Prioritization techniques

Customer requirements

Product backlog

As a trader, I want to trade so that I can trade

As a trader, I want to trade so that I can trade

As a trader, I want to trade so that I can trade

As a trader, I want to trade so that I can trade

As a trader, I want to trade so that I can trade

Product owner is worried

There's always "more" to build than you have people, time, or money for. Always.

- Jeff Patton

Decisions

MoSCoW

Must have

Should have

Could have

Won’t have for now

As a user, I would like to…

As a user, I would like to…

As a user, I would like to…

As a user, I would like to…

As a user, I would like to…

As a user, I would like to…

As a user, I would like to…

As a user, I would like to…

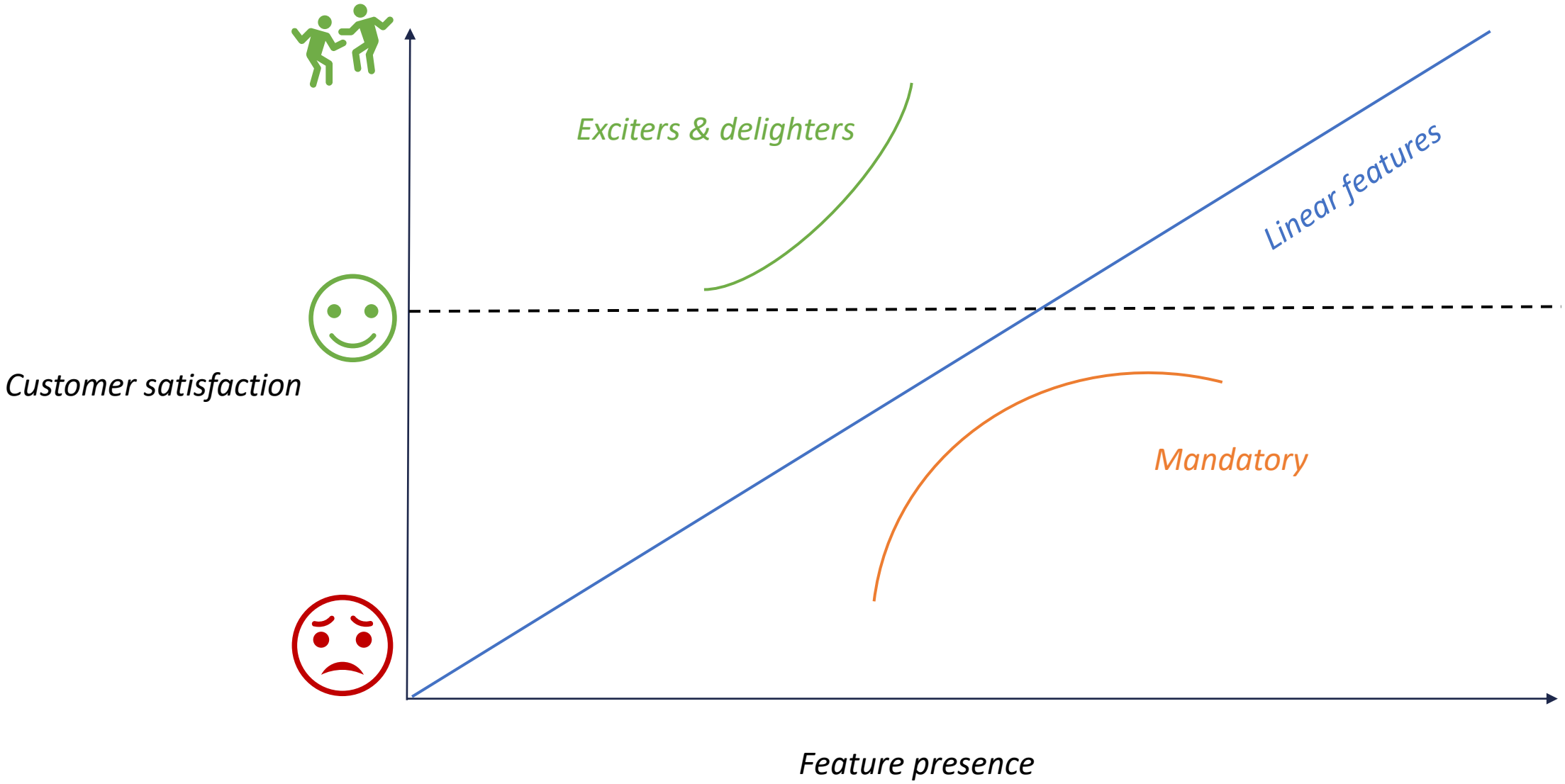
As a user, I would like to…

As a user, I would like to…

MoSCoW

x%	Must have	As a user, I would like to…	As a user, I would like to…	
y%	Should have	As a user, I would like to…	As a user, I would like to…	As a user, I would like to…
z%	Could have	As a user, I would like to…	As a user, I would like to…	As a user, I would like to…
_%	Won’t have for now	As a user, I would like to…	As a user, I would like to…	

