



KNOW YOUR FOOD

Isabel Hoffmann
Founder and CEO, Tellspec Inc.

The Problem: What's in My Food?

2012 Food & Health Survey, IFICF
Sample Size – 1,057 U.S. Adults

52% say it's harder to figure out how to eat healthily than to do your taxes



48% count calories



76% cut back on:
solid fats, added sugars and salt



51% concerned about
chemicals in food



25% concerned about
unlabeled allergens in food

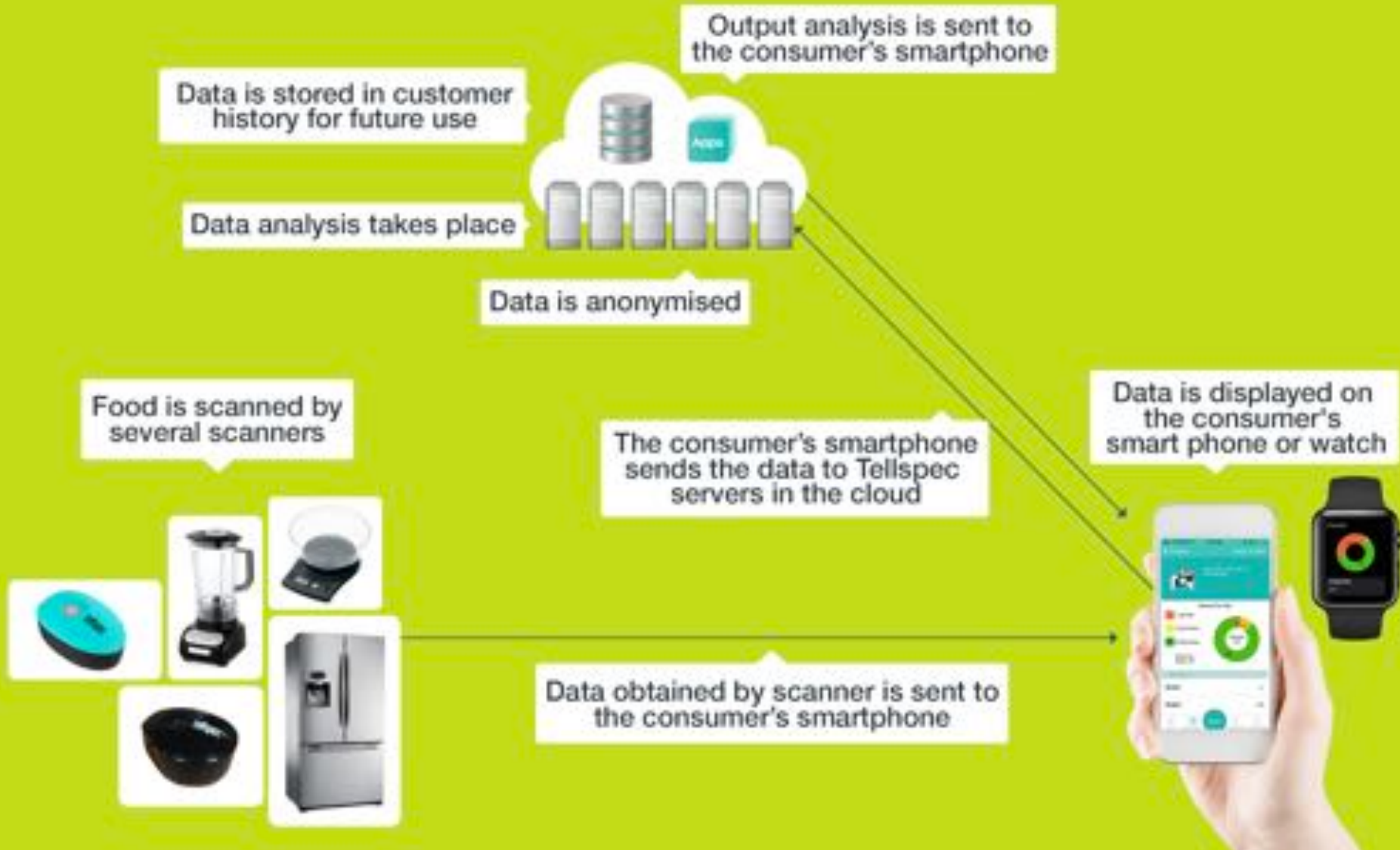


47% concerned about
pesticides in food



49% try to avoid
trans fats

The Solution: Predictive Intelligence about Food



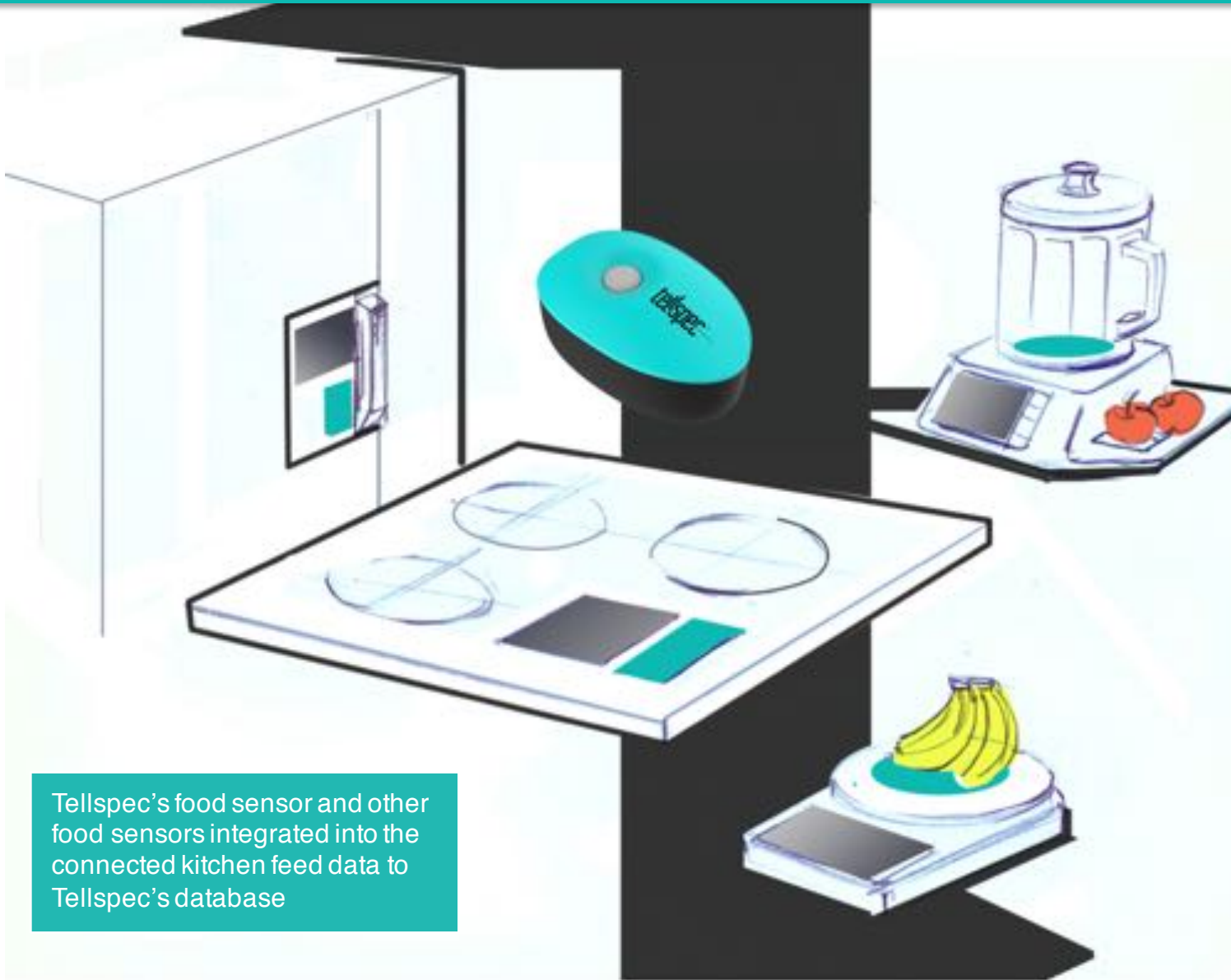
The Solution: Predictive Intelligence about Food



Tellspec Inc. is a **digital health** company that provides predictive intelligence about food, by combining NIR spectroscopy, bio-informatics techniques & deep learning algorithms in a revolutionary technology that analyzes consumer foods at the molecular level

Tellspec's **mission** is to help create a clean food revolution by providing consumers with information about what is really in their food beyond the nutrition label

The Solution: Digital Health in The Connected Kitchen



Tellspec's food sensor and other food sensors integrated into the connected kitchen feed data to Tellspec's database

