JOE**JUSTICE**

MORALE MAXIMIZES VELOCITY

WIKISPEED ™

AGILE BUSINESS INSTITUTE

EXECUTIVE LED AGILE AND DIGITAL TRANSFORMATION

Harvard Business Review

THE LEAN MINDSET
ASK THE RIGHT QUESTIONS
MARY POPPENDIECK · TOM POPPENDIECK with HENRIK KNIBERG

YOUR SCRUM PLAYBOOK
IT'S POKER NOT CHESS
FOREWORD BY DR. JEFF SUTHERLAND
FABIAN SCHWARTZ

Scrum for Hardware

SCRUM @SCALE

Paolo Sammicheli
Foreword by Joe Justice

AGILE HARDWARE

HOW TESLA RELEASES HARDWARE MULTIPLE TIMES A WEEK

Forbes

CNN Money.com

FORTUNE

@JoeJustice

1

2006

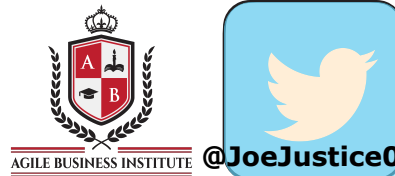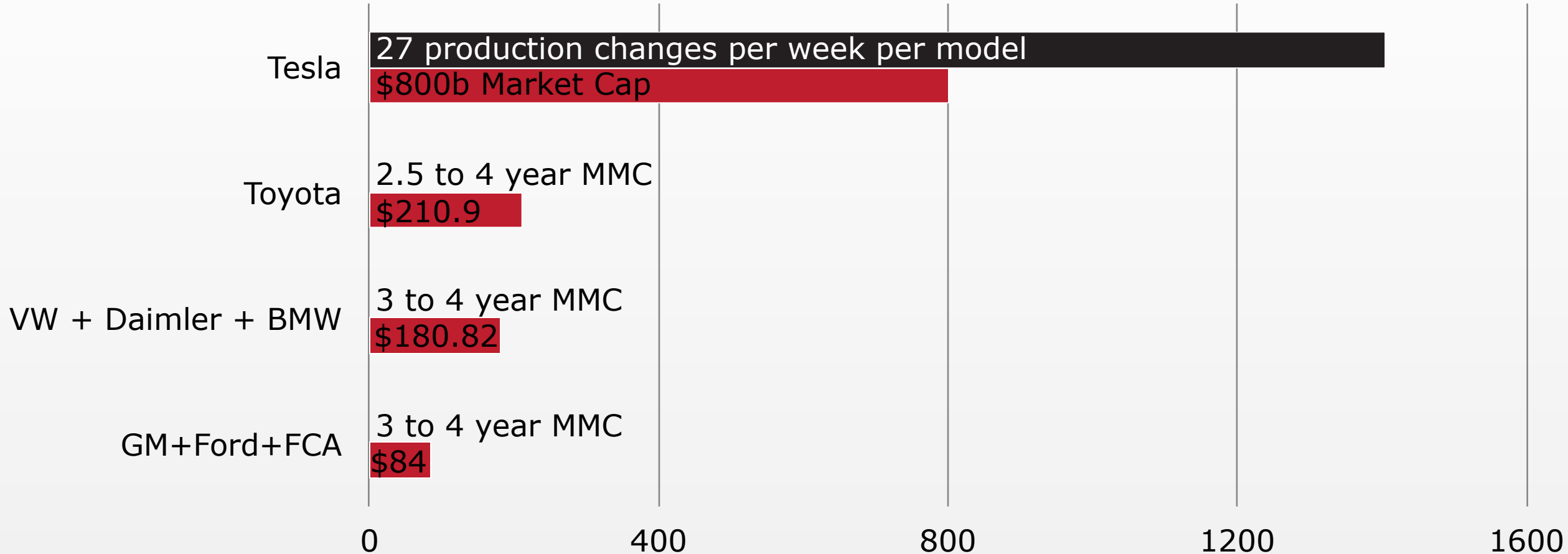- Started building cars with agile methods
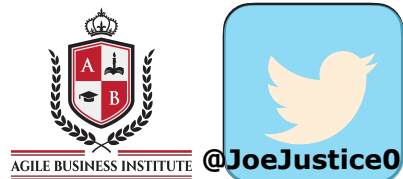
2012

