INTEGRATING RISK MANAGEMENT INTO PROJECT PLANNING

ENHANCING OUTCOMES THROUGH EARLY INTEGRATION

NAWIC
The National Association of Women in Construction
Greater New York

YGB
DESIGN GROUP

NAWIC
The National Association of Women in Construction
Greater New York

RISK MANAGEMENT PRESENTATION

Title: Integrating Risk Management into Project Planning

Subtitle: Enhancing Outcomes Through Early Integration

Presented by: Yenisei Bell

Date: September 23th, 2025

Designed by the industry for the industry

SMARTER RISK MANAGEMENT STARTS WITH BETTER RISK ANALYSIS

YGB Design Group LLC

YGB DESIGN GROUP

NAWIC
The National Association of Women in Construction
Greater New York

SPEAKER INTRO

Yenisei Bell, Founder & CEO

Architect, Interior Designer and Construction Executive

YGB Design Group. LLC

Yenisei Bell is an accomplished construction executive, architect, and industry advocate with over 20 years of experience leading transformative projects across the public and private sectors. Her career spans multi million dollars high-end residential, affordable housing, educational, nonprofit, and large-scale government initiatives—including a $92 billion program—where she has consistently delivered excellence by merging creative vision with technical precision

Today, as President of The National Association of Women In Construction (NAWIC) New York and founder of her own construction management and consulting firm in New York City, Yenisei is dedicated not only to building exceptional projects but also to advancing diversity, equity, and inclusion in the AEC industry. A recognized voice for women in construction, she mentors, trains, and empowers the next generation of leaders while fostering collaboration across trades, builders, city and state agencies and communities. With her unique ability to simplify complex challenges and align vision with execution, Yenisei continues to shape projects—and people—that leave a lasting impact.

YGB DESIGN GROUP

NAWIC
The National Association of Women in Construction
Greater New York

YGB Design Group. LLC

Building Tomorrow, Today, Designing with You in Mind

YGB Design Group & Consulting is **a woman-owned firm founded by Yenisei Bell,** delivering end-to-end solutions across residential, commercial, and public sector projects. With expertise in **General Construction, Project & Construction Management, Compliance/Risk Management & Safety, Design (Architecture & Engineering), and Mentoring Small & Minority Contractors.**

At **YGB Design Group**, our mission is simple—but powerful: to transform ideas into reality by blending creativity, technology, and technical expertise. We believe that design is more than aesthetics or functionality—it carries a responsibility. Our goal is not only to solve problems, but **to improve lives through every project we take on**.

That's why we are deeply committed to projects with lasting social impact—from affordable housing that strengthens communities, to disaster recovery efforts that restore hope and stability, to sustainable solutions that protect the future.

Our role goes beyond design and construction. We offer strategic consulting to guide clients through the complexities of ambitious projects, ensuring clarity and confidence every step of the way.

By prioritizing collaboration and open communication, we tailor solutions to the unique needs of each client, creating outcomes that are not only functional but meaningful.

Yenisei Bell, Founder & CEO

"Yenisei began her career as an architect, quickly earning a reputation for her **forward-thinking approach**, using design not just to build, but to create **healthier, more human-centered environments**.
Her drive to make a broader impact led her into construction project management, where she rose to **Vice President of Construction**, successfully guiding multimillion-dollar projects alongside industry leaders like **AECOM Tishman, IBTS, Bravo Inc., and Forte Construction**.

At **YGB**, her mission goes beyond bricks and mortar. They **empower communities, strengthen industry partnerships, and open doors for the next generation of contractors and leaders**—shaping not just buildings, but the future of the industry itself"

YGB DESIGN GROUP

NAWIC
The National Association of Women in Construction
Greater New York

IS RISK MANAGEMENT REALLY WORTH THE EFFORT?

What I find really fascinating is that I've had the chance to dive this deeply into risk management, decision management, and issue management—not just from a single project perspective, but from a portfolio perspective. Sure, I've done a lot over the years—coaching, training, hands-on work—but this kind of deep exploration seems to be different.

Today, I want to talk about I guess an existential question that keeps coming up for me—one that isn't usually stated outright, but I see it over and over when I talk to companies and organizations about risk management.

I'll ask: "Why bother managing risks?" When I suggest, "We need to manage risks because projects have problems and we don't want bad things to happen," the usual response is, "Yes, of course—we should risk manage, and then push comes to shove they get busy they don't you know. There's no budget for tools. We're swamped. We'll get to it later." And just like that, risk management falls off the radar.

