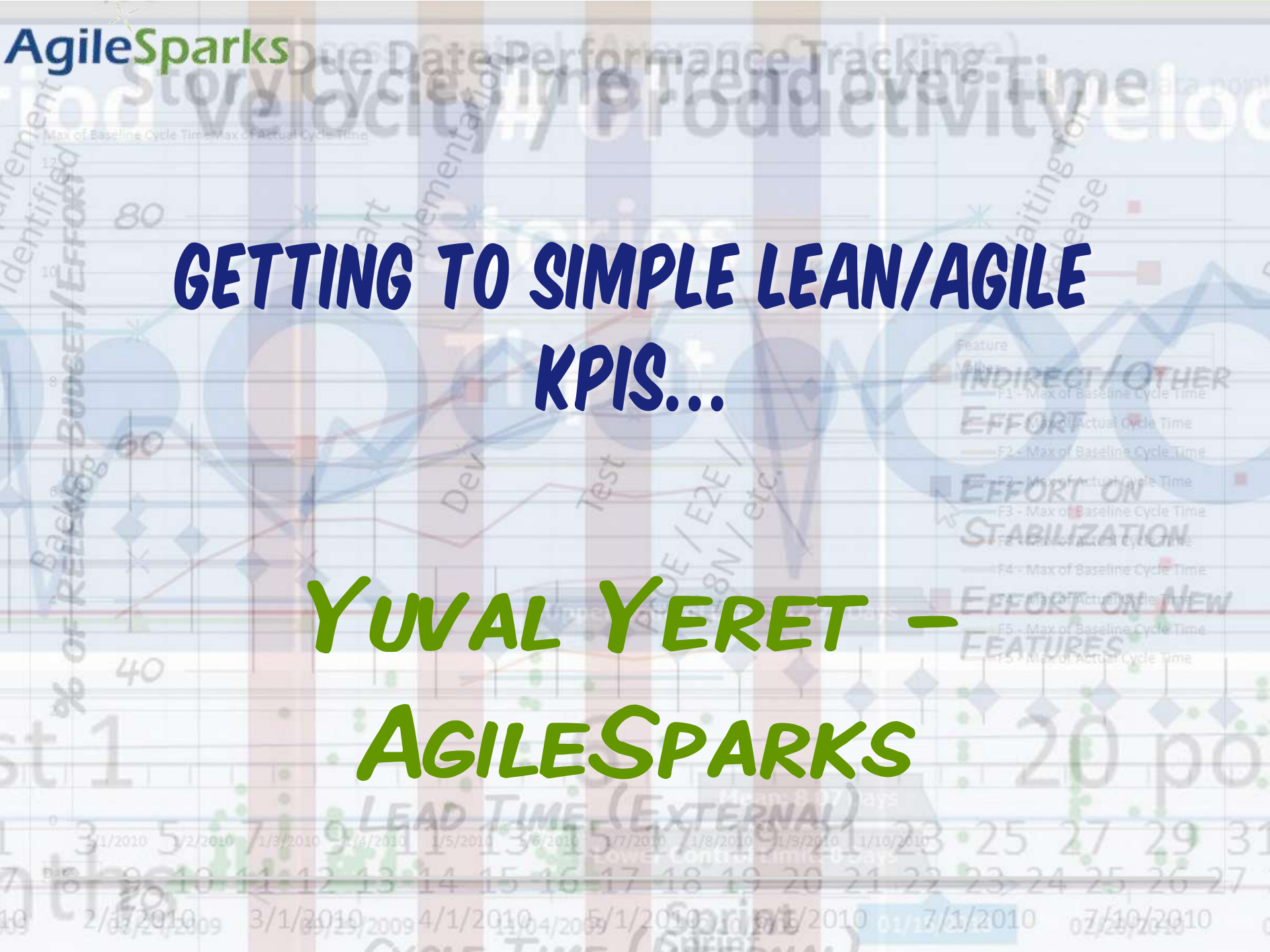


GETTING TO SIMPLE LEAN/AGILE KPIs...

