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Create complete AI solutions **10x faster**.

AI Delivery **Accelerator Kit**

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INTRODUCTION

If you run an IT services, technology consulting, or digital transformation agency, you've probably seen this pattern play out before. A new technology paradigm (web, search engines, social, mobile) emerges and suddenly your clients are looking at you to help them to both a) rapidly adopt these new technologies and; b) advise them on how their systems, processes, and workflows should evolve in response.

Sometimes the new technology may be difficult to apply to all businesses (blockchain anyone?), but just as often every business needs to take explicit action to remain competitive. At Contextual, we recognize there is plenty of hype around the AI industry broadly, and just as much legitimate concern about ROI of embracing AI in the general sense. That said, we are also witnessing the very focused, tactical, and impactful applications of AI across a range of enterprises, organizations and industries that are accelerating, augmenting, and automating businesses right now. Real, impactful ROI is being created in AI today.

The key to successfully engaging clients in their pursuit of AI solutions is to champion an AI solution delivery practice that prioritizes that same focus, tactical execution, and emphasis on measurable impact. This toolkit provides a jumpstart for any services business looking to become a leader in creating the next generation of AI-based solutions for their clients. Combined with Contextual's AI Orchestration and Enterprise AI Solution platform, your service business can turn concept into production reality and in so doing win more and more profitable business.

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In this toolkit you'll find:

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AI is vital to success, with most organizations recognizing its potential to drive outcomes beyond cost reduction, including entering new markets and achieving significant revenue generation.

DELOITTE

AI SOLUTION **DISCOVERY FRAMEWORK**

Many clients are now asking their IT services, technology consultant, digital agency and software development service providers to help them 'figure out' how to leverage AI in their business. This presents a significant opportunity for providers to expand their service offerings and win more business, but requires focused thought and a coherent structure to ensure outcomes are achievable and that the client's expectations are well set and comfortably met.

Like many new technology engagements, successfully delivering on an early 'win' sets the stage for and opens the door to expansion, both in the capabilities of the initial solution as well as the breadth of functions and teams across an organization that might become users....

Confirming Client Readiness

Success in delivering an AI solution to your clients can be more complicated than success for traditional technology engagements. The expectation and hype around AI is significant, and when expectations are high or inconsistent within a client organization, ensuring a satisfactory outcome requires additional work up front.

Take a moment to confirm you're able to complete the client readiness checklist on the following page. This may evolve over time as you engage in more client discovery, so referring back to this checklist as you invest in pre-work and deeper engagement is important. This checklist assumes you're actively engaged in an AI Solution discovery / development project. If you don't yet have an engagement defined or scoped, consider using the industry or functional starting point examples below to kick-start the engagement process.

AI SOLUTION
READINESS CHECKLIST

Question / Confirmation	Guidance	Confirmation / Notes
Who is the ultimate driver of the AI initiative?	Be wary of solely 'board-lead' or executive mandate-driven AI initiatives. Ideally an operational director or VP within the client has both decision authority and (ideally) passion—or at least interest in the engagement.	
What level of AI literacy exists within the organization?	Gauge the general understanding of AI capabilities and limitations among key stakeholders. Use examples to clarify what is easy to achieve vs.what might currently be more difficult.	
Are the end user stakeholders—down to the front-line level—participating in the process?	AI Solutions are often designed to augment or even automate existing tasks or activities that individuals perform. Underestimating the complexity, nuance, or inputs of those tasks presents risk. Having direct stakeholder participation can help to avoid misunderstandings and missteps and isolate the best opportunities for AI to impact the business.	

AI SOLUTION
READINESS CHECKLIST
(CONTINUED)

Question / Confirmation	Guidance	Confirmation / Notes
What are the business goals associated with this AI initiative?	The goal is to be sure a client can clearly envision and describe what 'success' looks like in general terms, even if the identified measurement of success shifts. This ensures the AI initiative is aligned with the strategic objectives of the client organization. IF it does x THEN we are happy.	
Is there a clear understanding of the problem (or opportunity) that the AI solution is expected to solve (or achieve)?	Clarify the problem statement to avoid scope creep and ensure that the AI solution is effectively targeted. Ideally the client can speak to how a current process, task or workflow requires manual effort, is subject to error (human or data or otherwise) and would drive direct benefit if improved.	
What measurable outcomes will define the success of the AI initiative?	Identify specific metrics or KPIs that will be used to evaluate the success of the AI project. Is the metric 'finite' enough to perceive the impact of the AI solution explicitly?	

AI SOLUTION READINESS CHECKLIST (CONTINUED)

Question / Confirmation	Guidance	Confirmation / Notes
Are there existing data infrastructure and policies in place to support AI deployment?	Assess the readiness of the client's data systems to handle the integration of AI solutions. Obtaining support from critical systems support personnel early can aid in this process and prevent challenges with obtaining required data that's assumed to be accessible.	
Does the client already have ideas for external data sources that might add value to an AI solution?	Determine if the client appreciates that AI solutions often operate best across a number of varied data sources. What external or third party data sources could be leveraged into an AI solution and what confidence exists in the availability of those data sources?	
Is there an AI roadmap in mind?	If the client is thinking iteratively about AI adoption, that both demonstrates a willingness to learn by doing and an opportunity for growth and expansion over time.	

The questions above do not need to be asked explicitly, but keeping the structure of what a healthy opportunity looks like in mind during discovery and before contracting can right-size expectations and extend the opportunity for success.

FUNCTION-SPECIFIC STARTING POINTS

Cross Industry

This section highlights the top five AI use cases across various horizontal activities, showcasing the broad applicability of AI in driving efficiency, enhancing decision-making, and optimizing operations. Each use case demonstrates how AI can transform key processes across multiple industries and provide a foundation for scalable and impactful solutions.

While these examples focus on general applications, we are equipped to provide detailed, industry-specific implementations for each use case, ensuring that the solutions are tailored to meet the unique needs and challenges of your business. Should you desire additional context or more varied use cases, don't hesitate to reach out to us at partners@contextual.io.

The included use cases are:

TOP 5 AI USE CASES FOR **GO-TO-MARKET ACTIONS**

1. Predictive Analytics for Market Segmentation
2. AI-Enhanced Lead Scoring
3. Customer Lifetime Value (LTV) Prediction
4. Dynamic Pricing Optimization
5. Sentiment Analysis for Brand Monitoring

AI GO-TO-MARKET ACTIONS

PREDICTIVE ANALYTICS FOR MARKET SEGMENTATION

Problem Statement:

Identifying the right market segments is crucial for effective targeting and optimizing marketing efforts. Traditional segmentation methods can be time-consuming and often rely on limited data, leading to less accurate targeting.

Solution Overview:

Using AI-driven predictive analytics, companies can analyze large volumes of customer data, including demographics, purchase behavior, and social media activity. AI models can identify patterns and segment customers more accurately, predicting future behaviors and preferences.

Key Benefits:

- Enhanced Targeting: More precise market segmentation leads to better-targeted marketing campaigns.
- Increased ROI: Optimized targeting improves conversion rates and reduces marketing spend wastage.
- Data-Driven Insights: Provides deep insights into customer behavior and trends.
- Customization: Enables personalized marketing strategies for different segments.
- Competitive Advantage: Helps in staying ahead by quickly adapting to market changes.

AI GO-TO-MARKET ACTIONS

PREDICTIVE ANALYTICS FOR MARKET SEGMENTATION

Example Tools from the Contextual AI Solutions Catalog:

watsonx

For advanced predictive analytics and segmentation model optimization.

Nyckel

To create custom segmentation models tailored to specific demographics and behaviors.

Data Inputs Required:

- Data Inputs Required:
- CRM Platforms (e.g., Salesforce, HubSpot, Zoho CRM): For customer interaction data and demographics.
- Sales Transaction History: Metrics for past purchases and customer loyalty.
- Inventory Management Systems: Provides product affinity data.
- Website Analytics: For behavioral data and conversion tracking.
- Customer Feedback Tools (e.g., Typeform, SurveyMonkey): Collects survey responses and preferences.
- Social Media Platforms (e.g., Hootsuite, Sprout Social): Monitors social media interactions and engagement.

External Data:

- Market Trends Reports: For industry trend insights.
- Competitor Analysis Tools: To benchmark against competitors.
- Search Trends (e.g., Google Trends): Provides keyword and search trend data.
- Social Sentiment Data: Analyzes sentiment from social media.

Continuous Improvement:

Regularly update AI models with new data and feedback to refine segmentation and maintain relevance in dynamic markets.

AI GO-TO-MARKET ACTIONS

AI-ENHANCED LEAD SCORING

Problem Statement:

Manually or even rule-based scoring leads can be inconsistent and subjective, leading to missed opportunities and wasted sales efforts on low-potential leads.

Solution Overview:

AI-powered lead scoring automates the process by evaluating leads based on historical data, engagement metrics, and predictive indicators of conversion. Machine learning models rank leads by their likelihood to convert, ensuring sales teams focus on high-potential prospects.

Key Benefits:

- Improved Conversion Rates: Focus on leads most likely to convert.
- Efficiency: Reduces time spent on low-potential leads.
- Objectivity: Removes subjectivity from the lead scoring process.
- Enhanced Sales Productivity: Sales teams can prioritize efforts effectively.
- Continuous Learning: Models improve over time with more data.

AI GO-TO-MARKET ACTIONS

AI-ENHANCED LEAD SCORING

Example Tools from the Contextual AI Solutions Catalog:

Nyckel

To create custom segmentation models tailored to specific demographics and behaviors.

unify

To optimize and refine lead scoring models using ongoing sales data.

Data Inputs Required:

- CRM Platforms (e.g., Salesforce, HubSpot, Zoho CRM): For lead interaction and demographic data.
- Website and Email Analytics (e.g., Google Analytics, Mailchimp): Tracks engagement metrics.
- Sales Platforms (e.g., Pipedrive, Outreach): Provides sales interaction data.
- Lead Classification Tools: For existing lead types and categories.

External Data:

- Company Demographics: Includes industry, location, and business health.
- Industry Benchmarks: For comparing lead quality against industry standards.
- Economic Indicators: Provides context on market conditions.
- Social Media Engagement: Tracks lead activity on platforms like LinkedIn.

Continuous Improvement:

AI models adapt based on ongoing sales outcomes and changing market conditions, refining lead scoring accuracy.

AI GO-TO-MARKET ACTIONS

CUSTOMER LIFETIME VALUE (LTV) PREDICTION

Problem Statement:

Understanding the potential long-term value of customers helps in prioritizing resources and designing retention strategies. Traditional methods of calculating CLV can be inaccurate and fail to capture dynamic customer behavior.

Solution Overview:

AI algorithms predict LTV by analyzing customer purchase history, behavior patterns, and engagement levels. This enables businesses to identify high-value customers and tailor retention efforts accordingly.

Key Benefits:

- Strategic Resource Allocation: Focus on high-value customers.
- Personalized Marketing: Design targeted retention and upsell strategies.
- Improved Customer Retention: Proactive engagement with valuable customers.
- Revenue Growth: Maximize the value extracted from each customer.
- Better Forecasting: More accurate revenue predictions.

AI GO-TO-MARKET ACTIONS

CUSTOMER LIFETIME VALUE (LTV) PREDICTION

Example Tools from the Contextual AI Solutions Catalog:

watsonx

For advanced predictive analytics in calculating and forecasting CLV.

OpenAI

For analyzing customer engagement and predicting future value.

Data Inputs Required:

- CRM Platforms (e.g., Salesforce, HubSpot, Zoho CRM): For customer engagement and interaction data.
- Sales Transaction History: Tracks purchase history.
- Loyalty Program Data: Provides insights into customer loyalty and retention.
- Product Usage Metrics: Monitors how customers interact with products or services.

External Data:

- Market Trends: For context on consumer behavior.
- Economic Forecasts: Helps predict future customer value.
- Consumer Spending Reports: Offers insights into spending patterns.
- Competitor Activity: Benchmarks customer value against competitors.

Continuous Improvement:

Continuous feedback loops refine CLV predictions as customer behaviors and market conditions evolve.

AI GO-TO-MARKET ACTIONS

DYNAMIC PRICING OPTIMIZATION

Problem Statement:

Setting the right price for products can be challenging, as it must balance competitiveness, profitability, and demand. Static pricing strategies often fail to adapt to market fluctuations.

