Scaling Agile Projects to Programs: Small-World Networks of Autonomy, Collaboration, and Exploration

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Agile and Lean Program Management: Scaling Collaboration Across the Organization

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AGILE AND LEAN Program Management
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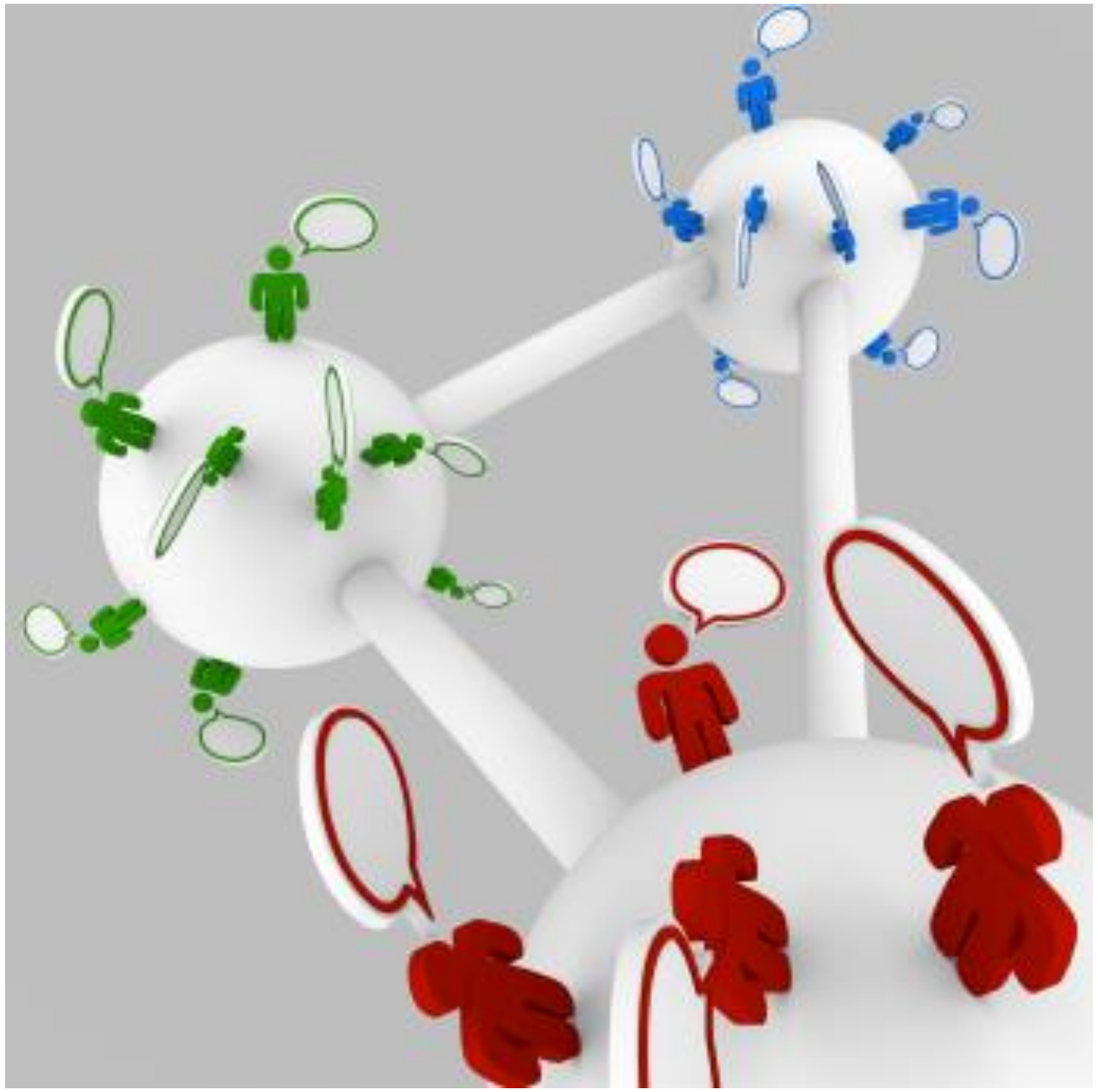
What’s the Most Effective Way to Move Information in Your Organization

Rumor Mill



Imagine Managing the Flow of Features Through a Program ...

Teams Create Features and Integrate

Medium Programs

Big Programs

Nuts and Bolts of Agile Programs

- Think small to go big--short is beautiful!
    - Short iterations: <= 2 weeks
    - Small stories: <= 1-2 team days
    - Just in time, evolving architecture
    - Networks of cross-functional teams
    - Short planning horizons
    - Plan to replan
- Allows you to do continuous integration and planning across the program

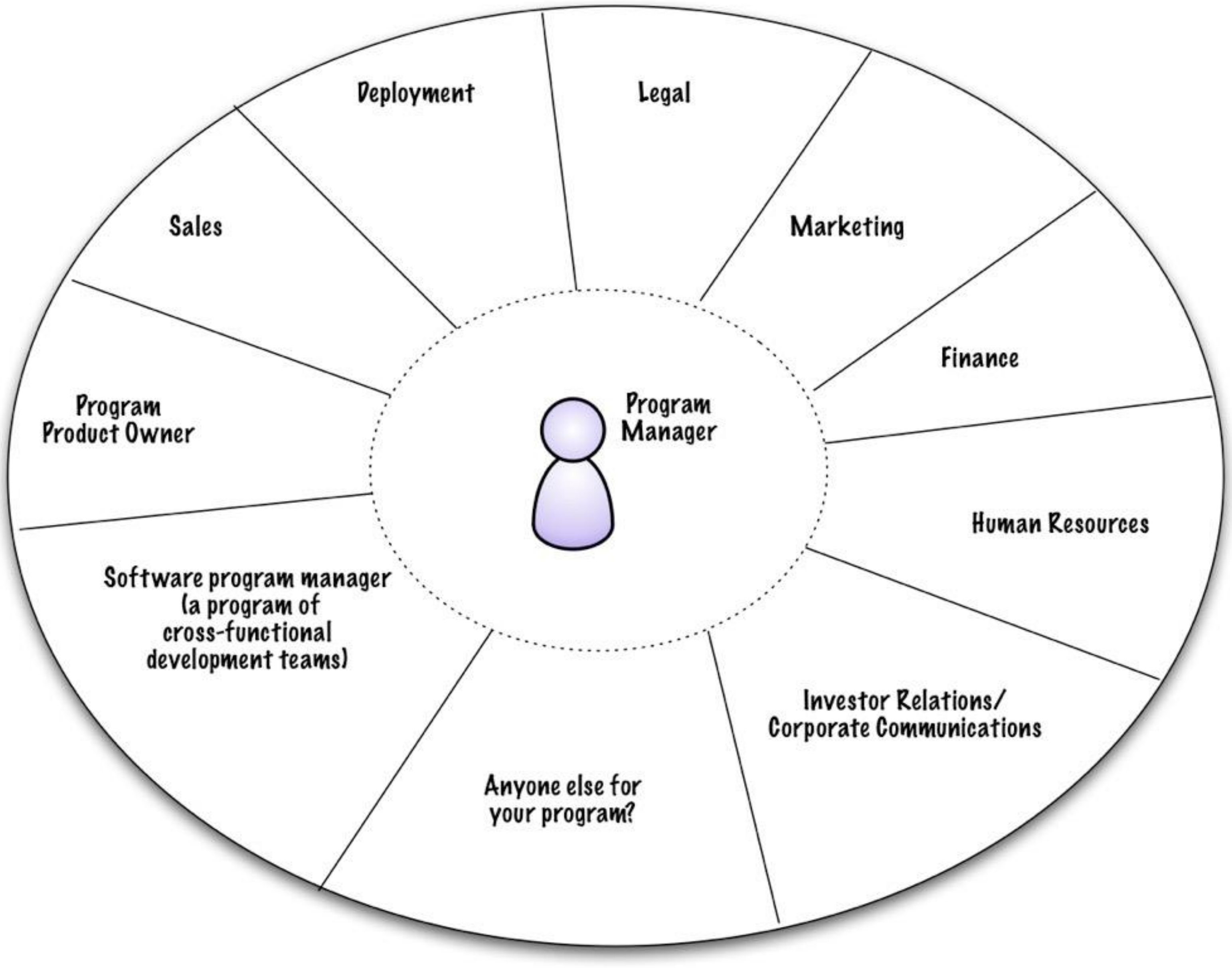
How Do You Organize the Teams?

