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E-mobility: A green boost for European automotive jobs?



Results summary



JULY 02 2021

Development of automotive jobs till 2030 ...





1. EU27 + UK + Norway Source: BCG

... investigated in three steps



Affected industries and major trends driving job demand

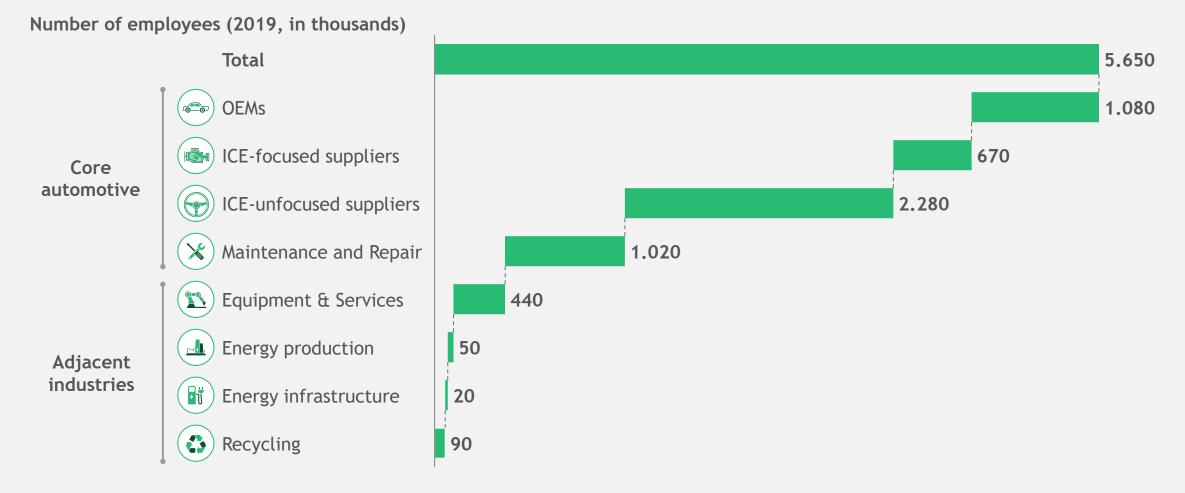


Total number of jobs until 2030 and shifts between industries



Temporal, industry & job-related as well as regional transitions

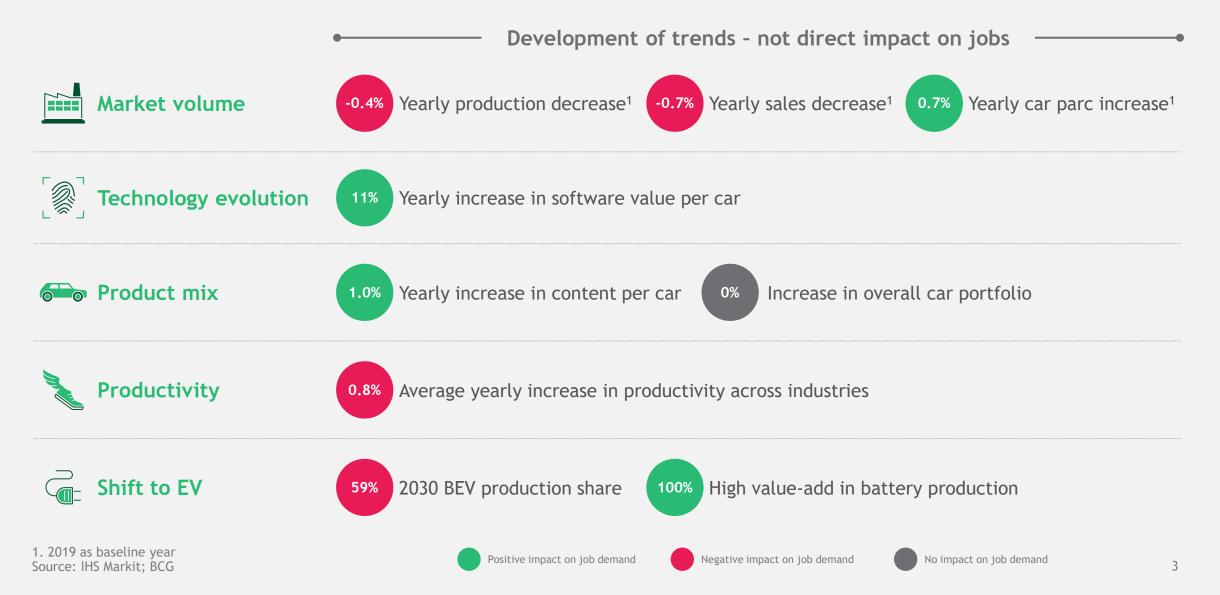
5.7 million jobs spread across eight industries



