Agile@Tesla—Joe Justice

"Agile at Tesla" *by Joe Justice* (2022) *is an interesting YouTube video* ...

* Joe Justice is an agile rockstar specializing in Scrum for hardware.
* Joe worked for some top companies such as Microsoft, Amazon, etc.
* Joe uses Scrum as a lens to explain corporate development practices.
* In this video, Joe talks about how Tesla uses agile ideas to design cars.
* The video is merely a speech vs. a highly structured PowerPoint brief.
* Tesla doesn't apply highly structured processes so it can be perplexing.
* Basically, Tesla applies extremely informal R&D practices from the 1950s.
* Tesla's car components are organized into design cells in large warehouses.
* People freely move from cell-to-cell brainstorming optimal component designs.
* Tesla is like a giant face-to-face SAFe PI planning brainstorming session every day.
* There are no rules, structures, documents, meetings, agendas, facilitators, PMOs, etc.
* New hardware and software are manufactured in 3 hour intervals inside component cells.
* It's a lot like Lockheed's R&D "Skunk Works" from the 1950s (and Kelly Johnson's 15 rules).
* Tesla decimated design times (Europe-12 Years, U.S.-8 Years, Japan-4 Years, **Tesla-3 Hours**).
* Tesla's live daily problem solving is vastly superior to TQM and (Lean) Six Sigma frameworks.
* Tesla's key is face-to-face conversations (vs. processes, tools, documentation, and governance).
* Eric Ries decimated hardware lead times to 90 days at GE with "Startup Way" (but not like Tesla).
* Tesla and "Startup Way" are vastly superior to the Toyota Production System (TPS) as Toyota admits.
* Ironically, many software and hardware firms slow R&D initiatives down with traditional methodologies.
* Some R&D projects are rediscovering earlier conversational approaches as well as lean-agile frameworks.
* Joe says SAFe and Scrum apply in Tesla's manufacturing stages (while I believe they apply in earlier design).

* Joe feels "OpenSpace Agility" most closely mimics Tesla (and OpenSpace says it can improve SAFe and Scrum).
* Joe is a cog in the wheel kicking against the goads at Tesla (and he doesn't seem to understand what he's seeing).

(*What I hear Joe saying is that Tesla relies on daily ad hoc rich high-context face-to-face conversations, brainstorming, and mob problem solving to manufacture new hardware and software in 3 hour increments—Team of teams at scale—That's the essence of the agile "RI-phase" mindset that's hard to capture in traditional and lean-agile frameworks—Traditional lifecycles, processes, tools, documents, metrics, defect reports, change requests, integrated master schedules, business requirements, enterprise and systems architectures, quarterly and sprint plans, and other bureaucratic concepts simply cannot mimic rich high-context face-to-face conversations—Some of this can be captured or mimicked in SAFe and Scrum, even remotely, but it requires very advanced lean-agile thinking, training, and coaching ...*)

Tesla has it right—The authors of the Agile Manifesto had it right—Skunk Works had it right—Informal live real-time face-to-face CONVERSATIONS are more important than processes, tools, and documentation—That's a difficult concept for many people to grasp (*walking up and talking with people to solve your problems without formal meetings, processes, documents, tools, defect reports, change requests, IT tickets, and governance structures*)—**Bottomline**?—Stop relying on Integrated Master Schedules (IMSs) and Earned Value Management (EVM) to save your outdated three-to-five decade old technology stacks (IMSs and EVM didn't rescue us in 1958 and they won't rescue us today)—***Tracking User Story and Story Point prediction accuracy won't help you either*** (*which are just another evil manifestation of IMSs and EVM*)—***Predicting and divining the future with any degree of split-second precision using traditional project management techniques is fruitless*** (*especially in a high-tech context with tons of uncertainty*) ...

Case Study. *Tesla designs their automobiles with rapid prototyping and over-the-air DevOps (in mind)—The U.S. Air Force is having trouble completing its latest fighter jet (F-35) because it was designed very badly (and doesn't lend itself to rapid prototyping and DevOps)—The Air Force banned lean-agile frameworks on the F-35 because they felt lean-agile frameworks didn't support rapid prototyping (and DevOps)—It wasn't the fault of lean-agile frameworks the F-35 was designed badly from the start—The F-35 needs to be rearchitected (and it will be)—The U.S. military often evolves its aircraft to be more flexibly updated over a period of decades—Tesla complements my 2018 whitepaper on collaborative contract principles quite nicely* (*look ma, no integrated master schedules nor rigid traditional frameworks*) ...

Footnote. All organizations—Past, present, and future—Have formal and informal governance structures, networks, and problem solving cells—Organizations glamorize their formal governance structures while relying on informal conversational structures to succeed when the rubber meets the road—However, Tesla simply STRIPPED AWAY the formal, explicit, and tangible governance structures (and codified the often invisible or informal team of teams casual communication structures that underly all rigid, adversarial, and suboptimizing organizational hierarchies, governance structures, and methodological frameworks)—Tesla has structure, it's just highly unconventional, invisible, and imperceptible (which baffles Joe Justice at times in my opinion)—It's a bit challenging to train people in Tesla's highly informal conversational problem solving culture (but not impossible)—Tesla's hardware and software design process is more Extreme than Extreme Programming or XP (which was a mind-blowing paradigm shift in 1998)—Agile frameworks are little bit like training wheels (Tesla simply doesn't need them anymore)—You don't need heavyweight traditional frameworks and lean-agile frameworks ain't so bad after all (especially if they're infused with heavy doses of informal conversations)—Ironically, some organizations ignorantly discourage informal conversations as WASTEFUL (they're ANTI-Teslas)—I can't tell you how many times I was told to stop talking, return to my desk, and keep working alone in recent years (it's simply an antiquated management paradigm that never worked in the first place)—Managers are allowed to talk in traditional organizations, but not workerbees (at Tesla, everyone talks all of the time and there are no managers)—Simple words can move mountains (don't waste them insulting, undermining, and gaslighting people for personal gain)—Lean doesn't get any leaner than an informal, polite, and helpful conversations (to solve systemic problems of all shapes, sizes, and forms) ...