EWEA
THE EUROPEAN WIND ENERGY ASSOCIATION

European wind energy training needs and predicted skills shortage

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What is the European Wind Energy Association?

EWEA is the **voice of the wind industry** in Europe

Activities include:

- **Researching** the latest developments in the wind sector
- **Coordinating** EC-funded projects
- **Disseminating** high quality, up-to-date information
- **Raising awareness** of the benefits of wind power
- **Organising** Europe's premier wind energy events

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www.ewea.org/membership

More than 600 members from almost 60 countries

- Manufacturers with a leading share of the global wind power market
- Component suppliers
- Research institutes
- National wind and renewable associations
- Developers
- Electricity providers
- Finance and insurance companies
- Consultants
- Contractors

This combined strength makes EWEA the world's largest and powerful wind energy network

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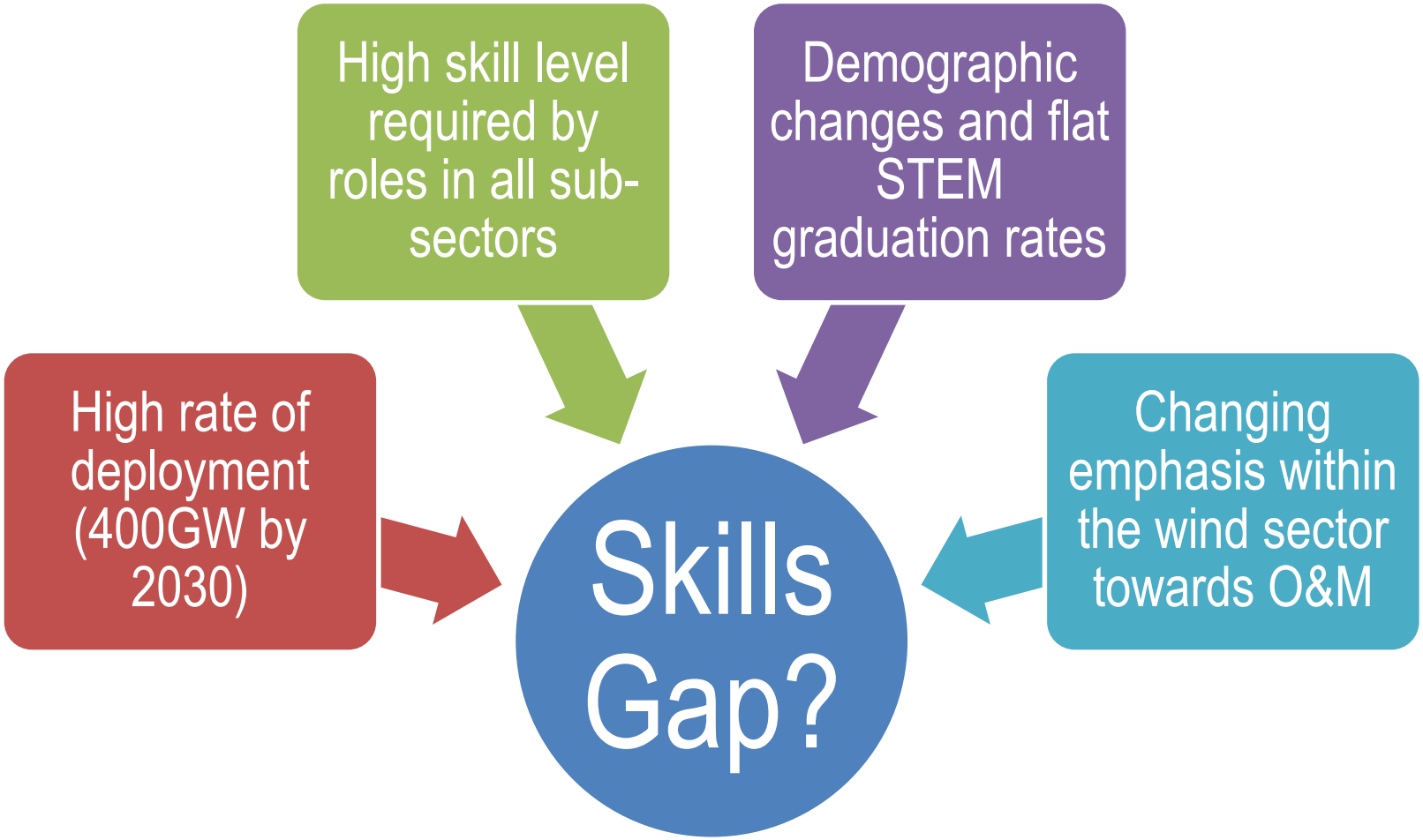
Members include the following leading players:

What is TPWind?

