelong commitment	13%
8.	Other reason	7%

PET3 If you had to choose, which would you prefer to have in the future? If you already have a child, a pet, or both, please answer based on what you would prefer to have another of. (Total n=2,125)
PET4 Why would you prefer having pets over children? Please select all that apply. (Those who would prefer pets over children n=895)

Fur Babies are Family

"These pet parents are rewriting the rules, prioritizing their pets in ways that demand societal adaptation and respect. From pet-specific insurance to 'pawternity leave,' it's clear that our love for our pets is shaping the future."

LIBBY RODNEY, CSO AND FUTURIS AT THE HARRIS POLL

AAHA

NEWStat®

A new way to pay for veterinary visits? This federal bill could give pet owners more ways to pay for care

The People and Animals Well-being (PAW) Act introduced earlier this month could change how pet owners pay for care, specifically by expanding the ways they can use their Health Savings Account (HSA) or Flexible Spending Account (FSA).

Published Sep 23, 2024 By Connor Dunwoodie

82%

Pet Owners

"My pet is like **my own child**"



72%

Pet Owners

"I talk to other people about my pets **as if it were my own child**"

80% Millennials
78% Urban

55%

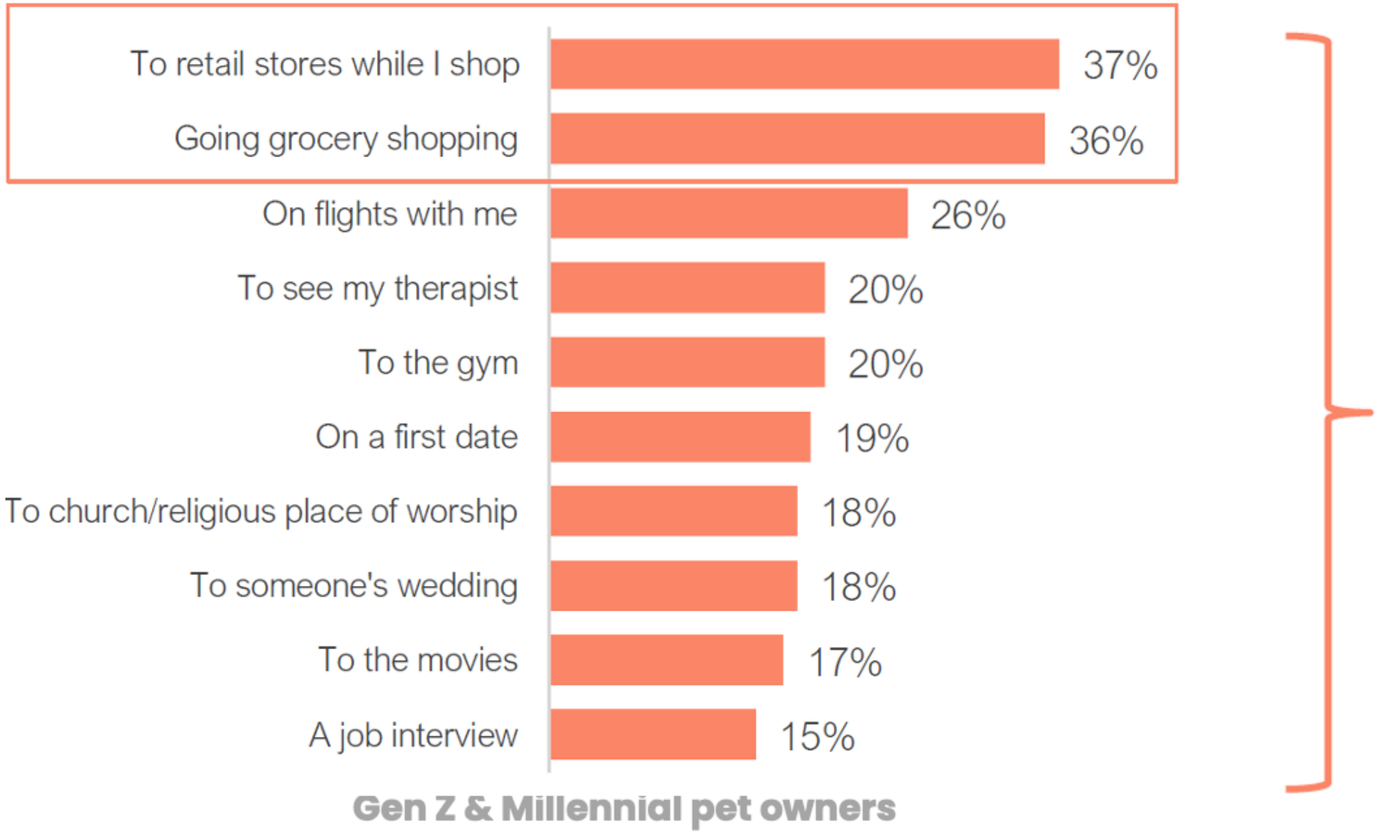
Pet Owners

"Pet owners should get as much **recognition** as parents of children, foster parents etc"

62% Millennials
57% Gen X

Pet Owners are building their lifestyles around their Fur Babies!

Which of the following places have you taken your pet(s) if you were allowed?



Gen Z & Millennial pet owners



26% Flights

PET3 If you had to choose, which would you prefer to have in the future? If you already have a child, a pet, or both, please answer based on what you would prefer to have another of. (Total n=2,125)
PET4 Why would you prefer having pets over children? Please select all that apply. (Those who would prefer pets over children n=895)

Pawrents seek community & understanding in each other

Opportunities to develop online and in person communities



69%

Pet Owners

"I seek out others **who view their pet(s) the same way that I do.**"

82% All-in Pawrents
79% Millennials
77% Urban
76% Hispanic

61%

Pet Owners

"I don't have time for people **who don't understand my love for my pet(s).**"

77% All-in Pawrents
67% Millennials
66% Hispanic
66% LGBTQIA+

PET7 How much do you agree or disagree with the following statements? (Pet owner n=1,594)

Pawrents want more Pet Friendly Spaces

Opportunity for experiential shopping, dining & pet services



80%

Pet Owners

"Pets should have access to **pet-friendly shops and establishments.**"

90% All-in Pawrents

75%

Pet Owners

"I wish there were **more pet-friendly places** to take my pet with me."

85% Millennials
82% Urban
80% Dog owners

Pawrents want more Dedicated Outdoor Spaces

Opportunity for outdoor safety equipment & preventative products



79%

Pet Owners

"Pets should be **allowed** in more public parks and green spaces."

90% All-in Pawrents

76%

Pet Owners

"I would take my pet **outside** with me more often if I could."

89% All-in Pawrents
82% Millennials
81% Dog owner

Pawrents don't want to leave their pet "out"

Opportunity for retail and pet services to create meaningful places



72%

Pet Owners

"I want **more pet-first spaces** to exist in my community."