YUVAL YERET -
AGILESPARKS



KEY PERFORMANCE AREAS

- **Q: HOW DO YOU MEASURE A NETWORK/ APPLICATION/ SERVER/ DEVELOPMENT GROUP?**
- **PRODUCTIVITY**
 - **THROUGHPUT** – SHEER ABILITY TO DELIVER AS MUCH AS POSSIBLE.
 - **EFFECTIVENESS** – RESOURCES USED TO DELIVER, AND THE EFFECTIVENESS OF THE OVERALL SYSTEM.
- **PREDICTABILITY/RELIABILITY** – KNOW WHAT TO EXPECT, DELIVER ON COMMITMENTS
- **BUSINESS AGILITY**
 - **RESPONSE TIME/LATENCY/TIME TO MARKET** – ABILITY TO QUICKLY DELIVER EMERGING NEEDS – FLEXIBILITY
- **QUALITY** – HIGH QUALITY OF DELIVERABLES, MINIMUM BAD SURPRISES.

MAPPING TO AGILE KPIS



- **PRODUCTIVITY**
 - **THROUGHPUT** –
 - AMOUNT OF SCOPE DELIVERED PER UNIT OF TIME
 - **EFFECTIVENESS/PRODUCTIVITY**
 - USE LEADING INDICATORS TO SUGGEST EFFECTIVENESS AND MINIMAL WASTE
- **RESPONSE TIME/LATENCY/TIME TO MARKET** –
 - AMOUNT OF TIME IT TAKES TO DELIVER FROM THE TIME A NEED COMES UP, AND FROM THE TIME IT IS PRIORITIZED.
 - DELIVER = RELEASES, AS WELL AS INTERNAL INTEGRATIONS/ADOPTIONS.
- **PREDICTABILITY/RELIABILITY** –
 - PLAN VERSUS ACTUAL, STABILITY OF OTHER METRICS
- **QUALITY**
 - MINIMUM DEVIATIONS FROM EXPECTED QUALITY ONCE DELIVERED

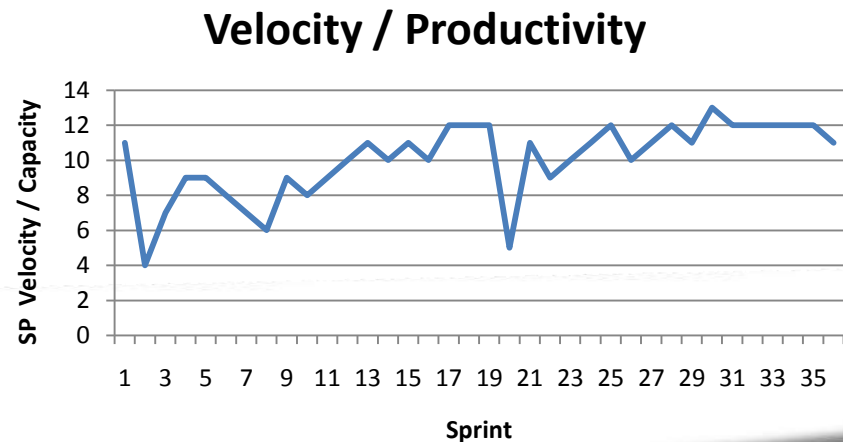
MAPPING TO AGILE KPIS

- **PRODUCTIVITY**
 - **THROUGHPUT** –
 - **VELOCITY**
 - **EFFECTIVENESS**
 - **CYCLE TIME** – NEED TO CONVINCE WHY GOOD INDICATOR
 - **OPERATING EXPENSE**
 - **RELEASE OVERHEAD** – INDIRECT RECURRING COSTS ASSOCIATED WITH RELEASING DELIVERIES
- **RESPONSE TIME/LATENCY/TIME TO MARKET** –
 - **FEATURE-LEVEL LEAD TIME** (TIME FROM NEED TO FULFILLMENT/ADOPTED/RELEASED AS APPROPRIATE)
- **PREDICTABILITY/RELIABILITY** –
 - **STDDEV IN VELOCITY, LEAD TIME, CYCLE TIME**
- **QUALITY**
 - **CURRENT MEASURES FOR QUALITY (ESCAPING DEFECTS, ETC.)**

