

SCRUMBAN SIMULATION

A safe way to learn how to deal with
both planned and unplanned work
in an iterative approach.

Sangeetha Sridhar & Koen Vastmans



Scrum
板

Scrumban: Setting the scene

Why Scrumban?



Will open a YouTube video

What is Scrumban?



+

看板

- Iterations
- Scrum roles
- Scrum meetings *
- Workflow
- Pull principle
- WiP limits

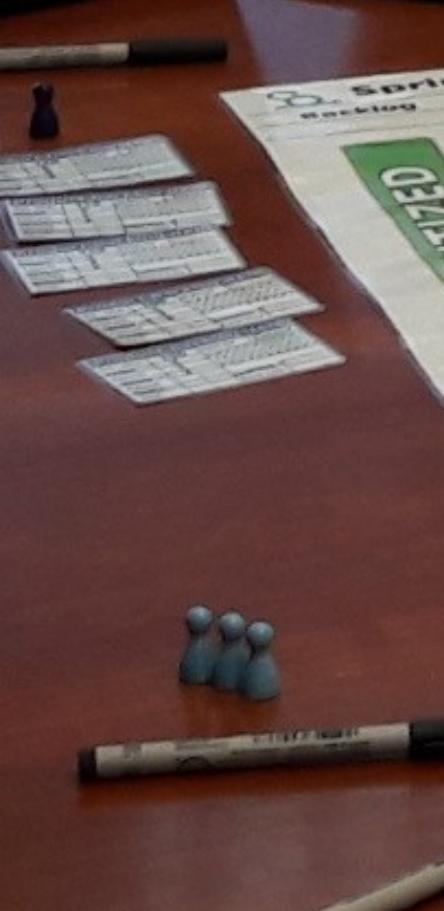


Scrum
板 SIM

Scrumban simulation



Objective





Cards

Product backlog item	
Bus. value	150
MoSCoW	Must
Prepare	3
Execute	4
Validate	2
Planned	
Started	
Done	
Lead time	
Cycle time	

Unplanned work	
Priority	High
Investigate	1
Execute	2
Validate	2
Reported	
Started	
Done	
Lead time	
Cycle time	

Event	
You are ill.	
You are absent for the rest of the week	

The board – planned work

Sprint: 1 2 3 4 5 →		Day Plan 1 2 3 4 5 6 7 8 9 10 Review/Retro									
Backlog	To do	Prepare	Execute	Validate	Done						
		WiP =	WiP =	WiP =							
ORITIZED	NNED			APPROVED	DONE						



The board – Unplanned work

Reported	Accepted	Investigate	Fix	Validate	Solved

FAST LANE



Step by step explanation

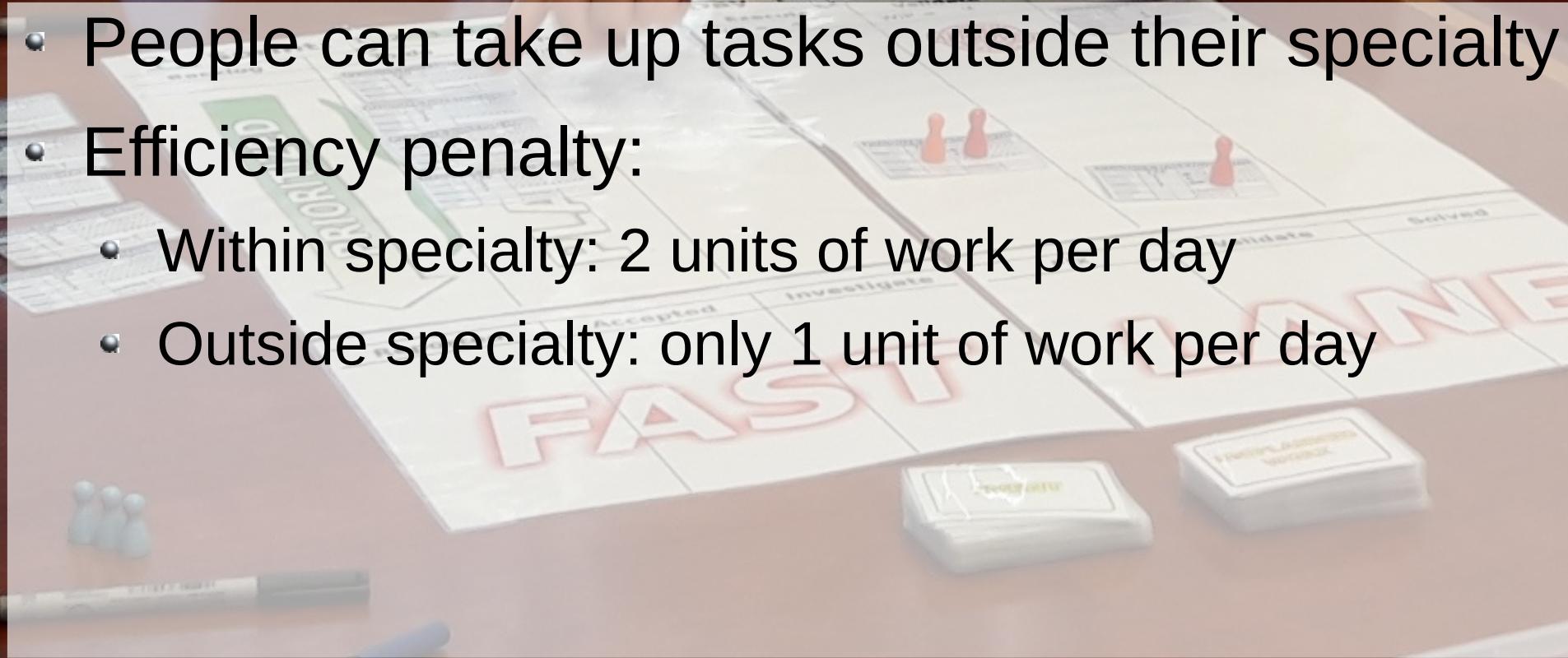


1. Preparation – Form a team

- Who will be the product owner?
- Who will do the execution work?
- Who will be more functional?
Combines prepare and validate tasks
- Or would you prefer 3 separate roles?
- Roles determine your team capacity

1. Preparation – Team & roles

- People can take up tasks outside their specialty
- Efficiency penalty:
 - Within specialty: 2 units of work per day
 - Outside specialty: only 1 unit of work per day



