

WEBINAR

verdant



Drive to Digital:
Integrating Genesis
R&D to Improve Your
Innovation Workflow

Presented by

ESHA Research | Verdant | Kraft Heinz

Wednesday, September 23, 2020

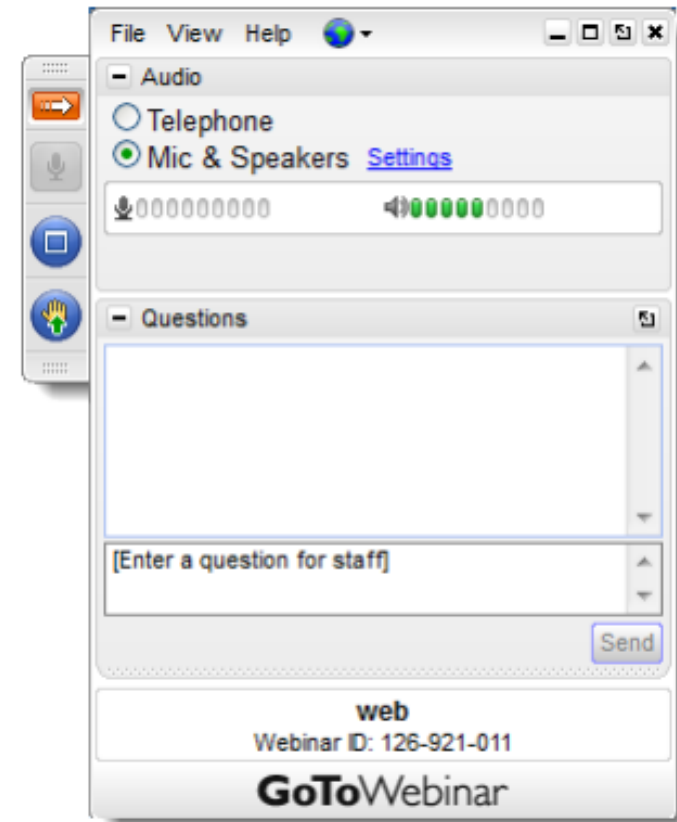
11:00 AM PDT | 1:00 PM CDT | 2:00 PM EDT



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WEBINAR



Speakers for Today

Chris Eakin
ESHA



ESHA's Genesis R&D Product Development and Labeling Software assists users in all aspects of food-product development, from recipe development and virtual food creation to nutrition facts panels creation & compliance.

Russ Singleton
Wes Frierson
Verdant



Verdant has become a trusted partner to many of the world's leading CPG brands by offering industry-specific advisory and professional services paired with innovative technology and product offerings.

Andy Greenwald
The Kraft Heinz Company



About ESHA Research

ESHA's family of nutritional software products, services, and databases are recognized as the industry's top choice for recipe and supplement development, labeling, nutritional analysis, and regulatory compliance.

Services and Software Solutions:

- *Food Formulation & Compliant Labeling*
- *Restaurant Menu Analysis & Compliant Labeling*
- *Supplement Formulation & Compliant Labeling*
- *Nutrition & Diet Analysis*
- *Consulting Services*



Trusted Nutrition Database

- 130,000 raw foods, ingredients and recipes, plus processing materials, chemicals/additives, and other industry ingredients from more than 1,800 reputable sources:
 - USDA
 - Manufacturers
 - Restaurants
- Meticulous research, data checks and continual updates.
- Nutrition breakdown for 172 nutritional components, including mandatory and voluntary label nutrients.



Our Reach



900 Colleges and Universities
with 10,000 students accessing
our programs annually



75 of the top 100 Food
Manufacturers in the U.S.

18 of the top 20
Restaurants in the U.S.



Genesis R&D Food Overview

Genesis R&D is designed to help you manage the challenges faced in the food industry.

- Nutrition analysis
- Reformulation and conceptualization
- Compliant nutrition label and statements
- Regulatory content claims



Formulation Made Easy



- Create recipes and formulas using ESHA or user-added ingredients.
- Simulate formulation changes in real time – no waiting for a lab result.
- Calculate moisture, fat, and processing adjustments: subtract or add water/fat and view results on-screen immediately.
- View line-item detailed nutritional breakdown of your formulation.
- Monitor changes with built-in audit tracking.