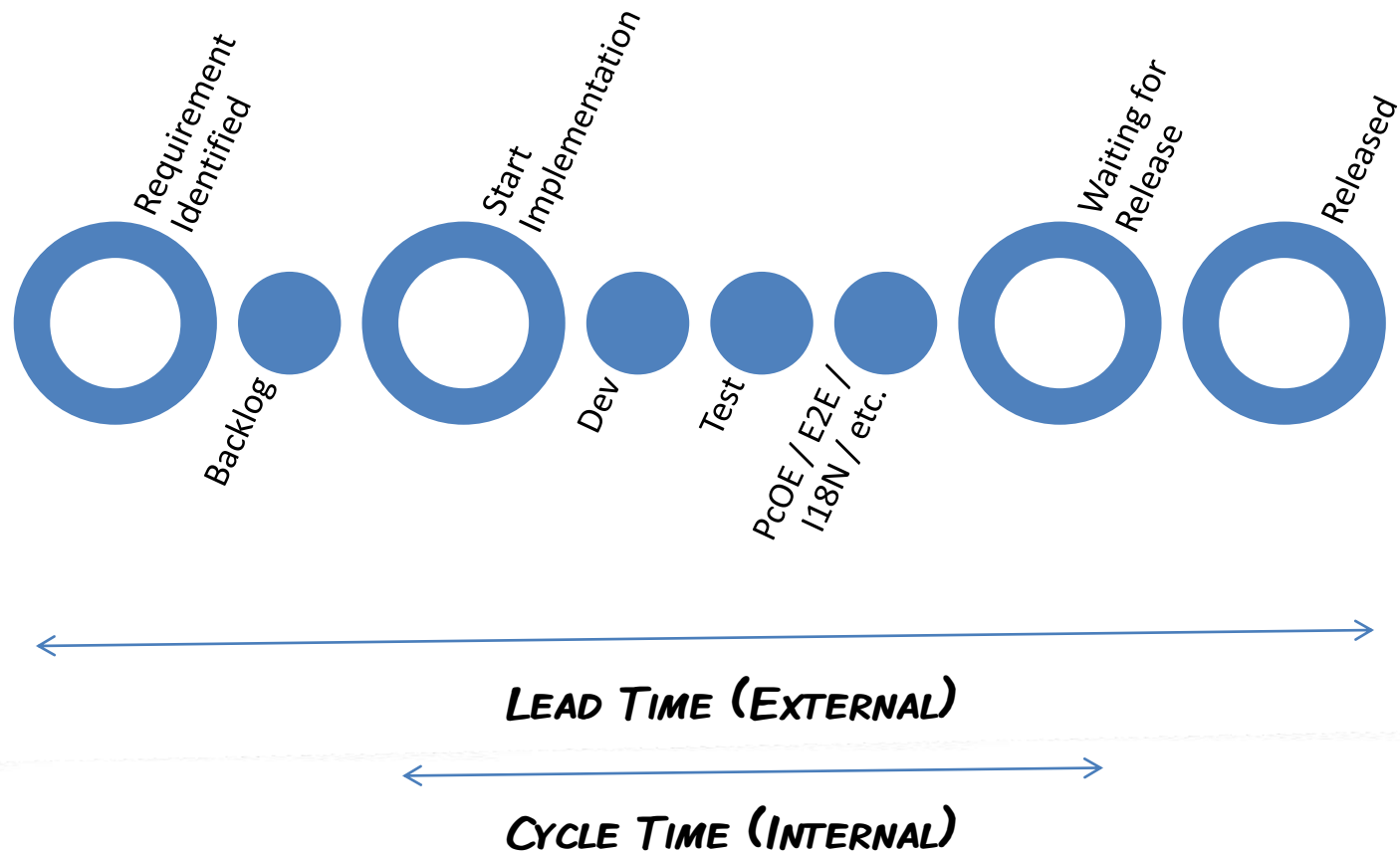
THROUGHPUT/VELOCITY

- **SIZE THE FEATURES IN A CONSISTENT WAY (EFFORT ESTIMATE, STORY POINTS, ETC.)**
- **MEASURE AMOUNT DONE PER TIME PERIOD**
- **FOCUS ON RELATIVE CHANGES WITHIN A GROUP/TEAM - VELOCITY ACCELERATION**




