



SCOR

The Art & Science of Risk



Actuarial Agility

Using Agile to enhance efficiency, predictability and transparency on actuarial teams.

Al Mele

Head of Agile Centre of Excellence

Jennifer Nusbaum

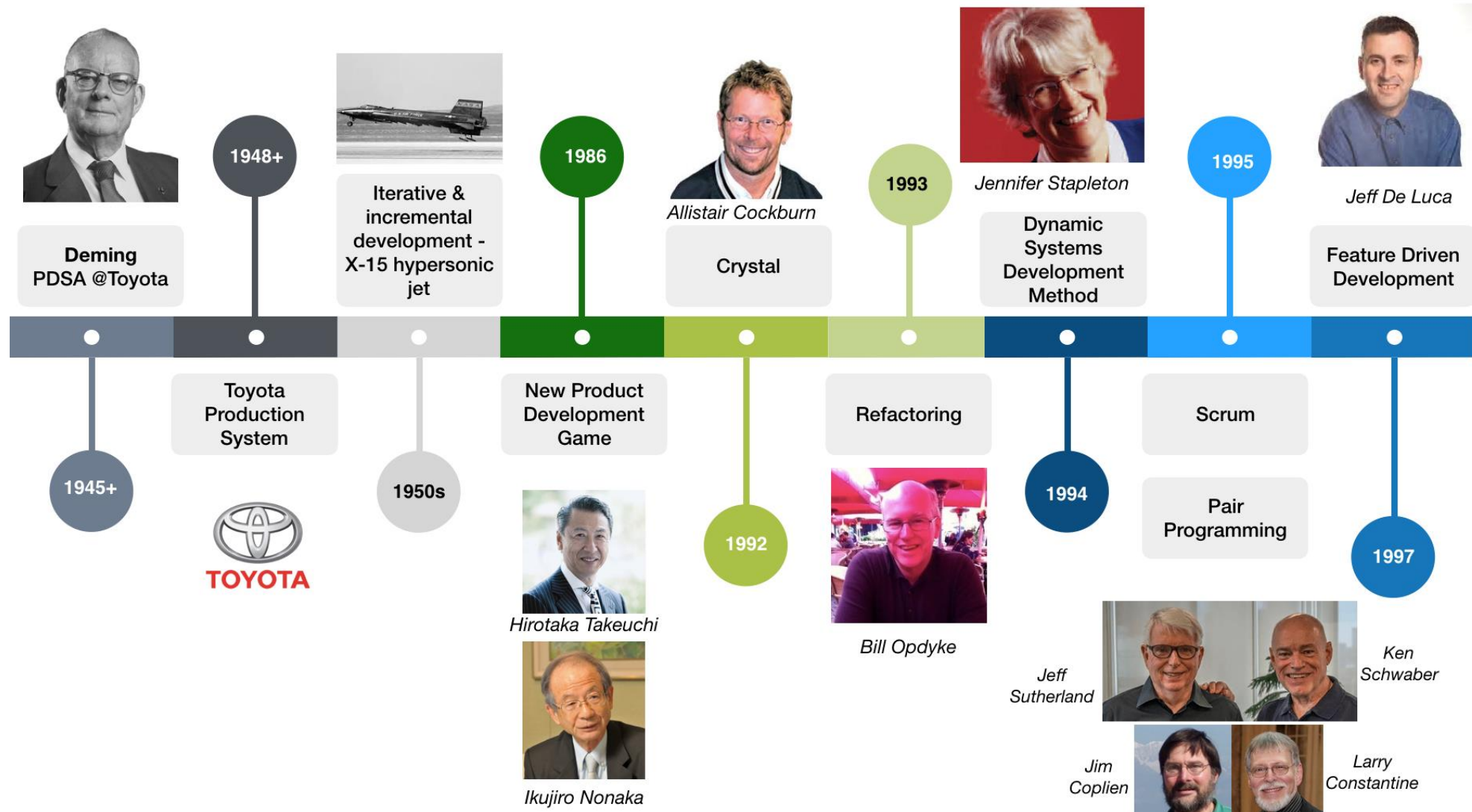
Head of Agile Coaching Americas

Why Does SCOR Use Agile?

