測量結果

MEASURING OUTCOME

SCRUM FACILITATORS

HOWAGLE 翻譯

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

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.

Scrum Facilitators is a Scrum.org partner. Our classes are accredited, always up-to-date, fun, super interactive and always facilitated by two trainers to maximize your learning objectives. Our trainers are **seasoned experts** and **Scrum.org certified** Professional Scrum Trainers with substantial real life experience in various settings.

Scrum.org
The Home of Scrum

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

The Measuring Outcome game (v1.0.2) is licensed under
CC BY-NC-SA 4.0
By Scrum Facilitators

目前價值

展示出產品在今日可提供給客戶的價值

CURRENT VALUE

Reveals the value that the product delivers to customers, today

SCRUM FACILITATORS

HOWAGLE 翻譯

回應市場時間

表達組織快速傳遞新功能、服務或產品的能力

TIME TO MARKET

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

SCRUM FACILITATORS

HOWAGLE 翻譯

創新能力

展現組織提供可能更好地滿足客戶需求的新功能的有效性。

ABILITY TO INNOVATE

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

SCRUM FACILITATORS

HOWAGLE 翻譯

未實現價值

當組織滿足所有潛在客戶或使用者的需求時可以實現的潛在未來價值

UNREALIZED VALUE

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

SCRUM FACILITATORS

HOWAGLE 翻譯

員工平均營收

該比率（總收入/雇員人數）是一個行業中的關鍵競爭指標。這因行業而異。

Revenue per Employee

The ratio (gross revenue / # of employees) is a key competitive indicator within an industry. This varies significantly by industry.

SCRUM FACILITATORS

HOWAGLE 翻譯

成本效益比

測量產品/系統的總費用和成本，包括運營成本與收入的比較。

◆◆◆

Product Cost Ratio

Total expenses and costs for
the product(s)/system(s) being measured,
including operational costs compared to revenue.

SCRUM FACILITATORS

HOWAGLE 翻譯

員工滿意度

某種形式的情緒分析有助於測量員工的敬業度、活力和熱情。

Employee Satisfaction

Some form of sentiment analysis to help
gauge employee engagement, energy, and enthusiasm.

SCRUM FACILITATORS

HOWAGLE 翻譯

顧客滿意度

某種形式的情感分析幫助評估客戶對產品的參與度和滿意度。

◆◆◆

Customer Satisfaction

Some form of sentiment analysis to help
gauge customer engagement and happiness with the product.

SCRUM FACILITATORS

HOWAGLE 翻譯

客戶使用率指數

按功能對使用方式進行測量，
以說明推斷客戶發現該產品實用的程度，
以及使用時間是否符合期望。

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.

SCRUM FACILITATORS

HOWAGLE 翻譯

市佔率

產品不受控制的相對市場百分比；
如果產品能夠更好地滿足客戶需求，
那麼它可能會獲得潛在的市場份額。

◆◆◆

Market Share

The relative percentage of the market
not controlled by the product;
the potential market share that the product
might achieve if it better met customer needs.

SCRUM FACILITATORS

HOWAGLE 翻譯

顧客或用戶滿意度落差

客戶或使用者期望的體驗與他們當前的體驗之間的區別。

Customer or User Satisfaction Gap

The difference between a customer or user’s desired experience and their current experience.

SCRUM FACILITATORS

HOWAGLE 翻譯

期望之客戶體驗或滿意度

表示客戶希望獲得的體驗的測量。

◆◆◆

Desired Customer Experience or satisfaction

A measure that indicates
the experience that the customer would like to have

SCRUM FACILITATORS

HOWAGLE 翻譯

建置和整合頻率

每個時間段內經過整合和測試的內部版本數。
對於頻繁或連續發佈的團隊，
此度量已被實際的發佈度量所取代。

◆◆◆

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.

SCRUM FACILITATORS

HOWAGLE 翻譯

發佈頻率

每個時間段的發佈次數，例如 連續、每天、每周、每月、每季度等。
這有助於反映出用新穎及有競爭力的產品來滿足客戶需求的時間。

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.

