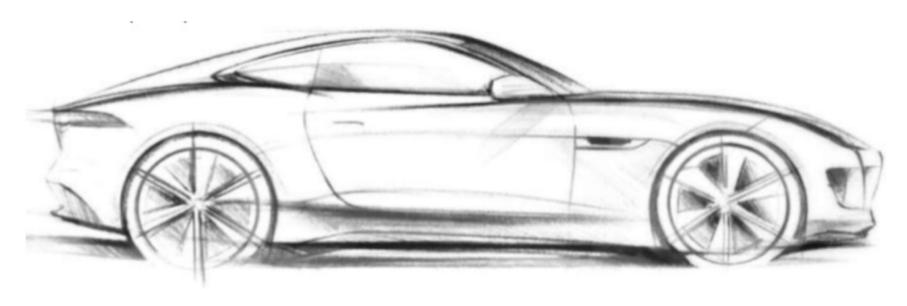
# Supply chain evolution from horseless buggies to driverless cars

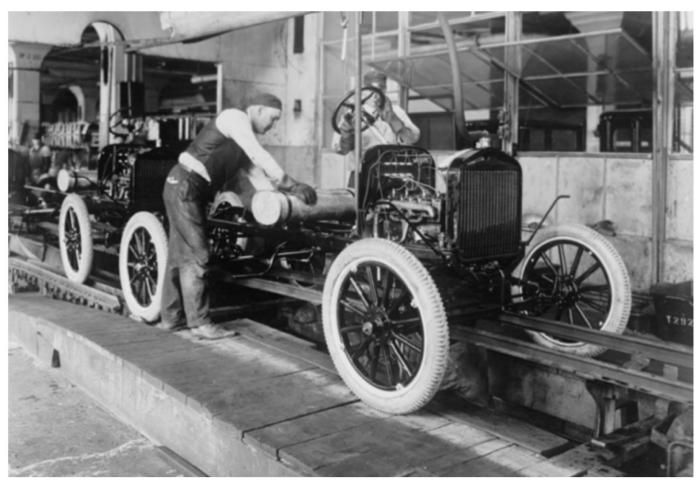


Val Bercovici Founder & CEO



@valb00
@Pencil DATA

#### Context



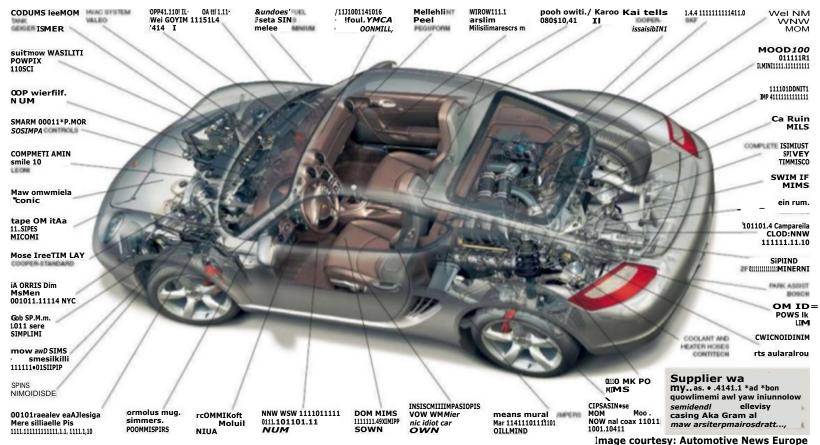
 $\underline{\text{http://www.scotsusa.com/heritage/on-this-day-100-years-ago-henry-t-ford-installed-the-first-moving-assembly-line/lines/l$ 

- 105 years old
- Global manufacturing
- Broad supply chains
- Highly regulated
- 75M Cars / year

