PROJECT

DELIVERING VALUE EARLY AND CONTINUOUSLY

SIZING AND PRIORITISATION IN SCRUM

DATE JUNE 2020

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Prologue

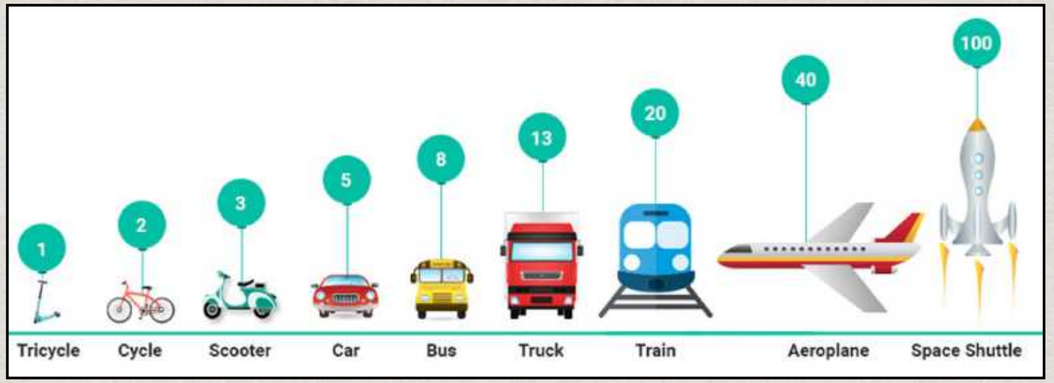
The intention of this presentation is to propose a procedure to create value early and continuously when using the Scrum methodology in agile project management.

It is expected that the reader is familiar with the way Scrum is executed and managed and understands the meaning of most of the common terms used.

Note: Pictures in this presentation are used for illustration purposes only, and when applicable, a link to their source page is provided for additional clarification.

Story Points Measure Effort / Track Efficiency

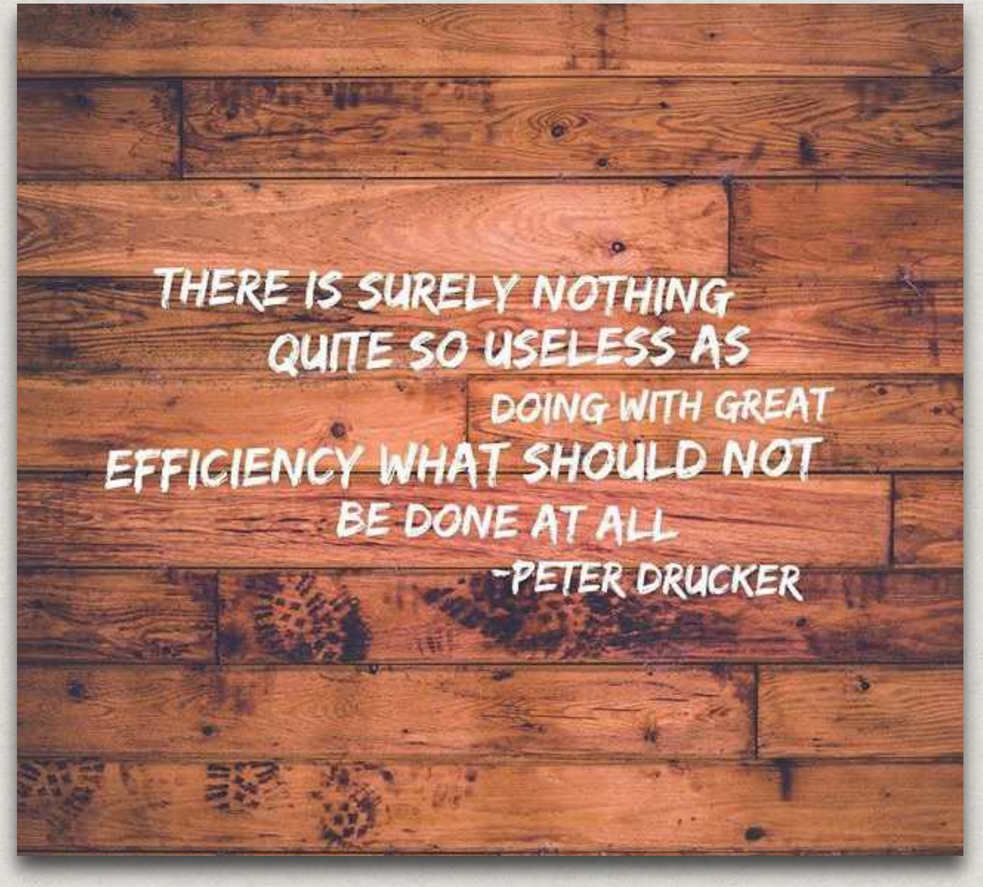
- A metric used to estimate the difficulty or time of a given user story by assigning an abstract measure
- In simple terms, a story point is a number that tells the team about the difficulty level, or time required to complete a story
- Difficulty could be related to complexities, risks and effort involved
- To use it, the team would find a baseline story and assign any other effort relatively to that one



