

PREDICTABILITY IN  
A COMPLEX WORLD

# SEEKING NIRVANA

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IF YOU ASKED A CXO,  
WHAT WOULD  
“**BETTER**”  
LOOK LIKE?



USUALLY...

**FASTER**

**CHEAPER**

**MORE DELIVERIES**

**FEWER DEFECTS**

**LESS RISKY**



WHAT COMPANIES  
REALLY WANT IS A MORE

# PREDICTABLE

PROCESS THEY CAN TRUST







**PREDICTABILITY**  
IS A MEASURE OF HOW  
ACCURATELY WE CAN  
ANTICIPATE SOMETHING

**(SIMON WARDLEY)**



# PREDICTABILITY

IS A **MEASURE** OF HOW  
ACCURATELY WE CAN  
ANTICIPATE SOMETHING

(SIMON WARDLEY)

MEASURE

UH-OH!





MEASURE

OOOOH,  
LET'S PLAY!

AGILE TEAMS  
HAVE NOTHING  
TO DO WITH  
**BUSINESS  
AGILITY**

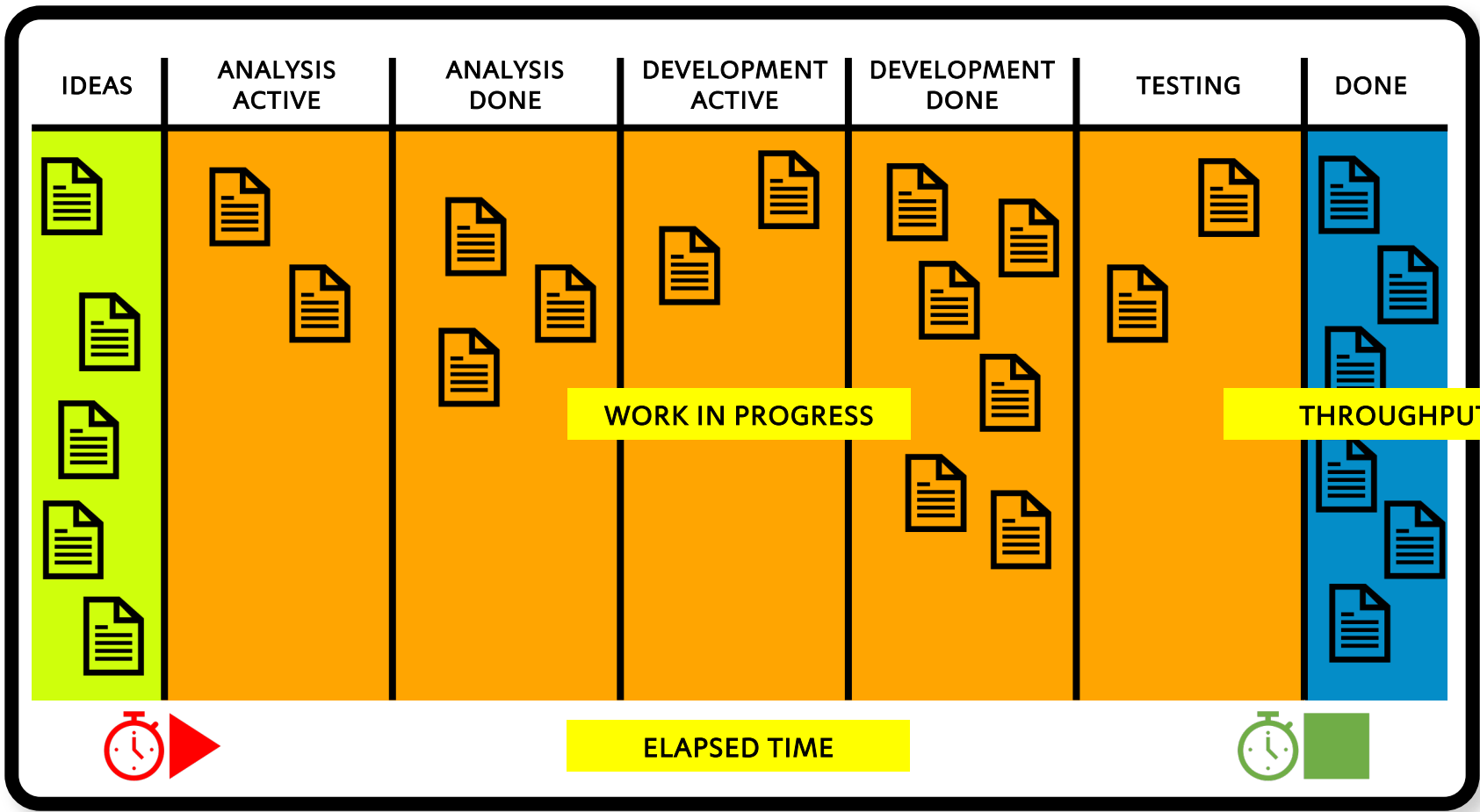
(KLAUS LEOPOLD)



