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**"TSP Works...Let's Roll It Out!"**

**TSP Symposium  
Sept 17-20, 2007**

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**Eileen Fagan & Rajan Seriampalayam  
Intuit Inc.**

# Agenda

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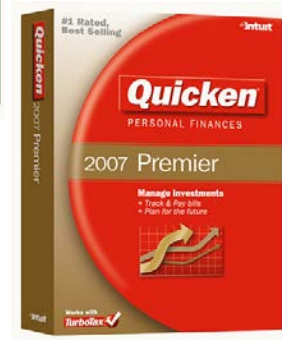
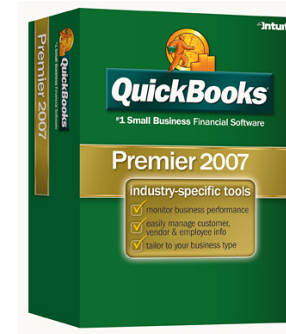
- Intuit Background
- Intuit's TSP Journey
- Pivotal Decisions
- Summary

# Intuit Background

## Who We Are...

A leading provider of business and financial management solutions

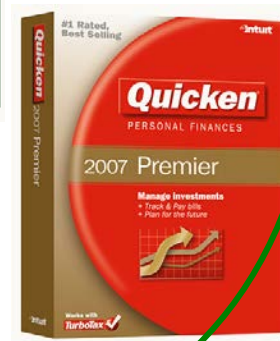
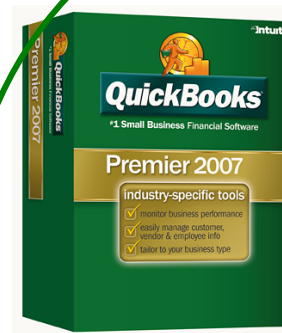
- Founded in 1983
- FY 2007 revenue of \$2.6 billion
- Intuit is traded on the NASDAQ: INTU
- Employs more than 8,000 people
- Major offices across the U.S. and Canada
- Fortune™ magazine named Intuit one of the 100 Best Companies to Work for!



# Small Business Division

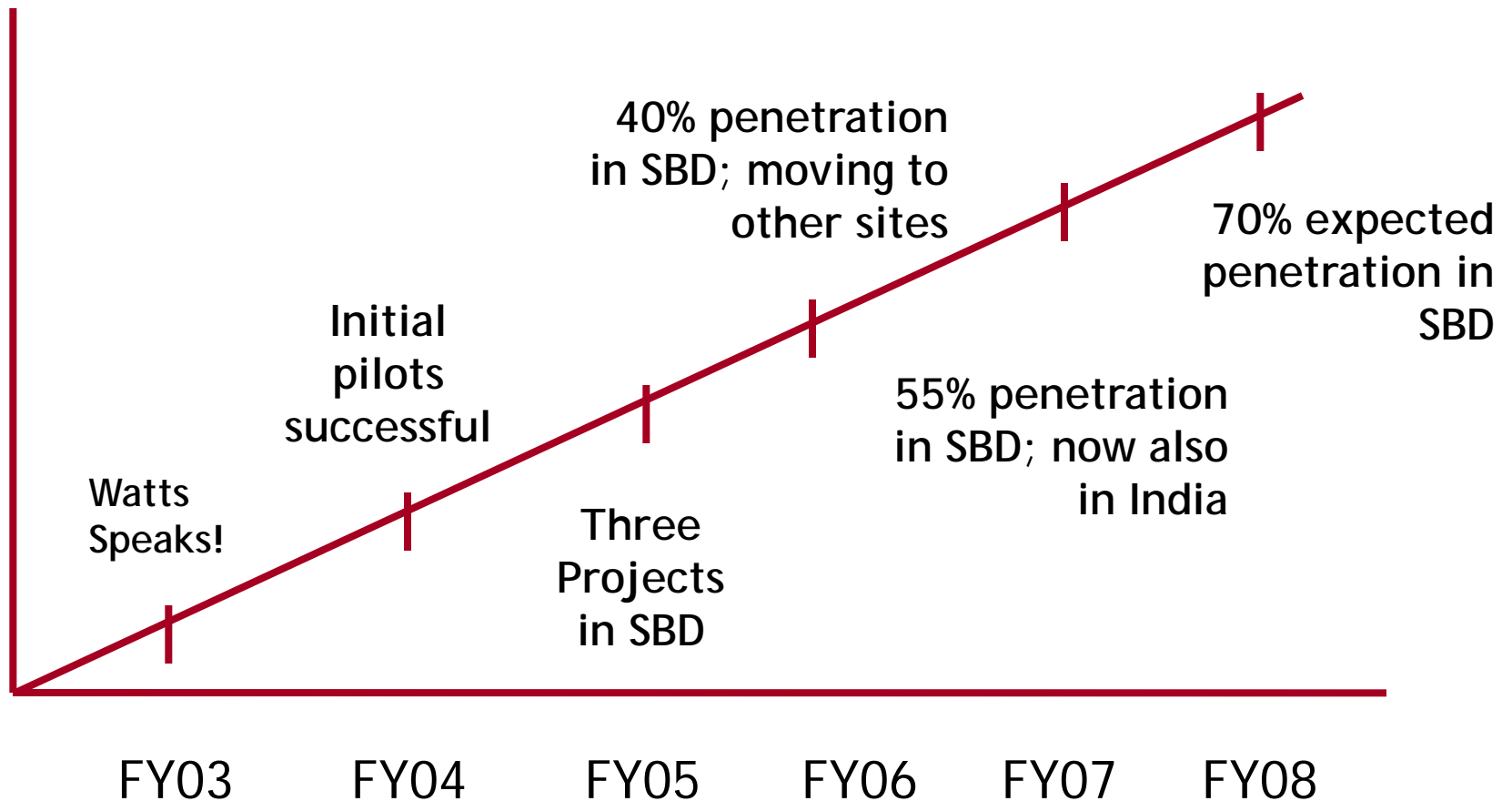
## Who We Are...

