

# Introduction to the *Technology Adoption Lifecycle* (the TALC)

# The TALC & ELNs

- The TALC is the most important concept to grasp when looking adoption of new tools/techniques/technologies
- It is based primarily on the psychology of individuals when confronted by something “new” - a Disruptive Innovation
- ELNs are Disruptive!

# Types of Innovations

- Continuous innovations
- Disruptive, discontinuous innovations

# Disruptive Innovations

- Represent significant (even radical) departure from the status quo
- Reshape a field of endeavour
- Often render what preceded them irrelevant and obsolete
- Represent *risk*

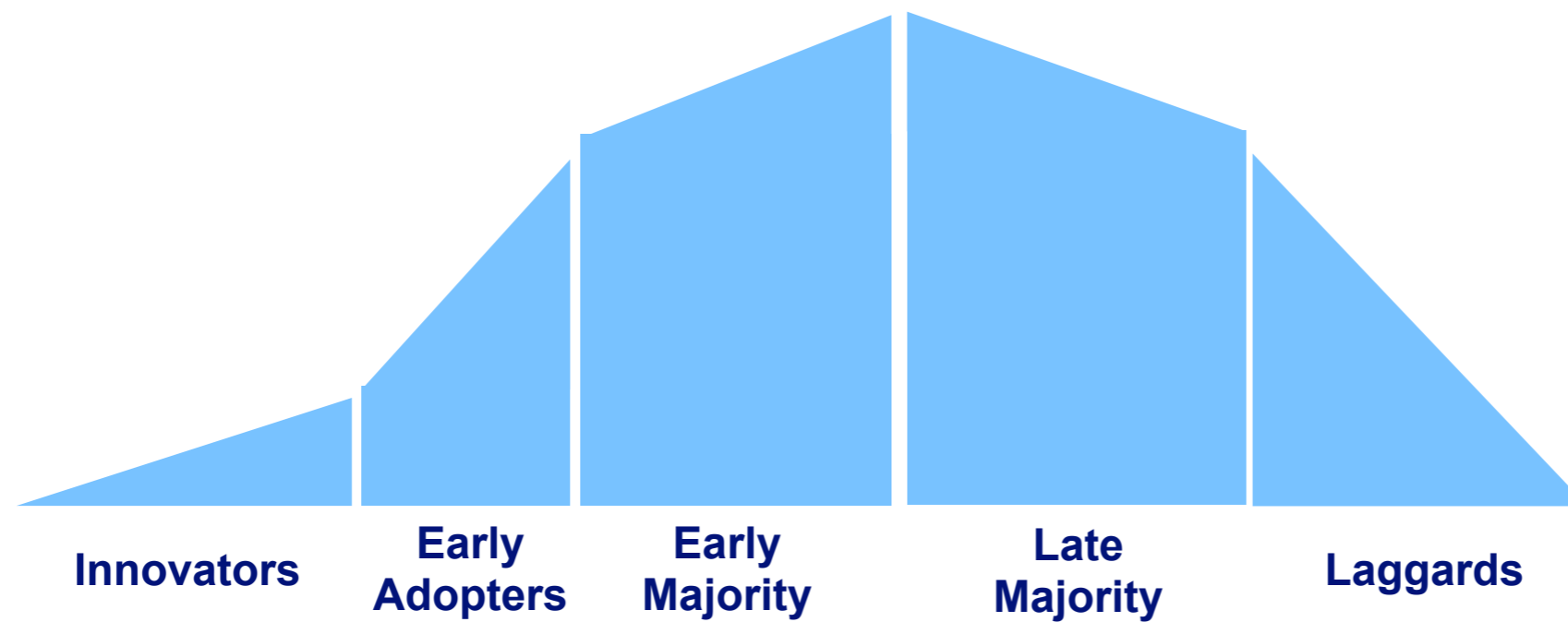
# Continuous Innovations

- Requires little or no behavioural change on the part of anyone
- In particular, users feel nothing except specific and typically modest benefit expected
- “The same, only Better”

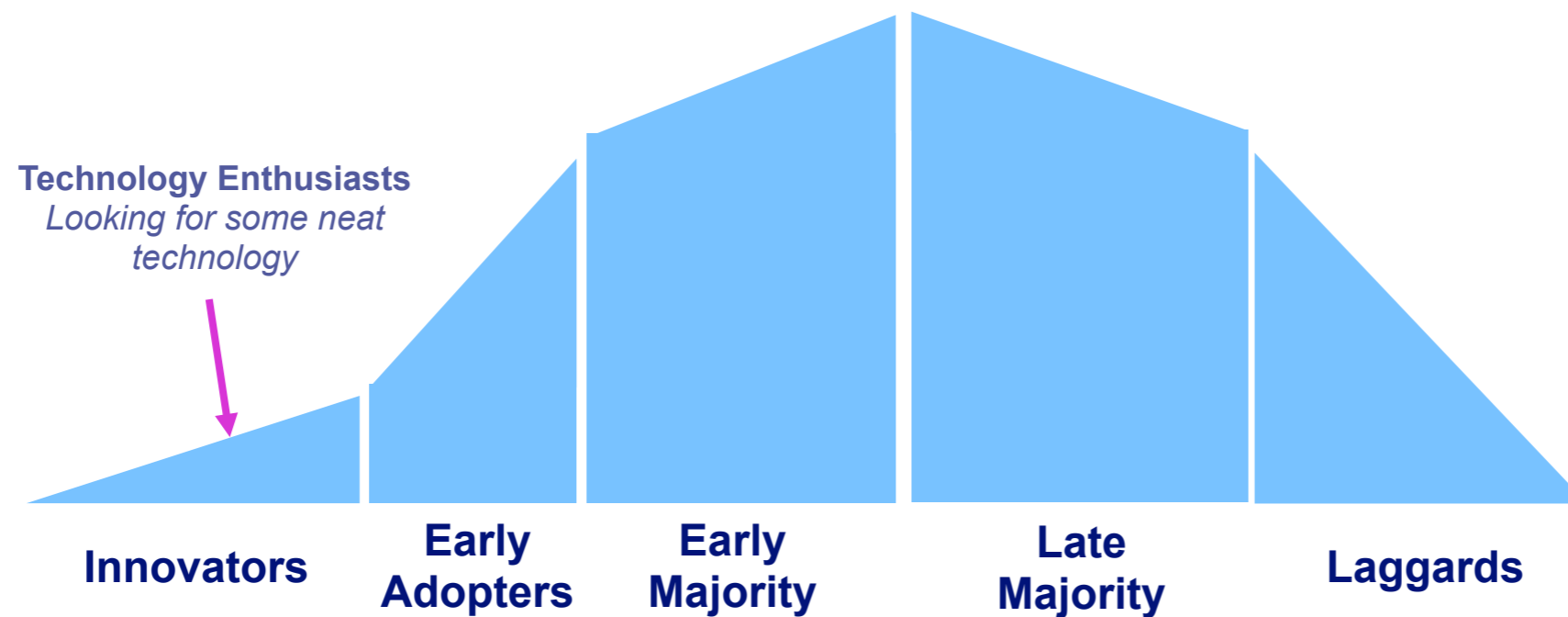
# The TALC

- The TALC is all about how people and companies respond to Discontinuous Innovations
- People self-select into different categories according to their attraction or aversion to risk

