HOW RISKY IS YOUR PROJECT?
[and what are you doing about it?]

Presented by

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Two key questions

1. How risky is your project?

2. What are you doing about it?

How to answer these questions?

- **Two levels of question & answer:**

1. Project Manager:

   Q: What are the risks **in** my project?

   A: **Individual risks** (see Risk Register & risk reports)

2. Project sponsor/project owner/customer:

   Q: What is the riskiness **of** this project?

   A: **Overall project risk** (????)

What is “individual risk”?

- PMI Practice Standard for Project Risk Management (2009), PMBoK® Guide (2017)
  - **an uncertain event or condition** that, if it occurs, has a positive or negative effect on a project’s objectives.

- apm PRAM Guide (2004), BoK6 (2012)
  - **an uncertain event or set of circumstances** that, should it occur, will have an effect on achievement of one or more of the project’s objectives.

What is “overall project risk”?

- PMI Practice Standard for Project Risk Management (2009), PMBoK® Guide (2017)
  - Overall project risk represents **the effect of uncertainty on the project as a whole**. It is more than the sum of individual risks on a project.

- apm PRAM Guide (2004), BoK6 (2012)
  - Overall risk is **the exposure of stakeholders to the consequences of variation in outcome**, arising from an accumulation of individual risks together with other sources of uncertainty.

Two levels of risk & risk management

- **Individual risks**

  … specific events or conditions that might affect project objectives … positively or negatively ... **Day-to-day project risk management** focuses on individual risks in order to enhance the prospects of a successful project outcome.

- **Overall project risk**

  … applies to the whole project … includes all sources of project uncertainty … important component of **strategic decision-making, program & portfolio management**, and **project governance**.

Implications

- **Is this in scope for project managers?**
  - PM is **responsible** for identifying, analysing & managing specific uncertainties within the project (**individual risks**)
  - PM is **accountable** to Project Sponsor for overall risk exposure of the project (**overall project risk**)
- **Yes, but how?**

Current practice

- Most projects only concentrate on managing **individual risks** via risk process = **explicit RM**
- Some assessment of **overall project risk** during project initiation via scoping decisions = **implicit RM**

Implicit and Explicit risk management

IMPLICIT RISK MANAGEMENT

Via decisions about …

- STRUCTURE
- SCOPE
- CONTENT
- CONTEXT

… of the project

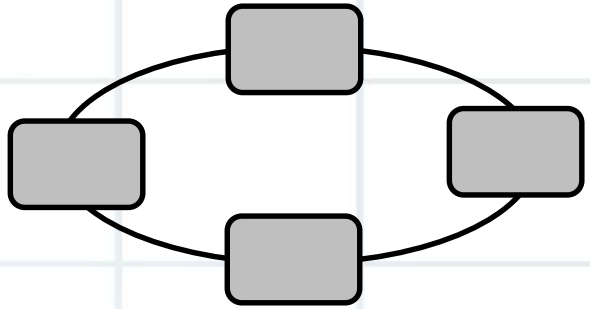
Addresses

OVERALL PROJECT RISK

DURING PROJECT INITIATION

EXPLICIT RISK MANAGEMENT

Via project risk mgt process



Addresses

INDIVIDUAL RISKS

DURING PROJECT EXECUTION

Managing overall project risk during project execution

- **Identifying** sources of overall project risk
- **Quantifying** overall project risk
- **Responding** to overall project risk
- **Reporting & monitoring** overall project risk

Identifying sources

- Need **whole-project** perspective
- “Overall project risk” is **one thing**, but has **many sources**, from project context
- Various frameworks exist to find sources:

PESTLE **PESTLIED** **STEEPLE**

InSPECT **SPECTRUM**

TECOP **VUCA**

- Use as prompt list, structure for brainstorm, input to SWOT Analysis, agenda for risk interviews, topics for Delphi groups…

Qualitative assessment

- Overall project risk has two dimensions (as for individual risks):
  - **Uncertainty** = probability of project success (or failure)
  - **Effect** = range of potential variation on overall project objectives (+ve and/or –ve)

- Only **one value** for each dimension at any point in time

- Use of standard **P-I Matrix** of limited use (could monitor trends over time)