Solution Overview:

AI-driven dynamic pricing models adjust prices in real-time based on various factors such as demand, competition, and inventory levels. Machine learning algorithms optimize pricing to maximize revenue and market share.

Key Benefits:

- Increased Revenue: Capture maximum value from each sale.
- Competitive Advantage: Stay ahead of competitors with agile pricing strategies.
- Inventory Management: Align pricing with inventory levels to reduce excess stock.
- Enhanced Customer Satisfaction: Provide fair pricing aligned with market conditions.
- Flexibility: Quickly adapt to market changes and customer behavior.

AI GO-TO-MARKET ACTIONS

DYNAMIC PRICING OPTIMIZATION

Example Tools from the Contextual AI Solutions Catalog:

watsonx

For developing and optimizing pricing models based on real-time market data.

StreamNative

For processing and analyzing real-time data streams for dynamic pricing adjustments.

Data Inputs Required:

- Sales Platforms (e.g., Shopify, Magento): For historical sales data.
- Inventory Management Systems (e.g., NetSuite, SAP): Tracks inventory levels.
- Real-Time Data Feeds: For current market and demand data.
- Competitor Pricing Tools: Monitors competitor prices.

External Data:

- Market Trends: For understanding broader market shifts.
- Search Trends (e.g., Google Trends): To gauge customer interest.
- Seasonal Trends: Provides context on demand fluctuations.
- Economic Indicators: Helps align pricing with economic conditions.
- Competitor Analysis: Benchmarks pricing strategies against competitors.

Continuous Improvement:

AI models continuously learn from sales outcomes and market data to refine pricing strategies and improve profitability.

AI GO-TO-MARKET ACTIONS

SENTIMENT ANALYSIS FOR BRAND MONITORING

Problem Statement:

Understanding customer sentiment towards a brand is vital for maintaining a positive brand image and addressing issues promptly. Manual monitoring of sentiment is inefficient and often incomplete.

Solution Overview:

AI-driven sentiment analysis tools scan social media, reviews, and other online platforms to gauge public sentiment towards a brand. Natural Language Processing (NLP) algorithms classify sentiments as positive, negative, or neutral, providing actionable insights.

Key Benefits:

- Real-Time Insights: Immediate understanding of public perception.
- Proactive Issue Management: Address negative sentiments before they escalate.
- Brand Improvement: Continuous feedback on brand perception.
- Enhanced Customer Engagement: Tailor responses based on sentiment analysis.
- Competitive Analysis: Understand sentiment towards competitors.

AI GO-TO-MARKET ACTIONS

SENTIMENT ANALYSIS FOR BRAND MONITORING

Example Tools from the Contextual AI Solutions Catalog:

Claude

For advanced natural language processing and nuanced sentiment analysis.

Rapid API

For real-time sentiment classification across various platforms.

Data Inputs Required:

- Social Media Platforms (e.g., Twitter, Facebook): For social media posts.
- Review Sites (e.g., Yelp, Google Reviews): Monitors customer reviews.
- Survey Tools (e.g., SurveyMonkey, Typeform): For customer feedback and CSAT responses.
- Support Platforms (e.g., Zendesk, Freshdesk): Tracks support volume.
- News Monitoring Tools: For news articles related to the brand.

External Data:

- Industry Benchmarks: To compare brand sentiment against industry standards.
- Competitor Sentiment Analysis: Provides insights into competitor brand perception.
- Market Trends: For understanding broader sentiment shifts.

Continuous Improvement:

AI systems continuously refine their sentiment analysis algorithms based on new data and evolving language trends, ensuring accurate and relevant insights.

TOP 5 AI USE CASES FOR **SERVICE DELIVERY TASKS**

1. Automated Customer Support
2. Predictive Maintenance
3. Personalized Service Recommendations
4. Intelligent Workflow Automation
5. Real-Time Analytics for Service Optimization

AI GO-TO-MARKET ACTIONS

AUTOMATED CUSTOMER SUPPORT

Problem Statement:

Providing timely and effective customer support is essential for maintaining customer satisfaction and loyalty. However, manual customer support can be resource-intensive and slow, leading to delays and inconsistency in responses.

Solution Overview:

AI-powered chatbots and virtual assistants can handle a wide range of customer inquiries, providing instant responses and resolving common issues without human intervention. Advanced NLP algorithms enable these systems to understand and respond to customer queries in a natural and conversational...

Key Benefits:

- 24/7 Availability: Customers receive support at any time, enhancing satisfaction.
- Cost Efficiency: Reduces the need for large customer support teams.
- Consistent Responses: Ensures uniformity in the information provided.
- Quick Resolution: Instant responses improve customer experience.
- Scalability: Easily handle large volumes of inquiries during peak times.

AI GO-TO-MARKET ACTIONS

AUTOMATED CUSTOMER SUPPORT

Example Tools from the Contextual AI Solutions Catalog:

Claude

For natural language understanding and enhanced customer interaction.

Mindstamp

For creating interactive, personalized video responses to customer queries.

Data Inputs Required:

- CRM Platforms (e.g., Salesforce, HubSpot, Zoho CRM): For customer interaction data.
- Historical Customer Queries: To train AI on past inquiries.
- FAQ Databases: Provides standard responses to common questions.
- Product and Service Manuals: For detailed product support information.

External Data:

- Industry Best Practices: Ensures AI aligns with top customer support standards.
- Real-Time Updates (e.g., Social Media, Forums): Monitors emerging issues and trends.

Continuous Improvement:

AI models continuously learn from customer interactions and feedback, improving response accuracy and expanding the range of supported queries over time.

AI GO-TO-MARKET ACTIONS

PREDICTIVE MAINTENANCE

Problem Statement:

Unplanned equipment downtime can disrupt service delivery and lead to significant costs. Traditional maintenance schedules based on fixed intervals do not account for the actual condition of equipment, leading to either over-maintenance or unexpected failures.

Solution Overview:

AI-driven predictive maintenance systems analyze data from sensors and historical maintenance records to predict when equipment is likely to fail. This allows for timely maintenance actions, reducing downtime and extending the lifespan of assets.

Key Benefits:

- Reduced Downtime: Minimize unexpected equipment failures.
- Cost Savings: Avoid unnecessary maintenance activities.
- Increased Equipment Lifespan: Timely interventions extend asset life.
- Enhanced Safety: Prevent accidents due to equipment failure.
- Improved Service Reliability: Consistent service delivery with fewer disruptions.

AI GO-TO-MARKET ACTIONS

PREDICTIVE MAINTENANCE

Example Tools from the Contextual AI Solutions Catalog:

Nyckel

For building custom predictive maintenance models based on equipment data.

StreamNative

For processing real-time sensor data and maintenance alerts.

Data Inputs Required:

- Sensor Data (e.g., Vibration, Temperature): Monitors real-time equipment conditions.
- Maintenance Logs: Tracks historical maintenance actions and outcomes.
- Equipment Usage Data: Provides insights into operational patterns.
- Manufacturer Specifications: Offers guidelines on equipment maintenance needs.

External Data:

- Industry Benchmarks: For comparing equipment performance.
- Environmental Conditions Data: To account for external factors affecting equipment.

Continuous Improvement:

Regular updates to predictive models with new sensor data and maintenance outcomes ensure ongoing accuracy and effectiveness in maintenance planning.

AI GO-TO-MARKET ACTIONS

PERSONALIZED SERVICE RECOMMENDATIONS

Problem Statement:

Providing personalized service recommendations can significantly enhance customer satisfaction and loyalty. However, manual personalization is not scalable and often lacks the depth of insight required to truly meet individual customer needs.

Solution Overview:

AI systems analyze customer data, including past interactions, purchase history, and preferences, to generate personalized service recommendations. Machine learning models continuously refine these recommendations based on customer feedback and changing behaviors.

Key Benefits:

- Enhanced Customer Satisfaction: Tailored services meet specific customer needs.
- Increased Revenue: Higher likelihood of upselling and cross-selling.
- Improved Customer Retention: Personalized experiences encourage loyalty.
- Better Customer Insights: Deep understanding of customer preferences.
- Competitive Advantage: Differentiated service offerings.

AI GO-TO-MARKET ACTIONS

PERSONALIZED SERVICE RECOMMENDATIONS

Example Tools from the Contextual AI Solutions Catalog:

Nyckel

For managing and analyzing customer profiles and interaction history.

ZOHO

Zoho CRM is used to build personalized recommendation models tailored to customer data.

Data Inputs Required:

- CRM Platforms (e.g., Salesforce, HubSpot, Zoho CRM): For customer profile and interaction data.
- Sales Transaction History: Tracks past purchases for personalized offers.
- Customer Feedback Tools (e.g., Typeform, SurveyMonkey): Provides insights into preferences.
- Customer Interaction Data: Captures all touchpoints across channels.

External Data:

- Market Trends: For aligning recommendations with current demands.
- Competitor Service Offerings: To benchmark and differentiate services.
- Demographic Data: Enhances personalization by considering customer demographics.

Continuous Improvement:

AI models evolve with each interaction, ensuring recommendations remain relevant and aligned with customer preferences and market trends.

AI GO-TO-MARKET ACTIONS

PERSONALIZED SERVICE RECOMMENDATIONS

Problem Statement:

Manual workflows can be inefficient, error-prone, and time-consuming, leading to delays in service delivery and increased operational costs.

Solution Overview:

AI-powered intelligent automation can streamline workflows by automating repetitive tasks such as data entry, scheduling, and report generation. Machine learning models optimize these processes, ensuring accuracy and efficiency.

Key Benefits:

- Error Reduction: Minimizes manual errors.
- Faster Service Delivery: Accelerates task completion.
- Cost Savings: Reduces operational costs associated with manual processes.
- Improved Resource Allocation: Allows staff to focus on higher-value activities.

AI GO-TO-MARKET ACTIONS

INTELLIGENT WORKFLOW AUTOMATION

Example Tools from the Contextual AI Solutions Catalog:

unify

For optimizing workflow automation models.

Rapid API

To automatically categorize and prioritize workflow tasks.

Data Inputs Required:

- Workflow Logs: Tracks the steps and time taken for each task.
- Task Completion Data: Provides insights into task duration and outcomes.
- Employee Performance Metrics: Monitors productivity and efficiency.
- System Usage Data: Captures how tools and systems are utilized in workflows.

External Data:

- Industry Standards: For benchmarking workflow efficiency.
- Best Practices in Automation: To guide and improve automation strategies.

Continuous Improvement:

Regular analysis of workflow performance data enables continuous refinement of automated processes, ensuring ongoing efficiency gains and adaptability to changing business needs.

AI GO-TO-MARKET ACTIONS

REAL-TIME ANALYTICS FOR SERVICE OPTIMIZATION

Problem Statement:

Service delivery often involves managing multiple variables in real-time, such as customer demand, resource availability, and operational constraints. Traditional methods of monitoring and optimizing service delivery can be slow and reactive.

Solution Overview:

AI-powered real-time analytics platforms provide dynamic insights into service operations, enabling proactive management and optimization. Machine learning models analyze data from various sources to identify patterns, predict issues, and recommend actions in real-time.

Key Benefits:

- Proactive Management: Identify and address issues before they impact service.
- Improved Decision-Making: Data-driven insights support better decisions.
- Enhanced Service Quality: Optimize service delivery for better outcomes.
- Real-Time Visibility: Immediate access to operational metrics.
- Flexibility: Quickly adapt to changing conditions and demands.

AI GO-TO-MARKET ACTIONS

REAL-TIME ANALYTICS FOR SERVICE OPTIMIZATION

Example Tools from the Contextual AI Solutions Catalog:

Nyckel

To create custom predictive models for service optimization.

StreamNative

For real-time data processing and analytics.

Data Inputs Required:

- Operational Metrics: Monitors real-time service performance.
- Customer Feedback: Captures immediate customer responses.
- Resource Utilization Data: Tracks how resources are being deployed.
- Service Performance Data: Provides insights into the quality and efficiency of service delivery.

External Data:

- Market Conditions: For context on external factors affecting service.
- Competitor Performance Benchmarks: To compare and optimize services.
- Environmental and Situational Data: Adjusts service strategies based on external events.

Continuous Improvement:

Continuous monitoring and feedback loops enable real-time adjustments to service delivery strategies, ensuring optimal performance and responsiveness to changing conditions.