# Adoption of Innovations

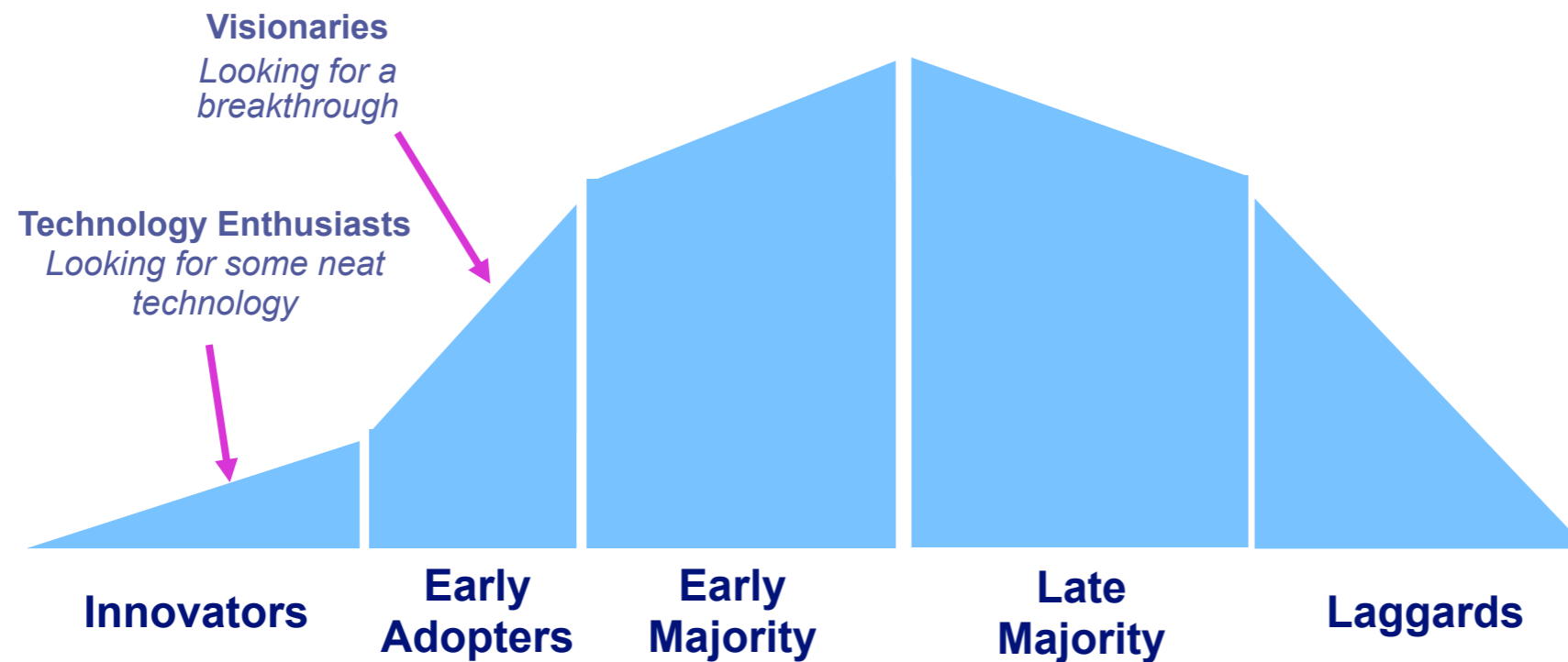


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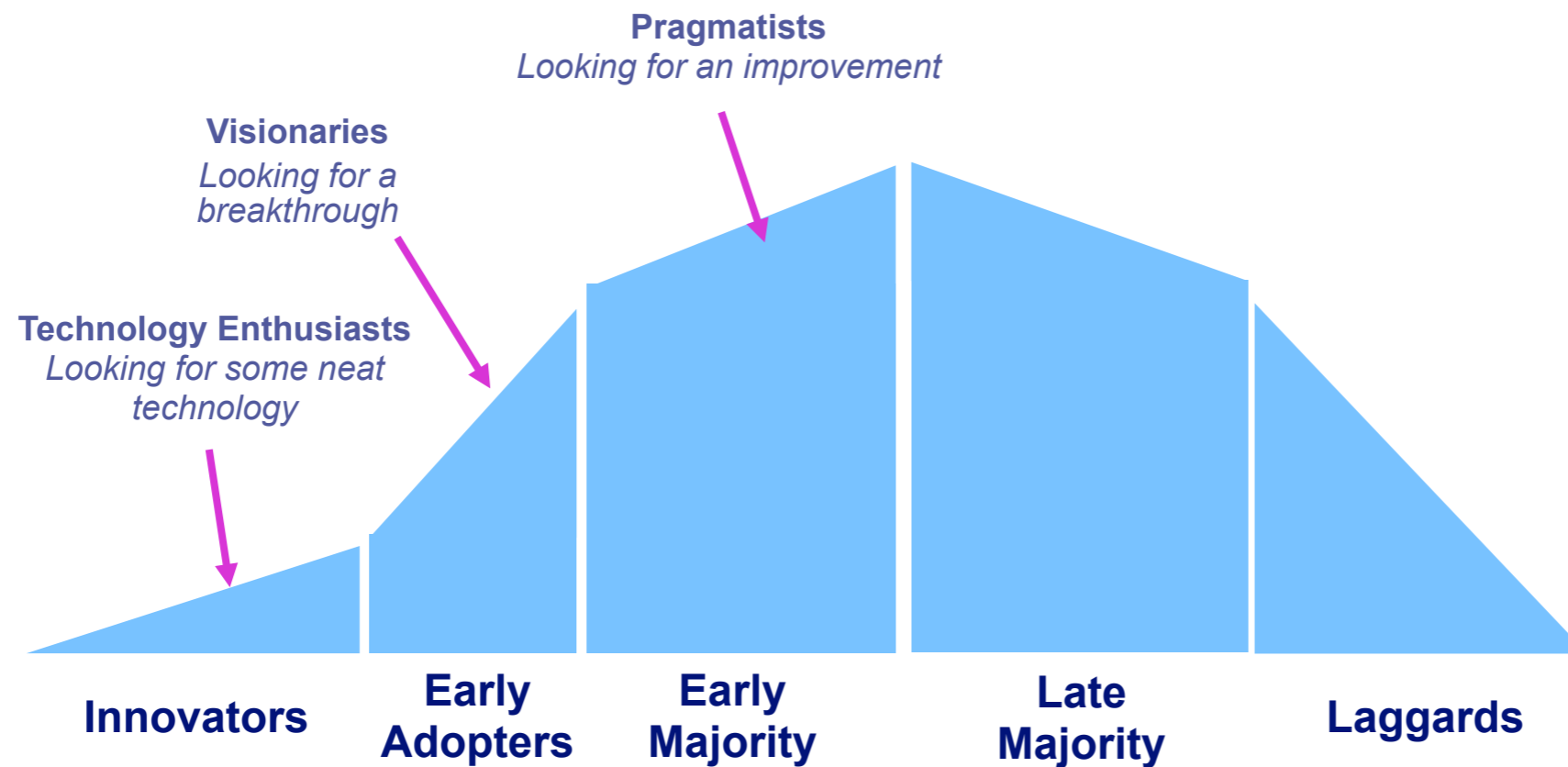




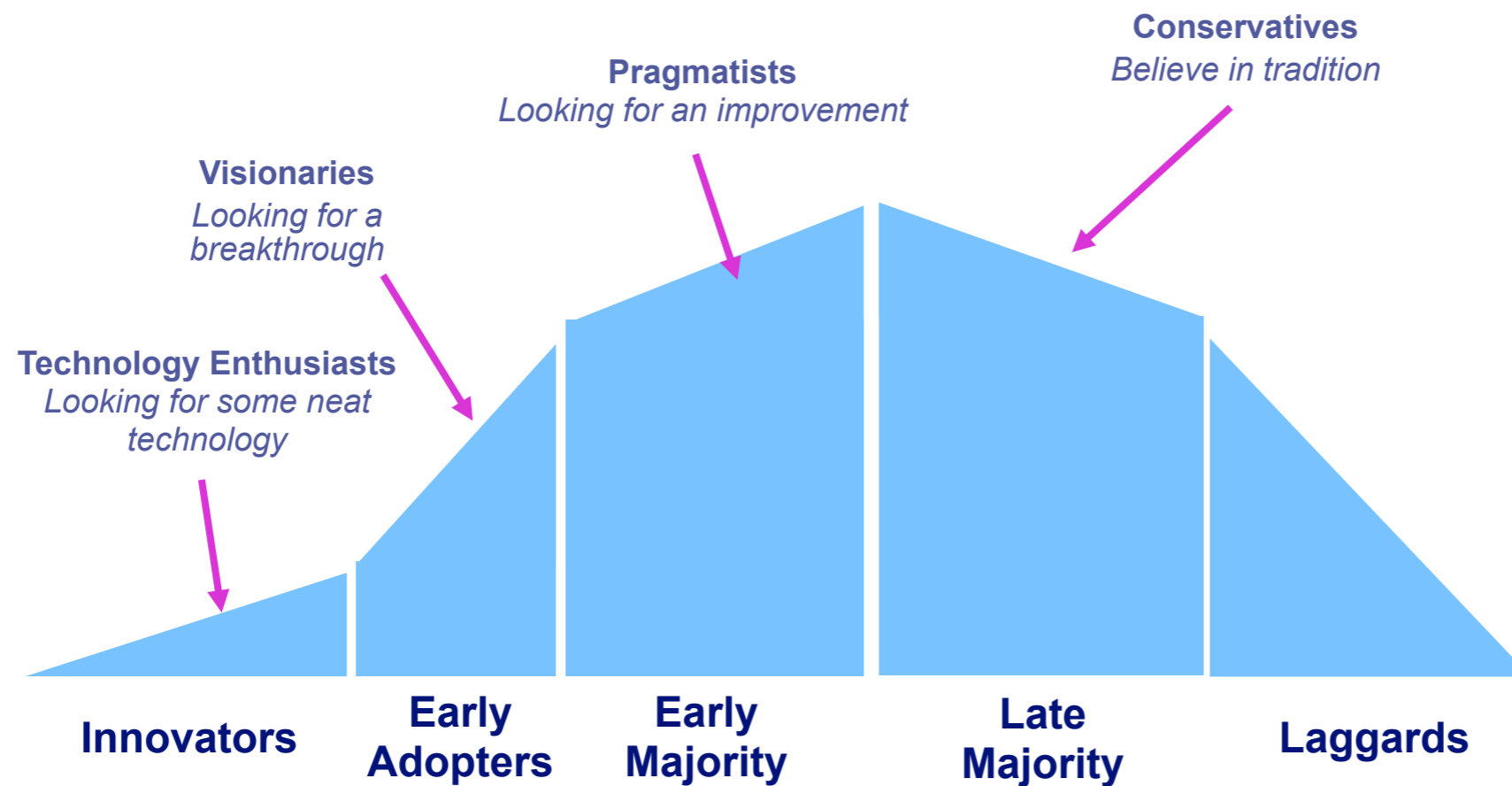
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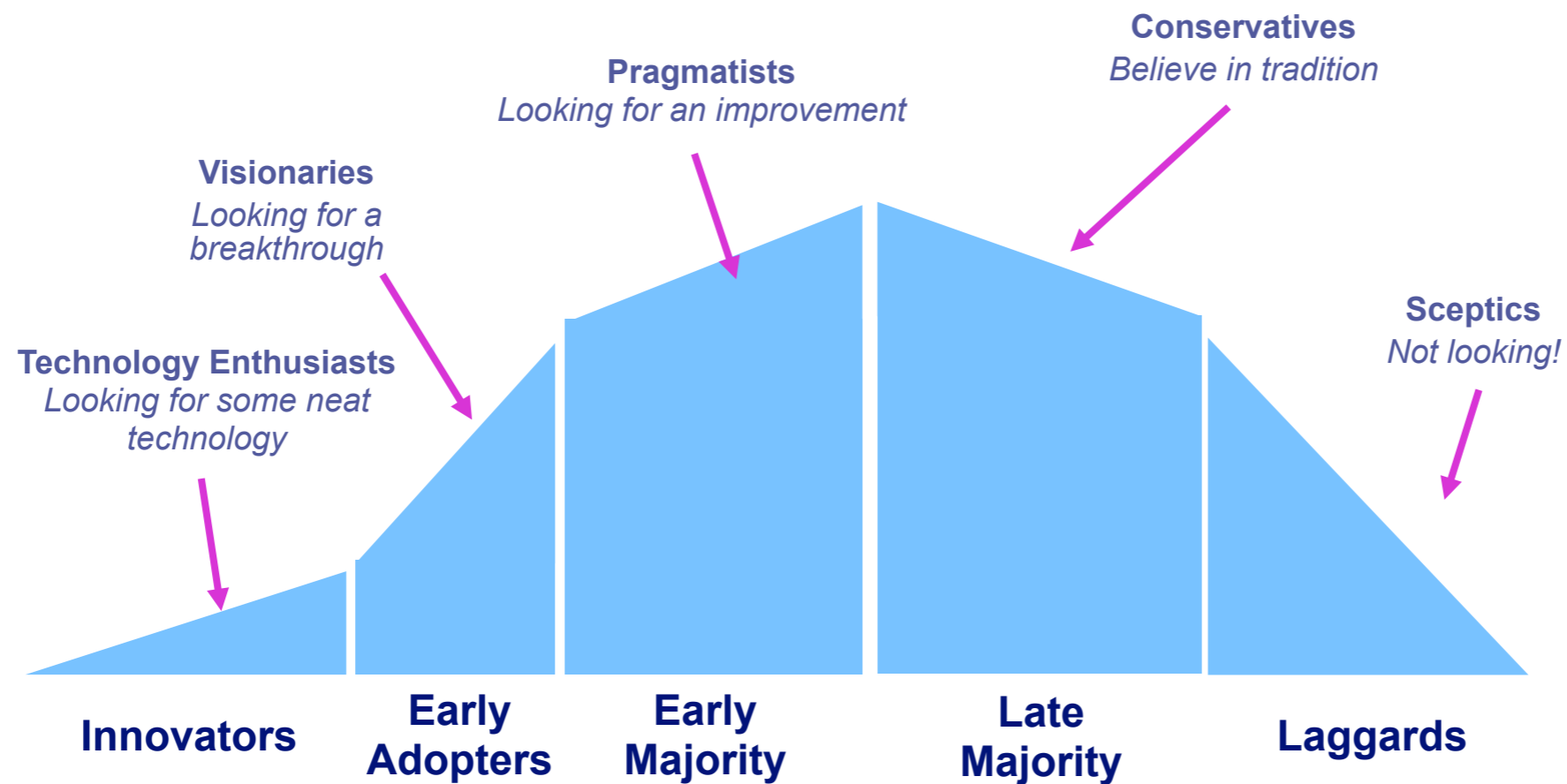
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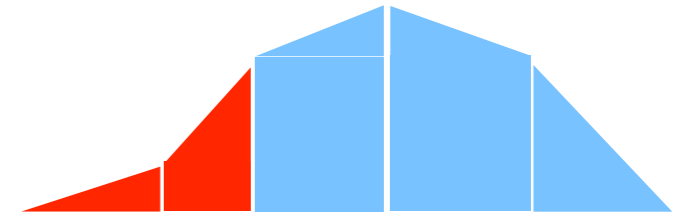
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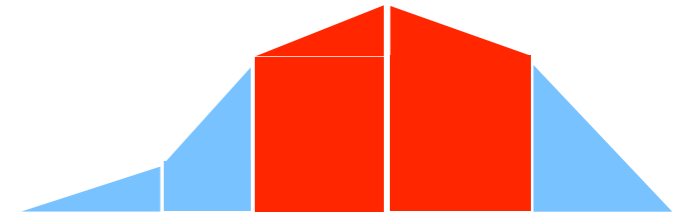