Quantifying overall project risk

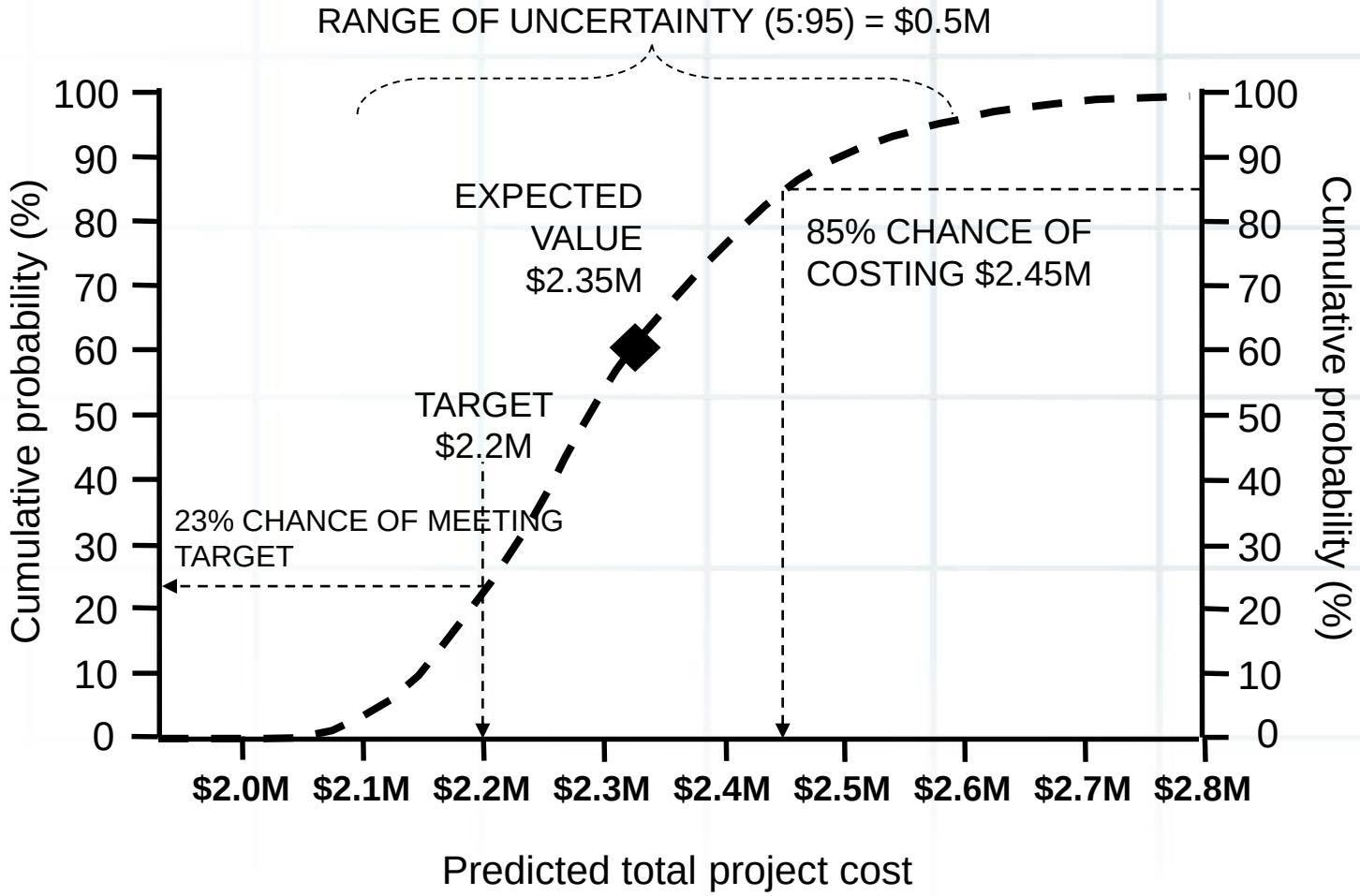
“Effect of uncertainty on the project as a whole”

“Exposure of stakeholders to variation in outcome”