Why Story Points are not Enough …

Mainly used as a measure of how well a scrum team is performing in the form of velocity, is NOT what should be used as an indication of success in the projects:

- Is not indicative of the value (to the business or project goals) of what is being delivered
- Make prioritisation difficult as how to decide between delivering stories that are simple/quick* or complex/long**

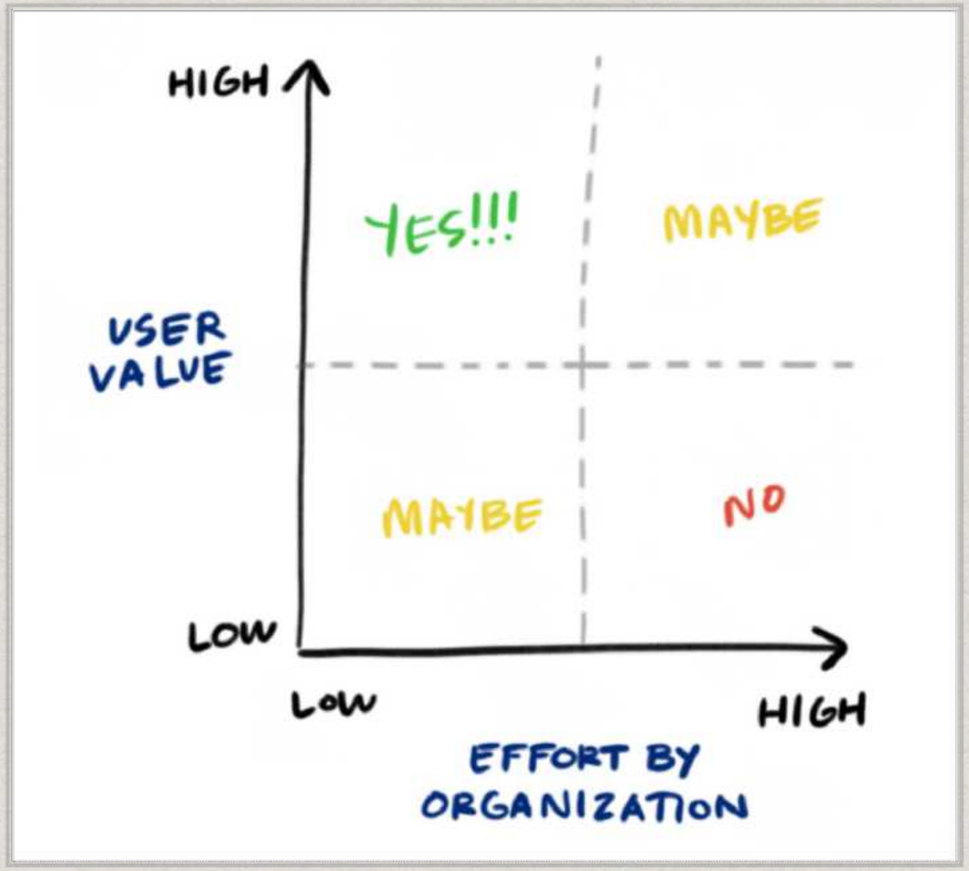


* Great efficiency as many stories get done, but might not be important to customers or stakeholders

