

# Lean-Driven Project Management

Norbert Majerus

**LEAN-DRIVEN  
INNOVATION**

13 years experience with LEAN PM in the Goodyear  
Innovation Centers

7/16/21

PM University

**POWERING PRODUCT DEVELOPMENT AT THE  
GOODYEAR TIRE & RUBBER COMPANY**

# PURPOSE of Lean-Driven PM

Turn good PM's  
into excellent  
PM's

# Not So Lean PM Experience

- My first PM class – no use for that here
- My first big project – no help
- We just call it .... – no support
- The desire for control – the GANTT chart trap
- The HERO – ambulance management
- Goodyear first attempt – knew about Chrysler CE – academic consultant
- Representing the customer – the strongest wins
- Lead as if you have no power or authority
- Largest functions managing crossfunctional projects .. Lack of collaboration
- “Happy Team” syndrome – compromised products and encouraged team competition
- Stage gate – implemented to kill projects but it created collaboration
- PM Software – EXPENSIVE BAD PROCESS
- **Today: Right Organization and PMO – building and learning**

# Goodyear PM Success

Before Lean  
~ 50%

After Lean -  
100%



# Why do we do projects with a project manager?

- We need something
- No single competency can do it alone
- A team plays better with a coach

PM is the collaborative effort towards something

# The IDEAL Project

- Everybody is happy and had fun
- Everything was delivered on time, target, budget...
- The world is a much better place for all involved
- There are no side effects

# What is Lean

- Applying the PRINCIPLES of lean or operational excellence
- **AND**
- A culture that makes all stakeholders happy

# My ~40 years in the industry

- Nothing had the impact of “lean” or the never-ending improvement of people and processes
- It took me 40 years to learn it and I am still learning
- I wish I had learned it earlier
- Business schools (and PM organizations) are catching up .....



# Principles of Lean Project Management

- LINE THINGS UP FOR SUCCESS
- IMPROVE THE GOOD THINGS YOU ALREADY HAVE
- ACHIEVE EXCELLENCE BY IMPLEMENTING THE PRINCIPLES OF LEAN PROJECT MANAGEMENT

# Line Things Up For Success

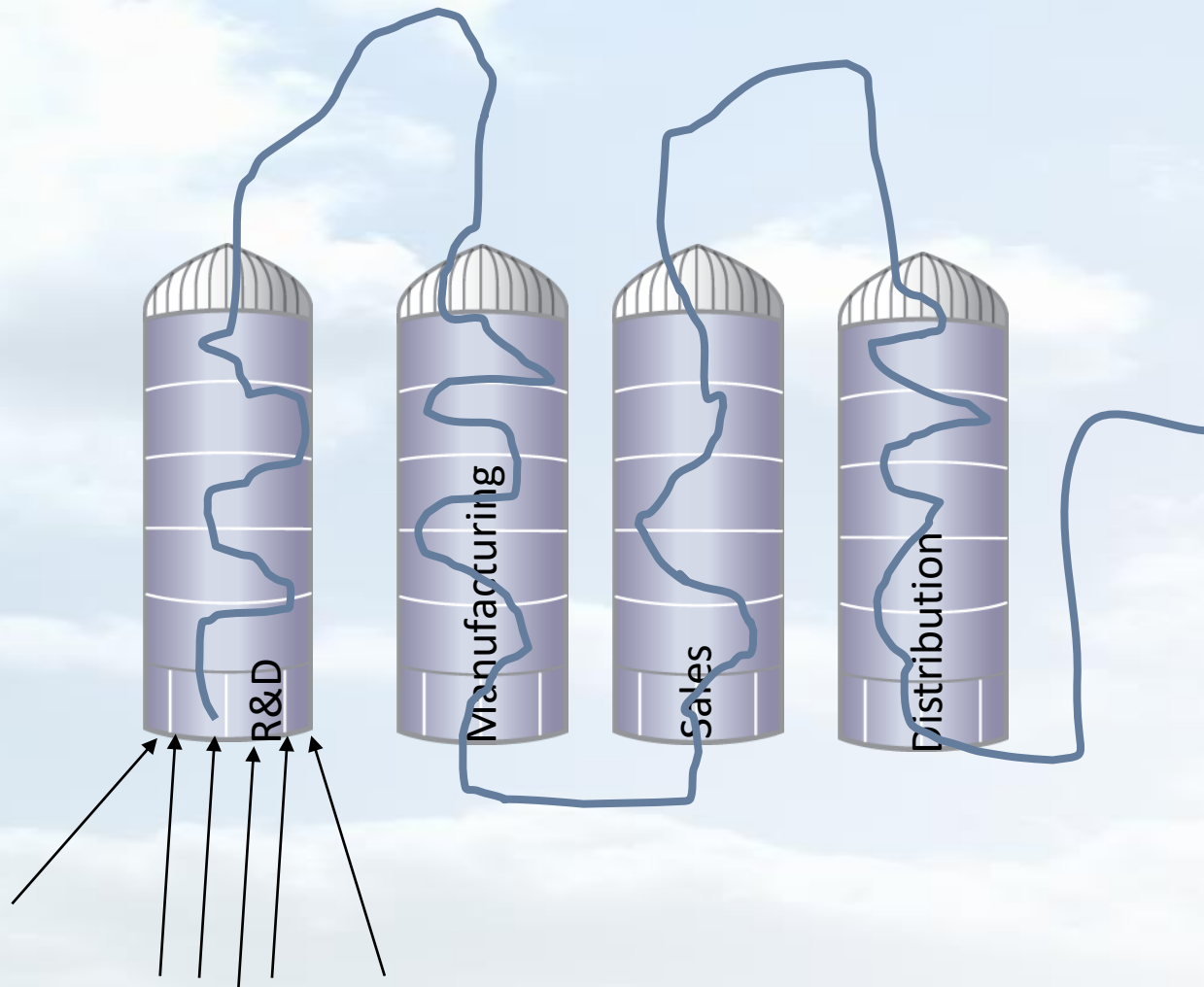
- Remove Obstacles
- Proper Change Management
- Right Organization

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# Grafting the Chief Engineer on ANY Organization

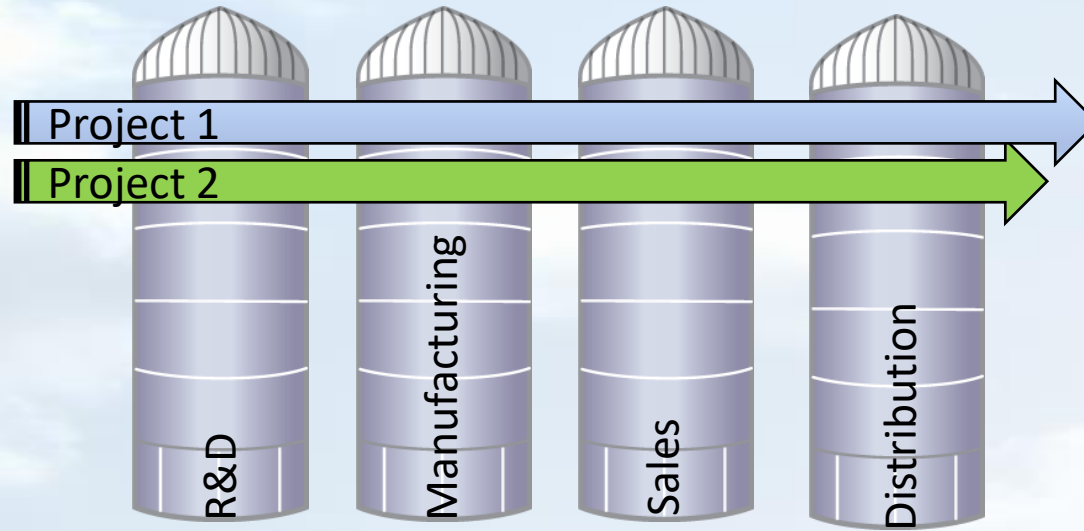
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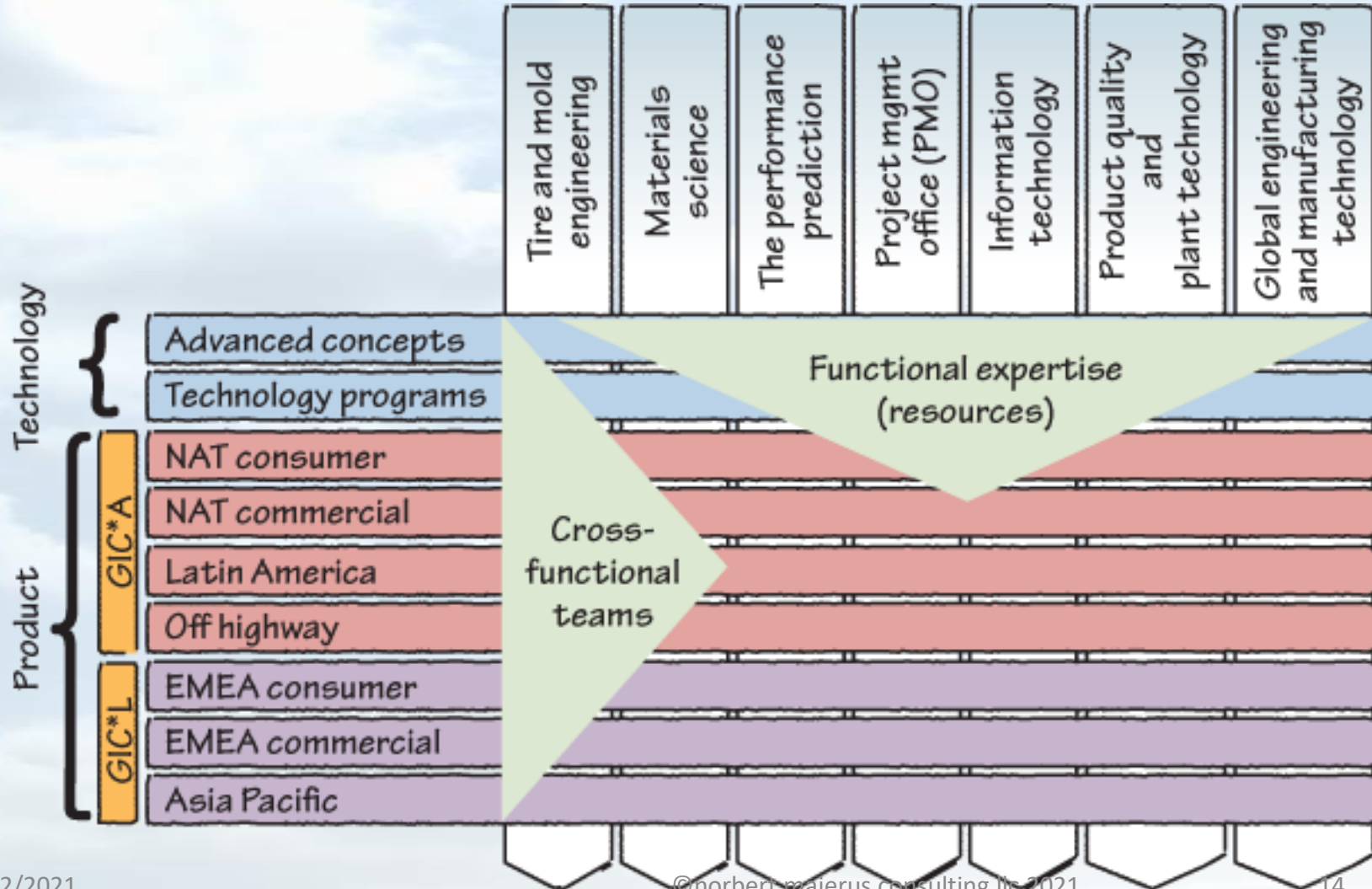




