

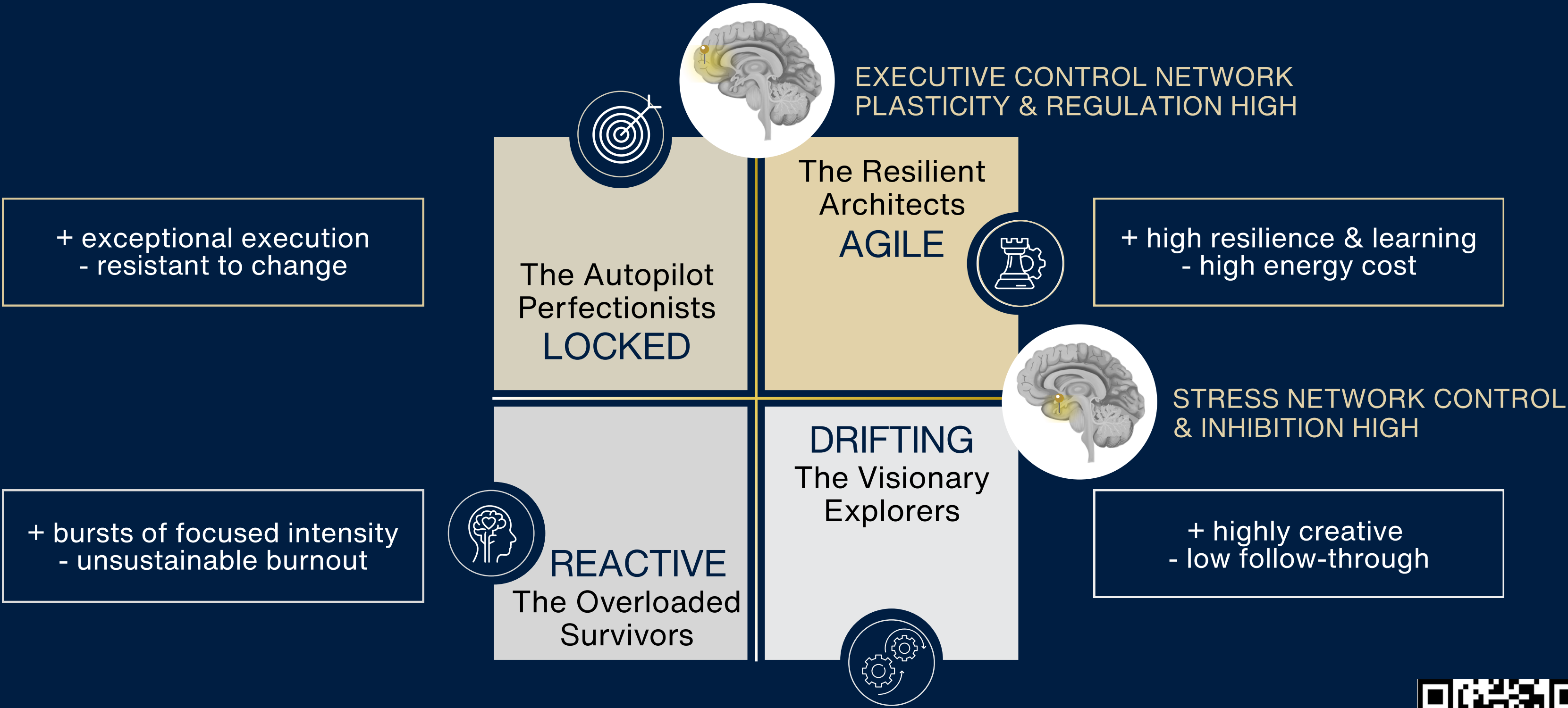
Brain-Based RESILIENCE

NEUROBIOLOGICAL HR SHIFTS

REFINING CURRENT HR ARCHITECTURE WITH SCIENTIFIC PRECISION



RESILIENCE MATRIX biology & performance



MAP YOUR LEADERS



SHIFT



PHYSIOLOGICAL SELF TALK

I NEED ELECTROLYTES

my body is telling me to stop

I NEED CALORIES REST WILL RESET

my muscles are overworked



I'm failing at this!
WHY COULDN'T I PUSH THROUGH?
Just needed to focus better
I'M LOSING MY EDGE.
I'M A TERRIBLE LEADER ...

PSYCHOLOGICAL SELF TALK



BURNOUT

PSYCHOLOGICAL
& BEHAVIOURAL
PROBLEM

mindset reframing &
individual resilience



SUSTAINED PERFORMANCE

PHYSIOLOGICAL
ENERGY SUPPLY
& DEMAND

systemic biological recovery &
cognitive load management

PHYSIOLOGICAL SELF TALK

MY BRAIN NEEDS FUEL

there is too much metabolic waste

I'VE REACHED MY COGNITIVE LIMIT

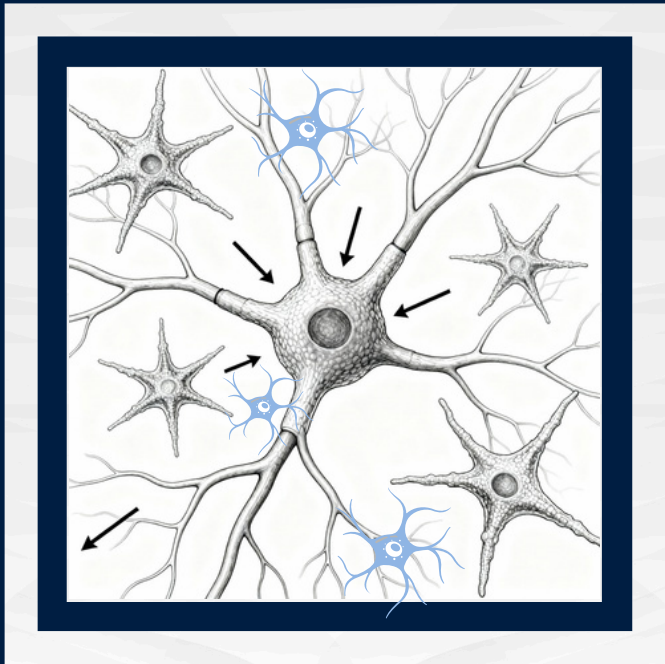
REST WILL RESET

my astrocytes need a brain wash



BIOLOGICAL REALITY OF BURNOUT

a energy supply chain failure



ASTROCYTES



FEED GLUCOSE TO THE BRAIN



CLEAN UP METABOLIC WASTE

ACUTE STRESS

pump extra fuel

clear extra waste



high energy turnover

HIGH PERFORMANCE

CHRONIC STRESS

stop fuel delivery

fail to clear waste



protective mechanism

BURNOUT



BOOK A SPA DAY

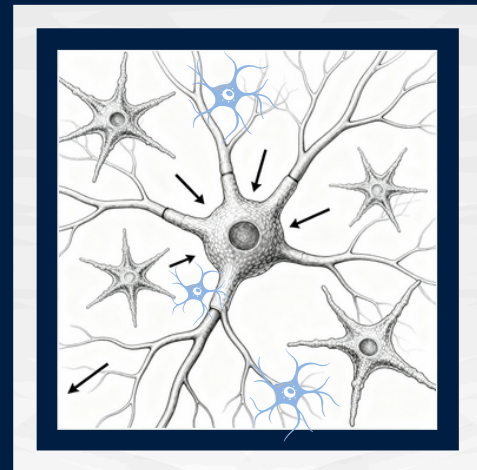
doesn't solve chronic metabolic deficit
a predictable environment protects astrocyte supply

TIME MANAGEMENT

managing time doesn't manage astrocyte supply
stack supply reset in between high demand loads

FIND YOUR PASSION

astrocytes don't run on inspiration
monitor & resupply brain fuel



ASTROCYTES



FEED GLUCOSE TO THE BRAIN



CLEAN UP METABOLIC WASTE

ACUTE STRESS

pump extra fuel

clear extra waste



high energy turnover

HIGH PERFORMANCE

CHRONIC STRESS

stop fuel delivery

fail to clear waste



protective mechanism

BURNOUT

TAKE A HOLIDAY

= temporary replenish, doesn't fix metabolic structure
daily, cognitive offramps

DIG DEEP & PUSH THROUGH

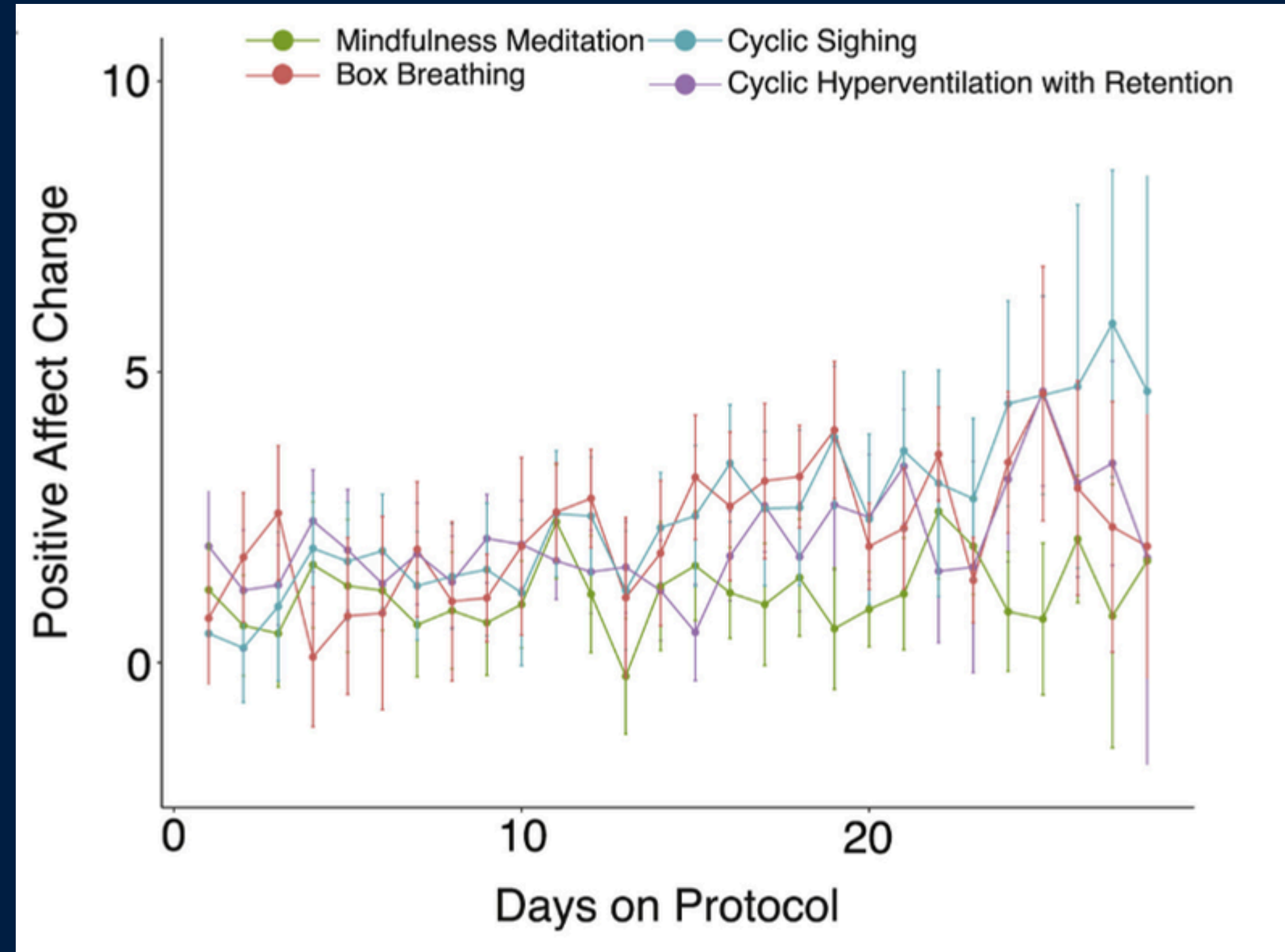
accelerates structural brain damage
implement hard cognitive stops

