Neuroinclusion:
Key Considerations in the Workplace

26.09.25

The Leadenhall Building, London EC3V 4AB

with thanks to


Stages of Synaptic Pruning

Osmond

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disability confident EMPLOYER

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nqa. ISO 9001 ISO 14001 INTEGRATED MANAGEMENT

UKAS MANAGEMENT SYSTEMS 0015

Our products and services

Osmond
INCLUSIVE WELLBEING SERVICES

Our new service: AtW ➲ AOP

- Access to Work in disarray
- Accelerated Outcome Process – our alternative offer

Access to Work vs Accelerated Outcome Process

AOP gives you clear, proportionate recommendations in weeks, not months, while helping Access to Work stay focused on complex cases.

	Access to Work	AOP
Typical timeline	3-6+ months	Delivered in 2 weeks
Points of contact	Multiple contacts	Single point of contact
Admin overhead	High	Low
Funding	Government funded	Transparent, flexible pricing
Best for	Long-term, complex needs	Urgent, proportionate solutions

Dan Jenkins
DCA

Workplace Neuroinclusion:
lessons Learned from Train Designers

DCA

Autism ADHD Dyslexia Dyspraxia Dyscalculia

DCA

What do we mean by neuroinclusion

How it's been considered in the past within rail

What great about how its included now (and what falls a bit short)

Practical tips for designing more inclusive spaces

How this translates to office spaces

How we can get these changes through the design process

Neuroinclusion

noun

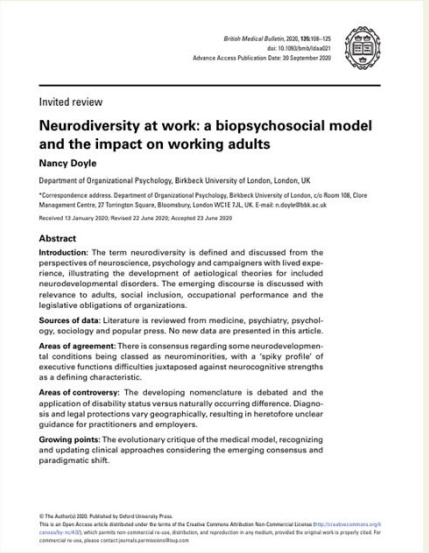
Supporting *neurodivergent* people to be comfortable, confident, and successful.

Neurodiversity

noun

The natural variation in human brain functioning.
The idea that people having a range of different types of brain should be regarded as part of normal human life.

DCA



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Invited review

Neurodiversity at work: a biopsychosocial model and the impact on working adults

Nancy Doyle

Department of Organizational Psychology, Birkbeck University of London, London, UK

*Correspondence address. Department of Organizational Psychology, Birkbeck University of London, c/o Room 108, Clore Management Centre, 27 Torrington Square, Bloomsbury, London WC1E 7JL, UK. E-mail: n.doyle@bbk.ac.uk

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Abstract

Introduction: The term neurodiversity is defined and discussed from the perspectives of neuroscience, psychology and campaigners with lived experience, illustrating the development of aetiological theories for included neurodevelopmental disorders. The emerging discourse is discussed with relevance to adults, social inclusion, occupational performance and the legislative obligations of organizations.

Sources of data: Literature is reviewed from medicine, psychiatry, psychology, sociology and popular press. No new data are presented in this article.

Areas of agreement: There is consensus regarding some neurodevelopmental conditions being classed as neurominorities, with a 'spiky profile' of executive functions difficulties juxtaposed against neurocognitive strengths as a defining characteristic.

Areas of controversy: The developing nomenclature is debated and the application of disability status versus naturally occurring difference. Diagnosis and legal protections vary geographically, resulting in heretofore unclear guidance for practitioners and employers.

Growing points: The evolutionary critique of the medical model, recognizing and updating clinical approaches considering the emerging consensus and paradigmatic shift.

Autism 2%

ADHD 5%

Dyslexia 10%

Dyspraxia 6%

Dyscalculia


F I GB USA MEX
ONE SIZE
DOES NOT
FIT ALL
30°C
Von links bügeln/ Iron inside out/
repasser sur l'envers /

DCA


1st Humanscale Body Measurements
2nd Humanscale Seat/Table Guide
3rd Humanscale Wheelchair Users

DCA

Department for Transport

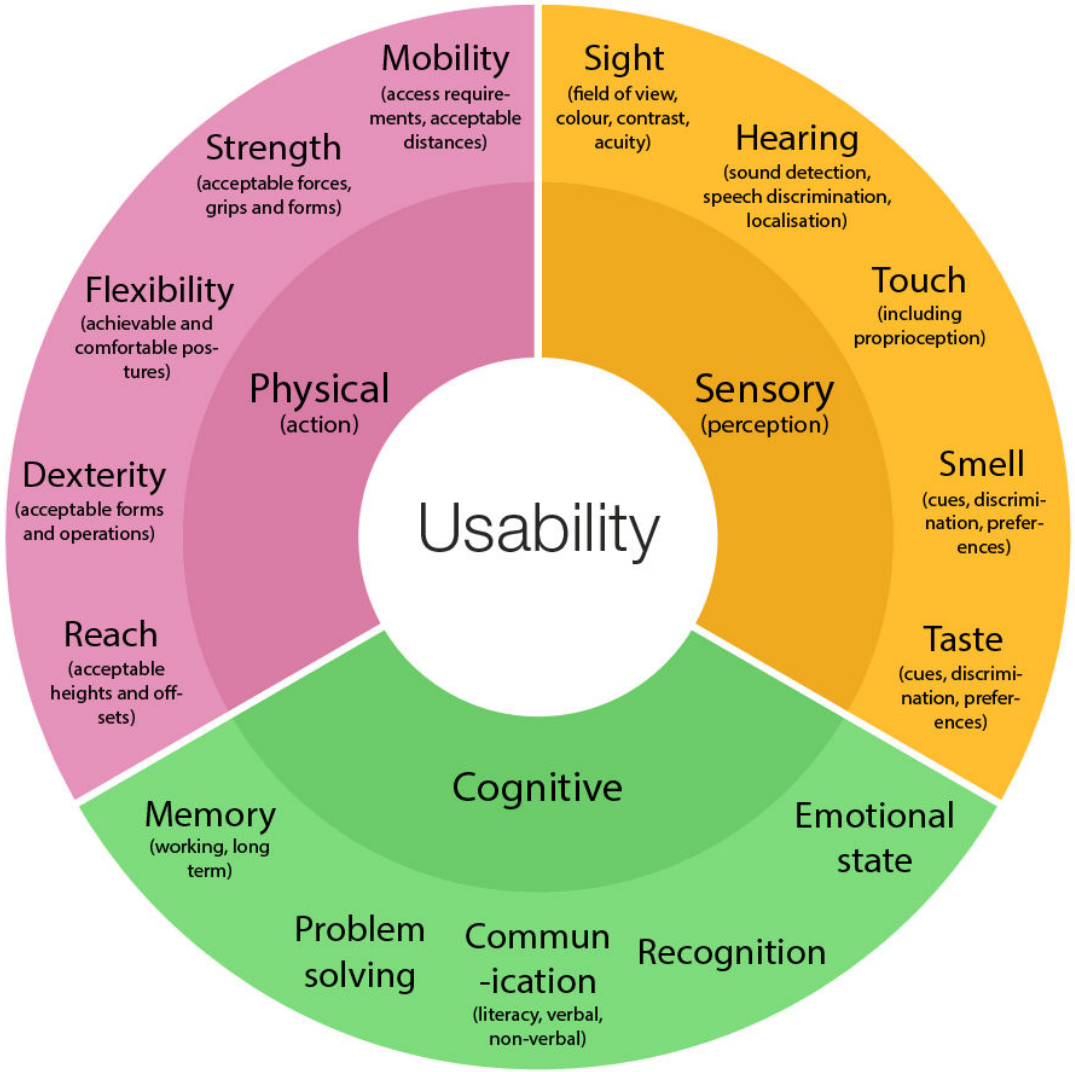
National Technical Specification Notice

Accessibility (ACC)

Issue 1

Date of publication: 2nd May 2025

Changes from Issue 1 of the PRM NTSN to this version primarily focus on sections where the PRM TSI was amended in 2023 by Commission Implementing Regulation (EU) 2023/1694 and sections where the British rail sector or Government identified a need for change and agreed solutions. The title has also been changed to 'Accessibility NTSN' to be more inclusive of the broader range of persons its requirements are intended to benefit. Changes to technical content, including decisions on whether to maintain alignment with the PRM TSI, were made on the principles that mandatory requirements in NTSNs should be strictly necessary for achieving interoperability in GB, outcome focused where appropriate, supported by GB-focused analysis, and tested with those who will be obliged to apply them. To support use of the NTSN in line with these principles, the ACC NTSN also contains a substantial redraft of the Summary and Articles section to improve clarity, reflect Government NTSN policy, and align application with the objectives and target outcomes of rail interoperability in GB.


Mobility
(access require-ments, acceptable distances)
Strength
(acceptable forces, grips and forms)
Flexibility
(achievable and comfortable pos-tures)
Physical
(action)
Dexterity
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Reach
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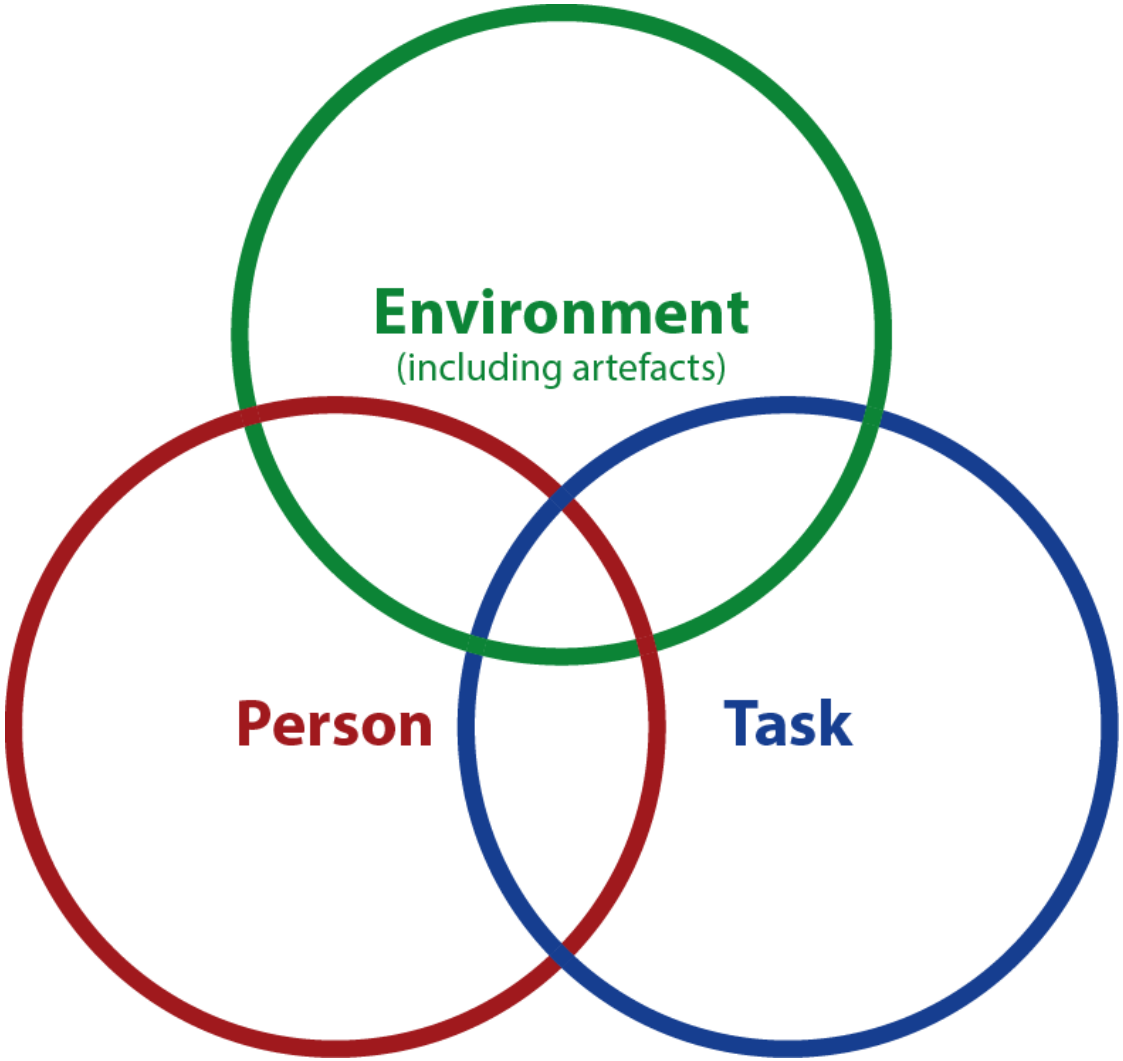
Sight
(field of view, colour, contrast, acuity)
Hearing
(sound detection, speech discrimination, localisation)
Touch
(including proprioception)
Sensory
(perception)
Smell
(cues, discrimi-nation, prefer-ences)
Taste
(cues, discrimi-nation, prefer-ences)
Usability
Cognitive
Memory
(working, long term)
Problem solving
Commun-ication
(literacy, verbal, non-verbal)
Recognition
Emotional state