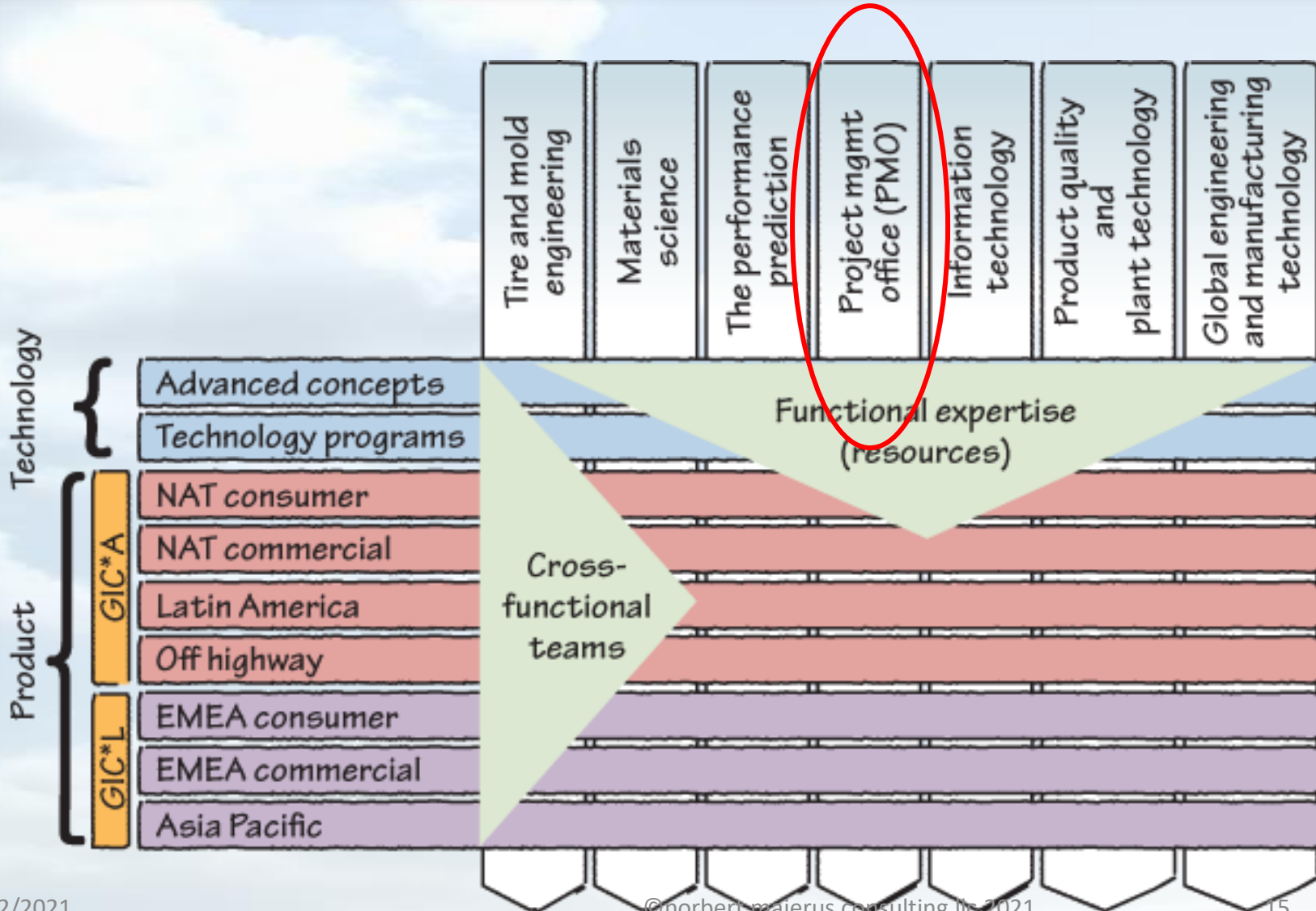
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# Matrix



# Matrix



# Principles of Lean Project Management

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# IMPROVE THE GOOD THINGS YOU ALREADY HAVE

- Working on the right stuff
- Goals
- Contract

# It is disrespectful to tell people what to do

## Catchball

... in a dodge ball culture

**People are accountable to  
deliver on agreed goals**

[https://www.google.com/url?sa=i&url=http%3A%2F%2Fwww.aleanjourney.com%2F2011%2F12%2Fuse-catchball-process-to-reduce.html&psig=AOvVaw3bspM4pkWCbNRDnU2sjmHO&ust=1626385938259000&source=images&cd=vfe&ved=0CAoQjRxqFwoTCMjJI\\_Pf4\\_ECFQAAAAAdAAAAABAG](https://www.google.com/url?sa=i&url=http%3A%2F%2Fwww.aleanjourney.com%2F2011%2F12%2Fuse-catchball-process-to-reduce.html&psig=AOvVaw3bspM4pkWCbNRDnU2sjmHO&ust=1626385938259000&source=images&cd=vfe&ved=0CAoQjRxqFwoTCMjJI_Pf4_ECFQAAAAAdAAAAABAG)

# Principles of Lean Project Management

- LINE THINGS UP FOR SUCCESS
- IMPROVE THE GOOD THINGS YOU ALREADY HAVE
- ACHIEVE EXCELLENCE BY IMPLEMENTING THE **PRINCIPLES OF LEAN PROJECT MANAGEMENT**

# Principles of Lean Project Management

FOUNDATIONAL

OPERATIONAL

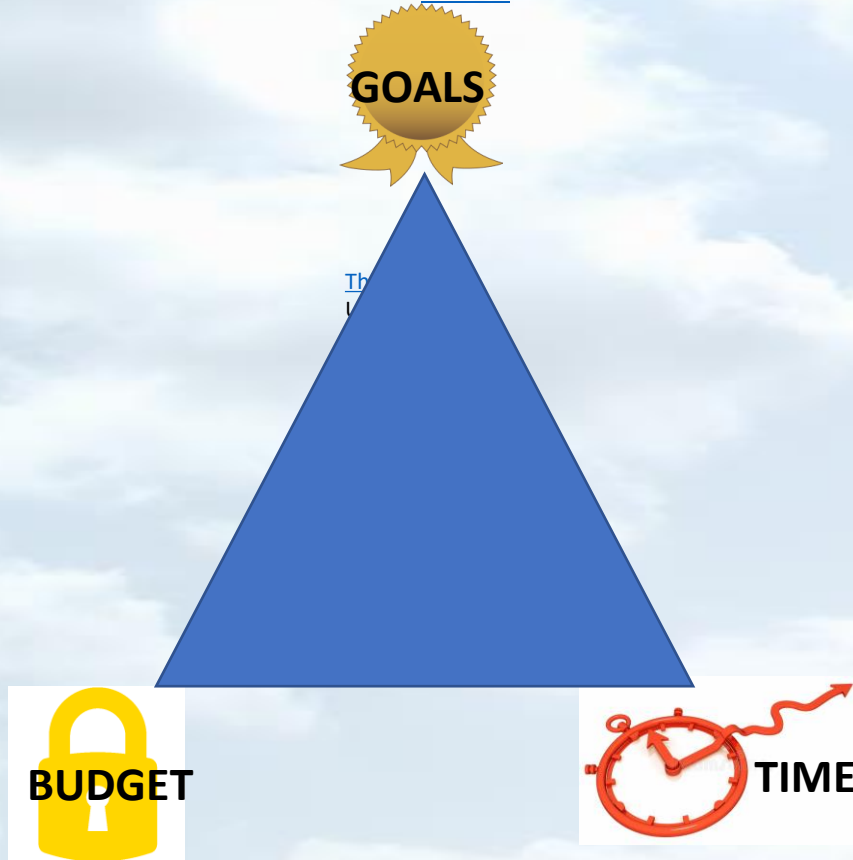
MANAGERIAL  
(PEOPLE)

# Foundational Principles

- Portfolio Management
- **Know the cost of time**, goals, resources, targets
- PMO function
- **Lean Risk Management**

# Flexible Management

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# Goodyear Fuelmax

# Principle

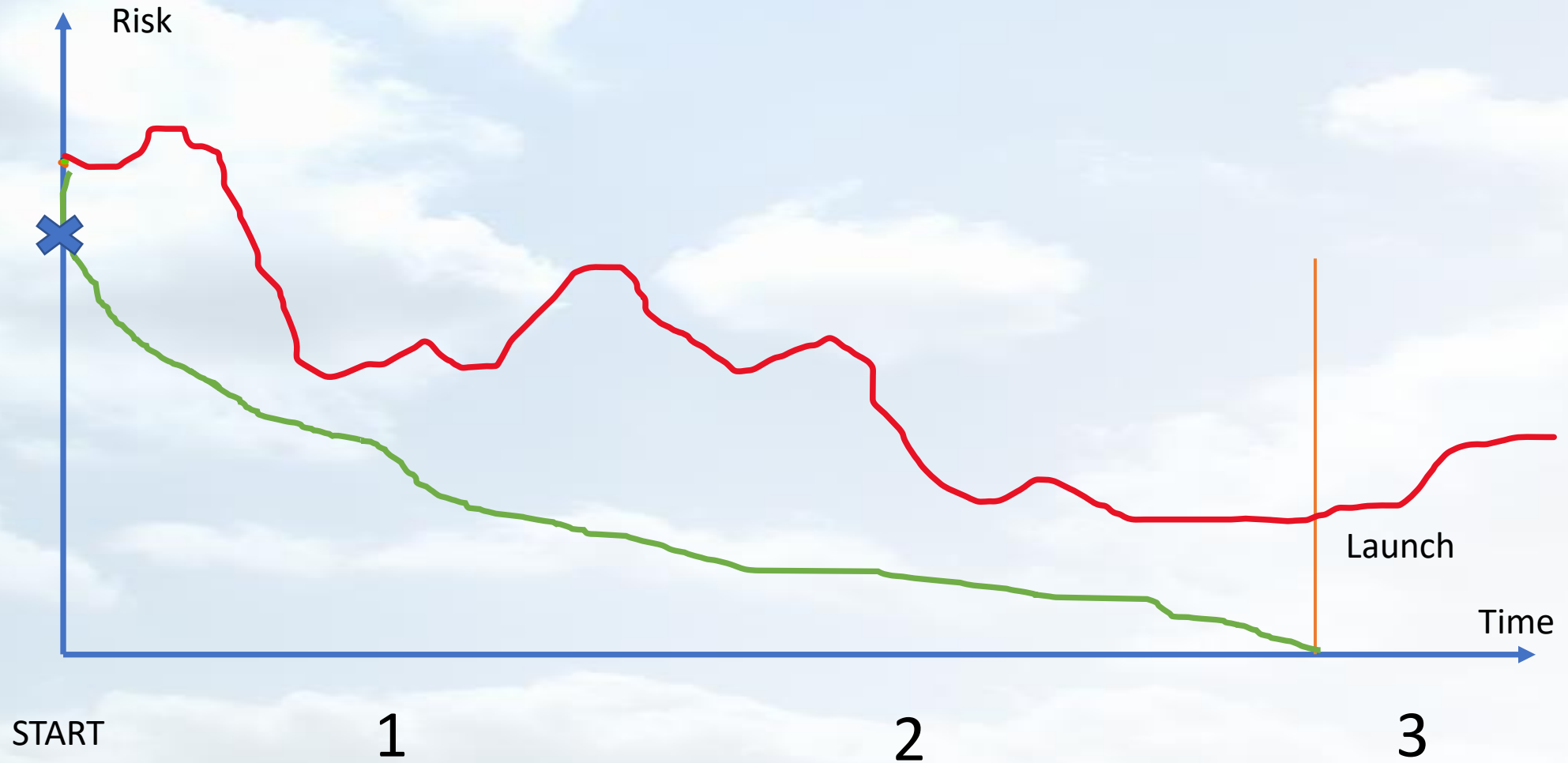
- The cost of time mostly dwarfs the resources that are needed
- Only project managers who do not know the cost of time let the time slide



