



ORLANDO

April 18-20, 2016

The background of the slide is a scenic view of an Orlando skyline at sunset. A palm tree is on the left, and a body of water with swans is in the foreground. The sky is a mix of blue and orange.

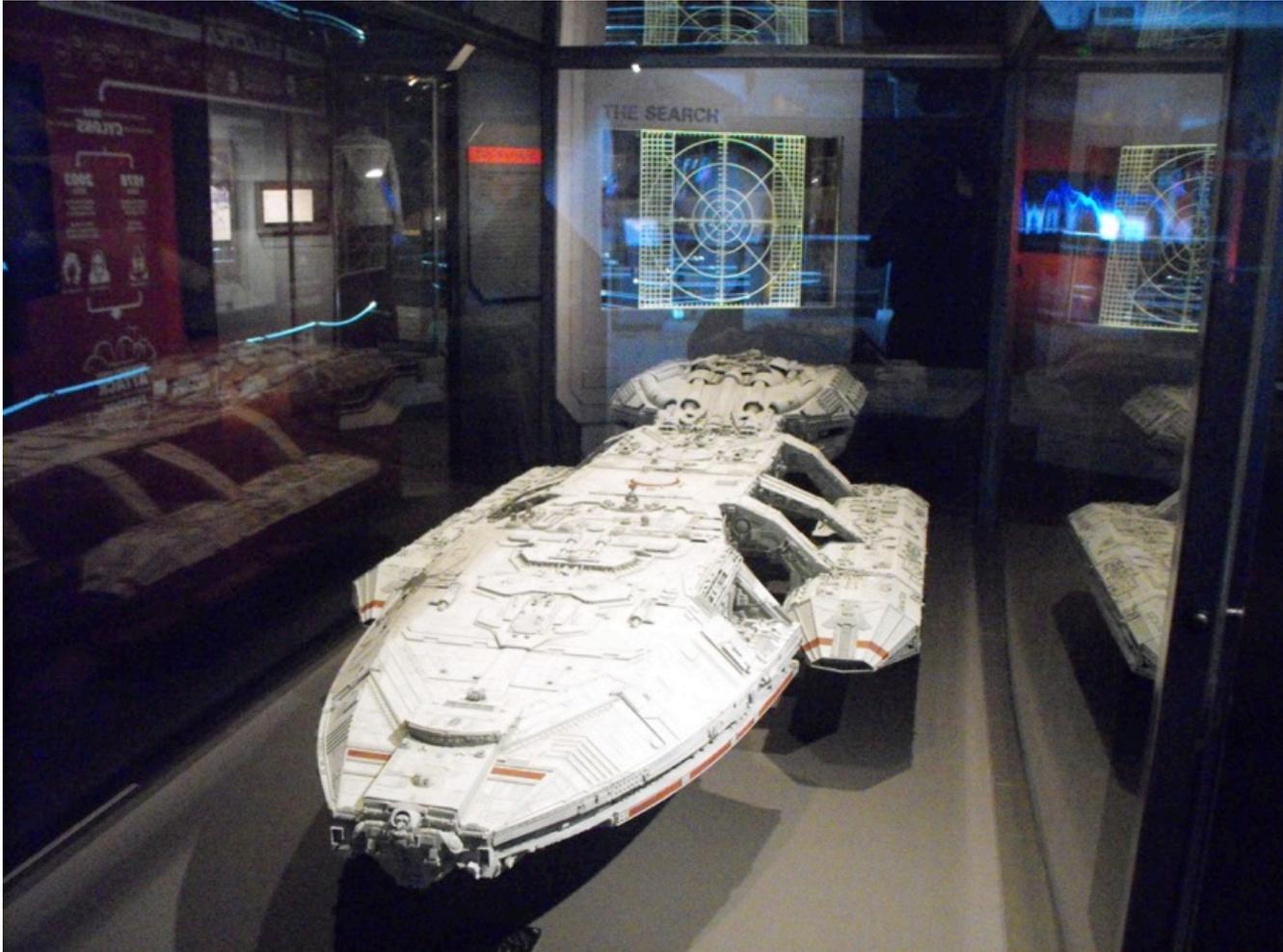
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Dan Fuller & Chris Waggoner