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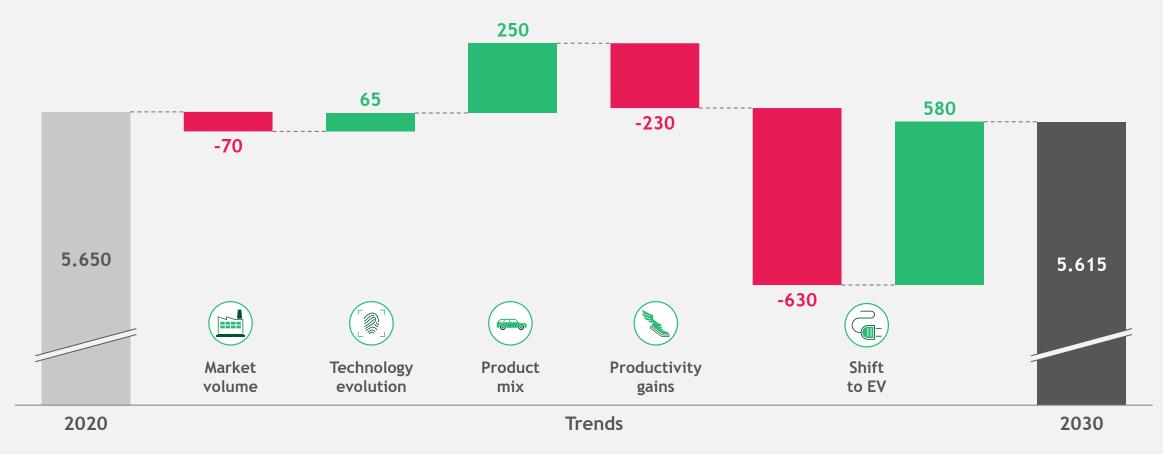
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Five major trends are driving employment in Europe



Sum of trends keeps employment stable ...

Job losses and job gains (in thousands) due to various trends



... but leads to significant shifts between industries

Job losses and job gains (in thousands) across different industries

	2020		5.650		
Core automotive	OEMs	-20%		-220	Strong reduction in production due to lower labor content in BEVs
	ICE-focused suppliers	-42%	-280		Strong downsizing in all areas due to falling demand from components
	ICE-unfocused suppliers	10%		240	Expansion in all areas, in particular driven by cell production facilities
	Maintenance and Repair	2%		20	Increase due to increasing and aging overall car parc, BEVs still limited
Adjacent industries	Equipment & Services	3%		15	Slight build up through rebuilding in factories of OEMs and suppliers
	Energy production	128%		60	Build-up due to increasing capacities and higher share of renewable energies
	Energy infrastructure	543%		120	Increase for the production, installation and operation of charging infrastructure
	Recycling	8%		10	Nearly stable as life of electric cars is longer than the period under review
2030			5.615		

On top, EV shift demands ~400k construction man-years until 2030 - on average ~40k jobs per year



Battery manufacturing

Labor demand increase driven by building of new battery manufacturing

plants

Energy production

Labor demand increase

driven by installation of new renewable energy capacity (e.g., solar, wind)



Charging infrastructure

Labor demand increase

driven by set up of major charging points and associated grid enforcements

~ 270k man-years

~ 60k man-years

~ 60k man-years

~400k construction man-years demanded driven by the "Switch to EV"

Note: Job numbers shown represent the total labor demand and not necessary lead to permanent employment. Source: BCG



Transition of job positions in 3 perspectives



Transition over time

Employment needs change continuously



Transition between industries & job families

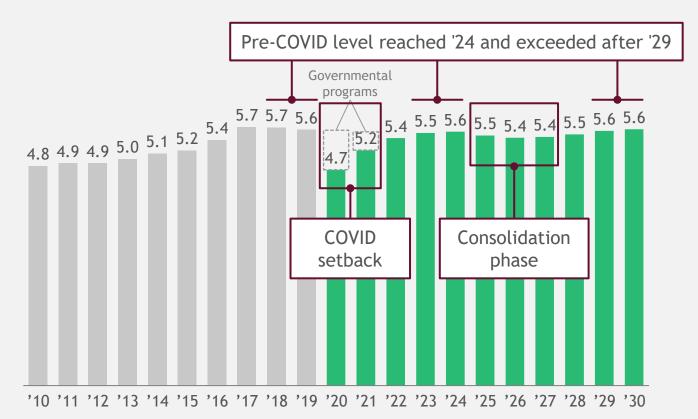
~2.4 million jobs have partly high training requirements



Transition across regions Example Germany: Slight regional effects expected

Employment needs change continuously

Total job demand across the industries in Europe [in k]