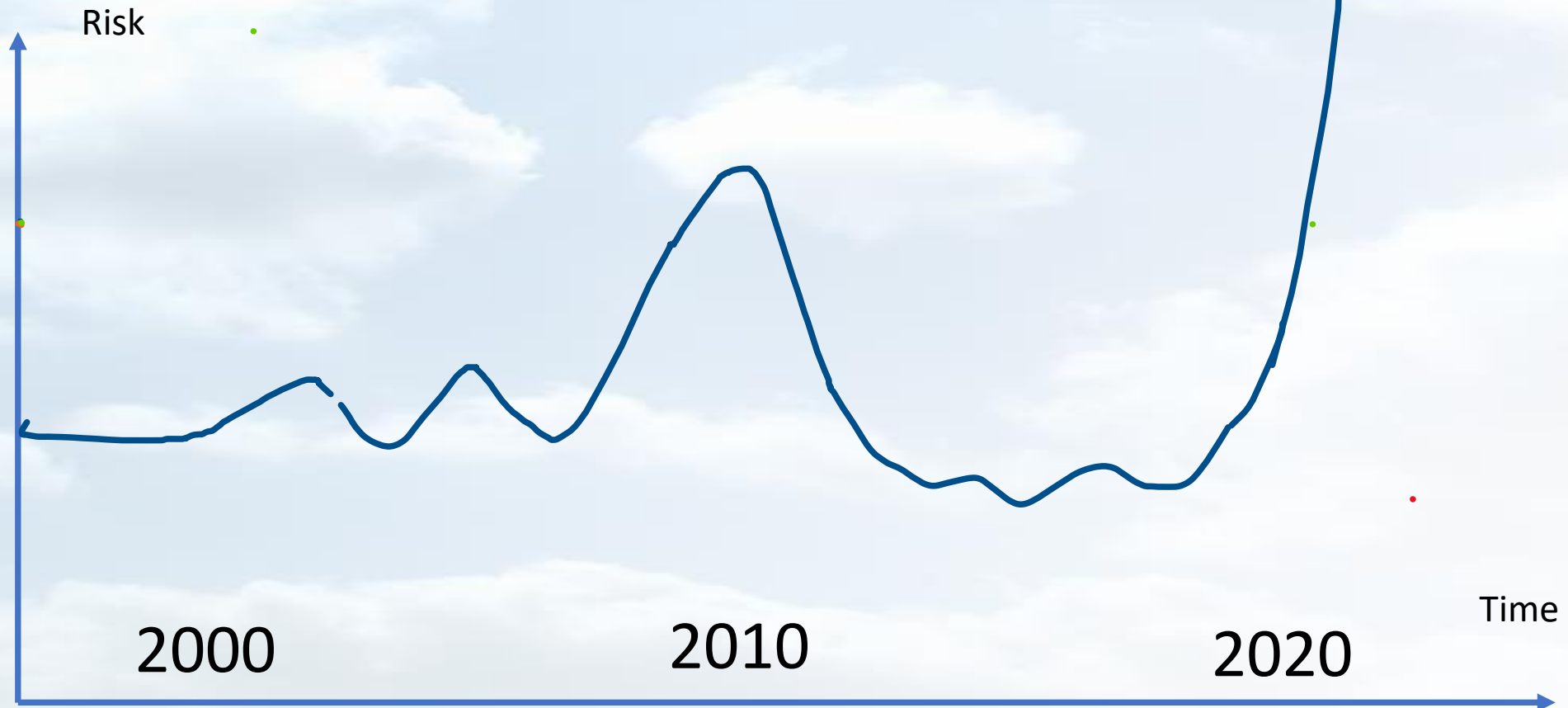
# Lean Risk Management



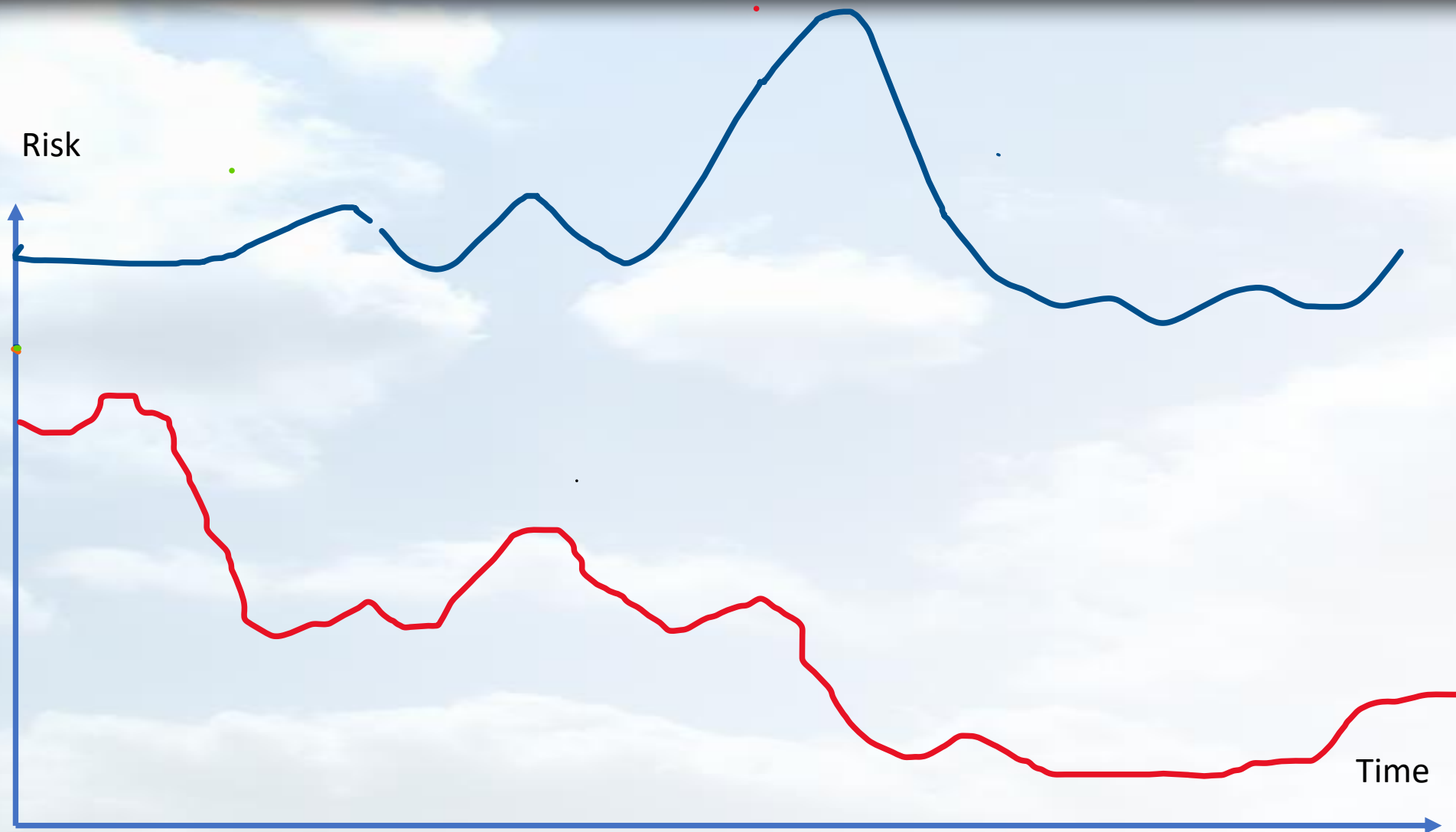
# Project Uncertainty/Risk



# Economic Uncertainty



# Project Risk



# 2 Leading PRINCIPLES

**You know nothing about the project  
until you start working on it**

**And things will change every day**









A photograph of children in a science classroom. In the foreground, two young girls are wearing safety goggles. The girl on the left is wearing a white shirt and has her mouth wide open in an 'O' shape, looking towards the right. The girl on the right is wearing a dark blue polo shirt and also has her mouth wide open, looking towards the left. They are both holding a small glass beaker containing a dark blue liquid. In the background, several other children are visible, some also wearing safety goggles, looking on with interest. The scene is brightly lit, suggesting an indoor classroom setting.