TOP 5 AI USE CASES FOR **OPERATIONS PROCESSES**

1. Supply Chain Optimization
2. Quality Control and Inspection
3. Predictive Maintenance for Equipment
4. Process Automation with RPA (Robotic Process Automation)
5. Inventory Management Optimization

AI GO-TO-MARKET ACTIONS

SUPPLY CHAIN OPTIMIZATION

Problem Statement:

Managing supply chain operations is complex and can be prone to inefficiencies, delays, and increased costs due to unpredictable demand, logistics challenges, and supplier variability.

Solution Overview:

AI-driven supply chain optimization uses predictive analytics and machine learning to forecast demand, optimize inventory levels, and streamline logistics. By analyzing historical data, real-time market trends, and supplier performance, AI systems can create more accurate and dynamic supply chain models.

Key Benefits:

- Enhanced Forecast Accuracy: Improved demand predictions reduce overstock and stockouts.
- Cost Reduction: Optimized inventory levels and logistics reduce storage and transportation costs.
- Increased Efficiency: Streamlined operations lead to faster order fulfillment.
- Risk Mitigation: Proactive identification of potential disruptions.
- Improved Supplier Management: Better insights into supplier performance and reliability.

AI GO-TO-MARKET ACTIONS

SUPPLY CHAIN OPTIMIZATION

Example Tools from the Contextual AI Solutions Catalog:

watsonx

For optimizing predictive models for demand forecasting and inventory management.

StreamNative

To handle real-time data streams for logistics and supply chain optimization

Data Inputs Required:

- Historical Sales Data: For demand forecasting.
- Inventory Levels: Monitors stock availability and requirements.
- Supplier Performance Records: Tracks reliability and efficiency.
- Transportation and Logistics Data: Provides insights into delivery and shipping operations.

External Data:

- Market Trends: For predicting demand fluctuations.
- Economic Indicators: Contextual data for supply chain planning.
- Weather Forecasts: To anticipate disruptions in logistics.
- Geopolitical Events: For assessing risks in the supply chain.

Continuous Improvement:

AI models continuously learn from new data, refining forecasts and optimization strategies to adapt to changing conditions and improve performance.

AI GO-TO-MARKET ACTIONS

QUALITY CONTROL AND INSPECTION

Problem Statement:

Maintaining high-quality standards in manufacturing and production processes can be challenging, especially with manual inspection methods that are time-consuming and prone to human error.

Solution Overview:

AI-powered quality control systems use computer vision and machine learning to automate the inspection process. These systems can detect defects and inconsistencies in real-time by analyzing images and sensor data from the production line.

Key Benefits:

- Increased Accuracy: High precision in defect detection reduces the risk of faulty products.
- Cost Savings: Reduced waste and rework costs.
- Enhanced Efficiency: Faster inspection processes increase throughput.
- Consistent Quality: Uniform quality standards across production batches.
- Real-Time Feedback: Immediate identification and correction of issues.

AI GO-TO-MARKET ACTIONS

QUALITY CONTROL AND INSPECTION

Example Tools from the Contextual AI Solutions Catalog:

Claude

For advanced image processing and defect detection in real-time.

unify

To optimize computer vision models for real-time inspection.

Data Inputs Required:

- Production Line Images/Video: For visual inspection of products.
- Sensor Data (e.g., Temperature, Pressure): Monitors production conditions.
- Historical Defect Records: Provides data for training and refining models.
- Quality Standards and Specifications: Ensures inspections meet required benchmarks.

External Data:

- Industry Benchmarks: For comparing and maintaining quality standards.
- Best Practices in Quality Control: Guides and improves inspection processes.

Continuous Improvement:

AI systems improve over time by learning from inspection data and feedback, enhancing defect detection accuracy and adapting to new quality standards.

AI GO-TO-MARKET ACTIONS

PREDICTIVE MAINTENANCE FOR EQUIPMENT

Problem Statement:

Unexpected equipment failures can lead to significant downtime and high repair costs. Traditional maintenance schedules based on fixed intervals do not account for actual equipment condition and usage patterns.

Solution Overview:

AI-driven predictive maintenance systems use machine learning algorithms to analyze sensor data and predict when equipment is likely to fail. This enables timely maintenance actions, reducing unplanned downtime and extending equipment life.

Key Benefits:

- Reduced Downtime: Timely maintenance prevents unexpected equipment failures.
- Cost Efficiency: Avoids unnecessary maintenance and repairs.
- Increased Equipment Lifespan: Proper maintenance extends asset life.
- Improved Safety: Prevents accidents due to equipment failure.
- Enhanced Reliability: Ensures continuous operation of critical equipment.

AI GO-TO-MARKET ACTIONS

PREDICTIVE MAINTENANCE FOR EQUIPMENT

Example Tools from the Contextual AI Solutions Catalog:

Nyckel

For developing predictive maintenance models based on equipment data.

StreamNative

For processing real-time sensor data and alerting maintenance teams.

Data Inputs Required:

- Sensor Data (e.g., Vibration, Temperature, Noise): Monitors real-time equipment conditions.
- Maintenance Logs: Tracks historical maintenance activities and outcomes.
- Equipment Usage Data: Provides insights into operational patterns.
- Manufacturer Specifications: Guides maintenance based on equipment design.

External Data:

- Industry Benchmarks: For comparing equipment performance.
- Environmental Conditions Data: Accounts for external factors affecting equipment.

Continuous Improvement:

AI models continuously learn from new sensor data and maintenance outcomes, refining predictions and maintenance strategies to improve reliability and efficiency.

AI GO-TO-MARKET ACTIONS

PROCESS AUTOMATION WITH RPA
(ROBOTIC PROCESS AUTOMATION)

Problem Statement:

Many operational tasks are repetitive, time-consuming, and prone to errors when performed manually, leading to inefficiencies and increased operational costs.

Solution Overview:

Robotic Process Automation (RPA) uses AI and machine learning to automate routine tasks such as data entry, invoice processing, and report generation. RPA bots can interact with existing systems and applications to perform tasks accurately and efficiently.

Key Benefits:

- Increased Efficiency: Automates repetitive tasks, freeing up human resources.
- Error Reduction: Minimizes manual errors.
- Cost Savings: Reduces operational costs associated with manual processes.
- Scalability: Easily handles large volumes of tasks.
- Improved Compliance: Ensures tasks are performed consistently and according to regulations.

AI GO-TO-MARKET ACTIONS

PROCESS AUTOMATION WITH RPA
(ROBOTIC PROCESS AUTOMATION)

Example Tools from the Contextual AI Solutions Catalog:

unify

To optimize RPA workflows and improve task automation.

Rapid API

For categorizing and prioritizing tasks within the automation process.

Data Inputs Required:

- Workflow Logs: Tracks steps and efficiency of automated tasks.
- Transaction Data: For processing financial and operational transactions.
- Employee Performance Metrics: Monitors the impact of automation on productivity.
- System Usage Data: Provides insights into system interactions and efficiency.

External Data:

- Industry Best Practices in Automation: Guides effective RPA implementation.
- Compliance Requirements: Ensures automated processes adhere to regulations.

Continuous Improvement:

RPA systems can be continuously updated with new tasks and improved through feedback, ensuring ongoing efficiency and adaptability to changing business needs.

AI GO-TO-MARKET ACTIONS

INVENTORY MANAGEMENT OPTIMIZATION

Problem Statement:

Effective inventory management is critical for minimizing carrying costs and ensuring product availability. Manual inventory management methods can lead to inaccuracies, overstock, or stockouts.

Solution Overview:

AI-powered inventory management systems use machine learning to predict demand, optimize stock levels, and automate replenishment. By analyzing sales data, seasonality, and market trends, AI can dynamically adjust inventory policies.

Key Benefits:

- Reduced Carrying Costs: Optimize stock levels to minimize excess inventory.
- Improved Availability: Ensure products are available when needed.
- Enhanced Efficiency: Automate replenishment processes.
- Better Forecasting: More accurate demand predictions.
- Increased Customer Satisfaction: Avoid stockouts and meet customer demand.

AI GO-TO-MARKET ACTIONS

INVENTORY MANAGEMENT OPTIMIZATION

Example Tools from the Contextual AI Solutions Catalog:

watsonx

For predictive analytics and demand forecasting in inventory management.

StreamNative

For processing real-time sales and inventory data.

Data Inputs Required:

- Sales Data: For forecasting demand and optimizing stock levels.
- Inventory Levels: Tracks current stock to prevent overstock or stockouts.
- Order History: Provides insights into purchasing patterns.
- Supplier Lead Times: Helps in planning timely replenishment.

External Data:

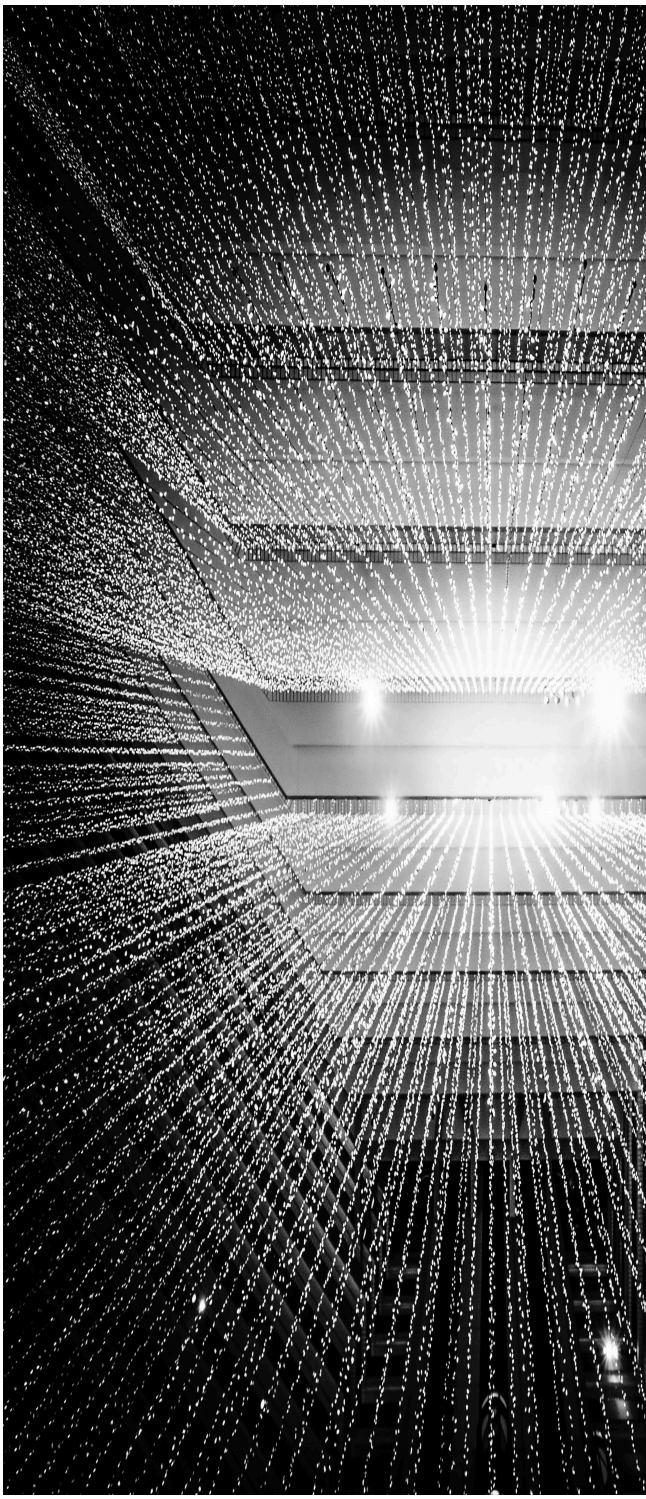
- Market Trends: For aligning inventory with current demand.
- Seasonal Data: Accounts for fluctuations in product demand.
- Economic Indicators: Provides context for inventory decisions.

Continuous Improvement:

AI models continuously learn from new sales data and inventory outcomes, refining forecasts and inventory policies to improve accuracy and responsiveness to market changes.

TOP 5 AI USE CASES FOR **DATA TRANSFORMATION**

1. Data Cleaning and Preprocessing
2. Data Integration and Consolidation
3. Data Normalization and Standardization
4. Data Enrichment
5. Data Transformation for Machine Learning



AI GO-TO-MARKET ACTIONS

DATA CLEANING AND PREPROCESSING

Problem Statement:

Raw data often contains errors, inconsistencies, and missing values, which can degrade the quality of analytical insights and decision-making. Manual data cleaning is time-consuming and prone to errors.

