

Agentic AI and the Self-Managing Enterprise.

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Agentic AI

... autonomous systems that act as intelligent agents, perceiving the environment, making and implementing decisions, to achieve goals with minimal human oversight

Autonomy: Operates without human supervision, to **decide and act**.

“Policies”

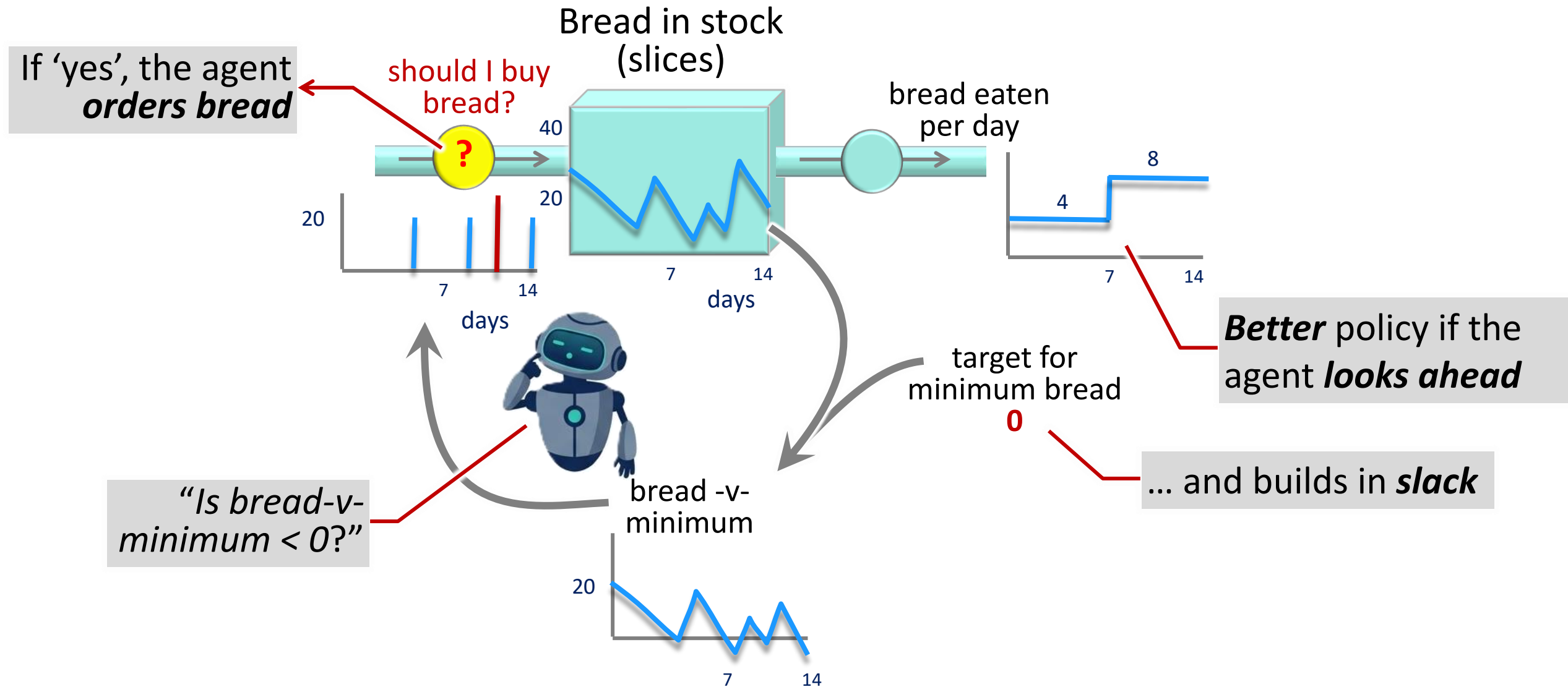
Goal-Oriented: Focuses on achieving high-level **objectives**.

Reasoning & Planning: Uses **algorithms**, iterative logic, self-correction to make **choices**

Tools & Interaction: Exploits APIs, databases, and software tools to perform actions.

Modular Architecture: Composed of specialized agents that can **collaborate** to solve intricate problems. (*The key challenge*)

An AI agent takes over a “policy” we use all the time ...