Kano Analysis



Factors in prioritization

Factors in prioritization

Value

Cost

Knowledge gained

Risk

Value

Increase revenue

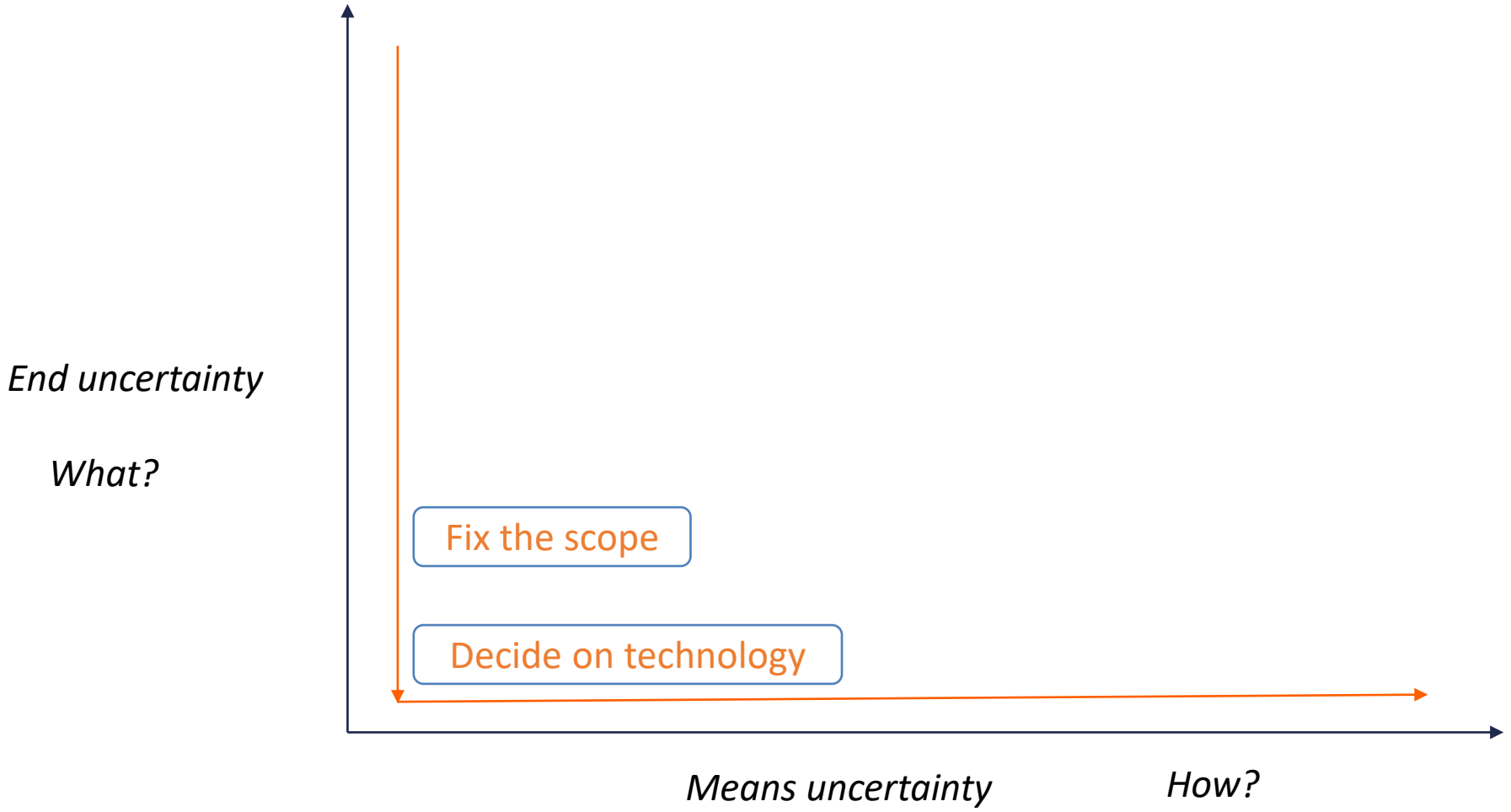
Protect revenue

Cost

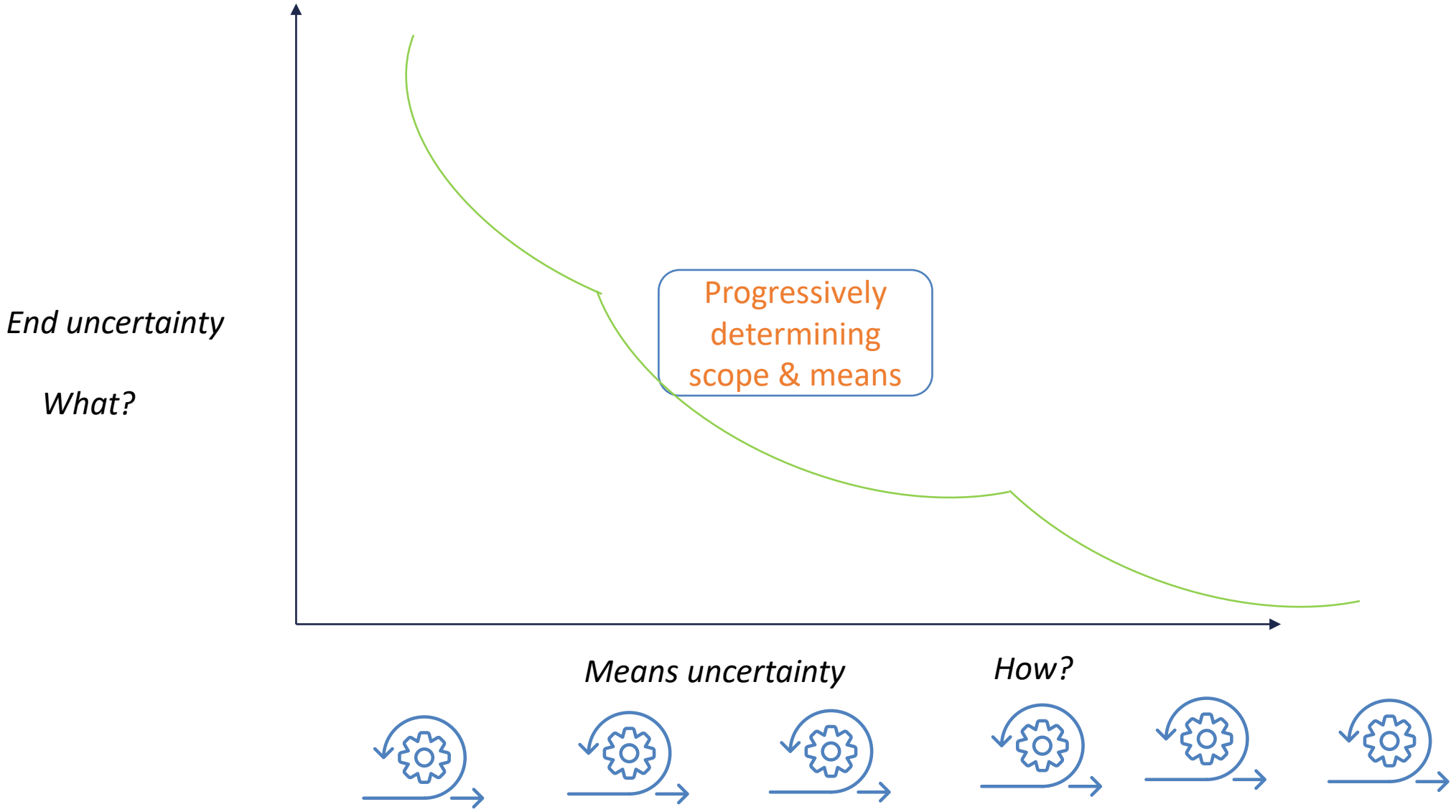
Decrease costs