Agile Transformation Metrics

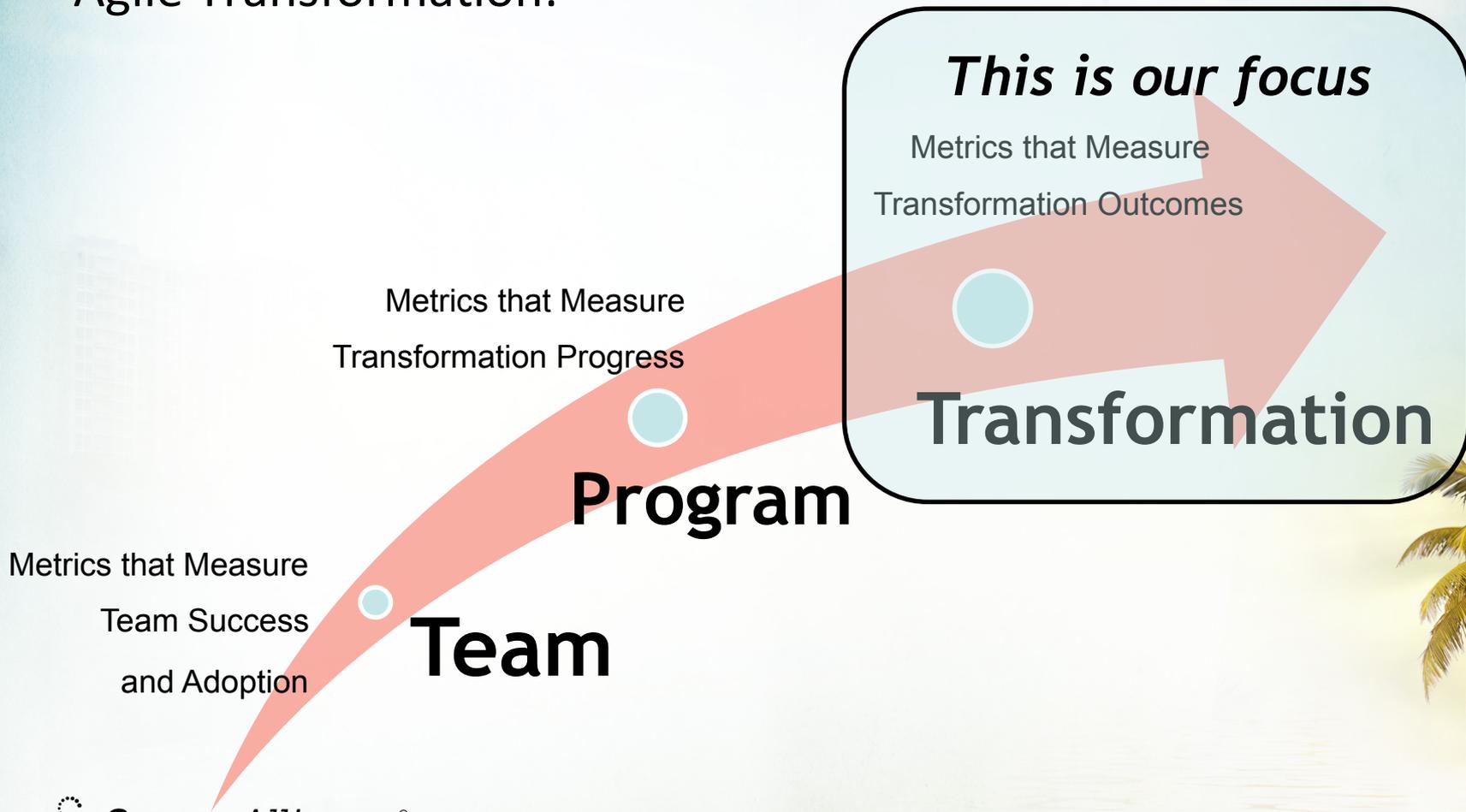
Lift Off



Battlestar Galactica – EMP Museum Seattle

Which Types of Agile Metrics are we Talking About?

There are typically three different levels of Metrics relating to an Agile Transformation:



Why do Large Agile Transformations Fail?