# The Early Market



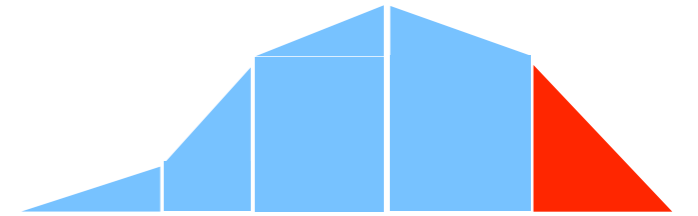
- Innovators – Technology enthusiasts
  - Love technology for technology's sake
  - They may not have resources, they have influence
  - Gatekeepers for a technology
- Early adopters
  - Adopt an innovation early to build competitive advantage over competition
  - Bring resources to the table – seed funding or venture capital
  - Publicity to the innovation
  - Generally have a pocket geek they trust to keep an eye on things for them
  - Typically looking for 10x improvement on a broken mission-critical process, and lots of attention from the vendor

# Mainstream Market



- Early majority – Pragmatists
  - Adopt technologies/products with a proven track record
  - Neutral about technology
  - Normally in charge of mission critical systems
  - Buy from the market leader – Greater reliability and compatibility
  - Third party companies in the after market
- Late majority – Conservatives
  - Pessimistic about the value of technology
  - High price sensitive market segment
  - Represent an opportunity for high-tech products
  - Commoditize technology to the point it just works

# Laggards



- Laggards – Skeptics
  - Gadflies of high technology
  - Of no practical interest

# People & Risk

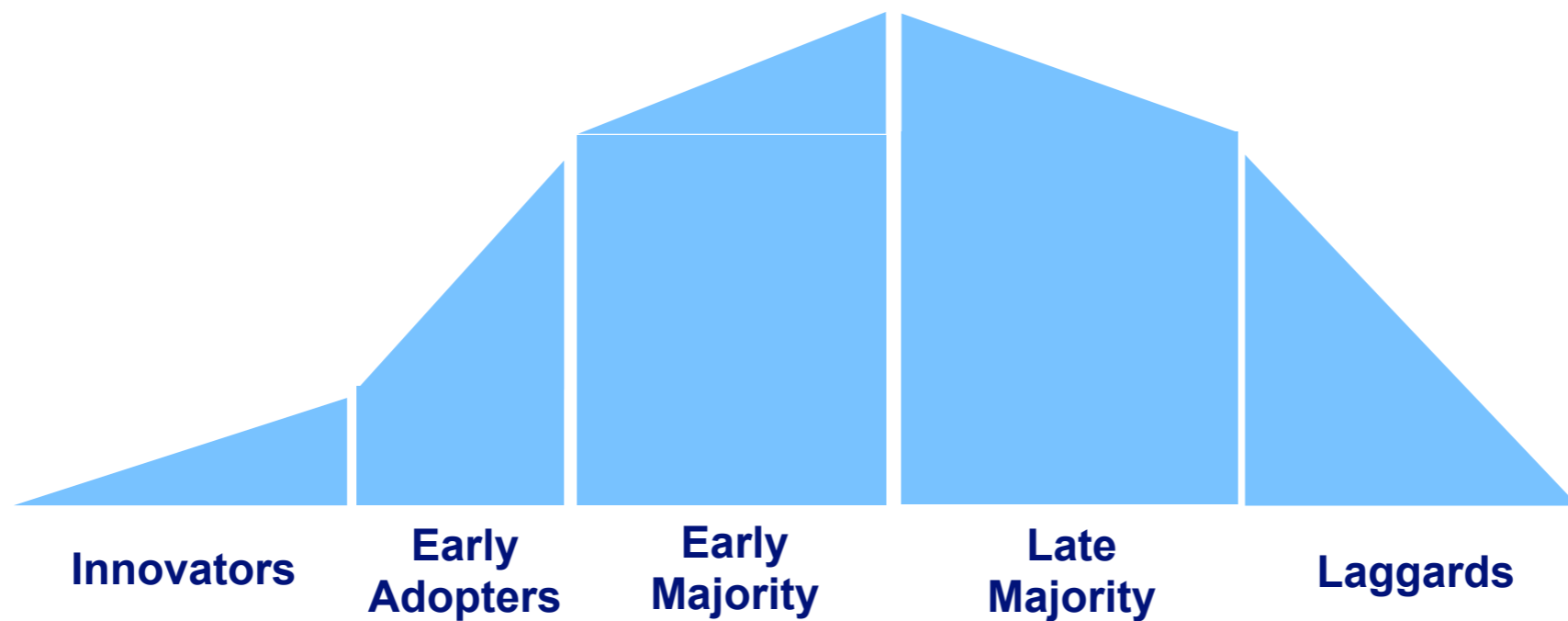
- People have different tolerances to disruptive innovations in different areas of their lives
  - e.g. Geeks & Toys Vs Geeks & Clothes
- Although they may well have a general response to uncertainty



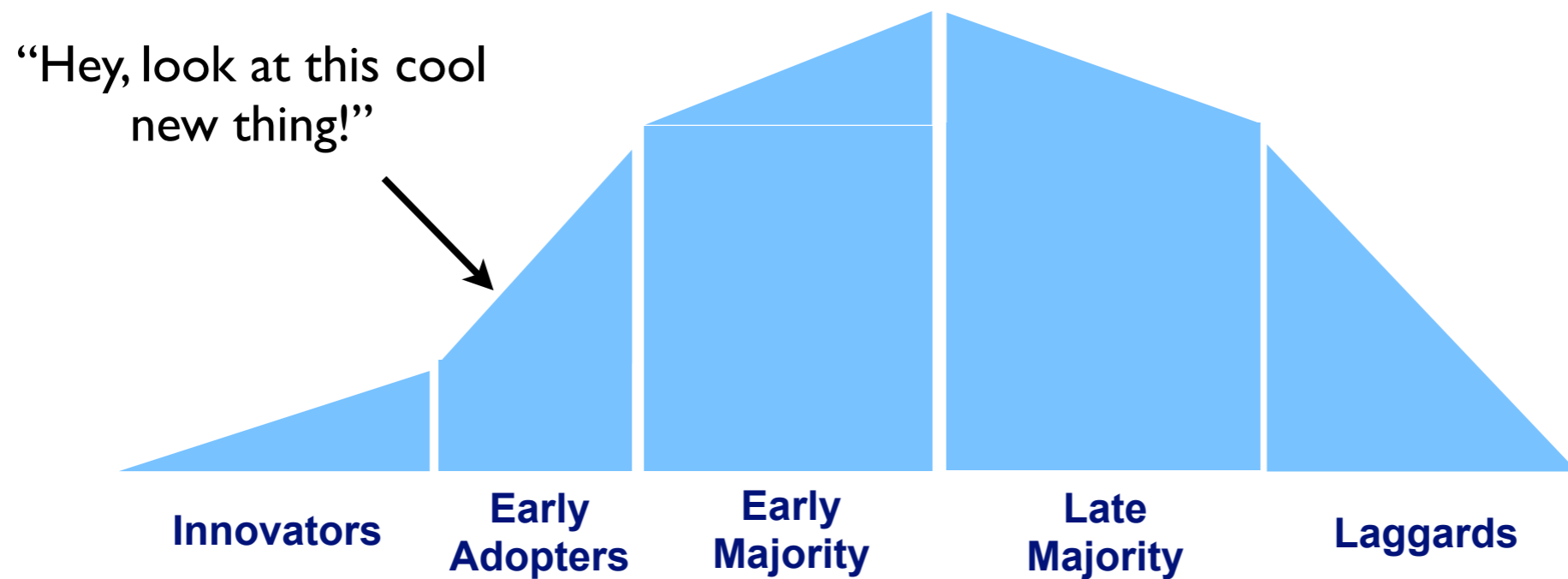
# TALC is everywhere

- GPS-driven Car Navigation
- iPods and other Digital Music devices
- iPhones
- Macs
- Electric cars
- Etc.

