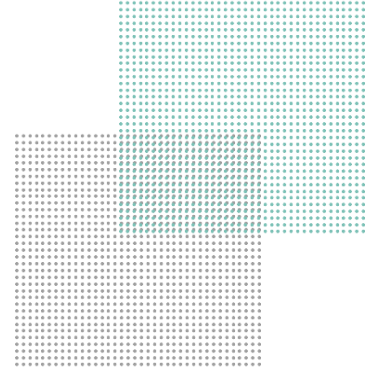




RESEARCH & CONSULTING



June 2022

IPAF Powered Access Rental Market Report 2022

GLOBAL REPORT

www.ipaf.org/reports



**THE EUROPEAN
ASSOCIATION
AWARDS 2019**

FINALIST
Best Provision of Industry
Information and Intelligence



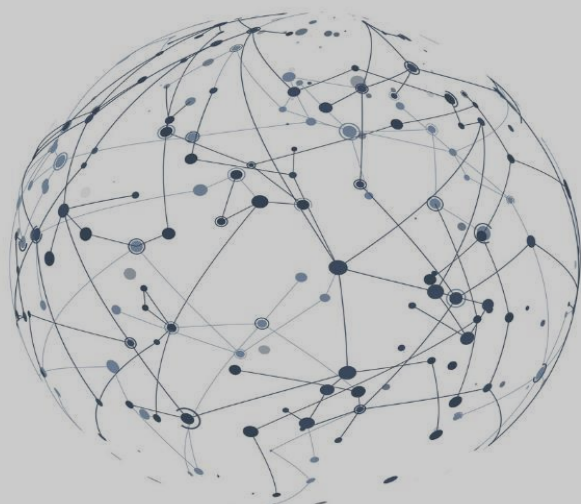
**THE EUROPEAN
ASSOCIATION
AWARDS 2018**

BRONZE
Best Provision of Industry
Information and Intelligence

IPAF MEMBER - FREE COPY

AGENDA

Foreword	3
Executive summary	12
Europe information	21
North America information	51
China focus	77





FOREWORD
IPAF Powered Access Rental Market
Report 2022 – *GLOBAL REPORT*

- Ducker provides unrivalled market research and executive advisory services based on decades of experience supporting the strategic decisions of more than 700 companies. Client executives benefit from the firm's broad expertise and geographic reach, robust cloud-based technology platforms, expanded insight into customer behaviour, and award-winning data and analyst insights spanning B2B, healthcare, consumer, and private equity.
- Ducker has been working with IPAF to create these industry reports since 2009, making this the 13th anniversary of our award-winning collaboration.
- Ducker benefits from solid industry experience and a highly international team with the ability to approach and study global markets at a local level:
 - Product and industry expertise: experience in the MEWP and equipment rental markets through several projects covering access equipment and other types of construction machinery at all levels of the value chain including rental as well as distribution and contracting.
 - International approach applied locally: with a team of permanent native consultants working out of offices that reach across the US, Europe and Asia, Ducker prides itself on the fact that all fieldwork is completed in the respondent's native language by in-house consultants.
 - Methodological expertise: on-going involvement in strategic consulting within areas such as market sizing and segmentation, distribution structure, competitive positioning, voice of the customer or market opportunity and new product entry assessments for a variety of products within the global construction and transportation industries amongst others.
 - Quality charter: Ducker works to the guidelines of the ESOMAR ethics standards.
- More information on Ducker can be found at www.Ducker.com

This report was produced by Ducker in Europe, in co-operation with its US office.

Ducker EUROPE

110, avenue Victor Hugo
F-92100 Boulogne Billancourt cedex, France

www.Ducker.com

Tel: +33 1 46 99 59 60

Audrey Courant, Managing Principal

acourant@Ducker.com

Anne Myon, Managing Director

Amyon@Ducker.com

Ksenia Striapunina, Senior Market Analyst

kstriapunina@Ducker.com

Ducker USA

1250 Maplelawn Drive
Troy, MI 48084, US

www.Ducker.com

Tel: + 1 248-530-2011

Nicole McGregor, Managing Principal

nmcgregor@Ducker.com

Foreword – objectives

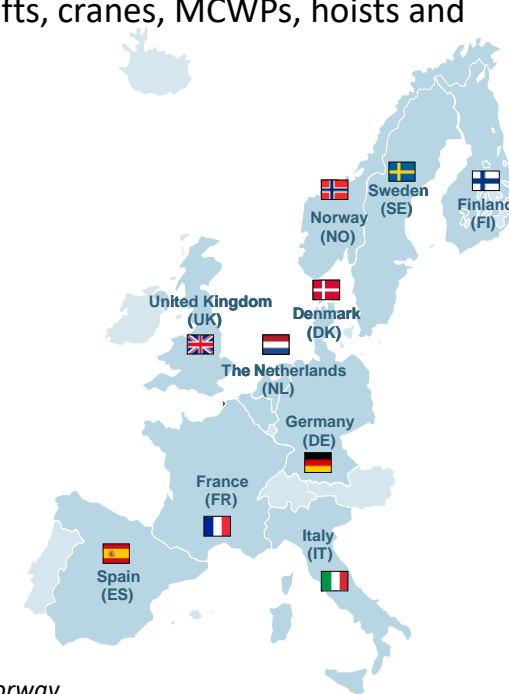


This study assesses the MEWP (Mobile Elevating Work Platform) rental market for the US and Europe over a 13-year period.

- The study covers the time period 2008-2023, with particular focus on 2021.
- Main objectives:
 - 2021 MEWP rental market value and fleet size.
 - Trends and dynamics (2008-2023).
 - Operational indicators (investment, age of fleet, application).
 - In addition to the primary market value and fleet-size objective, fleet mix is included to ensure that the value is anchored in reality. Moreover, fleet information is typically more readily available than rental revenue. This has allowed for cross-checks, revenue-per-unit ratios and the optimisation of secondary sources.
 - Estimated size of the 2021 MEWP rental fleet worldwide, with a breakdown by region and by machine type (including the estimated share of vehicle mounted platforms held by rental companies owning self-propelled fleets).
- Additional information:
 - Ranking of construction and non-construction sub-sectors in the MEWP rental revenue.
 - Return on investment/average payback period by equipment type.
 - Utilisation rates by equipment type (booms vs scissors).
- The current study does not examine rental company profitability.
- All interviews were conducted between February and May of 2021, which has allowed for primary data collection on the full previous year, thus providing for more specifically targeted and up-to-date information than would have been available from any statistical sources.

- The current study focuses on powered access equipment owned by rental fleets, ie mobile elevating work platforms (MEWPs), formerly known as aerial work platforms (AWPs). It includes the full range of powered access equipment (all sizes and types) except mast climbing work platforms (MCWPs).
- Included are: All booms, scissor lifts, truck or van-mounted booms and vertical masts.
 - Both articulated and straight telescopic booms.
 - Self-propelled as well as push-around, towable and vehicle-mounted.
- Excluded: Low-level access equipment (<10ft / 3m high), telescopic material handlers, forklifts, cranes, MCWPs and equipment owned by non-rental companies.

- The present study focuses on powered access equipment, ie mobile elevating work platforms (MEWPs). It includes the full range (all sizes and types) of powered access equipment except mast climbing work platforms (MCWPs) and hoists.
- Included are powered access equipment, all booms, scissor lifts and vertical masts:
 - Both articulated and straight telescopic booms.
 - Self-propelled as well as push-around, towable and vehicle-mounted.
- Excluded are: Low-level equipment (<3m high), telescopic material handlers, forklifts, cranes, MCWPs, hoists and equipment owned by non-rental companies.
- The European part of the study comprises the following ten countries:
 - Denmark (DK)
 - Finland (FI)
 - France (FR)
 - Germany (DE)
 - Italy (IT)
 - Netherlands (NL)
 - Norway (NO)
 - Spain (ES)
 - Sweden (SE)
 - United Kingdom (UK)
- These represent 85% of the European* market in value.



* Defined as 27 EU countries + Norway, North Macedonia, Switzerland and the UK.

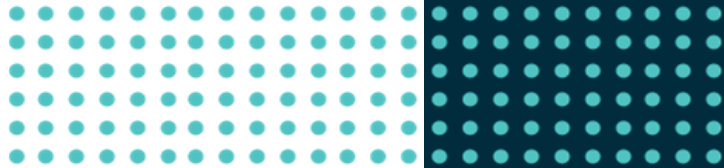
- The main source of information for this study is primary research through telephone interviews. Organisations interviewed for this study include rental companies and other industry experts:
 - Rental companies:
 - Specialist MEWP rental companies: MEWPs account for more than 50% of total rental revenue.
 - Generalist rental companies: MEWP rental revenue accounts for 50% or less of total rental revenue.
 - MEWP manufacturers.
 - National rental associations.
 - Industry experts.
- Secondary data was also gathered to validate major market trends identified.
- Only persons with input in machine selection or management were qualified as respondents. Recurrent respondent job functions include in particular owner, sales and technical manager, purchasing manager, fleet manager, branch manager or operations manager.
- Ducker and IPAF would like to thank all industry representatives who have been available for interviews and whose kind assistance made it possible to conduct this research.
- Ducker and IPAF would like to address a special thank you to Pier Angelo Cantù for his invaluable insight into the Italian MEWP rental market.

- MEWP rental revenue:
 - Includes for example: Machine rental rates, machine repair, support (eg fuel services), transportation/delivery, training, damage waiver, operator charges.
 - Used equipment sales are excluded from the MEWP rental revenues reported.
- Re-rental/cross-hire:
 - Rental by one rental company to/from another rental company.
- Utilisation rate:
 - The physical number of machines out on rent as a percentage of the total number in fleet at any given time.
- Average age of fleet:
 - The overall average age of the total fleet in December 2021, including machines that underwent refurbishment/remanufacturing.
- Rental rate:
 - Corresponds more to net prices than list prices. Directly linked to the rental revenue.
 - The dollar amount the customer agrees to pay for possession and use of a machine.

- The currency exchange rates used for countries outside the eurozone are as below (average annual 2021 exchange rates). The same rate has been used throughout the time period in order to eliminate variation in growth rates due to exchange rates rather than to the actual MEWP rental market.

	Currency Unit	Converter to Euro
UK	£ 1	1.163
Denmark	DKK 1	0.134
Norway	NOK 1	0.098
Sweden	SEK 1	0.099
US	US\$ 1	0.846

	Currency Unit	Converter to Euro	Converter to USD
RDC	¥ 1	0.131	0.155

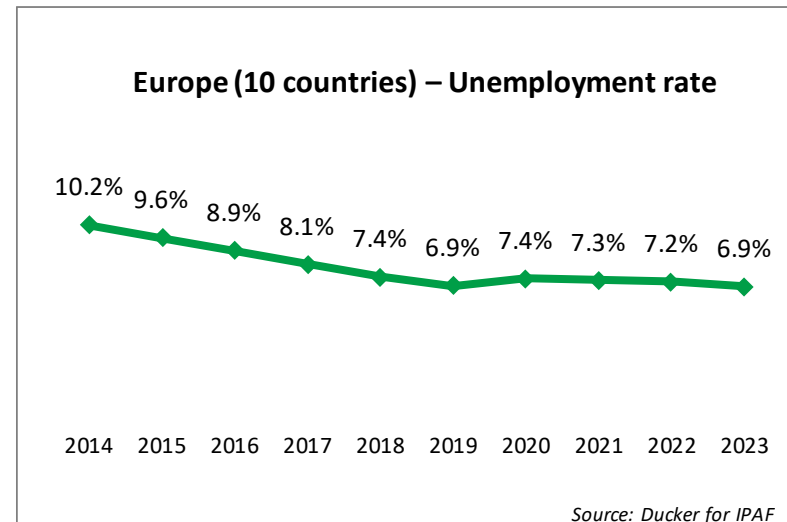
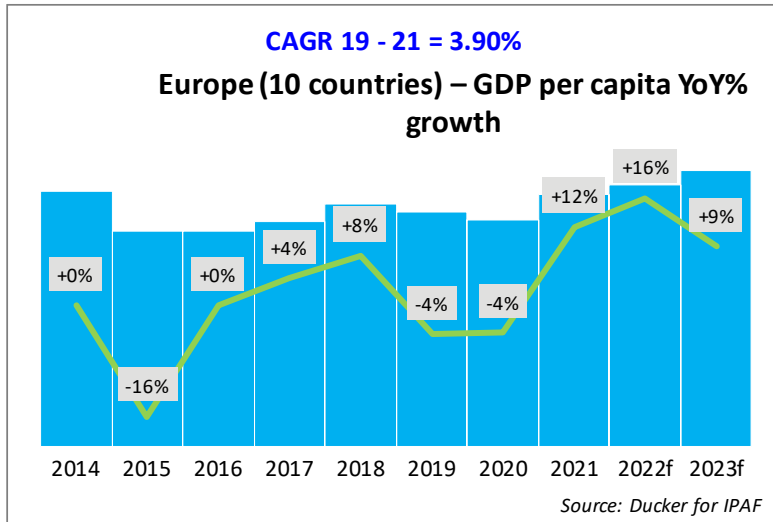


EXECUTIVE SUMMARY
IPAF Powered Access Rental Market
Report 2022 – *GLOBAL REPORT*

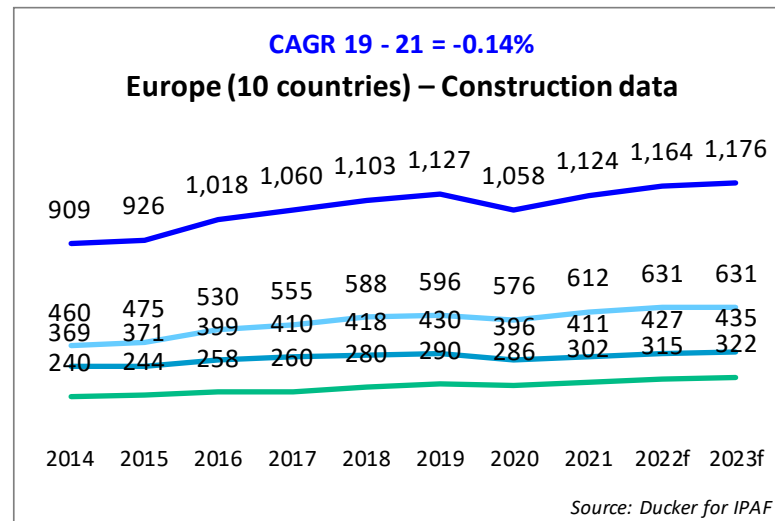
Executive summary – Europe



Macro-economic indicators were generally on the decline during 2020 across Europe, owing mainly to the pandemic. Both GDP and construction outlooks were much more positive for 2021 and beyond.



Source: FrontierView – March 2022
Includes Germany, France, UK, Italy, Spain, The Netherlands and the Nordics.



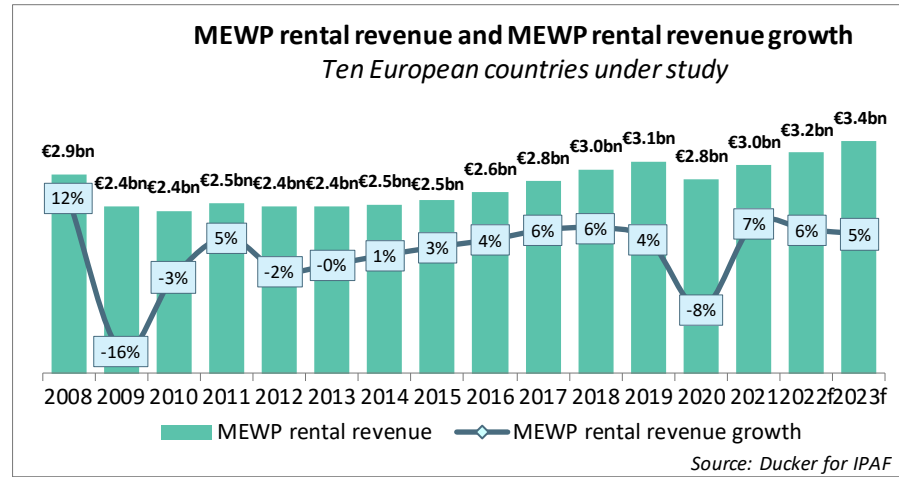
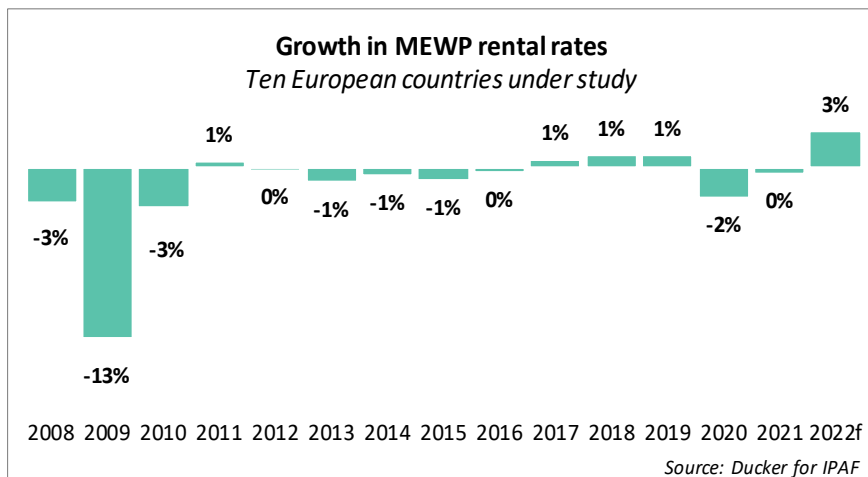
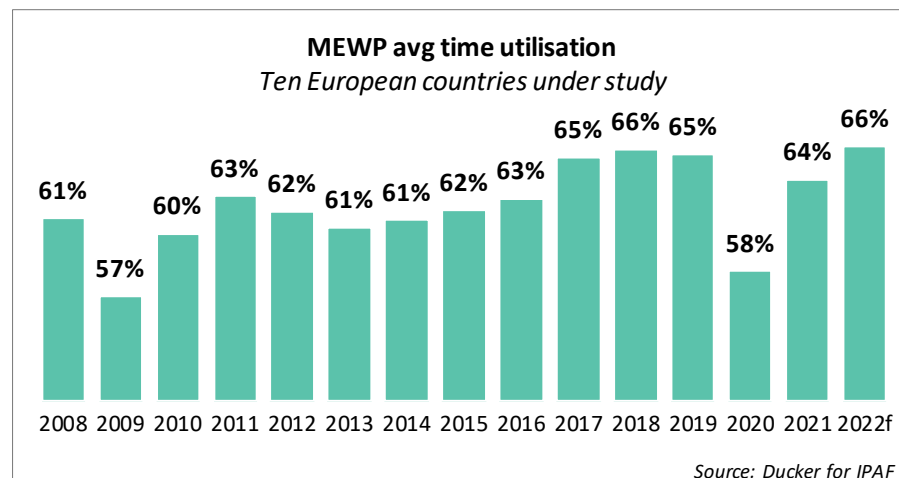
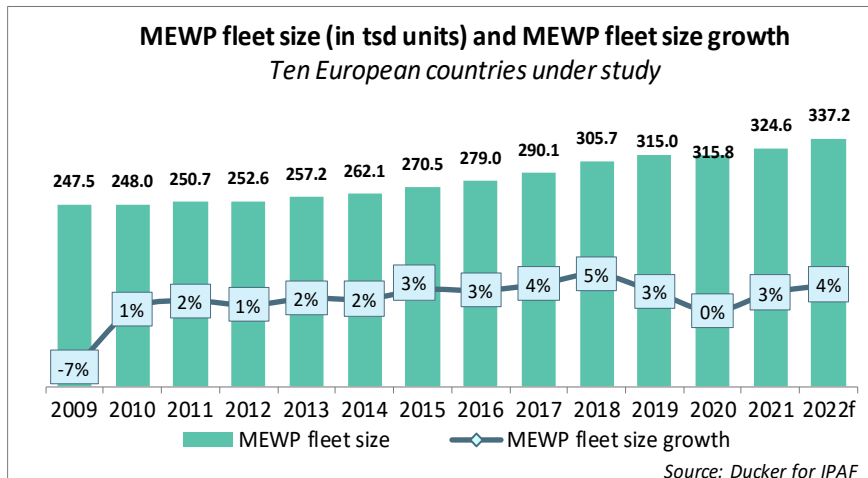
Compound Annual Growth Rate (CAGR) (2019-2021)

- Residential construction: 1.31%
- Non-res. constr. : -2.16%
- Total construction : 2.08%

- Residential construction
- Non-residential construction
- Total construction
- Civil engineering / Major infrastructure

Construction pipeline (billions euros) based on Euroconstruct 2021 figures.

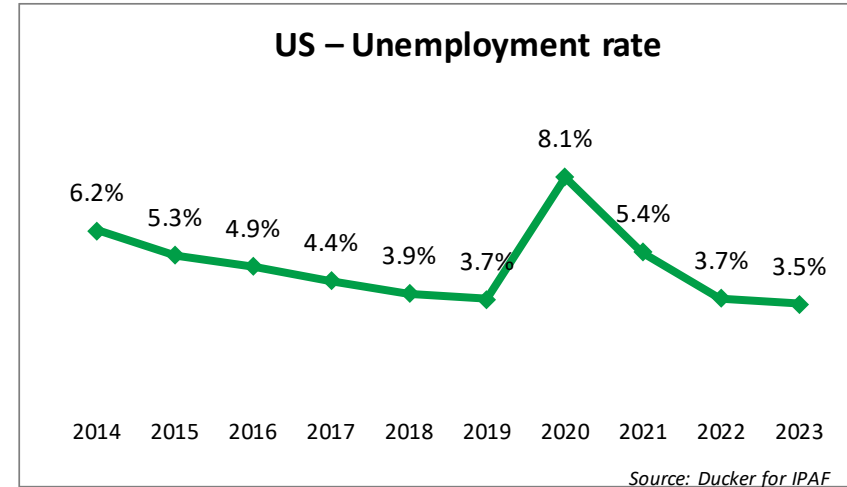
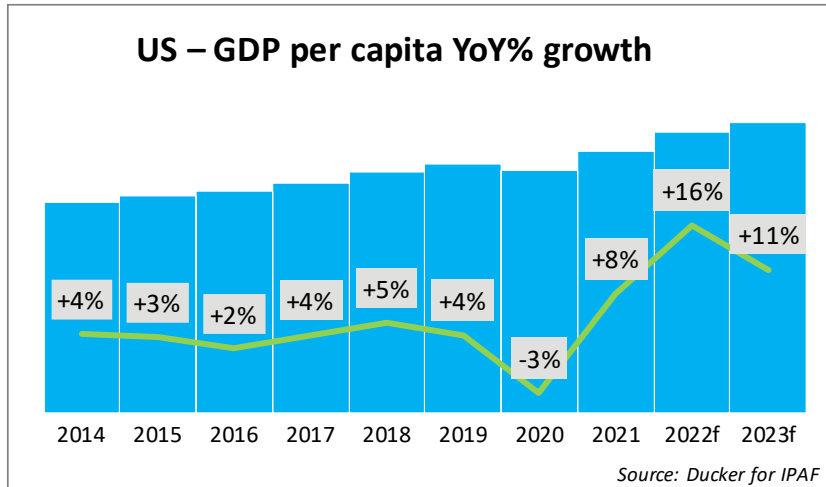
- The European MEWP rental market partially recovered from the pandemic impact in 2021. However, the market was still slowly recovering in the first half of the year in most countries under study, as lockdowns and public health measures were eased at different rates in different countries in Europe.
- In 2021, the European rental market reached €3 billion total revenue, to almost regain pre-pandemic levels of activity owing to demand recovery from both construction and non-construction sectors.
- Rental companies resumed investing in their fleet, catching up with renewal and expansion plans that were put on hold during the pandemic. The European fleet amounted to approximately 325,000 units at the end of 2021.
- Utilisation rate went up by 6 percentage points, driven by the post-pandemic recovery and new OEM MEWP shortages/supply issues in the market. Countries such as the UK, France and Italy that were hit the hardest in Europe during 2020 demonstrated the fastest rate of recovery.
- Price competition in the market and companies' need to sustain market share during the period of slowly recovering demand in early 2021 made it difficult for them to increase the rental rates as whole over the year.
- The level of investment grew tenfold, as rental companies resumed capital expenditure, looking for new MEWP suppliers with more agreeable lead times and in some cases receiving orders that had been delayed in 2020.
- The market outlook for 2022 remains positive, but ongoing logistics and supply-chain problems caused by the pandemic, as well as the impact of war in the Ukraine on global markets and rising inflation, make forecasting increasingly difficult.



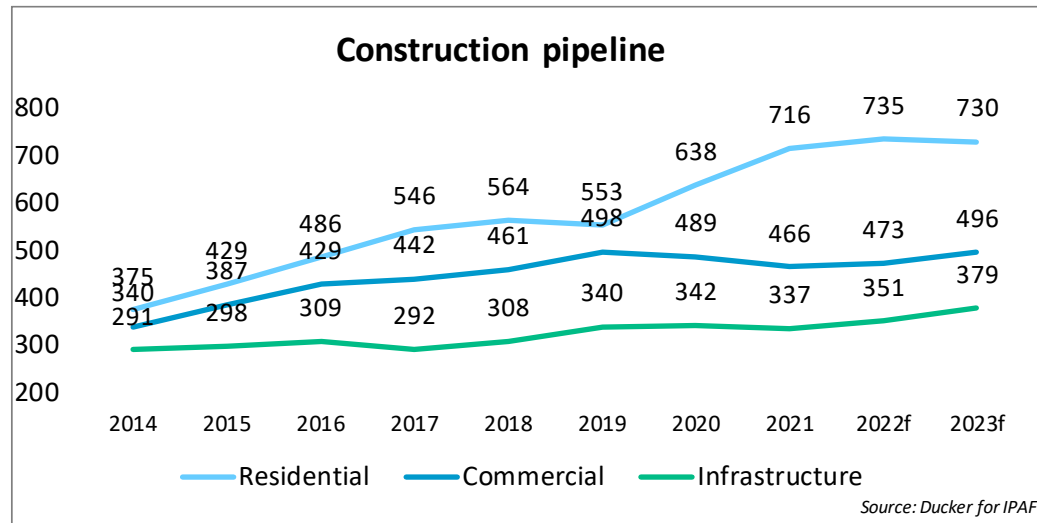
Executive summary – USA



Macro-economic outlooks in the US improved markedly in 2021. Both GDP and construction outlooks remain largely positive for 2022 and 2023, despite rising global costs and political instability.



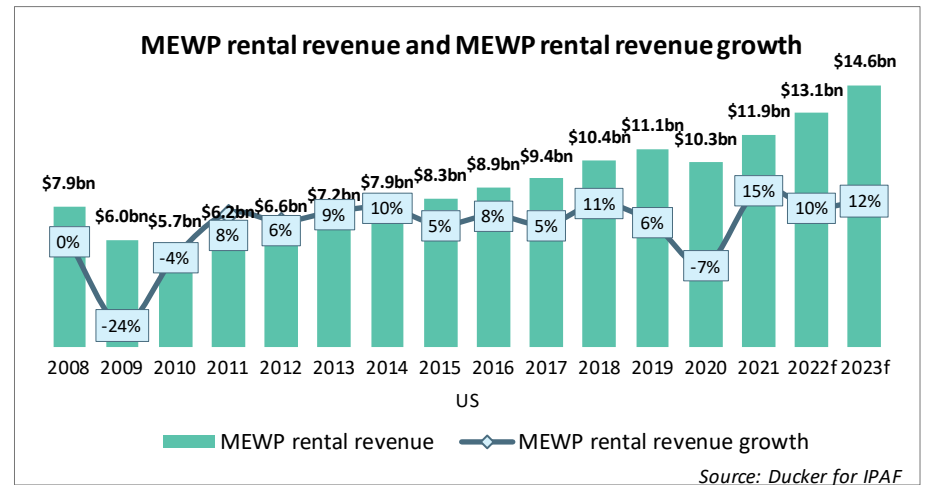
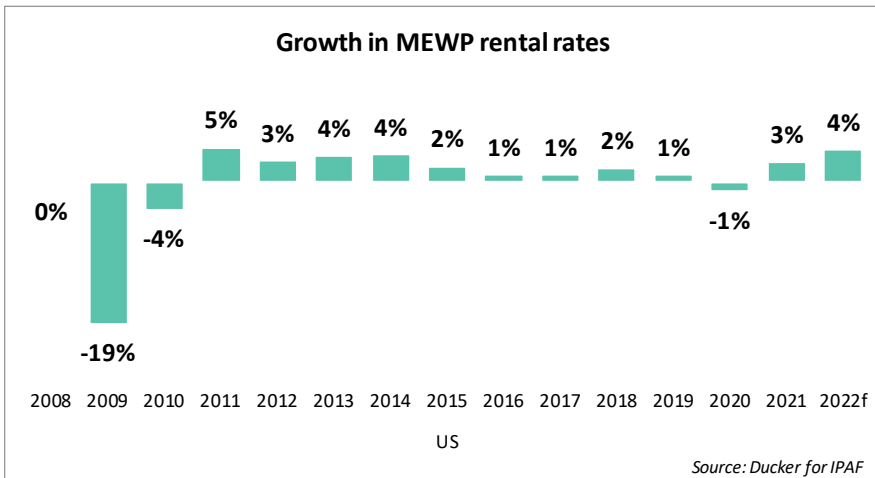
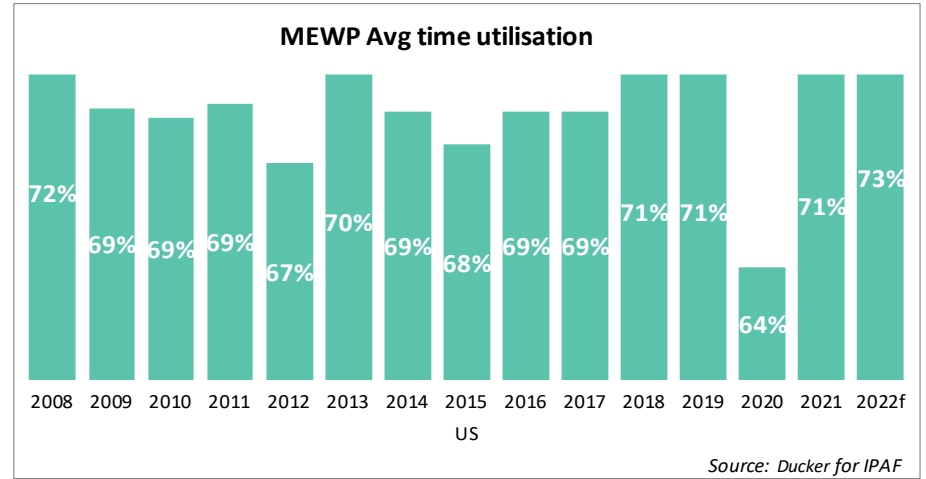
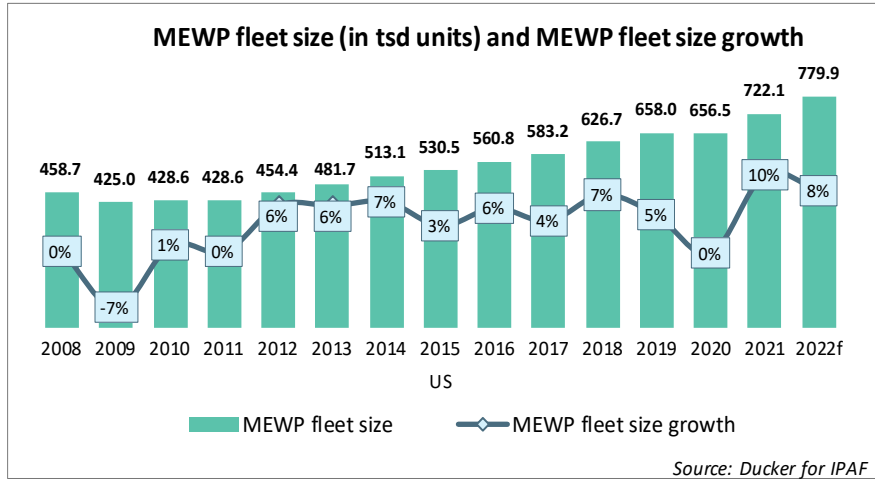
Source: FrontierView – March 2022



Source: FMI Construction Outlook.

Millions of current dollars

- MEWP rental revenue increased by 15% and reached US\$11.9 billion in 2021, surpassing pre-pandemic levels of activity.
- MEWP fleet size in the US grew by 10%, as rental companies resumed increasing fleet size in a bid to keep average utilisation rates from becoming too high.
- In Q4 of 2021, high tariffs were imposed on the imported Chinese-made machines that is likely to have a long-lasting impact on MEWP supply in the US market.
- Average utilisation rate went up by 7 per cent, driven by the reopening of the economy and shortages or delays in securing new MEWPs. This was exacerbated by slight de-fleeting that happened in 2020, amplified by global supply chain disruptions.
- Rental rates increased by 3 per cent in 2021 to compensate for the increase in MEWP procurement costs. Most companies expect further rate growth in 2022, to catch up with rising global inflation.



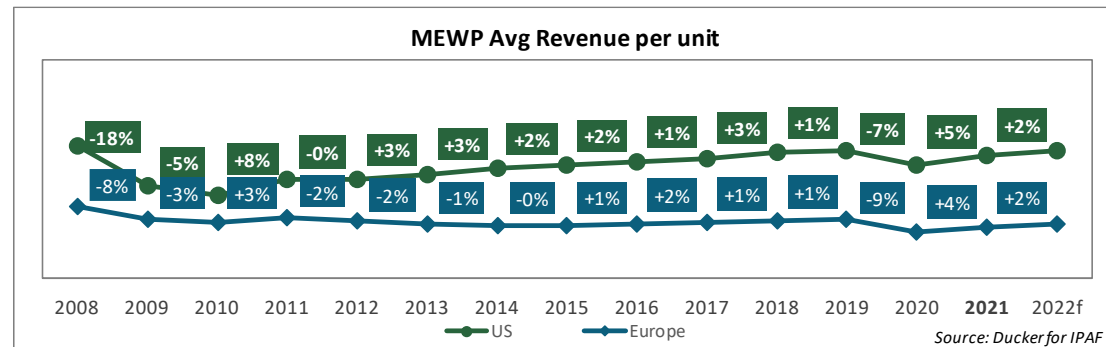
Executive summary – Europe vs US



In 2021, both the US and Europe MEWP rental markets began to recover rapidly from the worst impacts of the pandemic.

Region	2021 revenue growth	2021 revenue	2021 fleet size growth	2021 fleet size	Utilisation rate growth	Rental rate growth
Europe (10)	+7%	€3.0/ \$3.5 Bn	+ 3%	324,597	+ 6 pts	0%
USA	+15%	\$11.9 / €10.0 Bn	+ 10%	722,105	+7 pts	+3%

- Both the Europe and US markets grew in 2021, by 7% and 15% respectively, under the influence of post-pandemic economic recovery.
- Average revenue per unit also increased, by 4% in Europe and 5% in the US. Both markets are expected to experience further growth in average revenue per unit in 2022.



Executive summary – Regional overview

Fleet size by region and type of equipment in 2021.



North America	
Booms	297,000
Scissors	464,000
Others	36,400
Total	797,400

Latin America*	
Booms	34,800
Scissors	26,800
Others	5,400
Total	67,000

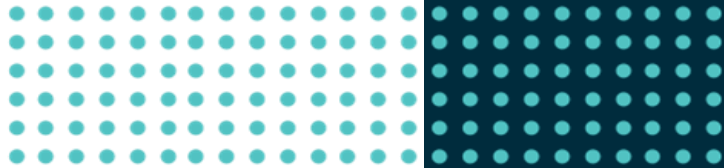
*Includes Mexico

EAME	
Booms	162,100
Scissors	206,600
Others	57,000
Total	425,700

Overall Europe (EU27+UK) accounts for 94% of total EAME fleet

ASIA-PACIFIC	
Booms	194,100
Scissors	418,400
Others	58,200
Total	670,000

Included are powered access booms, scissor lifts and vertical masts;
 Excluded: Low-level access equipment (<10ft/3m high), telescopic material handlers, forklifts, cranes, MCWPs.
 Others include: Vertical lifts, vertical masts, vehicle-mounted booms owned by rental companies with self-propelled fleets.



EUROPE INFORMATION
IPAF Powered Access Rental Market
Report 2022

IPAF MEMBER - FREE COPY

Executive summary – Europe



2021 was a year of economic recovery across Europe, with both GDP and construction output on the rise across all countries in scope, which had a largely positive impact on MEWP rental market dynamics.

