SER516
Software Agility:
Project and Process Management

Lecture 16. Estimation and Velocity

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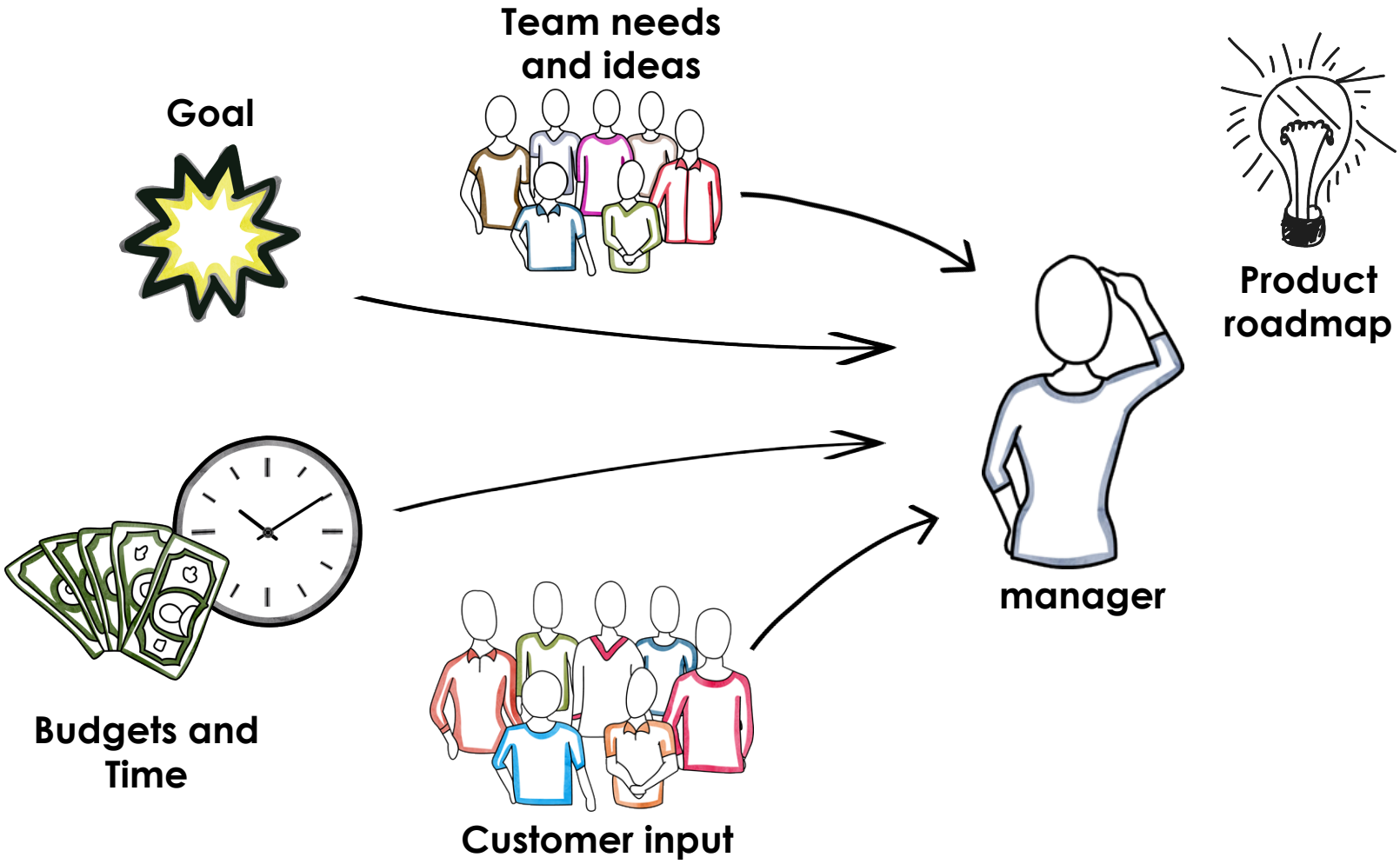
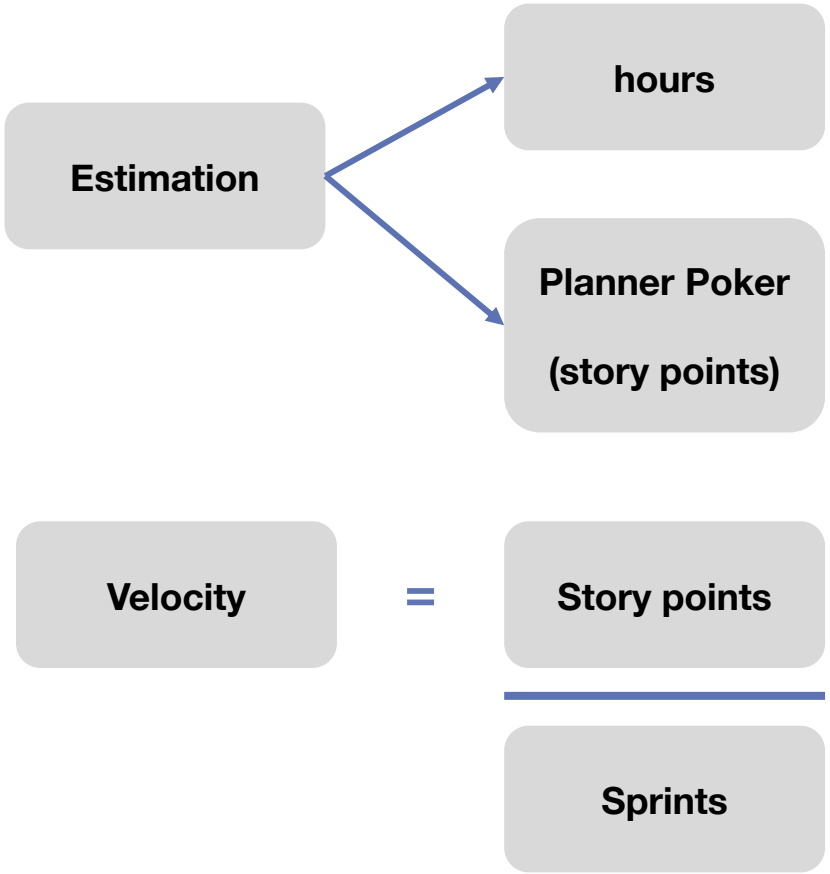
Office Hours: By appointment