- A network of approximately 180 EU wind energy experts
- Created in 2005 and launched in 2006. Since 2007 it is funded by the EC
- Managed by an Executive and a Steering Committee. Supported by a Secretariat hosted and coordinated by EWEA (GL Garrad Hassan and DTU Wind are the current Secretariat's partners)
- It advises EU Institutions and Member States on the R&D priorities of the EU wind energy sector, to ensure that public funds are allocated where needed
- TPWind members are individuals (not organisations) selected on the basis of their CV
- The Platform's main deliverables / activities are:
  - The Strategic Research Agenda (published in 2008 – a new version will be published in 2014 and is the subject of the day's meetings).
  - The European Wind Initiative (published in 2009 in the EC Communication on "Investing in the development of low carbon technologies" and launched in 2010).
  - A Training Report, measuring the skills gap faced by the EU wind energy sector and suggesting relevant policy actions.

The European wind energy sector

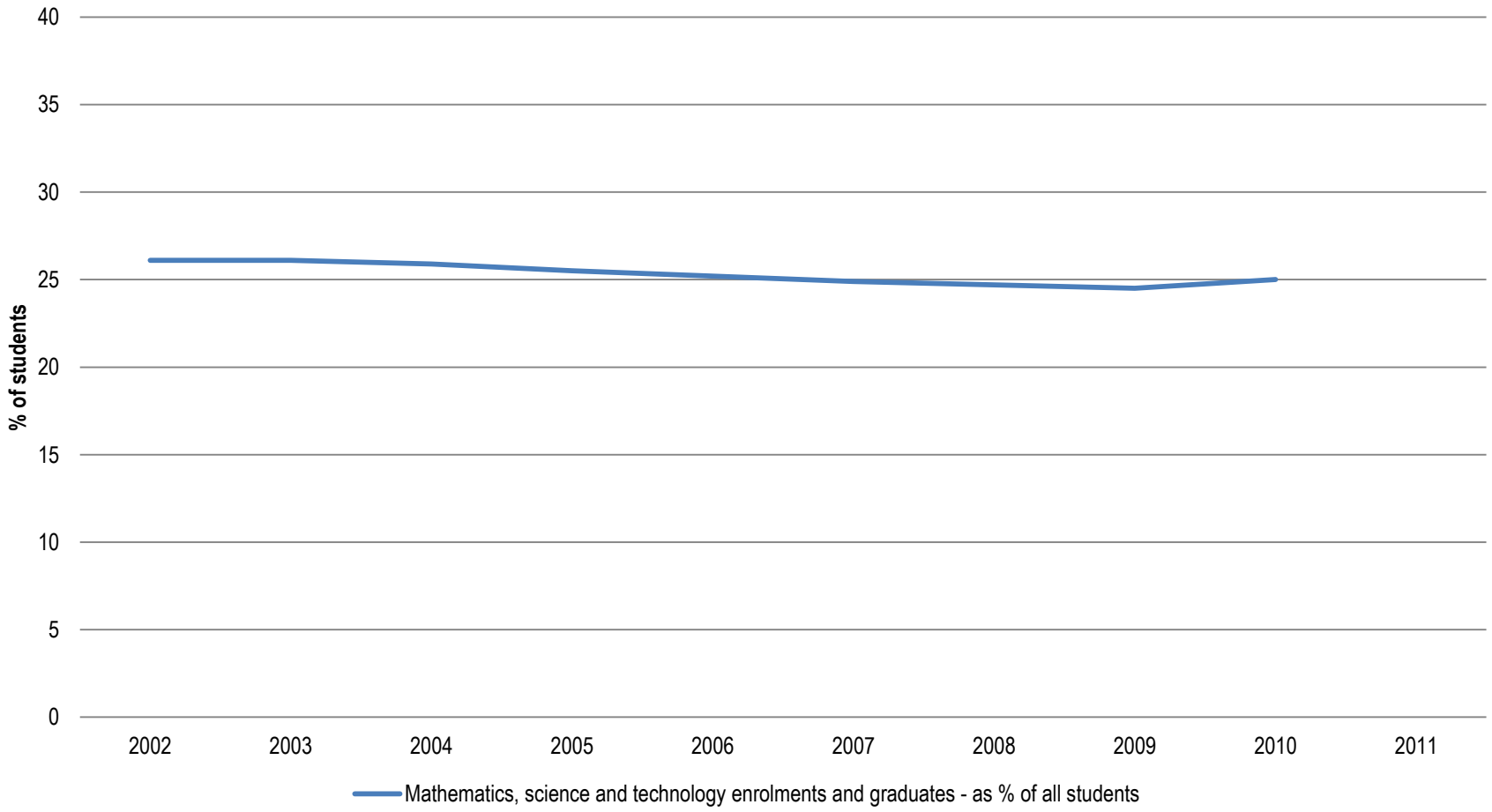


Wind energy– EWEA scenarios

	Onshore	Offshore	Total
Installed capacity 2020 (GW)	190	40	230
Annual installations (GW)	17.8	6.9	24.7
Installed capacity 2030 (GW)	250	150	400
Annual installations (GW)	10	13.7	23.7