(1) No winning strategy;

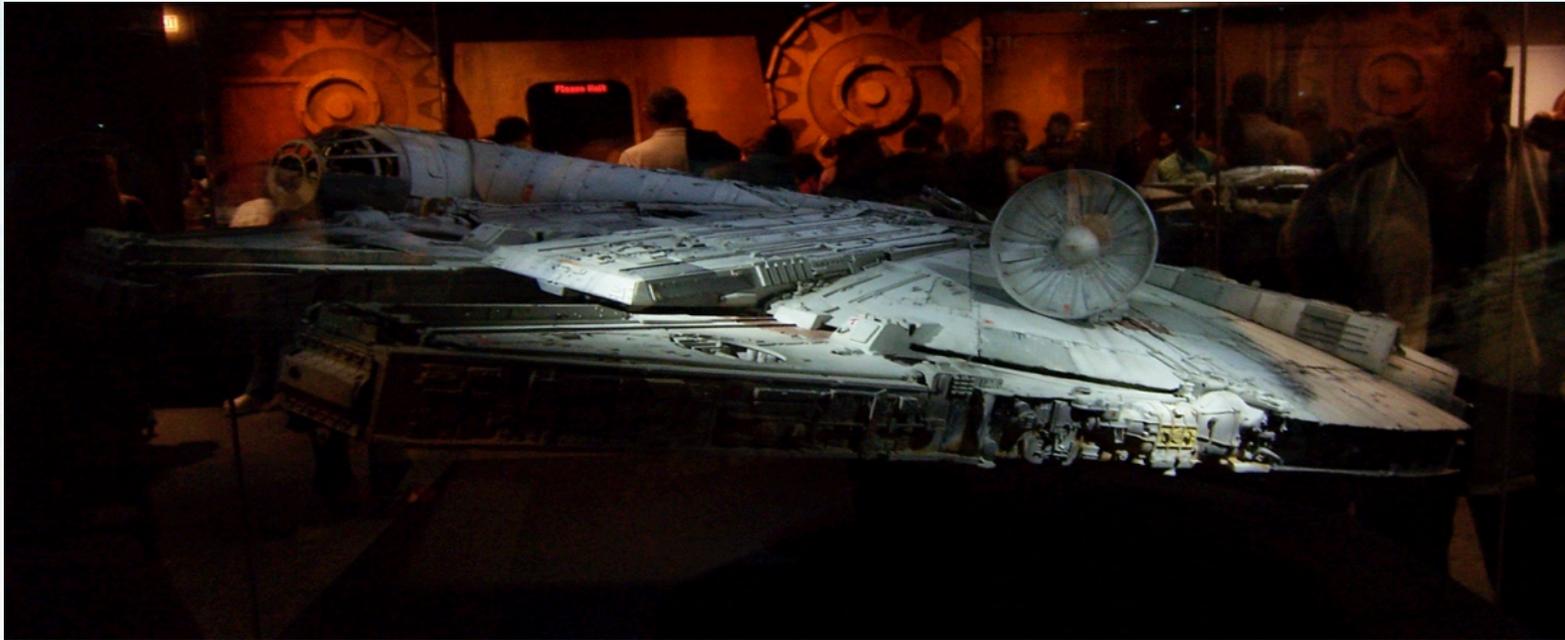
**Let's focus initially
on these two reasons!**

(11) No performance focus;

(12) Excessively open-ended process;

