# AI IN 12 MINUTES FOR FOOD & BEVERAGE

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#### 1/24 MOTIVATION - WHY AI?

Enhancing food production efficiency

Predictive analytics for consumer trends

Automating quality control processes

Supply chain optimization

Personalized nutrition and product offerings





#### 2/24 INDUSTRY



Food Processing and Manufacturing
Beverage Production
Agricultural Supply Chains
Food Retail and Distribution
Catering and Food Service





### 3/24 STRATEGIC TRENDS

Al in supply chain management
Precision agriculture technologies
Al-driven consumer insights
Food safety and quality control automation
Sustainable production practices
Personalized nutrition and Al
Blockchain for traceability
Robotics in food manufacturing
Al for waste reduction

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Smart kitchen technologies

#### 4/24 WHY CHANGE?

Food production efficiency
Consumer demand for quality
Sustainable and ethical practices
Competitive market advantage
Technological advancements in the industry

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### 5/24 LEADING THE CHANGE

Nestlé (Food and beverage innovation)
PepsiCo (Al in consumer insights)
Tyson Foods (Al in food processing)
Anheuser-Busch InBev (Beverage production and Al)

Beyond Meat (Al in alternative food development)

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#### 6/24 DIGITAL TRANSFORMATION

Machine learning for flavor and trend prediction Al-driven food quality inspection IoT in supply chain monitoring Robotics in food packaging and processing Data analytics for consumer behavior Al for nutritional profiling Predictive maintenance in production lines Al in inventory management **Blockchain for food authenticity** Al-powered smart kitchen appliances

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#### 7/24 AI DISRUPTION

Al in optimizing food production proces Personalized food and beverage recommen Al for real-time supply chain adjustmen Machine learning in crop yield predictions Al-driven food safety protocols Chatbots for customer service in food retail Al in recipe development and meal planning Predictive analytics in market demand Al for sustainable resource management Al in reducing food waste

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#### 8/24 **GREAT EXAMPLES OF AI** IBM Watson's AI in recipe creation PepsiCo's Al for consumer trend analysis Al-driven brewing technology by AB InBe Flippy, the Al kitchen assistant by Miso Robotics Al in Starbucks' personalized marketing Beyond Meat's AI in plant-based product development Al quality control in Tyson Foods' processing Nestlé's AI for product innovation Al in Domino's delivery and ordering systems

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Spoiler Alert's Al for managing food surplus



## 9/24 ECOSYSTEM REQUIREMENTS

Collaboration between food producers, retailers, and AI developers
Skilled workforce in AI, nutrition, and food science
Regulatory compliance for AI in food and beverage
Sustainable and ethical AI implementation

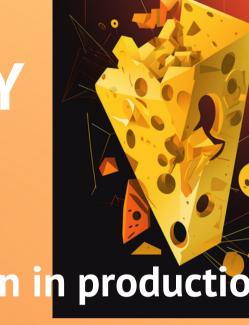
Advanced data analytics and AI technology

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practices



### 10/24 AI >>> SUSTAINABILITY



Al for reduced energy consumption in production Efficient resource utilization with Al analytics Al-driven reduction in food waste Sustainable supply chain management Al in developing eco-friendly products

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## 11/24 NEW RISKS - ETHICAL LEGAL, SOCIAL

Al biases in consumer trend analysis
Food safety risks in automated processes
Data privacy in consumer analytics
Over-reliance on Al predictions
Ethical concerns in Al-driven product development

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#### 12/24 AI MISUSE EXAMPLES

Al misuse in food marketing strategies
Unauthorized use of consumer data
Biased Al in product development
Al-driven price manipulation
Overautomation leading to job losses



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#### 13/24 THREE AI DILEMMAS

Balancing Al efficiency with traditional food practices?

Ensuring equitable AI access in global food distribution?

Al's role in addressing dietary and nutritional needs?





## 14/24 ORGANIZATIONAL REQUIREMENTS



Investment in AI technology and infrastructure Continuous training in AI for food industry professionals

Ethical guidelines for AI use

Collaboration between tech, nutrition, and culinary experts

Strong focus on food safety and quality standards

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#### 15/24 STEP BY STEP APPLICATION

Identify AI applications in food and beverage processes
Invest in suitable AI technologies
Train staff in AI, food safety, and nutrition
Implement AI tools in production, distribution, and retail

Continuously evaluate and refine Al applications

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#### 16/24 BEST PRACTICES



Start with AI pilot projects
Focus on AI for quality and safety
Foster innovation in AI-driven food development
Adapt AI tools to diverse food industry needs
Prioritize sustainability and ethical practices

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### 17/24 AI TOOLS & MODELS

Predictive analytics models for market trends

Machine learning in flavor and ingredient pairing

Al algorithms for supply chain optimization

Data analytics in consumer behavior

Neural networks for food quality assessment

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### 18/24 USEFUL DIGITAL TWINS

Digital twins of food production facilities
Virtual models of supply chains
Al simulations for new product development
Digital replicas of retail environments
Virtual reality in culinary experience design

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## 19/24 COOL NORWEGIAN CASES

Orkla (Branded consumer goods)
TINE (Largest Norwegian dairy product cooperative)

Marine Harvest (World leader in calmost

Marine Harvest (World leader in salmon farming)
Nortura (Meat and egg producer)

Ringnes (Largest brewery in Norway)



### 20/24 GLOBAL LEADERS

United States (Diverse food and beverage market)
China (Massive food production and innovation)
Brazil (Leading in meat and coffee production)
Italy (Renowned for culinary expertise)
India (Diverse food culture and innovation)

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#### 21/24 FUTURE JOBS

Al food technologists

Consumer data analysts in food retail

Al-driven supply chain managers

Food safety specialists with Al expertise

Nutritionists specializing in Al-driven diets

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### 22/24 THE FUTURE OF AI

Al in personalized nutrition and diets
Advanced Al in sustainable food production
Al for efficient global food distribution
Al-driven innovations in food processing
Integration of Al in culinary arts

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### 23/24 RECOMMENDED READING

"The Third Plate: Field Notes on the Future of Food" by Dan Barber

"Food 2.0: Secrets from the Chef Who Fed Google" by Charlie Ayers

"Big Data in Food and Agriculture" by Jayson Lusk and Julian M. Alston

"Clean Meat: How Growing Meat Without Animals Will Revolutionize Dinner and the World" by Paul Shapiro

"The Omnivore's Dilemma: A Natural History of Four Meals" by Michael Pollan

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#### 24/24 GOOD TED TALKS



"How we can use AI to help farmers" by Karen Hildebrand

"Why we need to change the way we eat" by Mark Bittman

"The secret to a better food future" by Sara Menker

"How vertical farming could help solve global food shortages" by Dickson Despommier

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# WHAT WOULD YOU ADD? LET ME KNOW!

