

European Union side events

05/12/2023

Empowering a Human-Centric Industry for the Twin Transitions

Chris Ivory, Professor of Innovation Management, Mälardalens University, Sweden - Project Up-skill



Rationale

Table 2 Outcomes Categorization				
CODE	CATEGORISATION	DESCRIPTION		
AAA (e.g., Offshore wind turbine repairs)	Full Automation	It is likely the job will ultimately cease to exist because it can be wholly automated, as and when equipment is available and becomes a cost-effective option		
AAH (e.g., Ship Building)	Irreducible Human Integration	Roles will be largely automated but require certain human intangible characteristics/intelligence/judgement which cannot be automated, and perhaps should not be automated		
HAA (e.g., Ornate Shotguns and fine watches)	Strategic Human Integration	These are Industrial-scale products, but must retain a level of skilled craft to maintain the quality of product and desirability to consumers		
HHA (e.g., Gold leaf manufacturing)	Artisanal work Augmented with Technology	A skilled craft, often an isolated artisan who seeks to engage technology, where appropriate, to augment their craft and maximise its potential market value and deliver efficiency		

Research and intervention

Ethnographic research sites

Germany: Webber

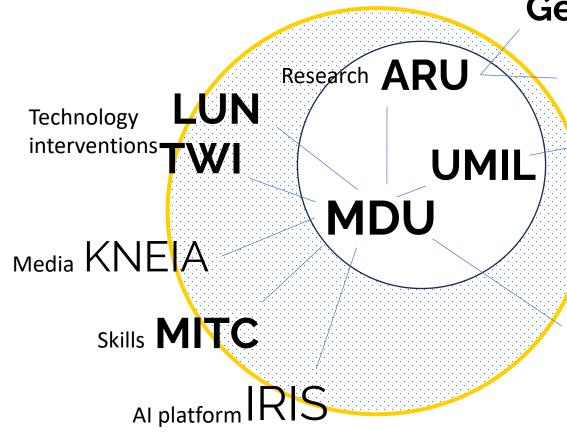
UK: FORD

Italy: Attolini, Molteni,

Victoria Accordion

Pipe Savinelli, Aurora Penne.

SWE: ALFA, HEK - Ztift



Industry 4.0: Accelerative, escalatory.

Acceleration, escalation mind-set	Subsequent demand for technology -1
	Automation
Workers need to be disciplined - prevented from interfering with production	Surveillance technologies
Skilled workers create a 'wage bill problem'	Data collection to facilitate manage and accelerate production
Skilled workers shortage	Augmentation and cooperative-
Giving workers a stronger voice is risky	robots as a step toward automation
Government sides with industry choices	

Industry 5.0: Sustainable, shared prosperity

	Subsequent demand for technology -2
Sustainable, shared prosperity mind-set	
	Augmentation aimed at better quality work and products and giving workers
Workers regarded as citizens - should have an agreed	more control
standard of living	Surveillance technologies not adopted
Skilled workers should be retained and supported	Co-bots (whose bots?) - better to think
Industrial work should be made more attractive and training expanded	about 'team bots, servant bots, helper bots'
Workers must have a stronger collective voice - unions supported	Data collection aimed at augmenting shop-floor decisions, supporting horizontal coordination and cooperation
Government supports workers and science to drive shared prosperity and green solutions	Data collection aimed at identifying and reducing carbon foot print not accelerating production



1st September 2023 – 30th August 2025 5 million Euros

Research sites in Sweden, UK, Italy, Germany
Mälardalens University (SWE), Anglia Ruskin University (UK),
Lancaster University (UK) and University of Milan (IT)

website: upskill-horizon.eu







