

Suggested GAP assessment

Topic	GAP (Y/N)	Needs & actions
General	Yes	<ul style="list-style-type: none"> - O&G developing towards more centralization through wellhead and subsea tie-ins, onshore control. - Power grid control challenges, complex renewable deliveries, new responsibility roles in the grid from TSO to new aggregators. - Lacking measurable value from digitalization? Do we need revitalization of IO - initiatives? - Offshore; experience more functions is added to the CCR, without proper understanding the workload / effect. Such functions include tie-ins, new wellhead platforms - Need for focus on operator work demand and spare capacity for maintaining process overview. - Onshore: First generation onshore remote control room have the opposite problem: to low workload, monitoring highly automated unmanned platforms - This might be an intermediate period, before additional assesses or functions are added the onshore CCR. A challenge may become "heterogen" control room, that is controlling very different type of assets from the same control room / same people
Design principles		<ul style="list-style-type: none"> - The concept of Capability may be useful for a holistic perspective : ensure that the system has sufficient capabilities to safe and efficient operations - A big problem today are information overload problem on first-line leaders: requirements, processes, apps, tools, information. - Must tailor / streamline information according to role / task. Start with "individual" needs? - Management of change is a big problem: changes that is not communicated down to the sharp end, changes in procedures, tasks, systems etc. create latent errors
Methods		<ul style="list-style-type: none"> - Requirement to CCR operator competence are changing. Important to ensure meaningful control - Methods for assessment are available. Assessing and balancing workload is a challenge - ISO on workload and ISO 11064 are going to be updated. - How to enable a holistic view on socio-technical systems: Task analysis are too limited to cover complex systems, job analyses cover both task, role, people and job may are more holistic. - Macro ergonomics: CORD MTO - Adoption of functional allocation methods to better assess workload/work demand in the future situation. - dynamic functional allocation - Update CRIOP with relevant questions regarding multidisciplinary work - Need for structured methods to address future organizational capabilities.

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Standards		<ul style="list-style-type: none"> - CCR/ Control suit: ISO 11064, IEC 60964 - Work system: ISO 26800:2011; ISO 6385, - New ISO 45003 Psychological health and safety at work.
Requirements		<ul style="list-style-type: none"> - ISO 11064 are going to be revised and there is a need for experts into that work.