



FORDHAM UNIVERSITY

THE JESUIT UNIVERSITY OF NEW YORK

A F.R.E.S.H

Look At Food Recall

07/24/2017

Bloomberg

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Identify and highlight
inefficiencies within
ecosystem

Research cost of
food recalls

- Stakeholders
- Customers

Purpose of Research

Company Challenge :
Food Recalls

Develop an information
service to better serve food
marketers and consumers.



Why There's a Problem



Opportunities



SWOT Analysis



Current System



**F.R.E.S.H
Service**



**Monetization,
Limitations,
Future Research**



Definition

Recalls are actions taken by a firm to remove a product from the market. Recalls may be conducted on a firm's own initiative, by FDA request, or by FDA order under statutory authority. *(Source: FDA)*



There Are Three Categories of Food Recalls



Class I

Cause
serious health
consequences



Class II

Remote probability of
adverse health
consequences



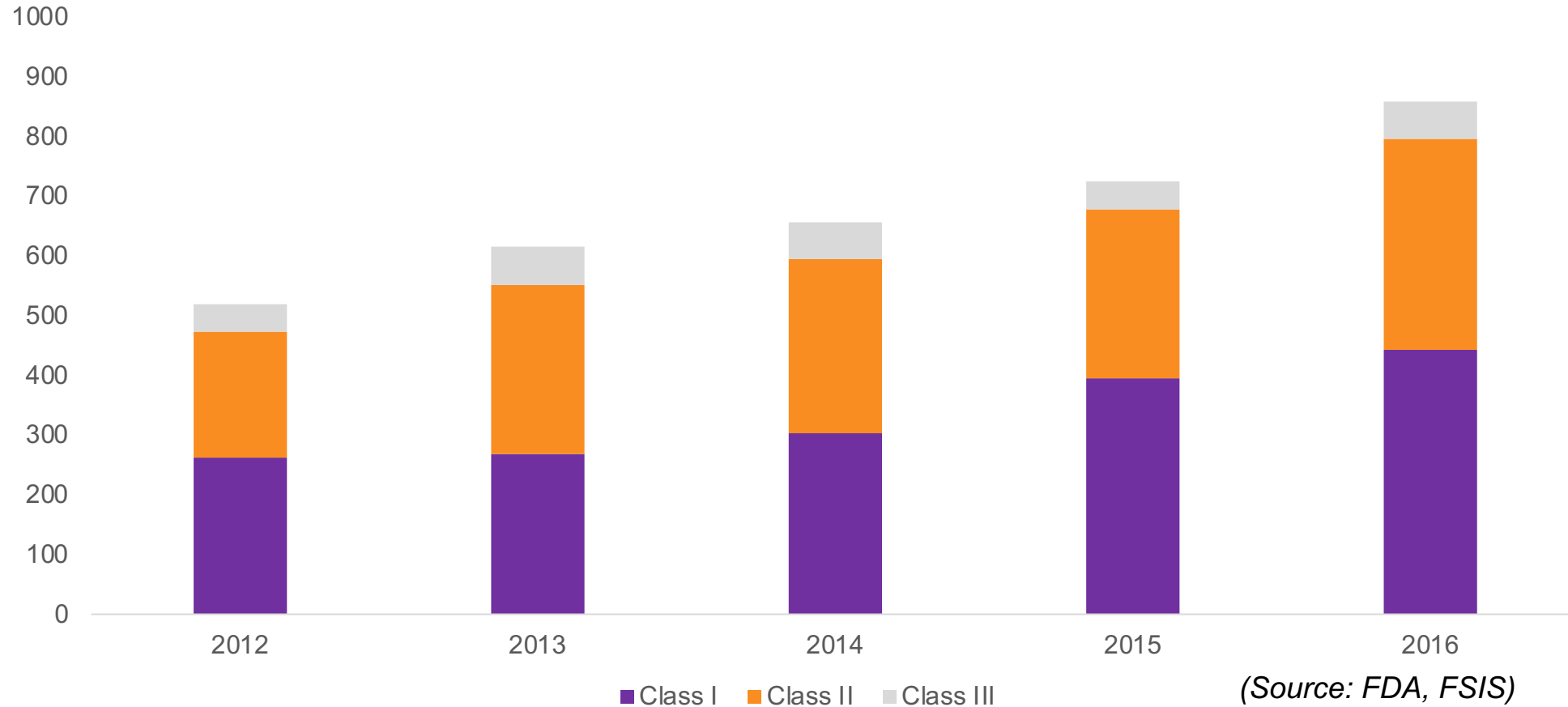
Class III

Won't cause
adverse health
consequences

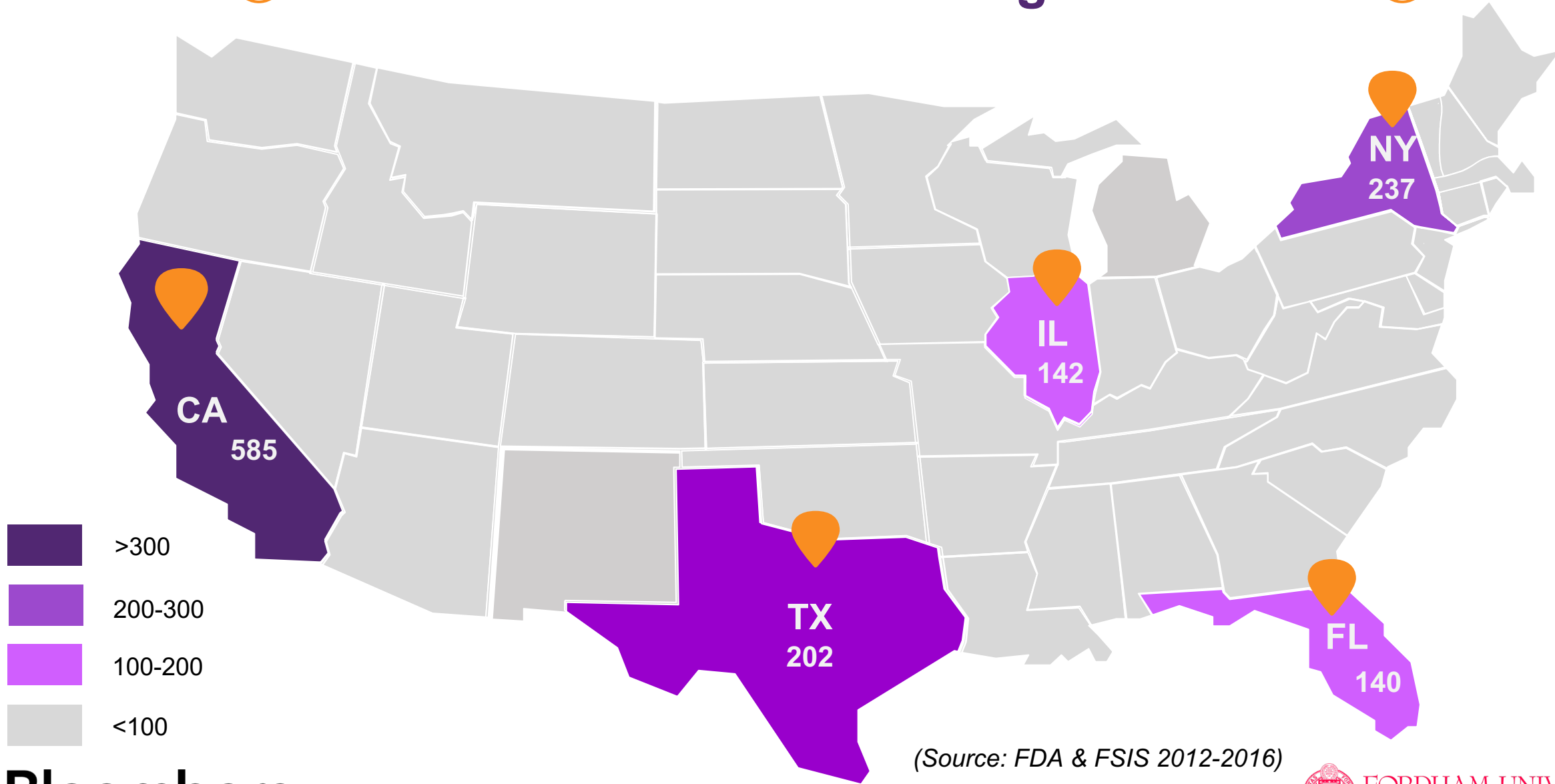
(Source: FDA)