A leading provider of business and financial management solutions



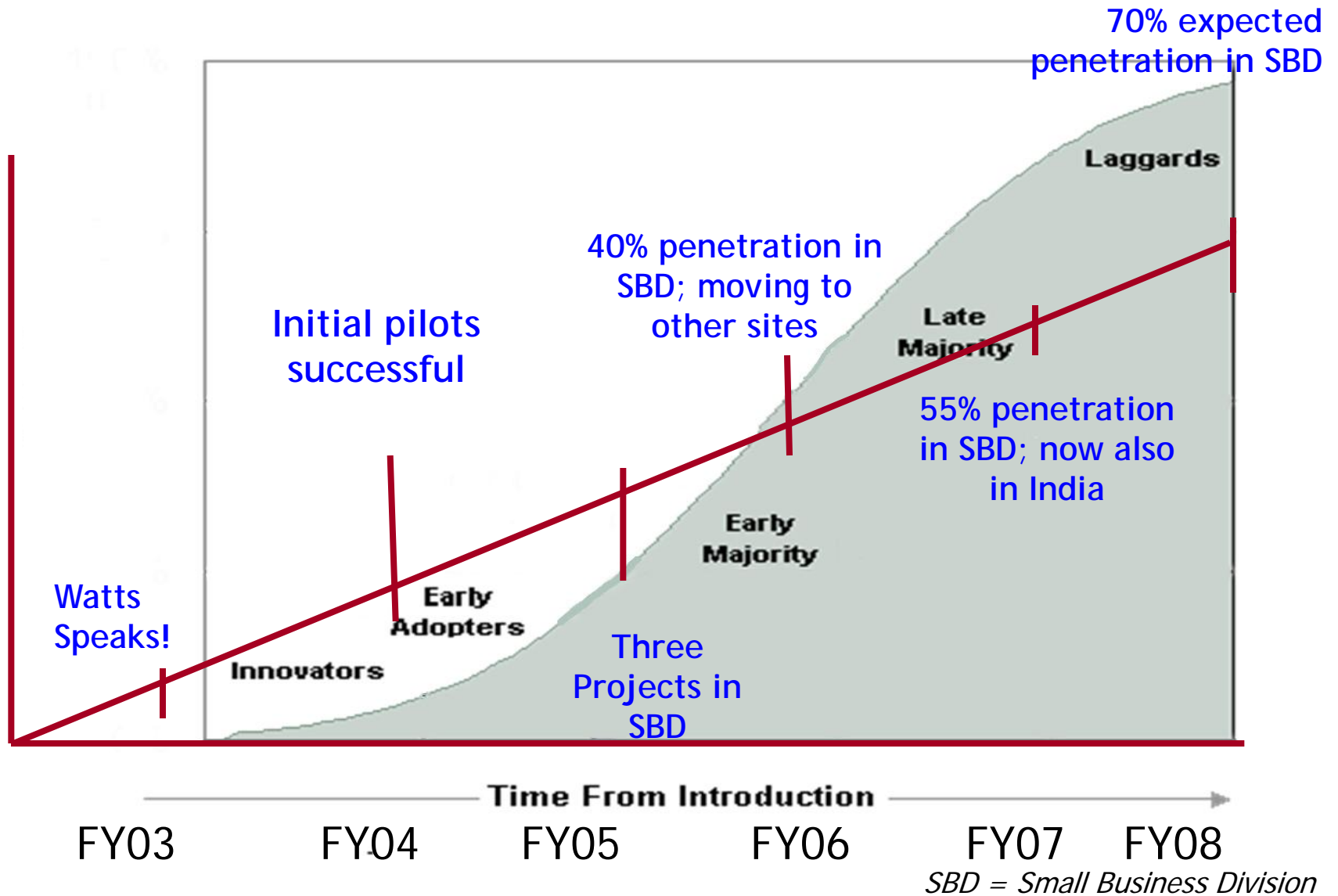
**Intuit's Small Business Division includes both our QuickBooks and Quicken product suites**

# Intuit's TSP Journey



*SBD = Small Business Division*

# Intuit's TSP Journey



# Small Business Division TSP Goals

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Improve software development productivity, quality, and project predictability *throughout SBD* by driving adoption of TSP/PSP

## What's Important

**Productivity** – Increasing product development throughput by reducing rework

**Quality** – Plan & practice early defect detection/ prevention

**Scope** – Deliver agreed upon scope on time

**Employee Engagement** – Team leaders/members empowered and enabled to improve their own work processes

Productivity
Quality
Scope
Employee Engagement

# Productivity

- Current release of our Small Business Product had a smooth landing
  - On time delivery of all planned scope
  - Saved \$700K in Temp QA Staff from last yr
  - Increased automated testing from last year by 2X

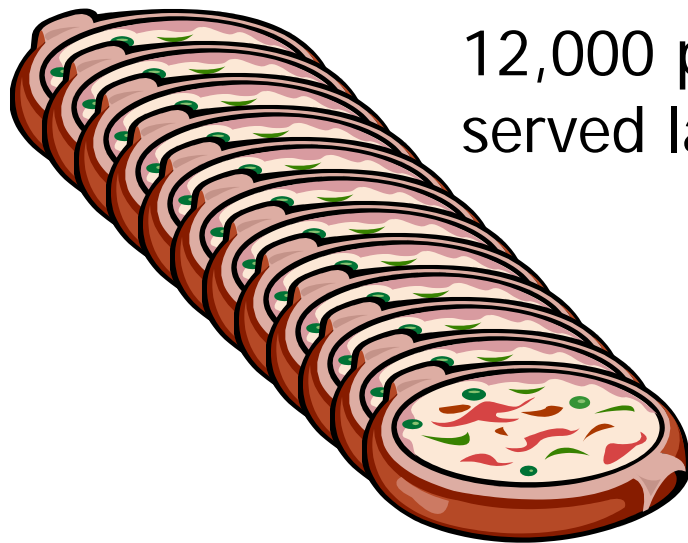
Focused improvements helped us deliver a great release.