THERE ARE 3 CORE

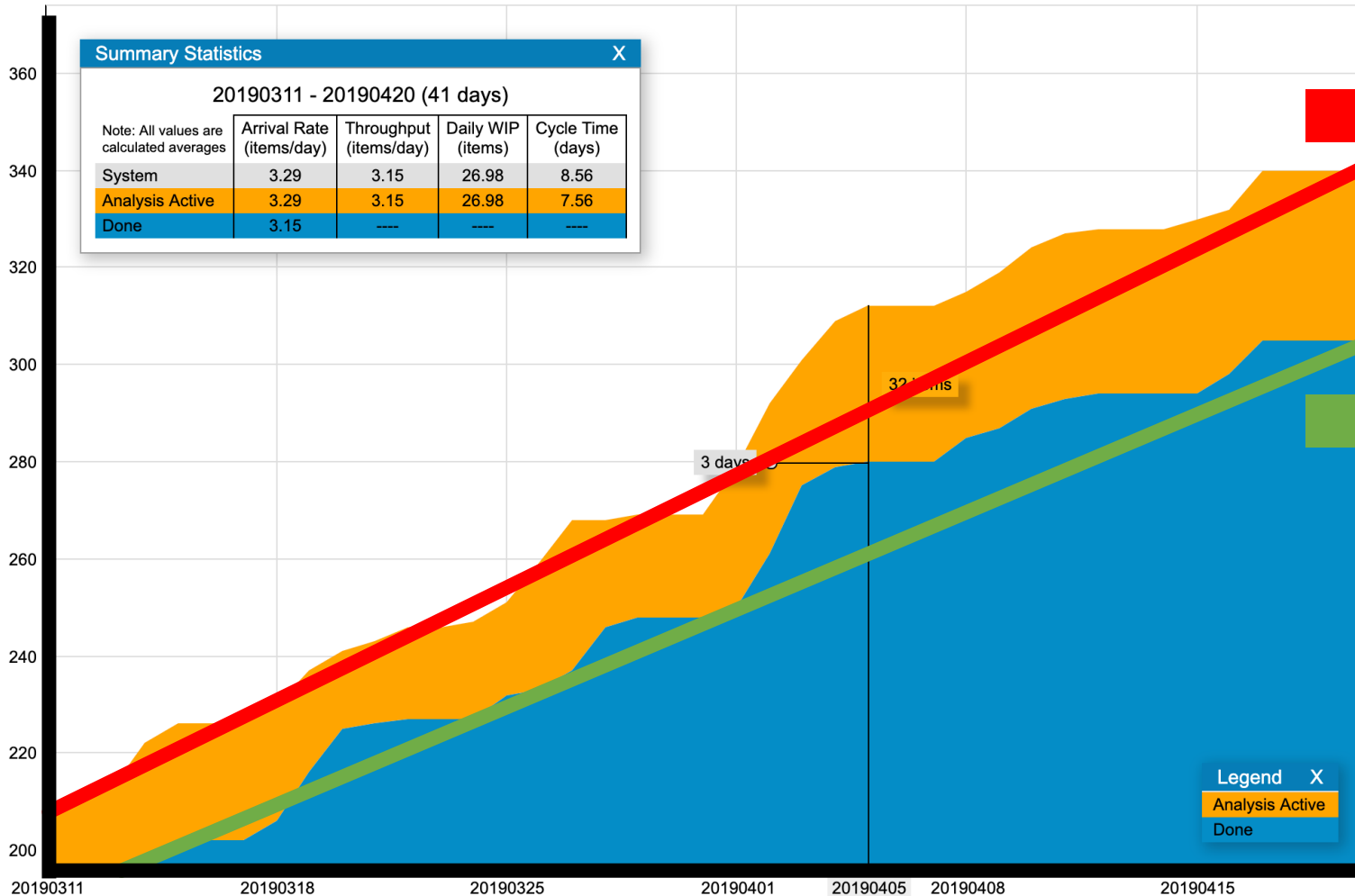
# FLOW METRICS

ELAPSED TIME  
WORK IN PROGRESS  
THROUGHPUT





Work Items



Summary Statistics

20190311 - 20190420 (41 days)

Note: All values are calculated averages

	Arrival Rate (items/day)	Throughput (items/day)	Daily WIP (items)	Cycle Time (days)
System	3.29	3.15	26.98	8.56
Analysis Active	3.29	3.15	26.98	7.56
Done	3.15	---	---	---