79% Millennials
77% Dog owners
73% Cat owners
69% Gen Z, Gen X

69%

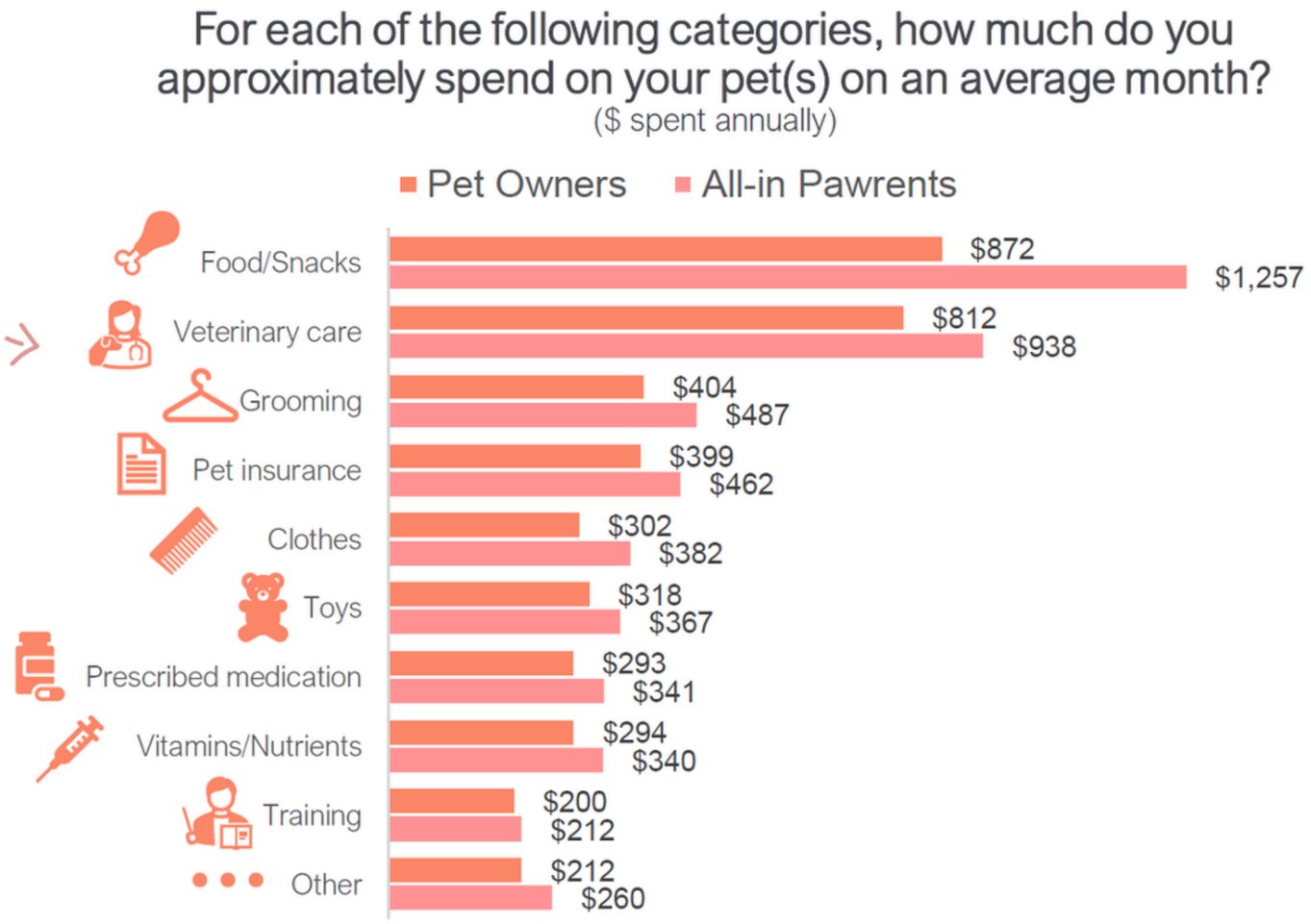
Pet Owners

"There should be **more events** in my area that are **centered around pets**."

76% Millennials
72% LGBTQIA+
69% Urban

Pawrents spend a lot on things that matter to them

Opportunity for retail and pet services to create attractive offerings



$5,046
All-in Pawrents
(avg. annual spend)

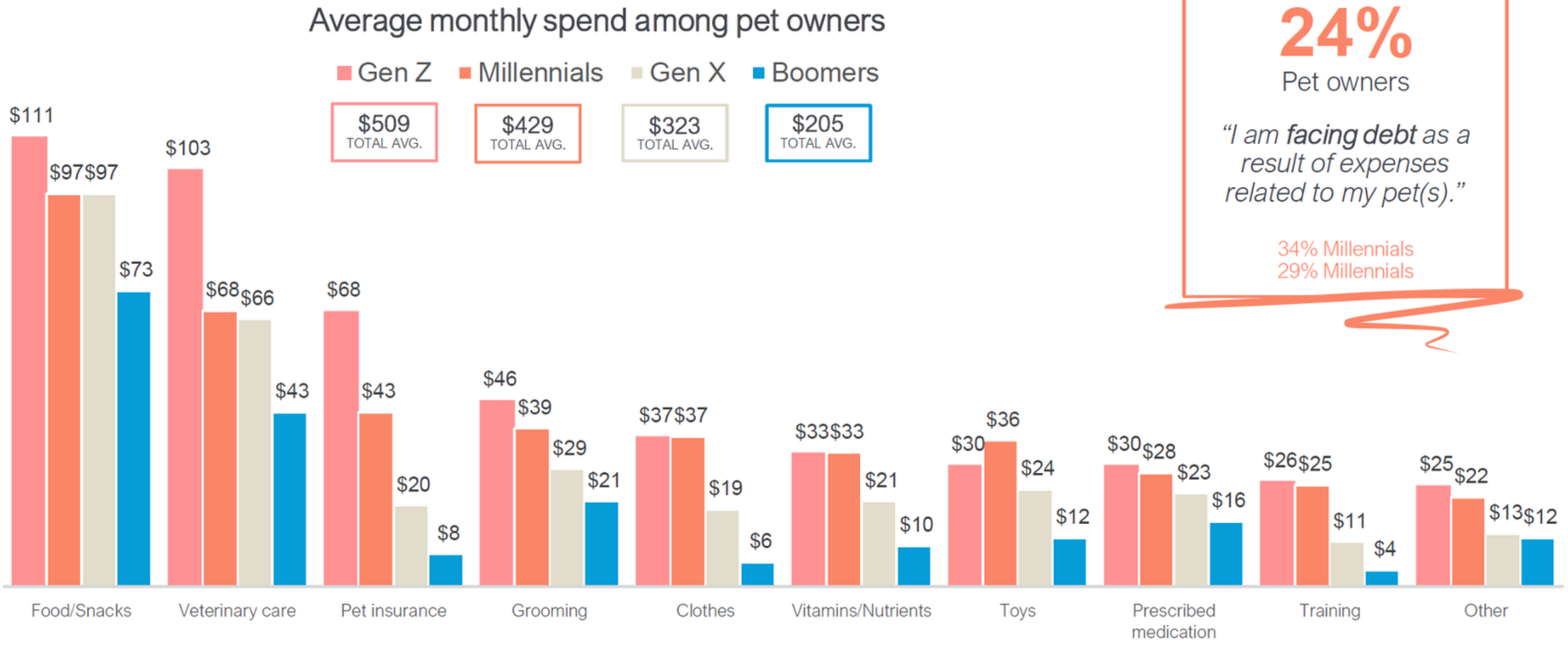
vs.