Solution Overview:

AI-powered data cleaning and preprocessing tools automatically detect and correct errors, fill missing values, and standardize data formats. Machine learning algorithms can identify patterns and anomalies, ensuring the data is clean and ready for analysis.

Key Benefits:

- Improved Data Quality: Accurate, consistent, and complete data sets.
- Time Efficiency: Automates tedious data cleaning tasks.
- Enhanced Insights: Higher quality data leads to better analytical outcomes.
- Reduced Manual Errors: Minimizes human intervention and errors.
- Scalability: Easily handles large volumes of data.

AI GO-TO-MARKET ACTIONS

DATA CLEANING AND PREPROCESSING

Example Tools from the Contextual AI Solutions Catalog:

Nyckel

For identifying and correcting anomalies in large datasets.

unify

To optimize data cleaning processes and ensure data consistency.

Data Inputs Required:

- Raw Data from Various Sources: Includes databases, files, and APIs.
- Data Quality Rules and Standards: Guidelines for data accuracy and consistency.

External Data:

- Industry-Specific Data Standards and Benchmarks: For aligning data with best practices.

Continuous Improvement:

AI models learn from data cleaning operations and user feedback, continually improving their ability to detect and correct data issues.

AI GO-TO-MARKET ACTIONS

DATA INTEGRATION AND CONSOLIDATION

Problem Statement:

Data is often siloed across multiple systems and formats, making it challenging to create a unified view for analysis and reporting. Manual integration is complex and resource-intensive.

Solution Overview:

AI-driven data integration tools consolidate data from various sources, transforming it into a unified format. These tools use machine learning to map data fields, reconcile discrepancies, and ensure data consistency across different systems.

Key Benefits:

- Unified Data View: Consolidated data for comprehensive analysis.
- Increased Efficiency: Reduces time and effort required for data integration.
- Enhanced Data Consistency: Ensures uniformity across different data sources.
- Improved Decision-Making: Access to complete and accurate data.
- Scalability: Easily integrates data from new sources as needed.

AI GO-TO-MARKET ACTIONS

DATA INTEGRATION AND CONSOLIDATION

Example Tools from the Contextual AI Solutions Catalog:

StreamNative

For real-time data processing and consolidation from various sources.

Nyckel

To create custom models for data mapping and reconciliation.

Data Inputs Required:

- Data from ERP, CRM, and Other Enterprise Systems: For integration and unification.
- External Data Sources: Includes APIs and third-party databases.

External Data:

- ndustry Benchmarks for Data Integration: Guides best practices.
- External Data Schema and Standards: Ensures consistency across data sources.

Continuous Improvement:

AI models continuously adapt to new data sources and integration patterns, improving the efficiency and accuracy of data consolidation over time.

AI GO-TO-MARKET ACTIONS

DATA NORMALIZATION AND STANDARDIZATION

Problem Statement:

Inconsistent data formats and units can lead to difficulties in analysis and integration. Manual standardization processes are error-prone and not scalable.

Solution Overview:

AI-based data normalization and standardization tools convert data into a consistent format, ensuring compatibility across different systems. Machine learning algorithms can automatically detect and apply appropriate transformations to achieve standardization.

Key Benefits:

- Consistent Data Formats: Uniform data ready for analysis and integration.
- Reduced Errors: Minimizes discrepancies due to inconsistent data.
- Increased Efficiency: Automates the standardization process.
- Better Data Interoperability: Facilitates seamless data exchange between systems.
- Improved Analytical Accuracy: Standardized data enhances the reliability of analysis.

AI GO-TO-MARKET ACTIONS

DATA NORMALIZATION AND STANDARDIZATION

Example Tools from the Contextual AI Solutions Catalog:

Nyckel

For custom data transformation models to ensure consistency.

unify

To optimize data standardization processes across different systems.

Data Inputs Required:

- Raw Data with Varying Formats and Units: For normalization and standardization.
- Standardization Rules and Guidelines: Ensures data consistency.

External Data:

- Industry-Specific Data Standards and Best Practices: Guides effective standardization.

Continuous Improvement:

AI systems learn from standardization tasks and feedback, continuously refining their ability to normalize and standardize diverse data sets.

AI GO-TO-MARKET ACTIONS

DATA ENRICHMENT

Problem Statement:

Data sets often lack the depth and context needed for comprehensive analysis. Manually enriching data with external information is labor-intensive and limited in scope.

Solution Overview:

AI-driven data enrichment tools augment internal data with relevant external information, such as demographic data, market trends, and social media insights. Machine learning algorithms identify and integrate relevant external data, enhancing the context and value of the original data set.

Key Benefits:

- Enhanced Data Context: Richer data sets for deeper insights.
- Improved Decision-Making: Better-informed decisions with enriched data.
- Increased Analytical Power: More comprehensive analysis capabilities.
- Time Efficiency: Automates the enrichment process.
- Competitive Advantage: Access to a broader range of information.

AI GO-TO-MARKET ACTIONS

DATA ENRICHMENT

Example Tools from the Contextual AI Solutions Catalog:

Claude

For natural language processing and enhancing data with contextual insights.

Nyckel

To develop enrichment models that add valuable context to internal data.

Data Inputs Required:

- Internal Data Sets (e.g., Customer, Sales, Operational Data): Base data for enrichment.
- External Data Sources (APIs, Public Datasets): For additional context and information.

External Data:

- Demographic Information: Adds context based on population characteristics.
- Market Trends: Provides insights into industry movements.
- Social Media Insights: Enhances data with real-time public sentiment.

Continuous Improvement:

AI models continuously learn from enrichment outcomes, improving their ability to identify and integrate valuable external data.

AI GO-TO-MARKET ACTIONS

DATA TRANSFORMATION FOR MACHINE LEARNING

Problem Statement:

Preparing data for machine learning models requires extensive transformation, such as feature engineering, scaling, and encoding. Manual transformation is complex and time-consuming.

Solution Overview:

AI-powered data transformation tools automate the process of preparing data for machine learning. These tools perform tasks such as feature extraction, normalization, encoding, and scaling, ensuring the data is in an optimal format for model training.

Key Benefits:

- Faster Model Development: Reduces time spent on data preparation.
- Improved Model Performance: Optimally transformed data enhances model accuracy.
- Reduced Complexity: Simplifies the data preparation process.
- Consistency: Ensures uniform transformation across different data sets.
- Scalability: Easily handles large and diverse data sets.

AI GO-TO-MARKET ACTIONS

DATA TRANSFORMATION FOR MACHINE LEARNING

Example Tools from the Contextual AI Solutions Catalog:

Nyckel

For custom feature engineering and data transformation models.

unify

To optimize data preparation processes for machine learning applications.

Data Inputs Required:

- Raw Data for Machine Learning: The base data needing transformation.
- Feature Engineering Guidelines: Instructions for creating relevant features.
- Model Requirements: Specific needs for the machine learning model (e.g., scaling, encoding).

External Data:

- Industry Best Practices for Data Transformation: To guide effective data preparation.
- Pre-Trained Models and Feature Libraries: Provides ready-made transformations and features.

Continuous Improvement:

AI systems learn from transformation tasks and model performance, continuously refining their transformation techniques to improve model outcomes.

SOLUTION-SPECIFIC DISCOVERY QUESTIONS

Assuming one of the solution concepts provided in the previous section generated client interest, you should seek to go deeper on requirements, existing systems and processes, and available data sources. The following questions can help you actively uncover the most explicit opportunities across:

DISCOVERY QUESTIONS
GO-TO-MARKET

Because go-to-market activities are generally tied to revenue, they can be the easiest, visible, and most ROI-impacting AI solutions targeted by enterprise clients. Opportunities exist in personalization, customization, and hyper-targeting.

To explore opportunities where AI can impact go-to-market activities, consider utilizing the following discovery questions.

Pricing

How do you currently determine pricing for your products or services? Is all pricing the same or does it vary by customer, region, or other dynamic factors.

Are there challenges you face with dynamic or competitive pricing? What has changed in the market that drives a significant pricing reaction and how far in advance do you know typically this?

How frequently do you adjust your pricing strategies generally, and what factors drive these changes?

Do you utilize any tools or software to assist with pricing decisions? If so, which ones? What data is involved and how do you secure that data?

How do you analyze and respond to competitors' pricing strategies? How frequently and with what analysis?

Proposals

What is your current process for creating and managing sales proposals? How templated or bespoke are these proposals?

Are there any bottlenecks or challenges in your proposal generation process (for instance research, data assembly or quality assurance)?

How do you ensure that proposals are tailored to the specific needs of each client? How 'deep' does that personalization go?

Do you track the success rate of your proposals? If so, how? How are they assessed for quality, accuracy, or targeting?

Are there any repetitive or redundant tasks in your proposal process that you think could be automated?

Product Recommendation

How do you currently recommend products or services to your customers? Is it one-size-fits-all approach or 100% tailored?

What data do you use to make these recommendations? Are you gathering any information proactively (for instance from the web or press releases)?

What challenges do you face when providing personalized recommendations to your customers? e.g. does too much variability create delivery problems? Are there guardrails?

Do you track the effectiveness of your product recommendations? If so, how? Is success tied closer to the product or the salesperson presenting the product?

How do you gather and utilize customer feedback on your recommendations? Do after-the-fact success metrics play into future recommendations?

DISCOVERY QUESTIONS
SERVICE DELIVERY

While securing a customer is critical to the immediate success of your business and can be tracked using short-term ROI metrics, maintaining delighted customers is critical to the long-term viability and referral-based growth of any business.

Applying AI Solutions to existing processes can dramatically enhance the speed, efficiency, and quality of the experience for end customers. To explore opportunities for AI's impact on Service Delivery activities, consider the following discovery questions specific to functional or process areas within a service delivery team.

Customer Support

What are the main channels through which customers contact your support team? Have you considered alternate channels but are concerned about servicing them?

How do you currently manage and prioritize customer support inquiries? What makes something high priority (example: is this by issue or by customer or by combination)?

Are there common issues or questions your support team handles repeatedly? What prevents these from being resolved via knowledge base content and self-service?

How do you measure customer support services satisfaction? Could you collect more explicit feedback and leverage it for change?

Are there current challenges or pain points in your customer support process (examples: Data, reporting, escalation, tracking)?

Work Order Management

How do you currently create, assign, and track work orders? Is this a fixed approach or does it change situationally or dynamically?

What are the main challenges you face in managing work orders efficiently? For instance, is information / resolution capture seamless?

How do you ensure that work orders are completed on time and to the required standard? What defines success? What level of post completion validation is used?

Do you use any software or tools for work order management? If so, which ones? What are some pros and cons of each solution?

How do you handle updates and communication regarding work orders between teams? What about to external parties?

Fulfillment

What is your current process for order fulfillment? Are there manual steps or steps where data has to be transformed between different systems?

How do you ensure accuracy and efficiency in fulfilling orders? What metrics matter? What's tracked but not well summarized or used?

Are there any challenges you face with inventory management during the fulfillment process? Is insight real-time about patterns that could impact inventory?

How do you track and measure the performance of your fulfillment operations? How proactive is your knowledge on backlogs?

Do you have any automation in place for your fulfillment process? If so, what aspects are automated? Where would more automation help?

DISCOVERY QUESTIONS
OPERATIONS

Your clients' day-to-day operations can vary dramatically based on industry and specific business lines. No matter the industry or organization, efficient operations are essential for keeping your business running smoothly and meeting expectations. Optimizing these processes is key to sustaining profitability and ensuring operational scalability. Effective AI automation and augmentation of operations processes can reduce costs, minimize errors, and enhance customer satisfaction.

By integrating AI Solutions into your operations, companies can significantly improve accuracy, streamline tasks, and better manage resources. To identify where AI can make the most impact in, consider the following discovery questions tailored to the potential functions and processes within an operations team.

Billing

How do you currently manage your billing and invoicing processes? Are there any non-digitized steps or manual data entry?

What challenges do you face in ensuring timely and accurate billing? How much reporting is run manually? Are there challenges that can be easily identified if the data is in the right hands?

How do you handle discrepancies in billing? What systems need comparison and how is that done?

What software do you use to manage your billing operations? What are some challenges that presents?