Food Recalls Are FREQUENT

On average, over **675** food recalls happened each year



Food Recalls Are Regional



(Source: FDA & FSIS 2012-2016)

Food Recalls Can Save Lives

Each year roughly **48 million** people gets sick from a foodborne illness,
128,000 are hospitalized, and **3,000** die.  (Source: [CDC](#))

The average cost of a recall for food companies to be **\$10 million.** 
(Source: [Grocery Manufacturers Association](#))

There is A Solution

Food.Recall.Electronic.System.Hierarchy



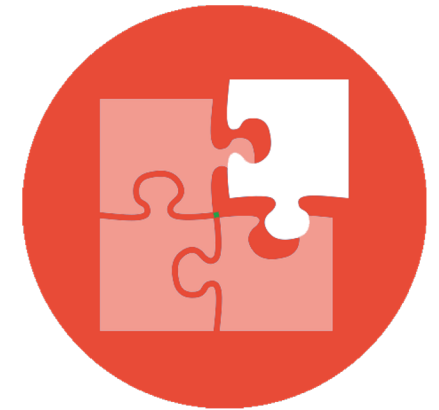
DATA
AGGREGATION



FOOD CHAIN
INTEGRATION



COMMUNICATION
CHANNELS



CONSUMER
NOTIFICATION

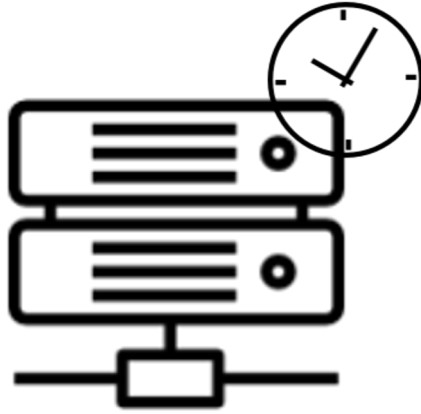


Existing Systems

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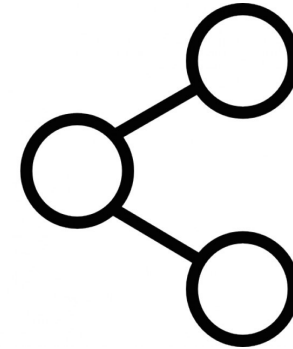
Current Issues of Existing Systems