- Project teams can use iteration-based or lean approaches
- You don't need branded agile
- I'm agnostic about how each team works, as long as they deliver

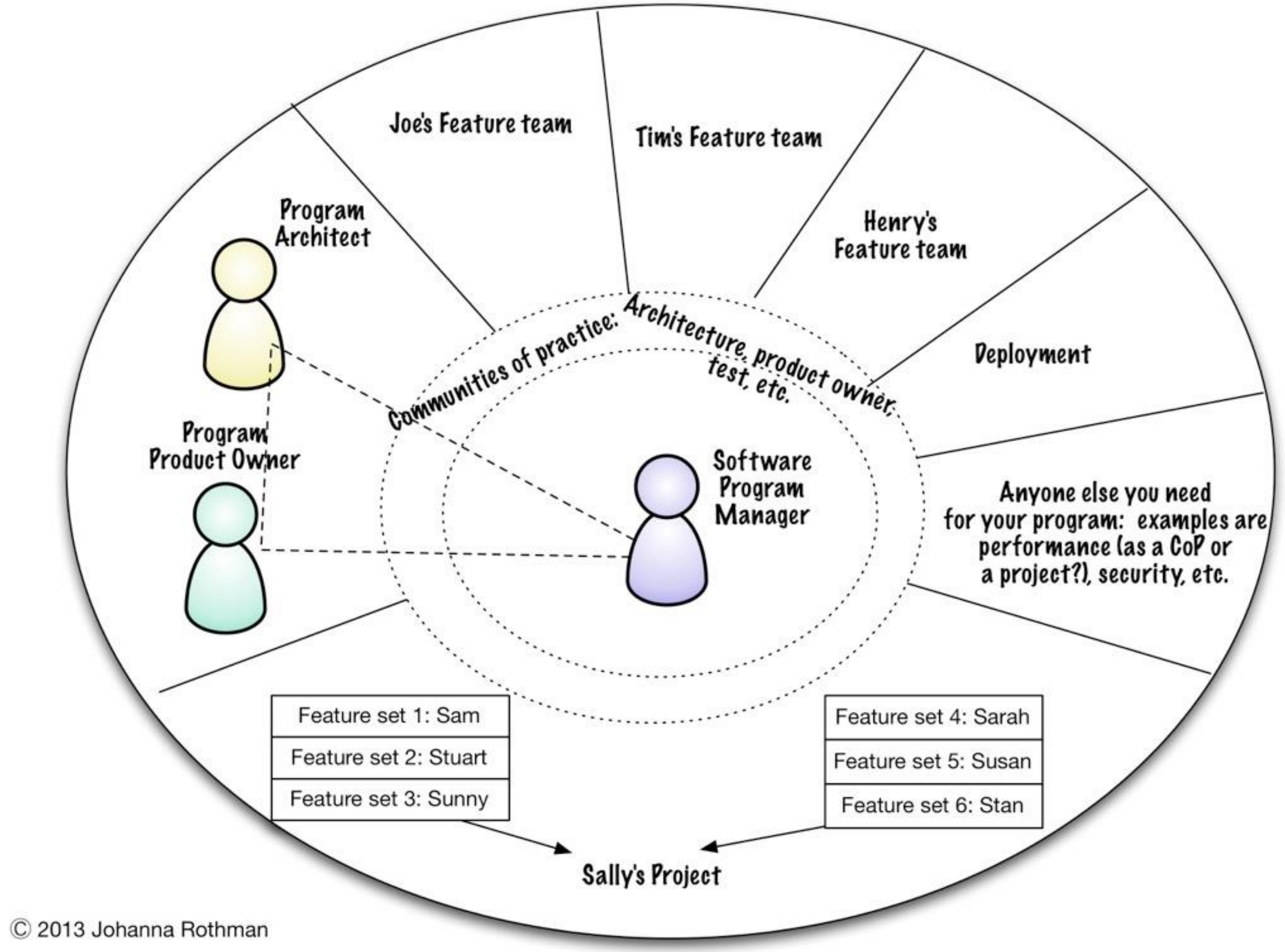
Feature-Done at Regular Intervals

- Demo/Release
- Assess risk
- Update the architecture
- Update the roadmap
- Change what teams work on
- ...

The Core Team


Deployment
Legal
Sales
Marketing
Finance
Program Product Owner
Program Manager
Human Resources
Software program manager (a program of cross-functional development teams)
Investor Relations/ Corporate Communications
Anyone else for your program?

Technical Program Team

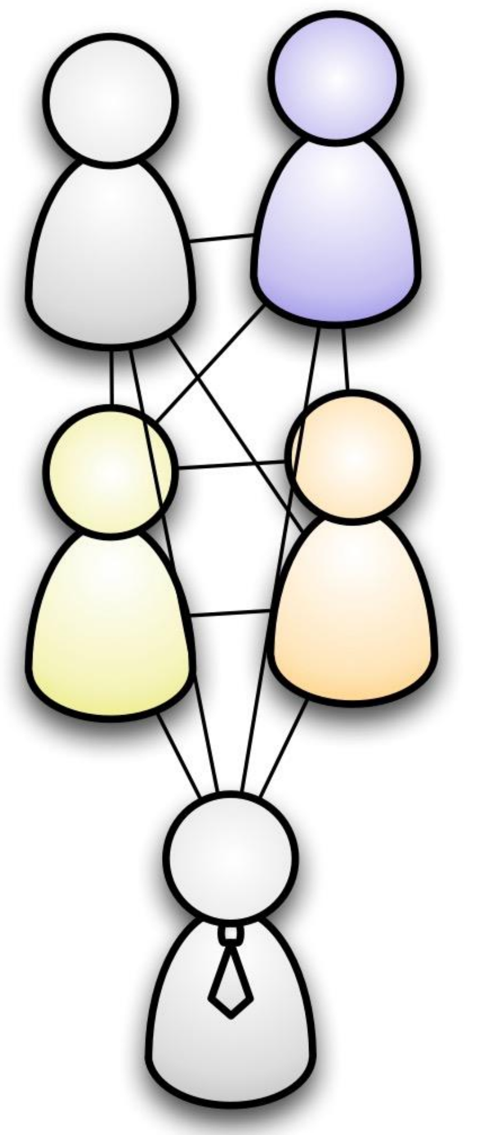


Each Feature Team

- Cross-functional
- Covers the roles
- Decides how they want to manage their own process
- Teams release completed features every day

