

Strategies for Portfolio Management Agile 2011 August 9, 2011 Salt Lake City, Utah by Kenny Rubin

www.innolution.com

Copyright © 2007 - 2011, Innolution LLC. All Rights Reserved.

1

Background of Kenny Rubin

Author



Trainer/Coach

Trained more than
16,000 people in
Agile/Scrum, SW
dev and PM

Provide Agile/
Scrum coaching to
developers and
executives



Experience

Former Managing
Director



My first Scrum project was
in 2000 for bioinformatics

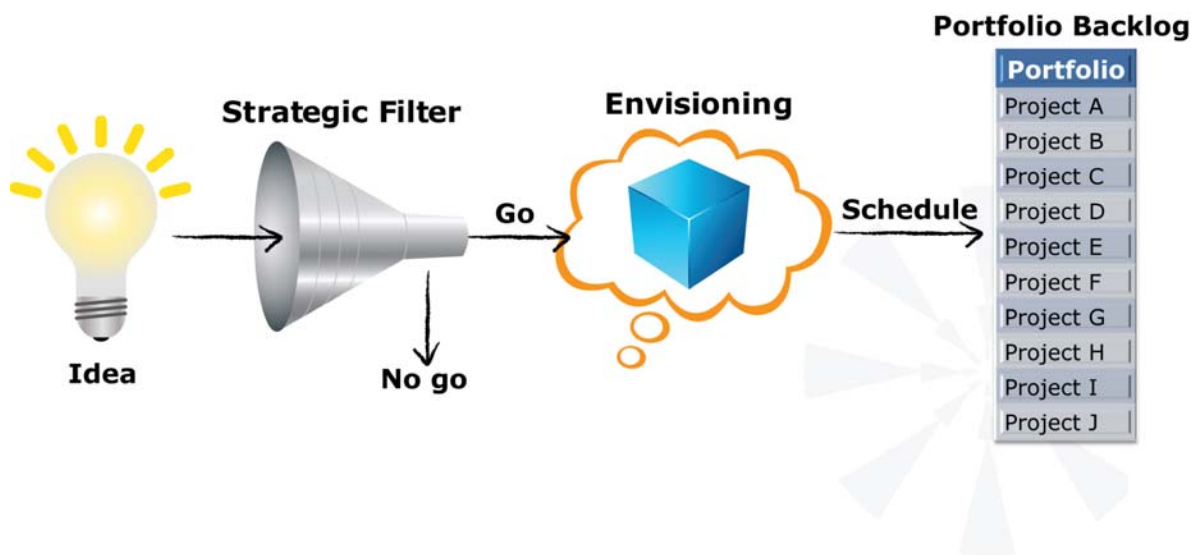
GENOMICA



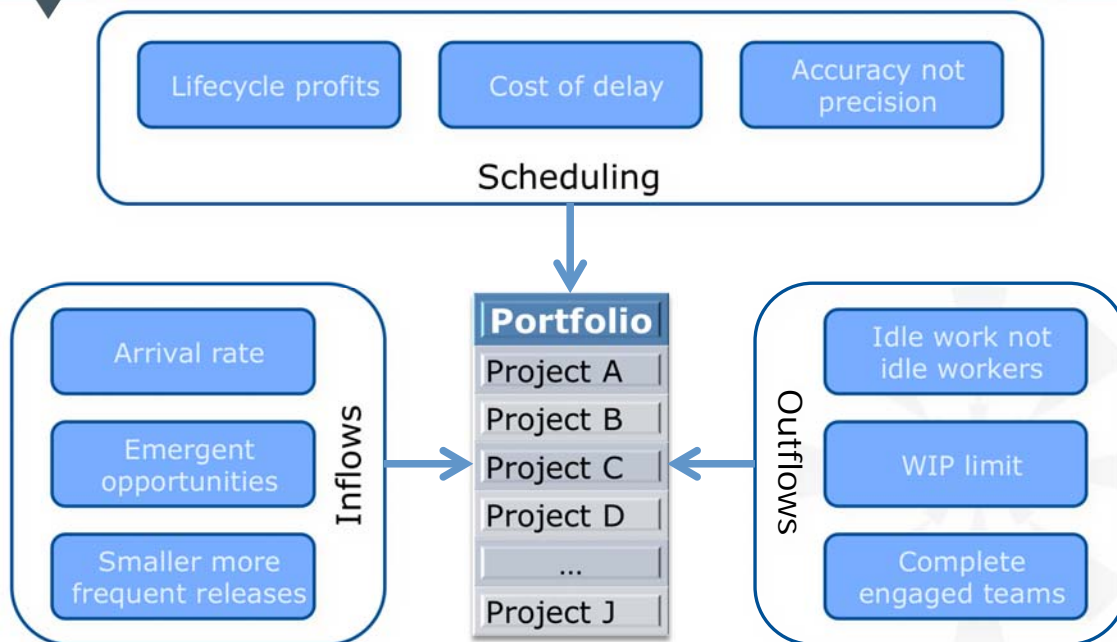
Executive



Where Does Portfolio Management Fit In?