# There's a problem!



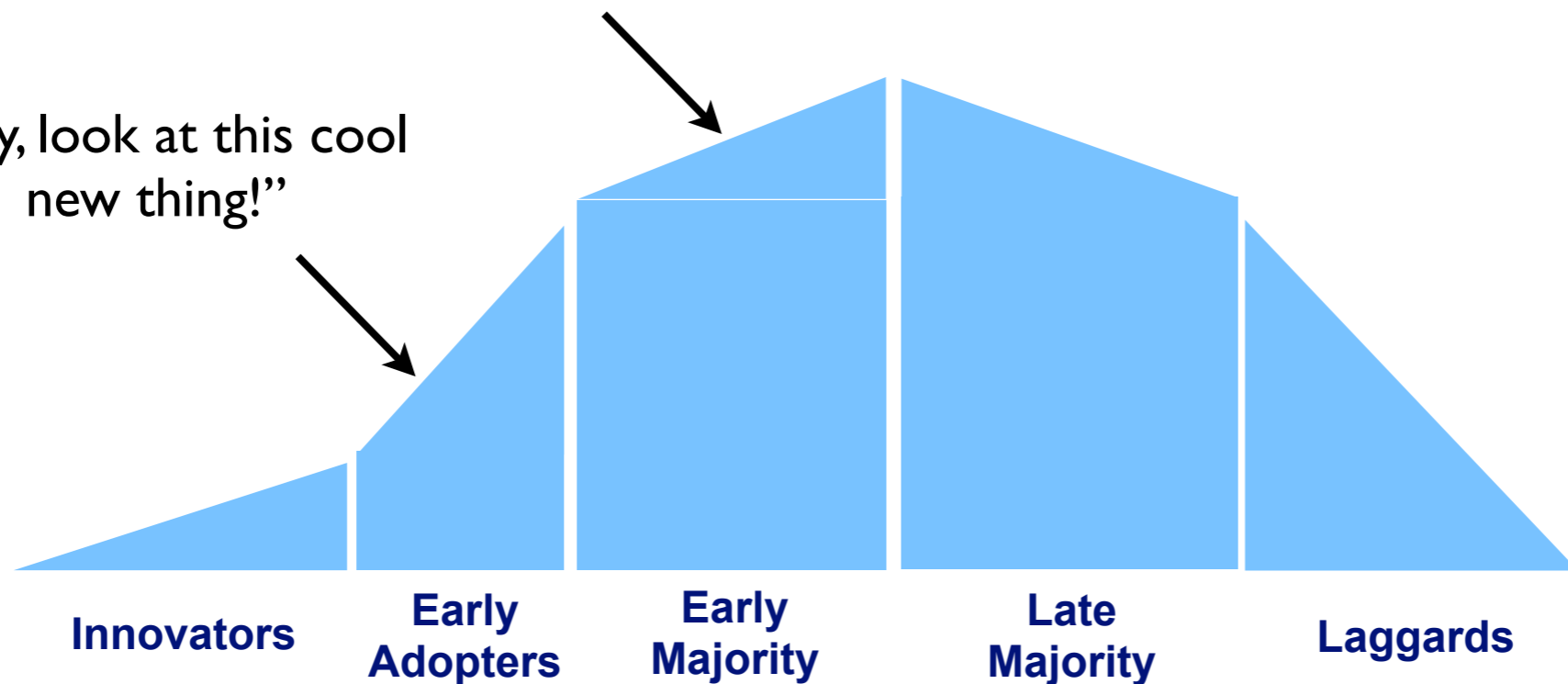
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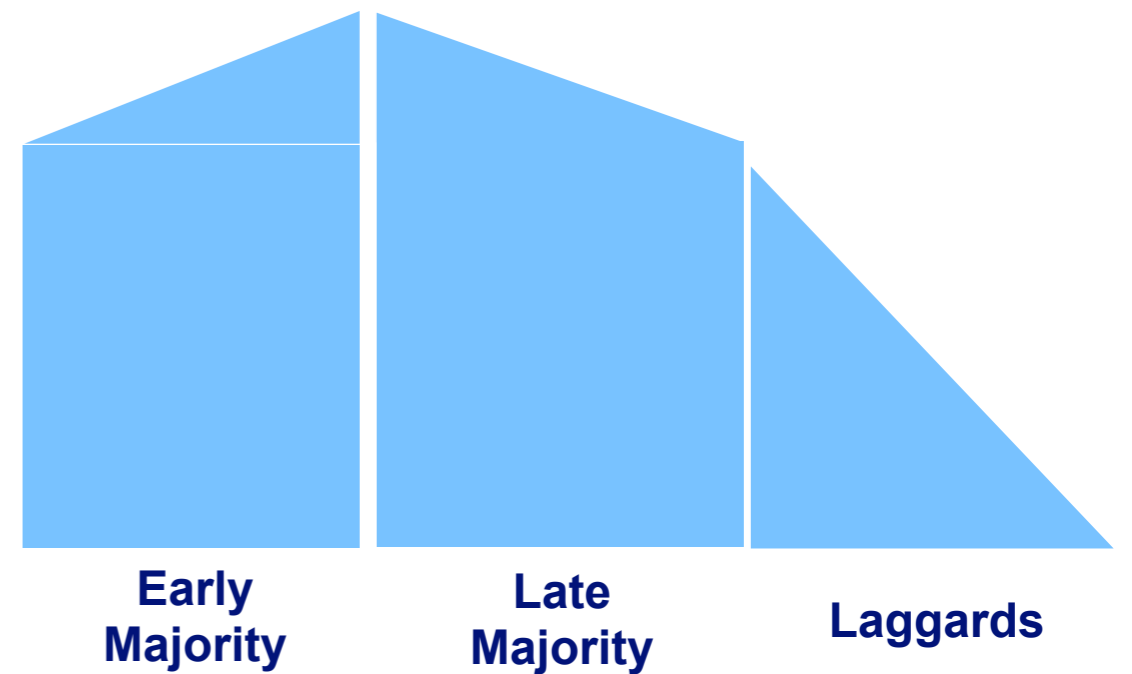
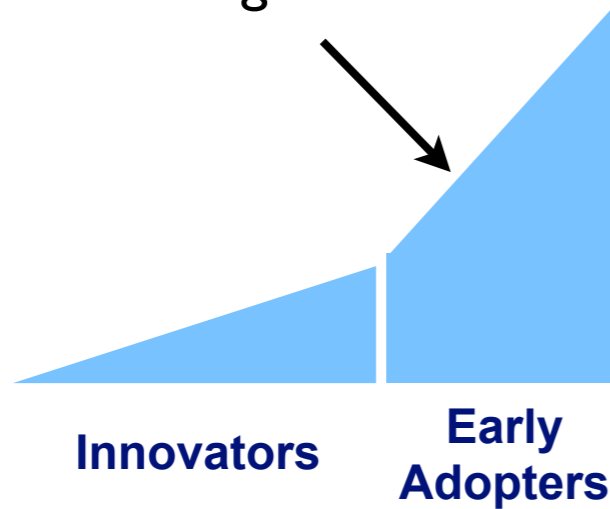
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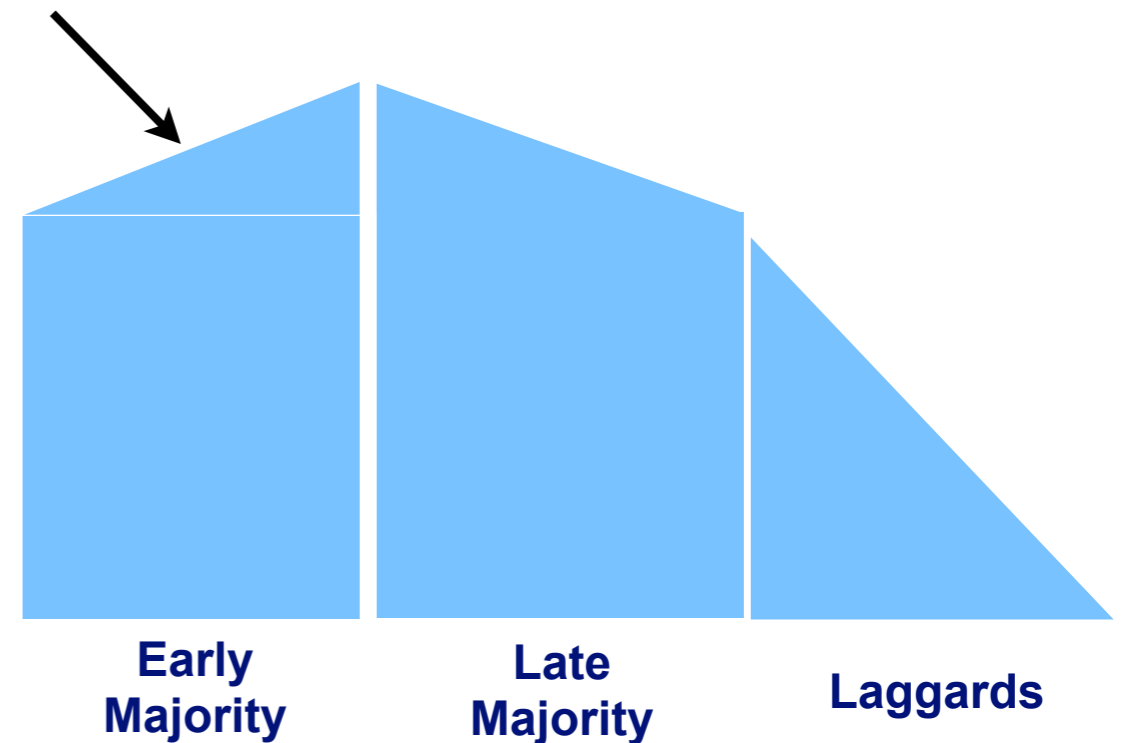
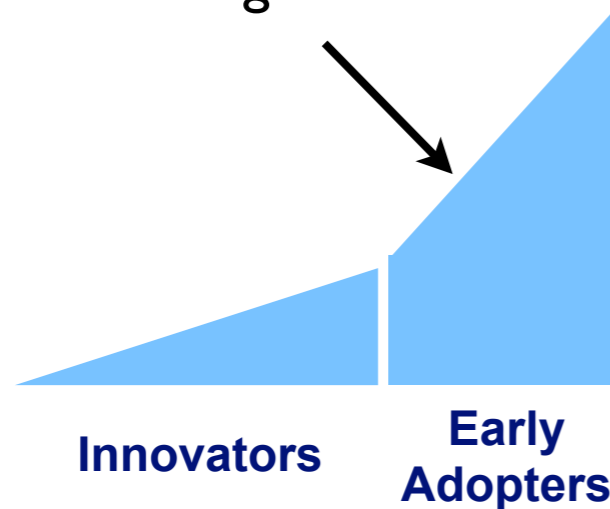
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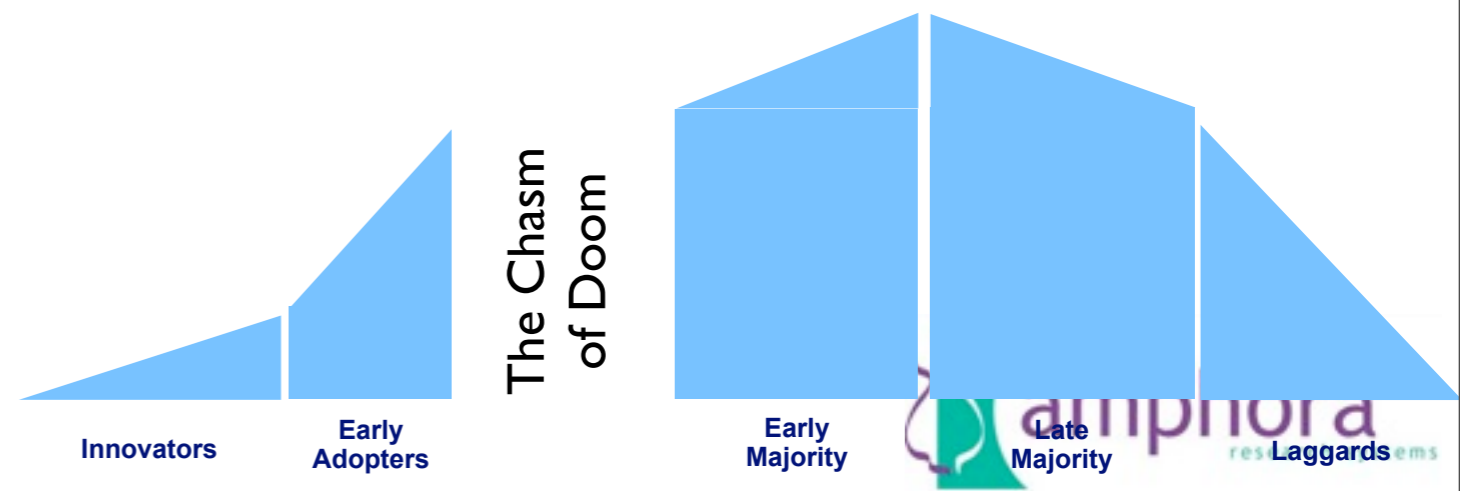