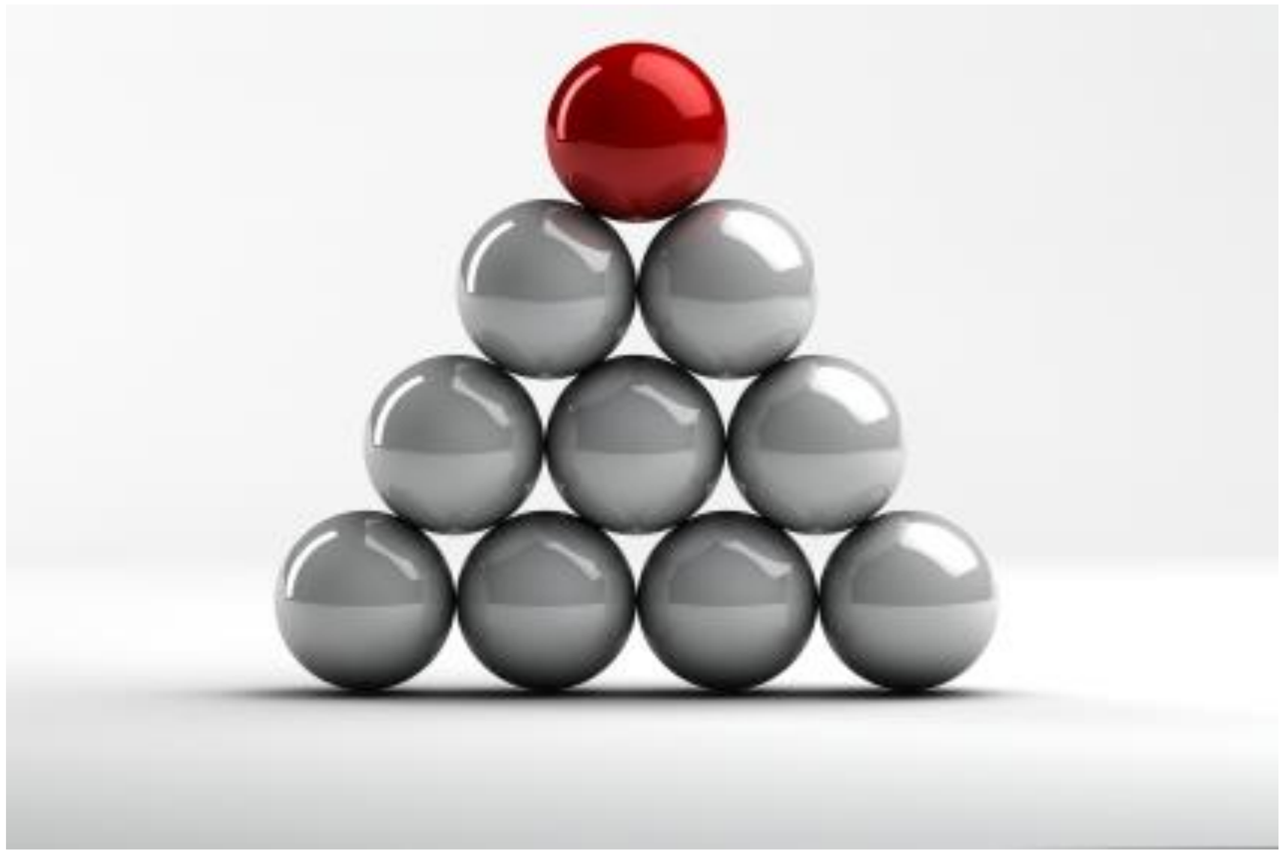
Team Size Matters

- Communication Paths=(N*N-N)/2
- 4 people, (16-4)/2=6
- 5 people, (25-5)/2=10
- 6 people, (36-6)/2=15
- 7 people, (49-7)/2=21
- 8 people, (56-8)/2=24
- 9 people, (81-9)/2=36
- 10 people (100-10)/2=45



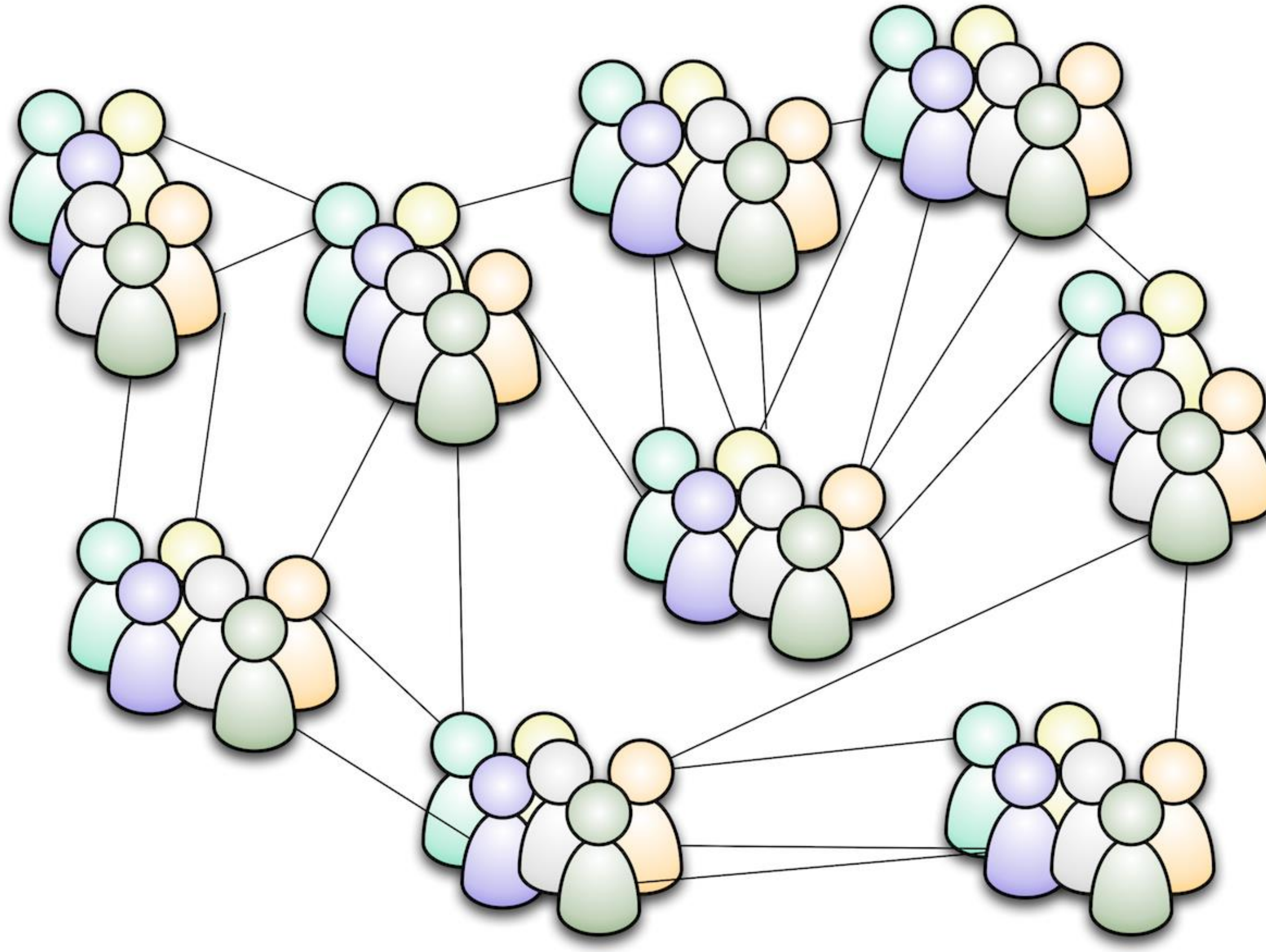
How to Connect the Feature Teams?