2.2. DEFINITION OF 'PERSON WITH DISABILITIES AND PERSON WITH REDUCED MOBILITY'

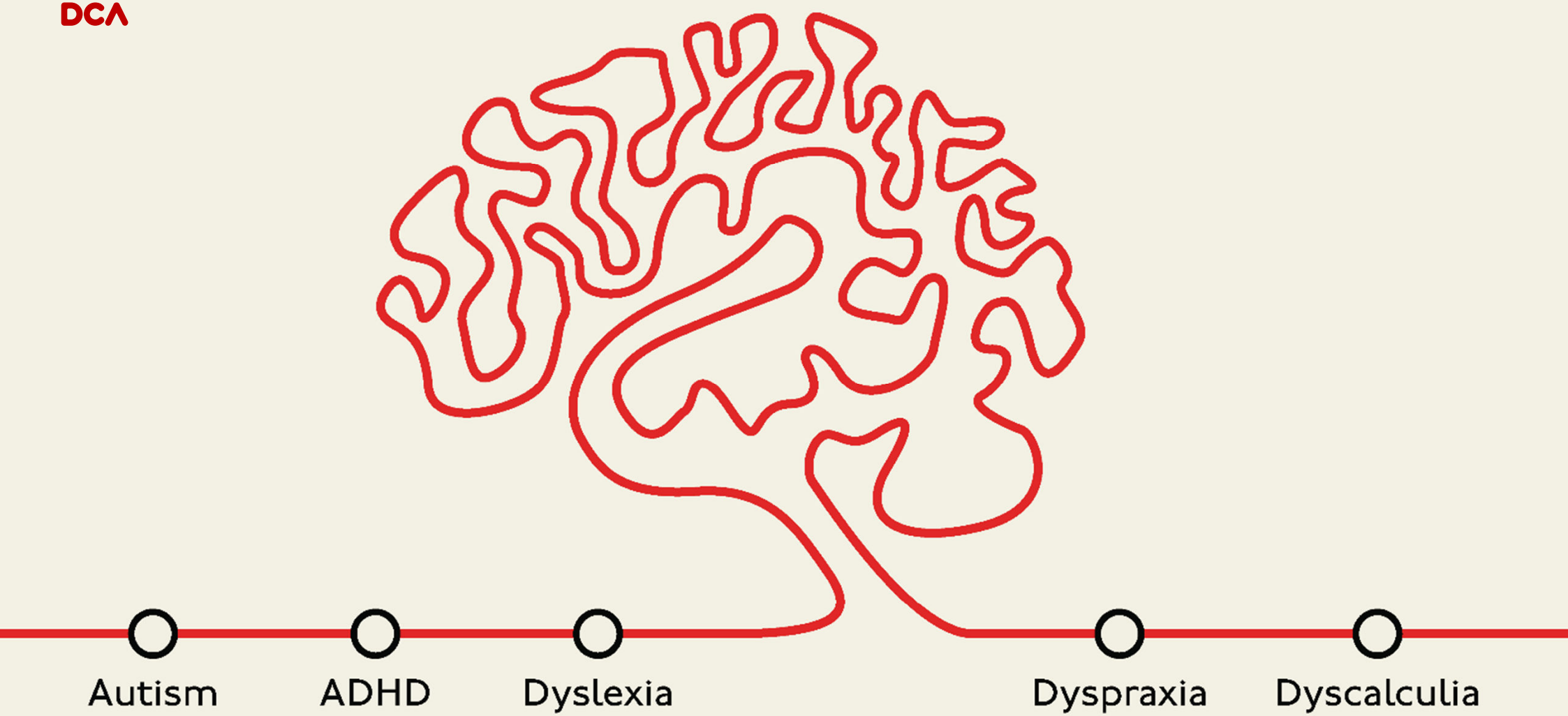
'Person with disabilities and person with reduced mobility' means any person who has a permanent or temporary physical, mental, intellectual or sensory impairment which, in interaction with various barriers, may hinder their full and effective use of transport on an equal basis with other passengers or whose mobility when using transport is reduced due to age.


Environment
(including artefacts)
Person
Task


DCA
Everyday
Granulated Sugar
GRANULATED SUGAR
Pure Sugar


SOY MILK
ORGANIC VALLEY
ALMOND MILK

DCA



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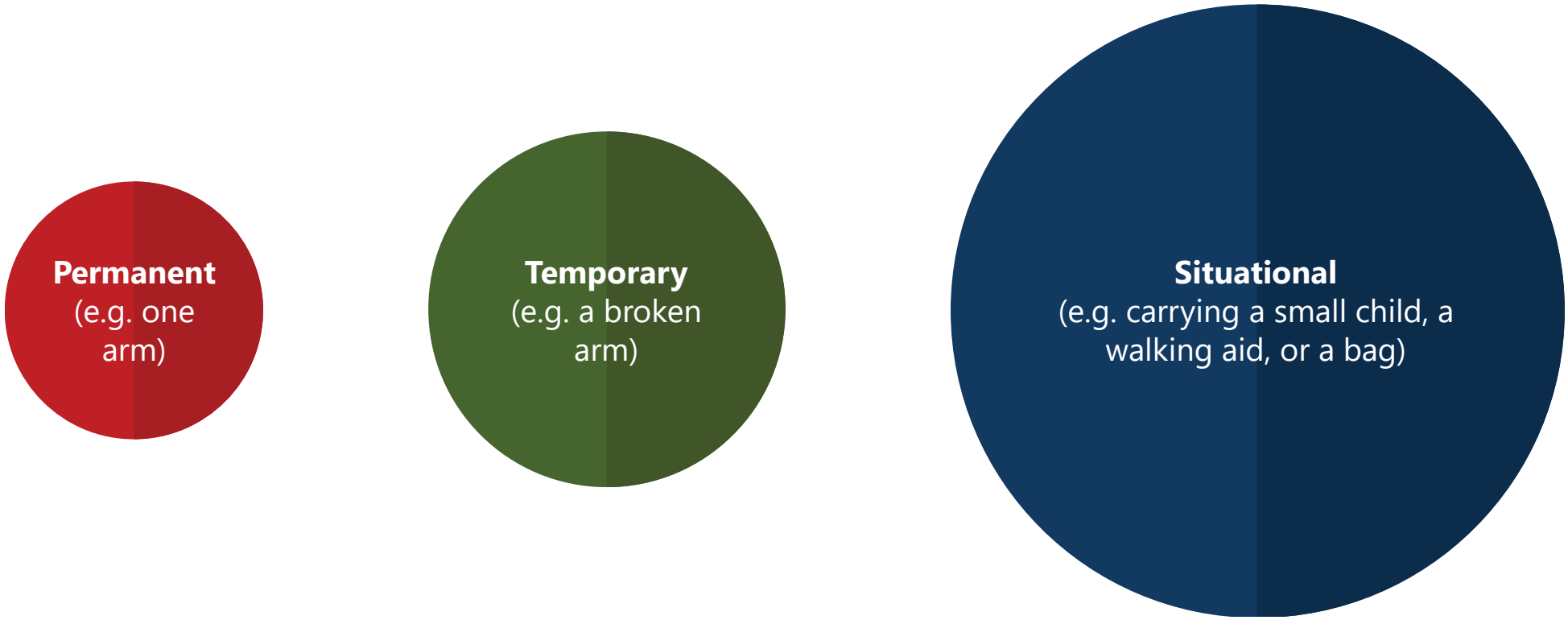
	Permanent	Temporary	Situational
Touch	 One arm	 Arm injury	 New parent
See	 Blind	 Cataract	 Distracted driver

	Permanent	Temporary	Situational
Hear	 Deaf	 Ear infection	 Bartender
Speak	 Non-verbal	 Laryngitis	 Heavy accent

