



# Exposure science: some Human Capital insights

October 25, 2023



# Some Human Capital Challenges in the field of Exposure Science ...

## Today's key questions of focus ...



How to foster **skills and competences**?

- *How to move beyond technical skills / jobs and traditional learning curricula?*
- *How to embed ecosystem thinking and worker agency in the ways of working?*



How to establish an **identity** for exposure scientist?

- *What should be the DNA of exposure science?*
- *How to embed values & beliefs?*

# Introducing the 3W's of sustainability



# We developed a blueprint for green workforce transformation



## What do we mean with “green skill”?

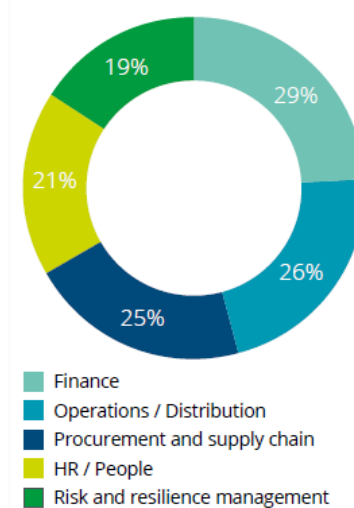
A broad umbrella term to refer to the **technical skills, knowledge, behaviours, and capabilities** required to directly and indirectly tackle the environmental challenges we face and unlock new opportunities for growth



# In the green economy, all jobs will require some level of green skills

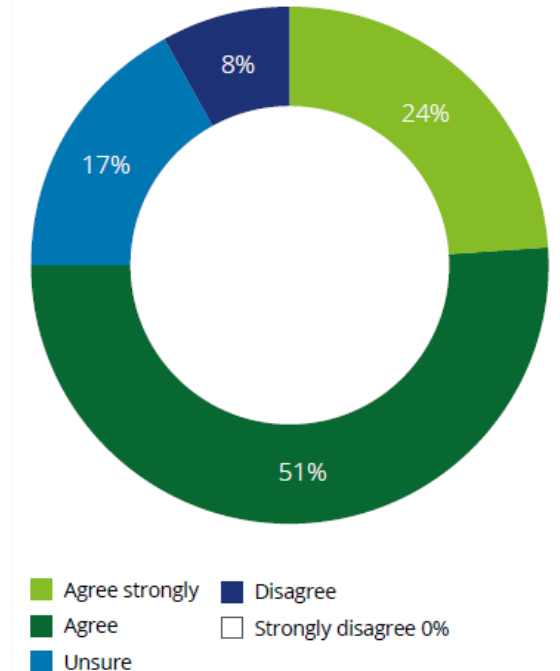
- The biggest changes will be triggered for non-expert functions
- Currently, feedback suggests that green skills are largely confined to specific functions and teams within organisations
- There are green skills gaps identified in finance, operations and procurement teams, and most sustainability professionals agree that all jobs will require green skills
- Sustainability teams will need to support the transition of all roles as they seek to develop green skills and capabilities across the whole organisation

Figure 4. Types of roles where green skills gaps are currently most prevalent<sup>24</sup> [% of survey respondents that selected the indicated role type in their top 3]



Source: IEMA stakeholder survey, November 2021

Figure 3. Percentage of respondents stating that by 2050, all jobs will require green/sustainability skills<sup>23</sup>



Source: IEMA stakeholder survey, November 2021

With 80 percent of the 2030 workforce already in the workforce today, reskilling the existing workforce will be the major challenge between now and 2030.

# Considering how to unlock value in every function

The blueprint of a model organisation takes 12 typical job families and maps the potential green skills needed for each one



HR/PEOPLE

Workforce planning, management, recruitment and development.