**Work in small steps**  
**Allocate money in agile manner**

# Quick Learning Cycles – SCRUM, sprints, agile ...

Time Period

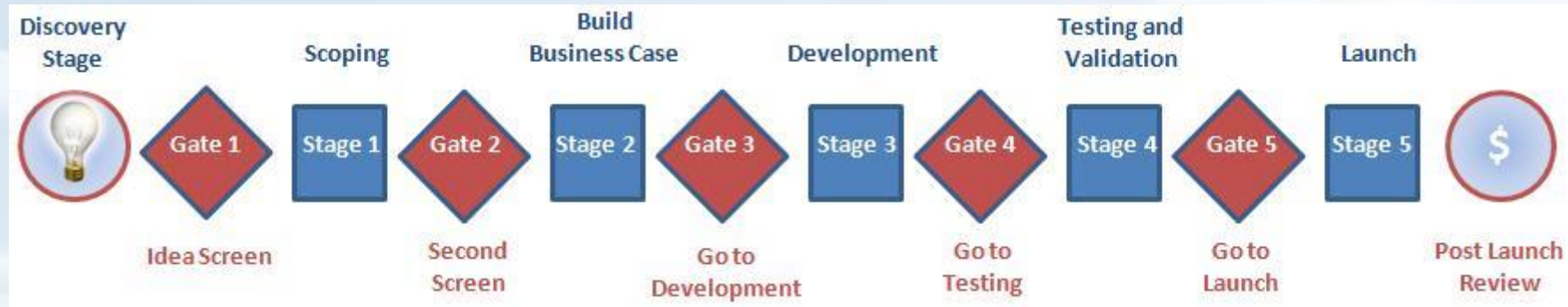
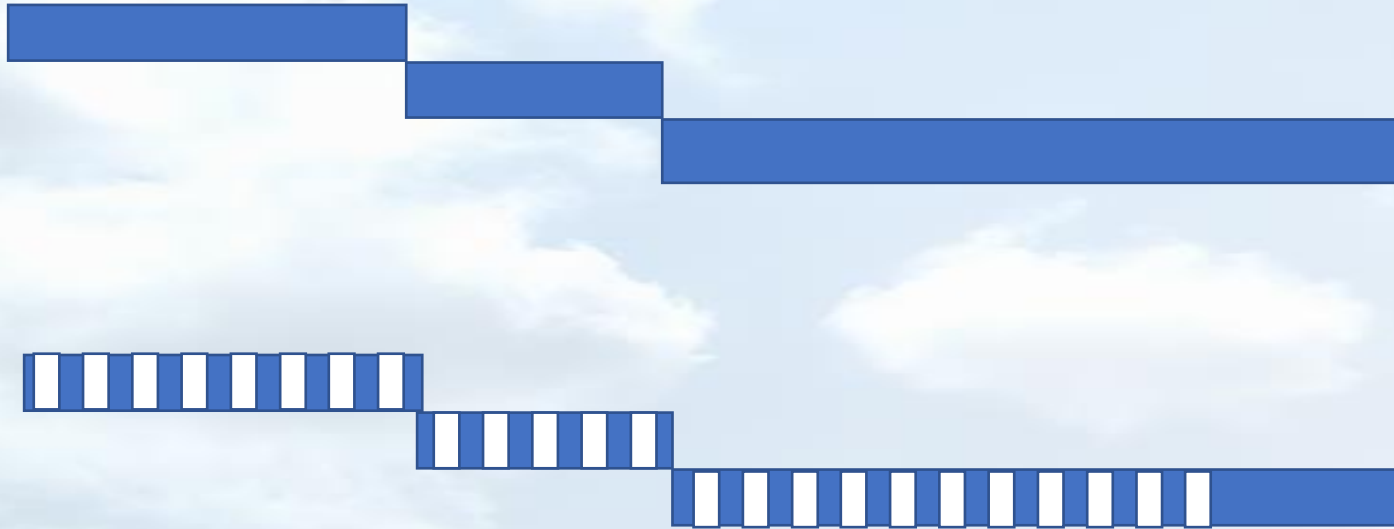
Goal, deliverable ....

| Name function or work to do | TO DO   | IN PROGRESS   | DONE  |
|-----------------------------|---|---|---|
|                             |  |  |   |
|                             |  |  |  |
|                             |  |  |  |

Potentially Shippable  
Product after every  
cycle

- Work in very small steps, FAST – often time limited steps
- Cross functionally from the beginning
- Retain flexibility through the process – launch or pivot at any time
- **And**
  - **With the minimum effort**

# Agile - but not like this



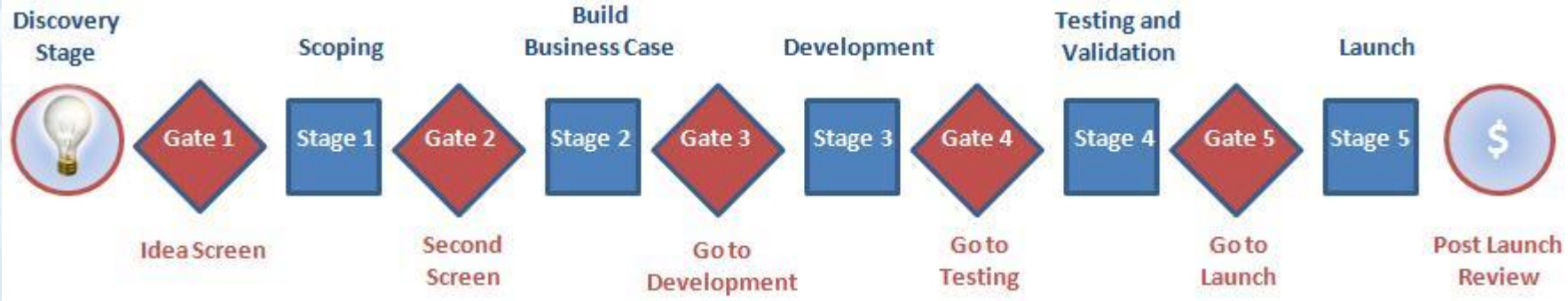
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# Agile - but not like this

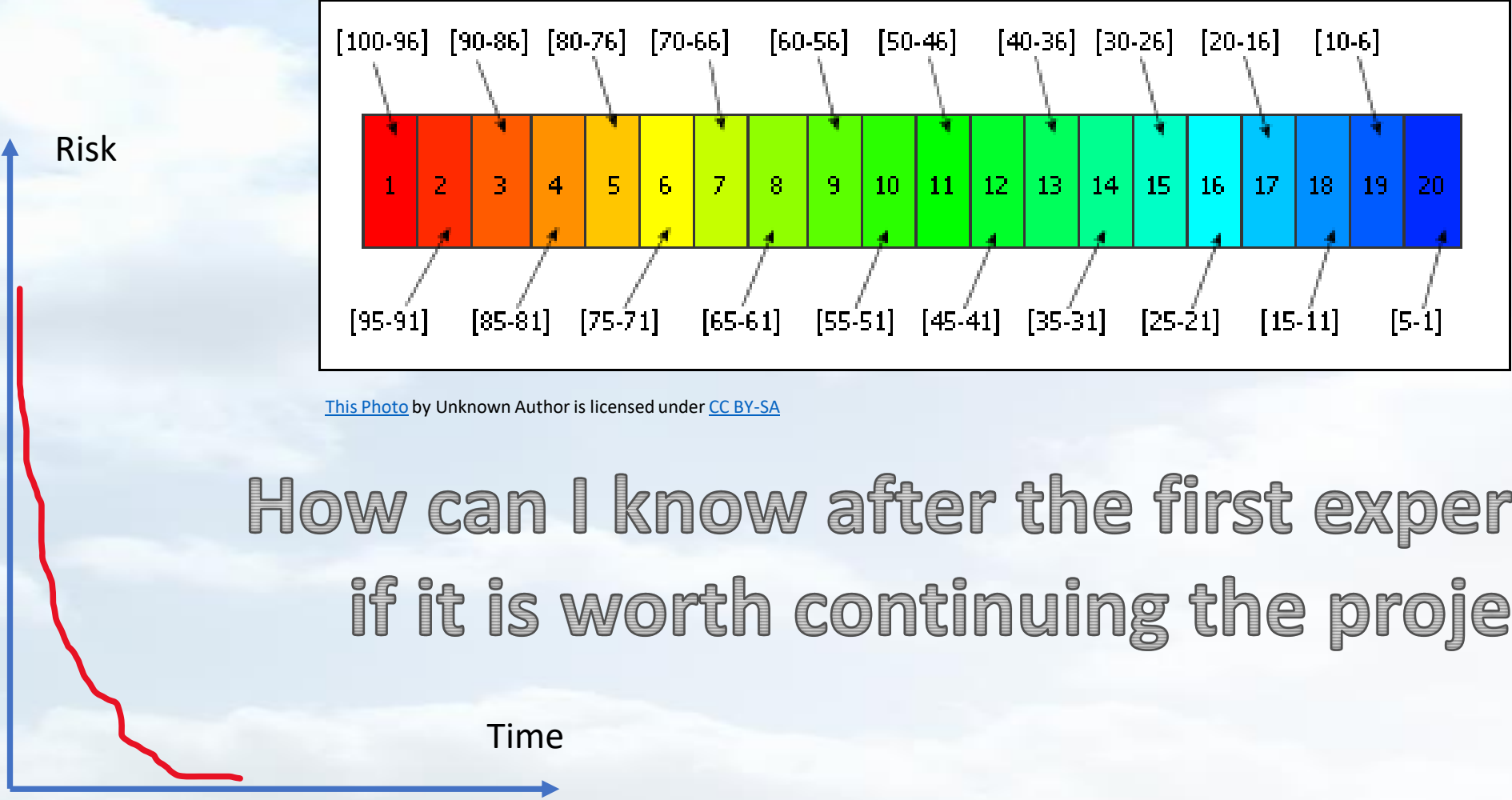


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# Follow the Risk Scale With Critical Questions

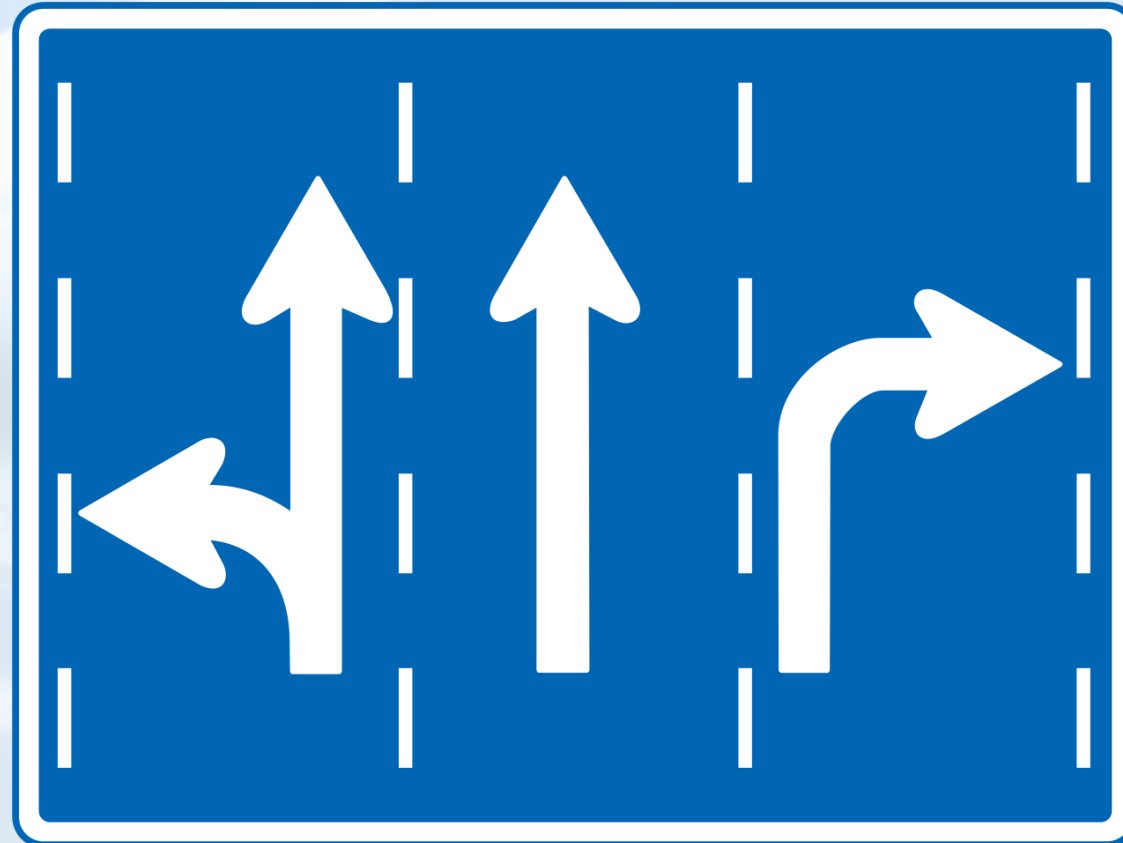


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How can I know after the first experiment if it is worth continuing the project?