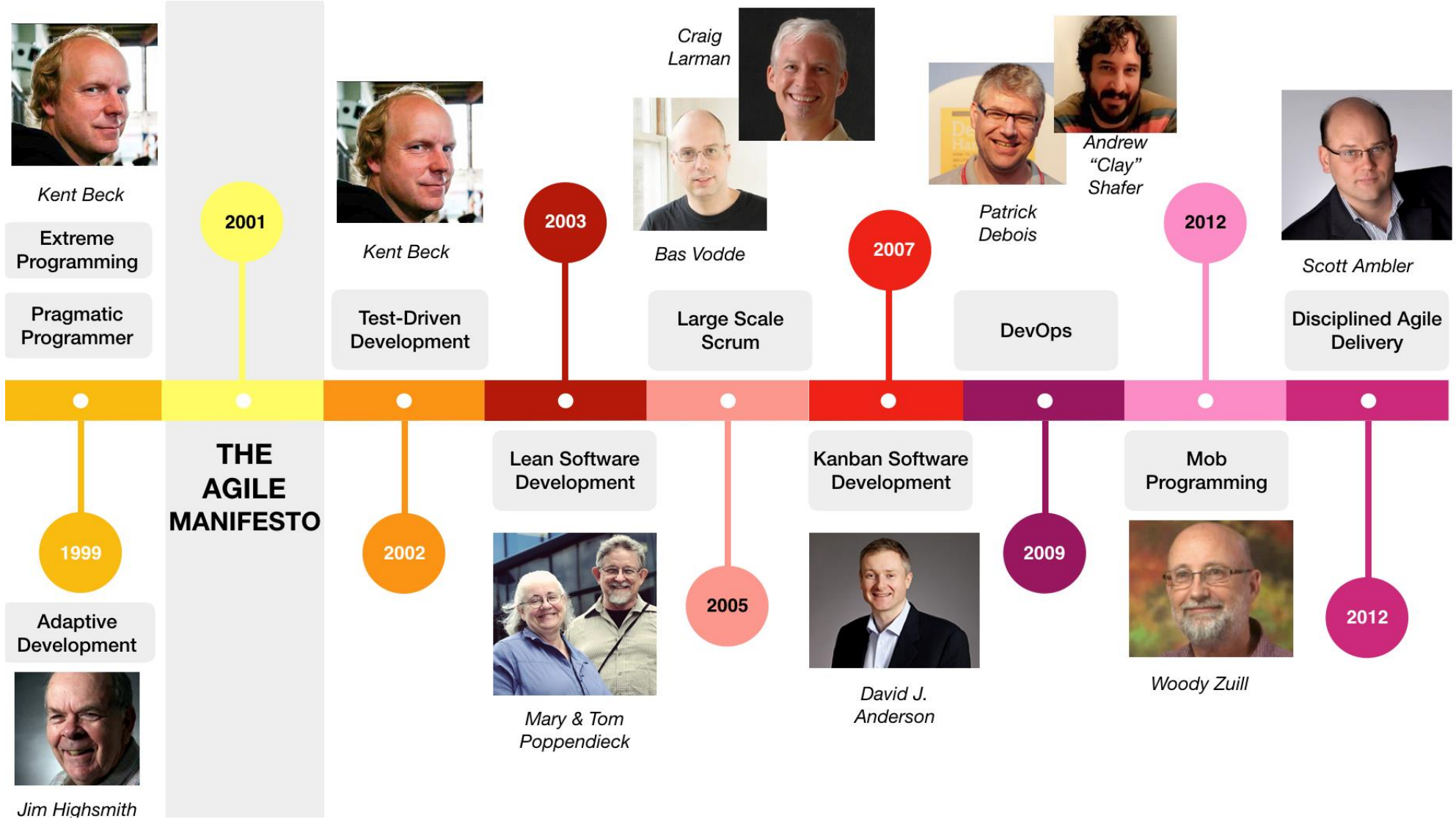
- Enable SCOR to **deliver more value** with the resources it has.
- **Create resilience** in a volatile, uncertain and complex marketplace.
- Cultivate a **reputation of excellence** in the industry for innovation, service delivery, and organizational agility.
- Create **strong relationships** with our clients, involving us earlier in their product design process and giving us more transparent insight into their goals and the problems they face in pursuit of those goals.
- Unleash the **full potential** of a diverse workforce in which all employees feel able and willing to use their voices to contribute to SCOR's goals.

Through the above, earn reinsurance share, allowing us to extend protection and peace of mind.