Portfolio Management Strategies





Discussion Questions – Scheduling/Prioritization Variables

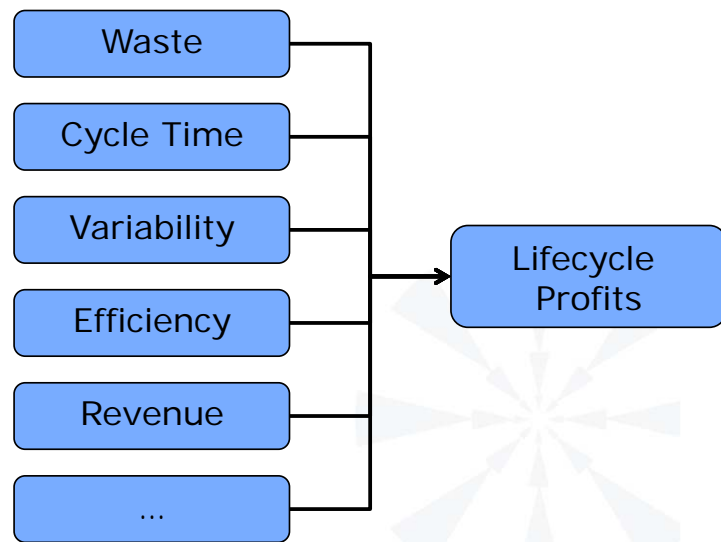
When prioritizing your portfolio, what are the principal variables that you use?

How do you compare variables to make economically sensible tradeoffs?



✱ Focus on Lifecycle Profits

- ✱ Reasonable measure of business performance
- ✱ Provides common unit for comparing effects of key variables



Source: Donald Reinertsen



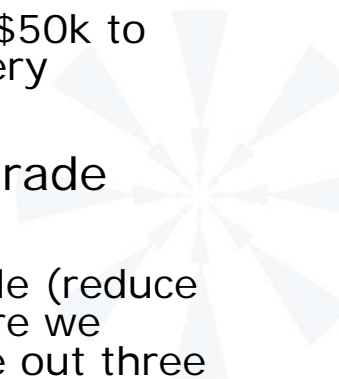
Discussion Question – Cost of Delay

If you delay shipping your current project/product one month, what would be the cost of that delay (in lifecycle profits)?



Issues with Cost of Delay

- ✱ Rarely quantified
 - ✱ At least 85% of people don't know it
- ✱ Helps us decide if we should trade money for cycle time
 - ✱ Should we spend an additional \$50k to shave two months off the delivery schedule?
- ✱ Helps us decide if we should trade cycle time for variability
 - ✱ To guarantee a delivery schedule (reduce probability of missing a date) are we willing to push the delivery date out three months?

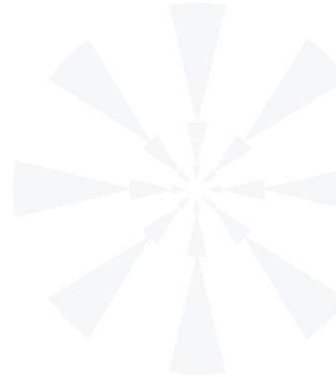


✶ Cost of Delay Example

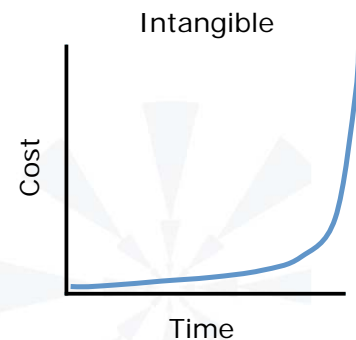
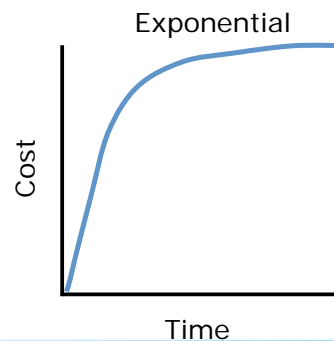
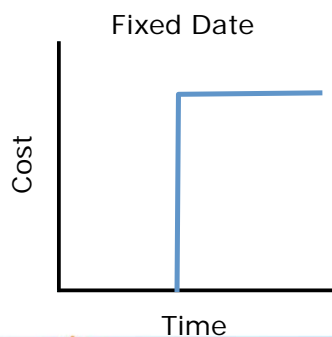
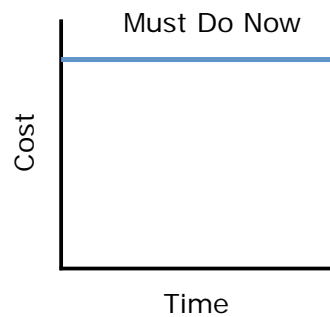
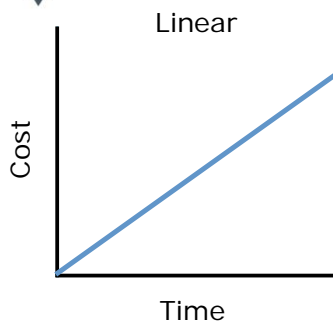
✶ Which project should we do first?