COMMON ADVICE

if the problem is biological, the solution cannot be purely behavioural



RAPID RECHARGE



best results with 5 minutes of Cyclic Sighing

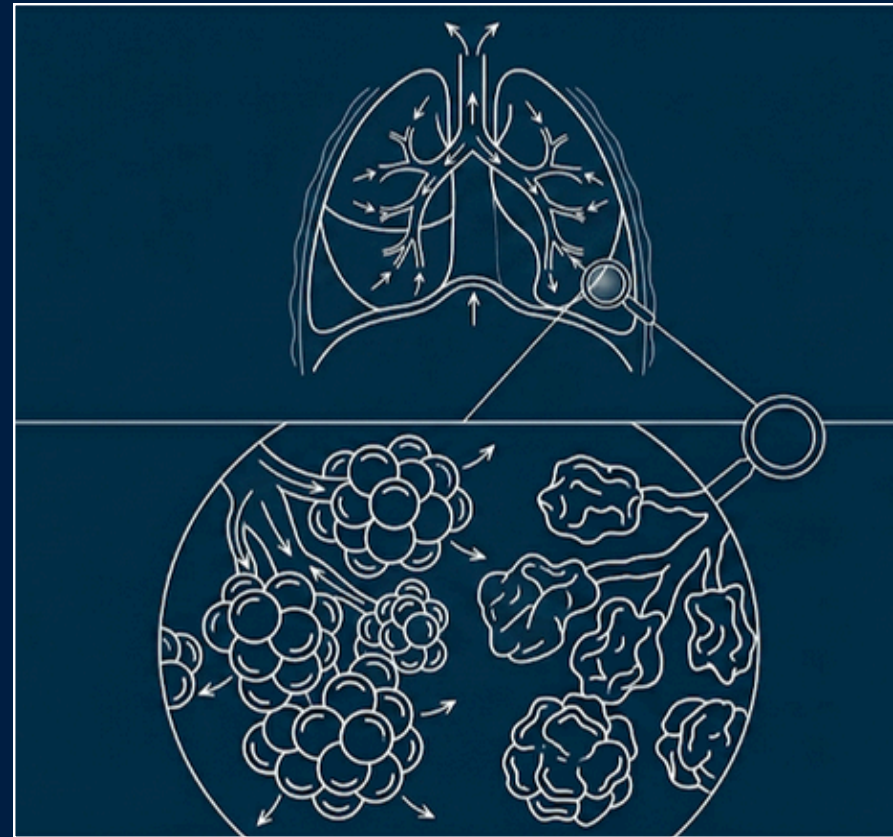
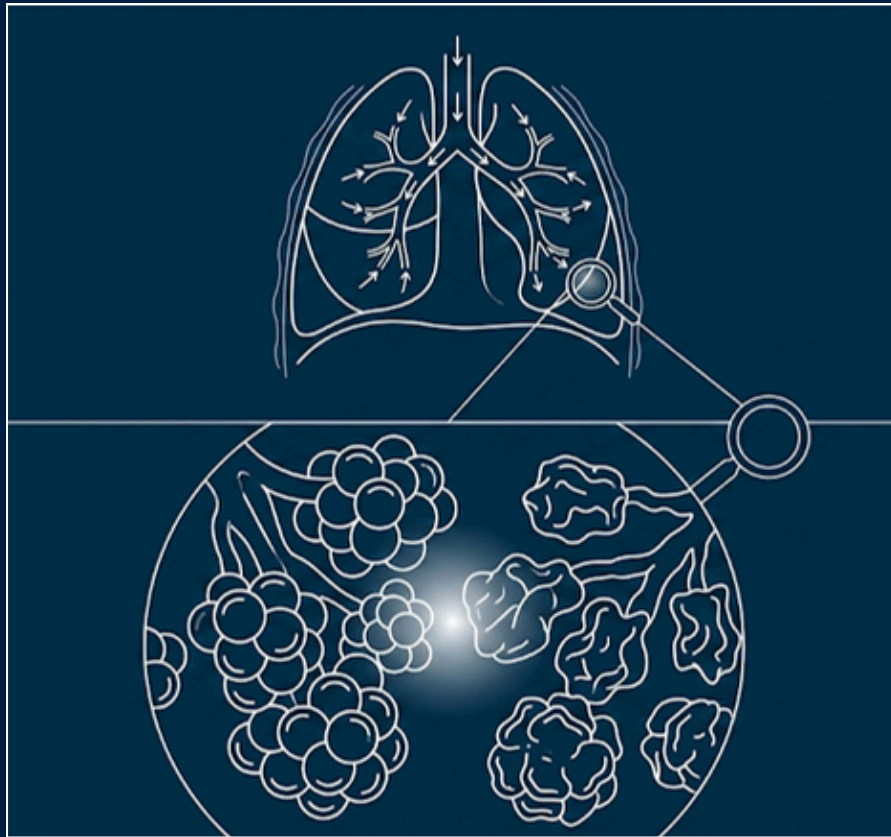


MICRO-TOOL rapid recharge

DEFAULT BREATHING

inhale

exhale

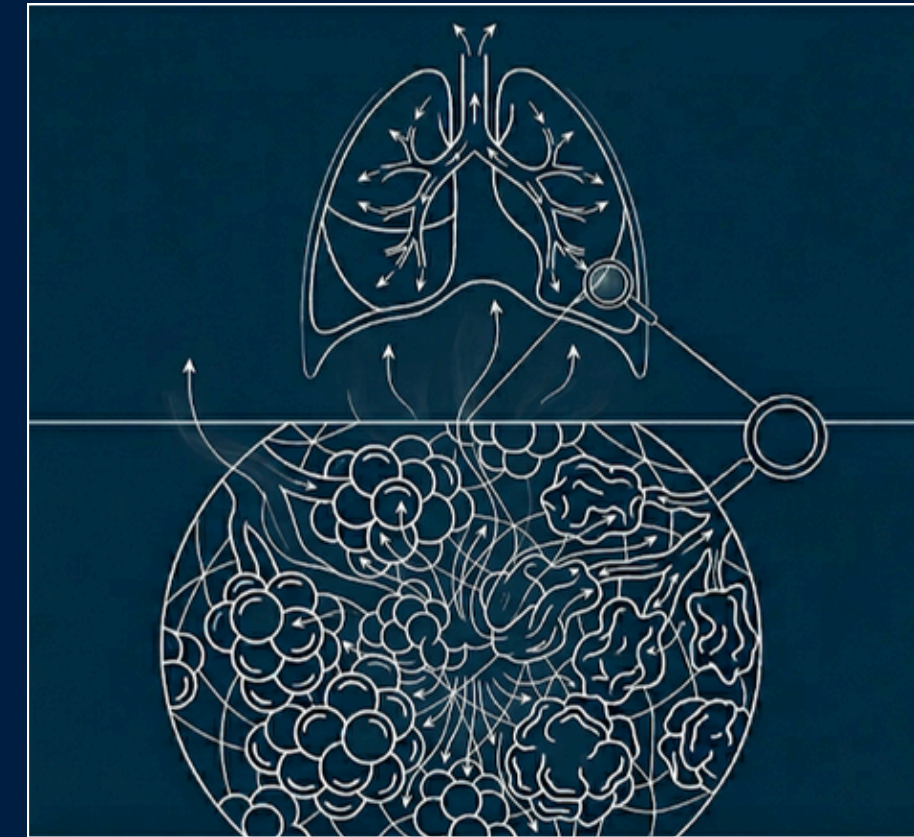
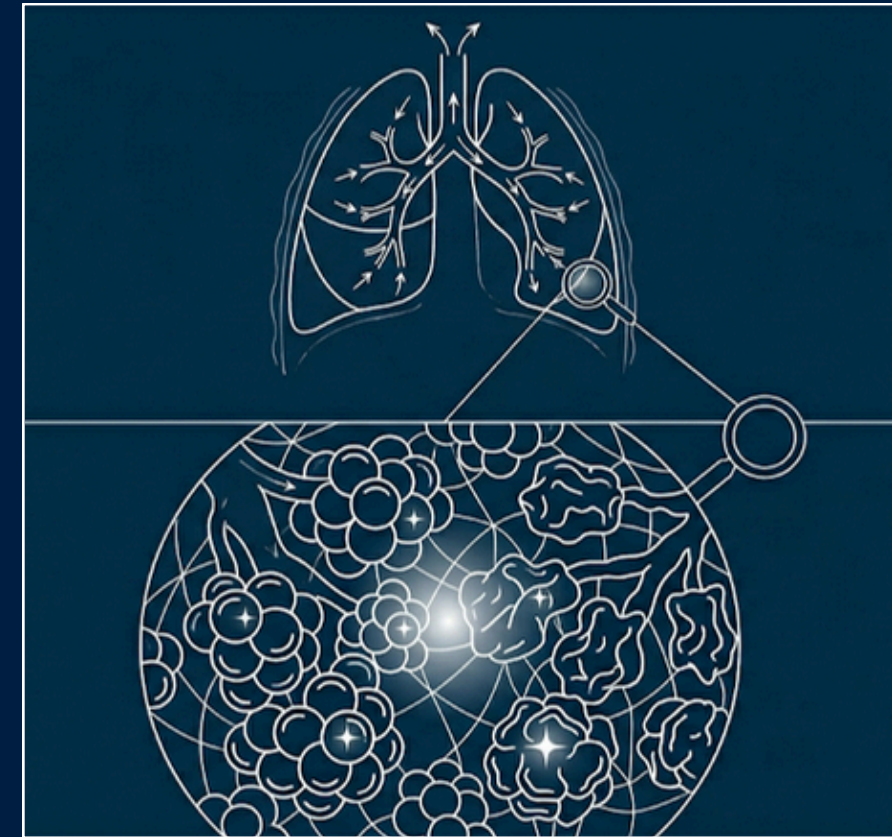


collapsed alveoli

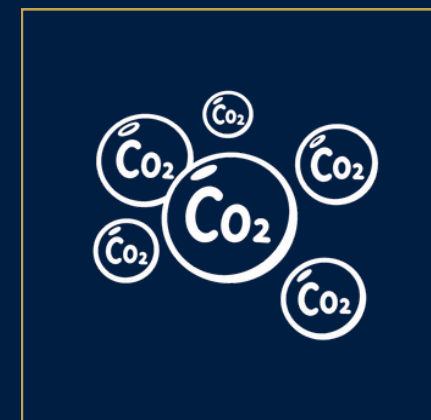
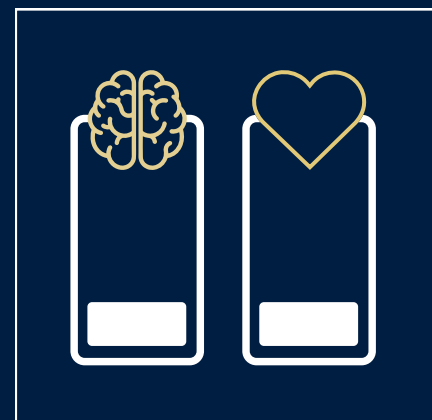
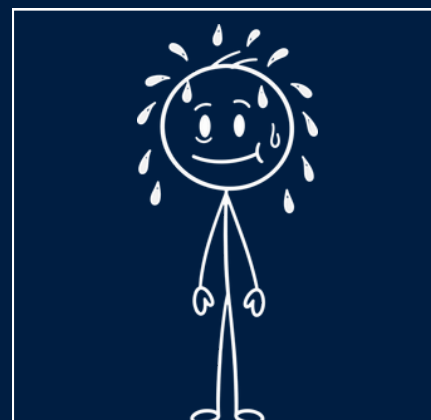
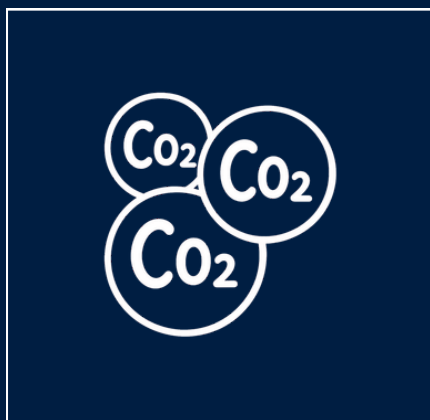
CYCLIC SIGHING

double inhale

long exhale



expanded alveoli



instant stress response override



DAILY OPTIMAL PERFORMANCE

trying to do more allows the stress network to hijack the process

3.2h
HIGH IMPACT

high stakes work: conflict resolution, strategy, managing emotional team members, pitching new ideas, high stakes meetings

elite performers sustain about 2-4 hours of deliberate practice daily, 45 - 80 minutes at a time, with structured rest

maintain productivity without draining emergency glucose reserves

2.8h
LOW IMPACT

routine work: admin, data entry, reviewing familiar reports, organising files, predictable execution tasks with clear instructions

system can clear the waste

1h
NEUTRAL

brain safe buffers: 5 to 15 minute blocked calendar time specifically designed to prevent back-to-back cognitive loads

2H REACTIVE DAMAGE CONTROL

astrocytes can regrow their branches & maintain optimal supply

1h
RESTORATIVE

zero input recovery: no threat-calculation, problem-solving, language processing - no screens, no podcasts, no talking

replenish the supply chain

SLEEP

good quality sleep for >7.5 hours

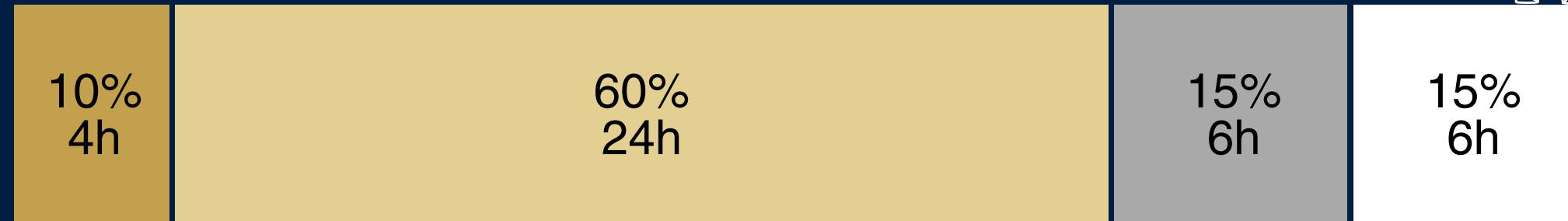
REFERENCE: Ericsson, K. A., Krampe, R. T. & Tesch-Römer, C. The role of deliberate practice in the acquisition of expert performance. Psychol. Rev. 100, 363-406 (1993). Wiehler, A., Garza, F., Schmidt, L. & Pessiglione, M. A neuro-metabolic account of why daylong cognitive work alters the control of economic decisions. Curr. Biol. 32, 3564-3575.e5 (2022).