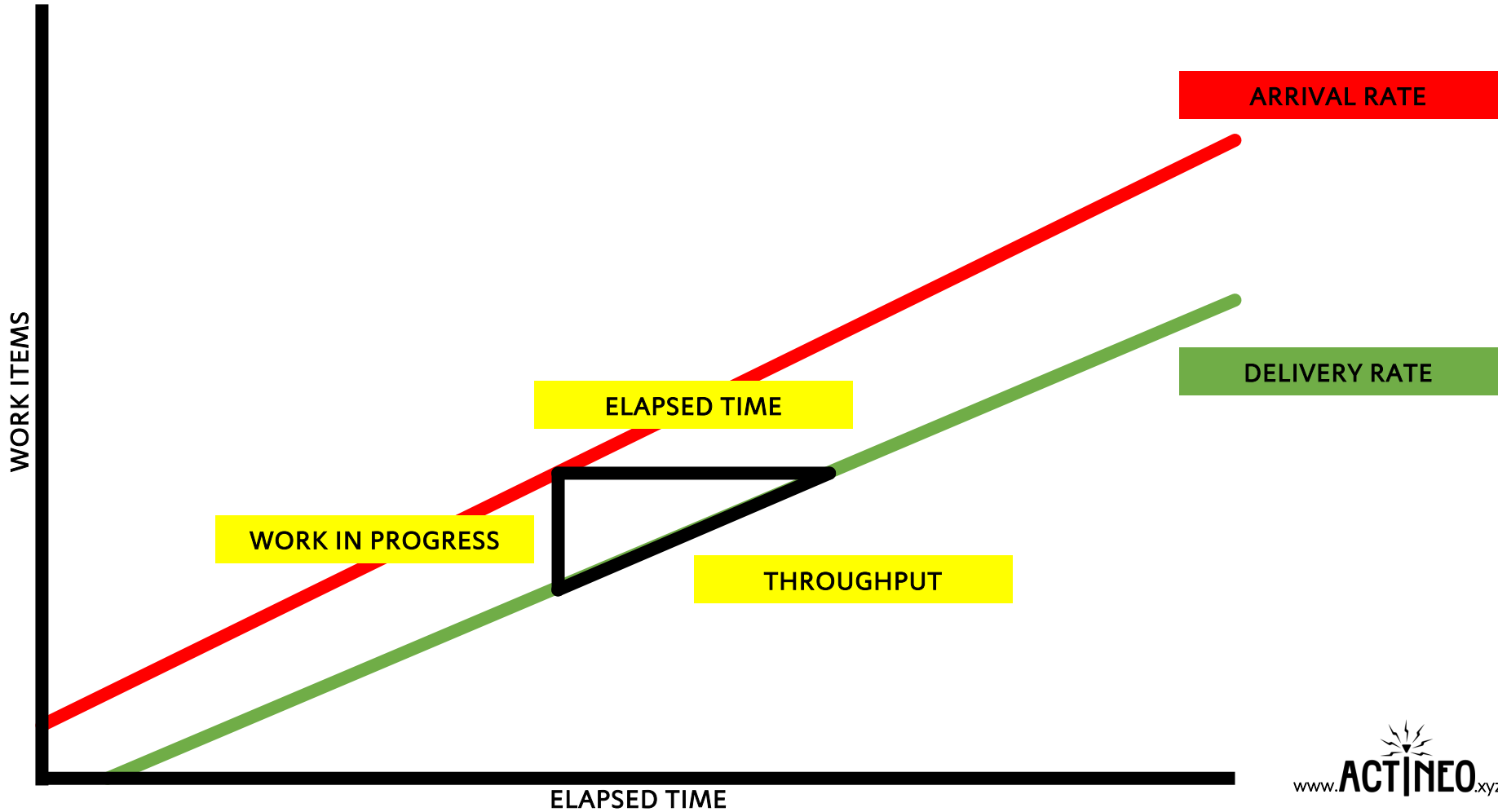
ARRIVAL RATE

DELIVERY RATE

Legend X

- Analysis Active
- Done

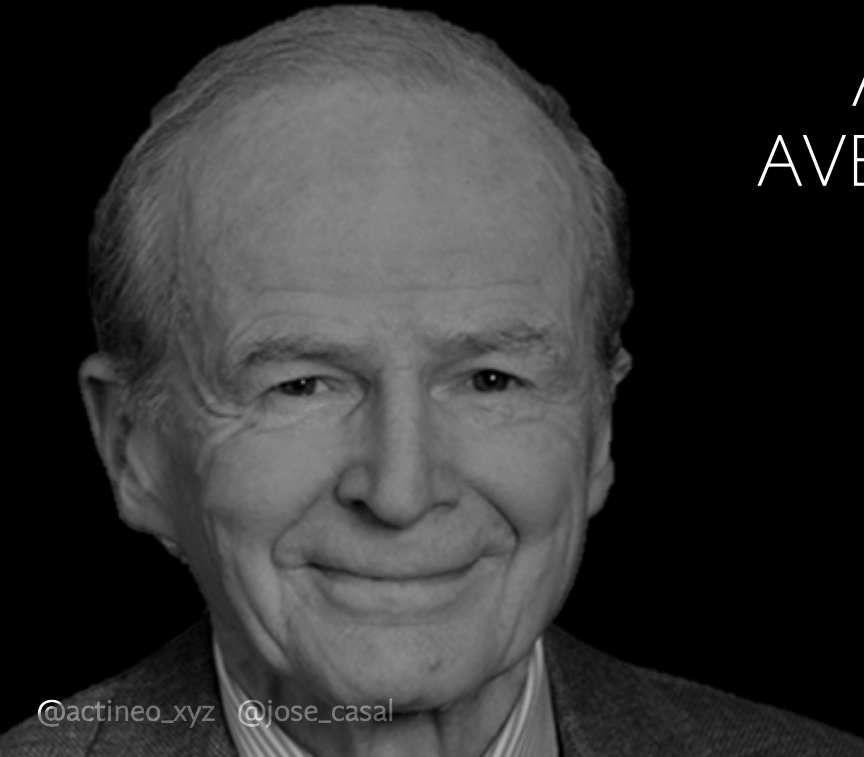




# LITTLE'S LAW

AVERAGE THROUGHPUT =  
AVERAGE WORK IN PROGRESS /  
AVERAGE ELAPSED TIME

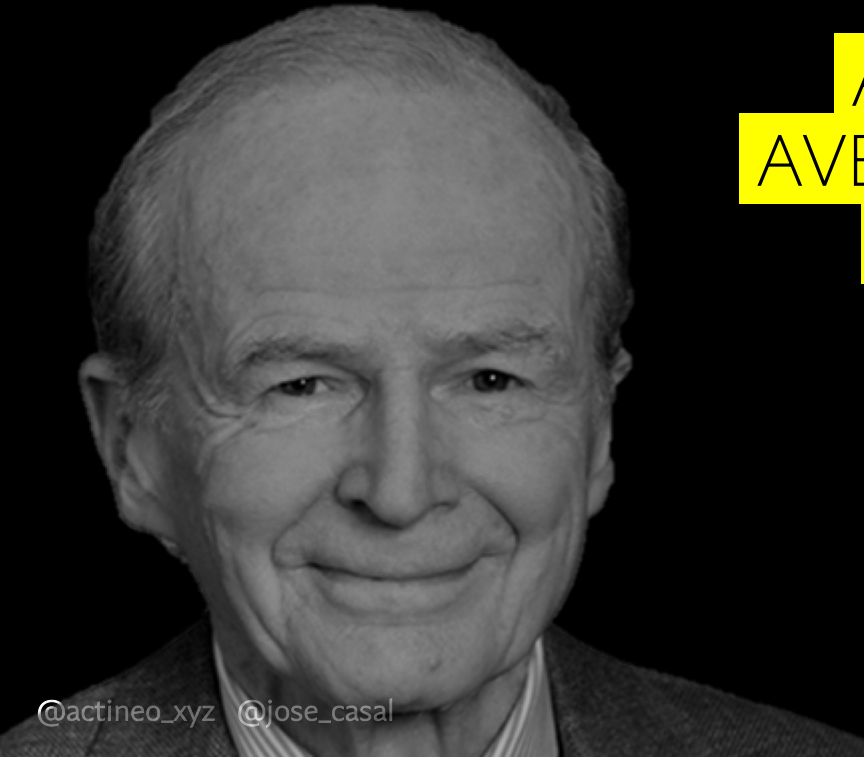
(PROF. JOHN LITTLE)



# LITTLE'S LAW

AVERAGE THROUGHPUT =  
AVERAGE WORK IN PROGRESS /  
AVERAGE ELAPSED TIME

(PROF. JOHN LITTLE)