Avoid costs / Avoid penalties via Compliance

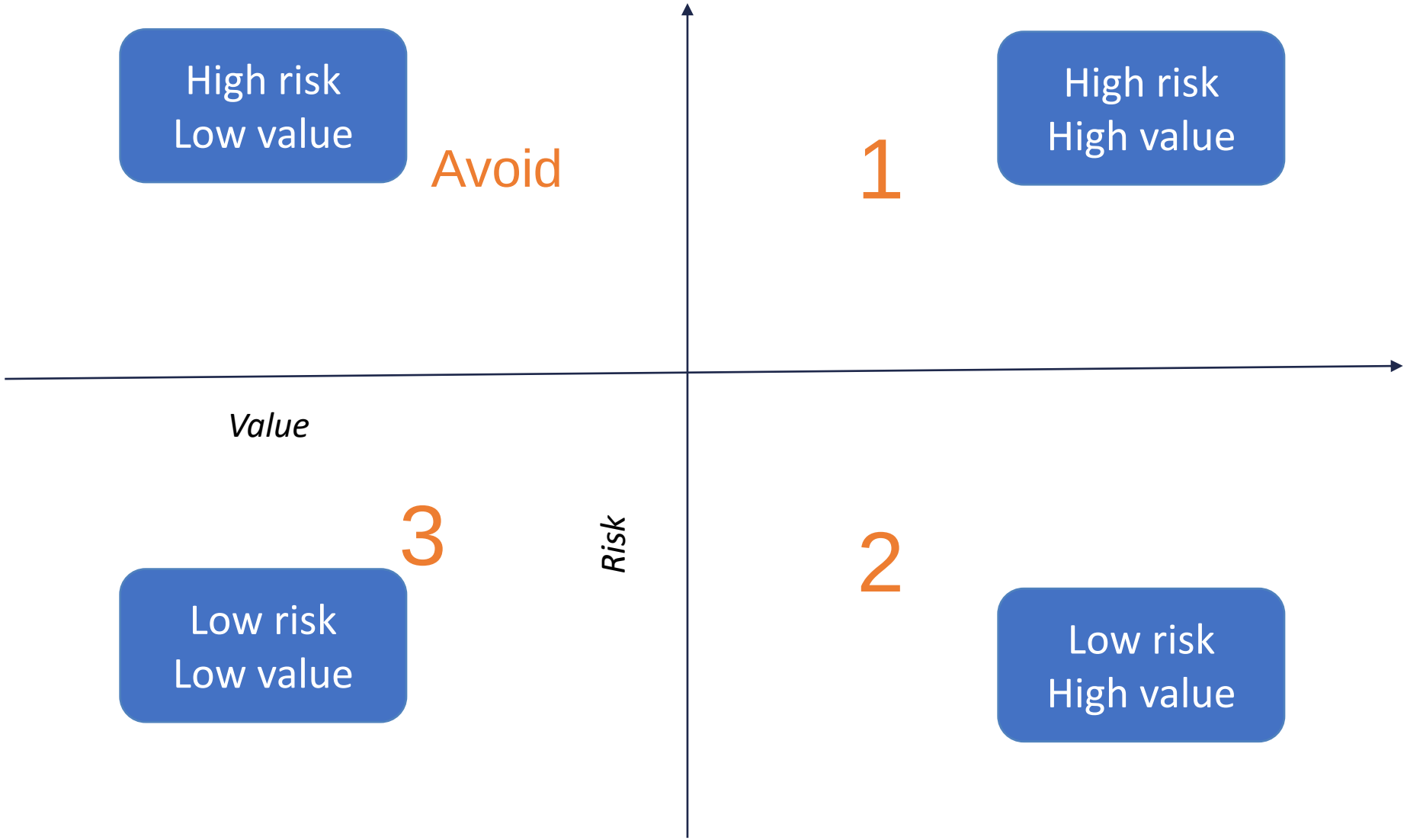
Big upfront plan



Product discovery



Risk factor in prioritization



Cost of delay

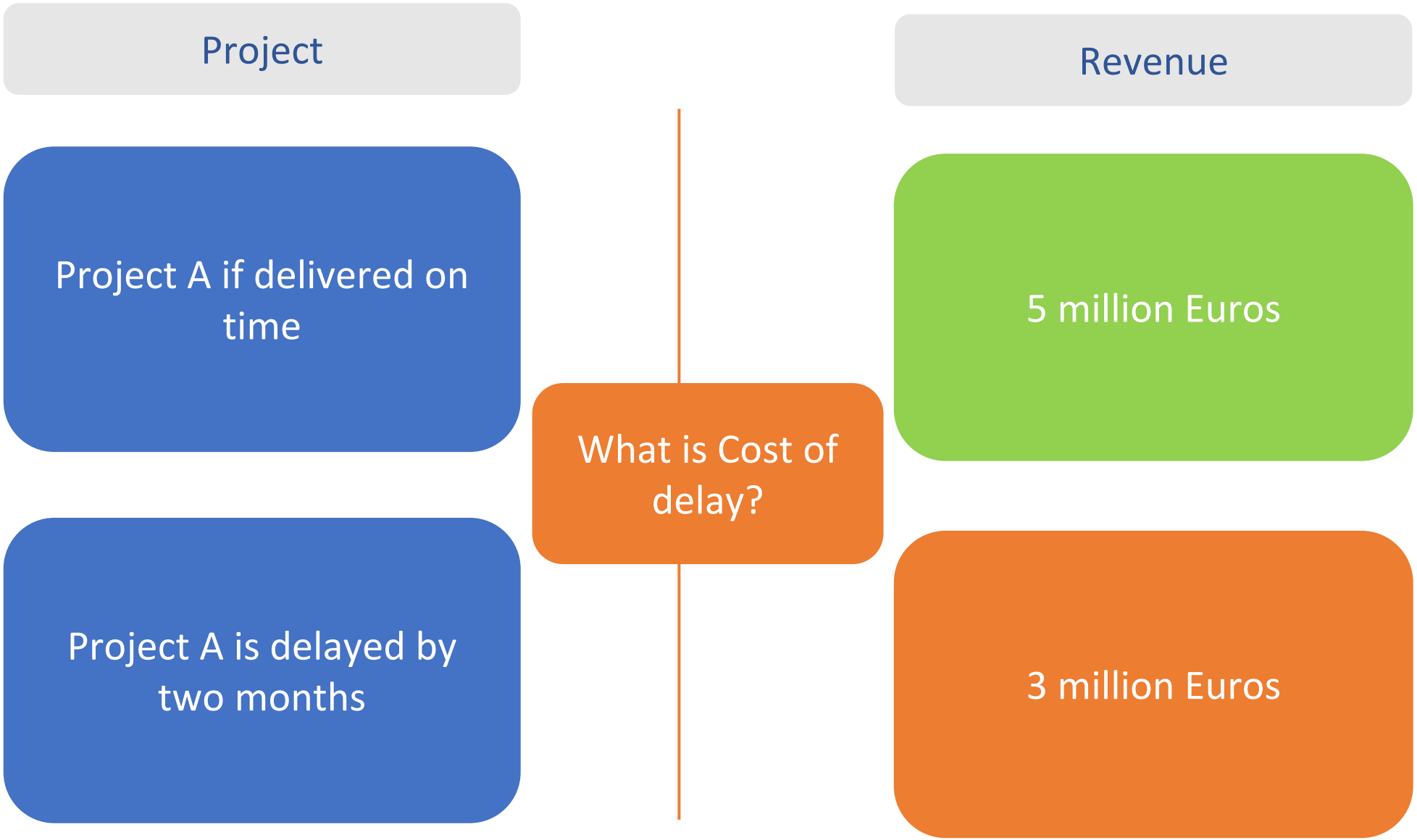
Cost of delay