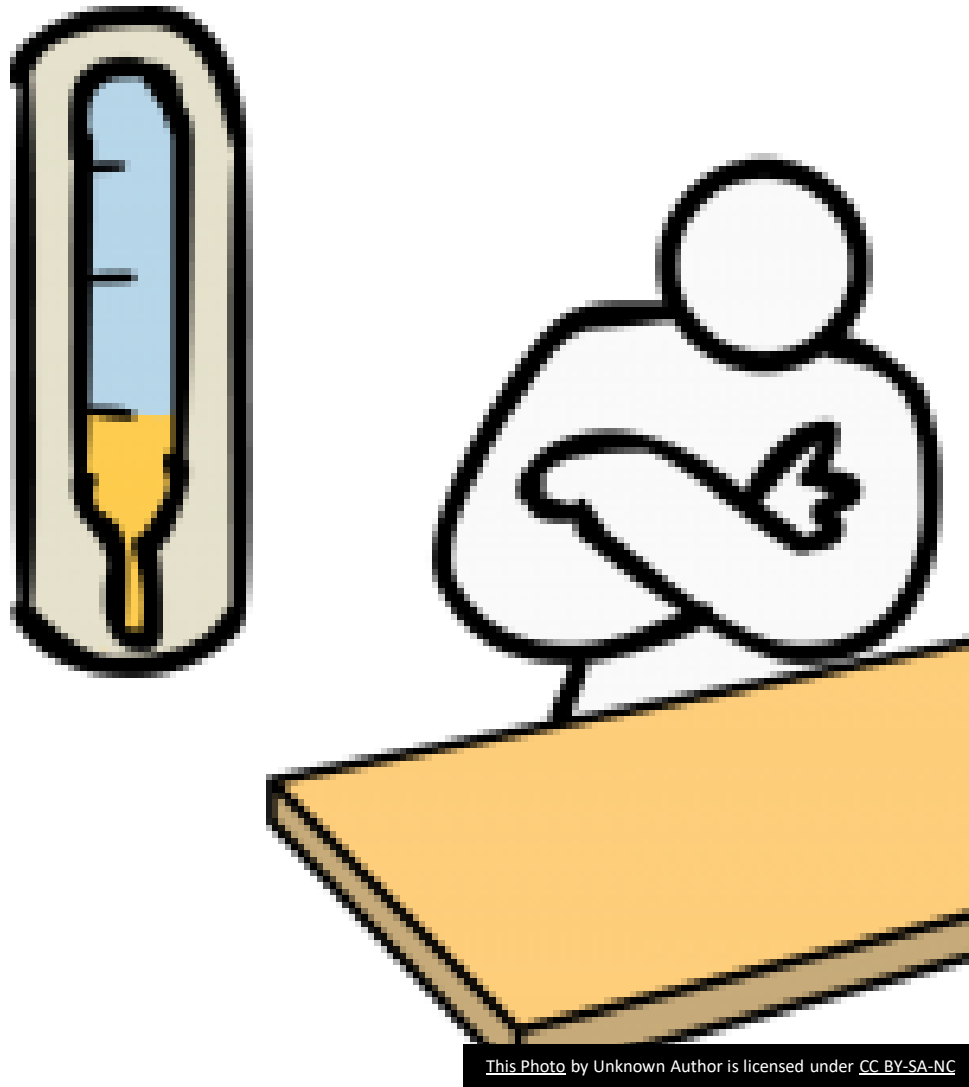
# Stay the course

**Pivot**



**Freeze**

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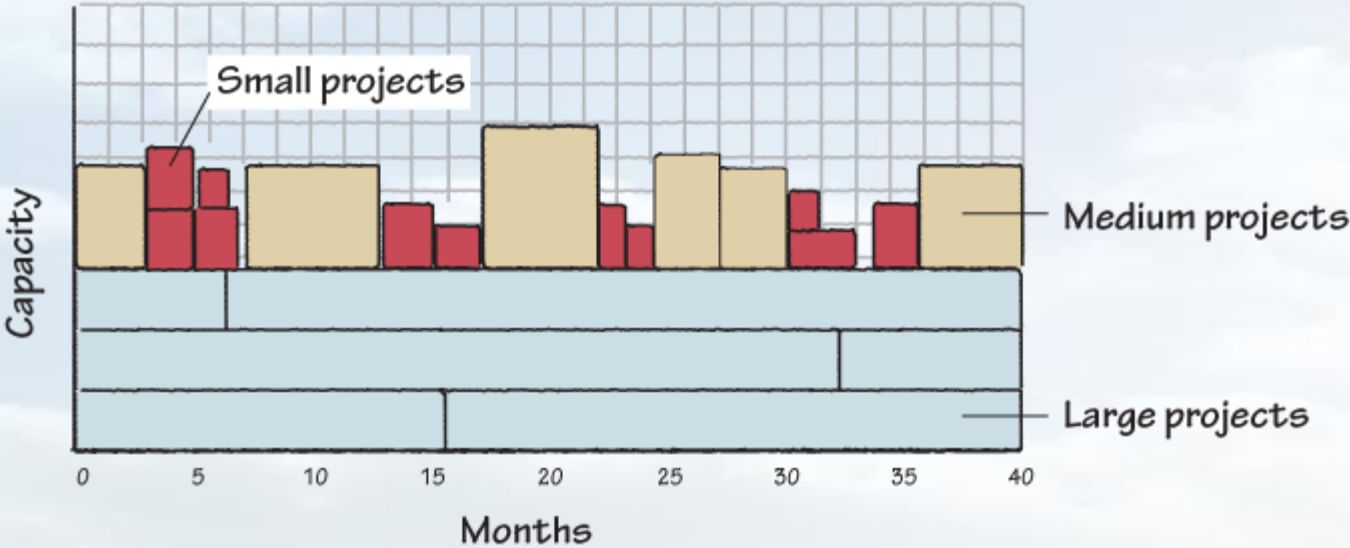
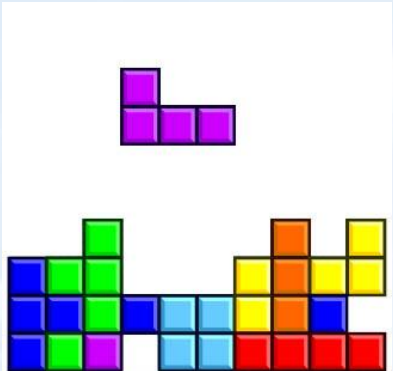


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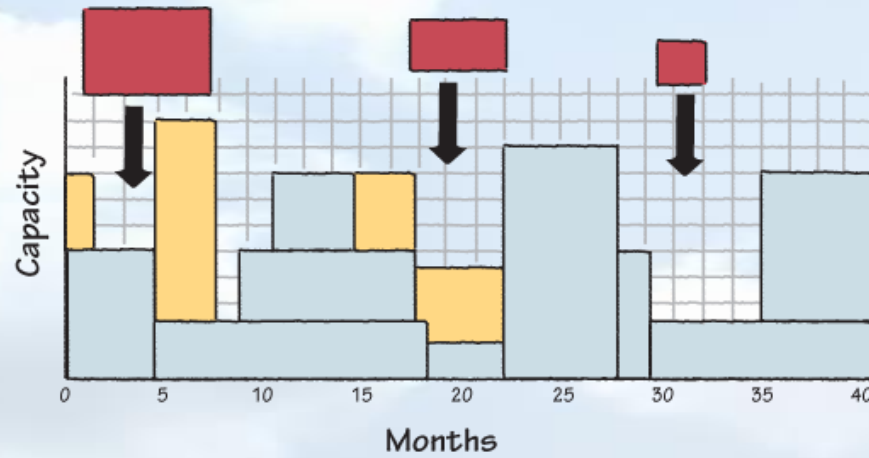
# What About LOW Risk Projects or Project Phases?

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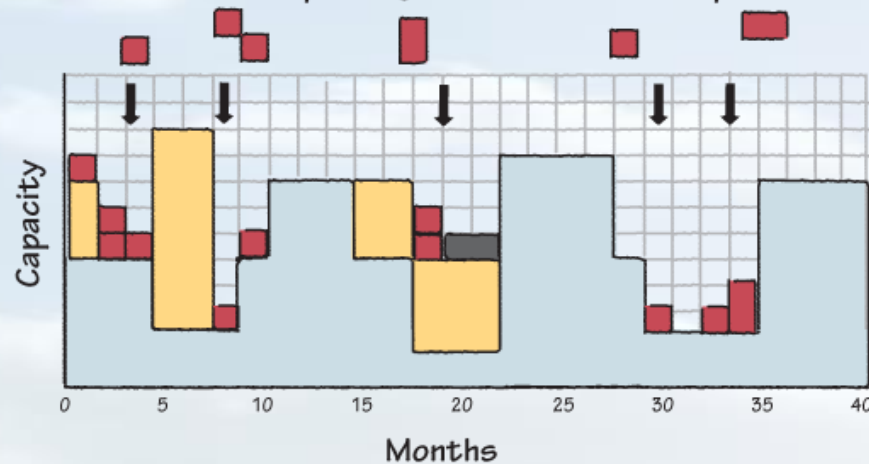
# Managing in Small Pieces - Tetris Principle



# Tetris Principle – Managing in Small Pieces

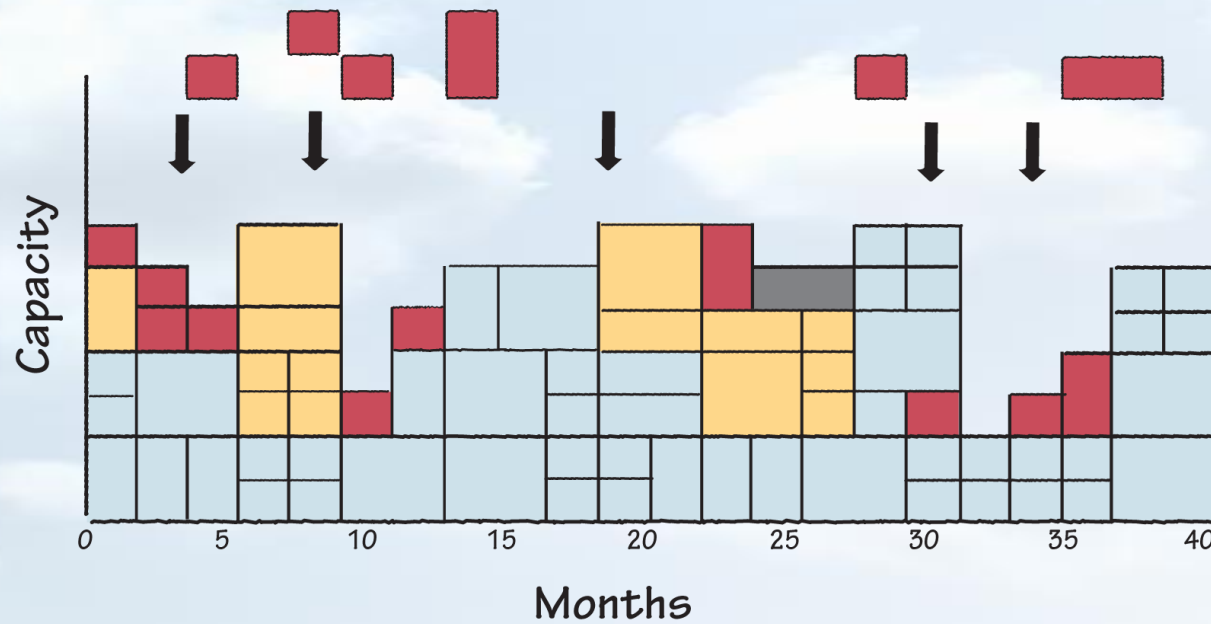


Large blocks are hard to fit.  
Split large blocks into smaller pieces.