Key:

▲ Current state ■ Transition to 2030 ● Final state by 2050

HR/people

Core competencies:	Leadership, change management, strategic planning, coaching, training.			
Key external drivers for the change:	<div><div>• Diversity and inclusion.</div><div>• Purpose and value led organisations.</div></div> <div><div>• AI, automation, robotics and blockchain.</div><div>• Aging workforce and pensions.</div></div>			
Green skills:	<div>Knowledge</div>	<div>Technical skills</div>	<div>Behaviours</div>	<div>Competencies</div>
Leadership	<div><div>• Aware of trends towards purpose driven roles to attract and retain staff.</div></div>	<div><div>• Builds incentive structures, talent reviews and development that are aligned to sustainability strategy.</div></div>	<div><div>• Creates a culture of organisational and individual learning of green skills tailored to jobs.</div></div>	<div><div>• Builds future capability in green skills and jobs.</div><div>• Change management that brings the workforce on the sustainable journey.</div></div>
Management	<div><div>• Aware of green skills needs in all roles across the organisation.</div></div>	<div><div>• Develops unbiased recruitment practices to encourage diversity.</div><div>• Delivers training for core green skills.</div></div>	<div><div>• Coaches and mentors employees through greener sustainability careers.</div></div>	<div><div>• Attracts and retains employees in roles that deliver social value.</div></div>
Operational	<div><div>• Awareness of staff motivations and their understanding of climate change.</div></div>	<div><div>• Writes job roles, competency frameworks and learning pathways that incorporate green skills.</div></div>	<div><div>• Champions organisational sustainability initiatives to create a purpose driven organisation.</div></div>	<div><div>• Follows sustainable recruitment processes, minimising impact.</div></div>
States:	<div>Low —▲—■—●— High</div>	<div>Low —▲—■—●— High</div>	<div>Low —▲—■—●— High</div>	<div>Low —▲—■—●— High</div>
Variance by sector:	<div>Development of people and their green skills will be crucial in realising a Green Economy by 2050. HR leaders will need to undertake <b>training needs analysis</b> across job families to understand the specific organisational requirements. These will vary significantly, with some able to <b>leverage existing sustainability knowledge</b> (e.g. DEFRA) while others may need a more concerted green knowledge and skills boost.</div>			<div>Experience:<div>Low —▲—■—●— High</div></div>

# How the critical skills vary depending on the setting

Today we see primarily a focus on Technical skills for exposure scientists, where Human and Behavioral skills are not necessarily considered



