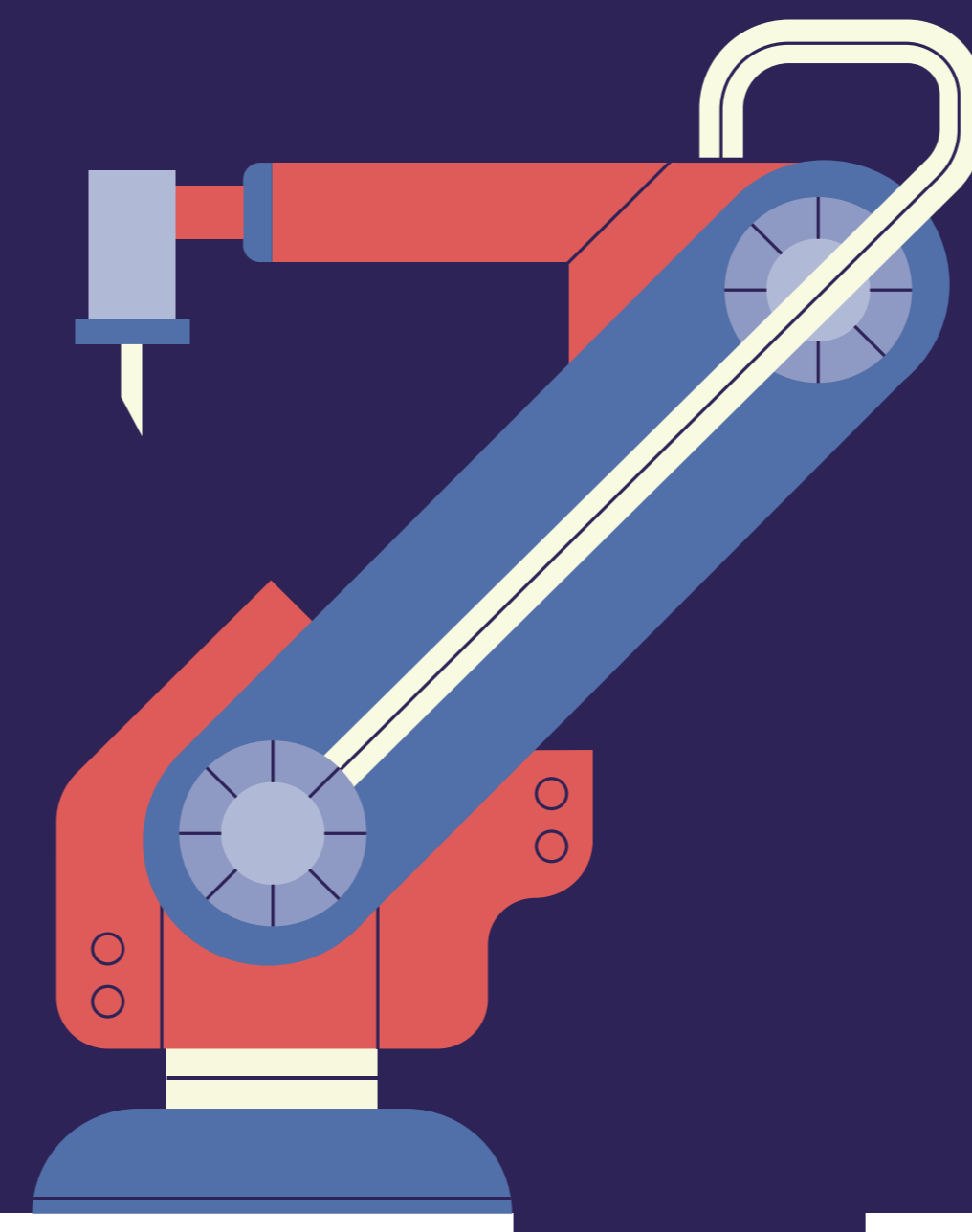


AGE OF AUTOMATION

THE OUTLOOK FOR MANUFACTURING JOBS AND AUTOMATION IN SEVEN CHARTS

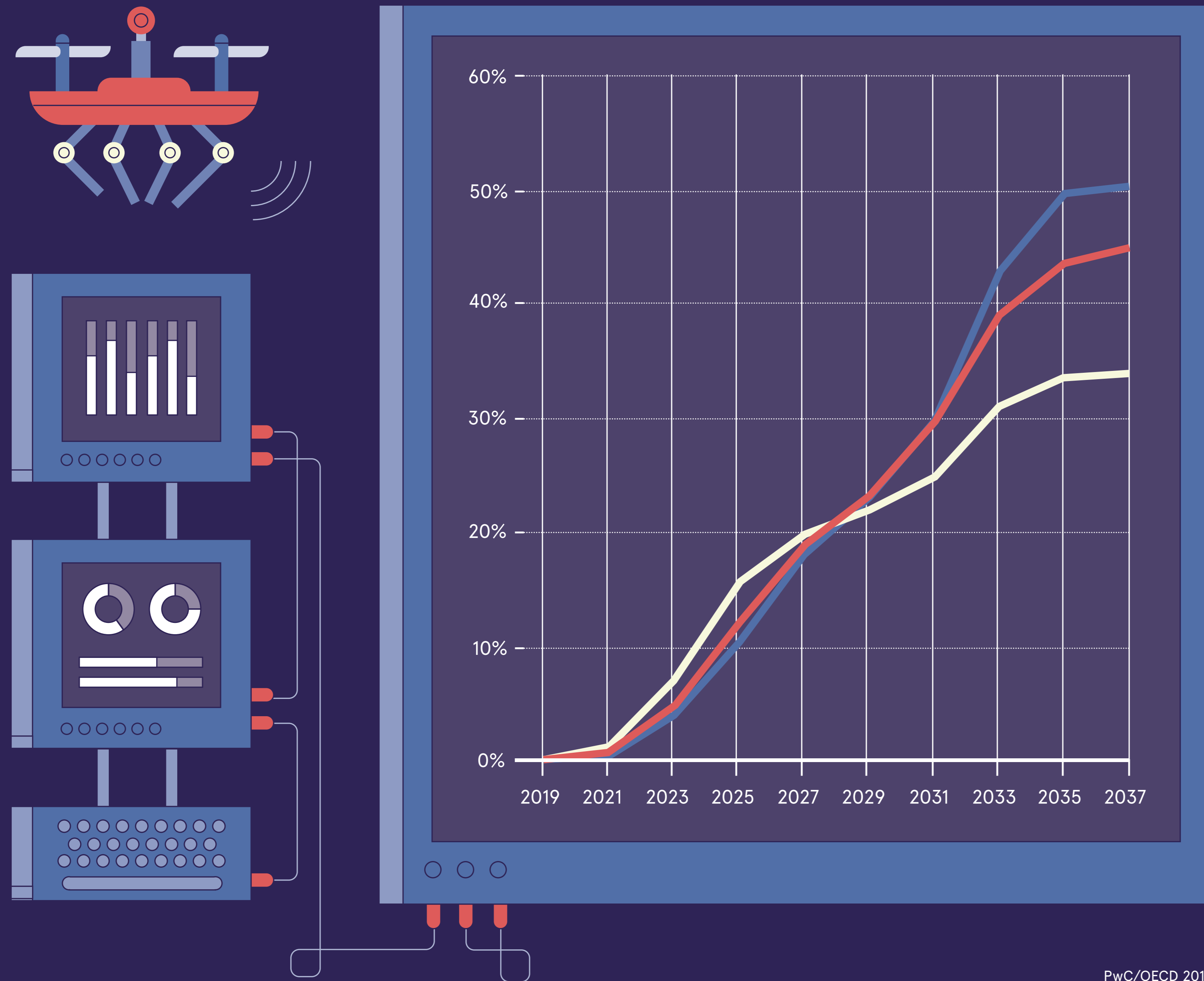


Advances in artificial intelligence and remote communication will arguably impact manufacturing more than any other sector, given that half of all roles within the industry involve manual and routine work. And yet, despite a large portion of jobs being at high risk of automation, job losses may not be as severe as feared as manufacturers upskill workers to adapt for a new technological future