A Brief History



A Brief History



History: Agile Values

Individuals and interactions over processes and tools
Working product* over comprehensive documentation
Customer collaboration over contract negotiation
Responding to change over following a plan

That is, while there is value in the items on the right, we value the items on the left more.

History: Agile Principles

... and manifested through these Agile Principles

Our highest priority is to satisfy the customer through early and continuous delivery of valuable work.

Welcome changing requirements, even late in the project. Agile processes harness change for the customer's competitive advantage.

Deliver work frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.

Stakeholders and the team must work together daily throughout the project.

Build projects around motivated individuals. Give them the environment and support they need and trust them to get the job done.

The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.

Working product is the primary measure of progress.

Agile processes promote sustainable pace. The team should be able to maintain a constant pace indefinitely.

Continuous attention to technical excellence and good design enhances agility.

Simplicity--the art of maximizing the amount of work not done--is essential.

The best architectures, requirements, and designs emerge from self-organizing teams.

At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.

The Heart of Agile: A Mindset



Where is Agile Useful?



- The problem to be solved is complex;
- Solutions are initially unknown, and requirements will most likely change;
- The work can be modularized;
- Close collaboration with end users (and rapid feedback from them) is feasible.

It is not just for software!

“Doing Agile” Is Not the Goal

Teams choose Agile because it helps them achieve...