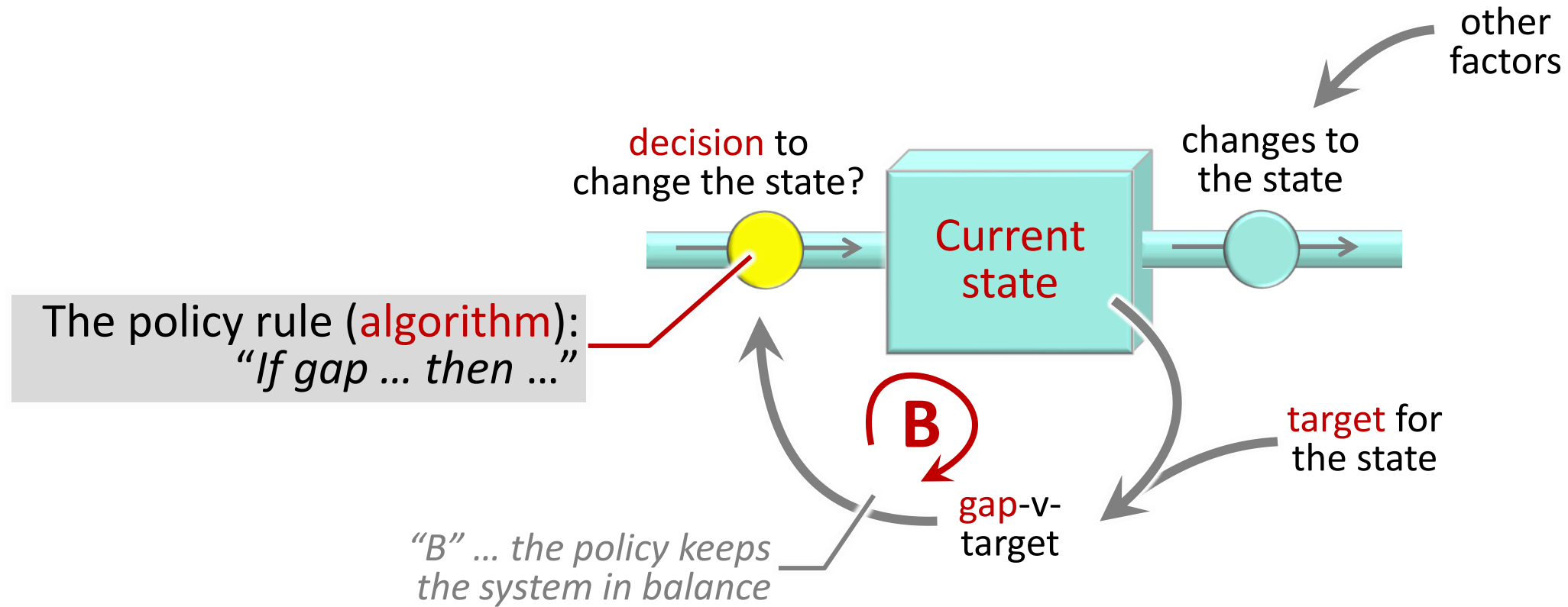


System Dynamics

... engineering control theory applied to social, economic, environmental and other systems