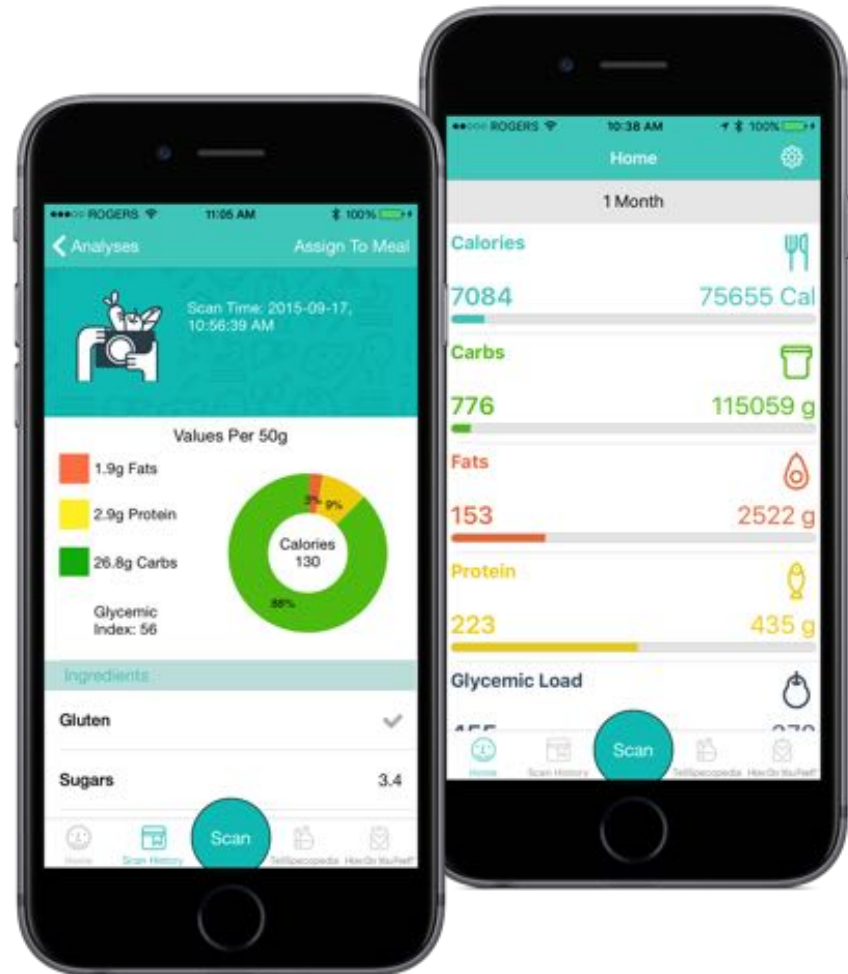
The Technology: Mobile Application

TELLSPEC'S FOOD SENSOR

enables those that who desire weight loss to automatically track their calories and **identify food sensitivities** by simply scanning their food.

TELLSPEC'S FOOD SENSOR

also helps **diabetic patients** to analyze their diet, and in particular count calories and carbohydrates, so they can adjust their insulin doses accordingly. Tellspec app also helps track the total intake of macronutrients and allergens, per day, per week, per month, as well as per quarter and year.



The Technology: Predictive Models

Tellspec Macro

Detection of:

- Carbohydrates
- Fats
- Proteins
- Calories
- Glycemic Index
- Fiber

Target Market:

- ✓ For diabetic, pre-diabetic and weight-loss consumers
- ✓ For “quantified self” consumers

Finalized

Tellspec Allergen

Presence or Absence of:

- Gluten
- Dairy
- Soya
- Peanuts
- Egg
- Seafood

Target Market:

- ✓ For consumers needing to avoid certain allergens
- ✓ For consumers with auto-immune disorders and/or with diabetes

In progress

Tellspec Food Safety

Presence or Absence of:

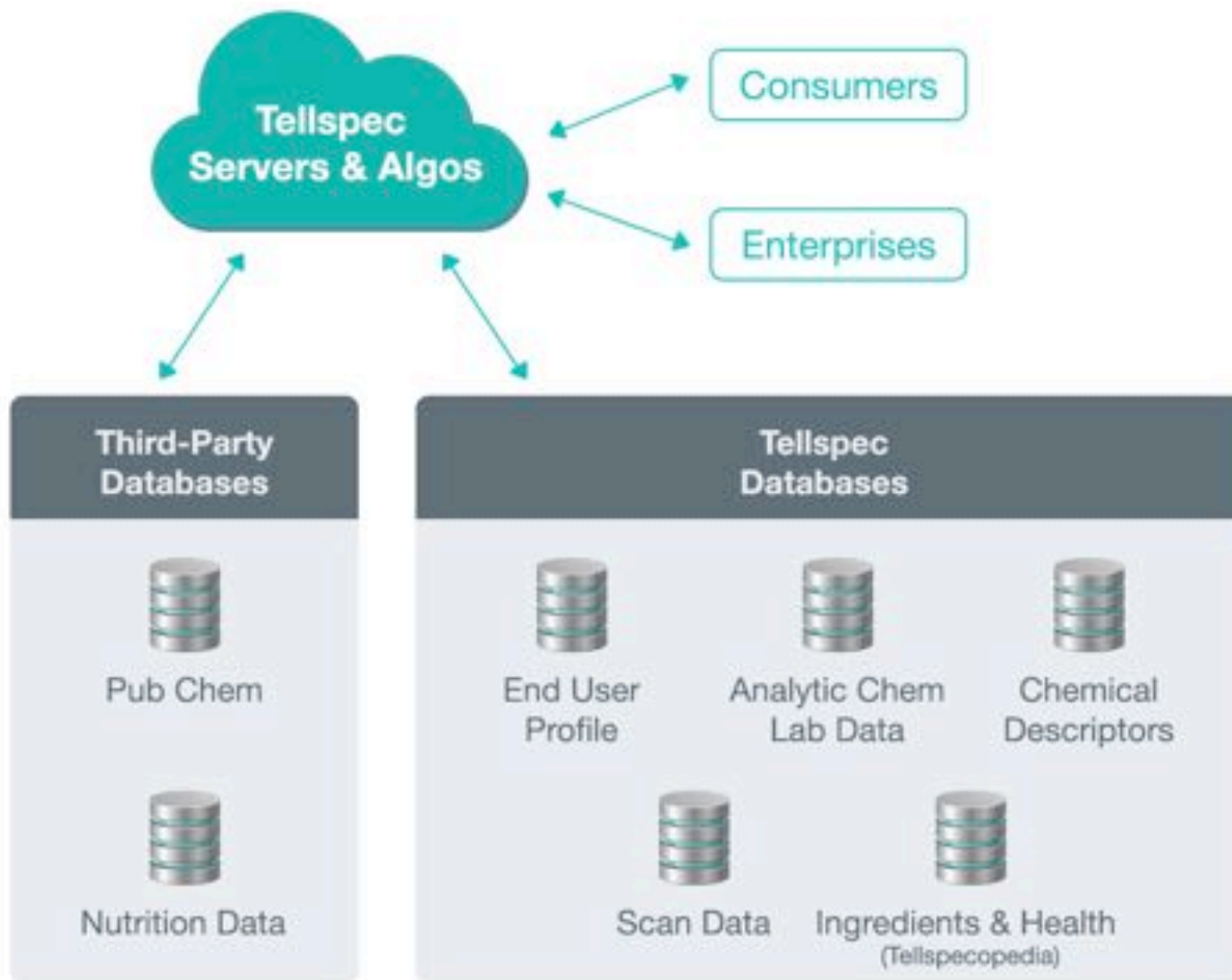
- Contaminants
- By-products
- Additives