Nutrition Facts

2 servings per container

Serving size 1 cup (140g)

Amount per serving

Calories 160

% Daily Value*

Total Fat 8g 10%

Saturated Fat 3g 15%

Trans Fat 0g

Cholesterol 0mg 0%

Sodium 60mg 3%

Total Carbohydrate 21g 8%

Dietary Fiber 3g 11%

Total Sugars 15g

Includes 5g Added Sugars 10%

Protein 3g

Vitamin D 5mcg 25%

Calcium 20mg 2%

Iron 1mg 6%

Potassium 230mg 4%

*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2000 calories a day is used for general nutrition advice.

Nutrition Facts Labels

Automatically formatted and regulatory-compliant

- Customize your label by utilizing the myriad of built-in preferences and layout options
- Generate ingredient statements
- Track and declare allergens
- Identify qualifying nutrient content claims

International Labeling

Create country-specific government-compliant nutrition labels.

Available country specific label modules:

- Canada
- European Union
- Mexico
- United States

Nutrition Facts	
2 servings per container	
Serving size	1 cup (140g)
Amount per serving	
Calories	160
	% Daily Value*
Total Fat 8g	10%
Saturated Fat 3g	15%
<i>Trans</i> Fat 0g	
Cholesterol 0mg	0%
Sodium 60mg	3%
Total Carbohydrate 21g	8%
Dietary Fiber 3g	11%
Total Sugars 15g	
Includes 5g Added Sugars	10%
Protein 3g	
Vitamin D 5mcg	25%
Calcium 20mg	2%
Iron 1mg	6%
Potassium 230mg	4%

*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2000 calories a day is used for general nutrition advice.

Información Nutricional	
Tamaño de la Porción 122g	
Raciones por Envase	
Contenido Energético	620 kJ (150 kcal)
Proteínas	2 g
Grasas	8 g
Grasa Saturada	3 g
Carbohidratos	17 g
Azúcares	14 g
Fibra Dietética	2 g
Sodio	5 mg
	% IDR / IDS*
Vitamina B6 (Piridoxina)	15%

Nutrition Facts	
Per 1 cup (122 g)	
Calories 140	% Daily Value *
Fat 8 g	11 %
Saturated 3 g	
+ Trans 0 g	15 %
Carbohydrate 19 g	
Fibre 2 g	7 %
Sugars 14 g	14 %
Protein 2 g	
Cholesterol 0 mg	
Sodium 5 mg	1 %
Potassium 200 mg	4 %
Calcium 20 mg	2 %
Iron 0.5 mg	3 %
Thiamine 0.05 mg	4 %
Riboflavin 0.05 mg	4 %

* 5% or less is a little, 15% or more is a lot

Nutrition Information			
	per reference intake (1 cup)	% Reference Intake	per portion of 1 cup
Energy	497 kJ / 119 kcal	6% RI	692 kJ / 166 kcal
Fat	6 g	9% RI	8.4 g
Of which Saturates	2.3 g	12% RI	3.2 g
Of which Mono-unsaturates	0.6 g		0.9 g
Of which Polyunsaturates	2.6 g		3.6 g
Carbohydrate	13 g	5% RI	18 g
Of which Sugars	11 g	12% RI	15 g
Of which Polyols	0 g		0 g
Of which Starch	0.6 g		0.8 g
Fibre	2.3 g		3.2 g
Protein	2 g	4% RI	2.8 g
Salt	0.11 g	2% RI	0.15 g
Fluoride	2.28 mg	65% RI	3.18 mg

Salt content is exclusively due to the presence of naturally occurring sodium.

Contains negligible amounts of Polyols, Vitamin A, Vitamin C, Thiamin, Riboflavin, Niacin, Vitamin B6, Folic Acid, Vitamin B12, Biotin, Pantothenic Acid, Potassium, Chloride, Calcium, Phosphorus, Magnesium, Iron, Zinc, Copper, Manganese, Selenium, Chromium, Molybdenum, Iodine.

