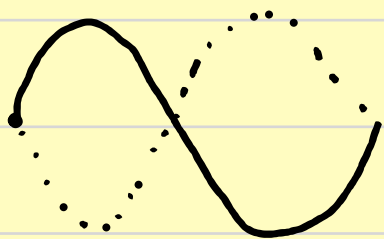
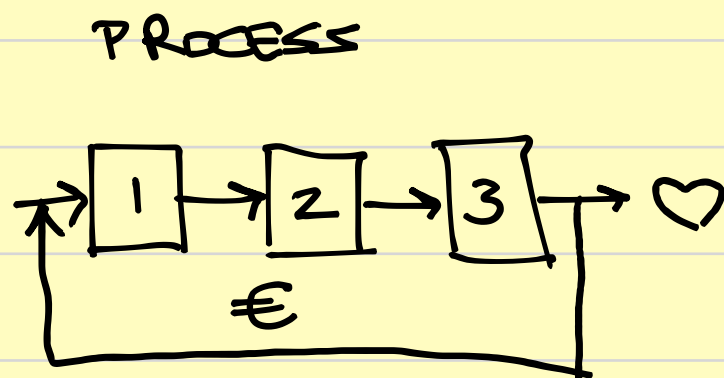


Industrie (Prozesse) 4.0

(Shah & Ward, 2003) Industrie 4.0 Systeme als (Systeme) welche die ¹Prozessvariabilität² reduzieren durch einen ³sozio-technischen⁴ Ansatz.

1. Process. what is a process?

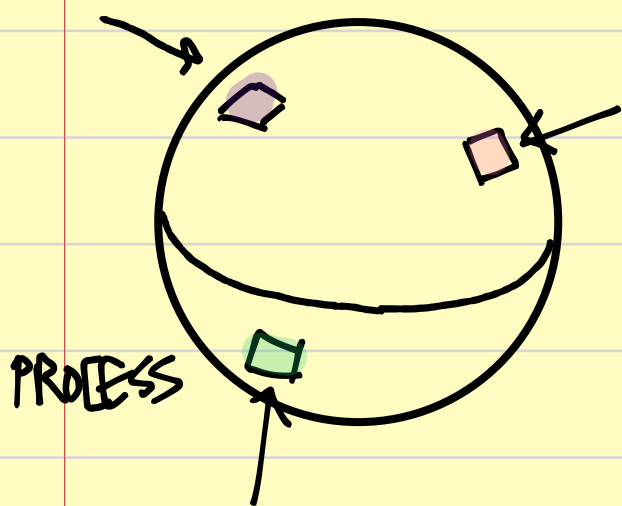
Sequence of steps toward a customer that add value for the customer.



TAKT. TIME

VALUE STREAM
(WERTSTROM)

2. VARIABILITY.



We measure variability of the process through K.P.I. that explain each a part of the process reality.

- Standard deviation of one KPI.
- For many KPIs we use the Co-VARIANCE matrix or Co-CORRELATION matrix.

3. SOCIO-TECHNICAL FRAMEWORK