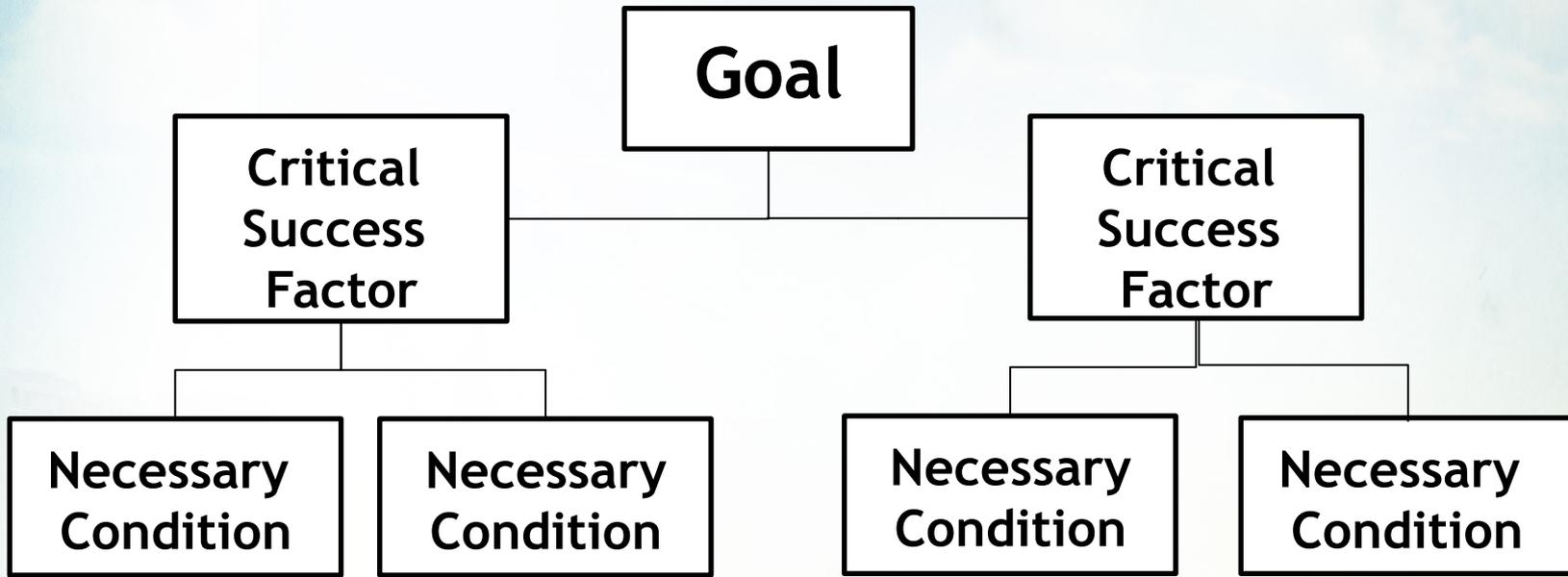
(13) Failure to make the whole process transparent and meaningful to individuals.

What Makes for a Winning Agile Strategy?



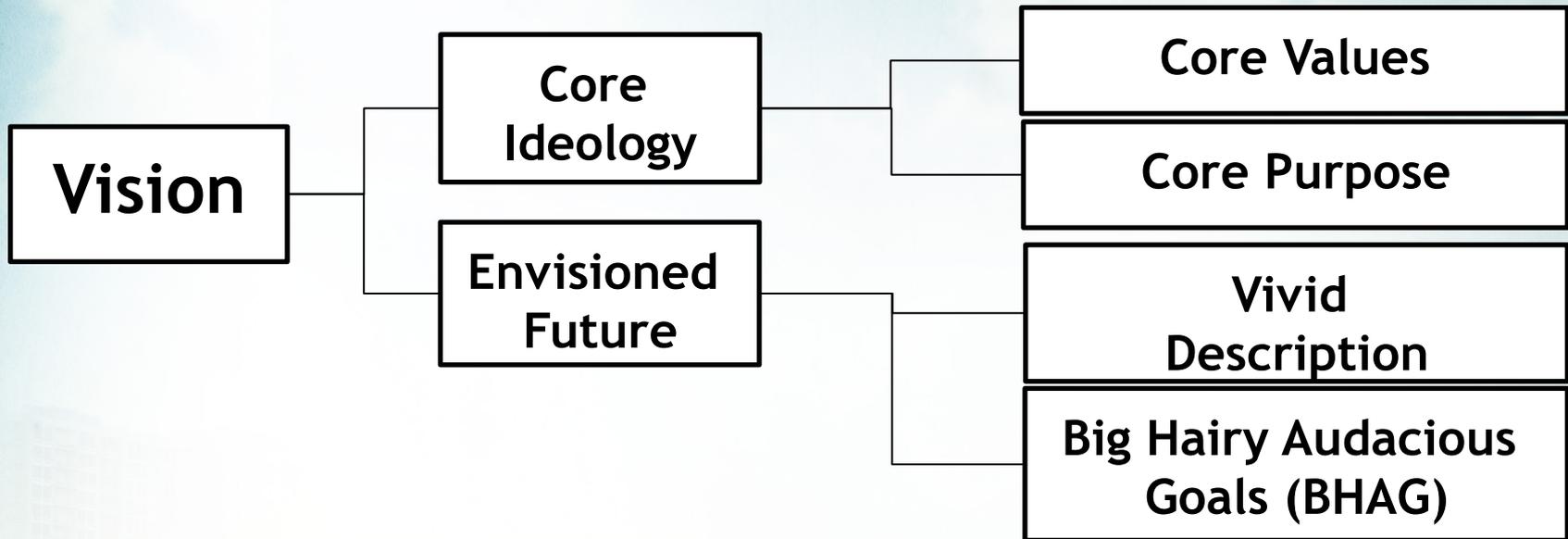
Millennium Falcon – Star Wars where Science Meets Imagination – Boston Museum of Science