Period	# of Stories Thput	Velocity
Last 1 months	6 	20 points 



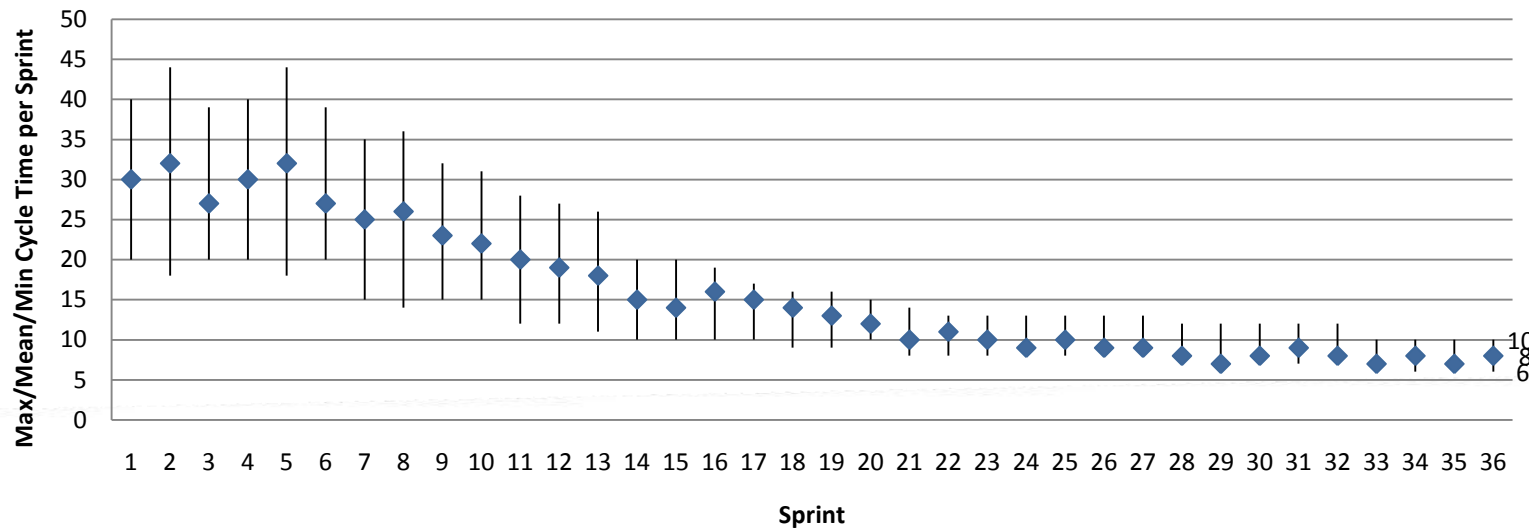
LEAD TIME / CYCLE TIME



CYCLE TIMES DASHBOARD EXAMPLE

Period	Avg Feature Lead Time	Avg Feature Cycle Time	Avg Story Cycle Time
Last 6 months	 8 weeks	 5 weeks	 2 weeks