** Valued by customers/stakeholders but will take longer to achieve

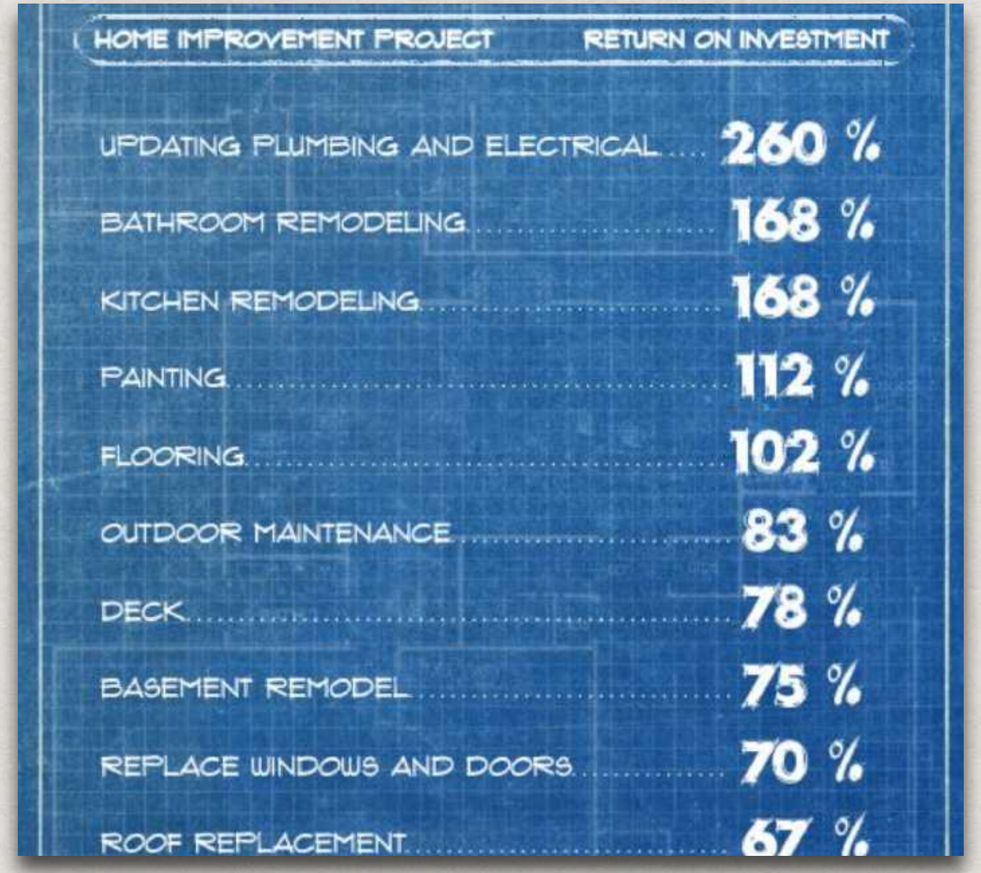
How to Prioritise to Deliver Value Early

- The development teams focus on the left side, delivering efficiently (quick)
- Business and product owners will focus on the top of the graph, the value for the stakeholders and clients
- **So, how to procedurally determine what comes next?**



Value Points Measure Importance / Track Effectiveness of Delivery

- A metric used to estimate the worth of a given user story by assigning an abstract measure of value it represents
- Value could be related to Return on Investment (ROI), risk minimisation, new income streams, company savings, knowledge and technical value, etc.
- To use it, the product owner will find a **baseline story and assign any other value relatively to that one**



“As the product owner you know all the different reasons why something is being done. You are holding a pretty complicated construct in your head.