It makes me wonder—what's the point of risk management if it only becomes important when a risk has already turned into a real problem?

Why isn't it front and center before things go wrong?

YGB DESIGN GROUP

NAWIC
The National Association of Women in Construction
Greater New York

Have you ever been on a project where everything seemed fine… until suddenly it wasn't?

A weather delay, a supply chain hiccup, or an unexpected cost spike, labor shortage, safety incidents?

Uncertainty in Construction: It's Not a Possibility—It's a Guarantee

And the question isn't *if* something will go wrong—it's *how prepared are we* when it does?

YGB
DESIGN GROUP

INTRODUCTION

Ignoring risk management isn't conservative—it's careless

Projects face uncertainty at every stage

Risk management often treated as an afterthought

Early integration improves predictability, control, and success

INTRODUCTION

IGNORING RISK MANAGEMENT ISN'T CONSERVATIVE—IT'S CARELESS

NAWIC
The National Association of Women in Construction
Greater New York

WHAT IS RISK MANAGEMENT?

Identifying potential threats and opportunities

Assessing likelihood and impact

Developing mitigation and response strategies

Monitoring and controlling throughout project lifecycle

YGB
DESIGN GROUP

NAWIC
The National Association of Women in Construction
Greater New York

WHAT IS RISK MANAGEMENT PLAN?

"When people hear "risk management," the first thought is usually about avoiding problems or putting out fires. But IRM is much bigger than that. It's about bringing strategy, operations, compliance, and culture together under one framework so that instead of reacting to risks, we're proactively navigating them.

In many organizations, risk is siloed. Finance sees one piece, operations another, compliance yet another, and that fragmentation often leads to blind spots."

YGB Design Group LLC

YGB DESIGN GROUP

Why Risk Management Must Be at the Core of Construction Project Planning

Strong leadership isn't just about reacting when things go wrong. It's about foreseeing where things could go wrong and having a plan in place.

But here's the reality: too often, decision-makers at the top either overlook or undervalue this approach. Risk is treated as a postmortem exercise or a line item on a checklist—not as a strategic tool for leadership. And that's a missed opportunity

YGB Design Group LLC

One of the most valuable lessons I've learned in business is that avoiding decisions often comes from not fully understanding the risks involved. Too often, this leads to shifting responsibility onto others so there's someone to blame if things don't go as planned. To me, that reflects poor leadership.

- True leadership means owning the decision, the risk, and the outcome
- True leadership means embracing uncertainty, not avoiding it

Why Risk Management Must Be at the Core of Construction Project Planning

NAWIC
The National Association of Women in Construction
Greater New York

In construction, uncertainty isn't a possibility—it's a certainty. Weather delays, supply chain disruptions, safety incidents, and design changes are part of the job. That's why weaving risk management into the very start of a project isn't just best practice—it's essential.