01 AUTOMATION'S IMPACT ON THE JOBS MARKET WILL START TO BE FELT FROM THE MID-2020S

Share of jobs with a high potential of automation

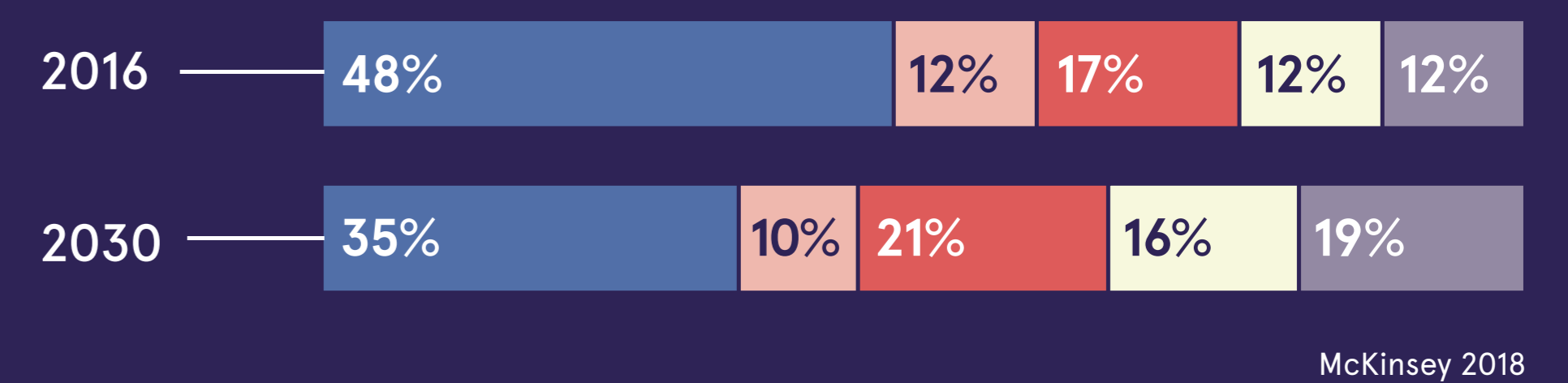
● Transportation and storage ● Manufacturing ● Wholesale and retail trade



02 UPSKILLING NEEDED AS ROUTINE AND MANUAL JOBS MAKE UP HALF OF WORKFORCE

Composition of current skills needed for current and future manufacturing jobs

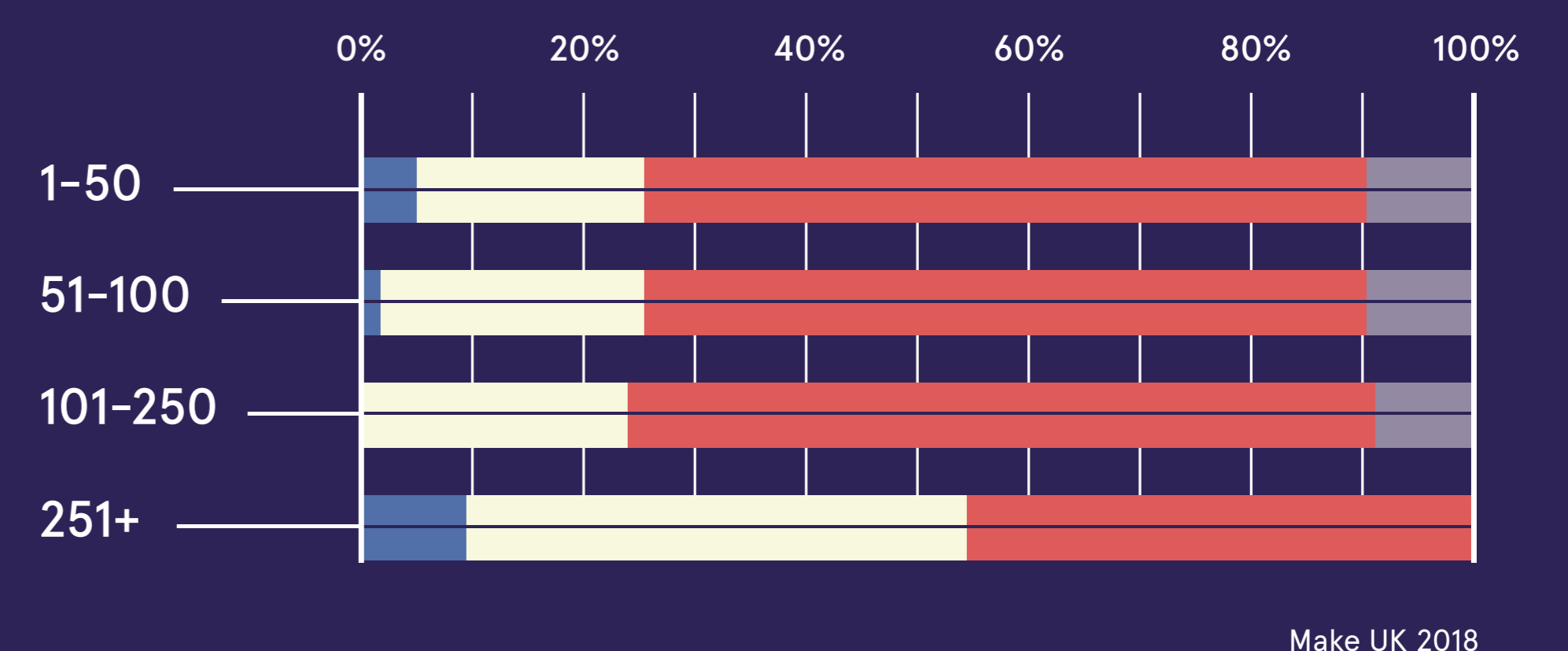
● Physical and manual ● Social and emotional
● Basic cognitive ● Technological
● Higher cognitive