Winning Strategies are Goal Oriented



- Intermediate Objectives Map is a technique for defining a strategy.
- Origins were from the Theory of Constraints in the field of Physics (Logical Thinking Process, Cohen and Goldratt).
- Adapted from physics domain to systems thinking by H. William Dettmer.

Goals should be Big, Hairy and Audacious



Target BHAG: Become a \$125 billion company by the year 2000 (Wal-Mart, 1990)

Common Enemy BHAG: *Yamaha wo tsubusu!* We will destroy Yamaha! (Honda, 1970s)

Role Model BHAG: Become the Harvard of the West (Stanford University, 1940s)

Internal Transformation BHAG: Transform this company from a defense contractor into the best diversified high- technology company in the world (Rockwell, 1995)

Goals can sometimes Compete Against Each Other



Is this a Winning Agile Strategy?

Vision: We strive to become on par with our competitors as it relates to the agility of our Technology Group.

Goal 1 - Train 25% of our teams in Scrum

Goal 2 - Train all product managers in product ownership

Goal 3 - Establish an internal Agile coaching competency

Goal 4 - Provide ongoing Agile coaching to teams

**Probably not, lack of description of future state.
Goals are also not very BHAG.
Seems more like necessary conditions or success factors to a higher goal, not goals in themselves.**

Is this a Winning Agile Strategy?

Vision: We will become the recognized leader in our industry space with shorter time-to-market for highly innovative products that delight our customers

Goal 1 - Reduce the amount of time it takes to get new product to market

Goal 2 - Increase the amount of collaboration between engineering and product

Goal 3 - Maintain current levels of software product quality

Goal 4 - Increase customer satisfaction with our products

**Getting Better:
Much more vivid vision.
Describes outcomes not success
factors or necessary conditions.**

Is this a Winning Strategy?

Vision: We reach for new heights and reveal the unknown for the benefit of humankind.

Goal 1 - Expand the frontiers of knowledge, capability, and opportunity in space.

Goal 2 - Advance understanding of Earth and develop technologies to improve the quality of life on our home planet.

Goal 3 - Serve the American public and accomplish our Mission by effectively managing our people, technical capabilities, and infrastructure.

This is NASA's current Strategy!

What Data to Collect?



Mars Rover – Kennedy Space Center

Quantitative vs. Qualitative Metrics

Quantitative Data

- Test hypotheses
- Distinct variables
- Systematic and standardized
- Numeric and precise
- Can be replicated
- Statistics, tables and charts

Quantitative Methods

- Surveys (using a scale)
- Statistics
- Scientific tests
- Interval data (from a tool)

Quantitative great for continuously measuring and improving behavior over time

Qualitative Data

- Discover Meaning
- Themes and concepts
- Individual setting
- Words and observations
- Hard to replicate
- Themes and generalizations

Qualitative Methods

- Observation
- Interview
- Focus Groups
- Case Studies

Qualitative great for establishing initial baselines and understandings of behavior

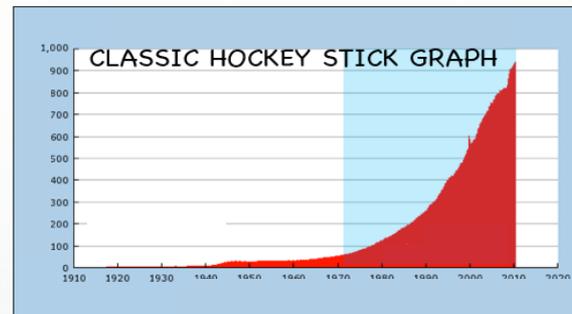
Beware of Vanity Metrics

Effective Metrics

- Support effective action
- Illustrate Trends vs. absolutes
- Understandable
- Ratios

Vanity Metrics

- Misleading
- Not actionable
- Not focused on the goal
- Can be gamed
 - Page views
 - New visitors