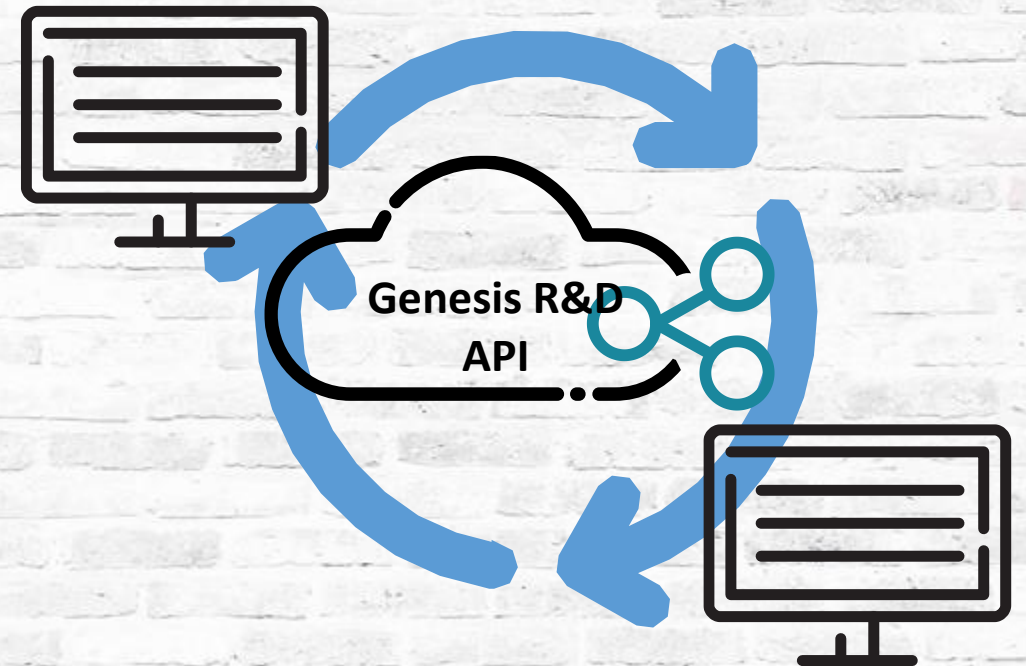
Reference intake of an average adult (8,400 kJ / 2,000 kcal)

Improve Your Innovation Workflow

With the Genesis R&D API

The Genesis R&D API allows real-time data streaming between Genesis R&D and common ERP, PLM, and MDM vendor solutions.

- Get BOMs and send to Genesis R&D for nutrient analysis and label creation
- Send back recipe data analysis and nutrition facts labels



Genesis R&D API Summary

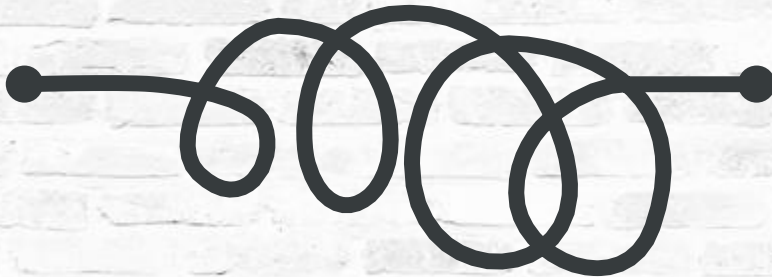
Data from Genesis R&D can be sent to external and internal interfaces such as webpages, point-of-sales systems, inventory management systems, and QC or document controls.

- Unattended export of recipes, ingredients, and labels.
- Filter records to be exported by name, group, creation date, and/or modified date.
- Export specific fields such as ingredient statement, cost, user codes, nutrient, etc.
- Runs as a service in IIS and is available both as a SOAP and REST interface

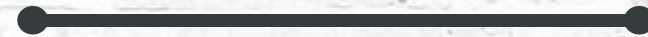
Streamline Your Integration

With Verdant's COG Platform

Without Pre-Built Connectors



With Pre-Built Connectors



Integrated Nutrition Labeling and Compliance

What is Driving Integrated Compliance?