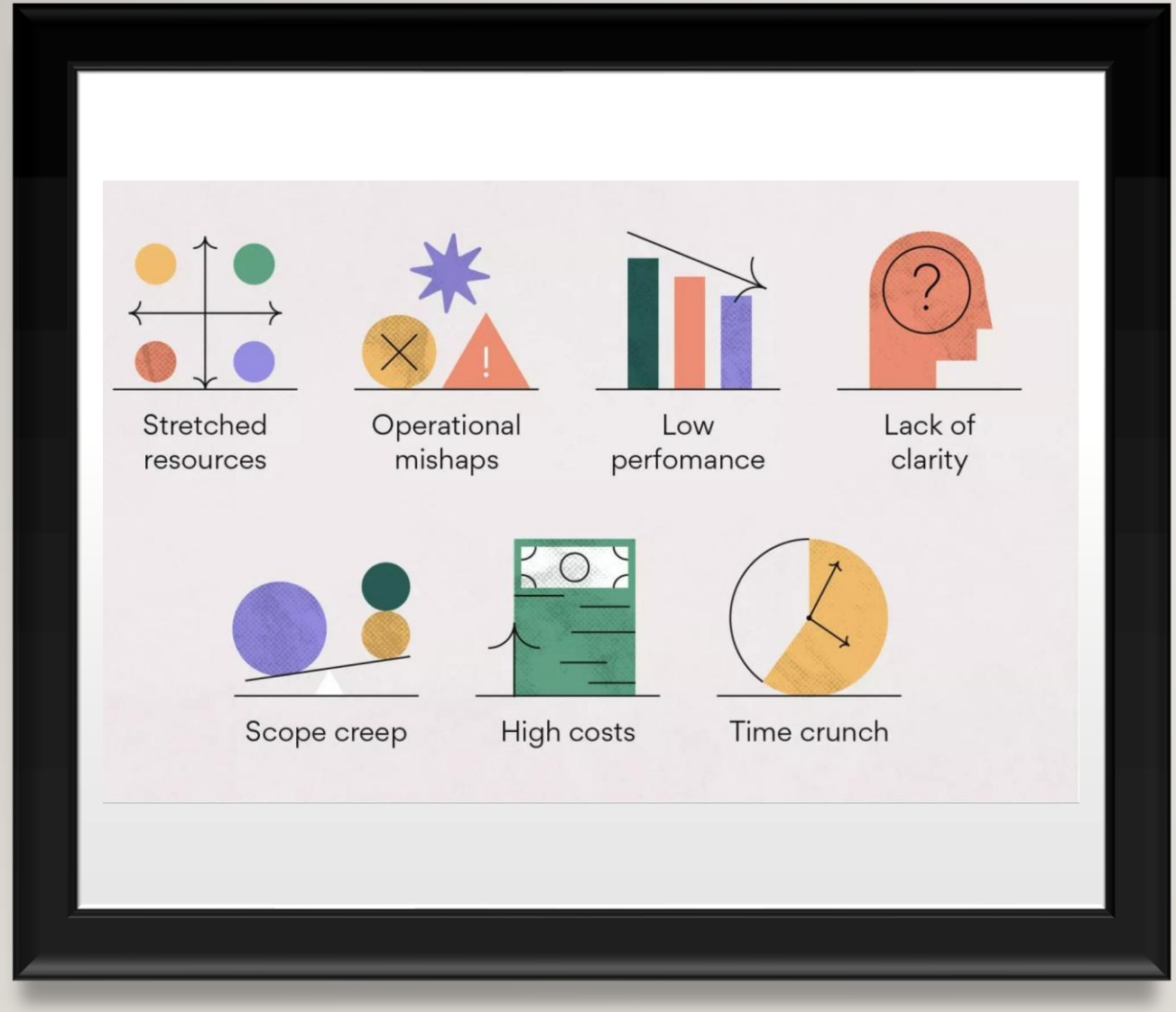
Too often, risk gets treated as a reactive checklist item. But in truth, **risk management is a leadership tool, not just a compliance requirement.**

YGB Design Group LLC

When we proactively identify and manage risks, we give our teams the space to plan smarter, respond faster, and deliver stronger outcomes. **We empower them to**:

- ✅ Improve safety performance
- ✅ Minimize cost overruns
- ✅ Protect the schedule
- ✅ Support better, faster decisions
- ✅ Strengthen stakeholder trust
- ✅ Deliver more consistent, successful outcomes

YGB DESIGN GROUP



TOP THREE MAJOR PROJECT RISKS (AEC FOCUS)

In construction, while there are many risks, the **top three major project risks** that consistently have the greatest impact on schedule, cost, and quality are:

Schedule and Time Delays

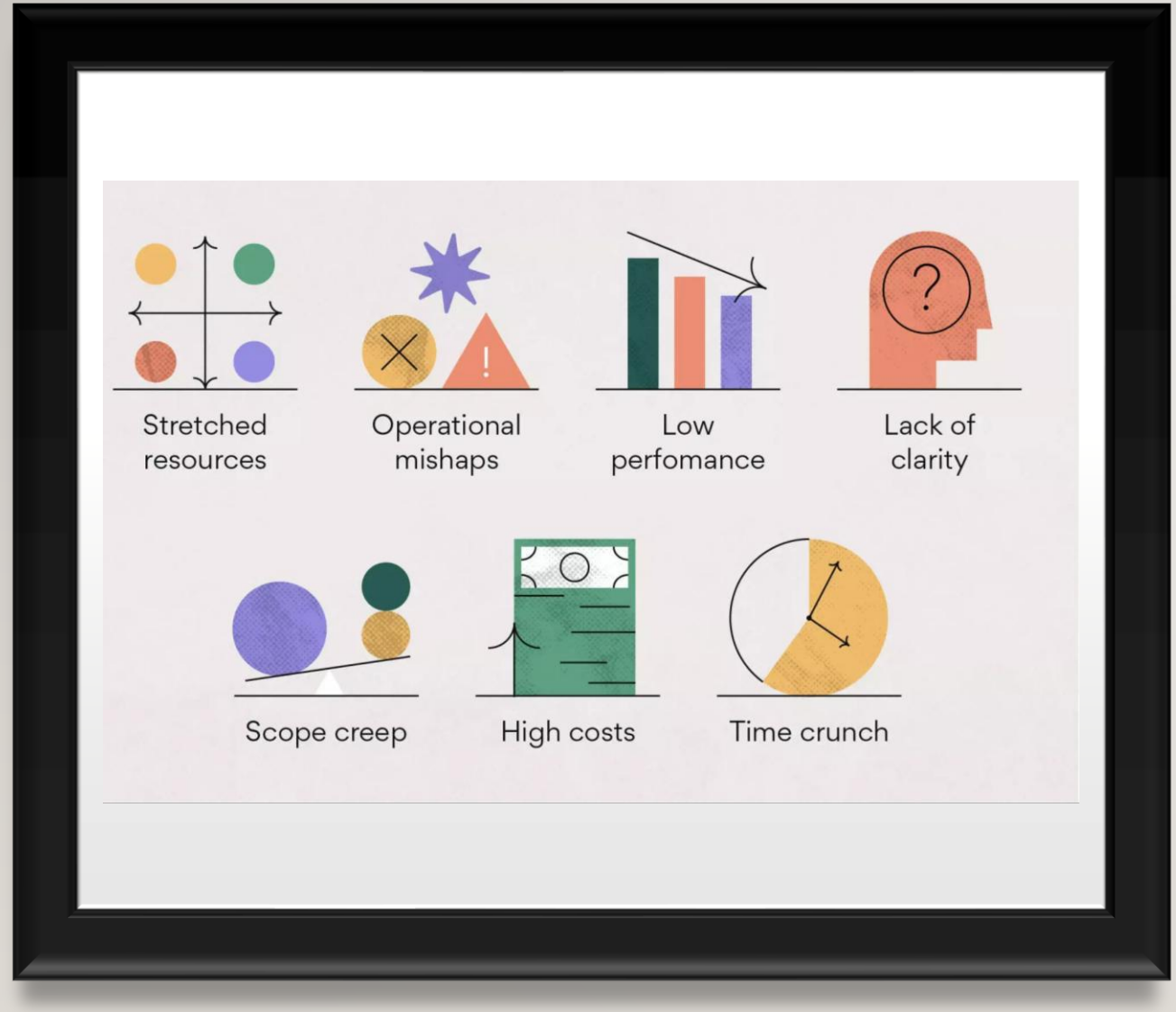
Why it's critical: Delays can cascade across the entire project, causing cost overruns, resource conflicts, and missed deadlines.
Common causes: Weather events, permitting issues, labor shortages, and delays in material delivery.
Impact: Can jeopardize contract obligations, stakeholder confidence, and project profitability.

2. Cost Overruns / Budget Risk

Why it's critical: Construction projects often operate with tight budgets; exceeding costs can threaten project viability.
Common causes: Poor cost estimation, change orders, scope creep, unexpected material price increases, or inaccurate risk assumptions.
Impact: Strains client relationships, reduces profit margins, and may require reallocation of funds from other areas.

3. Safety and Regulatory Compliance Risks

Why it's critical: Safety incidents or failure to comply with regulations can halt work, lead to legal action, or cause serious injury.
Common causes: Inadequate safety protocols, human error, insufficient training, or complex regulatory requirements.
Impact: Injuries, legal penalties, project shutdowns, and reputational damage



COMMON PROJECT RISKS (AEC FOCUS)

- **Technical Risks:** design errors, incomplete drawings, scope creep
- **Financial Risks:** change orders, material cost escalation
- **Schedule Risks:** permitting delays, supply chain disruptions
- **Operational Risks:** subcontractor performance, labor shortages
- **External Risks:** compliance requirements, safety hazards, environmental events

WHY EARLY INTEGRATION MATTERS?