Target Market:

- ✓ Hospitals
- ✓ Public Health Organizations
- ✓ General Consumer
- ✓ Food industry
- ✓ Researchers and Analysts

Target: 2017

Technology: Infrastructure



Technology: Algorithms are Agnostic to Hardware

Product Generations

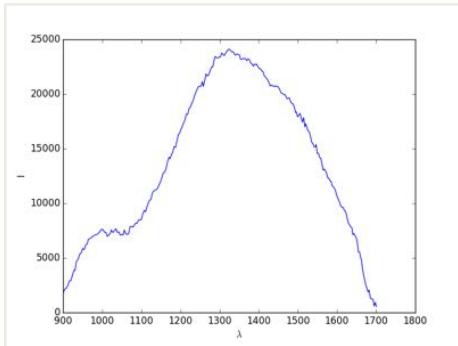
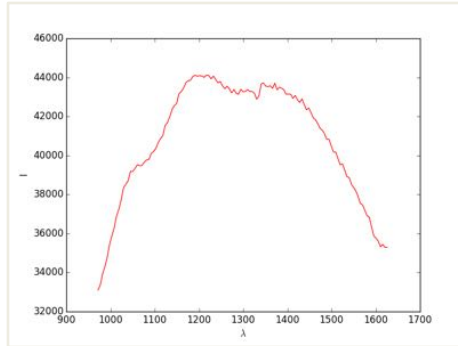
OO PDA



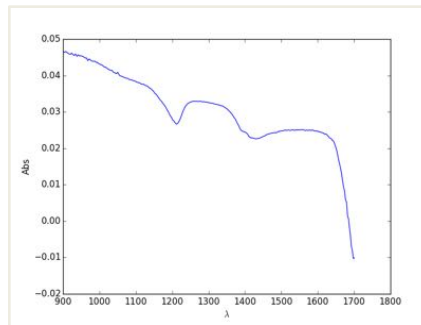
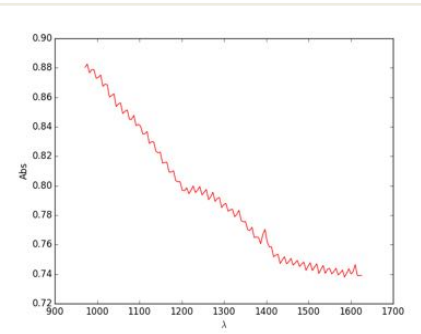
T1 DLP 0.2