Re-creating that construct a week later is hard. You have to remember all the factors that you were considering when you made that choice. You have to re-create there thought process that led you to that decision”

– Jeff Sutherland,

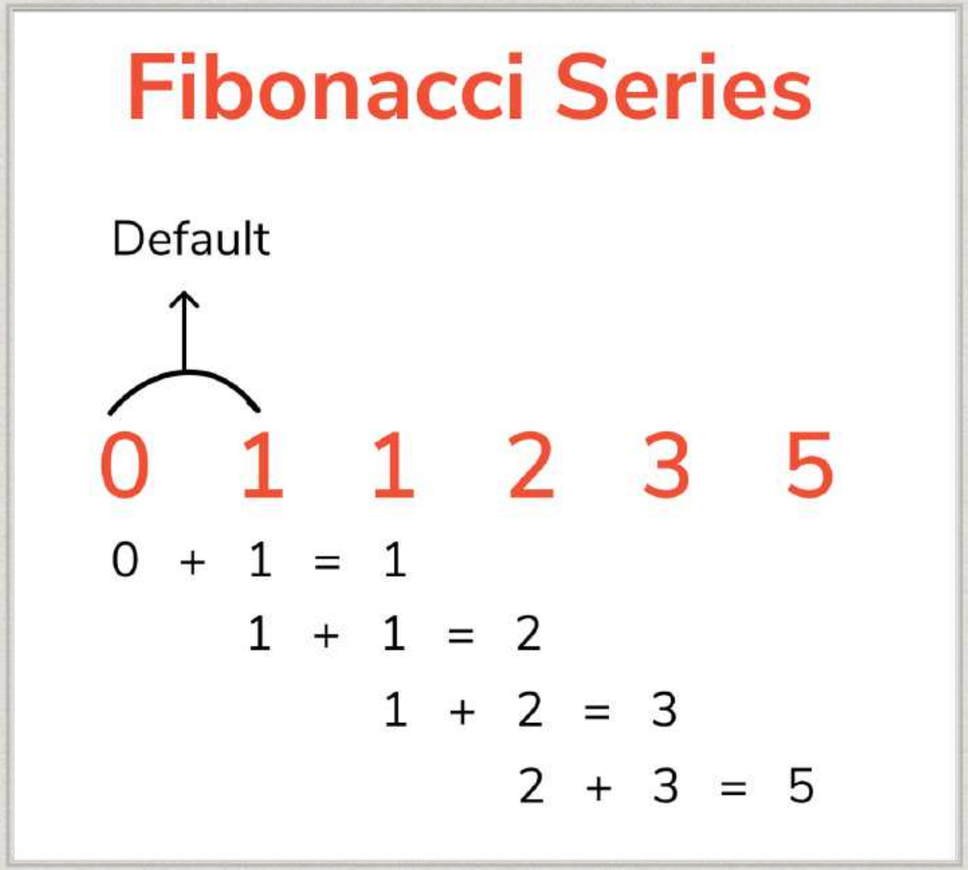
The Art of Doing Twice the Work in Half of the Time

HOUSE RENOVATION EXAMPLE

USING VALUE POINTS TO PRIORITISE HOW TO RENOVATE A HOUSE

Procedurally Delivering Value Fast

- Estimate both story and value points relative to each other using the Fibonacci Sequence*
- Each story will result in a two (2) points system:
  - Story Points to estimate effort / time
  - Value Points to estimate worth



** Fibonacci is advantageous in relative estimation, as each number in the series increases to around 60% every time*

Scenario: House Renovation

- Apply an estimate of effort, complexity or time, to each specific renovation as story points
- Based on ROI for the different renovations on a house (slide 6), apply a Fibonacci approximation to these
- Divide the story by the value points, quantifying the relation of value against effort (VxSP)

RENOVATION - PROJECT

PROJECT BREAKDOWN

Description	Story Points	Value Points	VxSP
Basement Remodeling	5	8	1.600
Bathroom Remodelling	13	21	1.615
Deck	5	8	1.600
Flooring	8	13	1.625
Kitchen Remodelling	21	21	1.000
Outdoor Maintenance	8	8	1.000
Painting	3	13	4.333
Plumbing and Electrical	34	34	1.000
Replace Windows and Doors	3	5	1.667
Roof Replacement	34	5	0.147

Prioritisation based on Value vs Effort

- Once VxSP is assigned to every story, these are sequenced in descending order with the highest value first
- Some stories will need to be **reordered** due to dependencies or impact on others
- For this example, although “Painting” has a higher VxSP, “Plumbing and Electrical” will need to be done before to avoid impacting its quality (i.e. the painting on the walls that will be opened for wiring or plumbing)