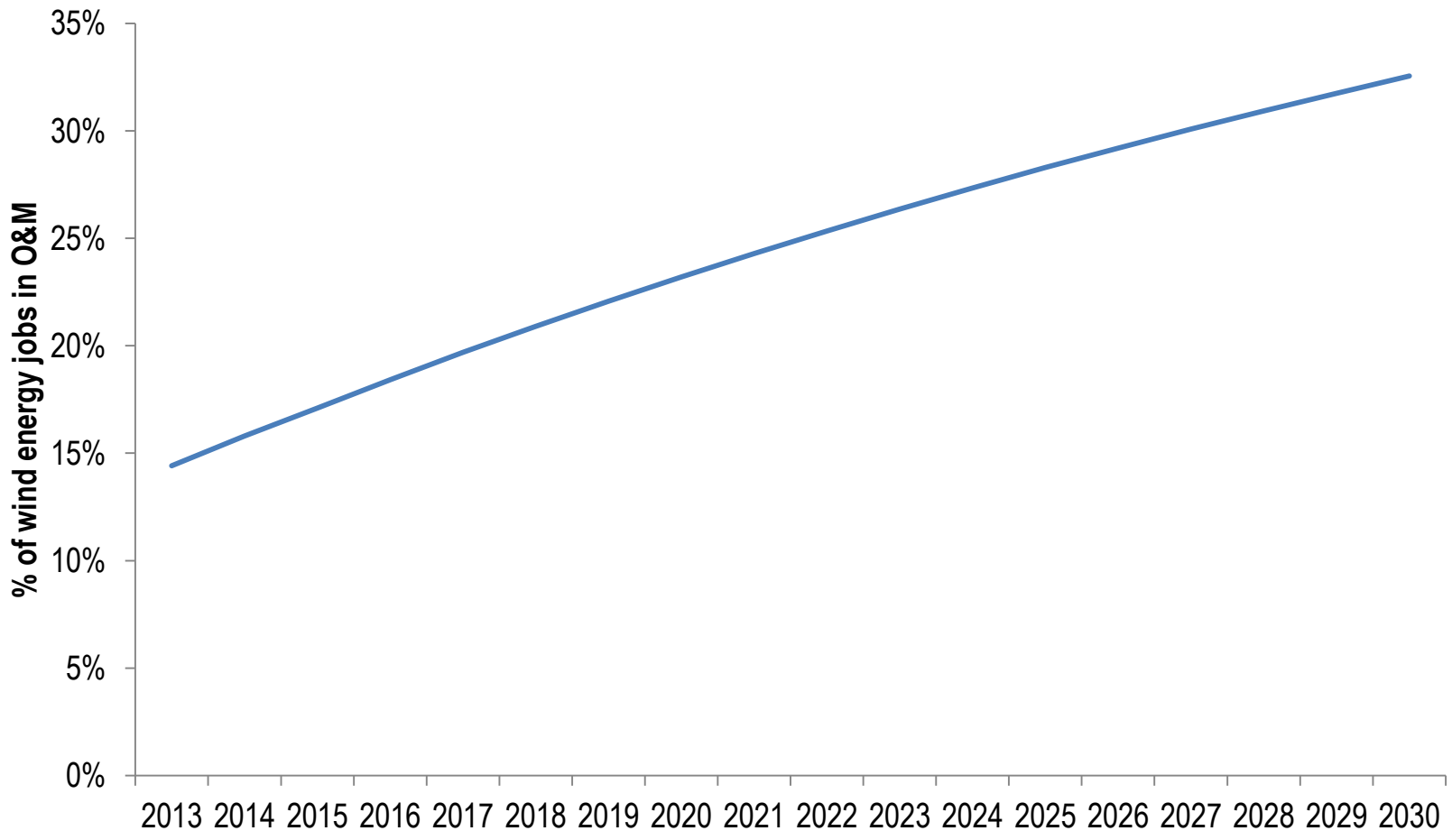
Source: EWEA, Pure Power (2011)