- Key questions with quantitative answers:
  - **How likely** is this project to succeed (or fail)?
  - What is potential **range of variation** in outcome?
- Standard **Monte Carlo simulation** answers these

Quantifying overall project risk

An example Monte Carlo output (cost)



Quantifying overall project risk

An example Monte Carlo output (cost)

- **"How risky is this project?"**
- Quantitative answers:
  - **How likely is this project to succeed?**
    - Probability of meeting $2.2M target = 23%
    - Expected value = $2.35M (+7%)
  - **What is potential range of variation in outcome?**
    - Total potential range = $0.5M (= 22% of project value)
    - Realistic best case (5^{th} percentile) = $2.1M (– 4%)
    - Realistic worst case (95^{th} percentile) = $2.6M (+18%)

“What are you going to do about it?!”

- Project sponsor makes appropriate risk-based decisions on future of project
- **Response options** similar to individual risks:

  Avoid (–): de-scope high-risk elements or cancel project

  Exploit (+): increase scope to create additional value

  Transfer (–) / Share (+): Involve third-parties via JV, SPV, merger, subcontract or sell project

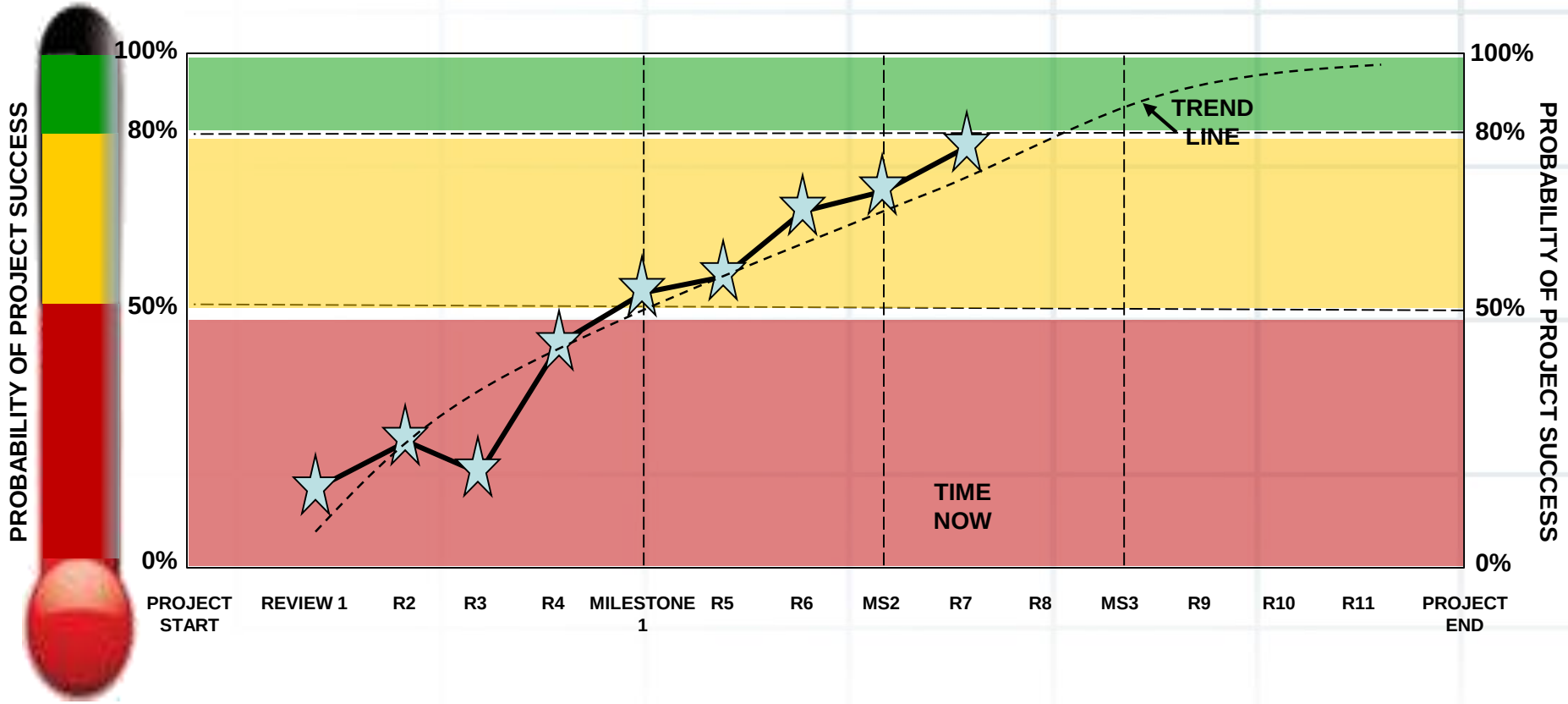
  Reduce (–) / Enhance (+): increase probability of success, reduce potential variation & shift spread to upside