Slow Communication



Fragmented System



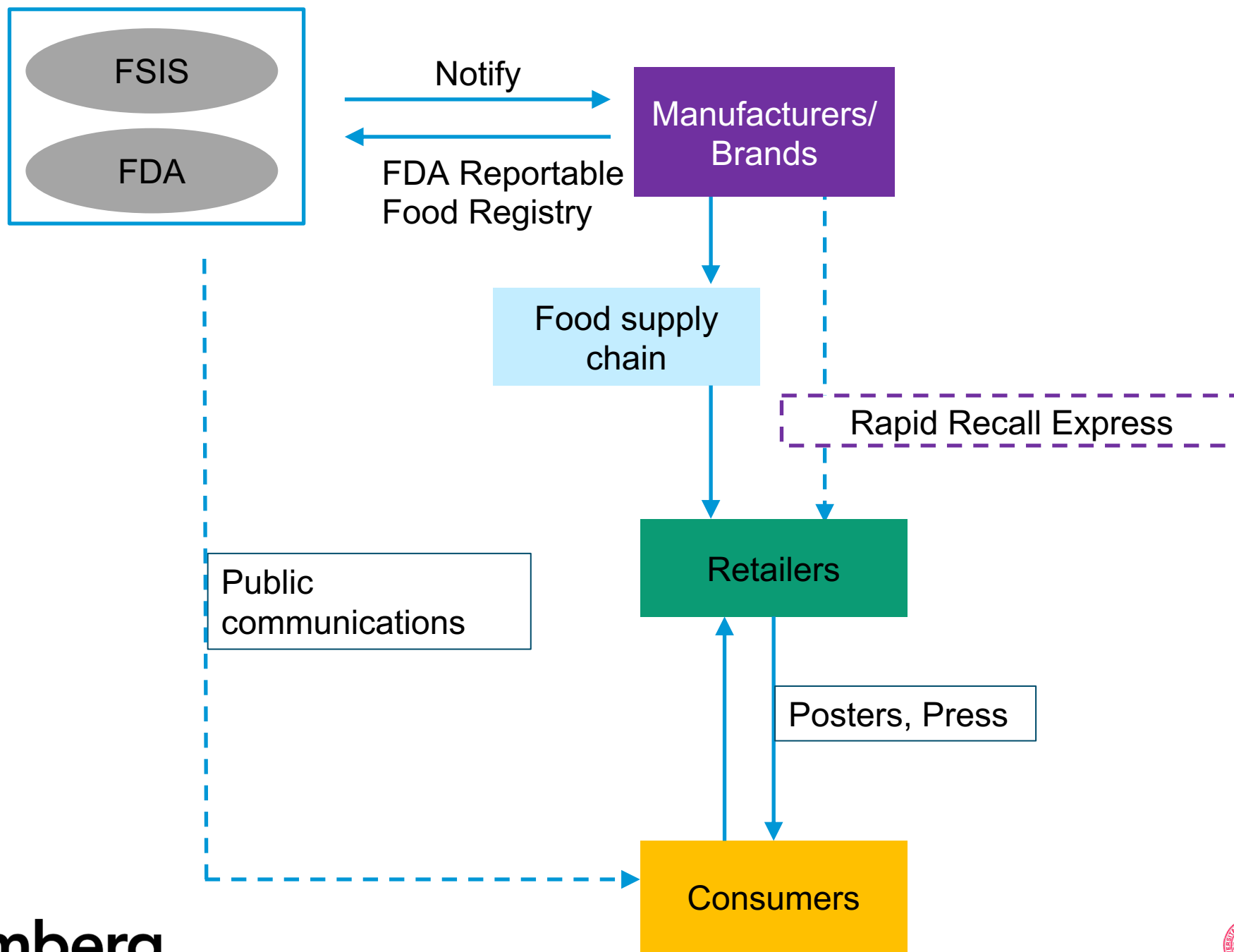
Little Consumer Communication

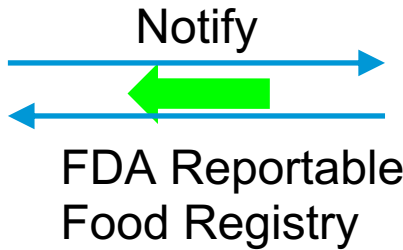
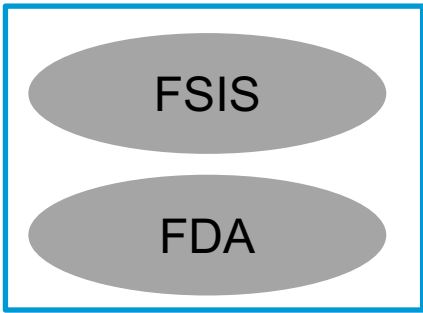
Only 8 of 21 Chains Directly Notify Consumers!

Table. Recall Notification Practices by the 21 Leading Supermarkets and Dollar Stores

SN Rank*	Chain	Posted on Website	Direct to Consumer	Posted in Store
1	Walmart	Y	Y	Y
2	Kroger	Y	Y	Y
3	Costco	Y	Y	Y
5	Safeway	Y	†	Y
6	Publix	Y	X	Y
7	Giant Food Stores	Y	Y	Y
9	Albertsons	Y	NR	NR
10	H-E-B	Y	X	Y
13	Food Lion	Y	NR	Y
14	Cub Foods	Y	NR	Y
15	Meijer	Y	Y	Y
18	Dollar General	Y	NR	NR
19	Whole Foods	Y	NR	NR
21	Trader Joe's	Y	X	Y
22	Winn-Dixie	N	NR	Y
25	Aldi USA	Y	X	NR
26	Giant Eagle	Y	Y	N
27	BJ's	Y	Y	Y
28	Hy-Vee	Y	NR	Y
31	Family Dollar Stores	Y	X	NR
32	Wegmans	Y	Y	Y

(Source: EY report "Capturing Recall Cost 2011")





Manufacturers/
Brands

Food supply
chain



Rapid Recall Express

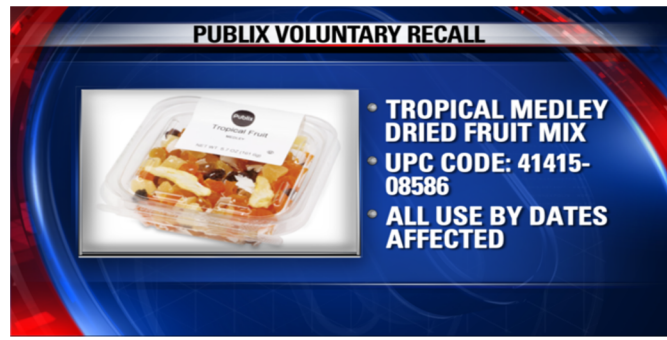
Retailers

Posters, Press

Public
communications

Consumers

Publix®



Bloomberg

May 10, 2017

We have been alerted by our supplier of **Mikawaya Chocolate Mochi Ice Cream** (UPC 070934990609) that product with the code "LOT 090-17" may contain peanuts, which are not listed in the ingredients.

No allergic reactions or illnesses have been reported to date.

All of the affected Mikawaya Chocolate Mochi Ice Cream has been removed from sale and destroyed.

If you purchased Chocolate Mochi Ice Cream with the affected code and have a peanut allergy, please do not eat it. We urge you to discard the product or return it to any Trader Joe's for a full refund.

If you have any questions, you may call Trader Joe's Customer Relations at (626) 599-3817 [Monday through Friday, 6:00 am to 6:00 pm Pacific Time].

We sincerely apologize for the inconvenience.



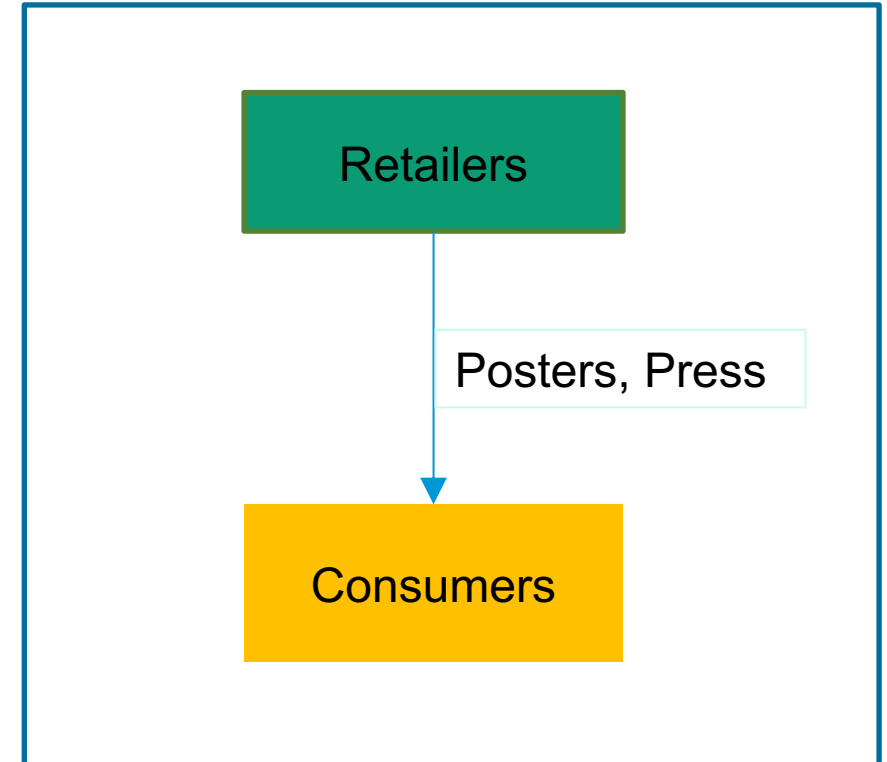
Please post until June 6, 2017



Opportunities Exist to Fix the System



- Breakdown between retailers and consumers
- All the data, no action
- Challenge: putting it all together