Importance of Benchmarking

Current State

- Might not have data for brand new behavior
- Benchmarking is essential
 - Use both quantitative and qualitative methods when possible
 - At minimum do a qualitative benchmark if quantitative data doesn't exist or too costly to collect

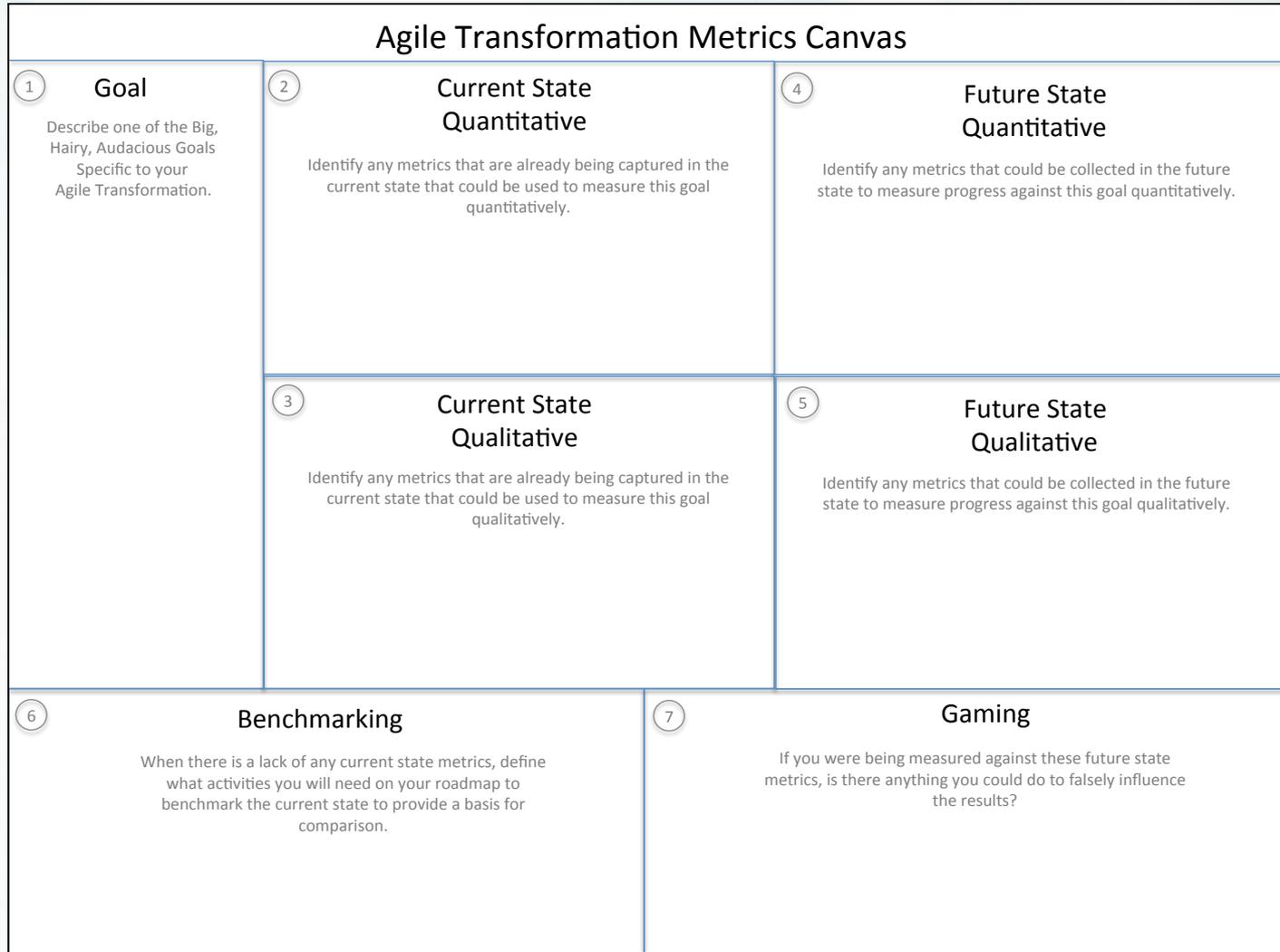
Future State

- Often we are seeking brand new behavior
- Start collecting data ASAP
 - Compare future state qualitative data against current state qualitative data
 - Use quantitative metrics to continuously improve from that point forward

Some Common Agile Transformation Metrics



Agile Transformation Metrics Canvas



① **Goal**

Describe one of the Big, Hairy, Audacious Goals Specific to your Agile Transformation.