How do you track and manage outstanding payments and receivables? How are those escalated to critical parties?

Receiving

What is your current process for receiving goods and materials? Could automation, including AI visual inspection, enhance receipt?

How do you ensure that received goods match purchase orders and quality standards? What's the pace of inspection?

Are there any challenges you face with tracking and documenting received items? Where are those gaps and what tools / data / systems are at play?

How do you manage communication and coordination with suppliers regarding deliveries? How often are changes required?

Do you use any technology or tools to streamline your receiving process?

Warehousing

How do you currently manage your warehouse operations? Is slotting a problem? Scheduling?

What challenges do you face in maintaining accurate inventory levels? What about optimizing those levels?

How do you track the movement of goods within your warehouse? How often are overrides taking place?

Do you use any software or tools for warehouse management? If so, which ones?

How do you ensure the efficiency and accuracy of your picking and packing processes? What are the KPIs for these processes and is the data readily available?

DISCOVERY QUESTIONS
DATA TRANSFORMATION

Data is at the core of every modern business. Transforming raw data into actionable insights is crucial for making informed decisions and maintaining a competitive edge. Effective data transformation—encompassing system integration, summarization, and categorization—ensures that information is accessible and meaningful across an organization.

Leveraging AI Solutions in data transformation can significantly enhance the accuracy, speed, and consistency of data processes—enabling better decisions and more efficient operations. To discover how AI can elevate a client's data transformation efforts, consider the following discovery questions specific to the key areas of system integration, data summarization, and categorization.

System Integration

What systems and software do you use for your operations that present that biggest data consistency, accuracy, or accessibility challenges?

What challenges do you face with integrating data across systems? Is this in data transformation, scheduling, dependability, or something else?

How do you ensure data consistency and accuracy when integrating systems? What is the 'system of record' and is that always working?

Do you have any manual processes in place that could benefit from system integration? Do humans impact data quality?

How do you handle data security and privacy during integration? How do manual processes impact these steps?

Summarization

How do you currently summarize and report key business metrics and data? How 'locked away' is this data from the people who can affect change with it?

What challenges do you face in creating accurate and timely summaries of your data? Does data quality or consistency impact this?

Are there any specific data summarization tasks that are time-consuming or complex?

How do you ensure that your data summaries are useful and actionable for decision-making? What reports seem to be stagnant/unused and why were they initially created?

Do you have a data warehouse, data lake or data aggregation platform? What about business intelligence tools?

Categorization

How do you currently categorize and organize your business data? Are there replicas or transformations between different systems?

What challenges do you face in maintaining accurate and consistent data categorization? Does 'drift' in data type or detail negatively impact categorization?

Are there any specific data categorization tasks that are prone to errors or inconsistencies?

How do you ensure that your data categorization aligns with your business needs and goals?

What history or historical data has caused challenges for the business because it does not currently reside in systems or current data structures?

INDUSTRY-SPECIFIC STARTING POINTS

Depending on the stakeholders with whom you're engaging, starting with industry-specific ideas about AI Solutions may be the easiest way to encourage opportunity discovery and exploration. These could be presented as 'what if' scenarios to help guide brainstorming or used to explicitly target decision makers and functional owners within an organization with a specific pitch.

While we've provided a small sample of solution opportunities for a few industries, we have solutions like this defined for all of the industries you see at the bottom of this list. Reach out to partnerships@contextual.io for any materials on potential industry solutions you'd like to see or if you'd like materials in reusable forms for your own marketing.

Jump to a specific industry solution example here or read through each to help

INDUSTRY SPECIFIC STARTING POINTS

RETAIL

Example Use Case:

AI-Driven Customer Sentiment Analysis for Retail

Problem Statement:

Retailers need to understand customer sentiment in real-time to enhance customer experience and make informed decisions regarding product offerings, marketing campaigns, and customer service. The vast amount of customer feedback across various platforms makes it challenging to analyze sentiment effectively and quickly.

Solution Overview:

Retailers can leverage AI to automatically classify customer feedback from multiple sources—such as social media, reviews, and surveys—into sentiment categories like positive, negative, or neutral. This AI-driven system analyzes text data in real-time, enabling retailers to address negative feedback promptly, capitalize on positive sentiment, and adjust strategies accordingly. By automating the sentiment analysis process, retailers can ensure they are constantly attuned to customer feelings and can react swiftly to maintain and enhance customer satisfaction. Further, AI is more able to identify human nuance including sarcasm and negative comments hidden in positive 'star' reviews (or vice versa).

Key Benefits:

- Improved Customer Experience: Quickly addresses negative sentiment and enhances positive interactions.
- Data-Driven Decision Making: Provides insights from sentiment analysis to refine marketing strategies and product development.
- Enhanced Brand Loyalty: Strengthens customer relationships through timely responses to feedback.
- Increased Efficiency: Automates the analysis process, reducing manual effort and speeding up responses.

INDUSTRY SPECIFIC STARTING POINTS

RETAIL

Example Tools from the Contextual AI Solutions Catalog:

Rapid API

For real-time sentiment classification

Webflow

URL analysis for analyzing public review sites.

Claude

To enhance sentiment analysis by utilizing advanced natural language understanding for nuanced sentiment detection & contextual understanding.

watsonx

For predictive analytics and advanced customer behavior forecasting, providing deeper insights into trends and potential sentiment shifts.

Data Inputs Required:

- Internal Systems: Help Desk (Crisp, Zendesk) for inbound support tickets. CRM platforms (Zoho, Salesforce, Hubspot) for customer interaction data.
- Social Media Chats: For real-time client conversation access.
- External Systems: Review sites (Yelp, Google Reviews, Capterra).
- Social Media Analytics: Data from platforms such as Facebook Insights or Twitter Analytics.

External Data:

- Social Media Sentiment Trends: To compare the brand's sentiment with industry benchmarks.
- Competitor Analysis: To understand competitor sentiment for better positioning.

Continuous Improvement:
By continuously feeding new customer interactions into the model, sentiment analysis can adapt to evolving customer language and emerging trends, ensuring ongoing relevance and effectiveness.

A similar solution that could be used internally could be 'pointed externally' to identify challenges competitors may be having and to proactively seek to acquire new customers through over-service.

INDUSTRY SPECIFIC STARTING POINTS

LOGISTICS AND SUPPLY CHAIN

Example Use Case:

Demand Forecasting and Inventory Optimization

Problem Statement:

Accurately predicting demand is critical in logistics and supply chain operations for optimizing inventory levels and avoiding stock outs or excess inventory. Traditional forecasting methods often fail to account for rapid changes in market conditions, leading to inefficiencies and increased costs.

Solution Overview:

Logistics companies can harness AI to enhance demand forecasting by classifying various demand signals and optimizing predictive models. The AI system analyzes a wide array of data, including historical sales, market trends, and external factors such as economic indicators or seasonal effects, to accurately predict future demand. This allows for the optimization of inventory levels, reducing both holding costs and the risk of stockouts. By implementing advanced AI-driven demand forecasting, companies can better align inventory with actual demand, ensuring efficiency across the supply chain.

Key Benefits:

- Optimized Inventory Levels: Ensures inventory aligns with actual demand, reducing holding costs.
- Reduced Stockouts: Accurately predicts demand spikes, preventing lost sales.
- Cost Efficiency: Minimizes costs associated with excess inventory and emergency restocking.
- Improved Supplier Relationships: Facilitates better planning and collaboration with suppliers.

INDUSTRY SPECIFIC STARTING POINTS

LOGISTICS AND SUPPLY CHAIN

Example Tools from the Contextual AI Solutions Catalog:

watsonx

For robust predictive analytics and business forecasting, enabling more accurate and scalable demand prediction.

StreamNative

To handle real-time data streams from internal systems (purchases, return), market trends and external economic indicators, ensuring up-to-date forecasting models.

unify

For selecting and optimizing the best predictive models for demand forecasting.

Data Inputs Required:

- Internal Systems: ERP systems like SAP for historical sales and inventory data, and SCM and WMS systems for supply chain and warehouse data.
- POS Systems: Real-time sales data to track current demand.

External Data:

- Market Trends: To identify shifts in consumer preferences and adjust forecasts accordingly.
- Economic Indicators: To predict demand changes based on broader economic conditions.

Continuous Improvement:

Demand forecasting models can be continuously improved by incorporating new data and feedback from inventory performance, ensuring the system adapts to changing market conditions and remains accurate.

INDUSTRY SPECIFIC STARTING POINTS

HOSPITALITY

Example Use Case:

Personalized Guest Experience Enhancement

Problem Statement:

Providing a personalized guest experience is crucial in the hospitality industry for ensuring customer satisfaction and fostering loyalty. However, with the vast amount of guest data available, delivering tailored services and recommendations effectively without overwhelming staff can be challenging.

Solution Overview:

In the hospitality industry, AI can be leveraged to enhance the guest experience by delivering personalized recommendations, tailored room amenities, and custom promotions. By analyzing guest preferences, past interactions, and real-time behavior, the AI system can provide personalized services and suggestions during a guest's stay. This not only helps in making guests feel valued and understood but also drives higher revenue through targeted upsell and cross-sell opportunities. Automating the personalization process reduces the burden on staff, allowing them to focus on delivering exceptional service.

Key Benefits:

- Increased Guest Satisfaction: Tailored experiences make guests feel valued and understood.
- Higher Revenue per Guest: Personalized upsell and cross-sell opportunities increase spending.
- Enhanced Loyalty: Personalized experiences lead to repeat visits and strong customer loyalty.
- Operational Efficiency: Automates the personalization process, reducing the burden on staff.

INDUSTRY SPECIFIC STARTING POINTS

HOSPITALITY

Example Tools from the Contextual AI Solutions Catalog:

OpenAI Assistant

For creating retrieval augmented AI (RAG) solutions that can be specific to your unique hospitality offerings, including the SPA, dining or conference facilities.

Mindstamp

To create personalized video messages and content for guests, such as welcome messages or promotional offers and integrating live responses.

Claude

For real-time language processing, enabling better understanding of guest inquiries and enhancing the personalization of responses.

Data Inputs Required:

- Internal Systems: Reservation systems like Guesty (STR space), Jonas (Country clubs) and Cloudbeds (hotels) for guest profiles, preferences, and interaction history.

External Data:

- Social Media Insights: To enhance guest profiles with preferences and behavior insights from platforms like Instagram or TripAdvisor.
- Local Event Calendars: To offer personalized recommendations for activities and events during the guest's stay.

Continuous Improvement:

The AI models can continuously refine their personalization algorithms by analyzing guest feedback and behavioral trends, ensuring that the experiences offered remain relevant and engaging.

INDUSTRY SPECIFIC STARTING POINTS

REAL ESTATE

Example Use Case:

AI-Enhanced Property Valuation

Problem Statement:

Accurately valuing real estate properties is crucial for buyers, sellers, and real estate professionals. Traditional property valuation methods often rely on historical data and simple comparisons, which may not account for rapidly changing market conditions, unique property features, nuanced local factors or broader economic trends.

Solution Overview:

AI can significantly enhance the real estate property valuation process by analyzing a wide range of data, including recent sales, neighborhood trends, property features, and economic indicators. This approach enables real estate companies to provide accurate and up-to-date property valuations, adjusting in real-time to reflect changing market conditions with hyper-local focus. By automating the valuation process, AI not only speeds up assessments but also ensures that valuations are more precise, supporting better decision-making for buyers, sellers, and real estate professionals.

Key Benefits:

- Accurate Valuations: Provides more precise property valuations by considering a wider array of factors.
- Faster Valuation Process: Automates the valuation process, reducing the time required to assess a property.
- Market Responsiveness: Adjusts valuations in real-time based on changing market conditions.
- Enhanced Decision Making: Offers data-driven insights that help real estate professionals and clients make informed decisions.
- Buyer and Seller Confidence: Going beyond ‘price per square foot’ gives both buyers and sellers the confidence that their transaction is fair and defensible.

INDUSTRY SPECIFIC STARTING POINTS

REAL ESTATE

Example Tools from the Contextual AI Solutions Catalog:

unify

To optimize and select the best predictive models for property valuation.

watsonx

For integrating predictive analytics into property valuation, combining multiple data sources to refine valuation models with advanced forecasting.

Claude

To take photographs of a property and 'assess' them for renovation opportunities, upgrades, cleanliness, presentability and more.