MACRO-TOOL rebuild cognitive capacity baseline



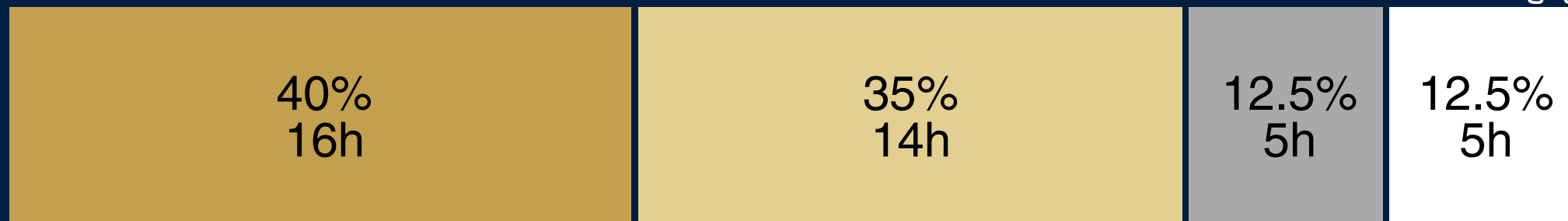
CAPACITY REBUILDING



8 WEEK RECOVERY
regrow astrocyte branches
clear out toxic waste
re-establish energy supply



OPTIMAL PERFORMANCE



40 HOUR WORK WEEK

HIGH IMPACT
high-stakes work

LOW IMPACT
routine work

NEUTRAL
brain safe buffers

RESTORATIVE
zero input recovery

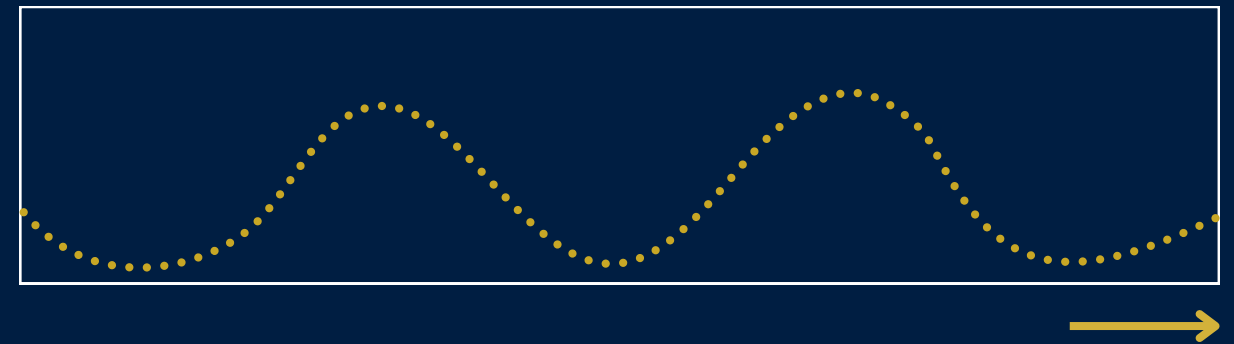
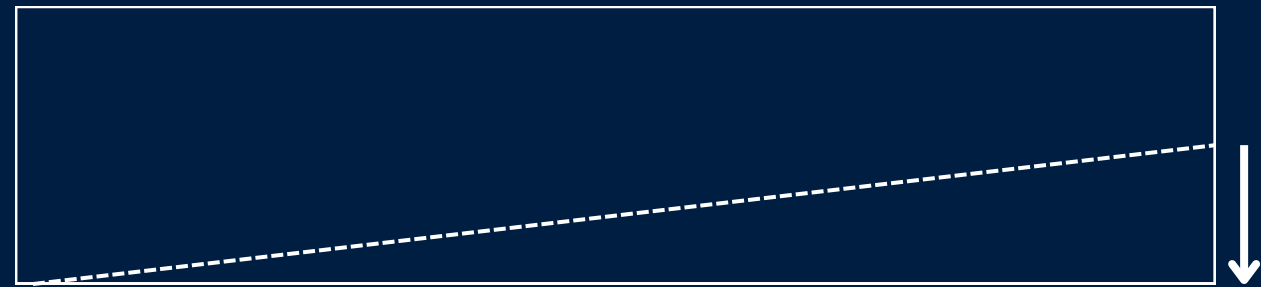


PREBURNOUT



DESIGN WORKFLOWS TO MATCH THE BIOLOGY

it's not about working less, it's about protecting intellectual capital



SHIFT



NEVER-STOP- LEARNING CULTURE



LIMITS OF A GROWTH MINDSET

CHANGE FATIGUE

CONTINUOUS
LEARNING

relentless upskilling &
constant change



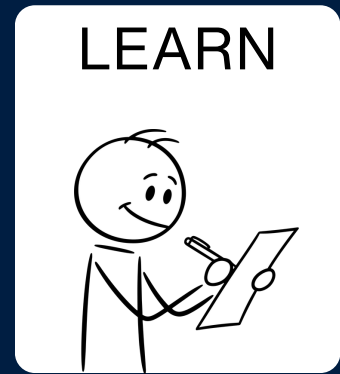
SUSTAINED CAPACITY

ACTIVE
CONSOLIDATION

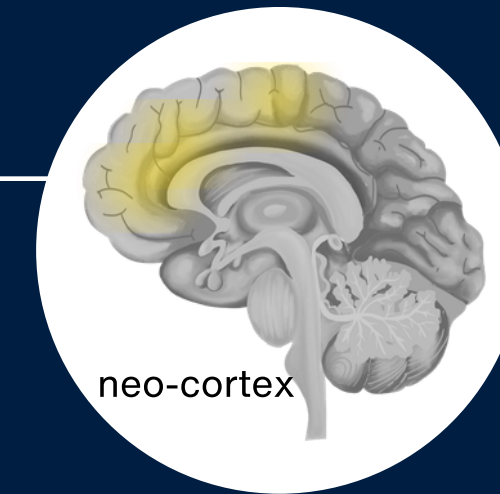
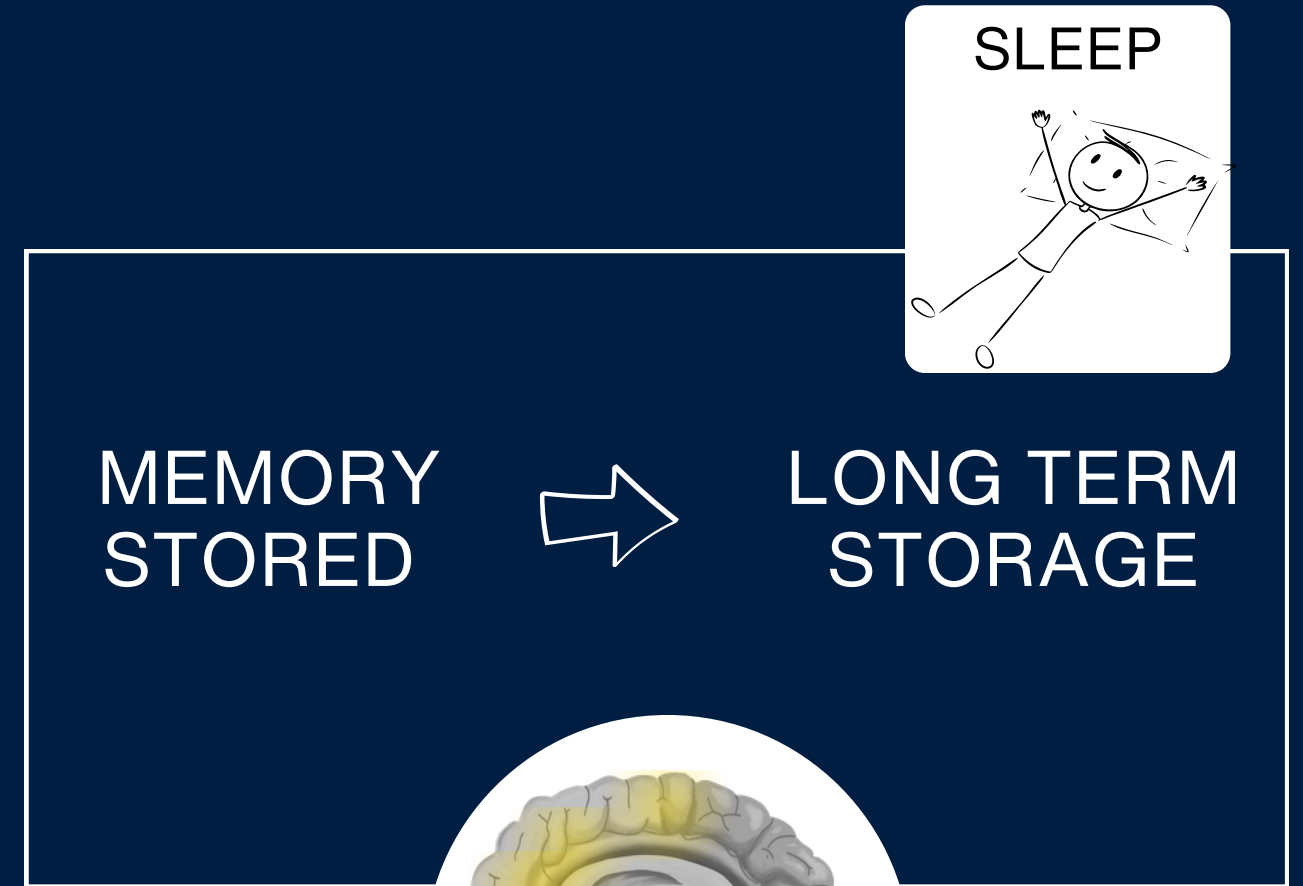
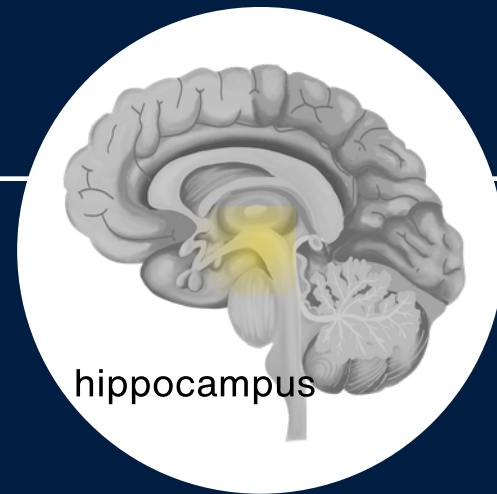
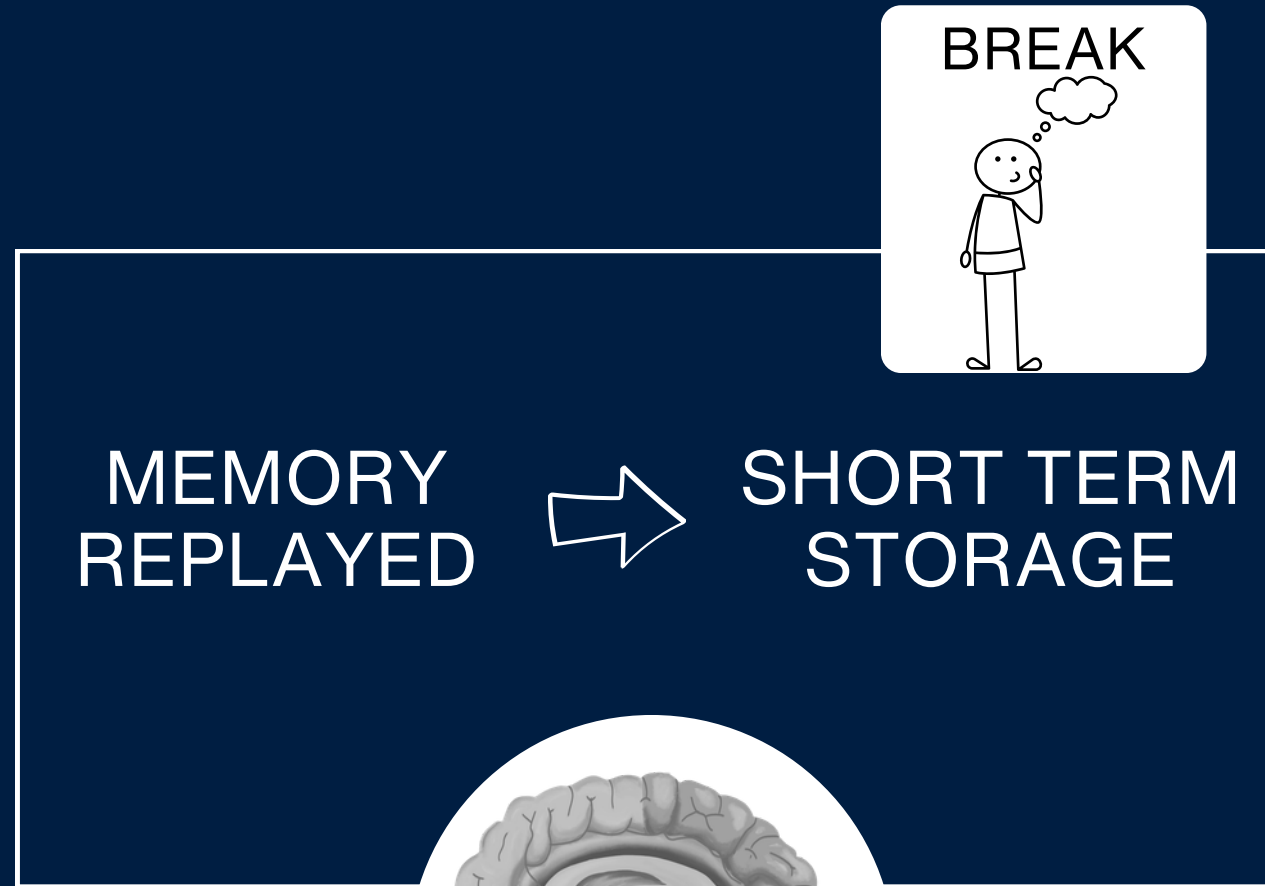
keep the good stuff &
dump the bad