- How can you take advantage of the rumor mill?
- How can you avoid hierarchy?
- We need another way that is self-organizing that scales



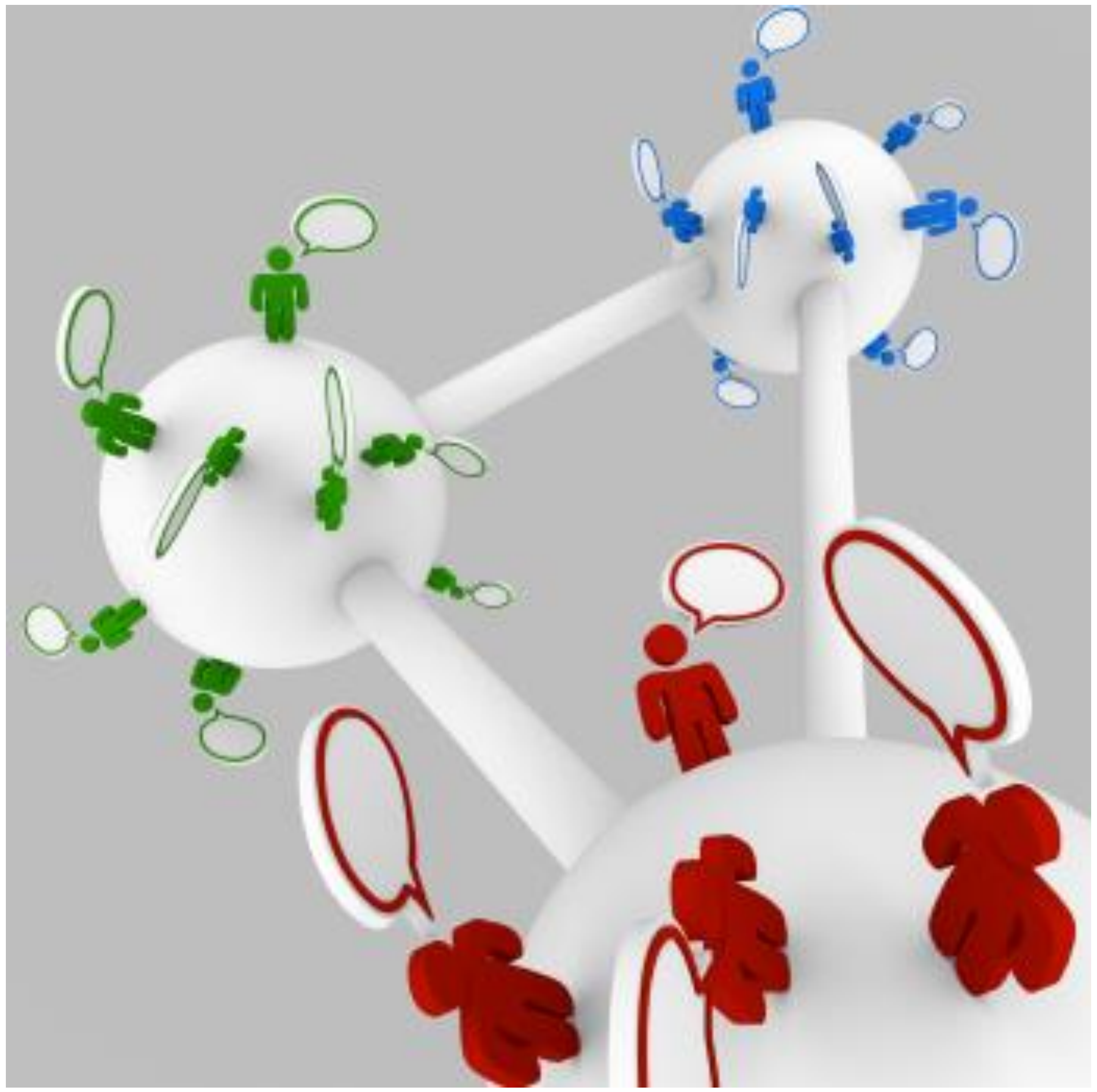
Small World Networks

Small world networks are more-and-less connected agile teams



Six Degrees of Separation

- How connected are you to everyone else?
    - Some of you are highly connected
    - Some less so
- We can take advantage of this and the rumor mill

