



The Evolving Workplace, how sustainable is yours?



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An introduction

- 25+ years in Tech industry
- Partner & Senior Advisor in Strategy & Transformation Consulting
- Non-Executive Director for Digital Isle of Man Board setting strategic direction for the Isle of Man's digital industry
- Public speaker. Storyteller. Woman in tech. Promoter of STEM to young people/girls
- Extensive knowledge of today's tech industry and innovations enabling digital transformation
- Primary focus is on digital business transformation & realizing sustainability through technical innovation
- Canadian born, lived and worked internationally for/with organizations of all sizes globally

Transformation Consulting

• Come from Siemens Energy as a Global Head of IT





STRATEGY







Tral Digital TRANSFORMATION



BOLD





HTP Leaders' Circle Event - 02.02.2023



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Today's evolving workplace

changinglabourpolicies crossgenerationalworkers digitalskills futuresupplychaindemands attract&retainemployees quietquitting changefatigue newskillsneeded Sustainability upskilling digitalnomads climatechange sdgglobalstandards Climatechange sdgglobalstandards Globaltaltechange geopolitics chrogrowth covid19 digitaltransformation greatresignation newwaysofworking diversity&inclusion engagedworkforce growingempolyeepower economicheadwinds internalmobility

Sustainability & Climate Change

A race against time





Paris Agreement of 1.5% temperature increase target is unlikely to be met



Global carbon budget of 440Gt EVER will be incurred in estimated 11-15 years at current rate



Cannot address climate change at speed and scale needed without developing workforce

Sustainability & Climate Change



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Sustainability & Climate Change The skills gap

The impact and changing needs of business

The categories that are directly impacted -

- Specialized Sustainability positions
- Broader roles encompassing sustainability knowledge

Skill requirements fall into three categories -

- Deep & specialized (carbon accounting, carbon removal, ecoservices evaluation, science based)
- Broader teams need limited but sometimes deep knowledge in specific areas (ie procurement & supply chain, management teams, business units)
- Basic & broader fluency in sustainability across wide variety of operations, processes & many employees

Ultimately, sustainable transformation will need combinations of specialized skills and varying degrees of multi-disciple skills.

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Green skills are essential to the transition towards a green economy, with the ILO estimating 24 million net new jobs worldwide could be created by the green economy by 2030. (ILO - Intl Labour Org)

Sustainability & Climate Change

Business concerns grow

Sustainability gap is of increasing concern to business leaders

- Enormity & urgency of climate crisis overall
- Growing expectations on businesses to progress on Net Zero targets
- In next 24 months most countries will require standard reporting (no greenwashing)
- Poor/incorrect reporting can impact investment/public image
- Economic turbulence adding pressure businesses may not have/be willing to fund new initiatives
- Most businesses are not equipped with skilled personnel, business processes & data systems needed for this
- Gap between workforce requirements & qualified people is growing (LI Green jobs growth @ 8%, talent pool by 6% with increasing demands)
- Most companies are doing 'home grown' talent (68%)
- Limited by lack of global standards to correlating needed skills

Sustainability & Climate Change

Moving forward

Progress is needed in three areas



Global collective understanding regarding jobs, sustainability knowledge & skills needed

- Need common framework based on inputs from international organizations, government, private industries & academia
- Define skills & competencies needed now, and as the jobs evolve
- Use better data to create a shared understanding

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Employers must act now to upskills their workforce

Partnering with learning organizations, development programs for employees...



Prepare next generation for future sustainability jobs

Bring into standards curriculum in schools

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In the history of civilization, few generations have needed to do as much in as little time as we must do now. At its most fundamental level, this is the single greatest challenge & opportunity of our time.

Like the space age and digital era, the world's sustainability transformation calls not only for a new generation of technology but a new generation of knowledge and skills.

Brad Smith, Vice Chair & President, Microsoft



Unsustainable Talent Shortage

The Challenges

Build a workforce based on sustainability

- Current gap in skills, organizational structure and talent pipeline are biggest obstacles to overcome.
- As of Oct 2022, 3900+ companies have pledged to lowering GHG, with more than a third of world's largest public companies have net zero targets.
- Progress not being made quickly enough, and time is running out.
- Lack of trained workforce and strategies/resources to develop sustainability skills & expertise a major barrier.
- Some initiatives such as European Skills Agenda starting to develop core green skills agendas but global standards/accreditations limited.
- UN has recently announced free core sustainability courses.
- Need combined initiatives across government, business, NGOs, & academia

Unsustainable Talent Shortage

The Challenges

Millions of workers are needed

- Of the nearly 200 UN member states to party to the Paris agreement, less than 40% include any plans for skills training, and over 20% do not have anything planned
- Organizations must make their operations & business models more sustainable across multiple workstreams
- At heart will be workers who design, drive & track progress towards goals
- New opportunities in carbon accounting, lifecycle analysis, ecosystem evaluation & management, transformational system design, renewable resource procurement, supply chain sustainability expertise will be in highest demand