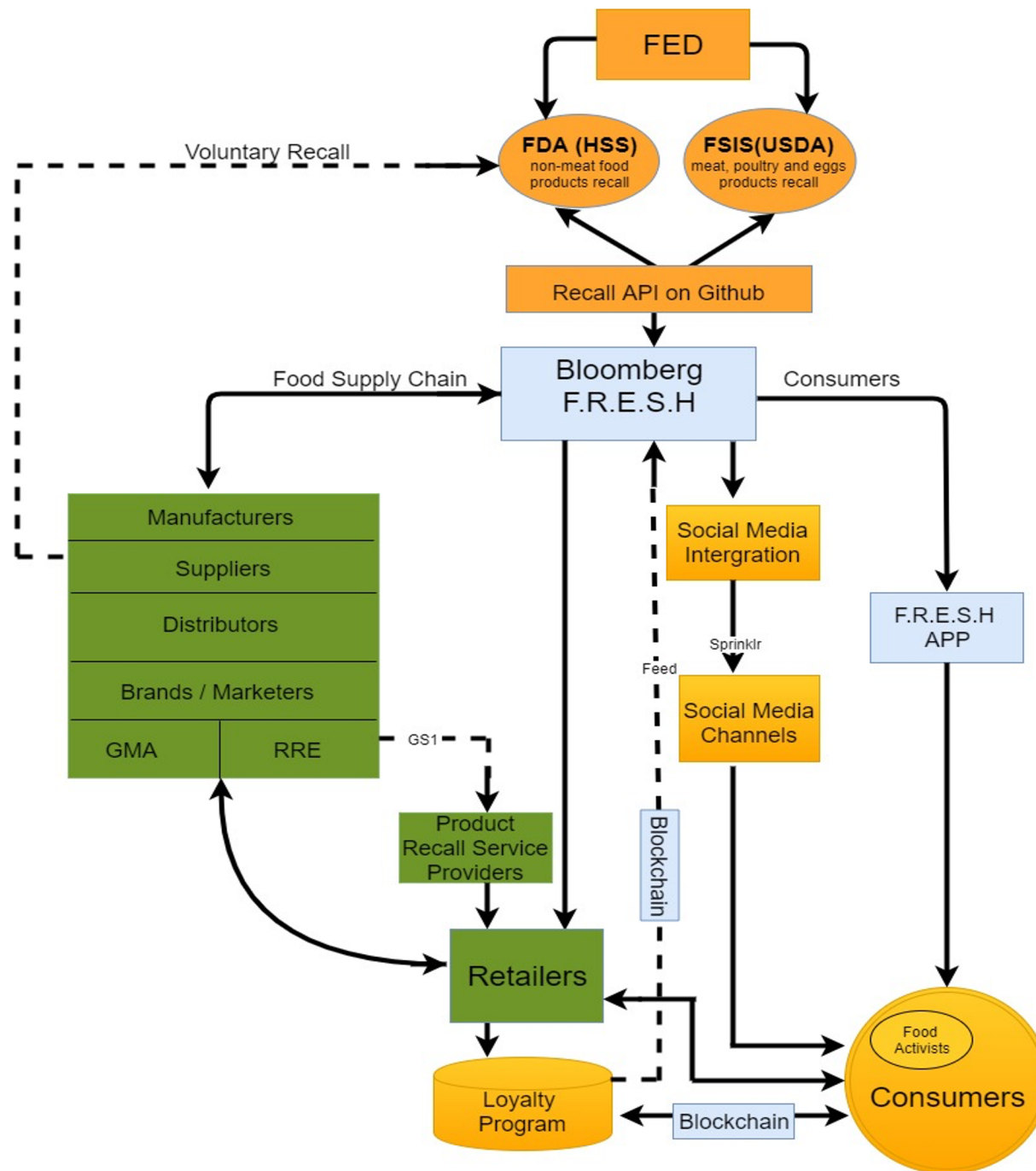


Loyalty Programs Provide an Answer

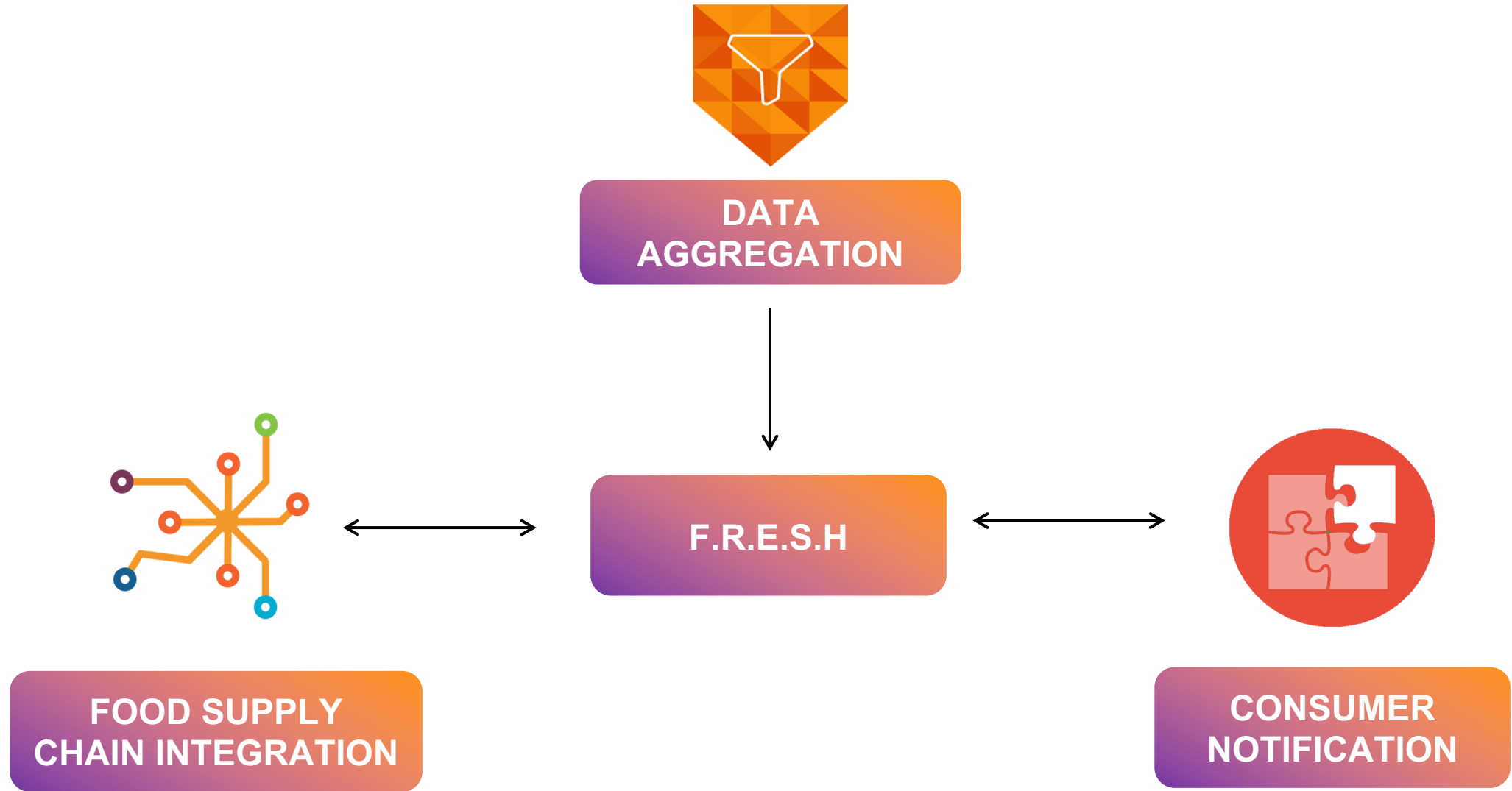


F.R.E.S.H

Food.Recall.Electronic.System.Hierarchy

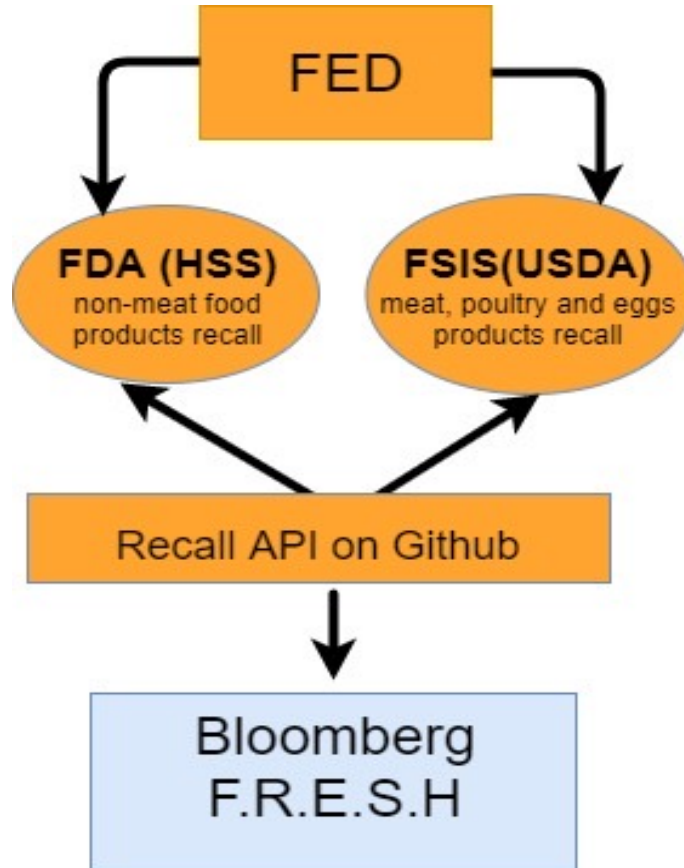


F.R.E.S.H Overview



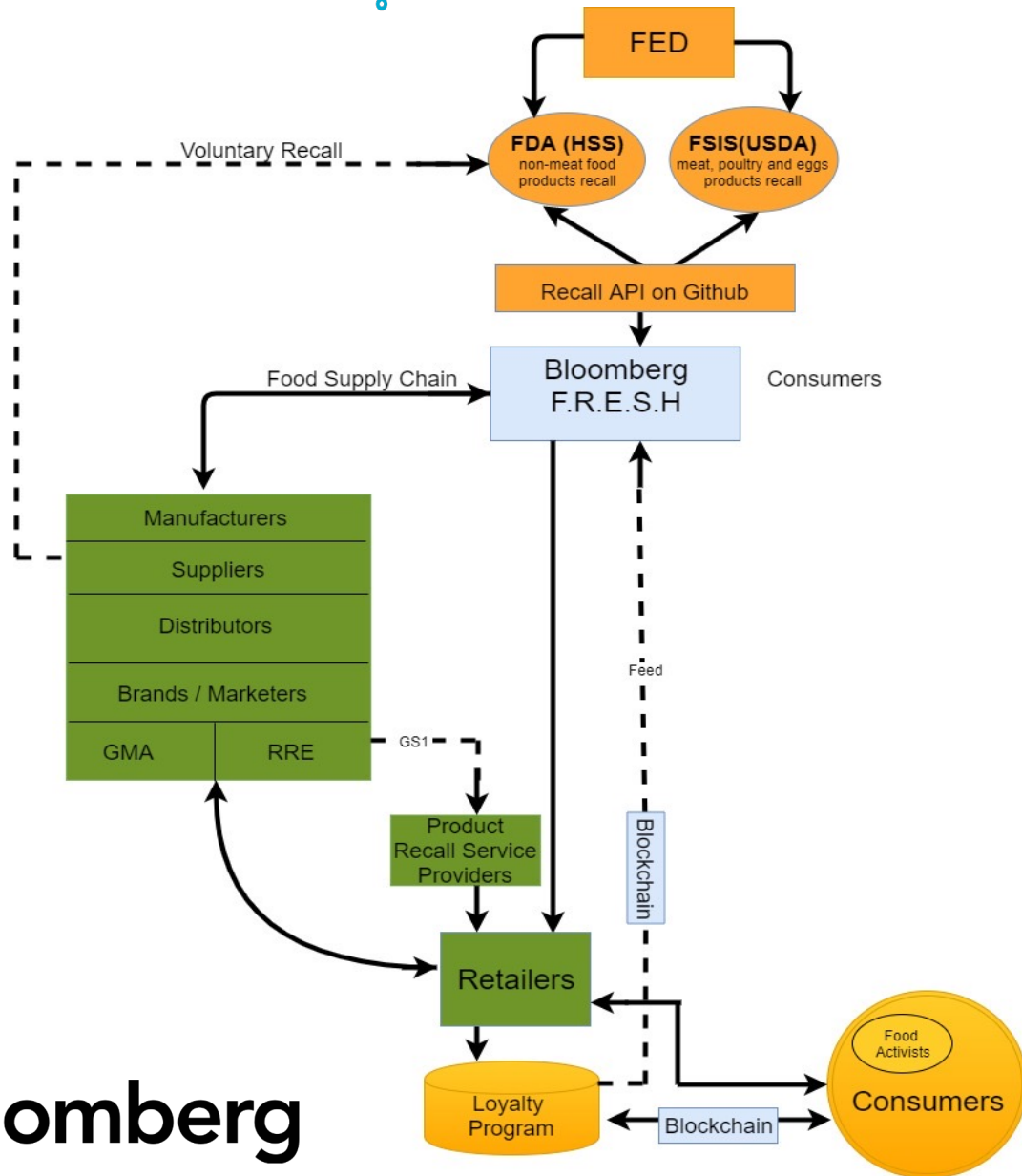