Region	Market Situation 2021	GDP	Overall construction	MEWP Rental Market	Key Indicator
Denmark	Strong growth in GDP and moderate growth in construction	↑ 10%	↑ 6%	↑ +2%	Stable rental rates and fleet size, growth in utilisation
Finland	Growth in GDP and construction	↑ 9%	↑ 5%	↑ +2%	Increase in all indicators
Netherlands	Growth in GDP, stable construction	↑ 11%	↑ 2%	↑ +2%	Increase in all indicators
Germany	Growth in GDP, stable construction	↑ 8%	↑ 0%	↑ +3%	Drop in rental rates, stable fleet size and growth in utilisation
Norway	Strong growth in GDP and moderate growth in construction	↑ 14%	↑ 3%	↑ +3%	Increase in all indicators
Spain	Strong growth in GDP and moderate growth in construction	↑ 13%	↑ 6%	↑ +5%	Drop in rental rates, growth in fleet size and utilisation
Sweden	Strong growth in GDP and moderate growth in construction	↑ 14%	↑ 9%	↑ +5%	Stable rental rates and fleet size, growth in utilisation
United Kingdom	Strong growth in GDP and construction	↑ 17%	↑ 13%	↑ +11%	Increase in all indicators
Italy	Strong growth in GDP and construction	↑ 10%	↑ 16%	↑ +12%	Stable rental rates, growth in fleet size and utilisation
France	Strong growth in GDP and moderate growth in construction	↑ 12%	↑ 7%	↑ +13%	Drop in rental rates, growth in fleet size and utilisation
Europe (Ten countries)	Growth in revenue. Positive outlooks for 2022	↑ +8%	↑ +6%	↑ +7%	Increase in fleet size and utilisation. Pressure on rental rates.



MARKET SIZE 2008-2022
IPAF Powered Access Rental Market
Report 2022 – EUROPE

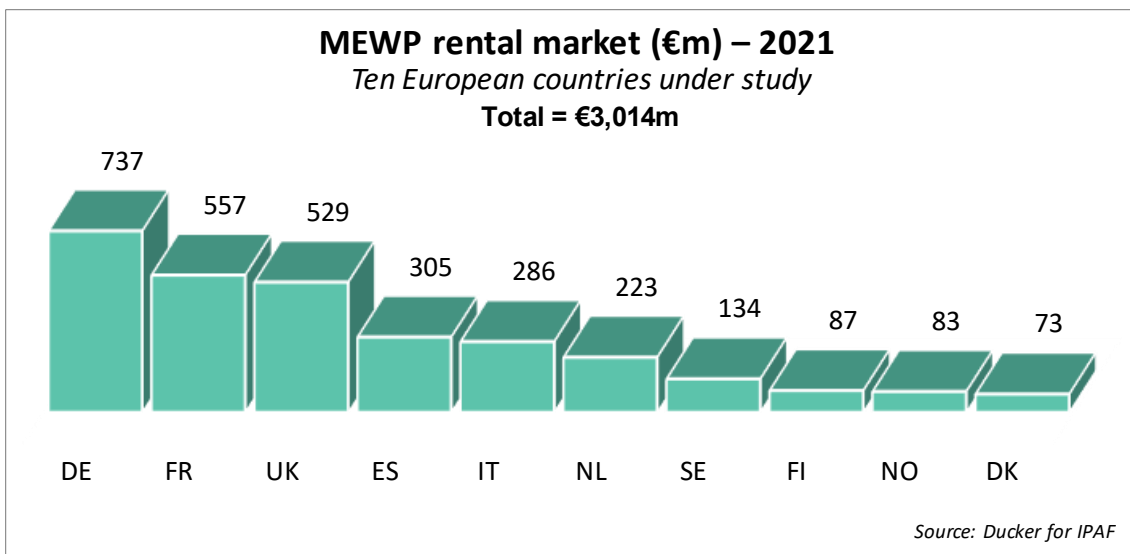
Market size 2021 – rental market value



The value of the total European MEWP rental market reached approximately €3bn in 2021, driven by fairly rapid post-pandemic recovery in the largest European markets.

- The total revenue of 10 European MEWP rental markets grew by three per cent in 2021, but still remained below the 2019 level.
- Three countries still dominate the European MEWP rental market, however the cumulative share of Germany, the UK and France in MEWP rental revenue fell from 64% to 60% during 2021.

- The rate of recovery varied from one country to another, depending on the relative severity and length of pandemic-related restrictions that were in place during 2021.
- Market value increased in all countries under study, owing to post-pandemic improvement in utilisation rates across Europe.
- Countries that were hit most during 2020, such as France, the UK and Italy, demonstrated the fastest rates of recovery in 2021.
- MEWP rental revenue as a percentage of total rental revenue fell from 64% to 58% during 2021.



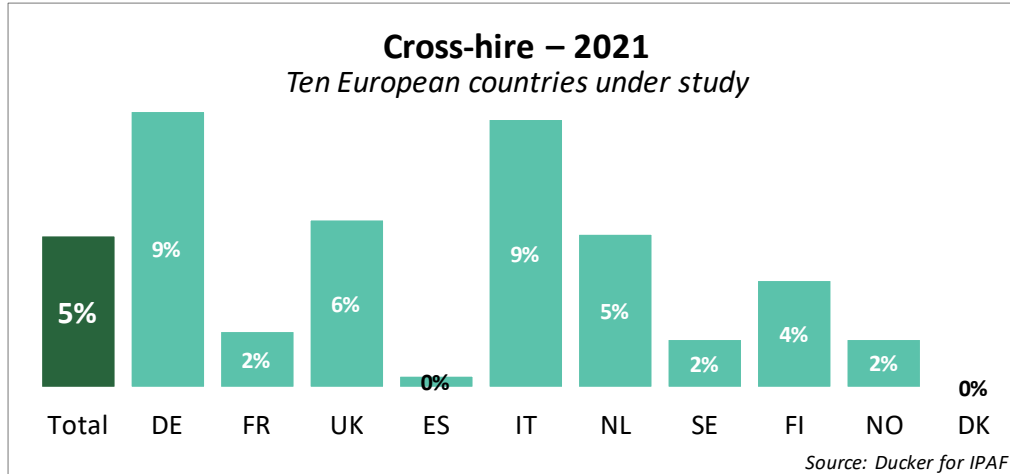
2021	Total	DE	FR	UK	ES	IT	NL	SE	FI	NO	DK
Rental Revenue as % of Total Company Revenue	59%	50%	65%	53%	55%	55%	65%	74%	77%	75%	75%
MEWP Revenue as % of Total Rental Revenue	58%	71%	37%	92%	65%	80%	67%	35%	33%	53%	51%
MEWP Rental Revenue as % of Total Company Revenue	35%	36%	24%	49%	36%	44%	44%	26%	26%	40%	38%

Market size 2021 – cross-hire

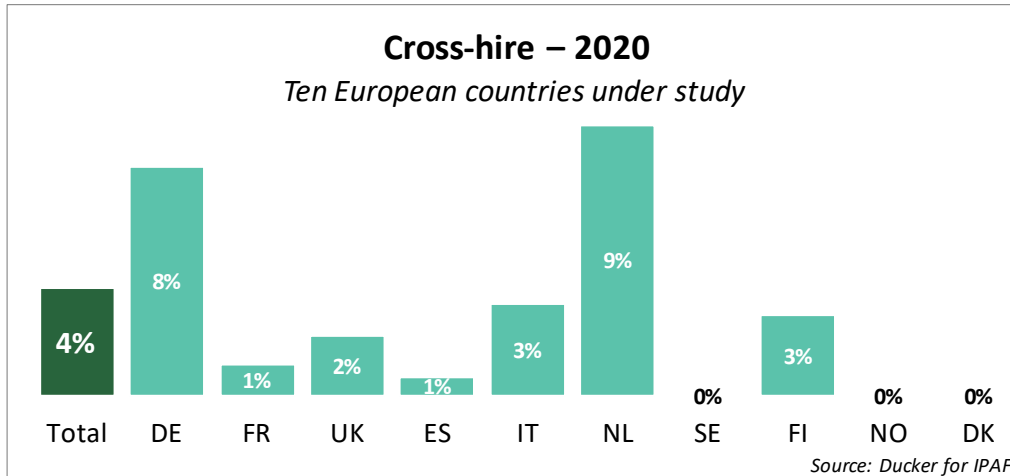


In 2021, the level of cross-hire increased in most countries under study, due to increases in demand and a limited supply of/supply-chain delays affecting new MEWPs in the market.

All re-rental amounts have been eliminated from totals expressed in this report



Cross-hire = Rental by one company from another

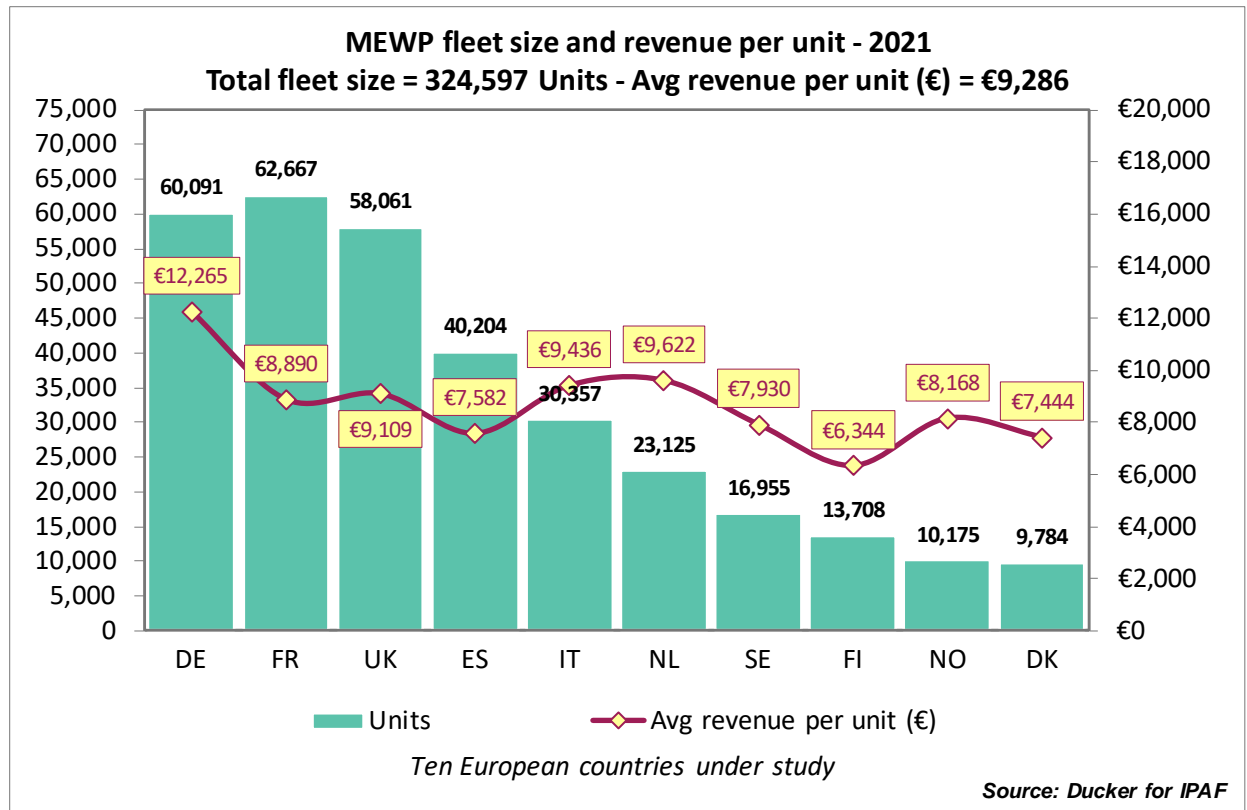


- In 2021, cross-hire went up across all countries in scope, but particularly in the UK and Italy, as well as in the Nordics.
- The cross-hire rate was noticeably higher in Germany, Italy and in the UK than in other countries in Europe.
- It remained negligible in Spain and Denmark, where rental companies reported they had enough machines available in their own fleet to satisfy the increase in demand.
- According to the data, cross-hire in the Netherlands fell by around four per cent in 2021.

Market size 2021 – market size in units



The total rental MEWP fleet size in the ten European countries under study was estimated to stand at approximately 325,000 units as of the end of 2021.



End-of-year data

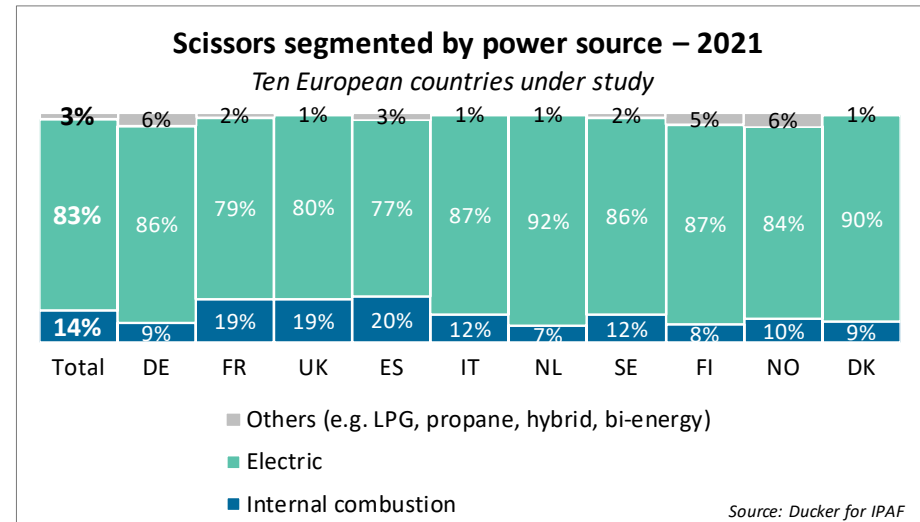
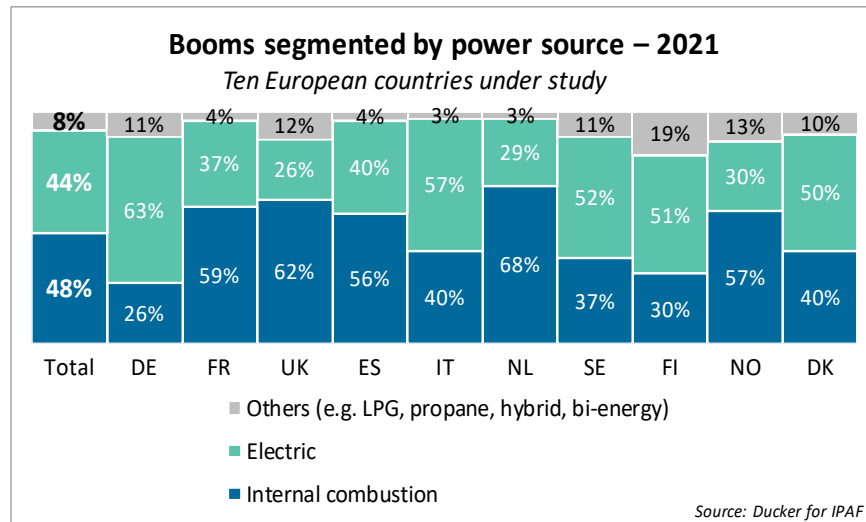
- In 2021, the combined French MEWP fleet became the largest in Europe: It exceeded 62,000 units and surpassed the German fleet (60,000 units). These two countries were followed closely by the UK fleet that amounted to around 58,000 units (LLA excluded) at the end of 2021.
- Average revenue across the region increased to €9,286 per unit.
- Germany had the highest revenue per unit, with an average of more than €12,200 per MEWP, while Finland had the lowest.
- Average MEWP rental revenue was below the European average in all of the Nordic countries.

Market size 2021 – power sources



The European MEWP rental market continues to shift towards greener energy sources, but the transition has been hampered by insufficient MEWP supply in the market for fleet renewal on the desired scale.

- Electric scissors are dominating in all countries, particularly in the Netherlands, Nordic countries and Germany. This transition towards electric scissors continues in the rest of Europe, but there remains significant use of diesel scissors for outdoor applications.
- Transition towards electric booms is progressing at different speeds, depending on the country and local demand for rough-terrain units, +20m heights and availability of charging infrastructure. Rental companies expect to complete the transition in five to 10 years.



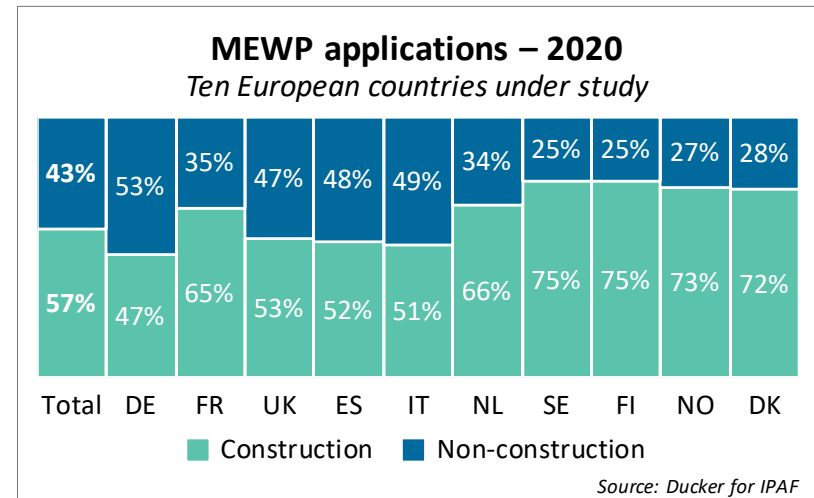
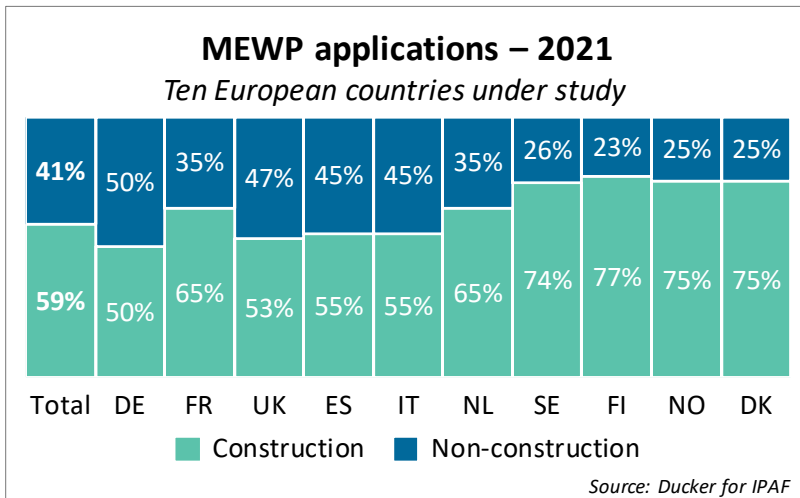
Percentage of the fleet powered by electric vs internal combustion.

Market size 2021 – applications

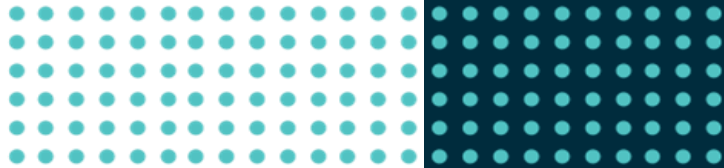


The application split between construction and non-construction shifted slightly towards more construction activities in 2021.

- Both construction and non-construction sectors were hit by the pandemic that continued through 2021, but construction activities were hindered marginally less and also recovered more quickly than “non-essential” activities, including events and media.
- Warehouse construction, increased demand for residential homes and localisation of manufacturing facilities were quoted as being among the key drivers for high growth in construction activities.



Non-construction includes property and infrastructure maintenance, cleaning, utilities, events.
Construction includes new-build and renovation work, across commercial, residential and infrastructure projects.

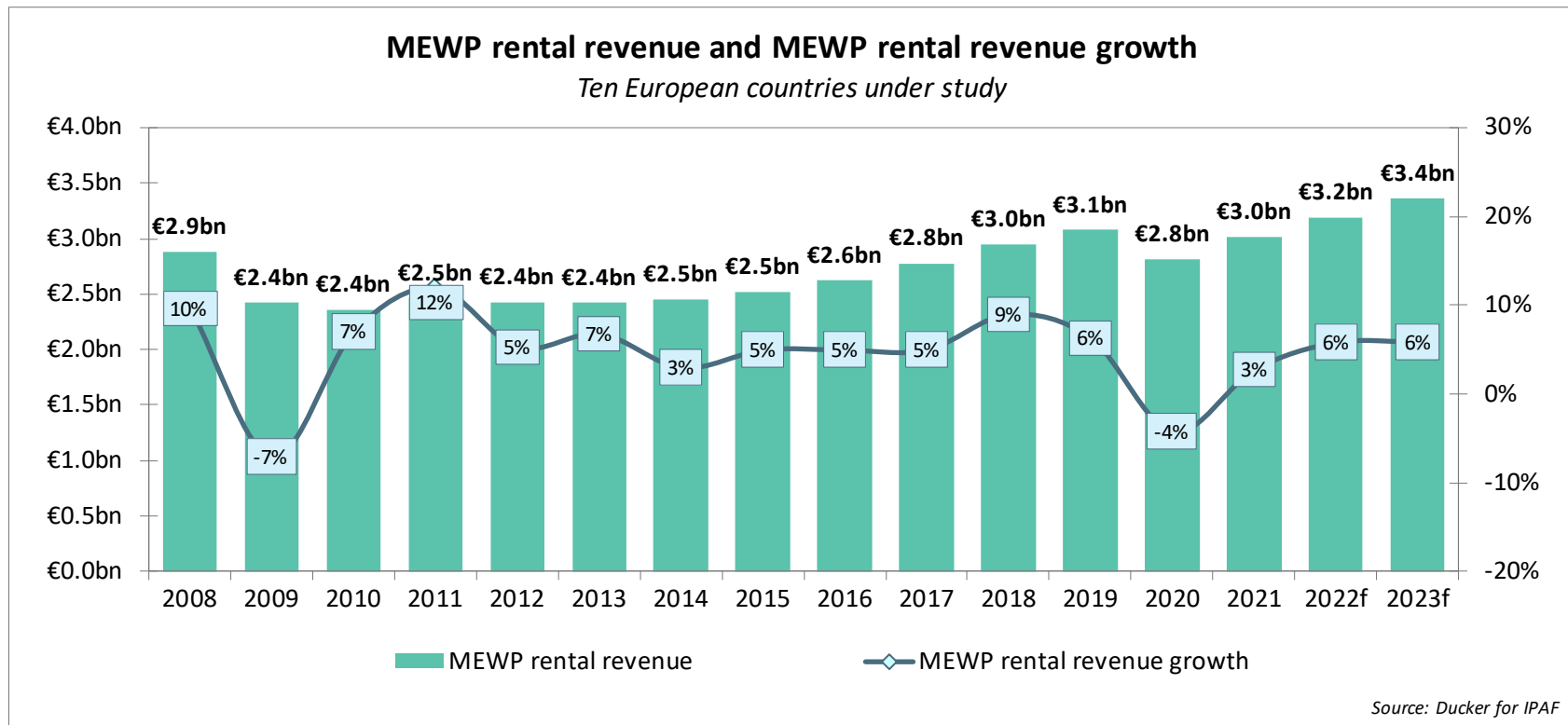


MARKET DYNAMICS 2008-23
IPAF Powered Access Rental Market
Report 2022 – EUROPE

Market dynamics 2008-2023 – market value growth

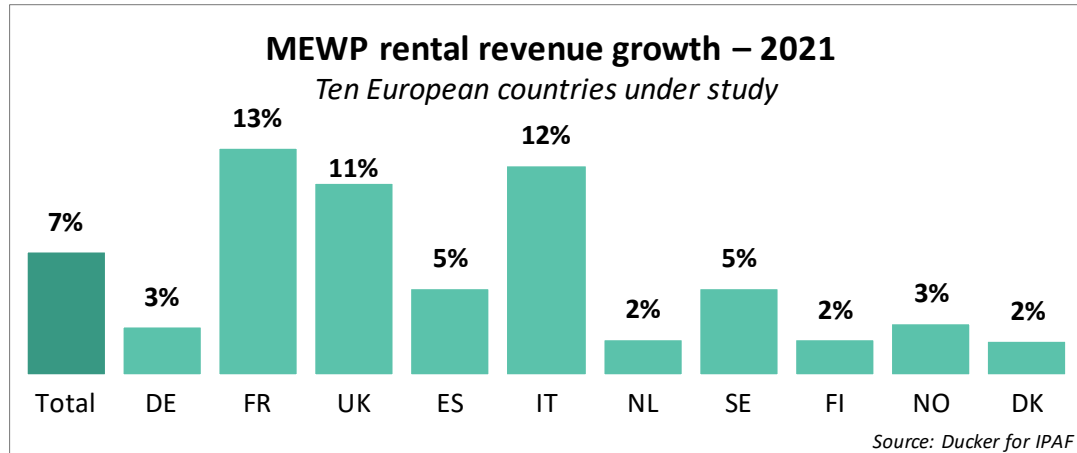
Across 2021, European MEWP rental revenue increased by around 3%, to reach a total value of €3 billion.

- During 2021, European markets started recovering from the worst pandemic impacts, and MEWP rental revenue grew by three per cent to almost recover to 2019 levels.
- The outlook for 2022 and 2023 is positive, with most respondents expecting further market growth of up to six per cent annually, but rising inflation and the war in Ukraine are threatening economic stability across the region.



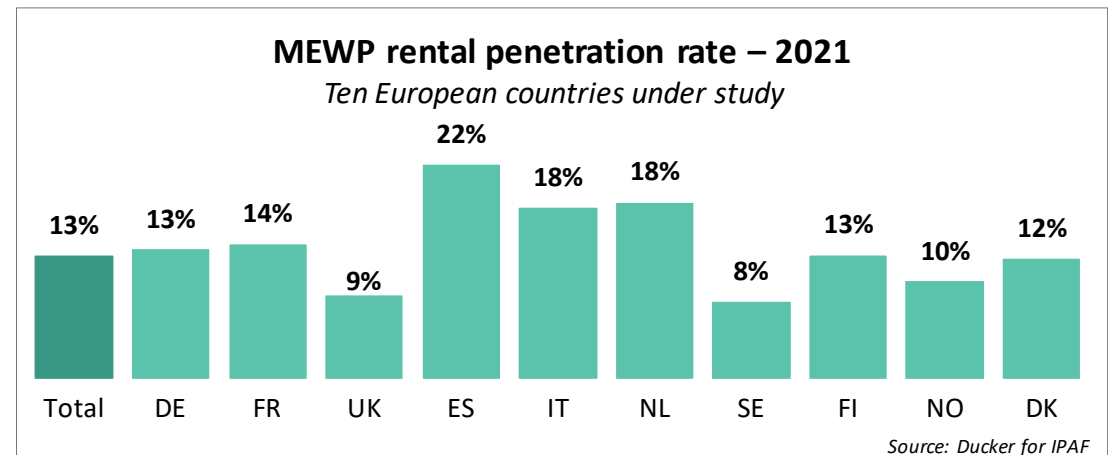
Market dynamics 2008-23 – market value growth

In 2021, all the European MEWP rental markets under study went through a phase of active recovery, but the extent of the rebound varied from one country to another, owing to the different rates at which restrictions eased.



- Total revenue increase across all 10 countries under study amounted to 7%.
- Markets in France, Italy and the UK recovered the fastest. These countries were among those who had to face the biggest losses in 2020.
- Spain experienced the highest decrease in revenue in 2020 (-13%) and was able to recover market value only partially, owing to a relatively slow start to 2021.

- MEWP rental penetration in the revenue of European rental companies was at 13% in total.
- The share of MEWP-generated revenues in Spain, Italy and the Netherlands were the highest among the 10 European countries in the scope of the study.

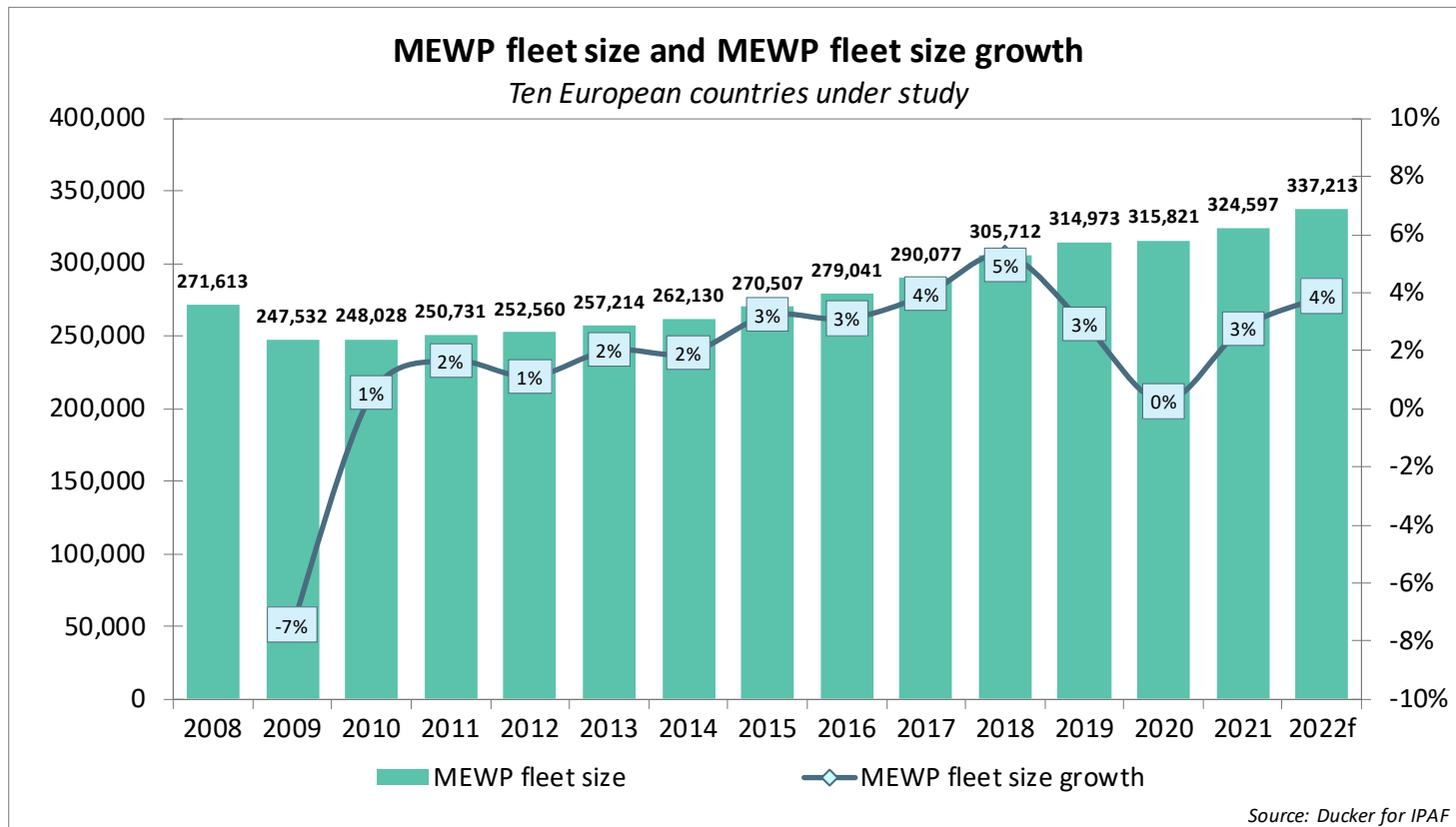


Market dynamics 2008-23 – market size in units



Total fleet size in the 10 European countries under study grew by almost 9,000 MEWP units across 2021.

- Fleet expansion resumed in 2021, driven by post-pandemic economic growth and the resumption of activity across Europe. As a result of increased demand, the total MEWP rental fleet grew by around three per cent over the year.
- After a year of economic uncertainty and cautious spending, rental companies were willing to invest into fleet expansion and renewal, but were held back by supply-chain disruptions and a lack of equipment availability.

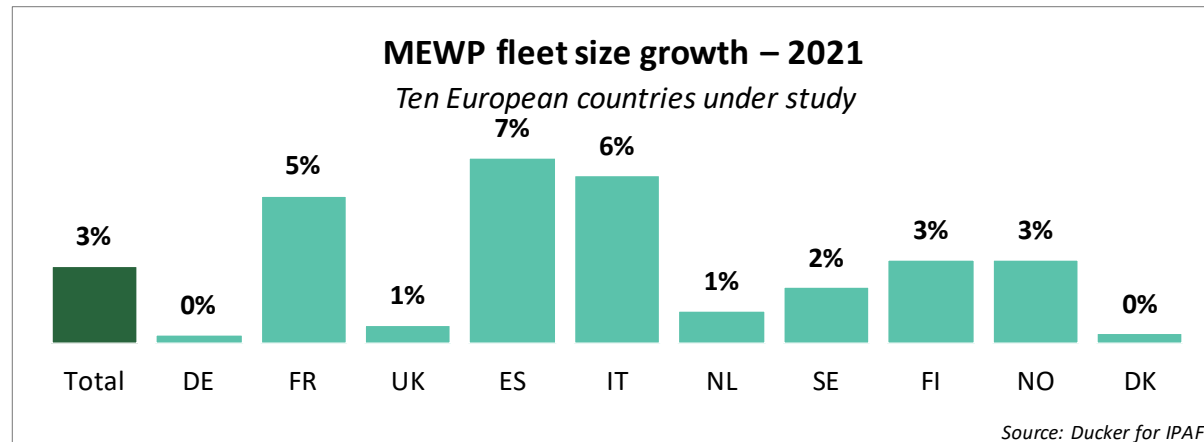


Included are powered access lifts:
All booms, scissor lifts and vertical masts
Excluded: low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, MCWPs

Market dynamics 2008-23 – market size in units

In 2021, rental fleets across Europe were growing at different speeds, with Spain increasing its fleet by around seven per cent year on year.

- In 2020, fleet sizes remained relatively stable with some localised and limited de-fleeting to maintain revenue levels through the slump in demand during the pandemic.
- On return to more normal levels of activity in 2021, French, Italian and Spanish companies significantly increased their fleet size to catch up with improved end-user demand. Part of this increase was driven by the delivery of equipment from orders placed but delayed in 2020.
- However, fleet size remained fairly stable in Germany, Denmark and the UK.

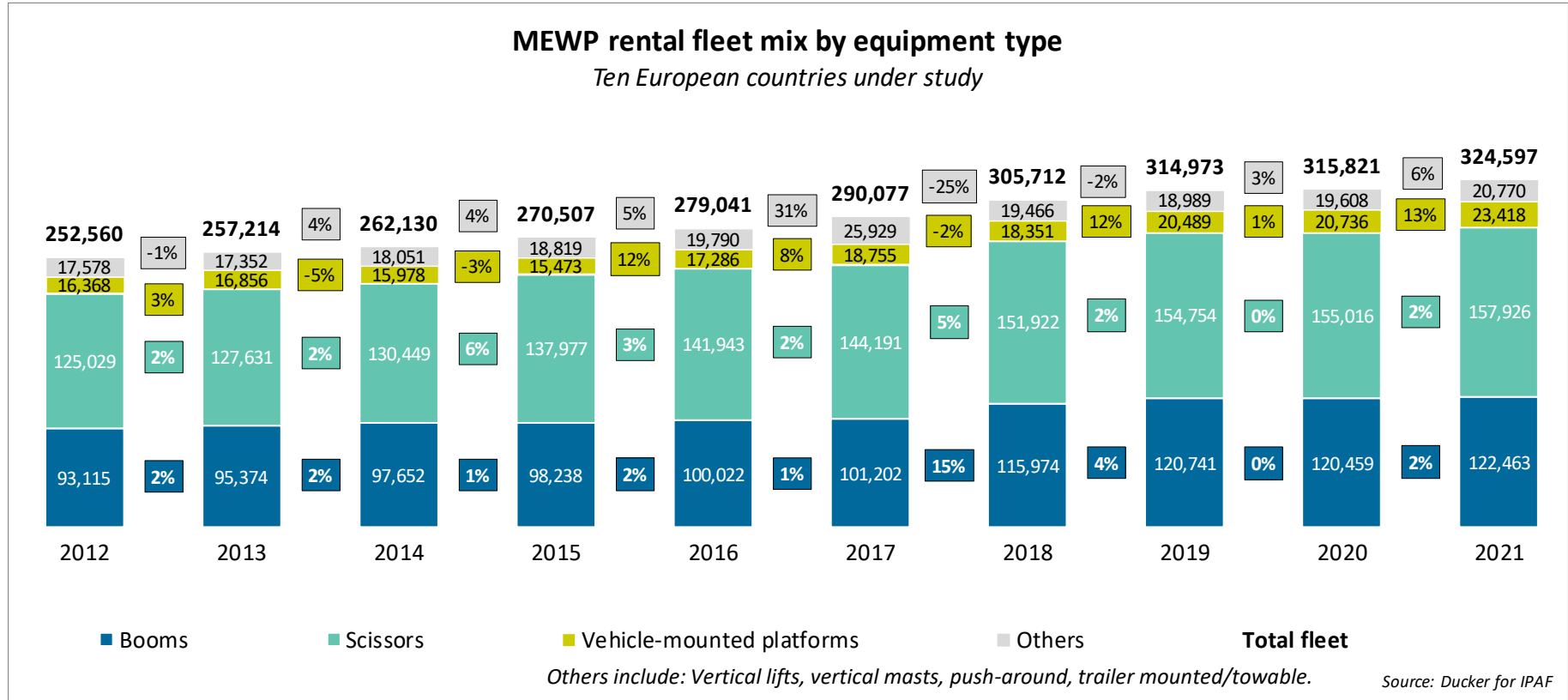


Market dynamics 2008-23 – market size in units



The combined MEWP fleet of the ten European countries under study is comprised of 49% scissors, 38% booms, 7% vehicle-mounted and 6% other types of equipment.