■ Will soon never be same

# Complexity to Date

#### **Suppliers to the Porsche Cayman S**

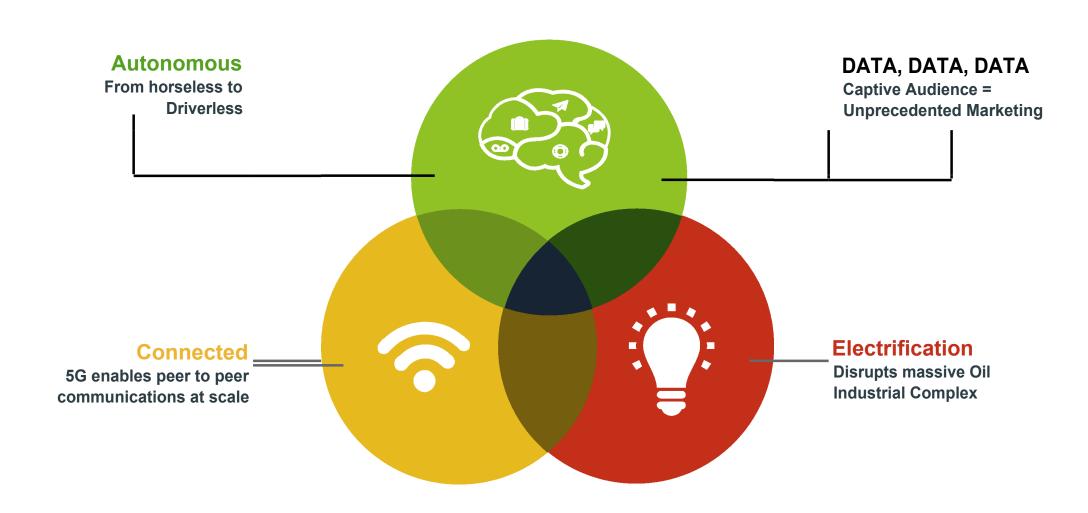


## **IoT Fatigue or Renaissance?**

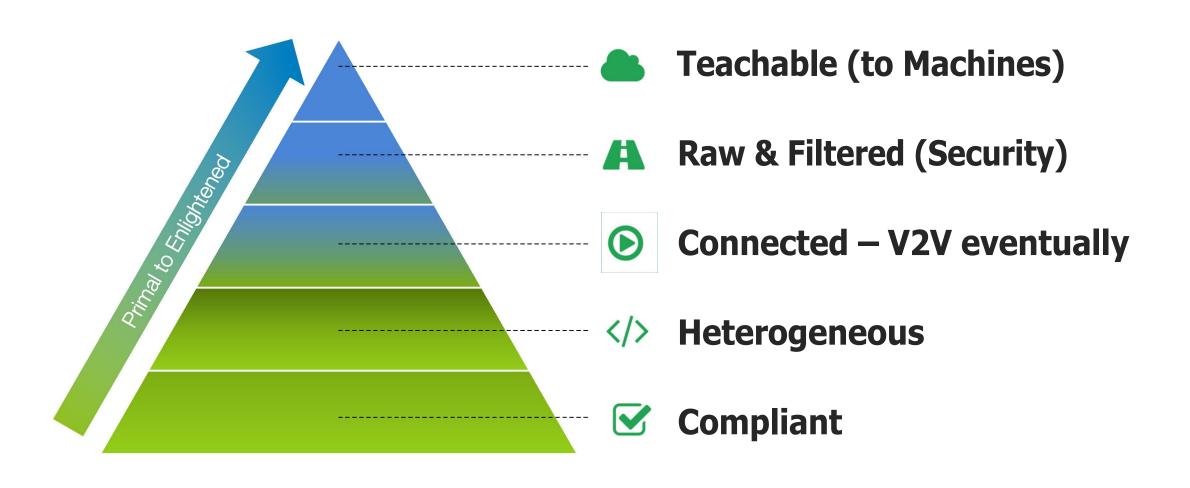


https://www.yaabot.com/31856/iot-fatigue-real-thing-happens-avoid/

## **Tectonic Auto Industry Shifts**



# **Data Hierarchy of Needs**



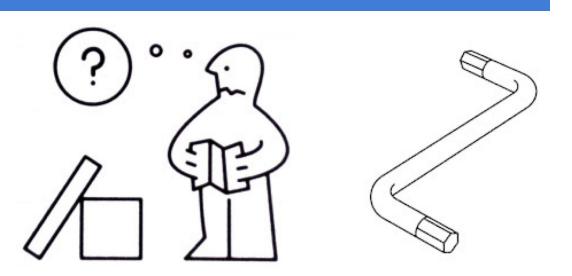