First Data is Aggregated



- Combine FDA and FSIS
- Integrate Food Recall Alerts
- Recall API on Github

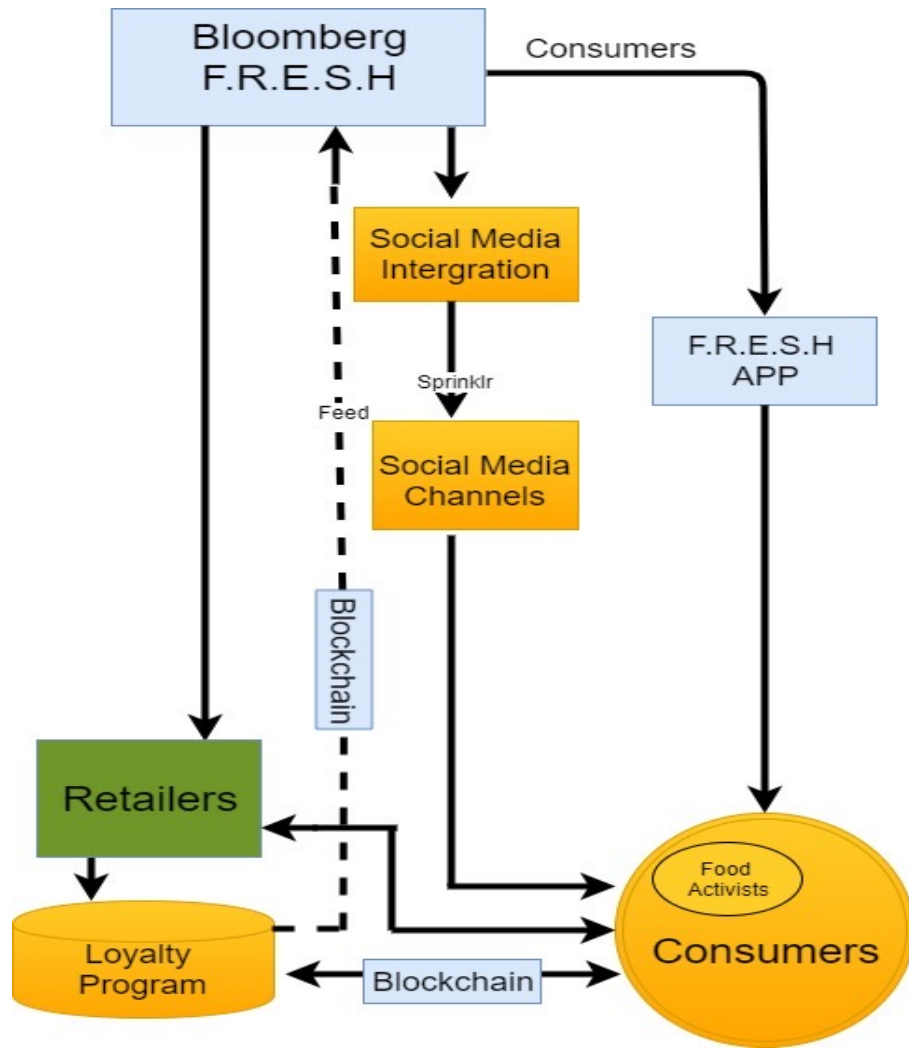
Then Food Supply Chain Integration



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- Voluntary Recall
- Parallel communication
- Loyalty Program Database