KEEP THE GOOD STUFF memory retention



MEMORY ENCODED



MEMORY LOST

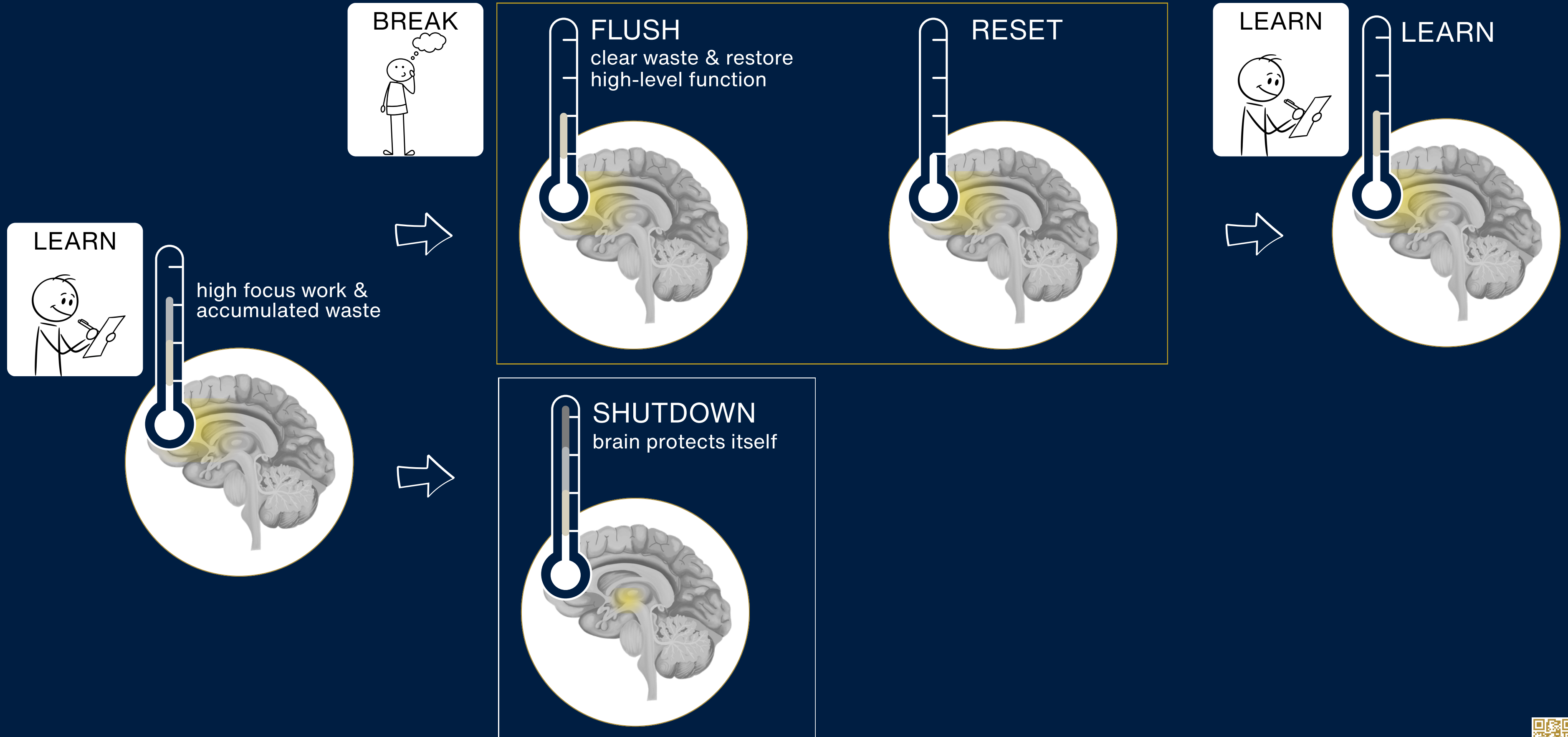


10-24-7 RULE: review after 10 minutes, 24 hours & 7 days later



DUMP THE BAD STUFF

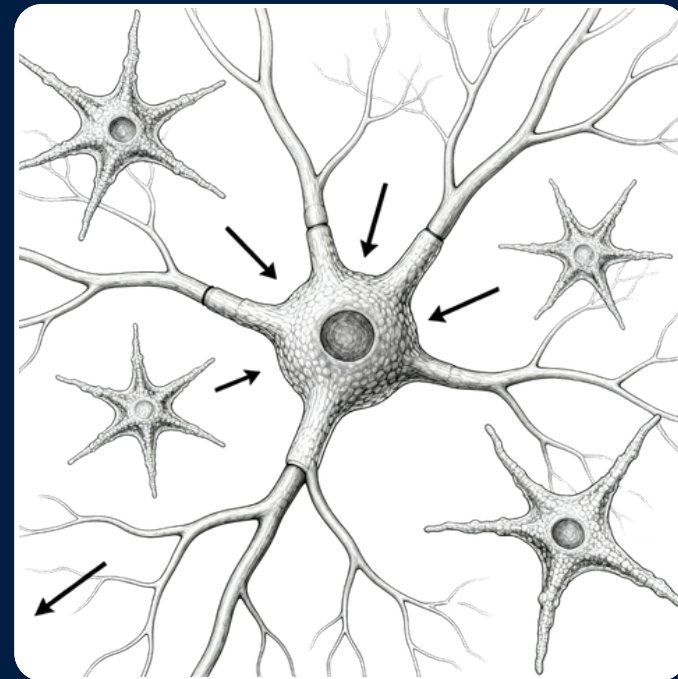
maintenance flush during a break clears 5 to 10% waste



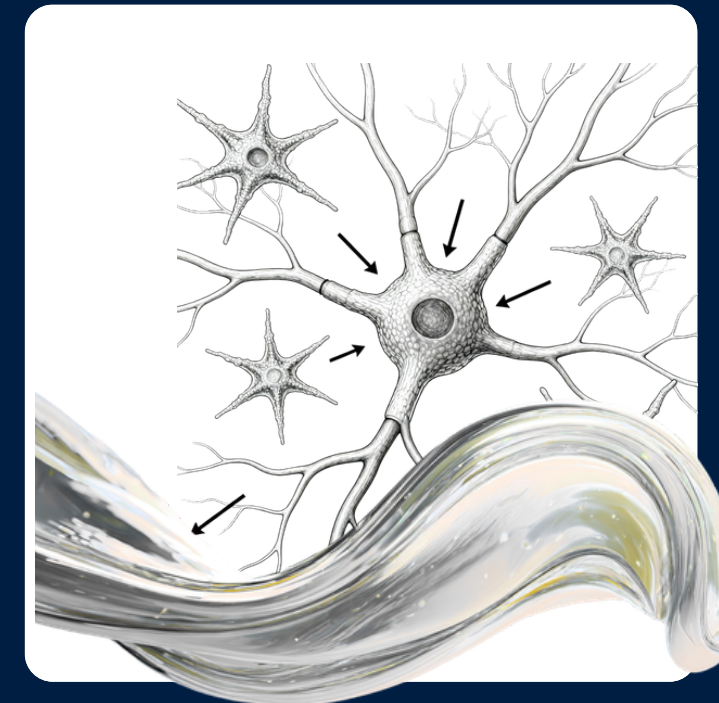
DUMP THE BAD STUFF

brain wash during sleep clears 90% waste

astrocytes shrink
& space between
them expands

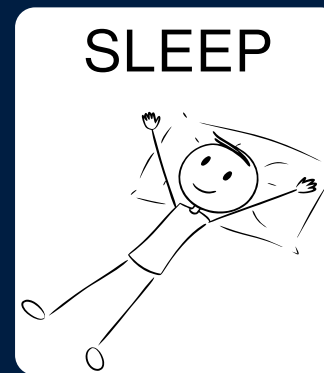


cerebrospinal
fluid wash
through



LEARN

METABOLIC
WASTE

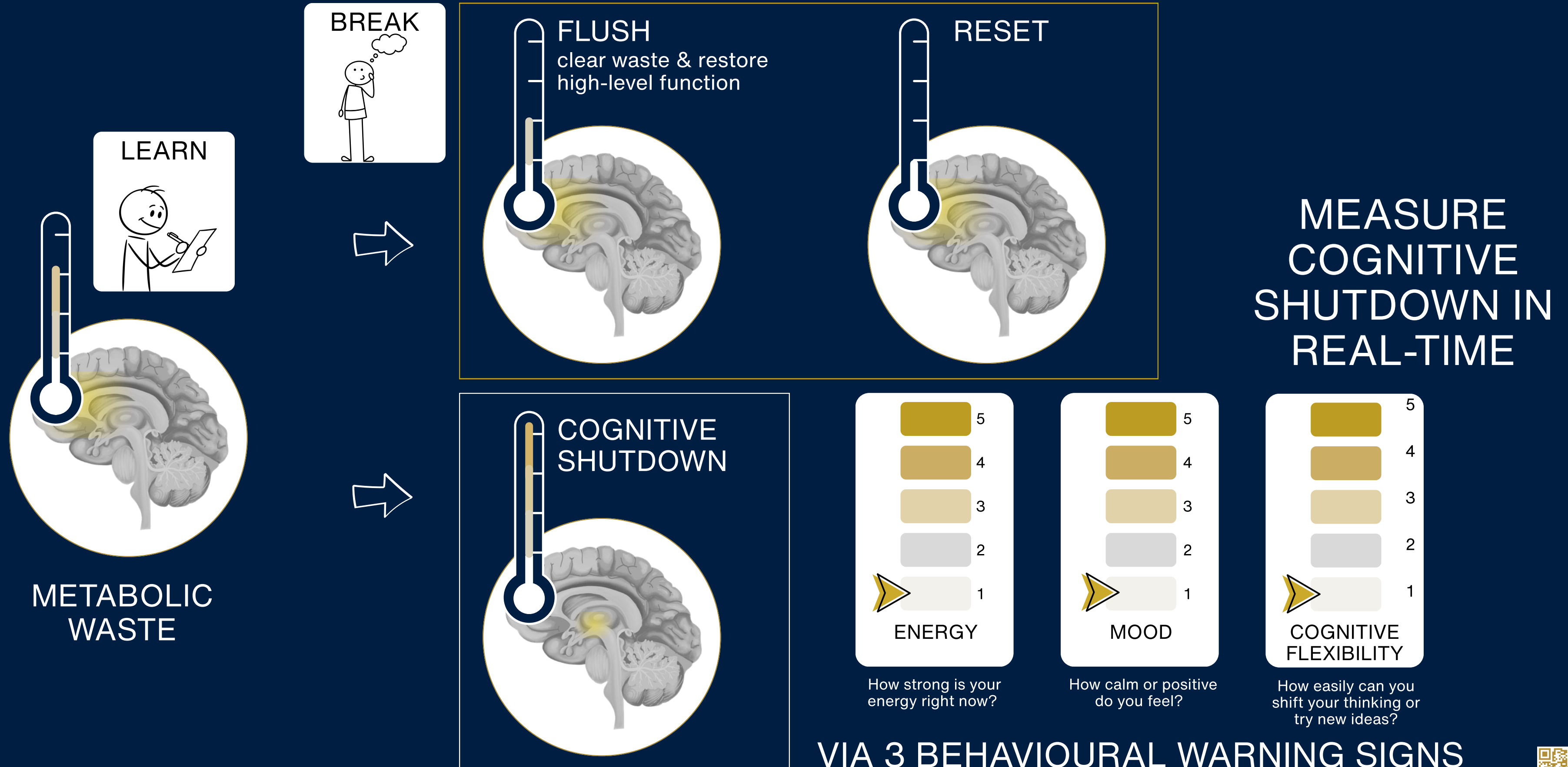


SLEEP

SYSTEM
RESET




HOW DO WE KNOW BRAINS ARE SHUTTING DOWN?

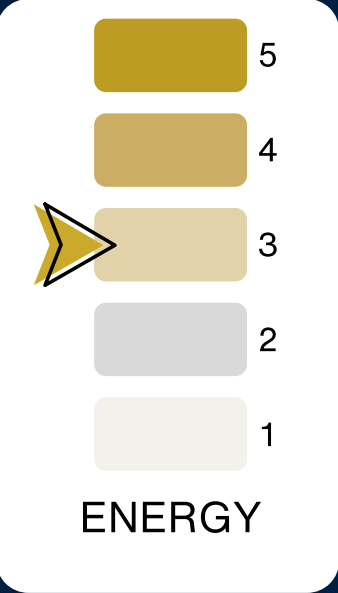
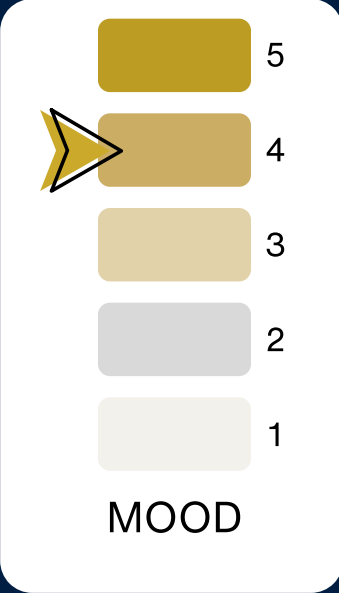
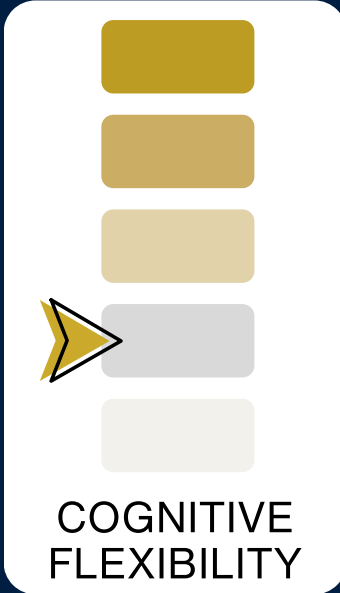


ASSESS TEAM'S COGNITIVE CAPACITY

turning overwhelm into a measurable data point that you can actively manage and troubleshoot

CAN YOU DEAL WITH THIS RIGHT NOW?



 <p>ENERGY</p>	 <p>MOOD</p>	 <p>COGNITIVE FLEXIBILITY</p>
How strong is your energy right now?	How calm or positive do you feel?	How easily can you shift your thinking or try new ideas?