1. Preparation – WiP limits

- On activity level

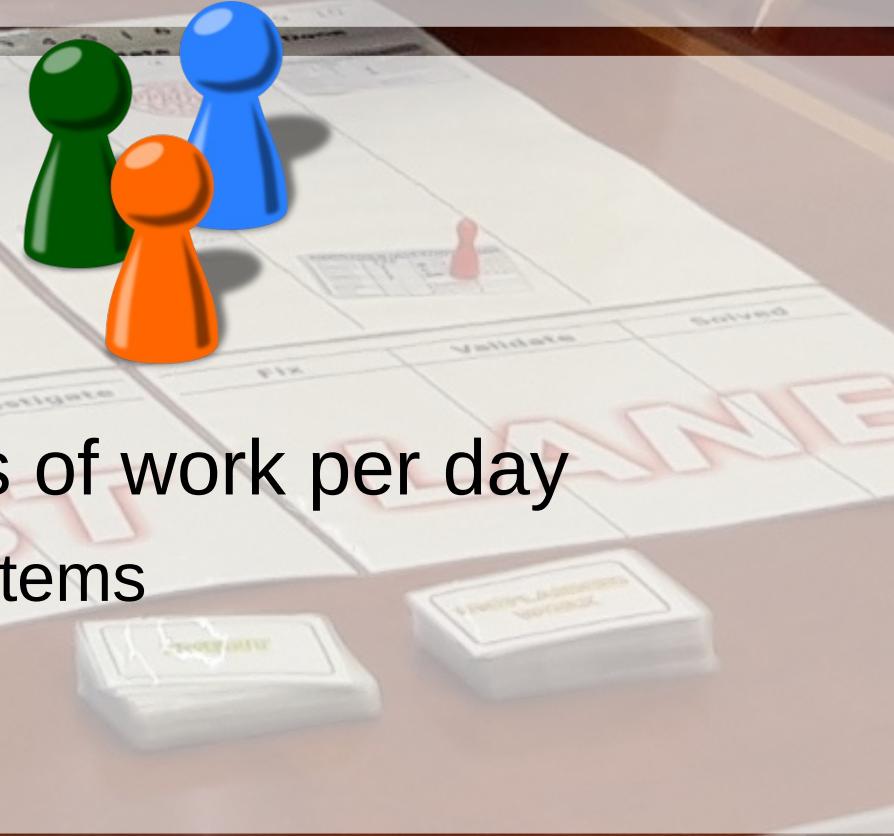
Prepare	Execute	Validate
WiP =	WiP =	WiP =

- On individual level
3 pawns per team member



1. Preparation – WiP limits

- Why 3 pawns?
- A pawn is like an avatar
- Assign yourself to a task
- But you can only do 2 units of work per day
 - At most 2 different backlog items
- Extra pawn for e.g. events





2. Prioritization

- Product owner decides priorities
- Puts the backlog items in the Backlog column
 - First set of most important items
 - Ordered by priority

Product backlog item	
Bus. value	150
Prepare	3
Execute	4
Validate	2
Planned	
Started	
Lead time	
Cycle time	

MoSCoW: Must

Product backlog item	
Bus. value	100
Prepare	1
Execute	3
Validate	2
Planned	
Started	
Lead time	
Cycle time	

MoSCoW: Should

Product backlog item	
Bus. value	60
Prepare	2
Execute	4
Validate	1
Planned	
Started	
Lead time	
Cycle time	

MoSCoW: Could

Product backlog item	
Bus. value	20
Prepare	1
Execute	3
Validate	1
Planned	
Started	
Lead time	
Cycle time	

MoSCoW: won't



2. Prioritization – How?

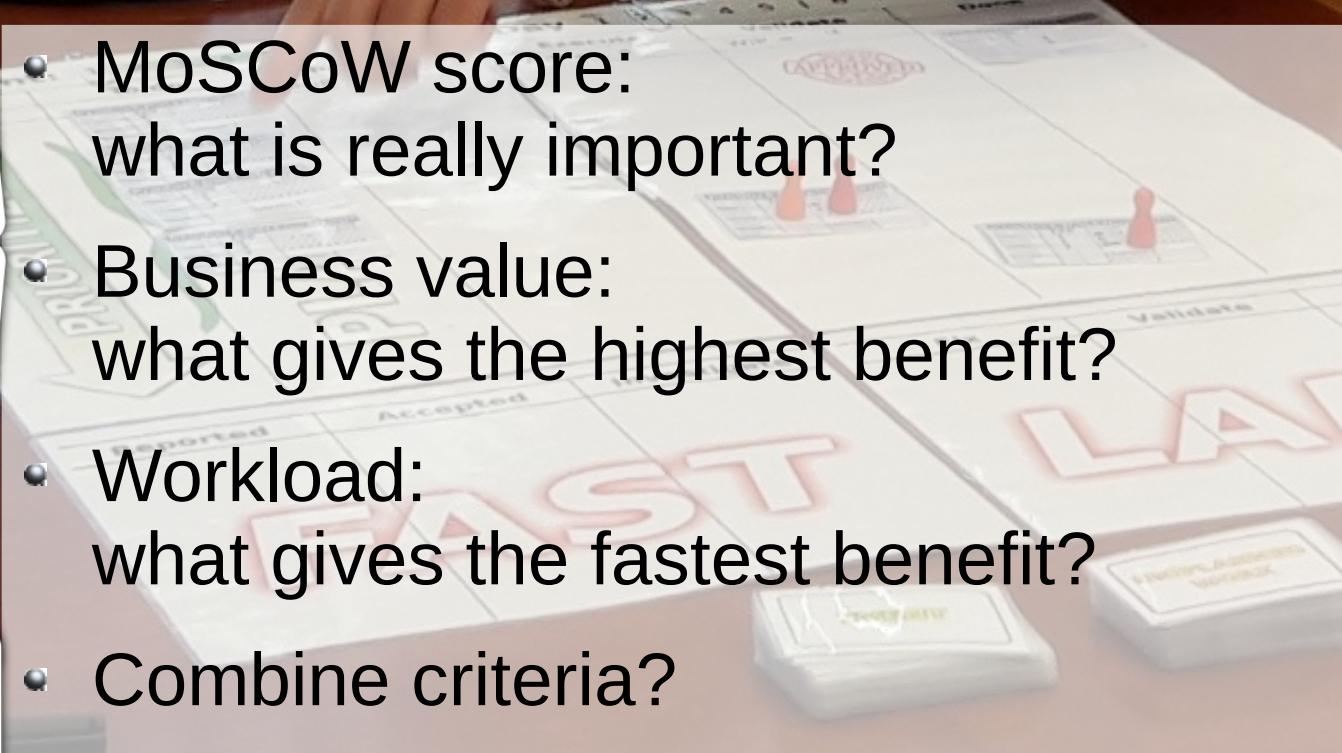
Product backlog item		MoSCoW	
Bus. value	150	Must	
Prepare	3		
Execute	4		
Validate	2		
Planned			
Started			
Lead time			
Cycle time			

Product backlog item		MoSCoW	
Bus. value	100	Should	
Prepare	1		
Execute	3		
Validate	2		
Planned			
Started			
Lead time			
Cycle time			

Product backlog item		MoSCoW	
Bus. value	60	Could	
Prepare	2		
Execute	4		
Validate	1		
Planned			
Started			
Lead time			
Cycle time			

Product backlog item		MoSCoW	
Bus. value	20	won't	
Prepare	1		
Execute	3		
Validate	1		
Planned			
Started			
Lead time			
Cycle time			

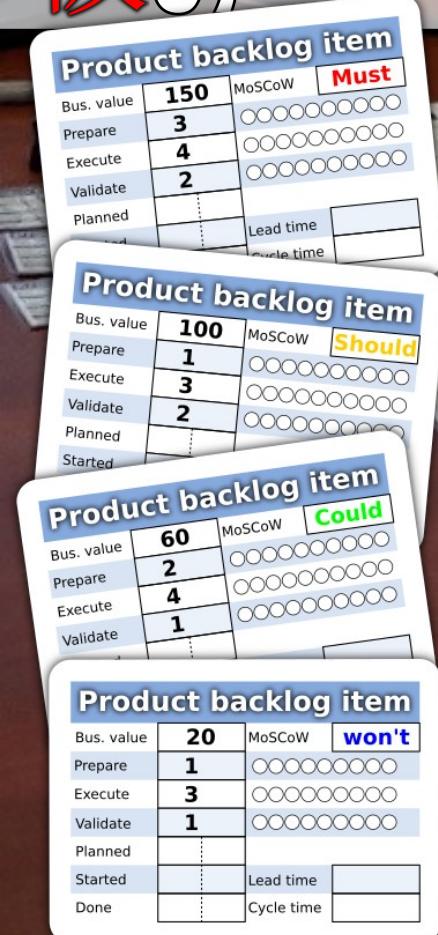
- MoSCoW score:
what is really important?
- Business value:
what gives the highest benefit?
- Workload:
what gives the fastest benefit?
- Combine criteria?