- The fleet mix remained stable through 2021 and is not forecast to change significantly in the next two years.



Included are powered access lifts: All booms, scissor lifts and vertical masts. Excluded are low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes and MCWPs.

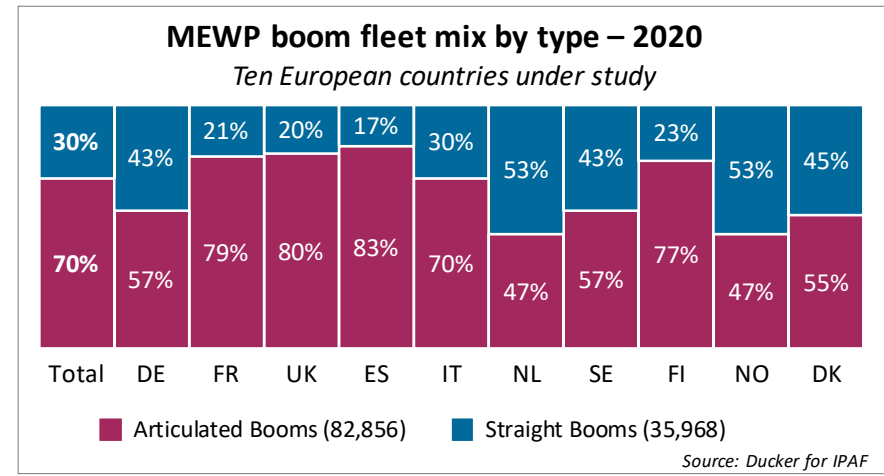
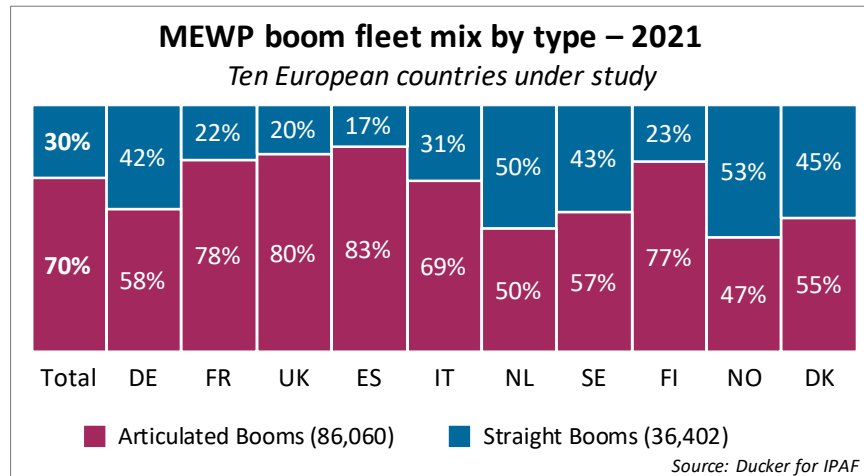
+X% unit growth, eg booms fleet increased by 2% from 2020 to 2021.

Market dynamics 2008-23 – market size in units



The split between articulated and straight booms shifted slightly in favour of articulated booms during 2021.

- Rental markets in Norway, Sweden, Netherlands and Germany continue to rely heavily on straight booms, but articulated booms remained the dominant MEWP equipment group during 2021 due to their increased flexibility and variety of end applications.
- Articulated booms represent more than 75% of the booms fleet in Spain, the UK, France and Finland.



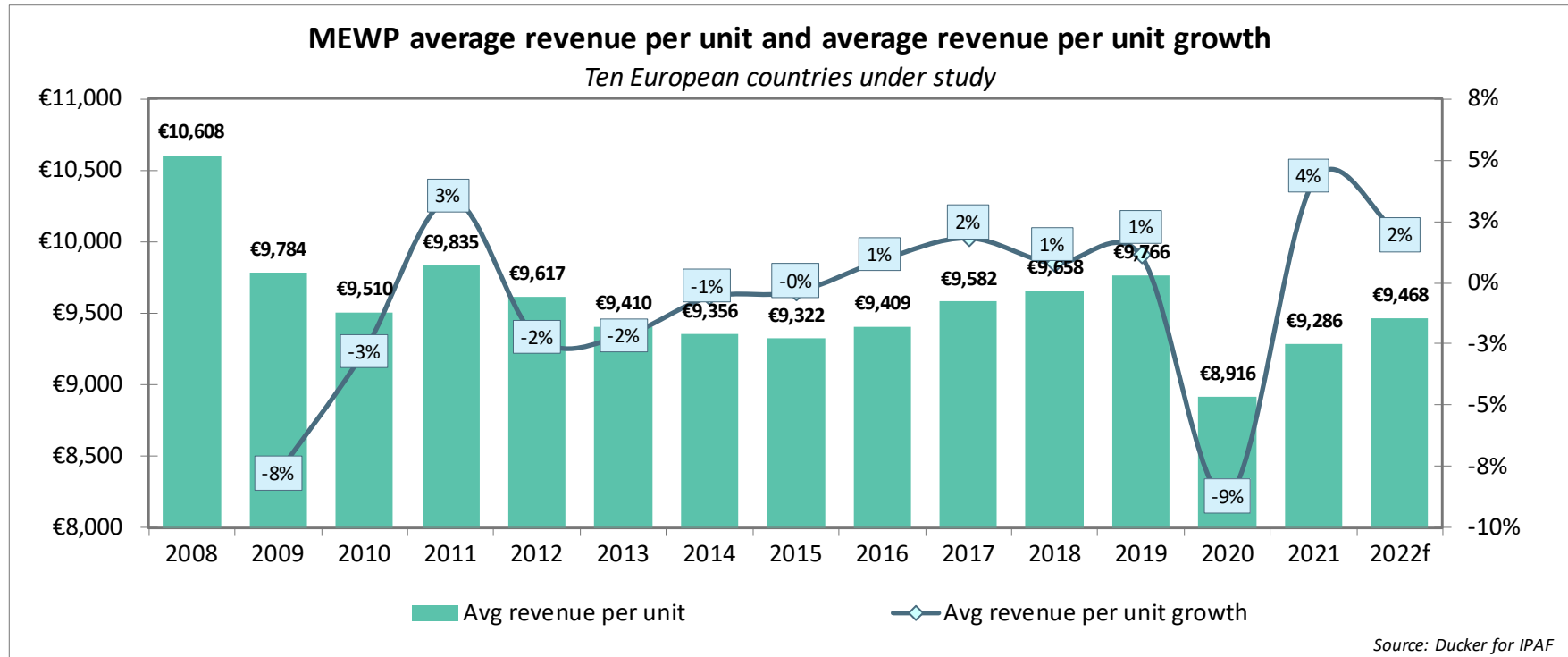
End-of-year data

Market dynamics 2008-23 – revenue per unit



Average revenue per unit grew by 4% in 2021, driven by increases in MEWP equipment utilisation rates across all the ten countries under study in Europe.

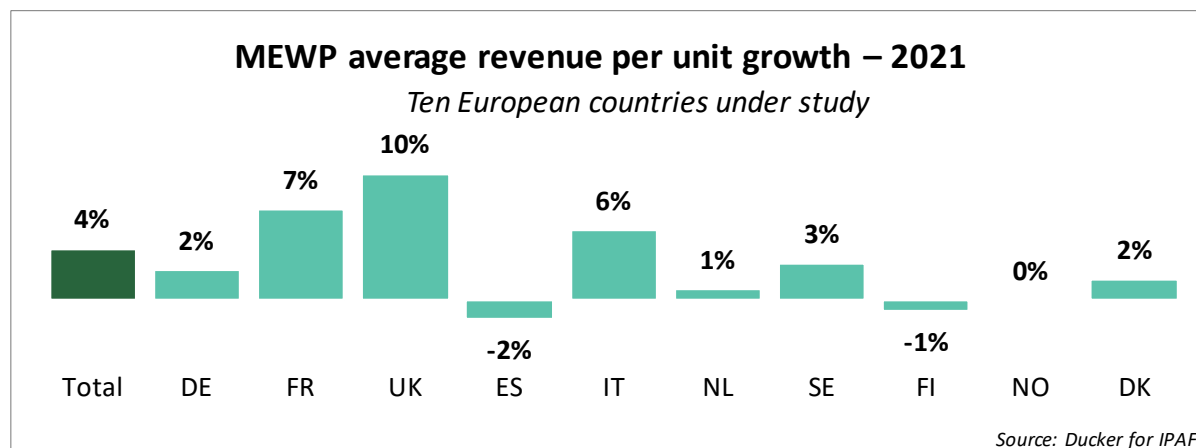
- After a sharp drop in 2020, average revenue per MEWP unit partially recovered during 2021. The biggest increase in demand occurred in the second half of the year, when most rental businesses were able to recover their levels of activity, if not quite to pre-pandemic level, then at least close to it.
- Fierce competition in European markets prevented average revenues from returning to the level of 2019.



Market dynamics 2008-23 – revenue per unit

The rate of average revenue recovery in each country under study was proportional to the damage incurred by the industry in these markets during 2020.

- In 2021, average revenue per unit developed differently from one country to another, depending on how hard each was hit by the first waves of the pandemic year in 2020.
- France, Italy and the UK, which experienced the most significant increases in 2021, were also among those worst hit by the pandemic during 2020.
- As for countries in the Nordic region, moderate revenue recovery was consistent with a less drastic drop-off in rental activity during 2020, which these countries experienced during the pandemic. All except for the Danish market, which had the harshest and most prolonged restrictions in the region.

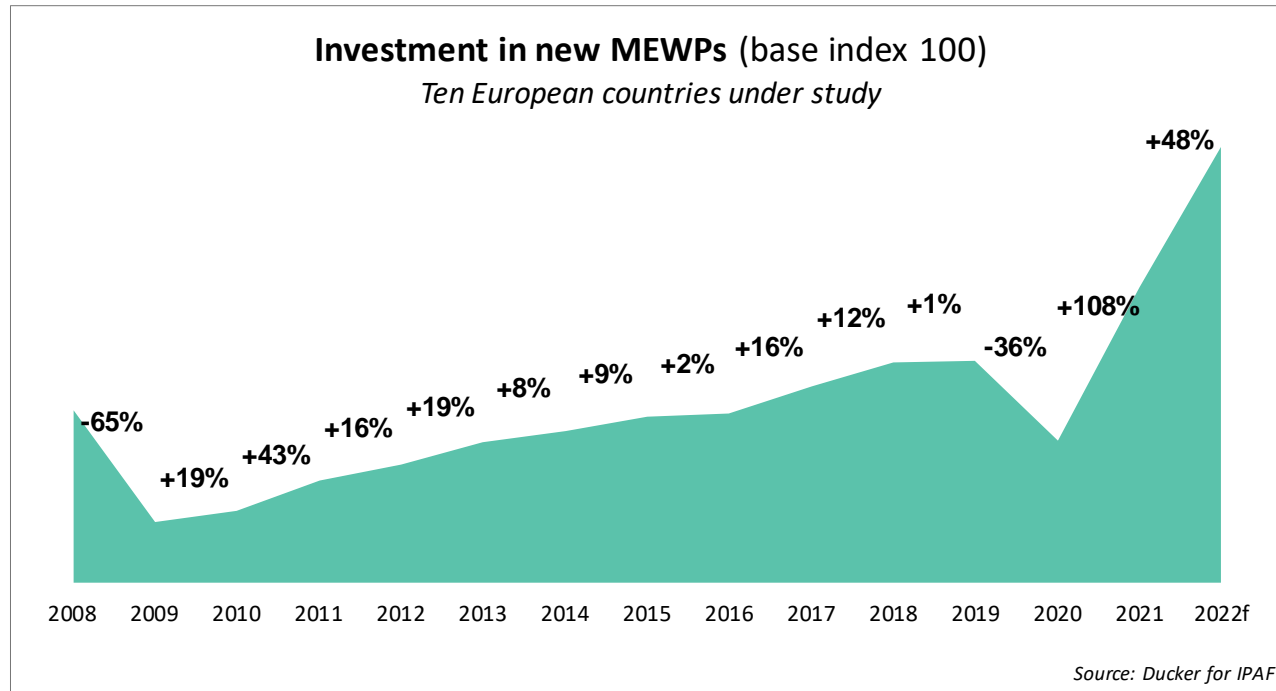




INVESTMENT 2008-2022
IPAF Powered Access Rental Market
Report 2022 – EUROPE

In 2021, cumulative investment in the ten European countries under study increased tenfold. A further increase is expected in 2022, as long as equipment supply shortages and delays recede.

- 2021 was a year of active investment in fleet expansion and renewal across all European countries under study, owing largely to rental companies expanding their fleet to stop recovering utilisation rates from rising too high.
- With limited supply from both European and North American manufacturers, many rental companies are buying equipment from Chinese brands, that were less affected by the disruption to production supply chains in H2 2021.

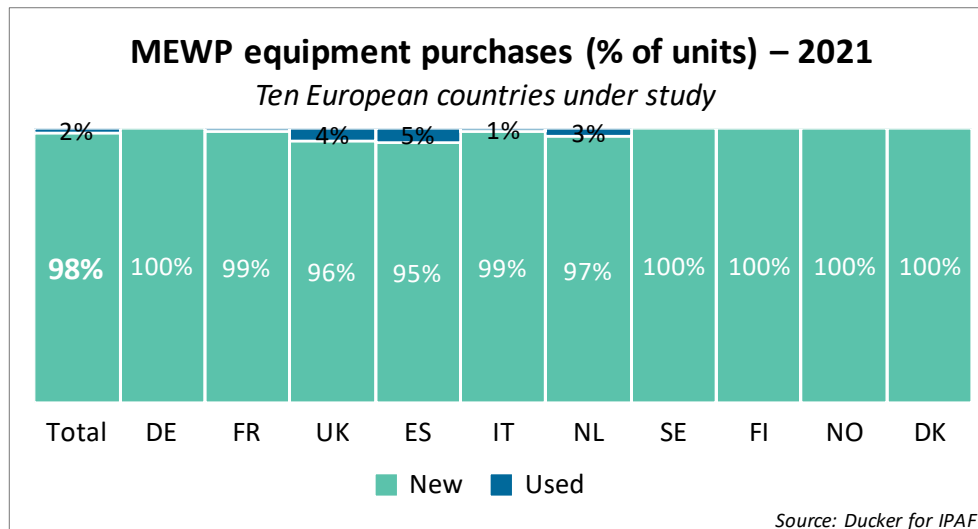


Equipment purchases



European rental companies prefer to buy new equipment, as it tends to be more efficient, longer-lasting and environmentally friendly than used machines, and thus more profitable in the medium to long term.

- During 2021, European companies were focused on renewing and expanding their fleets and mostly preferred to purchase brand new equipment, with exceptions wherever the desired machines were not available from the manufacturer owing to long lead times caused by supply-chain issues.

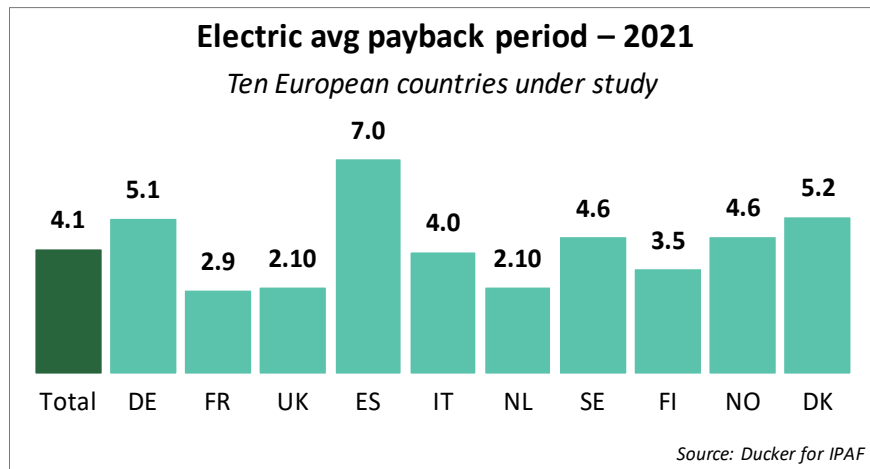


Investment – typical payback period

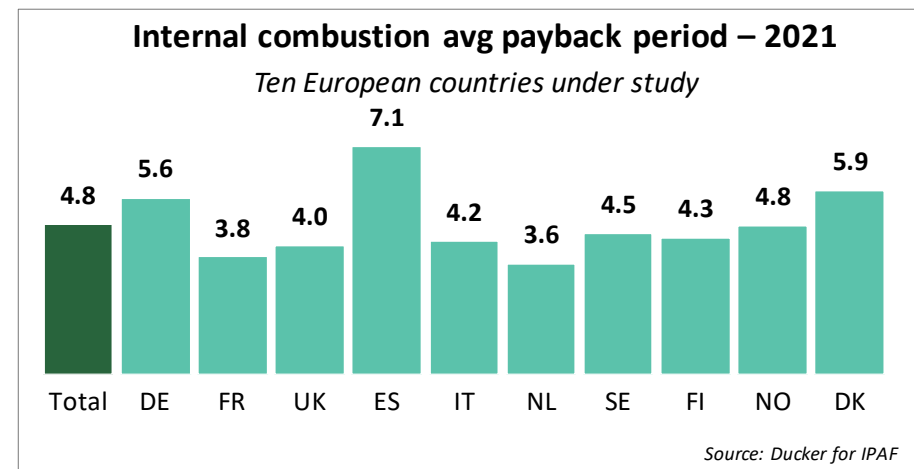


Return on investment remains quicker for electric equipment.

- In most countries under study, electric equipment's average payback period is below that of internal combustion-powered machines.
- The average payback period for internal combustion MEWPs is forecast to increase in 2022, under the influence of increasing diesel prices across Europe.



4.1= 4 years, 1 month



4.8 = 4 years, 8 months

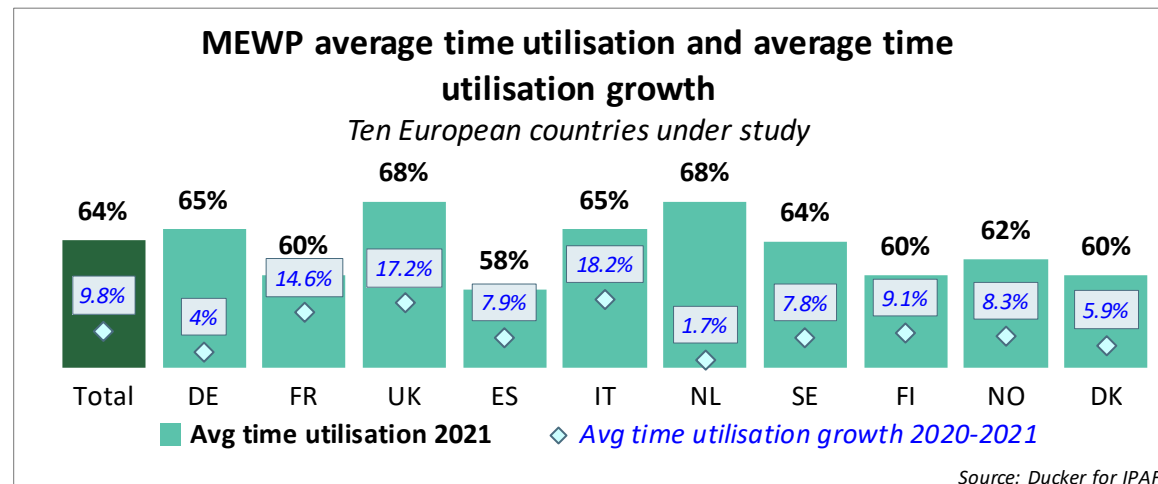


OPERATIONAL ASPECTS 2008-2022
IPAF Powered Access Rental Market
Report 2022 – EUROPE

Operational aspects – time utilisation rates

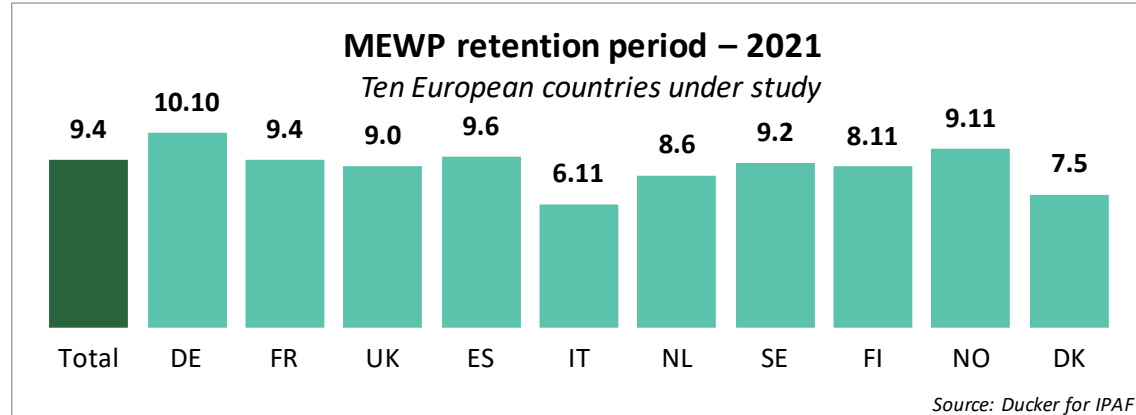
The average utilisation rate in the ten countries under study went up by almost ten per cent during 2021, driven by robust economic recovery and resumption of non-essential activities in most of Europe.

- Utilisation rate went up in all European countries in scope of the study, by a minimum of 1.7 per cent in the Netherlands and a maximum of 18 per cent in Italy.
- Utilisation in France, UK and Italy were hit hardest during the pandemic and 2021 was a year of demand recovery in those markets.
- Utilisation rates across Europe are expected to grow further in 2021, reflecting the effect of limited MEWP supply in those markets owing to global supply-chain disruption.



Operational aspects – retention period

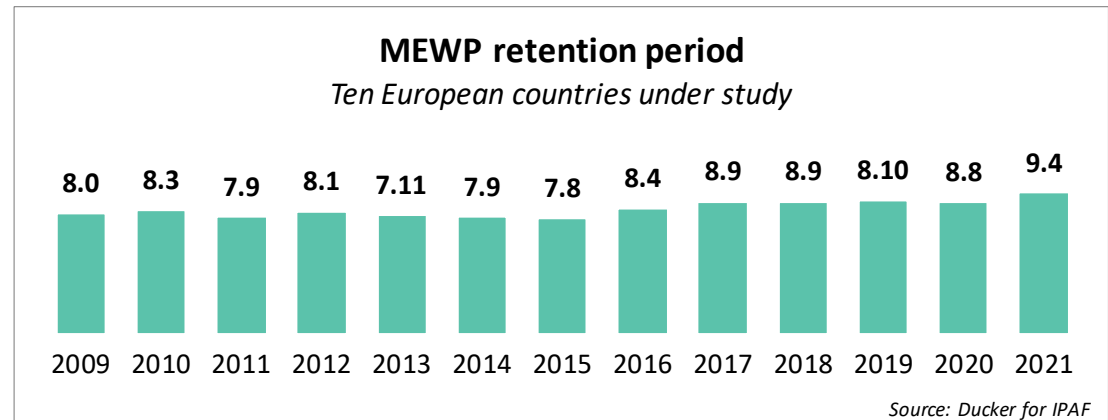
In 2021, the average retention period in Europe grew to its highest level to reach nine years and four months at the end of the year.



9.4 = 9 years and 4 months

- The average retention period was longest in Germany, where, despite experiencing longer lead times in 2021, many companies were not looking to substitute their traditional equipment suppliers and kept machines in the fleet for a longer time instead.

- After staying almost at the same level for four years, the average retention across Europe went up by eight months in 2021 to exceed nine years.
- It is difficult to predict any major developments in 2022, as much depends on the OEM ability to deliver equipment in the face of ongoing production and logistical problems.

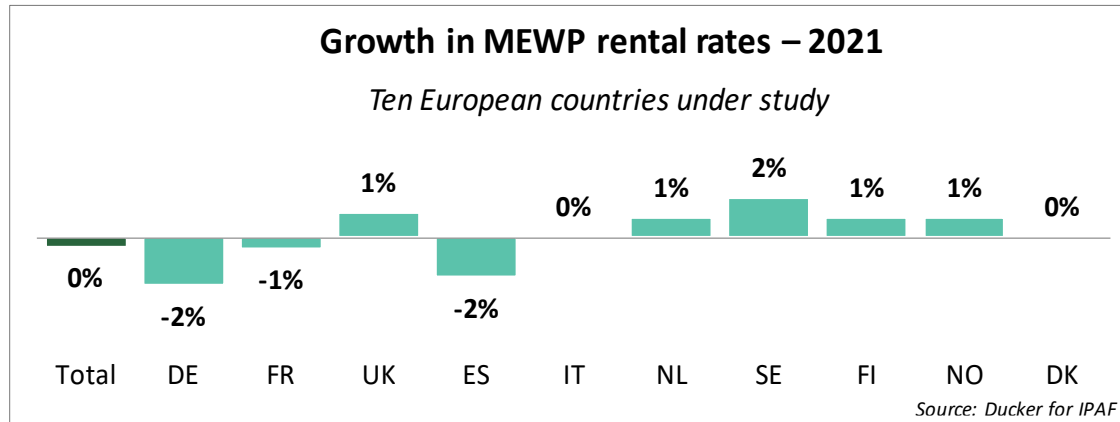


9.4 = 9 years and 4 months

Operational aspects – rental rates

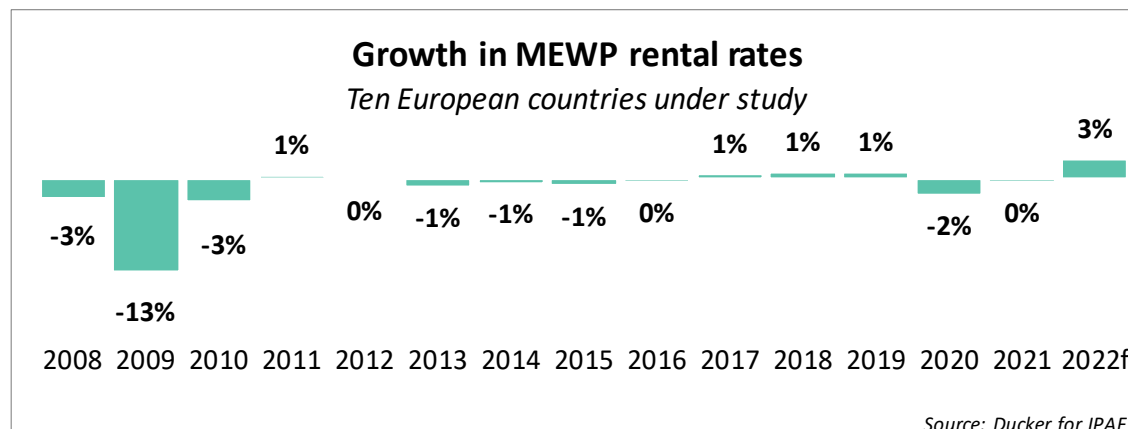


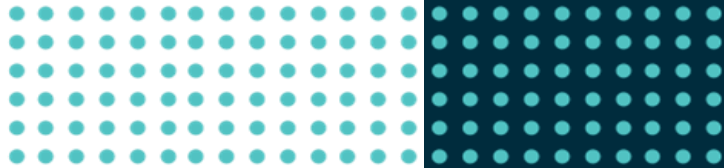
Total rental rate increase in 2021 across 10 countries was at zero per cent, but developments were different on the individual country level: rates in Germany and Spain continued to decline.



- Despite the post-pandemic recovery, rental rates in Germany and Spain continued to decline in 2021, driven down by fierce price competition in those markets.
- Rental companies in the Nordic region and in the UK increased the rates by one to two per cent, which conforms to the usual annual price correction.

- In 2021, the average rental rate increase across the 10 countries under study was minimal (0-1%).
- However, given the economic uncertainty of 2022, growing cost of fuel and rising inflation, average rental rates are expected to increase by around three per cent.

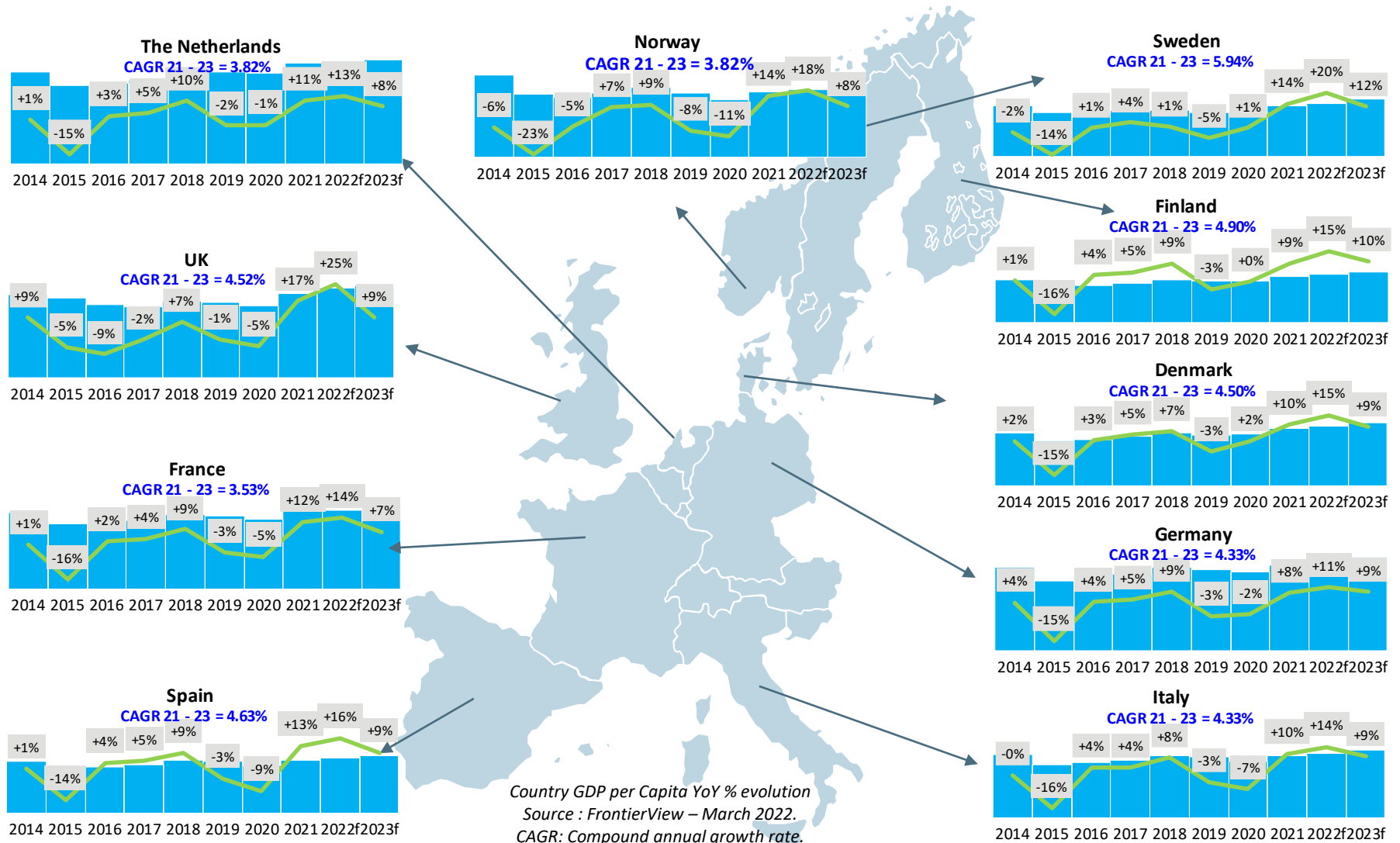


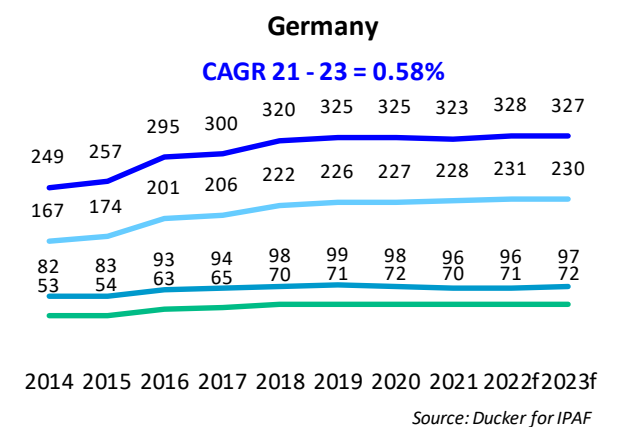
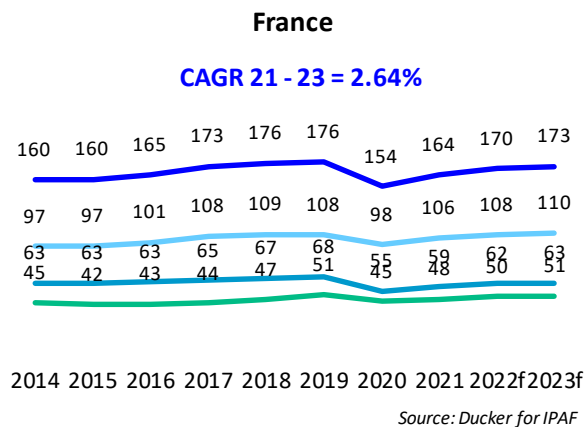
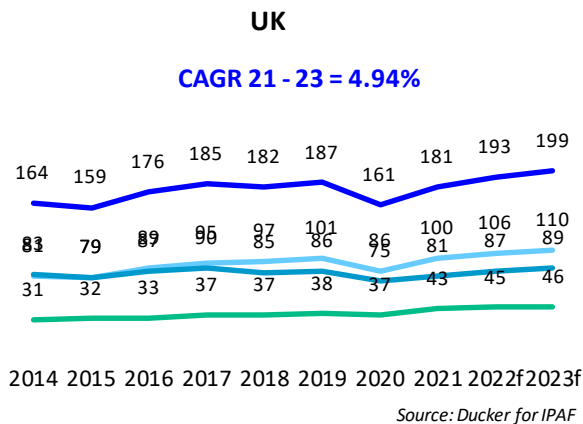


MARKET TRENDS AND DRIVERS
IPAF Powered Access Rental Market
Report 2022 – *EUROPE*

Market trends and drivers – GDP per capita

GDP per capita grew significantly in 2021 and growth exceeded pre-pandemic rates in all countries in scope, except for Germany and Finland.





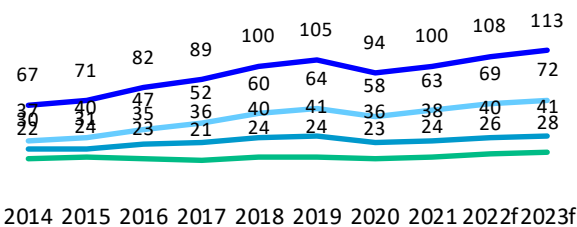
- Residential construction
- Non-residential construction
- Total construction
- Civil engineering / Major infrastructure

CAGR: Compound annual growth rate

Construction pipeline (billions euros) based on Euroconstruct 2022 figures.