$4,366
Pet Owners
(avg. annual spend)

PET5 For each of the following categories, how much do you approximately spend on your pet(s) on an average month? (Pet owner n=1,594) | To ensure accuracy and better reflect typical spending patterns, only values between $0 and $1,000 per spend item were included in the calculation.

The younger the Pawrents the more they spend

Opportunity for retail and services to create personalized solutions



24%

Pet owners

*"I am **facing debt** as a result of expenses related to my pet(s)."*

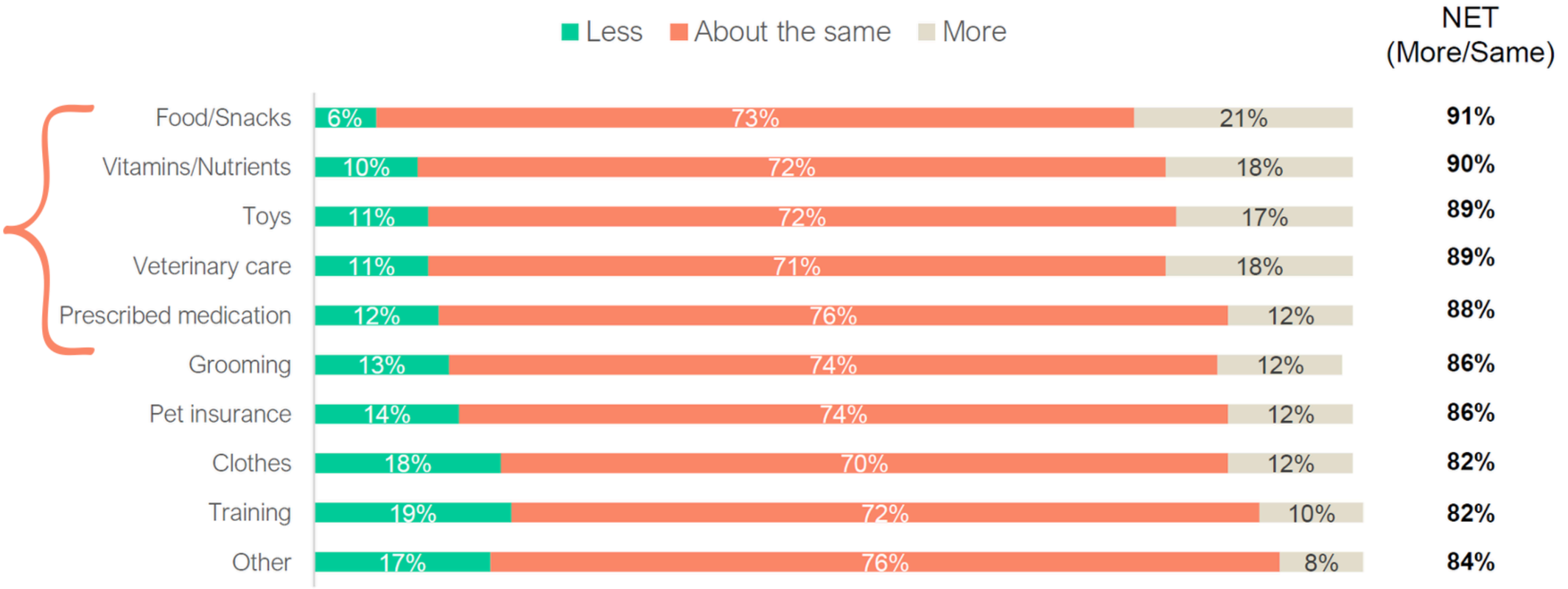
34% Millennials
29% Millennials

PET5 For each of the following categories, how much do you approximately spend on your pet(s) on an average month? (Pet owner n=1,594) | To ensure accuracy and better reflect typical spending patterns, only values between $0 and $1,000 per spend item were included in the calculation.

Pawrents are planning to spend more on Health

Health is both "physical and mental" for Pawrents

Are you planning to spend more, less, or about the same on __ for your pet(s) over the next 12 months?



Are you planning to spend more, less, or about the same on __ for your pet(s) over the next 12 months? (Pet owner n=1,594)

Pawrents are splurging on feel good items

These items meet the Pawrents needs for safety and fun

Which of the following things have you spent or considered spending on your pet(s)?

(Summary of Have done + Have not done, but would be open to)

67% Purchased a pet tracker or GPS collar for safety

63% Designed a specific part of my home for my pet(s)

59% Subscribed to a monthly pet subscription box for toys and treats

55% Bought a specialized pet camera or monitoring system

55% Gone to a bar or café specifically catered to pets

54% Organized a birthday party/celebration for my pet(s)