Data Inputs Required:

- Internal Systems: Property listing systems for historical sales data and detailed property features.
- MLS (Multiple Listing Service, Zillow): For accessing recent sales data and current listings.

External Data:

- Market Trends: Real-time data on market trends, including supply and demand dynamics in the local area.
- Local and Macro Economic Data: Insight on job growth, inflation, unemployment, school performance and company investment that can impact property valuations and sale pacing.

Continuous Improvement:

The property valuation models can be continuously refined by integrating new sales data and adjusting to shifts in market trends and economic conditions, ensuring that valuations remain accurate and relevant.

INDUSTRY SPECIFIC STARTING POINTS

TRAVEL AND TOURISM

Example Use Case:

Dynamic Pricing for Travel Packages

Problem Statement:

Setting the right price for travel packages, tours, and accommodations is critical for maximizing revenue in the competitive travel industry. Traditional pricing strategies often fail to adapt to real-time changes in demand, seasonality, and external factors like major events or holidays.

Solution Overview:

AI can be used to implement dynamic pricing strategies in the travel and tourism industry, allowing companies to adjust prices for travel packages, sightseeing tours, and accommodations in real-time. By continuously monitoring demand, competitor pricing, and external events, the AI system ensures that pricing remains competitive and maximizes revenue. This dynamic approach not only helps in capitalizing on peak demand periods but also in maintaining occupancy during low-demand times, thereby increasing overall booking rates and optimizing revenue management.

Key Benefits:

- Maximized Revenue: Adjusts prices in real-time to capitalize on peak demand.
- Competitive Advantage: Keeps pricing competitive by responding quickly to market changes.
- Improved Occupancy Rates: Dynamic pricing helps maintain high occupancy during low-demand periods.
- Increased Booking Rates: Competitive pricing strategies increase the likelihood of bookings.
- Customer Satisfaction: Customers understand they are paying the best possible price for the services they desire.

INDUSTRY SPECIFIC STARTING POINTS

TRAVEL AND TOURISM

Example Tools from the Contextual AI Solutions Catalog:

unify

For selecting and optimizing the best pricing models for dynamic adjustment.

OpenAI Assistant

To create retrieval-augmented generation (RAG) AI predictions for specific sectors, types of tours or priority destinations.

watsonx

For developing advanced pricing models that incorporate broader economic trends and predictive analytics.

Data Inputs Required:

- Internal Systems: Booking systems for current pricing and occupancy data.
- Revenue Management Systems: For historical pricing and demand data.

External Data:

- Local Event Data: To anticipate demand spikes due to major events, holidays, or conferences.
- Competitor Pricing: Real-time competitor pricing data to adjust offers accordingly.

Continuous Improvement:

The pricing models can be continuously improved by analyzing booking patterns and adjusting for new market trends, ensuring that pricing strategies remain effective and competitive.

INDUSTRY SPECIFIC STARTING POINTS

EVENT PLANNING AND MANAGEMENT

Example Use Case:

Automated Attendee Support and Query Resolution

Problem Statement:

Event attendees often have questions or issues that need quick resolution, especially during large-scale events. Traditional support systems can struggle to keep up with the volume of queries, leading to long wait times and frustrated attendees.

Solution Overview:

AI can streamline the attendee support process for events by automatically classifying and responding to common queries while routing more complex inquiries to human agents. This system ensures that attendee concerns are addressed quickly and efficiently, reducing wait times and enhancing the overall event experience. By automating frequent query responses, event organizers can focus their resources on delivering a higher quality experience for attendees, improving operational efficiency and satisfaction.

Key Benefits:

- Improved Attendee Experience: Quick, accurate responses to common issues reduce frustration.
- Operational Efficiency: Automates the handling of frequent queries, freeing up human agents for more complex issues.
- Reduced Response Times: Immediate responses to common queries decrease wait times for attendees.
- Cost Savings: Reduces the need for large support teams by automating routine tasks.

INDUSTRY SPECIFIC STARTING POINTS

EVENT PLANNING AND MANAGEMENT

Example Tools from the Contextual AI Solutions Catalog:

Rapid API

To automatically classify and respond to common attendee queries.

WebPilot

For extracting and summarizing relevant event information from external websites, enhancing the automated query resolution system with up-to-date content.

Claude

For advanced natural language processing to better understand and respond to attendee inquiries in real-time.

Data Inputs Required:

- Internal Systems: CRM systems like Hubspot, Zoho or Dubsado for attendee interaction history and support tickets.
- Event Management Platforms: Systems such as Eventbrite, Cvent, Aisle Planner and Whova for session schedules, venue information, and attendee data.

External Data:

- Social Media Monitoring: To capture and respond to attendee queries or complaints posted online.
- Event Feedback Platforms: For understanding common attendee issues and incorporating them into the support system.

Continuous Improvement:

The support models can be continuously refined by analyzing the types of queries received and adjusting responses to emerging trends, ensuring that the system remains responsive to attendee needs.

INDUSTRY SPECIFIC STARTING POINTS

E-COMMERCE

Example Use Case:

AI-Powered Inventory Forecasting and Management

Problem Statement:

Effective inventory management is crucial for e-commerce businesses to avoid stockouts and overstock situations, which can lead to lost sales and increased holding costs. Traditional inventory forecasting methods may not predict demand accurately, especially in volatile markets.

Solution Overview:

AI can significantly improve inventory forecasting and management for e-commerce platforms by analyzing historical sales data, seasonality, and external factors like economic indicators or emerging trends. This AI-driven approach allows businesses to accurately forecast demand, optimize inventory levels, and reduce the risks of stockouts or excess inventory. By aligning inventory more closely with actual demand, e-commerce platforms can minimize holding costs, enhance supply chain efficiency, and ensure that products are available when customers need them.

Key Benefits:

- Optimized Inventory Levels: Ensures inventory is aligned with actual demand, reducing holding costs.
- Reduced Stockouts: Accurately predicts demand spikes, preventing lost sales due to stockouts.
- Cost Efficiency: Minimizes costs associated with excess inventory and emergency restocking.
- Improved Supply Chain Efficiency: Enhances collaboration with suppliers by providing accurate demand forecasts.

INDUSTRY SPECIFIC STARTING POINTS

E-COMMERCE

Example Tools from the Contextual AI Solutions Catalog:

Nyckel

For building predictive models tailored to specific products and sales patterns.

watsonx

For predictive analytics and forecasting to optimize inventory levels with higher accuracy.

OpenAI Assistant

For tuning a retrieval augmented generation (RAG) AI against specific types or categories of products that may be uniquely influenced by purchase patterns or sensitive to other changes.

Data Inputs Required:

- Internal Systems: ERP systems for historical sales and inventory data, and e-commerce platforms for real-time sales data.
- eCommerce Systems: Shopfiy or Marketo data for transaction data.
- Marketing / Promotion Systems: Campaign data from promotions or sales.
- POS Systems: Data on in-store sales (if applicable) to integrate online and offline inventory management.

External Data:

- Market Trends: To identify shifts in consumer preferences and adjust inventory accordingly.
- Economic Indicators: To predict demand changes based on broader economic conditions.

Continuous Improvement:

The inventory forecasting models can be continuously improved by integrating new sales data, customer behavior insights, and external trends, ensuring that predictions remain accurate and relevant in changing market conditions.

INDUSTRY SPECIFIC STARTING POINTS

COMMERCIAL MAINTENANCE SERVICES

Example Use Case:

Automated Work Order Management

Problem Statement:

Managing a high volume of maintenance requests across multiple commercial properties can be challenging. Traditional work order management systems often rely on manual processes, leading to inefficiencies, delays, and potential errors in task prioritization and assignment.

Solution Overview:

AI can automate the work order management process for commercial maintenance services by classifying incoming maintenance requests, prioritizing them based on urgency and resource availability, and automatically assigning tasks to the appropriate personnel. This approach ensures that maintenance issues are addressed promptly and efficiently, reducing delays and improving service quality. By streamlining the classification and assignment of work orders, AI not only increases operational efficiency but also reduces the administrative burden on management teams.

Key Benefits:

- Increased Guest Satisfaction: Tailored experiences make guests feel valued and understood.
- Higher Revenue per Guest: Personalized upsell and cross-sell opportunities increase spending.
- Enhanced Loyalty: Personalized experiences lead to repeat visits and strong customer loyalty.
- Operational Efficiency: Automates the personalization process, reducing the burden on staff.

INDUSTRY SPECIFIC STARTING POINTS

COMMERCIAL MAINTENANCE SERVICES

Example Tools from the Contextual AI Solutions Catalog:

Claude

For advanced natural language understanding to better categorize and prioritize work orders based on tenant interactions and request specifics.

StreamNative

To export real-time data on maintenance requests and resource availability to external systems that require this information for further processing or action outside of the primary platform.

unify

To optimize the assignment of tasks to maintenance teams, ensuring efficient use of resources.

Data Inputs Required:

- Internal Systems: Property management systems for tracking maintenance requests and personnel availability. Work Order Management systems (Corrigo, Service Channel) for coordinating Work Orders.
- CRM Systems: For tracking client interactions and historical service requests.

External Data:

- Tenant Feedback Platforms: For insights into common maintenance issues and prioritizing recurring problems.
- Industry Standards: To ensure work orders are classified and prioritized according to best practices.

Continuous Improvement:

The work order management system can be continuously refined by analyzing the outcomes of maintenance tasks, adjusting prioritization algorithms to better match the needs of the properties, and improving overall service quality.

INDUSTRY SPECIFIC STARTING POINTS

HVAC (HEATING, VENTILATION, AND AIR CONDITIONING)

Example Use Case:

Predictive Maintenance

Problem Statement:

Unexpected HVAC system failures can lead to significant discomfort for occupants, costly emergency repairs, and increased energy consumption.

Solution Overview:

AI can be utilized to predict potential HVAC system failures before they occur by analyzing historical maintenance data and real-time sensor inputs. This proactive maintenance approach combines anomaly detection models with trend analysis to identify deviations from normal operation. By detecting issues early, maintenance teams can address problems before they escalate, ensuring that systems operate efficiently and safely.

Key Benefits:

- Reduced Downtime and Discomfort: Ensures HVAC systems are maintained proactively, minimizing occupant discomfort.
- Lower Repair Costs: Early detection allows for addressing issues before they become costly emergencies.
- Extended Equipment Lifespan: Regular maintenance based on AI predictions helps extend the life of HVAC systems.
- Improved Energy Efficiency: Maintains optimal system performance, reducing energy waste.
- Enhanced Safety: Timely maintenance reduces the risk of system failures that could pose safety hazards.

INDUSTRY SPECIFIC STARTING POINTS

HVAC (HEATING, VENTILATION, AND AIR CONDITIONING)

Example Tools from the Contextual AI Solutions Catalog:

OpenAI Assistant

For trailing X week deviation analysis, monitoring and analyzing deviations from expected performance trends.

Claude

For visual inspection and anomaly detection in HVAC systems, providing an additional layer of predictive maintenance.

watsonx

For predictive analytics and advanced anomaly detection, enhancing the accuracy of maintenance predictions.

Data Inputs Required:

- Historical Maintenance Records: Data from Computerized Maintenance Management Systems (CMMS).
- Real-Time Sensor Data: Inputs from IoT devices monitoring HVAC system performance.
- Equipment Usage Logs: Data from Building Management Systems (BMS) tracking system usage.

External Data:

- Manufacturer Maintenance Guidelines: To align maintenance schedules with recommended practices.
- Environmental Conditions: To account for external factors that may impact system performance.

Continuous Improvement:

The predictive maintenance models can be continuously refined by incorporating new sensor data, feedback from maintenance activities, and updates to equipment usage patterns. This ensures that the AI system adapts to changes in operating conditions and equipment behavior, maintaining accuracy and effectiveness over time.

AI SOLUTION
DISCOVERY EXPANSION SESSION

The discovery questions provided previously are designed to both explore how a client currently operates, to identify common patterns or challenges where an AI solution might add specific value, and to trigger concept ideation on narrowing down to a finite challenge that can be scoped and delivered. The next step is working deeply with the client and their stakeholders to go deep into their existing processes and draw up proposed solutions. With that in mind, this **discovery is best done onsite with the client**. Being onsite will allow your team to meet with multiple stakeholders and departments to work through all of the discovery. The ultimate goal of the AI-SDS is two-fold:

- Create a backlog of AI-enablement opportunities for the business, making it clear to the client leadership that AI-enablement is not a "one and done" project, but rather a new way of looking at problems and new requirements. This backlog will be useful in securing ongoing project-based work for the client as you engage with them to AI-enable their business.
- To more fully define the first project in terms of objectives and workstreams, allowing for all of the critical elements of a Statement of Work to be defined as the outcomes of the session.