Market Demands

- Broader range and longer lifecycles driven by eCommerce
- Increasingly complex and shifting regulatory environment

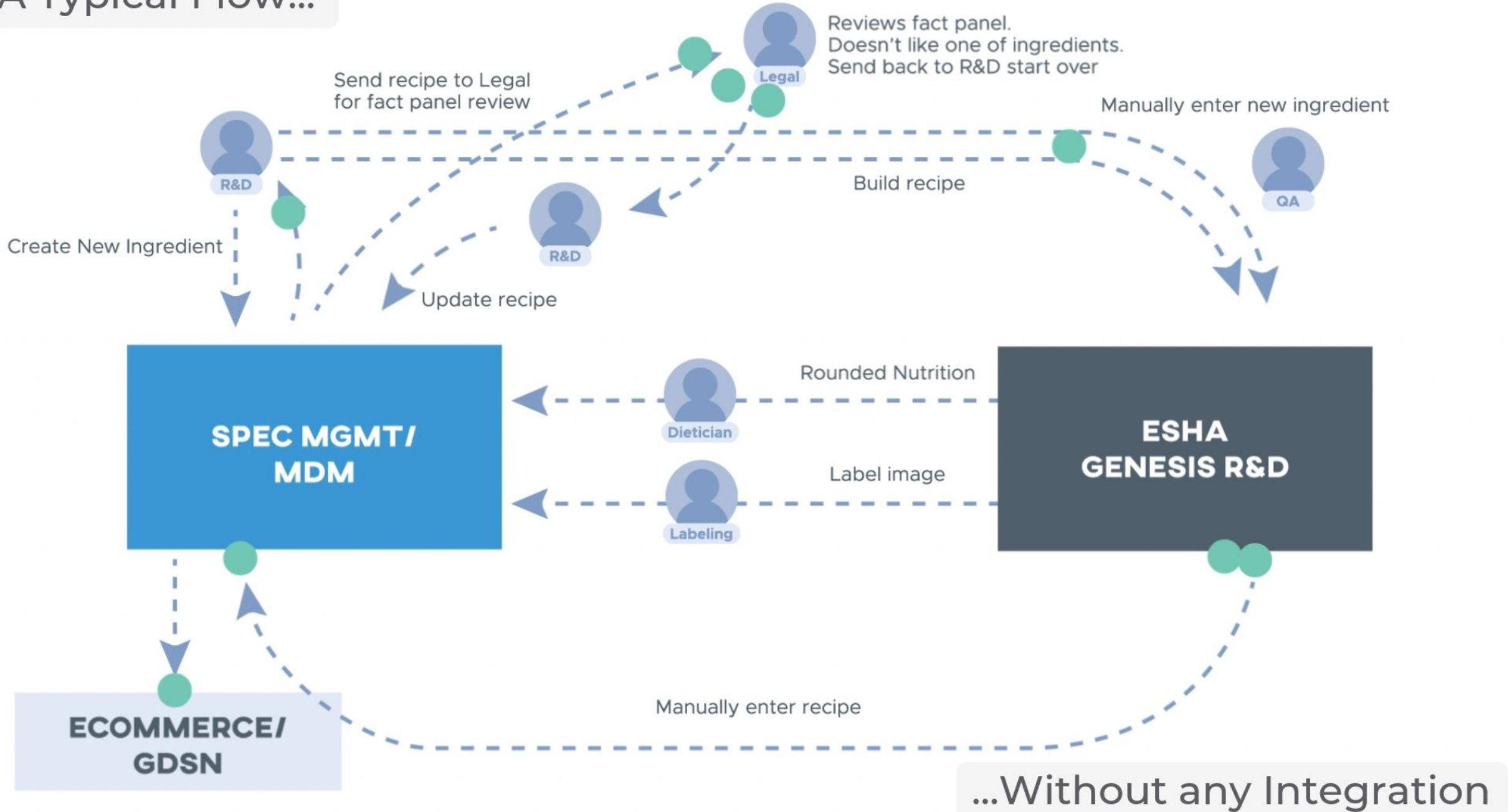
Digital Demands

- Importance of solid **digital product definition**
- “Design for compliance” is a must have capability