Spain

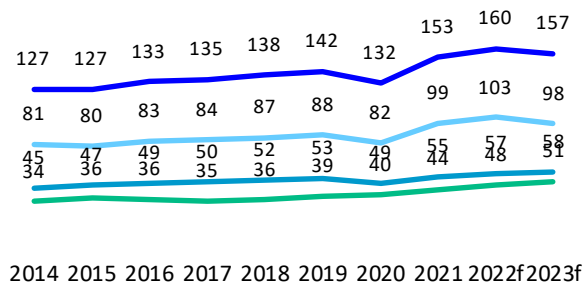
CAGR 21 - 23 = 6.01%



Source: Ducker for IPAF

Italy

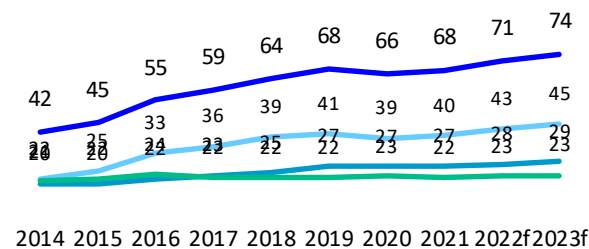
CAGR 21 - 23 = 1.07%



Source: Ducker for IPAF

The Netherlands

CAGR 21 - 23 = 4.81%



Source: Ducker for IPAF

- Residential construction
- Non-residential construction
- Total construction
- Civil engineering / Major infrastructure

CAGR: Compound annual growth rate

Construction pipeline (billions euros) based on Euroconstruct 2022 figures.

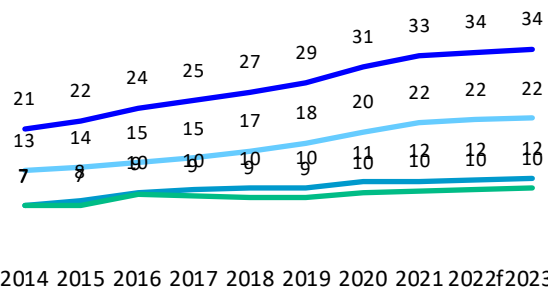
Market trends and drivers

Construction output in the Nordic countries



Denmark

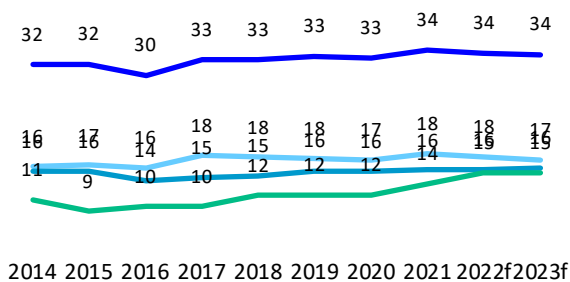
CAGR 21 - 23 = 1.86%



Source: Ducker for IPAF

Norway

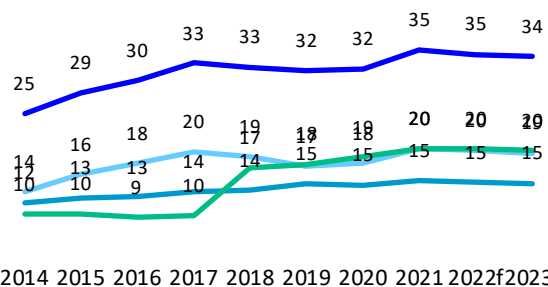
CAGR 21 - 23 = -0.98%



Source: Ducker for IPAF

Sweden

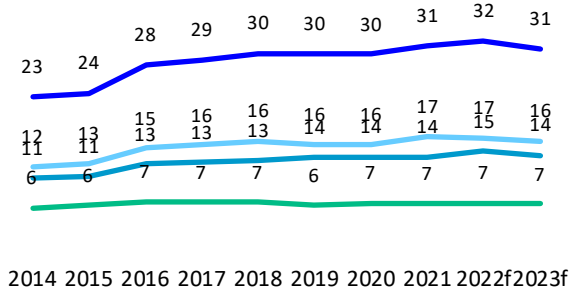
CAGR 21 - 23 = -1.51%



Source: Ducker for IPAF

Finland

CAGR 21 - 23 = -0.77%

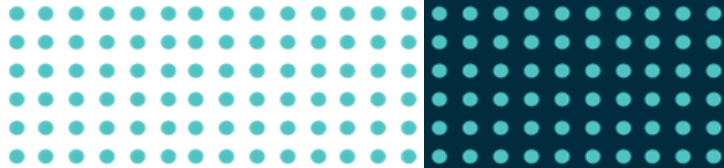


Source: Ducker for IPAF

- Residential construction
- Non-residential construction
- Total construction
- Civil engineering / Major infrastructure

CAGR: Compound annual growth rate

Construction pipeline (billions euros) based on Euroconstruct 2022 figures.

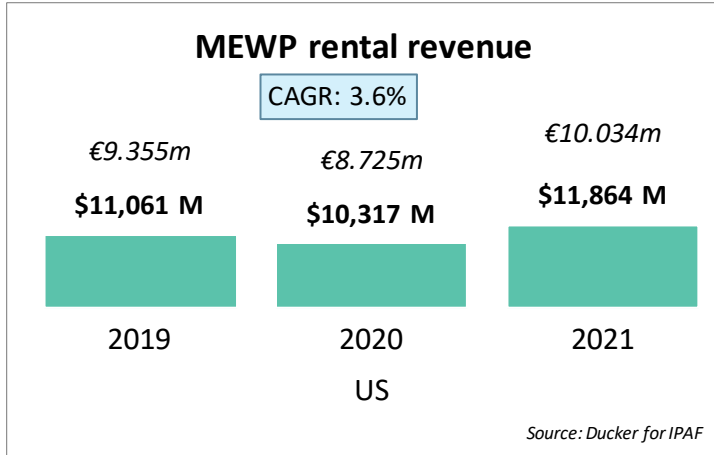


US INFORMATION
IPAF Powered Access Rental Market
Report 2022 – *North America*

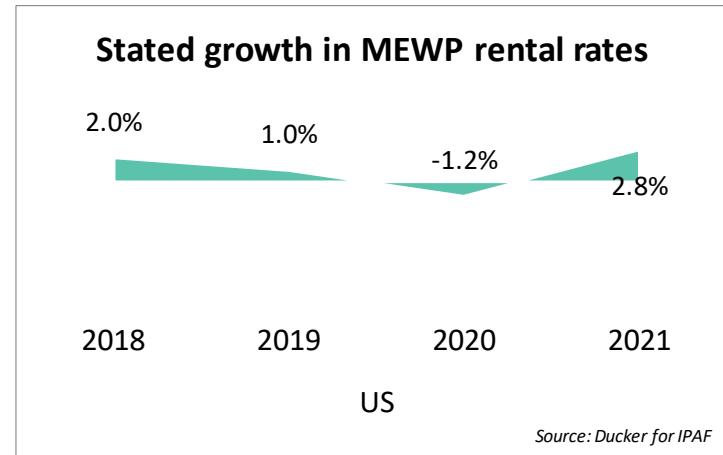
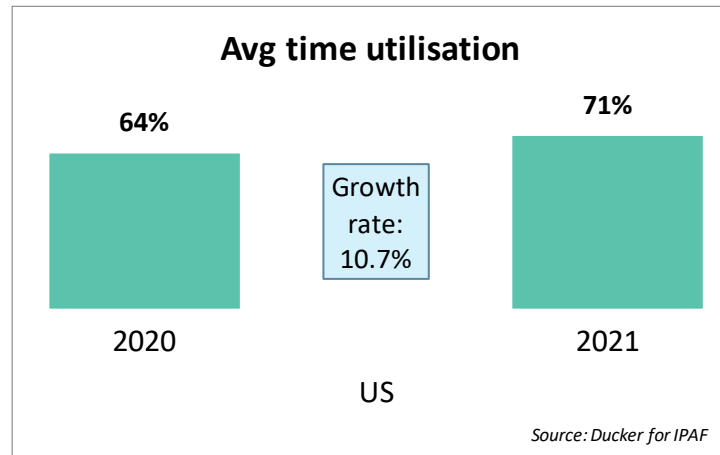
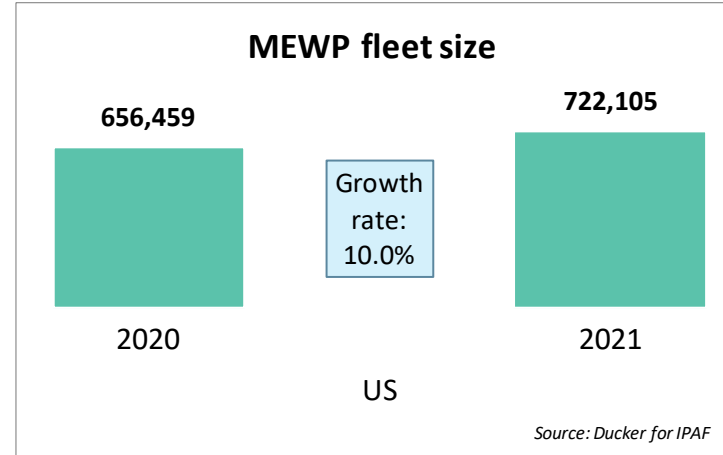
US – Executive summary



In 2021, business activity in the country resumed much more quickly than had been expected, which had a rapid and positive effect on utilisation and rental rates, as well as fleet size growth.



CAGR: Compound annual growth rate



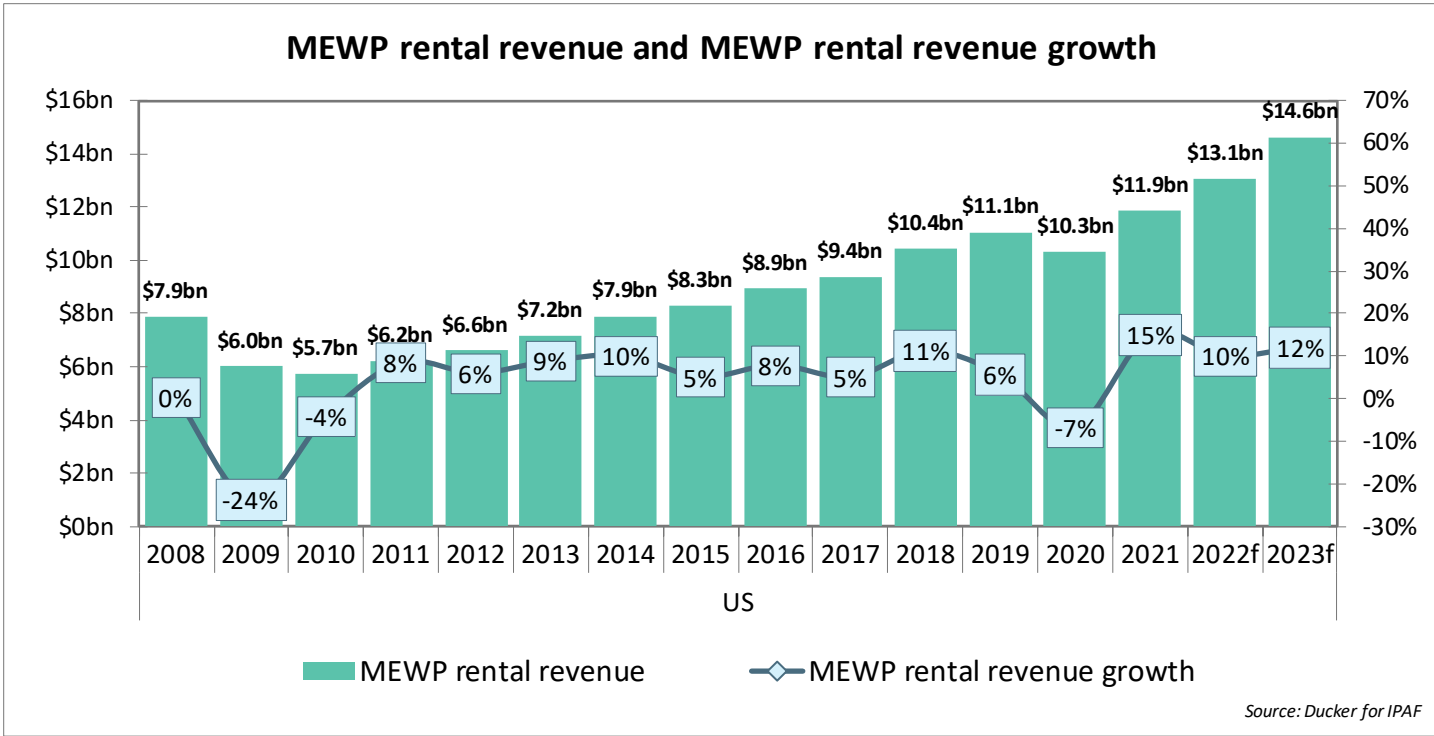


MARKET SIZE AND DYNAMICS 2008-2023
IPAF Powered Access Rental Market
Report 2022 – *US*

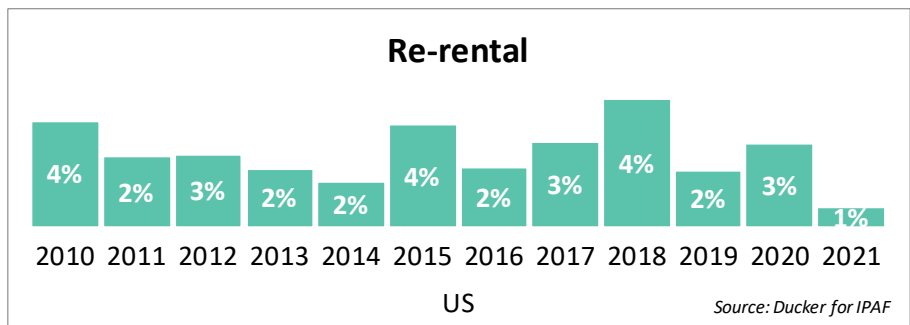
US – rental market value and growth



MEWP rental revenue increased by 15% in 2021 and surpassed pre-pandemic levels, owing to the rapid reopening of non-construction businesses and pent-up demand from the construction projects paused during 2020.



- The rapid economic recovery in 2021 allowed the market to reverse some of the losses incurred in 2020.
- Decreased MEWP availability created strong demand in the rental market, and companies forecast further double-digit market growth in the next two years.
- Re-rental or cross-hire fell to just one per cent, as companies expanded and renewed their fleets in 2021.

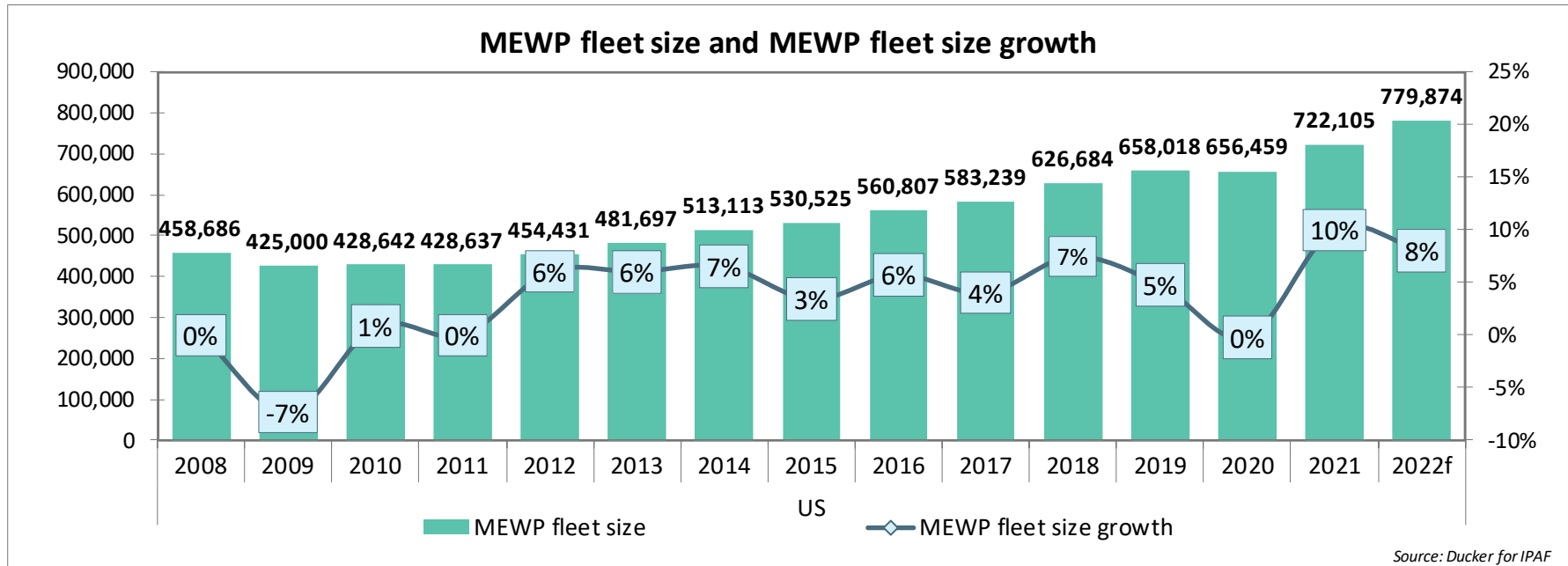


US – market size in units



MEWP fleet size in the US grew by 10% in 2021, as rental companies resumed their investment and tried to prevent utilisation rates from increasing too much. This fleet growth was hampered slightly by supply chain disruptions.

- Despite the initially slow growth in investment at the beginning of 2021, rental companies increased their spending on new machines considerably by the end of the year, which led to total fleet size growth in excess of 60,000 units.
- Rental companies reported plans to further increase the size of their fleet, and the overall number of MEWP units was expected to grow by eight per cent across the year. However, ongoing supply chain issues may have a bearing on this, and the prohibitive tariff ruling on Chinese MEWP imports announced in Q4 2021 only served to exacerbate the difficulty of procuring new MEWPs owing to supply chain impacts of the post-pandemic recovery.



Source: Ducker for IPAF

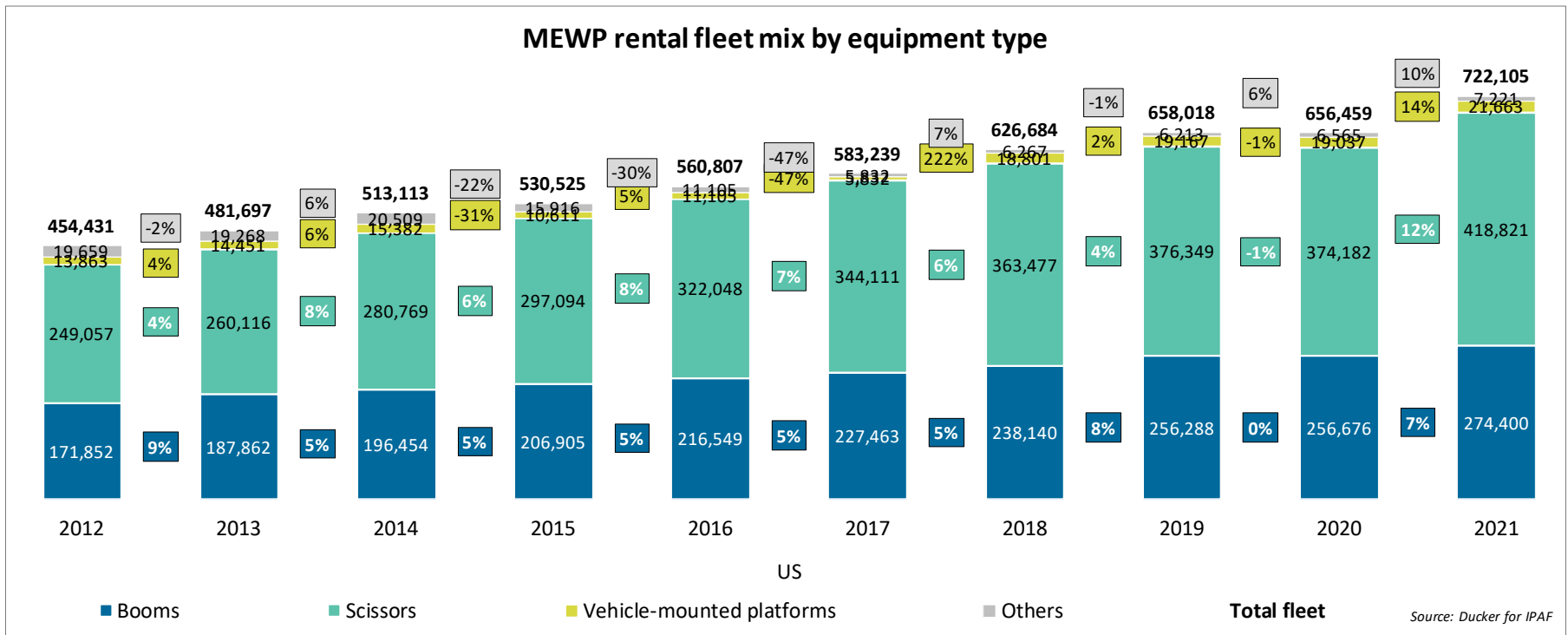
Included are powered access lifts: All booms, scissor lifts and vertical masts
Excluded: Low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, and MCWPs.

US – market size in units



Overall fleet mix remained largely unchanged in 2021, except for scissor lifts regaining their pre-pandemic share of around 58%, mainly owing to the resumption of most indoor customer end-use applications.

- Rental companies expanded their fleets in 2021, but overall fleet mix changed little. Scissors have recovered their share of the country’s overall MEWP fleet as a result of the reopening of retail, events and manufacturing.
- The fleet mix is forecast to remain largely unchanged in 2022, as rental companies report no growth in demand for any particular categories of machine or indeed from new end-use sectors.



Included are powered access lifts: All booms, scissor lifts and vertical masts
 Excluded: Low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, and MCWPs.

Others include: Vertical lifts, vertical masts, push-around, trailer mounted/towable.

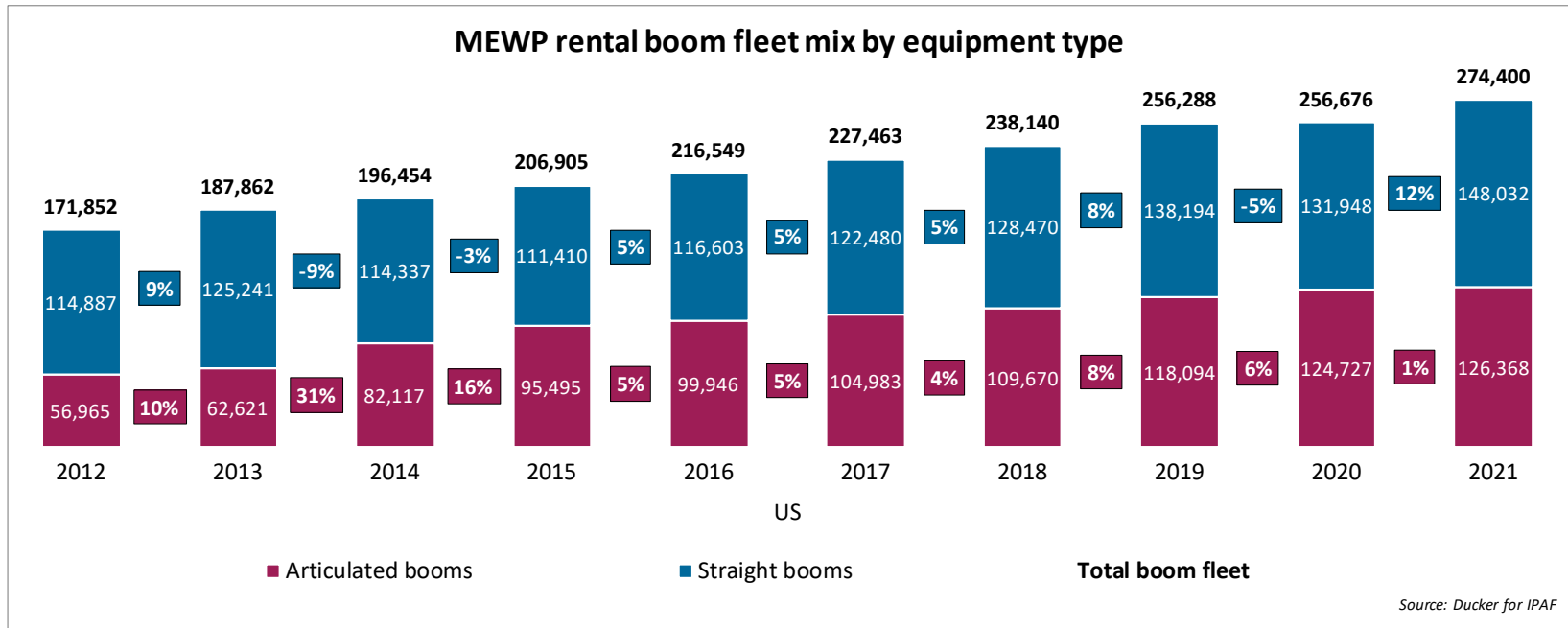
+X% % unit growth, eg both scissors and booms fleet increased by 7% from 2017 to 2018.

US – market size in units



The US MEWP rental market was gradually shifting slightly towards a greater share of articulated booms over the past decade, but straight booms still prevail as the more popular boom type in the total fleet.

- By the end of 2021, the total boom fleet size in the US grew to over 274,000 with straight booms being favoured over articulated booms, accounting for a ratio of around 55:45 in the total boom fleet.

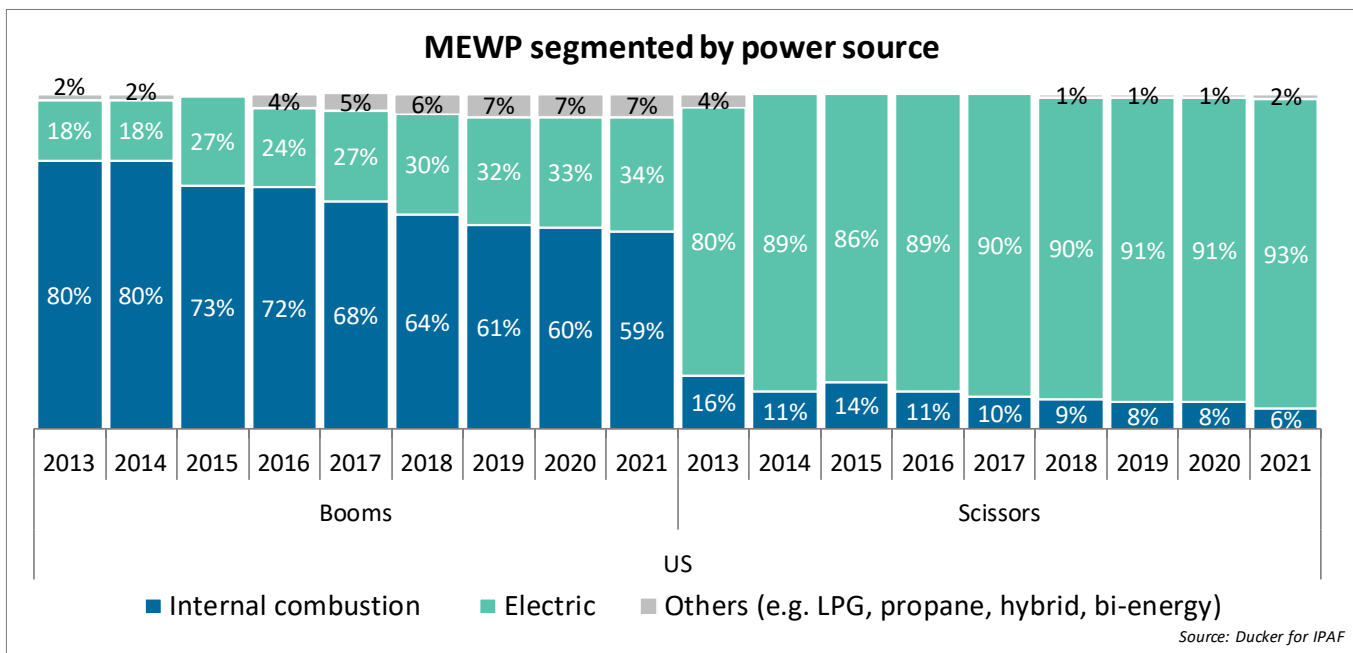


US – power sources



As in most if not all European markets under study, typical power source breakdown continued progressing towards hybrid or all-electric machines during 2021, albeit at a slower pace than in Europe.

- Internal-combustion-powered equipment continues to prevail in the US boom market. Electric booms are not as much in demand, not only because of their limited autonomy and charging infrastructure deficiencies, but also because of climatic constraints that prevent the use of electric equipment outdoors during both the colder winter and humid summer months in many parts of the US.
- Hybrids are likely to keep growing at a slow pace, as many rental companies prefer the direct transition to electric, considering the relatively high prices of hybrid machines.

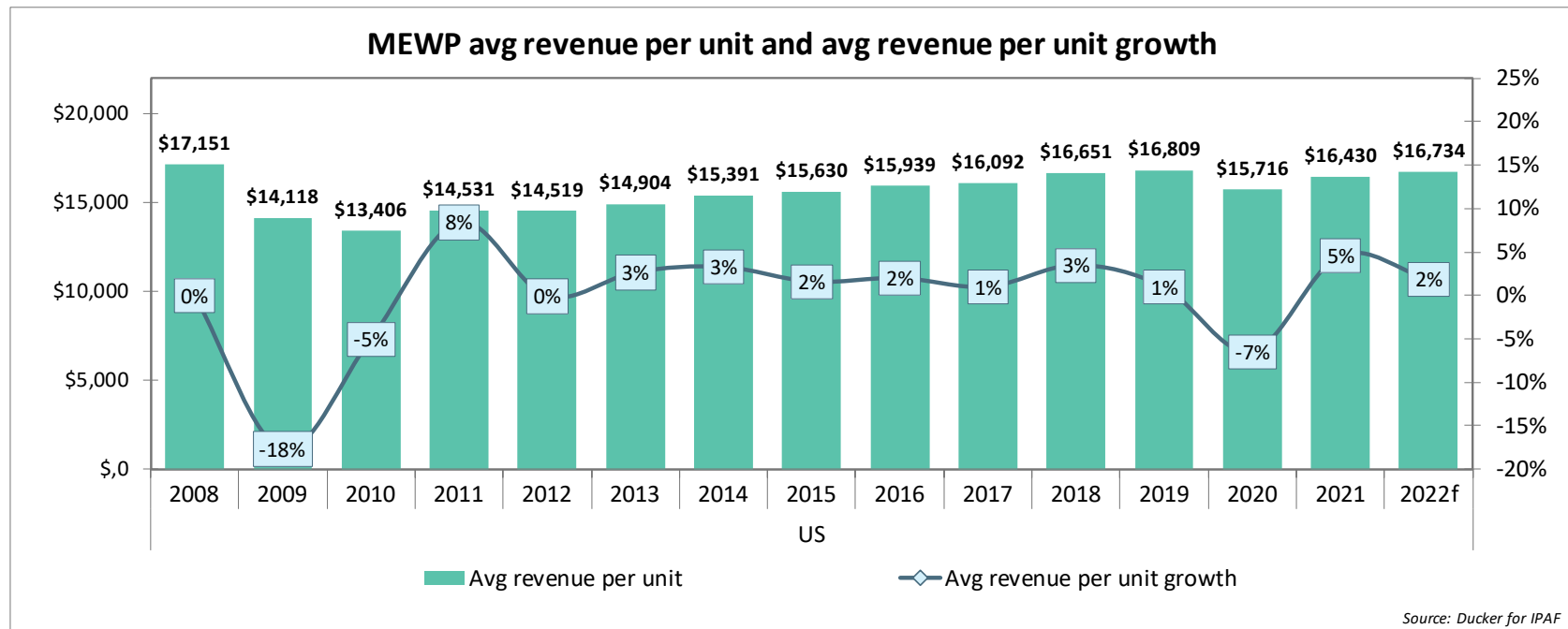


US – revenue per unit



Average revenue per MEWP unit grew by 5 per cent in 2021. Most US companies seemed to prefer to renew and increase their fleet following increased demand in the market, following the post-pandemic recovery of activity.

- Owing to growing utilisation rates and matching fleet size growth, average revenue per unit grew by around US\$1,000 per unit per year.
- Rental companies preferred to keep growing their fleet size and accept a reduction in revenue per unit in anticipation of further demand increase in 2022.

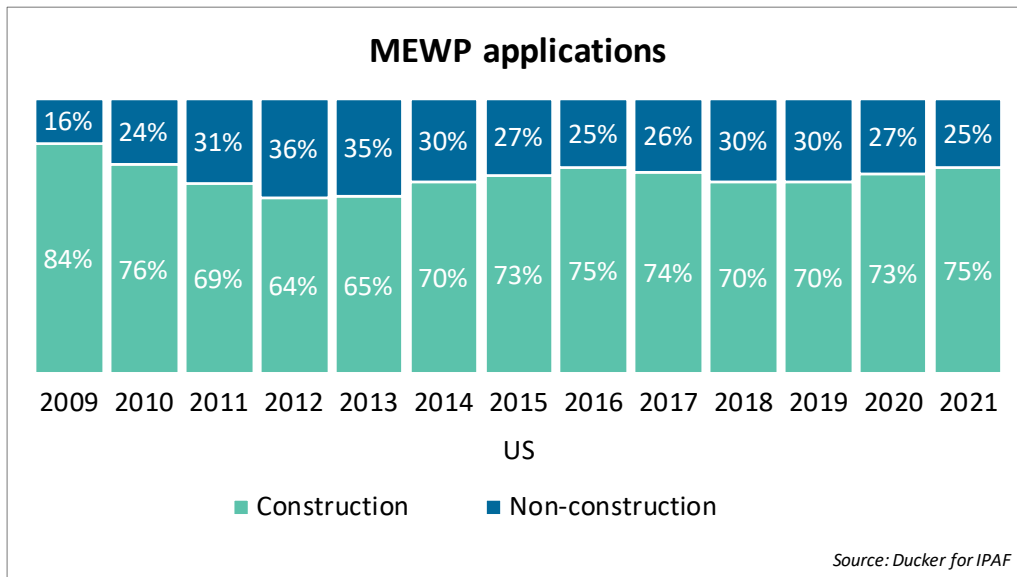


Included are powered access lifts: all booms, scissor lifts and vertical masts
Excluded: low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes and MCWPs.

US – applications

As in most countries under study, most construction activities continued during the pandemic and picked up quickly to return to normal output levels when public health restrictions were phased out during 2021.

- During the pandemic, the construction sector maintained higher activity levels than manufacturing and other non-essential sectors, and the relatively rapid post-pandemic recovery had a further positive effect on the demand for MEWP equipment from this end-user application.
- Commercial and oil & gas construction were reported to be experiencing the strongest growth in MEWP demand.



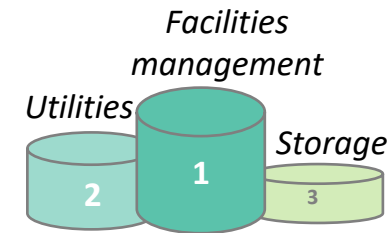
Share of rental revenue

Non-construction includes industry, maintenance, cleaning, utilities, events.

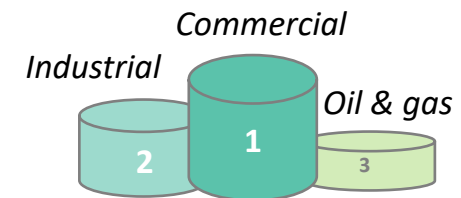
Construction includes new-build and renovation; including residential, commercial, retail and industrial.