Sample 4 Hour Session Agenda

AI Solution Backlog Brainstorming

High-Level Estimating

AI Solution Definition

AI Solution Enablement

AI Solution Development

AI Solution Deployment & Action Plan

AI SOLUTION
DISCOVERY EXPANSION SESSION

AI Solution Backlog Brainstorming

Session	Overview and Objective	Outcomes
Brainstorm possible applications of AI for the client's current business	Brainstorm current or historic pain points for the client's business with respect to: • Cost • Productivity • Customer Satisfaction • New Business Opportunity • Competitive Comparison	A rough list of pain points and/or opportunities.

Prioritize the list	• Consider criteria on which the list should be prioritized including but not limited to:
	  • Cost Savings
	  • New Revenue
	  • Competitive Advantage
	  • Other
	• Rather than making this a highly analytical process, give every client team member 100 points to allocate to items in the list, and use this as a voting mechanism to prioritize.
		Prioritized list of AI-Enablement Project Candidates

AI SOLUTION
DISCOVERY EXPANSION SESSION

High-Level Estimating

Session	Overview and Objective	Outcomes
T-Shirt Size Estimation *The goal here is NOT to bite off a huge project as the first AI-enablement project but rather to tackle something that is both important to the business and can be done in a relatively short period of time in order to demonstrate the value of the approach and the platform.*	Take the top 3 items on the list and (using your experience as an AI enablement consultant), estimate the size of the first three projects on the list as XS, S, M, L, XL, XXL. Use these estimations to refine the priorities of the first three items. *If useful, continue the estimation process to include all of the items in the list.*	Re-prioritized list resulting in a single "first project" selection.

AI Solution Definition

Session	Overview and Objective	Outcomes
Process Documentation	Based on the AI Solution Objective, capture explicit process for current workflow, task or function including: • Stakeholders • Systems or Tools • Critical Data • Critical Decision Factors • Influences	Documentation of existing processes and pain points by stakeholder and department/area of interest.

continued

AI SOLUTION
DISCOVERY EXPANSION SESSION

AI Solution Definition (continued)

Session	Overview and Objective	Outcomes
AI Automation / Augmentation	Update the process captured above with specific 'insertions' where AI Solutions could modify, automate, augment, or in some way impact the current process.	Reviewing/Developing the areas where AI will enhance existing processes.
AI Solution Measurement of Success	Identify	What is the end goal of the solution? Efficiency, ROI, Automation, etc?

AI Solution Enablement

Session	Overview and Objective	Outcomes
Data Discovery	Identify any existing internal and external data sets that can influence the AI solution. Determine what data is readily available, properly formatted, and consistent. Review specific data fields, formatting, etc.	Prioritized list of data to ingest into AI solution by source, pattern and owner.
AI Tools Review	Determine which tools will be used	After determining the areas of AI assistance, narrow down the tools. *Is it classification, chatbot, image/video based, etc.*

AI SOLUTION
DISCOVERY EXPANSION SESSION

AI Solution Development

Session	Overview and Objective	Outcomes
Determine Roles	Determine internal and client roles—project ownership, who needs to be brought in for each solution, contacts for credentials, etc.	Assigned individuals for ownership over the project elements.
Meeting Cadence	Align on frequency of core team meetings and updates.	Calendar kickoff call

AI Solution Deployment & Action Plan

Session	Overview and Objective	Outcomes
Identify potential resistance to change	At what level(s) within the organization will you be likely to find a general resistance to change?	• Develop a strategy to overcome resistance early and create excitement. • Build relationships early with resistant stakeholders. Invite them into the process to see how it will help.
Summarize plan and timing	Review steps for buildout and deployment. Build in timing for the project and each piece.	• How does the process work review • Estimate time for each step of the process
Proof of Concept	Determine quick POC to build showing the gist of what will be delivered.	

AI SOLUTION
SAMPLE STATEMENT OF WORK TEMPLATE

What follows is a sample Statement of Work (SOW) table with sets of workstreams, tasks and deliverables/notes that can be leveraged as part of building your own SOW's as it pertains to building AI Solutions for your clients when leveraging Contextual.

Project Workstreams

Business Requirements & Design Sign-Off

AI Solution Architecture

Sample Workstream:
AI Solution Development

Sample Workstream:
ML Model Development and Training

Set-Live and Validation

AI SOLUTION
SOW TEMPLATE

Business Requirements & Design Sign-Off

Critical Tasks	Deliverables / Notes
Definition of Success	Signed-off outcome objective that clearly defines what success looks like, directing and governing ongoing investment of the project.
Product Experience Review	Finalized designs and/or workflow of the proposed solution's end result.
Critical Scoping Decisions	Finalize architecture from potential third-party data sources, answer architecture questions, and add necessary guardrails.
Stakeholder Alignment	Ensure all stakeholders agree on the defined success criteria, scope, and deliverables and have signed off.
Project Plan Approval	Approved detailed project plan including timelines, resources, and milestones.

AI SOLUTION
SOW TEMPLATE

AI Solution Architecture

Critical Tasks	Deliverables / Notes
Data / Data Sources	Defined data objects, sources, schema and data update mechanisms.
Workflow Logic	Defined necessary HTTP and/or AI flows.
Connections / APIs	Defined connections/integrations with third-party systems; Determine what exists in the service catalog and what needs to be built.
User Experience / External Systems	Defined end-user experience; Determine whether it will function within an existing toolset or be a standalone solution.
Security & Compliance	Established security protocols and compliance measures aligned with organizational standards.

AI SOLUTION
SOW TEMPLATE

Sample Workstream:
AI Solution Development

Critical Tasks	Deliverables / Notes
Data Objects	Completed object definition JSON schema with all required properties, property types, and configuration settings.
Create Triggers and Actions	Defined and created necessary triggers (input and output) and actions within the workflow.
Workflows / Business Logic	Created HTTP and AI flows within the low-code flow building environment.
Connections/API's	Obtained necessary credentials or API keys for third-party integrations.
Agents	Determined and created the necessary number of agents based on the workflow and processes being built.
User Interface Development	Developed and refined user interface components based on agreed upon design.

AI SOLUTION
SOW TEMPLATE

Sample Workstream:
ML Model Development and Training

Critical Tasks	Deliverables / Notes
Data Source Identification & Collection Gather data and expert insights. Define ongoing data access. Identify external data sources.	Consolidated training data; expert input on features; confirmed API access to external data sources.
Data Preprocessing and Normalization Clean and preprocess data; handle missing values and outliers. Normalize features.	Cleaned and normalized data in reusable format.
Feature Engineering Extract relevant features; encode categorical variables; create new features based on domain knowledge.	Focused feature set; model-ready variables; additional features incorporated.
Model Selection Choose algorithms for regression tasks; agree on quality metrics; define testing strategy.	Selected models; established metrics; documented training and testing strategy.
Model Training Split data into training and validation sets; train the model.	Initial training results; finalized data split.
Weighting Experts Opinions Incorporate and adjust expert opinions as weights in the model.	Modified weights based on expert input; defined adjustment process.
Model Evaluation Evaluate performance using metrics; assess model's business impact.	Summary of model accuracy and impact.

AI SOLUTION
SOW TEMPLATE

Sample Workstream:
ML Model Development and Training

Critical Tasks	Deliverables / Notes
Fine-tune Model Fine-tune hyperparameters; explore different algorithms and features.	Pre-production tuned model.
Cross-Validation Perform k-fold cross-validation.	Assessed model's generalization capability.
Model Interpretation Interpret model coefficients and feature importance; analyze expert influence.	Business-friendly interpretation of results, including estimated rates and confidence scores.

Note: *Interested in building a custom ML model? If you need support, contact us at partners@contextual.io*

AI SOLUTION
SOW TEMPLATE

Set-Live and Validation

Critical Tasks	Deliverables / Notes
Testing / Validation	Activated experience for chosen users; Conducted model testing and gathered user feedback.
User Acceptance Testing (UAT)	Completed UAT and obtained sign-off from stakeholders.
Go-Live	Deployed the solution into the production environment.
Post-Go-Live Support	Provided support for any post-deployment issues or adjustments.
Performance Monitoring	Set up and initiated monitoring of the solution's performance, including AI model accuracy and system integration.
Project Closure	Documented project outcomes, lessons learned, and finalized all project documentation.

AI SUCCESS STORIES

Sometimes 'seeding' ideas in advance of a more detailed session or as a follow up can be helpful. The following one-page documents capture an easy to understand challenge across go-to-market, service delivery, data transformation and IOT use cases and provide a simple approach to leveraging AI tools and systems to address it.

Success Story / Use Cases

Interactive Video Question Categorization (DATA)

Labor Wage Prediction (GTM)

Lead Enrichment (GTM)

Anomaly Detection (IOT)

Master Sommelier (Service)

If you'd like these sample success stories in editable format such that you can modify, enhance, add your brand or leverage in your own materials, simply contact partners@contextual.io and we'll be happy to help.

AI Data

Interactive Video Question Categorization

AI SUCCESS STORIES

AI Solution Objective

An interactive video platform serves free response questions to viewers in order to capture feedback on products, let viewers ask support questions, clarify information about purchasing or any other range of potential requests or concerns. While the free form responses include valuable information including the manners in which customers are thinking about the product, routing the requests is a challenge. The goal is to leverage AI classification to better route questions to the correct audience internally....

Contextual Solution

Immediately upon submission of an interaction within the video, the content of that interaction is submitted via webhook to an HTTP endpoint served by Contextual Agents. The viewer questions are stored in records in a Contextual Object Type. A series of AI prompts to categorize questions based on a fixed list of potential groups within the business and then prompts to assess severity / urgency of responding to the issue are executed in order to effectively route and prioritize the requests.

OpenAI

Used to prioritize and assess severity/urgency of questions

Mindstamp

Interactive Video platform with AI-generated questions

Rapid API

Focused classification LLMs that respond to any categorization prompt

AI SUCCESS STORIES

AI GTM

Security Guard Wage Prediction

AI Solution Objective

A security guard provider had a configure-price-quote (CPQ) process that required manual verification of security guard wage rates in specific regional markets. In order to scale the business, they envisioned an AI-based solution that would combine real-time regional data, data extracted from active job listings, and their historic wage data into a system to generate a trustworthy AI-predicted wage rate.

Contextual Solution

As soon as a new quote for a security guard is created in the CRM system (Salesforce) it is pushed via webhook into the Contextual platform. A series of Contextual Flows augment the quote with 20 distinct variables including geographic information, cost of living data, crime statistics, and current wage data. The augmented data set is passed into a custom machine learning model that predicts the expected wage rate for a security guard in that specific location and confidence in the range of potential rates. The prediction and all supporting data are then pushed back into the CRM platform to initially support and eventually automate pricing decisions.

JSearch API

Extraction of local job listing data

OpenAI

Specifically prompted LLM for categorizing job listings

ml predict

Hosted pickle file and PyNode execution

AI SUCCESS STORIES

AI Data

B2B Lean Enrichment and Win Rate Prediction

AI Solution Objective

In order to more efficiently allocate sales opportunities and prioritize resources, an AI solution was envisioned that would analyze relevant public information about a prospective lead along with historical win/loss rates from prior CRM opportunities in order to predict win rates for specific deals....

Contextual Solution

New leads captured in a CRM platform are sent into Contextual for AI processing. In a series of Contextual Flows, the company of the lead is extracted and public information from the website is analyzed and summarized based on specific prompts. All of this detail is stored as records in Contextual Object Types. The summarized details about the business are categorized using a classification LLM and then the entire data set is fed into a basic machine learning model trained on historic sales win/loss data and hosted on a third-party platform. The result is a win/loss prediction for the opportunity along with a model confidence score. All of that information is then passed back into the CRM platform to drive lead assignment and pipeline prediction.

WebPilot

Website scanning and summarization LLM

Rapid API

Focused classification LLMs that respond to any categorization prompt

Nyckel

Machine Learning model operation

AI SUCCESS STORIES

AI IoT

Visual AI Pattern Anomaly Detection

AI Solution Objective

In order to identify and learn about anomalous patterns from distributed cameras with AI recognizers for various events, a team sought to leverage AI pattern identification across various ranges of time or impacting events.