- Issue #3, cover

2020

- Joined Tesla
- Operated Agile@Tesla

Fast New Product Development

Automotive Companies Market Capitalization by speed of NPD + NPI

Tesla
27 production changes per week per model
$800b Market Cap

Toyota
2.5 to 4 year MMC
$210.9

VW + Daimler + BMW
3 to 4 year MMC
$180.82

GM+Ford+FCA
3 to 4 year MMC
$84

Axis: 0 — 400 — 800 — 1200 — 1600

- Source: https://tesla-info.com/blog/tesla-model-history.php
- Source: https://www.businessinsider.com/tesla-model-s-every-major-change-2019-8#tesla-bumped-up-the-performance-times-it-quotes-for-the-car-in-2017-6
- Source finance.yahoo.com

Agile Executives

Volkmar Denner

CEO Robert Bosch GmbH

"For Bosch agility is crucial, it allows us to adjust to the increasing speed of change around us. Agility allows us to remain in a position as an innovation leader."

Akio Toyoda

CEO Toyota Motor Company

"When you look at a product, going to a product, going to the actual sites, going to genba, what is important is to fuel the change point."

Herbert Dies

CEO Volkswagen Group

"The big questions is: Are we fast enough? If we continue at our current speed, it is going to be very tough."

Elon Musk

CEO Tesla
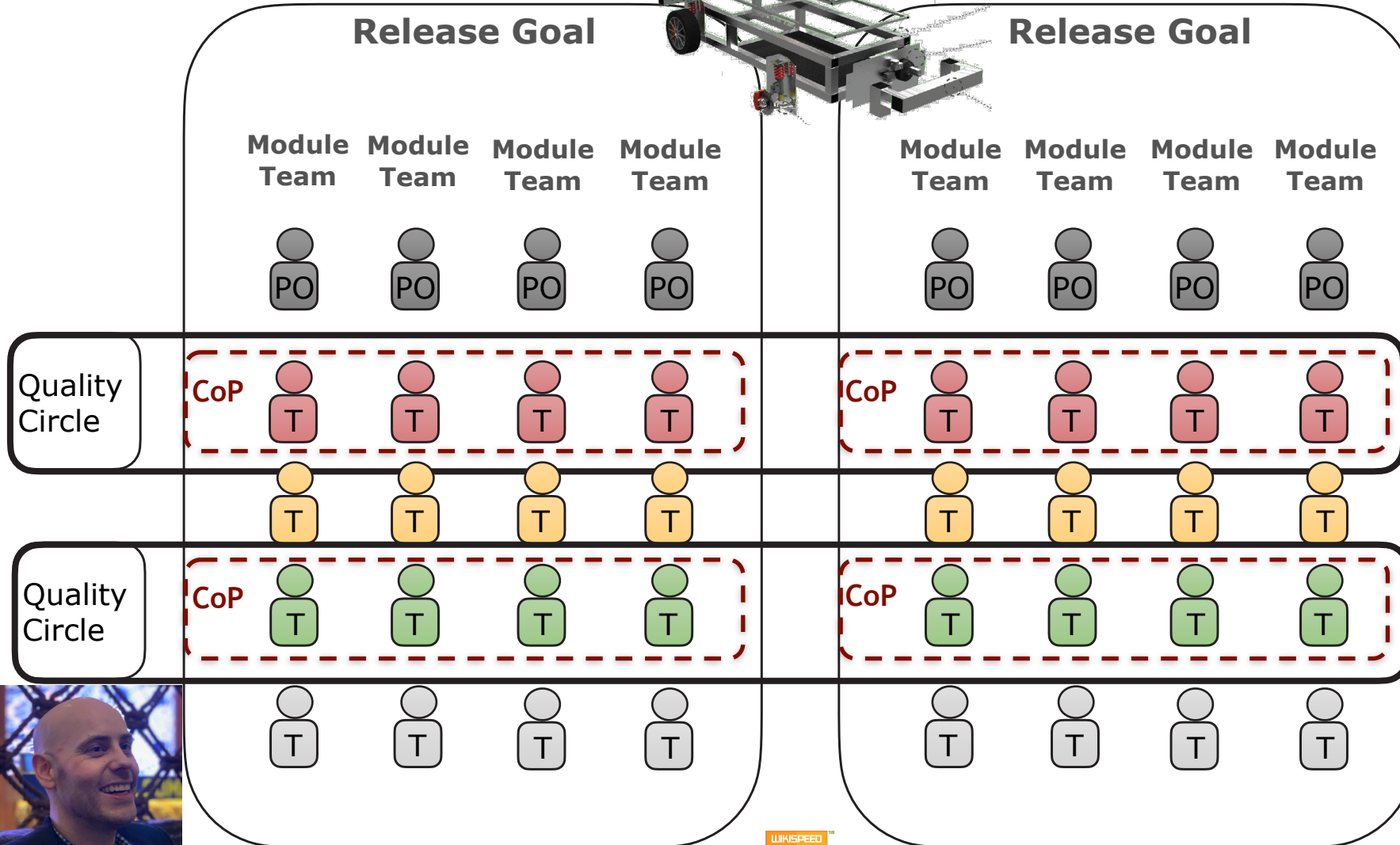
"Pace of innovation is all that matters in the long run"

@JoeJustice

"How Much of This Can We Do In Parallel?"