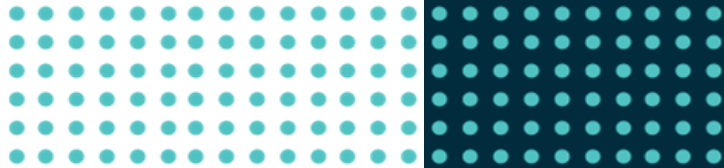


Main non-construction sub-sectors



Main construction sub-sectors





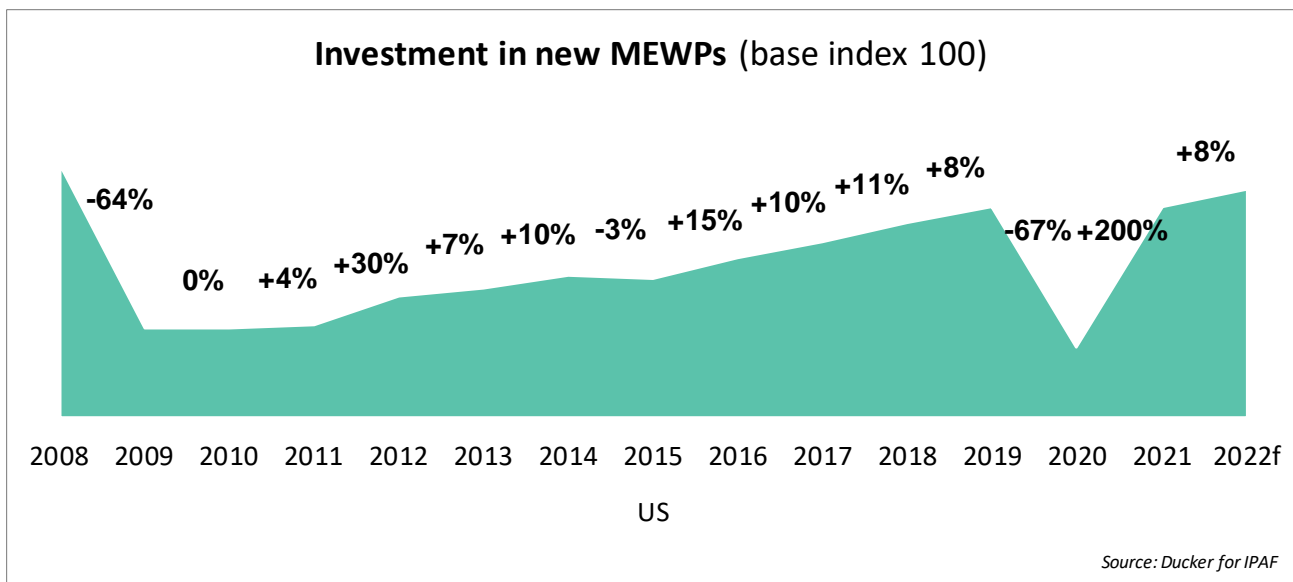
INVESTMENT 2008-2022
IPAF Powered Access Rental Market
Report 2022 – *US*

US – investment



Investment rose considerably in 2021, rental companies increasing their investment by around 200% during the year. Companies also placed orders with OEMs in advance, in a bid to mitigate the longer lead times being experienced.

- After a slow start, rental companies began investing heavily again in 2021 to compensate for the downturn of 2020.
- A lack of availability of machines from US manufacturers, caused by key component shortages, disruptions in logistics and increased lead times, is threatening rental companies' fleet expansion strategies and it remains uncertain whether planned investment will indeed be spent in 2022.



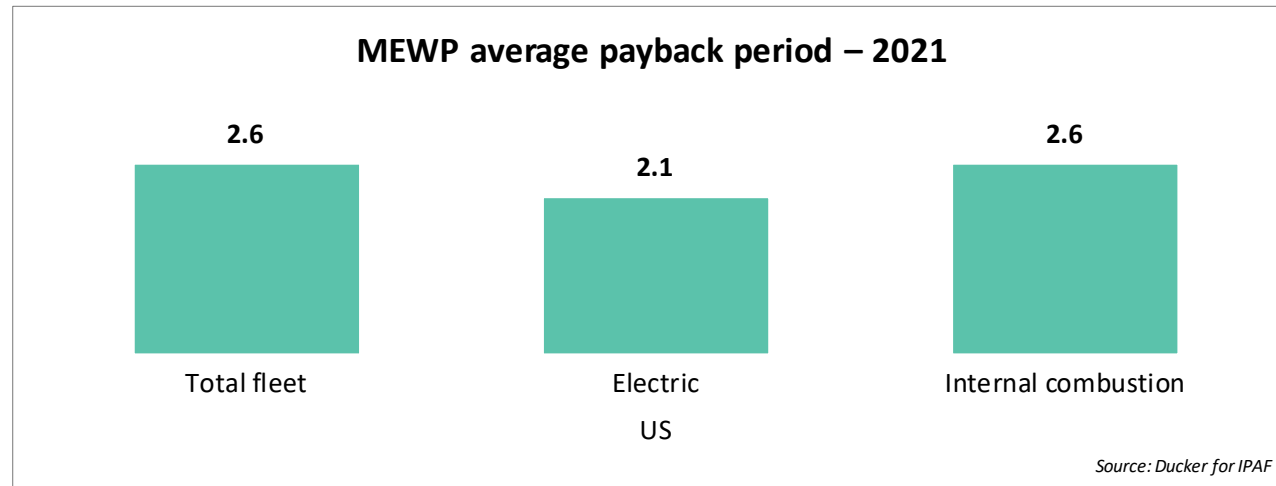
“It'll be slower in 2022 because you can't get equipment right now. Prices for equipment are going up, and with the whole inflation issue, the economy's not going to be as strong.” – MEWP rental company manager

US – typical payback period

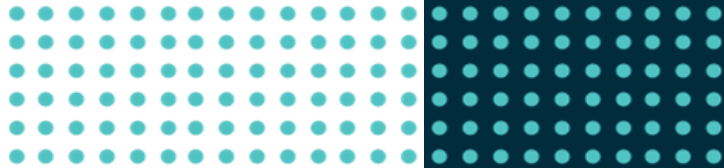


The average payback period of MEWPs fell by nine months to two and a half years, reflecting the return of high demand for rental equipment in the post-pandemic US economy, seeing a rebound in utilisation rates.

- The average payback period fell to two and a half years in 2021, as utilisation rates across the country improved to pretty much pre-pandemic levels.



2.6 = 2 years and 6 months

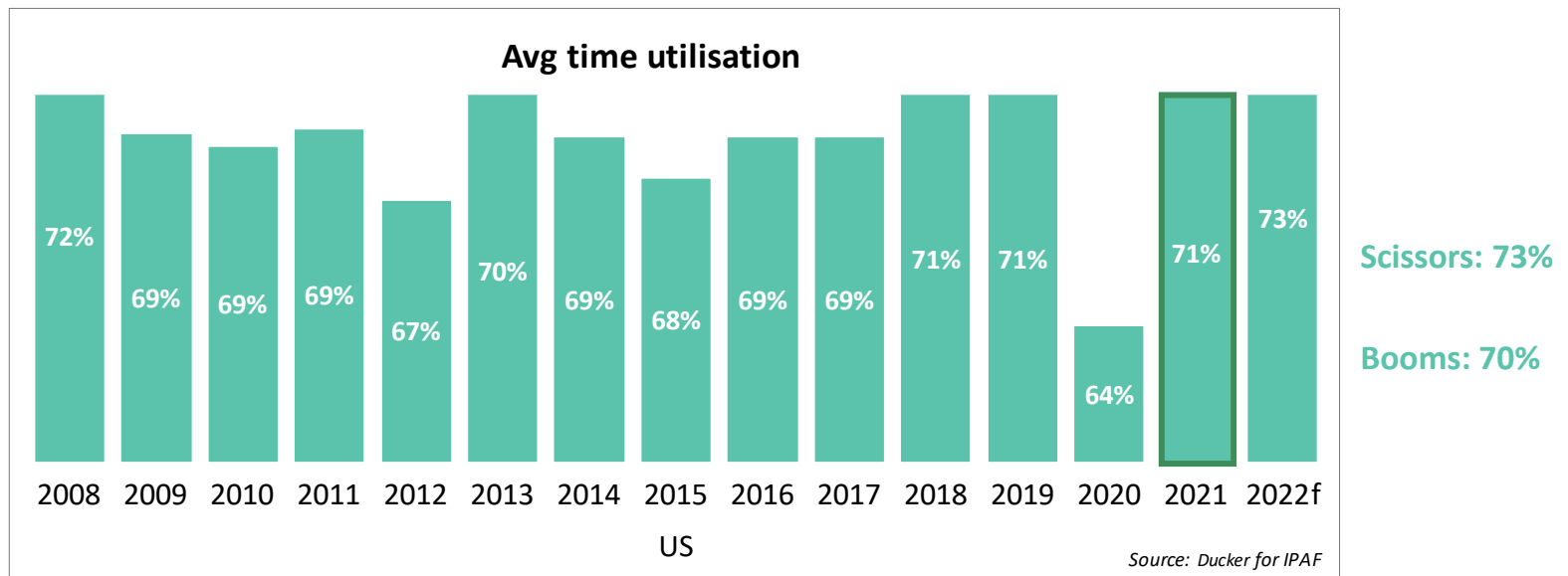


OPERATIONAL ASPECTS 2008-2022
IPAF Powered Access Rental Market
Report 2022 – *US*

US – utilisation rates

Average utilisation rate returned to 71%, driven by the return of commercial and construction activities, including any pent-up demand from 2020, as well as a relative shortage of MEWPs in the market.

- Utilisation rates grew by seven per cent in 2021, driven by increased activity in construction sector, return of most non-essential activities including events and retail, and a smaller market of new MEWPs available for purchase.
- In 2022, utilisation rates are expected to increase further. However, supply-chain disruptions may yet have a negative impact on utilisation rate of companies with aging fleets, as older machines tend to break down more frequently and parts are less commonly available than they once were.



Definition: Physical number of machines out on hire as % of total number in fleet at any given time.

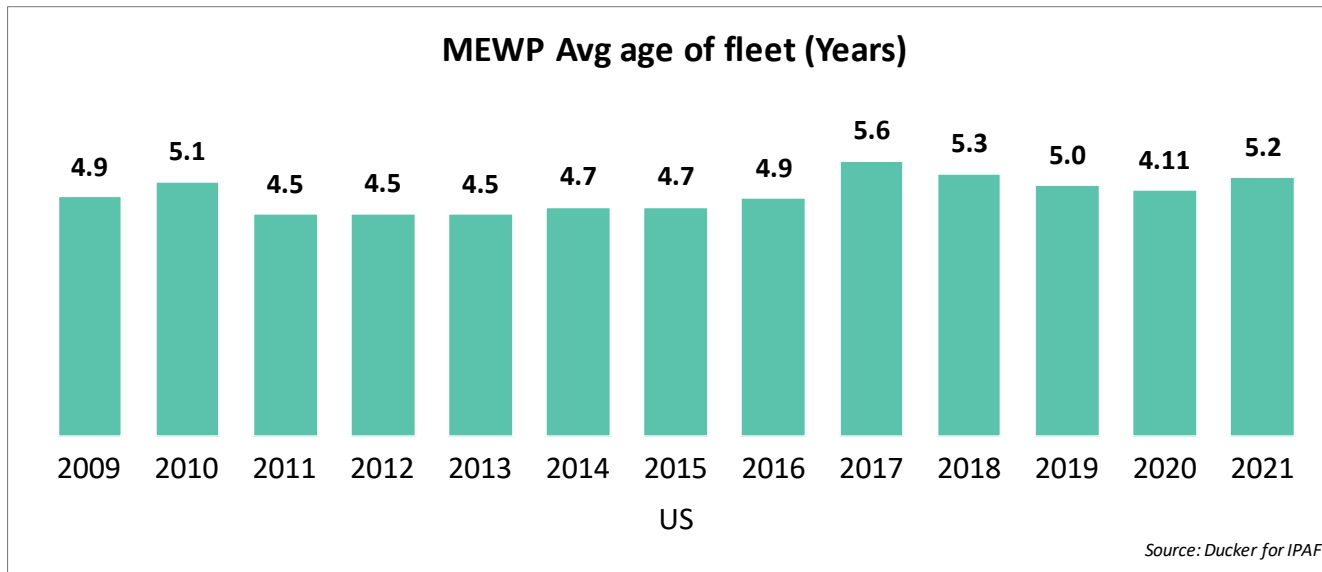


“Projects were delayed but generally not cancelled, so we will continue to see a near-term uptick in utilisation, especially with the ongoing OEM supply issues. Things are just normalising while making up for lost time during the pandemic.” – US MEWP rental company manager

US – retention period

The average retention period increased by three months in 2021 – a result of the inability of some companies to replace the MEWPS that were removed from their fleet in 2020 to support their revenues during the pandemic.

- After a drop in average age of fleet in 2020, caused by companies selling some machines to support their profitability, average age of fleet rose above five years in 2021, owing to rental companies facing difficulties in procuring new units for their fleets.
- This trend is likely to persist in 2022, as increased lead times from manufacturers impact fleet renewal plans.



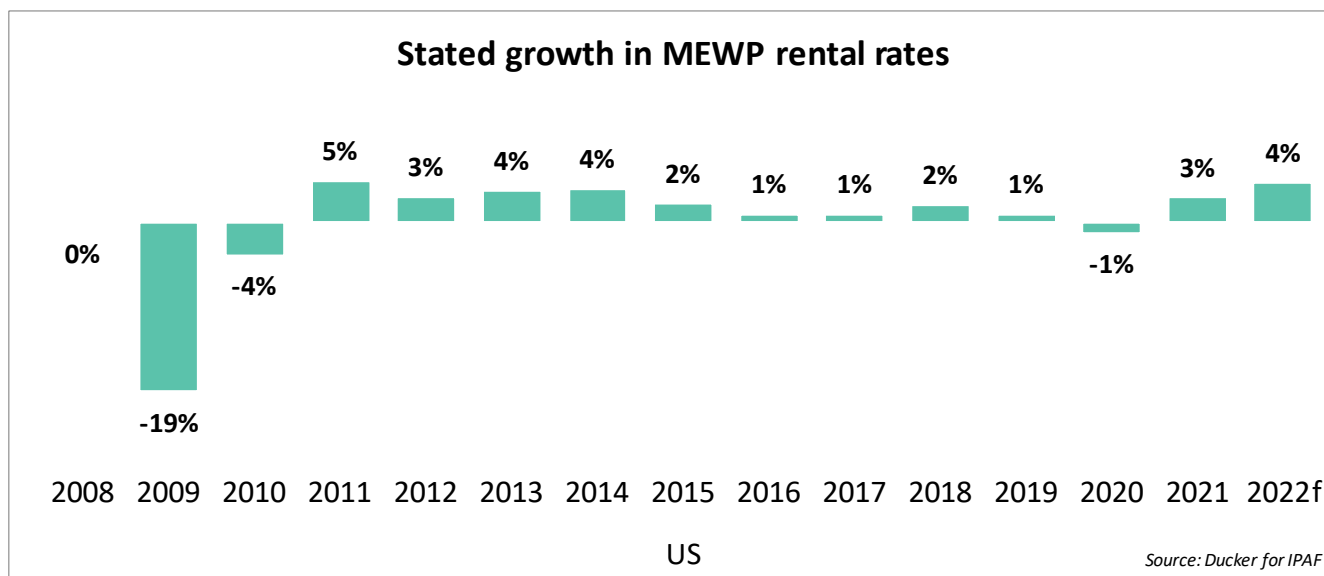
5.2 = 5 years and 2 months

Definition: Period of time that a machine is kept in fleet = selling age if acquired new

US – rental rates

Rates went up by 3 per cent in 2021 to compensate for the increase in MEWP procurement costs. Most companies expect further rate growth in 2022, to catch up with rising global inflation.

- Rental rates went up in the second half of the year and are expected to grow further in 2022, driven by the effects of parts supply disruptions on utilisation, as well as global inflation and the rising cost of fuel and equipment.



“Commercial construction activity grew and this positively impacted our business, with utilisation rising and this in turn drove up the rates that we could ask for.” – MEWP rental company fleet manager.



A PERSPECTIVE FROM THE EDITOR OF
ACCESS INTERNATIONAL MAGAZINE
IPAF Powered Access Rental Market
Report 2022 – *US*

IPAF MEMBER - FREE COPY

- In March 2022, Sunbelt Rentals CEO Brendan Horgan announced in an investors' call that: "Rental will grow, and the big will get bigger."
Summing up the challenges and opportunities in the US market he added that Sunbelt is "well-positioned to benefit from the unique market circumstances we face, including supply-chain constraints, inflation and labour scarcity, which we believe to be drivers of ongoing structural change."
- Despite any challenges, the American Rental Association (ARA) has upgraded its growth forecast for the US rental market and is now expecting an 11.1% increase this year, with growth in 2023 still at the very healthy level of 6%. These new forecasts are significantly higher than those issued by the ARA in October last year when they were 9.9% growth in 2022 and 5.5% in 2023.

The ARA attributed the increase to inflationary pressures and rising rental prices, alongside stable demand. John McClelland, the ARA's vice president for government affairs and chief economist, said the higher rates reflect a change in the economy. In the past the US saw revenue growth that was attributed to fleet growth. Now it is seeing a revenue spike driven by higher rates.

- US market growth is also being noted overseas. According to the Committee for European Construction Equipment (CECE), the region assessed as the most positive by European manufacturers is North America, by a fair margin. "However, this is not surprising when considering the strong boost in demand expected from the recently signed US infrastructure bill," said a CECE spokesperson.
- The US government's \$1 trillion infrastructure bill is aimed at transforming the nation's crumbling transportation infrastructure, spark a "second great railroad revolution", upgrade public transport and build a national network of electric vehicle (EV) chargers, among other key objectives.

- President Joe Biden's White House has also introduced initiatives to enhance sustainability. The Buy Clean Task Force will promote the use of construction materials with lower embodied carbon emissions and pollutants across their lifecycle, including the manufacturing process.

- The world's largest access equipment manufacturer echoes the positivity of the market: JLG's first quarter 2022 results saw revenues up 19.6% to \$883.1 million, compared to the same quarter last year.

However, JLG's profits dropped by 91%. According to parent company Oshkosh, this was primarily due to higher materials and logistics costs and higher manufacturing costs. The company is also still battling a significant order backlog of \$4 billion, up 161% on last year, again a result of supply-chain constraints and seemingly a common experience across the industry.

- The world's largest rental company United Rentals, which operates a fleet of around 154,000 scissor and boom lifts, reported a 24.7% increase in revenues for the final quarter of 2021 and the company expects to spend \$3.1 billion on capital expenditure this year. Key factors are said to have been the broad recovery in construction, industrial demand and the strength of the used equipment market.

- A challenge for the increasing number of Chinese aerial platform OEMs expanding into the US has been the introduction of tariffs. In October 2021, the US Department of Commerce (DOC) announced import duties ranging from 12% to 488% on Chinese MEWP products. It followed a petition filed in February by the Coalition of American Manufacturers of Mobile Access Equipment.

While the duties are a setback, they have not deterred Chinese manufacturers long term. For example, XCMG has set up a 10,000-square-metre factory in Monterrey, Mexico, which is expected to go into mass production of scissor lifts before the end of this year, for delivery to markets across the Americas.

- The arrival of European-produced access equipment products is also on the rise, notably more niche products such as track-mounted “spiders” and larger truck mounts. Recently Italy-based Comet launched its new Leopard tracked product line for North America, while CTE set up a North American subsidiary with US-based distributor Innovativ Hoisting. It follows CMS and Teupen’s entry into the US market with their own subsidiaries in recent times.
- Last year, Time Manufacturing Company and its brand Versalift completed the acquisition of Ruthmann, with part of the intention being to expand the German producer’s equipment in the US.





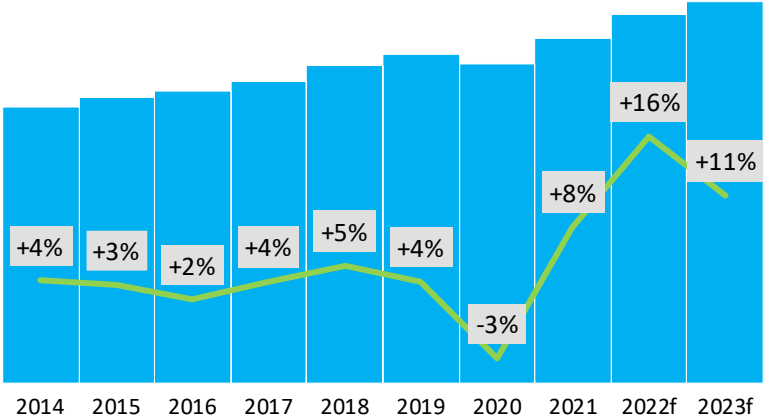
MARKET TRENDS AND DRIVERS
IPAF Powered Access Rental Market
Report 2021 – *US*

US – market trends and drivers



GDP grew by 8% during 2021 in the US, reflecting the economic recovery after the pandemic restrictions ended, while overall unemployment fell, led by job gains in manufacturing, transportation and warehousing.

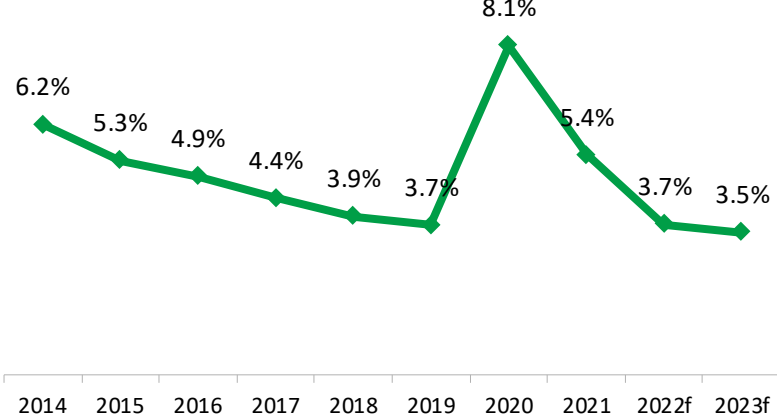
US – GDP per capita YoY% growth



Source: Ducker for IPAF

Source: FrontierView – March 2022

US – Unemployment rate



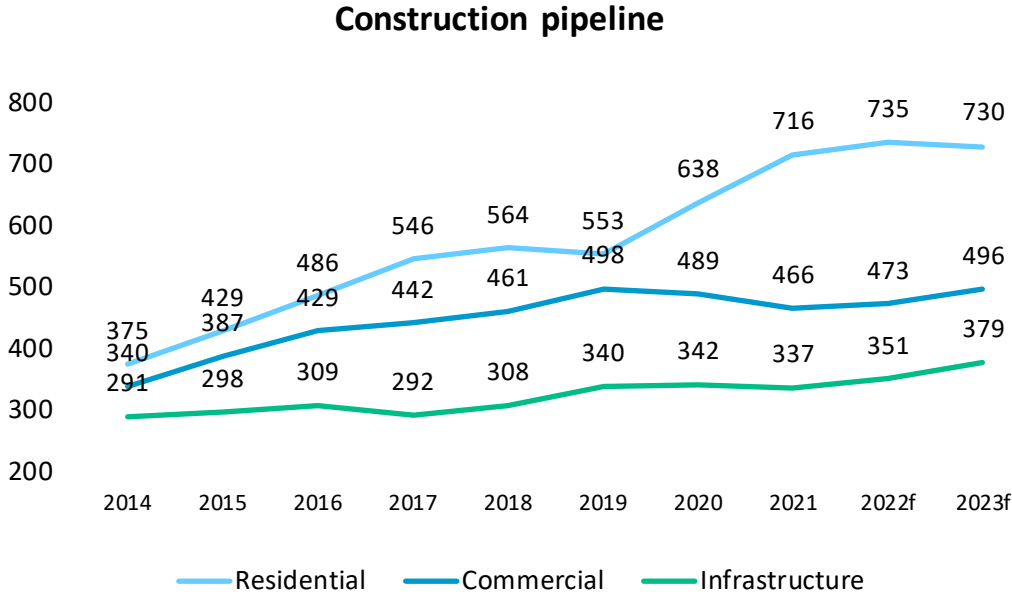
Source: Ducker for IPAF

Source: FrontierView, March 2022

US – market trends and drivers

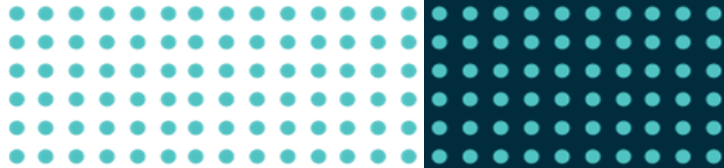


Following the significant increase in GDP during 2021, construction output went up by almost \$60 billion, driving strong demand in MEWP rental market.



Source: Ducker for IPAF

Source: FMI Construction Outlook.
Billions of current US dollars.



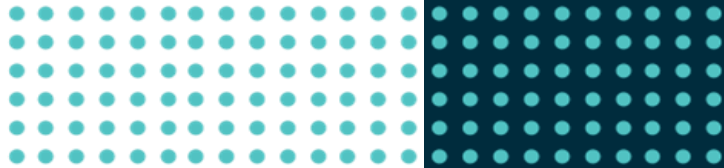
CANADA FOCUS
IPAF Powered Access Rental Market
Report 2022 – *NORTH AMERICA*

The Canadian MEWP rental market



Although more moderately impacted by the pandemic, the Canadian MEWP rental market grew substantially in 2021, owing to sustained demand and high fleet utilisation. The total fleet is expected to keep growing in 2022.

- Canadian MEWP rental companies' revenue grew close to 10% in 2021, driven by several factors:
 - Dynamism of the construction activity, in addition to increased demand in several non construction end-sectors (eg gardening applications).
 - Outlooks for 2022 are positive and revenue is expected to keep growing, by minimum of five per cent.
- In 2021, the rental MEWP fleet of Canada expanded and reached almost 75,000 units.
 - Rental companies faced challenges related to equipment shortages and delayed shipments from traditional suppliers, leading to increased retention of aging fleets and strong increase of cross-hiring between companies.
 - The current split between main MEWP equipment categories is approximately at 65:35, with scissors still accounting for the larger share. A growing interest for specialised equipment (spider lifts, MEWPs with tracks) has been reported as well.
 - By the end of 2022, the MEWP Canadian fleet size is expected to expand further and reach 77,000 units.
 - When investing into fleet renewal and expansion, Canadian MEWP rental companies progressively transition their fleet towards greener energies and invest in both electric and hybrid machinery types.
- In 2021, the average MEWP utilisation rate went up to 68-69%, an unusually high level showing the tense market situation and pressure owing to delays in new equipment deliveries.
 - Utilisation rate is expected to remain stable in 2022, provided rental companies can expand their fleets.
- Rental rates grew in 2021 by approximately 3-4%, owing to a post-pandemic recovery effect and the need for MEWP rental companies to cover the increased costs, driven in part by cross-hire activity.
 - MEWP rental companies expect rental rates to keep rising in 2022, although at a lower speed than in 2021.

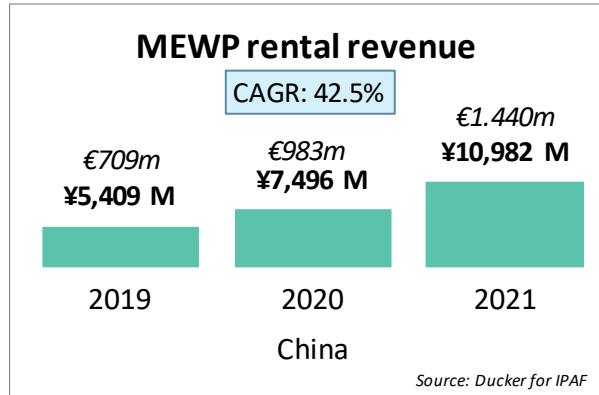


CHINA FOCUS
IPAF Powered Access Rental Market
Report 2022 – *CHINA*

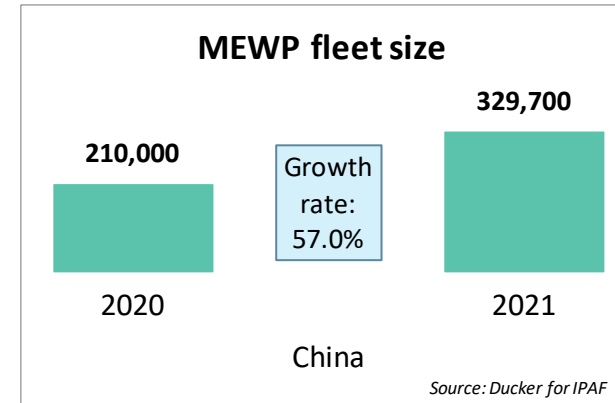
China – key findings



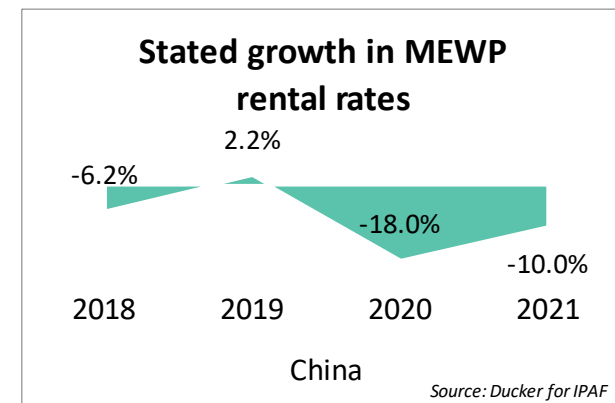
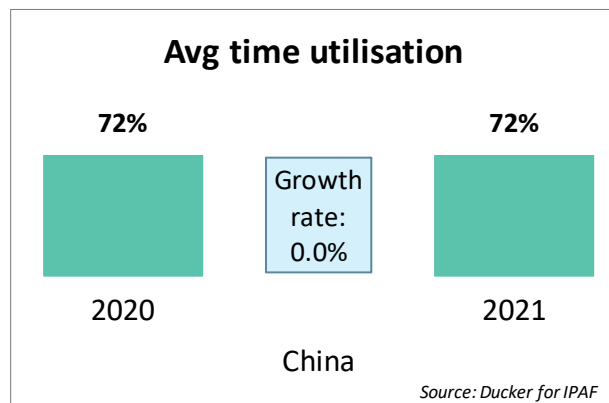
The Chinese MEWP rental industry had a successful year in 2021 and increased overall revenue by 47%, owing to unprecedented fleet expansion. Increasing fleet size kept utilisation at 2020 levels and drove down rental rates.



CAGR: Compound annual growth rate



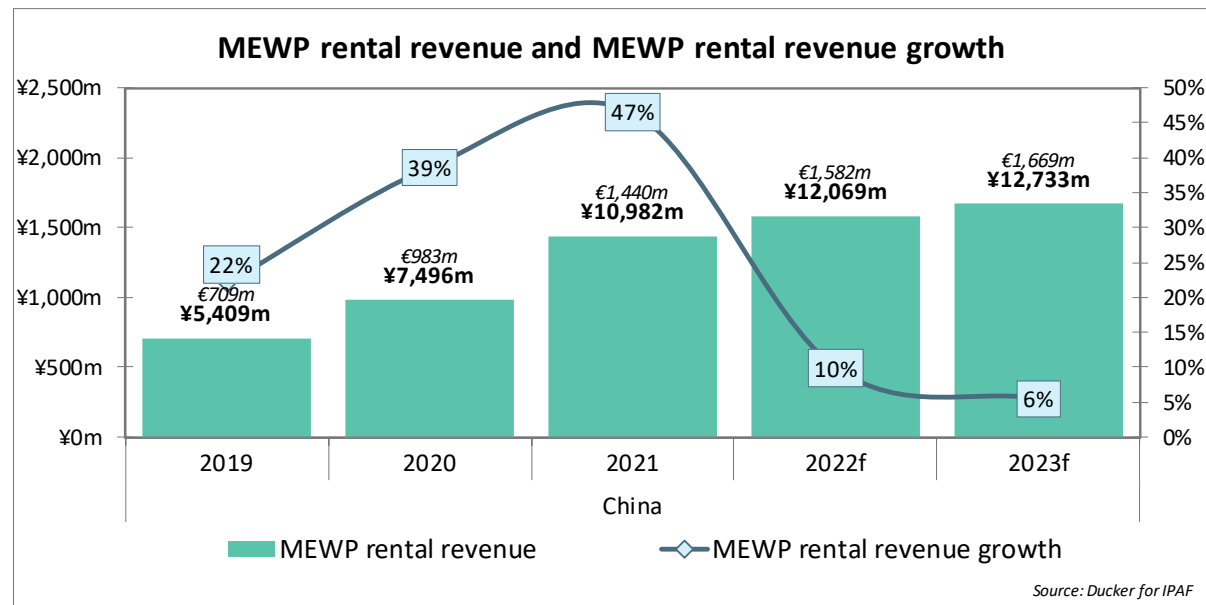
- The MEWP rental market in China is evolving rapidly and large rental companies made equipment purchases during 2021 that led to an impressive fleet expansion of 57%.
- This fleet growth, even though it was counterbalanced by declining rental rates, allowed MEWP rental revenue to almost double between 2020 and 2021.



China – rental market value and growth

Chinese MEWP rental market growth remained strong in 2021, driven mainly by fleet expansion. Uncertainty around the pandemic and limited market optimism give rise to only moderate growth outlooks for 2022-23.

- Chinese MEWP rental market revenue in 2021 reached RMB 10,982 million (\$1,973m or €1,440m).
- The market rapid growth owes to large rental companies' fleet expansion and sustained demand from end-sectors:
 - Rental companies purchased a large quantity of MEWPs and expanded geographic coverage to smaller cities.
 - Leading manufacturers have supply deals with large rental companies, supporting fleet expansion by offering favourable MEWP price and financial terms, enabling rental companies to compete with lower rental rates.
- Pandemic uncertainty persisted in the market in 2022. The forecast is for moderate market growth only.

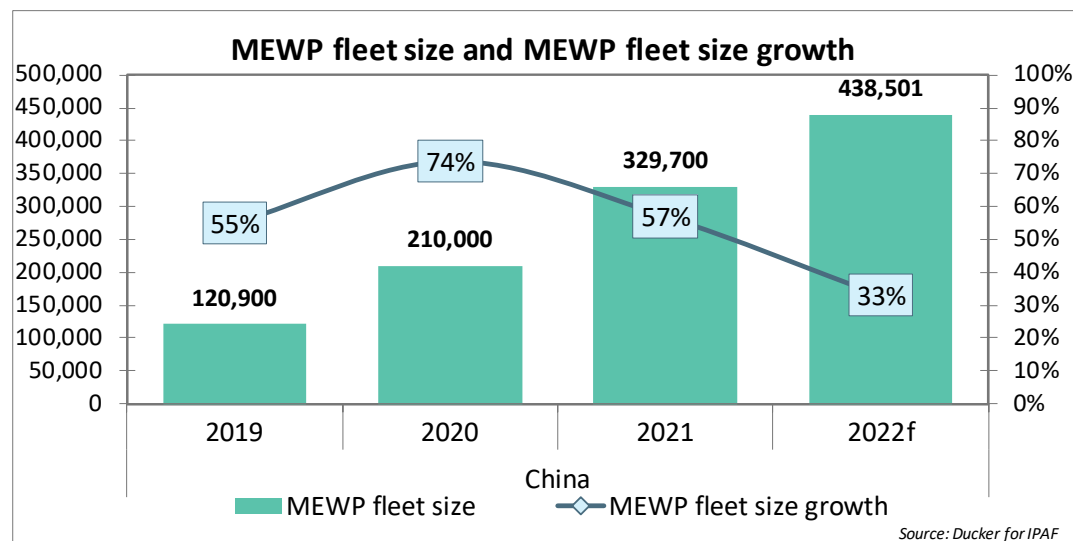


“MEWP manufacturer giants have strong relationship with the top rental companies; XCMG and Liu Gong are both stakeholders of Hua Tie Group, the parent company of Hornet Rentals.” – MEWP rental company manager

China – market size in units

China's MEWP rental fleet expanded rapidly in 2021, reaching almost 330,000 units in total. Equipment purchases of the major rental companies, including Horizon and Huatie, contributed significantly to this growth.

- The larger rental companies continued to invest heavily in fleet expansion to gain market share. Smaller rental companies reported a more cautious investment strategy, undermined by rental rates declining and ever fiercer competition from the large rental companies.
- The new pandemic outbreak and containment measures might impact companies' investment plans in 2022.
- After years of rapid growth, large rental companies' investment is expected to stabilise gradually. More moderate – but still double-digit – fleet growth is expected from 2023 onwards.



