

# MEASURING

# OUT COME



# FACILITATE THE GAME

This game is based on Evidence Based Management (EBM).

EBM is an empirical framework organizations can use to help measure the (perceived) product value, and the way they deliver their product(s). The measurements can be inspected to help maximize product value and improve the way of working.

1. As a Scrum Facilitator, put the four Key Value Areas (KVAs) in a row on the floor (Current Value, Time to Market, Ability to Innovate and Unrealized Value). Explain each KVA to the participants.
2. Form two groups and hand one group the green Key Value Measures cards (KVMs) and the other group the remaining purple KVMs.
3. Step 1: Invite the group(s) to discuss and put the KVMs under the correct KVA.
4. Step 2: Invite both groups to discuss their results and adapt their cards. Make sure by the end of this round, the KVM cards are under the correct KVA.
5. Step 3: Invite the participants to individually look at the KVMs and select one KVM that caught their attention. (A non-EBM KVM may also be chosen at this point)
6. Step 4: Invite the participants into groups of four. Ask each participant to explain why they chose their particular KVM and collaborate on how to implement it. (In case of non-EBM measures, pay attention that these are not vanity metrics and discuss the potential pitfalls)



**Scrum Facilitators** is a Dutch-based training organization on a mission to help professionals become awesome Scrum facilitators. A Scrum Facilitator can be a Scrum Master, Product Owner, developer or leader. Great Scrum Facilitators understand the Scrum values & principles and use these to effectively implement Scrum with their teams and organizations.

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Learn about Evidence-Based Management (EBM) at <http://scrum.org/EBM>

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# CURRENT VALUE

Reveals the value that the product delivers to customers, today



# TIME TO MARKET

Expresses the organization's ability to quickly deliver new capabilities, services, or products



# ABILITY TO INNOVATE

Expresses the ability of a product development organization to deliver new capabilities that might better meet customer needs





# UNREALIZED VALUE

Suggests the potential future value that could be realized  
if the organization could perfectly meet the needs of all potential customers



# Customer Satisfaction





# Feature Usage Index





# Defect Trends







# Product Cost Ratio





# Installed Version Index





# Build & Integration Frequency





# Production Incident Trends







# Release Stabilization Period





# Market Share





# Cycle Time





# Time-to-Learn







# Employee Satisfaction





# Customer Usage Index





# Revenue per Employee





# Release Frequency







# Mean Time to Repair





# Lead Time





# Innovation Rate





# On-Product Index







# Technical Debt





**Active Code  
Branches / Time  
Spent Merging  
Branched Code**





# Time Spent Context-Switching





# Customer or User Satisfaction Gap







**Don't measure  
Output. Measure  
Outcomes**



**It's not about the  
Metrics, but about  
the Conversation**



Learn more about  
**Evidence Based  
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<http://scrum.org/EBM>



# EBM suggested cheat sheet

## Time-to-Market (T2M)

KVM	Measuring:
Build and integration frequency	The number of integrated and tested builds per time period. For a team that is releasing frequently or continuously, this measure is superseded by actual release measures.
Release Frequency	The number of releases per time period, e.g. continuously, daily, weekly, monthly, quarterly, etc. This helps reflect the time needed to satisfy the customer with new and competitive products.
Release Stabilization Period	The time spent correcting product problems between the point the developers say it is ready to release and the point where it is actually released to customers. This helps represent the impact of poor development practices and underlying design and code base.
Mean Time to Repair	The average amount of time it takes from when an error is detected and when it is fixed. This helps reveal the efficiency of an organization to fix an error.
Cycle Time	The amount of time from when work starts on a release until the point where it is actually released. This measure helps reflect an organization's ability to reach its customer.
Lead Time	The amount of time from when an idea is proposed or a hypothesis is formed until a customer can benefit from that idea. This measure may vary based on customer and product. It is a contributing factor for customer satisfaction.
Time-to-Learn	The total time needed to sketch an idea or improvement, build it, deliver it to users, and learn from their usage.

## Current Value (CV)

KVM	Measuring:
Revenue per Employee	The ratio (gross revenue / # of employees) is a key competitive indicator within an industry. This varies significantly by industry.
Product Cost Ratio	Total expenses and costs for the product(s)/system(s) being measured, including operational costs compared to revenue.
Employee Satisfaction	Some form of sentiment analysis to help gauge employee engagement, energy, and enthusiasm.
Customer Satisfaction	Some form of sentiment analysis to help gauge customer engagement and happiness with the product.
Customer Usage Index	Measurement of usage, by feature, to help infer the degree to which customers find the product useful and whether actual usage meets expectations on how long users should be taking with a feature.

## Ability to Innovate (A2I)

KVM	Measuring:
Feature Usage Index	Measurement of features in the product that are frequently used. This helps capture features that are rarely or never used.
Innovation Rate	The percentage of effort or cost spent on new product capabilities, divided by total product effort or cost. This provides insight into the capacity of the organization to deliver new product capabilities.
Defect trends	Measurement of change in defects since last measurement. A defect is anything that reduces the value of the product to a customer, user, or to the organization itself. Defects are generally things that don't work as intended.
On-Product Index	The percentage of time teams spend working on product and value.
Installed Version Index	The number of versions of a product that are currently being supported. This reflects the effort the organization spends supporting and maintaining older versions of software.
Technical Debt	A concept in programming that reflects the extra development and testing work that arises when "quick and dirty" solutions result in later remediation. It creates an undesirable impact on the delivery of value and an avoidable increase in waste and risk.
Production Incident Trends	The number of times the Development Team was interrupted to fix a problem in an installed product. The number and frequency of Production Incidents can help indicate the stability of the product.
Active code branches, time spent merging code between branches	These measures are like the Installed Version Index, since different deployed versions usually have separate code branches.
Time spent context-switching	Number of meetings per day per person, and the number of times a day team members are interrupted to help people outside the team can give simple insight into the magnitude of the problem.

## Unrealized Value (UV)

KVM	Measuring:
Market Share	The relative percentage of the market controlled by the product.
Customer or user satisfaction gap	The difference between a customer or user's desired experience and their current experience.

Source: EBM guide, <http://scrum.org/EBM>