Productivity
Quality
Scope
Employee Engagement

# How are we doing?

- Improved Work-Life balance
  - Fewer weekend check-ins (<3%)
  - Reduced \$ on dinners as measured by PSS – “Pizza Slices Served”



12,000 pizza slices  
served last year

Vs.

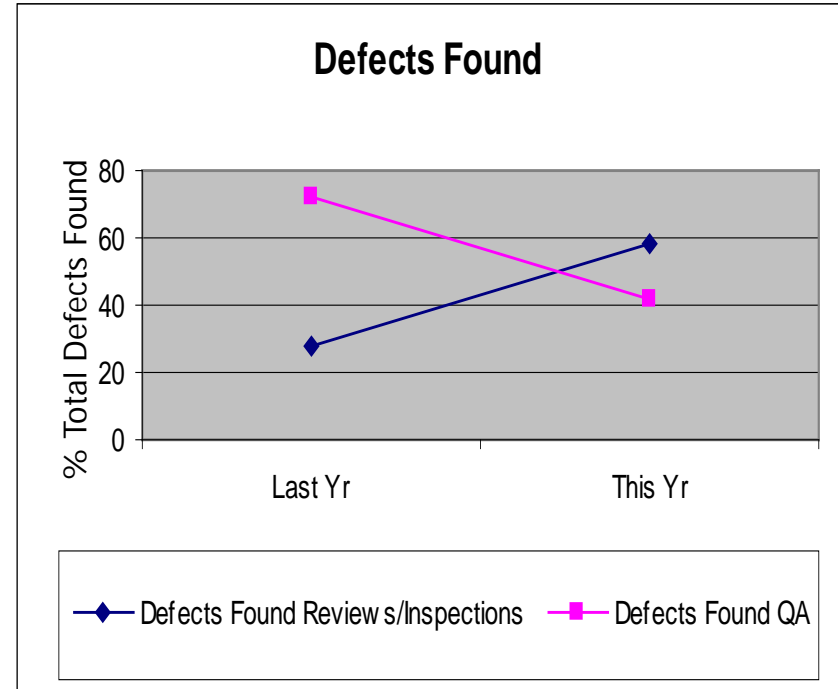
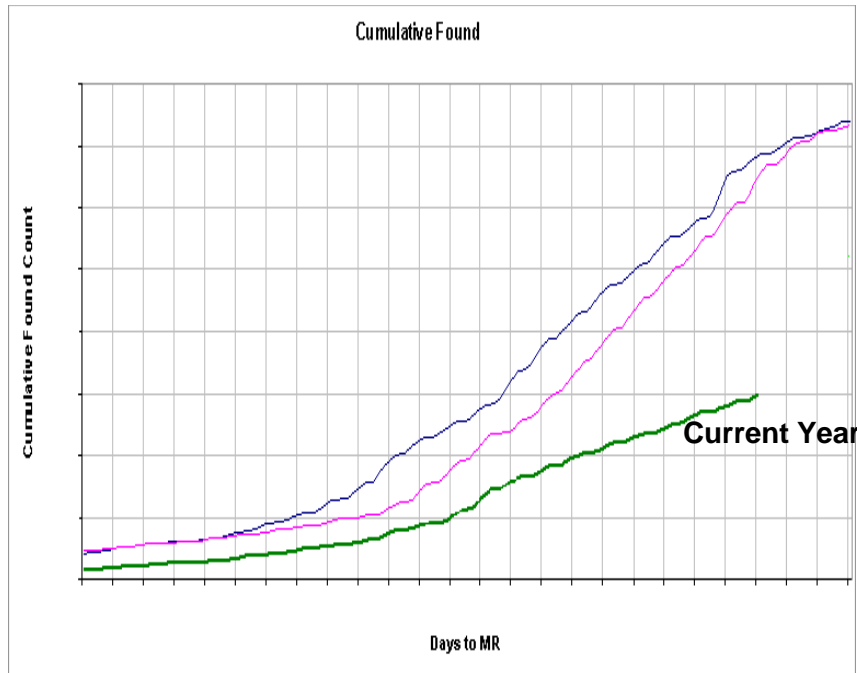


~30 pizza slices  
this year

Is TSP bad for the pizza industry?

# How are we doing?

- Dramatic improvement in defect reduction year over year.



## ■ Quality Improvements

- 60% found pre-System Test vs. 27% last year
- Defects found in ST dropped from 73% to 40%

Current release is tracking to 50% fewer defects than previous releases.

