ANALYTICS BEST PRACTICE

UNLOCK EXCELLENCE

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SUMMARY

Welcome to NEXTGEN ADVISORS LLC, where excellence in analytics is not just a goal, but a commitment. As consultants representing our organization, your role in delivering insightful, innovative, and impactful solutions is pivotal. This desk-side resource outlines the best practices that define our approach to analytics, empowering you to deliver exceptional value to our clients within the defense and intelligence enterprise.

INTRODUCTION

EXECUTIVE SUMMARY

NEXTGEN ADVISORS LLC, a leader in advanced data analytics and management consulting, is dedicated to delivering innovative solutions tailored to meet the unique needs of senior clients within the defense and intelligence enterprise. With a foundation rooted in Operations Research and Systems Analysis (ORSA), our mission is to provide unparalleled Insight, drive Innovation, and deliver tangible Impact for our esteemed clientele.

INTRODUCTION

Welcome to NEXTGEN ADVISORS LLC, where our expertise in advanced data analytics and management consulting converges with a rich legacy of success in delivering Operations Research and Systems Analysis (ORSA) solutions. With a commitment to "Insight, Innovation, Impact," we stand as a beacon of excellence in meeting the distinctive needs of senior clients within the defense and intelligence enterprise.

OUR EXPERTISE

Advanced Data Analytics:
Our analytics prowess encompasses the latest methodologies and tools, ensuring precision and reliability in transforming data into actionable insights.

Management Consulting:
NextGen Advisors excels in providing strategic consulting services, guiding clients through complex challenges to achieve optimal outcomes.

Operations Research and Systems Analysis (ORSA):
We specialize in leveraging ORSA techniques to deliver tailored solutions, aligning with the unique demands of defense and intelligence operations.

Tailored Solutions for Defense and Intelligence:
Our customized approach ensures that solutions are precisely crafted to meet the dynamic and evolving needs of senior clients within the defense and intelligence sectors.

At NEXTGEN ADVISORS LLC, we adhere to tried, tested, and true best practices to uphold the highest standards in our analytics and consulting endeavors:

1. Clear Objectives:
We begin with clearly defined goals and objectives, ensuring every initiative is purpose-driven and aligned with client expectations.

2. Business Context Understanding:
Our deep understanding of the defense and intelligence industry allows us to provide insights that resonate with the broader strategic context.

3. Quality Data is Key:
We prioritize data quality, guaranteeing the accuracy and reliability of insights that drive critical decision-making.

4. Data Governance and Security:
Upholding the highest standards of data governance and security is embedded in our processes to ensure the integrity and privacy of information.

5. Choosing the Right Analytics Tools:
We carefully select analytics tools that align with client needs, emphasizing ease of use, scalability, and compatibility.

6. Iterative Approach to Analysis:
Our iterative approach allows for continuous refinement of analytical models, ensuring they remain relevant and effective.

7. Collaboration Across Disciplines:
We foster collaboration between diverse disciplines, bringing together data scientists, analysts, domain experts, and business stakeholders for holistic insights.

8. Effective Communication of Results:
Clear communication is paramount. We utilize visualization techniques and plain-language explanations to bridge the gap between technical experts and decision-makers.

9. Continuous Learning and Skill Development:
Our commitment to continuous learning ensures that our team stays ahead in the rapidly evolving landscape of analytics and consulting.

10. Document and Share Insights:
We document processes rigorously, ensuring transparency, reproducibility, and the ability to share insights effectively within the organization.

11. Test and Validate Models:
Rigorous testing and validation of models are integral to our approach, guaranteeing the accuracy and reliability of our predictive and prescriptive analytics.

12. Scalability and Flexibility:
We design scalable and flexible solutions, future-proofing our systems to adapt to evolving business requirements.

13. Ethical Considerations:
We adhere to strict ethical guidelines, avoiding biases and respecting privacy to ensure responsible and integrity-driven analytics.

14. Feedback Loops:
Establishing continuous feedback loops with clients allows us to refine our approaches, ensuring customer-centric excellence in our offerings.