Technical skills

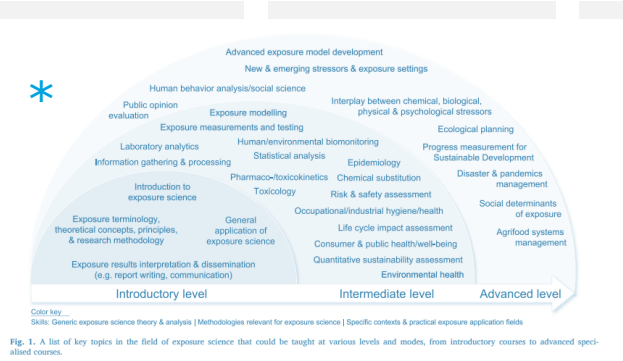
Academic

Exposure scientist role

Regulatory

BU stakeholders

Societal

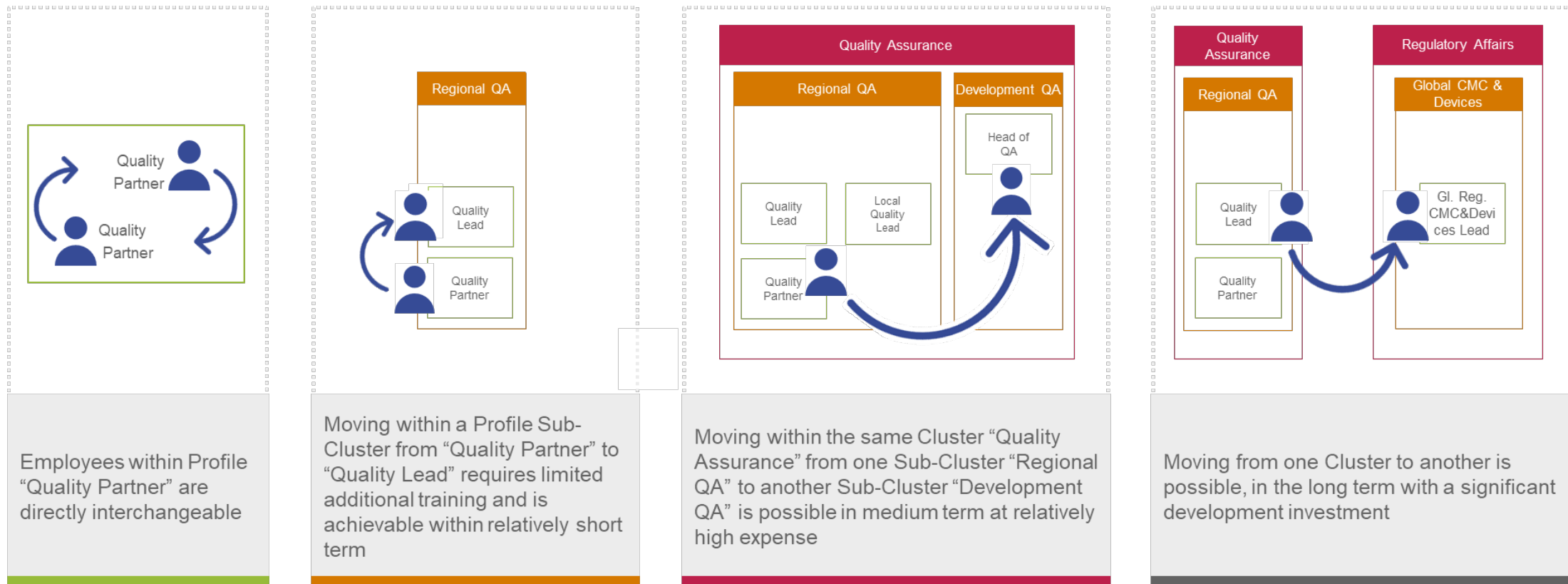


HUMAN SKILLS -Inner development goals	
<b>1 Being</b> "Relationship to self"	<ul style="list-style-type: none"><li>• Self awareness</li><li>• Learning mindset</li><li>• ...</li></ul>
<b>2 Thinking</b> "Cognitive skills"	<ul style="list-style-type: none"><li>• Critical thinking</li><li>• Complexity awareness</li><li>• Long term visioning</li><li>• ...</li></ul>
<b>3 Relating</b> "Caring for others"	<ul style="list-style-type: none"><li>• Connecting</li><li>• Inclusive mindset</li><li>• ...</li></ul>
<b>4 Collaborating</b> "Social skills"	<ul style="list-style-type: none"><li>• Communicating skills</li><li>• Co-creating skills</li><li>• Mobilization skills</li><li>• ...</li></ul>
<b>5 Acting</b> "Driving Change"	<ul style="list-style-type: none"><li>• Creativity</li><li>• Perseverance</li><li>• ...</li></ul>