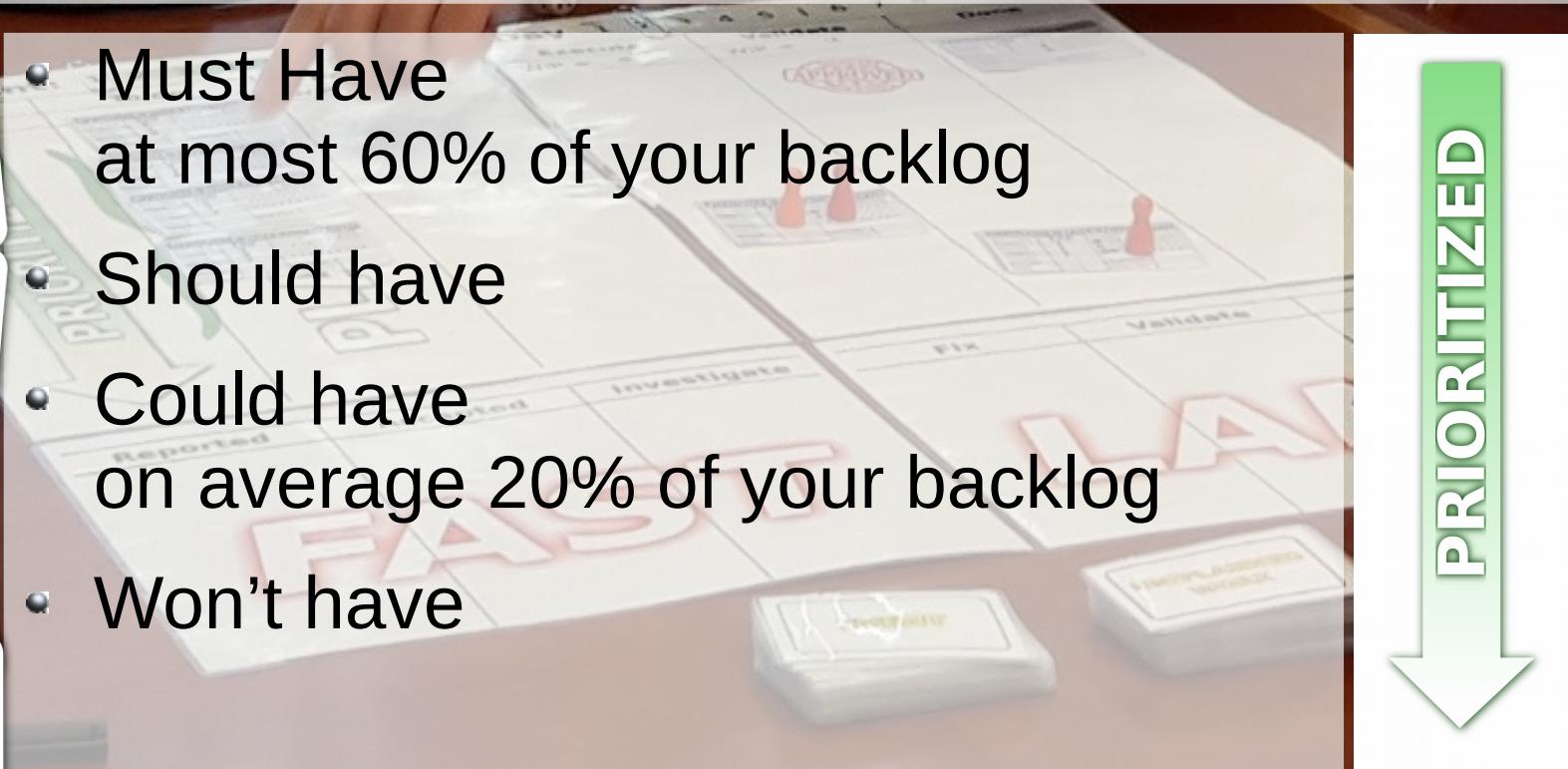
3. Planning

- Team determines capacity for next iteration
- Forecasts which backlog items they can implement according to capacity
- Move selected backlog items to To do column
- Now let the work begin...

2. Prioritization – MoSCoW?



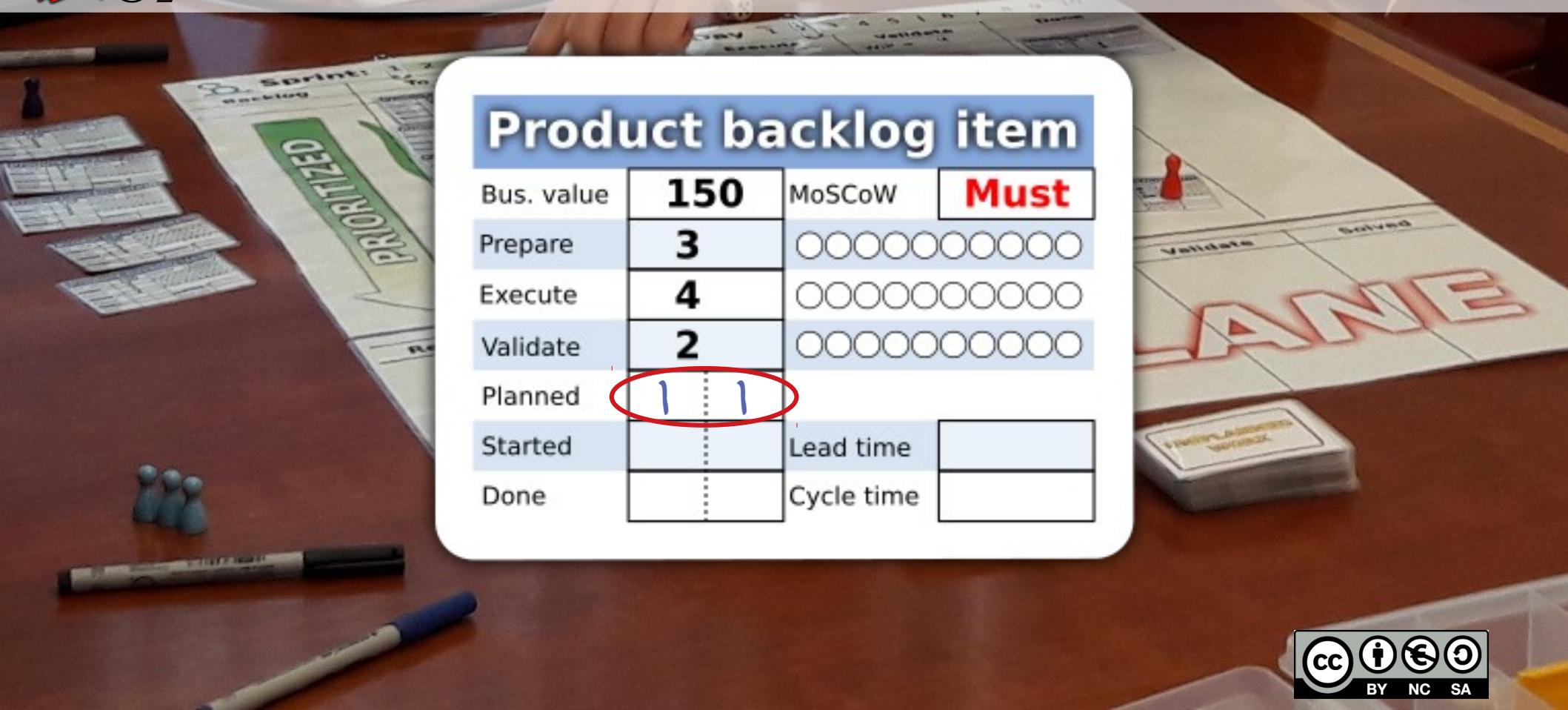
- Must Have
at most 60% of your backlog
- Should have
- Could have
on average 20% of your backlog
- Won't have