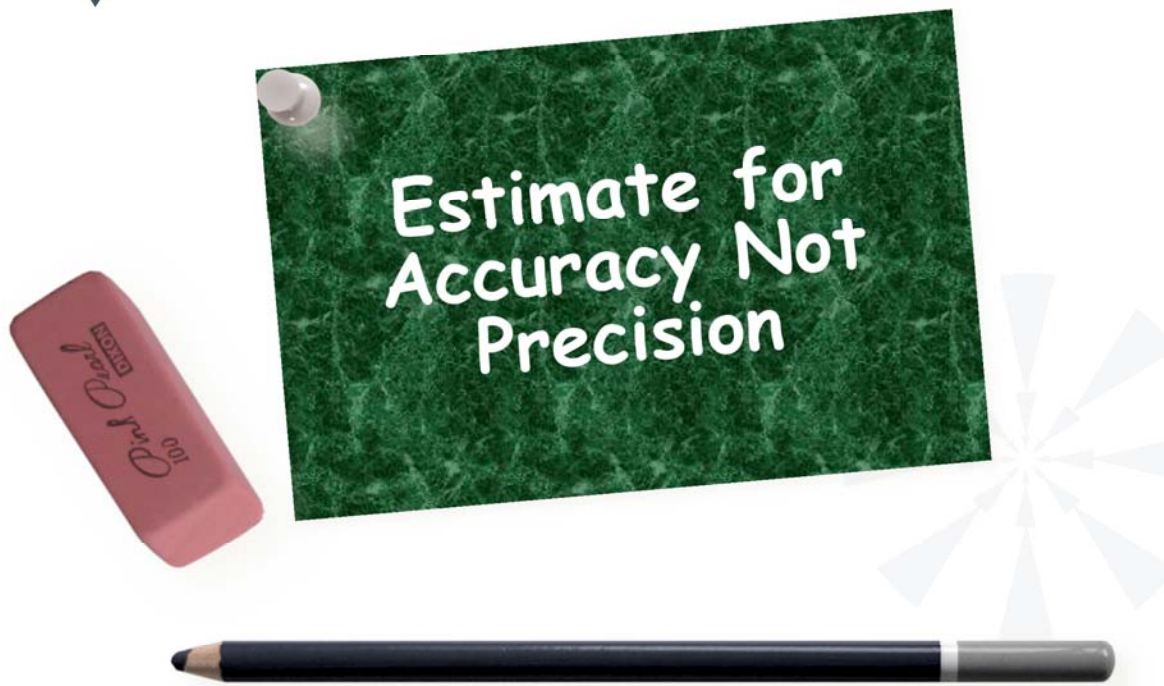
	Project A	Project B
Return on Investment	20%	15%
Cost of Delay (1 month)	\$5,000	\$75,000

✶ Why?



✶ Cost of Delay Profiles





Discussion Question – Accuracy Versus Precision

* Scenario:

- * Organization does nine-month release cycles
- * 100 candidate applications for each release cycle
- * Marketing asks IT to produce LOEs (level of effort estimates) for all applications
- * IT spends considerable time trying to make each LOE very precise
- * Oh yeah, the organization will only include 50 projects in next release

$$\pi = 3.1$$

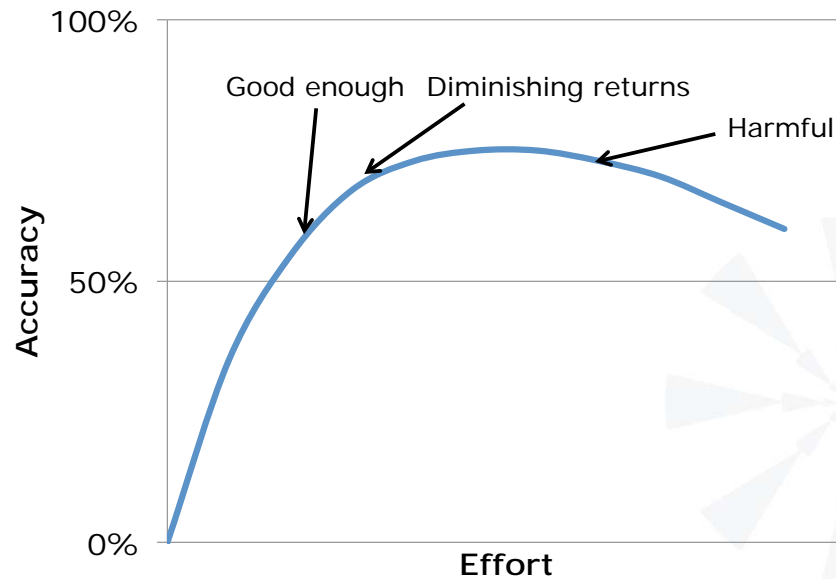
$$\pi = 3.1415926535897$$
$$932384626433832$$
$$795028841971693$$

What are your thoughts on this scenario?





Effort Versus Accuracy When Estimating



T-shirt Size Estimating

Size	Rough Cost Range
Extra Small (XS)	\$10k to \$25k
Small (S)	\$25k to \$50k
Medium (M)	\$50k to \$125k
Large (L)	\$125k to \$350k
Extra Large (XL)	>\$350k