② **Current State Quantitative**

Identify any metrics that are already being captured in the current state that could be used to measure this goal quantitatively.

④ **Future State Quantitative**

Identify any metrics that could be collected in the future state to measure progress against this goal quantitatively.

③ **Current State Qualitative**

Identify any metrics that are already being captured in the current state that could be used to measure this goal qualitatively.

⑤ **Future State Qualitative**

Identify any metrics that could be collected in the future state to measure progress against this goal qualitatively.

⑥ **Benchmarking**

When there is a lack of any current state metrics, define what activities you will need on your roadmap to benchmark the current state to provide a basis for comparison.

⑦ **Gaming**

If you were being measured against these future state metrics, is there anything you could do to falsely influence the results?

① **Goal**
Describe one of the Big, Hairy, Audacious Goals Specific to your Agile Transformation.

Reduce the amount of time it takes to get new product to market

② **Current State Quantitative**
Identify any metrics that are already being captured in the current state and measure this

We have existing measures of cycle time from concept to cash

④ **Future State Quantitative**
Identify any metrics that you want to capture in the future state and measure this goal

We could continue to measure this in the future for every feature

③ **Current State Qualitative**
Identify any metrics that are already being captured in the current state and measure this

We don't currently have anything qualitative in the current state

⑤ **Future State Qualitative**
Identify any metrics that you want to capture in the future state and measure this goal

Do we need this in the future state?

We could start doing surveys...

⑥ **Benchmarking**
When the metrics are defined, use them to benchmark your roadmap to a basis for

We at least have current and future state quantitative so all set here

⑦ **Gaming**
If you were to implement the metrics, i

Data will come from auditable Agile Lifecycle Management Tool

① **Goal**

Describe one of the Big, Hairy, Audacious Goals Specific to your Agile Transformation.

② **Current State Quantitative**

Identify any metrics that are already being captured in the current state that could be used to measure this goal quantitatively.

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Identify any metrics that are already being captured in the current state that could be used to measure this goal qualitatively.

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Identify any metrics that could be collected in the future state to measure progress against this goal qualitatively.

⑥ **Benchmarking**

When there is a lack of any current state metrics, define what activities you will need on your roadmap to benchmark the current state to provide a basis for comparison.

⑦ **Gaming**

If you were being measured against these future state metrics, is there anything you could do to falsely influence the results?

1 **Goal**
Describe one of the Big, Hairy, Audacious Goals Specific to your Agile Transformation.

Increase the amount of collaboration between engineering and product management

2 **Current State Quantitative**
Identify any metrics that are currently captured in the current state and measure this

We don't currently have anything quantitative in the current state

4 **Future State Quantitative**
Identify any metrics that could be collected in the future state to measure this goal

Start doing Likert Scale surveys monthly to measure stakeholder impressions

3 **Current State Qualitative**
Identify any metrics that are currently captured in the current state and measure this

We don't currently have anything qualitative in the current state

5 **Future State Qualitative**
Identify any metrics that could be collected in the future state to measure this goal