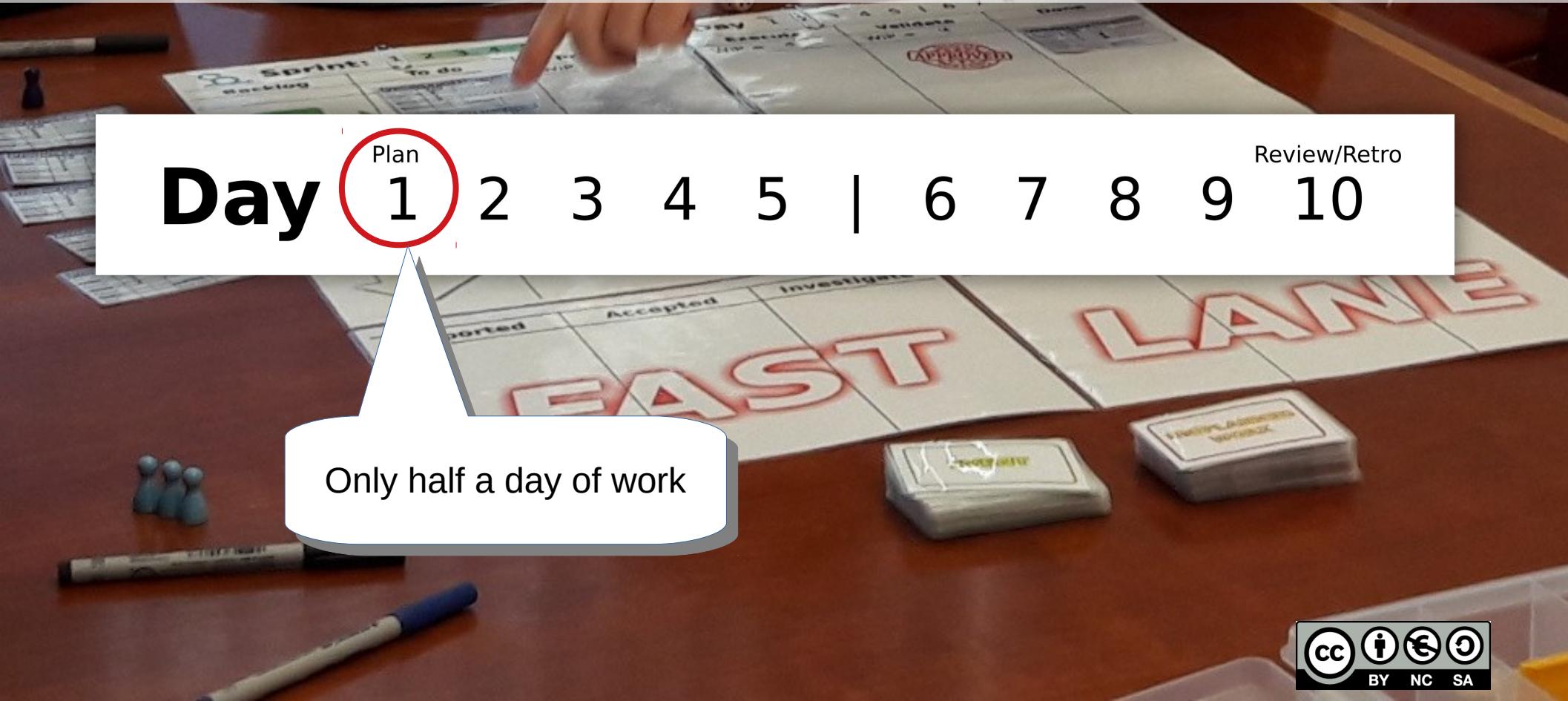
3. Planning – Capacity example

- Team of 2 functional and 2 technical members
- First day = $\frac{1}{2}$ capacity, 1 unit of work in specialty
- Last day = $\frac{1}{2}$ capacity, **only unplanned work**
- 8 days full capacity
- = 17 days functional + 17 day technical work
- = 34 unit of work functional + 34 technical
- - margin for unplanned work + unforeseen events!