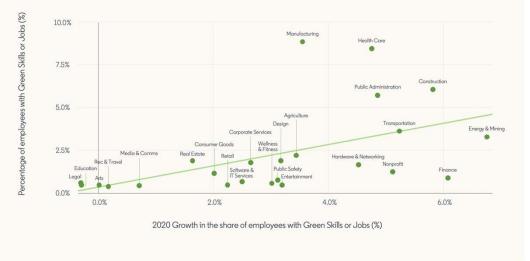
A global workforce that spans economic sectors & geographies with right skills, knowledge and capabilities to develop, implement, scale and evaluate new tools, tech & processes needed.

Unsustainable Talent Shortage

Challenges Summarized

- The sustainability journey will be driven by talent/employees
- Need multidisciplinary workers with specialized sustainability skills
- Sustainability science needs to be embedded into day-to-day operations
- All (or almost) workers need basic sustainability fluency
- Current sustainability skilling models do not scale to demand & urgency
- Most industries are being impacted

Green skills growing across most industries



How far along would you rate your organization's Sustainability program?



We have other priorities and haven't thought about it yet

We have other priorities but are starting to think about it







We are already doing triple line reporting to stakeholders

Overall considerations

- Urgency to upskilling/reskilling
- Required skills are quickly & constantly evolving
- Responsibilities can vary in industry & sector but generally need multi discipline skill sets
- Digital skills increasingly important as part of new roles (data analytics etc)
- Most of today's sustainability managers come from prior positions that were not sustainability based and/or 'home grown'

Overall workforce skills profile

Empowering a workforce to support the transformation to sustainability



Source: 2022 BCG/Microsoft Sustainability Talent and Skills Survey

System thinking

The ability to approach any problem or opportunity as part of a larger whole, which is more than the sum of its parts. Systems thinkers recognize that understanding interconnections, stocks and flows, and positive and negative feedbacks are critical for managing and finding opportunities in complexity.

Futures thinking

The ability to view the future as not being fixed, and while it cannot be perfectly predicted it can be shaped. Envisioning the possible and the unimaginable and charting the path to where you want to be.

Circular thinking

A mindset to eliminate waste and pollution, circulate products and materials, and regenerate nature.

Design thinking

The ability to use creativity to foster collaboration and solve problems in human-centered ways. Design thinkers remain open and curious, assume nothing, and see ambiguity as an opportunity.

Sustainability science

The field of science that focuses on understanding earth, biophysical and social systems as they relate to achieving sustainable development. This includes earth systems science, carbon management, environment and equity, behavioral change, climate vulnerability and resilience, hydrology, environmental forecasting, ecosystem accounting and evaluation.

Digital skills

The skills needed to use digital devices, communication applications, and networks to access and manage information. These including skills such as data management, computer programming, data science, and digital literacy.

Transdisciplinarity

The ability to work across disciplines, sectors, and stakeholders to collaboratively design and implement solutions.

Change management

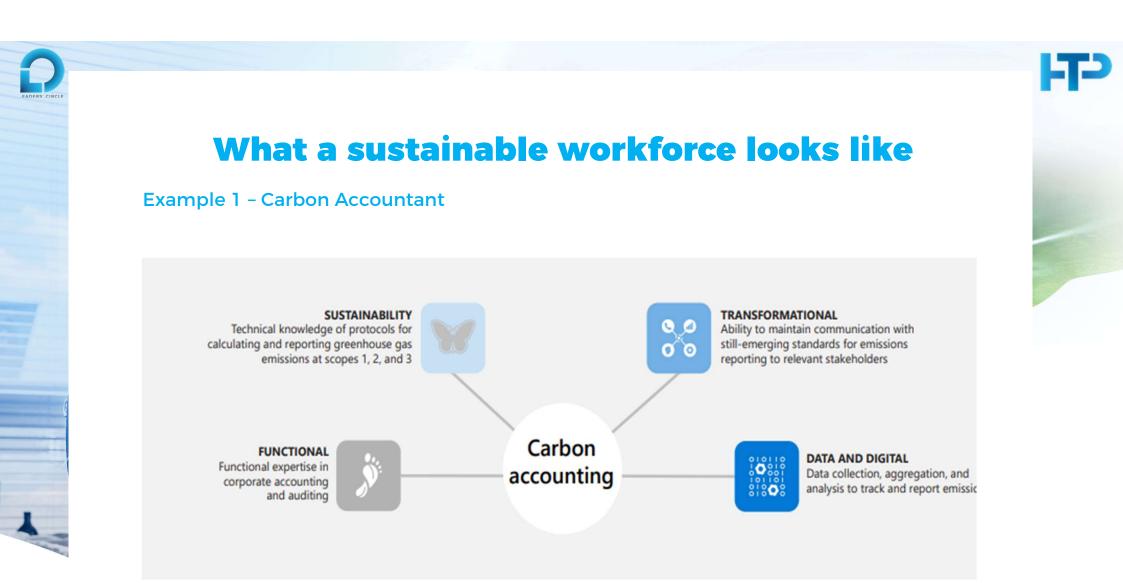
The collection of skills needed to guide organizational change to a successful resolution. This includes skills such as: preparation, strategic visions, removing barriers, building short-term wins, and building coalitions.

