THE VIABLE SYSTEM MODEL

by Martin Karl

Founder of the model:
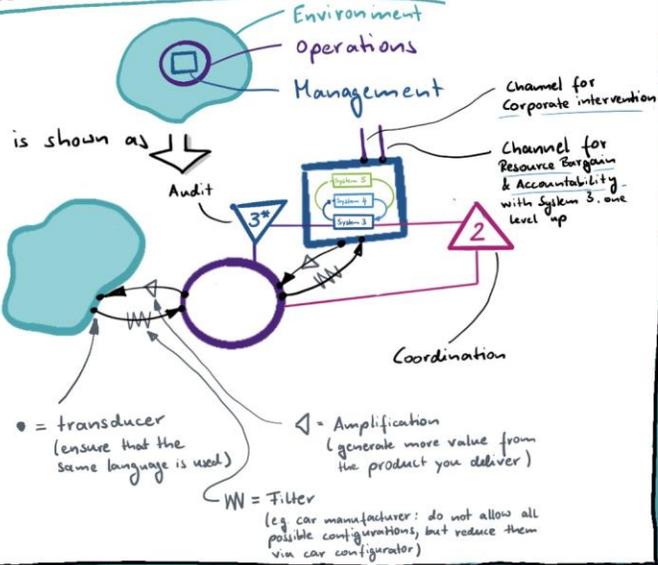STAFFORD BEER
- British cybernetic -
* 25.9.1926 † 23.8.2002

THE PURPOSE OF A SYSTEM...
... is what it does. (POSIWID)

and **NOT** what it constantly fails to do.
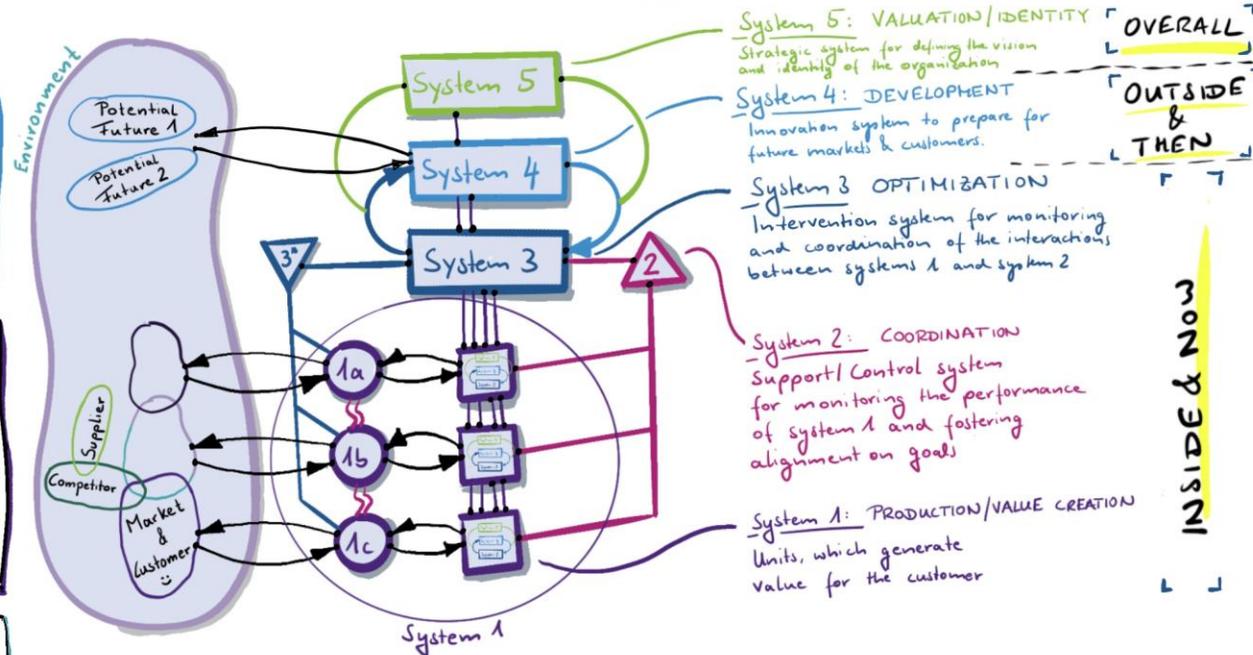
And what a system does, is defined by system 1.