53% Commissioned a custom portrait or artwork of my pet

52% Moved to a more expensive place that allowed pets

51% Purchased a pet stroller or carrier for transportation

49% Booked my pet(s) into a pet hotel

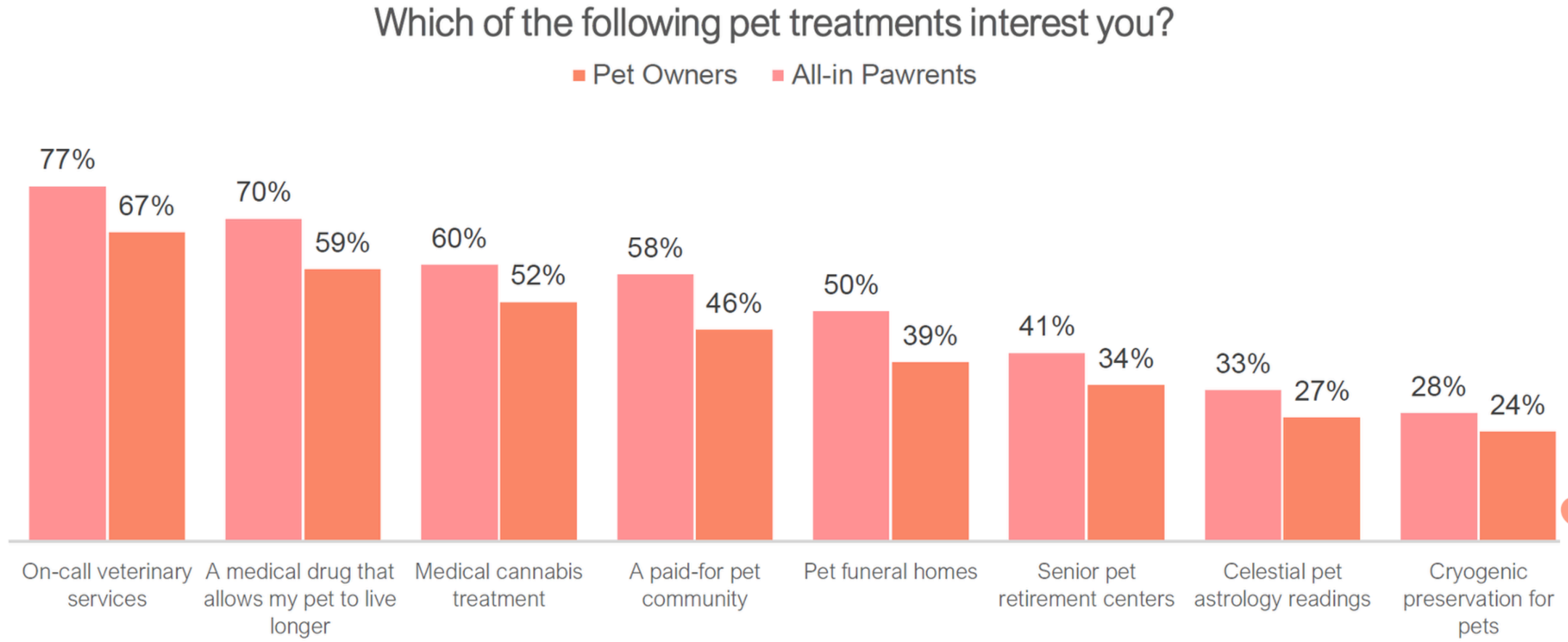
48% Enrolled my pet(s) in activities

42% Dressed my pet(s) in designer clothing

PET8 Which of the following things have you spent or considered spending on your pet(s)? (Pet owner n=1,594)

Pawrents are looking for new solutions

These items meet the Pawrents needs for convenience, health and fun



PET9 Which of the following pet treatments interest you? (Pet owner n=1,594)
PET9 Which of the following pet treatments interest you? (All-in Pawrent n=738)

Pawrents are choosing Fur Families as their preferred lifestyle choice, and they want solutions that are:



- **Functional**
- **Experiential**
- **Community**
- **Personalized**

What this all means



- The emergence of this new consumer powerhouse is not merely a trend to be noted, but a hammer striking the anvil that shapes the future of the industry.
- It's a call to arms for retailers – a prompt to scrutinize their current product listings, reassess their marketing tactics, and embark on a transformative journey toward a more values-driven business approach.
- Well, it's simple. Today's Gen Z consumers are not just looking for products to buy. They're looking for beliefs to buy into. It's all about feeling connected to, and part of, something bigger. This means that products, and by extension retailers, need to offer more than just function – they need to offer a lifestyle.

https://digitalmag.petproductnews.com/petproductnews/april_2024/MobilePagedArticle.action?articleId=1970554#articleId1970554



Outlier Advisors

Thank You

CANDISE GOODWIN

https://www.outlieradvisors.com

candise@outlieradvisors.com

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STARTUP EMCEE

Stefano Olcese

Ventures Analyst

Plug and Play Tech Center

#PNPTCSiliconValley

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STARTUP PRESENTATION

faunalabs

FAUNALABS

Scalable 24/7 health monitoring. Designed for animals

#PNPTCSiliconValley

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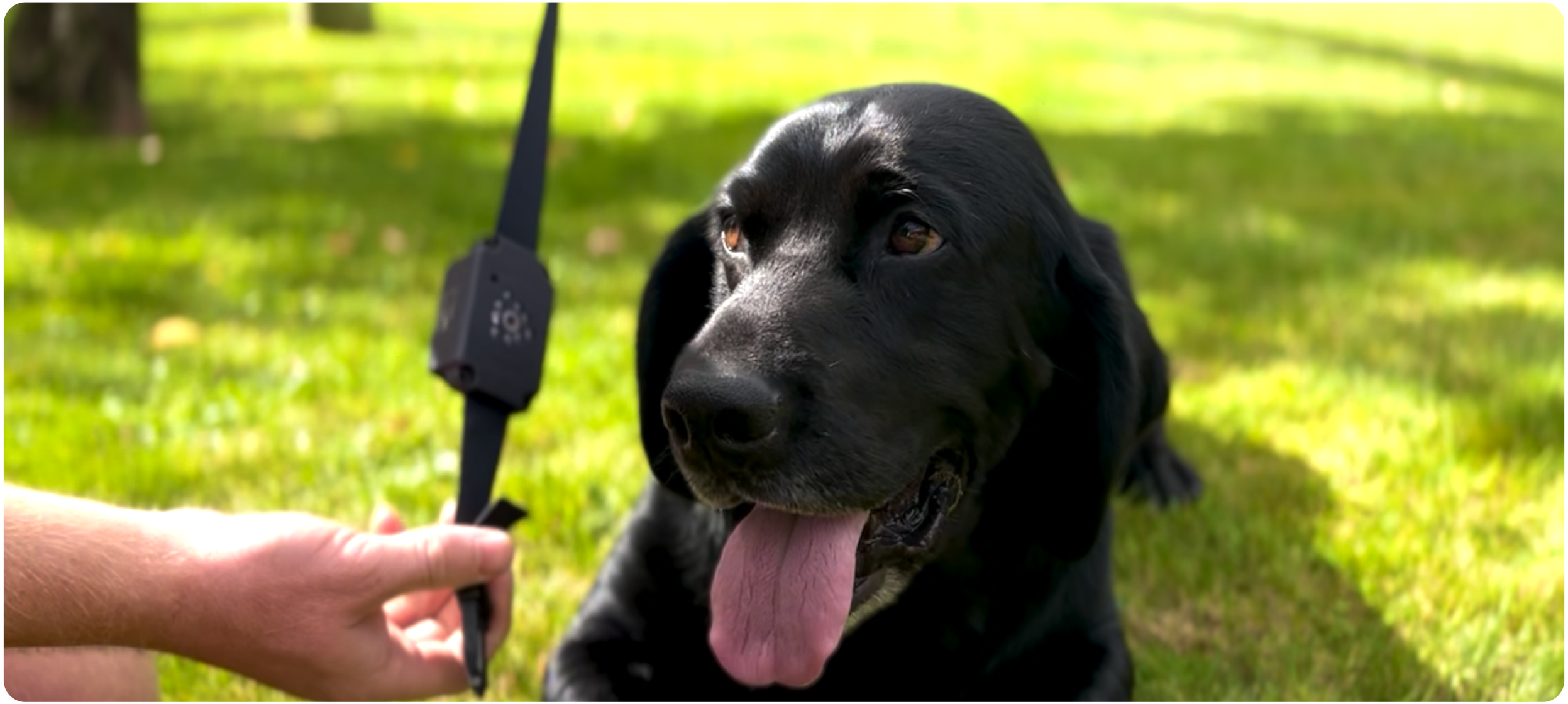


faunalabs

24/7 health monitoring
Designed for animals

the issue

subclinical animal health conditions cost billions

the 56B animal health sector can’t treat what it can’t measure

 Dairy

$310/cow -> **$105,000/farm** -> 2.9B/yr in lost production

 Performance Equine

$4700/horse -> **$95,000/stable** -> 1.4B/yr in opportunity costs + vet fees

 Pet Medicine

Potential **100MM/yr products** are not easily validated in home scenarios

the interventions exist. they are not able to be spotted

products & services are not fully utilized without effective monitoring

our solution

a wearable stack to enable effective animal health intervention

value prop

enterprise animal health monitoring

designed for animals

animals aren’t all the same. they have fur. they don’t always live near Wi-Fi. they get dirty.