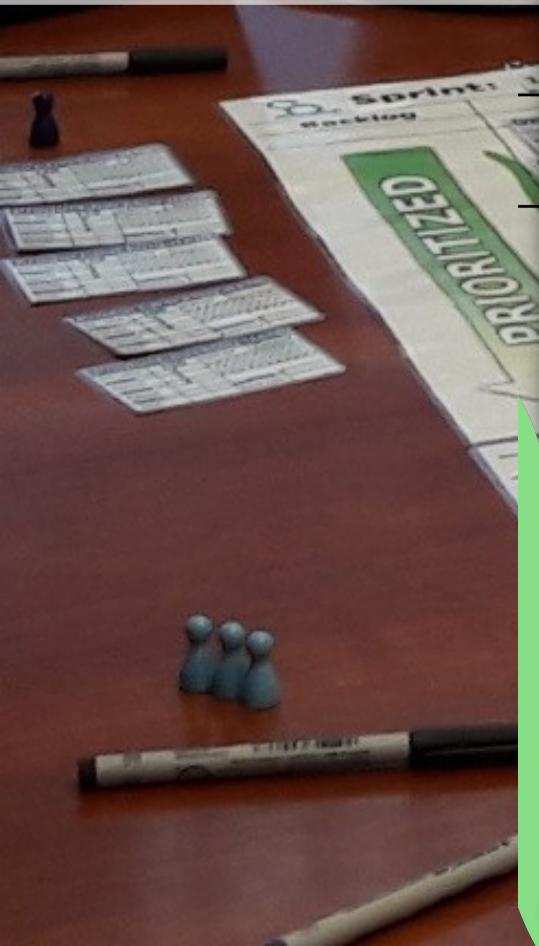
3. Planning – Advanced teams



4. Start working – first day



4. Start working



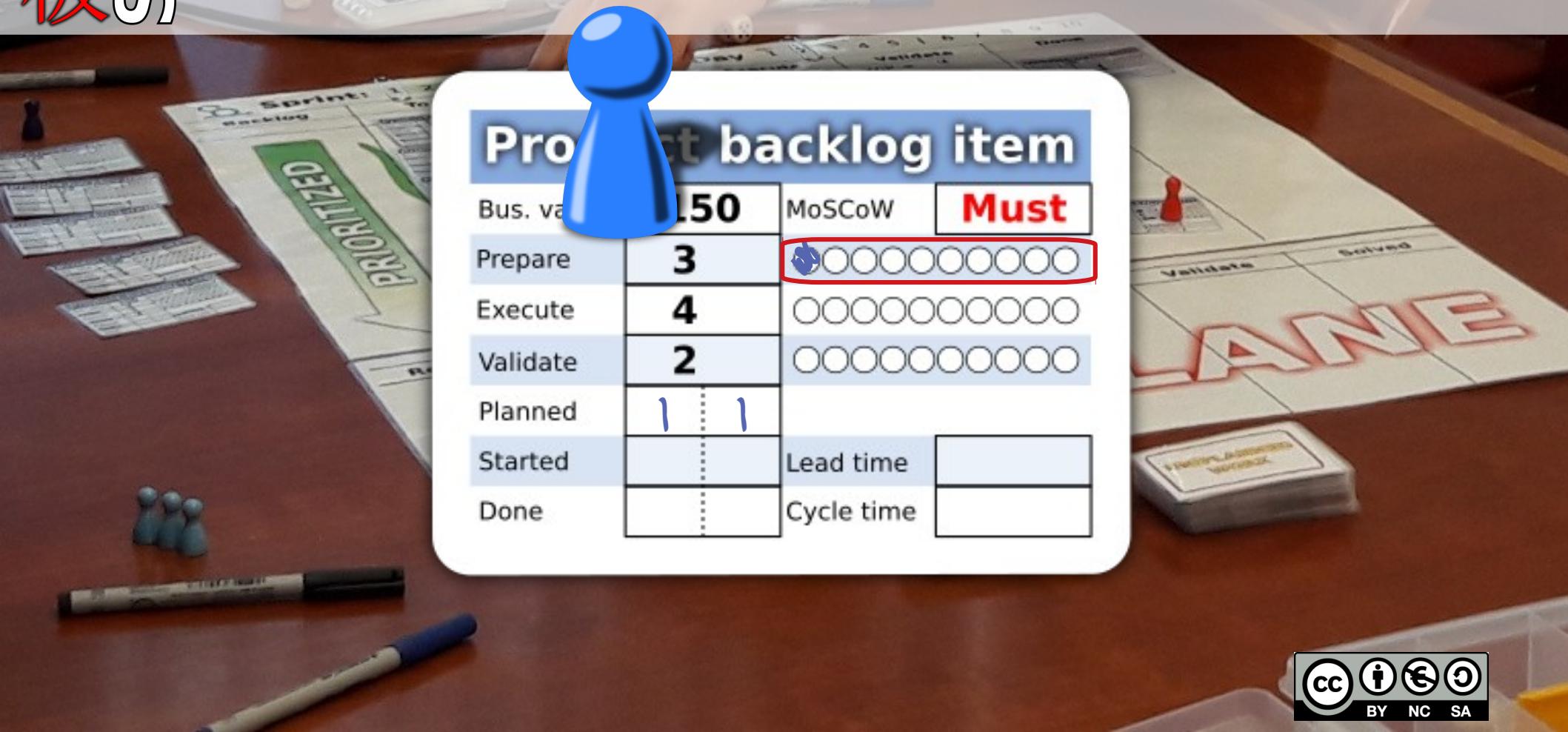
To do	Prepare
	WiP =

A photograph of a desk with several product backlog item cards. One card is highlighted with a green arrow pointing to it. The card has the following details:

Product backlog item
Bus. value: 150 MoSCoW: Must
Prepare: 3
Execute: 4
Validate: 2
Planned: 2
Started: 2
Done: 2
Cycle time: [] Lead time: []



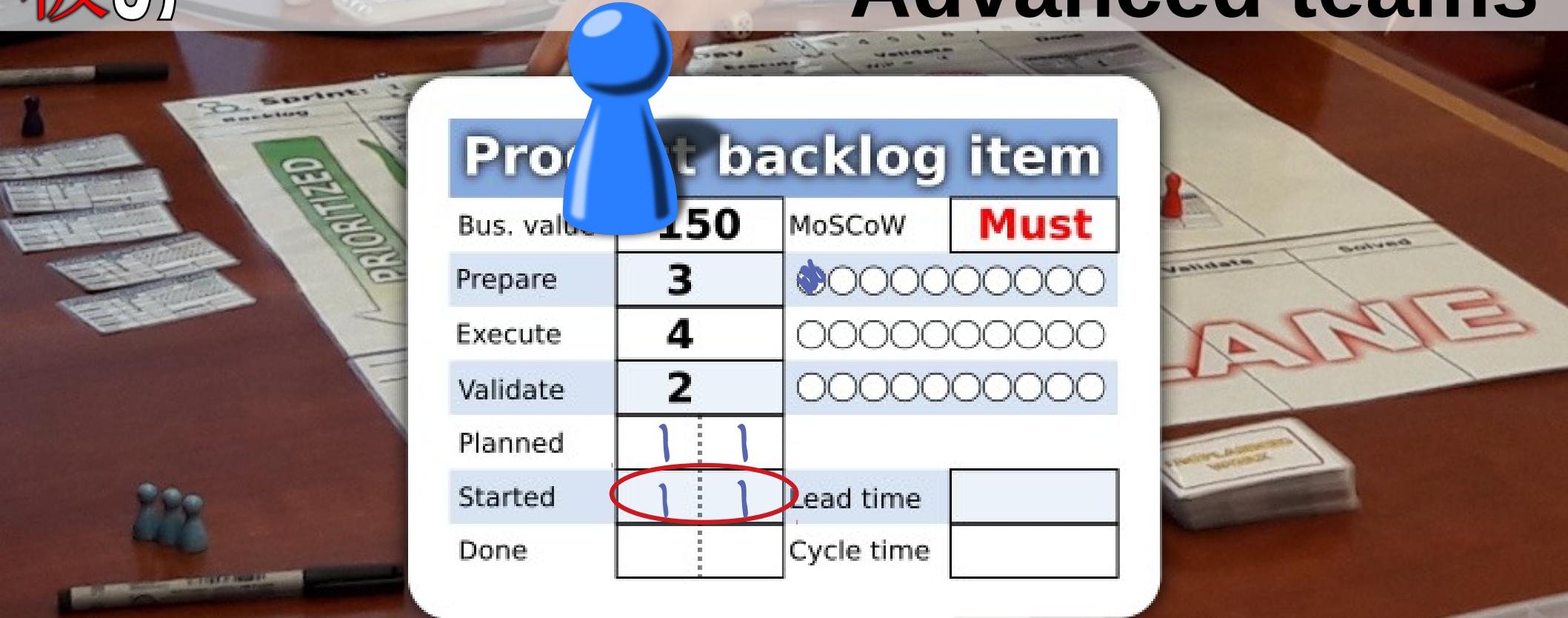
4. Start working



4. Start working



4. Start working Advanced teams





4. When an activity is done...

- You can remove your pawn
- Don't push items to the next stage
 - Pull the work
- Don't validate yourself what you implemented
 - Four eyes principle

