The Toyota Production System (TPS) is a continuous improvement philosophy. It became the basis for the LEAN and Six Sigma manufacturing philosophies. A significant element of TPS is automation, or "avoiding work with a tool." In the same way that lean techniques have been applied to automotive manufacturing, the principles of automation can be applied to offshore wind maintenance practices to improve turbine availability. This paper presents a maintenance concept design to support an automation approach to offshore wind maintenance practices, developed through an implementation of the NetWork model of Environmental Psychology and Biophilic design.

The NetWork model encompasses both how and where work is done and how work, processes, and places are designed and built. The focus is typically on the way work is done and the needs, abilities, and constraints of the workers. In contrast to the NetWork model, which focuses on the physical environment, the TPM model focuses on the operational and organizational aspects of the work. The TPM model is a framework for understanding and improving the way work is done, focusing on the processes and systems that support the work. It emphasizes the importance of a holistic approach to work design, considering both the physical environment and the organizational context.

The TPM philosophy promotes a continuous improvement of work processes, eliminating waste and optimizing the flow of materials and information. It encourages employees to identify and solve problems, fostering a culture of innovation and continuous improvement. The TPM model is based on a set of principles and practices that support these goals. These include:

1. Autonomous Maintenance: This means everyone owns maintenance and that everyone has a role related to maintaining equipment.
2. Effective Training: The TPM training is focused on operational processes to detect abnormalities in equipment before a breakdown occurs.
3. The maintenance function must have a multi-functional workforce, effective and efficient work flow, and be informed by Environmental Psychology.
4. Early Environment Management: Ensuring equipment is fit for purpose before implementation. This includes effective and informed decision making during the design phase.
5. Effective and efficiently functioning management systems that support the maintenance function and facilitate continuous improvement.

The TPM model is a comprehensive framework for understanding and improving the way work is done. It emphasizes the importance of a holistic approach to work design, considering both the physical environment and the organizational context. By implementing the TPM model, companies can improve the efficiency and effectiveness of their maintenance practices, leading to increased productivity and reduced costs.

The stylied exterior form has a structural glass roof feature, emphasising a large interior garden space. Inspired by superarchitectural forms the exterior has an imposing presence of architecture upon the water. The floating structural features on the upper decks and the use of a colour break help to give the simplistic geometric form a sense of motion and elegance, as shown in Figure 3.

The second stage of the NetWork platform of support involves creating new work settings and their infrastructures, including those tools and protocols needed by workers outside of the places controlled by their employer. The following provisioning specification for interior areas was developed from an analysis of the identified activities, considering the five phases of development to bring social networks, on a focus on informal communication.

Engaging in principles of Biophilith, the central focal point of the design is a large interior garden space with a light canopy, shown in Figure 4, and as a result enable people based task to experience well-being through a connection with nature. Due to the specific nature of the user group, the maintenance platform is a SWATH to ensure minimal motion of the vessel in the challenging weather conditions of the North Sea. The garden space has a range of seating configurations and seating locations designed to offer a sense of privacy between them. To facilitate a range of activities from individual to group socialising and informal meetings. Connectivity is provided by tablets. The internal cabin connects with the garden area for natural light, giving them the design meaning of a small apartment on land.

The communal lounge facilitates formal and informal communication and team building through providing a range of spaces for informal, alone, and group activities. Adaptability of space is critical, drop down project screens and large meeting tables are used that can be transformed into similar tables. The implementation of individual pod areas facilitates work in isolation, with tables providing small group work and meeting spaces. The lounge areas have sets of either the on the interior garden engaging in Biophilith. All of these facilities are optimised through the development of communication and planning software to allow individuals to work wherever they are, whatever hours and events or activities are happening. The individual pod is the conduit for such information. The Biophilith design also means that the design has a long-term adaptation to technology and software development, which is outside the scope of this initial proposal. Natural light and open views are critical to engage in Biophilith design.

While the primary function of the dining room is eating, the actual daily usage of the space for this activity is low. Adaptability of the space is therefore critical to support the objectives of the design brief. The tables have window views, shown in Figures 9 and 10, and also allow staff to meet formally and informally supported through integrated systems such as retractable large screens for communication and team work.

The activities of wind farm O&M within the framework of TPM combine maintenance activities with Knowledge Work. The "NetWork" model suggests that mobility, collaboration and sustainable practices must be considered holistically, as part of a larger framework. With the established foundation, the integration of workplace design to environmental psychology facilitates a better definition of knowledge work and the development of practices that support the design, provision and management of workspaces.