- Risks are cheaper and easier to address in early stages
- Prevents delays, cost overruns, and quality issues
- Improves stakeholder confidence and decision-making
- Turns uncertainty into manageable outcomes

Risk management helps us see around corners. It gives us the foresight to anticipate challenges, allocate resources wisely, and adapt with resilience.
In today's increasingly complex construction environment, that perspective isn't optional—it's a competitive advantage.
It's time we reframe how we see risk. **It's not a barrier—it's the blueprint for building safe, predictable, and successful projects**

NAWIC
The National Association of Women in Construction
Greater New York

WHY RISK MANAGEMENT IN PROJECT PLANNING?

- Initiation Stage: identify permitting, code compliance, and site risks
- Planning Stage: build a risk register connecting office and field inputs
- Execution Stage: embed mitigation strategies in schedules, budgets, and BIM models
- Monitoring: track field updates in real-time to update risk plans

YGB DESIGN GROUP

The Importance of Integrating Risk Management into Project Planning

Risk management is a critical component of successful project planning. Integrating it from the outset ensures that potential threats and opportunities are systematically identified, assessed, and addressed, thereby enhancing the likelihood of project success.

Projects, by nature, involve uncertainty. Without a structured approach to risk management, unforeseen issues can derail timelines, inflate costs, and compromise quality. Early integration allows project teams to anticipate challenges, develop mitigation strategies, and allocate resources more effectively.

Moreover, risk management supports informed decision-making

It enables project managers and stakeholders to evaluate trade-offs, prioritize actions, and adjust plans based on evolving circumstances.
This proactive mindset fosters resilience and adaptability, which are essential in dynamic project environments.

From a governance perspective, incorporating risk management into planning demonstrates due diligence and accountability for your company.
It aligns with best practices and compliance requirements, particularly in regulated industries or high-stakes projects

NAWIC
The National Association of Women in Construction
Greater New York

EFFECTIVE RISK MANAGEMENT TRANSFORMS UNCERTAINTY FROM A THREAT INTO A STRATEGIC ADVANTAGE.

LET'S WALK THROUGH THE SIX ESSENTIAL STEPS THAT EVERY PROJECT MANAGER AND TEAM SHOULD FOLLOW TO STAY AHEAD OF THE CURVE

YGB DESIGN GROUP

Step 1: Risk Identification – Building a Strong Foundation

NAWIC The National Association of Women in Construction Greater New York

Before you can manage risk, you have to know what you're dealing with.
Risk identification is the first and most critical step in protecting your project's success. **The goal is simple**: uncover every potential risk that could disrupt your project. Think broadly—risks can come from internal sources, like limited resources or skill gaps, or external factors, such as regulatory changes or natural disasters. **And the best part?** Engaging your team and stakeholders brings multiple perspectives that often reveal risks you might never see alone.

Methods to Identify Risks:

1. Interview Project Stakeholders
Speak with leadership, subject matter experts, and anyone with experience on similar projects.

Ask: *"What challenges did you face?"* and *"How can we prevent them?"*
Even if stakeholders haven't led similar projects, check in to ensure nothing critical is overlooked.

2. Brainstorm with Your Project Team
Your team works day-in, day-out on this project—they often see risks before anyone else.
Host a structured brainstorming session to capture potential threats and document them.
Encourage "no idea is too small" thinking; minor risks can evolve into major disruptions.

3. Document and Verify Assumptions
According to PMBOK®, assumptions are anything believed to be true without guaranteed evidence.

4. Check Existing Checklists
Review your team's or department's historical checklists of common risks.
If none exist, start building one. It's a valuable tool not only for the current project but also for future projects.

5. Perform a Risk Assessment Matrix
Categorize potential risks into four severity levels: *catastrophic, critical, marginal, minor*.
This helps prioritize which risks require immediate attention and which can be monitored.

"Every assumption you make introduces risk.
By documenting and verifying them, you prevent foundational gaps from undermining your project."

YGB DESIGN GROUP

NAWIC
The National Association of Women in Construction
Greater New York

Step II: Risk Assessment

Once risks are identified, it's time to assess their potential impact and likelihood. Risk assessment helps you determine how severe each risk is and what effect it could have on your project's success.
Are you dealing with a financial risk that could derail the budget? Or a workflow risk that might cause delays? This step ensures you understand not just project management risks but the depth of their impact, which enables better decision-making moving forward.

Step III: Risk Prioritization – Focus on What Matters Most

Not all risks carry the same weight. That's why prioritization is essential. By ranking risks based on their **impact** and **likelihood**, we focus our attention on what truly matters.