  Accept (–/+): ensure adequate contingency, monitor risk level

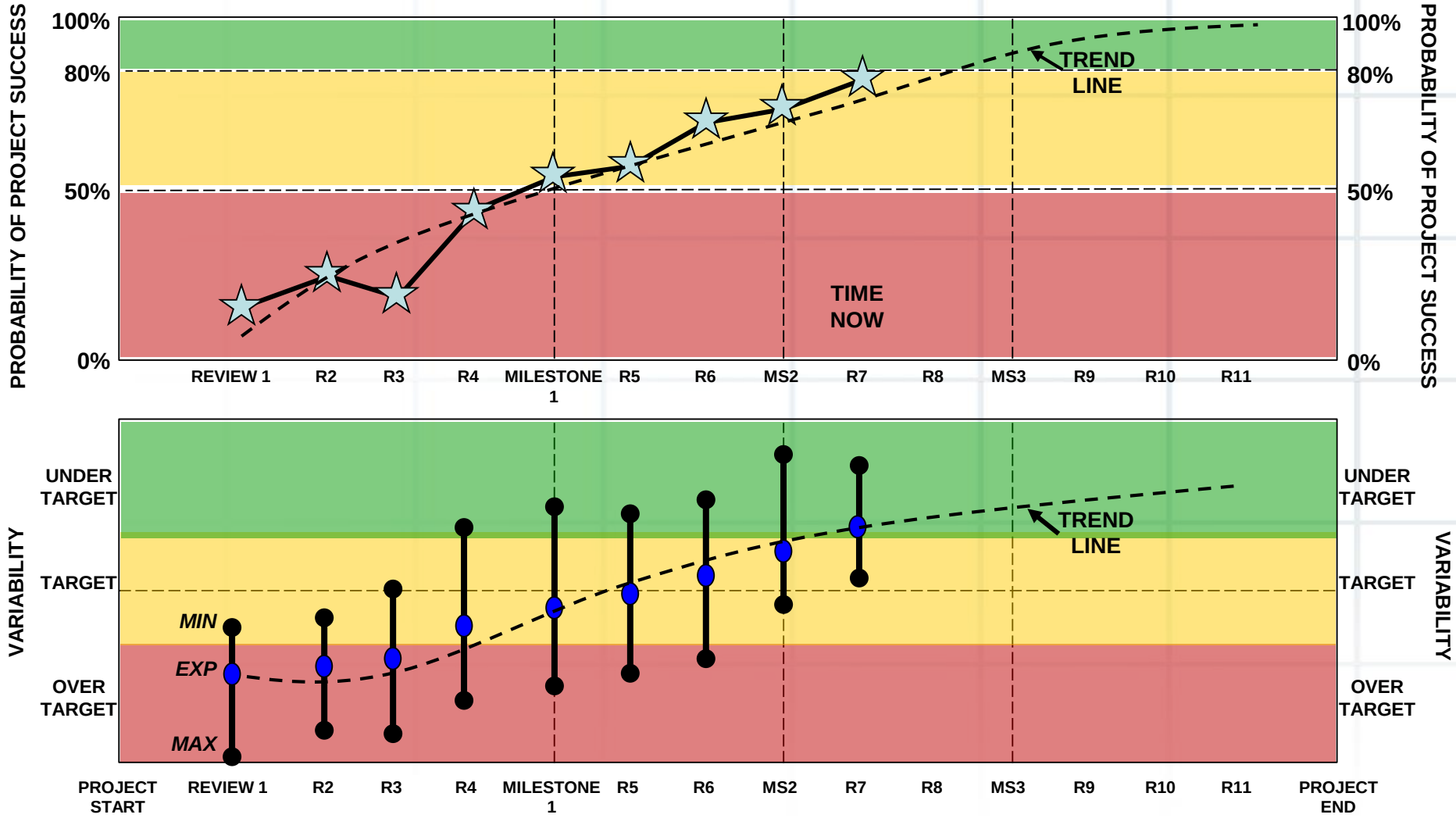
Reporting overall project risk

- Update at key milestones, tell stakeholders:
  - Current level of overall project risk
  - Major causes of overall project risk
  - Key responses underway or planned
  - Trend in overall project risk since project started
  - Predicted level of overall project risk at next reporting point
- Monitor changes and trends
  - No common practice formats
  - Suggested dashboard components

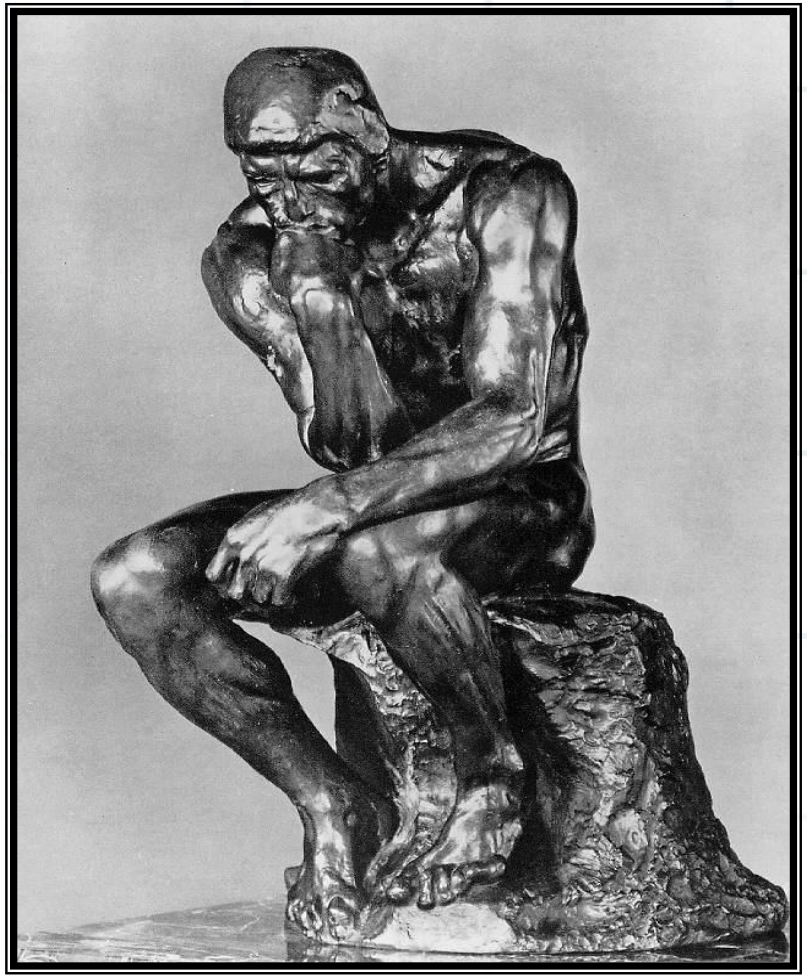
Overall Project Risk Barometer



Overall Project Risk Barometer + variability



Final thoughts



Next steps for practitioners & profession

- **Risk matters**, including both **individual risks** and **overall project risk**
- Both need to be **managed proactively**
- Best-practice needs to **evolve** to cover both
- PM standards must **provide guidance** for both

We must deal equally with **the risks <u>in</u> the project** and **the riskiness <u>of</u> the project**

Final questions

- **How risky is your project?!**
- **What are you doing about it?**
- **Do you include overall project risk in your thinking & practice?**
  - **If not, why not?**
  - **Would it be possible?**
  - **What changes are required?**

Thank you
Any questions?

For further information

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