5. Play in rounds





5. After each participant's round

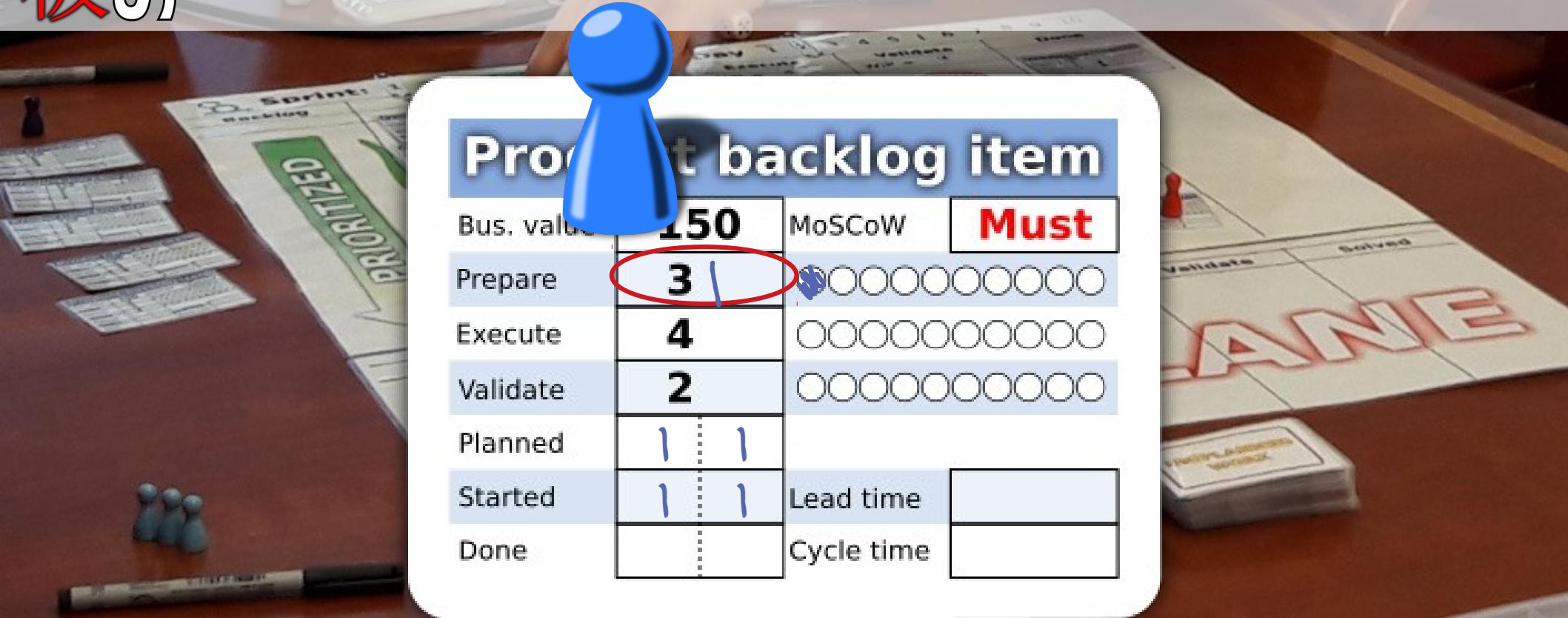
- Evolving insight - use the normal dice
 - 1: increase workload with 1 unit
 - 2: no action
 - 3: no action
 - 4: take an event card
 - 5: block item you last worked on
 - 6: unblock any blocked item



5. Why evolving insight?

- Something can take longer than expected
- You may need to wait for someone/something (a decision?)
- Or the opposite – something got clarified
- Something unforeseen can just happen (events)

5. Increase workload



5. Blocked item



6. End of day

- Use the Unplanned work dice
 - 0: lucky you – no unplanned work
 - 1: take 1 unplanned work card
 - 2: take 2 unplanned work cards
- Product owner decides what to do
 - Act immediately, plan or park



6. Accepting unplanned work

The image shows a ScrumBoard SIM game board. On the left, there's a row of cards labeled "PRIORITYIZED". In the center, a large white box contains two columns: "Reported" and "Accepted". Each column has three cards. A green arrow points from the "Reported" column to the "Accepted" column. The cards are labeled "Unplanned work" and have columns for Priority, Investigate, Execute, Validate, Reported, Started, and Done. The "Accepted" column also includes Lead time and Cycle time columns.

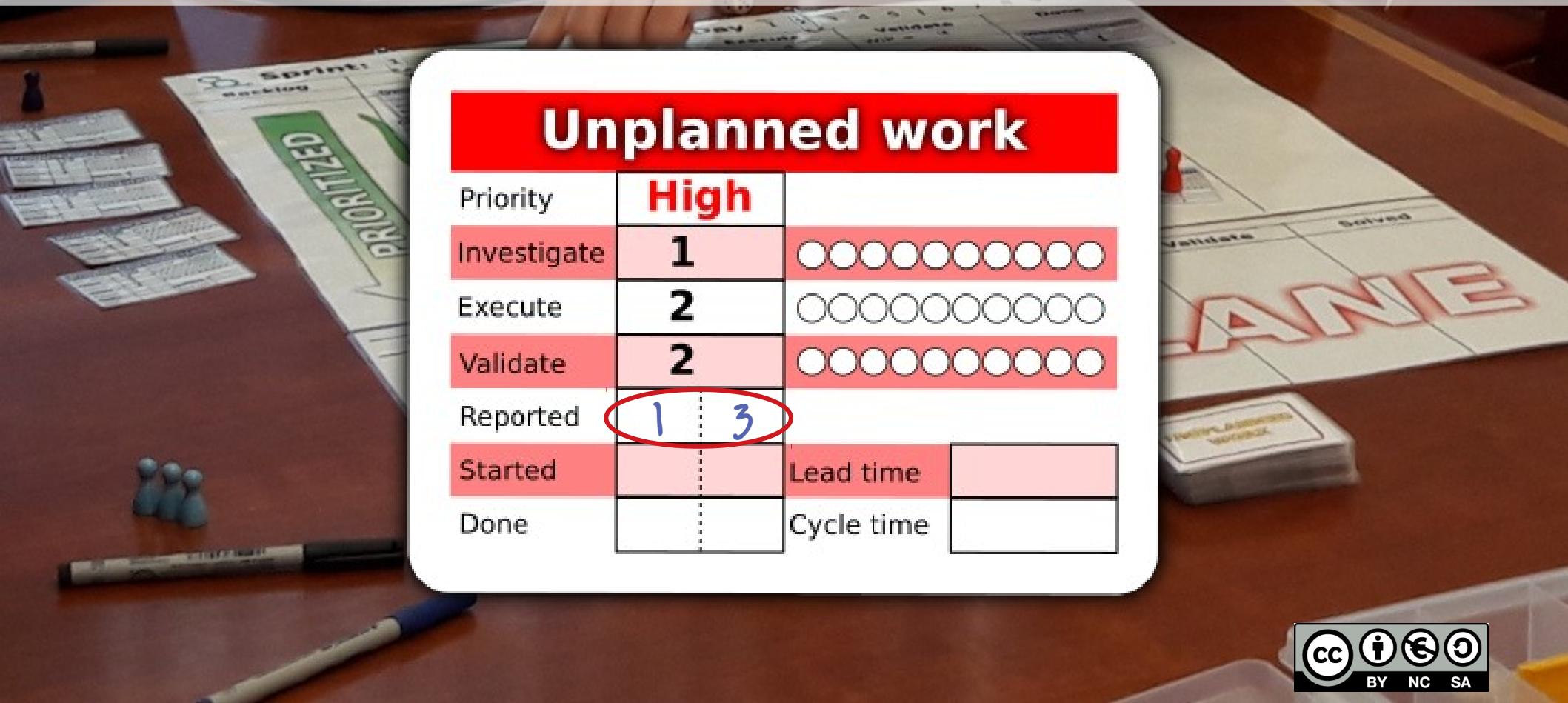
Reported		Accepted	
Unplanned work	Unplanned work	Unplanned work	
Priority	High	Priority	High
Investigate	1	Validate	2
Execute	2	Reported	
Validate	2	Started	
Reported		Lead time	
Started		Cycle time	
Done			