# Software Quality Data: TSP Projects

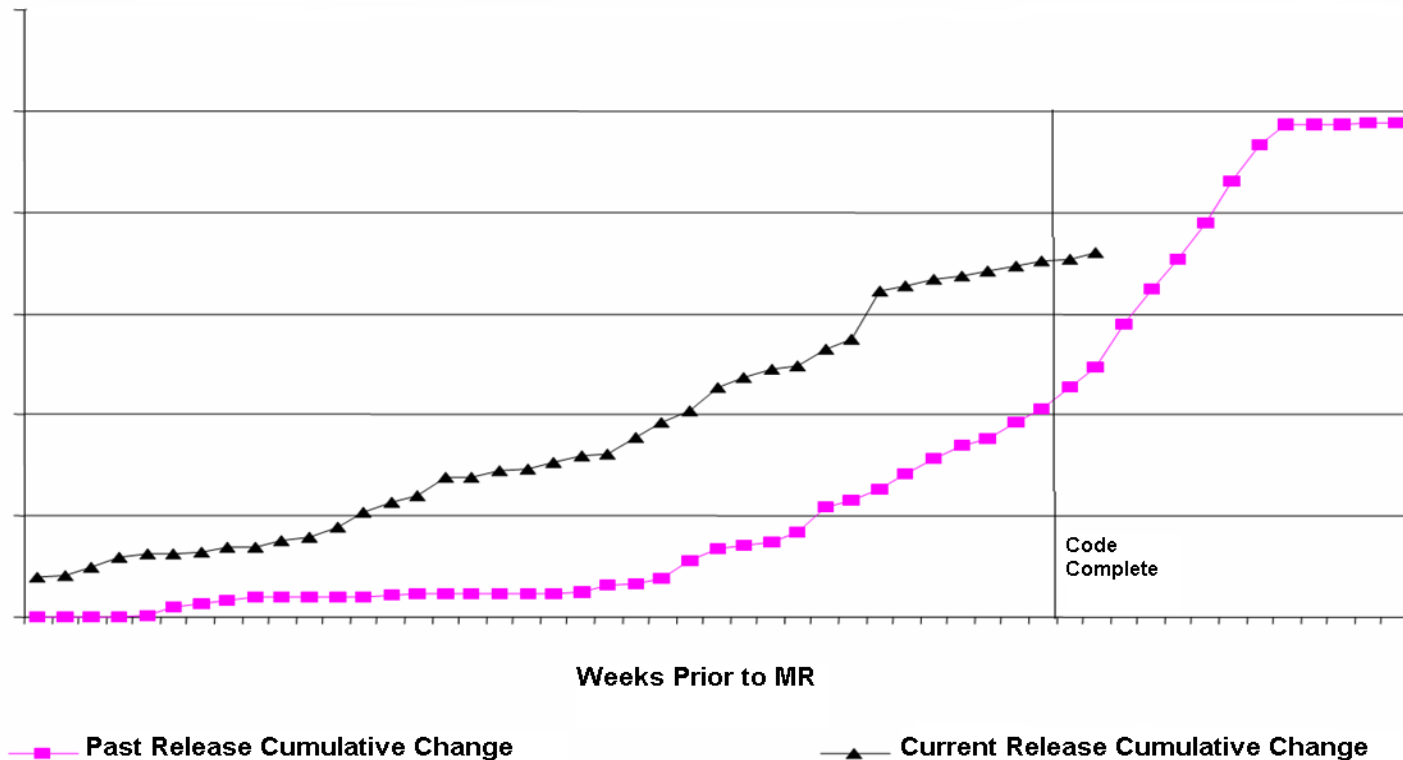
Project	% Defects Removed prior to System Test
Project A	86%
Project B	80%
Project C	96%
Project D	98%
Project E	86%
Project F	86%
Project G	67%
<b>Average</b>	<b>86%</b>

TSP projects had more defects discovered prior to system test than non-TSP projects (60%).

Productivity
Quality
Scope
Employee Engagement

# How are we doing?

- All features planned for the current release were delivered on time.



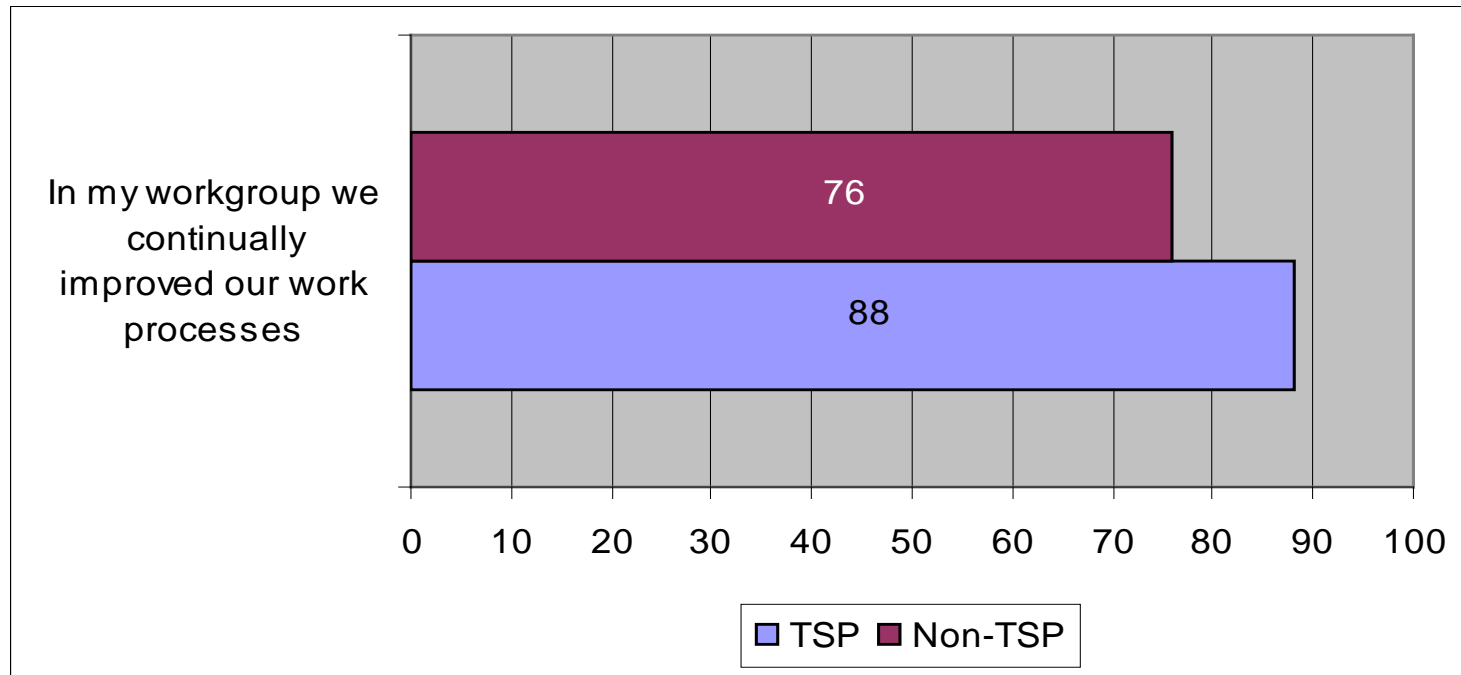
Early and high quality check-ins enabled addition of new features totaling 33% of overall scope.