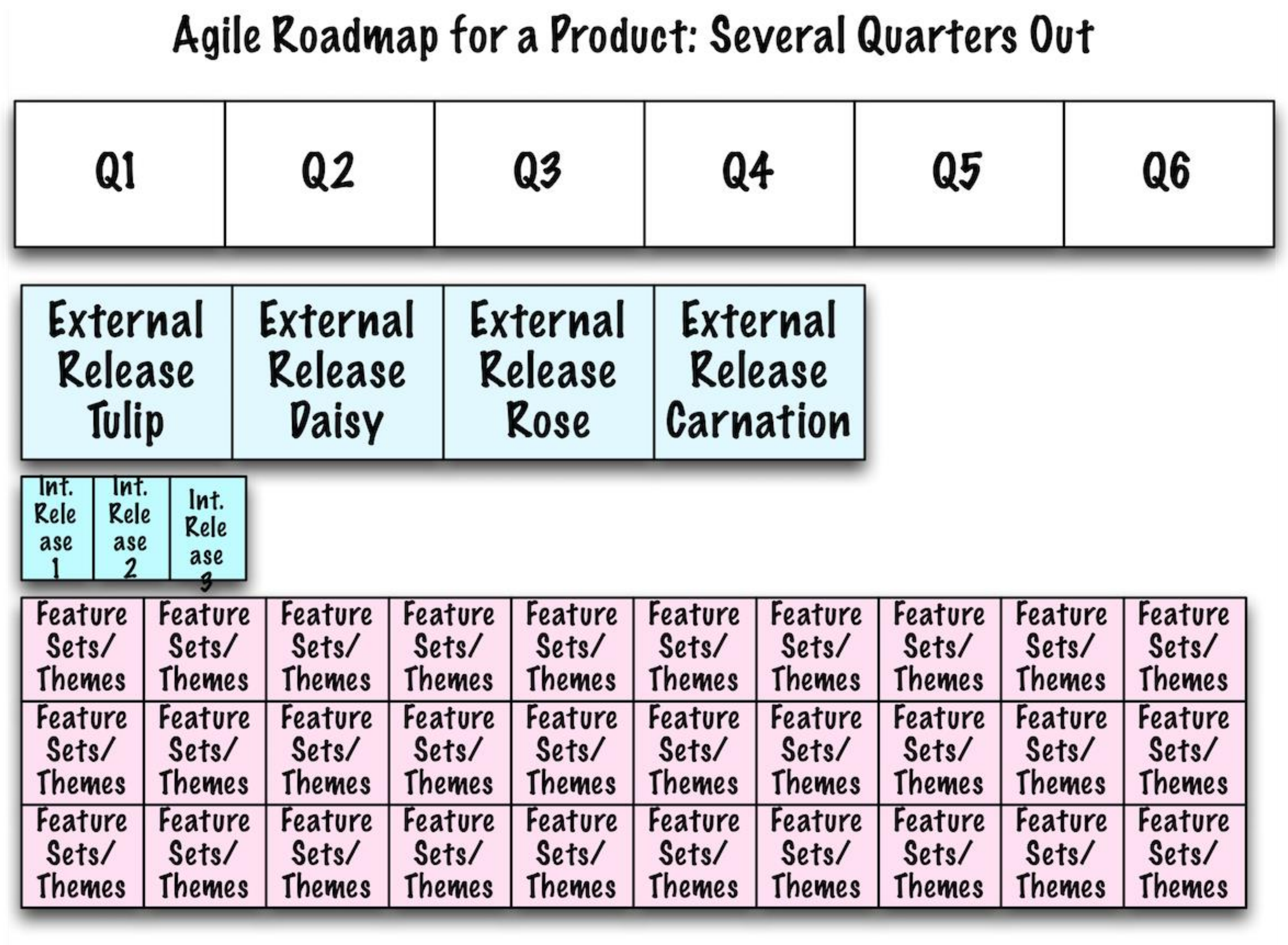


Use Small World Networks

- Feature teams take responsibility
  - Use small world networks
  - Use communities of practice
- Requires roadmaps
- Requires transparency
- Requires facilitation

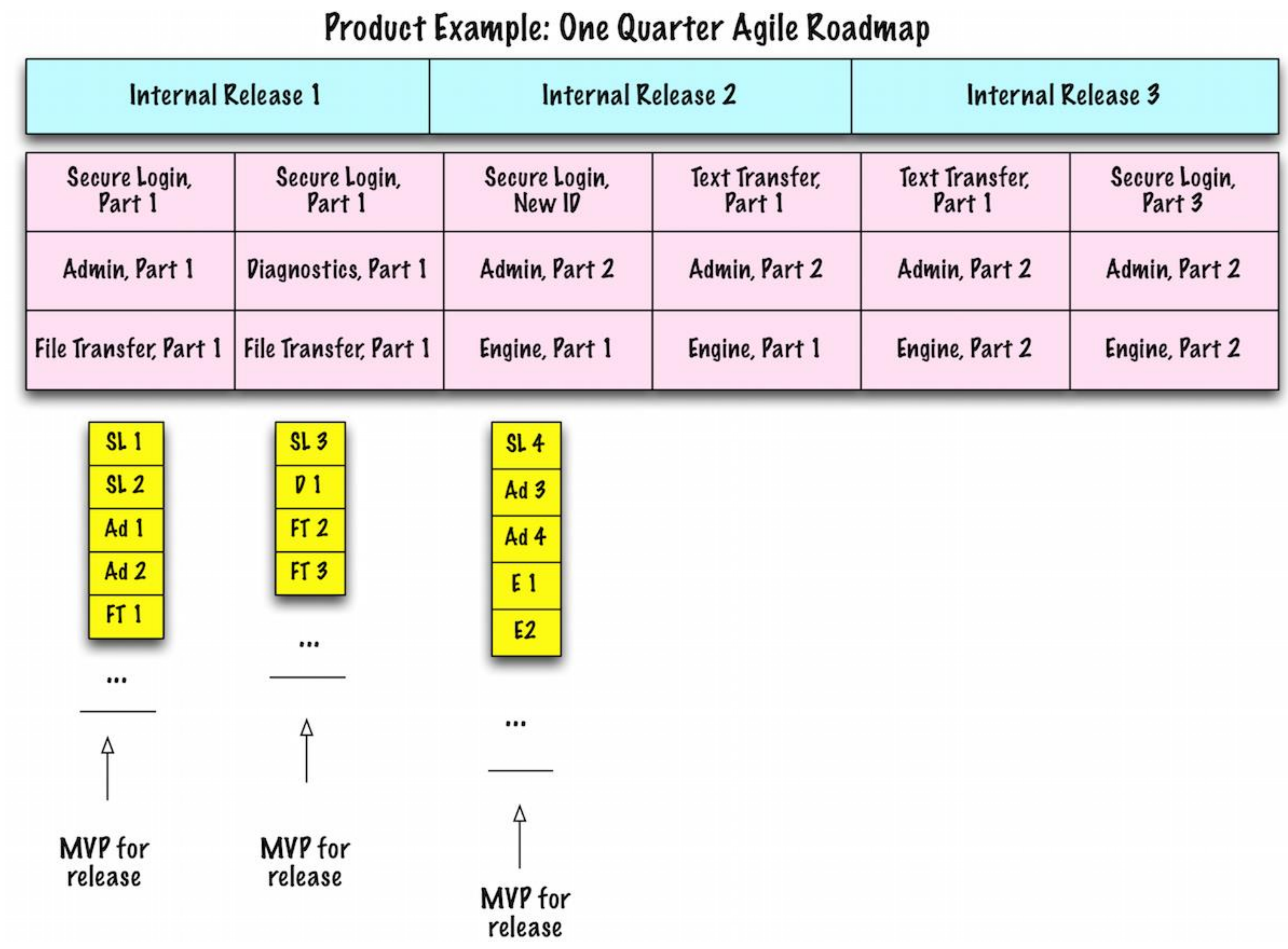
Agile Roadmap in the Large

- “Big Idea” of what the product will be
- Interesting and not sufficient
- Deliverables often too large and not specific



Agile Roadmap in the Small

- Deliverable-based planning (small slices through the architecture)
- Specifies value for different users
- Use for rolling wave planning