FAS

CC BY NC SA

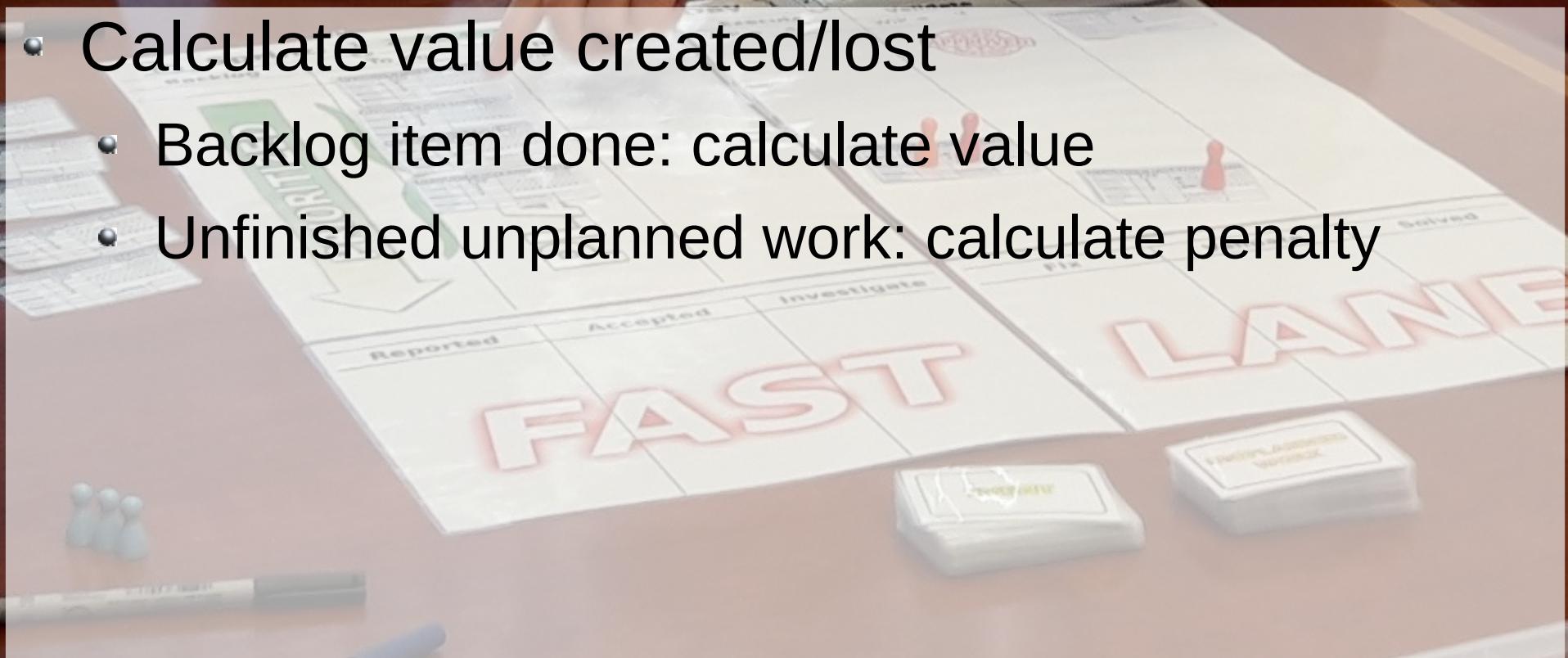
6. Unplanned work

Advanced teams



6. End of day

- Calculate value created/lost
 - Backlog item done: calculate value
 - Unfinished unplanned work: calculate penalty



6. Create value

Product backlog item

Bus. value	150	MoSCoW	Must
Prepare	3	○○○○○○○○○○	
Execute	4	○○○○○○○○○○	
Validate	2	○○○○○○○○○○	
Planned			
Started		Lead time	
Done		Cycle time	

Business value x multiplier:
Must have: business value x 2
Should have: business value x 1
Could have: business value x 0,5
Won't have: business value = 0

6. Loose value

Penalty per day for not finishing unplanned work:
-1 for low priority
-10 for medium priority
-50 for high priority

Unplanned work

	High	
Investigate	1	○○○○○○○○○○
Execute	2	○○○○○○○○○○
Validate	2	○○○○○○○○○○
Reported		
Started		Lead time
Done		Cycle time



Value creation

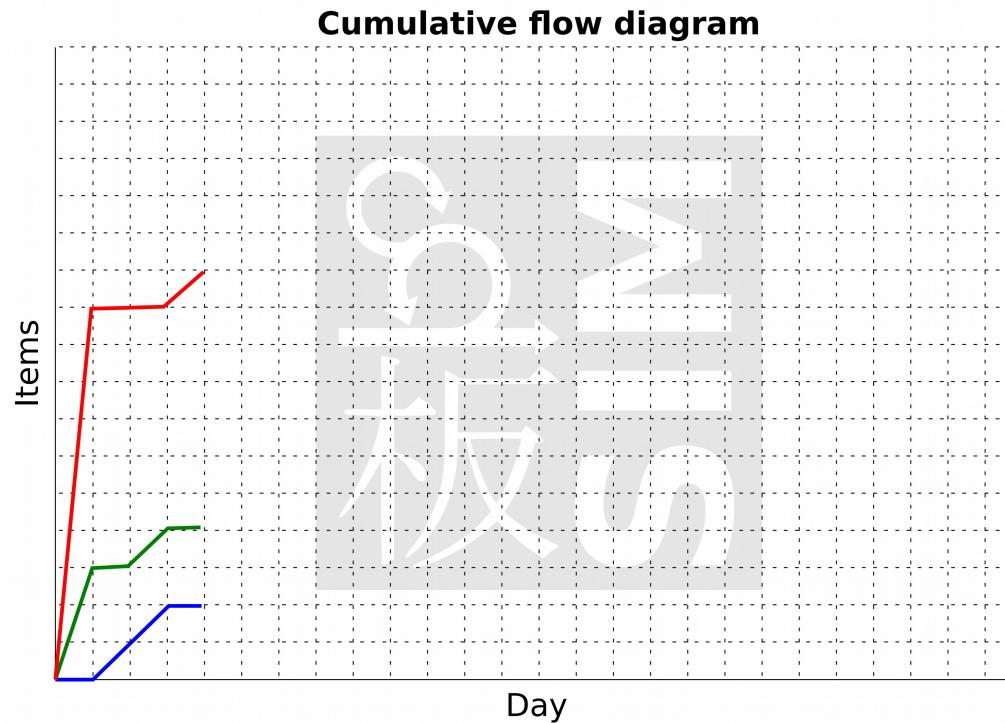
Team name:

	Iteration 1	Iteration 2	Iteration 3	Iteration 4	Iteration 5
Day 1					
Day 2					
Day 3					
Day 4					
Day 5					
Day 6					