# Tetris Principle

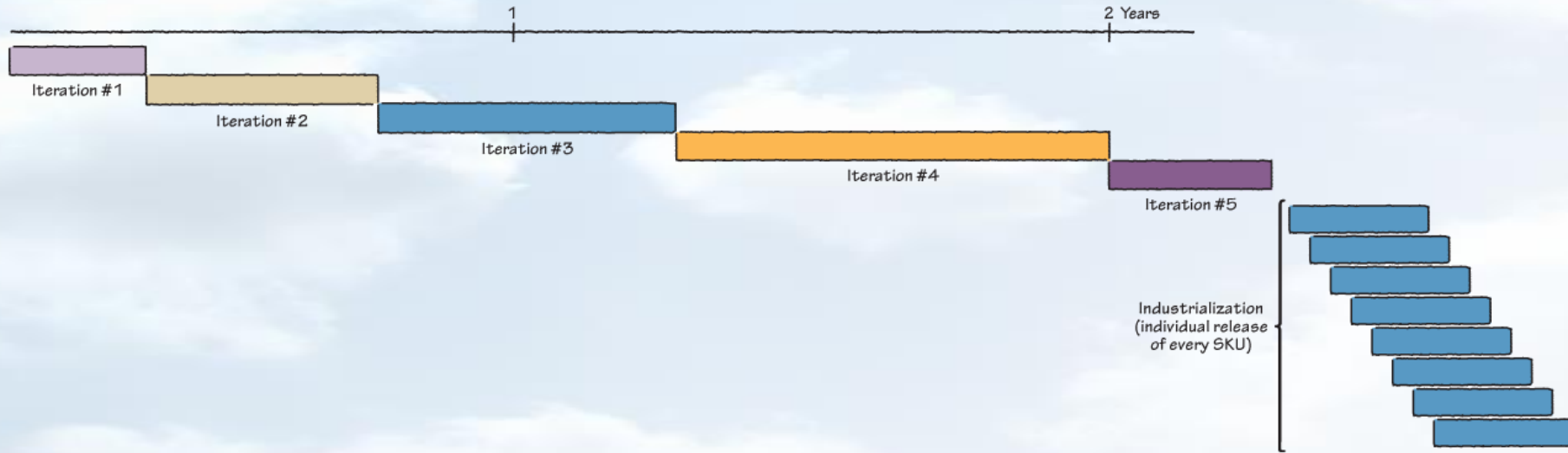
Large blocks are hard to fit.  
Split large blocks into smaller pieces.



## Short Cycles

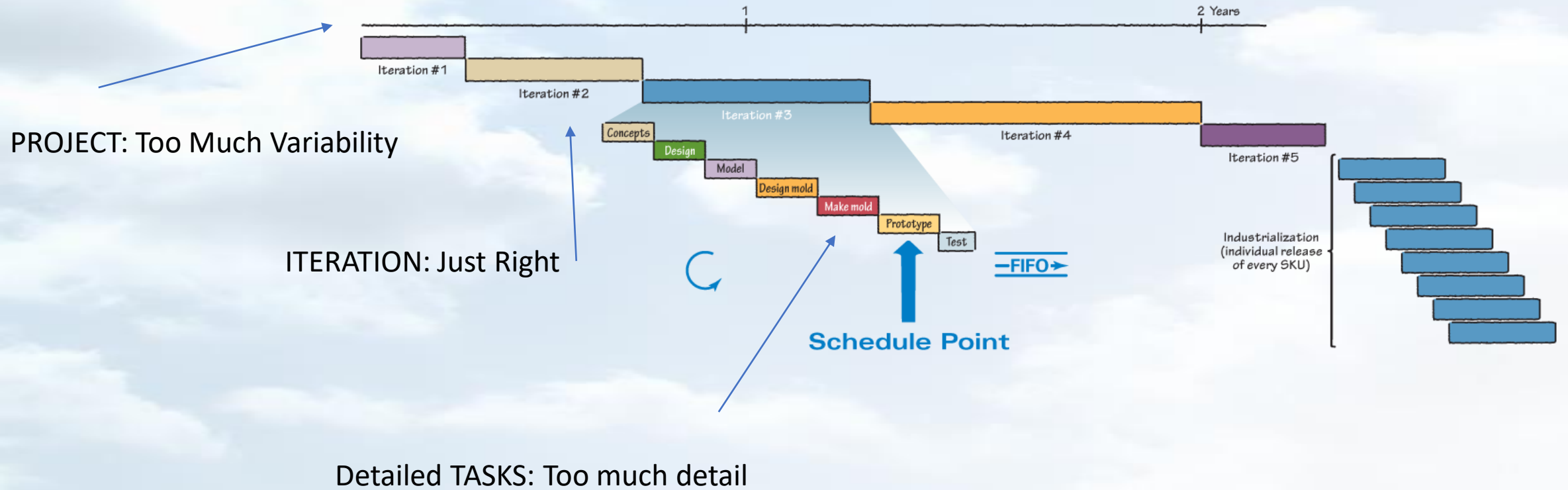
- Are easier to schedule
- Allow better risk management
- Create knowledge faster

# Goodyear Iterations

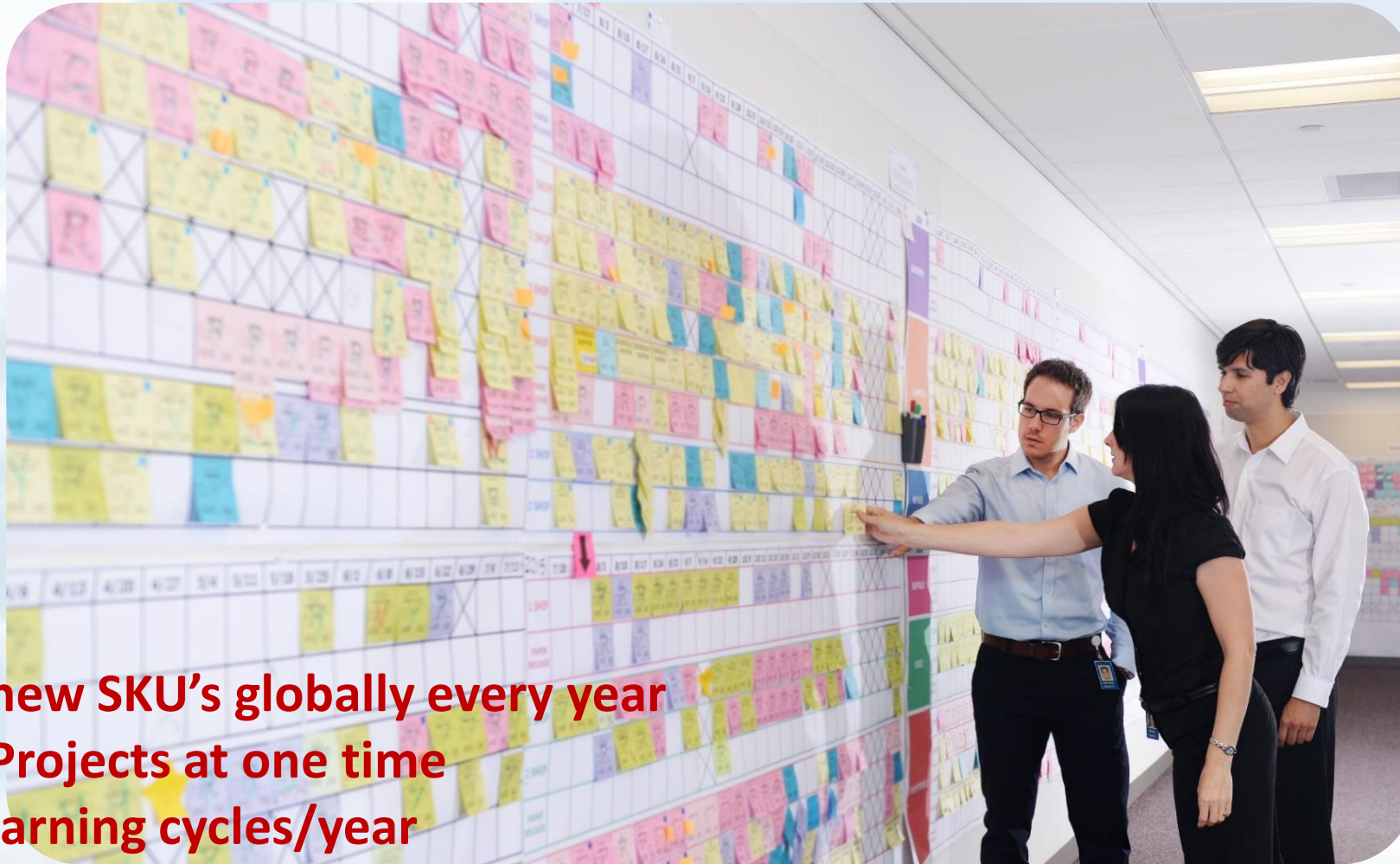




# Goodyear Iterations



# Visual Planning



**1,500+ new SKU's globally every year**  
**1,000+ Projects at one time**  
**4,000 learning cycles/year**  
**30 min business meeting every 2 weeks**