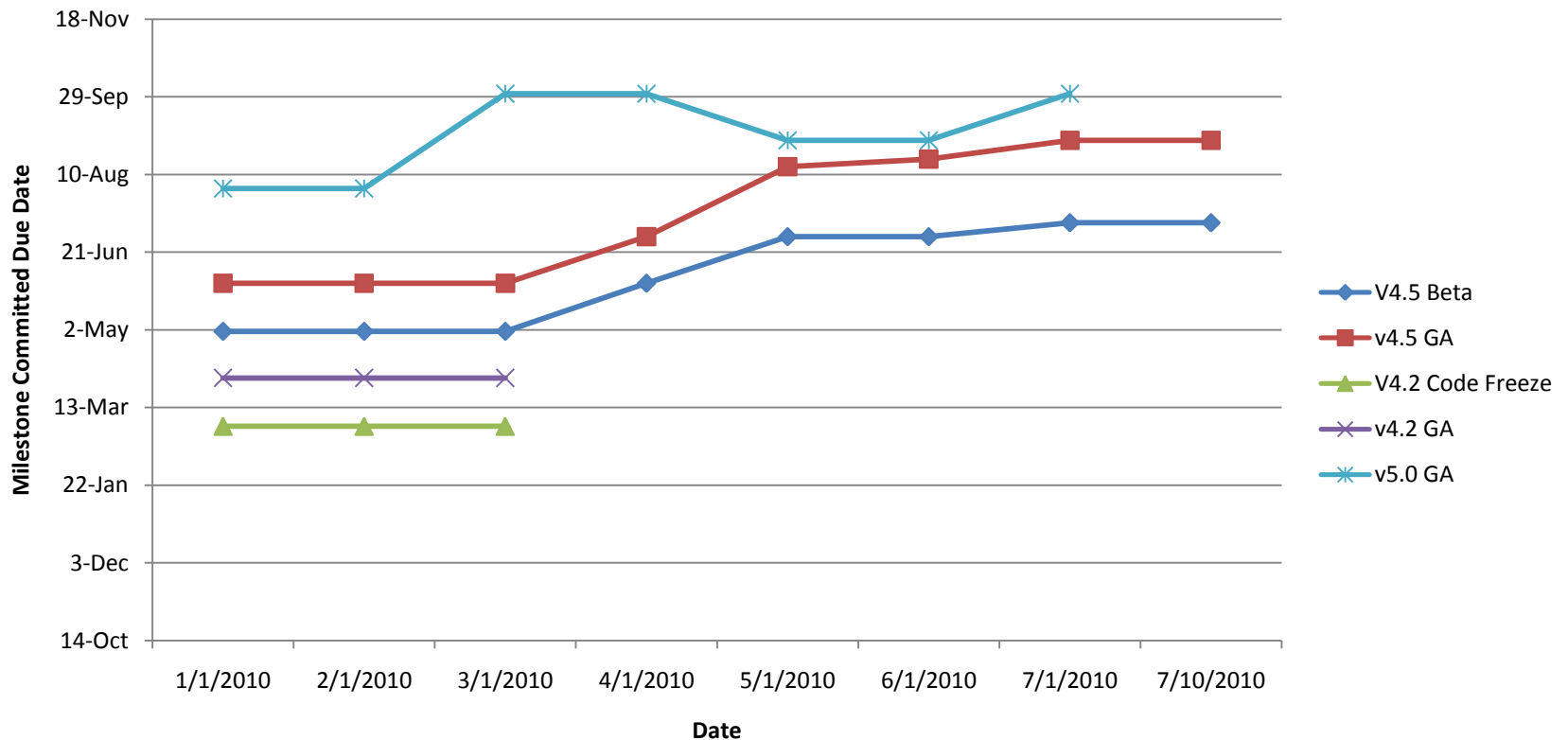
Story Cycle Time Trend over Time



PREDICTABILITY – MEETING COMMITMENTS

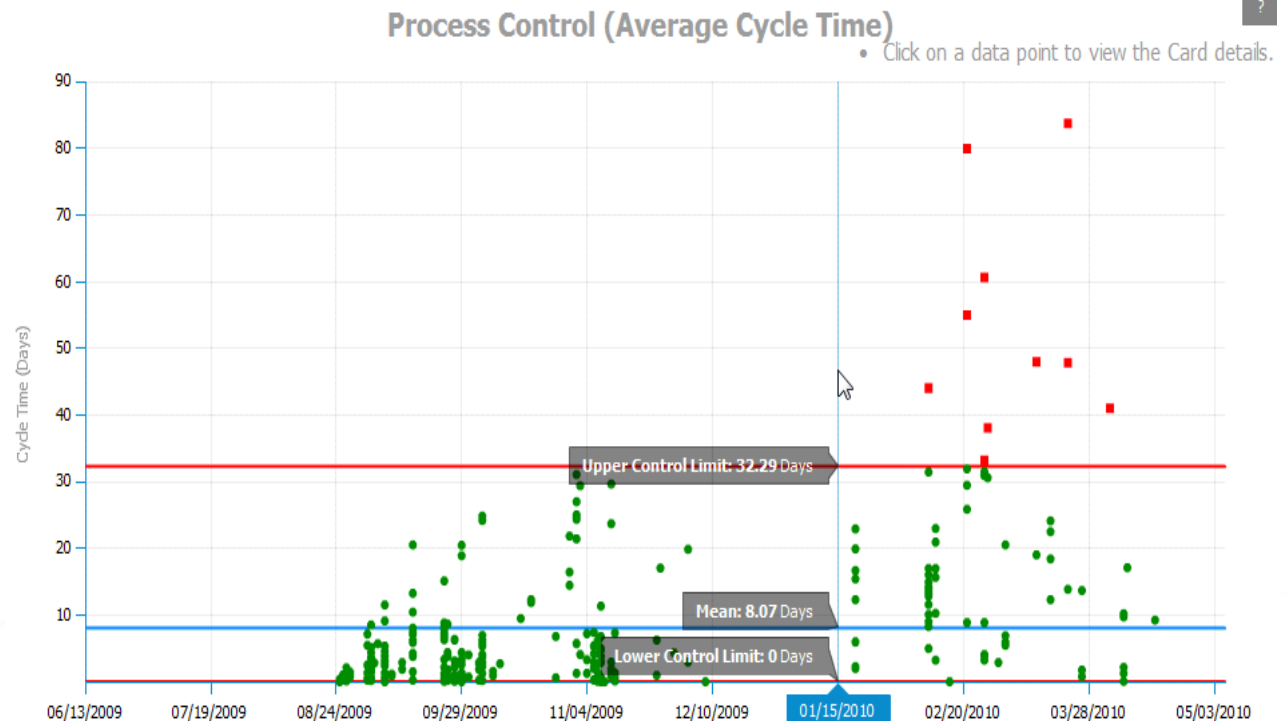
– DUE DATE PERFORMANCE – TRACK WHETHER WE ARE MEETING THE COMMITMENTS WE MAKE TO