Where are we?


Team needs and ideas
Goal
Product roadmap
manager
Budgets and Time
Customer input

Estimation and Velocity

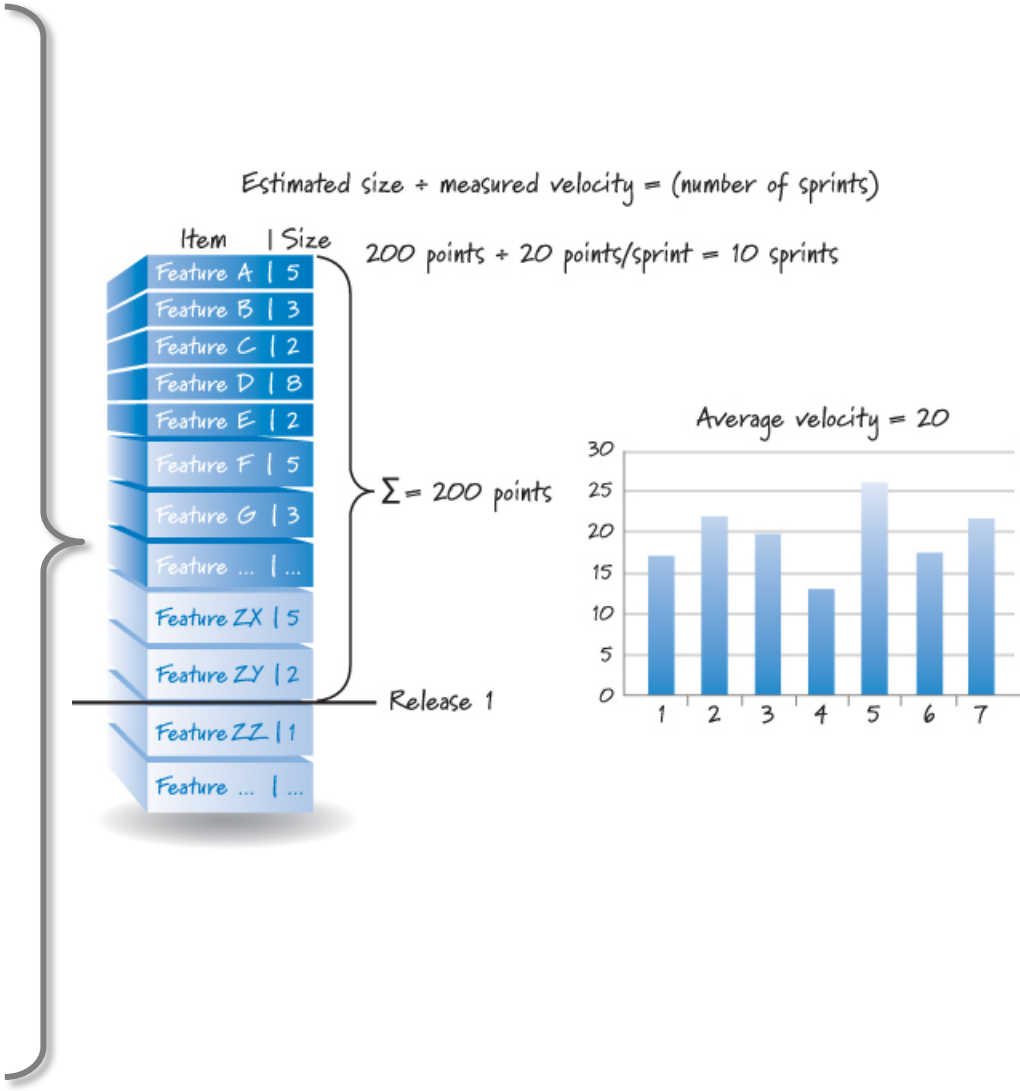


Estimation and Velocity

Estimation → **hours**

Estimation → **Planner Poker (story points)**

Velocity = **Story points** / **Sprints**



Estimation

- **Do not overthink** and estimation (Good-enough criteria).
- **Do not inflate** numbers – wasteful and dangerous behavior.
- Realistic Estimation Vs Estimate inflation.

Velocity

- Do not include partially completed items
- It measure output (size of what was delivered) not outcome (value of what was delivered), i.e., for velocity, complete 1 of size 8, is the same that complete 8 of size 1.
- It is **planning tool** not team **diagnostic metric**.

Test Yourselves

Numbers for Project 2

Team	Hours	Points
1		
2		
3		
4		
5		
6		
7		
8		

- 5 members per team working 10 hours per week each
- 50 person-hours per week

Numbers for Project 3

Team	Hours	Points
1		
2		
3		
4		
5		
6		
7		
8		

- 5 members per team working 10 hours per week each
- 50 person-hours per week

Estimated Numbers for Project 4

Team	Hours	Points
1		
2		
3		
4		
5		
6		
7		
8		

- 5 members per team working 10 hours per week each
- 50 person-hours per week

Numbers for Project 4

- Size P4 in Points
- Size P4 in Hours (optional)
- Sprints = Size P4 / Average Velocity P2 and P3

12

Example of Projects Review

Numbers

Team	Size (Story Points)	Total Stories
A	353 (hours)	33
B	~120	34
C	40	14
D	76	17
E	122 (hours)	20
F	~55	18
G	160	14
H	80	19
I	~120	18
J	~55	15

- 13 members per team working 10 hours per week each
- 130 person-hours

Numbers

Team	Size	User histories
A	353 (hours)	33
B	~120	34
C	40	14
D	76	17
E	122 (hours)	20
F	~55	18
G	160	14
H	80	19
I	~120	18
J	~55	15

Thoughts about **User Stories** per team?

Numbers

Team	Size	User histories
A	353 (hours)	33
B	~120	34
C	40	14
D	76	17
E	122 (hours)	20
F	~55	18
G	160	14
H	80	19
I	~120	18
J	~55	15

What number could make more sense?

Numbers

Team	Size	User histories
	353 (hours)	33
	~120	34
	40	14
	76	17
	122 (hours)	20
	~55	18
	160	14
	80	19
	~120	18
	~55	15

Thoughts about **Size** per team?

Reference

- Essential Scrum – Chapter 7.

SER516 – Software Agility

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