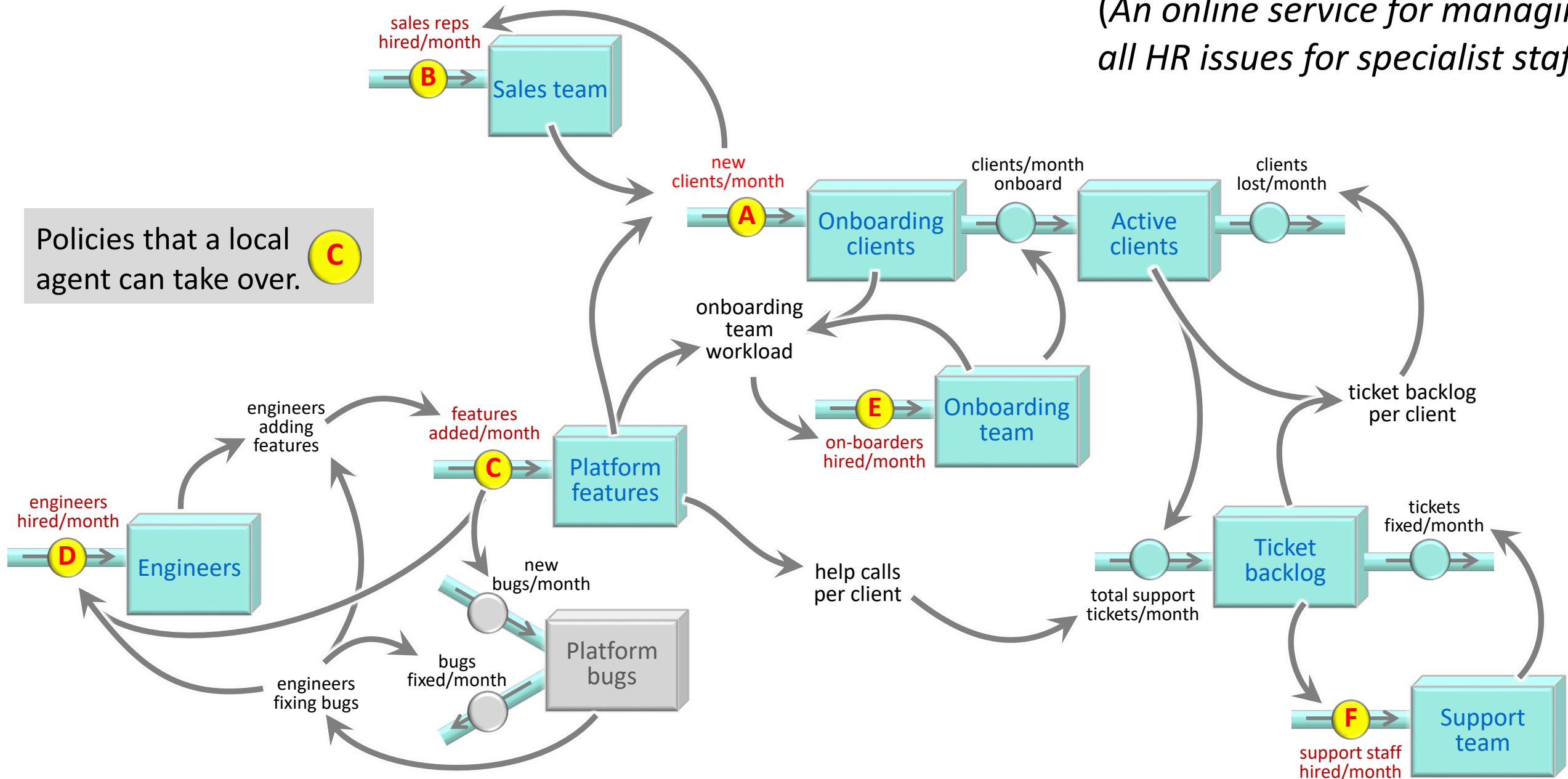
... policy-control loops are fundamental!

Elements and structure of a “policy” (*a rule to make decisions*)