Figure 1: Unlocking Strategic Excellence

CHAPTER 1:

CLEAR OBJECTIVES

- Increase client confidence and trust
- Deliver meaningful impact for your client

ADD YOUR NOTES AND PRIORITIES

- When did you last hold a sync with your client?
- How does your client's feedback impact your current plan and underlying objectives?

OPPORTUNITIES

- What are your client's pain points?
- How can you help your client?
- Who else could benefit from a check-in?

IMPORTANCE

Clear objectives form the bedrock of any successful analytics project. They provide a roadmap, aligning your efforts with client goals and ensuring that every analytical endeavor has a meaningful impact.

ACTIONABLE STEPS

1. **Client Engagement:** Initiate comprehensive discussions with clients to understand their goals, challenges, and overarching mission.

2. **Refinement:** Regularly revisit and refine project objectives based on evolving client needs and emerging insights.

EXAMPLE

Imagine a scenario where a defense client aims to enhance resource allocation for intelligence operations. Your objective could be defined as creating a predictive model to optimize resource distribution, ensuring effective intelligence gathering.

CHAPTER 2:

BUSINESS CONTEXT UNDERSTANDING

- Increase customer satisfaction by 2%
- Maintain growth

ADD YOUR NOTES AND PRIORITIES

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OPPORTUNITIES

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IMPORTANCE

A deep understanding of the defense and intelligence industry is crucial for providing insights that align with strategic priorities. Placing analytics within the broader business context enhances the relevance and impact of your findings.

ACTIONABLE STEPS

1. **Industry Immersion:** Immerse yourself in the defense and intelligence sector through ongoing research, industry publications, and participation in relevant conferences.

2. **Strategic Alignment:** Regularly align your analytics initiatives with the broader strategic goals of the defense and intelligence enterprise.

EXAMPLE

Consider a geopolitical event impacting international security. By understanding the broader context, your analytics can focus on predicting potential security threats, providing invaluable insights for proactive defense strategies.

CHAPTER 3:

QUALITY DATA IS KEY

- Increase customer satisfaction by 2%
- Maintain growth

ADD YOUR NOTES AND PRIORITIES

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OPPORTUNITIES

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IMPORTANCE

The reliability of your insights hinges on the quality of your data. Inaccurate or incomplete data can lead to misguided conclusions, emphasizing the importance of maintaining data quality.

ACTIONABLE STEPS

1. **Data Quality Checks:** Implement robust data quality checks at every stage of the analytics process, from collection to analysis.

2. **Collaboration with Data Stewards:** Collaborate with data stewards and subject matter experts to ensure data accuracy, completeness, and relevance.

EXAMPLE

Suppose your analytics project aims to assess the effectiveness of military training programs. Ensuring that the training data is accurate, up-to-date, and reflective of real-world scenarios is critical for drawing reliable conclusions.

DATA GOVERNANCE AND SECURITY

- Increase customer satisfaction by 2%
- Maintain growth

ADD YOUR NOTES AND PRIORITIES

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OPPORTUNITIES

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CHAPTER 4:

IMPORTANCE

Upholding data governance standards is essential for maintaining data integrity, privacy, and compliance with regulations. Robust data security measures protect sensitive information and build trust with clients.

ACTIONABLE STEPS

1. **Establish Clear Protocols:** Develop and communicate clear data governance protocols that cover data handling, storage, and sharing.

2. **Regular Security Reviews:** Conduct regular security reviews to adapt to evolving threats and comply with changing regulations.

EXAMPLE

In a scenario where your analytics involve classified intelligence data, stringent data governance and security measures are paramount. This ensures the confidentiality and integrity of sensitive information.

CHOOSING THE RIGHT ANALYTICS TOOLS

- Increase customer satisfaction by 2%
- Maintain growth

ADD YOUR NOTES AND PRIORITIES

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OPPORTUNITIES

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CHAPTER 5:

IMPORTANCE

Selecting the right analytics tools is crucial for the efficiency and effectiveness of your projects. The tools should align with project requirements, ensuring scalability, ease of integration, and user-friendliness.