Demographics



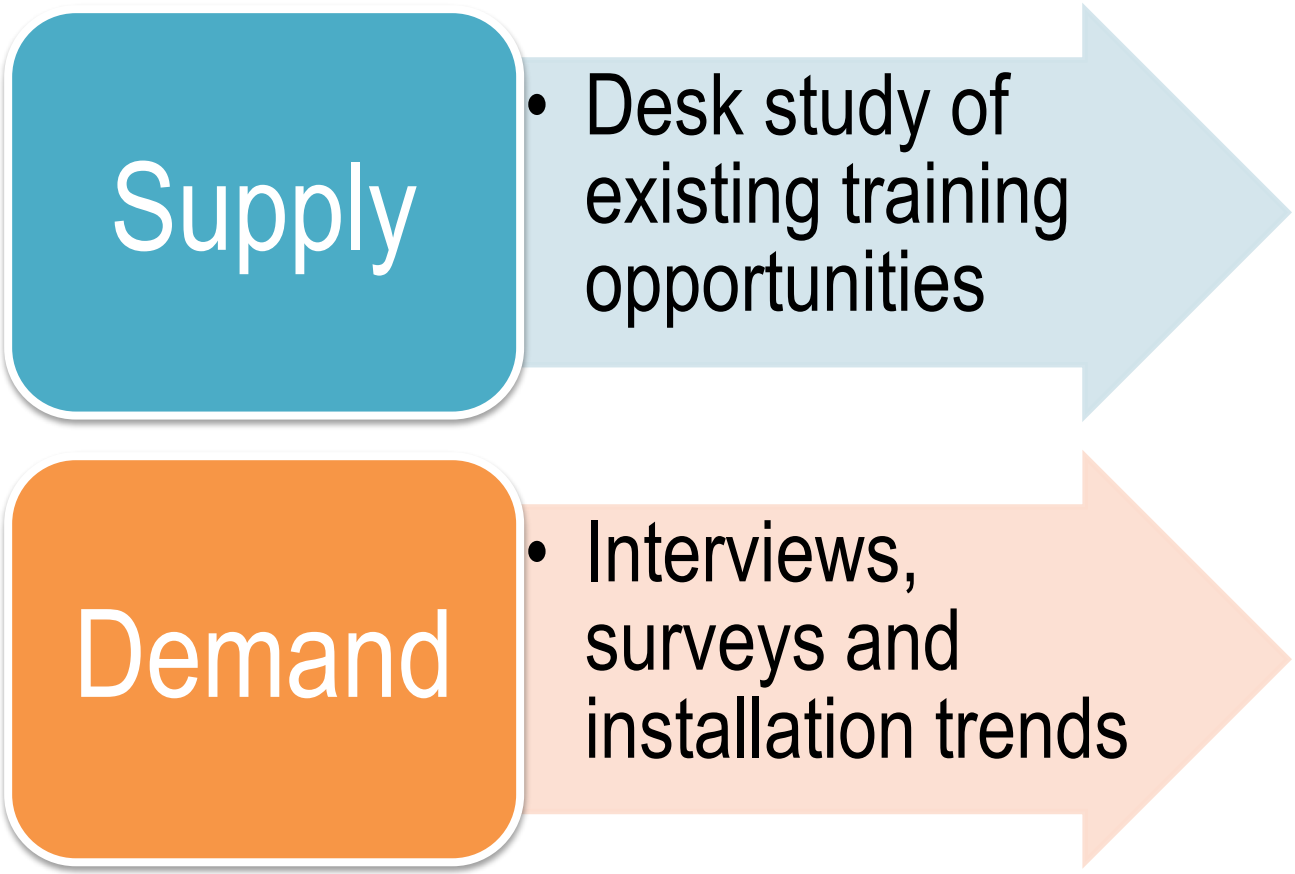
Source: EUROSTAT

Changing focus towards O&M jobs

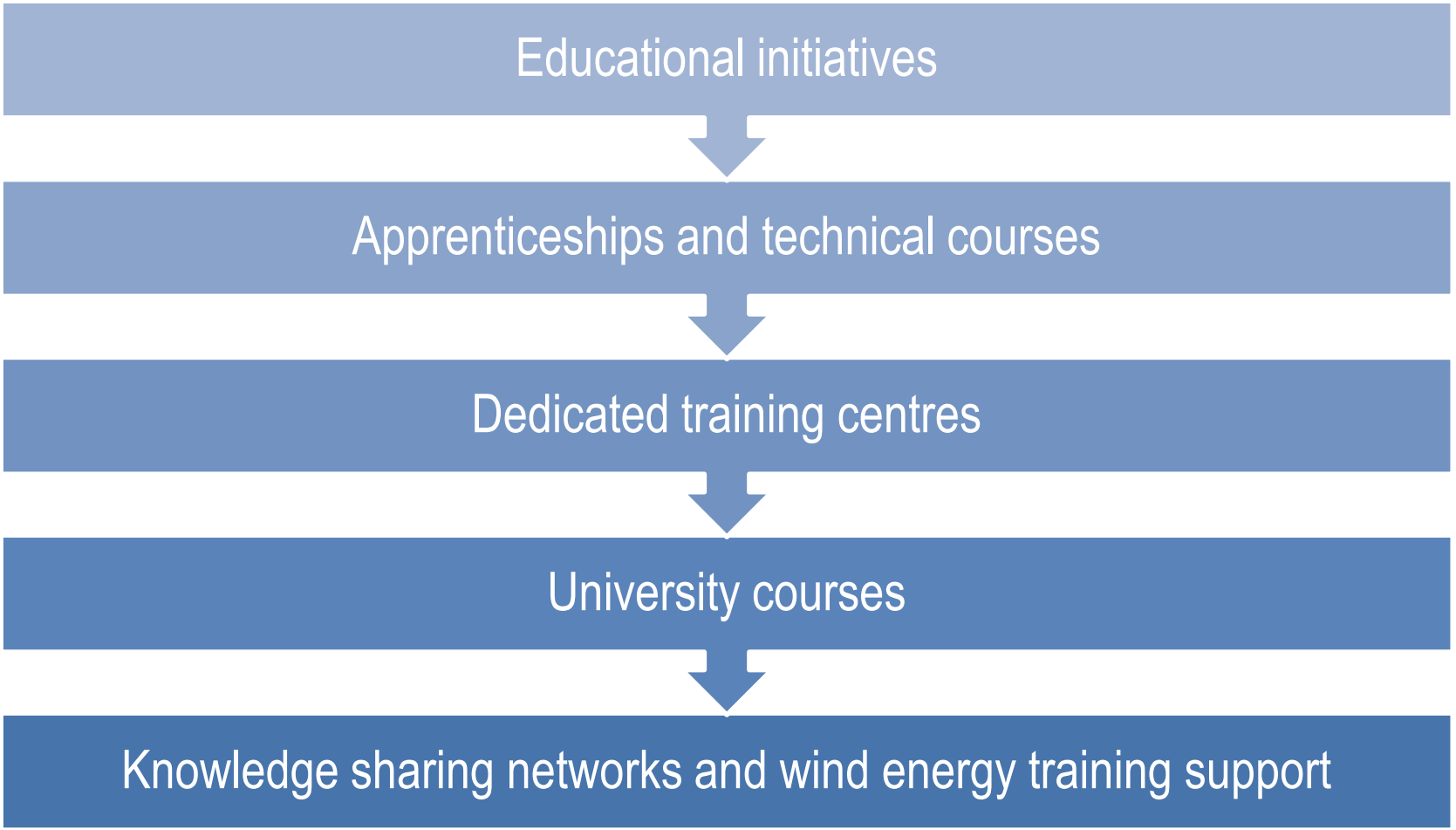


Source: TPWind report

Methodology TP WIND training report



Sources of information



Demand for trained personnel

Interviews

- Shorter 'conversion' courses attractive