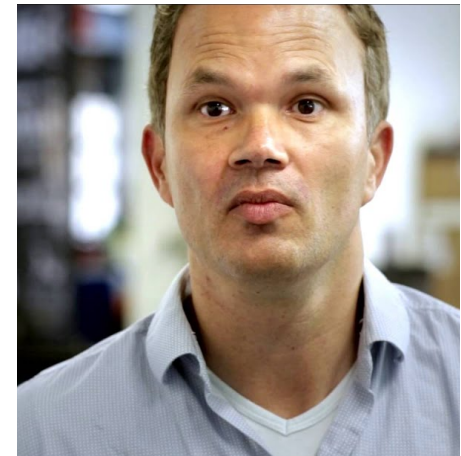- Joe Justice worked directly with Bill Gates in 2008 and 2010

@JoeJustice0

Group Scrum

Release Goal

Release Goal

Module Team | Module Team | Module Team | Module Team

Module Team | Module Team | Module Team | Module Team

PO PO PO PO

PO PO PO PO

Quality Circle

CoP — T T T T

CoP — T T T T

Henrik Kniberg, Spotify Model

T T T T

T T T T

Quality Circle

CoP — T T T T

CoP — T T T T

T T T T

T T T T

Paul Takken, Tribes & Guilds at ING Bank
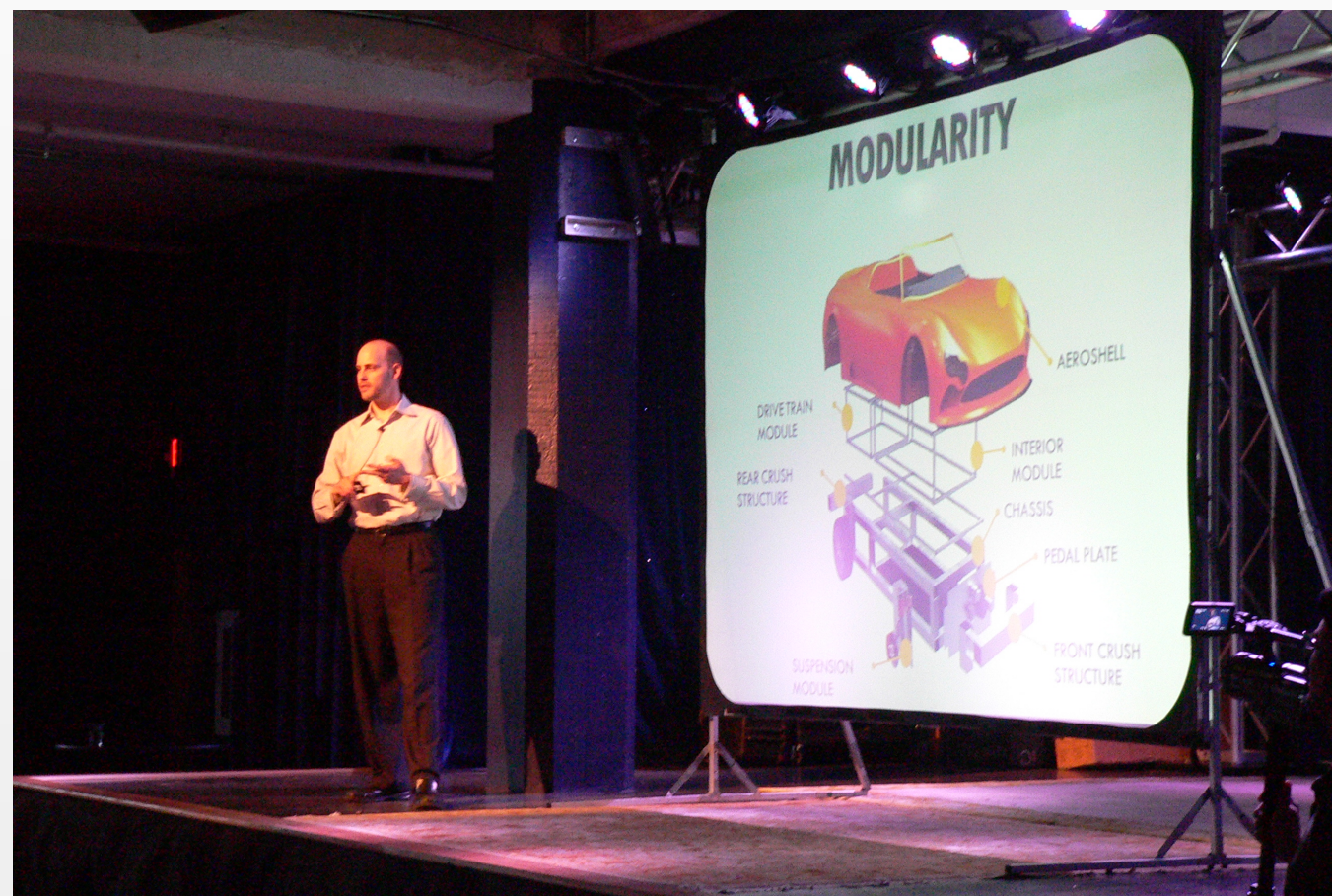
Joe Justice, WIKISPEED Model