RENOVATION - PROJECT

PROJECT BREAKDOWN

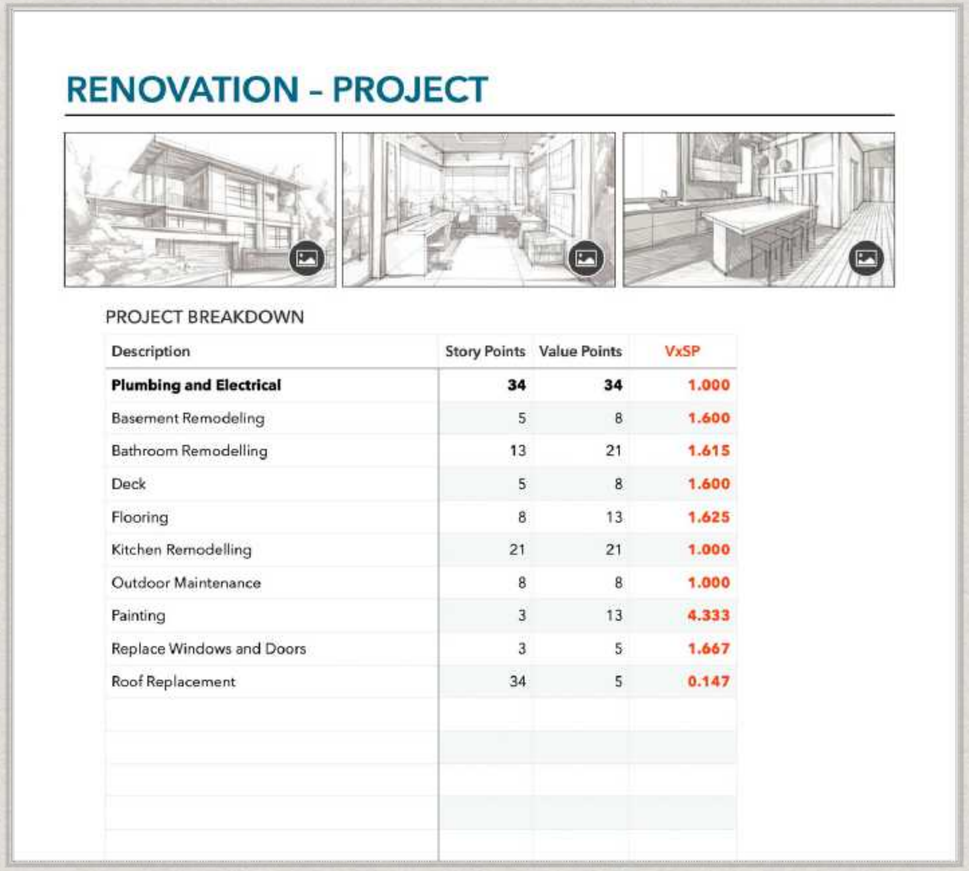
Description	Story Points	Value Points	VxSP
Basement Remodeling	5	8	1.600
Bathroom Remodelling	13	21	1.615
Deck	5	8	1.600
Flooring	8	13	1.625
Kitchen Remodelling	21	21	1.000
Outdoor Maintenance	8	8	1.000
Painting	3	13	4.333
Plumbing and Electrical	**34**	**34**	1.000
Replace Windows and Doors	3	5	1.667
Roof Replacement	34	5	0.147

First Iteration, Measure Velocity

Determine the velocity during the first iteration. In this example, the team finishes the “Pluming and Electrical” in this time frame

Iteration 1

- **Stories**: Plumbing and Electrical
- **Story Points**: 34
- **Velocity**: 34
- **Value Points**: 34