03 AUTOMATION ADOPTION VARIES WITH COMPANY SIZE

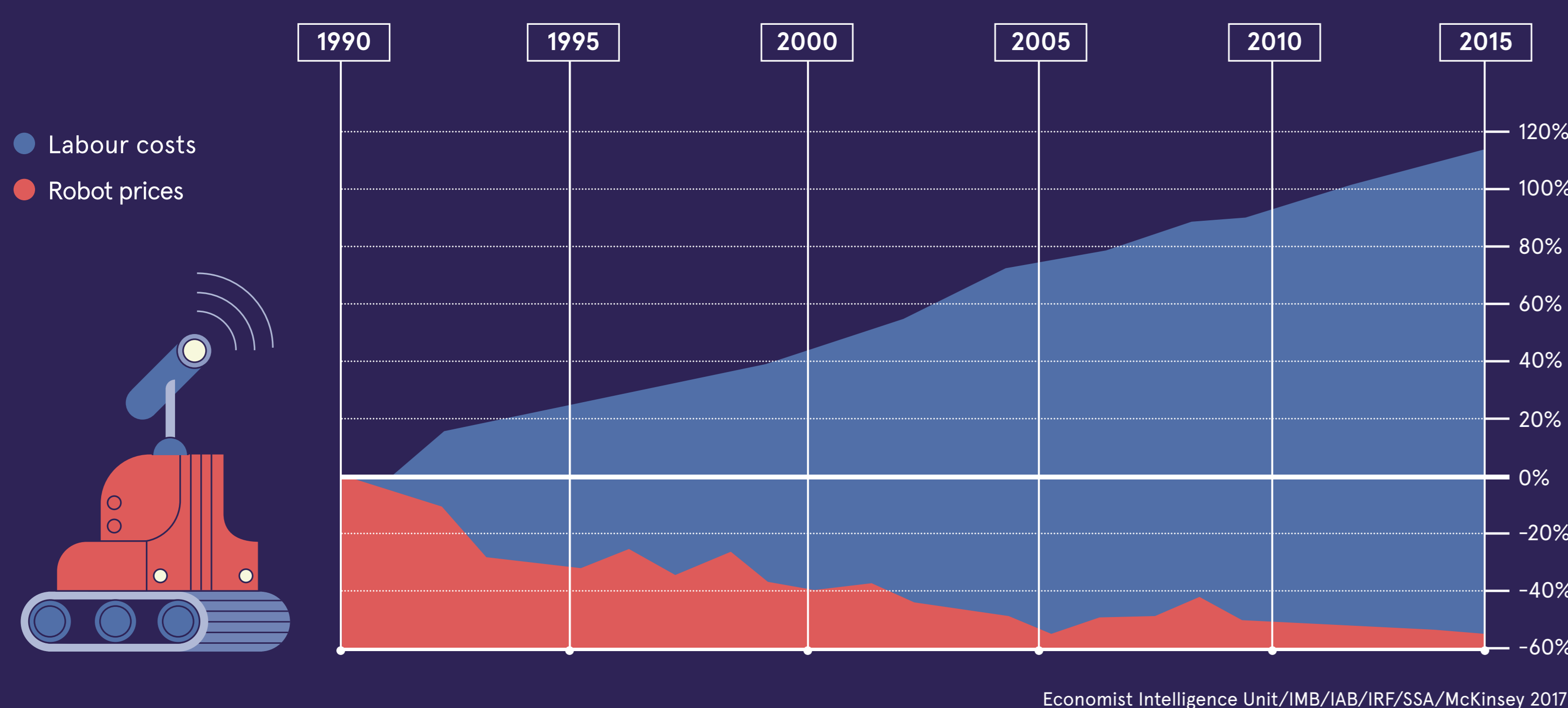
Percentage of manufacturers investing to automate processes by number of employees