CYBERNETICS?
= the science of control & communication in the animal & the machine (NORBERT WIENER)

= based on the greek word „kybernetes", meaning steersman or governor

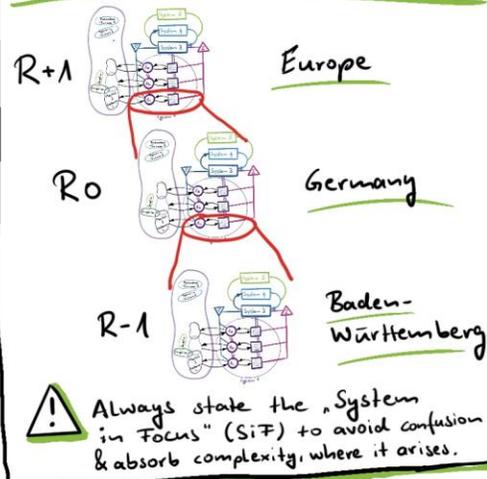„Should one name one central concept, a first principle of cybernetics, it would be CIRCULARITY (HEINZ VON FÖRSTER)
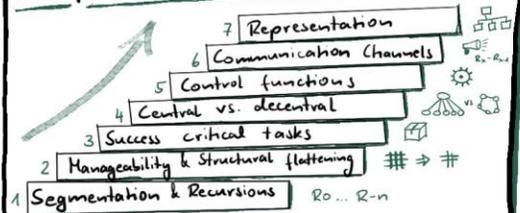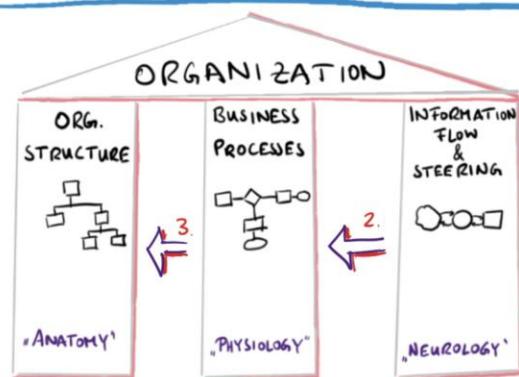
THE BASIC DESIGN OF THE MODEL

- Environment
- Operations
- Management

is shown as ↓

Audit

Channel for Corporate intervention

Channel for Resource Bargain & Accountability with System 3, one level up

Coordination

● = transducer (ensure that the same language is used)

◁ = Amplification (generate more value from the product you deliver)

⋁⋁⋁ = Filter (eg car manufacturer: do not allow all possible configurations, but reduce them via car configurator)

The central diagram

Environment
- Potential Future 1
- Potential Future 2
- Supplier
- Competitor
- Market & Customer

System 5 ... System 4 ... System 3 (3*) (2) ... 1a / 1b / 1c ... System 1

System 5: VALUATION/IDENTITY — Strategic system for defining the vision and identity of the organization → OVERALL

System 4: DEVELOPMENT — Innovation system to prepare for future markets & customers. → OUTSIDE & THEN

System 3 OPTIMIZATION — Intervention system for monitoring and coordination of the interactions between systems 1 and system 2

System 2: COORDINATION — Support/Control system for monitoring the performance of system 1 and fostering alignment on goals

System 1: PRODUCTION/VALUE CREATION — Units, which generate value for the customer

INSIDE & NOW

RECURSION LEVELS & SiF

R+1   Europe

R0   Germany

R-1   Baden-Württemberg

⚠ Always state the „System in Focus" (SiF) to avoid confusion & absorb complexity, where it arises.

7 Steps to create a viable organization

7 Representation
6 Communication Channels
5 Control functions
4 Central vs. decentral
3 Success critical tasks
2 Manageability & Structural flattening
1 Segmentation & Recursions

R0 ... R-n

THREE PILLARS OF AN ORGANIZATION

ORGANIZATION

ORG. STRUCTURE	BUSINESS PROCESSES	INFORMATION FLOW & STEERING
„ANATOMY"	„PHYSIOLOGY"	„NEUROLOGY"
	3.	2.
		1. START HERE (with VSM)

„It needs focus on all three pillars."

SOME EXAMPLES

	Human Body	National german soccer team	Scrum team	Company
System 5	Cortex brain values, goal setting	DFB (german football association)	Definition of DoR, DoD Product vision Scrum values	Mission/Vision Leadership principles, guardrails for strategy & management
System 4	Inter brain Defend against external threats & maintain health	Team coach, Scouts, communication	Product owner Sprint planning/backlog	Strategy development Pre-Development Technology & Competitor benchmarking
System 3	Stem brain Decision based on sensory perception & previous experiences	Team coach 3*: Team council	Product owner Sprint planning/backlog 3*: Retrospectives	Budget planning, Goal definition 3*: Skip level meetings, surveys
System 2	Nervous system	Doctors, cook, bus driver, ...	Scrum master Daily	Planning systems Meetings Standards, Rules
System 1	Breathing, digestion, blood circulation, ...	Soccer team	Developer	Product area

Sources: [1] Stafford Beer, Brain of the firm (1972)
[2] Martin Pfiffner, The Neurology of Business (2022)
[3] Mark Lambertz, Die intelligente Organisation (2021)