Inclusive
A Microsoft Design Toolkit

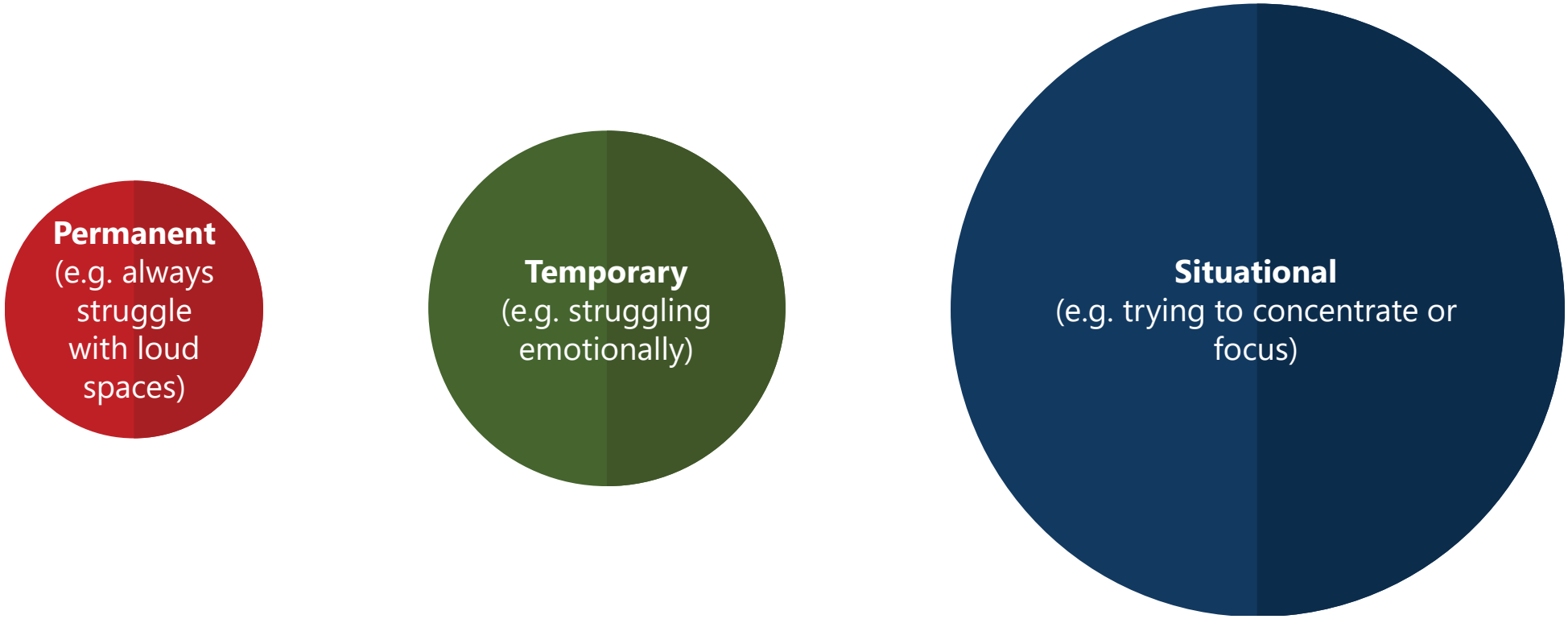
DCA

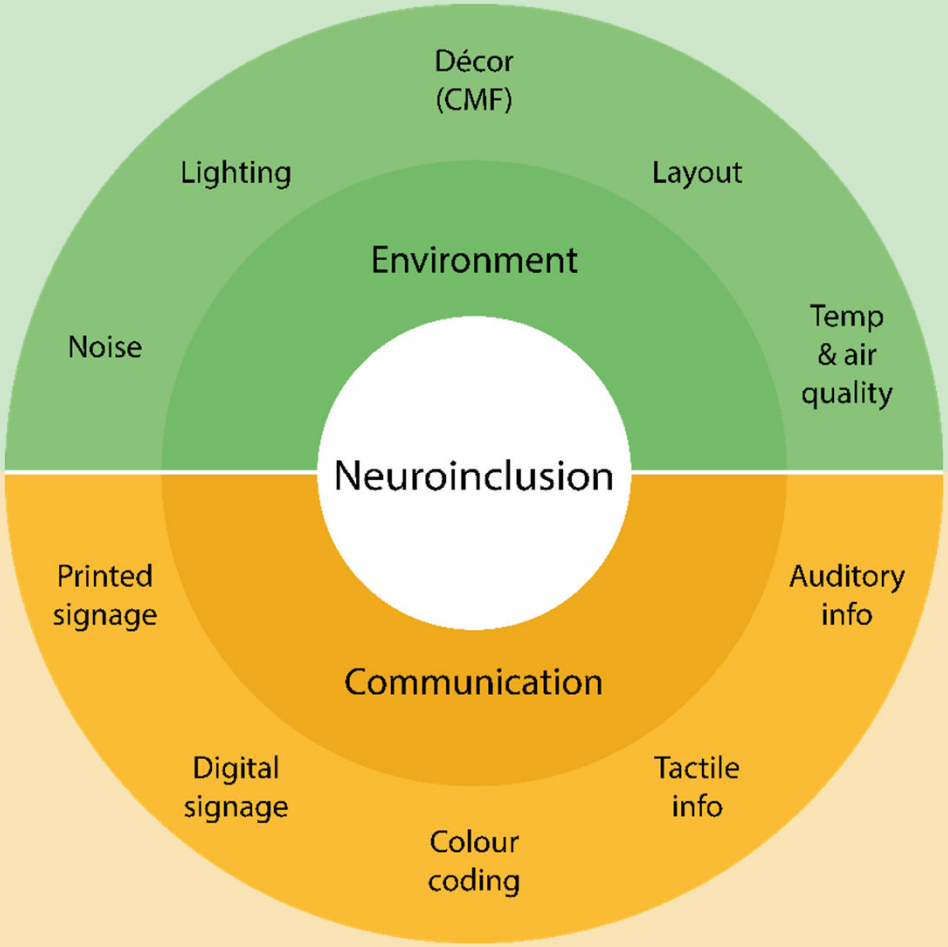
Types of exclusion



DCA

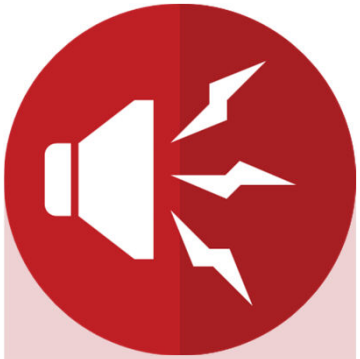
Types of exclusion




Décor
(CMF)
Lighting
Layout
Environment
Noise
Temp
& air
quality
Neuroinclusion
Printed
signage
Auditory
info
Communication
Digital
signage
Tactile
info
Colour
coding

DCA

Environmental considerations

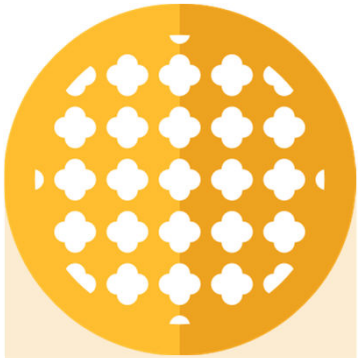


Noise

Eliminate artificial noise
Control for echoes
Include partitions
Create quiet zones

Lighting

Control intensity
2700 - 3000k
Eliminate strobes
Avoid direct light
Avoid shadows
Manage transitions
Include natural light
Include sunblinds



CMF

Avoid vivid colours
Low gloss
Careful use of mirrors
Low visual noise
Avoid harsh textures
Careful use of patterns

Layout

Consistency
Create personal space
Allow for passing places
Luggage on view (anxiety)
Visual balance

Temperature

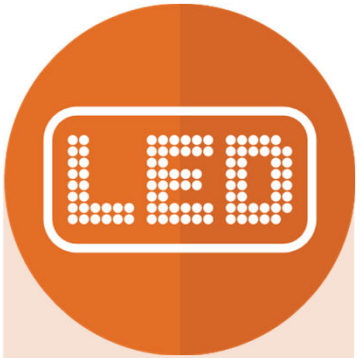
Manage temperature
Manage humidity
Control airflow
Control odours
Low VOC materials

DCA

Communication considerations

Printed signage

Icons where possible
Simple typefaces
Clear info hierarchy
Short sentences
Visual contrast



Digital signage

[+ as printed]
Viewing angles
Refresh rates
Scroll rates

Colour coding

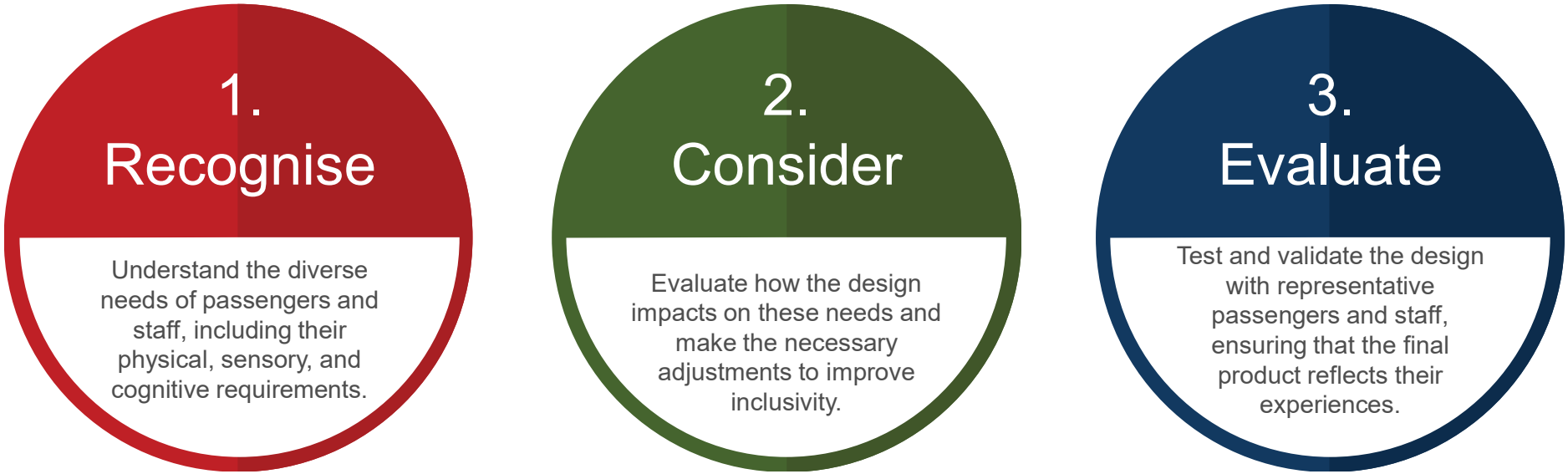
Consistent colours
Zone spaces with colour
Colour code features

Tactile information

Tactile signage
Prioritised usage

Auditory information

Controlled volume
Well timed
Minimise non-critical
Short, clear, consistent
Repeat key messages


1.
Recognise
Understand the diverse needs of passengers and staff, including their physical, sensory, and cognitive requirements.
2.
Consider
Evaluate how the design impacts on these needs and make the necessary adjustments to improve inclusivity.
3.
Evaluate
Test and validate the design with representative passengers and staff, ensuring that the final product reflects their experiences.

