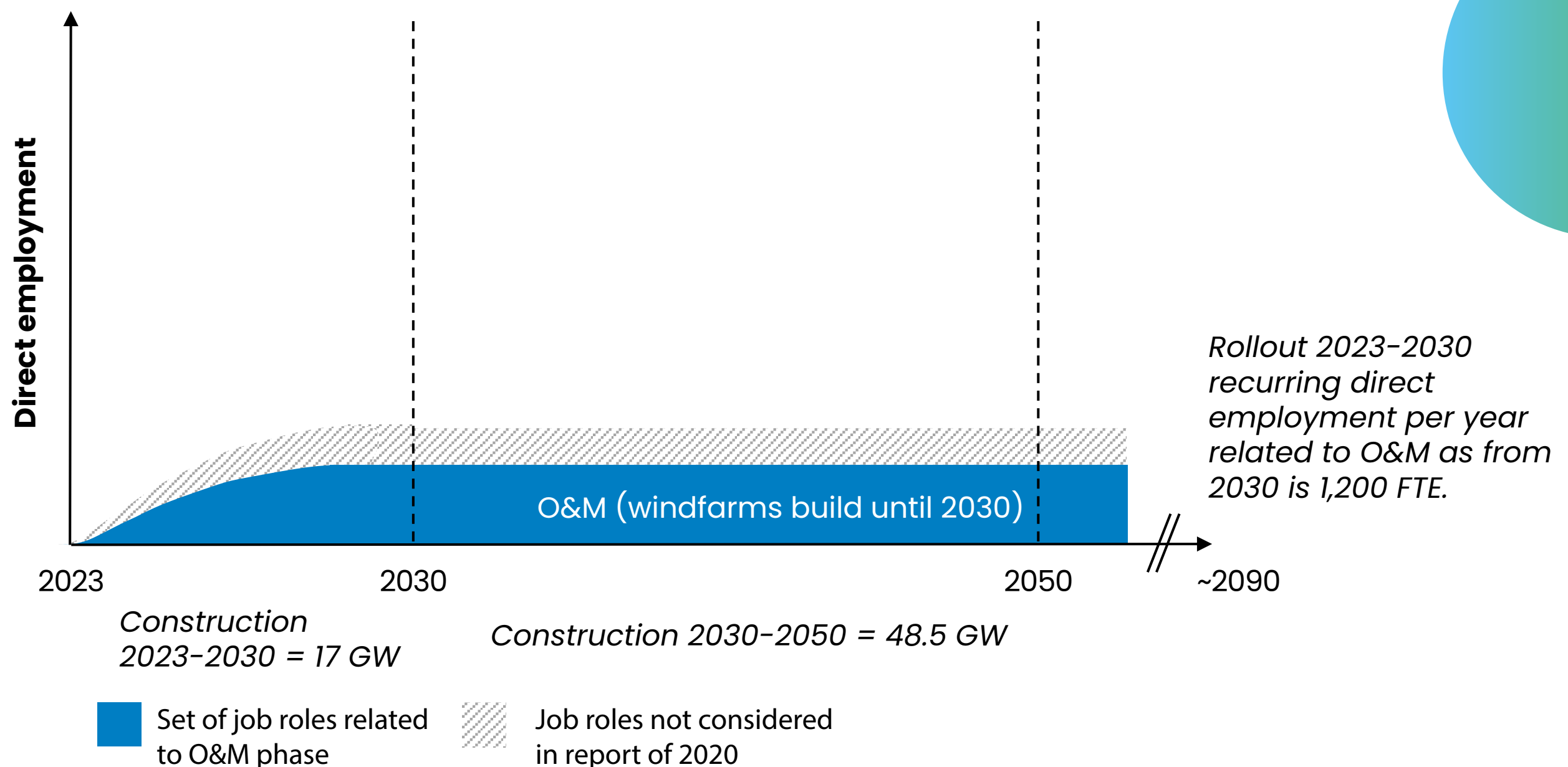


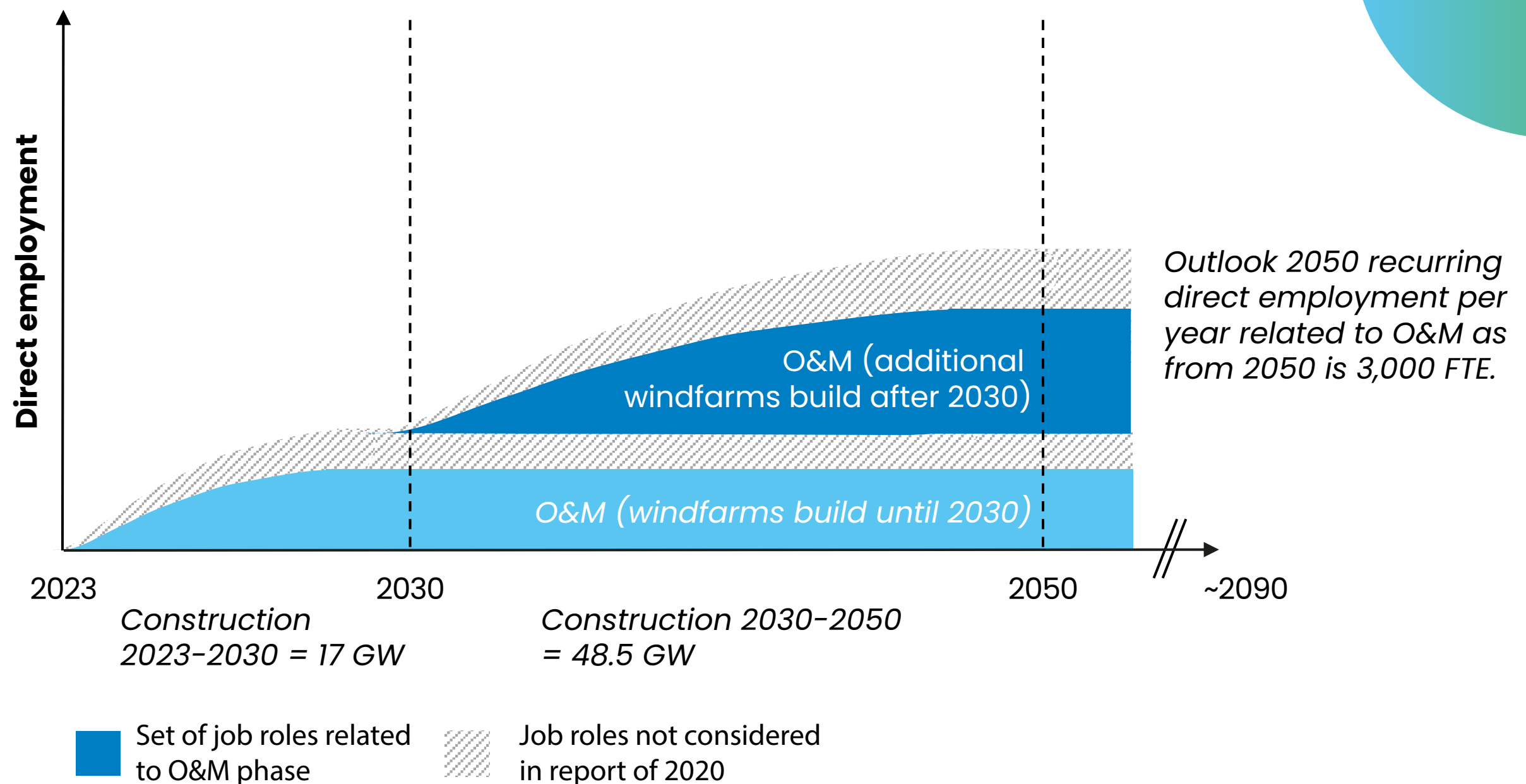
1,000s of FTE needed for Offshore Wind Operations & Maintenance up to 2050 in the Netherlands

In 2020, Knol & Coolen researched the expected post 2030 offshore wind employment in the Netherlands. With last weeks' news from the Dutch government regarding the offshore wind development to 2050 we present a first update on these employment numbers, showing the expected need in staffing from now till 2050.

At the end of Q4 2023, there will be about 4.5 GW of offshore wind in the Dutch North Sea. At the end of 2030, this will have grown to about 21.5 GW of offshore wind, which will lead to a direct employment of 1,200 FTE for the operation & maintenance of these windfarms throughout their lifespan.



Last week, the government of the Netherlands announced that they want up to 70 GW of offshore wind capacity in the Dutch North Sea by 2050. This will lead to a further growth in the direct employment for Operations & Maintenance of these offshore wind farms to 3,000 FTE in the year 2050.