value prop

enterprise animal health monitoring

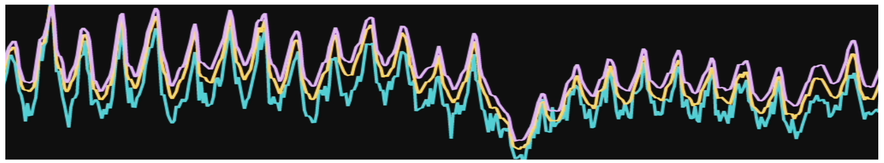
designed for animals

animals aren’t all the same. they have fur. they don’t always live near Wi-Fi. they get dirty.

designed for health

measure what a veterinarian would measure during an exam.





value prop

enterprise animal health monitoring

designed for animals

animals aren’t all the same. they have fur. they don’t always live near Wi-Fi. they get dirty.

designed for health

measure what a veterinarian would measure during an exam.

designed for deep multi-animal forecasting

human/pet wearables are optimized for the individual. predictive interventions are unlocked.



value prop

enterprise animal health monitoring

designed for animals

animals aren’t all the same. they have fur. they don’t always live near Wi-Fi. they get dirty.

designed for health

measure what a veterinarian would measure during an exam.

designed for deep multi-animal forecasting

human/pet wearables are optimized for the individual. predictive interventions are unlocked.

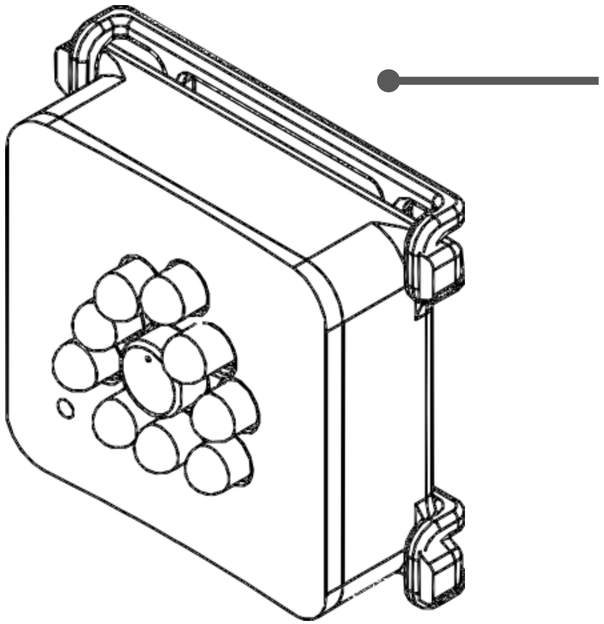
designed for enterprise

flexible enough to integrate into existing processes.



product

collection, storage, analysis, intervention



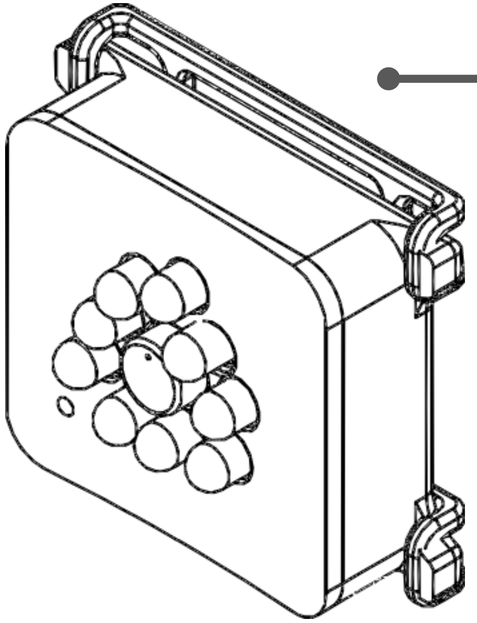
FaunaCollar

measure health through fur.
works on dogs, cows, sheep, horses, whales

white-labelled wearable or integratable OEM sensor.

product

collection, storage, analysis, intervention



FaunaCollar

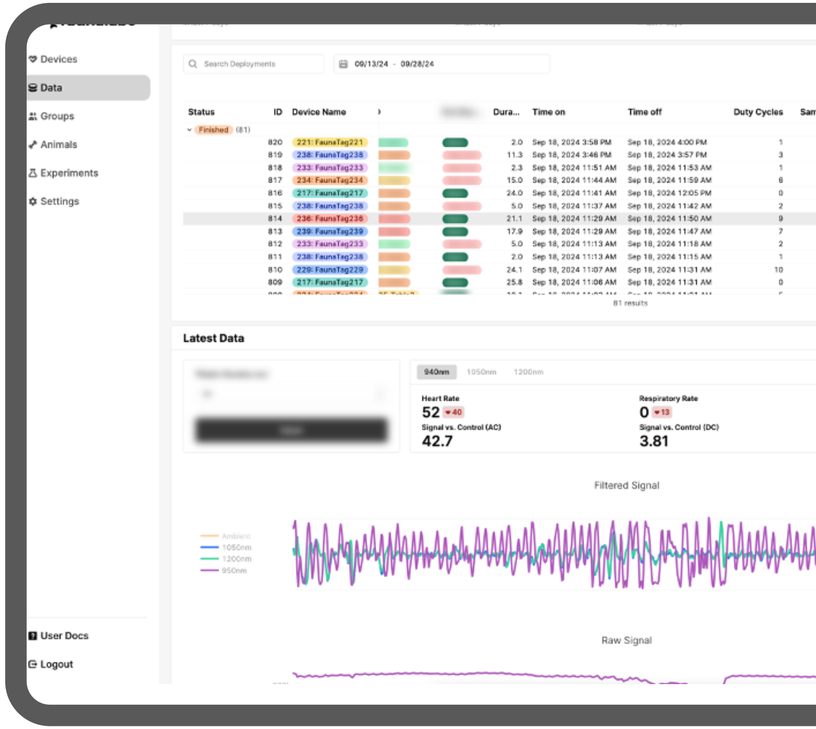
measure health through fur.
works on dogs, cows, sheep, horses, whales

white-labelled wearable or integratable OEM sensor.