- Match consumers with recalled products purchased
- Real time supply chain and consumer notifications

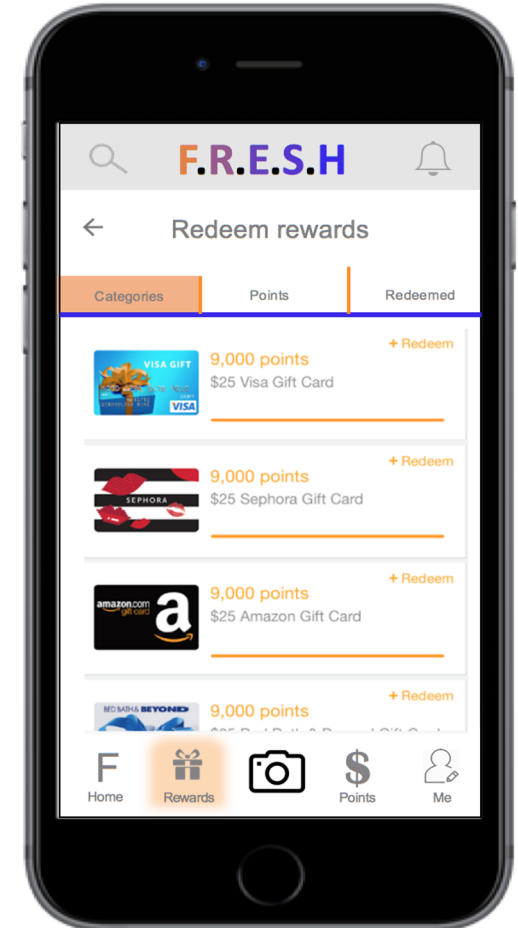
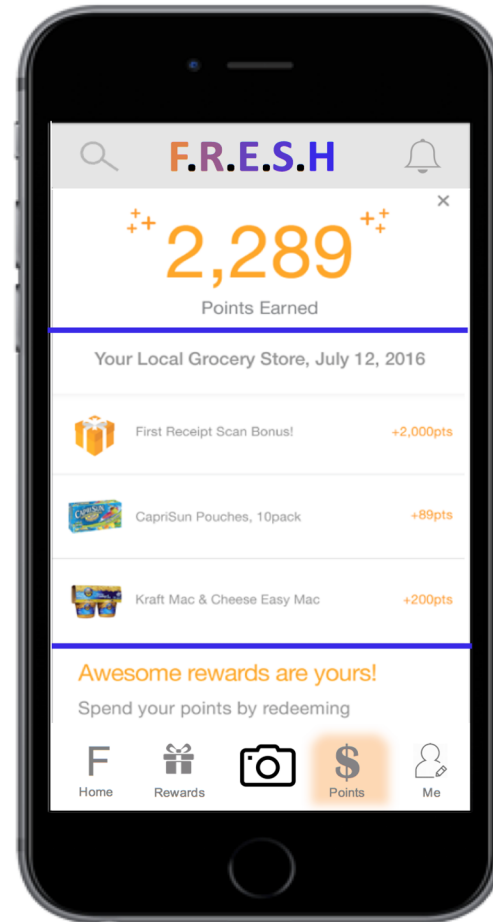
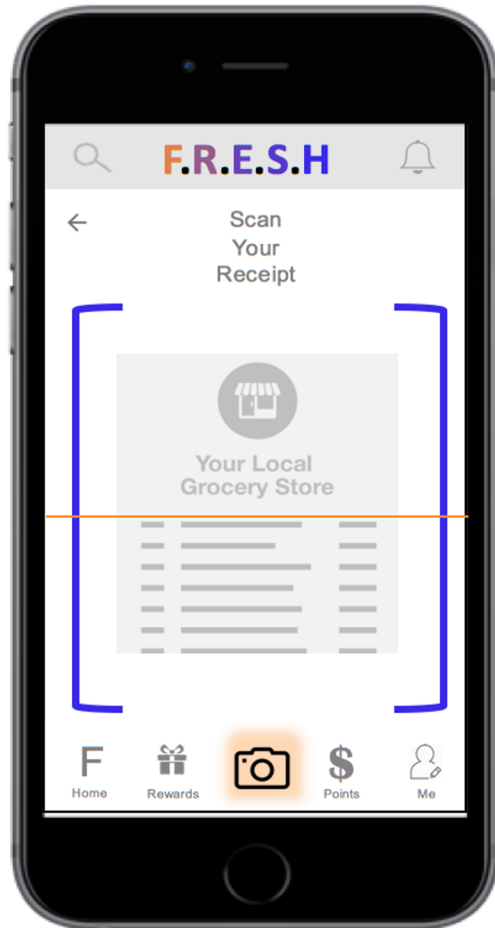
You Then Leverage Multiple Communication Channels