RENOVATION - PROJECT

PROJECT BREAKDOWN

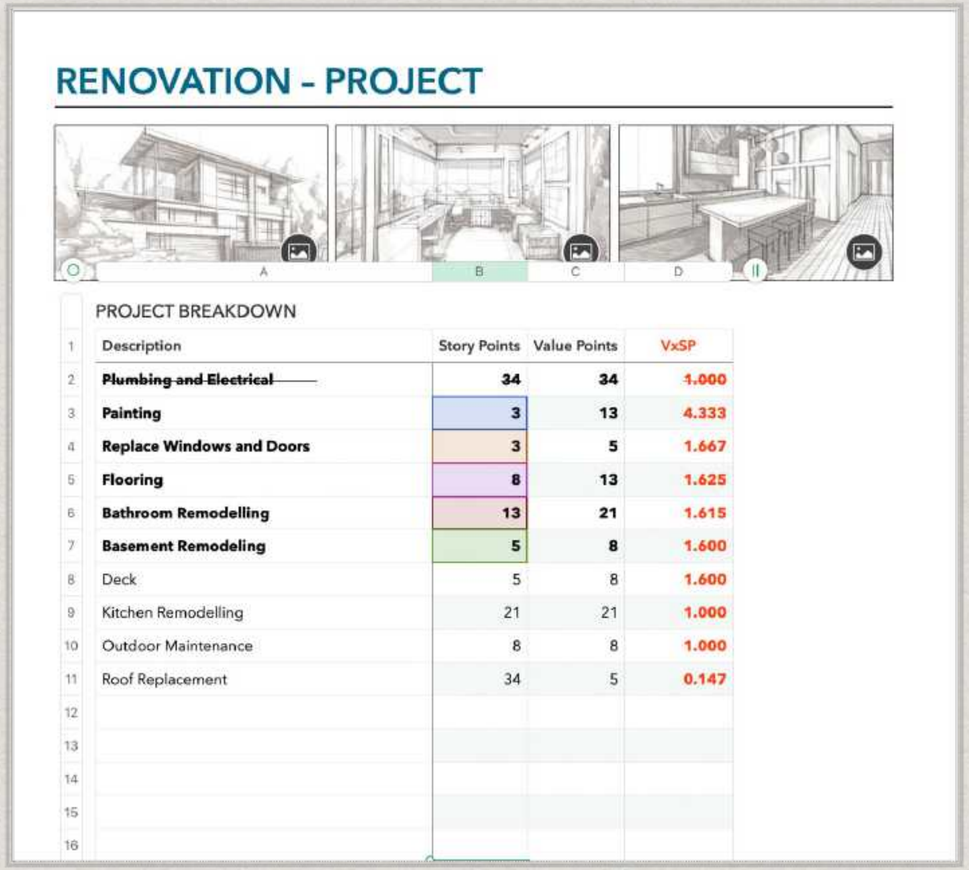
Description	Story Points	Value Points	VxSP
Plumbing and Electrical	**34**	**34**	**1.000**
Basement Remodeling	5	8	**1.600**
Bathroom Remodelling	13	21	**1.615**
Deck	5	8	**1.600**
Flooring	8	13	**1.625**
Kitchen Remodelling	21	21	**1.000**
Outdoor Maintenance	8	8	**1.000**
Painting	3	13	**4.333**
Replace Windows and Doors	3	5	**1.667**
Roof Replacement	34	5	**0.147**

Delivering Value Within the Capacity

The capacity per iteration is 34 (velocity of last iteration), the team needs to look for next set of stories that fall within that value

Iteration 2

- **Stories**: Painting, Replace Windows and Doors, Flooring, Bathroom, Basement
- **Story Points**: 32
- **Velocity**: 32
- **Value Points**: 60