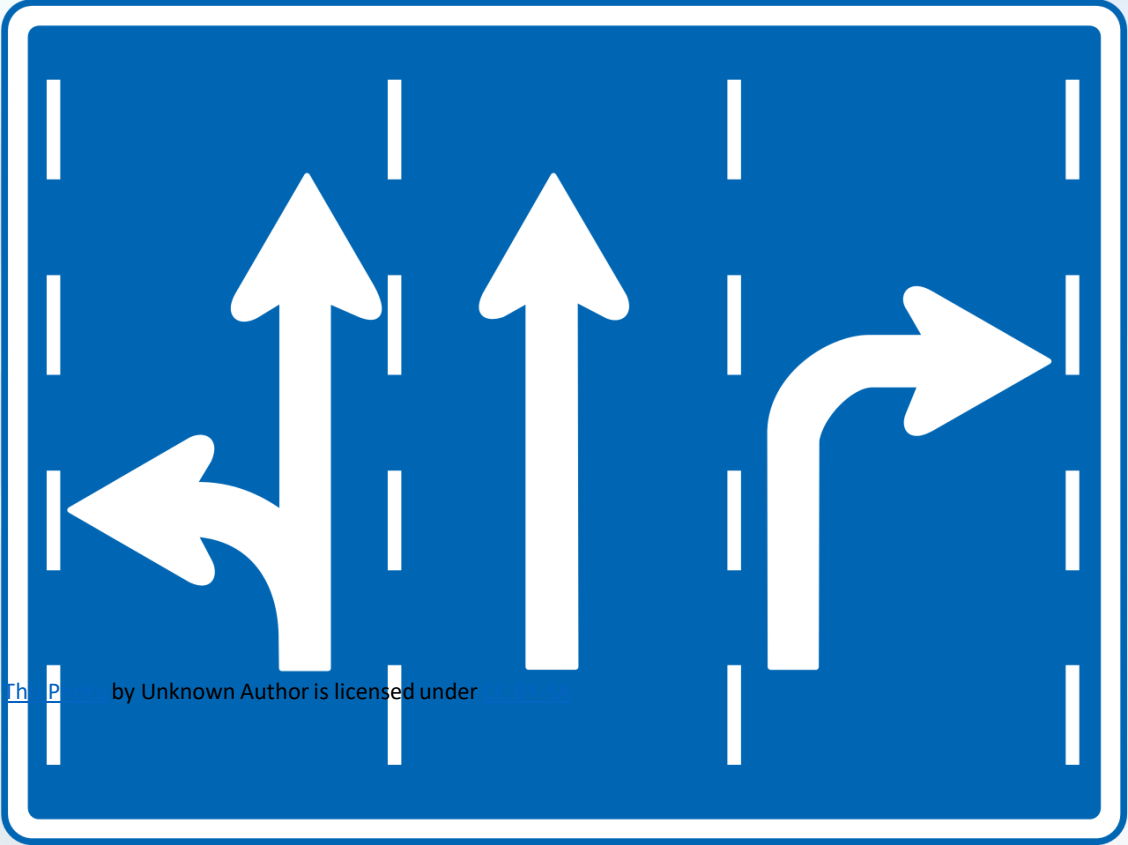
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# Stay the course



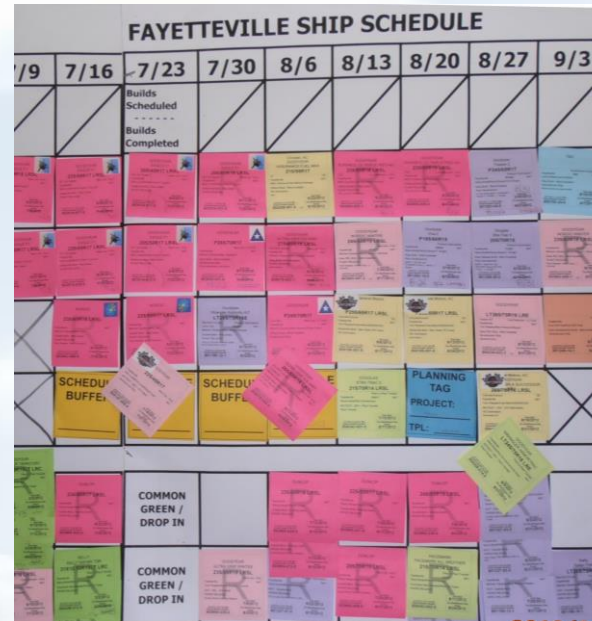
Pivot



~~Freeze~~

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# 10 Second Rule



## 10 sec rule

- Notice fast – full picture
- Address immediately
- Crossfunctional
- Problem solve if needed

# Operational

- NO Waste
- Financial Management
- Visual Management
- Fast is better than slow - Manage for flow and speed
- Late start
- Resource planning
- Concurrent work
- Standards
- Resource utilization

# Project Funding

- Traditional
  - Not project specific – comes out of a yearly functional budget
  - Discretionary
  - Project funding (military)
- Lean
  - Budget is MANAGED by PM's
  - **Allocated in small pieces**
  - Yearly budget is based on PROJECTS

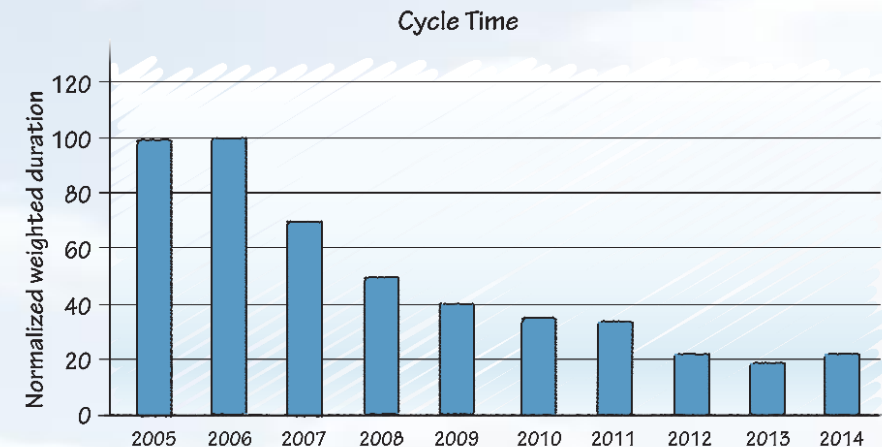
# Fast Is Better Than Slow

If I had only one thing to focus on, it would be **SPEED/Agility** (after safety, quality, delivery)

- Competitive advantage
- Faster Learning, better risk management
- Better cash flow
- **Collaterals of efficiency**

Rebecca Morgan:

*"Without a destination in mind, speed is irrelevant."*



Some Goodyear iterations require more time than others. In order to track cycle time across all iterations, regardless of the varying time, Goodyear established a measure of normalized weighted duration, establishing a base of 100 in 2005.

# Speed

- **Good PM is #1 on my top 10 list**
- **Little's law – multitasking**
- Schedule to capacity
- Visualize resources
- TOC
- Overlapping Activities
- Standard Work



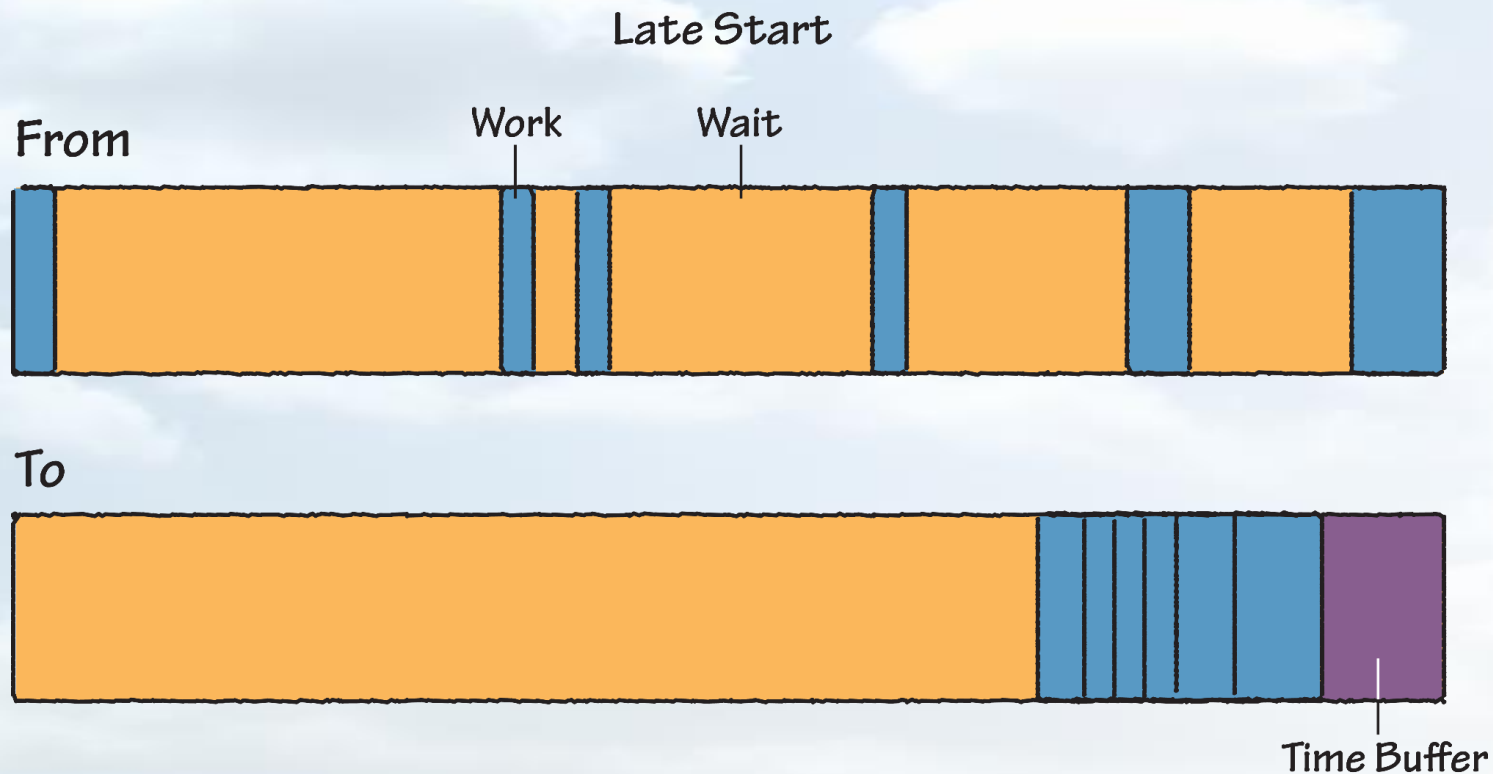
# Little's Law

$$\text{Cycle Time} = \frac{\text{Work in Progress}}{\text{Throughput}}$$

What is more expensive?