6. End of day

Advanced teams

- Update cumulative flow diagram





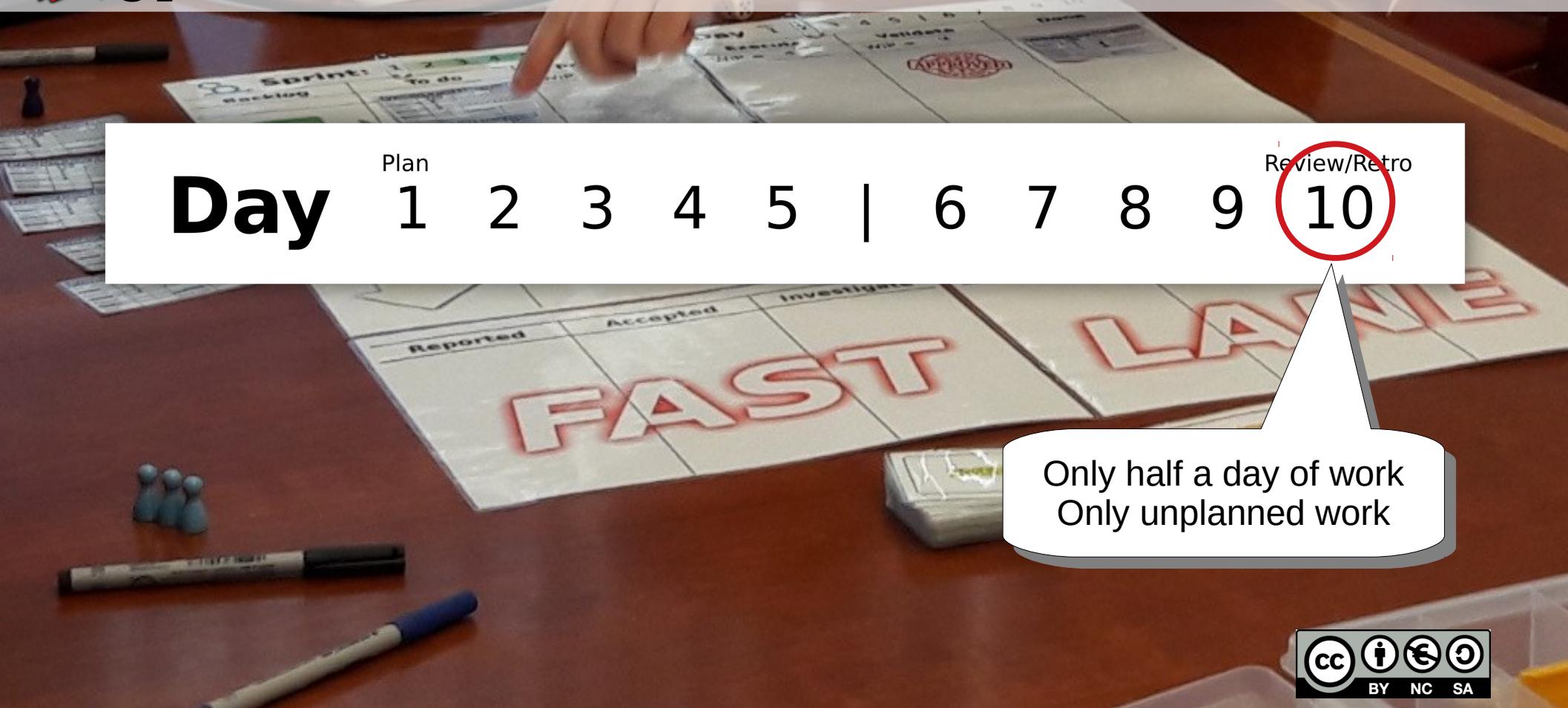
7. Item done – advanced teams

A photograph of a Scrum board during a sprint review meeting. In the center is a 'Product backlog item' card with the following details:

Product backlog item	
Bus. value	150
Prepare	3
Execute	4
Validate	2
Planned	1 1
Started	1 1
Done	1 6
Lead time	
Cycle time	

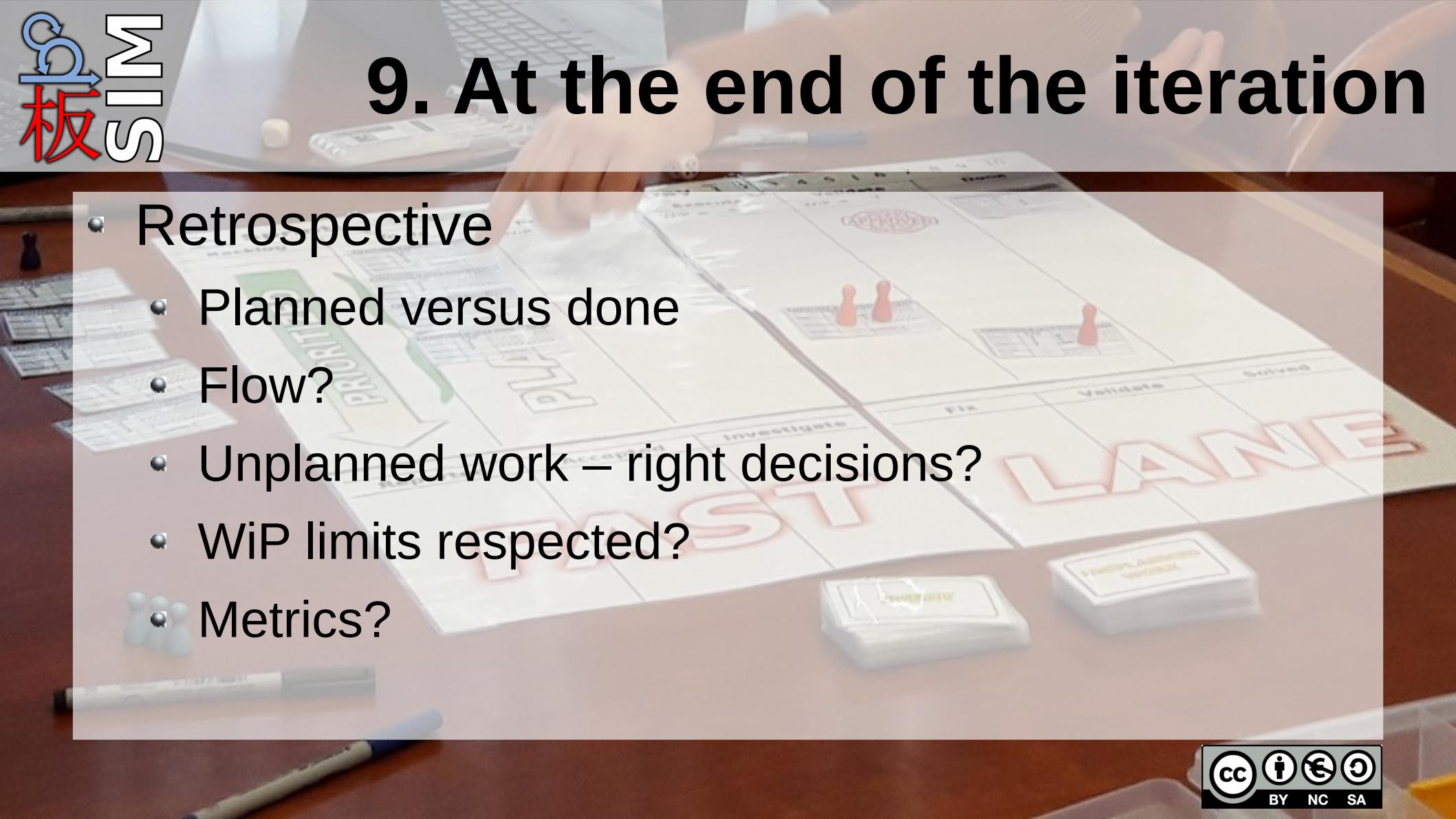
The 'Done' row has a circled '6' under both columns. To the right of the card is a 'LANE' board with a red pinned piece. In the background, there are other cards, pens, and markers on the table.

8. Last day of the iteration



9. At the end of the iteration

- Retrospective
 - Planned versus done
 - Flow?
 - Unplanned work – right decisions?
 - WiP limits respected?
 - Metrics?



Scrum Board

Enjoy the simulation!



Scrum
板

Debrief – What did you learn?