Human skills

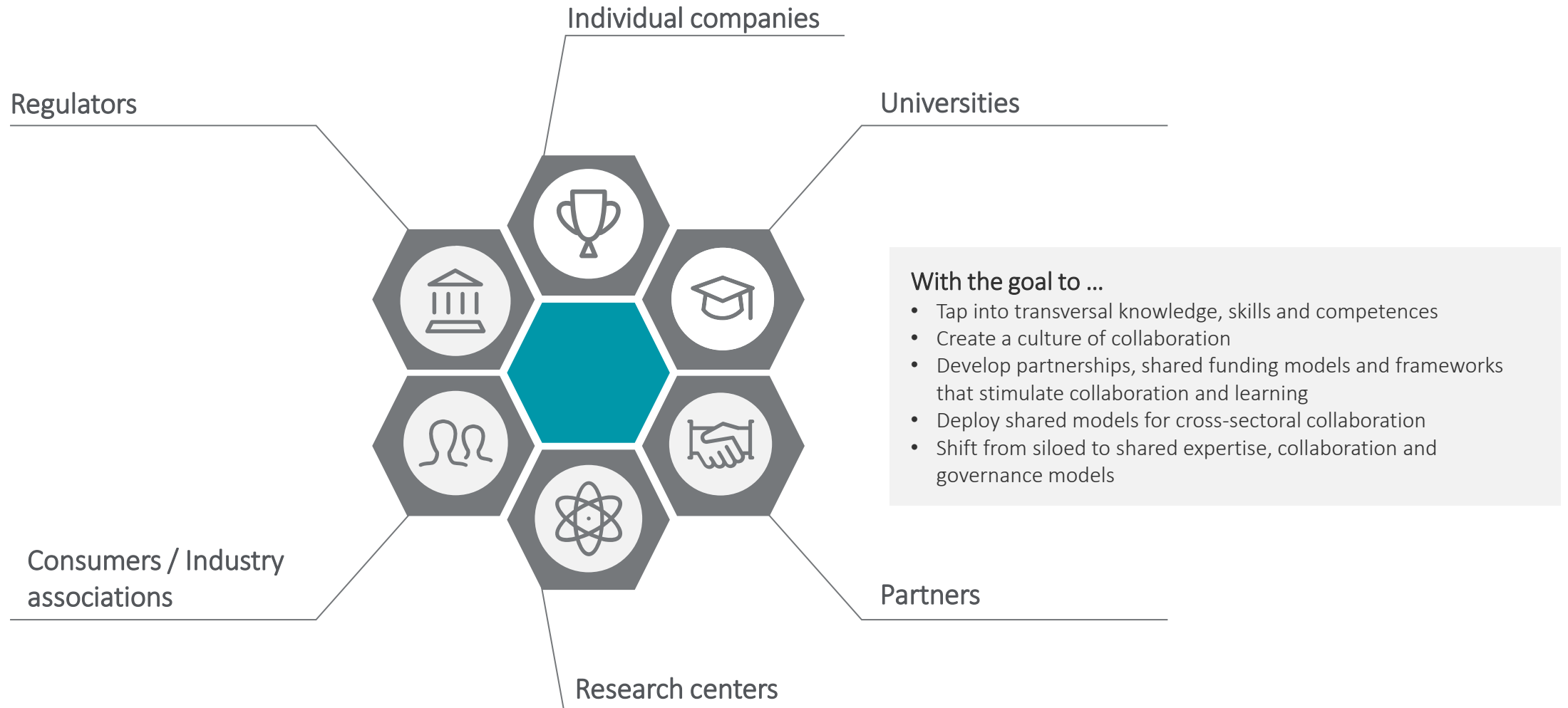
# A prominent approach to workforce segmentation (based on interchangeability)

With 80 percent of the 2030 workforce already in the workforce today, *success will lie in upskilling people and doing so in the most efficient way possible.*





# Ecosystem approach towards developing skills



# Transforming towards a skills-based approach will require a new mindset and behavior among the workforce



# ... and it is linked to creating an identity, a particular culture

It all starts with your *why*.



The model we use ...



... the questions it triggers for the field of Exposure Science

## Why? The narrative

- Why do we exist?
- What is our story?

## Who? The ecosystem

- Who from our ecosystem player(s) needs to know?
- Who will drive the shift within our field?

## What? The behaviors

- What is the value that we bring?
- What kind of behaviors will enable the desired culture?