@JoeJustice

Justice's Law

"The modules of the system define the structure of the organization." -Joe Justice

"The modules of the product define the structure of the company." -Joe Justice 2006
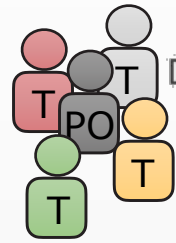
"Never have a meeting where two pizzas couldn't feed the entire group."

- Joe Justice consulted to Amazon leadership in 2016

@JoeJustice0
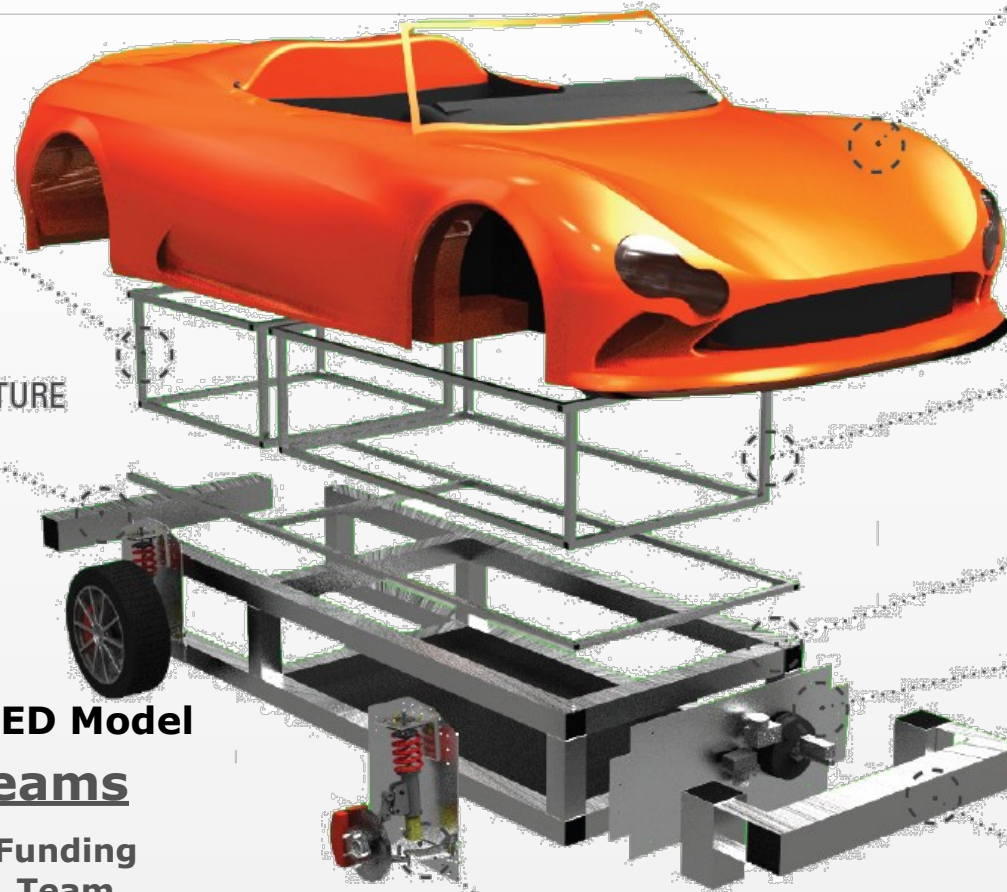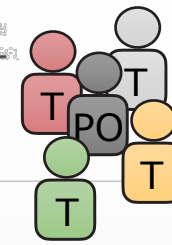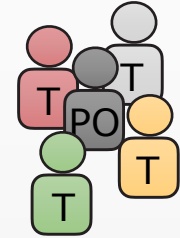
GROUP SCRUM: Module Teams