- Vocational training standards may be beneficial
- Demand for industry input to academic offerings
- Changing needs as markets mature

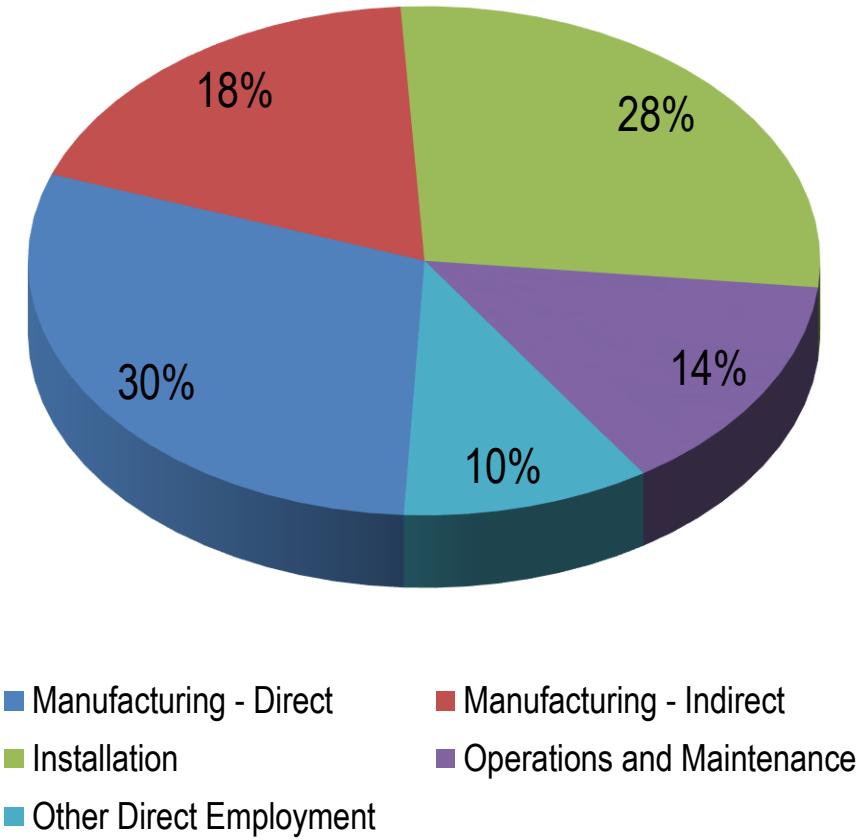
Surveys

- 78% say difficult or very difficult to get the right staff
- Collaboration between academia and industry needed
- Problem solving aptitude preferred