CHANGE FATIGUE

CONTINUOUS
LEARNING



SUSTAINED CAPACITY

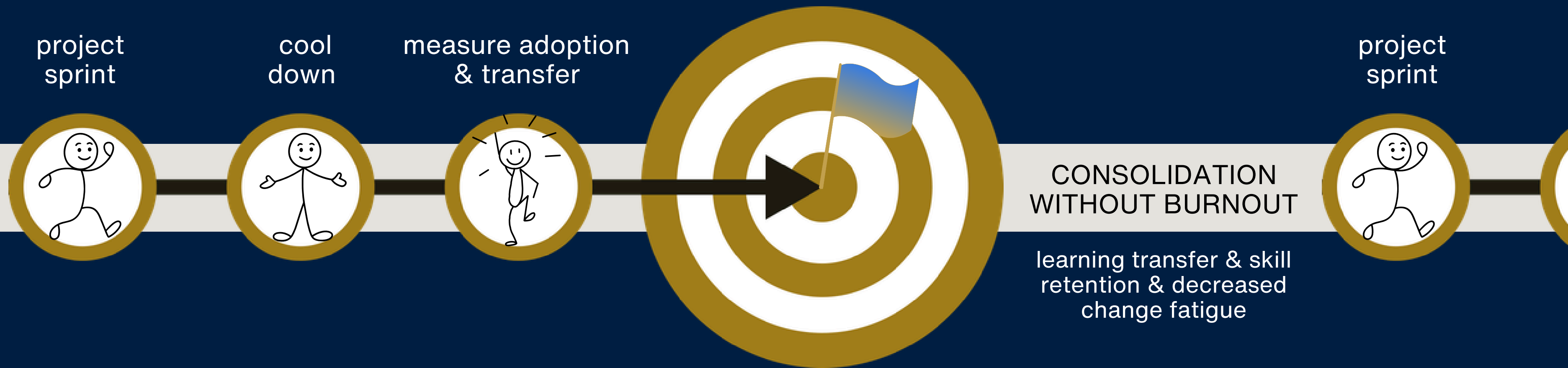
ACTIVE
CONSOLIDATION

keep the good stuff &
dump the bad



STRATEGIC SPRINTS

GOAL: improve retention and transfer by adding consolidation windows to change initiatives



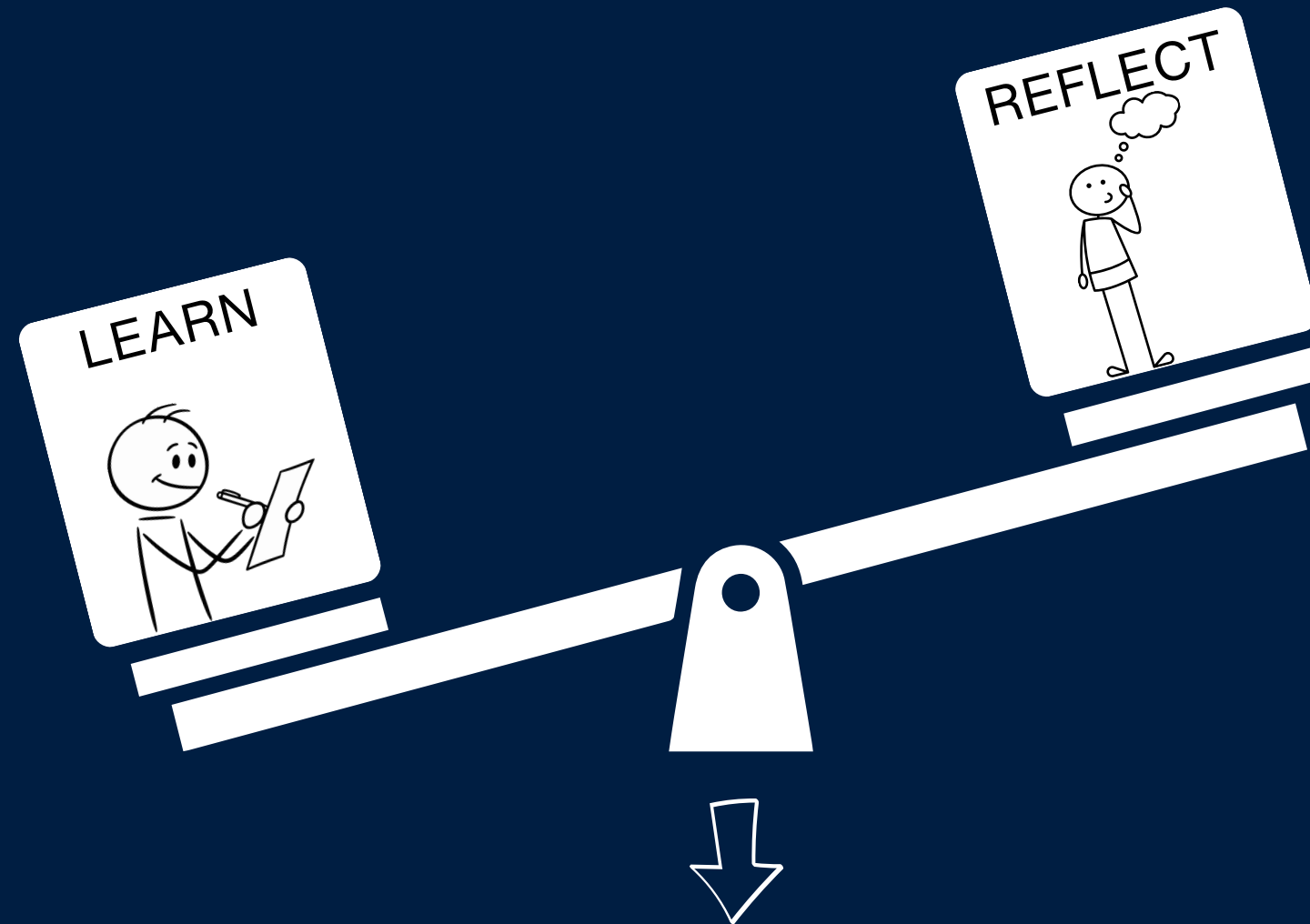
BECOME THE GATEKEEPER OF ORGANISATIONAL COGNITIVE CAPACITY & CHAMPION LOW-DEMAND MOMENTS



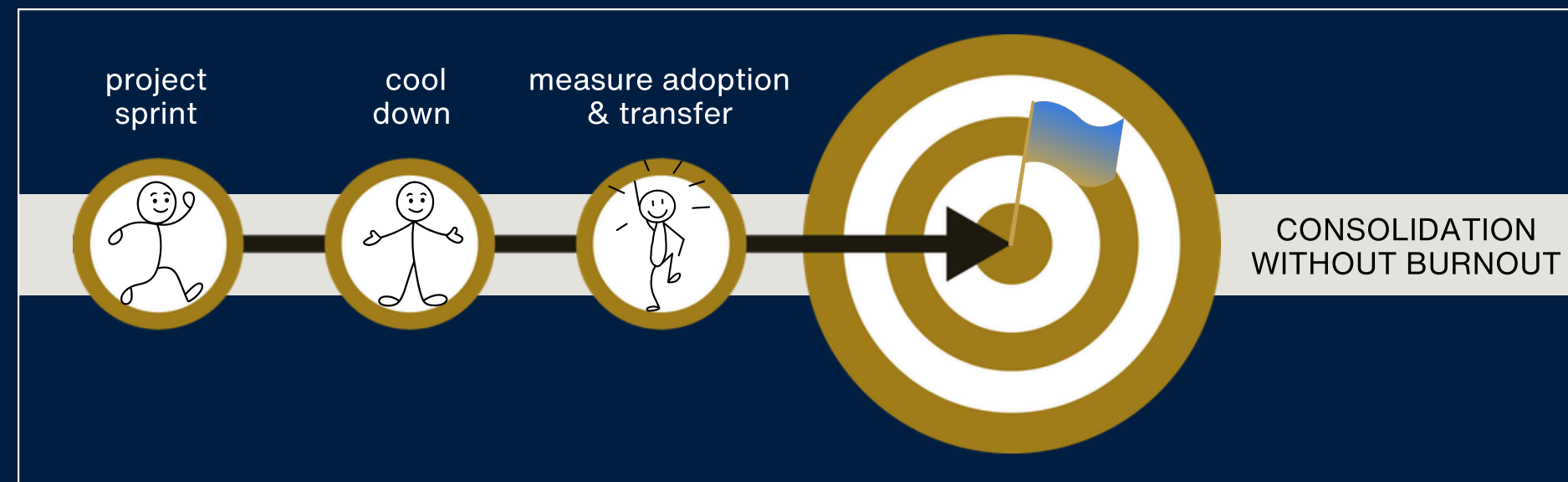
CREATIVITY & INNOVATION

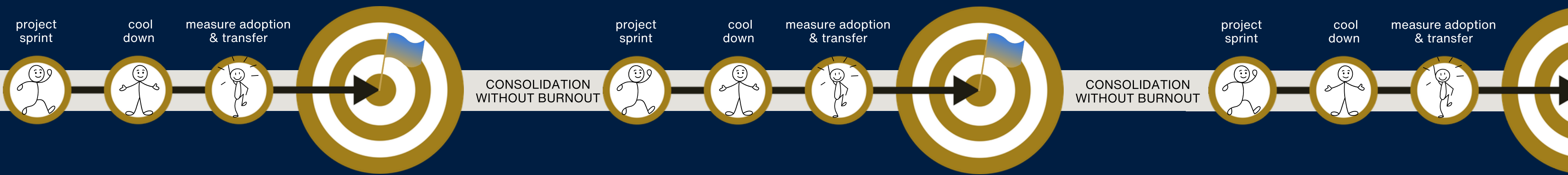
another good reason to build in cool down periods

FOCUS



IDEATION

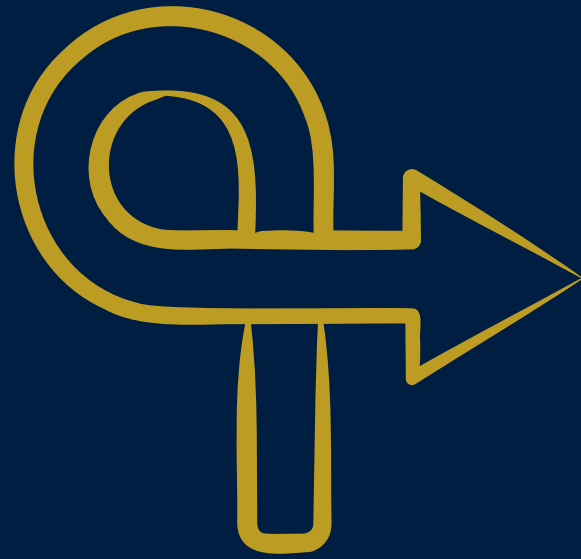


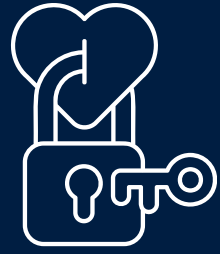


HARDWIRE BIOLOGICAL RECOVERY INTO OUR OPERATING RHYTHM



SHIFT





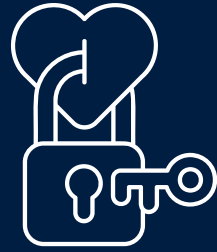
BE VULNERABLE



BE EMPATHETIC

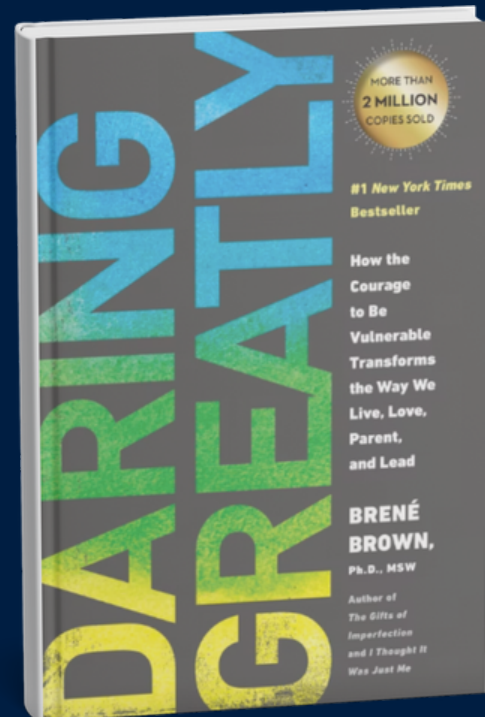


BE CANDID



BE VULNERABLE
bring your whole self to work

The Brené Brown Effect:
vulnerability is the birthplace of
innovation and connection



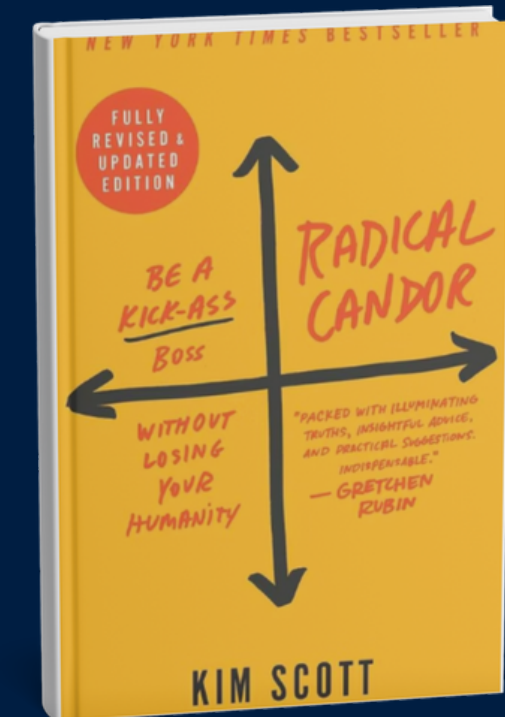
BE EMPATHETIC
feel your team's pain

Empathy is feeling with the other what they are feeling; it is creating and nurturing a connection with other people... it is *'I feel what you feel'*
Brené Brown



BE CANDID
use radical candour feedback

Use Radical Candor to
Be a Kick-Ass Boss
Kim Scott



EMOTIONAL OVERLOAD

BE VULNERABLE

BE EMPATHETIC

BE CANDID



PSYCHOLOGICAL WELLBEING

BE REGULATED

BE COMPASSIONATE

BE PREDICTABLE

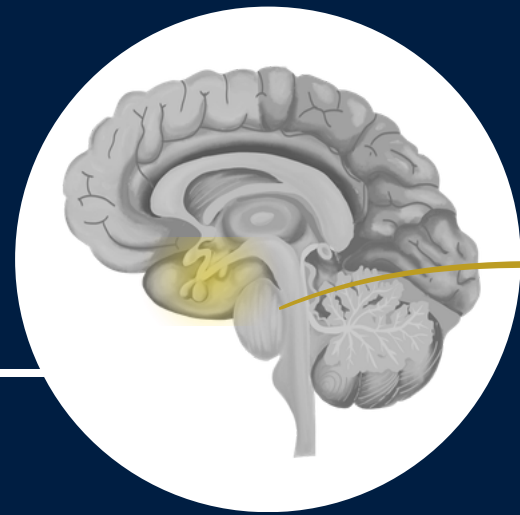


COGNITIVE NETWORKS

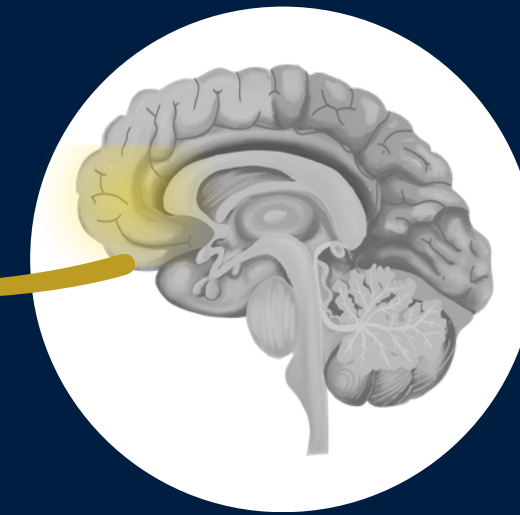
IDEATION MODE
AHA-MOMENTS



PANIC MODE
WHAT IF I FAIL?