ACTIONABLE STEPS

1. **Needs Assessment:** Conduct a thorough needs assessment to identify the specific requirements of your analytics project.

2. **Tool Evaluation:** Evaluate analytics tools based on scalability, compatibility, and ease of integration with existing systems.

EXAMPLE

If your project involves analyzing large datasets for pattern recognition, choosing tools with robust machine learning capabilities, such as Python with scikit-learn or TensorFlow, would be essential.

ITERATIVE APPROACH TO ANALYSIS

- Increase customer satisfaction by 2%
- Maintain growth

ADD YOUR NOTES AND PRIORITIES

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OPPORTUNITIES

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CHAPTER 6:

IMPORTANCE

Analytics is an evolving process, and an iterative approach allows for continuous refinement and improvement. Regular reviews and adjustments based on feedback contribute to the ongoing success of your projects.

ACTIONABLE STEPS

1. **Scheduled Reviews:** Schedule regular reviews of your analytical models and methodologies.

2. **Feedback Mechanisms:** Encourage feedback from team members, stakeholders, and end-users to enhance models and adapt to changing requirements.

EXAMPLE

In a predictive analytics project forecasting cyber threats, an iterative approach involves regularly updating the model based on new threat data and adjusting parameters to improve accuracy.

COLLABORATION ACROSS DISCIPLINES

- Increase customer satisfaction by 2%

- Maintain growth

ADD YOUR NOTES AND PRIORITIES

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OPPORTUNITIES

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CHAPTER 7:

IMPORTANCE

Collaboration fosters a holistic understanding of complex problems. In analytics, bringing together data scientists, analysts, domain experts, and stakeholders enhances the richness of insights.

ACTIONABLE STEPS

1. **Cross-Functional Workshops:** Facilitate workshops that bring together experts from diverse disciplines for knowledge-sharing.

2. **Open Communication Channels:** Establish open communication channels to encourage collaboration and information-sharing.

EXAMPLE

Imagine an analytics project aiming to optimize military logistics. Collaboration between data scientists, logistics experts, and military planners ensures that the analytics model aligns with operational realities.

CHAPTER 8:

EFFECTIVE COMMUNICATION OF RESULTS

- Increase client confidence and trust
- Deliver meaningful impact for your client

ADD YOUR NOTES AND PRIORITIES

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OPPORTUNITIES

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IMPORTANCE

Communicating results in a clear and understandable manner is crucial for bridging the gap between technical experts and decision-makers. Visualization tools and plain language summaries enhance communication.

ACTIONABLE STEPS

1. **Visualization Techniques:** Utilize visualization tools to create compelling representations of data.

2. **Plain-Language Summaries:** Prepare plain-language summaries to accompany technical reports, making insights accessible to non-technical stakeholders.

EXAMPLE

In a scenario where your analytics unveil patterns in cybersecurity threats, using visualizations like heat maps or trend charts can effectively communicate the evolving threat landscape to decision-makers.

CONTINUOUS LEARNING & SKILL DEVELOPMENT

- Increase client confidence and trust

- Deliver meaningful impact for your client

ADD YOUR NOTES AND PRIORITIES

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OPPORTUNITIES

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CHAPTER 9:

IMPORTANCE

Continuous learning ensures that you stay ahead of emerging trends and technologies in the dynamic landscape of analytics. It is essential for maintaining a competitive edge.

ACTIONABLE STEPS

1. **Participation in Industry Events:** Actively participate in industry conferences, webinars, and training programs.

2. **Knowledge-Sharing Culture:** Foster a culture of knowledge-sharing within the team, encouraging the exchange of insights and best practices.

EXAMPLE

Imagine a new machine learning algorithm gaining popularity in the analytics community. Continuous learning ensures that your team is aware of this advancement and can evaluate its potential application in your projects.