#### **Tools**

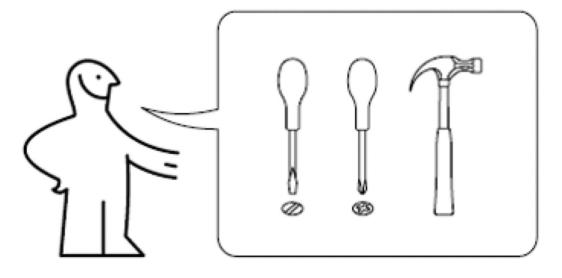


- Software supply chain:
  - Aggregation
  - Verification (Merkle vs PKI)
  - Distribution



- Data: (Vehicle Black Box)
  - Provenance
  - Lineage
  - Immutability as needed
  - Valuation

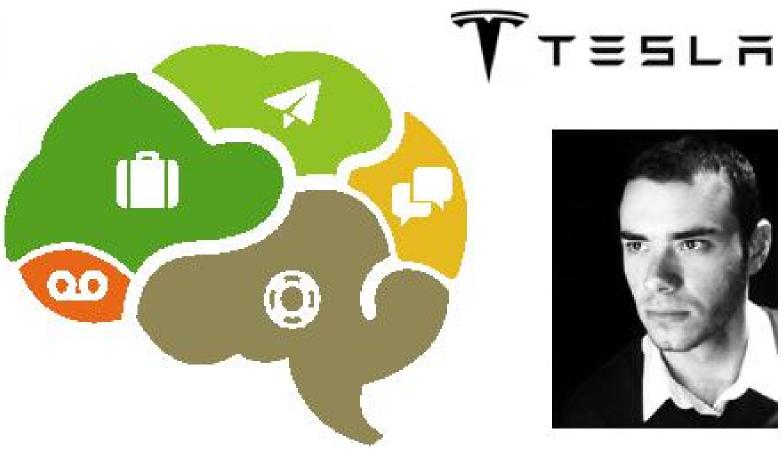




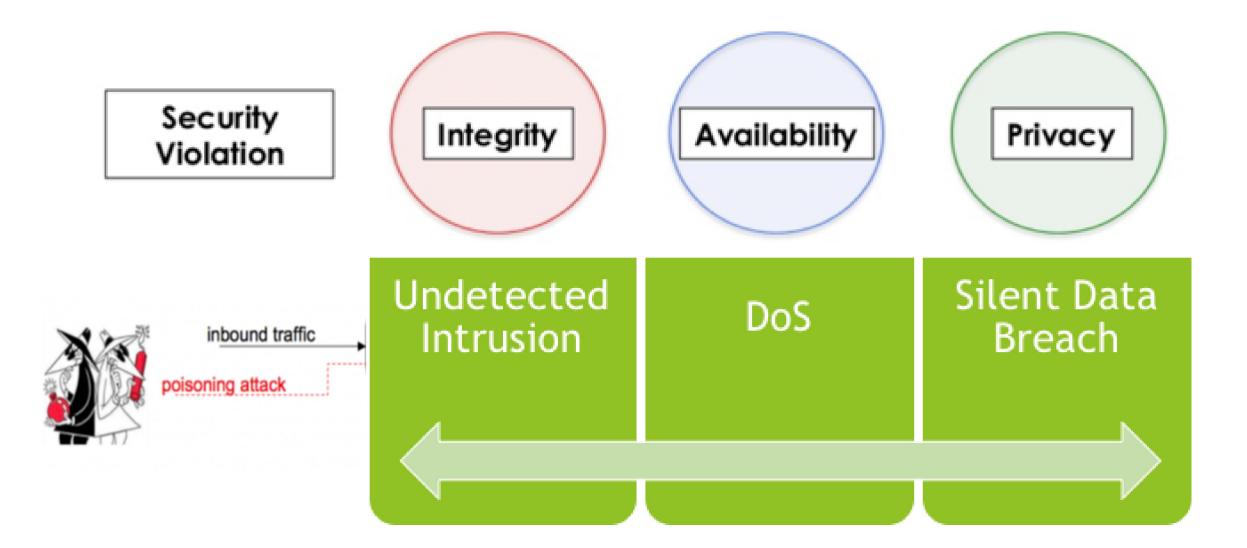
# **Software 2.0 = Teaching Algos with Data**