# How are we doing?

Productivity
Quality
Scope
Employee Engagement

## Annual Employee Survey

Confirming what we expect TSP to deliver, TSP teams responded more favorably to the annual survey question 'In my workgroup we continually improved our work processes.'



**TSP team members feel more empowered.**

Productivity
Quality
Scope
Employee Engagement

# How are we doing?

## Engineers take ownership for delivering quality software

The mindset shift: *"... defects must be prevented or found before system test"*

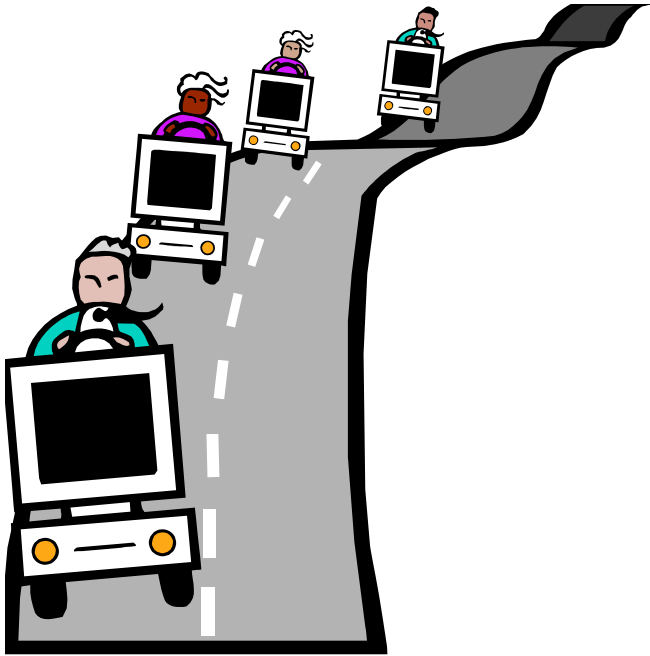
## Engineers embrace project planning and tracking

*"It provides solid ground for knowing what I can and cannot commit to."*

*"It makes sure we plan and do the key tasks such as design reviews that are essential to ensure quality."*

This mindset shift has changed the culture of SBD.

# TSP Works!



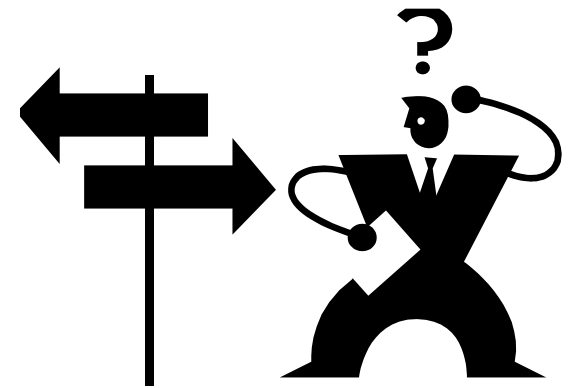
How did we get here?



# Pivotal Decisions that Influenced our Success

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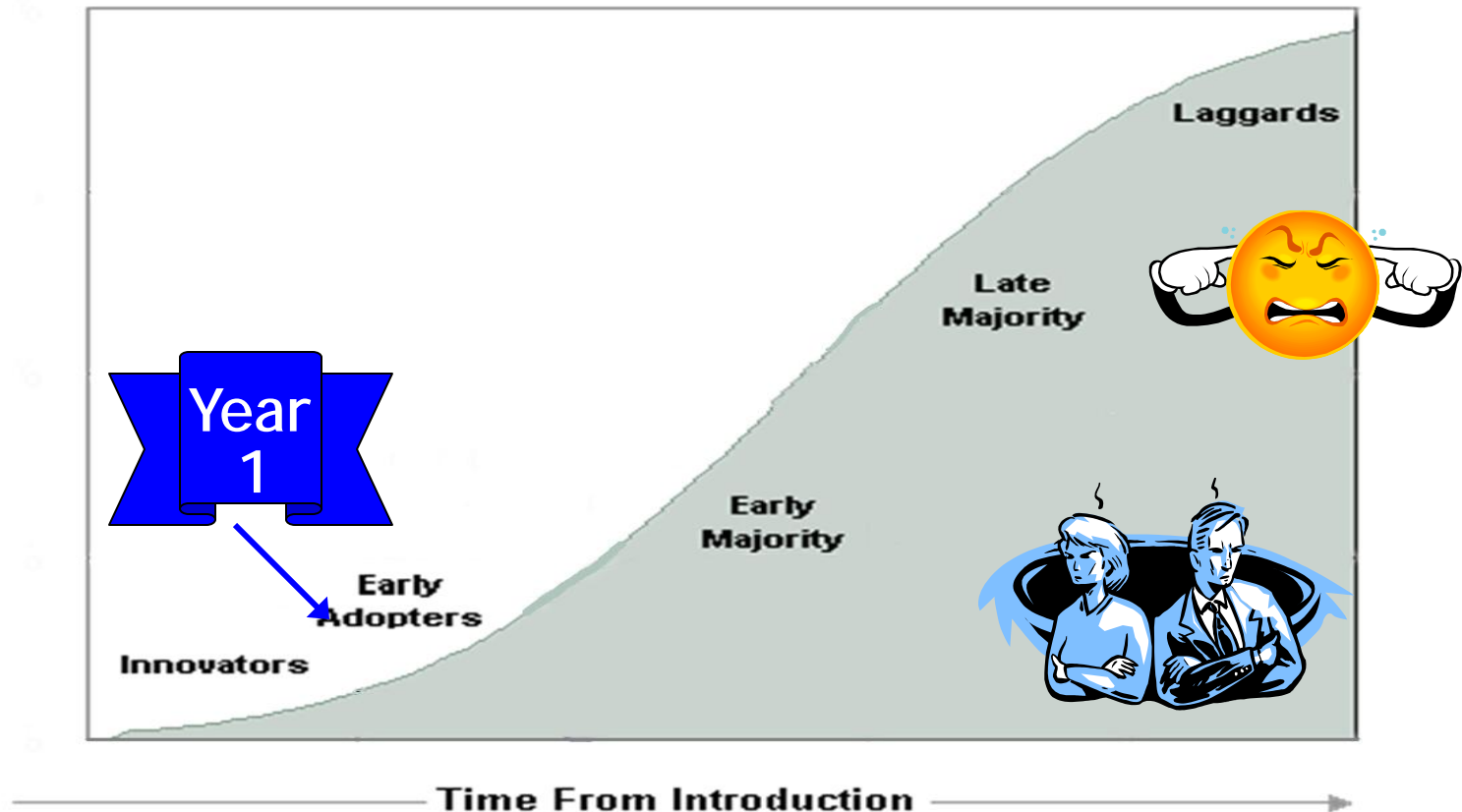
1. Chose to tackle resistance by senior engineers indirectly
2. Build the infrastructure to support TSP expansion
3. Growing coach capacity
4. Integrate TSP/PSP with other development methodologies