CHAPTER 10:

DOCUMENT & SHARE INSIGHTS

- Increase client confidence and trust
- Deliver meaningful impact for your client

ADD YOUR NOTES AND PRIORITIES

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OPPORTUNITIES

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IMPORTANCE

Documenting processes ensures transparency, reproducibility, and knowledge-sharing within the organization. It is vital for maintaining a robust analytical workflow.

ACTIONABLE STEPS

1. **Standardized Documentation Templates:** Develop standardized templates for documenting analytical processes.

2. **Centralized Repository:** Establish a central repository for insights, methodologies, and best practices to facilitate easy access and sharing.

EXAMPLE

Consider an analytics project focused on optimizing supply chain logistics. Documenting the data sources, preprocessing steps, and model parameters not only ensures transparency but also allows team members to replicate or build upon the work.

TEST & VALIDATE MODELS

- Increase client confidence and trust

- Deliver meaningful impact for your client

ADD YOUR NOTES AND PRIORITIES

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OPPORTUNITIES

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CHAPTER 11:

IMPORTANCE

Rigorous testing and validation guarantee the accuracy and reliability of your analytical models. It is a critical step in ensuring that your models perform well in real-world scenarios.

ACTIONABLE STEPS

1. **Testing Protocols:** Establish clear protocols for testing analytical models before implementing them in operational settings.

2. **Regular Validation:** Regularly validate models with new data to ensure ongoing accuracy and relevance.

EXAMPLE

In a scenario where your analytics model predicts equipment failure in military vehicles, rigorous testing using historical data and real-time validation during field operations ensures the model's reliability in preventing breakdowns.

CHAPTER 12:

SCALABILITY & FLEXIBILITY

- Increase client confidence and trust
- Deliver meaningful impact for your client

ADD YOUR NOTES AND PRIORITIES

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OPPORTUNITIES

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IMPORTANCE

Designing solutions with scalability and flexibility ensures that your analytics can handle increased complexity and data volumes. It future-proofs your systems against evolving business requirements.

ACTIONABLE STEPS

1. **Anticipate Future Needs:** Design solutions with an understanding of potential future requirements.

2. **Regular System Assessments:** Regularly assess and update systems to accommodate changing needs and emerging technologies.

EXAMPLE

Imagine an analytics platform designed to monitor cyber threats. Scalability allows the platform to adapt to an increasing volume of threat data, and flexibility ensures it can incorporate new detection algorithms as cybersecurity techniques evolve.

CHAPTER 13:

ETHICAL CONSIDERATIONS

- Increase client confidence and trust
- Deliver meaningful impact for your client

ADD YOUR NOTES AND PRIORITIES

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OPPORTUNITIES

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IMPORTANCE

Upholding ethical standards in data handling and analysis is paramount for responsible and trustworthy analytics. It builds trust with clients and safeguards against potential ethical challenges.

ACTIONABLE STEPS

1. **Stay Informed:** Stay informed about ethical guidelines in the analytics industry, especially in defense and intelligence settings.

2. **Implement Ethical Considerations:** Integrate ethical considerations into every stage of the analytics process, from data collection to model deployment.

EXAMPLE

In an analytics project analyzing human behavior patterns, ethical considerations would involve ensuring the anonymity of individuals in the data and avoiding biased profiling to maintain fairness and privacy.

FEEDBACK LOOPS

- Increase client confidence and trust
- Deliver meaningful impact for your client

ADD YOUR NOTES AND PRIORITIES

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OPPORTUNITIES

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CHAPTER 14:

IMPORTANCE

Establishing feedback loops with end-users, stakeholders, and team members is fundamental for continuous improvement and client-centric excellence. Regular feedback ensures that analytics projects remain aligned with evolving client needs and industry dynamics.

ACTIONABLE STEPS

1. **Stakeholder Engagement:** Actively engage with end-users and stakeholders to gather feedback on analytics outputs and solutions.

2. **Iterative Refinement:** Use feedback to iteratively refine analytical models, methodologies, and overall approaches.

