



World Plumbing Council

Frankfurt 15<sup>th</sup> March 2023 Green Skills for a Just Transition





- Move to net carbon zero economy by 2050
- Move from carbon fueled power generation renewable energy
- Moving to low or zero carbon transport
- Moving to more efficient lower energy manufacturing
- Adapting education, engineering & craft training to suit
- Reskilling/upskilling workers in traditional industries
- Adapting existing apprenticeships or creating new apprenticeships





43000 heat pumps to be installed between 2024 & 2030

Domestic Solar PV installations 29000 by 2030

Offshore wind energy increase of 6800 FTE by 2030

Solar increase of 1800 FTE by 2030



Domestic retrofits 56215 by 2030

900,000 new EV's by 2030

Onshore wind energy increase of 4900 FTE by 2030 EV infrastructure increase of 90,000 FTE by 2030



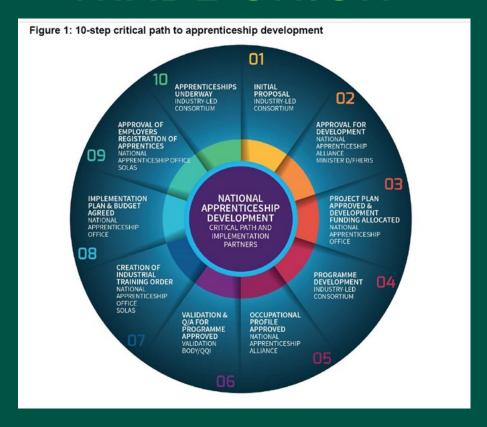


Table 3: Age Profile Apprenticeships Ireland, December 2018

Apprenticeships	Age 15 - 19	Age 20 - 24	Age 25 - 29	Age 30 +	Total 3,724	
Construction	1,765	1,496	340	123		
Electrical	2,778	2,656	696 293		6,423	
Engineering	983	814	190 116		2,103	
Motor	1,289	914	167 61		2,431	
Print Media	-	5	3 -		8	
Financial services	66	190	69	69 67		
Hospitality	9	51	39 40		139	
Other Programmes	14	45	26 68		153	
Total	6,904	6,171	1,530	768	15,373	

Source: Department of Education and Skills











Employer and Industry

National Apprenticeship Office (NAO) National Apprenticeship Alliance - Unions (Connect), Education Providers, Government Departments, Employers (NAA)

National Apprenticeship Advisory Committee (NAAC including Connect)

Working towards increasing the number of apprenticeships on offer in Ireland

Acceptance that existing craft apprenticeships have to be adapted for green technology

Currently expanding capacity in Educational Training Boards and Technical Universities for predicted apprenticeship growth





Currently no separate track for adult apprenticeships

Connect Trade Union have traditionally worked with employers to promote adult apprenticeships

Previous charts show the changing demographic of those entering apprenticeships (age increasing) Traditional profile of apprentices slowly changing (older, more socially mobile, renters or homeowners and family)

Employer grants for employing new apprentices (double for female)





Apprenticeships covered by a statutory instrument

Underpinned by the Industrial Relations Act 1946

All apprentices must have a contract of employment

In some sectors of the economy apprentice pay rates are legally binding on the employer (as well as sick pay and pension)

Apprentice pay in excluded in the minimum wage legislation



**QQI Qualification Framework (note craft apprenticeships are at level 6)** 









New Wind Turbine Maintenance Technician Apprenticeship

#### Work on amending existing craft apprenticeships as below

- •Motor Mechanic to include EV maintenance
- •Heavy Vehicle Mechanic to include Electric and hydrogen powered vehicles
- •Electrical to include modules on heat pumps, solar, domestic wind turbines,
- •Plumbing to include nodules on heat pumps, and solar
- •Carpentry to include modules on retrofitting
- Industrial insulation to include modules on domestic insulation







As of end December 2022



	3	CONSTRUCTI	ON								
Brick & Stonelaying	80	56	148	72	95	-10%	-51%				
Carpentry & Joinery	597	563	847	713	820	19%	-16%				
Geo Driller	2	18	7	8	8	300%	14%				
Painting & Decorating	31	24	43	23	45	-26%	-47%				
Plastering	36	20	38	31	45	-14%	-18%				
Plumbing	628	560	875	792	875	26%	-9%				
Scaffolding	0	0	37	29	36	-	-22%				
Stonecutting & Stonemasonry	3	3	9	8	12	167%	-11%				
Wood Manufacturing & Finishing	102	75	155	144	160	41%	-7%				
Total	1479	1319	2159	1820	2096	23%	-16%				
ELECTRICAL											
Aircraft Mechanics	72	50	55	62	62	-14%	13%				
Electrical	1949	1740	2748	2648	2600	36%	-4%				
Electrical Instrumentation	125	62	103	120	120	-4%	17%				
Electronic Security Systems	76	45	61	86	110	13%	41%				
Industrial Electrical Engineer	28	30	20	42	39	50%	110%				
Instrumentation	16	11	12	13	18	-19%	8%				
Refrigeration & Air Conditioning	122	73	142	152	150	25%	7%				
Total	2388	2011	3141	3123	3099	31%	-1%				







13 Tertiary degrees courses either new amended to include new green technologies

12 Tertiary Parttime courses on new green technologies 16 New FET & Skillnet upskilling courses for new green technologies





Plumbing to grow by 60%

Electrical to grow by 50% HVAC to grow by 50%