PROJECT BREAKDOWN

	Description	Story Points	Value Points	VxSP
2	~~Plumbing and Electrical~~	34	34	1.000
3	Painting	3	13	4.333
4	Replace Windows and Doors	3	5	1.667
5	Flooring	8	13	1.625
6	Bathroom Remodelling	13	21	1.615
7	Basement Remodeling	5	8	1.600
8	Deck	5	8	1.600
9	Kitchen Remodelling	21	21	1.000
10	Outdoor Maintenance	8	8	1.000
11	Roof Replacement	34	5	0.147
12				
13				
14				
15				
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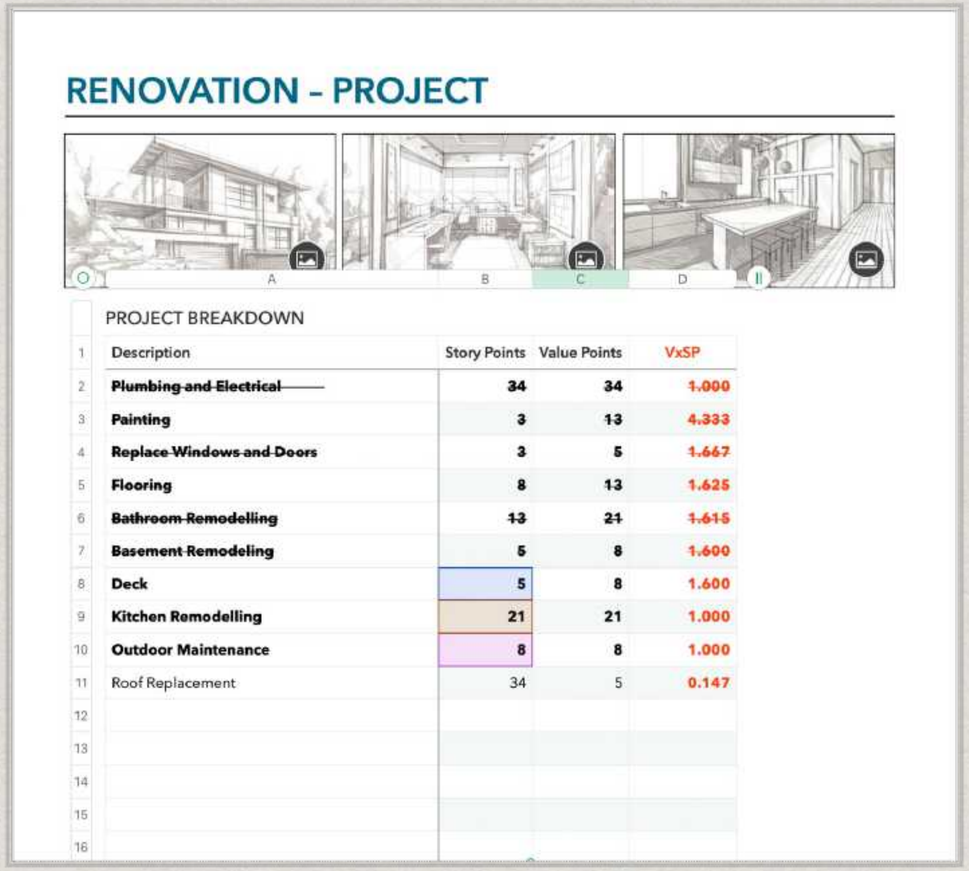
Continuous Velocity decreasing Value

With every iteration velocity remains reasonably constant, but the value delivered can decrease

Iteration 3

- **Stories**: Deck, Kitchen Remodelling, Outdoor Maintenance
- **Story Points**: 34
- **Velocity**: 34
- **Value Points**: 37