If you only quantify one thing, quantify the Cost of Delay
—Don Reinertsen

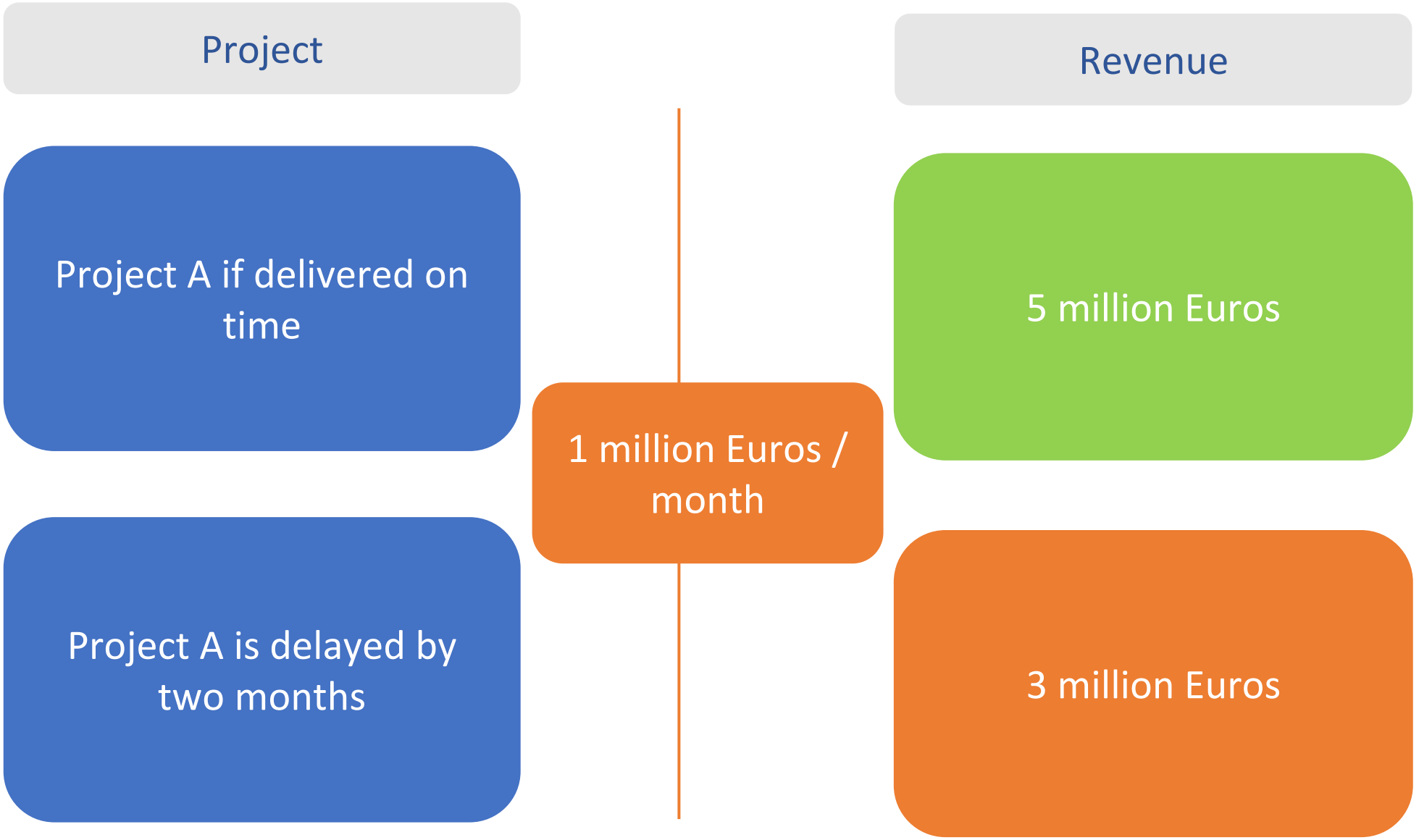
Cost of delay

Time is money
Change in time ~= change in money

Cost of delay – An example



Cost of delay – An example



Definition (simpler)