Faster Response Time



Greater Efficiency



Enhanced Predictability



More Transparency



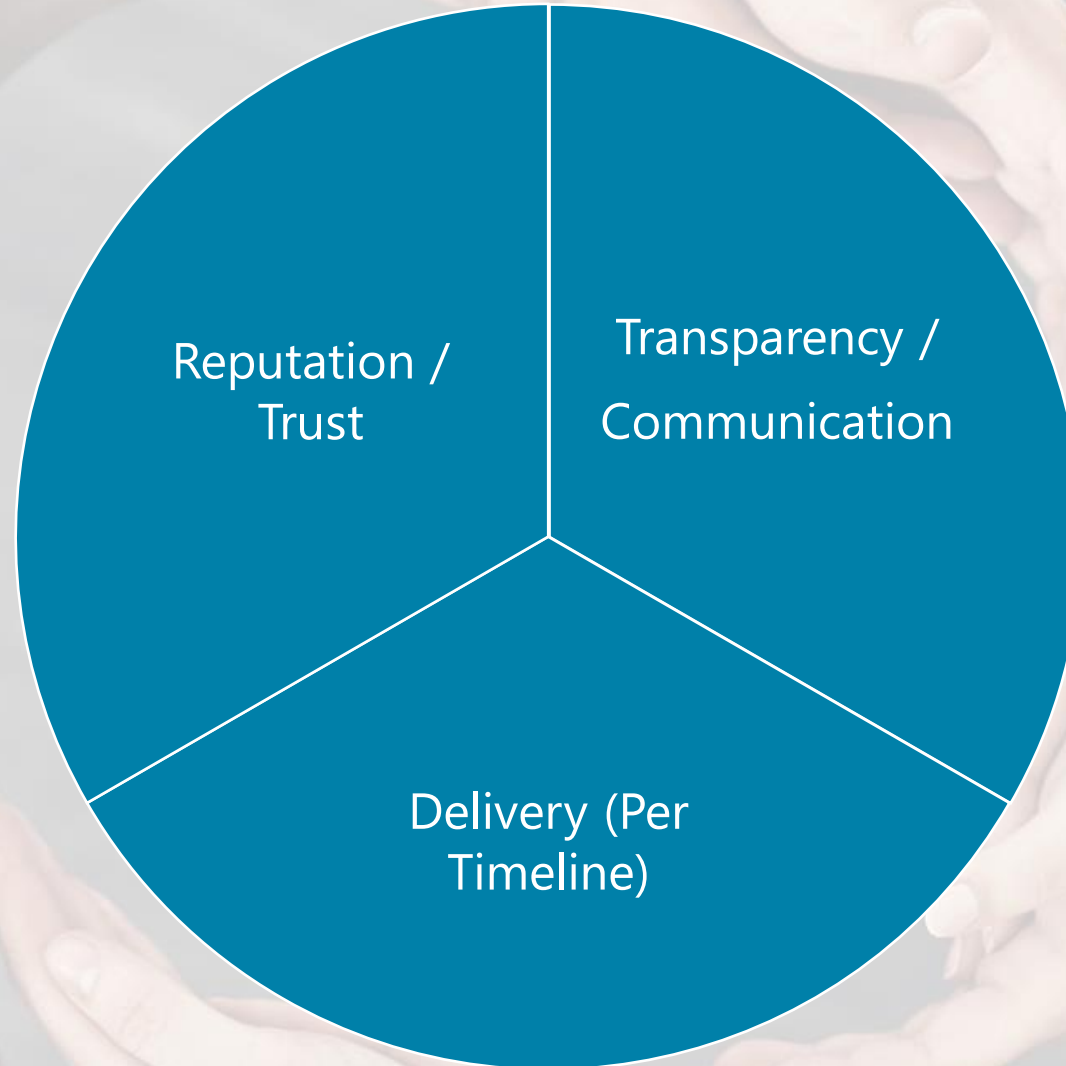
A Sustainable Pace



Agile for New Business Development

Sidharth Sadani ASA
Senior Data Scientist, SCOR

Elements of a good client engagement



Application: Major life insurer in the US wanting to use predictive models to arrive at underwriting decisions

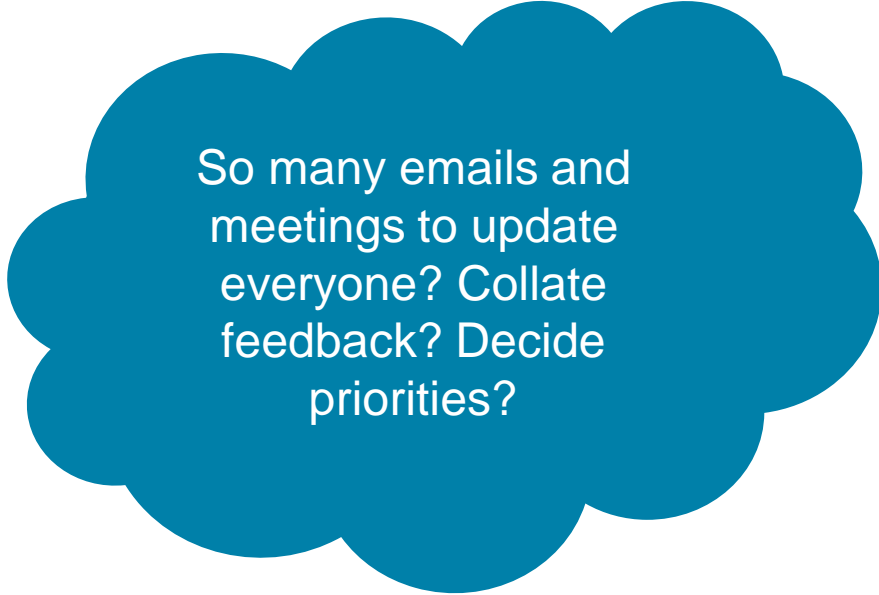
Stakeholders:

Client

Internal
Underwriting

Pricing

Marketing



So many emails and meetings to update everyone? Collate feedback? Decide priorities?