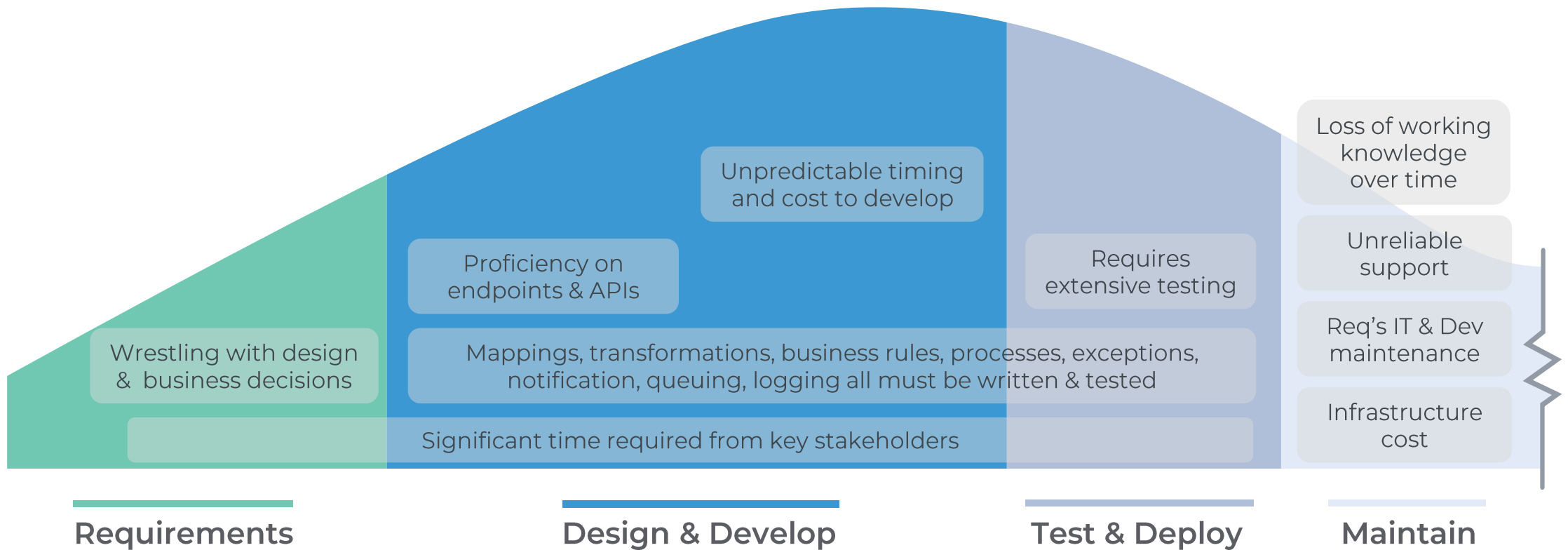
Demand for Agility

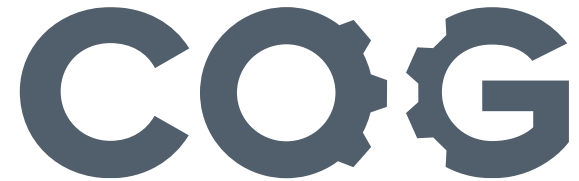
- Reduced time to market
- Resource efficiency
- Speed, with standards
- Lower the burden of change maintenance

A Typical Flow...



Traditional Integration Challenges





is a Cloud-based
Integration Service that...

Is designed to **overcome the common barriers** that prevent companies from investing in valuable integrations



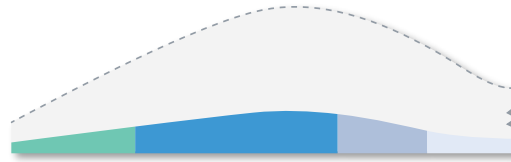
Allows you to **easily integrate** your key systems to industry leading solutions like ESHA's Genesis R&D

COG is Pre-built and End-to-End



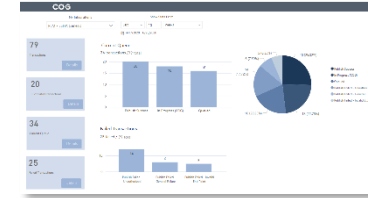
COG Pre-Built Accelerators

- **COG Connectors** for common endpoints
- **COG Pre-Built Business Orchestrations** for common use cases