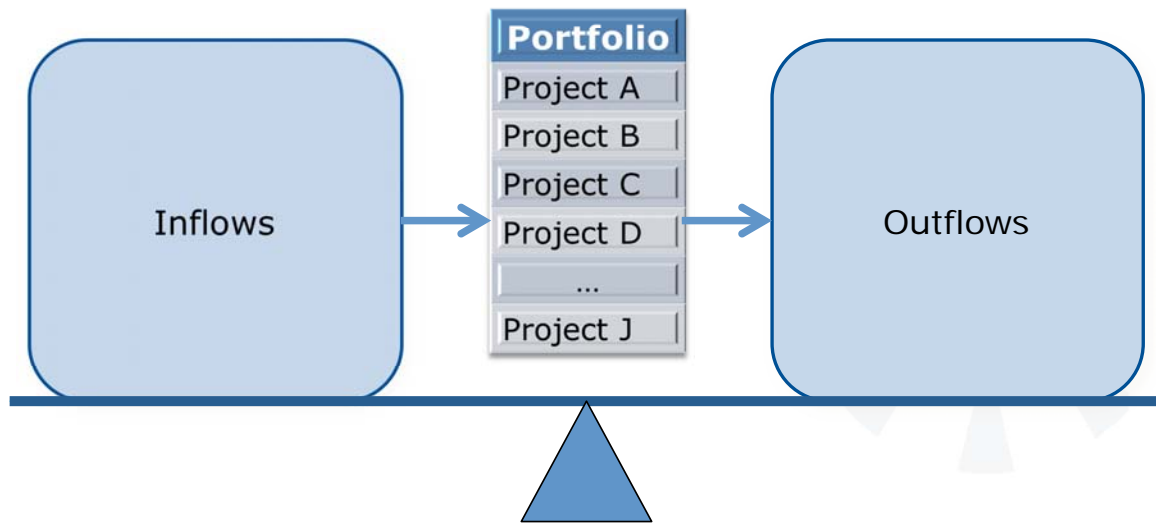
Discussion Question – Arrival Rate

What is the effect on a restaurant if a tour bus of hungry patrons unexpectedly arrives at dinner time?



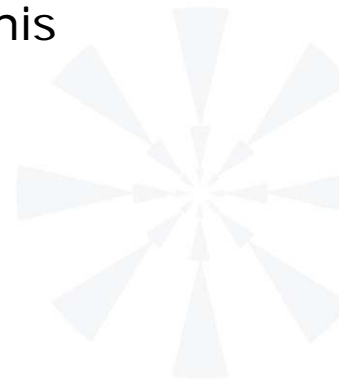


Want To Balance Portfolio Inflow and Outflow Rates



Annual Strategic Planning

- ✱ An annual strategic planning event will be highly disruptive to flow
 - ✱ Drop all projects for the next year into the portfolio at the same time
- ✱ What would you do to solve this problem?





Discussion Questions – Emergent Opportunities

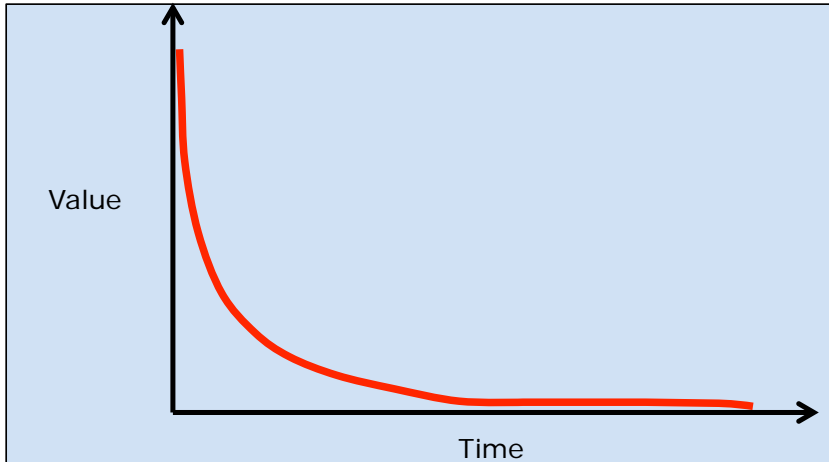
How quickly are you able to exploit an emergent opportunity?

How disruptive are such opportunities to your portfolio-management process?



Deal with Emergent Opportunities Quickly

- ✱ Emergent opportunities arrive continuously and randomly
- ✱ They are perishable – their values decay over time (frequently exponentially)



Copyright © 2007 - 2011, Innolution LLC. All Rights Reserved.

23



Copyright © 2007 - 2011, Innolution LLC. All Rights Reserved.

24

Discussion Questions – Project Sizes

How does project size affect overall portfolio performance?

What happens if you get behind the large farm vehicle on a single lane country road?

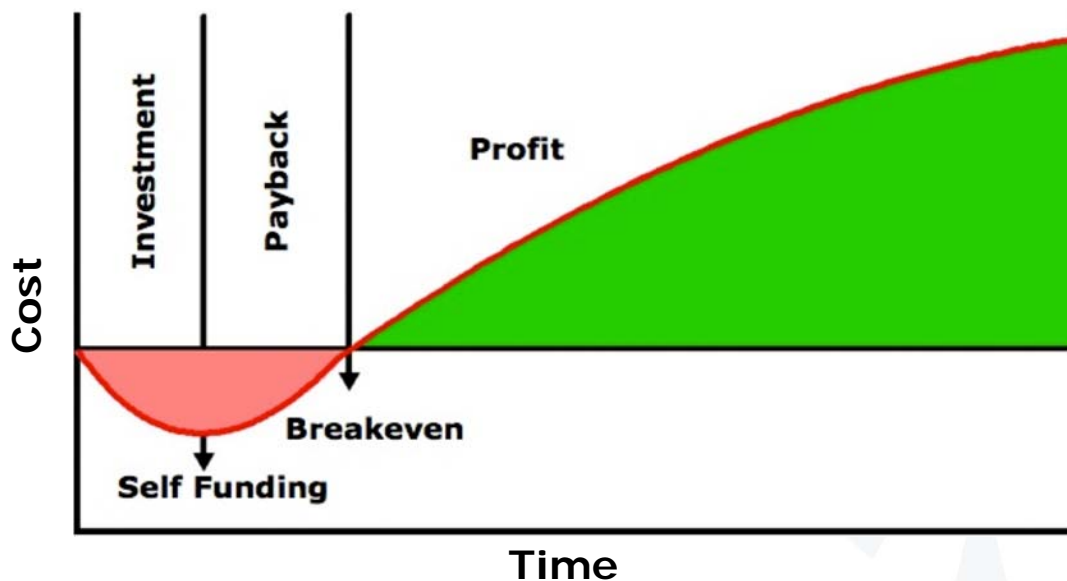
How do the lifecycle profits of a product compare between one large release and multiple, smaller releases?



reserved.

