1. The introduction of new technologies should be consulted with trade unions. Any introduction should begin with a detailed observation of the existing work process. Workers should be involved in the design of any new process so as to ensure a human-centred design process.

2. Any new technology under consideration should have its health and safety impacts assessed, with trade unions participating in the assessment.

3. If data produced by seafarers during their labour is used to benchmark them against each other, these benchmarks need to be agreed with them and their trade unions. These benchmarks must account for the differences between people, and should not create unsafe occupational health and safety conditions.

4. Workers should be clear on what data is being collected and what it is being used for, as well as the content and purpose of any benchmarks.

5. Data gathered from monitoring and surveillance technology cannot be used to discipline workers. Data should aim to improve working conditions and safety as well as productivity.

6. If shipping companies are using data to sell on, or improve operations, or productivity, then unions should campaign for them to compensate workers for the data they produce while they work.

7. Unions should campaign for maritime legislation to cover the introduction of new technology, as well as issues around data and the use of surveillance, monitoring and benchmarking technology.

8. Companies should establish works’ councils or introduce workers’ representation (or ownership) at board level to ensure the fair application of new technology and promote better communications between management and workers.

9. Companies should provide education and training to workers to enable them to understand and make use of new technologies. All training should be specific to the technologies being introduced on board, and it should be provided by the ship operators. People working around autonomous machines should be provided with adequate training to understand how they and their sensors operate.

10. Training should be monitored for compliance by flag and port states.

11. In transport hubs where multiple employers combine such as ports, unions should campaign for a joint council consisting of employers and trade unions and the relevant authorities to agree rules on data, benchmarking and other technology applications.

12. Port authorities should record and publish data on pay rates, working conditions and labour relations onboard individual ships, and in ports in order to foster transparency and incentivise best practice.

13. Improved communications technology should be used to monitor working conditions on board vessels, and to allow crew to communicate with their families and union representatives on shore. MLC guidelines on crew access to communication should become a required standard.
14. Workers whose jobs are lost to technology should be redeployed, compensated and provided access to free education and training, not necessarily linked to an economic purpose.

15. Until they are capable of operating in unwanted incident or emergency situations, automated processes must be overseen by experienced and qualified human operators. Where remote control is vulnerable to hacking, on-site or in-vessel qualified human operators must be available to take over operations.

16. Human operators in highly automated processes must be given adequate time in control of the process in order to hone and maintain their skills.

17. The introduction of new technology should not only be used to improve productivity, it should also aim to improve sustainability, safety and working conditions. A new chapter of the MLC Convention may be needed to protect seafarers in the case of further crewing reductions.

18. Workers should not be expected to be ‘on call’ outside of working hours. The right to digital disengagement should be respected.

19. Workers must be able to indicate to management the shortcomings in a technological process and should be compensated for the work they do to make the overall process function.

20. Remote control of processes should be confined within national borders, or should be regulated by bilateral or international agreements ensuring pay and labour conditions are not undermined.

21. The safety of crew on highly automated or remote operated vessels must be guaranteed.