### **Data Poisoning**

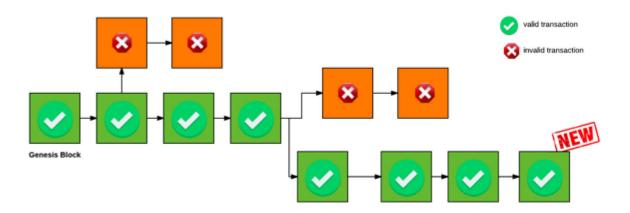


#### **One Chain to Bind Them**

#### **Blockchain Nodes on fleet of vehicles**

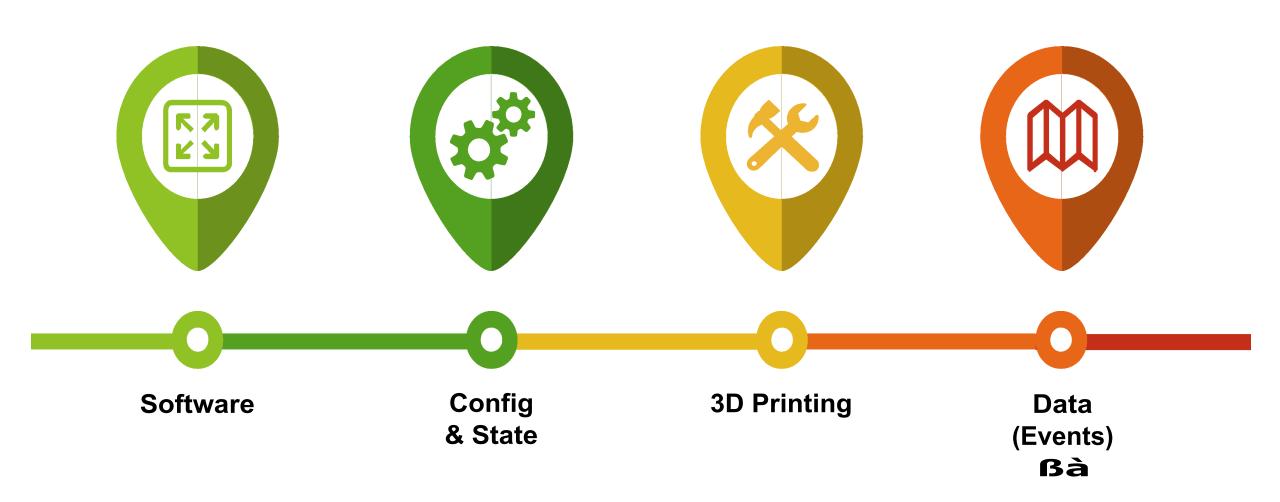
Natural deployment model. Secure the genesis block and create distributed set of nodes with mining Proof of Work as:

- Miles / Kilometers driven
- · Regenerative braking energy gained
- Roads mapped via LIDAR
- Images classified from cameras
- Incident / Event info exchange over 5G