Digital skills & technology are critical

Highest priority skills for sustainability work

Data & Digital Sustainability-specific	Transformational	
Data collection & management		29%
Carbon accounting & reporting	25%	Digital skills provide a strong
Climate change fundamentals	24%	foundation for sustainability work, making up 2 of the top
Broad stakeholder management	23%	5 priority skills identified by sustainability professionals
Business intelligence, digital design & visualization	21%	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Data modeling & analysis	21%	
Culture & change management	20%	
Strategy definition & roadmap	20%	
Sustainability challenges/opportunities	20%	
Creative problem-solving	18%	

Source: 2022 BCG/Microsoft Sustainability Talent and Skills Survey



Example 2 - Role of Sustainability Manager

Four out of the top ten prior jobs most often held by sustainability managers were not sustainability focused* Sustainability-related roles **Business operation roles** Sustainability Consultant **Environmental Manager Business operation roles** Sustainability Coordinator Program Manager Sustainability Manager **Environmental Consultant** Quality Assurance Manager Environment, Health and Safety Manager **Customer Service Representative** Sustainability Specialist Source: LinkedIn * Roles listed are titles for the top ten jobs held immediately prior by individuals who moved into a sustainability manager role.

Building your sustainable workforce

Action 1 - Map needed skills & knowledge to roles

Recommendation 1:

- Develop common vision for what skills are needed in specialized sustainability roles
- Develop & standardize sustainability credentials
- Rework job descriptions to reflect needs (must have/nice to have)

Building your sustainable workforce

Action 2 - Provide skills to today's workforce

Recommendation 1: Develop & disseminate needed training materials

- Work with education & training partners to develop fluency & specialized skills curriculum
- Leverage global training resources
- Facilitate access to sustainability expertise (i.e Tesco Supply Chain)

Recommendation 2: Train today's workers

- Invest in broad sustainability fluency across the workforce
- Establish upskilling/reskilling/new skilling strategies across your workforce
- Take a wider view to identify talent that can meet the role's requirements, with training

Recommendation 3: Support policymakers

- Work alongside policy makers to consider training incentives, tax policies etc.
- Public-private partnerships help ensure the latest requirements are captured
- Support broad participation across all sectors
- Share training/learning sources with other organizations
- Support exchange of talent & ideas between industry & academia/research institutions

Building your sustainable workforce

Action 3 - Build future pipeline

Recommendation 1: Help establish curriculum in primary & secondary education

- Approx 40% of today's teachers are not confident in teaching sustainability concepts
- Work with international and local organizations to help establish core skills

Recommendation 2: Post secondary education needs to reflect needs

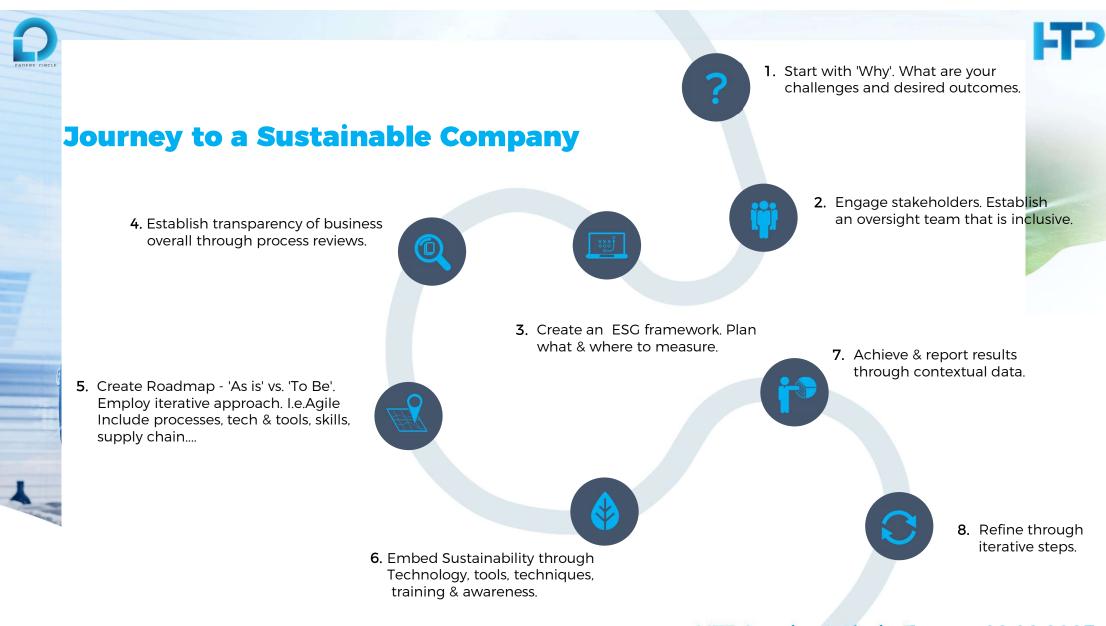
- Work with Academia to help set curriculums at all levels (technical, vocational, PhD...)
- Work towards a global approach as it's a global issue
- Leverage country wide networks & centers of excellence
- Provide real world learning opportunities for students
- Consider experience-based learning/internships
- Support research that includes teams from multiple disciplines