● All of the processes ● Most of our processes
● Some of our processes ● None of our processes



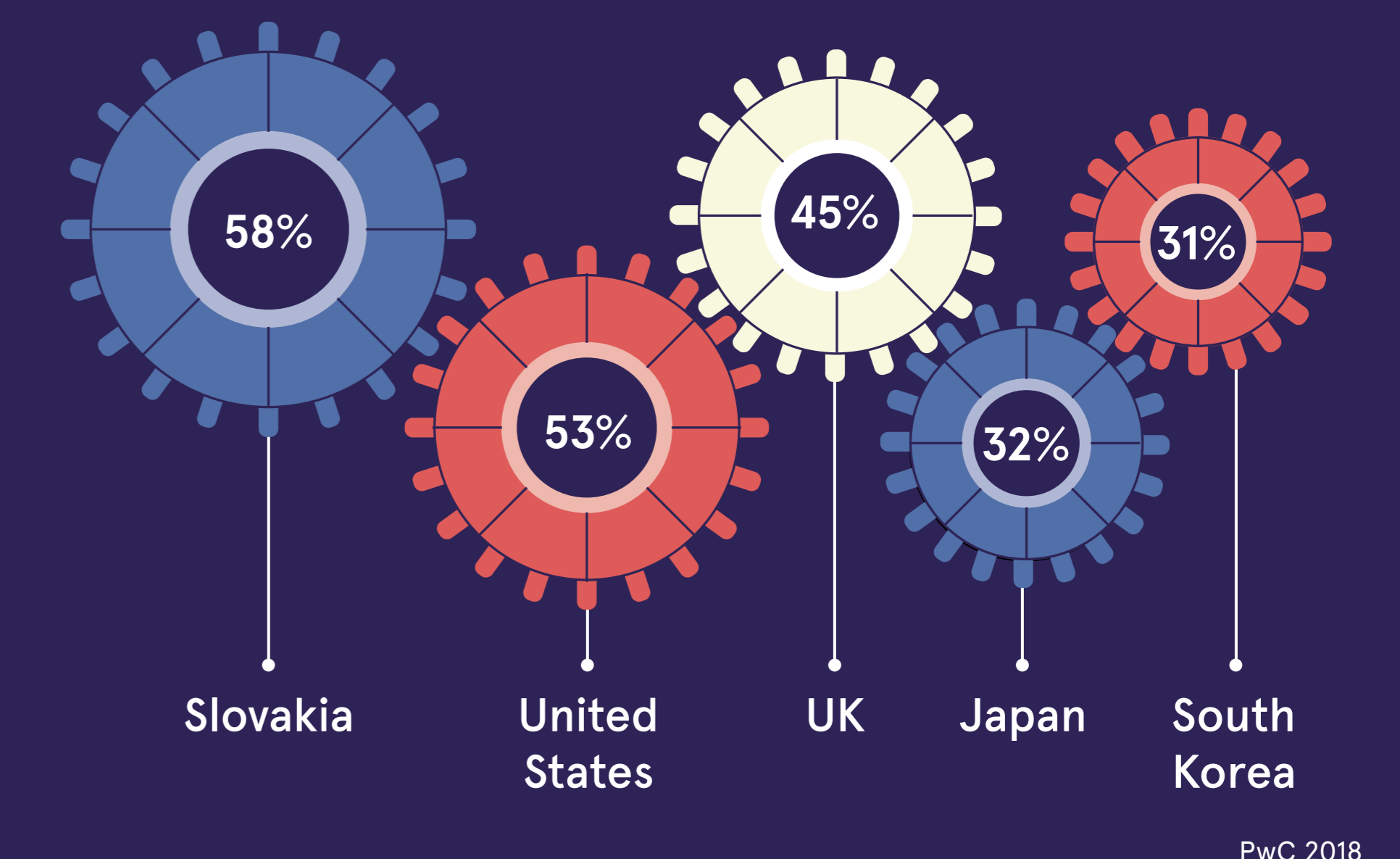
04 DECLINING ROBOT PRICES COULD ENCOURAGE MORE INVESTMENT AS LABOUR COSTS CREEP HIGHER

Example shown is for average robot prices and labour compensation in US manufacturing (1990 = 0%)