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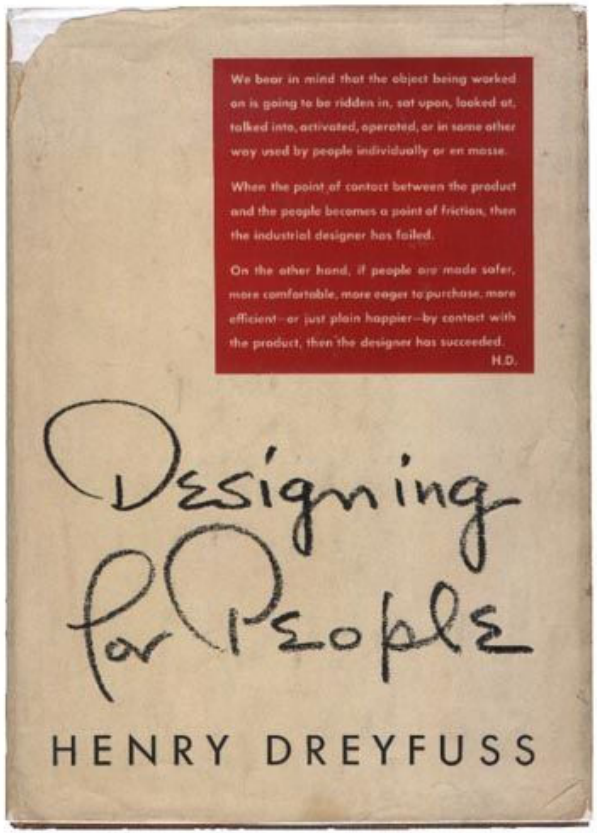
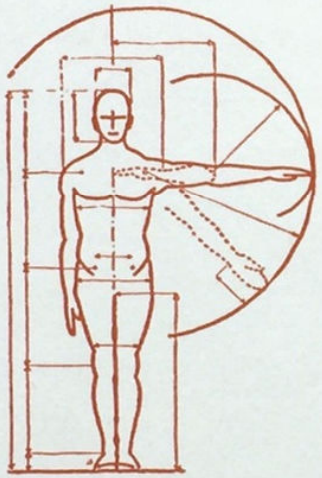
Designing for Diversity
Size & shape
Age
Health & medical conditions
Culture & customs
Language & communication abilities
Education & training
Income & social class
Ethnicity
Gender & sexuality


We bear in mind that the object being worked on is going to be ridden in, sat upon, looked at, talked into, activated, operated, or in some other way used by people individually or en masse.
When the point of contact between the product and the people becomes a point of friction, then the industrial designer has failed.
On the other hand, if people are made safer, more comfortable, more eager to purchase, more efficient—or just plain happier—by contact with the product, then the designer has succeeded.
H.D.
Designing for People
HENRY DREYFUSS

DCA

DESIGNING



Simon and Schuster, New York, 1955

FOR PEOPLE

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by HENRY DREYFUSS

DCA

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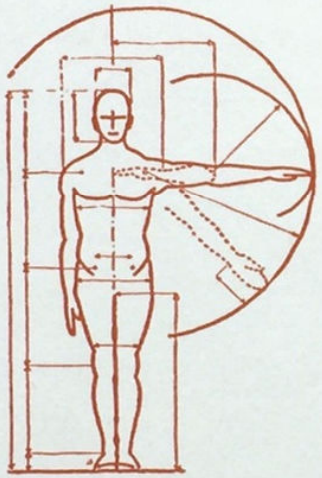

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or service

by HENRY DREYFUSS

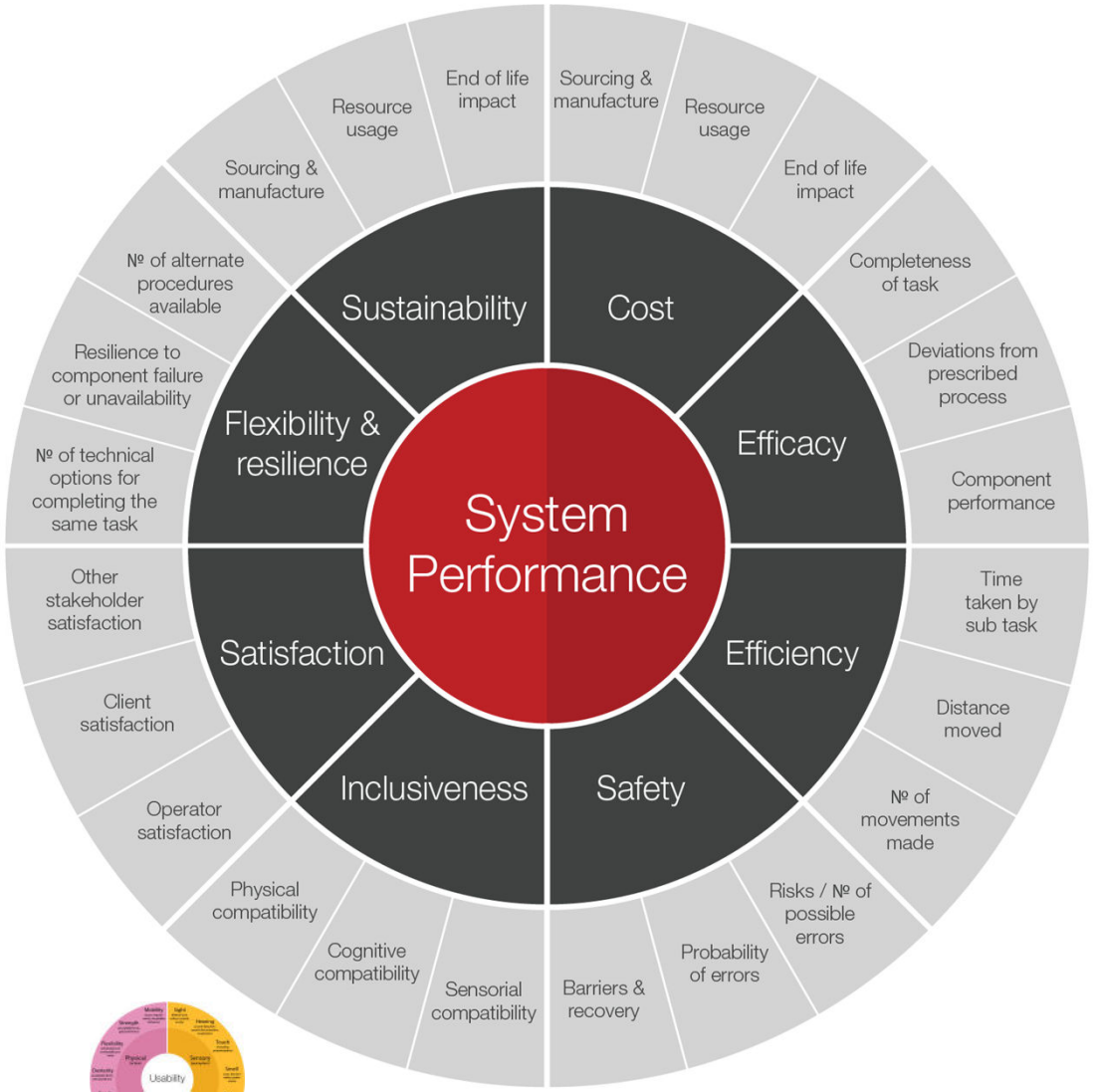
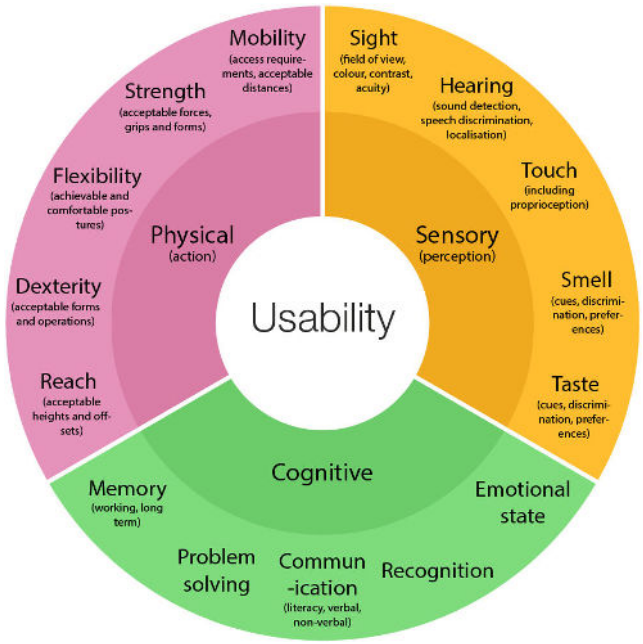


Image credit: DCA


Usability
Physical
(action)
Sensory
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Cognitive
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Emotional state


Designing for Diversity
Size & shape
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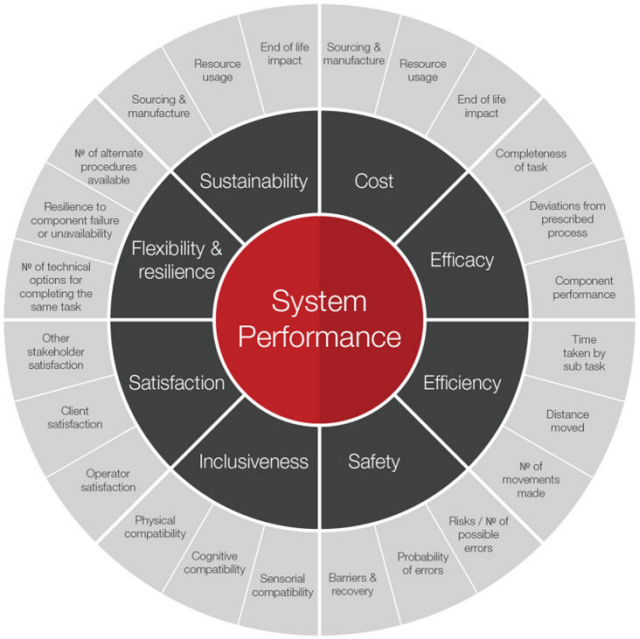
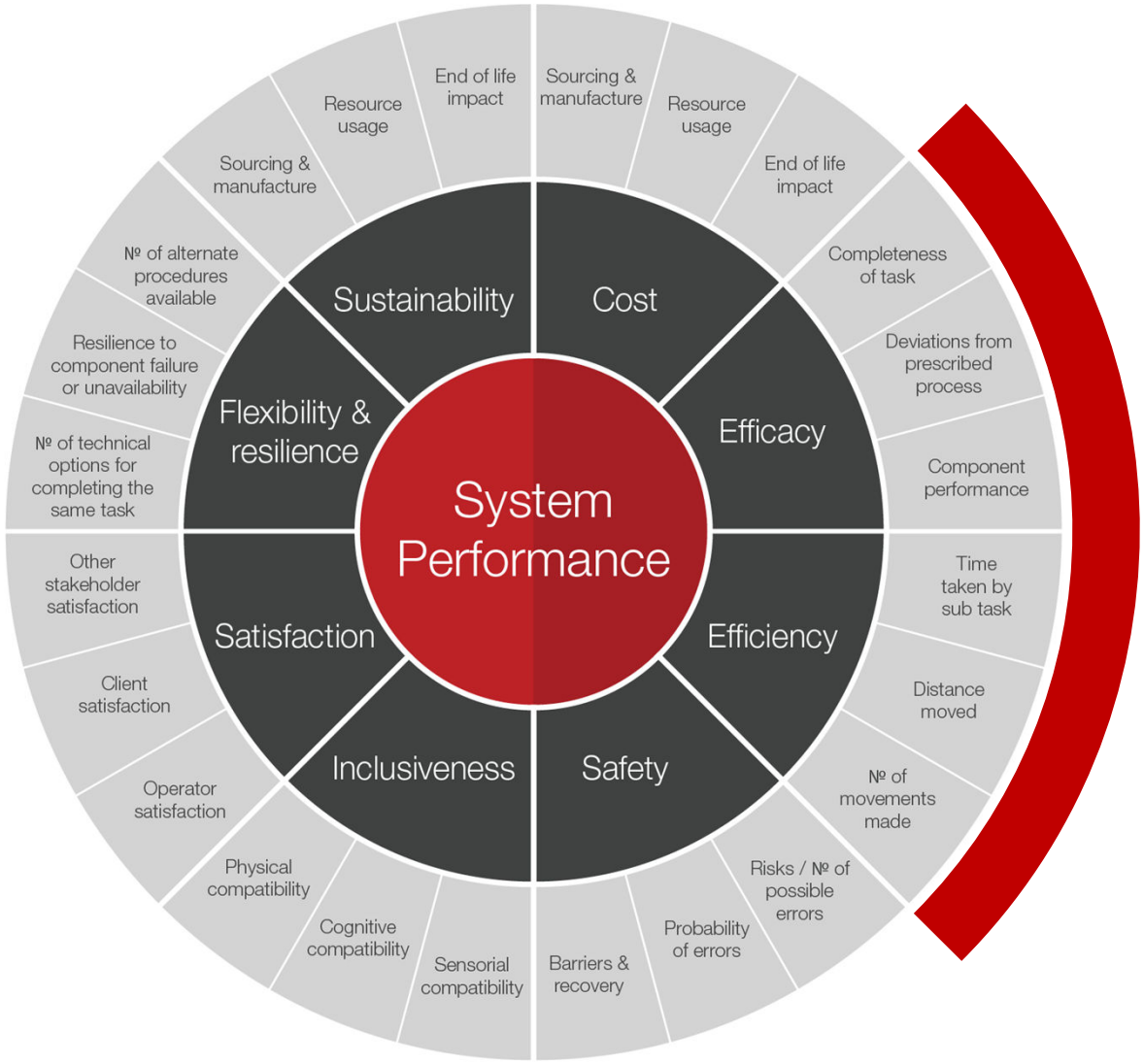
Health & medical conditions
Culture & customs
Language & communication abilities
Education & training
Income & social class
Ethnicity
Gender & sexuality