No return to previous growth trajectory until 2030

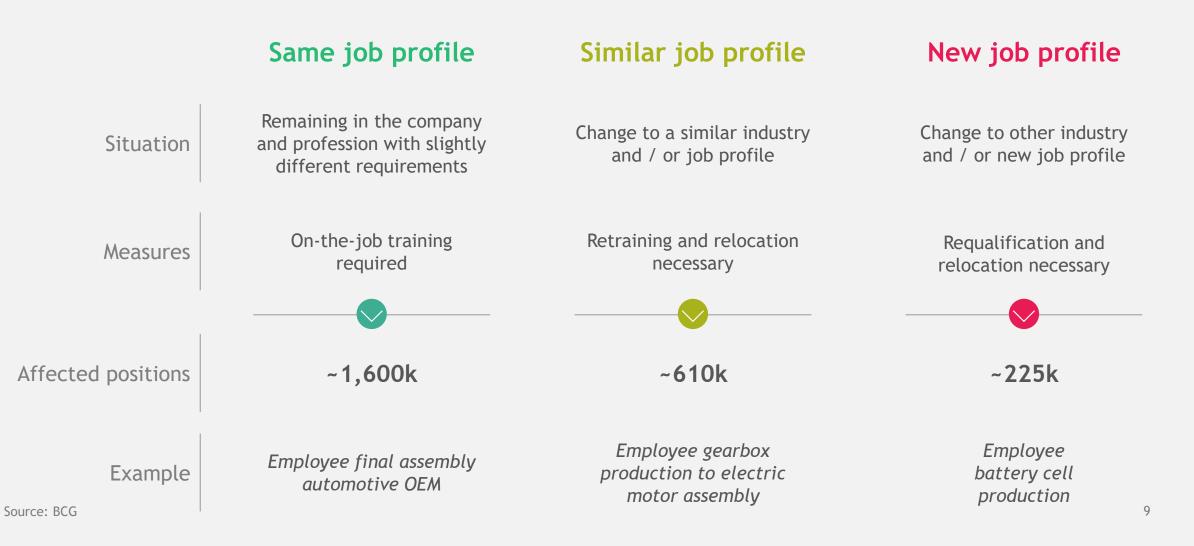


Recovery from COVID setback expected until ~2023



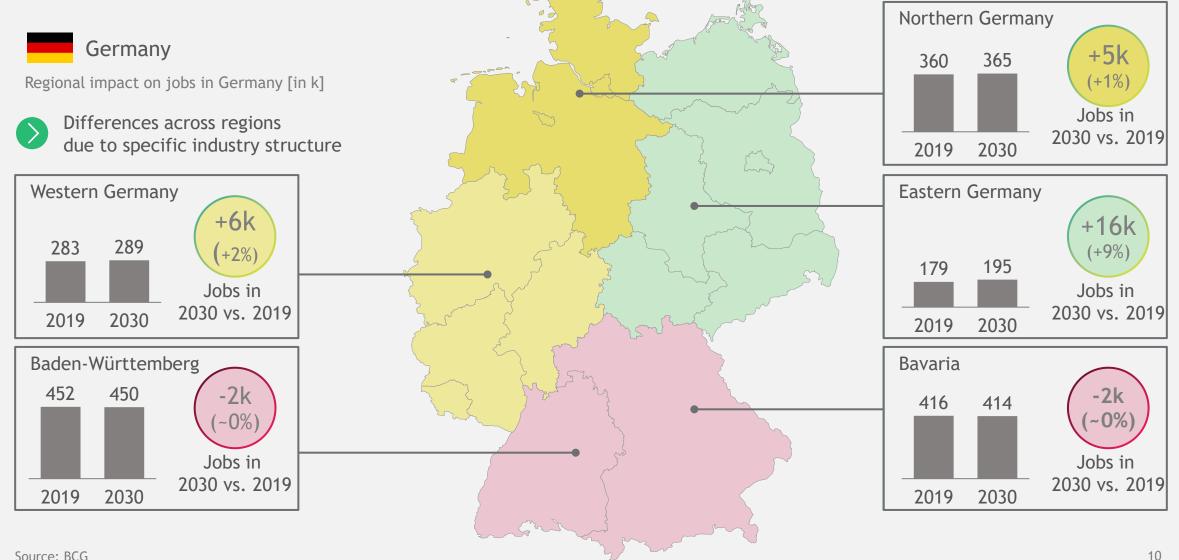
Consolidation phase 2025-27 due to total volume decline

2.4M positions with dedicated training needs



Transition across regions 3

Example Germany: Small regional effects expected



Source: BCG

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Our three key findings



In total, the number of jobs across the eight investigated industries will remain nearly constant until 2030. However, there will be significant shifts.



In consequence, strong temporal, industry and job-related as well as regional transitions will occur in the labor market.



For a successful transformation, industry as well as politics are jointly required to manage these turbulent times.

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