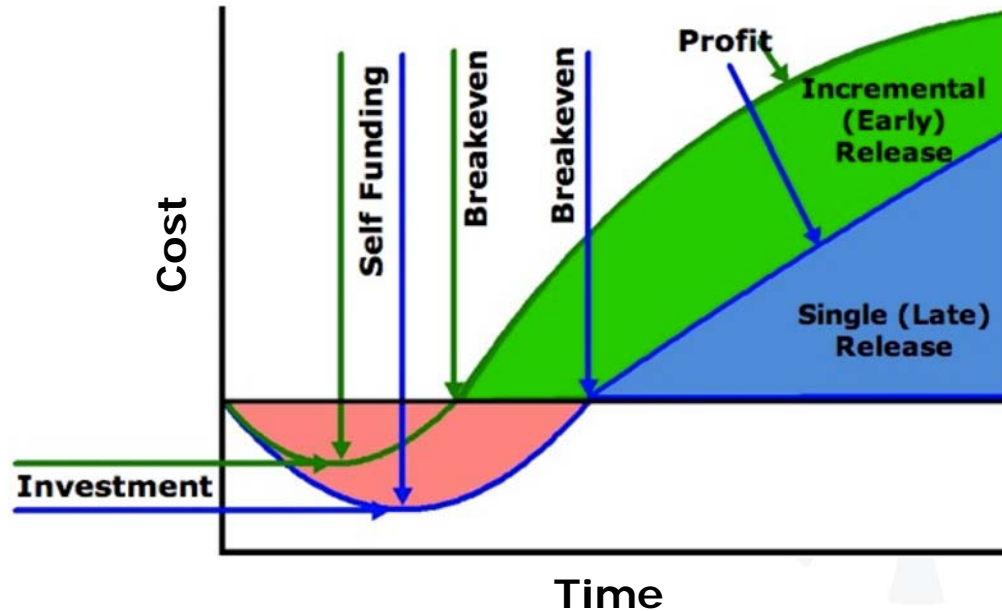
25

Single Release



Source: Denne and Cleland-Huang

* Multiple Releases



Copyright © 2007-2011, Innolution, LLC or Mountain Goat Software, Inc. All Rights Reserved.

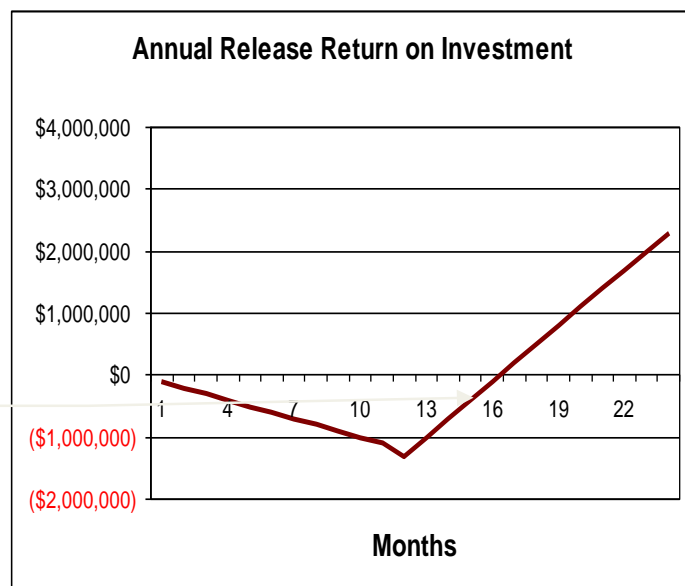
27

* Evaluating Return on Single Release Strategy

- * Feature Value:
 - * All features = \$300K/month
 - * 1/2 features = \$200k/month
 - * 1/3 features = \$150k/month
- * Features begin earning money 1 month after release
- * Each month of development costs \$100K
- * Each release costs \$100K

Single Release 12 months

total cost: \$1.3 M
 total 2 year return: \$3.6 M
 net 2 year return: **\$2.3 M**
 Cash Investment: \$1.3 M
 Internal Rate of Return: **9.1%**



Example based on prior work by Jeff Patton

Copyright © 2007-2011, Innolution, LLC or Mountain Goat Software, Inc. All Rights Reserved.

28



Evaluating Return on Semi Annual Release Strategy

- * Feature Value:
 - * All features = \$300K/month
 - * 1/2 features = \$200k/month
 - * 1/3 features = \$150k/month
- * Features begin earning money 1 month after release
- * Each month of development costs \$100K
- * Each release costs \$100K