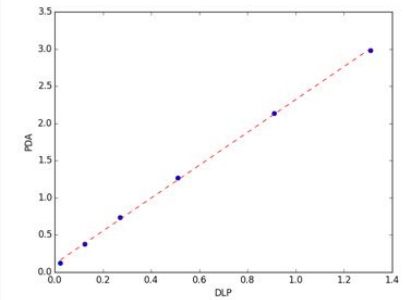
Reference Data



Collection of Standardized Reference Spectra



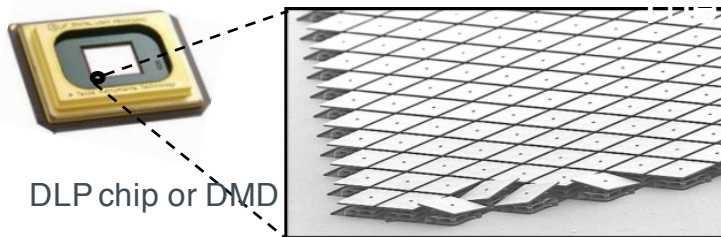
Transfer Functions



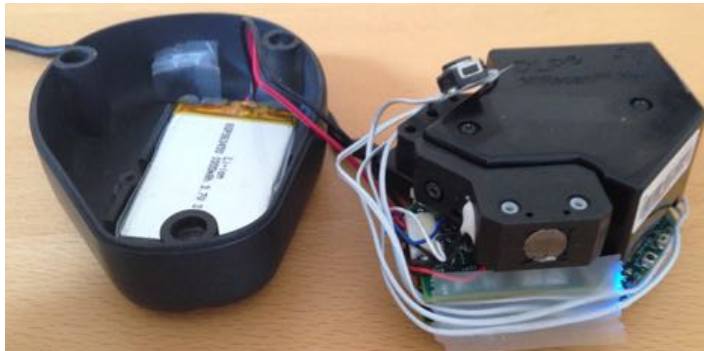
The Technology: DLP-based Spectrometer

Technical Specifications

- ◆ Digital Mirroring Device Chipset 0.2" WGA
- ◆ NIR 900nm – 1700nm
- ◆ FWHM optical resolution 8nm, InGaAs Detector
- ◆ Integrated with Bluetooth LE
- ◆ Physical Dimension: 65 x 58 x 36 mm (without battery)
- ◆ Signal-To-Noise Ratio: 2000:1 in 1 s acquisition time

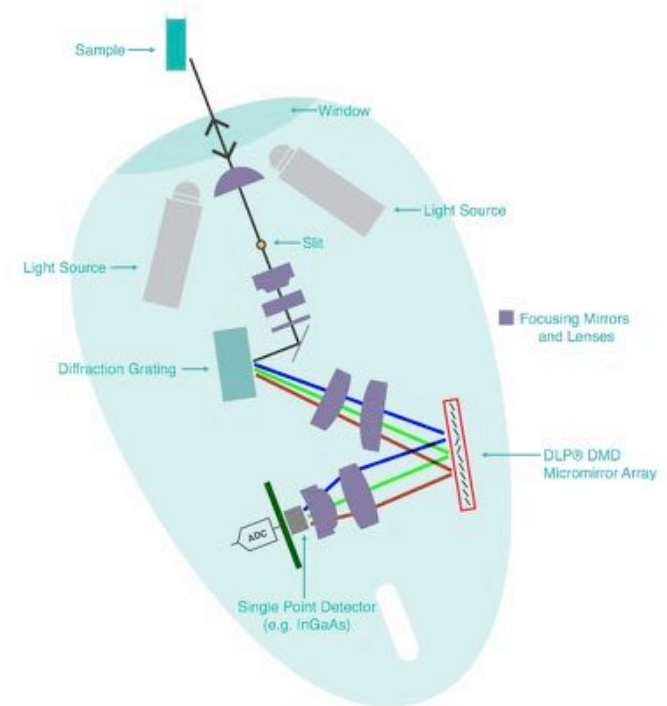


Array of micromirrors



Pros

- ◆ Cost: Low since it requires single photo-diode detector
- ◆ No need for manual calibration process: calibration done at the firmware.
- ◆ Enabled for economies of scale.

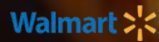


The Technology: Food Industry Insights

- **Food Manufacturers**



- **Food Retailers**



- **Food Services**



- **Food Industry Consultants**



ABOUT

- Food trends
- Individual food preferences
- Validation of food analytical methods
- Monitoring food quality
- Monitoring food safety
- Feed-back on ingredient innovation
- Tracking growth of specific food sales
- Strengthening food brand
- Analyzing the potential sales opportunity for a new product
- Forecasting annual sales volume of comparable products

Tellspec's data

can provide insights for recommendations to:

The Technology: Tracking Commitment to Health

Tellspec's data

can provide insights for recommendations to:

- WHO (World Health Organization)
- National Governments
- Food industry
- Investment groups
- Civil Society
- Researchers, analysts and academics

ABOUT

- Labelling, production information and nutritional claims
- Tracking food industry stances on diet, nutrition and health
- Engendering better corporate responsibility for diet, physical activity and health
- Developing new, or strengthen existing, systems of food governance
- Measure actual performance and practice of food companies commitment to health
- Broadening public involvement in the auditing of corporate responsibility for diet, physical activity and health