The inter-dependent policies for a SaaS firm

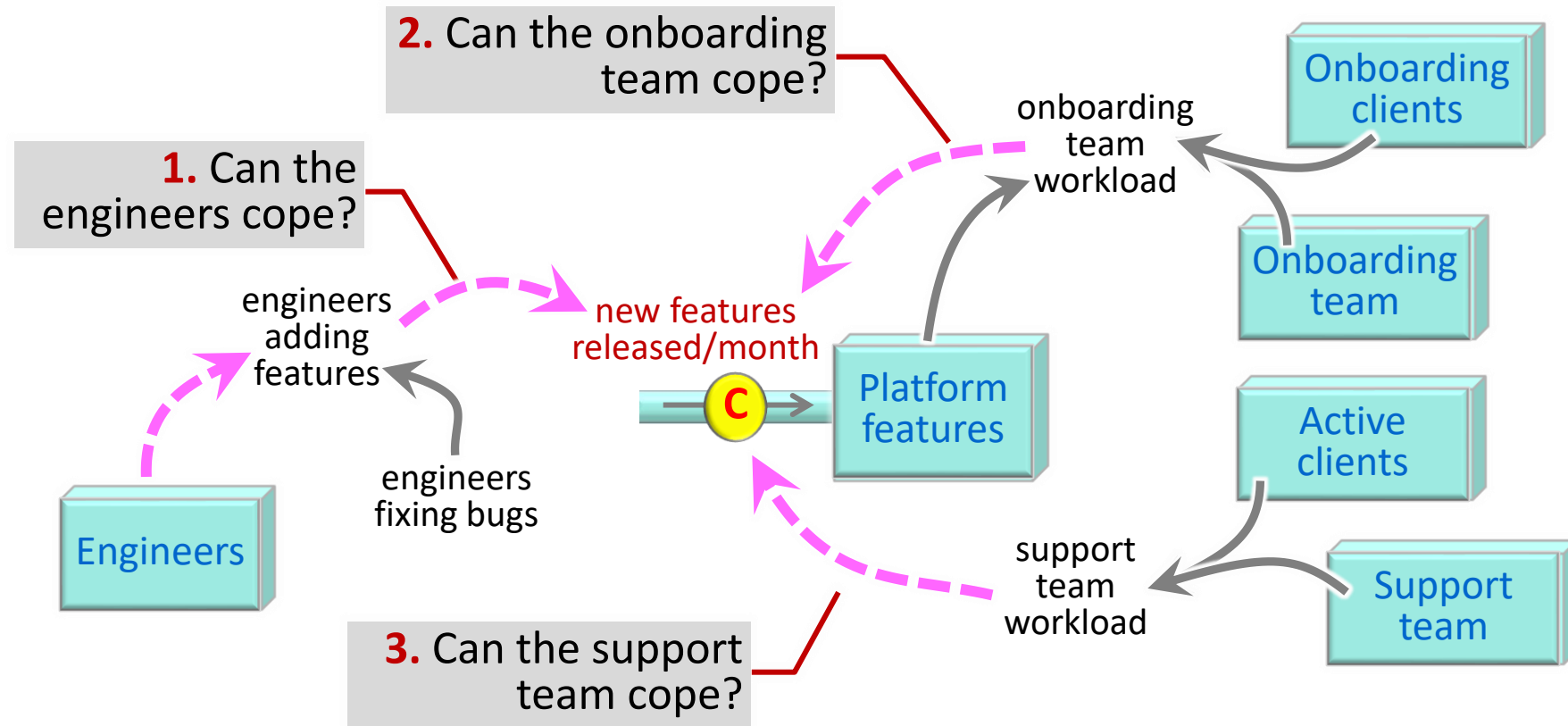
(An online service for managing all HR issues for specialist staff)



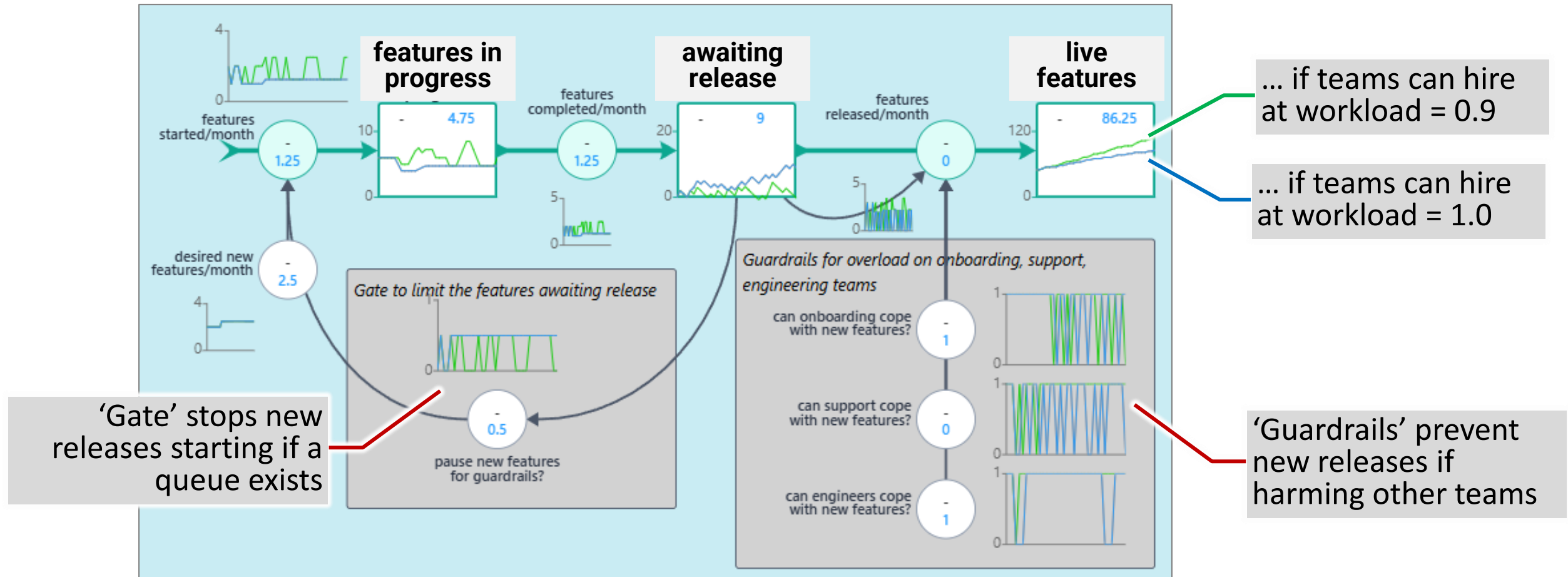
The problem ...