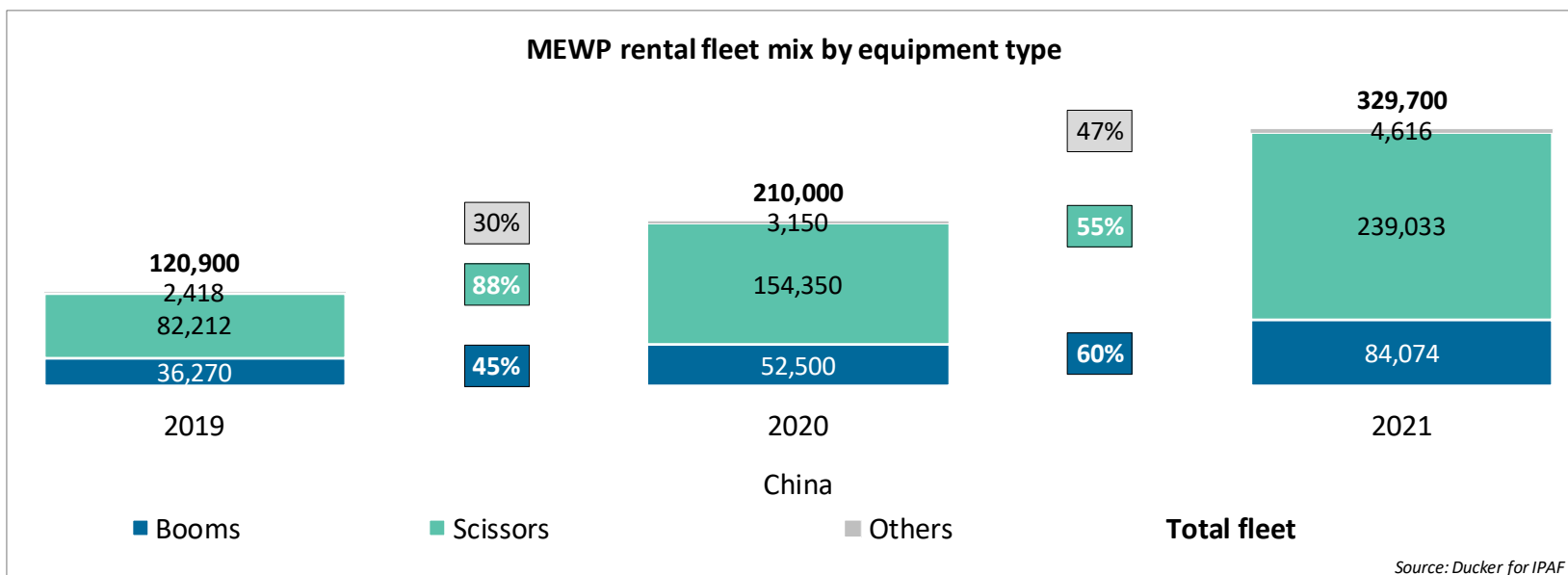
“Cities under serious pandemic restrictions are located mostly in developed regions, where MEWPs are more commonly used; there work stopped and the market is seriously impacted by the pandemic.” – Industry expert

China – market size in units



Scissors account for the majority share of total MEWPs in the Chinese rental fleet, being the type of equipment favoured by most rental companies owing to the diversity of end uses. However, the boom fleet is also expanding.

- Scissors account for the majority share in China’s rental fleets, at around 73% as of the end of 2021.
- All categories benefited from fleet expansion, however, with the boom fleet expanding at a slightly faster pace than scissors and other categories.
- The market for other MEWP types (e.g. spider lifts) remains relatively small: These are mostly imported and are only typically seen in fleets based in larger cities. The slow growth is down to higher cost and limited applications.
- Rental companies’ investment in booms is expected to increase, as booms are deemed more profitable than scissors for rental companies. However, the fleet mix is expected to remain skewed in favour of scissors.

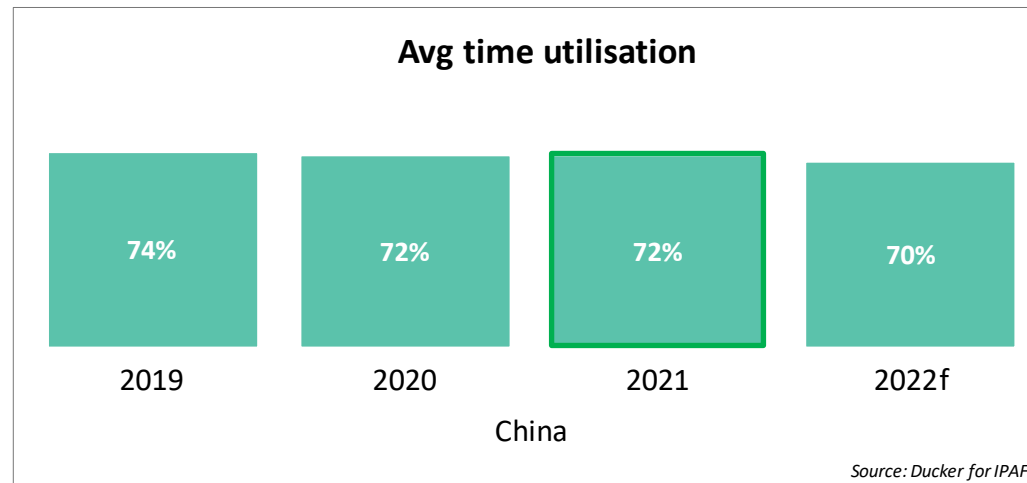


*Included are powered access lifts: All booms, scissor lifts and vertical masts
Excluded: Low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, and MCWPs.*

China – utilisation rate

China's average MEWP utilisation rate remained stable in 2021. Rental companies kept decreasing rental rates to bolster demand and sustain utilisation. Utilisation is expected to moderately decrease from 2022 onwards.

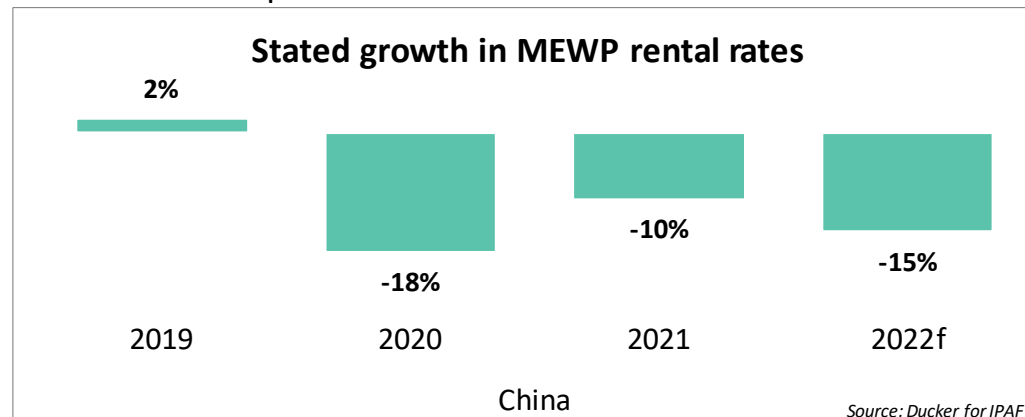
- Large rental companies maintained a stable utilisation rate in 2021: The impact of fleet expansion on utilisation was counterbalanced by reductions in rental rates. Market recovery and growth after the pandemic fuelled overall demand for MEWP rental.
- Utilisation rates vary between regions: It is lower in northern China, where inclement weather conditions limit outside working during certain months. It also is lower in small cities, and highest in large developed cities.
- Utilisation rate is expected to keep decreasing in 2022 and onwards, owing to years of rapid fleet expansion and uncertainty as to demand as the pandemic is resurgent in parts of China, which is still pursuing a zero-Covid policy.



China – rental rates

MEWP rental rates declined more slowly in 2021 than they did in 2020 and are expected to keep declining from 2022 onwards owing to the uncertainty around the pandemic and limited optimism in demand growth.

- In 2021, rental rates continued to decline, as demand failed to keep pace with fleet expansion from the top rental companies. Larger rental companies kept reducing their rates to sustain utilisation rate and seize more market share.
- After the sharp decline in 2020, rental rates decline for scissors slowed down in 2021, especially for the 10m and 12m scissors, and the rates level did not allow for making any (or only very little) profit out of it.
- Boom rental rates, which offered more room for profit, went down more significantly, especially for the most common model-types ranging between 18m and 20m in reach.
- MEWP rental rates will keep decreasing over the coming years, as competition becomes fiercer and the pandemic resurgence in 2022 exacerbates this expectation of rental rate decline.



“Demand was growing but rental fleet expansion was much faster; rental companies had to reduce their rates to retain their utilisation, and the pandemic will bring fiercer competition and lead to further rental rates decline.” - MEWP rental company



A PERSPECTIVE FROM THE EDITOR OF
ACCESS INTERNATIONAL MAGAZINE
IPAF Powered Access Rental Market
Report 2022 – *CHINA*

- The access equipment rental sector in China continues to see unprecedented growth. However, issues around Covid-19 have returned to the country as the omicron variant spreads rapidly. The Chinese government's zero-Covid strategy, leading to total lockdowns in Shanghai and large parts of Beijing, have had an impact on worksites in those zones.
- According to the Committee for European Construction Equipment (CECE), China is not being assessed too positively, with some of its member companies expecting the market to show further declines in sales. Uncertainty remains high in China, CECE adds, with a looming real estate crisis and ongoing disruptions to domestic and industrial power supply.

This is unlikely to hinder the growth of access equipment in China overall, as the market is not yet fully mature, unlike other more conventional construction equipment segments such as excavators and cranes. Now that MEWPs are widely accepted and increasingly mandated on worksites, nothing is likely to stop the rental market's rise to full maturity.

- Commentators often use the total notional US MEWP fleet of around 650,000 units as a benchmark. While it is likely the Chinese market could match that number within the next three years or so, and it is also possible it will surpass it and then continue growing at a substantial rate of around 20% per year.
- With the Chinese Government's commitment for carbon neutrality before 2060, electric MEWPs are being adopted in China at a faster rate than in Europe. As such, many China-based MEWP OEMs are offering electric versions of their rough-terrain equipment across the full working height range.
- As far as rental companies are concerned, the market is dominated by a few major players. One of those being Shanghai Horizon Equipment & Engineering, which now has 97,000 MEWPs in its fleet, up from around 55,000 last year, which in turn had seen a 57% rise across 2020.

- Overall, it is thought the total MEWP fleet in China is growing at around 40% year-on-year, and reports from the country suggest that competition between the major rental players has helped drive down rental rates.

That said, there are also a growing number of much smaller, localised rental companies which can co-exist through offering more direct customer service better adapted to local demand. The owner of one of those, Wang Shi Jin from CCBF, which has 2,000 MEWPs in its fleet, believes the MEWP population in China could reach 750,000-800,000 units in the next four years: “And, I forecast that it will reach 1 million units in 10 years, from then.”

- Due to the country’s early exit from the first waves of the pandemic in 2020, Chinese manufacturers were able to keep their production lines open, which aided meteoric growth in the country, unlike manufacturers in other parts of the world, which were forced to halt production during successive lockdowns, allowing orders to go unfulfilled.
- While Chinese OEMs have now taken the overwhelming share of the MEWP market in the country, competition is fierce between them. They include the major general construction equipment manufacturers, which have all set up MEWP divisions in the past seven years, alongside the more specialist or niche manufacturers.

However, the current global level of demand for aerial platforms will not continue forever, meaning there will be winners and losers, with, as always, those offering the right combination of quality, safety and after-sales service winning long-standing supply deals with the major rental companies.

Nevertheless, there are similar challenges in China to those in western countries. For example, the strong demand for lithium for battery production may soon outstrip supply, which could hold back electric MEWP production.

- There are also concerns over the availability of charging infrastructure on worksites and beyond for larger equipment, and the fact that traditional Chinese worksites have different building process, in which buildings are erected before access roads are installed, making the terrain for electric MEWPs, like RT scissors, very challenging.

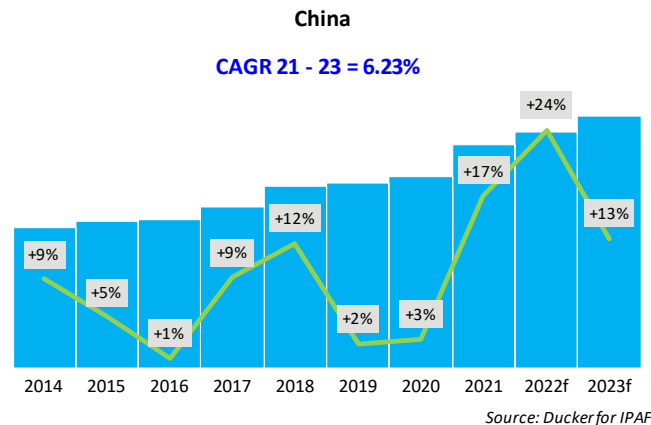


APPENDIX
IPAF Powered Access Rental Market
Report 2022 – *CHINA*

China – Macro-economic indicators

China's GDP grew by 17% in 2021 and the country's economic outlook for 2022 depends on manufacturing and export performance amid ongoing pandemic-related public health and economic restrictions.

- In 2021, the country's economy has by far exceeded the past year's expectations with its speed of recovery. However, the outlook of Q2 2022 reflects an increase in adverse conditions: Domestic demand slowed down and the global economic situation deteriorated owing to the war in Ukraine. In addition, recurring Covid outbreaks in the country continue to negatively impact the economy, including both manufacturing and construction industries.



Gross Domestic Product (GDP), Real %YOY -
FrontierView, March 2022



The International Powered Access Federation (IPAF) promotes the safe and effective use of powered access equipment worldwide in the widest sense – through providing technical advice and information; through influencing and interpreting legislation and standards; and through safety initiatives and training programmes.

IPAF is a not-for-profit organisation owned by its members, which include manufacturers, rental companies, distributors, contractors and users. IPAF members operate a majority of the MEWP rental fleet worldwide and manufacture about 85% of platforms on the market.

Visit www.ipaf.org/contact to find details of your nearest office or representative.

The Ducker logo features the word 'DUCKER' in a white, bold, sans-serif font, centered within a white square border on a dark teal background.

DUCKER

RESEARCH & CONSULTING

BANGALORE | BERLIN | DETROIT | LONDON | NEW YORK | PARIS | SHANGHAI

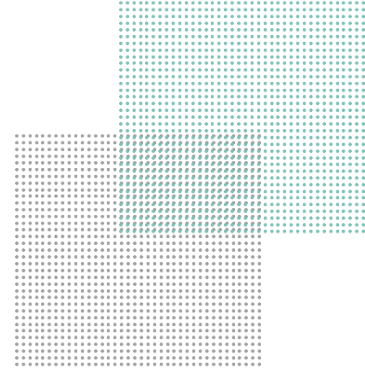
www.ducker.com

IPAF MEMBER - FREE COPY





RESEARCH & CONSULTING



June 2022

IPAF Powered Access Rental Market Report 2022

COUNTRY REPORT – FRANCE

www.ipaf.org/reports



**THE EUROPEAN
ASSOCIATION
AWARDS 2019**

FINALIST
Best Provision of Industry
Information and Intelligence



**THE EUROPEAN
ASSOCIATION
AWARDS 2018**

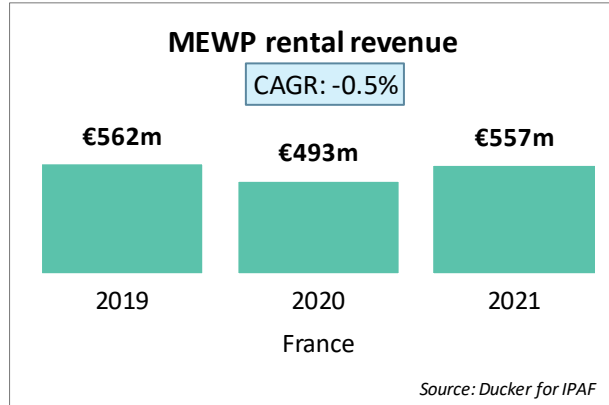
BRONZE
Best Provision of Industry
Information and Intelligence

IPAF MEMBER - FREE COPY IPAF has been working with Ducker to create these exclusive industry reports since 2009

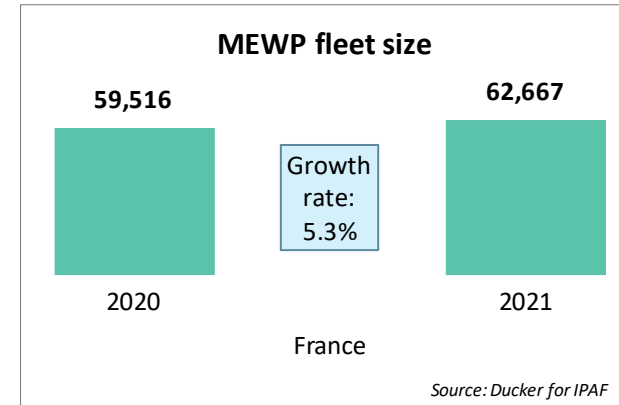
France – key findings



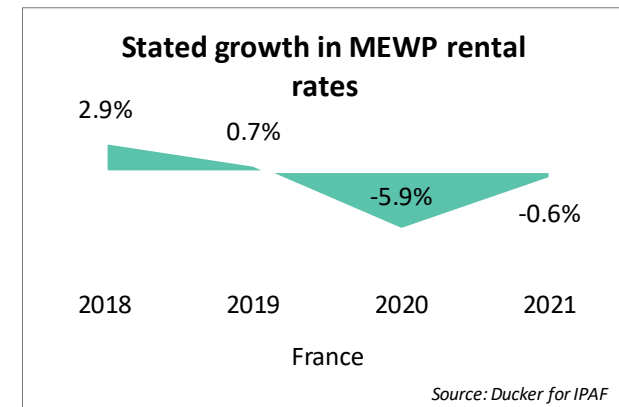
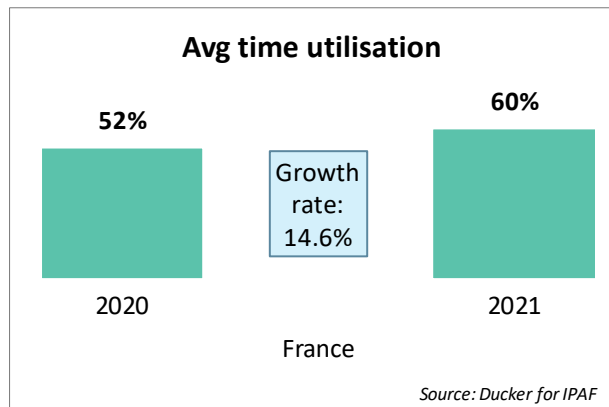
Activity largely returned to normal in 2021 and most main indicators went back to pre-pandemic levels or even exceeded them. Rental rates continued to deteriorate slightly as companies sought to maintain their margins.



CAGR: Compound annual growth rate



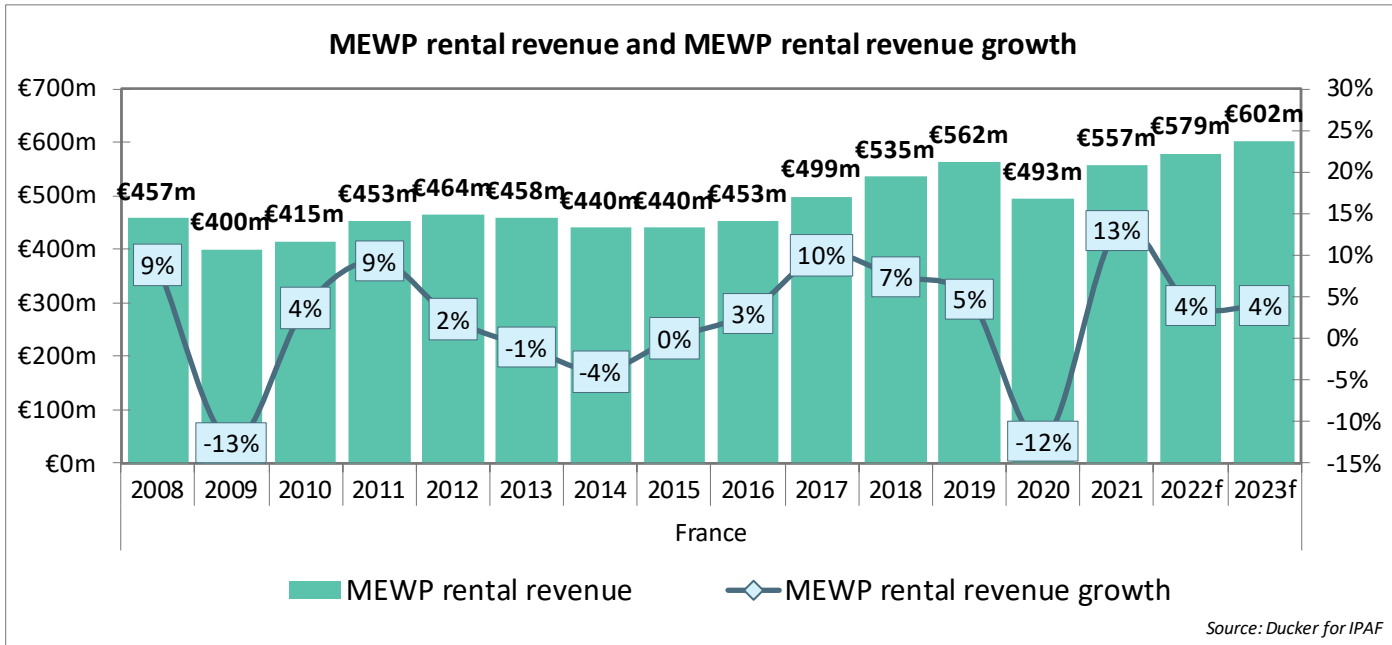
- MEWP rental revenue recovered by 13%, a direct consequence of a rapid market bounce back.
- Total fleet size expanded, while utilisation rate went back to its pre-pandemic level. However rental companies were not able to significantly increase rental rates as a result.



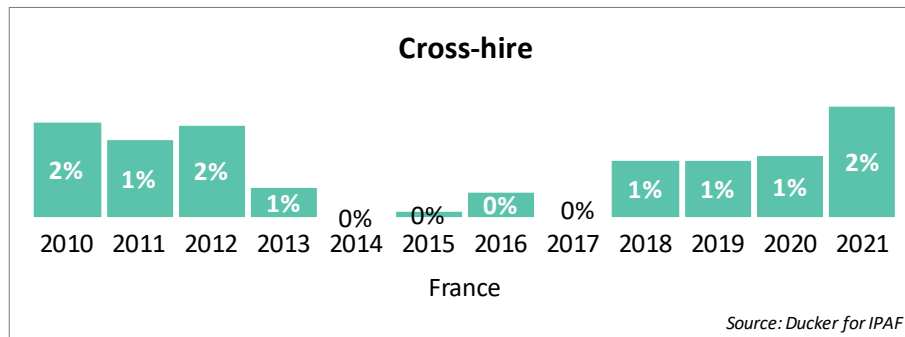
France – rental market value and growth



The MEWP rental market recovered in 2021 to exceed pre-pandemic levels, as demand returned in full and catch-up on construction pipeline continued. Market is expected to grow at an annual rate of four per cent.



- After 2020's drop, rental revenue recovered in 2021. As forecast, it exceeded 2019 levels.
- Rental companies expect their rental revenue to keep growing, although at a slower pace, owing to uncertainties linked to war in Ukraine and fuel price increases.
- Cross-hire grew slightly in 2021, owing to growing demand and delays in new MEWP deliveries.

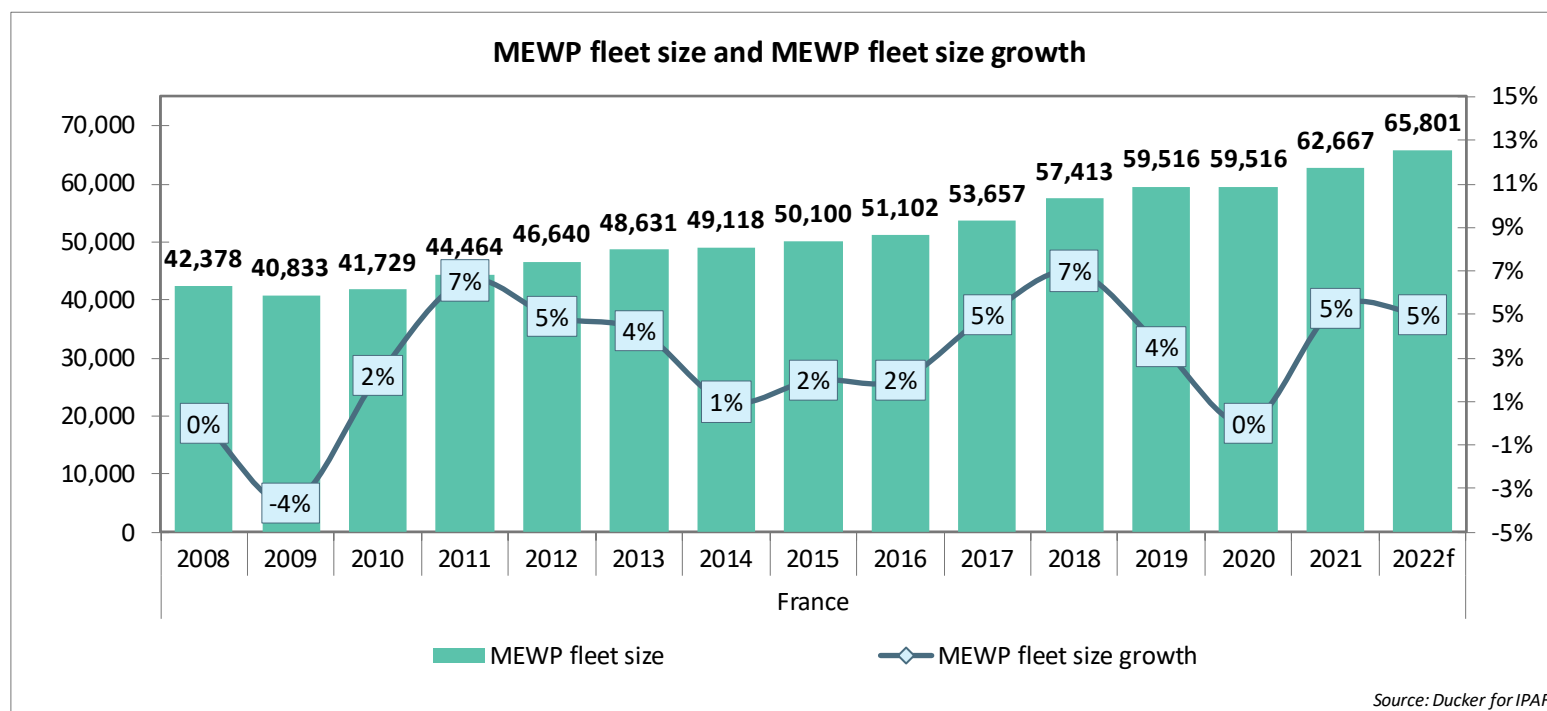


France – market size in units



Most MEWP rental companies expanded their fleet in 2021. Total fleet size growth is expected to continue in 2022, and the total number of units is expected to go beyond 65,000 units.

- France’s MEWP total fleet size exceeded 60,000 units in 2021, and is forecast to grow by almost 6,000 units in 2022.
- Companies intend to keep expanding their fleet in 2022-23. However, many report concerns about the actual impact of current delivery delays for new OEM machines, and some are considering switching suppliers to ensure their strong fleet growth objectives can be achieved.



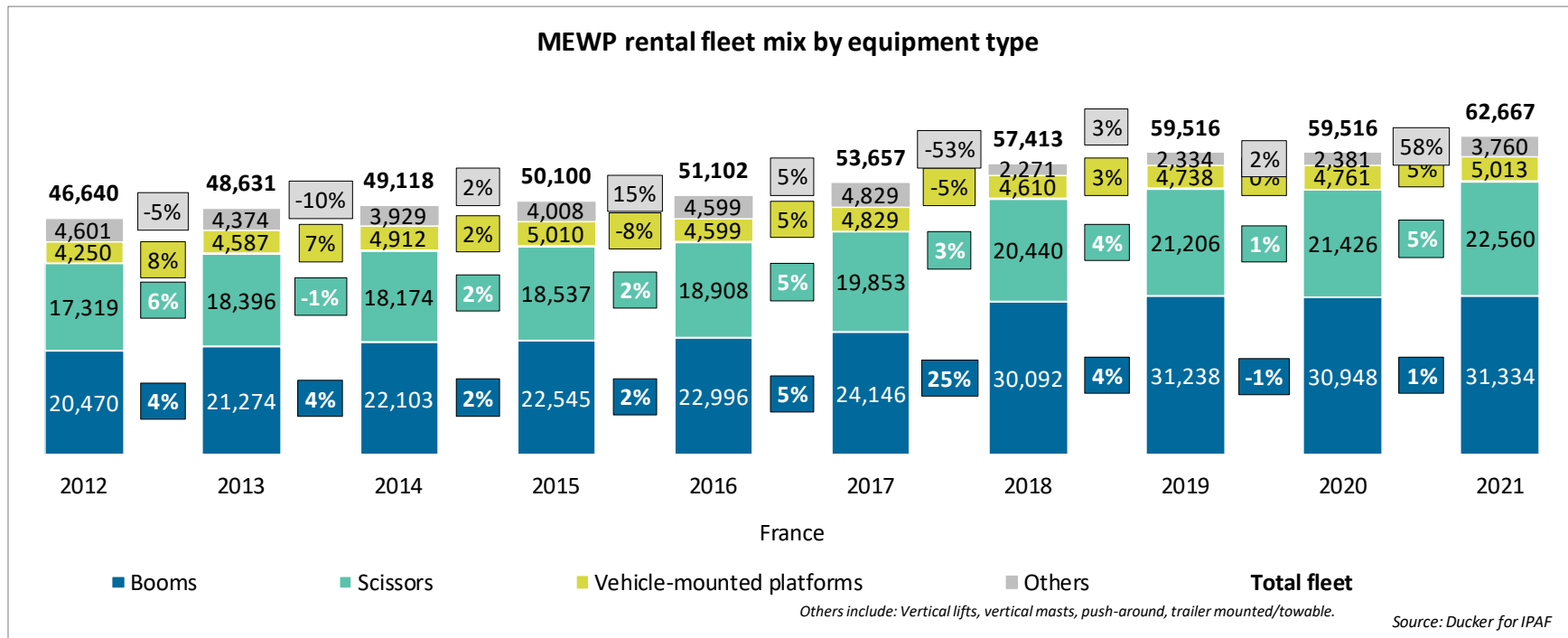
*Included are powered access lifts: All booms, scissor lifts and vertical masts
Excluded: Low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, and MCWPs.*

France – market size in units



All MEWP categories saw an increase in 2021, albeit at varying rates of growth. Medium to long-term, the trend is towards electric-powered equipment, as both the fleet renewal cycle and fleet expansion allow.

- The overall fleet mix experienced only slight change and all MEWP categories benefited from total fleet size growth in 2021. Strong growth rates were reported for both vertical masts and scissors.
- The trend to replace older equipment with electric machines continued, although at a significantly slower rate than some other European countries.



*Included are powered access lifts: All booms, scissor lifts and vertical masts
Excluded: Low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, and MCWPs.*

+X%

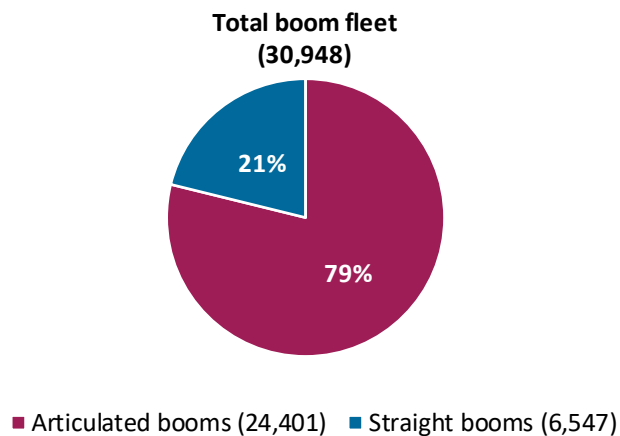
% unit growth, eg booms fleet increased by 1% from 2020 to 2021.

France – market size in units

There was growth in both boom categories. The current ratio between articulated and straight booms in the French fleet stands at 78:22.

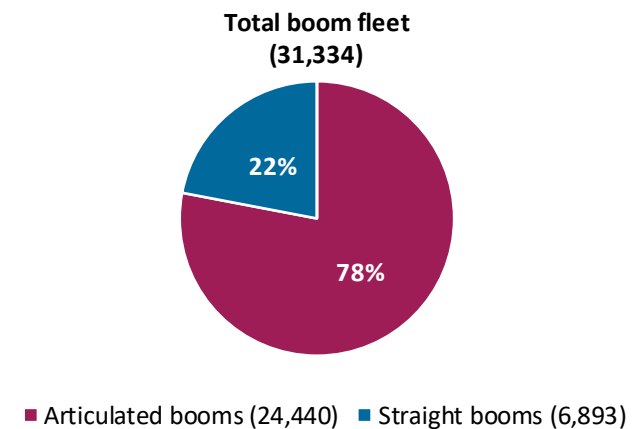
- After the halt on construction activities in 2020, and the subsequent decrease in the straight boom fleet, the market took off again in 2021.
- Total boom fleet exceeded 31,000 units and both categories grew, with straight booms increasing share slightly.

MEWP boom fleet mix by type – France – 2020



Source: Ducker for IPAF

MEWP boom fleet mix by type – France – 2021

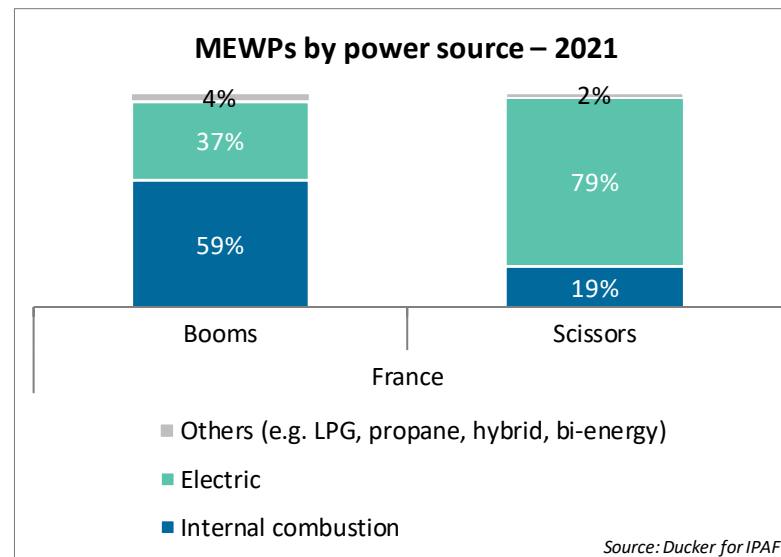


Source: Ducker for IPAF

France – power sources

Transition to electric power sources continued for both main equipment categories in 2021, as MEWP rental companies started investing again. A more rapid transition was experienced in the booms segment.

- Electric MEWPs represent 37% of all booms, significantly higher than the levels in 2020. The transition to green power sources continued steadily among the scissors segment, with the overall percentage of electric machines gaining around one per cent compared to 2020.
- In 2021, companies continued to switch towards electric power sources, driven by strong demand from customers, especially on major construction projects.
- The trend towards electric-powered machines is expanding. MEWP rental companies consider rental rate increases will partially compensate for equipment price increases.



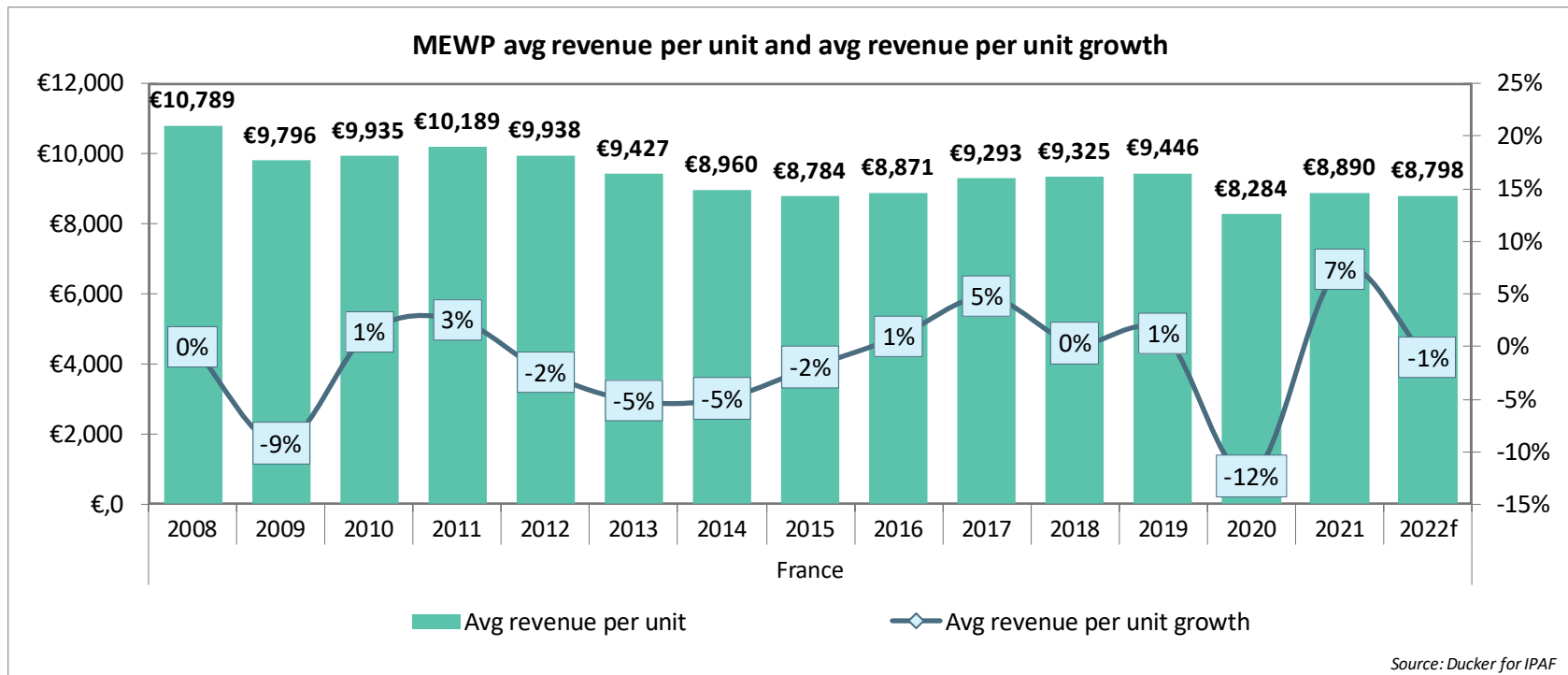
“

“The demand of hybrid seems driven by marketing over profitability. These machines are more expensive and so are the rental rates for end-users.” – MEWP rental company fleet manager

France – revenue per unit

Average revenue per unit bounced back in 2021, but remains below pre-pandemic levels. It is not expected to exceed €9,000 before 2023 at the earliest.