SCRUM FACILITATORS

HOWAGLE 翻譯

發佈穩定期

在開發人員準備發佈產品到實際發佈給客戶之間，
花費在糾正產品問題上的時間。
這有助於表示不良的開發實踐以及基礎設計和代碼庫的影響。

◆◆◆

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.

SCRUM FACILITATORS

HOWAGLE 翻譯

平均修復時間

從發現錯誤到修復錯誤所花費的平均時間。
這有助於揭示組織修復錯誤的效率。

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.

SCRUM FACILITATORS

HOWAGLE 翻譯

客戶週期時間

從開始工作到實際發佈為止間的時間。
這有助於反映組織接觸客戶的能力。

Customer 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.

SCRUM FACILITATORS

HOWAGLE 翻譯

前導期

從提出想法或建立假設到客戶從該想法中受益的時間。
此測量可能會根據客戶和產品而有所不同。
這是提高客戶滿意度的重要因素。

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.

SCRUM FACILITATORS

HOWAGLE 翻譯

變更交付時間

從提交代碼到成功在生產中運行代碼所需的時間。

Lead Time for Changes

The amount of time to go from code-committed to code successfully running in production.

SCRUM FACILITATORS

HOWAGLE 翻譯

部署頻率

組織向客戶/使用者部署（發佈）該產品的新版本的次數。

◆◆◆

Deployment Frequency

The number of times that the organization deployed (released) a new version of the product to customers/users.

SCRUM FACILITATORS

HOWAGLE 翻譯

服務恢復時間

從服務中斷開始到恢復服務的完全可用性之間的時間。

Time to Restore Service

The amount of time between the start of a service outage and the restoration of full availability of the service.

SCRUM FACILITATORS

HOWAGLE 翻譯

學習時間

草擬一個想法或改善、構建、
將其交付給使用者並從其使用中學習所需的總時間。

◆◆◆

Time-to-Learn

The total time needed to sketch an idea or improvement, build it, deliver it to users, and learn from their usage.

SCRUM FACILITATORS

HOWAGLE 翻譯

清除障礙的時間

從產生障礙到解決障礙間的平均時間。
這是交付時間和員工滿意度的一個促成因素。

◆◆◆

Time to remove Impediment

The average amount of time
from when an impediment is raised until when it is resolved.
It is a contributing factor to lead time and employee satisfaction.

SCRUM FACILITATORS

HOWAGLE 翻譯

戰略轉向的時間

真實業務敏捷性的一種測量，表示組織從收到反饋或新資訊到響應該反饋之間所經過的時長；例如，從發現競爭對手提供了新的市場制勝功能到組織以匹配或超越其新功能的方式做出回應（可測量地改善客戶體驗）之間的時間。

Time to Pivot

A measure of true business agility that presents the elapsed time between when an organization receives feedback or new information and when it responds to that feedback; for example, the time between when it finds out that a competitor has delivered a new market-winning feature to when the organization responds with matching or exceeding new capabilities that measurably improve customer experience.

SCRUM FACILITATORS

HOWAGLE 翻譯

創新率

在新產品功能上花費的工作量或成本的百分比除以產品總工作量或成本。這可以得到組織提供新產品功能的能力。

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.

SCRUM FACILITATORS

HOWAGLE 翻譯

缺陷趨勢

自上次測量以來，對缺陷變化進行的測量。
缺陷是指降低產品對客戶、使用者或組織本身的價值的所有因素。
缺陷通常是指無法正常運作。

◆◆◆

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.

SCRUM FACILITATORS

HOWAGLE 翻譯

產品指數

團隊花費在產品和價值上的時間百分比。

On-Product Index

The percentage of time teams spend working on product and value.

SCRUM FACILITATORS

HOWAGLE 翻譯

安裝版本指數

當前受支援的產品版本號。
這反映了組織為支援和維護舊版本軟體而付出的努力。

◆◆◆

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.