Practical Approach:

- Regularly review risks with your team and stakeholders to ensure nothing is overlooked.
- Update risk response plans as conditions change or new information becomes available.
- Track key risk indicators and project metrics to spot early warning signs.
- Document lessons learned to improve responses and strategies for future projects

Step IV: Risk monitoring and control - Staying Ahead of the Curve

Risk management doesn't end once the plan is in place. Continuous **monitoring and control** are essential because new risks can emerge, and existing risks may evolve over time. By actively monitoring and controlling risks, you keep your project agile, adaptable, and resilient. It ensures that risk management is not just a one-time exercise, but a **living process** that protects your project from surprises and helps your team make informed decisions in real time

YGB
DESIGN GROUP

Step V: Risk Response Planning – Preparing for the Unexpected

With your risks prioritized, the next step is creating a **risk response plan**. This isn't just a formality—it's your playbook for staying on course when challenges arise. Every risk needs a tailored response that fits your project's risk appetite and objectives

- **Risk Avoidance**

  Prevent the risk from occurring by adjusting the project plan or approach.

- **Risk Mitigation**

  Implement measures to reduce the likelihood or impact of the risk.

  Example: adding safety checks, backups, or contingency schedules.

- **Risk Transfer**

  Shift the risk to another party, often via insurance or external contracts.

  This is useful when specialized expertise or financial protection is needed.

- **Risk Acceptance**

  Acknowledge the risk without immediate action but monitor it.

  Suitable when the risk is within your organization's tolerance and unlikely to threaten project success.

By developing clear, actionable plans for each risk, you don't just react when problems arise—you're prepared. This proactive approach keeps your project on track, protects resources, and builds confidence across your team and stakeholders

Step VI: Risk Communication – Keeping Everyone Aligned

The final step in effective risk management is **communication**. It's not enough to identify, prioritize, and plan for risks—you need to ensure that everyone on your team, as well as all stakeholders, understands the plan and their roles in executing it

Practical Approach:

•Share the risk management plan clearly, including responsibilities and timelines.

•Provide regular updates on emerging risks or changes to existing risk responses.

•Foster open dialogue to encourage questions, feedback, and new insights.

•Use collaboration tools or centralized documentation to keep information accessible and consistent

Why It Matters:

Open communication builds **transparency**, keeps stakeholders informed, and strengthens team commitment. Risks are far easier to manage when everyone knows what to watch for and is actively contributing to mitigation efforts. In short, communication turns a risk management plan from a document into a **team-wide action plan**

The Importance of Effective Risk Management in Infrastructure and Construction Projects

In major infrastructure programs, project managers and key stakeholders can't afford to treat risk management as an afterthought. In infrastructure and construction, uncertainty is a constant. Projects are complex, budgets are tight, and timelines are often ambitious. Effective risk management isn't just a checkbox—it's a critical strategy to anticipate challenges, minimize surprises, and keep projects on track.

Consider this: **risk drawdown**. For stakeholders, particularly in infrastructure and construction, rising share prices—or any volatility—can introduce significant risk. Ignoring it isn't an option. Addressing risks early builds stability and fosters trust, both within the organization and with external partner

To do that, we rely on analytical tools. For example:

QSRA (Quantitative Schedule Risk Analysis) It's not just a fancy acronym—it helps us see schedule risks clearly. It shows us which risks we can accept, and which ones demand tighter control

QCRA (Quantitative Cost Risk Analysis), which tells us the approximate cost contingency we need to keep budgets realistic.

Imagine being able to anticipate financial pressures before they hit—that's the power of being proactive

But risk management isn't just about numbers. That's where **forensic analysis** comes in. It helps us understand what happened and why.

Planned vs. As-Built Analysis gives us lessons learned by comparing what we set out to do with what actually happened.

Impact Analysis looks ahead, helping us anticipate disruptions, develop recovery strategies, and keep projects resilient.

None of this works without strong **record-keeping and documentation.** With teams spread across multiple locations, centralizing project documents through software isn't just convenient—it's what enables seamless communication, quick decision-making, and ultimately, better project outcomes

The Importance of Effective Risk Management in Infrastructure and Construction Projects

NAWIC
The National Association of Women in Construction
Greater New York

And finally, **risk management doesn't end when the last brick is laid.** Project closure phase is our chance to evaluate deliverables against objectives, reflect on lessons learned, and carry those insights forward.