AEROSHELL

DRIVE TRAIN MODULE

INTERIOR MODULE

REAR CRUSH STRUCTURE
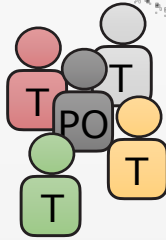
CHASSIS

PEDAL PLATE

-Joe Justice
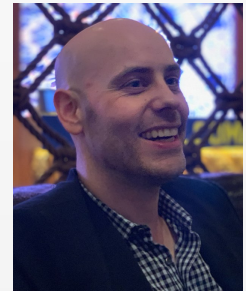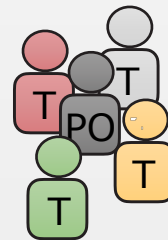
Joe Justice, WIKISPEED Model

Company As a Service Teams
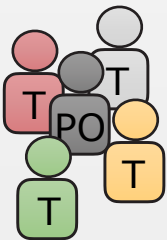
Coffee Team **Facilities Team** **Gourmet Team** **Funding Team**
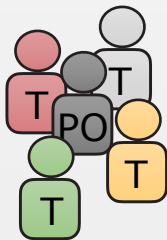
SUSPENSION MODULE

FRONT CRUSH STRUCTURE
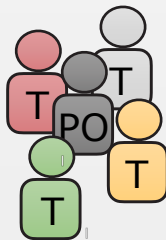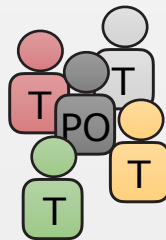
@JoeJustice

"If something is physically possible, not only is someone doing it, but there is also an award show."

- Joe Justice operated Agile@Tesla in 2020
- Any product goal less than what is physically possible is vulnerable to competition.