SCRUM FACILITATORS

HOWAGLE 翻譯

技術債

程式設計中的一個概念，該概念反映了"快速而骯髒"的解決方案導致後來的補救度量產生的額外開發及測試工作。
它對價值的交付產生不良影響，並造成了可避免的浪費及風險增加。

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.

SCRUM FACILITATORS

HOWAGLE 翻譯

在線事故次數

在一個時期內開發團隊為解決已安裝產品中的問題而被阻斷的次數。生產事故的次數和頻率有助於表明產品的穩定性。

◆◆◆

Production Incident Count

The number of times in a given period that 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.

SCRUM FACILITATORS

HOWAGLE 翻譯

活躍產品（代碼）分支

產品或服務的不同版本（或變體）的數量。
提供對改變的潛在影響以及由此產生的工作複雜性的見解。

Active Product (Code) Branches

The number of different versions (or variants) of
a product or service.
Provides insight into the potential impact of change and the
resulting complexity of work.

SCRUM FACILITATORS

HOWAGLE 翻譯

合併代碼分支所耗費的時間

更改產品或服務的不同版本所花費的時間。
提供對改變的潛在影響以及由此產生的工作複雜性的見解。

Time Spent Merging Code Between Branches

The amount of time spent applying changes across different versions of a product or service. Provides insight into the potential impact of change and the resulting complexity of work.

SCRUM FACILITATORS

HOWAGLE 翻譯

內容切換花費的時間

實體包括因會議或電話造成中斷而浪費的時間，
在工作之間進行切換所花費的時間，
以及團隊成員受到團隊外部人員的阻擾。

Time Spent Context-Switching

Examples include time lost to interruptions caused by meetings or calls, time spent switching between tasks, and time lost when team members are interrupted to help people outside the team can give simple insight into the magnitude of the problem.

SCRUM FACILITATORS

HOWAGLE 翻譯

變更失敗率

已發佈的產品更改導致服務品質下降並需要修復
（例如，緊急修復、 回溯、補丁）的百分比。

◆◆◆

Change Failure Rate

The percentage of released product changes that result in degraded service and require remediation
(e.g. hotfix, rollback, patch).

SCRUM FACILITATORS

HOWAGLE 翻譯

不要測量產出
測量結果

Don’t measure Output.
Measure Outcomes

SCRUM FACILITATORS

HOWAGLE 翻譯

這不是關於指標，
而是關於溝通

It’s not about the Metrics,
but about the Conversation

SCRUM FACILITATORS

HOWAGLE 翻譯

想要了解更多
Evidence Based Management
請見
http://scrum.org/EBM

SCRUM FACILITATORS

HOWAGLE 翻譯

EBM 建議的備忘單

回應市場時間（T2M）

KVM	測量：
建置和整合頻率 Build and Integration Frequency	每個時間段內經過整合和測試的內部版本數。對於頻繁或連續發佈的團隊，此度量已被實際的發佈頻率所取代。
發佈頻率 Release Frequency	每個時間段的發佈次數，例如 連續、每天、每周、每月、每季度等。這有助於反映出用新穎及有競爭力的產品來滿足客戶需求的時間。
發佈穩定期 Release Stabilization Period	在開發人員準備發佈產品到實際發佈給客戶之間，花費在糾正產品問題上的時間。這有助於表示不良的開發實踐以及基礎設計和代碼庫的影響。
平均修復時間 Mean Time to Repair	從發現錯誤到修復錯誤所花費的平均時間。這有助於揭示組織修復錯誤的效率。
客戶週期時間 Customer Cycle Time	從開始工作到實際發佈為止間的時間。這有助於反映組織接觸客戶的能力。
前導期 Lead Time	從提出想法或建立假設到客戶從該想法中受益的時間。此度量可能會根據客戶和產品而有所不同。這是提高客戶滿意度的重要因素。
變更交付時間 Lead Time for Changes	從提交代碼到成功在生產中運行代碼所需的時間。 有關更多資訊，參閱 DORA 2019 報告。
部署頻率 Deployment Frequency	組織向客戶/使用者部署（發佈）該產品的新版本的次數。 有關更多資訊，參閱 DORA 2019 報告。
服務恢復時間 Time to Restore Service	從服務中斷開始到恢復服務的完全可用性之間的時間。 有關更多資訊，參閱DORA 2019 報告。
學習時間 Time-to-Learn	草擬一個想法或改善、構建、將其交付給使用者並從其使用中學習所需的總時間。
清除障礙的時間 Time to remove Impediment	從產生障礙到解決障礙間的平均時間。這是交付時間和員工滿意度的一個促成因素。
戰略轉向的時間 Time to Pivot	真實業務敏捷性的一種度量，表示組織從收到反饋或新資訊到響應該反饋之間所經過的時長；例如，從發現競爭對手提供了新的市場制勝功能到組織以匹配或超越其新功能的方式做出回應（可測量地改善客戶體驗）之間的時間。