That's how we raise the bar for the next project and foster continuous improvement across the industry.

At the end of the day, **comprehensive risk management is the difference between a project that struggles and one that delivers with confidence.**

So, if you're passionate about risk and ready to make a real impact in infrastructure and construction, remember this: risk isn't a **roadblock**—it's a **roadmap**. It's your blueprint for resilience, smarter decisions, and lasting success

YGB
DESIGN GROUP

NAWIC The National Association of Women in Construction Greater New York

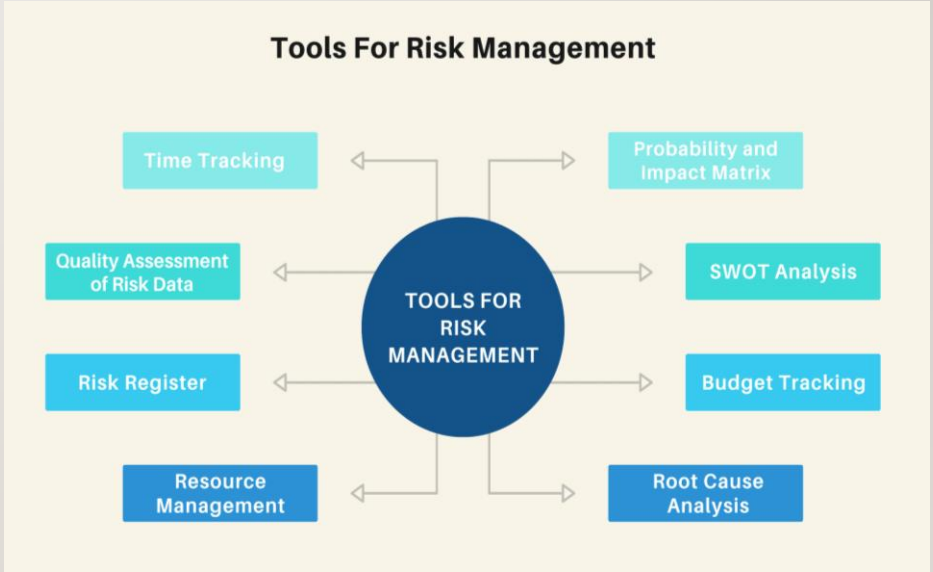
FROM DATA TO DECISIONS: HOW TECHNOLOGY TRANSFORMS RISK MANAGEMENT

TOOLS & TECHNIQUES

- SWOT Analysis
- Risk Register
- Probability & Impact Matrix
- Monte Carlo Simulation (for complex projects)
- Contingency & Response Planning
- BIM

Commonly used risk management tools in construction include the **Risk Register**, **Risk Matrix**, **Brainstorming**, **Root Cause Analysis**, and **SWOT analysis** to identify and prioritize risks. Techniques such as **Contingency Planning**, **Contractual Transfer**, **loss prevention**, and **data analytics** are employed to develop response plans, allocate resources, and prevent issues. Modern approaches incorporate. **Building Information Modeling (BIM)**, and AI-powered tools, to enhance risk assessment through integrated data and predictive modeling.

Technology has fundamentally reshaped how we approach risk management. By transforming raw data into actionable insights, teams can identify potential risks earlier, model scenarios more accurately, and make informed decisions faster, by harnessing real-time insights.



YGB DESIGN GROUP

NAWIC The National Association of Women in Construction Greater New York

TOOLS & TECHNIQUES

What is the Monte Carlo Simulation?

What happens when you type =*RAND()* in a cell?
Look it up!!!