- F.R.E.S.H. Strength
- Probabilistic approach
- Social media effectiveness
- Mobile App



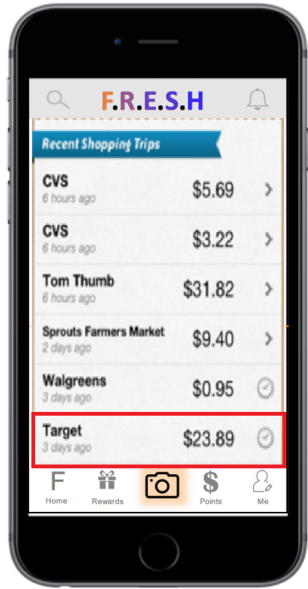
A Mobile App Provides Functionality



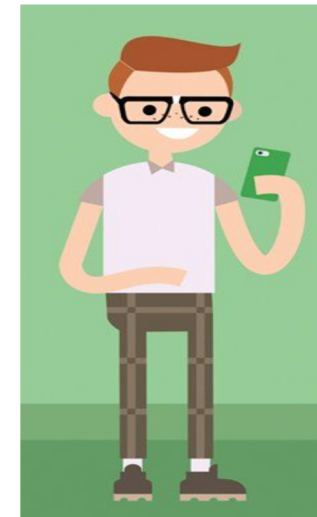
20M userbase
\$2B worth shopping data

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Food Recall Notification: here's how it works



TARGET		
Product Name	Quantity	Price
HIGH FARM tomatoes	2 lbs	\$10.00
Pepsi (4 ltr)	2	\$7.00
Chip Ahoy (16 oz)	2	\$6.29
Total		\$23.29



Refunds/
Rebates/
Promotions



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Alert: NY,NJ

Category trends



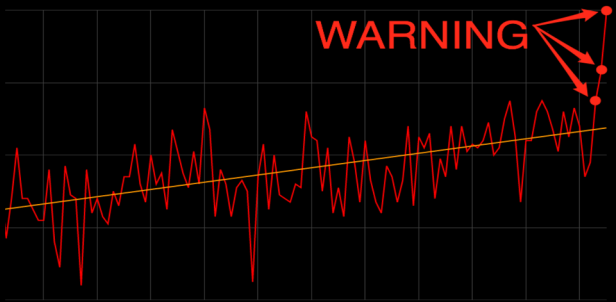
Latest



Food News



Forecasting



Notifications

Blockchain Login

Blockchain login form with fields for username and password, and a 'forgot your password? click here' link.

Bloomberg

11:00 ET JUL 24





F.R.E.S.H Has Some Big Strengths



Consistent with Bloomberg's model of information aggregation and distribution

Provides value to all stakeholders

Omni-Channel Notifications

Market trend: eating healthy

One-Stop Recall notification system

Monetizable

Relies on third-party data

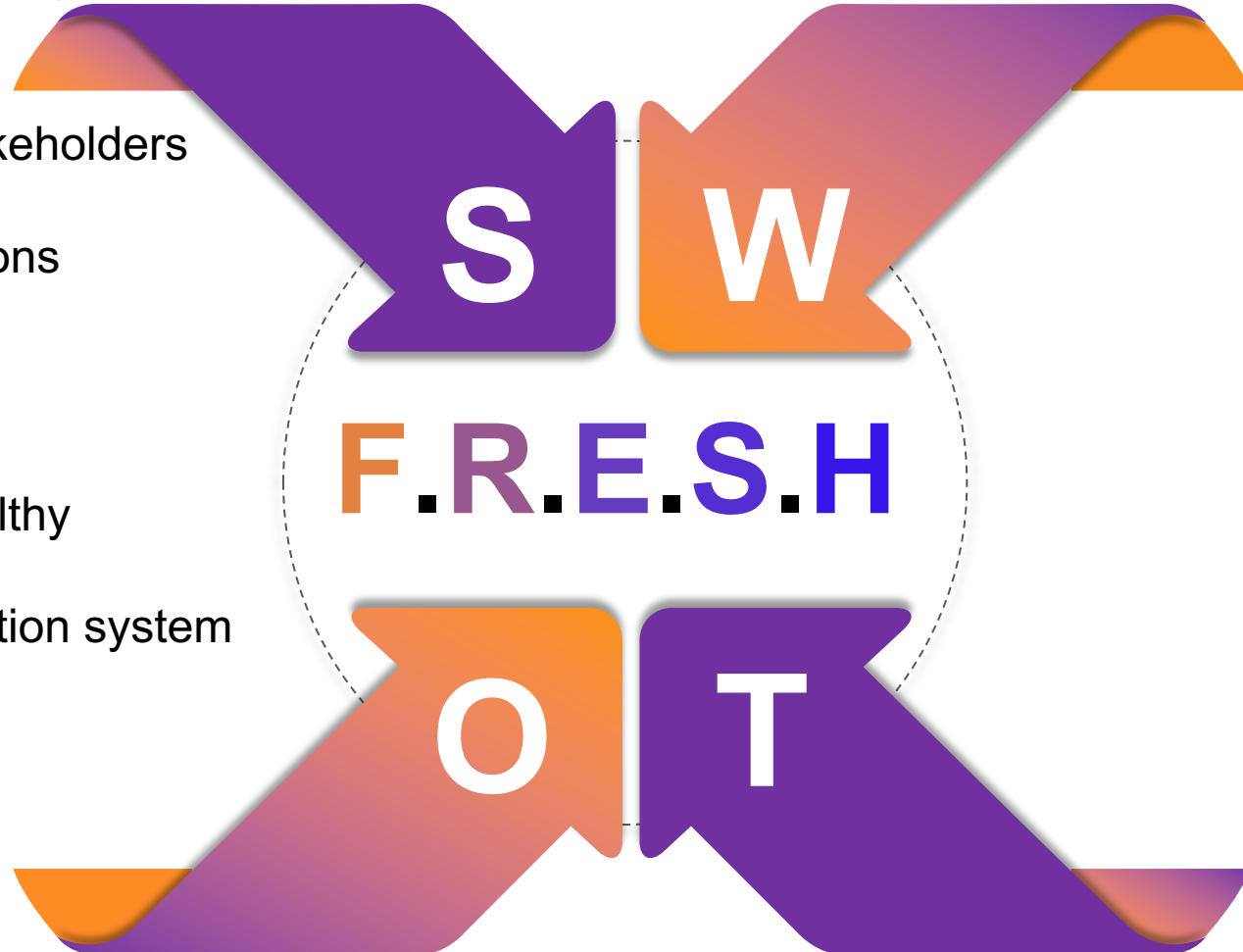
Reconciling a range of partners, stakeholders, and consumers