OPPORTUNITY MODE
WHAT CAN I LEARN?



X ← chronic stress

DEFAULT MODE
NETWORK



STRESS
NETWORK



EXECUTIVE
CONTROL NETWORK



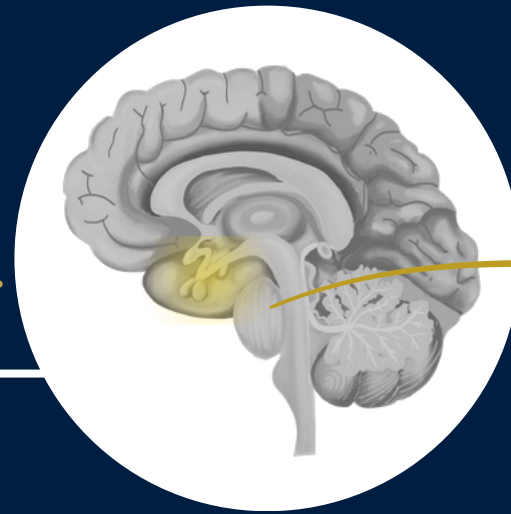
PROCESSING LEADER FEAR INTERNALLY PROVIDES THE TEAM THE CLARITY THEY NEED EXTERNALLY

BE VULNERABLE

BE REGULATED



DEFAULT MODE NETWORK

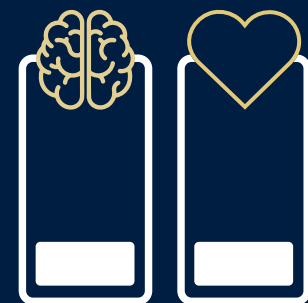


SURVIVAL NETWORK



EXECUTIVE CONTROL NETWORK

X



MIRROR NEURON SYSTEM

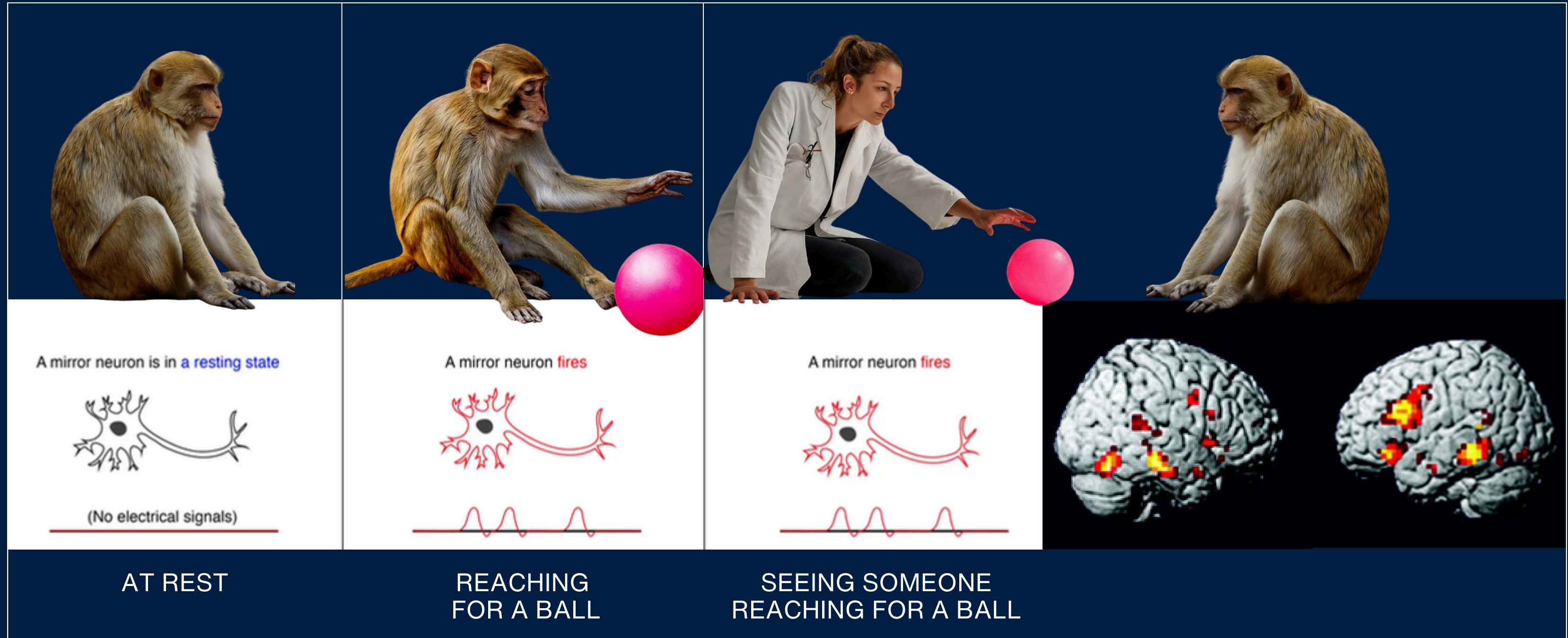


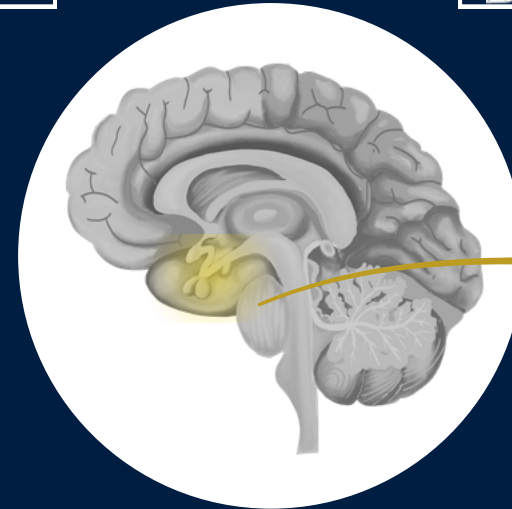
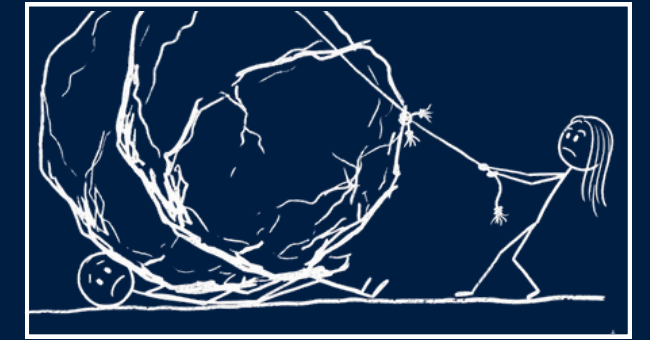
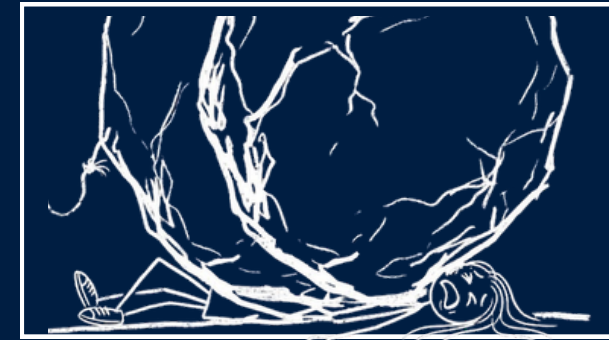
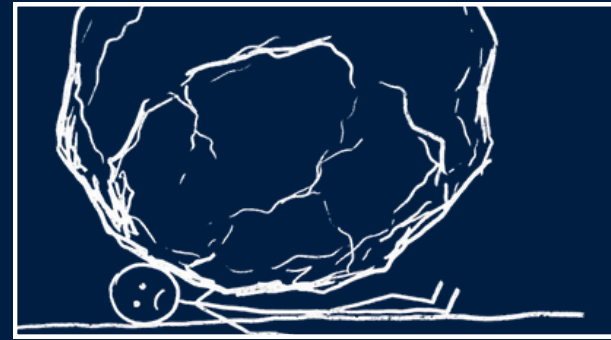
image adapted from sitn.hms.harvard.edu. Rizzolatti, G., & Craighero, L. (2004). The mirror-neuron system. Annual Review of Neuroscience, 27, 169–192.



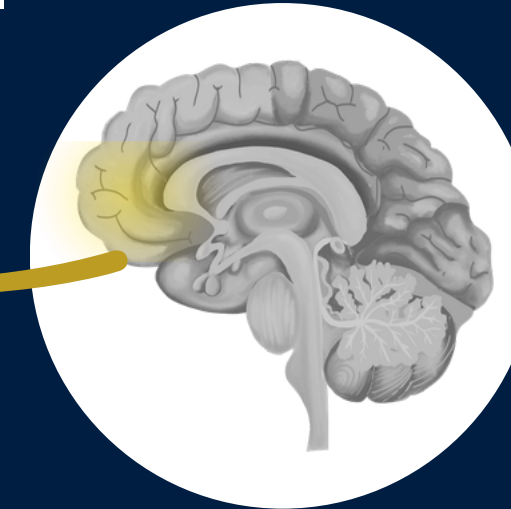
EMOTIONAL DISTANCE CREATES THE CAPACITY FOR DEEPER SUPPORT

BE EMPATHETIC

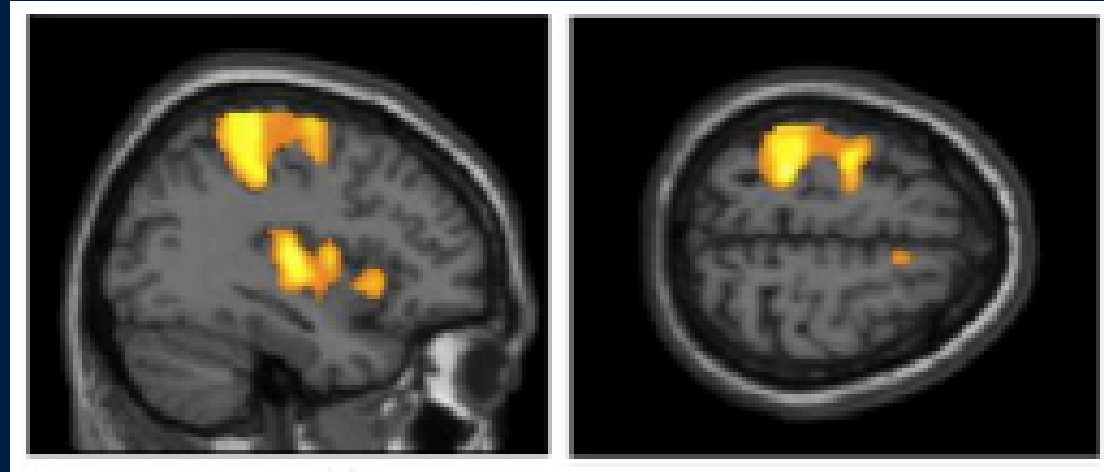
BE COMPASSIONATE



SURVIVAL NETWORK



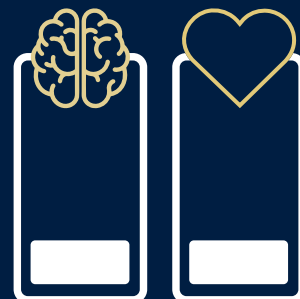
EXECUTIVE CONTROL NETWORK



REFERENCE: Singer T, Seymour B, O'Doherty J, Kaube H, Dolan RJ, Frith CD. Empathy for pain involves the affective but not sensory components of pain. Science. 2004 Feb 20;303(5661)



MATRIX:
LOCKED /
REACTIVE



PANIC



FOCUS



MATRIX:
AGILE



sustainable helping
behaviour



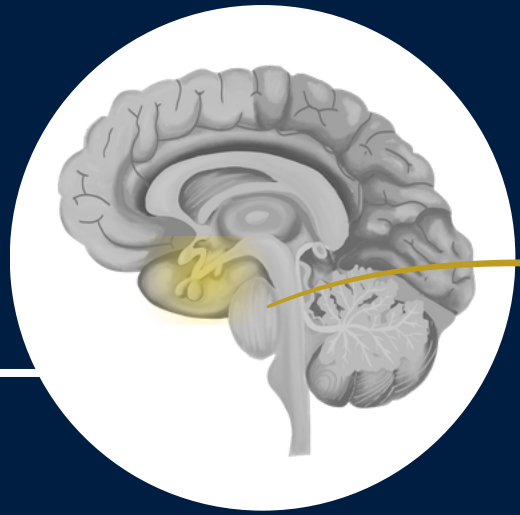
A PREDICTABLE ENVIRONMENT GENERATES UNPREDICTABLE IDEAS