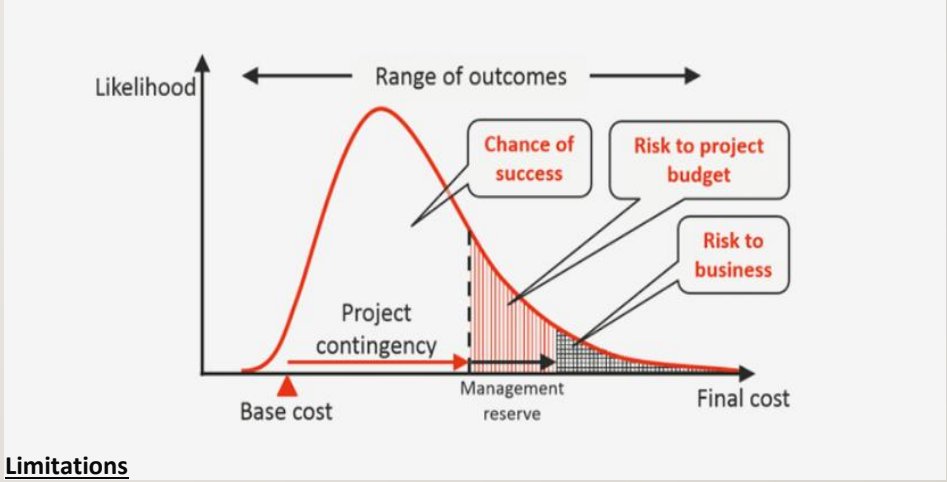
The Monte Carlo method works by creating a model with random variables, generating thousands of random inputs from probability distributions for these variables, and repeating the model to produce many possible outcomes. By analyzing the collection of these results, the method provides a probability distribution of potential outcomes, helping to understand risk and uncertainty in complex systems where exact calculations are difficult

Project Management: Monte Carlo simulation can be used to analyze the potential risks and uncertainties associated with a project. This can help project managers to identify potential issues and develop contingency plans to mitigate those risks.

Supply Chain Management: Monte Carlo simulation can be used to model the potential impact of supply chain disruptions or changes in demand. This can help businesses to identify potential risks and develop strategies to mitigate those risks

Think of this as a way to peek into the future of your project. This technique runs thousands of "what-if" scenarios, using probability to model how long tasks might take or how much they might cost. Instead of a single fixed schedule or budget, it gives you a realistic range of possible completion dates and costs. It helps you understand where the risks lie, set expectations that are achievable, and plan the right contingency reserves. By seeing how likely delays or cost overruns are, you can make smarter decisions and increase the chances of your project succeeding

Monte Carlo Simulation (for complex projects)



Limitations

•**Computational demands**: for large-scale models, running thousands or millions of simulations can require significant computational power and time.

•**Input quality**: the accuracy of the simulation is highly dependent on the quality of the input data and the chosen probability distributions. Flawed inputs can lead to misleading results

YGB DESIGN GROUP

BENEFITS OF EARLY INTEGRATION

- Proactive problem-solving vs. reactive firefighting
- Better alignment with project objectives
- Stronger collaboration across teams
- Increased likelihood of delivering on time and on budget
- Enhanced resilience in changing conditions
- True leadership means embracing uncertainty, not avoiding it

NAWIC
The National Association of Women in Construction
Greater New York

CASE EXAMPLE

- Project with early risk planning avoided costly delays
- Project without risk planning suffered overruns & missed deadlines
- Lesson: early risk identification pays off

•**With Risk Planning:** A hospital project identified potential permitting delays early and adjusted design submittals, avoiding a 3-month delay

•**Without Risk Planning:** A residential tower project faced costly rework due to uncoordinated design and field execution

YGB
DESIGN GROUP

BEST PRACTICES

- Foster a risk-aware culture
- Engage stakeholders in risk discussions early
- Document risks clearly and update regularly
- Align risk strategies with overall project goals
- Review lessons learned for continuous improvement

Let's shift the mindset: risk management isn't a barrier—it's the blueprint for resilience and success

CONCLUSION

- Risk management is integral to project planning
- Early integration = stronger foundations, smoother execution, better outcomes
- "Managing risks means managing success."

Embedding risk management into project planning isn't just a safeguard—it's a **strategic advantage**.

When considered from the very beginning, it transforms how teams anticipate, respond to, and even capitalize on risks.

NAWIC
The National Association of Women in Construction
Greater New York

Incorporate Risk Management into Early Project Planning

"Successful projects start with strong plans—and risk management is a cornerstone of that planning. By embedding your risk management strategy into early-stage planning documents, like your project brief, you set your team up for proactive success"

So, as you approach your next project planning session, ask yourself: Have we built risk management into our plan from day one?
Because the projects that do aren't just surviving uncertainty—they're thriving in it.

YGB
DESIGN GROUP

Q&A

- Questions?

Discussion Points:

1.How can engaging multiple stakeholders change the way you view project risks?
2.Which assumptions in your current or past projects have caused the biggest disruptions?
3.How can a risk assessment matrix help your team focus on what matters most?

THANK YOU!

- Contact Information: Yeniseibell@gmail.com

- **linkedin.com/in/yeniseibell**