Cost of Delay is a way of communicating the impact of *time* on the *outcomes* we hope to achieve

Urgency profile

To make decisions, we need to understand not just how *valuable* something is, but how *urgent* it is

Determine the urgency profile type

Four Categories of urgency profile

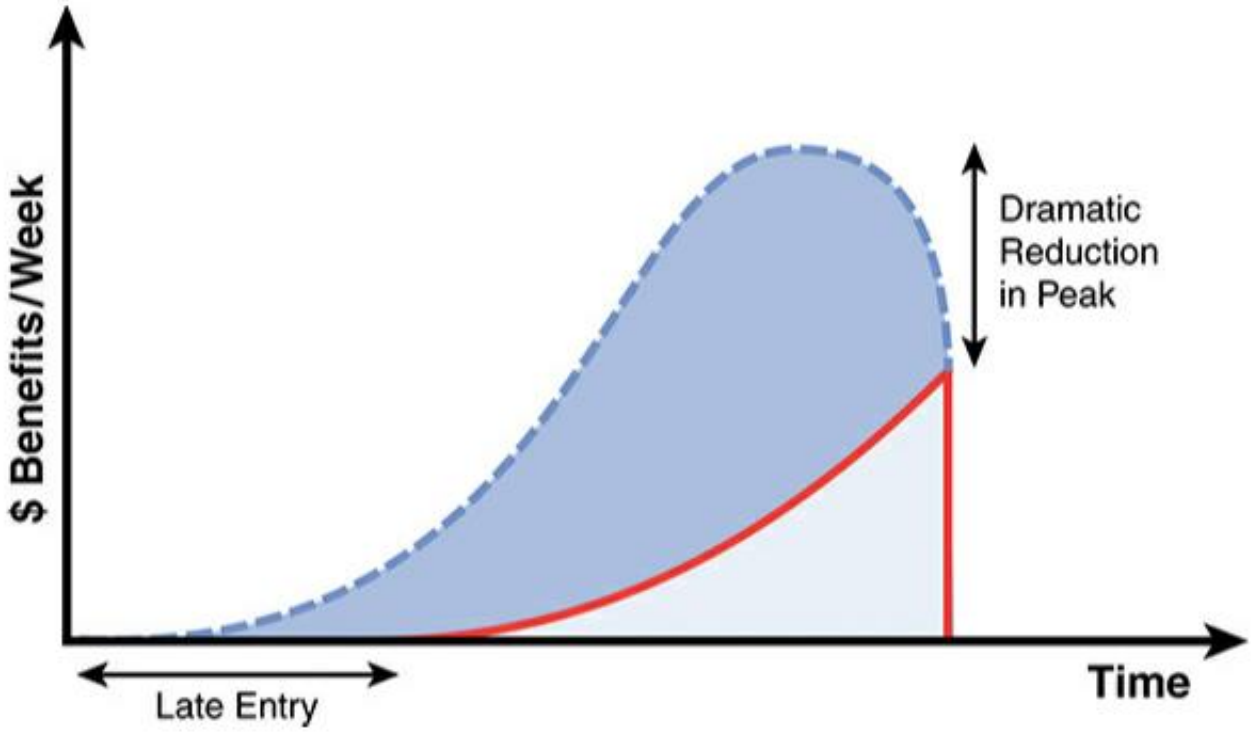
External deadline

Peak affected by delay

Peak affected for long life products