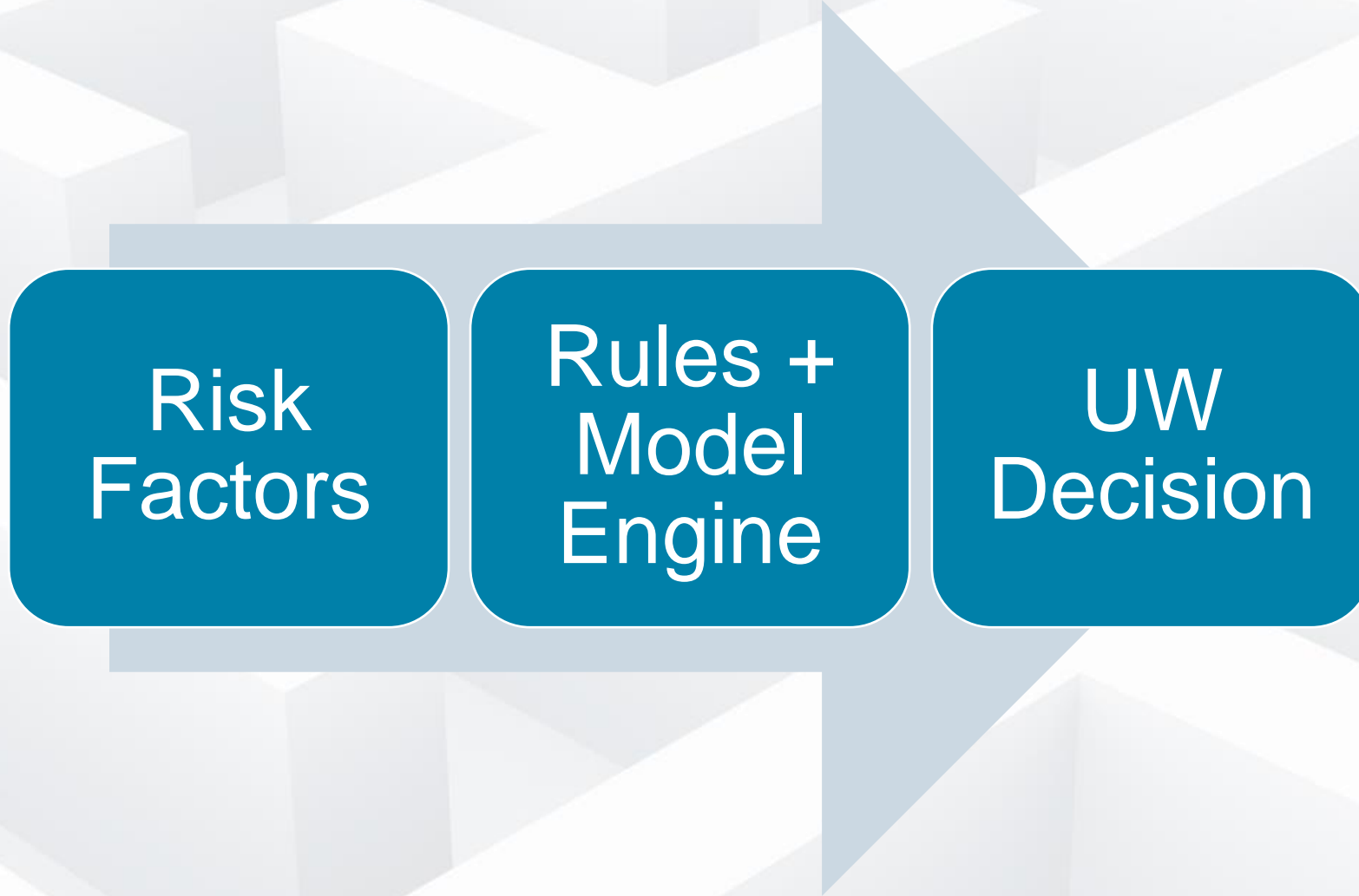


Sprint Review
(Demo)

Prioritization

Setting Expectations

Problem Definition



Situation 1: Adding more risk factors to the engine

There is belief that adding a new feature would improve performance

Context

- The client wanted to add a new feature to the model

Response

- Subjective validation from Underwriters
- Estimated impact relative to other outstanding client requests
 - Backlog
- Communicated to client priority and timeline using above
 - Sprint Cycles
- Incremental build (adding one thing at a time as opposed to performing all modifications at the same time)

Result / Learning

- Buy-in from stakeholders on value and priority
- Incremental build, allowed marginal testing and validation
- Gained client trust as client as expectations were set correctly
 - Therefore planned work was delivered on time.



Situation 2 : Potential Bug identified!!

We've identified a bug! We must squash it right away?

Context

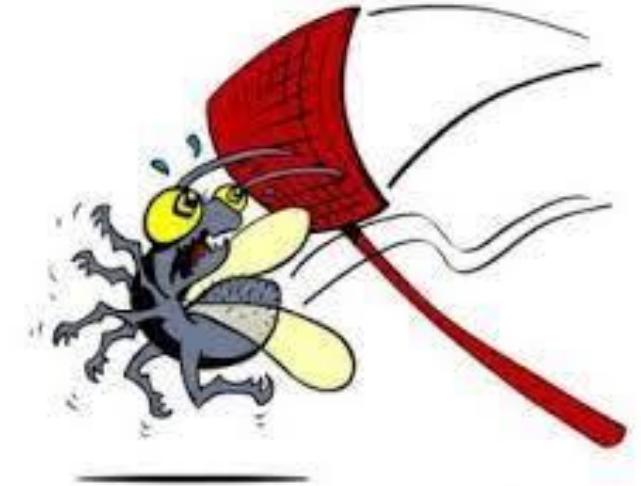
- We noticed a potential bug in the model during test, roughly 2 months before go-live.