Lack of user database at the beginning

Legacy systems pose threats

Low consumer participation

Retailers perform Beta Testing on Blockchain



Why Opportunities Outweigh Threats

Consumer Attitude	Percent Value
Share of Americans who are seriously concerned about Food Recalls	28%
Share of Americans who have considered Food Recalls more in the past few years	43%
Share of women who are seriously concerned about food recalls	31%
Share of Baby Boomers who are concerned about Food Recalls	87%

(Source: Statista, 2016)

The Market Size Is Significant



Market Scenario

(Source: Food Marketing Institute, USDA, FDA)

No.1 Cost

Business interruption

(Source: EY report "Capturing Recall Cost 2011")

\$10 Million

(Source: GMA)

\$1 Billion

(Source: EY report "Capturing Recall Cost 2011")

77% of GMA respondents estimated the financial impact to be up to \$30 million

(Source: EY report "Capturing Recall Cost 2011")



Monetization Looks Possible

Purple Plan (Business):

Provide the efficient supply chain notification system and customer loyalty management solutions.

Size (Revenue)	Annual Price
Under \$500M	\$20,000
\$500M-\$5B	\$50,000
Above \$5B	\$100,000

Orange Plan (Consumer):

Build up a industry involved food recall multi-functional alerting app, including scanning and reporting for food problem.

FREE of charge.

Monetizing from retailers rewarding program and ads.

Limitations

**Security concerns between different parties
(relationship with supply chain)**

Consumer notification system has not been tried yet

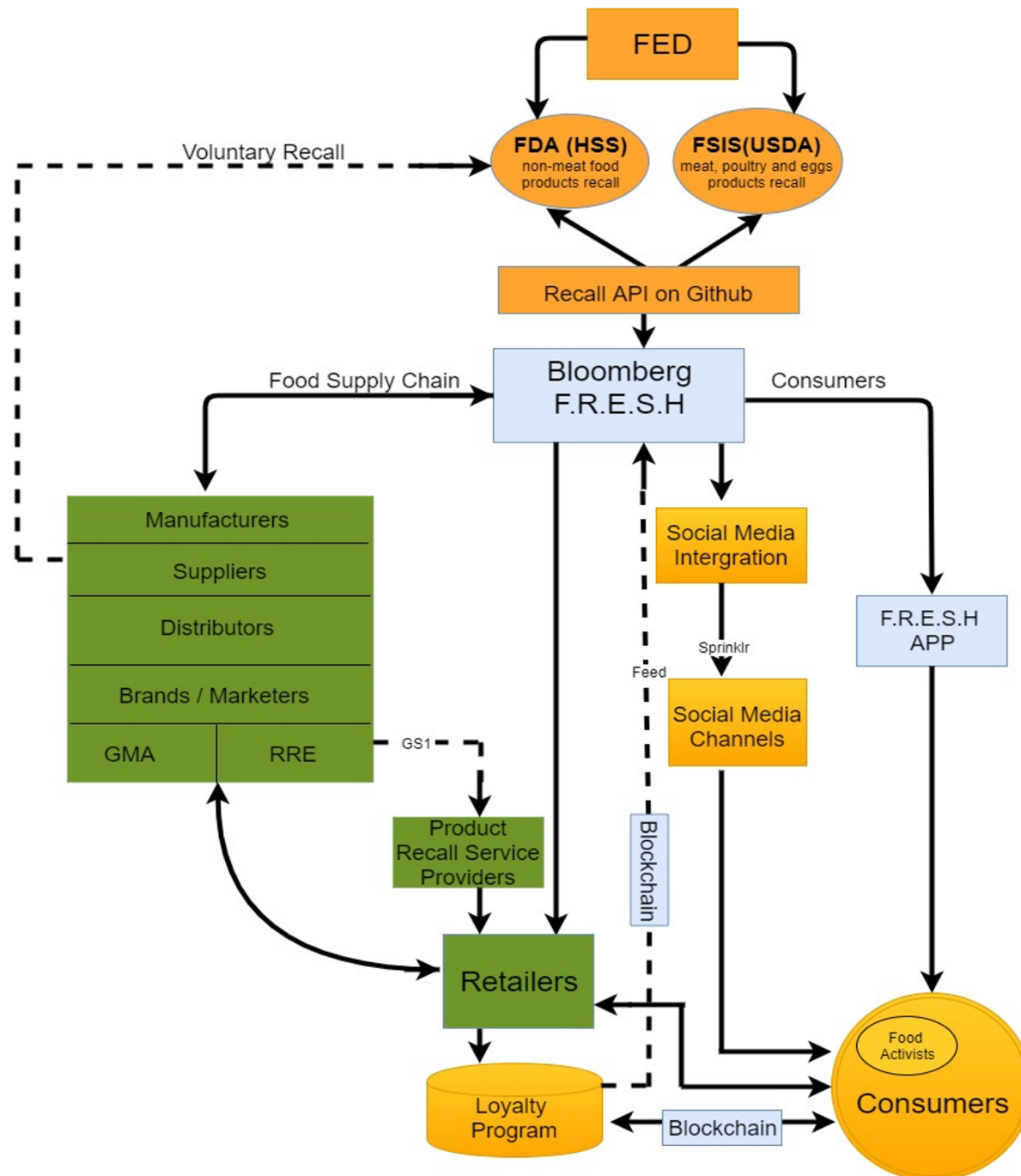
Development cost is unknown

Future Research is Promising

Use Google Trends to **predict.**

F.R.E.S.H can be implemented for the recalls of cosmetic products, Medical Devices, Animal Health, Drugs.

Thank You & Questions



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