System Performance
Sustainability
Cost
Efficacy
Efficiency
Safety
Inclusiveness
Satisfaction
Flexibility & resilience
Sourcing & manufacture
Resource usage
End of life impact
Completeness of task
Deviations from prescribed process
Component performance
Time taken by sub task
Distance moved
№ of movements made
Risks / № of possible errors
Probability of errors
Barriers & recovery
Sensorial compatibility
Cognitive compatibility
Physical compatibility
Operator satisfaction
Client satisfaction
Other stakeholder satisfaction
№ of technical options for completing the same task
Resilience to component failure or unavailability
№ of alternate procedures available


DCA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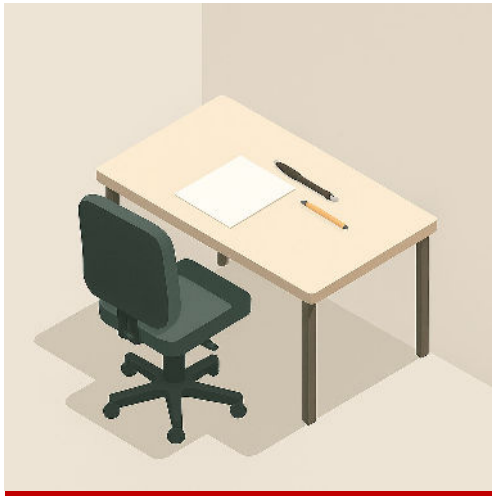
DCA

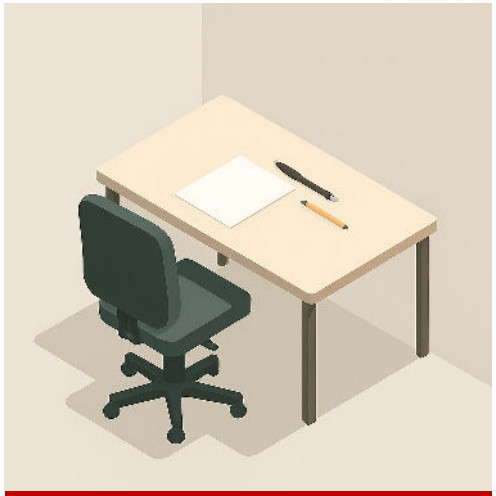
Haslem & Knight (2010)



Lean office
Bare minimum

DCA

Haslem & Knight (2010)



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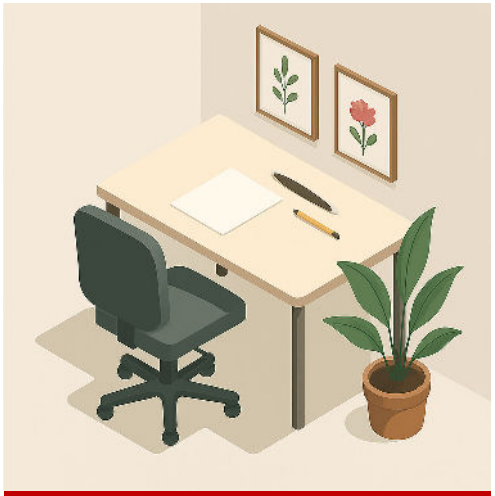
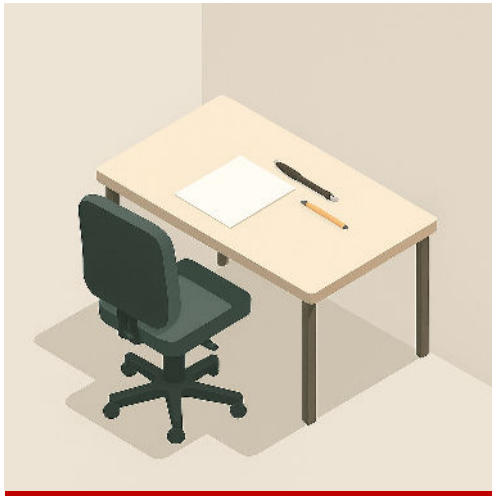


Enriched
Decorated (fixed)

DCA

Haslem & Knight (2010)



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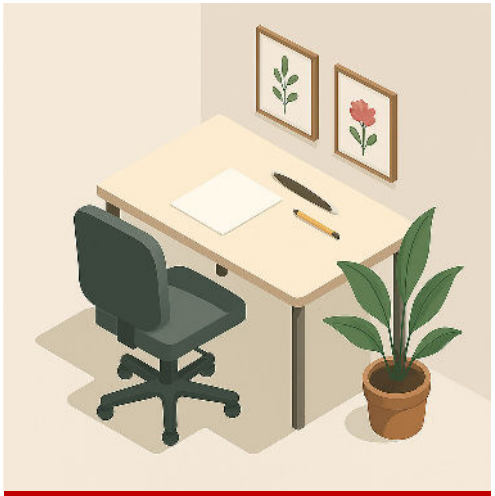
Bare minimum

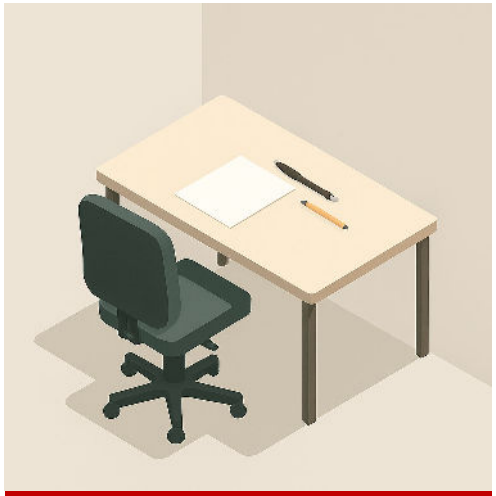


Enriched
Decorated (fixed)

+15%

DCA

Haslem & Knight (2010)



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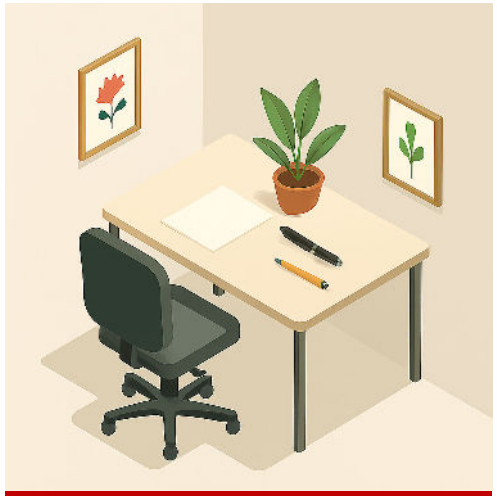
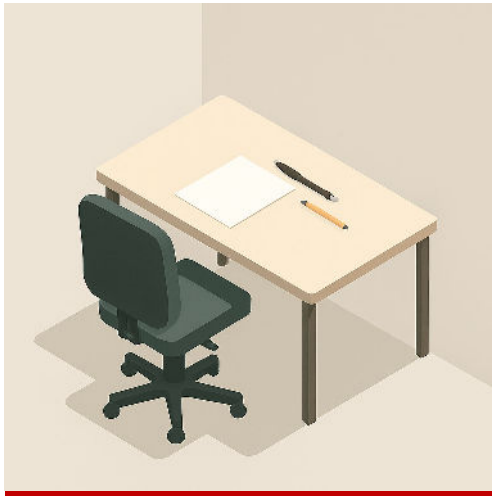


Empowered
Decorated (flex)

+15%

DCA

Haslem & Knight (2010)



Lean office
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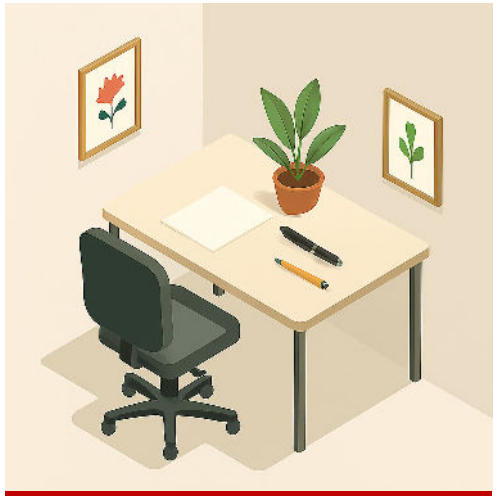
Enriched
Decorated (fixed)

+15%

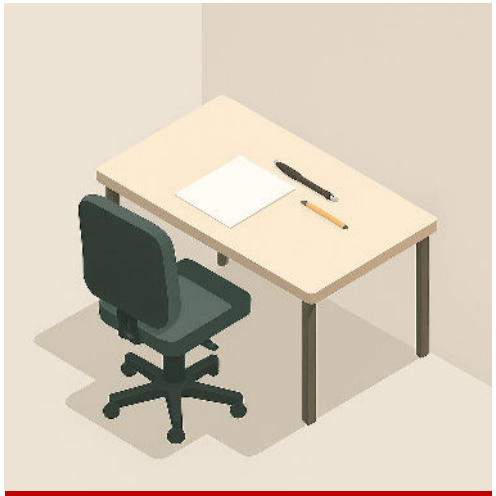


Empowered
Decorated (flex)

+30%

DCA

Haslem & Knight (2010)