Contextual Solution

The events triggered by the local recognizers (edge AI) are fed back to the Contextual platform and stored for ongoing processing and analysis. Events are categorized based on type and summarized across different time slices using Contextual Flows. Individual data points are further enriched based on local activities or happenings that may impact frequency or pacing of identification. Simple standard deviations are calculated based on segments of historic data and then new batches of data are submitted to LLM for analyzing and flagging anomalies in the data set inclusive of anticipated impact of local activities.

Hugging Face

Specifically trained visual identification models

amazon sidewalk

Low energy data transport layer

News API

Source of data for local events

Gemini

LLM providing anomaly detection based on standard deviations

AI Service

AI SUCCESS STORIES

Master Sommelier

AIVIN

Contextual Solution

A mobile app working against Contextual-provided APIs allows for any wine label picture to be submitted for AI analysis to extract the wine brand, varietal, region and vintage. This information is submitted to a RAG-enhanced assistant that is trained on providing pairing recommendations or similar wine substitutions. With the extracted detail of the wine label a third party API is called to provide purchasing links with direct-to-cart integration or local shop availability....

AI Solution Objective

An association of sommeliers wanted to provide tools for their members and clients that could visually scan any wine label and immediately provide both purchasing options and pairing solutions in a conversational AI chat.

OpenAI

RAG-enhanced assistants for specific wine functions (recommendation, pairing, substitution)

Claude

Scans and extracts critical details from wine labels

wine-searcher

Local and digital wine purchasing accessibility

CONTEXTUAL SERVICE CATALOG TEMPLATES

Contextual continues to invest in a series of pre-built templates and services with our tech partners. The following represent some of those tools and how they can be leveraged for AI solutions.

Hello, AI World Demo

A Contextual demo service featuring a user-friendly web interface for interacting with various AI services. Illustrates how to build a complete AI solution in Contextual.

Anthropic Claude Image Analysis

This simple Contextual flow demonstrates how to call Anthropic Claude's API to analyze images and retrieve detailed AI-generated descriptions.

Call OpenAI GPT

This simple Contextual flow demonstrates how to call OpenAI's GPT via API to retrieve custom responses back.

RapidAPI Classify Classification

Useful for aut
inputs and
use or a

UnifyAI Prompt Model Comparison

This simple Contextual flow demonstrates how to call the UnifyAI API to compare multiple AI models by sending a prompt and retrieving detailed, AI-generated responses for analysis

CATALOG TEMPLATES
CONTEXTUAL SERVICES

There are a wide range of varied service templates to get jump start on your Contextual project. More are added al the time.

OpenAI ChatGPT

AI chatbot capable of generating human-like text

- Receive custom responses off of prompts
- Enhancing interactions with other AI, like chat bots.
- Custom content based on prompts
- Summarizing messages

Documentation

Rapid API

Automatically classify a piece of data based on provided classes.

- Customer Sentiment Analysis
- Support Issue Classification
- Document Classification
- Lead or Opportunity Routing

Documentation

WebPilot

Review live (web page) content for a specific URL and provide summarization responses based on prompting.

- Summarizing businesses
- Extracting specific information from websites
- URL content quality assessment
- Competitive assessment

Documentation

Claude

Generate text, translate languages, write content, answer questions, review images—recognizing patterns—and extract meaningful information from them.

- Custom identification, analyzation, and validation of images and text
- Generate recommended content for a given topic.
- Extract domains from sales leads.

Documentation

CATALOG TEMPLATES
CONTEXTUAL SERVICES

There are a wide range of varied service templates to get jump start on your Contextual project. More are added al the time.

OpenAI Assistant

Wide range of language-based assistance—writing different kinds of content to answering questions. Includes ability to add custom-content for RAG-enhanced responses.

- Create prompts for messaging.
- Develop cadences for outreach.
- Create behavioral prompts
- Users interact with custom models.

Documentation

watsonx

AI and data platform that helps businesses scale and accelerate the impact of AI using trusted data.

- Ingest large data sets to acquire learnings faster.
- Create shared data conventions with new object types.
- Sanitize existing data
- Review data anomalies

Documentation

Nyckel

Makes it easy for developers to create custom classification models.

- Work Order Prioritization
- Customer value
- Image validation and classification

Documentation

unify

Optimize and select the best LLM for your needs (price, responses, etc)

- LLM optimization based on compute pricing
- Benchmarking ML models results

Documentation

CATALOG TEMPLATES
CONTEXTUAL SERVICES

There are a wide range of varied service templates to get jump start on your Contextual project. More are added al the time.

Mindstamp

Interactive video solution to add CTA's, survey questions and more to your existing videos.

- Questions and AI recommendations
- Personalized videos
- Comment feedback and categorization
- Engagement data and organization

Documentation

Zoho

Cloud based CRM for managing sales, marketing and support in one system.

- Lead summarization
- Lead probability
- Optimized drip messaging
- Lead and customer value

Documentation

StreamNative

A messaging and streaming platform powered by Pulsar for cloud-native, event-driven applications.

- Send async messages to Kafka topics
- Authenticate and discover Kafka topics.
- Message storage
- Per message transformations and aggregations

Documentation

SlickText

SMS marketing platform and API-driven SMS engine

- Automate SMS messaging sequence.
- Build in SMS notifications
- Messaging optimization and engagement

Documentation

CATALOG TEMPLATES
CONTEXTUAL SERVICES

There are a wide range of varied service templates to get jump start on your Contextual project. More are added al the time.

MISTRAL AI_

Use the Mistral API to send a text prompt, receive a response, and store the result for further use.

- Integrate AI-driven chat responses into workflows
- Bind to an agent, trigger from another flow, or activat through an action

Documentation

Work Order Management Bundle

17 comprehensive object types for building IT service management solutions in Contextual, aligned with ITIL best practices.

- Integrate ITSM capabilities into Contextual workflows,
- flexible and can be adapted to various use cases
- Valuable tool for optimizing IT service management processes

Documentation

YouTube

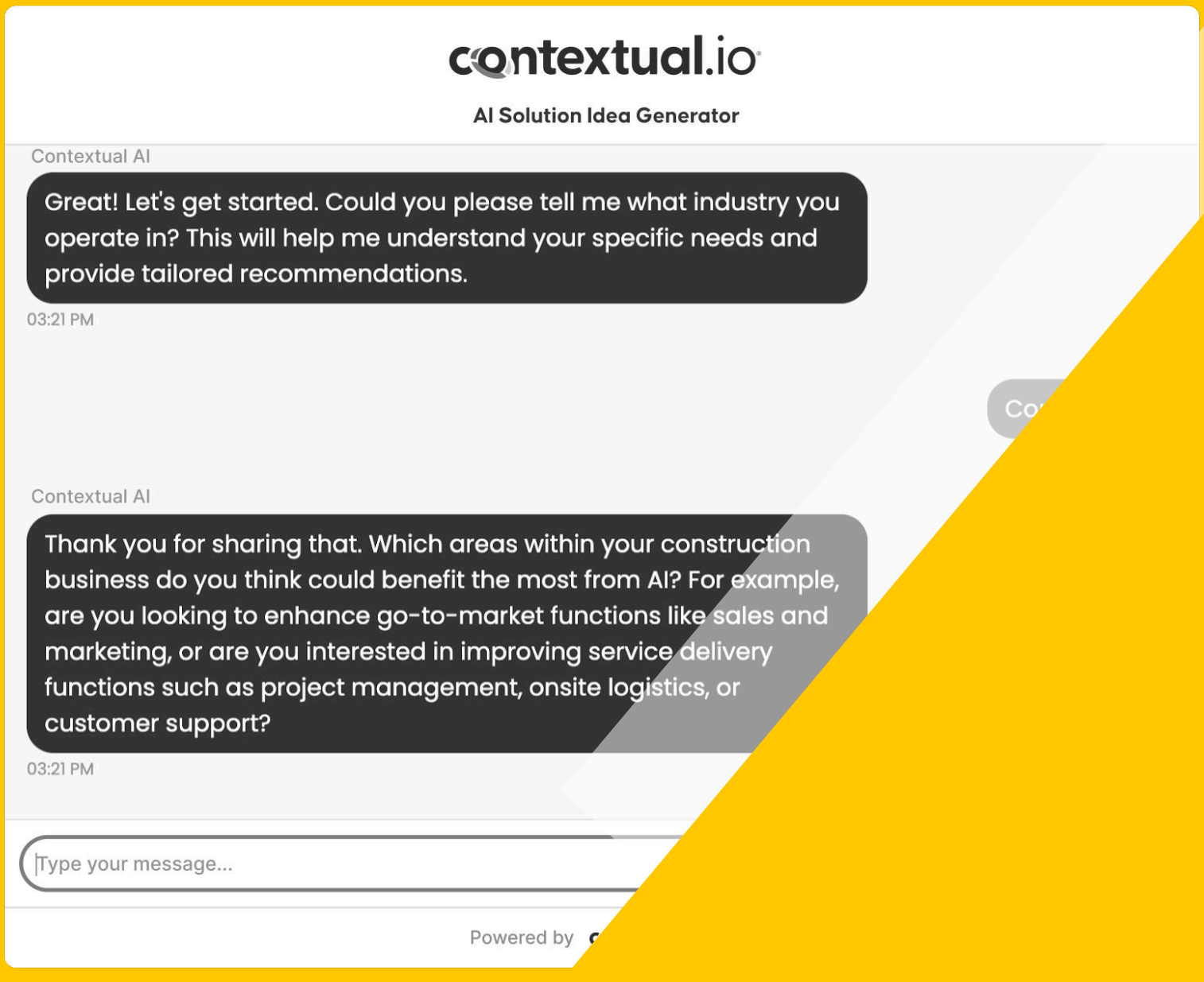
Use the RapidAPI YouTube Transcriber and OpenAI Chat API to transcribe a video, generate a summary, and store the result for future use or analysis.

- Automated video content summation
- Integrate AI-driven transcription into workflows
- Triggerable from flows or external actions

Documentation

Additional catalog templates released each month

Contextual wants to make you as successful as possible in your pursuit of delivering AI solutions to your clients. We have a custom built AI Solution Idea Generator that leverages Contextual that we can install in your local environment for use internally or on your public website.



ADDITIONAL CONSULTATION AVAILABLE WITH CONTEXTUAL

Contextual offers additional support and consultation with our teams of AI specialists. Bring us into help during the sales process or development for the following areas.

Resources	Support Available
AI Solution Consultant	**Business Needs Analysis:** Identifies business pain points and aligns AI orchestration solutions with strategic objectives. **Solution Recommendations**: Designs tailored AI orchestration solutions based on business requirements and technical constraints. **ROI Assessment:** Quantifies the potential benefits of AI orchestration and creates business cases.
AI Solution Architect	**Technical Architecture:** Develops robust and scalable solutions for how Contextual will fit into existing infrastructure. **Integration Planning:** Defines integration strategies for AI models, data sources, and other systems. **Performance Optimization:** Identifies bottlenecks and optimizes AI orchestration workflows for efficiency.
AI Solution Designer	**AI Model Selection:** Recommends appropriate AI models based on problem domain and data characteristics. **Workflow Design:** Creates efficient and effective AI orchestration workflows. **User Experience (UX) Design**: Ensures user-friendly interfaces and interactions within the platform.

ADDITIONAL CONSULTATION AVAILABLE WITH CONTEXTUAL (CONTINUED)

Resources	Support Available
AI Solution Engineer	**Platform Implementation:** Deploys and configures AI orchestration platform components. **Data Integration:** Integrates data sources and ensures data quality for AI models. **Performance Tuning:** Optimizes platform performance and resource utilization.
AI Solution QA	**Test Case Development:** Creates comprehensive test cases to validate AI orchestration functionality. **Quality Assurance:** Ensures platform reliability, performance, and security. **Performance Benchmarking:** Measures platform performance and identifies areas for improvement.

contextual.io

About us

Contextual's AI automation platform makes enterprise AI solutions fast to build, easy to deploy, and ready to scale.

No matter how your business wants to leverage AI-assisted processing—from the simplest data transformation to complex business logic or calculations—Contextual makes it faster to achieve your objectives, easier to deploy and operate, and cost-effective to scale.