Peak unaffected for long life products

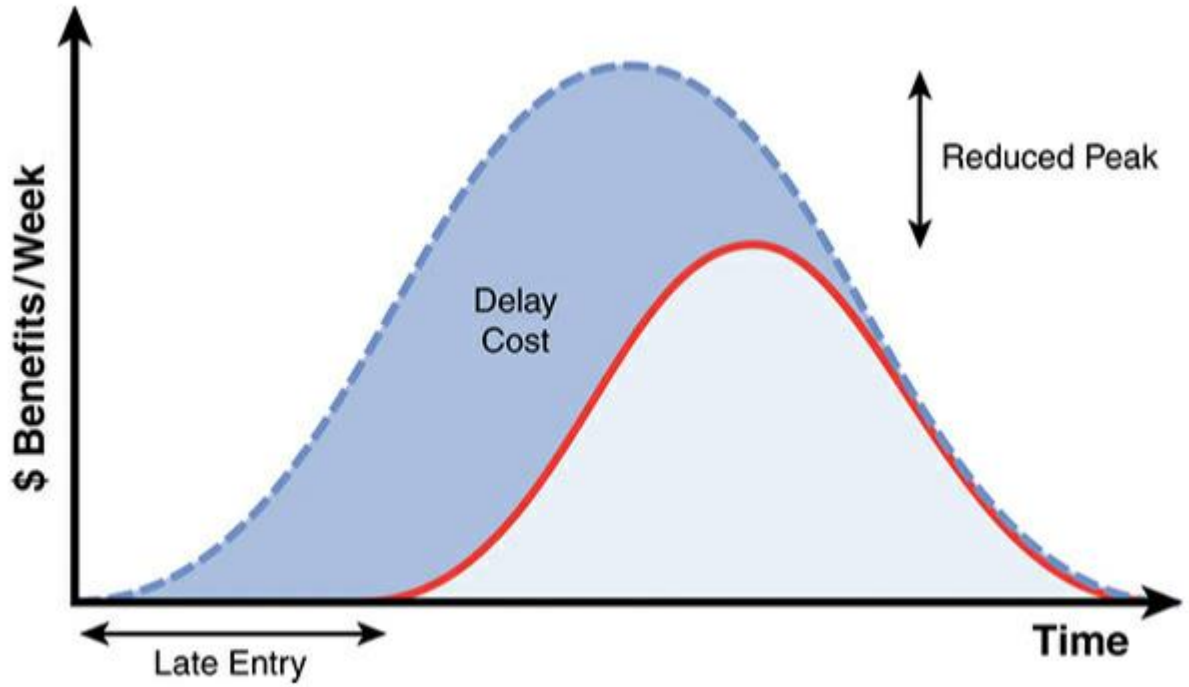
External deadline



Prepare T-shirts on time
for the World Cup

Impact of an external deadline

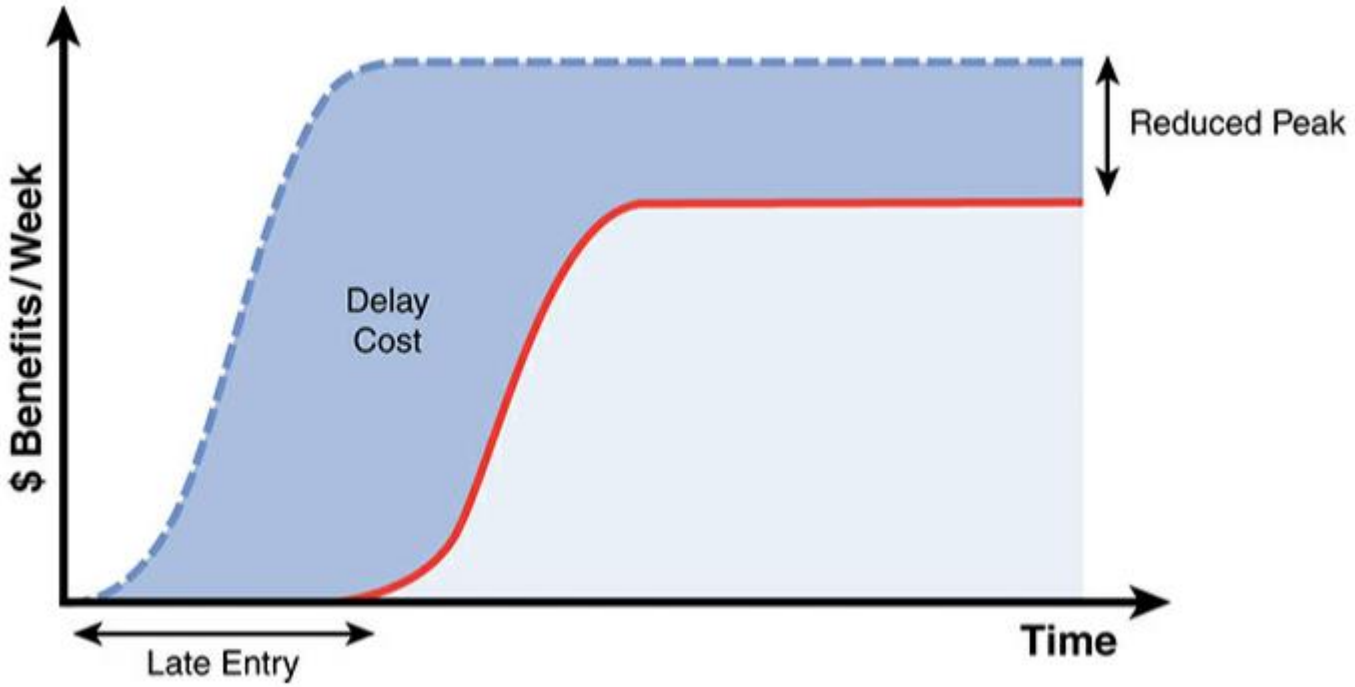
Peak affected by delay



Release of iPhone could
not be delayed any further

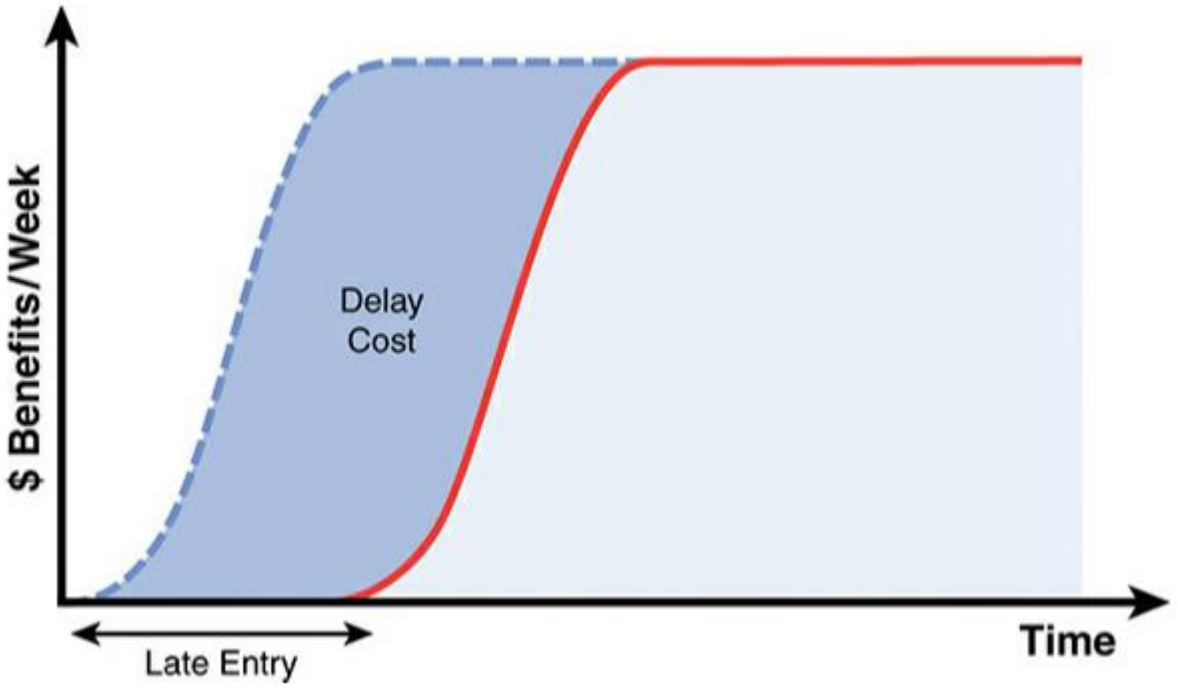
Apple with its touch features using only 2G, without copy / paste or sending text to multiple recipients