if each local agent follows *its own* policy, aiming for its own target, it may cause problems in other parts of the system

States of the system that should be moderating the SaaS firm's policy to add new features



Part of the 36-month working model policy for new-feature release ...

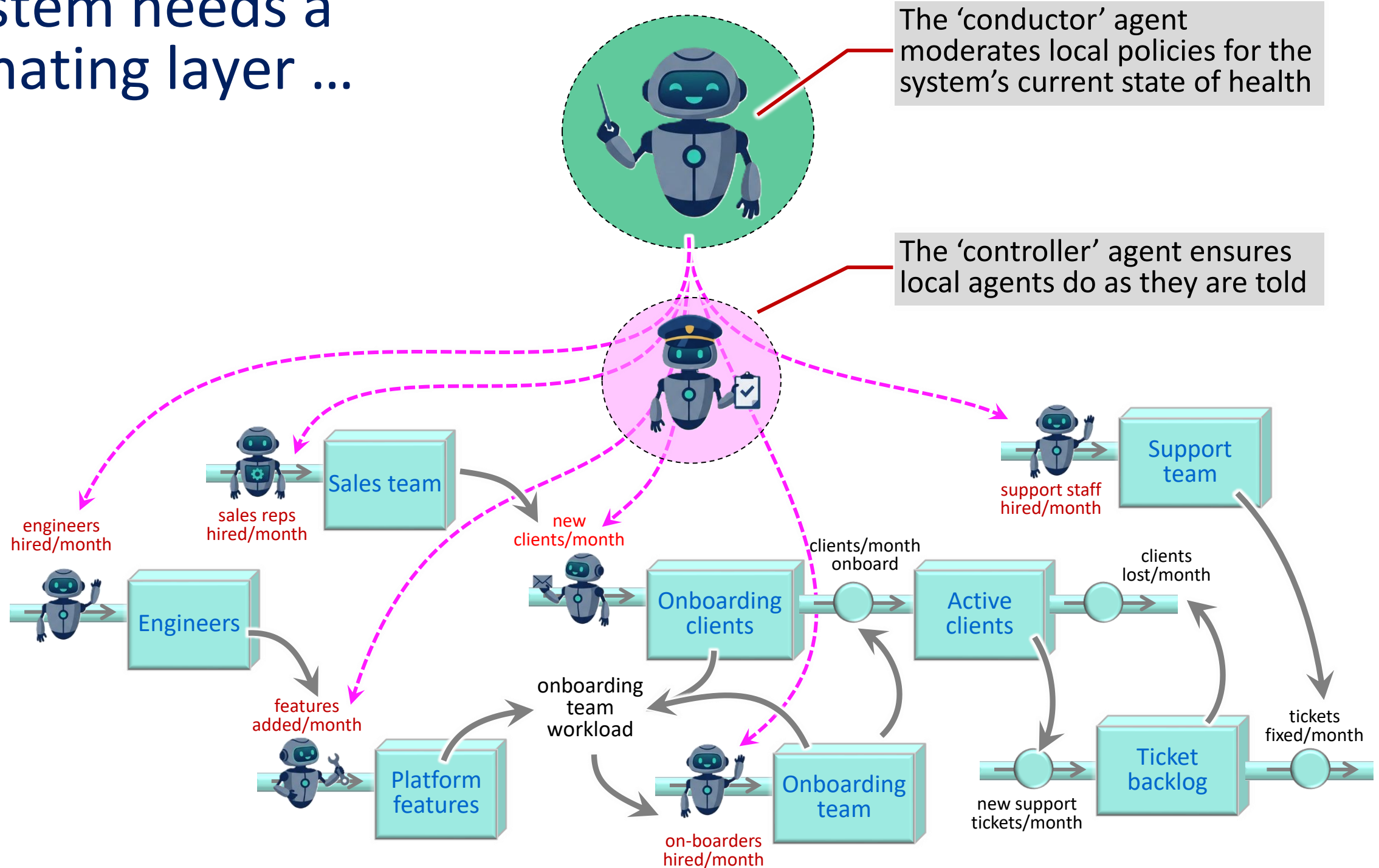


Hiring at lower workload is costly, hitting % profitability
– but allows **growth**, raising revenue and cash profits