Semi Annual Release

6 month increments

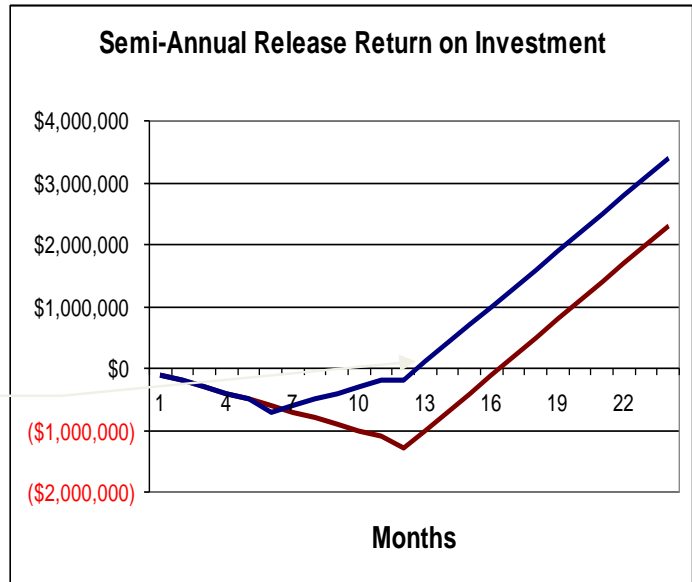
total cost: \$1.4 M

total 2 year return: \$4.8 M

net 2 year return: **\$3.4 M**

Cash Investment: \$.7 M

Internal Rate of Return: **15.7%**



Evaluating Return on Quarterly Release Strategy

- * Feature Value:
 - * All features = \$300K/month
 - * 1/2 features = \$200k/month
 - * 1/3 features = \$150k/month
- * Features begin earning money 1 month after release
- * Each month of development costs \$100K
- * Each release costs \$100K