Backup & reference slides

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Working together @JoThurlow.com

WHAT I DO:

- Consulting and/or Contracting
- Workshops & Webinars
- Keynote speaking
- Help simplify transformation with step by step guidance & questionnaires
- Program & Project Management
- Change Management

WHO I WORK WITH: Industry Leaders, SMEs, Government Agencies, NGOs, Consulting & Contracting firms

WHY IT WORKS:

- · 'Big Picture' knowledge & experience on digital & sustainable transformation.
- Together, we identify and focus on the topics impacting you directly
- Step-by-step planning on a scale reflecting your organization
- Access to a global pool of highly qualified and experienced resources to fulfil a wide range of additional skills

Working together with S&T Consulting

We have created a structured and pragmatic solution to drive and deliver both Sustainability and business performance, known as Sustainability Performance Management

We offer end-to-end offerings to assist clients in developing effective sustainability programs

Our sustainability offering - complete picture

Envision & Architect	Design & Implement			
Sustainability diagnostic • Carbon / GHG foot-printing • Culture assessment • Social impact analysis • Benchmarking • Maturity model • "Green IT" diagnostic • Carbon trading requirement / benefit • Supply chain environmental auditing and assurance • Supply chain GHG/Carbon foot-printing and identification of operational/cost efficiencies Sustainability Strategy & Vision development • Corporate Sustainability strategy • Objectives and change agenda • Product and portfolio • Stakeholder engagement • Sustainabile Operating model • Sustainability Rike Management • Sustainability Rike Management	Sustainability Program Management			
	Emissions, Energy & Water Reduction Planning • Identification of key drivers and target emissions sources • Set targets • Roadmaps • Scenario Planning	New Products & Services Portfolio Environmental Product Declarations Product portfolio management and planning		
		Green Supply Chain Sustainable sourcing GHG measurement, reduction Green PLM Ongoing monitoring of environmental performance of supply chain		
		Green Buildings	Emissions Trading	Waste Management
		Water Management	Energy management	Biofuels
		Green Information Technology and Data Centres IT energy efficiency Materials reduction, recycling, intelligent Refresh, efficient upgrades Application rationalization & SOA Shared Virtualised infrastructure (servers, storage, network)		
	Organization Performance Employee engagement, incentivization, training and communication Leadership culture and transformation Change management and organizational alignment 			
	Integrate GHG reporting Implement certified proc Environmental reporting Our Development pa Micro finance	stainability / Inventory quality me g and data management mecha cesses – ISO 14001 etc g KPIs	easurement, management, reporti nisms with core operational mgt a	

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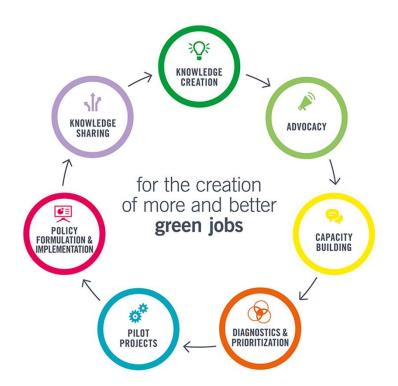
FADERS' CIRCLE

References & Resources



The Green Jobs Programme signals ILO's commitment to act on climate change and to promote resource efficient and low-carbon societies. Decent work is a cornerstone for effective policies to green economies for achieving sustainable development. This implies that efforts to reduce adverse environmental impact must lead to socially just outcomes with employment opportunities for all.

The Green Jobs Programme has progressively assisted over 30 countries by building relevant ILO expertise and tools in dedicated <u>areas of work</u>.



About the ILO

The only tripartite U.N. agency, since 1919 the ILO brings together governments, employers and workers of <u>187 Member States</u>, to set labour standards, develop policies and devise programmes promoting decent work for all women and men.