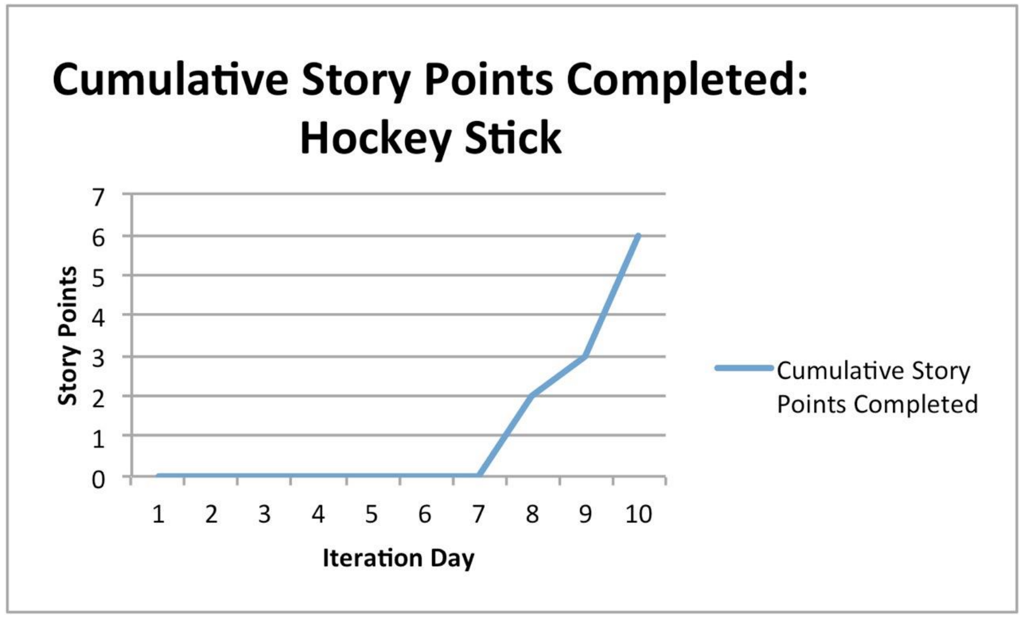


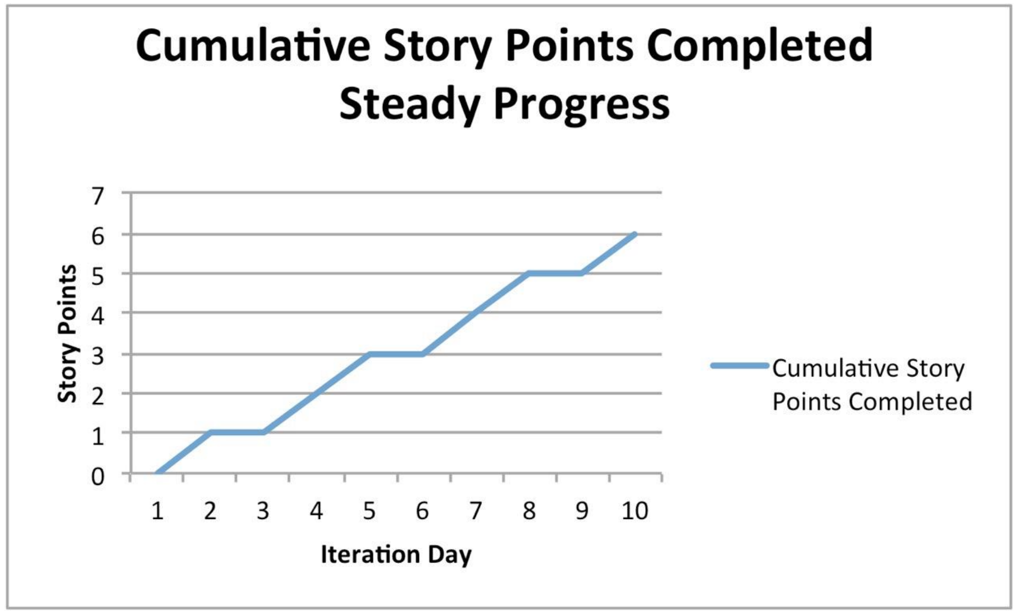
Product Example: One Quarter Agile Roadmap

Internal Release 1		Internal Release 2		Internal Release 3	
Secure Login, Part 1	Secure Login, Part 1	Secure Login, New ID	Text Transfer, Part 1	Text Transfer, Part 1	Secure Login, Part 3
Admin, Part 1	Diagnostics, Part 1	Admin, Part 2	Admin, Part 2	Admin, Part 2	Admin, Part 2
File Transfer, Part 1	File Transfer, Part 1	Engine, Part 1	Engine, Part 1	Engine, Part 2	Engine, Part 2

Transparency

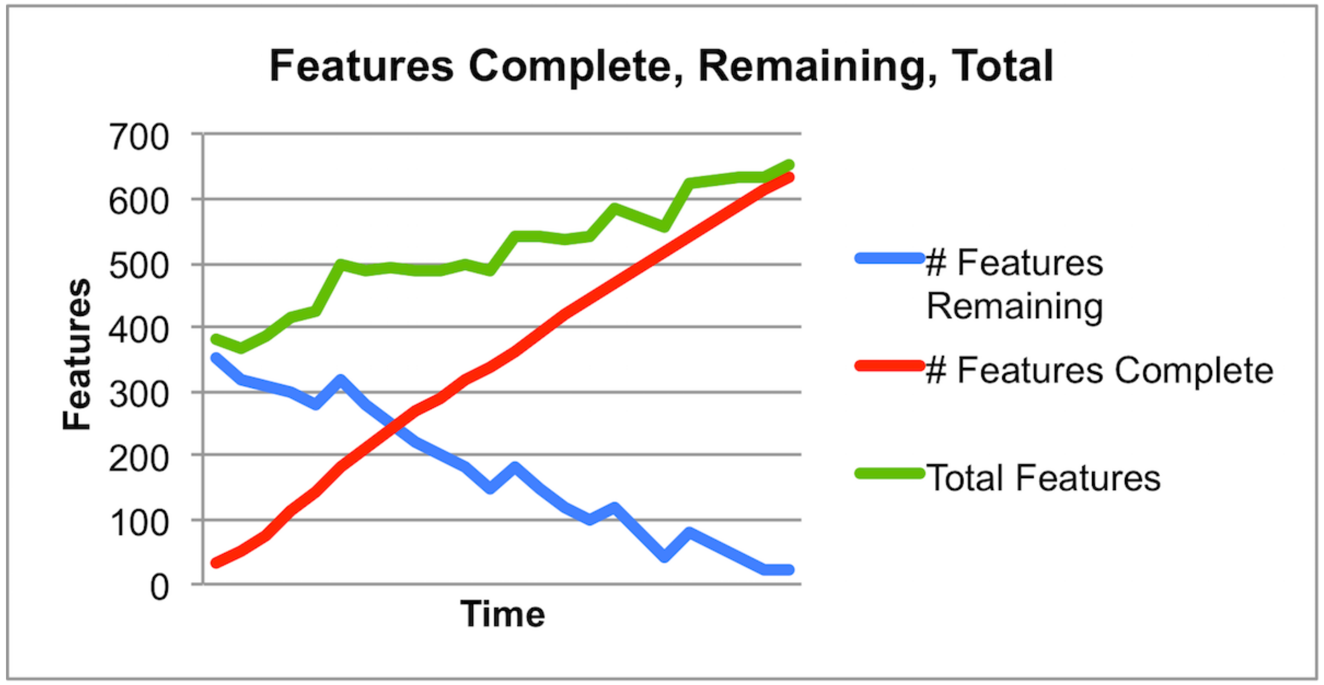
- Each project can track its own velocity and learn what done means
  - Keep stories small
  - Limit WIP
  - Velocity is personal to a team
- Teams build trust across the program
- People and teams start with themselves and deliver, deliver, deliver