Quarterly Release

3 month increments

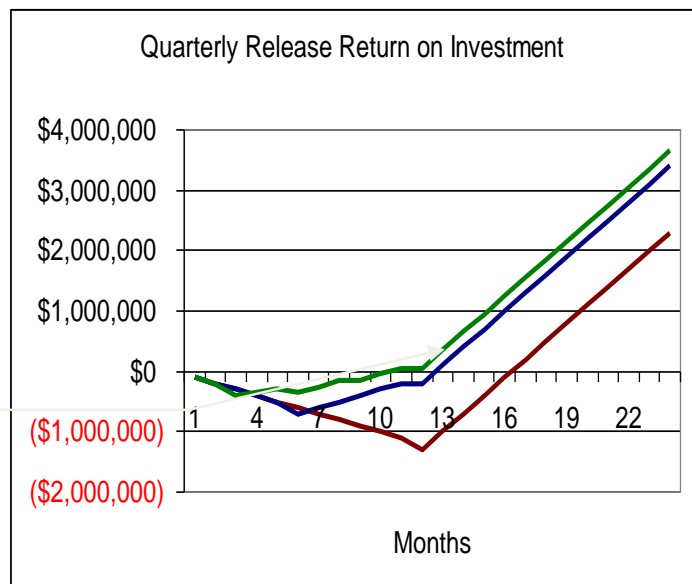
total cost: \$1.6 M

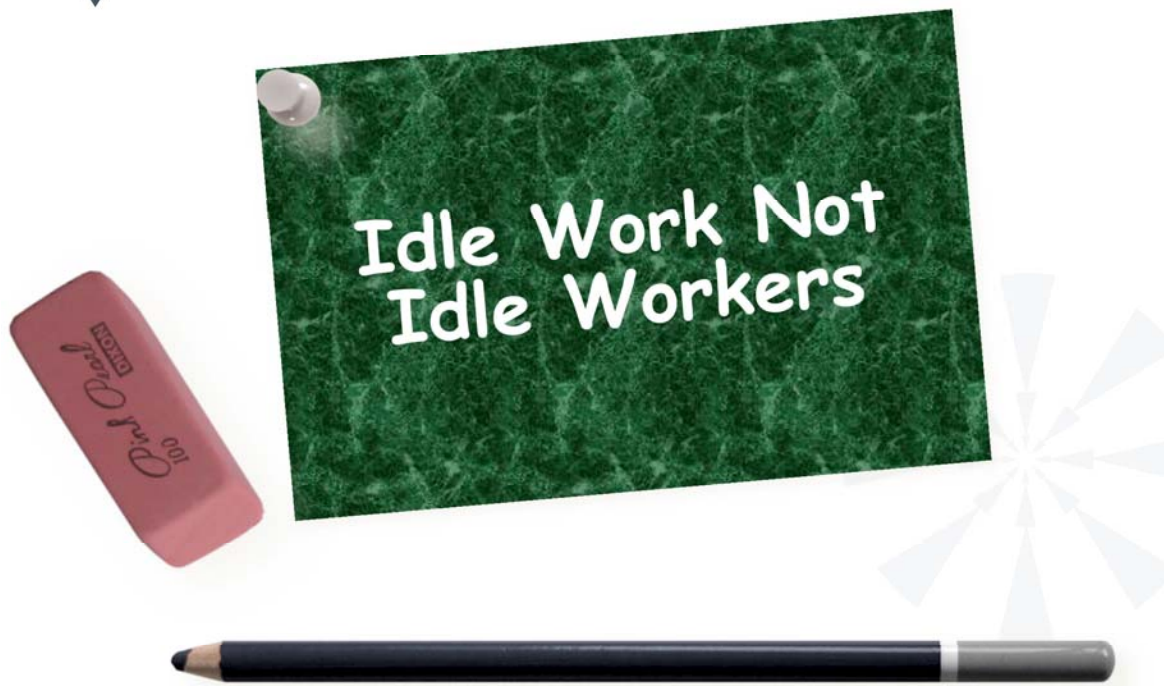
total 2 year return: \$5.25 M

net 2 year return: **\$3.65 M**

Cash Investment: \$0.45 M

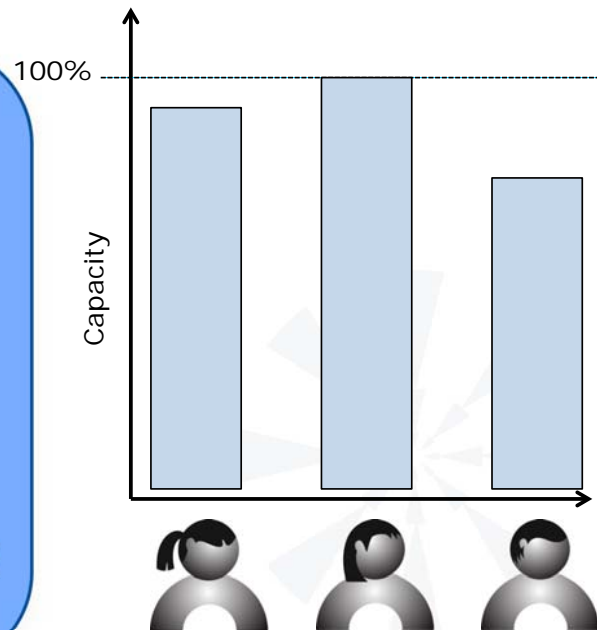
Internal Rate of Return: **19.5%**





Discussion Question – Addressing Available Capacity

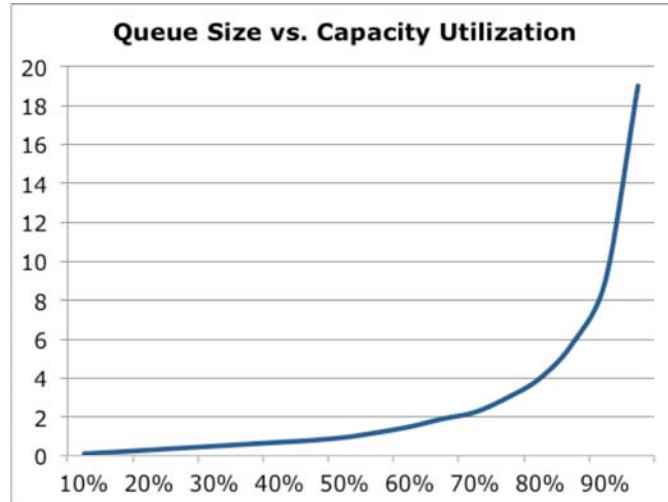
We have started working on projects in our portfolio, but we have some team members who are not yet at 100% capacity. Should we start more projects from the portfolio to get them to 100% capacity?



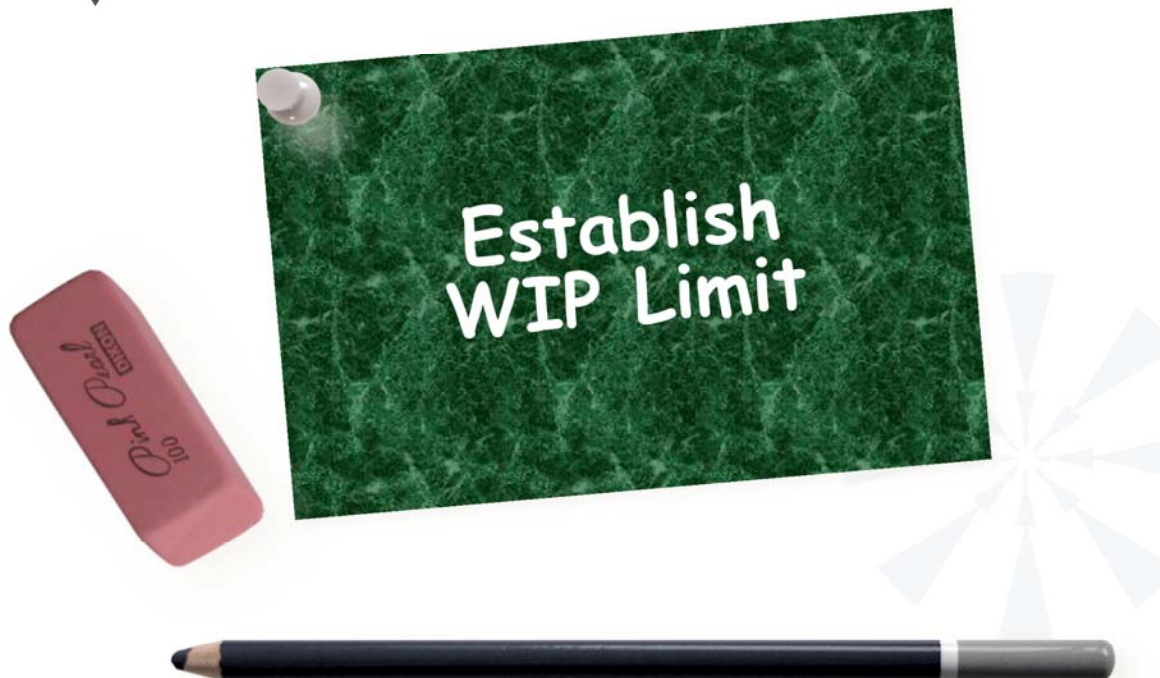


Focus on Idle Work Not Idle Workers

Watch the Baton Not the Runners[†]



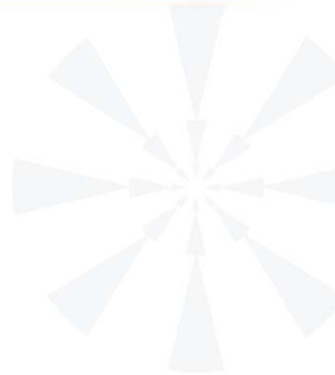
[†] Source: Larman & Vodde





Discussion Question – WIP Limit

Why should a good restaurateur not seat paying customers at an available table if 30% of the servers called in sick that evening?