Due Date Performance Tracking



PREDICTABILITY – REDUCING INTERNAL VARIABILITY

REDUCING VARIABILITY – A WAY TO FIND WASTE SOURCES, PROBLEM AREAS, SUPPORTS EXTERNAL RELIABILITY, WITH LOWER SAFETY BUFFERS.



EFFECTIVENESS

- **COST / OPERATING EXPENSE -**
 - **RELATION IS CLEAR!**
 - **MEASURE AMOUNT OF RESOURCES ASSIGNED TO ACTIVITY, OR ACTUAL DIRECT AND INDIRECT COSTS ASSOCIATED WITH THE PROJECT/RELEASE/ACTIVITY**

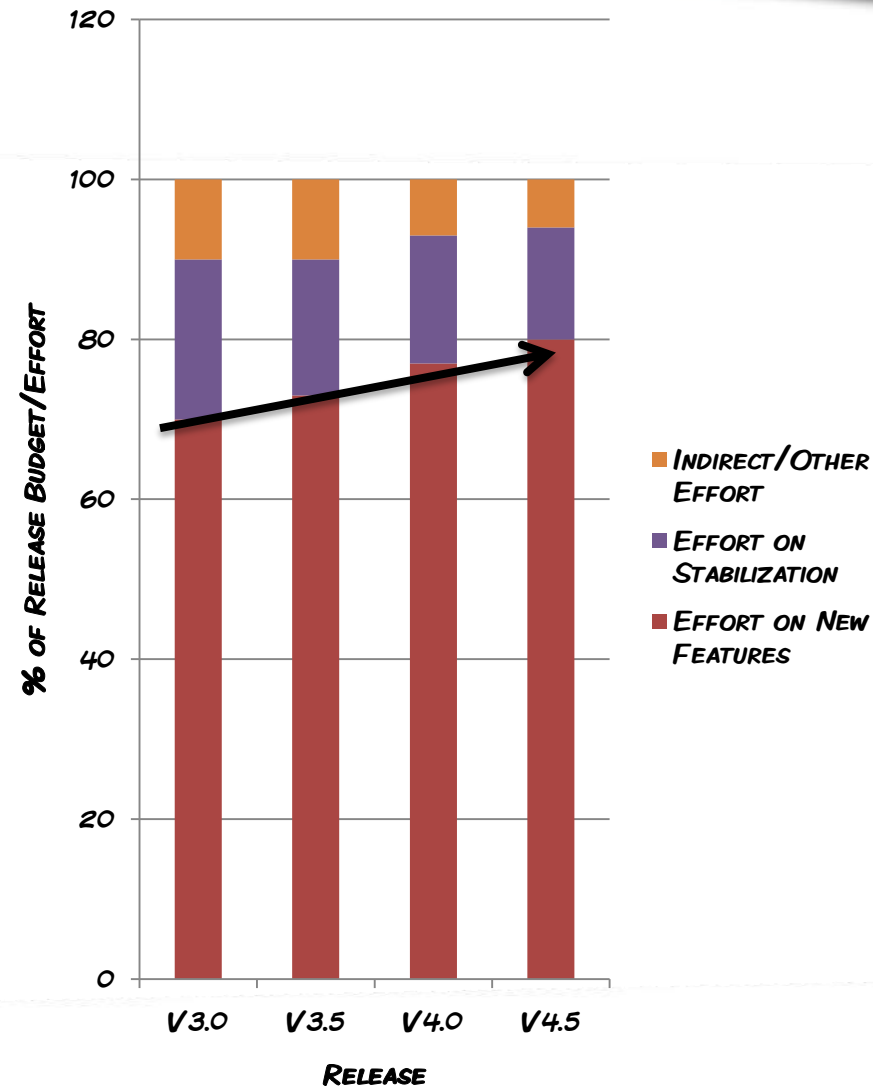
- * **ADVANCED - USE AGILEEVM TO MORE CLOSELY TRACK USAGE OF BUDGET COMPARED TO SCOPE AND SCHEDULE.**

EFFECTIVENESS - CYCLE TIME?