- After a sudden drop in 2020 at the height of the pandemic, average rental revenue recovered partially in 2021.
- Although rental companies expect to be able to increase their rental rates from 2022 onwards, they consider the increases will not be enough to drive up average revenue per unit significantly in the short-term.

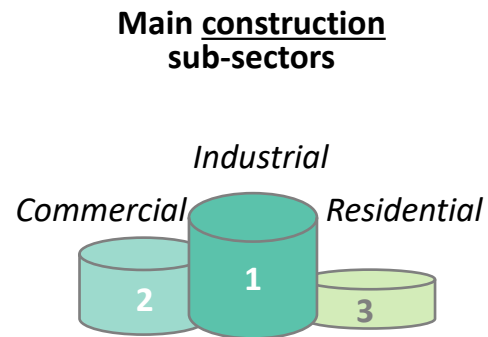
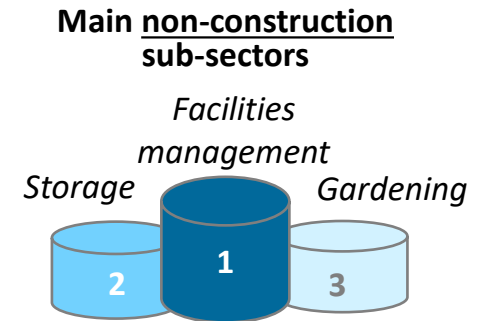
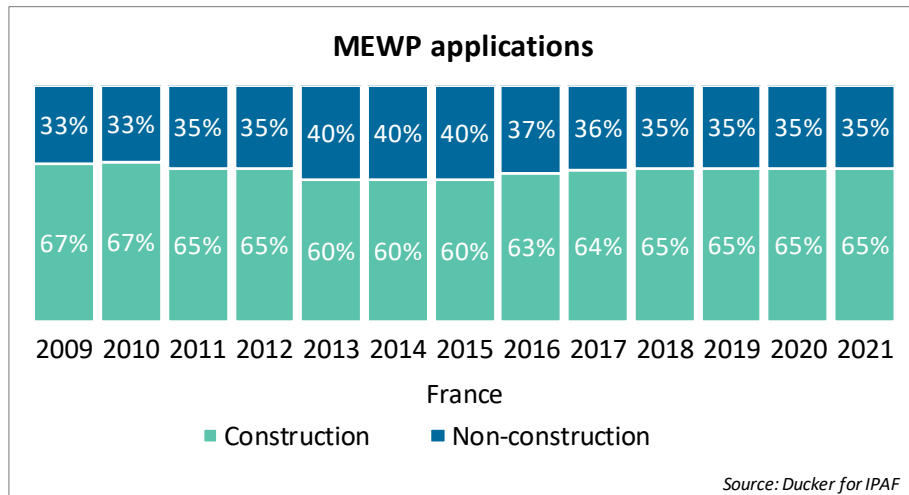


Included are powered access lifts: all booms, scissor lifts and vertical masts
Excluded: low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes and MCWPs.

France – applications

The French MEWP rental market remains one of the most oriented towards construction applications, and exhibits a fairly stable 65:35 ratio between construction and non-construction end uses.

- Companies reported a stable split between MEWP applications, which is pretty much unchanged over the past five years.
- Construction output rebounded strongly in 2021. At the same time, non-construction sub-sectors experienced a healthy level of activity. The 65:35 ratio in France is likely to remain unchanged over the next few years.



Share of rental revenue:

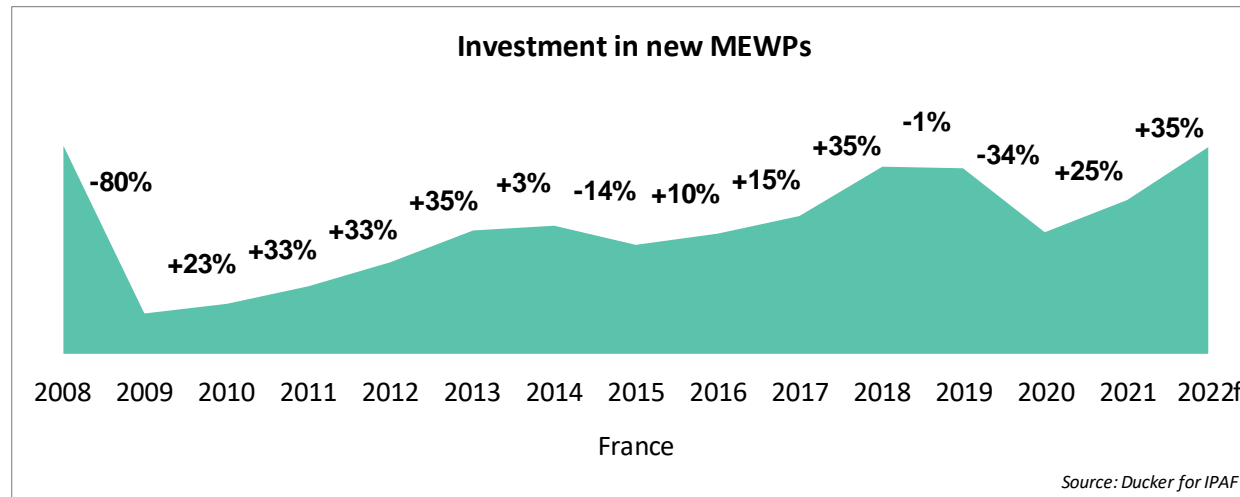
Non-construction includes industry, maintenance, cleaning, utilities, events.

Construction includes new-build and renovation; including residential, commercial, retail and industrial.

France – investment

French MEWP rental companies expect to invest further in fleet expansion despite equipment price increases. Current shortages of supply and delivery delays are a source of concern and likely to impact future investment.

- After a severe contraction of investment in 2020, MEWP rental companies have been able to invest again more in line with their pre-pandemic plans.
- The growth of investment highlights companies' intent to develop their fleet and keep up with growing user demand. It also reflects the increasing cost of equipment, with rental companies intending to transfer to end-users.
- An additional increase in the amount of investment is expected in 2022, leading rental companies to increasingly turn to Chinese MEWP manufacturers to minimise delivery lead-times and fulfil orders.

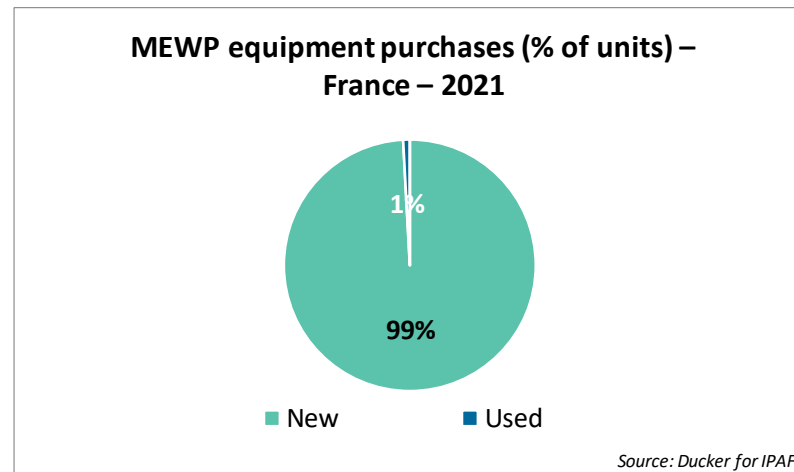


“We expect to increase our investment level, but the main question will be: Considering current delays in delivery, what will we actually get?” – MEWP rental company purchasing manager

France – equipment purchases

Rental companies tend to purchase new equipment in line with green investment strategies, ensuring their rental fleet can offer the most attractive technologies to their customers.

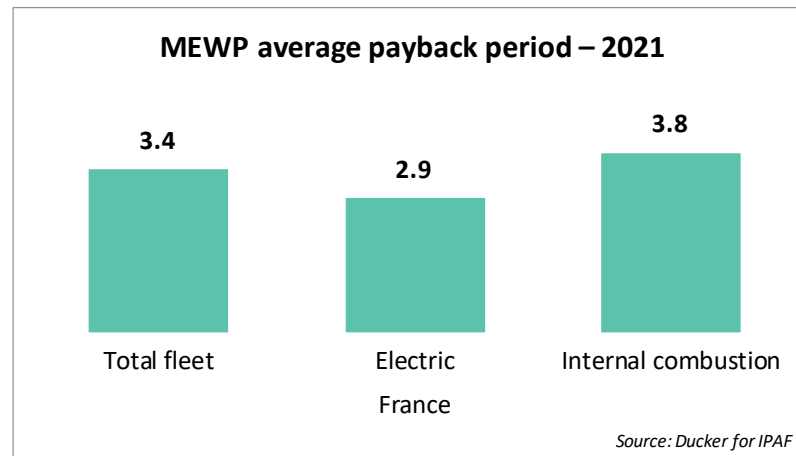
- As before the pandemic, MEWP rental companies chose to invest almost exclusively in new equipment in 2021.
- Competition in the French MEWP rental market remains fierce. Offering the latest technology ensures rental companies can maintain their competitive advantage and attractiveness to their customers.
- Rental companies' strategy of investing in green power sources also fuels this trend towards purchasing new MEWPs.



France – typical payback period

The average payback period in 2021 was three years and four months, a decrease on ROI period from 2020 owing mainly to the significant rebound of French MEWP rental activity amid robust demand.

- The average payback period was impacted by the market recovery, which led to a decrease in ROI for both electric and internal-combustion-powered MEWPs, from 3.6 years in 2020 to 3.4 years in 2021.

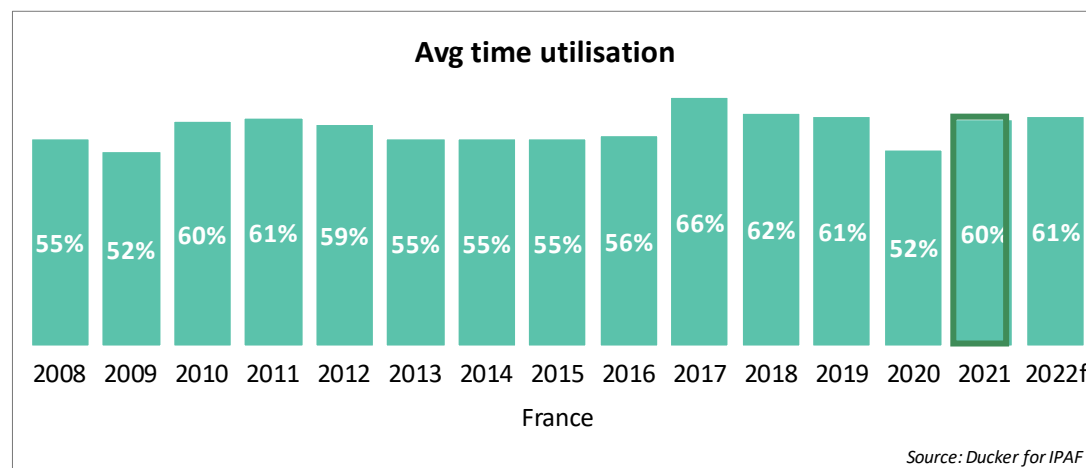


3.4 = 3 years and 4 months

France – utilisation rates

Utilisation rate bounced back in 2021. Rental companies intend to meet growing demand with expanded fleets, while being cautious about potential negative impacts, such as rising inflation and war in Ukraine.

- Utilisation rebounded significantly in 2021 owing to the market recovery and booming construction output.
- MEWP rental companies' fleet expansion met growing demand, while maintaining utilisation rates at pre-pandemic levels. Uncertainties linked to war in Ukraine, rising fuel costs and raw materials shortages (eg steel) could impact the market from June 2022 onwards.



Scissors: 60%

Booms: 60%

Definition: Physical number of machines out on hire as % of total number in fleet at any given time.

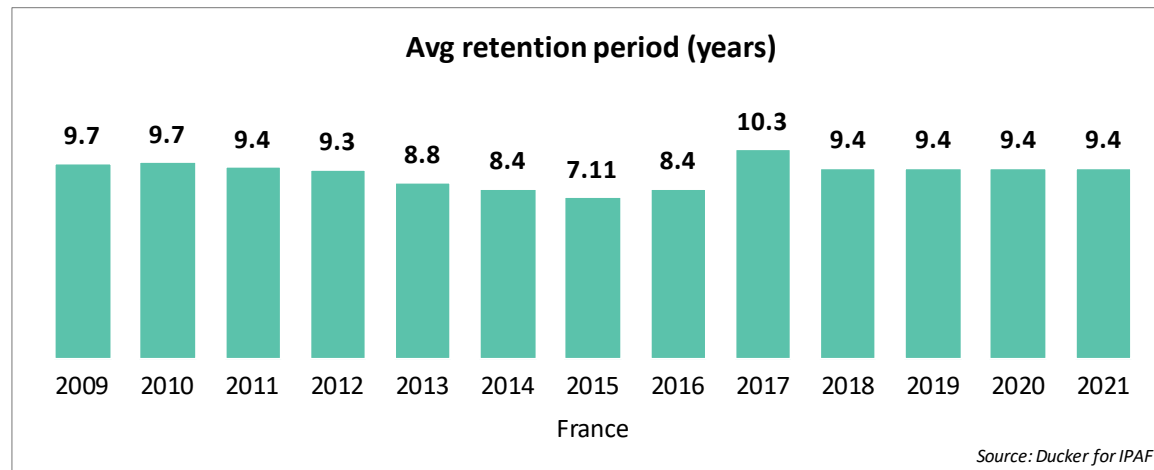
“

“The first few months of 2022 have been amazing, and we reached our maximum rate. But we are careful about what is going to come next. Rising prices and war in Ukraine could yet impact on demand.” – MEWP rental company hire manager

France – retention period

The average retention period of machines in French fleets held steady during 2021, to stand at just over nine years before equipment is scheduled for replacement.

- Average retention period has remained stable over time and French MEWP rental companies intend to maintain it at this level.
- The average retention period of nine years, four months has held steady in the French market since 2018.



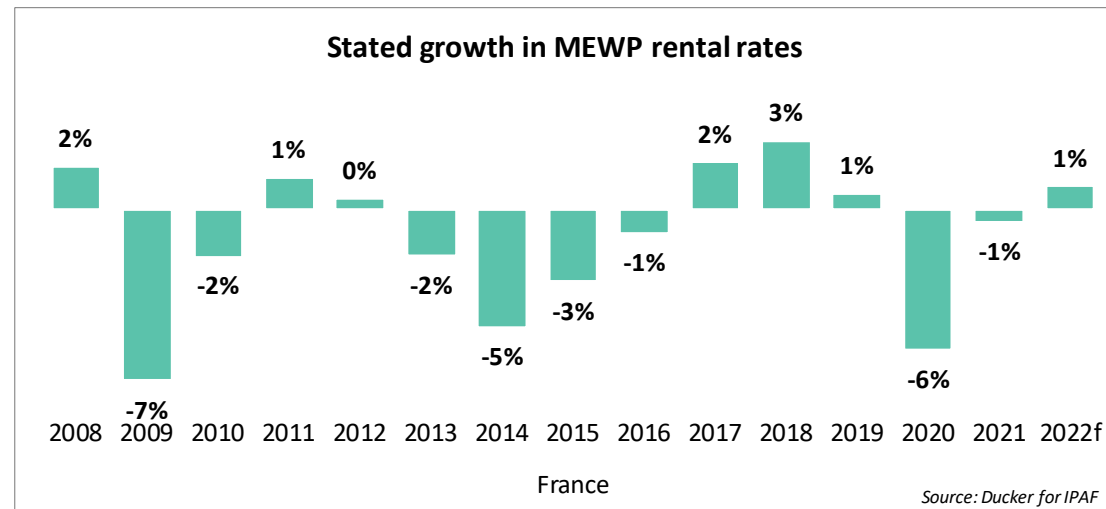
9.4 = 9 years and 4 months

Definition: Period of time that a machine is kept in fleet = selling age if acquired new

France – rental rates

Rental companies have not been able to adjust their rental rates significantly in order to compensate for the increasing equipment price and rising inflation, driving concern about further erosion of their operating margins.

- Despite activity rebounding in 2021, rental companies have not felt able to increase rental rates owing to fierce competition in the market and the inability to renew or expand their fleets in 2020-21.
- Rental companies plan to progressively revise and increase rental rates in the next few years. However, confidence levels are such that rental rate increases are still too slow to keep pace with overheads, leading to margin erosion.



“

“Rental rates went down in 2020 but also during the first months of 2021. We wanted to regain our utilisation rate and so continued suppressing our rates.” – MEWP rental company manager



A PERSPECTIVE FROM THE EDITOR OF
ACCESS INTERNATIONAL MAGAZINE
IPAF Powered Access Rental Market
Report 2022 – *FRANCE*

- Home to some of the largest access rental and manufacturing companies in Europe, France is an important indicator of the state of the sector in the continent.
- As with most economies strongly affected by the Covid-19 pandemic in 2020, France's GDP bounced back in 2021 and was up 12% in 2021 over 2020, roughly the same as the ten European countries under study average of 12%.
- In the Committee for European Construction Equipment's (CECE) 2021 annual report, public works in France rebounded in that year by 10%, due to post-covid catch-up, particularly in the spring (second quarter), followed by a less satisfactory second half of the year. However, despite the pick-up, it remained well below pre-crisis levels at -3.8%, due mainly to sluggish order intake throughout the year. The volume of construction activity also remains 5% below 2019 levels.
- In its most recent financial results, the revenue of France-based rental giant Loxam tells a more positive story. Its revenue in France was up in 2021 by 15% compared to 2020, and was back to 2019 levels, reaching €920 million and 42% of the group's total revenue. France "has already reached a pre Covid-19 level of activity; demand continued to grow as economic conditions remained positive," said a spokesperson for the rental company.

Loxam's recent initiatives reflect a Europe-wide shift to sustainable operations. Since the beginning of 2022, the group's 500 French branches have been entirely supplied with electricity and gas from renewable sources. It is also renewing its fleet of maintenance vehicles, through electric and rechargeable hybrid engines and adapting the electrical infrastructure in its branches.
- French access rental specialist Acces Industrie has been investing in equipment to allow it to work on construction sites where green energy sources are the only option; for example, large-scale ventures such as the Greater Paris project. It includes the company's investment in 20 new hybrid Genie Z-45 FE articulating boom lifts, bringing its fleet of Genie hybrids to 54 units.

- Haulotte, France's largest access equipment manufacturer, and one of the top five in the world, saw sustained growth across all its geographical areas in the first quarter of 2021. In Europe, the company's main market, sales increased by 21% in the first quarter, compared to the same period last year. On a global level, Haulotte's revenues grew 25% overall, amounting to €135.8 million.
- Despite the positive start, ongoing challenges are causing significant uncertainty. Haulotte said persistent supply difficulties and the initial effects of the war in Ukraine meant it was not able to confirm full-year targets at the end of the first quarter.
- French telehandler and access manufacturer Manitou reported revenue growth of 18% in 2021 to €1.88 billion, backed by record orders, and forecasts growth of 20% in 2022, even factoring in the war in Ukraine.

However, reflecting the challenges brought about by supply-chain pressures, the company said it was forced to move quickly to manage production speeds and supply chain issues and to deal with materials price inflation, which increased in the second half of the year. It also increased costs in its R&D and related areas.



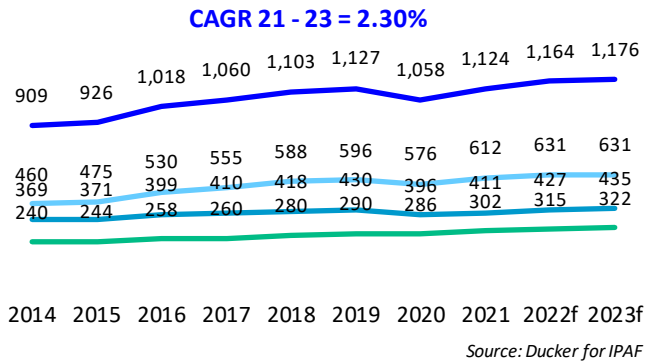
APPENDIX
IPAF Powered Access Rental Market
Report 2022 – *FRANCE*

France – construction statistics



Both the construction sector and GDP as whole fell in France during 2020. Both started recovering in 2021 and will likely continue to do so, albeit at a more moderate pace in 2022.

Europe (10 countries) – Construction data

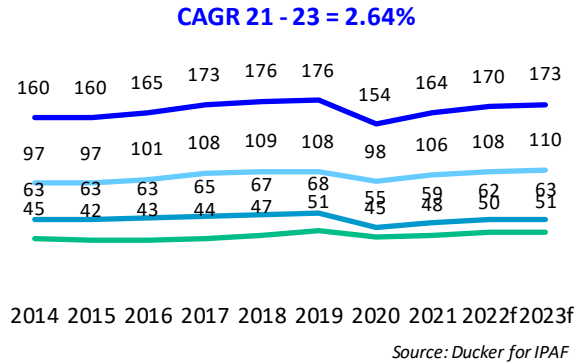


Includes Germany, France, UK, Italy, Spain, The Netherlands and the Nordics

- Residential construction
- Non-residential construction
- Total construction
- Civil engineering / Major infrastructure

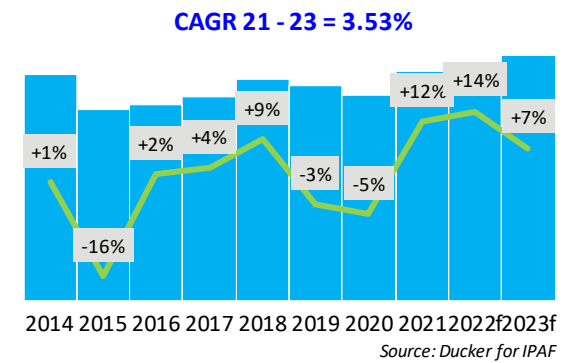
CAGR: Compound annual growth rate

France



Construction pipeline (billions euros) based on Euroconstruct 2021 figures.

France



France GDP per Capita YoY % evolution
Source: FrontierView – March 2022.



The International Powered Access Federation (IPAF) promotes the safe and effective use of powered access equipment worldwide in the widest sense – through providing technical advice and information; through influencing and interpreting legislation and standards; and through safety initiatives and training programmes.

IPAF is a not-for-profit organisation owned by its members, which include manufacturers, rental companies, distributors, contractors and users. IPAF members operate a majority of the MEWP rental fleet worldwide and manufacture about 90% of platforms on the market.

Visit www.ipaf.org/contact to find details of your nearest office or representative.



RESEARCH & CONSULTING

BANGALORE | BERLIN | DETROIT | LONDON | NEW YORK | PARIS | SHANGHAI

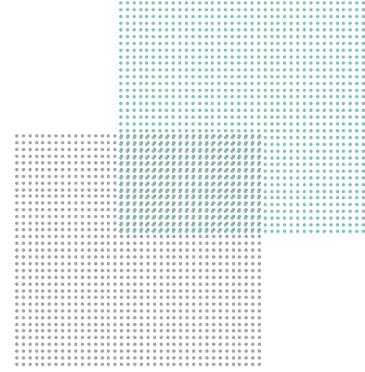
www.ducker.com

IPAF MEMBER - FREE COPY





RESEARCH & CONSULTING



June 2022

IPAF Powered Access Rental Market Report 2022

COUNTRY REPORT – Germany

www.ipaf.org/reports



**THE EUROPEAN
ASSOCIATION
AWARDS 2019**

FINALIST
Best Provision of Industry
Information and Intelligence



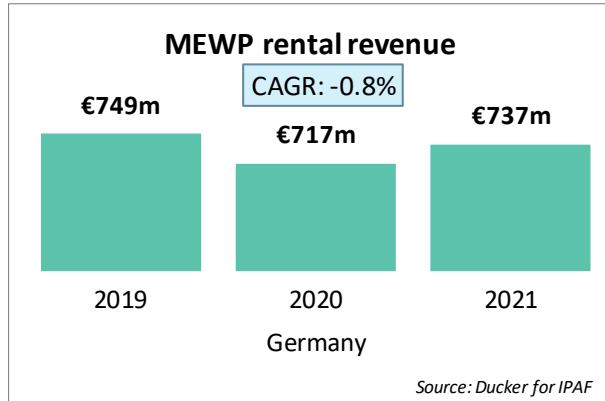
**THE EUROPEAN
ASSOCIATION
AWARDS 2018**

BRONZE
Best Provision of Industry
Information and Intelligence

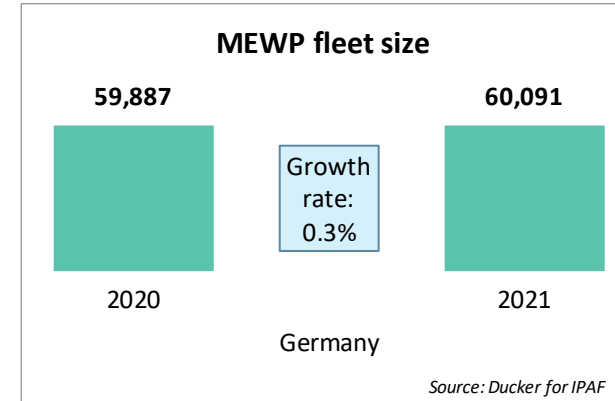
IPAF MEMBER - FREE COPY IPAF has been working with Ducker to create these exclusive industry reports since 2009

Germany – key findings

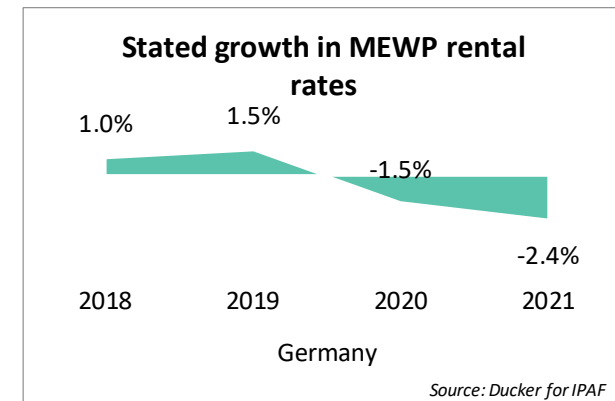
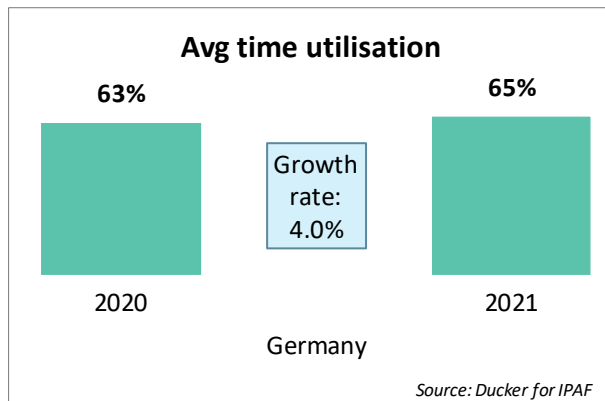
Fleet utilisation rates improved in 2021, allowing the German MEWP market revenue to partially recover. However, rental rates continued to decline and fleet size growth remained very limited.



CAGR: Compound annual growth rate



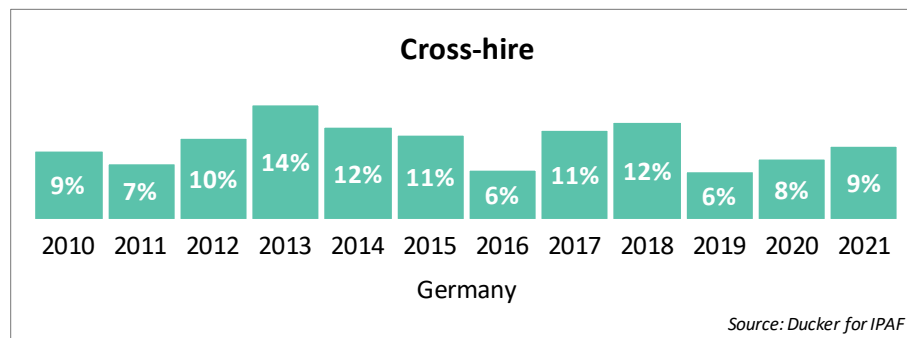
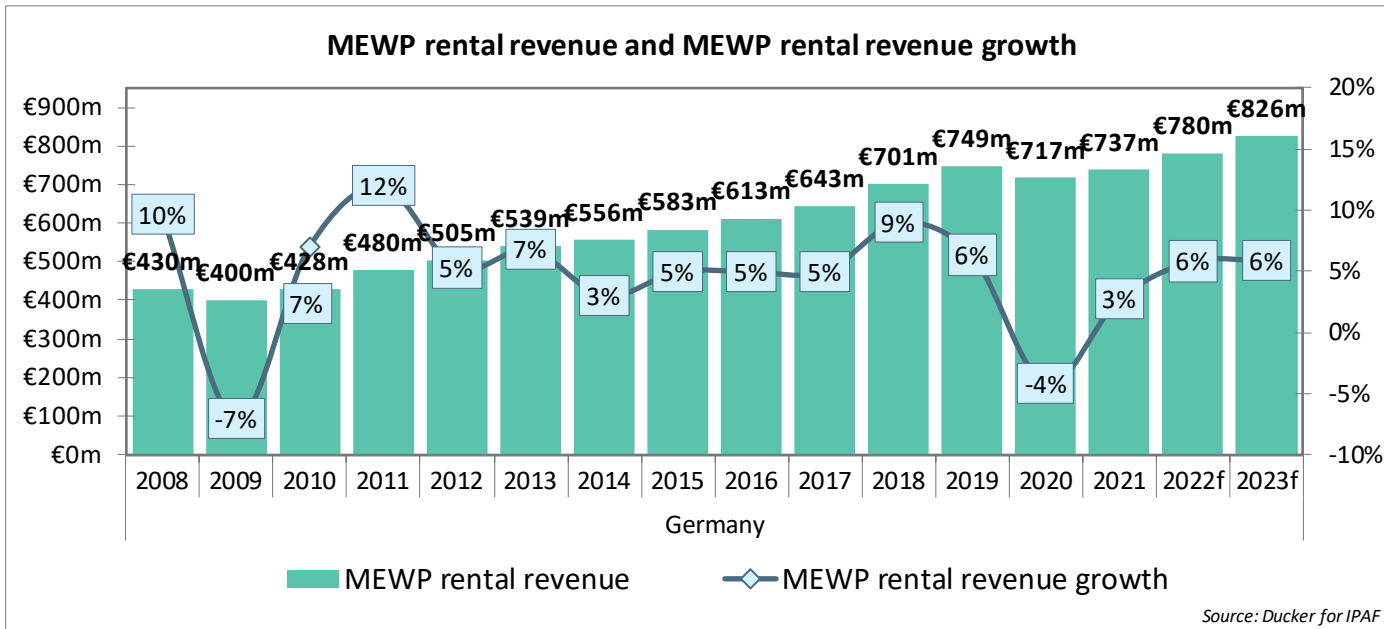
- In the process of the post-pandemic recovery, market revenue increased by €20 million in 2021, but the market has not yet returned to 2019 levels.
- Average utilisation grew by two percentage points to 65%, driven by a resumption in commercial activity and by rental rates that fell by around one per cent over the year.



Germany – rental market value and growth



With three per cent growth in 2021, the German rental market has not yet returned to its pre-pandemic value, but it is expected to accelerate and continue growing at six per cent annual rate in the next two years.



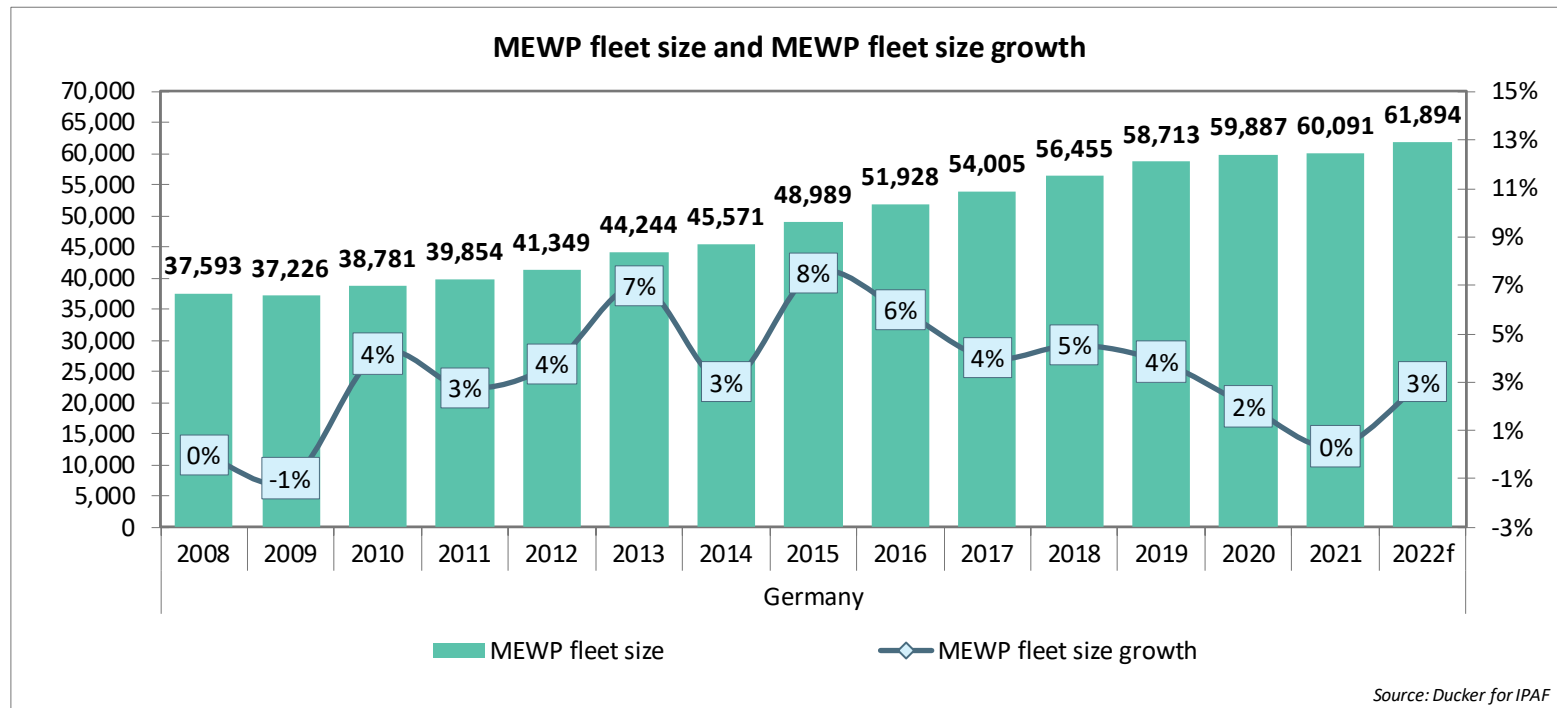
- Germany's economy continued to be hindered by pandemic restrictions, and the speed of recovery varied greatly across different regions.
- Despite this, most respondents reported overall robust growth over the year and also expected business recovery to accelerate in 2022.
- The level of cross-hire increased by a further one per cent in 2021.