IN COMPLEX ENVIRONMENTS

# LITTLE'S LAW

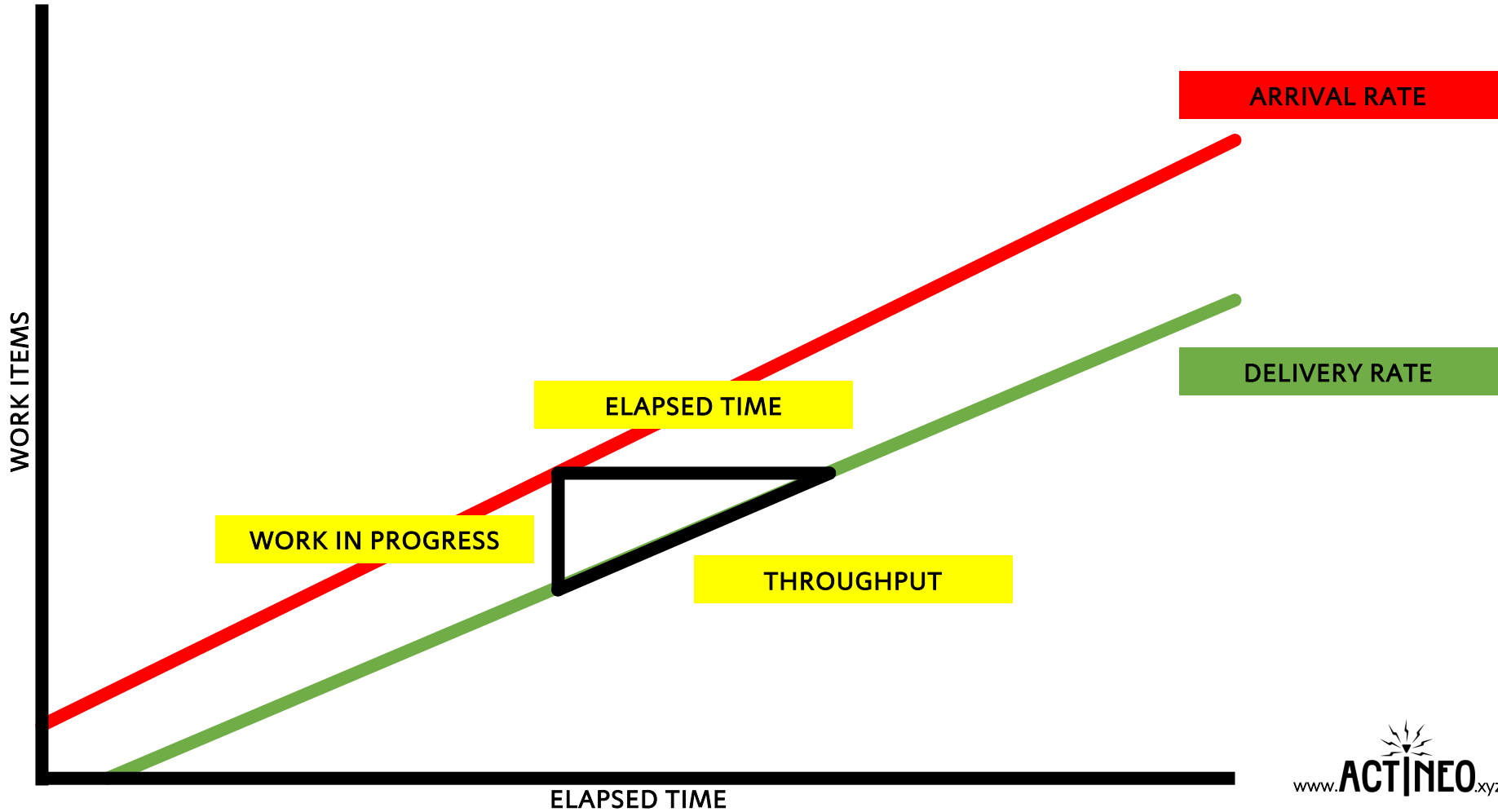
IS NOT A MATHEMATICAL  
FORMULA

IT CAN ONLY

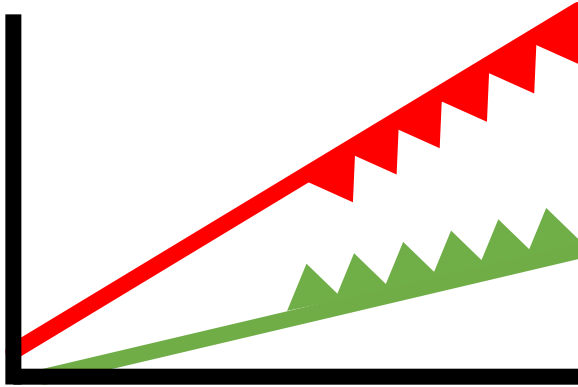
# PROVIDE GUIDANCE

(DANIEL VACANTI)





# THREE POSSIBLE CFD PATTERNS



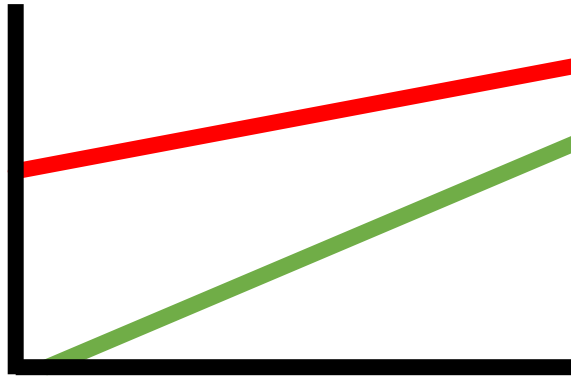
ARRIVAL RATE > DELIVERY RATE

WIP IS INCREASING

ELAPSED TIME IS INCREASING

THROUGHPUT IS STABLE

**CROCODILE MOUTH**



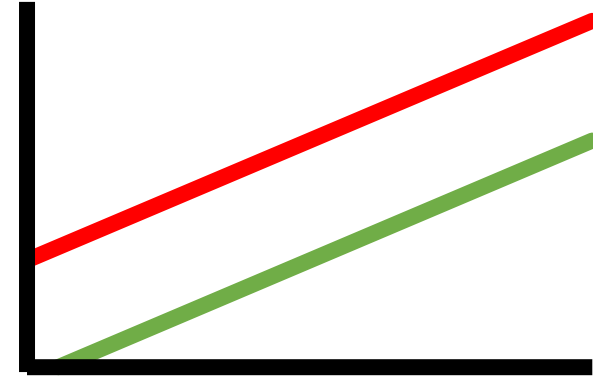
ARRIVAL RATE < DELIVERY RATE