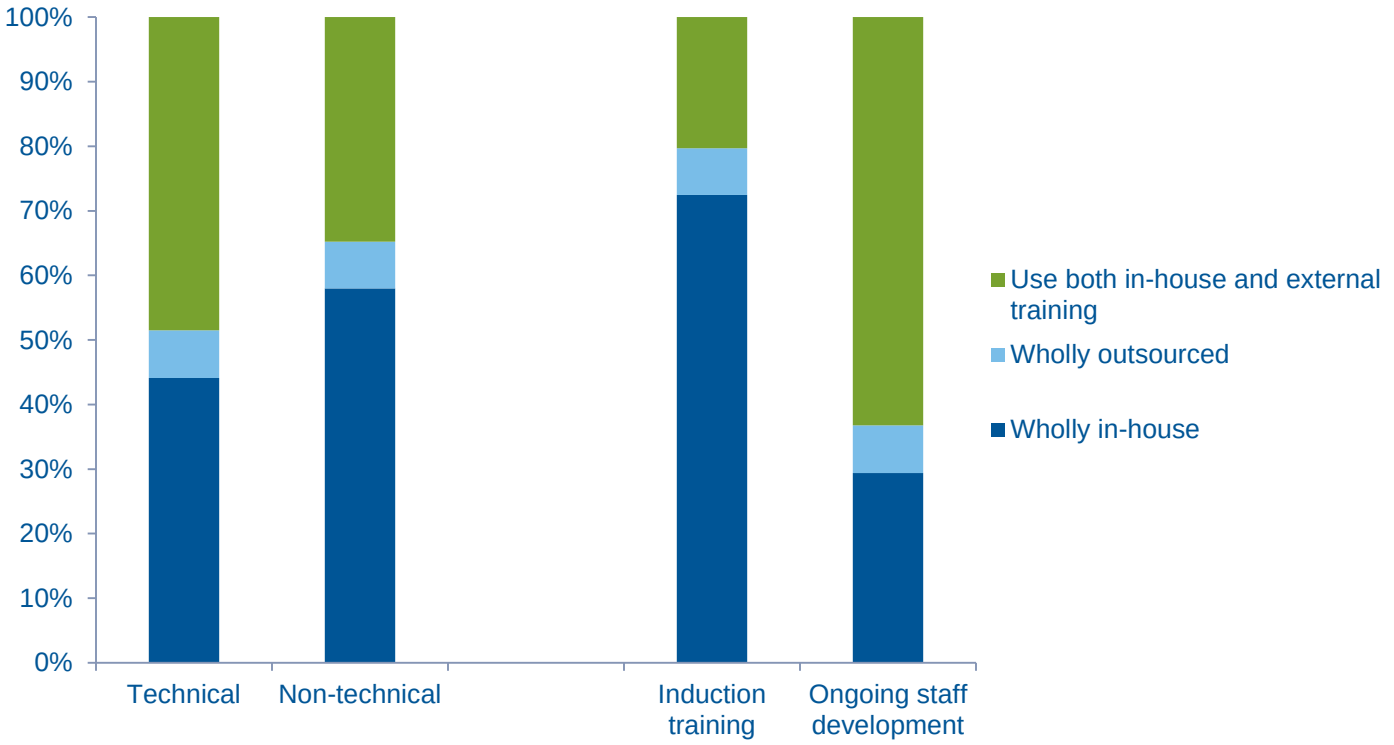
Installation Trends

- 230GW by 2020
- Changing jobs mix driven by increased cumulative capacity

About 40,000 suitably qualified personnel to enter the sector each year



Current industry training provision trends



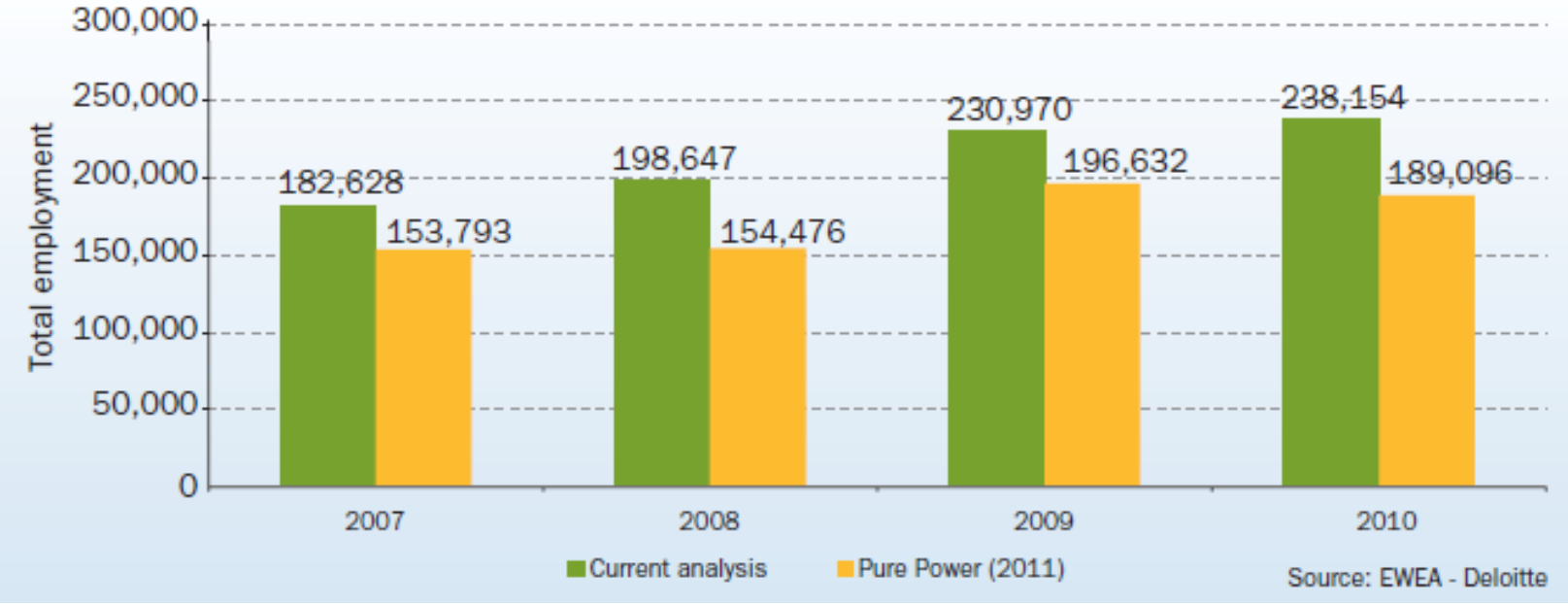
Source: Deloitte, TPWind