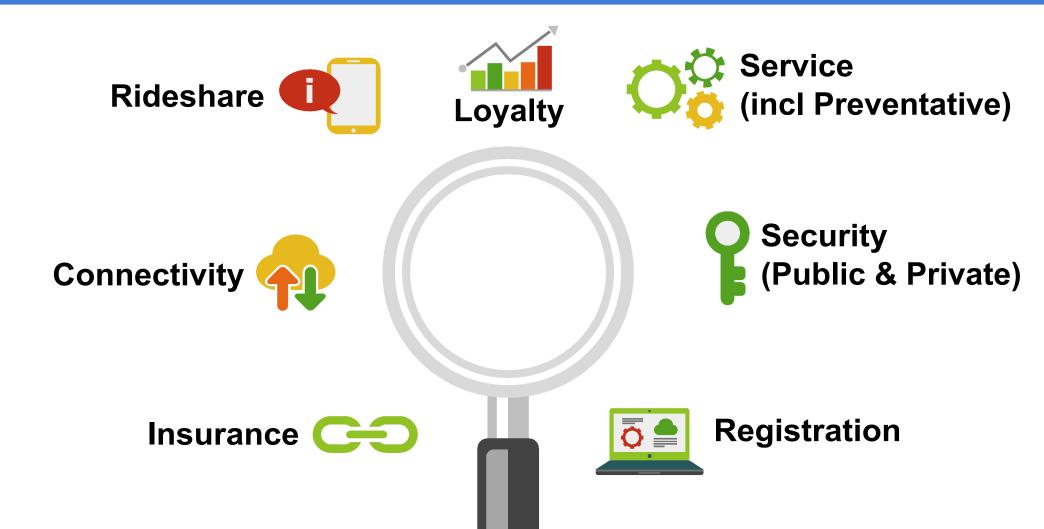




# **Digital Supply Chain**



### **Ecosystem**



#### **Novel Use-Cases**



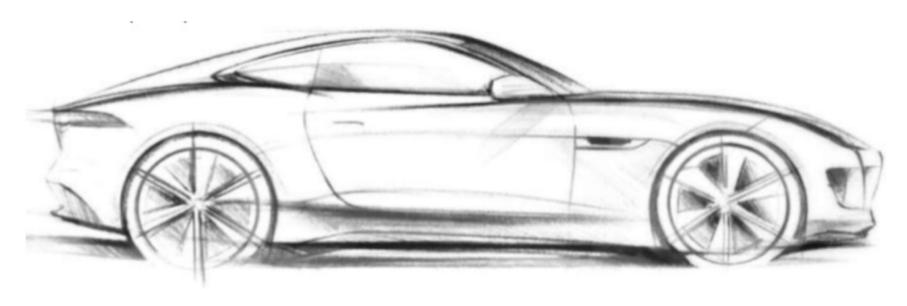


- Compliance (Driverless)
  Optimize for Superset of Legal Jurisdiction
  Adapt to evolving L3-L5 Autonomous Regulations
- Global Logistics Manufacturing<->Shipping
  Robotic Assembly Optimizes for Location
  Raw Material Supply Chain (Li-on, Cobalt, ...)
- Recalls & Fines (VW DieselGate, Right to Repair)

  Avoidance via Machine Learning Predictions

  Efficient Recall Processing via Gaming Theory

# Supply chain evolution from horseless buggies to driverless cars



Val Bercovici Founder & CEO



@valb00
@Pencil DATA

### **Blockchain Study Guide**

- Token Economics (NEW)
- Miner Retention & Recruitment (Cost of PoX relative to Token Profit)
- Governance (NEW)
- Scaling (ON & OFF Chain, Big Focus)
- Network / Wallet Development & Operations
- 51% Attack Crypto51.app (NEW & Tangible)
- Replay Attacks

#### References

- Software 2.0 <a href="https://medium.com/@karpathy/software-2-0-a64152b37c35">https://medium.com/@karpathy/software-2-0-a64152b37c35</a>
- EV Certificate Abuse: (PKI limitations)
   https://www.bleepingcomputer.com/news/security/extended-validation-ev-certificates-abused-to-create-insanely-believable-phishing-sites/
- IT Admin Credentials for Sale https://www.cnbc.com/2018/07/11/hackers-selling-access-to-law-firm-networks-on-dark-web-sites.html
- Crypto 51% attacks: real-time ROI https://www.crypto51.app/