COG Implementation Methodology

- Template-based
- Fast but flexible
- Predictable with rapid time to value



COG Monitoring & Support

- End-to-end, US-based support with SLAs
- No Infrastructure required
- Dashboards for monitoring and status

Compatible with Genesis R&D On-Prem and Cloud versions using the API

COG Integration

Better | Faster | Cost-effective



Requirements

- ✓ Validate vs create approach
- ✓ Turnkey methodology
- ✓ Best practice process flows and templates

Design & Develop

- ✓ Configure vs development approach
- ✓ Pre-built connectors and process flows
- ✓ Safe extensibility if needed
- ✓ Predictable duration

Configure

Test & Deploy

- ✓ Automated testing built in
- ✓ Efforts focused on acceptance, not quality

Maintain

- ✓ Monitoring and support included
- ✓ KPI and status dashboards
- ✓ Managed infrastructure

Advanced Insights & Monitoring

The screenshot displays the COG dashboard interface. At the top, a navigation bar includes a search icon, a home button, and the identifier '5000010-001'. Below this, the status is 'Publish Success' with a note 'Attempting retrieve API data'. A progress bar shows four stages: Queued, In Progress (COG), In Progress (ESHA), and Publish Success, with the final stage being active.

A table lists transaction details with columns for TimeStamp and Status:

TimeStamp	Status
6/16/2020 5:23:07 PM	Publish Success
6/16/2020 5:23:06 PM	In Progress (COG)
6/16/2020 5:23:05 PM	Publish Success
6/16/2020 5:23:03 PM	In Progress (COG)
6/16/2020 5:23:02 PM	Queued
6/16/2020 5:23:01 PM	Publish Success
6/16/2020 5:23:01 PM	In Progress (Receiver)
6/16/2020 5:22:59 PM	In Progress (COG)
6/16/2020 5:22:53 PM	In Progress (COG)

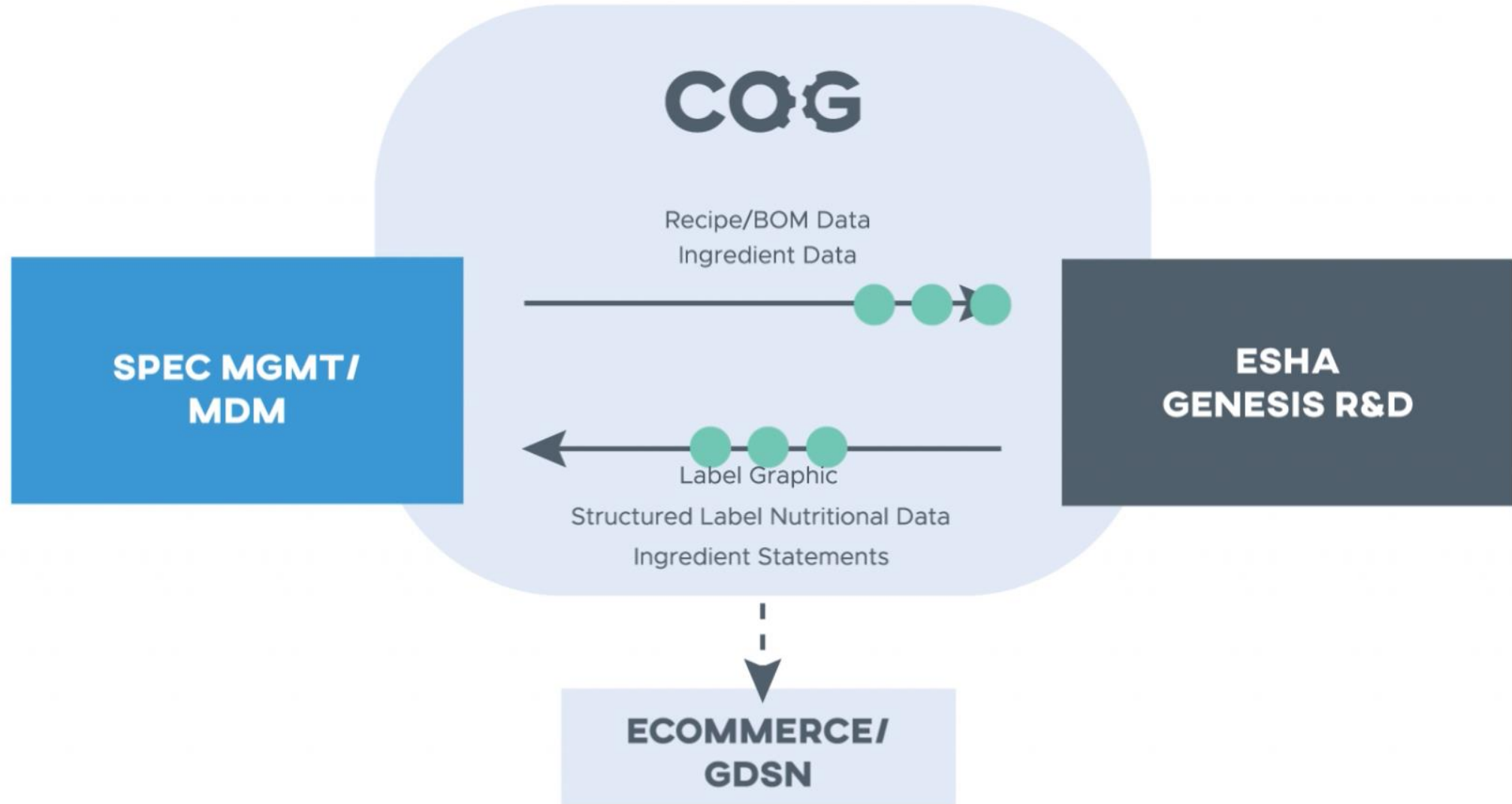
The main dashboard area features a 'My Integrations' dropdown set to 'PLM - ESHA Genesis' and a 'Show Stats From' dropdown set to 'Last 1'. A 'No filters applied' message is visible. On the left, four summary cards show: 66 Transactions, 14 Completed Transactions, 22 In Progress Transactions, and 30 Failed Transactions, each with a 'Details' button.