# The Chasm

The Chasm  
of Doom



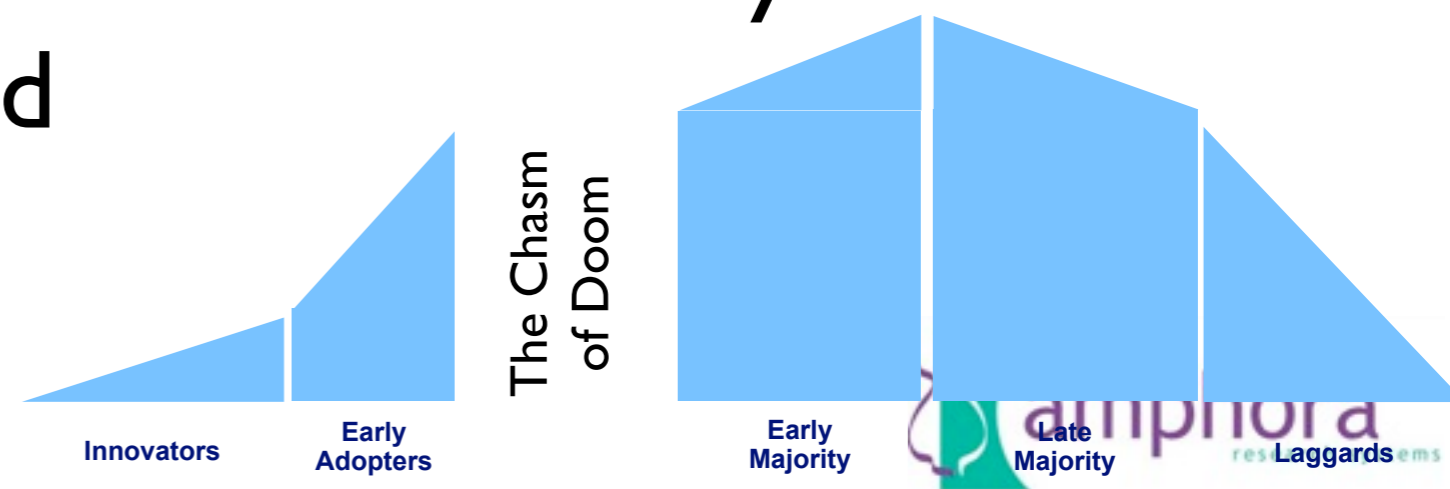
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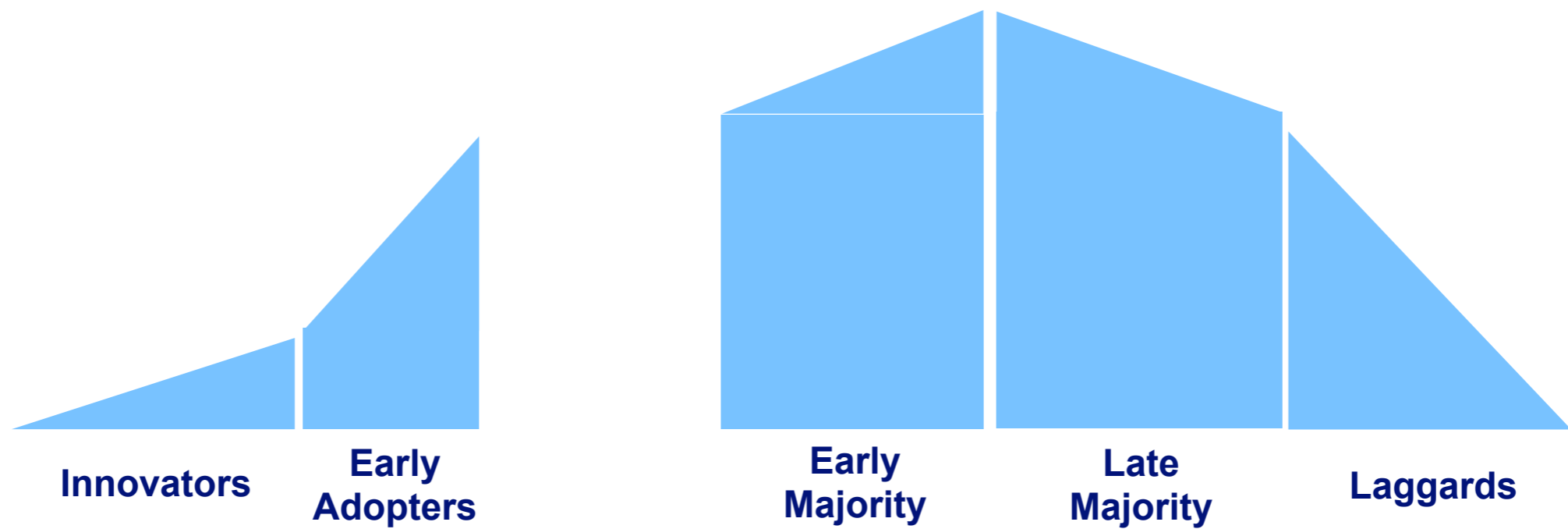
- The Chasm is where things die
- The innovation gets initial interest from the Early Adopters but never gets picked up by the more risk-averse Early Majority
- The supplier gets all excited by initial interest, scales up... and is faced by a collapse in demand



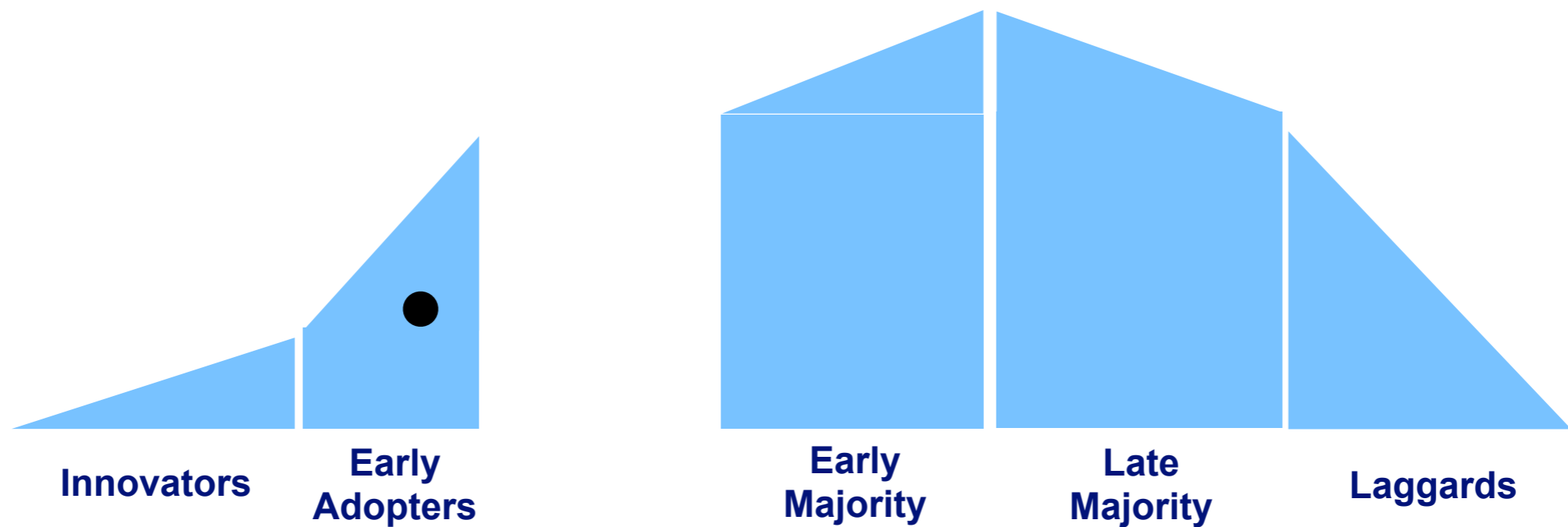
# Crossing the Chasm

- The key is to remove the perceived risk in your disruptive innovation
- The only way to do this is the “Bowling Pin” strategy