HealthEngine

easy device & data management.
enables deep analysis & predictive medicine

dashboard or API



competitors

animal wearable market

	Species	Movement Health	Physiology Health	Scalable	OEM & Integratable	Pricing Model	Market
faunalabs	Dog, Horse, Cow, Sheep, Whales	✅	✅	✅	✅	Device Sale PAYG API Enterprise SaaS	
halo, FitBark, fi, Whistle	Dog	✅	❌	✅	❌	Device Sale $100-400/device Subscription $10/month	650MM global collar market with 23% growth
afimilk, VENCE, HALTER, Allflex	Cow	✅	❌	✅	❌	HaaS ~$4-10/animal/month	1.3B global dairy cow collar market with 13% growth
POLAR	Horse, Cow	❌	✅	❌	❌	Device Sale ~$200/device	Used in most academic studies but not practical for scale

business model

integrate tech deeply into existing enterprises

stage 1

research

pilots to prove effectiveness

revenue: paid pilots, hardware sales

stage 2

oem provider

integratable hardware, data, analysis

revenue: oem sales, HaaS/DaaS

stage 3

value-add services

data-driven interventions, risk analysis, product claims

revenue: enterprise contracts

team

the founders



Dr. Dave Haas (CEO)

Firmware, Science, Operations

PopCap — COO of PopCap (Plants vs. Zombies, Bejeweled) Managed global team of 300+.
$750MM exit to Electronic Arts

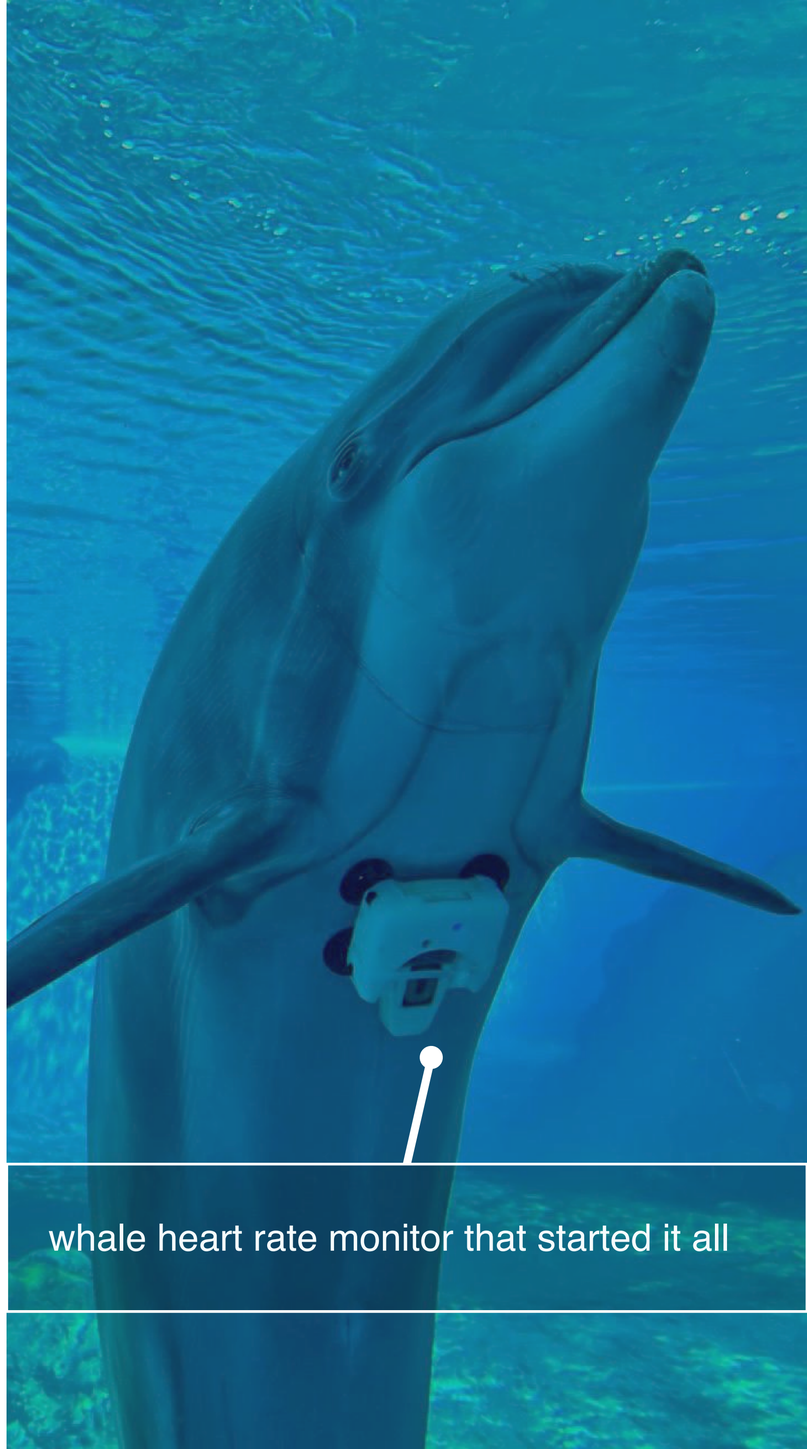
Duke University — Ph.D. developing foundational sensor and mammalian physiology



Sam Kelly (CTO)

Cloud, AI, Hardware

CONSERVATION X LABS — Lead of Sentinel, AI-camera for wildlife conservation.
2MM grants + 150K sales



whale heart rate monitor that started it all

traction

last 6 months

- completed mvp product (hardware, cloud, app)
- paid pilot with global top-3 pet food company
- >150K in sales/contracts

q2 ‘24
sam joins full time
optical device patent pending
paid pilot: clinical trial (dog)

q3 ‘24
mvp cloud platform
api, timeseries database, fleet management dashboard, automated health analysis