Long life products – peak affected



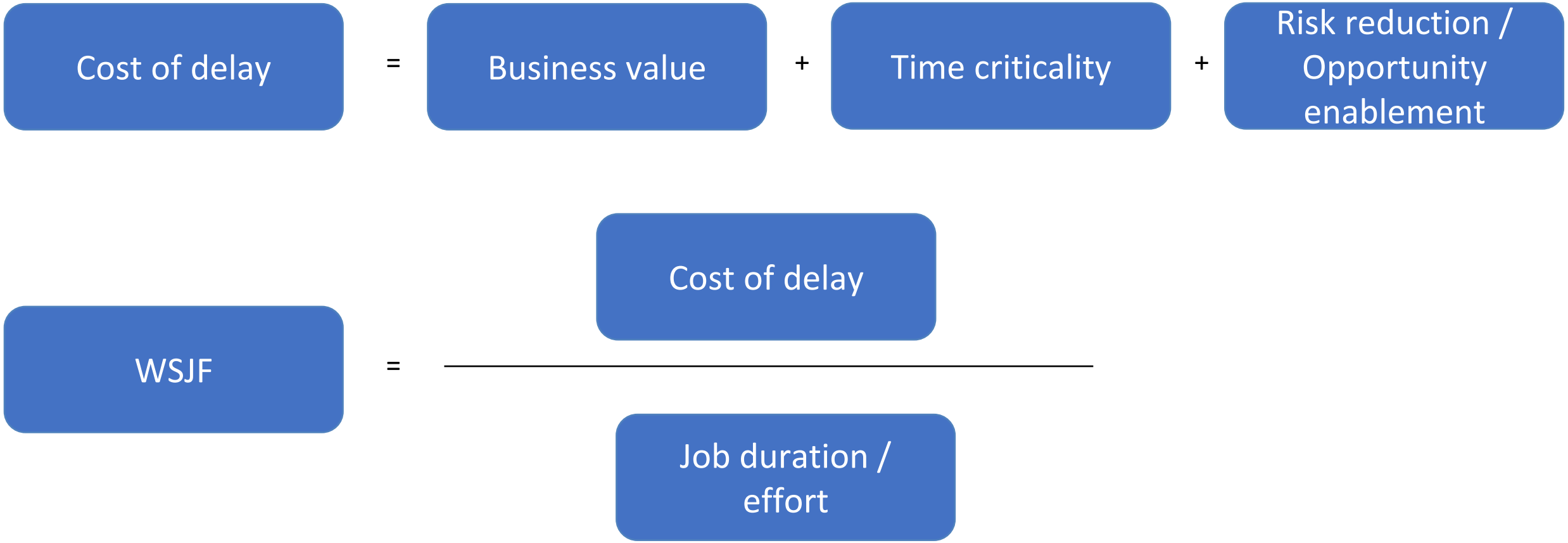
Unfair competitive advantage or other network effect

Long life products - peak unaffected



Established organizations – Automating a process, improving efficiency, reducing cost of time.

Factors in Cost of delay



WSJF

Weighted Shortest Job First (WSJF) is a prioritization model used to sequence Features, Capabilities and Epics to produce maximum economic benefit

WSJF = CD3 = Cost of delay divided by duration

User-Business Value

The potential value in the eyes of the user

Do our users prefer this over that?

What is the revenue impact on our business?

Potential penalty

Time-criticality

How does the business value decay over time?

Is there a fixed deadline?

Will they wait for us or move to another solution?

Effect on customer satisfaction

Risk reduction / Opportunity enablement

What else does this do for our business?

Does it decrease future risk of delivery?

Is there value in the information we will receive?

Will this feature enable new business opportunities?

Sample prioritization

	Cost of Delay				Effort	WSJF
	User	*Time*	*Risk Red.*	*Total*		
Feature A	4	9	8	21	4	5.3
Feature B	8	4	3	15	6	2.5
Feature C	6	6	6	18	5	3.6

Legend:

Scale: 10 is highest, 1 is lowest.
Total is sum of individual CoD.
WSJF (weighted result) is calculated as Total (Cost of Delay) divided by Effort.

Picture credit: Agile software requirements
by Dean Leffingwell

Sample prioritization

	Cost of Delay				Effort	WSJF
	User	*Time*	*Risk Red.*	*Total*		
Feature A	4	9	8	21	4	5.3
Feature B	8	4	3	15	~~6~~ 3	~~2.5~~ 5
Feature C	6	6	6	18	5	3.6

Legend:

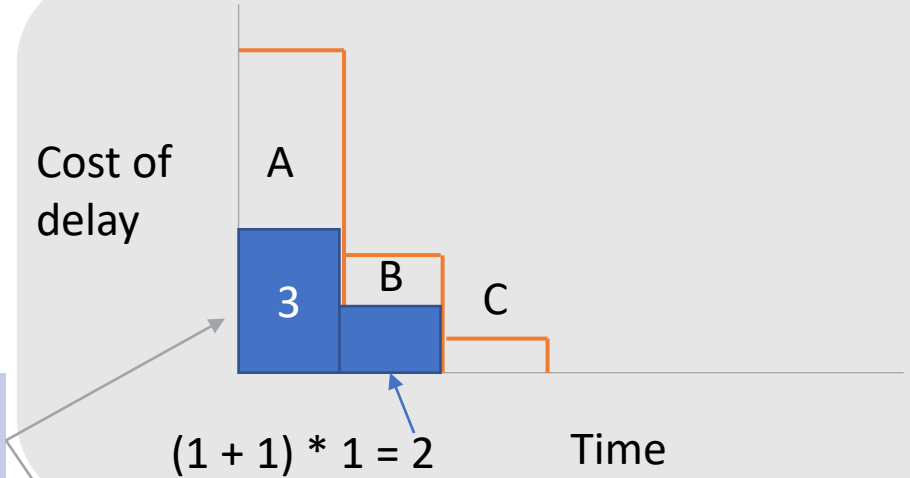
Scale: 10 is highest, 1 is lowest.
Total is sum of individual CoD.
WSJF (weighted result) is calculated as Total (Cost of Delay) divided by Effort.