Many inter-dependencies between policies for the SaaS firm

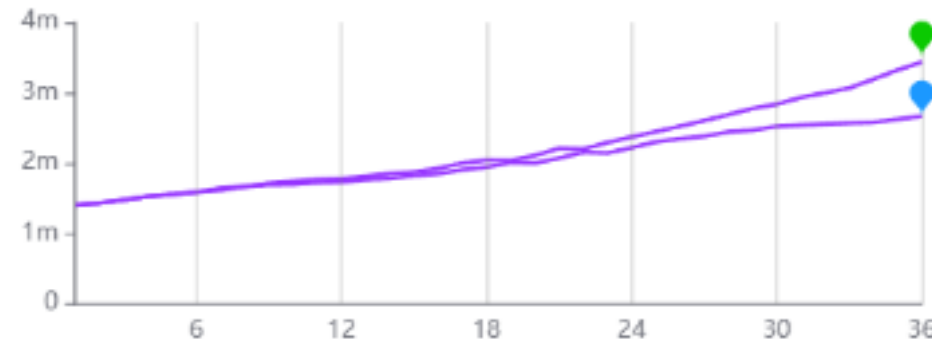
Policy	The stock level controlled by the policy	Other policies whose <i>future</i> consequences should moderate this policy
A. Target new clients/month	The number of clients in the onboarding stock and, later, the number of active clients.	E. How will hiring to the onboarding team change the capacity of that team to onboard the new clients? C. How will features added/month change the likely success of sales rep's efforts to win new clients.
B. Sales reps hired/month	The number of sales reps needed to achieve the target new-client rate.	C. How will features added/month change the likely success of sales rep's efforts to win new clients.
C. Features added/month	The number of features offered by the SaaS platform.	D. Will hiring to the engineering team give enough capacity to resolve likely bugs with the new features? E. Will hiring to the onboarding team give enough capacity to onboard new clients with the additional features? F. Will hiring to the client support team give enough capacity to handle likely support tickets caused by the added features?
D. Engineers hired/month	The number of staff in the development team.	A. How will the likely success at winning new clients/month change the bug-finding rate and add to engineer workload? C. How will features added/month change the likely need to fix bugs?
E. Onboarders hired/month	The number of staff in the onboarding team.	A. How will the likely success at winning new clients/month change the workload for the onboarding team? C. How will features added/month change the onboarding workload and hiring?
F. Support staff hired/month	The number of client support staff.	A. How will the likely success at winning new clients/month change the workload for the client-support team? C. How will features added/month change the likely rate of support tickets raised by clients? E. Will hiring to the onboarding team ensure new clients are skilled and not drive up the ticket-rate for the support team?

The system needs a coordinating layer ...



SaaS business performance (36 months) if local agents are coordinated, or not ...