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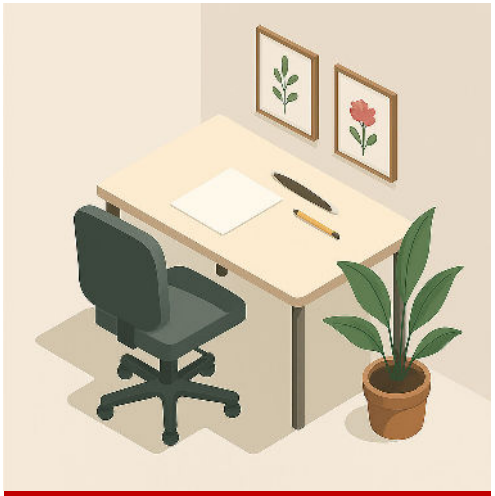
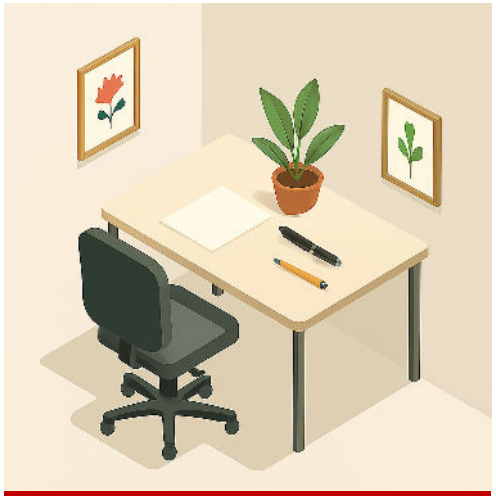


Enriched
Decorated (fixed)

+15%



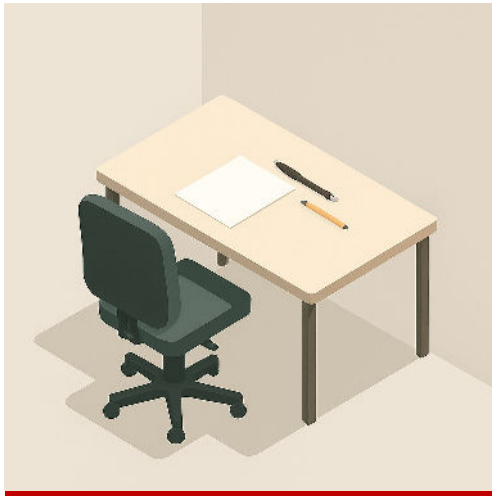
Empowered
Decorated (flex)

+30%

Disempowered
Decorated (flex then fixed)

DCA

Haslem & Knight (2010)



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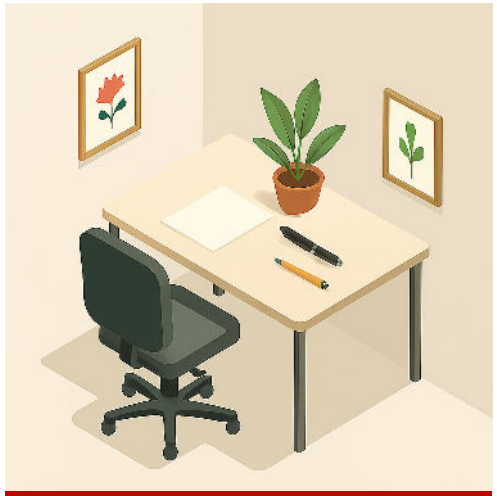


Empowered
Decorated (flex)

+30%

Disempowered
Decorated (flex then fixed)

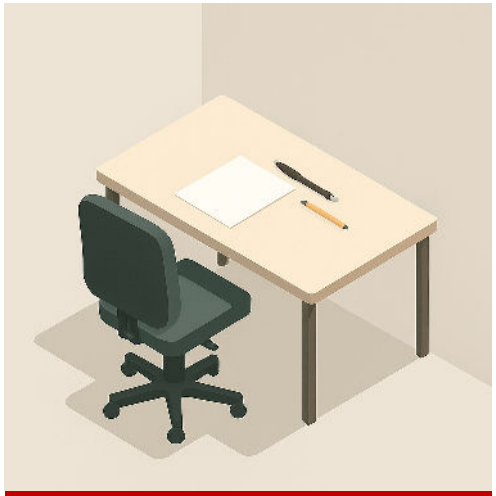
+0%

DCA

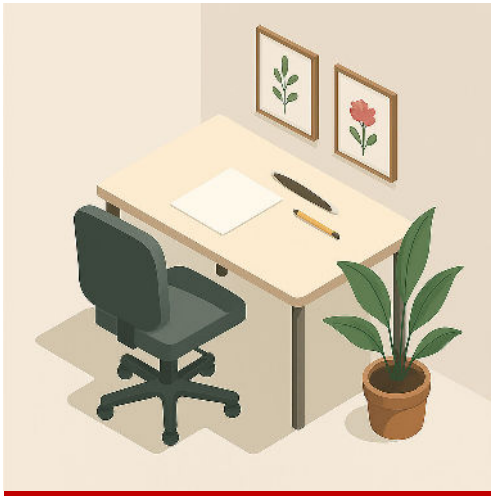

Attract the best talent
Encourage people to spend more time in the office
Get the best performance from our teams

DCA

Haslem & Knight (2010)

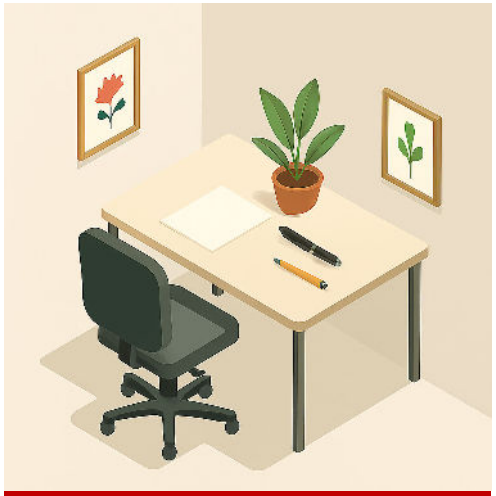


Lean office
Bare minimum



Enriched
Decorated (fixed)

+15%



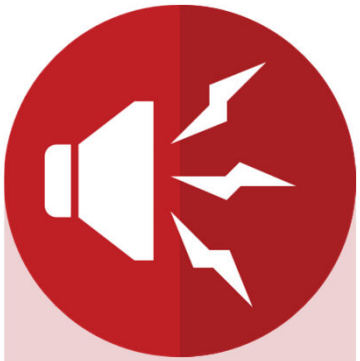
Empowered
Decorated (flex)

+30%

Disempowered
Decorated (flex then fixed)

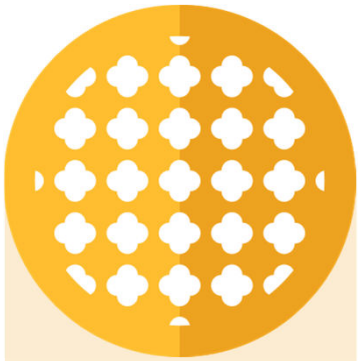
+0%

DCA



Noise

Lighting



CMF

Layout

Temperature

Printed signage

Digital signage

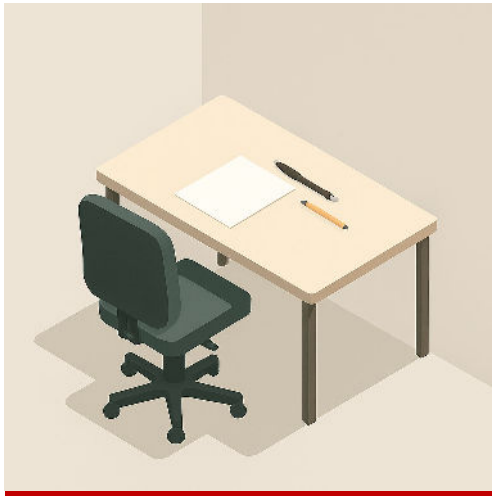
Colour coding

Tactile information

Auditory information

DCA

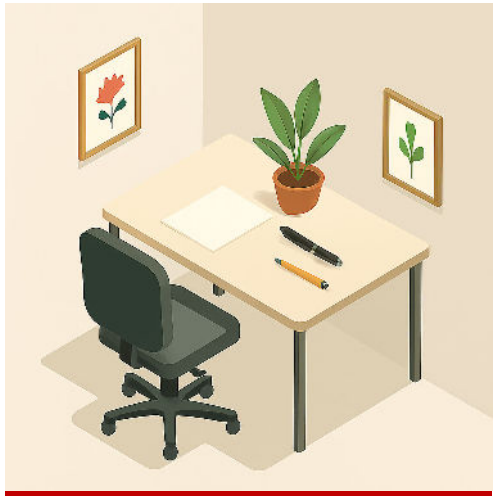
Haslem & Knight (2010)



Lean office
Bare minimum

Enriched
Decorated (fixed)

+15%



Empowered
Decorated (flex)

+30%

Disempowered
Decorated (flex then fixed)

+0%


F I GB USA MEX
ONE SIZE
DOES NOT
FIT ALL
30°C
Von links bügeln/ Iron inside out/
repasser sur l'envers


Designing for Diversity
Size & shape
Age
Health & medical conditions
Culture & customs
Language & communication abilities
Education & training
Income & social class
Ethnicity
Gender & sexuality


DCA

Dr David Mushati
Healios

Unlocking Potential:
The Practical and Strategic Power of Neuroinclusion in the Workplace

Healios
Families feeling better

Unlocking Potential: Neuroinclusion in in the Workplace

Hidden in Plain Sight

- **~15–20% (about 1 in 7) of the UK workforce is neurodivergent**
- Awareness has grown — action lags behind
- That's more than 5 million workers.
- Neurodiversity is already part of your workforce, not a 'special interest group'
- Closing the gap isn't optional - it's essential.

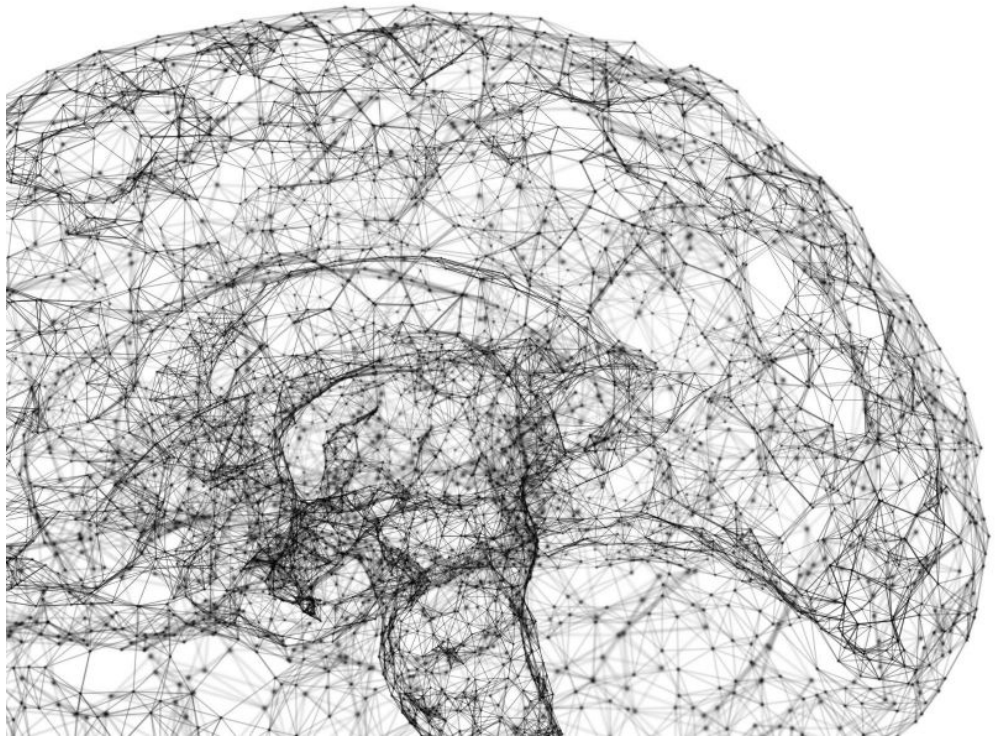
Neurodivergent

20%

The reality shaping today's workforce

The Prize of Inclusion vs The Cost of Inaction

Teams up to 30% more productive.	Lost productivity, untapped talent.
Boosted innovation and creativity	Higher attrition; costly staff turnover.
Competitive advantage: attracts next-gen	Wasted investment without retention.