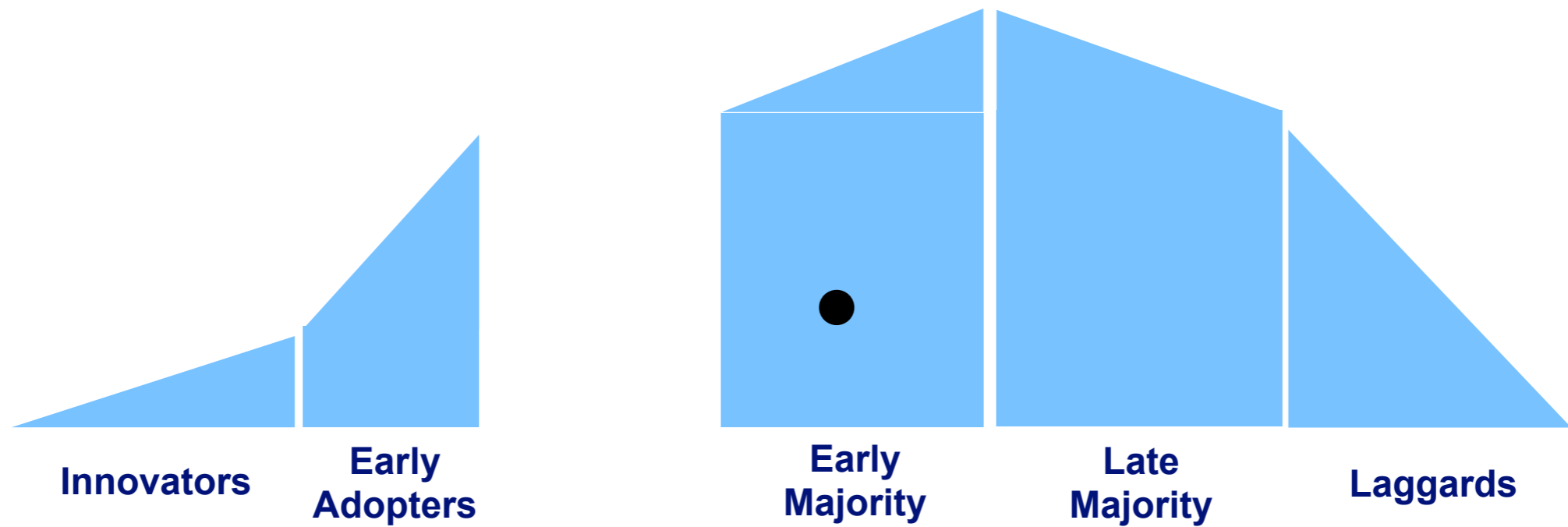
# Bowling Pins



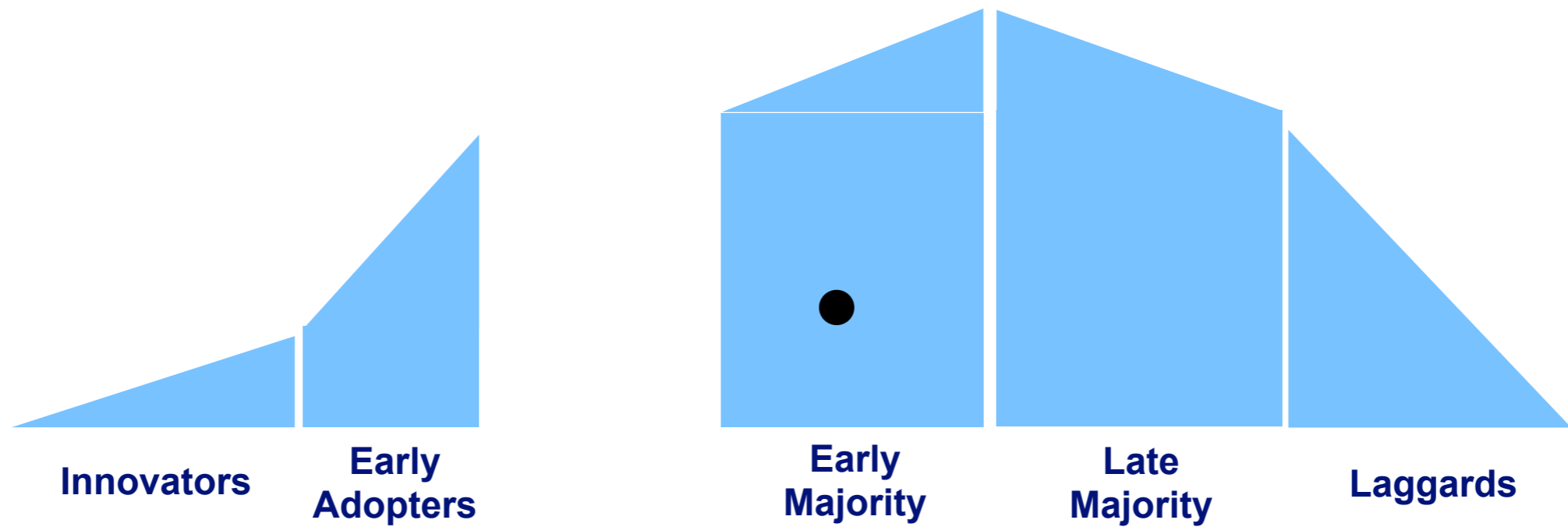
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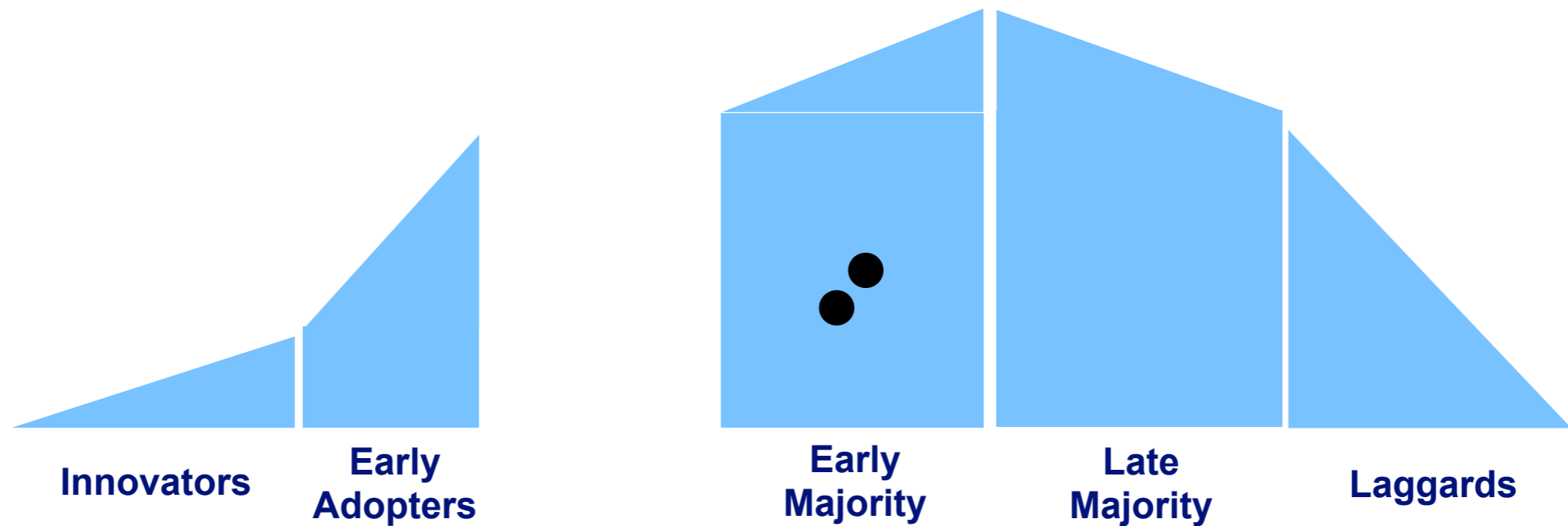
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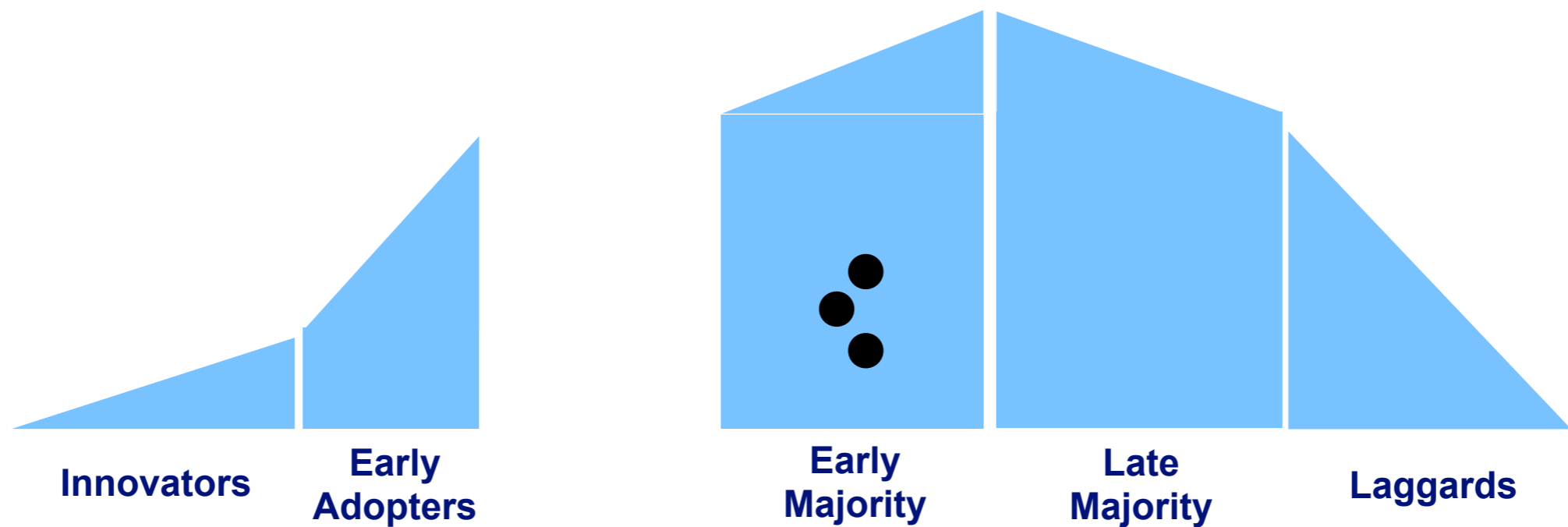
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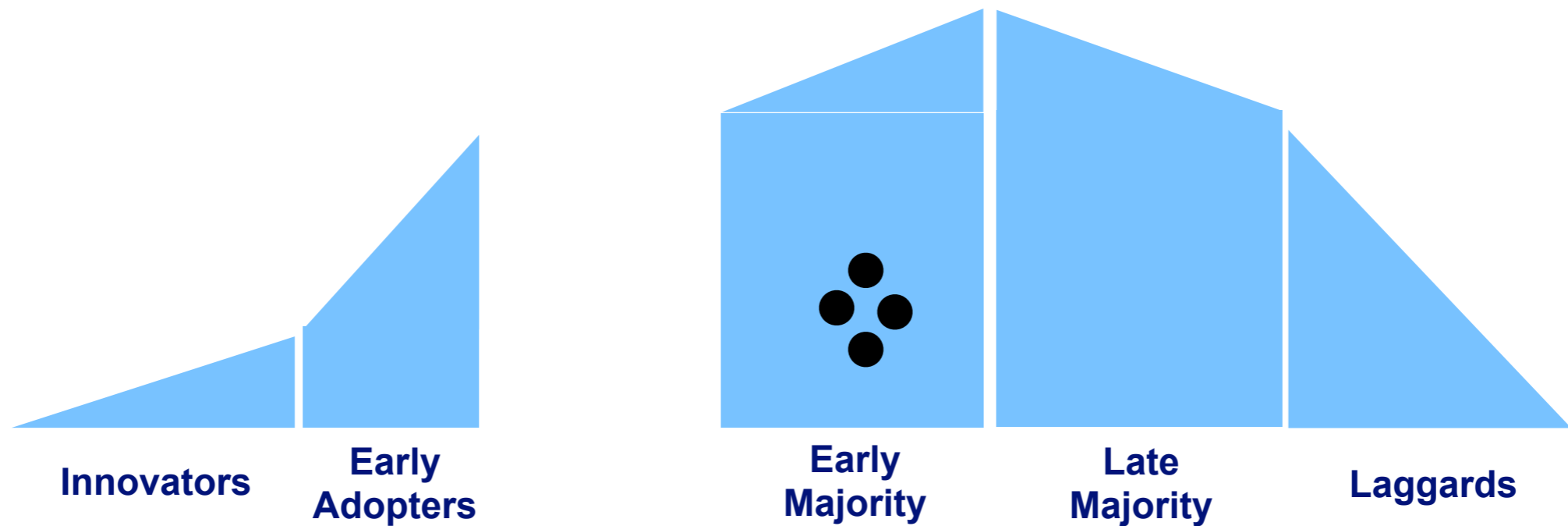