Response

- Impact of bug estimated
- Prioritized against other enhancements and bugs
- Natural de-prioritization of ongoing development work
- Bug squashed

Result / Learning

- Mid-sprint requests/priorities can come up
- Important to weigh the cost of switching vs urgency/priority of new unit of work
- Gained client trust, by being agile and responsive to new situations
- Clear prioritization, communication & execution



Situation 3 : Research Spikes?

What do I do, when I don't know what to do?

Context

- Client wanted model explanations, but what was the best way to explain the decisions of a complex non-linear predictive model?

Response

- Research and list possible methods
- Prioritize a method based on SME guidance
- Evaluate efficacy of method on small subset
- Repeat for alternative methods
- Collect learnings and results and provide final guidance on methodology
- Next Unit of Work : Implement recommended methodology to get model explanations

Result / Learning

- Discovery can be open ended
 - But goals / questions for discovery have to be defined and answered
- Time-box research to limit losing focus on business value
- Start somewhere simple and improvise.
- Client felt engaged because at the end of the research spike they got to make an informed decision on methodology.

Did we Agile?



Agile is not a set of rules but a set of principles



Being responsive, transparent, and delivering value



Developing trust and long-term relationships



Delivering on time, and communicating reasons for delays



Application on Pricing

Dan Delany – AVP Actuary - Pricing

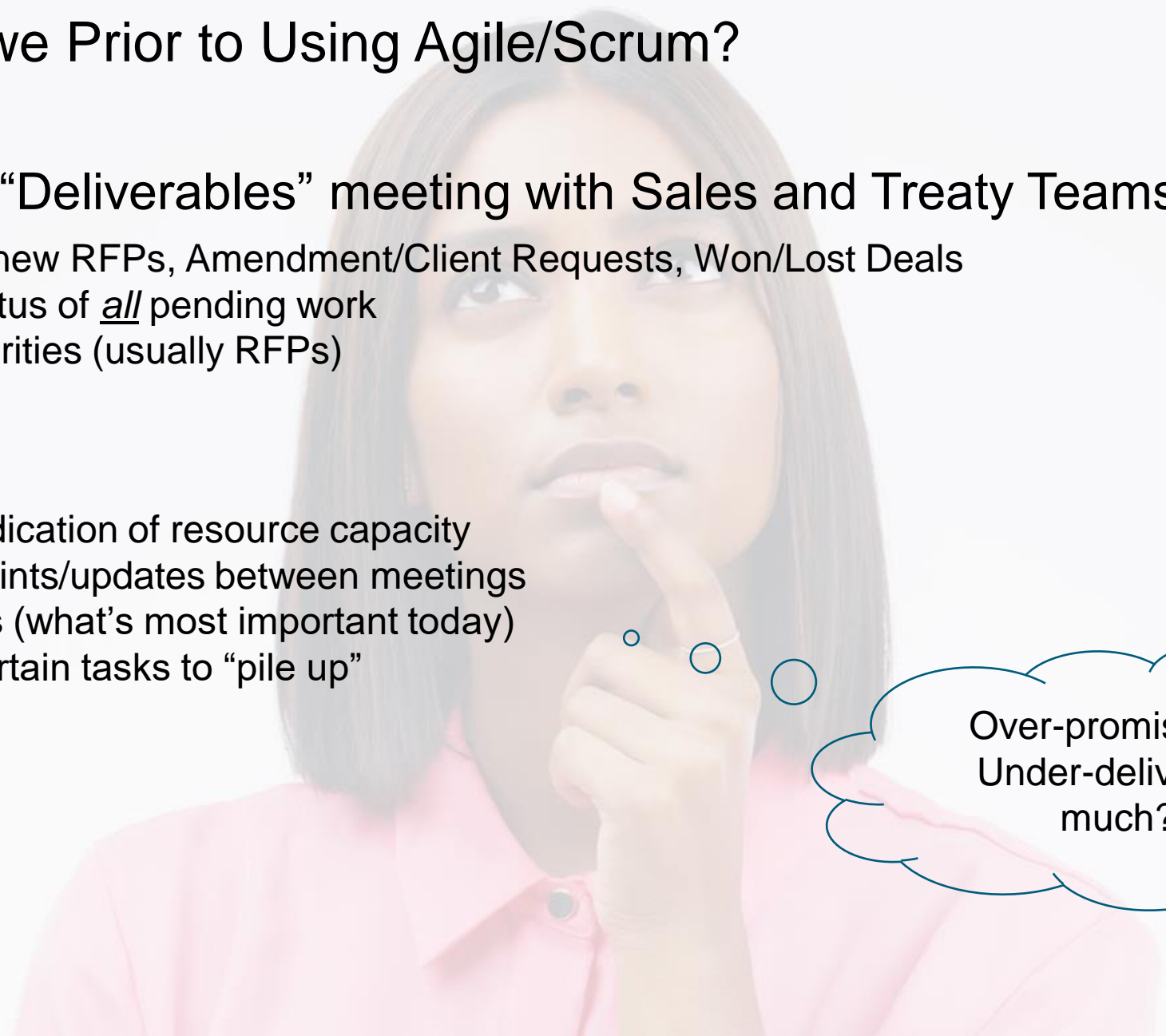
Where Were we Prior to Using Agile/Scrum?