WIP IS DECREASING

ELAPSED TIME IS DECREASING

THROUGHPUT IS STABLE

**GOING TO STARVE**



ARRIVAL RATE = DELIVERY RATE

WIP IS STABLE

ELAPSED TIME IS STABLE

THROUGHPUT IS STABLE

**RAILTRACK**

IF YOUR PROCESS  
IS NOT STABLE,  
IT CANNOT BE  
**PREDICTABLE**

(DANIEL VACANTI)



SO WHAT ABOUT

# PREDICTABILITY?

TRUST

TRANSPARENCY

COLLABORATION

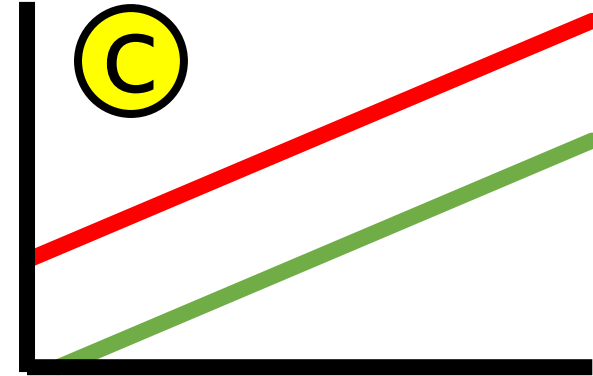
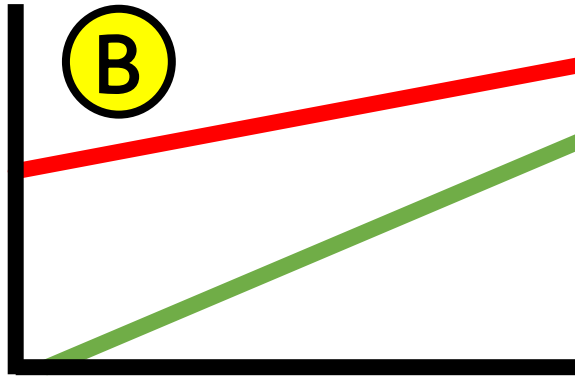
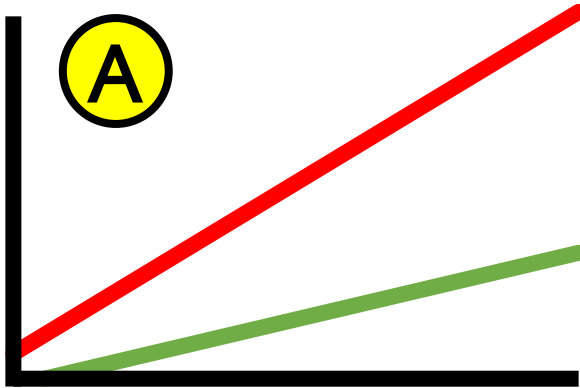
HAPPY TEAMS