Revenue: \$/month

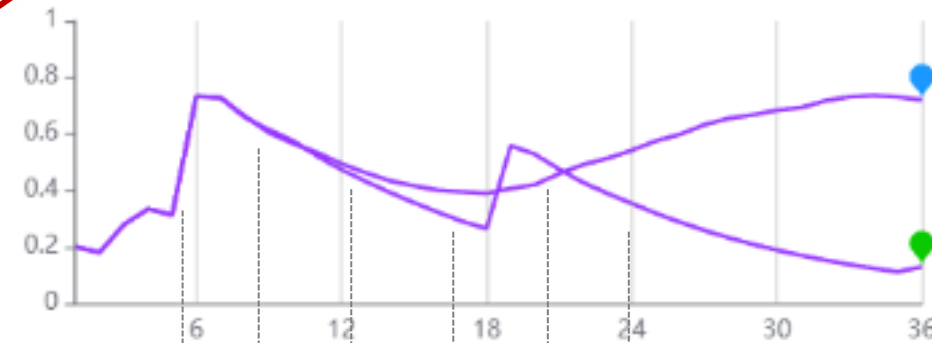


... if local agents **are** coordinated

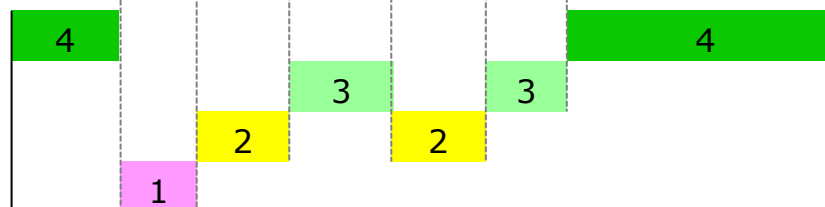
... if local agents are **not** coordinated

Client annoyance

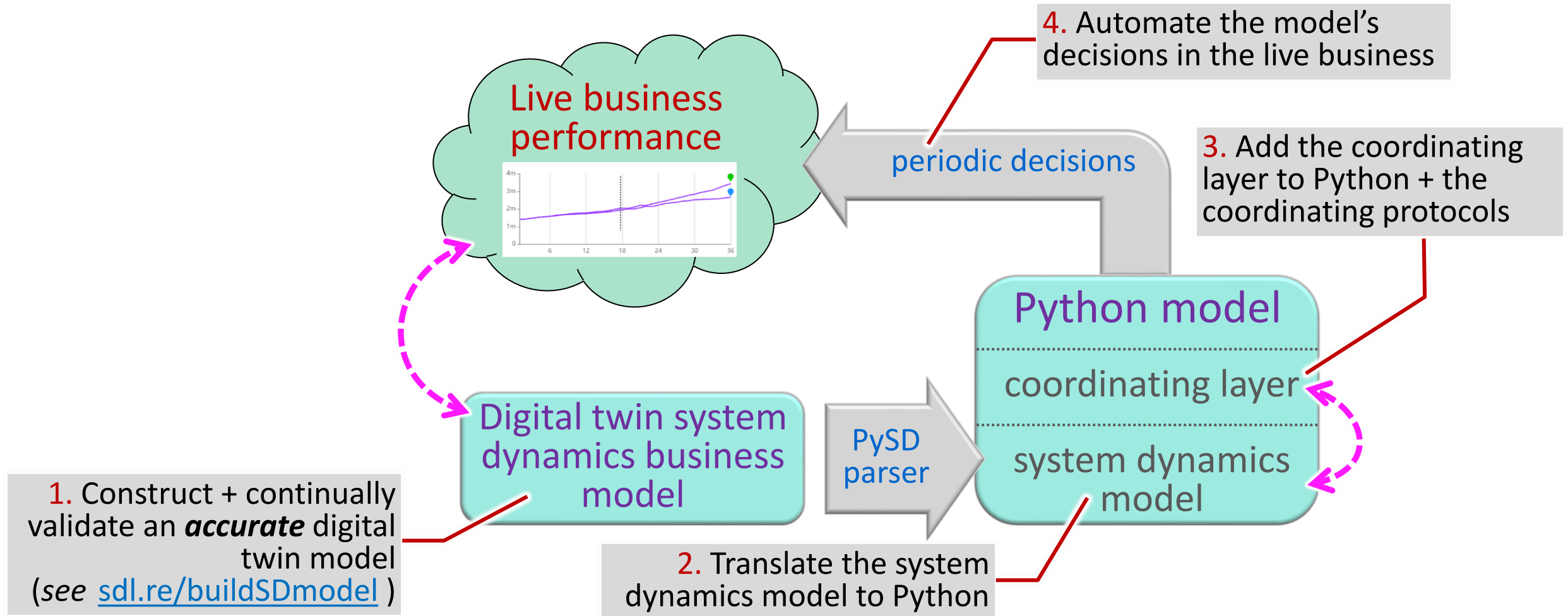
One (of several) indicators of system health