@JoeJustice0

Stable Interfaces   **Area 51: Design at Production**   **Flexible Hands**

Flexible Work Holding

Interface
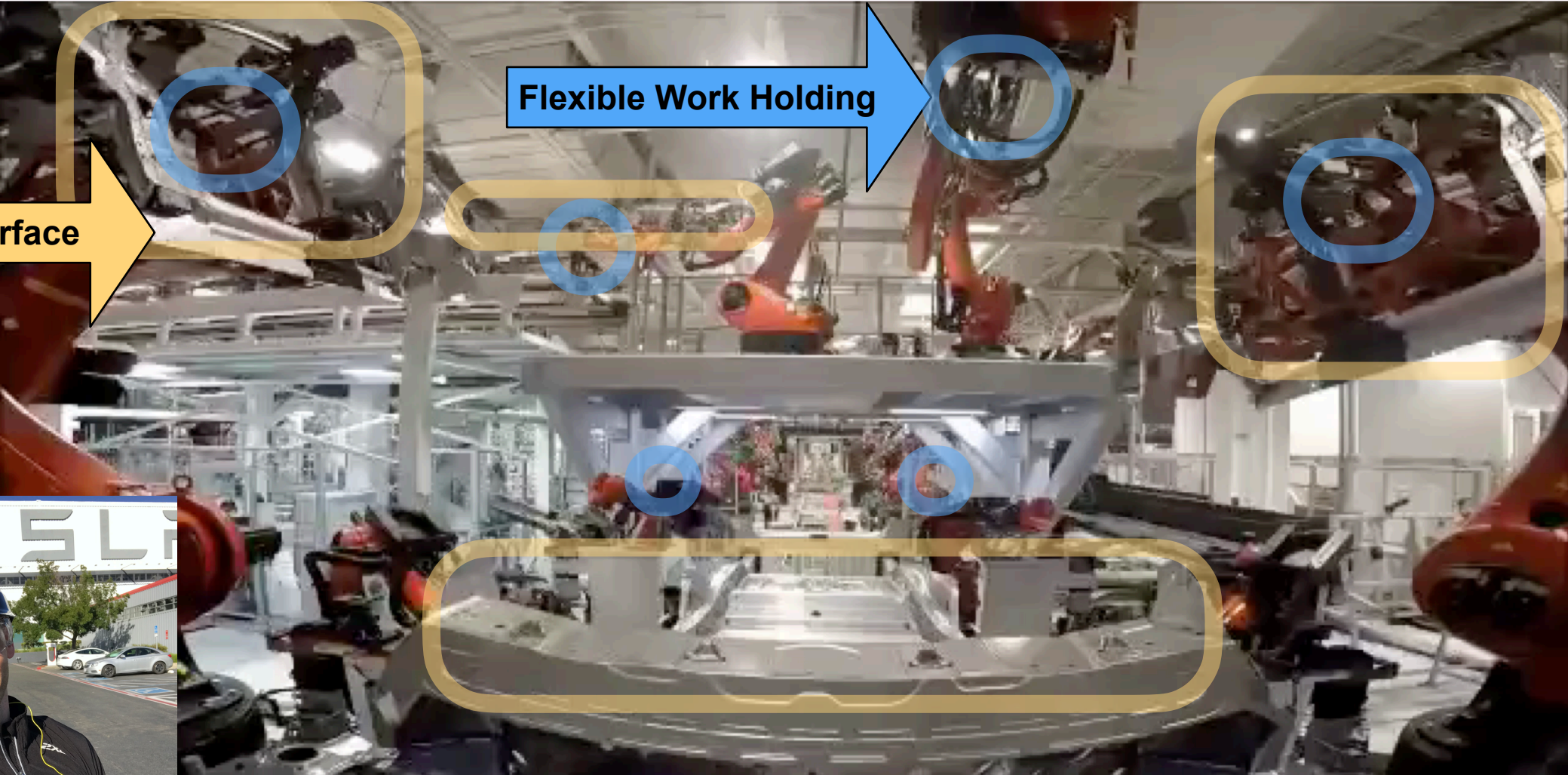
JoeJustice 💪🦾 @JoeJustice · Sep 16
Automation, in software and hardware and management, with test-in-the-loop, is in fact the answer. Humans are for creative problem solving, automation is for EVERYTHING ELSE.

Source: Joe Justice, Tesla

Agile NPI (New Product Introduction)

@JoeJustice

Agile NPI (New Product Introduction)

VALUE ADD STEP

VALUE ADD STEP

VALUE ADD STEP

DoR (Definition of Ready)

DoD (Definition of Done)

ROUTER

ROUTER

100%

DoR (Definition of Ready)

DoD (Definition of Done)