# Late Start

Every iteration is started as late as possible but with enough time to finish, including a small buffer to account for variability



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# WHY Late Start

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- Know more - Latest technology and opportunities
- Keep options open
- Manage changes
- Dealing with engineers (Parkinson Principle)
- Investment / cash flow

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# Managing People



# Happy AND Productive People

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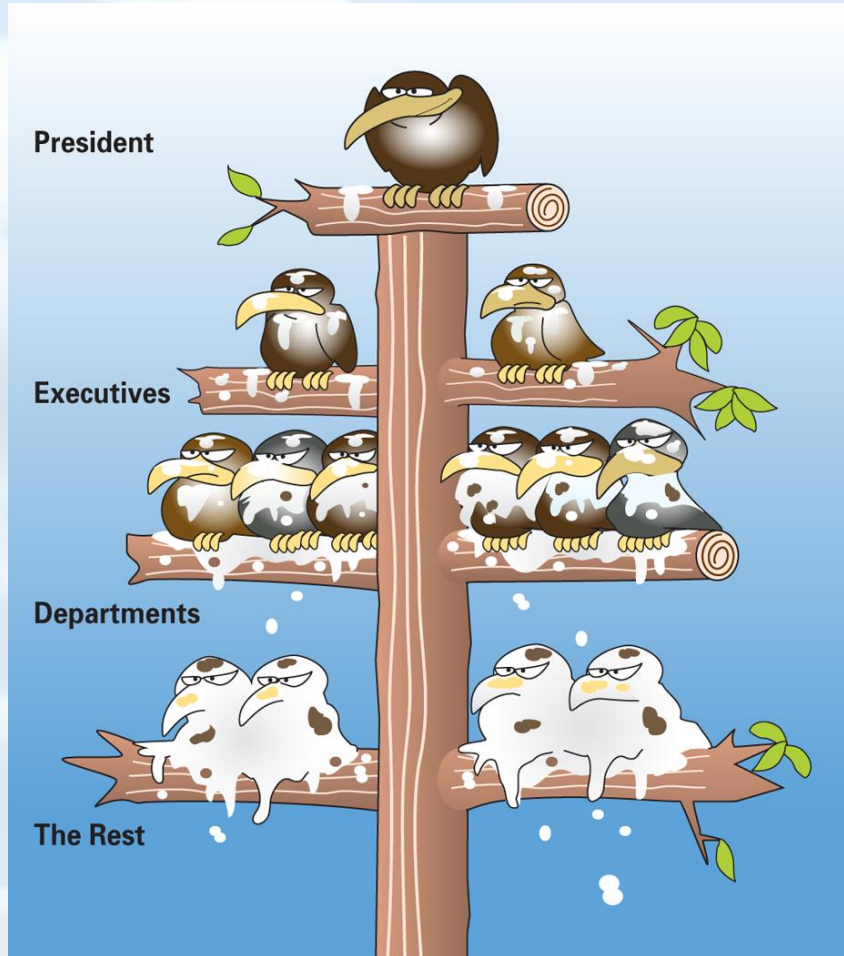


# Power or NOT

- IRRELEVANT

- Good leaders do not use it anyway

# Leadership

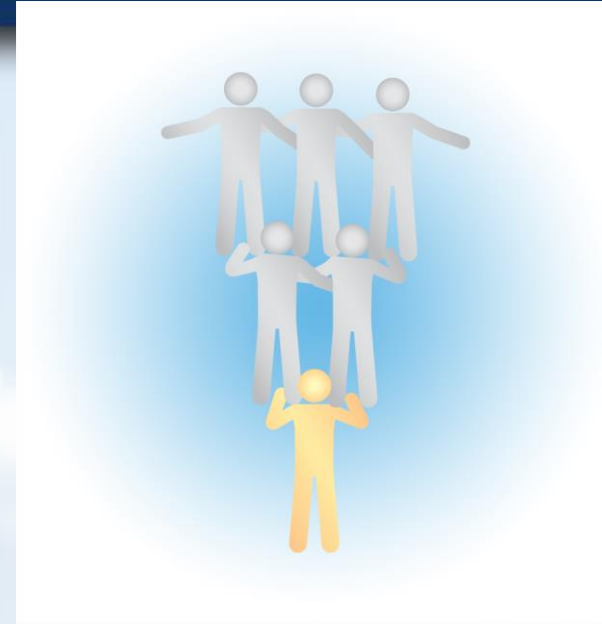
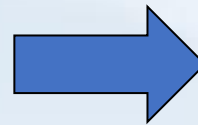
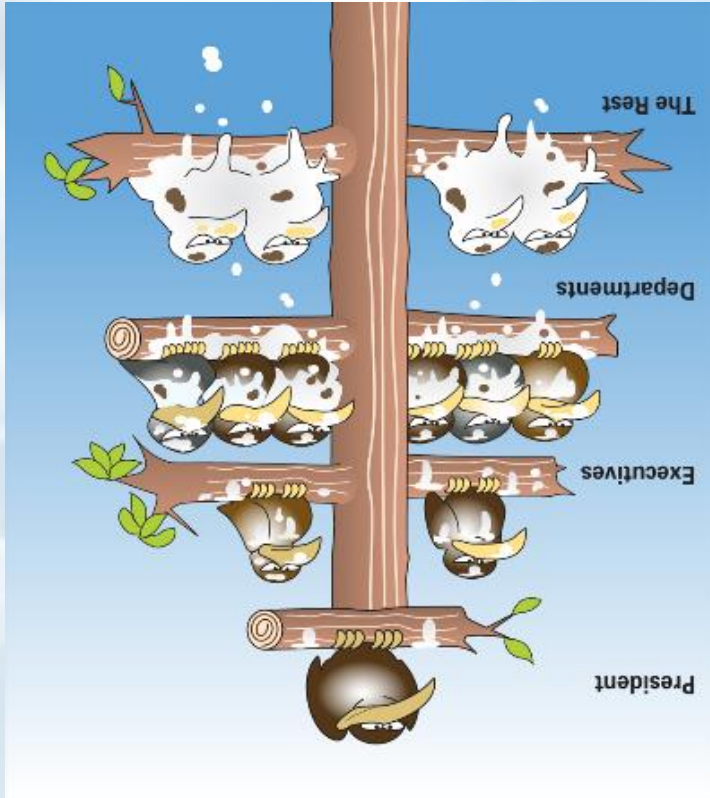


\*Inspired by unattributed graph

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# Lean Leadership





# Leadership Transformation

Helping People to be successful



Tell people what to do

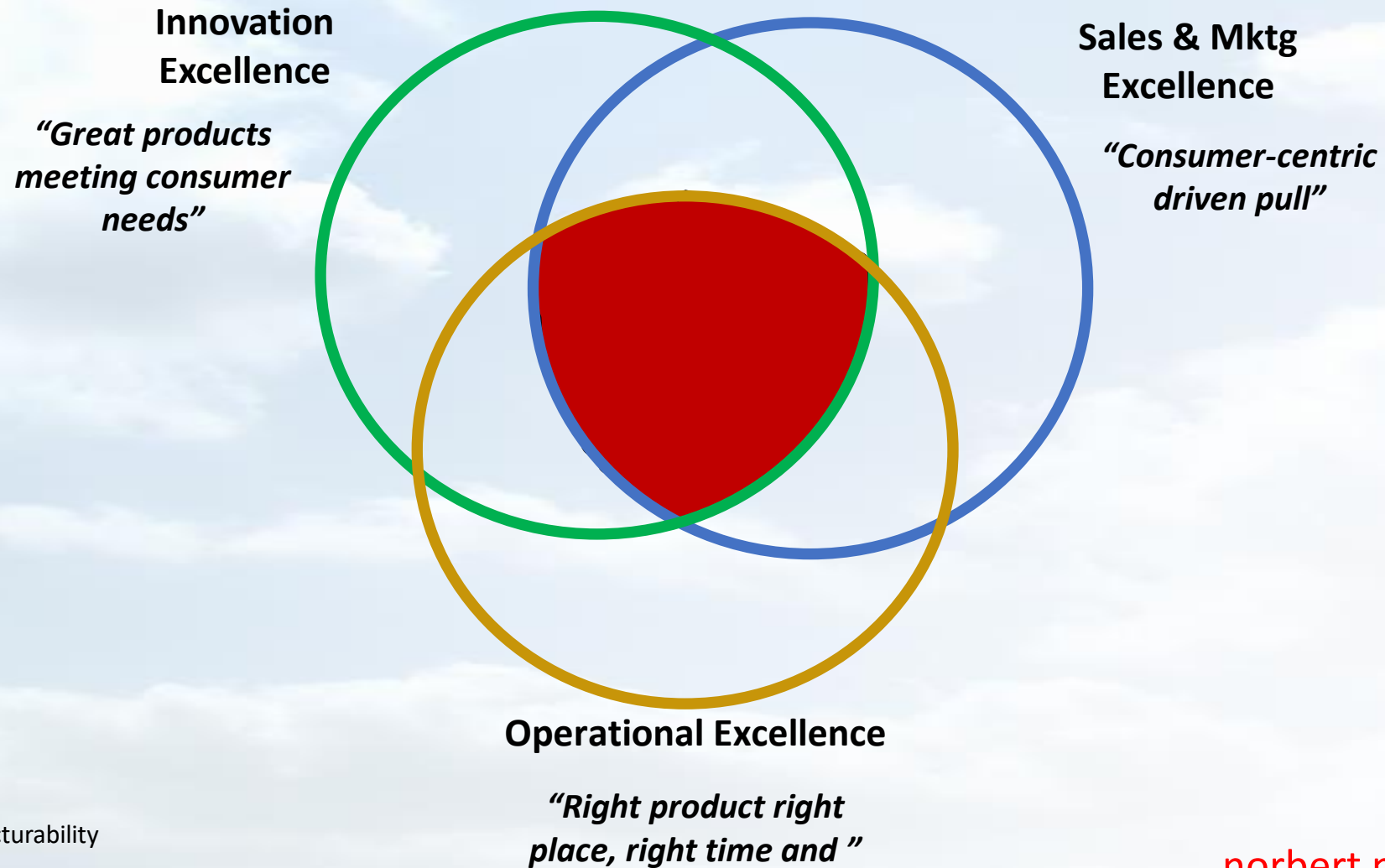
# Subjects

- Who is the boss
- Collaboration
- Respect
- Humility
- Sponsor
- Getting the best people on the team
- The lean leader
- Dirty Laundry - Focus on the process – not the people + reflection
- Managing Resistance
- Engaging People
- Roles
- Teams of Empowered Experts
- Self managed Teams



Collaboration

# Winning at the Intersections



Design for manufacturability

# RESPECT

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- People come to work to do a good job
- People come to work to do a good job
- If they cannot, look at process, training, qualification, equipment ...
- Leadership helps the people be successful (ALL)
- People respect each other

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**Hard on the Process, Easy on the People**

# Evolution of a Servant Leader



**We pay you to solve your problems**

**Responsible?**



**Here is the solution – go do it**



**I ask you questions and coach you towards MY solution  
>> A3 cookie trail**

# Evolution of a Servant Leader

63



**I coach you towards finding your own solution**



**Let's figure this out together**



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**I agree with your suggestion. You are responsible - keep me informed and I will support you**

# Humble Coaching

- The leader as a player/coach
- Good coaching includes allowing people to learn through their own experience – allowing them to learn from their mistakes

“Let’s run an experiment”




# Role of a Leaders in a Lean Organization

- Create the environment, remove obstacles, set direction
- Help the people be successful
- Develop leaders

**With Humility**

**Without Use of Power**




## A Good Lean Project Manager

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- Leads with respect and humility
- Aligns the team behind the agreed upon goals
- Removes roadblocks and helps team members be successful
- Engages/rewards team members
- Develops team members

# Becoming a Better (lean) Project Manager

- Make sure your organization is right for PM
- LEARN Project Management
- Follow the applicable principles of Lean PM
- Learn to manage the people
- Practice Continuous Improvement (personal and with the team)
- Use a coach/mentor



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Are a consequence of

- Good people (including leadership)
- A good process
- A good Project Manager

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# Contact Information

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## **LEAN-DRIVEN INNOVATION**

**POWERING PRODUCT DEVELOPMENT AT THE  
GOODYEAR TIRE & RUBBER COMPANY**

**NORBERT MAJERUS**

*Foreword by James Morgan and Durward Sobek*

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A PRODUCTIVITY PRESS BOOK