BE CANDID

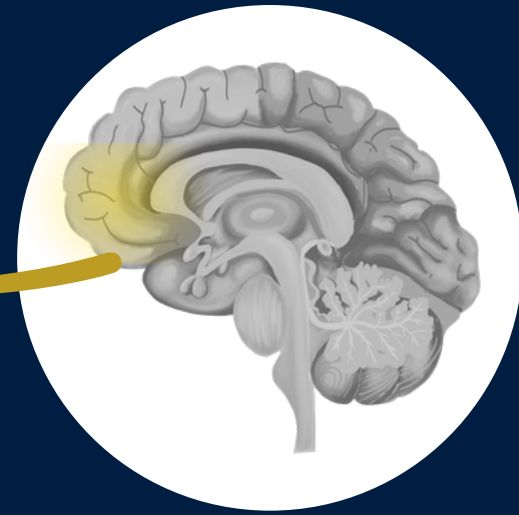
BE PREDICTABLE



DEFAULT MODE NETWORK



SURVIVAL NETWORK

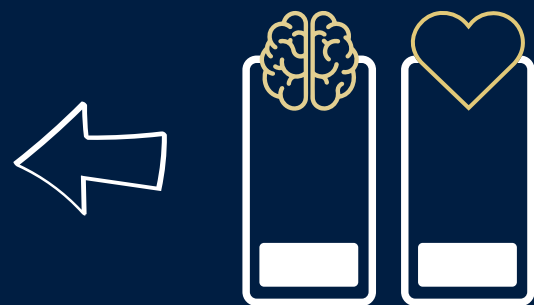


EXECUTIVE CONTROL NETWORK

X



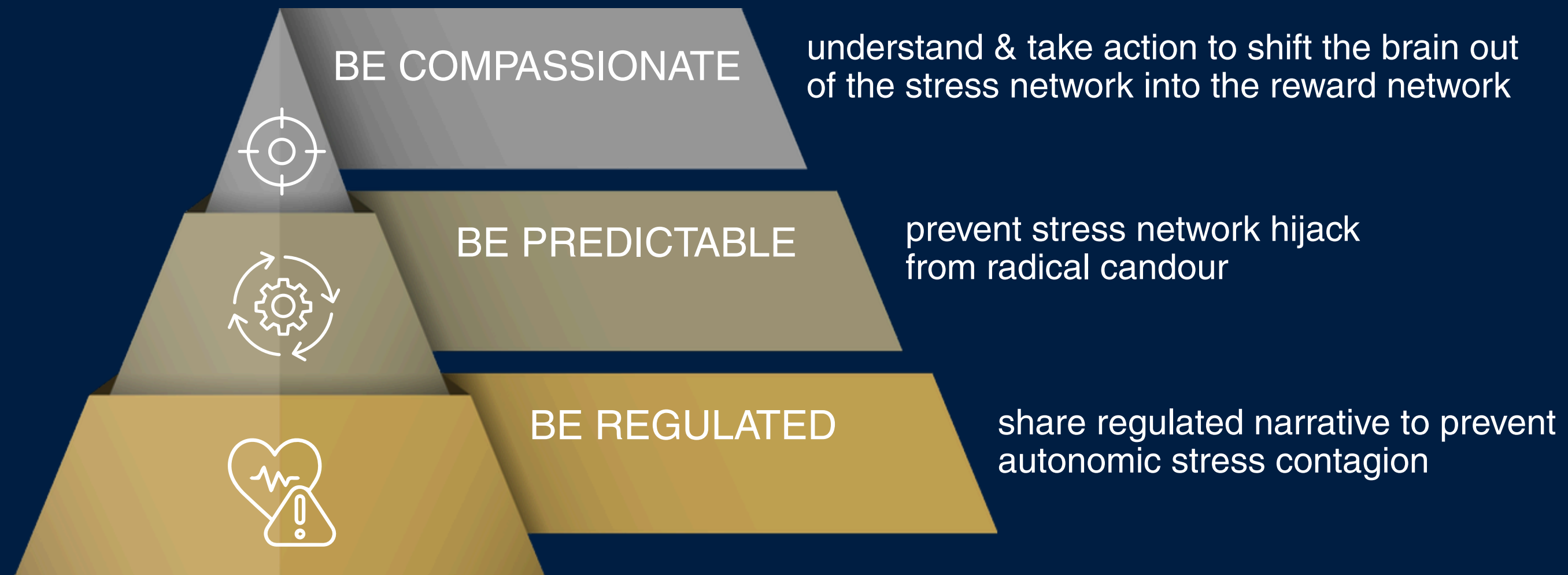
MATRIX: LOCKED / REACTIVE



MATRIX: AGILE



REGULATED TRANSPARENCY COMMUNICATION PROTOCOLS



CULTURALLY SEPARATE AUTHENTIC LEADERSHIP FROM TRAUMA DUMPING
TO LIGHTEN EMOTIONAL LOAD





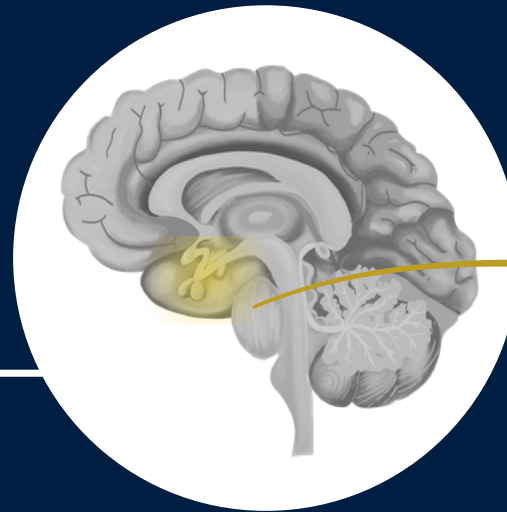
SHIFT THE BRAIN FROM WHAT-IF?
TO WHAT'S-NEXT?

UNSTRUCTURED
MINDFULNESS

STRUCTURED
MINDFULNESS



DEFAULT MODE
NETWORK

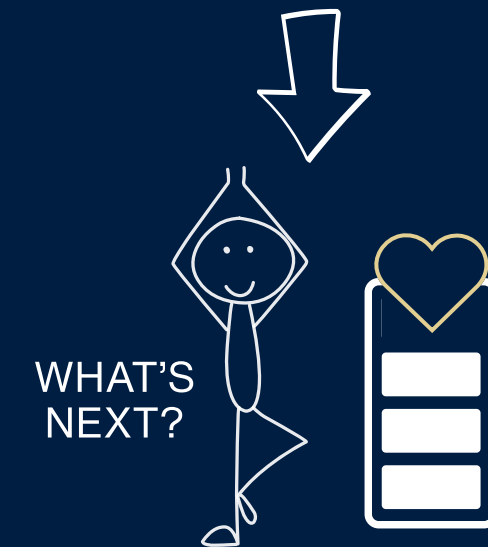


SURVIVAL
NETWORK



EXECUTIVE CONTROL
NETWORK

X

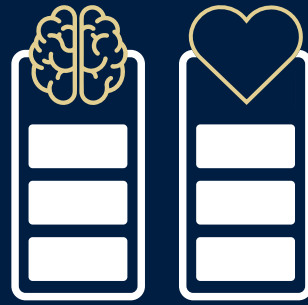


A PREDICTABLE
ENVIRONMENT GENERATES
UNPREDICTABLE IDEAS

MATRIX:
LOCKED /
REACTIVE

MATRIX:
AGILE





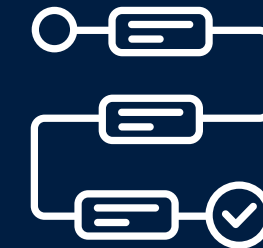
GO BEYOND INDIVIDUAL MANAGERS ABSORBING THE EMOTIONAL LOAD & START BUILDING AN INFRASTRUCTURE THAT CARRIES IT FOR THEM



REGULATED
TRANSPARENCY
COMMUNICATION
PROTOCOLS



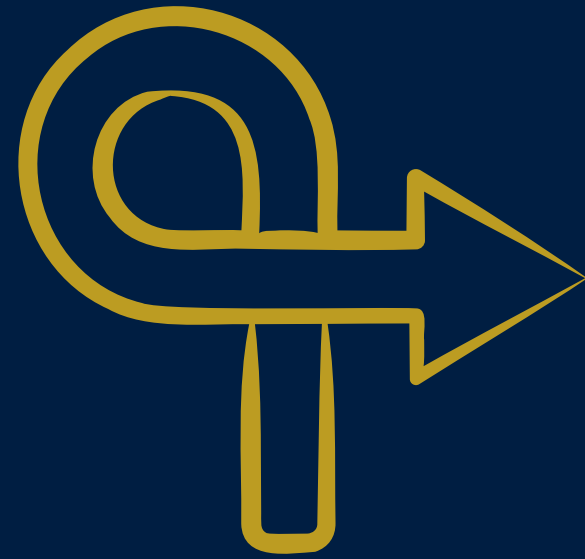
CULTURALLY
SEPARATE AUTHENTIC
LEADERSHIP FROM
TRAUMA DUMPING



STRUCTURED
MINDFULNESS
& WELLNESS
PROGRAMS



SHIFT





**JFK to janitor
during 1960's
NASA visit:**

**Kennedy : "And
what's your job?"**

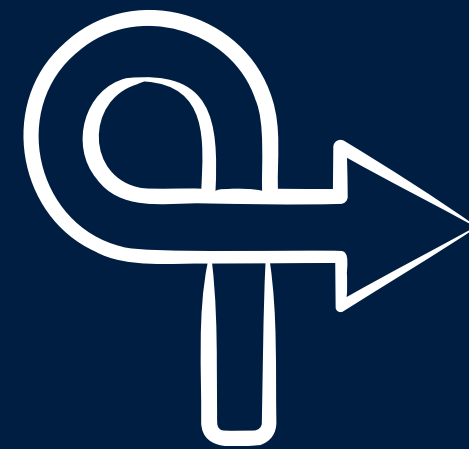
**Janitor: "Mr.
President, I'm
helping to put
a man on the
moon."**



**IF WE GIVE PEOPLE A MASSIVE, WORLD-
CHANGING PURPOSE THEY WILL NEVER BURN OUT**

MOTIVATION CRASH

ABSTRACT
PURPOSE



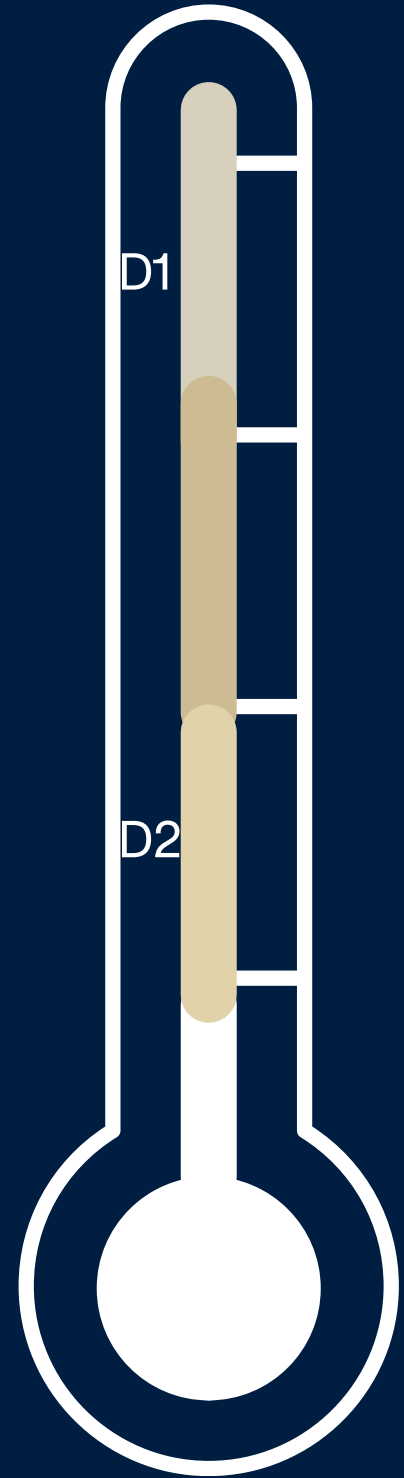
SUSTAINED MOMENTUM

CONCRETE
PROGRESS



DOPAMINE

the chemical of reward and pursuit

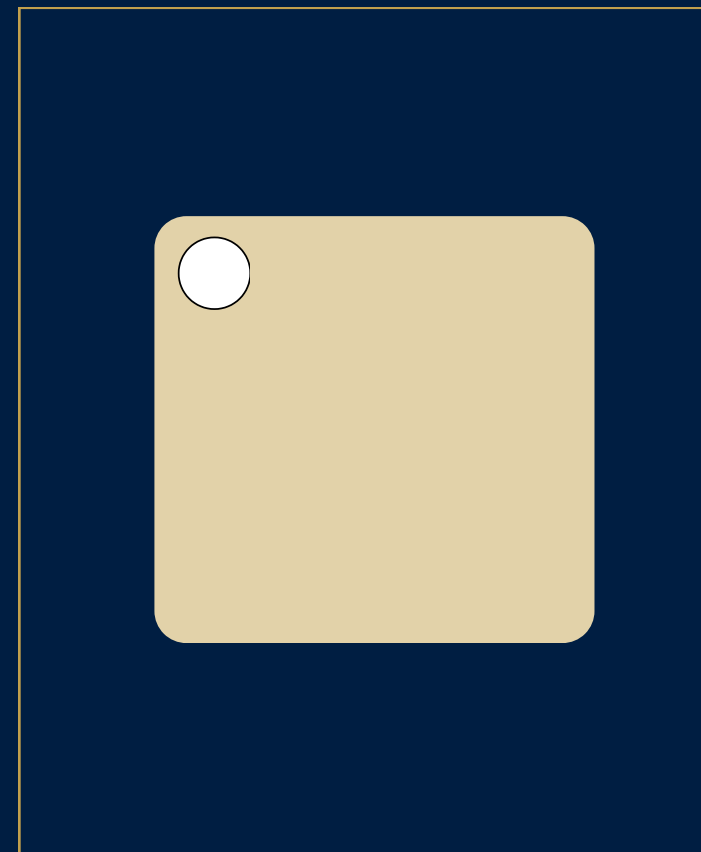


FOCUS
focused work +
neuroplasticity

FLOW
effortless, high-
speed output

IDEATION
mind-wandering
& creativity

TRIGGER



BRAIN RESPONSE



OUTCOME

motivation
engagement
productivity

THE DOPAMINE REWARD SYSTEM



NEGATIVE PREDICTION ERROR

the biological thud of burnout
THE DIFFERENCE BETWEEN WHAT YOU EXPECTED AND WHAT ACTUALLY HAPPENED