AGILE BUSINESS INSTITUTE
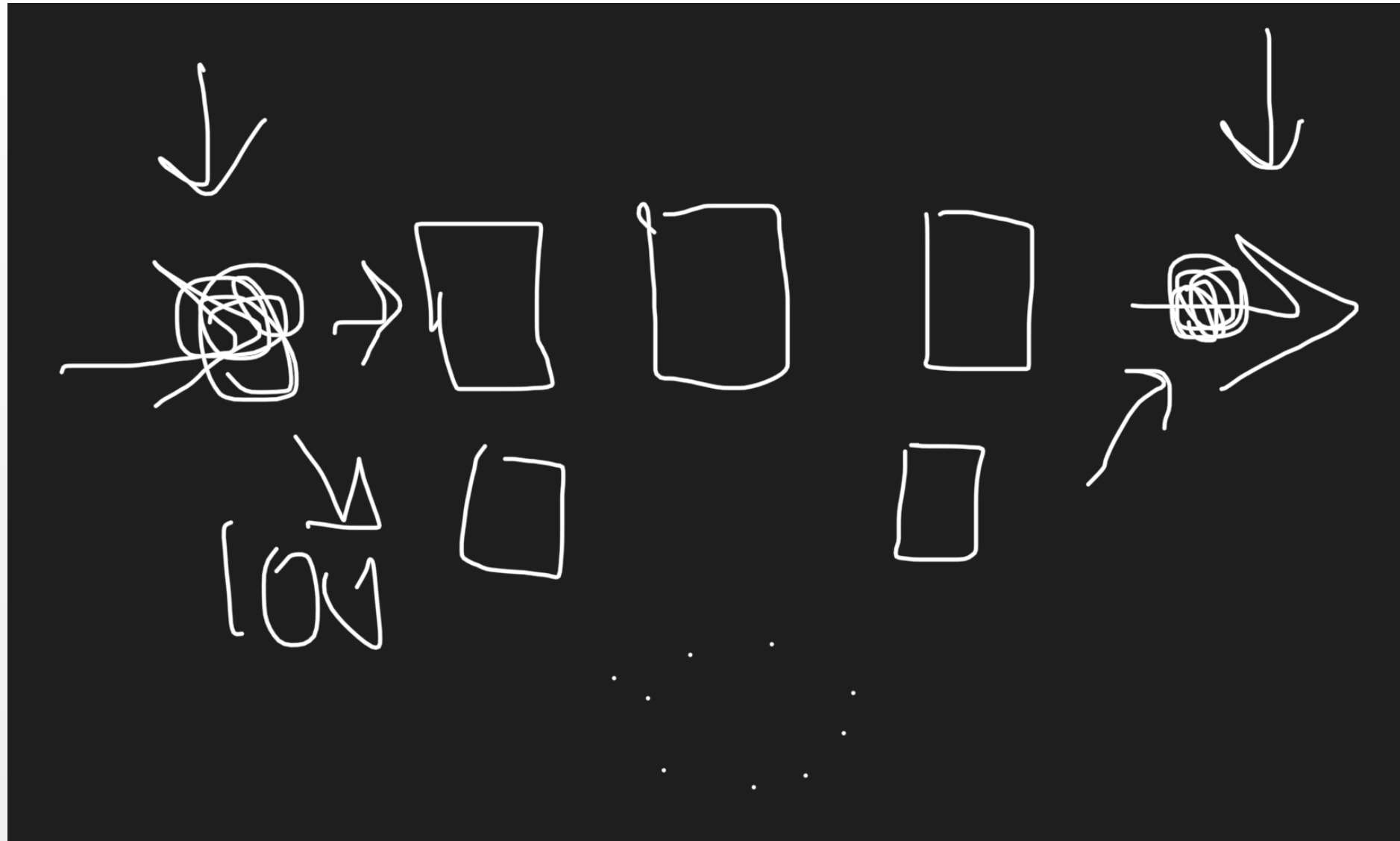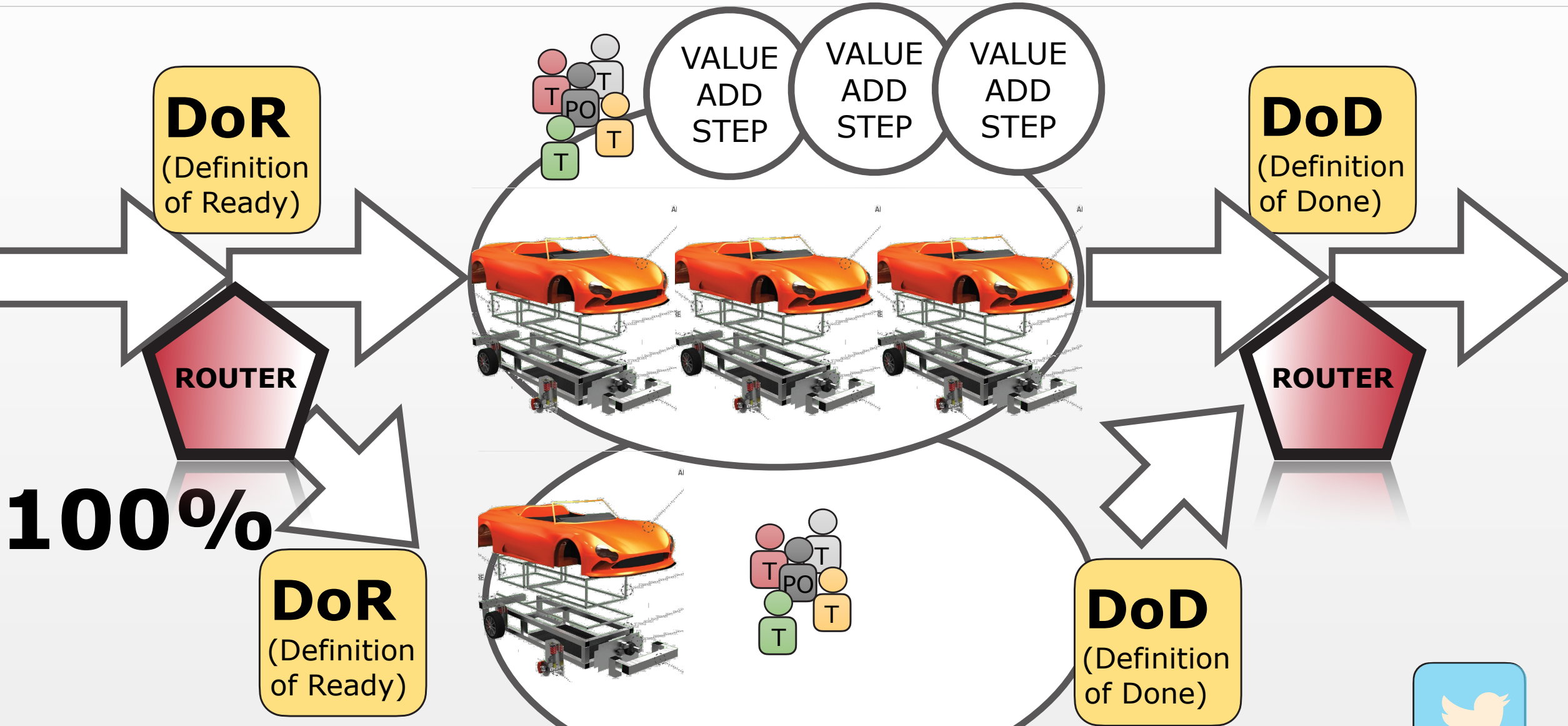
@JoeJustice