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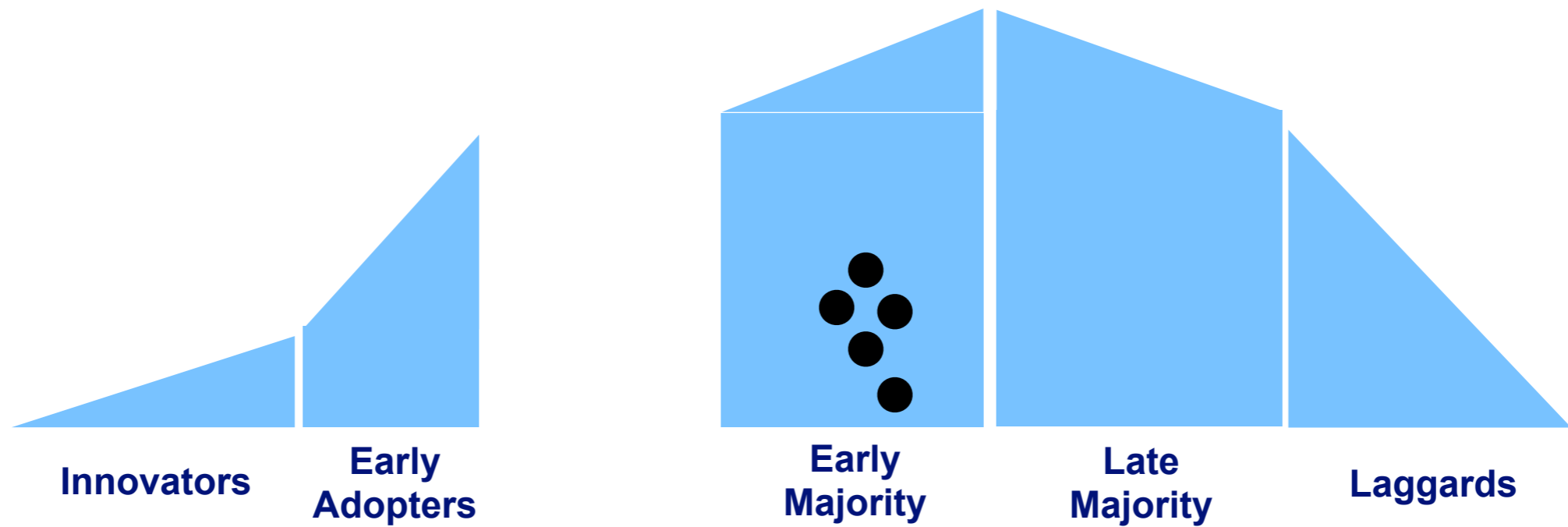