PREDICTED REWARD



RECEIVED REWARD



BURNOUT



baseline
dopamine



predicted
dopamine



actual
dopamine



new baseline
dopamine



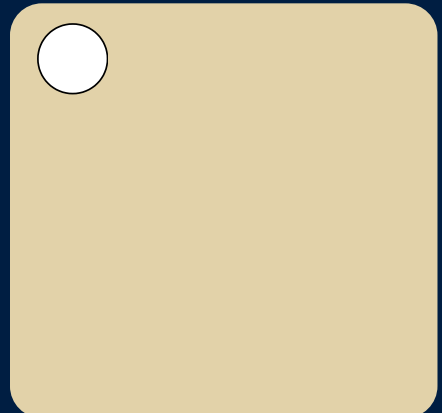
CONTINUOUS LOOP OF DOPAMINE HITS



THE BRAIN DOESN'T CARE HOW BIG THE FINISH LINE IS, IT ONLY CARES THAT IT CROSSED ONE



TRIGGER



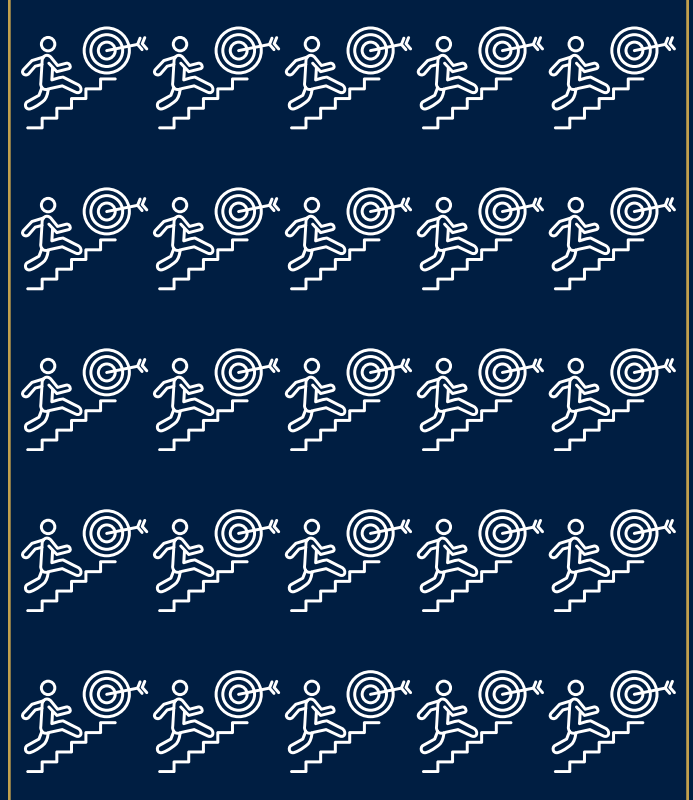
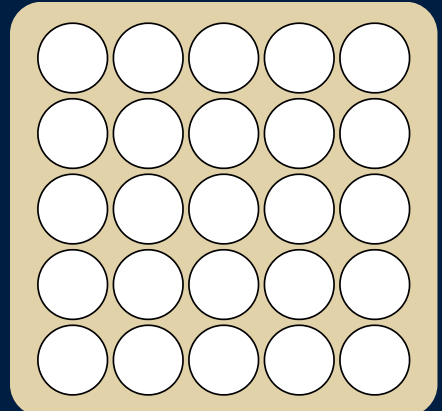
BRAIN RESPONSE



OUTCOME

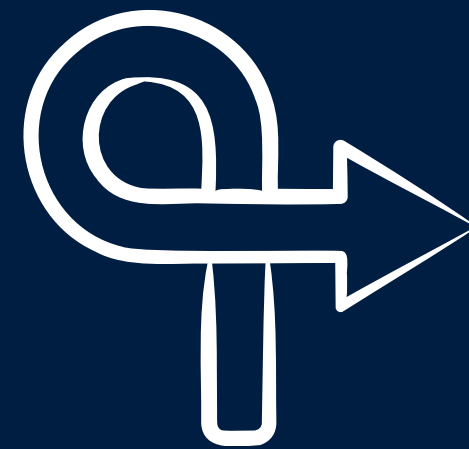


motivation
engagement
productivity



MOTIVATION CRASH

ABSTRACT
PURPOSE



SUSTAINED MOMENTUM

CONCRETE
PROGRESS



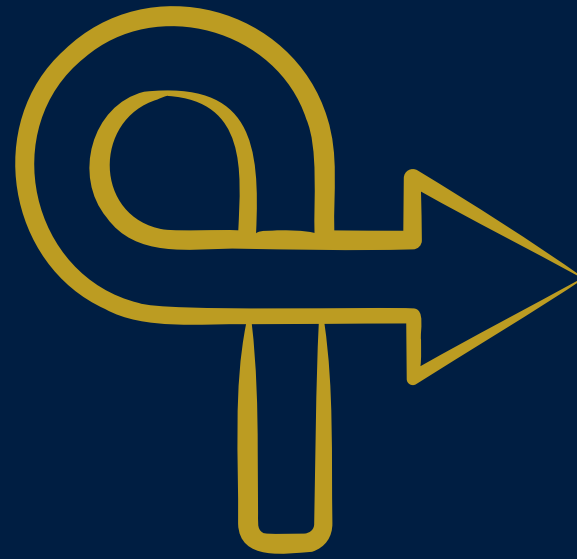
REDEFINE THE LINE & MULTIPLY IT



CONTINUOUS LOOP OF DOPAMINE HITS



4



SHIFTS

1

BURNOUT

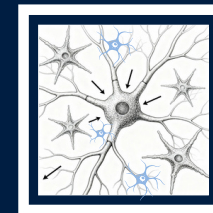
PSYCHOLOGICAL & BEHAVIOURAL PROBLEM



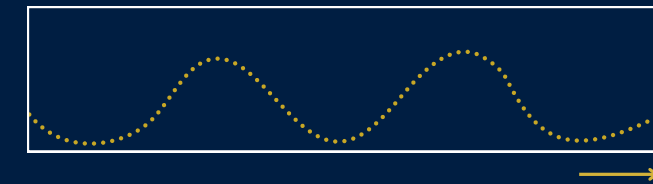
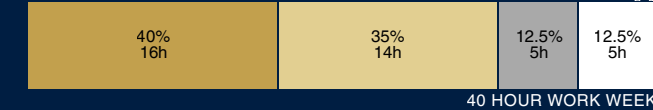
SUSTAINED PERFORMANCE

PHYSIOLOGICAL ENERGY SUPPLY & DEMAND

WORKFLOWS TO PROTECT COGNITIVE CAPACITY



OPTIMAL PERFORMANCE



2

CHANGE FATIGUE

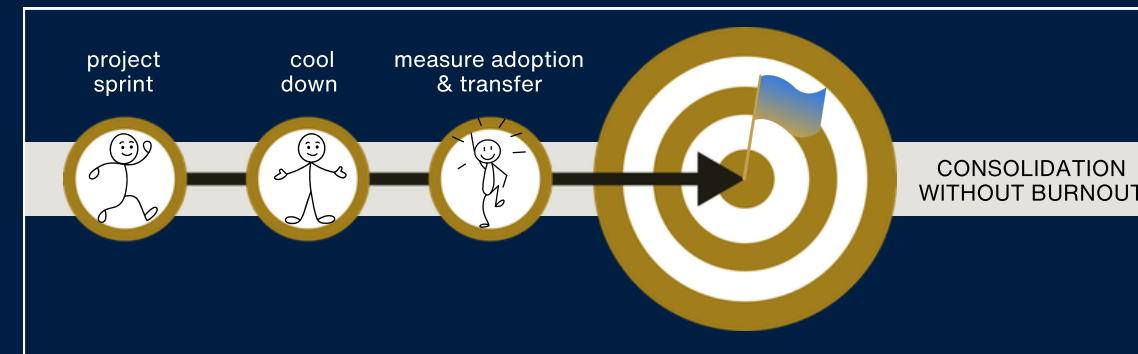
CONTINUOUS LEARNING



SUSTAINED CAPACITY

ACTIVE CONSOLIDATION

COGNITIVE SPRINTS WITH COOL DOWN PERIODS



keep the good stuff & dump the bad

3

EMOTIONAL OVERLOAD

- BE VULNERABLE
- BE EMPATHETIC
- BE CANDID



PSYCHOLOGICAL WELLBEING

- BE REGULATED
- BE COMPASSIONATE
- BE PREDICTABLE

INFRASTRUCTURE THAT CARRIES EMOTIONAL LOAD

- REGULATED TRANSPARENCY COMMUNICATION PROTOCOLS
- CULTURALLY SEPARATE AUTHENTIC LEADERSHIP FROM TRAUMA DUMPING
- STRUCTURED MINDFULNESS & WELLNESS PROGRAMS

4

MOTIVATION CRASH

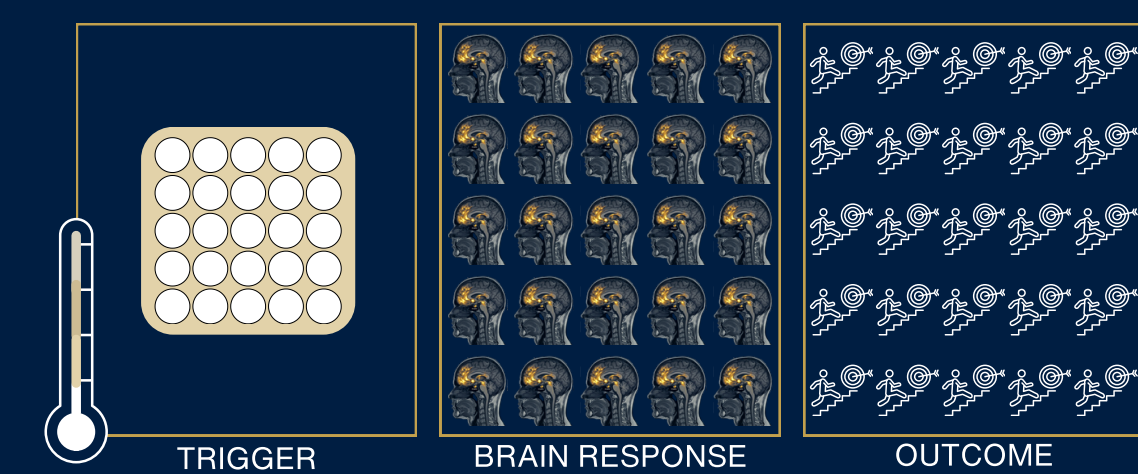
ABSTRACT PURPOSE



SUSTAINED MOMENTUM

CONCRETE PROGRESS

CONTINUOUS LOOP OF DOPAMINE HITS



TRIGGER

BRAIN RESPONSE

OUTCOME



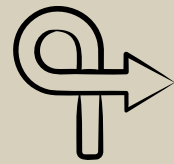
The Autopilot Perfectionists **LOCKED**

ORGANISATIONAL
INFRASTRUCTURE

2 CHANGE
FATIGUE

CONTINUOUS
LEARNING

UPSKILLING &
GROWTH DEMAND



AGILE The Resilient Architects

1 SUSTAINED
PERFORMANCE

PHYSIOLOGICAL
ENERGY SUPPLY
& DEMAND

3 PSYCHOLOGICAL
WELLBEING

BE REGULATED

BE COMPASSIONATE

BE PREDICTABLE

2 SUSTAINED
CAPACITY

ACTIVE
CONSOLIDATION

4 SUSTAINED
MOMENTUM

CONCRETE PROGRESS

1 BURNOUT

PSYCHOLOGICAL
& BEHAVIOURAL
PROBLEM

WORKFLOWS &
TIMELINES



3 EMOTIONAL
OVERLOAD

BE VULNERABLE

BE EMPATHETIC

BE CANDID

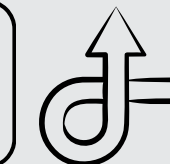
COMMUNICATION
CULTURE



4 MOTIVATION
CRASH

ABSTRACT
PURPOSE

GOAL-SETTING
FRAMEWORK



The Overloaded Survivors **REACTIVE**

DRIFTING The Visionary Explorers



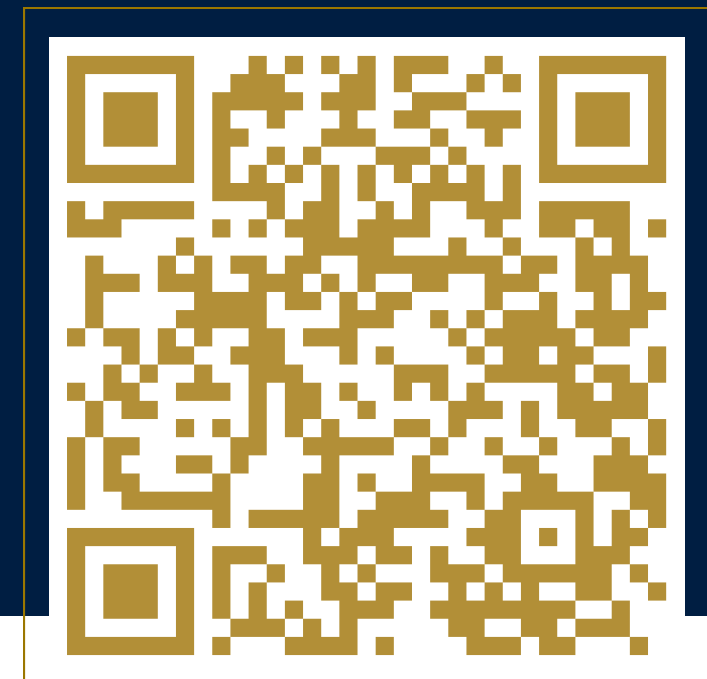
TRUE RESILIENCE IS NOT A MINDSET
WE DEMAND FROM OUR PEOPLE



IT IS A METABOLIC CAPACITY
WE PROTECT FOR THEM

THANK YOU!

dr. Estie Alessandrini



ESTIE@EKANOVATE.COM 

EMBRACE YOUR EDGE · REWIRE YOUR BRAIN · PERFORM AT YOUR BEST