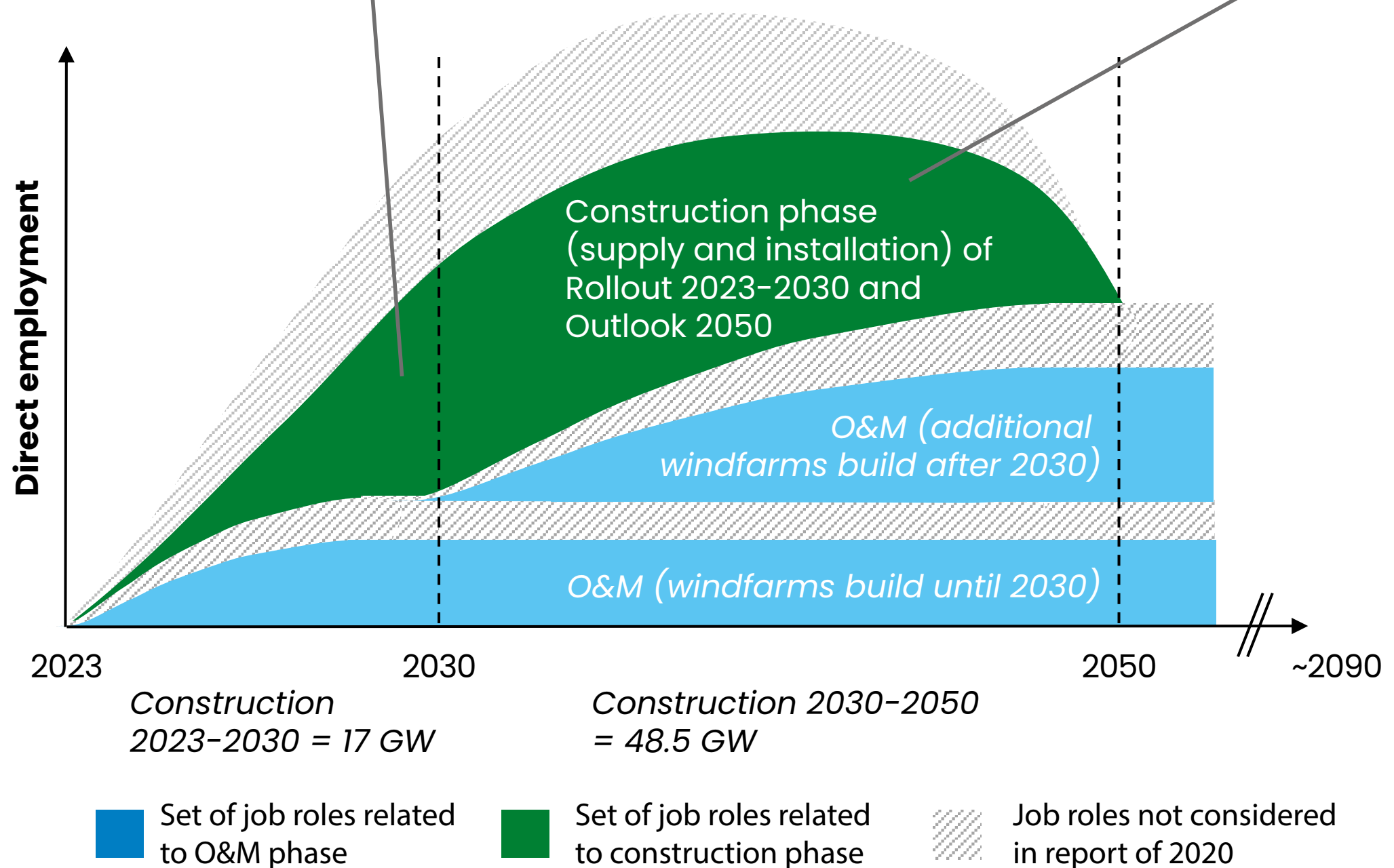


Next to the long term employment of Operations & Maintenance, an additional 62,000 person-years in one-off direct employment will be created up to 2030 in the construction of offshore wind farms.

In the period 2030-2050, this number will grow to 163,000 person-years in one-off direct employment in the construction of up to 70 GW of offshore wind in the Dutch North Sea alone.

Rollout 2023-2030 cumulative one-off direct employment regarding the studied packages (job roles; see appendix 2 of report) of the construction phase (supply and installation) for the period 2023-2030 is 62,000 person-years.

Outlook 2050 cumulative one-off direct employment regarding the studied packages (job roles; see appendix 2 of report) of the construction phase (supply and installation) for the period 2030-2050 is 163,000 person-years.



Next to the mentioned FTEs and person-years additional jobs will be created that are not part of the report, creating the picture below. This means that we have an enormous Human Capital challenge ahead of us.

What options do you see to handle this challenge? Improved human capital programs? More robotisation? Share them in the comments!

Rollout 2023-2030 cumulative one-off direct employment regarding the studied packages (job roles; see appendix 2 of report) of the construction phase (supply and installation) for the period 2023-2030 is 62,000 pers-years.

Outlook 2050 cumulative one-off direct employment regarding the studied packages (job roles; see appendix 2 of report) of the construction phase (supply and installation) for the period 2030-2050 is 163,000 person-years.