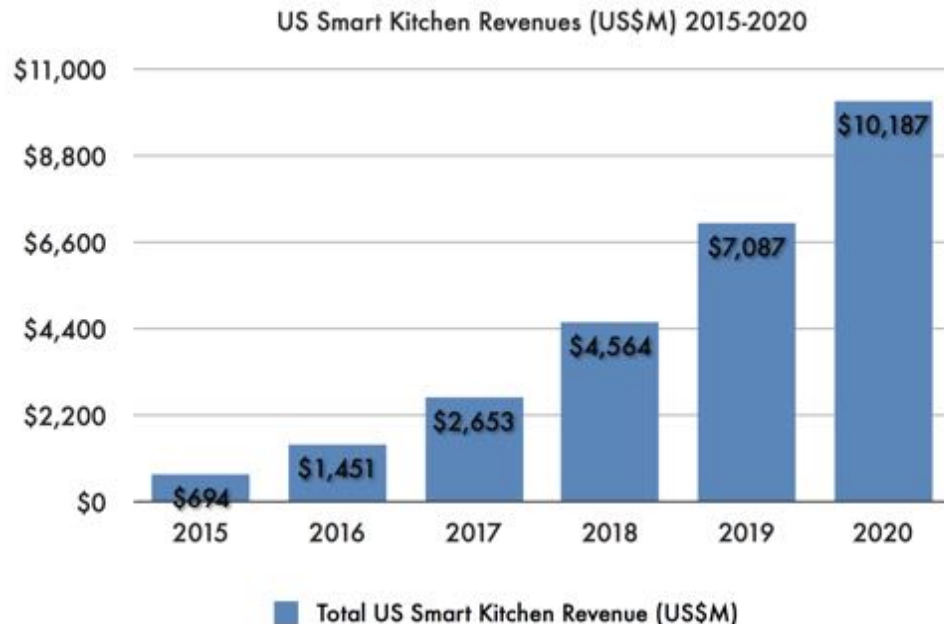
Promoting healthy diets by limiting the levels of free sugars, Salts, trans-fats, pesticides, carcinogens, neuro-toxins

The Market: Connecting Food & Wellness (Digital Health)



Global diabetes market is expected to reach \$44.70 billion in 2015, compound annual growth rate (CAGR) of 7.5%. The WHO projects the world's diabetic population: 366 million by 2030.

The market for food allergy and intolerance is estimated by Global Industry Analysts to be US\$26.5bn by 2017. This market has grown at 18.5% over the past decade.

