SMART Σ!
advanced manufacturing

Workforce optimisation
Improving the performance of manufacturing teams

ORGANISATION PROFILE

Irish Manufacturing Research is a non-for-profit RTO that helps Irish manufacturing companies to innovate. IMR has 83 employees of which 60 are researchers, working in Data Analytics, IioT, Energy efficiency, Cobotics, Circular Economy and Software Engineering.

PROPOSAL INTRODUCTION (I)

Vision: Industry4.0 has a strong focus on automation and AI. This, however, has important consequences for the human workers. There is a need to make jobs of humans working in the manufacturing sector more attractive for a diverse population of workers. Operator allocation to workstations needs to be tied to resource optimization and training, skills and certification. For example, worker skills and Training gaps need to be anticipated and made visible within every team of operators, worker issues/ ideas should be clearly tracked all the while production quality and output continuously monitored and optimized with fair and unbiased human-centered AI.

Motivation: to improve the overall performance, wellbeing and motivation of manufacturing teams would have a clear impact on output, efficiency rework levels and scrap.

Content:
- Define what a versatile and motivated team looks like.
- Define adequate training time
- Understand the drivers and look to bring these learnings across the team
- Optimise workforce flexibility by allocating resources to maintain certifications.

PROPOSAL INTRODUCTION (II)

Expected outcome: an automated platform to(i) suggest best operator allocation based on quality and output targets to maintain skill level and certification, (ii) make visible where training gaps exist, and (iii) anticipate outliers before performance is impacted.

Impacts:
- Increase the motivation and hence performance level of the team;
- Improvement in output.
- Improvement in sustainability KPIs such as rework levels and scrap.
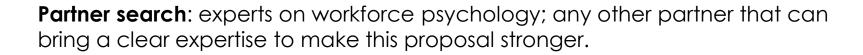
Schedule: duration 24 months

PARTNERS

Current Consortium:
- IMR will perform Data Analytics and User Experience

Partner search: experts on workforce psychology; any other partner that can bring a clear expertise to make this proposal stronger.

CONTACT INFO

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