EXAMPLE

Consider an analytics project focused on optimizing military logistics. Regular feedback from logistics officers, field commanders, and other stakeholders ensures that the analytics model adapts to changing operational requirements, resulting in more effective resource allocation.

SUMMARY

The summary table illustrates the linkages between the 14 principles covered in the chapters above and how they collectively provide value to clients and reinforce our i3 Method™:

i3 Method™

Insight.
Innovation.
Impact.

Principle	Description	Link to Value
1. Clear Objectives	Define project goals and align with client's mission.	Guides analytics towards meaningful outcomes, ensuring client needs are met.
2. Business Context Understanding	Contextualize analytics within the industry's strategic landscape.	Enhances relevance by aligning insights with broader mission objectives.
3. Quality Data is Key	Prioritize accurate, complete, and consistent data.	Reliable insights lead to informed decision-making, adding value to client strategies.
4. Data Governance and Security	Adhere to data governance for integrity and compliance.	Builds trust and ensures the ethical handling of sensitive information.
5. Choosing the Right Analytics Tools	Select tools aligned with project needs.	Optimizes efficiency and effectiveness in delivering insights.
6. Iterative Approach to Analysis	Regularly review and refine models based on feedback.	Continuous improvement ensures analytics remain relevant and impactful.
7. Collaboration Across Disciplines	Foster collaboration for holistic insights.	Diverse perspectives enhance the richness and depth of analytics.
8. Effective Communication of Results	Communicate results to non-technical stakeholders.	Bridges the gap, ensuring insights are understood and acted upon.
9. Continuous Learning and Skill Development	Commit to staying updated on industry trends.	Maintains a competitive edge, offering clients cutting-edge solutions.
10. Document and Share Insights	Document processes for transparency and reproducibility.	Facilitates knowledge-sharing and builds a foundation for future work.

11. Test and Validate Models	Rigorously test models for accuracy and reliability.	Ensures the models' trustworthiness and effectiveness in decision-making.
12. Scalability and Flexibility	Design solutions that adapt to future needs.	Future-proofing systems for evolving client requirements.
13. Ethical Considerations	Uphold ethical guidelines in data handling.	Ensures responsible analytics, building client trust and avoiding pitfalls.
14. Feedback Loops	Establish loops for continuous improvement.	Driven by client input, ensuring solutions align with evolving needs.

Insight. Innovation. Impact.

NEXTGEN ADVISORS LLC
Capabilities Statement
CAGE: 9NNM8 | **UEI:** DT83RDNQEKX7

About Us

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https://nextgenadvisors.llc

NEXTGEN ADVISORS LLC is a premier operations research, systems analysis, and management consulting firm dedicated to excellence. At NEXTGEN ADVISORS LLC, we aim to deliver services that transcend expectations, both for the everyday and novel solutions, built at scale. Decision-Quality^{TM} and Decision-Ready^{TM} analysis underscore what we offer our clients – their decision advantage. We specialize in delivering warfighter-centric, operationally relevant assessments, evaluations, and studies across the intelligence and defense enterprises. Intelligence, Surveillance, & Reconnaissance (ISR) is in our corporate DNA. We combine quantitative performance and effectiveness analysis with qualitative inputs using our trademarked insight, innovation, and impact (or *i3*^{TM}) method.

Core Services

- Capability as a Service (CaaS)
- Mission, Data, and Business Operations
- Operations Research & Systems Analysis
- Change Management, Organizational Restructuring, Training and Development, and Program Management

Differentiators

- *i3*^{TM} method: Insight. Innovation. Impact.
- Top Secret, SCI eligible clearance or greater
- Demonstrated real-world operations analysis with tangible ODNI and OSD-level impacts
- Deliver analysis that is of Decision-Quality^{TM} and Decision-Ready^{TM}