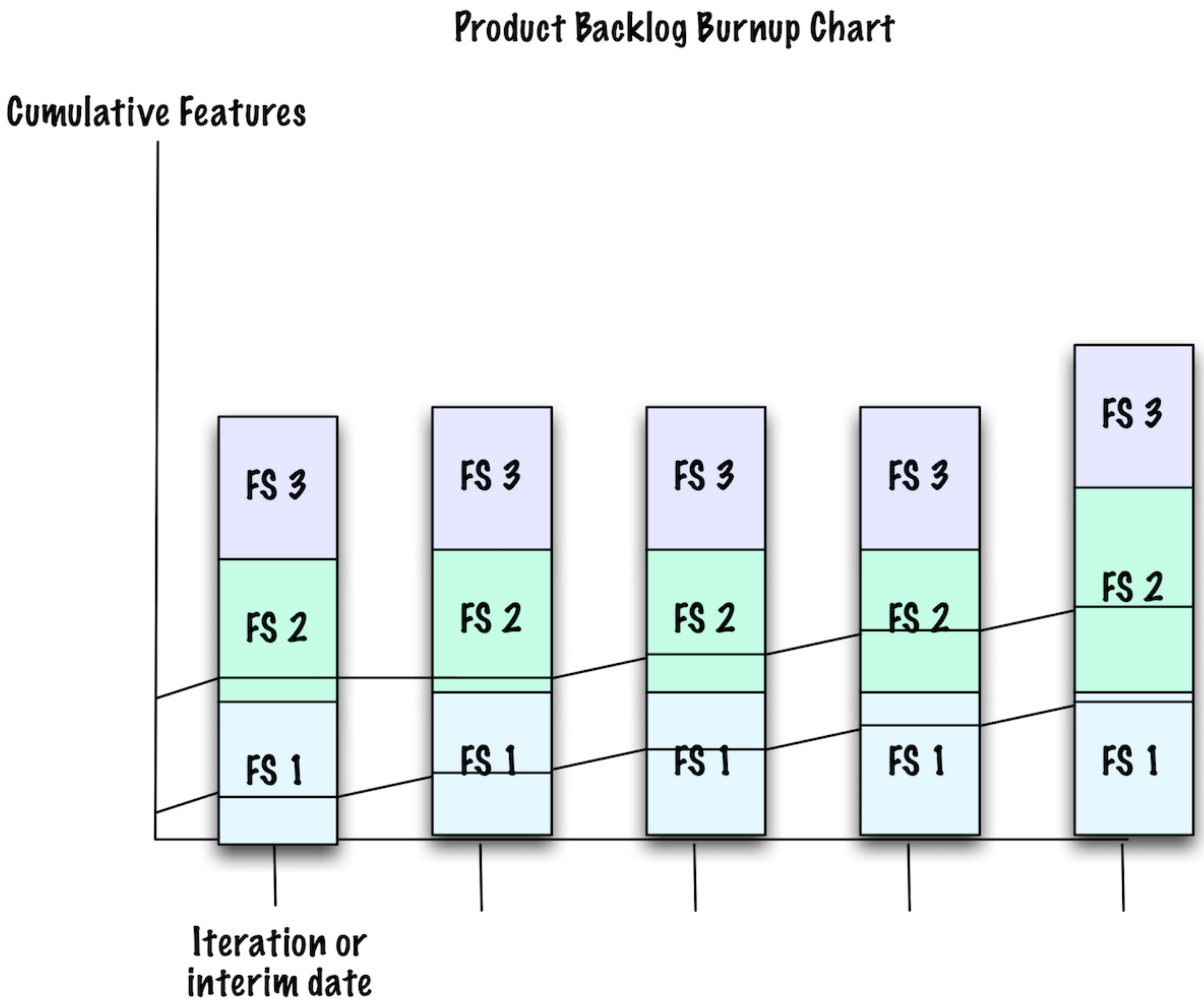
Measure Completed Features

- Completed features (running, tested features):
  - Your customers use them
  - You can release them
  - They are valuable
- Include total and remaining features so we have a sense of where we are
- Depends on deliverables, not epics or themes



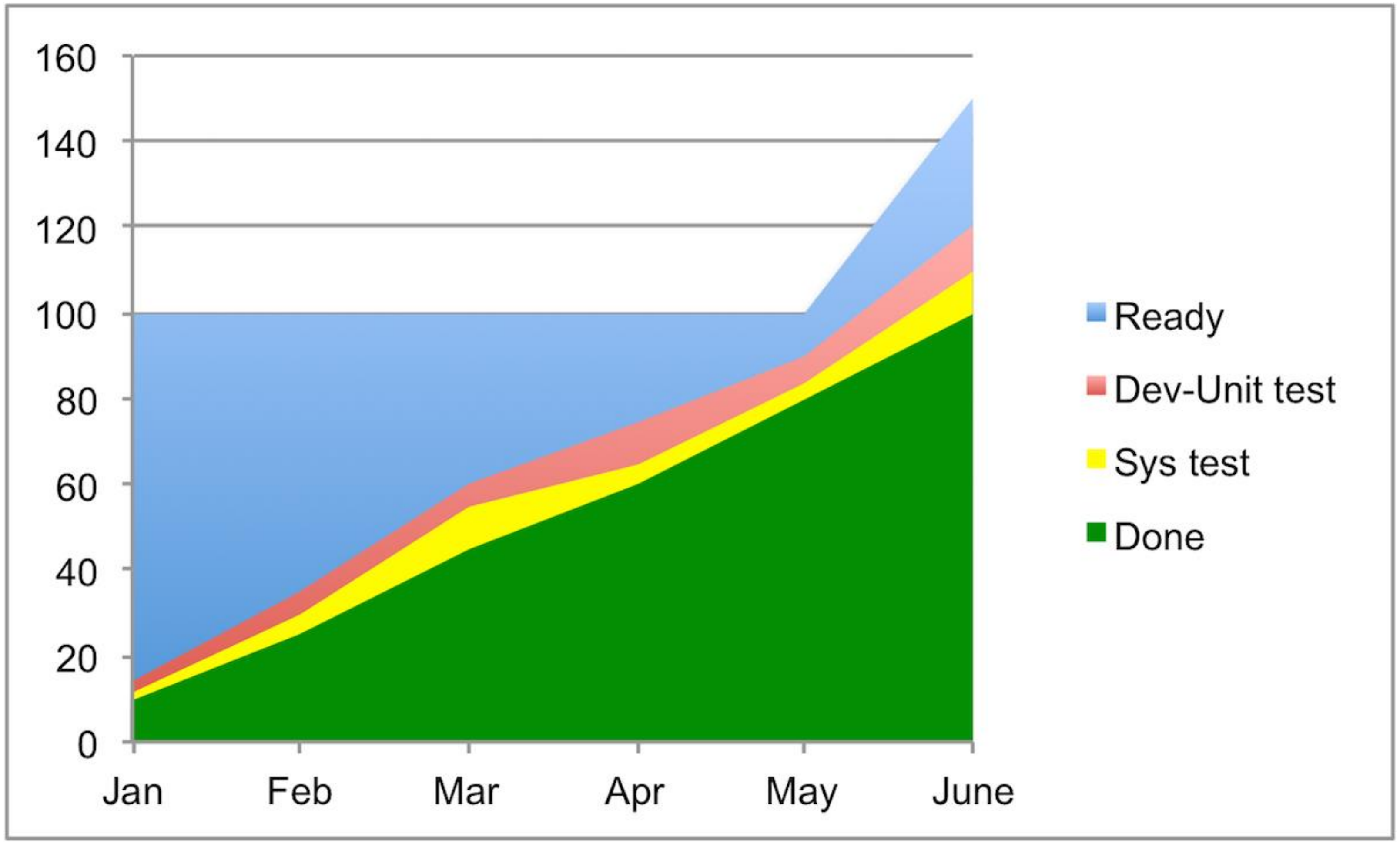
Product Backlog Burnup

- Real earned value
- Partial answer to "Where are we?"
- Shows value feature-by-feature
- Shows when features grow