SATISFIED CUSTOMERS





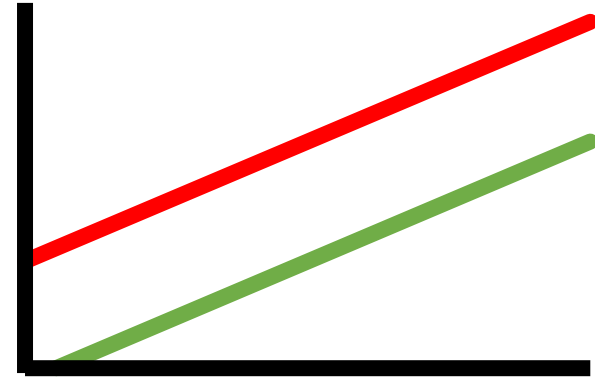
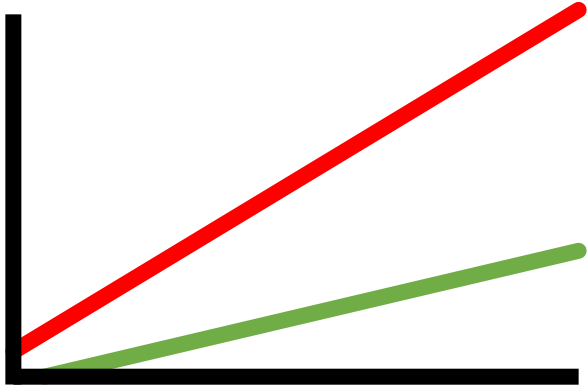
# PICK A CFD



WHICH OPTION IS BETTER FOR PREDICTABILITY?

WHICH ONE DO YOU HAVE TODAY?

# 3 STEPS TO NIRVANA



FOCUS ON ONE OF THESE FLOW METRICS IN EACH STEP

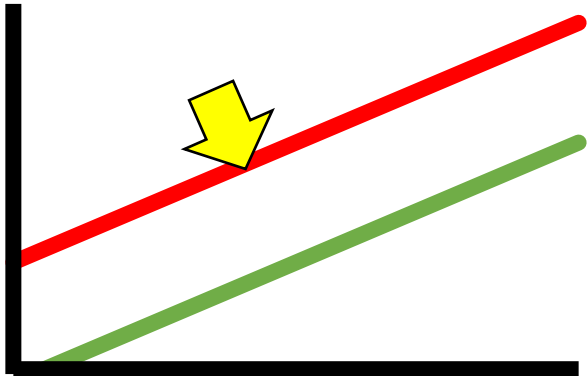
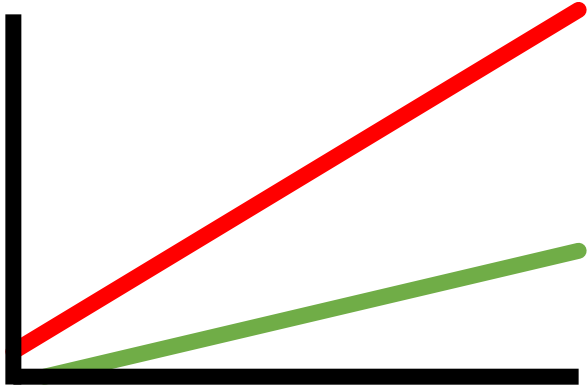
$$\text{THROUGHPUT} = \frac{\text{WORK IN PROGRESS}}{\text{ELAPSED TIME}}$$

YOUR BIGGEST  
PREDICTABILITY  
PROBLEM IS USUALLY  
**TOO MUCH WIP**

(DANIEL VACANTI)



# STEP 1: MAKE THE LINES PARALLEL



FOCUS:

STABILITY

KEY METRIC:

WORK IN PROGRESS

INTERVENE ON:

ARRIVAL RATE  
ENTRY POINT

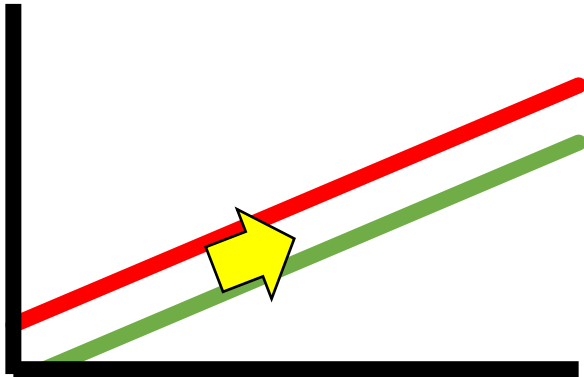
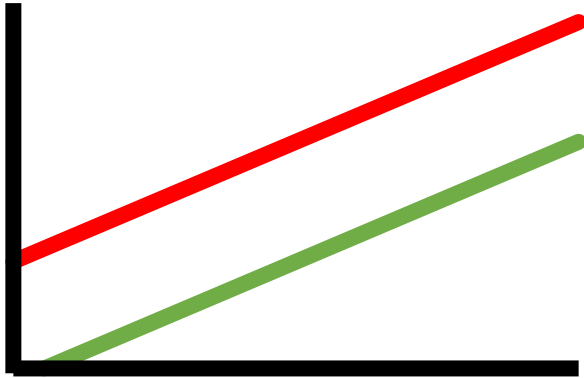
OUTCOMES:

SUSTAINABILITY  
PEOPLE-CENTRIC

EXPERIMENTS:

VISUALISE ALL THE WORK  
1 OUT / 1 IN REPLENISHMENT  
CONWIP

# STEP 2: MAKE THE LINES NARROWER



FOCUS:

PROCESS IMPROVEMENT

KEY METRIC:

ELAPSED TIME

INTERVENE ON:

WORKFLOW  
PROCESS & POLICIES

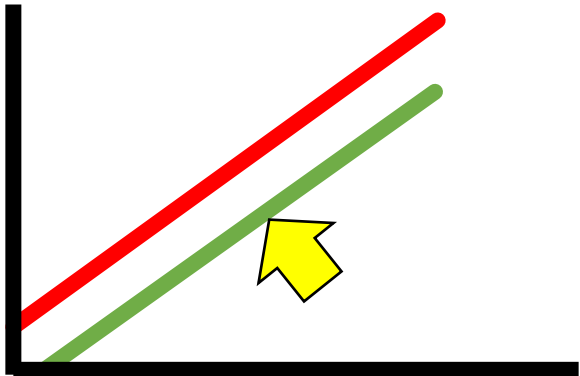
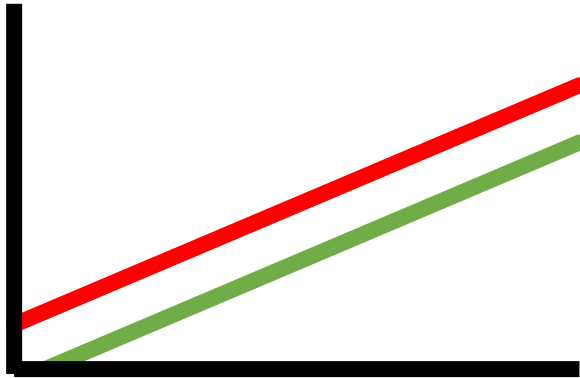
OUTCOMES:

FASTER DELIVERY  
EFFICIENT PROCESS

EXPERIMENTS:

LOWER WIP  
AGING METRICS  
READINESS CRITERIA  
WASTE REDUCTION

# STEP 3: MAKE THE LINES STEEPER



FOCUS:

CAPABILITY IMPROVEMENT

KEY METRIC:

THROUGHPUT

INTERVENE ON:

TOOLS & TECHNOLOGY  
CAPACITY

OUTCOMES:

MORE DELIVERIES  
CUSTOMER SATISFACTION

EXPERIMENTS:

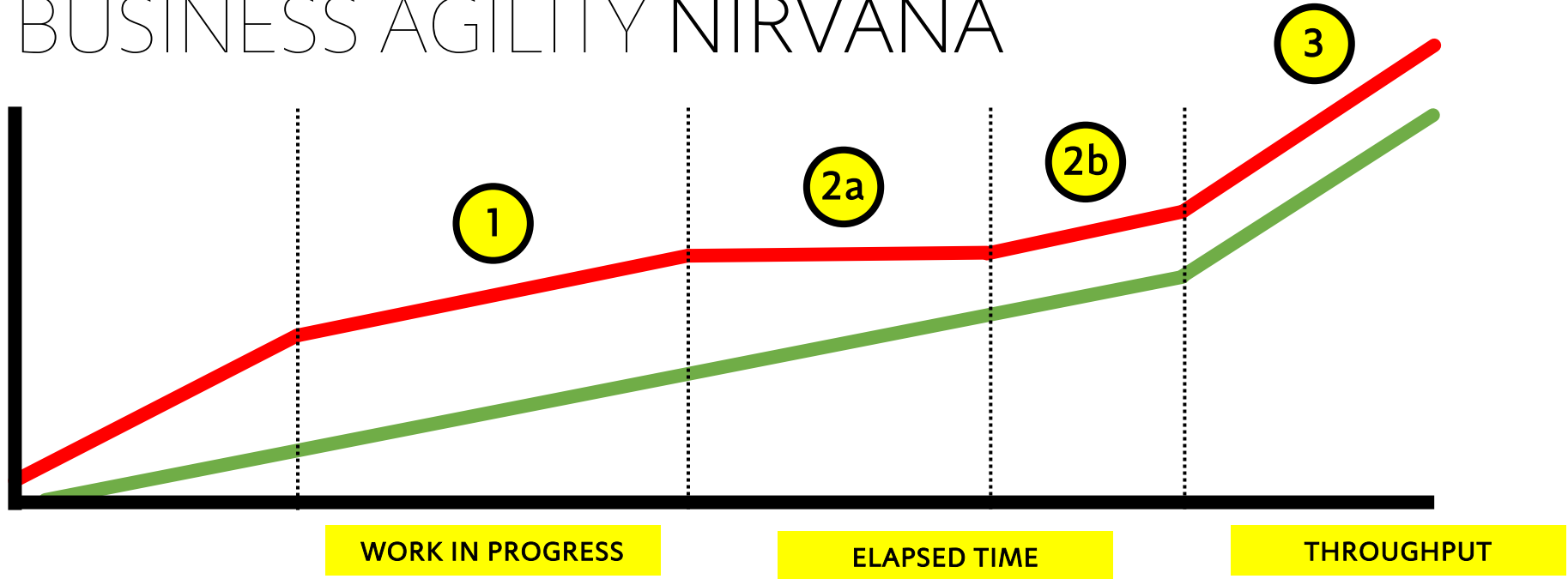
PROCESS AUTOMATION  
TECHNICAL DEBT REDUCTION  
NEW TECH & TOOLS  
SCALE UP

AGILE TEAMS  
HAVE NOTHING  
TO DO WITH  
**BUSINESS  
AGILITY**

(KLAUS LEOPOLD)



# BUSINESS AGILITY NIRVANA



BUSINESS AGILITY TAKES A LONG TIME TO EMERGE

REMEMBER WHAT PHASE YOU ARE IN & MAINTAIN FOCUS

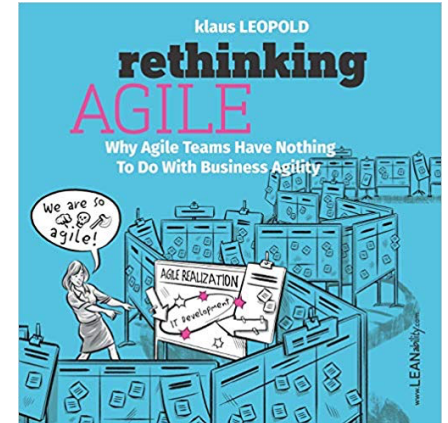
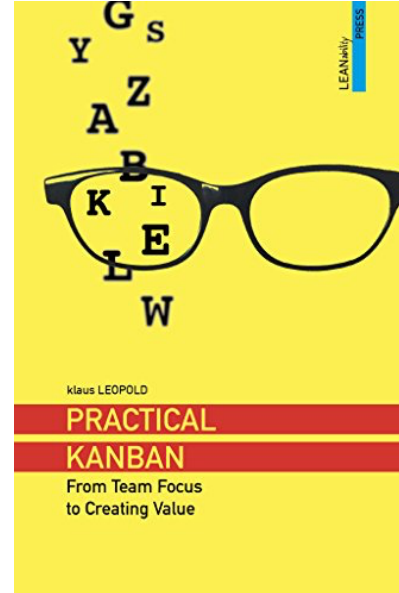
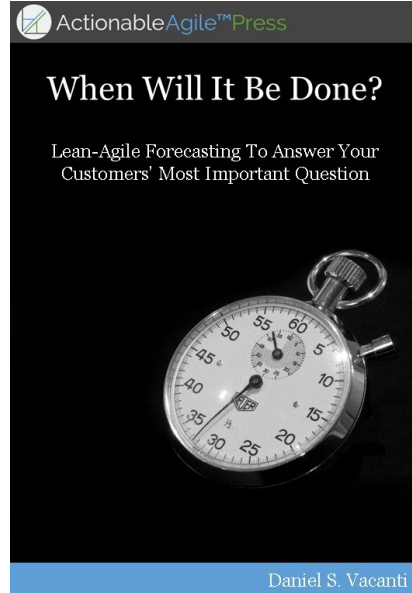
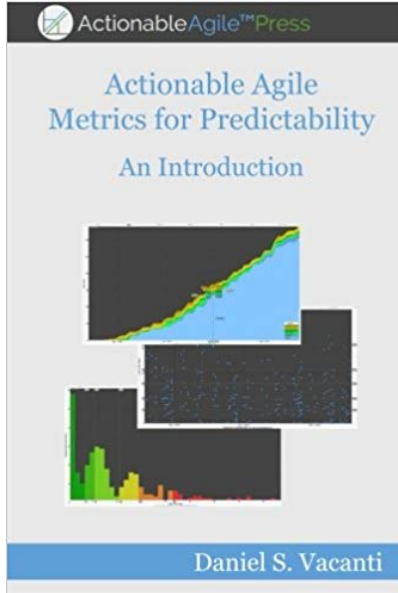


# RECAP

AVOID THE CROCS  
FLOW METRICS ARE YOUR FRIENDS  
IT IS NOT ABOUT THE TEAMS  
PREDICTABILITY ENABLES TRUST  
FOCUS ON THE RIGHT METRIC



# BIBLIOGRAPHY



# REACH OUR (BUSINESS AGILITY) NIRVANA



THANK YOU

**kill your  
WIP**  
not your  
business

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easy  
focus is  
hard**

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don't blame  
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AND  
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