# 1. Resistance by Senior Engineers

- In the early roll out of TSP, a “circle of wagons” of resistant senior influential engineers emerged.



# 1. Resistance by Senior Engineers

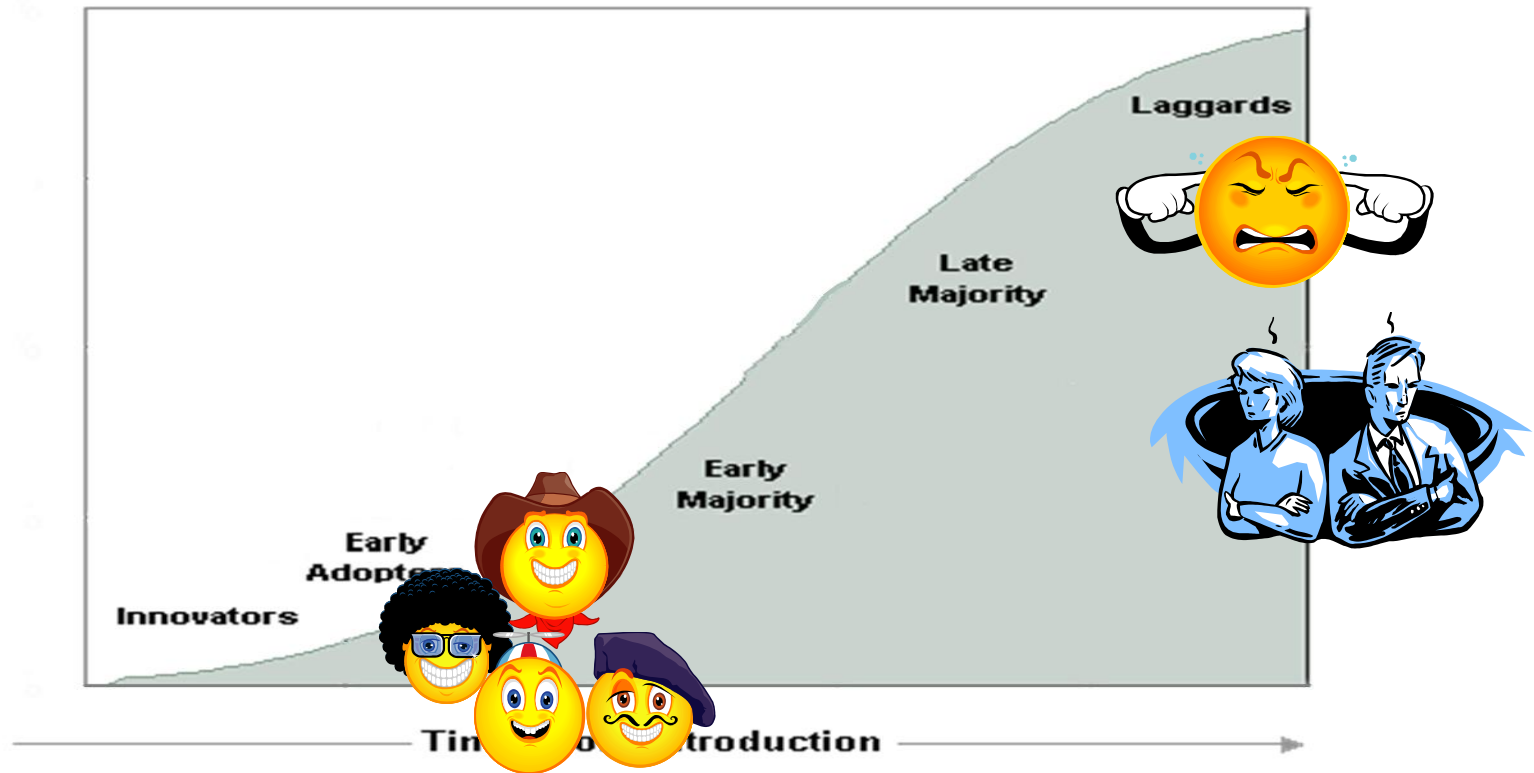
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- **Alternatives we considered**
  - **Try to change their minds**
    - Bring in a SEI/Consultant to influence them
    - Present data and educate
    - Address concerns “head on”
  - **Force compliance by mandating TSP**
    - Mandate by senior management
  - **Leave them alone**
    - Form another circle
    - Move forward with pilots and do not address them directly

# 1. Resistance by Senior Engineers

## Leave them alone

- Form another circle
- Move forward with pilots and do not address them directly



# Pivotal Decision #1

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## Leave them alone

- We believed that tackling the issue head-on would entrench the resistance
- Instead, we chose to create another circle of TSP supporters and users to grow within the business unit
- This reduced the friction and outright rebellion of the engineers as we gained momentum – did not engage in a battle
- Importantly, there were also Opinion Leaders in the TSP circle

Do not engage in battles that make engineers declare their position – this only makes it harder for them to change.