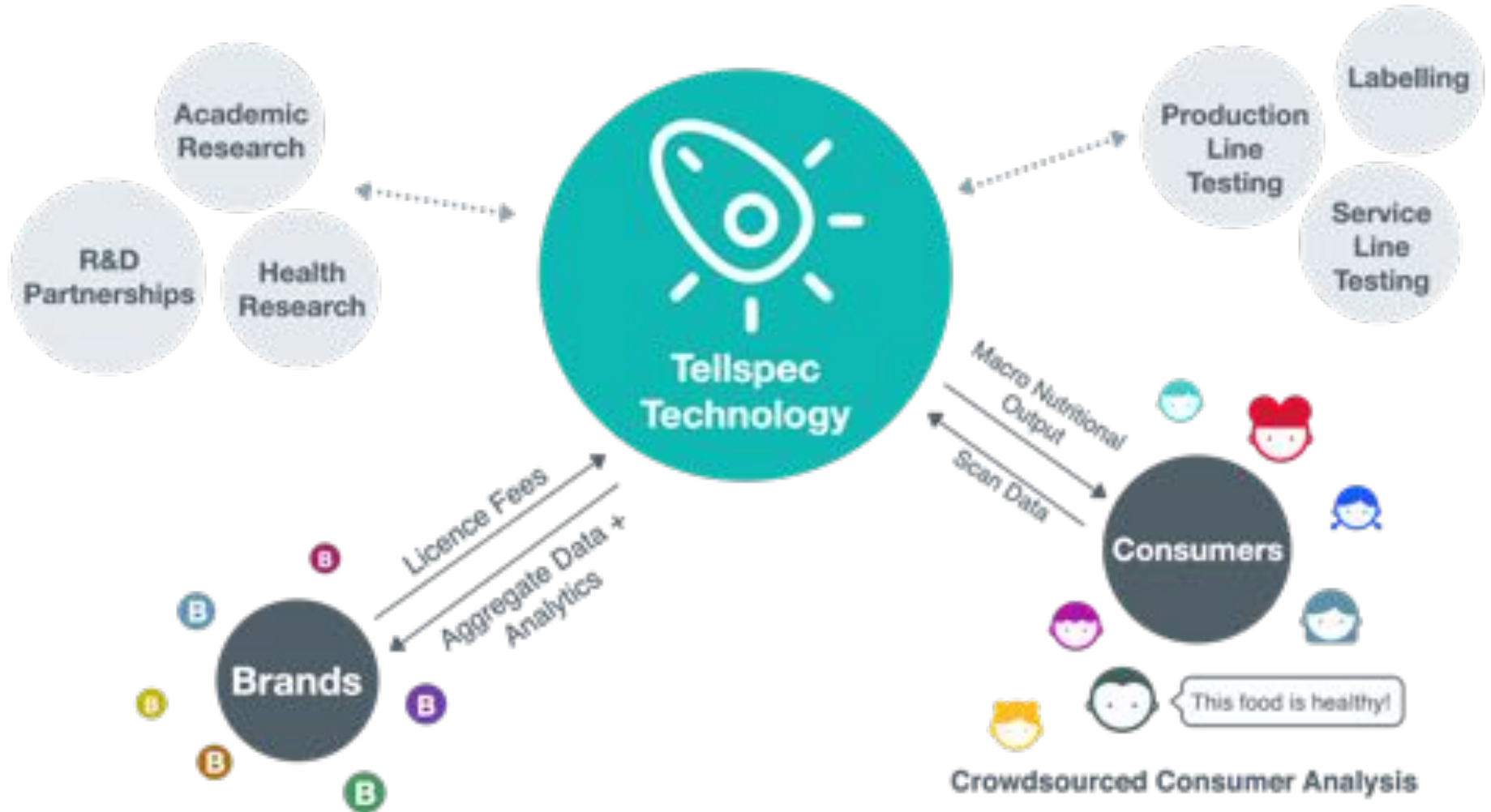


Cumulative economic impact of the **Internet of Things**, according to John Chambers (CISCO), will be **\$10 Trillion** by 2020

“By 2020 there will be 50 Billion devices connected. The big winners will be remote sensors and big data”
Prof M. Bachman UCI

The biggest areas of innovation in the smart, connected home over the next decade will be the kitchen; a fast-growing market opportunity which will grow from \$694M in 2015 to over **\$10B** by 2020

Business Strategy: Connecting Food Data



Business Strategy: Go-to-market Ecosystem

Online Awareness

- ◆ **Social Media Strategy**
 - YouTube
 - Google Digital Strategy
 - Facebook
 - Twitter
 - Instagram
 - Heart It

- ◆ **Online sales: Tellspec's site, Amazon, Alibaba**

Wellness Partnerships

- Weight Control Clinics
- Wellness Clinics
- Diabetic Association
- Allergy Clinics
- Celiac Association
- Fitness Organizations
- Gyms
- Pharmaceutical

Direct Sales to Selected Retailers

- El Corte Ingles
- Best Buy
- FNAC
- Wholefoods
- Apple Stores

The Leadership Team: founder and CEO



THE ENTREPRENEURIAL SPIRIT

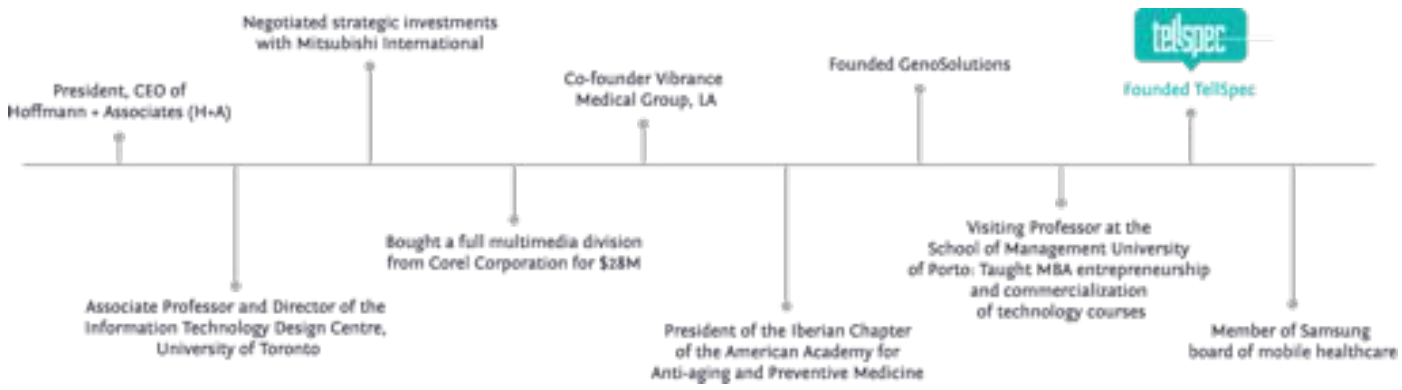
 **8** SUCCESSFUL  companies founded
OVER LAST **26** YEARS

 **From Zero to Hero**
Has taken companies from **\$0** to **\$75 MILLION**



 **Negotiating with Goldman Sachs, ING Barings, Mitsubishi, CBS and Corel**
Raised over **\$65M** in equity and warrants

ISABEL HOFFMANN
FOUNDER AND CEO, TELLSPC INC.