q4 ‘24
equine exploratory study
mvp mobile app
device sales: whale

q1 ‘25
paid pilot: home trial (dog)
dairy exploratory study
raise pre-seed

future plans

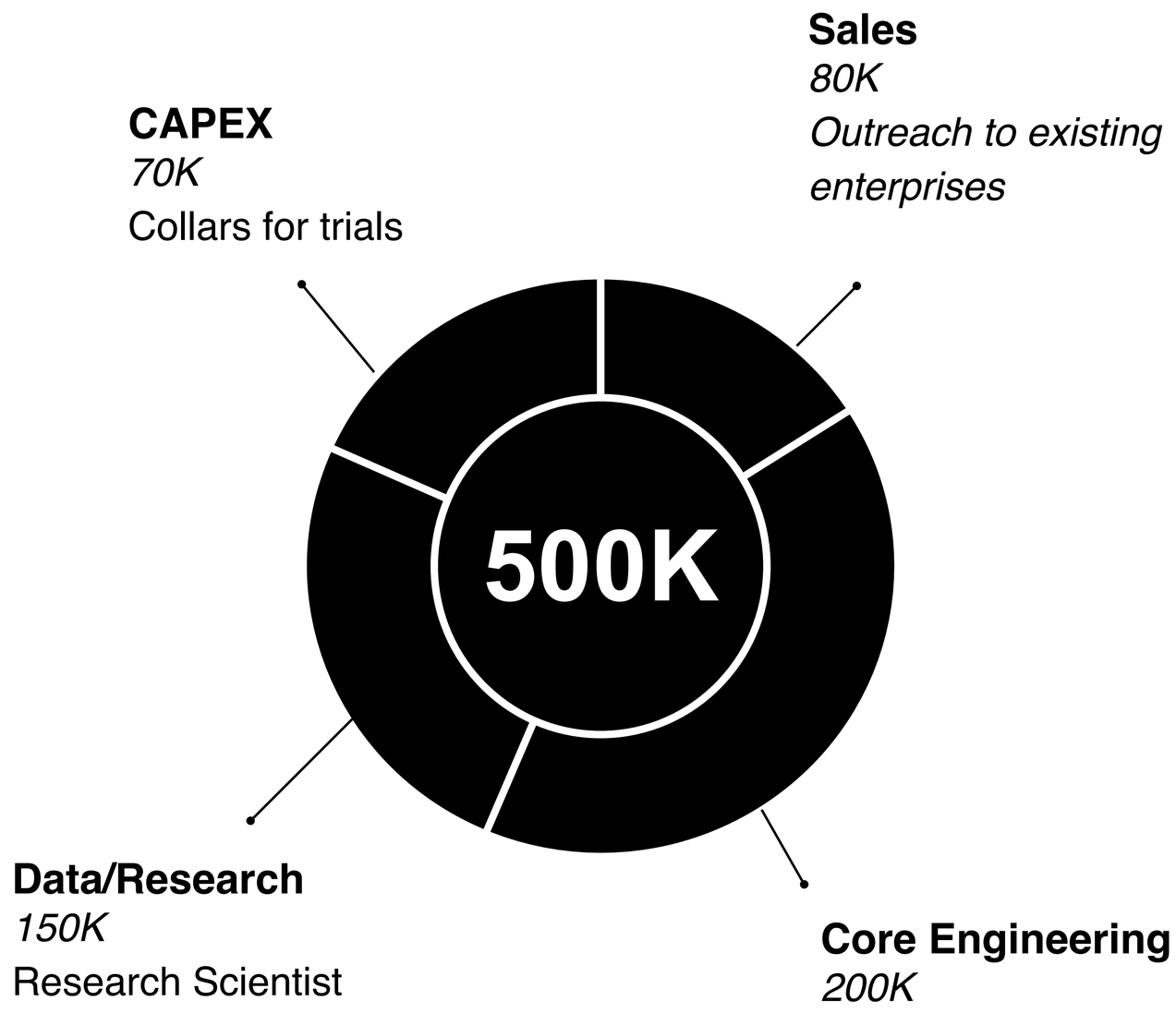
next 12 months

business

- secure 12-month runway
- finalize pet clinical validation
- secure phase II pet trial
- customers in equine and dairy

technical

- optimize firmware/hardware
- hrv condition detection
- multi-animal predictive medicine



thanks
please catch me!

Email
sam.kelly@faunalabs.com

Phone
(919) 908 3728

faunalabs



PLUG AND PLAY

STARTUP PRESENTATION

Hinalea™

HINALEA

Intelligent imaging solutions for food quality and safety challenges

#PNPTCSiliconValley

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Intelligent Imaging Solutions

Hinalea™

WWW.HINALEA.AI

The problem

The technologies deployed to prevent food safety and quality failures are insufficient



FOODBORNE ILLNESS COSTS & IMPACT

1 in 6

or approximately

48 MILLION

Americans are sickened by foodborne diseases annually

128,000

Hospitalizations Annually

3,000

Deaths annually

$6.9 BILLION

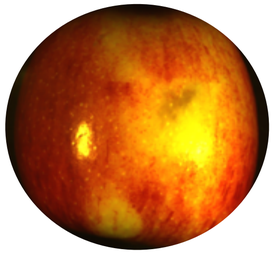
annual costs associated with the Top 5 foodborne pathogens

Intelligent Imaging Platform

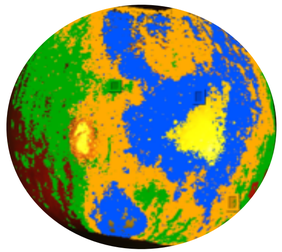
Hinalea’s mission is the rapid identification of food quality and safety failures