## 2. Build infrastructure to support TSP expansion

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### Building infrastructure to support TSP on a broader scale

- We had no support infrastructure in place (tools, training)
  - Training was an impediment
    - length & content
  - Tools were lacking and a source of complaint

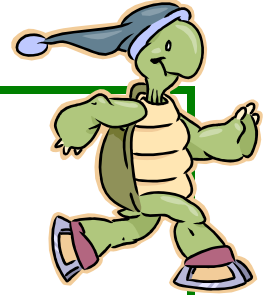


## 2. Build infrastructure to support TSP expansion

### ▪ Alternatives we considered

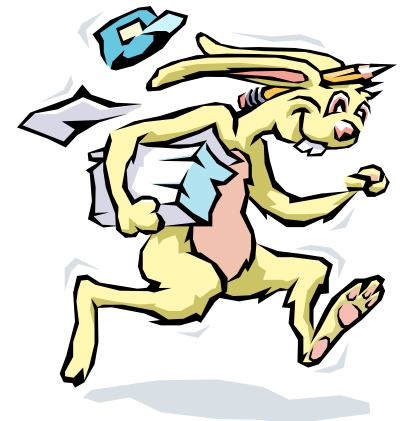
#### • Slower and more robust rollout

- Central support & funding for all teams (coaching, training, tools)
- Rely on external transition partners for all training
- Required complete management chain and engineering teams be trained



#### • Faster and broader rollout

- Let each PD Group fund their training/coaching efforts
- Less central support for teams
- Potential for more variability



# Pivotal Decision #2

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## ■ Slower and more robust rollout

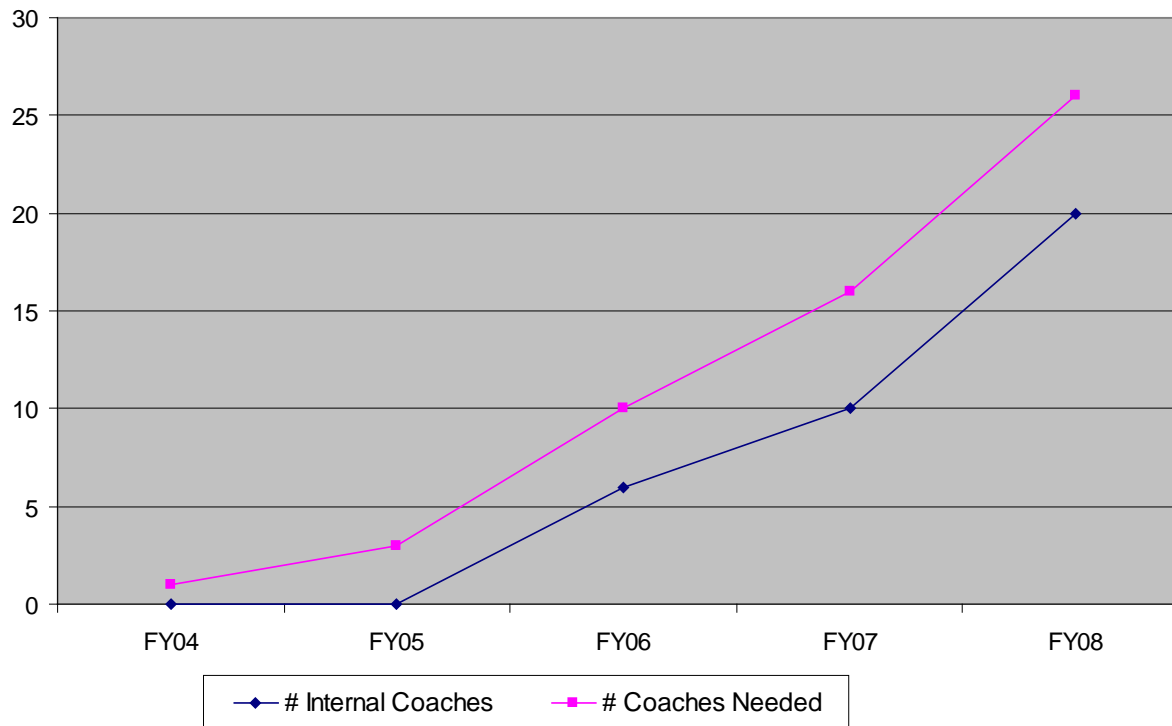
- Maintained central support & funding for all teams (coaching, training, tools)
- Relied on external transition partners for all training
- Criteria to become a coach included participation on a TSP team for a full project cycle
- Continued to ensure complete management chain and engineering teams are trained
- Revised the training class and reduced barrier to entry for being on a TSP team
  - Shifted advanced topics to coaches only

Focus on the quality, not quantity, of TSP execution and adoption.

### 3. Growing coach capacity

- TSP relies on excellence in coaching to be successful
- There was a limited source of coaches available (internal and external)

**Internal Coaching Capacity**



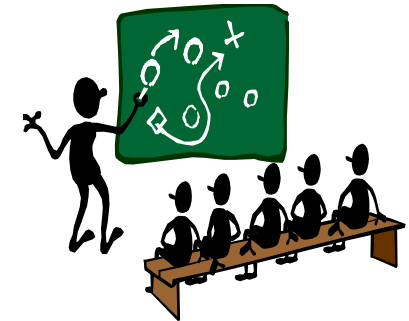
Our demand  
for TSP  
coaches has  
always  
outpaced our  
supply



# 3. Growing coach capacity

## Alternatives we considered

- **Grow part time coaches - Coach one project while keeping current role**
  - Roll out is much slower
  - Allows engineers to keep their skills intact
- **Grow full time coaches**
  - Roll out is much faster
  - Coaches are dedicated
- **Use external coaches only**
  - Limited availability of transition partners
  - Cost is high and ongoing



# Pivotal Decision #3

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- **Grow part time coaches - Coach one project while keeping current role.**
  - Minimal disruption for individuals choosing to be coaches
  - Less fear of being out-dated with engineering/technical work
  - A significant step in career progression towards management
  - It grew leadership skills internally
- Retained external coaches to support key new areas (India, new BU's adopting TSP)

Be flexible about coaching. It allowed us to get the caliber of coaches we needed.