05 OVER-RELIANCES ON MANUAL WORK MEAN AUTOMATION IMPACT IS WORSE IN SOME REGIONS

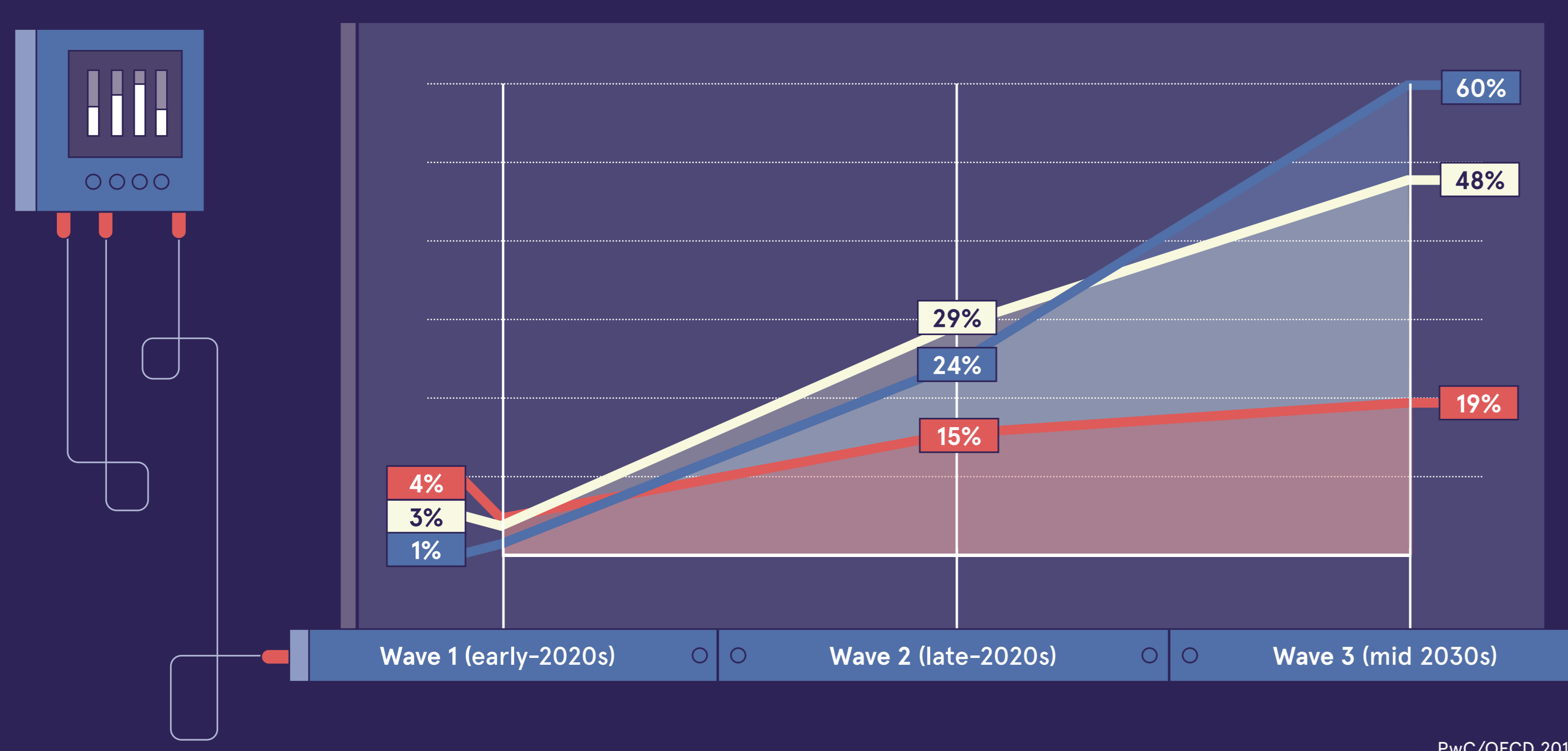
Percentage of manufacturing jobs with a high potential of automation



06 LOWER EDUCATED HARDEST HIT AS MANUAL TASKS PHASED OUT

Share of jobs with a high potential of automation by education level

● Low education (GCSE or lower) ● Medium education ● High education (graduates)



07 SOUTH KOREA IS MILES AHEAD WHEN IT COMES TO ROBOT ADOPTION

Number of installed industrial robots per 10,000 manufacturing employees, selected countries