創新能力（A2I）

KVM	測量：
創新率 Innovation Rate	在新產品功能上花費的工作量或成本的百分比除以產品總工作量或成本。這可以得到組織提供新產品功能的能力。
缺陷趨勢 Defect Trends	自上次測量以來，對缺陷變化進行的測量。缺陷是指降低產品對客戶、使用者或組織本身的價值的所有因素。缺陷通常是指無法正常運作。
產品指數 On-Product Index	團隊花費在產品和價值上的時間百分比。
安裝版本指數 Installed Version Index	當前受支援的產品版本號。這反映了組織為支援和維護舊版本軟體而付出的努力。
技術債 Technical Debt	程式設計中的一個概念，該概念反映了"快速而骯髒"的解決方案導致後來的補救度量產生的額外開發及測試工作。它對價值的交付產生不良影響，並造成了可避免的浪費及風險增加。
在線事故次數 Product Incident Count	在一個時期內開發團隊為解決已安裝產品中的問題而被阻斷的次數。生產事故的次數和頻率有助於表明產品的穩定性。
活躍產品（代碼）分支 Active Product (Code) Branches	產品或服務的不同版本（或變體）的數量。提供對改變的潛在影響以及由此產生的工作複雜性的見解。
合併代碼分支所耗費的時間 Time Spent Merging Code Between Branches	更改產品或服務的不同版本所花費的時間。提供對改變的潛在影響以及由此產生的工作複雜性的見解。
內容切換花費的時間 Time Spent Context-Switching	實體包括因會議或電話造成中斷而浪費的時間，在工作之間進行切換所花費的時間，以及團隊成員受到團隊外部人員的阻擾。
變更失敗率 Change Failure Rate	已發佈的產品更改導致服務品質下降並需要修復（例如，緊急修復、回溯、補丁）的百分比。關於更多資訊，請參考DORA 2019 報告。

目前價值（CV）

KVM	測量:
員工平均營收 Revenue Per Employee	該比率（總收入/雇員人數）是一個行業中的關鍵競爭指標。這因行業而異。
成本效益比 Product Cost Ratio	測量產品/系統的總費用和成本，包括運營成本與收入的比較。
員工滿意度 Employee Satisfaction	某種形式的情緒分析有助於測量員工的敬業度、活力和熱情。
顧客滿意度 Customer Satisfaction	某種形式的情感分析幫助評估客戶對產品的參與度和滿意度。
客戶使用率指數 Customer Usage Index	按功能對使用方式進行測量，以說明推斷客戶發現該產品實用的程度，以及使用時間是否符合期望。

未實現價值（UV）

KVM	測量:
市佔率 Market Share	產品不受控制的相對市場百分比；如果產品能夠更好地滿足客戶需求，那麼它可能會獲得潛在的市場份額。
顧客或用戶滿意度落差 Customer or User Satisfaction Gap	客戶或使用者期望的體驗與他們當前的體驗之間的區別。
期望之客戶體驗或滿意度 Desired Customer Experience or satisfaction	表示客戶希望獲得的體驗的度量。

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

SCRUM FACILITATORS

HOWAGLE 翻譯