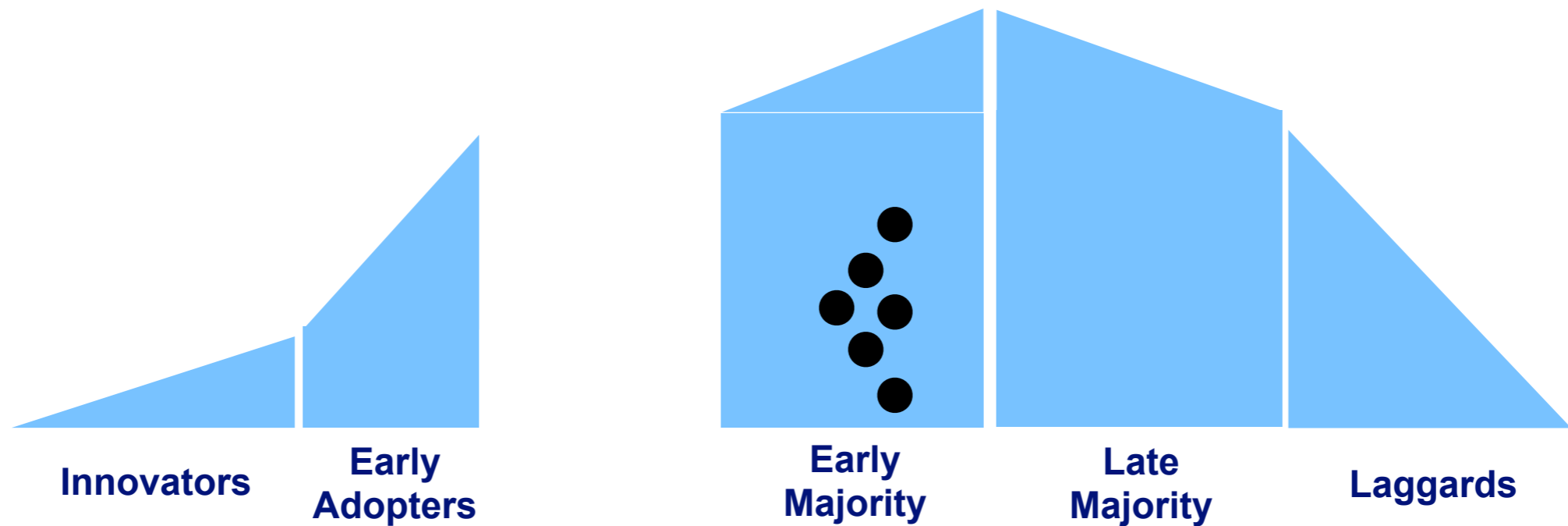
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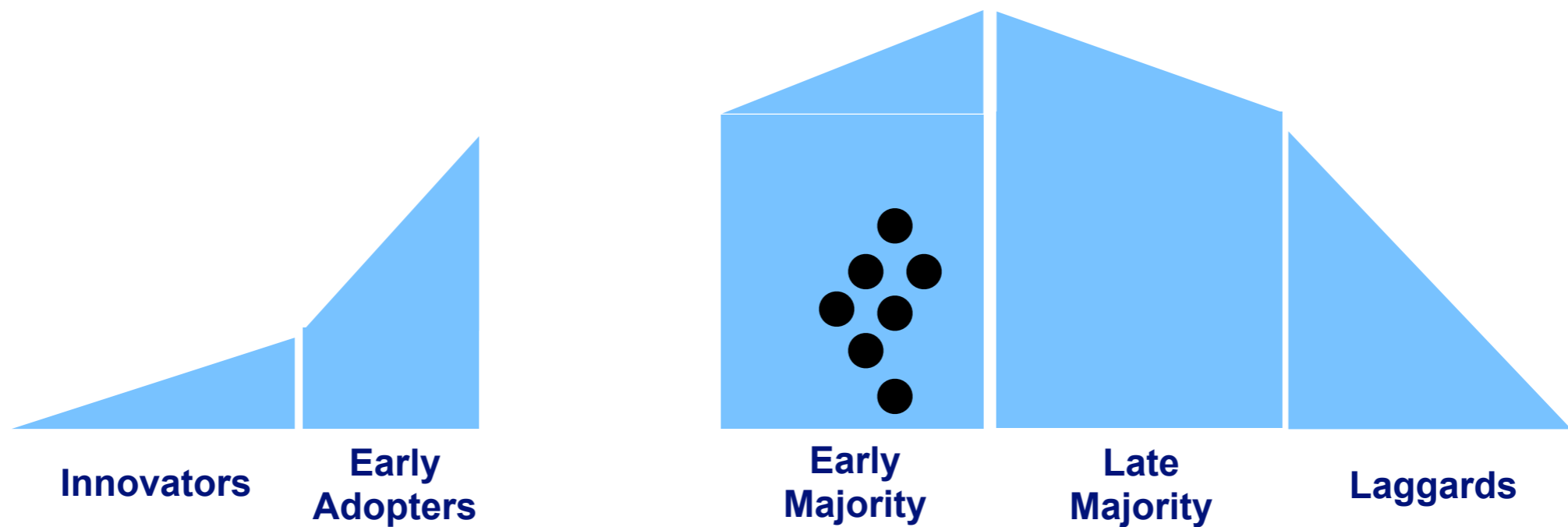
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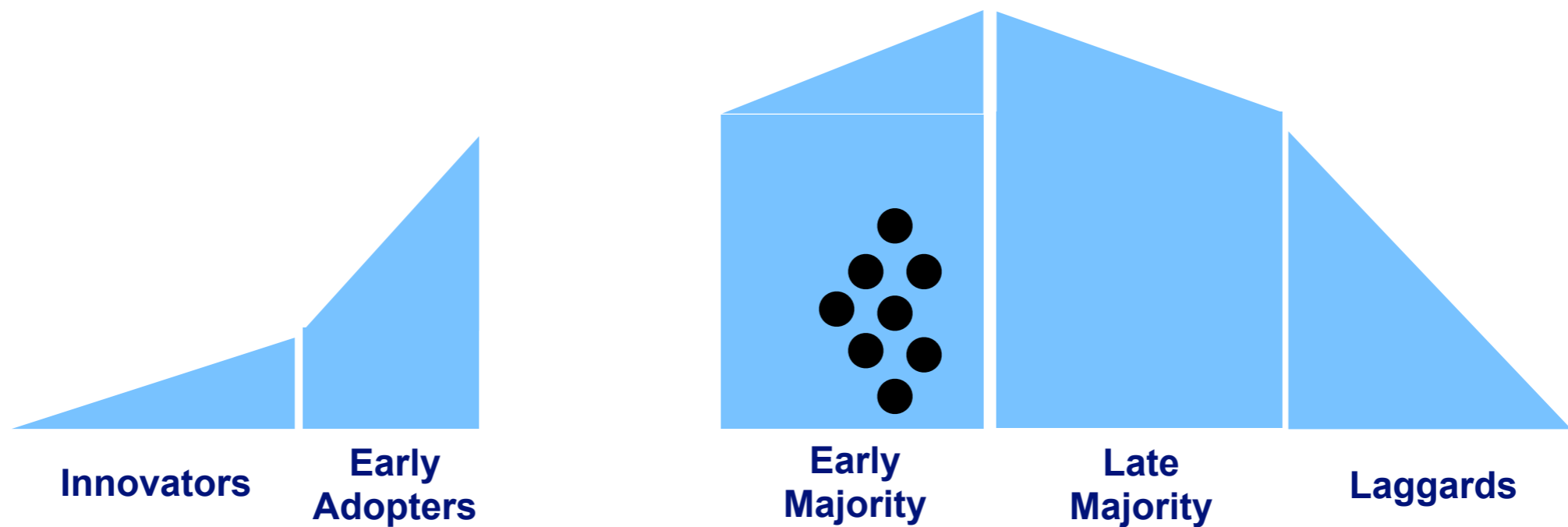
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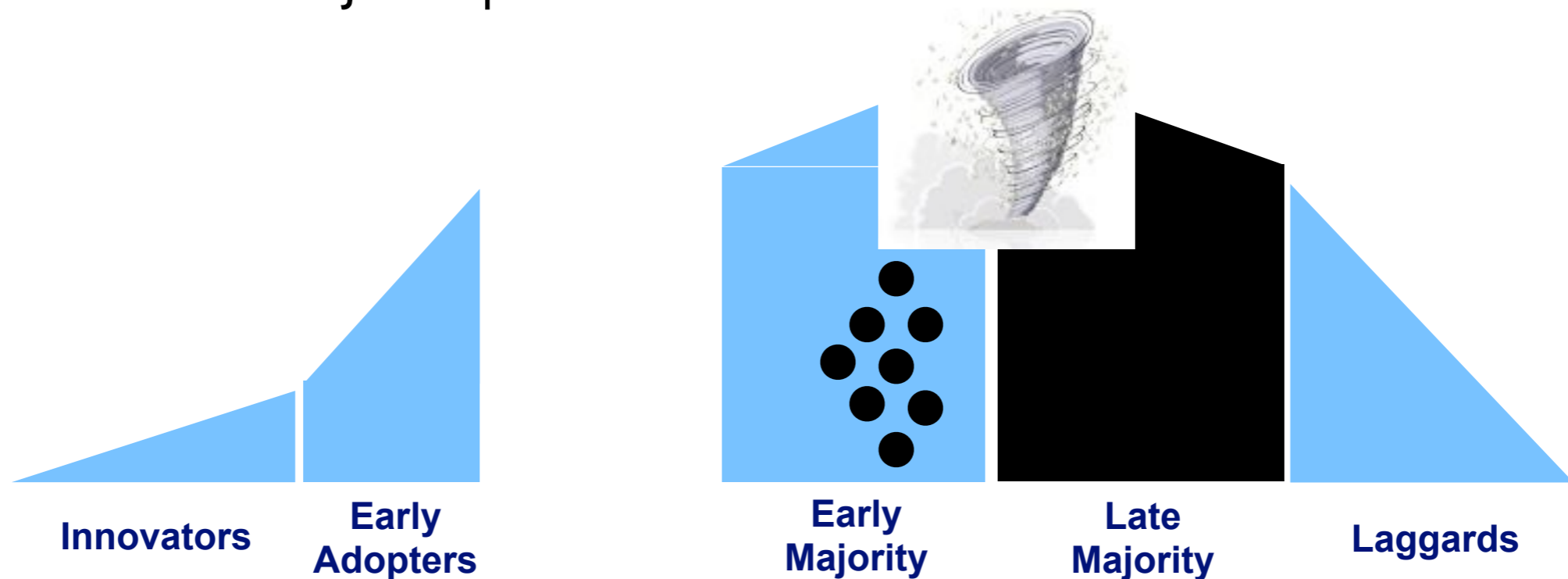


# Bowling Pins



# Tornado

- At some point you reach critical mass
- And the Late Majority perceive the greater risk is being left out
- Then they just buy - quickly, all at once
- The motto is “Just ship”



# The Importance of focus

- The only way to cross the Chasm is to focus on specific niches
- The more focused the better
- Build from one niche to another until you have critical mass
- You can't go horizontal – people perceive there to be too much risk

# This is not easy

- Requires effort and discipline to attend to the needs of each niche
- Goes against the typical IT best practice
  - Who want to buy a horizontal solution
  - Avoiding many different systems
- But you will end up with
  - A better solution which will roll out easier
  - Quite possibly, saving money



# Examples of Niches

- Departments are a good hint
  - You'll see TALC-style interactions
- Look for what the vendors are saying
  - Beware what the sales people are telling you
  - Respect the ones who tell you they can't do something, there are better solutions for X

# TALC and ELNs

- Why don't IT departments like this?
- How to run a TALC-aware project
- Benefits of a TALC-aware project

# Don't forget

- Just because you're TALC aware doesn't mean you won't end up with one system
- But it will mean you got there because it was the right thing to do from the business perspective
- Rather than have the IT tail wagging the scientific dog

# Why do IT look for one system

- Cheaper
- “One throat to choke”
- Removes integration burden
- Internal IT systems are simpler

# TALC-aware and cost

- A large proportion of a project's overall cost is in implementation
  - TALC-aware is more work up front but smoother later
  - Very little danger of "Shelfware"

# TALC & “One Throat”

- One large vendor
  - Tend to be disinterested
  - Variable quality of personnel on the ground
  - Large up front price and consulting costs
- Or 3 very focused
  - Working your niche
    - Products and expertise
  - For these vendors a good reference is as important as the cash

# TALC and Integration

- These days all quality software should be easy to integrate into an existing informatics system
- Don't do business with vendors who can't or won't play nice with others
  - It'll hurt in the end
  - In so many ways

# TALC and Internal IT complexity

- The business complexity is there
- The only question is
  - Do you confront and manage it?
  - Or hide it in a single tool which is customised for different applications (at great cost)



# TALC aware projects

- Keep an ear out for your innovators
  - They are probably viewed by IT as their “Difficult” customers
  - Trusted by their scientific colleagues
  - Probably have written their own systems
  - But don’t want to tell you about them!

# Find your Early Adoptors

- Line of business managers
- Broken mission critical process
- Have probably already taken steps to solve their problem
- Typical IT instinct is to hold these guys back!
- Will have a pocket Innovator/Geek

# Embrace! Extend!

- Nurture your Innovators
- Find your early adopters and make them happy
- Then take what's working and look for how it can be used elsewhere
- Let the users do the talking
  - IT have little credibility

# Don't

- Don't crush on-the-ground innovation
  - It's going to happen anyway
- Stop everyone doing things while The Big Project thinks for a year or two
  - Co-opt anyone interesting

# Benefits

- Roll out is much easier
  - Users tend to look after adoption themselves - you won't have to force things
  - The solution will tend to be right, because the introduction process is self-correcting
- The solution is cheaper
  - You only use what you need