1-hour Weekly “Deliverables” meeting with Sales and Treaty Teams

- Determine new RFPs, Amendment/Client Requests, Won/Lost Deals
- Review Status of all pending work
- Identify priorities (usually RFPs)

Drawbacks:

- No clear indication of resource capacity
- No touchpoints/updates between meetings
- Distractions (what’s most important today)
- Allowing certain tasks to “pile up”

A woman with long dark hair, wearing a pink shirt, is shown in a thinking pose with her hand to her chin. A thought bubble is connected to her hand, containing the text "Over-promising & Under-delivering much?".

Over-promising &
Under-delivering
much?

Overview of Our Scrum Process

Sprint Review

- Finalize Task Statuses
- Confirm delivered items
- Discuss incomplete items
- Return incomplete tasks to Backlog

Backlog Review

- Defined Intake Process
- Identify New Items
- Identify Items No Longer Needed
- Prioritization

Sales-Pricing Scrum Process

Sprint Execution

- Daily Scrum Meeting (15 minutes)
- Identify Completed & In-progress Tasks
- Identify and mitigate impediments

Sprint Planning

- Identify Sprint Period
- Manager Pre-planning
- Determine Resources
- Define Sprint Items
- Assign Resources & Target Dates

Advantages / Disadvantages

Scrum (Perceived) Drawbacks

- Heavy lift for planning (2 – 4 hours?)
- Micro-managing?
- Daily meetings

Scrum Gains

- Better understanding of capacity over time
- Manage Expectations
- Clear objectives, limits ad hoc requests, ensures consistent backlog reduction
- Frequent touchpoints to identify “at-risk” deliverables earlier
- Transparency with Key Stakeholders and within the Team
- Progress on all key deliverables
 - RFPs
 - Client requests / amendments
 - Pricing projects (assumption analysis / pricing tool updates)

How was it Going?

We knew we didn't have a perfect process when we started... **And we were ok with that!**

The **Not-So-Good**:

- Intake process presented a challenge
 - Wasn't clearly defined, which led to confusion in Backlog Items
- Sprint Planning, Sprint Review, and Backlog Review Meetings were challenging
 - First few meetings with stakeholders lacked definition/purpose/flow
 - Inefficient use of time during planning meeting
- Initial Challenge in completing more than 60% of Sprint

The **Good**:

- We were continuously assessing our process and trying new things:
 - Group mailbox and Intake form created for new Backlog items
 - Manager Pre-Planning meeting develops draft Sprint for team review
 - Stakeholder ceremonies have better flow and understanding of objectives
 - It became easy to say "let's try this for 2 sprints"
- Daily Scrum/Standup wasn't burdensome for the team
- Positive feedback from Pricing team regarding hand-offs
- Stakeholders were understanding and patient with change

What Happened?

In August 2021, the Pricing team was restructured, and the Scrum process was ultimately set aside

The **Not-So-Good**:

- We've reverted to being a reactive team (fire drills)
- Lack of transparency for management & stakeholders
 - We no longer have a centralized Backlog or intake process
- Less communication of hand-off's

The **Good**:

- We miss our Scrum process and have better appreciation for what it provided!
- Even Stakeholders have said they miss our Scrum process!
- We are currently exploring how to adapt our prior process to the current team structure

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Thank You For Your Time!