Will follow up future state surveys with interviews

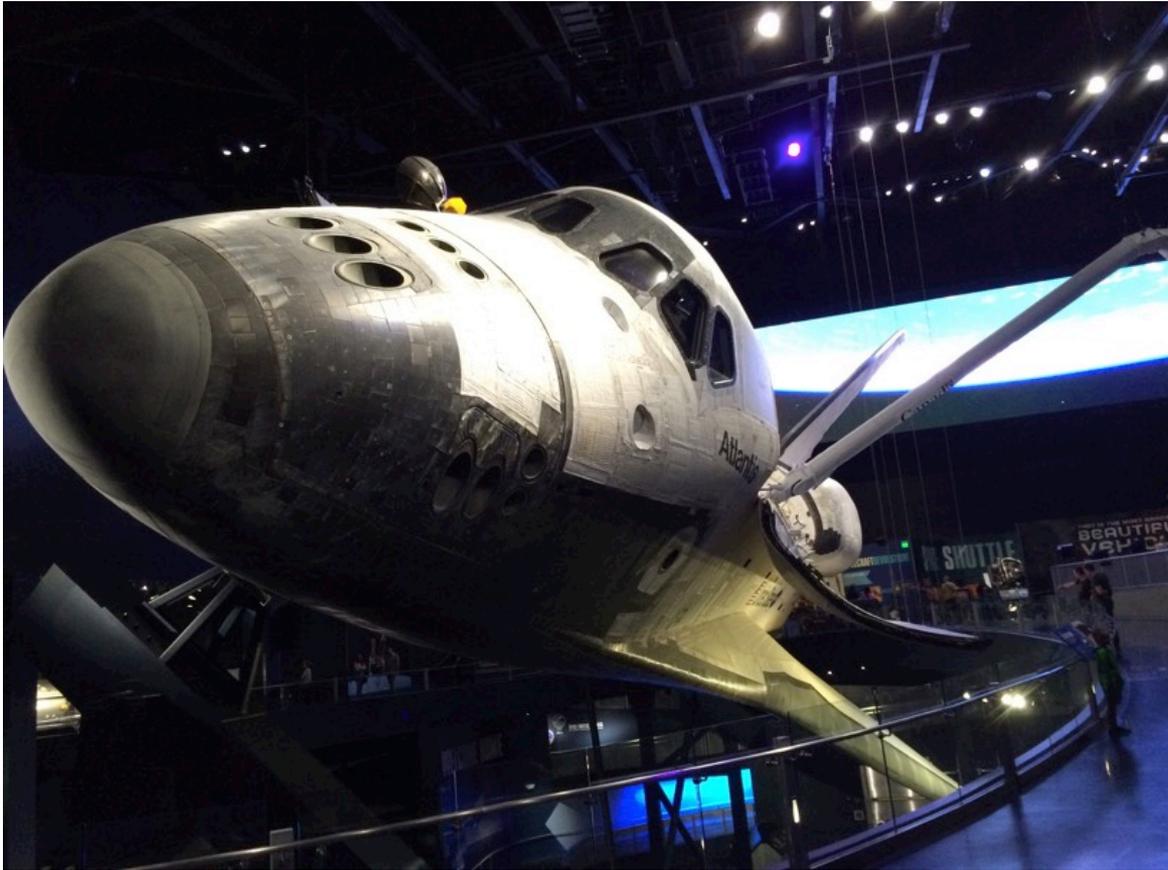
6 **Benchmarking**
When the metrics are defined, use them to benchmark the current state against the future state

Will need to do interviews and surveys to collect current state starting point

7 **Gaming**
If you were to use metrics, i.e. the future state metrics, to measure this goal, how would you ensure they are not gamed?

Will need to make sure interviews and surveys are carefully designed

Mission Briefing

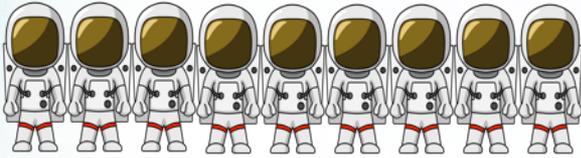


Space Shuttle Atlantis – Kennedy Space Center

Instructions

✓ Duration: 10 minutes

Group Size:



Mission Objective:

Fill out the Agile Metrics Canvas for your Agile Transformation

1. Self Organize into teams at your tables
2. Decide on a goal from one your Table's Agile Transformations
3. Use Post-Its and Sharpies Provided to your Table
4. Fill out the Metrics Canvas for that Goal as a Group to arrive at a set of Metrics for that Goal

Parting Thoughts...

1.) Define a Winning Strategy

- Envisioned Future State
- Big, Hairy, Audacious Goals

2.) Align the Organization to the Strategy

- Create that shared sense of purpose

3.) Choose the Right set of Metrics to Measure Outcomes

- Mix of qualitative and quantitative as appropriate
- Be sure to benchmark current state
- Avoid vanity metrics

4.) Make Outcomes Big and Visible

- Create an information radiator for the Agile Transformation
- Make progress against goals visible to the whole organization

Mission Debrief / Retro



Saturn V Retro Rockets – Kennedy Space Center

Touch Down



Lunar Module – Smithsonian National Air and Space Museum

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<http://www.solutionsiq.com/aligning-metrics-to-your-agile-vision/>