## 4. Integrate TSP with other development methods

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- Agile is growing in popularity across industry and at Intuit
  - Perception that TSP is not flexible and at odds with Agile
  - “Agile” was used as a reason not to do TSP
- ➔ It was shaping up to be a war between two methods!

## 4. Integrate TSP with other development methods

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- **Alternatives we considered**
  - **Compete with other methodologies**
    - Prove TSP is better
  - **Integrate with other methodologies**
    - Blend TSP with Agile/Scrum



# Pivotal Decision #4

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## ■ Integrate with other methodologies

- There seemed to be a lot of interest and some experience with Scrum among a few teams
- Program leader and some of our coaches took Scrum master training
  - Found symbiotic relationships between the two methods
- Results were positive; the blended approach works!
- TSP is flexible and integrates well with shorter iterations and other agile principles

Maintain the key principles of each method to bring them together.

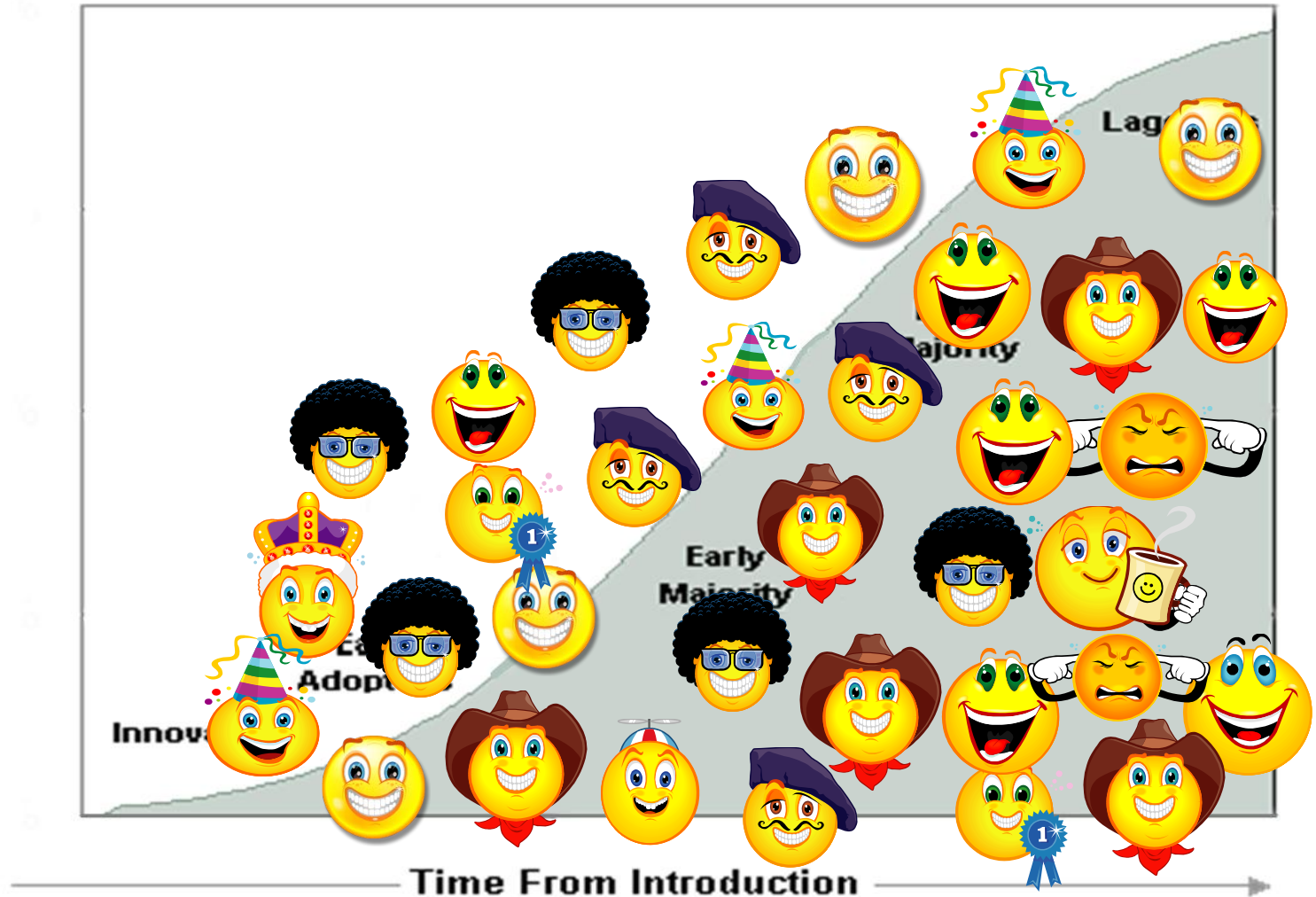
# Summary

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- TSP roll-out has to be well orchestrated with some key decisions and management support
  - Champion (CTO) and central support is key to success
  - Pick your battles
  - Moderate the pace of the roll out to maintain a high standard of execution
  - Be flexible but do not bend on key principles
- Don't need a 100% TSP penetration to bring mindset change and cultural shift to see results

Yes, TSP Works... however, roll-out across the org was a road with potholes and pivotal decisions.

# We're achieving critical mass...



**and success!**

# Questions?

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- **Contact Info**

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