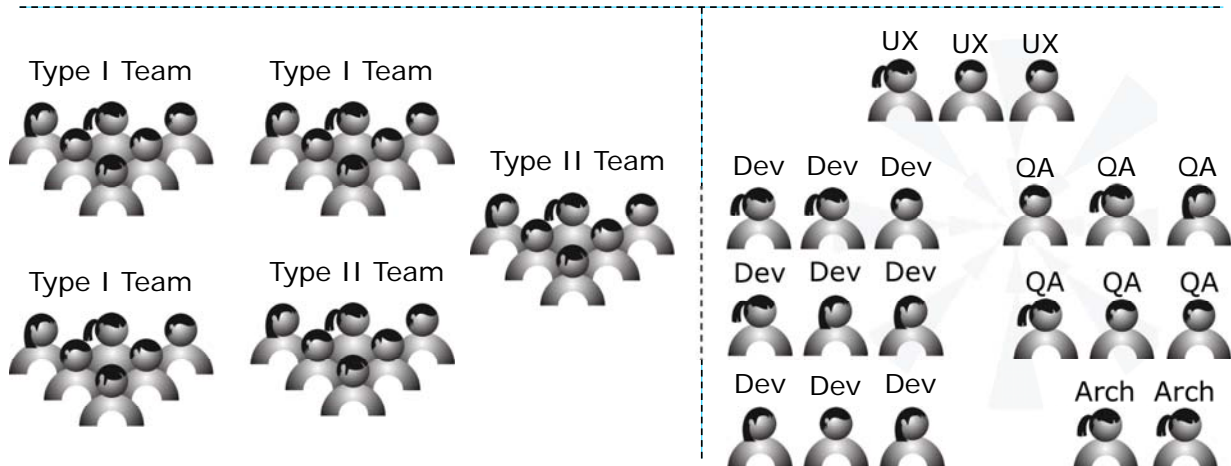
What is a WIP Limit?

- ✱ A work-in-process (WIP) limit would dictate how many projects we are willing to have in-flight at the same time
- ✱ The goal is to match WIP with available capacity



In Agile Portfolio Management, the Unit of Capacity is the Team

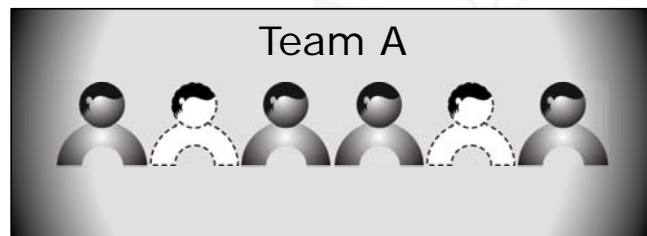
-  We favor long-lived teams that as a unit have a known capacity to deliver value
-  Determine our capacity in terms of teams



Discussion Questions – Team Availability

Do you start a project before the full team is available to work on it?

If so, what are the consequences?

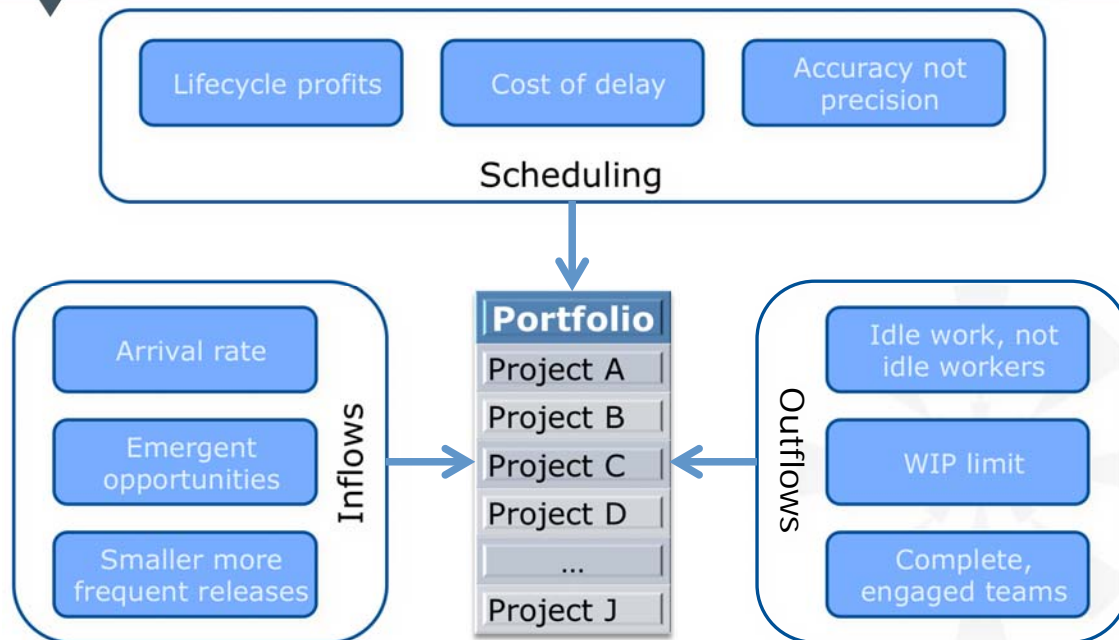


Wait Until Complete Team is Available

- ✱ Don't start a new project with a partial team
- ✱ Wait until you have at least one full team
- ✱ Preferably wait until you have all necessary teams



Summary



Contact Info for Kenny Rubin



Email:	krubin@innolution.com
Website:	www.innolution.com
Phone:	(303) 827-3333
LinkedIn:	www.linkedin.com/in/kennethrubin
Twitter:	www.twitter.com/krubinagile
Scrum: A Manager's Guide Book Chapters	tinyurl.com/yj4m72c
Comparative Agility Website	www.comparativeagility.com