• 20 YEARS IN 10 SECONDS •



AWARDS IN TECH + ENTREPREURSHIP

-  **WOMEN IN TECHNOLOGY**
Bell Canada and the Toronto Sun
-  **CANADA'S NATIONAL IWAY AWARD FOR LEADERSHIP IN THE APPLICATION OF TECHNOLOGY**
CANARIE Inc. and the Royal Bank
-  **CANADIAN WOMAN ENTREPRENEUR OF THE YEAR AWARD**
University of Toronto, Canada
-  **TOP 40 UNDER 40 AWARD**
Financial Post, CIBC and Caldwell Partners, Canada
-  **ERNST & YOUNG'S ENTREPRENEUR OF THE YEAR AWARD**
Ernst & Young
-  **MACLEAN'S HONOR ROLL FOR CANADIAN EXCELLENCE**
MacLean's Magazine

The Leadership Team



Isabel Hoffmann
Founder & CEO



Mark Bloore
Senior Software Architect



Jason Coulls
VP Software Development



Gail Christine Gannon
VP Strategy



Carolyn Lund
Marketing Director



Bahador Khaleghi
Director,
R&D Software Research



Nazanin Samadifard
Machine Learning Manager

Tellspec is also affiliated with **the Manchester University** in the UK,
and with **the AZ TechCelerator** in Arizona.

Advisory Board



Dr. Louis Florence
Finance Advisor



Dr. Rafael Grossmann
Health Advisor



Nathaniel Amsellem
European Investment Advisor



Dr. Pablo Carbonell
Chief Science Advisor



Simon Mou
Asia Investment Advisor



James Tjan
Food Science Advisor



Larry R. Wilson
North America Investment Advisor

Competitors

Consumer Physics, SCiO: not a data company but a hardware company

- Uses a filter to separate light into its component wavelengths, while Tellspec uses a grating. Typically filters give poorer resolution than gratings
- Patent application limited to hardware, with little on algorithms or user interface
- No comprehensive spectral food database, plans to use crowd sourced database, therefore not able to detect beyond the label
- ***Not focused on building predictive models for food analysis***
- Not able to detect allergens or give sugar estimation
- Not focus on educating consumers about what they eat
- Narrower spectral range where organic bonds have a weaker expression



Spectroscopy (BWTek, ThermoScience)

- Bulky, awkward, hard to use.
- For industrial applications.
- Slow – 2 min or more.
- Expensive – \$20k to \$60k.



Food Testing Services (B2B) (Foss in Denmark)

- B2B testing for Meat, Dairy and Wine industries.
- Invasive testing.
- 30+ sec.



Competitive advantage



—WHY NOW?—

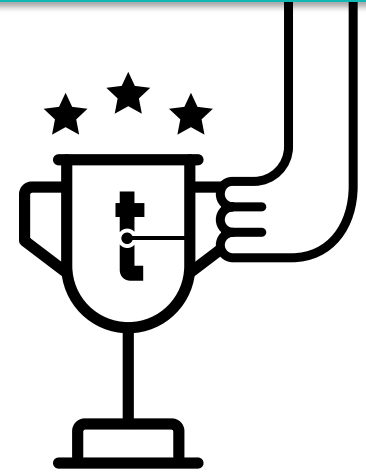
Several apps target the weight loss industry by offering ways to count calories, some even count macronutrients, but none can detect allergens that a user may react to, because no app can scan, at the molecular level, the actual food. Many medical devices help diabetic people manage their blood sugar ranging from glucose meters to pumps, but none connect this information to the food that the patient eats.



—WHY US?—

- U. S. Patent Application 2013/0958909
- Hardware agnostic comprehensive food analysis engine
- Proprietary procedures (secret sauce) for food data collection
- Extensive proprietary database of NIR food scans
- Several strategic potential OME partnerships and clinical trials
- Unique agreement to customize Tellspec's technology for the Connected Kitchen

Traction




- **\$519,710 pre-orders** with 2181 units pre-sold
- Secured **15,000 sensors** in verbal commitments from eager retailers
- Selected to be part of the HIVE at **TED Med 2015**, November 2015
- Participated in **mhealth Grand Tour 2015**, an event to demonstrate digital solution for diabetic patients organized by Orange Telecom, September, 2015
- Letter of Intent (LOI) signed with **Samsung Electronics**
- Forbes selected Tellspec as one of the 10 top companies revolutionizing entrepreneurship
- Request for collaboration in clinical studies from **Harvard Center for Clinical Investigation** at The Harvard Clinical and Translational Science Center, Brigham and Women's Hospital, Boston
- Request from **Augusta Akademie**, Bochum Germany, for collaboration in clinical studies
- **TED Global 2014**, A presentation by I. Hoffmann on Nutritional Detection
- **TEDx Zwolle, 2015**: Local food and Health, a presentation by I. Hoffmann

Use of Funds - Overview



Late-stage development and early-stage commercialization:

- Deliver series A milestones in 6 to 9 months
- Increase team
- Finalize the delivery 150 beta food sensors to initial testers
- Deliver initial units to earlier adopters
- Implement a go to market strategy
- Negotiations with large retailers
- Final NRE costs
- Food testing lab costs
- Initial distribution strategies



**Providing the most relevant and useful information
about your food**