If the effort is decreased then feature could be prioritized ahead of others

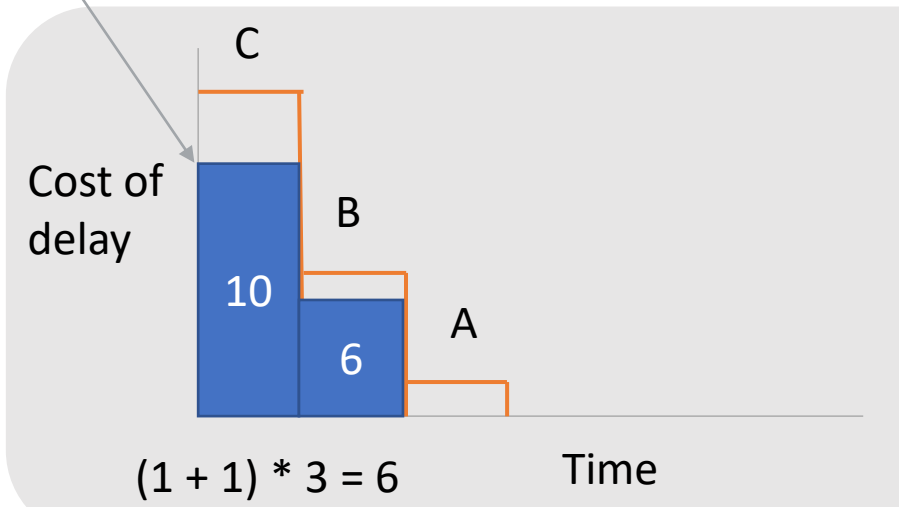
Picture credit: Agile software requirements by Dean Leffingwell

Constant effort CoD varies

Order of implementation A, B, C



The blue area is an indication of the CoD



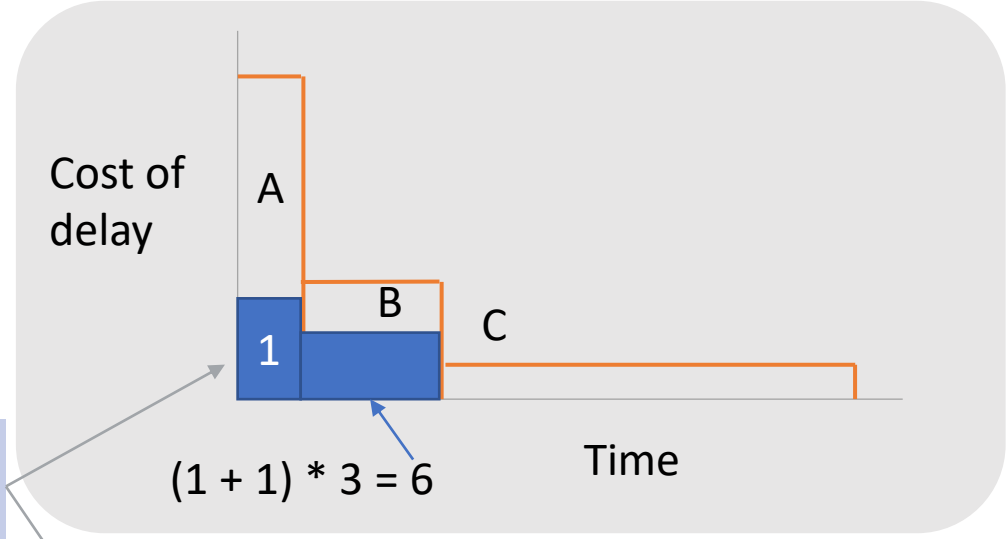
Order of implementation C, B, A

It takes similar effort to prepare either school dress or T-shirt

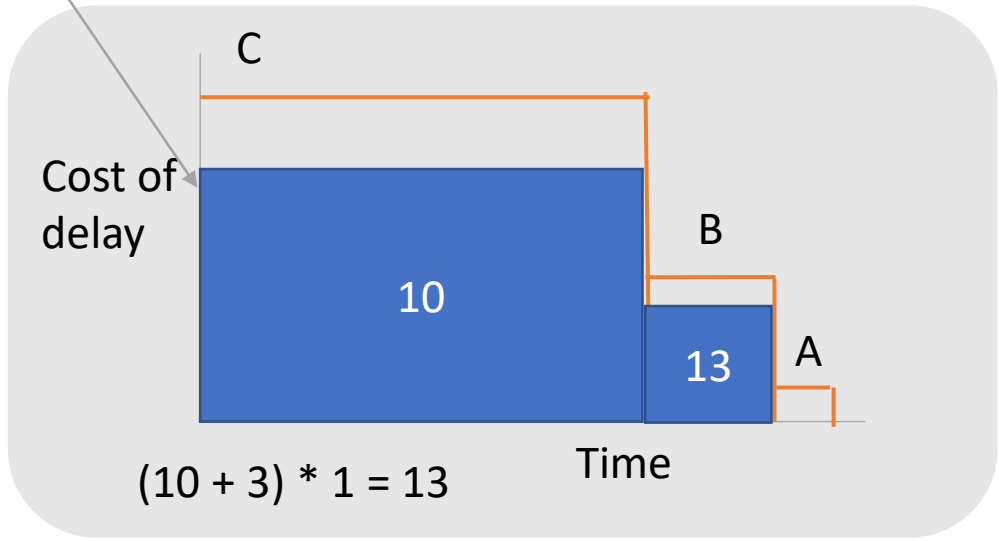
Feature	Duration	Cost of Delay	WSJF
A	1	10	10
B	1	3	3
C	1	1	1

CoD is constant

Order of implementation A, B, C



The blue area is an indication of the CoD



Order of implementation C, B, A

The Cost of delay is one mark in an exam, but the effort to solve a problem varies

Feature	Duration	Cost of Delay	WSJF
A	1	1	1
B	3	1	0.33
C	10	1	0.1

Both CoD and effort vary

Order of implementation
A, B, C

$$WSJF = \frac{\text{Cost of Delay}}{\text{Job Duration (Job size)}}$$

If effort and CoDs are different, do the Weighted Shortest Job First!

Formula

CoD * duration
10 * 3 = 30
Or
(10 + 3) * 10 = 130

Feature	Cost of Delay	Duration	WSJF
A	10	1	10
B	3	3	1
C	1	10	0.1

Delay Cost

Order of implementation
C, B, A

From *The Principles of Product Development Flow*, by Donald G. Reinertsen, Celeritas Publishing,
© 2009 Donald G. Reinertsen

Picture credit: Scaled Agile Inc.

Hope it helps!