- **PRODUCTIVITY/EFFECTIVENESS - HOLY GRAIL OF R&D KPIS'**
- **CYCLE TIME IS QUITE A GOOD APPROXIMATION BECAUSE FAST CYCLE TIME INDICATES:**
 - **MINIMAL REWORK/INTERNAL QUALITY ISSUES**
 - **MINIMAL WAITS / CONTEXT SWITCHES / BLOCKERS**
 - **MINIMAL WORK TIME**
 - **SMALL, AGILE UNITS OF WORK THAT QUICKLY ENABLE FEEDBACK AND VERIFICATION OF DECISIONS**
 - **QUICKLY FINDING PROBLEMS AND ADDRESSING THEM**
- **ALSO, CYCLE TIME:**
 - **IS SIMPLE TO UNDERSTAND**
 - **IS EASY TO MEASURE WHEN USING A WORKFLOW SYSTEM**
 - **DOESN'T REQUIRE A LOT OF OVERHEAD TO PROVIDE**
 - **IS HARD TO GAME**
 - **IS CLOSELY ASSOCIATED WITH BUSINESS AGILITY - LEAD TIME**
- **CYCLE TIME IS ONE OF THE KEY MEASURES IN LEAN SOFTWARE DEVELOPMENT / KANBAN / LEAN THINKING**

RELEASE OVERHEAD

- **THE MORE TIME SPENT ON RELEASING, LESS TIME SPENT ON IMPLEMENTING MORE BUSINESS VALUE.**
- **THE HIGHER THE OVERHEAD, THE HARDER TO JUSTIFY BUSINESS AGILITY AND FREQUENT DELIVERIES**
- **LOWERING OVERHEADS IS A GREAT INDICATION OF AN ORGANIZATION THAT HAS HIGH QUALITY, PREDICTABILITY, TECHNICAL PROFICIENCY.**



COMPARING TEAMS/GROUPS

KPI	Action it drives
Velocity/ Capacity Acceleration %	Thinking of how to do more with current resources, Waste Identification and removal, Automation, etc.
# of Stories/ Capacity	
Cycle Time	Identify and reduce waits, context switches, ineffective multi-tasking, blockers, defect inventory, etc.
Release Overhead %	Drive to Done earlier in the version, reduce the defect inventory left for the end game
Lead Time	Versatility – Collective Ownership - less waiting for the specialists, more frequent planning and release cycles, less queueing
StdDev/ Variability	Find problems and typical sources of risks/surprises and eliminate them. Learn more about how things are done, and think how to improve them.
Due Date Performance	Better align to commitments that are made. Make smarter commitments as well as manage the project to meet them.
Escaping Defects/ Size of work	Ensure quality is kept high, balance the Performance KPIs

WHAT DO I DO NEXT?

- **FIRST, YOU DON'T HAVE TO GO AGILE ALL THE WAY TO START MEASURING!!!**
- **ONE OF THE KEY QUESTIONS/OBSTACLES IS HOW TO COLLECT AND TRACK THIS DATA**
- **KANBAN, ESPECIALLY ON AN ELECTRONIC TOOL, PROVIDES A LOT OF THE KPIS, ESPECIALLY, THE USUALLY TOUGH TO TRACK ONES**
- **IF YOU START USING KANBAN, YOU ALREADY HAVE A HEAD START ON THIS FRONT COMPARED TO MOST GROUPS.**

USE KANBAN AS A TOOL TO GET MEASURES

- **SEE www.agilesparks.com/kanban FOR SOME MORE INFO/LINKS ABOUT KANBAN**
- **JOIN US FOR A [KANBAN WORKSHOP](#) TO LEARN MORE**
- **ONCE KANBAN IS IN PLACE, DATA WILL DRIVE YOU TOWARDS IMPROVING - SETTING UP A KAIZEN / CONTINUOUS IMPROVEMENT ENVIRONMENT.**

NEED A GUIDE FOR THE JOURNEY?



YUVAL@AGILESPARKS.COM

THANK YOU!

YUVAL@AGILESPARKS.COM

@YUVALYERET ON TWITTER

BLOGGING AT HTTP://WWW.YUVALYERET.COM