RENOVATION - PROJECT

PROJECT BREAKDOWN

	Description	Story Points	Value Points	VxSP
2	~~Plumbing and Electrical~~	~~34~~	~~34~~	~~1.000~~
3	~~Painting~~	~~3~~	~~13~~	~~4.333~~
4	~~Replace Windows and Doors~~	~~3~~	~~5~~	~~1.667~~
5	~~Flooring~~	~~8~~	~~13~~	~~1.625~~
6	~~Bathroom Remodelling~~	~~13~~	~~21~~	~~1.615~~
7	~~Basement Remodeling~~	~~5~~	~~8~~	~~1.600~~
8	Deck	5	8	1.600
9	Kitchen Remodelling	21	21	1.000
10	Outdoor Maintenance	8	8	1.000
11	Roof Replacement	34	5	0.147
12				
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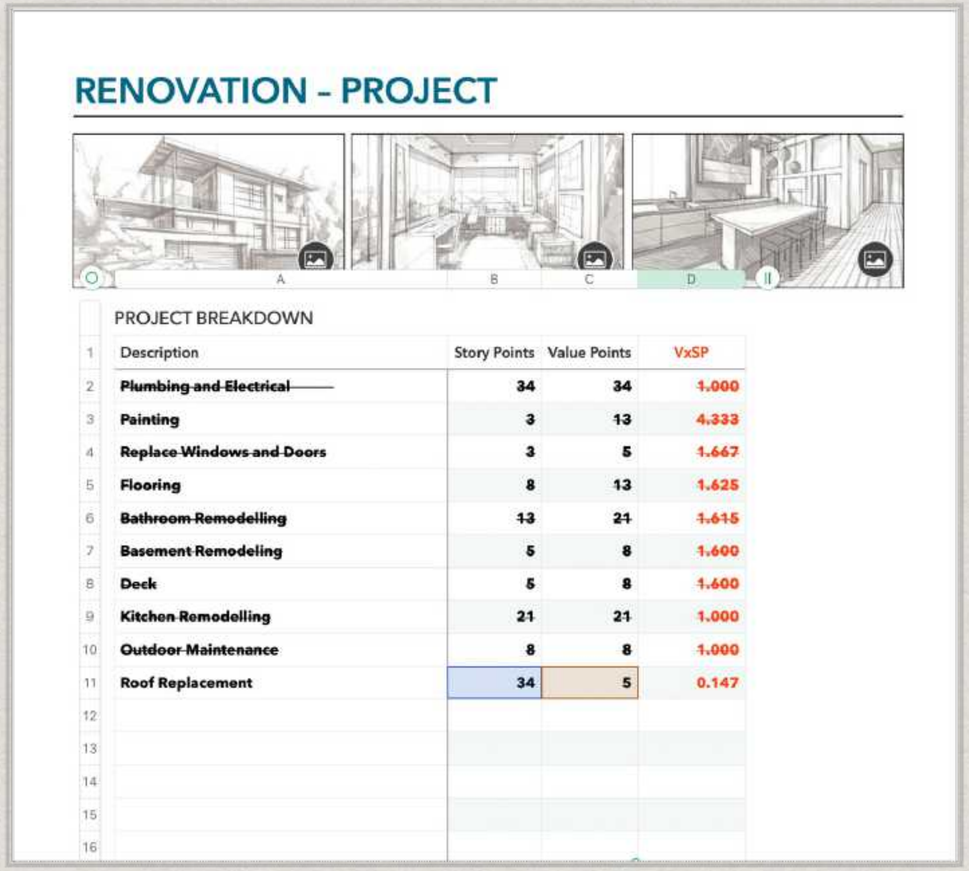
Value in the Next Iteration?

As the value of the stories starts to decrease towards the end of the project, the project manager or the product owner can at this stage determine if the value is worth the cost of the next iteration and stop the project at that stage

Iteration 4

- **Stories**: Roof Replacement
- **Story Points**: 34
- **Velocity**: 34
- **Value Points**: 5



RENOVATION - PROJECT

PROJECT BREAKDOWN

	Description	Story Points	Value Points	VxSP
2	~~Plumbing and Electrical~~	~~34~~	~~34~~	~~1.000~~
3	~~Painting~~	~~3~~	~~13~~	~~4.333~~
4	~~Replace Windows and Doors~~	~~3~~	~~5~~	~~1.667~~
5	~~Flooring~~	~~8~~	~~13~~	~~1.625~~
6	~~Bathroom Remodelling~~	~~13~~	~~21~~	~~1.615~~
7	~~Basement Remodeling~~	~~5~~	~~8~~	~~1.600~~
8	~~Deck~~	~~5~~	~~8~~	~~1.600~~
9	~~Kitchen Remodelling~~	~~21~~	~~21~~	~~1.000~~
10	~~Outdoor Maintenance~~	~~8~~	~~8~~	~~1.000~~
11	Roof Replacement	34	5	0.147
12				
13				
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When New Features become Expensive

When considering the next iteration, need to consider the following:

- The client or company is paying a fixed cost (e.g. team's salary) for the people working on each iteration
- Each value point is becoming more expensive as the VxSP diminishes towards the end of the project (because most value was delivered early)
- Project can be stopped and the team resigned to do something more valuable

The project manager (product owner, management team, etc.) can determine by the declining value, if they should keep delivering features that do not add enough merit to the end product with the original scope

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