Evolution of EU wind energy sector's direct employment by sub-sector in jobs

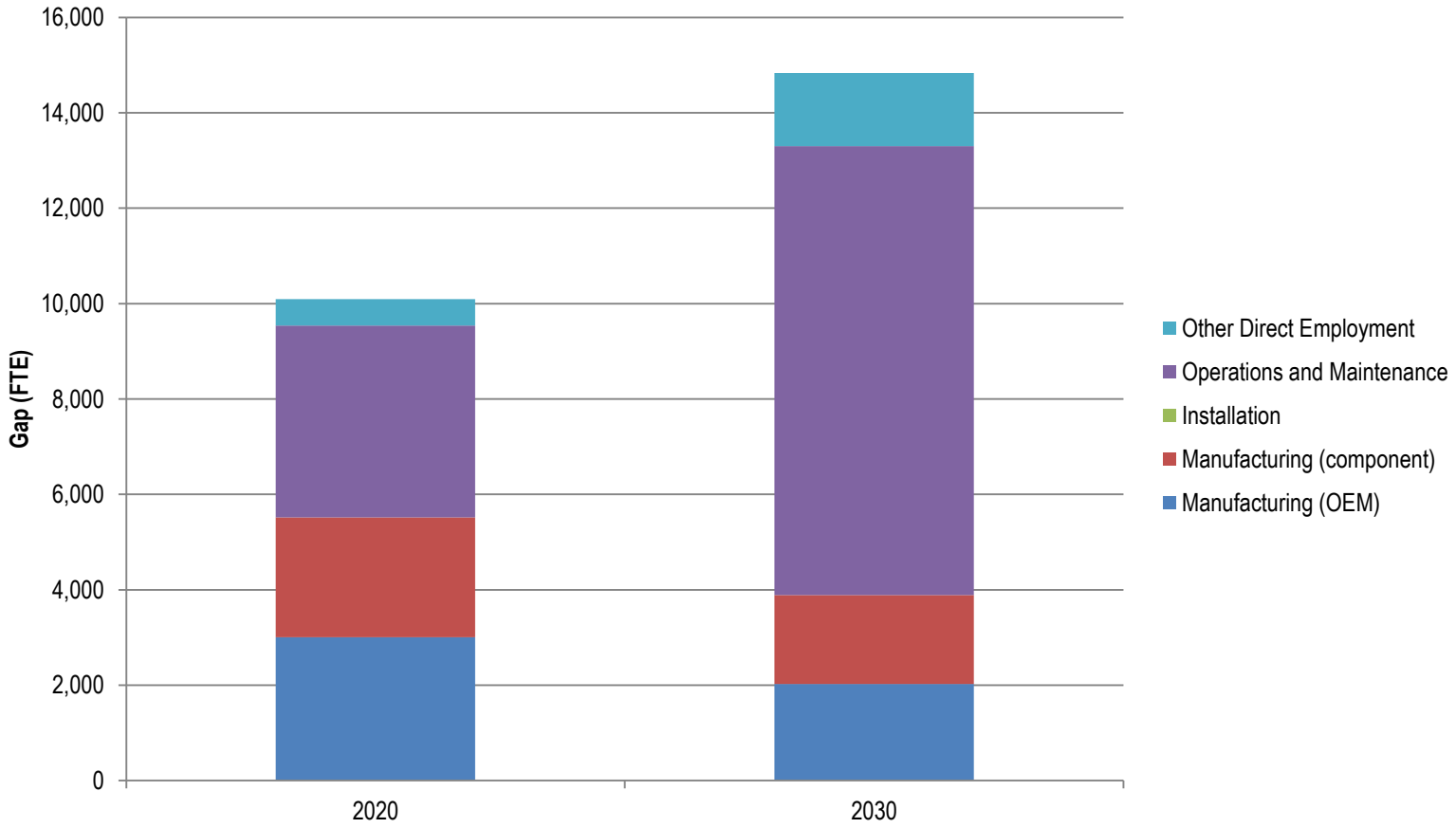
	2007	2008	2009	2010
Developers	10,302	11,233	13,482	14,159
Wind turbine manufacturers	35,349	41,106	44,026	45,449
Component manufacturers	27,581	30,793	32,001	32,115
Service providers	31,434	34,641	40,365	43,779