What do we mean by

- **Neurodivergent:** thinks/learns differently to “typical.”
- **Neurotypical:** aligns with social/educational/working norms.
- **Neurodiversity** = natural human variation, not disorder.
- **Neuroinclusion** = embracing all communication and learning styles.
- Language shift: from deficit to difference to diversity.

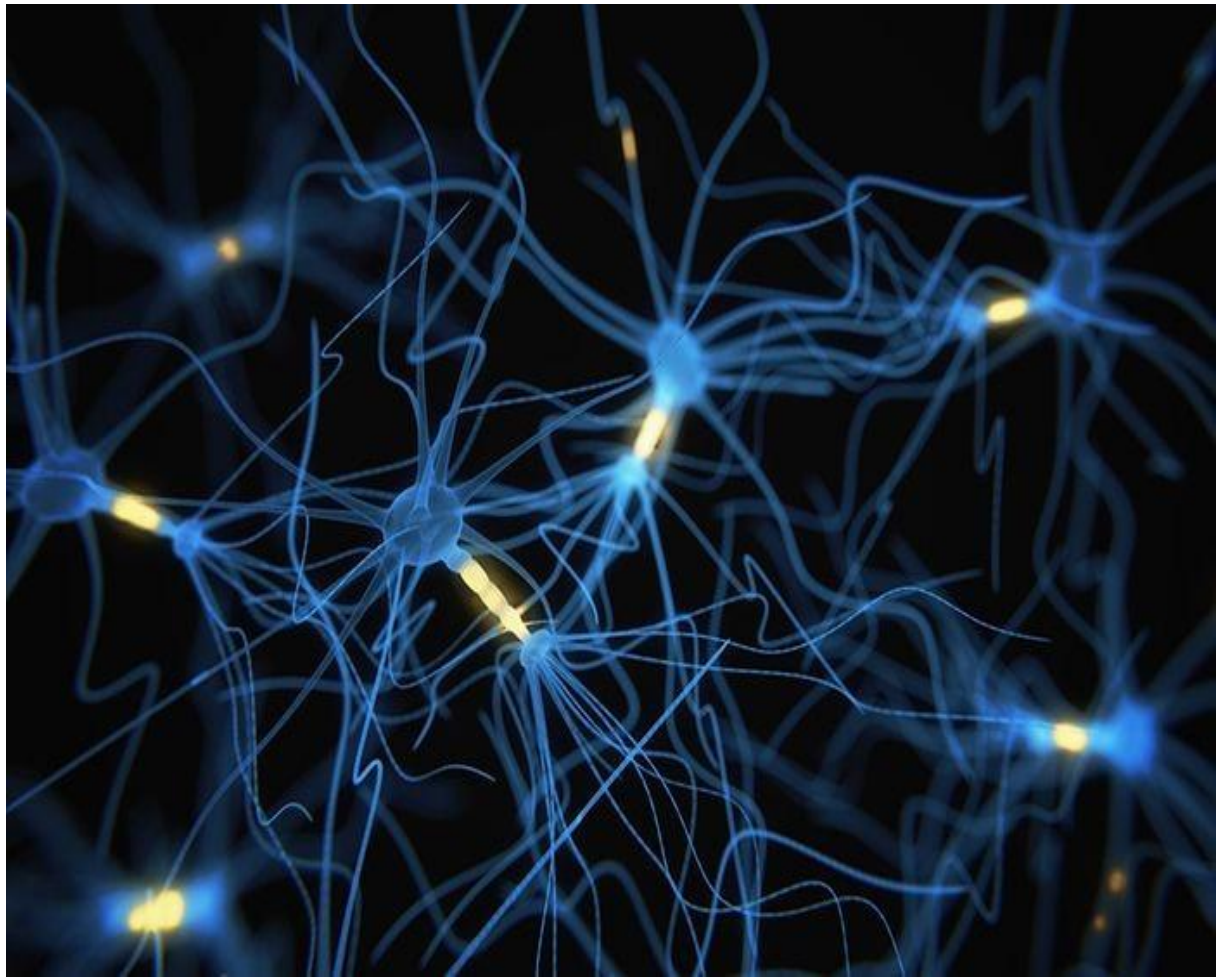
Neuroanatomical Changes

Major Theories:

1. **Maturational Theory:** Structural and functional maturation, particularly in the prefrontal cortex (PFC), enhancing cognitive control and decision-making.

2. **Skill Learning Theory:** Brain changes support the acquisition of new skills, with experience shaping neural connections.

3. **Interactive Specialization Theory:** Development results from dynamic interactions among brain regions, refining networks based on environmental interactions and experiences.



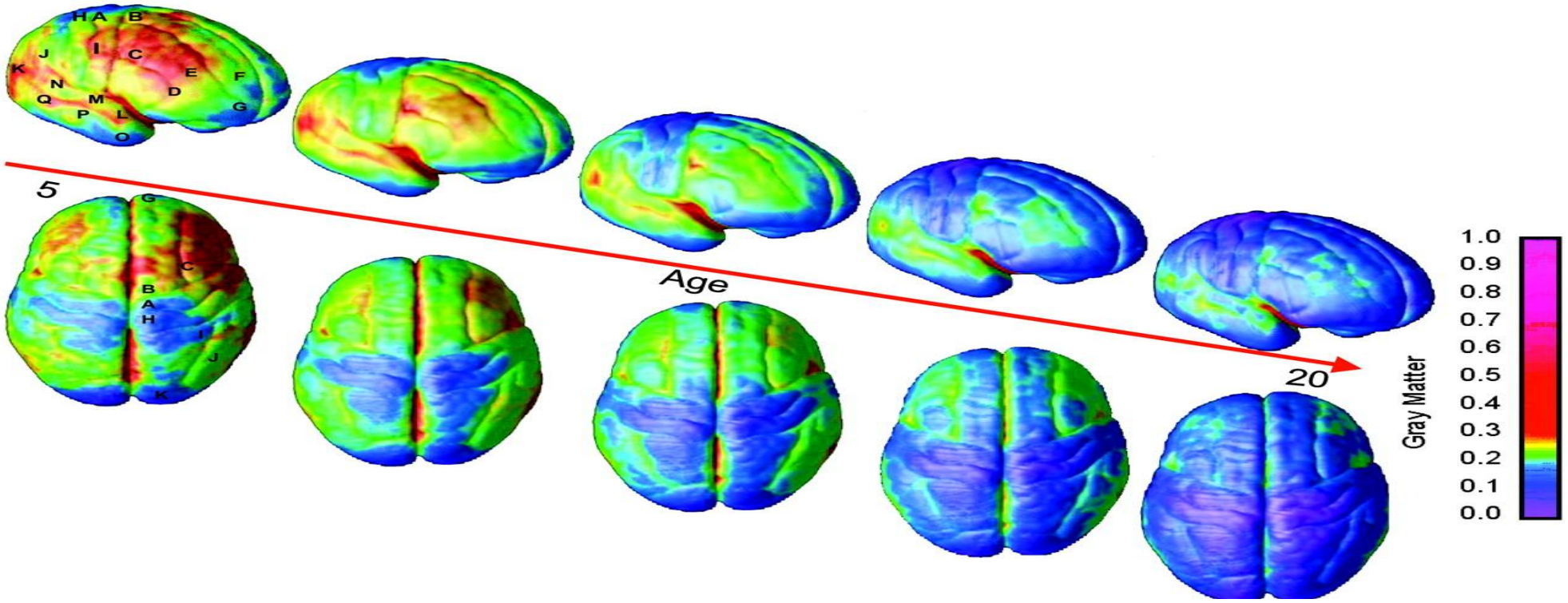
Stages of Synaptic Pruning

Infancy and Early Childhood:

- Peak synapse density in the prefrontal cortex at 1-2 years.
- Essential for sensory, motor, and cognitive development.

Adolescence:

- Second wave of pruning, especially in the prefrontal cortex.
- Critical for developing executive functions and emotional regulation.



Brains Wired Differently, Not Better

Aspect	Atypical Brain Processing
Sensory Input	May process all signals equally, leading to sensory overload or under-responsiveness
Attention	May hyperfocus on one detail or struggle to maintain attention
Language & Communication	May interpret language literally; can miss subtle social cues
Learning Style	May learn better through alternative, highly specific, or visual methods
Problem-Solving	May use unique, creative, or non-linear approaches
Emotional Processing	May feel emotions more intensely or find regulation more difficult
Social Interaction	May experience social norms as confusing, effortful, or draining

The Hidden Tax of Unmet Needs

Cognitive overload

Masking

Exclusion

Wellbeing

Costs of Inaction

- **Attrition:** Replacing a single employee costs £25k–£30k
- **Presenteeism:** Neurodivergent staff masking or struggling in unsuitable environments contribute to lost productivity.
- **Absenteeism:** Stress and burnout linked to unmet needs increase sickness absence. Average cost = £550 per employee per year (ONS, 2023)
- **Underutilisation of skills:** Only 29% of autistic adults are in work (ONS, 2022). Lost GDP contribution is estimated at £1.5bn annually (NAS, 2025)
- **Legal and reputational risk:** Equality Act claims, alongside brand damage and loss of investor trust.
- **Innovation gap:** Teams lacking cognitive diversity miss opportunities and are 30% less likely to develop breakthrough innovations.

Rehiring and retraining

30K

(CIPD, 2023)

Annual Presenteeism/absenteeism

21bn

(Deloitte, 2022)

Discrimination claims per case

100K

(ACAS, 2024)

Value of Inclusion

EY

Neurodiverse Centres of Excellence achieved 92% retention (vs ~84% average), saving £1m+ per year in turnover costs.

Rolls Royce

Inclusive recruitment cut failed hires by 15%, lowering costs by approx. £2,500 per candidate.

Microsoft

Autism Hiring Program delivered 25% faster product testing cycles, reducing time-to-market and saving millions annually.