Point of Contact

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Company Data

NEXTGEN ADVISORS LLC
7210 Sipes Lane
Annandale, VA 22003, USA
UEI: DT83RDNQEKX7 and CAGE: 9NNM8
NAICS Primary Code: **541690**, Other Scientific and Technical Consulting Services
NAICS Extended: 04 – Expertise & Technical Analysis, 41 – Executive Training Consultants, 49 – Calculating Charts & Tables, and 75 – Automation Consultants
NAICS Code: **541990**, All Other Professional, Scientific, and Technical Services
NAICS Extended: 01 – Business Services NEC and 20 – Statistical Services

a **U.S.A.** Company

Past Performance

Individual contributions (2014 – 2024):
HQ003415A0025 (contract #)
HQ003420F0126 (order #)
HQ003420R0029 (contract #)
HQ003418F0507 (contract #)

Non-Endorsement and Disclaimer: The appearance of U.S. Department of Defense (DoD) visual information does not imply or constitute DoD endorsement.

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NEXTGEN ADVISORS LLC
i3^{TM} **Methodology**

CAGE: 9NNM8 | **UEI:** DT83RDNQEKX7

Overview

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The *i3*^{TM} method is a pillar of our delivery. It allows us to rapidly deliver decision advantage for our clients. Insight, innovation, and impact (*i3*^{TM}) ensure our services are always of Decision-Quality^{TM} and Decision-Ready^{TM}. We push past descriptive and predictive to optimized decisions and results.

Predictive

Insight → Innovation → Impact → Decision-Quality^{TM} / Decision-Ready^{TM} *i3*^{TM}

Descriptive   *Prescriptive*
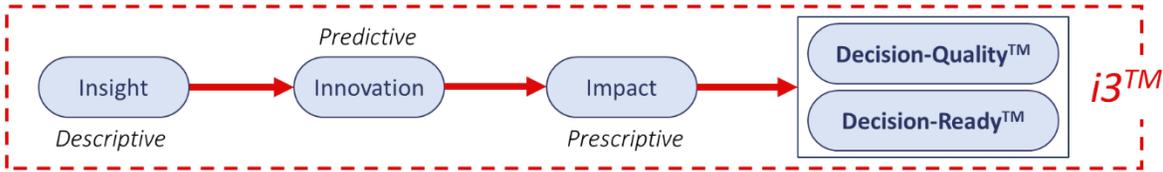
Insight

The missing… for impact

Innovation

Pre-   Post-
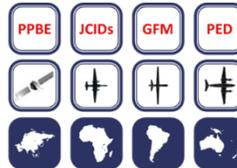
Decision-Quality^{TM}

- Considered alternatives and tradeoffs
- Reasonable, reliable, and relevant
- Committed to action(s)
- Framed, contextualized
- Valued

Decision-Ready^{TM}

Impact

- + Return on investment
- Decision Advantage
- Improved Outcome
- Mission Success

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SB∆ U.S. Small Business Administration
SERVICE-DISABLED VETERAN-OWNED CERTIFIED