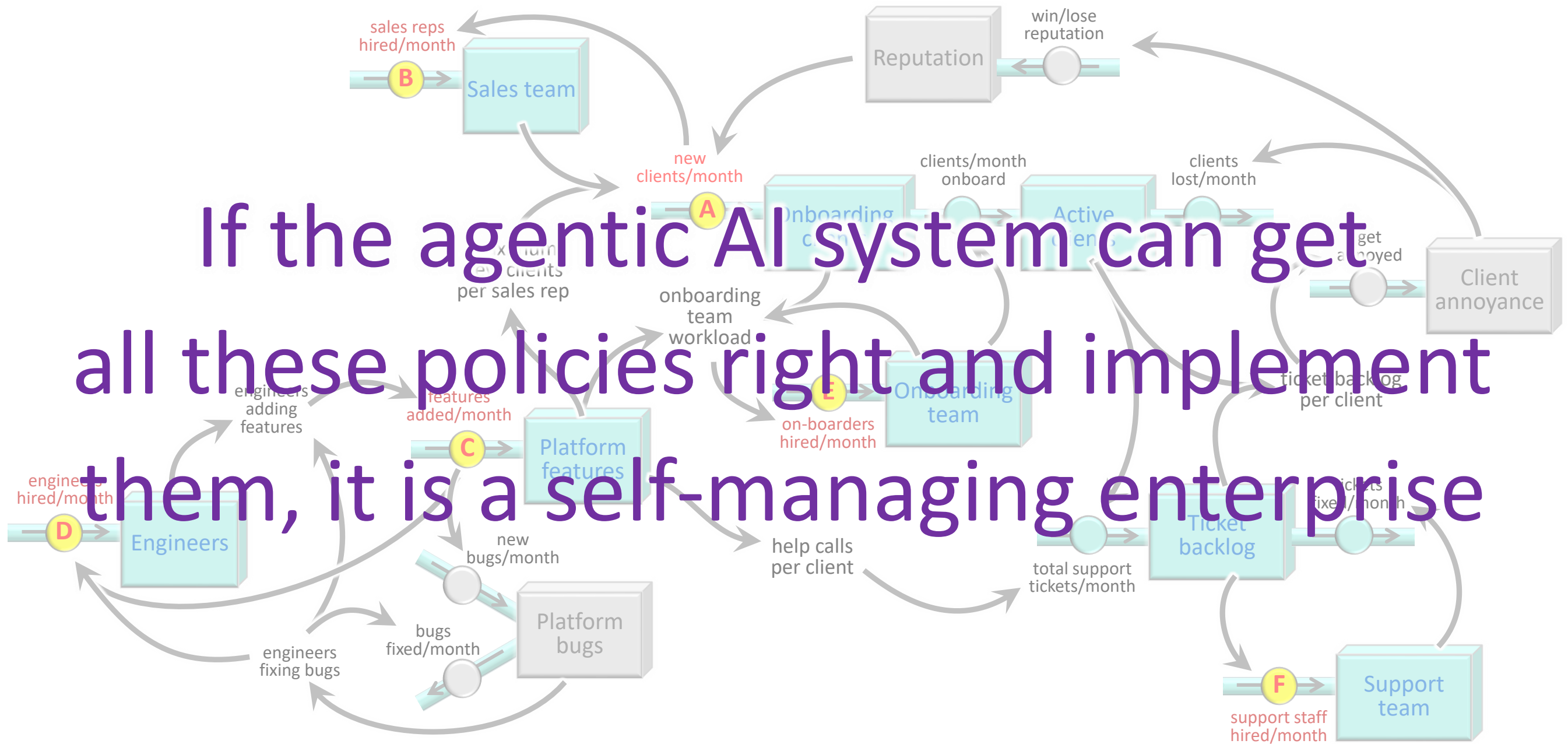


Health of the system
(uncoordinated)



The self-managing enterprise system's main parts





If the agentic AI system can get all these policies right and implement them, it is a self-managing enterprise

Online system dynamics courses

Build a simple self-managing business model yourself (an IT-support firm) : sdl.re/buildAI-SME

50% discount on courses – coupon **STSP50** ...

“How to build a system dynamics model”

Two hours of video and 100 slides explain a reliable 4-step process for building any system dynamics model, with “follow me” steps in a friendly app, using a simple case. sdl.re/buildSDmodel (see free preview lessons)

“How to build a digital-twin *business* model”

Three hours of video and 100 slides explain a reliable 4-step process for building a “digital twin” business model, with “follow me” instructions in a simple app, using a simple case (growing a consumer product’s sales and profits) sdl.re/gethowtoDT (see free preview lessons)

SHORT COURSES on how dynamic models can support key Functions of the organisation and deal with common challenges. sdcourses.com/mini-courses/