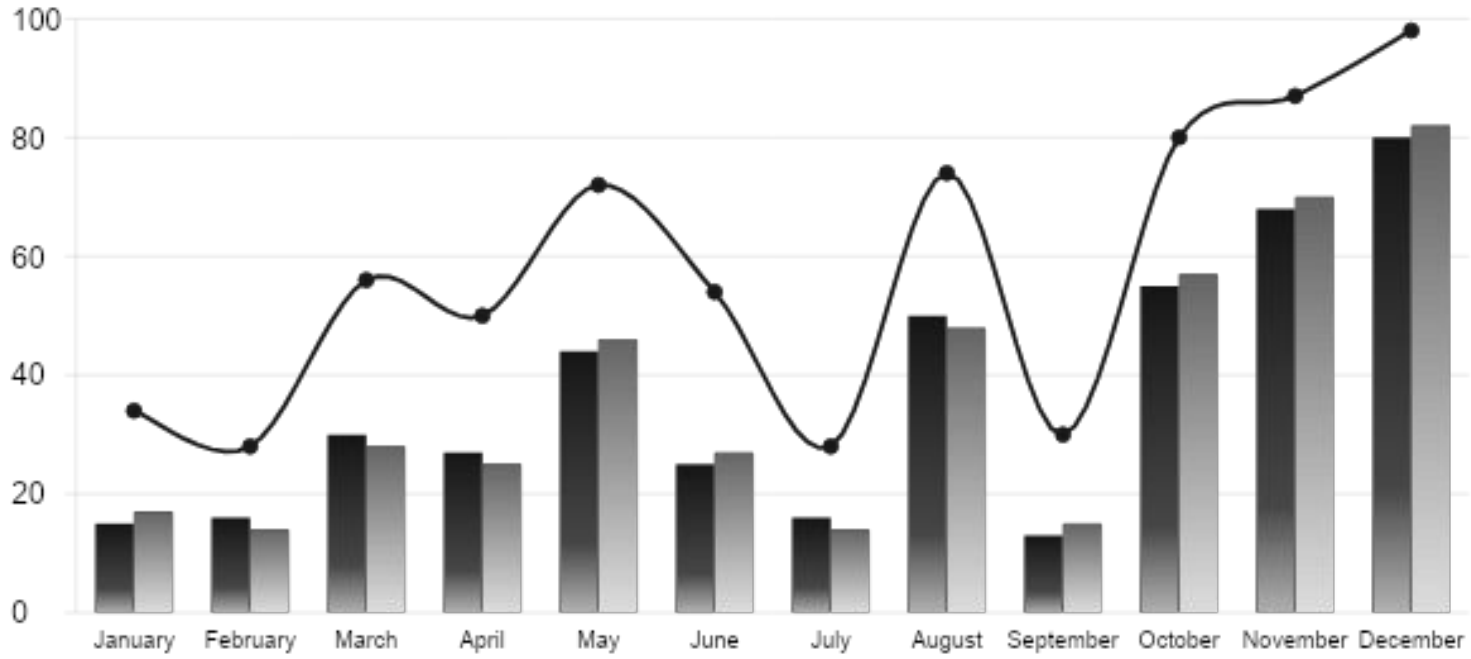
Gallup

Embedding neuroinclusion led to +20% employee engagement, directly linked to +12% profitability.

Case Study: EY

Challenge

High attrition in analytics and tech teams; untapped pool of neurodivergent candidates.



Intervention

Launched Neurodiverse Centre of Excellence (NCoE).

Replaced traditional interviews with skills-based assessments.

Designed sensory-friendly spaces & flexible workstations.

Trained managers in neuroinclusive leadership.

Outcomes

92% retention vs ~84% industry average → savings £2m over 3 years.

30% increase in productivity across certain project teams.

15–20% reduction in analytics project time = Faster innovation cycles

92% retention, higher employee satisfaction → boosted employer brand, making EY more competitive in talent attraction.

Autism – Sensory Sensitivity

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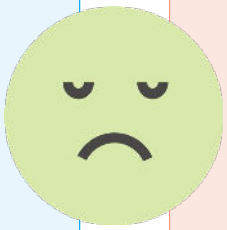
Example scenario	Manager's adjustment offered	Examples of why this is a mismatch:
Amira is an autistic employee working in a busy open-plan office. She often finds the background noise of phone calls, conversations, and typing overwhelming. This leads to headaches, fatigue, and difficulty concentrating.	Amira is given flexible start and finish times, so she can commute at quieter times and avoid the busiest hours in the office.	a. The adjustment helps with commuting, but it doesn't address the core barrier: the noisy working environment itself. b. Amira still struggles to complete focused tasks once in the office. c. Productivity remains low, and Amira becomes frustrated, feeling her needs aren't truly understood.

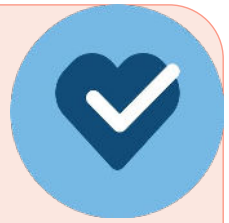


What would you do?

Question

If you were Amira's manager, what alternative or additional adjustment might better meet her actual need?

Possible solutions



Providing noise-cancelling headphones.

Allowing Amira to work in a quieter space or from home part of the week.

Offering sound-dampening screens or panels around her workstation.

Checking in regularly with Amira to review whether the adjustments are working.

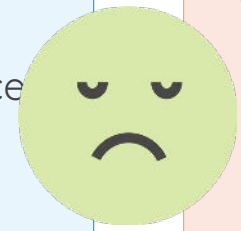
James: ADHD – Executive Functioning

Example scenario

James is a project coordinator with ADHD. He struggles with managing long, unstructured tasks and meeting deadlines.

Manager's adjustment offered

James is given more unstructured time off to reduce pressure.



Examples of why this is a mismatch:

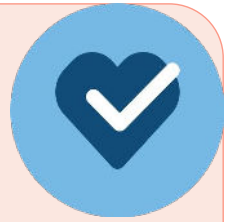
a. The extra time doesn't address the executive functioning challenges. In fact, fewer boundaries may increase procrastination and stress.

What would you do?

Question

What support would be better aligned with James's needs?

Possible solutions



Breaking large tasks into smaller steps with check-ins.

Shared task-tracking tools (e.g. Trello, Asana).

A mentor or "accountability partner" for regular progress reviews.

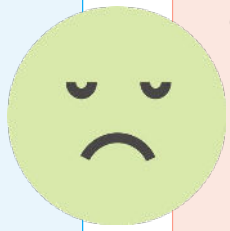
Sophie: Dyslexia – Written Communication

Example scenario

Sophie has dyslexia and finds written reports and lengthy emails draining, often missing details under time pressure.

Manager's adjustment offered

Sophie is told she can use software to catch mistakes.



Examples of why this is a mismatch

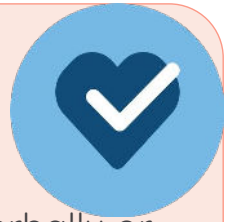
a. Software only helps with surface issues. It doesn't address reading speed, information overload, or processing challenges.

What would you do?

Question

What other adjustments might help Sophie succeed?

Possible solutions



Providing key information verbally or in bullet-point summaries.

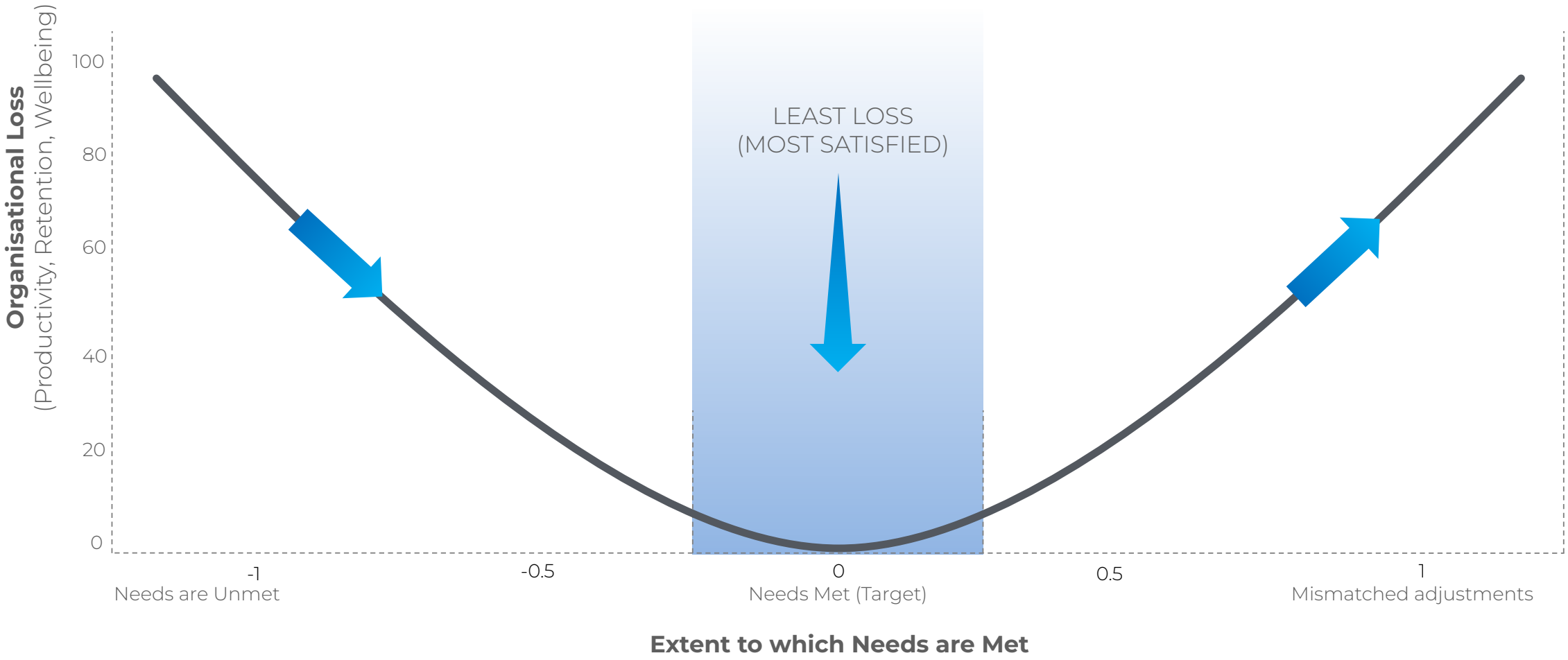
Using text-to-speech software for reading long documents.

Allowing extra time for report preparation.

Assigning collaborative work where information can be discussed rather than only written.

Why Getting it Right Matters

Meeting neurodiverse needs is not just a compliance issue



One size does not fit all

39% of neurodivergent professionals plan to leave their jobs within 12 months, and poor workplace relations (74%) is cited as a major driver of their intention to leave

EY Global Neuroinclusion at Work Study, 2025

Practical Action

A. Recruitment & Hiring

- Job ads: plain English, avoid jargon, list essentials only
- Offer multiple application routes (CV, work trials, portfolios)
- Adjust assessment processes (skills-based, not timed memory tests)
- Interview practices: share questions in advance, allow breaks

Practical Action

B. Workplace Design & Flexibility

- Environmental adjustments: lighting, noise, quiet spaces
- Hybrid/flexible hours to match focus and energy cycles
- Clear signage & structured layouts to reduce cognitive load
- Remote tools: chat captions, agenda-first meetings

Image source: Hushoffice (hushoffice.com)

Practical Action

C. Tools & Technology

- Assistive software: text-to-speech, dictation, screen readers
- Collaboration platforms with captions & transcripts
- Project tools with clear visual workflows
- AI-enabled customisation: adaptable interfaces, predictive support

Practical Action

D. Management Practices

- Play to strengths: align roles with individual skills
- Clarity: explicit goals, step-by-step workflows, written follow-up
- Feedback: frequent, specific, supportive
- Autonomy: flexible ways of working to reach agreed outcomes

Practical Action

E. Training & Culture

- Neurodiversity awareness for leaders, managers, teams
- Peer support/Employee Resource Groups (ERGs)
- Disclosure-safe practices — confidentiality & choice
- Shift from “fixing people” to “fixing systems”

References on request

Thank you!

Important information
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