Hyperspectral Imaging



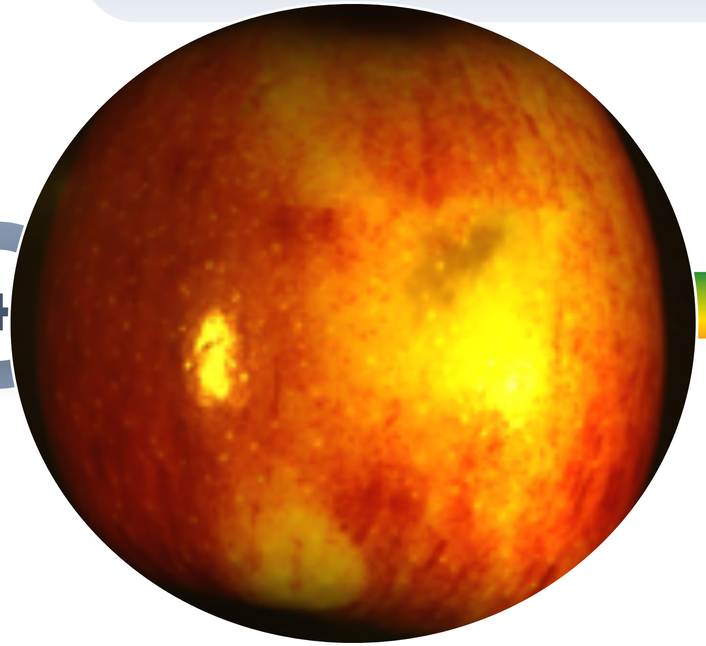


Color Image



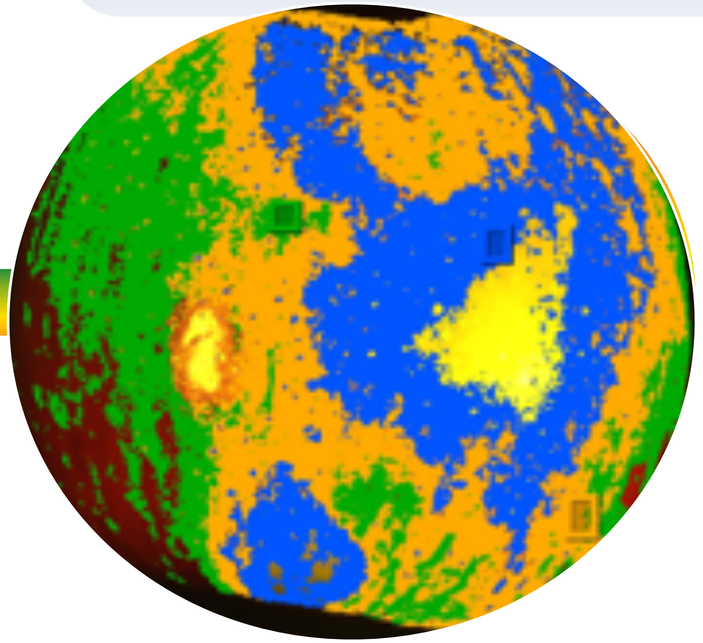
HSI Image

Machine learning



Color Image

Actionable Intelligence



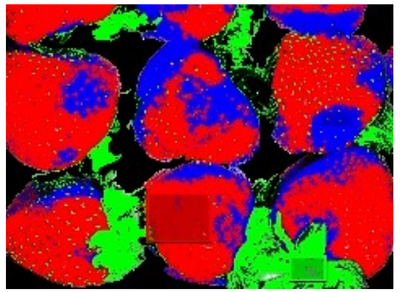
HSI Image

Hinalea™

From data to intelligence

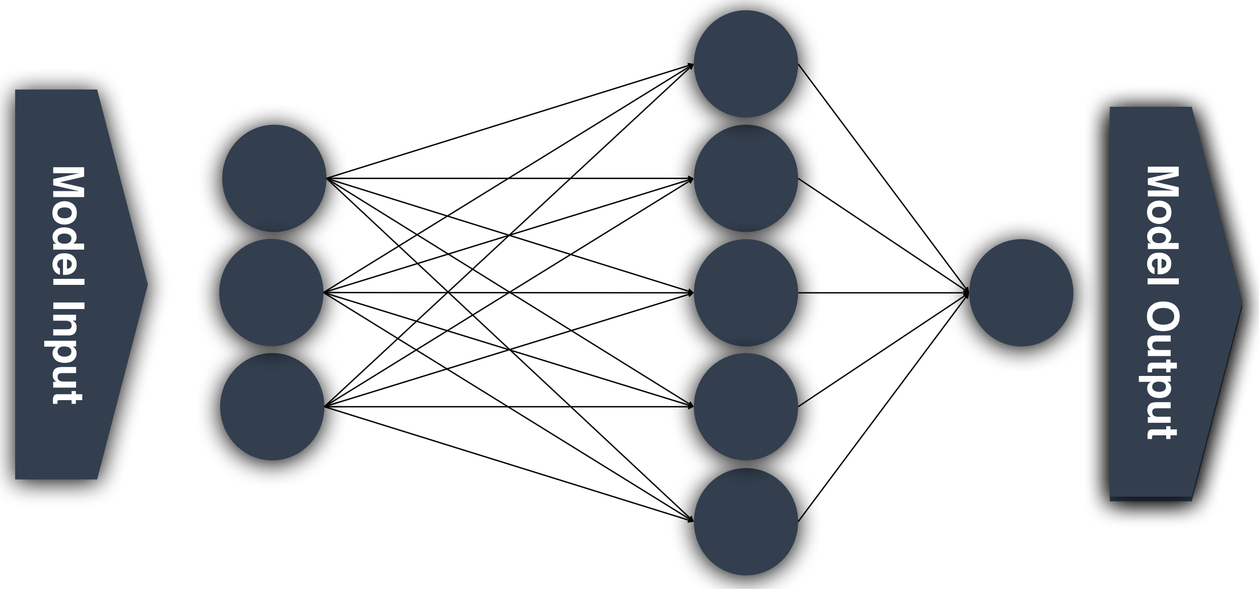
Our machine learning models form an integral component of our solution and create significant switching costs

Hyperspectral input



Ground-truthing





Output



%Brix=7.1



%Brix=10.0

* Measure of sugar content/ripeness

Hinalea™

Produce Grading

Non-destructive grading, for the $3.2bn produce grading market

Current Approach

Refractometer



SAM ($3.2bn)

Hinalea Approach

Point of detection



%Brix=7.1



%Brix=10.0

Value proposition

Improved time to answer

Increased sampling rate

Increased range of testing

Hinalea™

Aflatoxin Detection

Unprecedented time to answer with lab test accuracy, for the $1.3bn Aflatoxin testing market

Current Approach

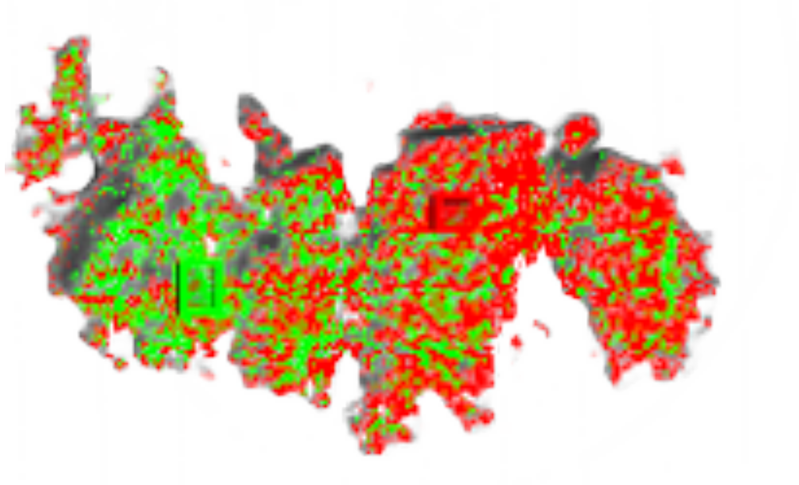
High performance liquid chromatography
Resolution: 5ppb
Time to Result: 2-4 days



SAM ($1.3bn)

Hinalea Approach

Real-time imaging in field
Resolution: 5pb-10ppb
Time to Result: 30 seconds



Value proposition

Improved time to answer

Increased sampling rate

Increased range of testing

Hinalea™

Bacterial Classification

Real-time species level identification, for the $1.4bn microbial classification market

Current Approach

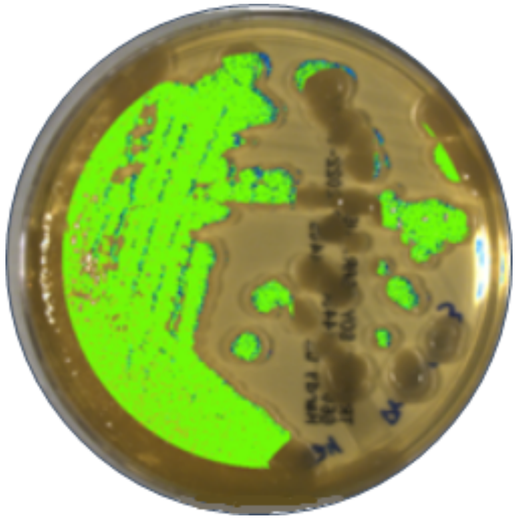
Lab-based microscopy
Resolution: Species-level
Time to Result: 48-72hrs



SAM ($1.4bn)

Hinalea Approach

Point of detection
Resolution: Species level
Time to Result: 30 seconds



Value proposition



Improved time to answer

Hinalea™

PLUG AND PLAY

STARTUP PRESENTATION



IMPRIMED

AI-driven precision medicine service for pet cancer patients

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SV SUMMIT

ANIMAL HEALTH FIRESIDE CHAT: MAKING THE MOST OF YOUR PARTNERSHIP



MODERATOR

Lindsay Lebahn

Director, Animal Health and Agtech

Plug and Play Tech Center



Jennifer Mitchell

Director, Marketing and Innovation Acceleration

Hill's Pet Nutrition



Susan Wernimont

Director of Inn. Acceleration, Research and Innovation

Hill's Pet Nutrition

PLUG AND PLAY

South Korea Immersion with Hill's Pet Nutrition

Plug and Play's global network supported Hill's Pet Nutrition in expanding into the Korean market through a tailored immersion program. By leveraging connections with local ecosystems and open innovation partners, Plug and Play accelerated growth and fostered unique collaboration that added value to Hill's Pet Nutrition, the industry, and the broader ecosystem.

Hill's®



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