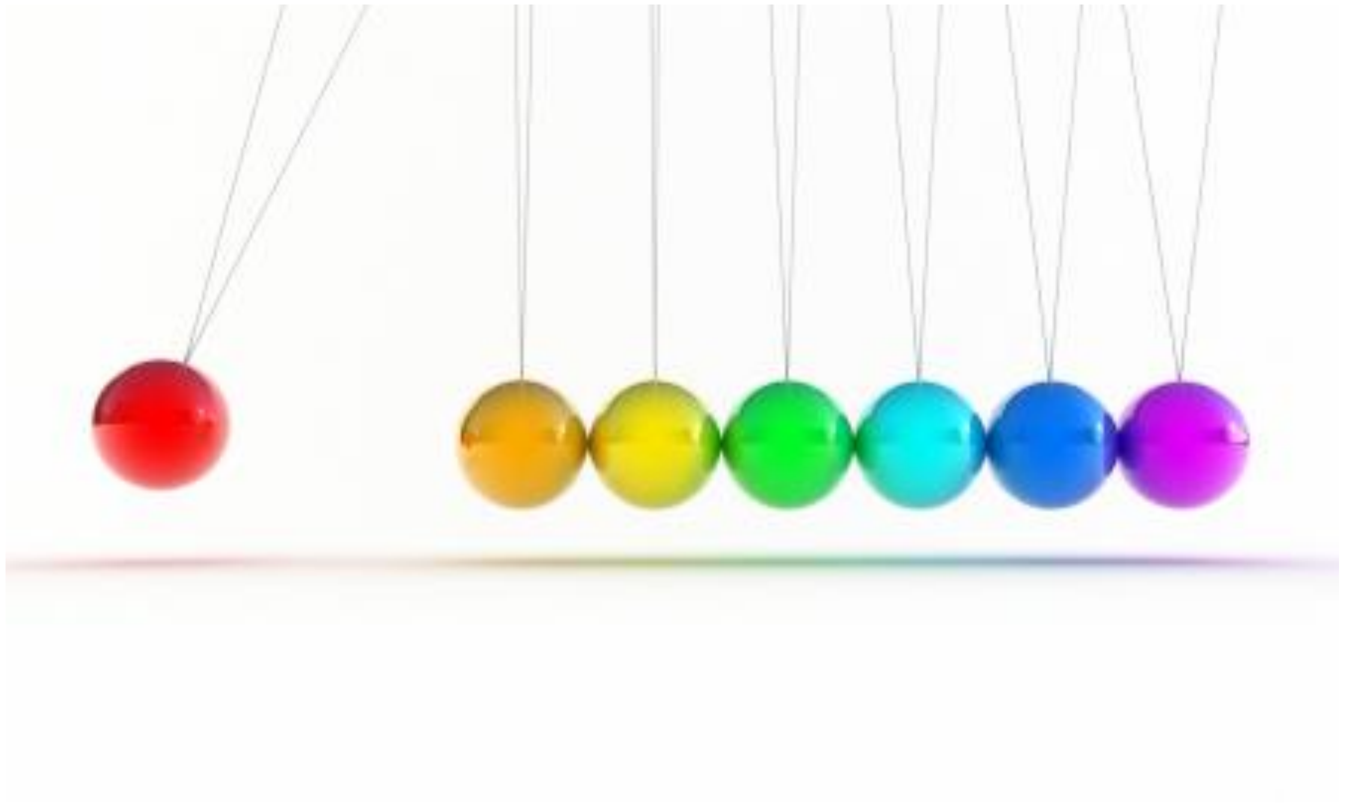
What Do You Want Less of?

- Work In Progress (across entire program)
- Defects
- Other “Less of”:
  - Multitasking
  - ?



Recognize Inertia

- Inertia helps you see that things are stuck
  - What can you deliver today?
  - How can you help your team deliver today?
- Iterations help focus the team on short delivery cycles



Build Momentum

- Momentum helps each team deliver something to each other and build on micro-commitments
- Goes back to extending trust

Agile Programs Are About Collaboration

- Teams collaborate in the small to create products in the large
- Leverage each iteration's learning to plan the next set of deliverables
- Roadmaps help
- Communities of practice help
- Demos are a must
- If you don't know how to do agile as a small team, learn that first

Let’s Stay in Touch

- Please link with me on LinkedIn:
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- Subscribe to the Pragmatic Manager newsletter:
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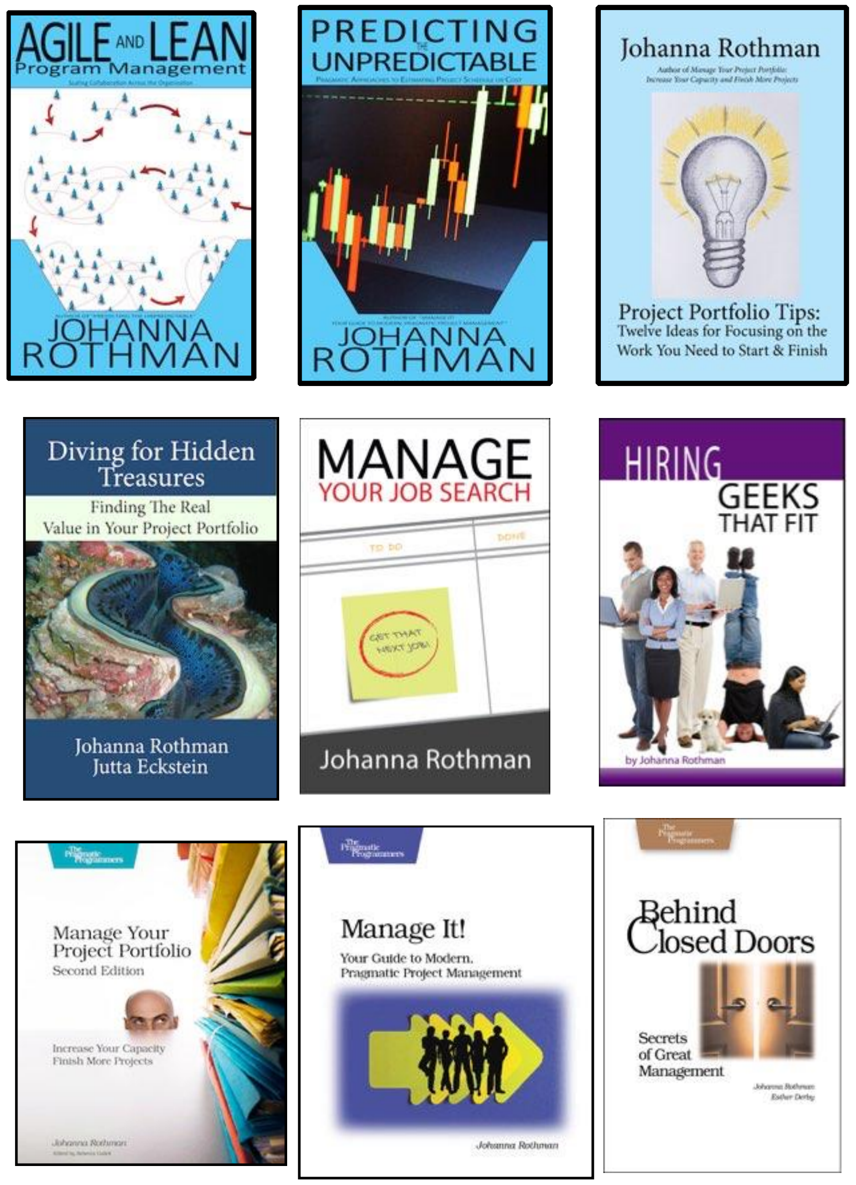
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