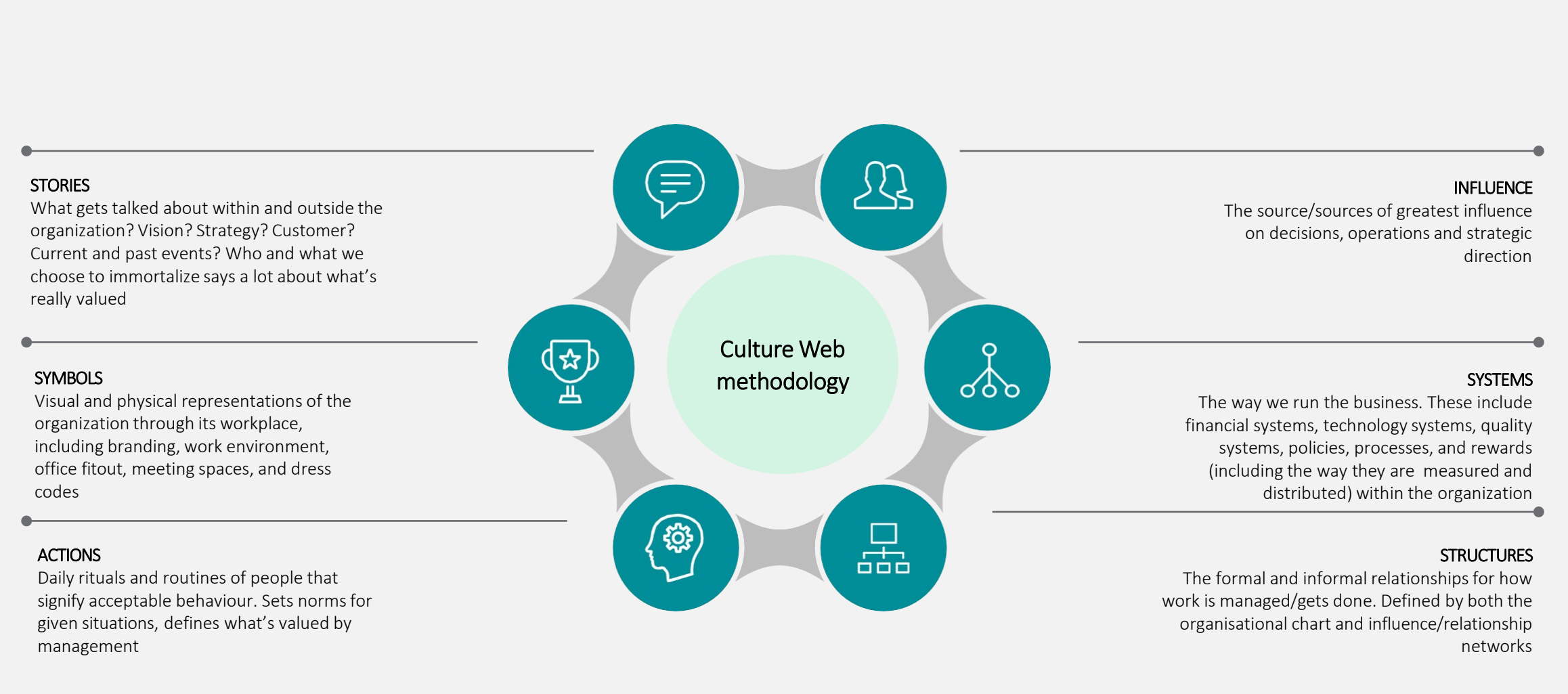
## When? The moments that matter

- When will we need to live these behaviors?
- What are critical moments that matter that we need to consider?

## How? The moves to make the shift

- How do we do that?
- What activities are needed to bridge the gap between the current and the future state?

# What are the individual ingredients of an organizational culture, what is its specific DNA?



For more information,  
feel free to reach out!



**Nathalie Dom, Phd**  
Senior Manager,  
Human Capital  
[ndom@deloitte.com](mailto:ndom@deloitte.com)