Source: EWEA, Green Growth (2012)

Evolution of total employment of the wind energy sector



Gap in 2020 and 2030



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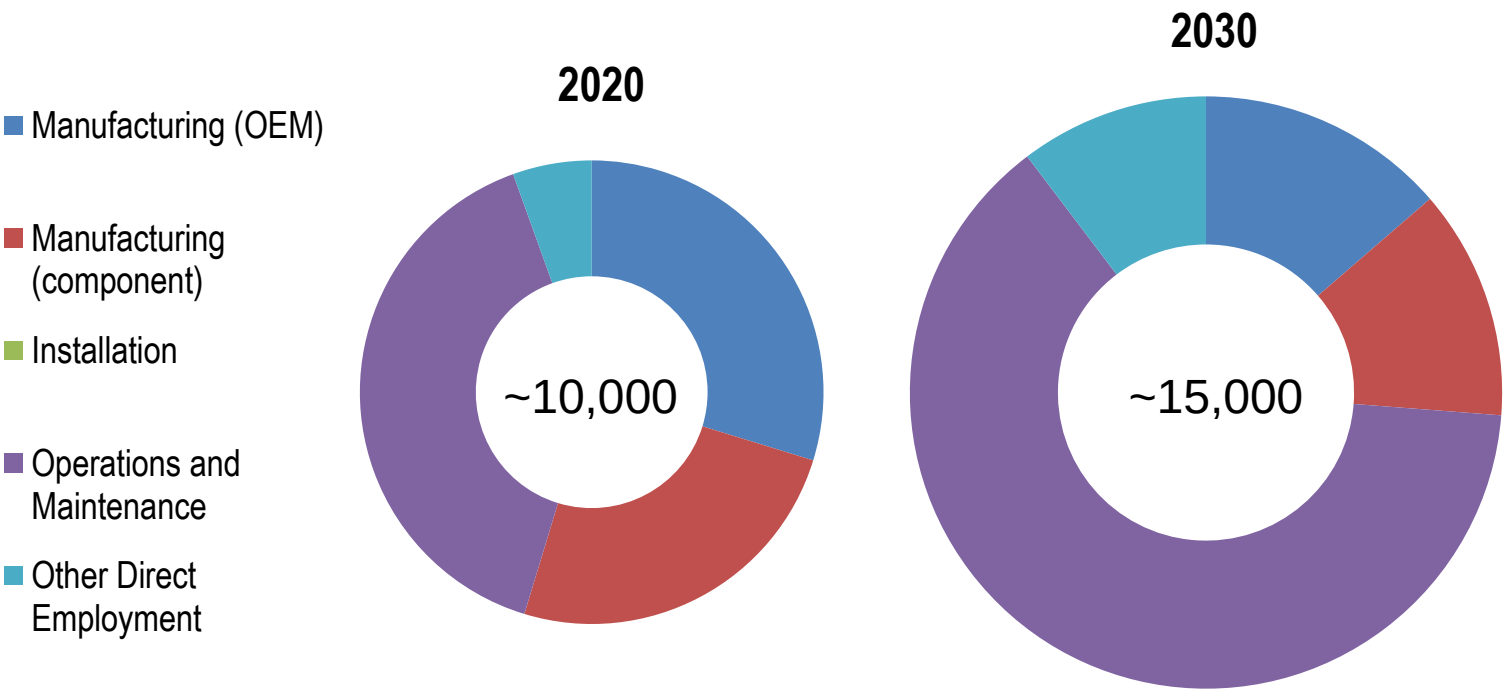

Key findings of TP WIND training report

Two big trends:

- Increasing demand – *more roles to fill – especially in O&M*

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- Constrained supply – *driven by demographics and a possible lag in training provision*

Recommendation: regular update and close monitoring of the skills situation

Recommendations

- Improve core STEM skills available to industry
- Get the benefits of industry experience into training and education institutions
- Expand the cohort of graduate-level wind energy generalists
- Harmonise Vocational Education and Training (VET) offerings at the EU level
- Increase the emphasis on O&M training

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Thank you

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