PPBE | JCIDs | GFM | PED

a **U.S.A.** Company

SPRS: CMMC 2.0 (NIST SP 800-171) Level 1 Compliant

Analyses: Descriptive & Diagnostic ▸▸ Predictive ▸▸ Prescriptive

A "how to" harness data for decision advantage infographic. Our i3™ Method steps through three stages of insight, innovation, and impact. Starts at the bottom of the graphic with how data (in various structured and unstructured formats and storage containers) is wrangled, cleaned, and prepared (or extracted, transformed, and loaded or ETL) to conduct different analyses. Insight stage typically begins with making sense of historical data, through descriptive analysis that summarizes trends and insights. Diagnostic analysis is used at stage if the cause of an observed trend or insight is useful. The second, innovation stage utilizes the past to predict the future. When possible, an optimal solution is prescribed in the third impact stage. As alternatives and first/second order consequences are weighed, a Decision-Quality™ and Decision-Ready™ analysis yields decision advantage.
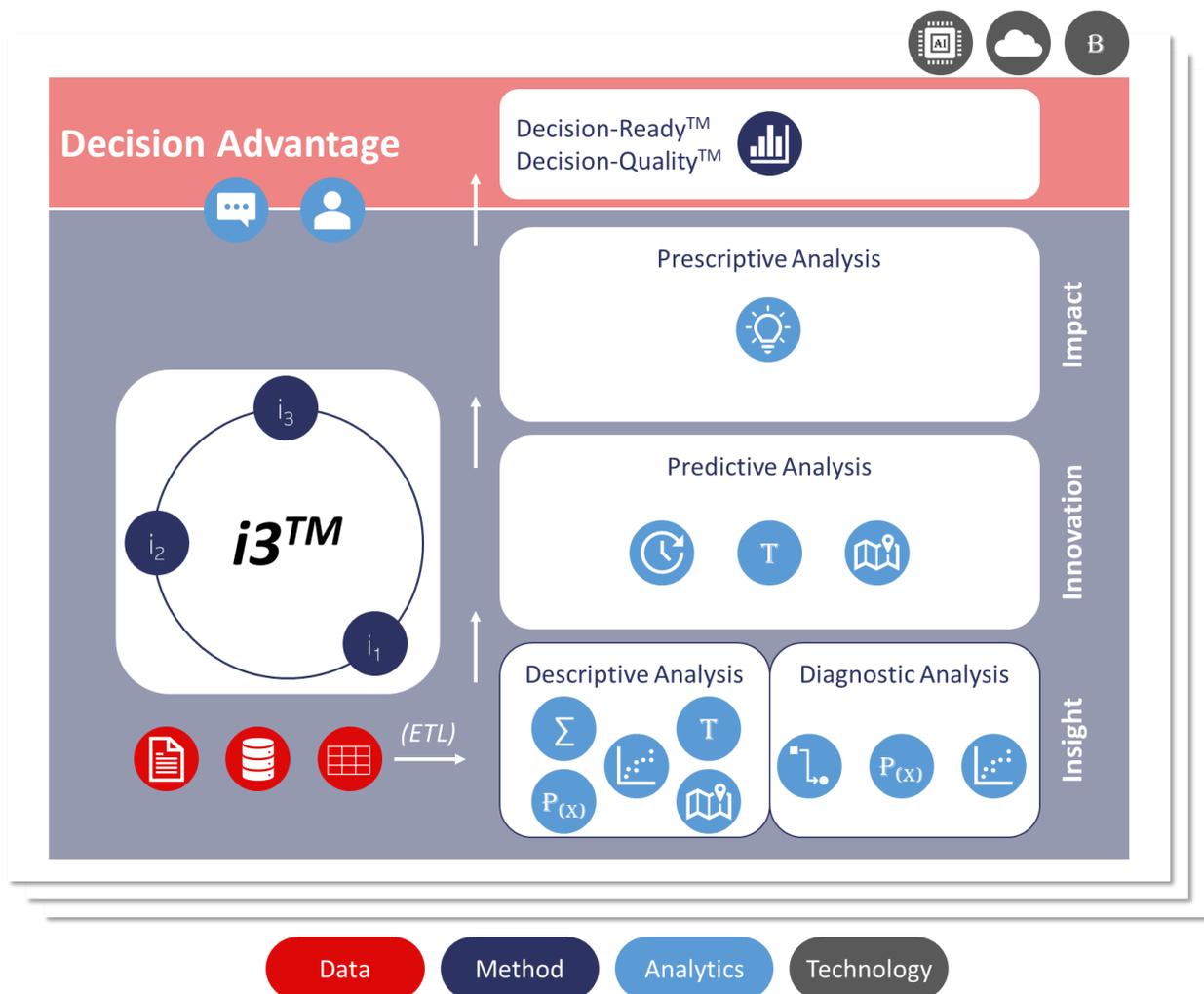
As consultants at NEXTGEN ADVISORS LLC, these analytics best practices form the foundation of our commitment to excellence. By consistently applying these principles, you contribute to the success of our projects and the enduring impact we make in the defense and intelligence sector. Thank you for embodying the spirit of our i3 Method™ of "Insight, Innovation, Impact" in all your endeavors to deliver **Decision-Quality™ and Decision-Ready™** analysis for our clients.