HOMEWORK
[Then Happy Hour]

- *Before you sleep tonight:* Please go to https://leanpub.com/Scrum-for-Hardware

- Select "Read Free Sample"

- Read page 13 and 14.

- THANK YOU SO MUCH!

- Please connect with me on Xing, LinkedIn, Facebook, Twitter:
  - Joe Justice

@JoeJustice

Scrum for Hardware

SCRUM @SCALE

Please take a Picture

Paolo Sammicheli
Foreword by Joe Justice

SCRUM MASTER

The Agile Training Seminar For Business Performance

This book is the ultimate agile training seminar in book form. Business leaders, professionals who are ready to learn, and instructors will find here a complete training regimen with rich content, a training-tested structure, and high value insights that have already resulted in many thousands of agile projects delivered at all types of top tier organizations, from fortune 100 companies to lean startup companies, around the globe.

We have optimized this book to be an immersive experience you can adapt to the time you have available, so we encourage you to dive headlong into these pages, exercises, and practices so you can most directly apply your learning to your work immediately.

As a comprehensive course, this book offers the key practical knowledge for you to understand and be increasingly agile, and to effectively begin practicing or perfecting Scrum from the moment you begin through to realizing your definition of done.

Joe Justice is a highly rated instructor who has led hundreds of agile courses and supported agile transformations for teams and across leading businesses worldwide.

"You really rocked your roles as instructor, cheerleader, and host"
– Ken Merchant, 3 Star General, USAF Retired

"One of the best professional trainings in the world"
– Fabian Delava, Partner, Bain & Company

"Joe has broken new ground using Scrum in manufacturing"
– Dr. Jeff Sutherland, Co-creator of Scrum

"Joe is a master in teaching Agile with meaningful real-world non-software examples"
– George Tome, Enterprise Agile Coach, John Deere

SCRUM MASTER

The Agile Training Seminar For Business Performance

JOE JUSTICE

Edited by Phil Klein

AGILE BUSINESS INSTITUTE

@JoeJustice

Agile HW TRAINING

- **Reason for agile**

- **Scrum and Kanban**

- **Lean thinking and set-based design**

- **Agile collaboration and cross-functional teams**

- **Scaling Agile and managing complexity**

Contact us!

courses@nitor.com

procognita.com/contact

info@ABI.Group

OBSERVED NOTES

- ENGINEERS
  - Learn to add value in the boardroom and with financial negotiations
  - Stay 80%+ engineering on product and product production
  - If anyone blocks you from speaking in the boardroom, leave
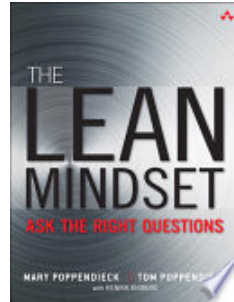
@JoeJustice

Joe Justice
Joe@ABI.group

"MORALE MULTIPLIES VELOCITY"
"If you are not growing you are dying"
"An XL project is really 18 XS projects waiting for modular architecture"

- Author of Scrum Hardware Guide
- Chair of Agile Business Institute
- Creator of eXtreme Manufacturing Methods

Learning in: Lockheed Martin, Google, Amazon, Microsoft, Boeing, USAF, HP, Tesla, Toyota, MIT, Siemens, Pictet Bank, and 100+ more.

@JoeJustice