Three charts provide further insights:

- Current Queue:** A bar chart showing 22 transactions out of a total of 66. The categories are In Progress (COG) with 20 transactions, In Progress (Receiver) with 1, and Queued with 1.
- All Transactions:** A pie chart showing the distribution of 66 transactions: Publish Failed - General Fail... (30, 45.45%), In Progress (COG) (20, 30.3%), Publish Success (14, 21.21%), In Progress (Receiver) (1, 1.5%), and Queued (1, 1.5%).
- Transactions By Status By Date:** A stacked bar chart showing the daily volume of transactions from the 10th to the 23rd. The legend includes Published (green), Failed (red), In Progress (blue), and All (black).

COG Integration

Better | Faster | Cost-effective



COG Case Study

Key Drivers for Decision

- Preserve existing reporting and processes
- Genesis R&D is the “Gold Standard”
- Why Verdant?
- Why COG for Integration?
 - Approach is vendor agnostic and holistic
 - Pre-packaged, but extensible
 - Fully supported
 - Partnering with key solutions for the F&B space
 - COG is purpose-built vs a generic tech solution
 - ❖ Ex. → *Dashboards are built with business in mind*
 - Scalable platform that grows with needs
 - ❖ Ex. → *Image import scope addition*

Integration Between Oracle PLM to Genesis R&D

Benefits for Kraft Heinz

- ✓ Less Invasive; familiar to users
- ✓ Investment preserved
- ✓ Project length is short
- ✓ Tool will keep up with regulatory changes

KraftHeinz
Andy Greenwald



Q&A

Questions can be submitted by typing your questions into the “Questions” dialog



Want more information?

- ✓ You will receive a follow up email
 - Links to recording & contact info will be included
- ✓ Contact us directly at:
 - info@verdantservices.com
 - sales@esha.com

The COG Advantage

Accelerated Deployment

- Off the shelf connectors for popular vendor tools (like ESHA’s Genesis R&D)
- Proven process orchestrations and transformations that can be extended and tailored
- Turnkey, template-based methodology

Low Total Cost of Ownership (TCO)

- Subscription-based service
- No new infrastructure needed
- End-to-end support – monitored & fully supported

Enterprise-grade

- Modern & scalable
- Monitoring