Germany – market size in units



The German rental fleet size increased only by around 200 MEWPs as a result of limited availability of new units. Fleet growth is expected to rebound in 2022, however, supply-chain disruptions remain a concern.

- The total fleet size stood at just over 60,000 MEWPs at the end of 2021.
- In 2021, rental companies faced significant obstacles to invest in planned capital expenditure: Global supply-chain disruptions and longer lead times reduced machine availability and drove up procurement costs.
- The country’s MEWP fleet is expected to grow by three per cent (circa 1,800 units) in 2022, as companies secured their purchases by placing orders months in advance. OEM capacity to fulfil those orders remains uncertain.



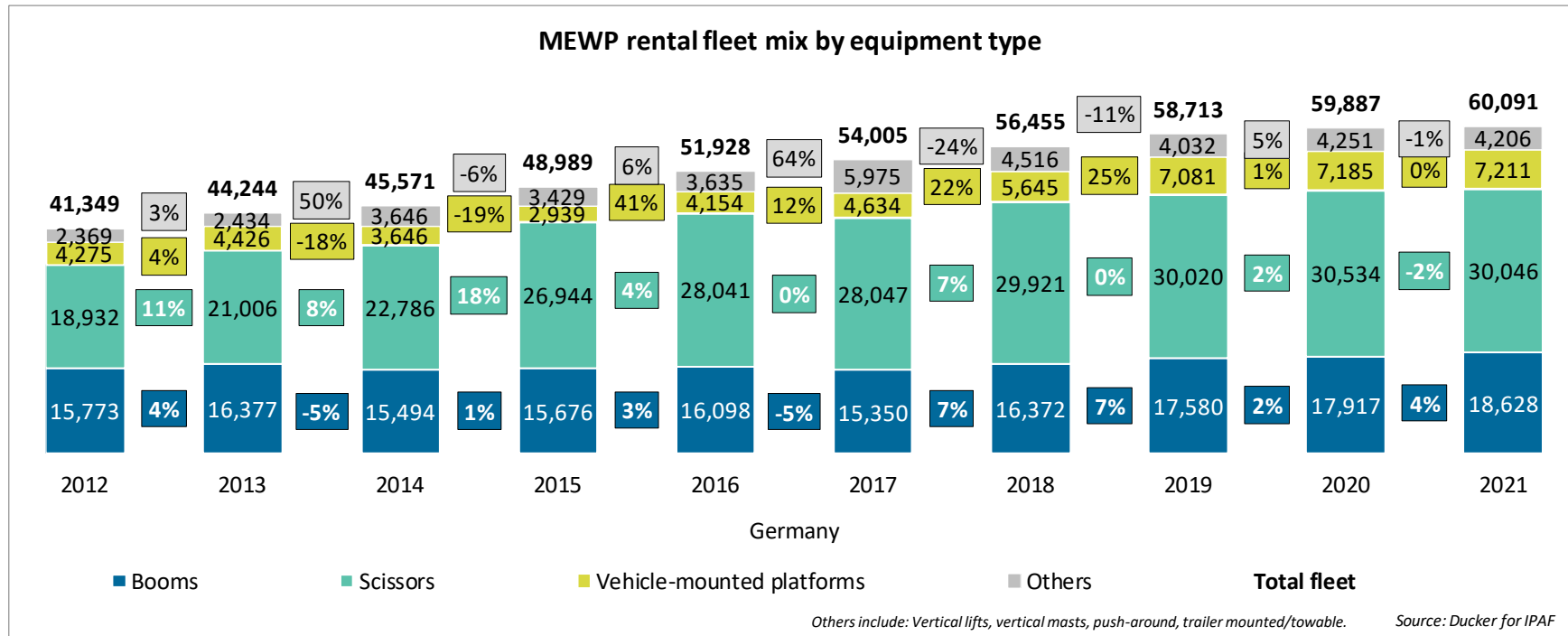
*Included are powered access lifts: All booms, scissor lifts and vertical masts
 Excluded: Low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, and MCWPs.*

Germany – market size in units



The number of scissors in Germany decreased by almost 500 units during 2021. By the end of the period, scissors' share of the fleet fell to 50%, however growth in the boom category prevented a decline in total fleet.

- The fleet mix changed under the influence of two factors: Limited OEM supply and reduced demand from the non-construction sector. This led to a decrease in size of the total scissor fleet.
- Growth in fleet size was positive only for boom-type platforms, which added around 600 units in 2021 and saw the share of fleet grow from 30% to 31%.



Included are powered access lifts: All booms, scissor lifts and vertical masts
 Excluded: Low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, and MCWPs.

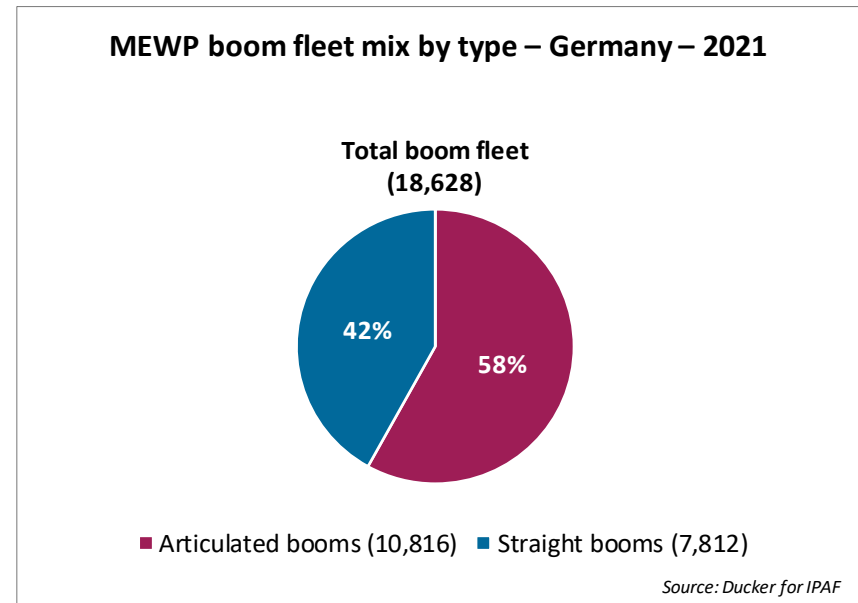
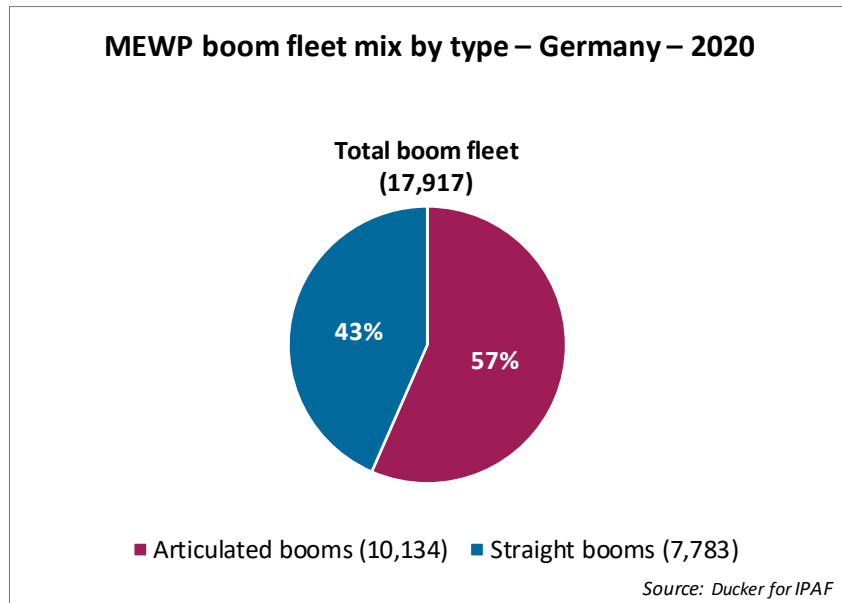
+X% % unit growth, e.g. both scissors and booms fleet increased by 2% from 2019 to 2020.

Germany – market size in units



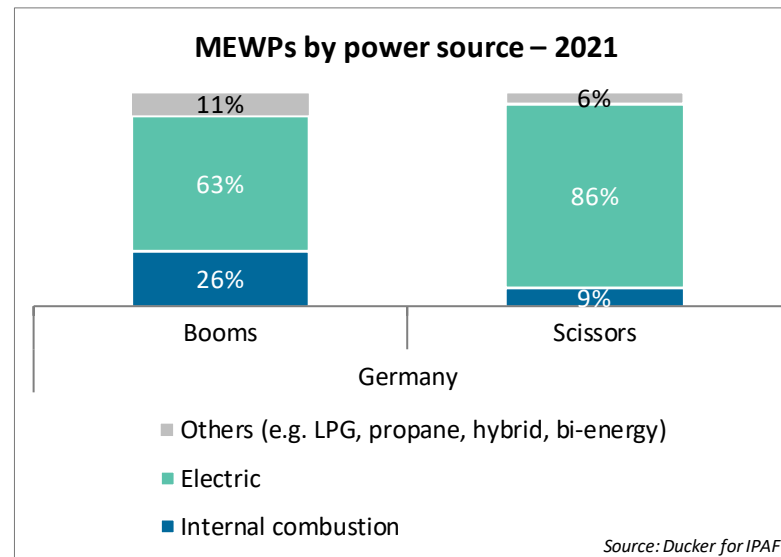
By the end of 2021, the size of the boom category in Germany exceeded 18,600 units, driven primarily by an increased number of articulated booms, which now account for 58% of the total boom fleet.

- The German boom fleet grew by around 700 units in 2021, with articulated booms continuing to grow faster than straight booms owing to demand in particular from the construction industry. The share of articulated booms in the boom category increased to 58%, which is in line with the trend of the previous two years.



In 2021, the share of internal combustion engines continued to decline, especially in the boom category.

- The industry’s reliance on internal-combustion engines continues to decrease, and the share of alternative power-source engines for booms and scissors reached 74% and 91% respectively.
- The market has seen a strong growth in hybrid in booms: The share of hybrid engines rose from seven per cent in 2020 to 11% in 2021, following increased availability of larger hybrid models in the market.
- Given the high electrification rate of scissors, changes in this category are now minimal, with the remaining 9% of internal-combustion powered machines typically being large outdoor/rough-terrain models.



“

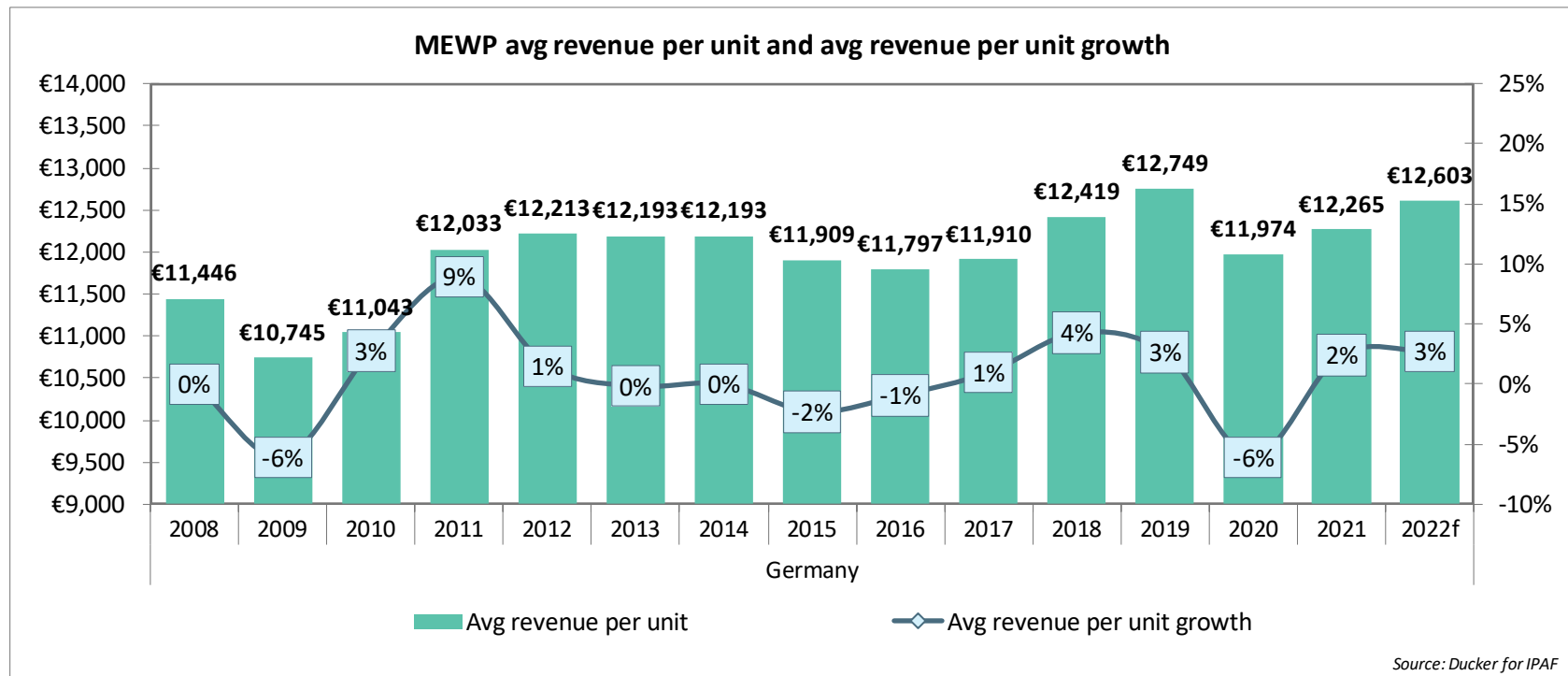
“Sustainability and green footprint are even more relevant now and a change of government in Germany can speed up the transition to more renewable energies.” – MEWP rental company fleet manager

Germany – revenue per unit



Owing to an improvement in fleet utilisation, average revenue per unit gained two per cent in 2021, but the metric has not yet returned to its pre-pandemic level. The market is expecting further recovery in 2022.

- Average revenue did not entirely recover after a sharp decline in 2020 caused by pandemic restrictions and price competition in the market: Even though average fleet utilisation across the country increased, rental rates continued to decline.
- Growth will continue in 2022, but pre-pandemic revenue per unit is not expected to be reached before year’s end.

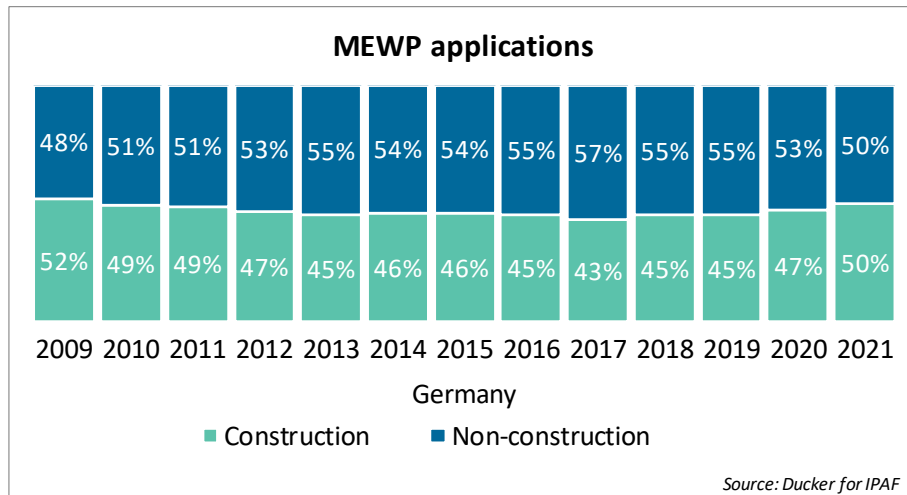


*Included are powered access lifts: all booms, scissor lifts and vertical masts
 Excluded: low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes and MCWPs.*

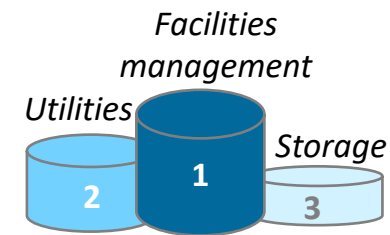
Germany – applications

During 2021, revenue source shifted heavily towards construction activity. The share of rental revenue coming from construction customers reached 50% for the first time since 2009.

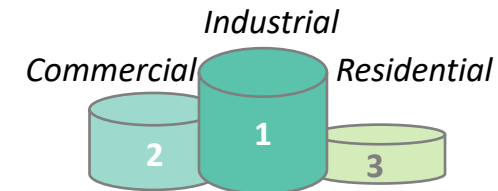
- End-user activity in 2021 was still heavily defined by the pandemic. In addition to contact restrictions and lockdowns, 2021 saw raw material shortages, logistics problems and associated price increases that burdened the wider German economy.
- However, despite those challenges, the German construction industry had a strong year, which was also reflected in demand for MEWPs.



Main non-construction sub-sectors



Main construction sub-sectors



Share of rental revenue:

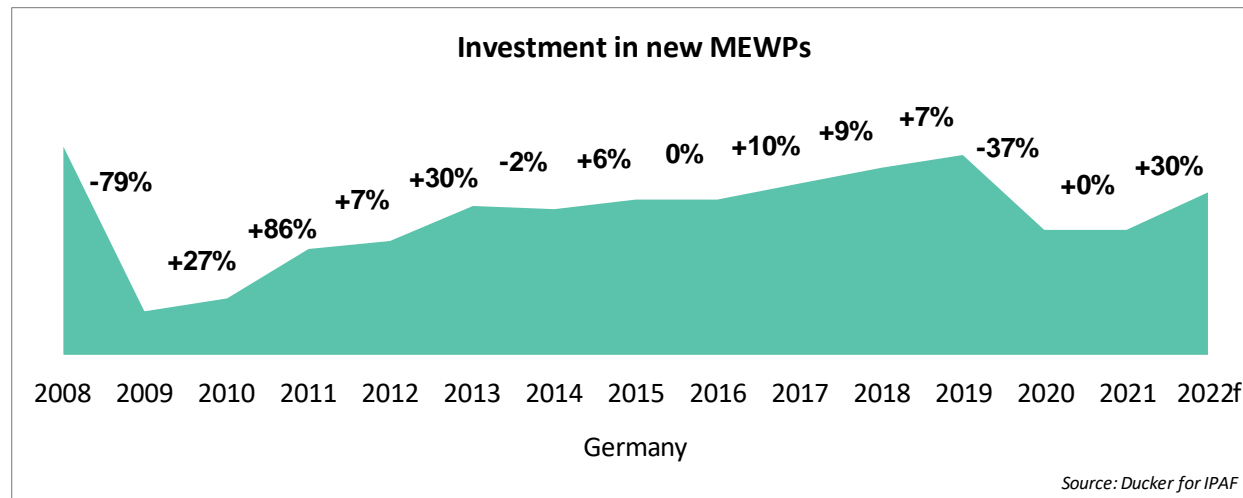
Non-construction includes industry, maintenance, cleaning, utilities, events.

Construction includes new-build and renovation; including residential, commercial, retail and industrial.

Germany – investment

Supply in the market for new MEWPs was below demand in 2021, forcing companies to delay major investment once again and focus primarily on fleet renewal, much of which was deferred in 2020 during the peak of the pandemic.

- After 2020, which was a year of cautious investment, spending in Germany once again stagnated in 2021. Companies struggled to realise the level of capital expenditure they had planned for 2021 because of difficulties procuring new machines and increased lead times. These difficulties are expected to persist in 2022.
- Some larger companies continued to reduce their fleet size to withstand the continued decline in rental rates, which helped to increase the average fleet utilisation rate.

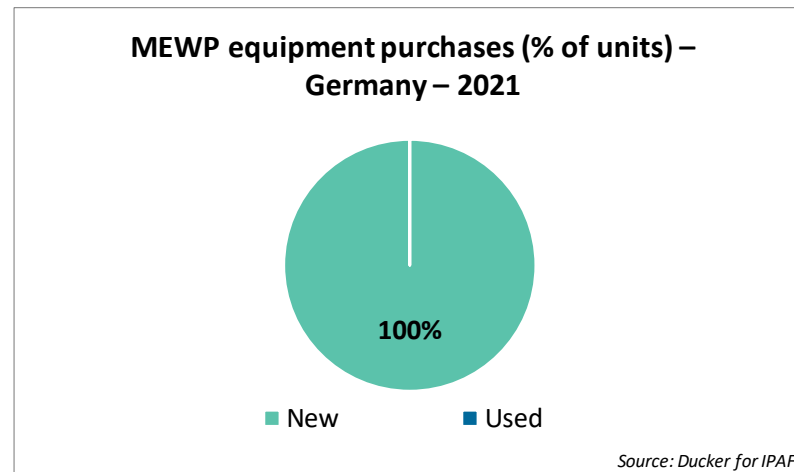


“The availability of new machines in the market is so low at the moment, that even if we plan our investment for 2022, we are not sure if we will be able to spend this budget.” – MEWP rental company manager

Germany – equipment purchases

German rental companies tend to focus on new machines and refrain from buying used MEWPs because of their higher maintenance costs and comparably poorer environmental impact.

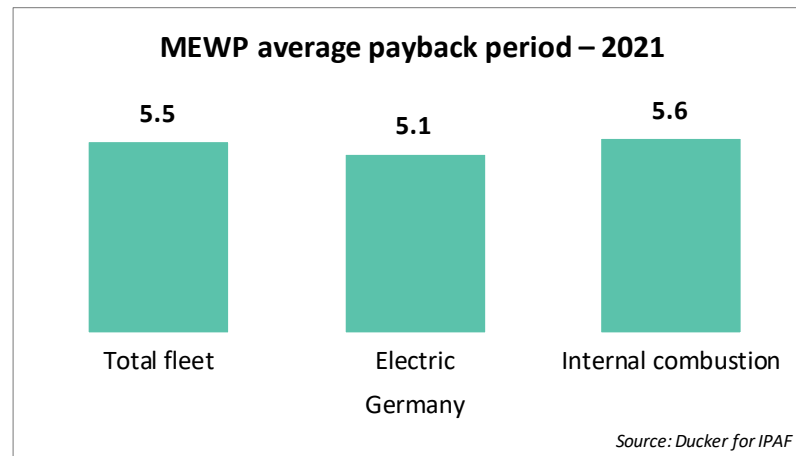
- Rental companies in Germany prefer to primarily buy new equipment because of its higher performance, improved safety and the option to resell used equipment profitably outside the European Union after several years of use.
- Because of rising fuel prices and rapidly developing alternative technologies, used machines are now becoming even less popular, as they are usually equipped with either internal combustion or older-generation alternative power trains.



Germany – typical payback period

The average payback period in Germany decreased by five months during 2021. Electric MEWPs are regarded as being more profitable than internal combustion-powered machines over the medium term.

- Typical payback period partially recovered from the initial pandemic impact and stood at five years and five months on average at the end of 2021, but this is still 10 months more than the 2019 level, owing to lower average revenue earned per unit.

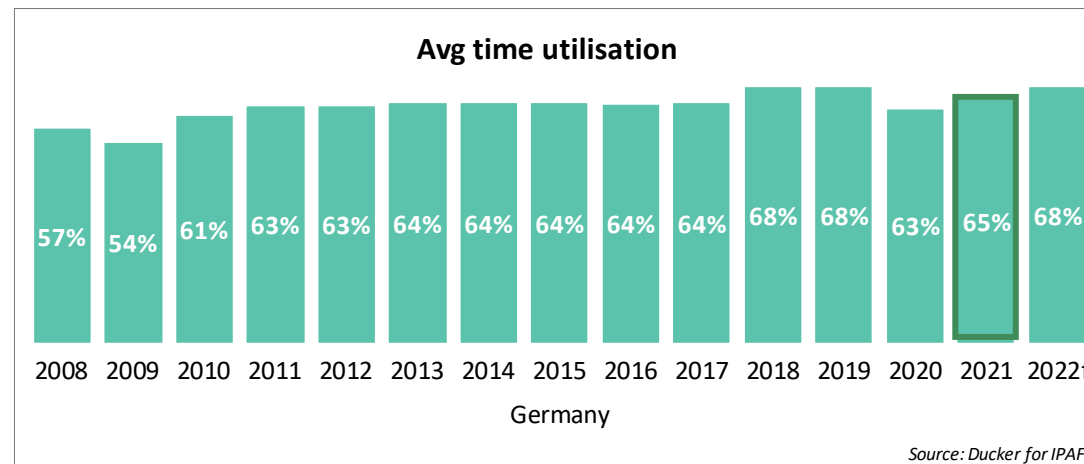


5.5 = 5 years and 5 months

Germany – utilisation rates

Overall economic recovery was dampened by sporadic pandemic-related restrictions during 2021 and Germany is not expected to reach pre-pandemic utilisation rates until the end of 2022 at the earliest.

- Utilisation rates picked up in 2021, reaching 65% on average. The level of activity across Germany varied a lot because of differing pandemic restrictions across the regions but overall the trend was positive.
- Demand for booms was higher than for scissors, but the events and media sectors did see activity largely restored and a full recovery was forecast during 2022.



Scissors: 63%

Booms: 65%

Definition: Physical number of machines out on hire as % of total number in fleet at any given time.

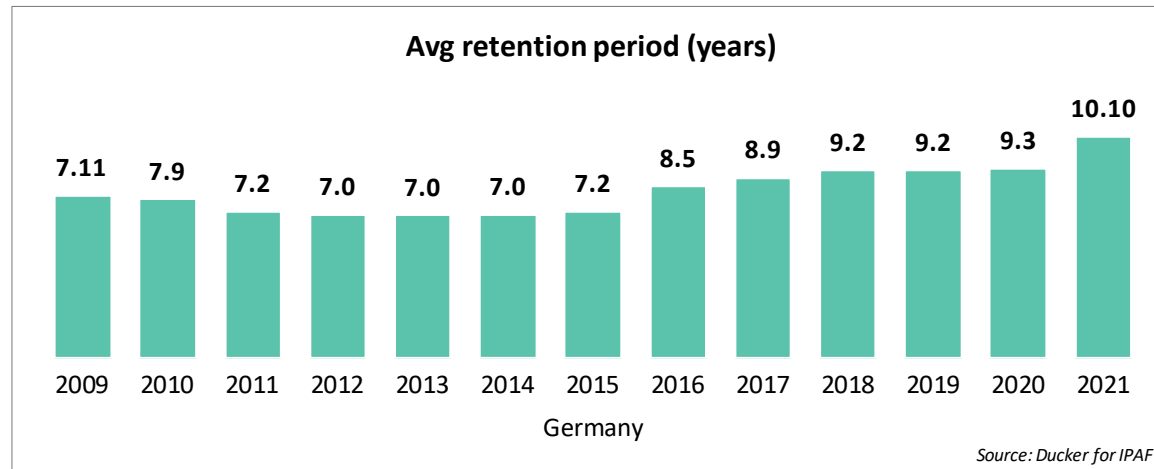
“

“2021 was much better than 2020; we saw recovery in the events sector. In 2022 we expect full return to the pre-pandemic levels, and we hope that trade shows will start again.” – MEWP rental company manager

Germany – retention period

The average retention period of MEWP equipment reached a historical high of 10 years and 10 months, driven by shortages and increased lead times of new MEWPs in the German market.

- Since 2020 procurement of new MEWPs has been increasingly complicated owing to low OEM supply. Without an ability to replace older machines, rental companies were forced to keep their units for a longer period, which is causing a sharp increase in average retention period.



10.10 = 10 years and 10 months

Definition: Period of time that a machine is kept in fleet = selling age if acquired new

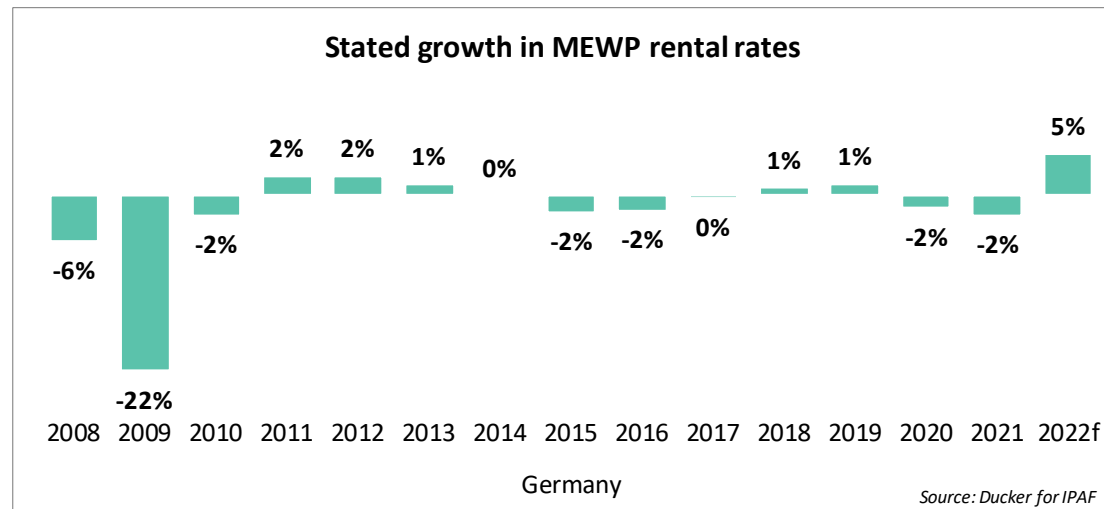


“We’re forced to leave older machines in the fleet, because we can still rent them out to earn money. This is done out of necessity, it’s not strategy to keep them so long, but what can we do?” – MEWP rental company manager

Germany – rental rates

Rental rates continued to decline for a second year in a row, as companies dropped rates to protect their market share and to maintain utilisation rates during the pandemic.

- Intensified market competition caused rental rates to drop further in 2021, with companies trying to increase fleet utilisation by cutting rental rates to remain competitive.
- However, a major price hike is expected in 2022 to compensate for increasing costs of MEWP procurement, growing operating costs and rising base rates. This background of economic uncertainty creates a rare opportunity for rate adjustments that will be generally be accepted by the end user.



“Small scissor rental rates have fallen a lot because the demand is low, larger booms tend to perform best because of booming construction activity.” – MEWP rental company manager



A PERSPECTIVE FROM THE EDITOR OF
ACCESS INTERNATIONAL MAGAZINE
IPAF Powered Access Rental Market
Report 2022 – *GERMANY*

- In 2021, we reported a mixed picture in Germany – while stability was the overriding experience of the general rental and construction market during 2020, the MEWP rental sector had been somewhat less buoyant.
- The picture remains mixed, though this year from a more general point of view. The Committee for European Construction Equipment (CECE) said sales were up in 2021 by more than 20% across all construction products. However, while Germany saw sales growth, it was also the only country in the EU to record growth in only single digits (9%).
- This is reflected in the country's GDP. In 10 European countries in this study, GDP increased on average by 12% in 2021, but Germany recorded a weaker performance with a 8% rise.
- Manufacturing output increased by 3% year-on-year, but was still 5.5% below the pre-pandemic level in 2019, according to Destatis, the Federal Statistical Office.
- On a more positive note, the VDMA, Germany's Mechanical Engineering Industry Association, reported that although supply-chain issues were delaying the production of construction equipment, the turnover in the construction equipment sector increased 18% to €12.4 billion, thanks partly to incoming orders being up by 53%.
This development catapults the industry back to the record levels of 2018-19, but VDMA chairman Joachim Strobel added a note of caution: "We are pushing a wave of orders ahead of us that we will probably have to carry into 2023 if the situation remains like this."
- One of the factors playing a major role is the war in Ukraine. The Economist Intelligence Unit (EIU) said the war could reduce European economic growth in the Eurozone this year from a previously forecasted 4%, down to 3.7%.
- BBI, the German association for sales and rental of construction equipment, distributors and rental companies, sees a healthier picture and said the sector returned to growth in 2021.

- Revenue from the rental of construction equipment increased by 5% to around €4.5 billion. And, in a survey carried out by the BBI at the beginning of 2022, 90% of participating companies reported increased sales compared to the previous year. However, due to massive disruptions in the supply chain, the high demand from customers could not always be met promptly or in full.
- In the wake of the war in Ukraine, Germany has sped up plans to build its first liquified natural gas (LNG) shipping terminals to reduce its reliance on Russian natural gas.
- The country also finds itself at the centre of discussions over the future of trade fairs. Platformers' Days was one of the first industry exhibitions to take place following the easing of Covid-19 restrictions, in September 2021 at the Karlsruhe Trade Fair Centre. There was strong support from the industry for this domestic access-specific show. However, there is a stronger debate over larger international shows. Bauma, set to take place in October this year, has seen a number of notable powered access OEMs deciding not to take part, for example JLG, Genie, Skyjack, Haulotte and Snorkel. One of the reasons given is that manufacturers can gain more from localised, company-specific events. However, all the major Chinese OEMs will be at Bauma, which will create an interesting dynamic at the show.
- Sustainability and digital solutions are also buzzwords in the German industry right now. Rental company Gerken Arbeitsbühnen, based in Düsseldorf, has adopted 'Upward emission free' as the slogan for its in-house sustainability campaign, through which it is increasing investment in zero-emissions lifting equipment.
- Zeppelin Rental is working on a project to integrate its fleet offering into its rental customers' e-procurement platforms. Zeppelin says it sees clear benefits in e-procurement and integration of data with customer systems and an improved user experience.



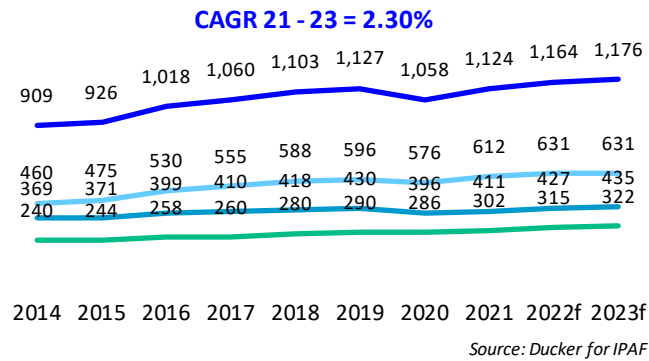
APPENDIX
IPAF Powered Access Rental Market
Report 2022 – *GERMANY*

Germany – construction statistics

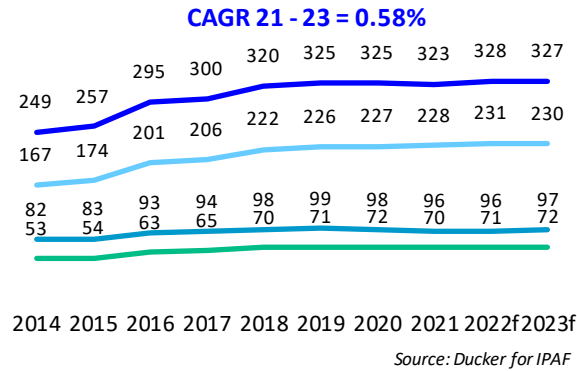


Germany's economy expanded at a moderate rate in 2021 though it remained below pre-pandemic levels, as ongoing public health restrictions and global supply-chain disruptions set back the hoped-for recovery somewhat.

Europe (10 countries) – Construction data

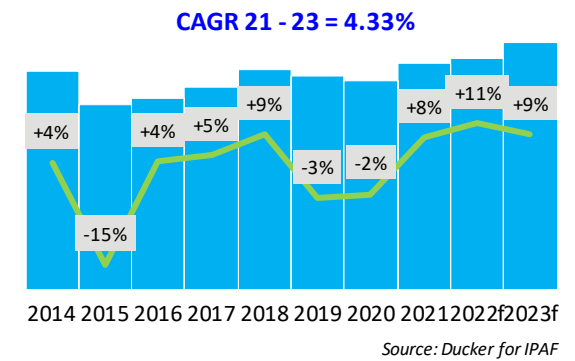


Germany



Construction pipeline (billions euros) based on Euroconstruct 2021 figures.

Germany



Germany GDP per Capita YoY % evolution
Source: FrontierView – March 2022.

- Residential construction
- Non-residential construction
- Total construction
- Civil engineering / Major infrastructure

CAGR: Compound annual growth rate



The International Powered Access Federation (IPAF) promotes the safe and effective use of powered access equipment worldwide in the widest sense – through providing technical advice and information; through influencing and interpreting legislation and standards; and through safety initiatives and training programmes.

IPAF is a not-for-profit organisation owned by its members, which include manufacturers, rental companies, distributors, contractors and users. IPAF members operate a majority of the MEWP rental fleet worldwide and manufacture about 90% of platforms on the market.

Visit www.ipaf.org/contact to find details of your nearest office or representative.



RESEARCH & CONSULTING

BANGALORE | BERLIN | DETROIT | LONDON | NEW YORK | PARIS | SHANGHAI

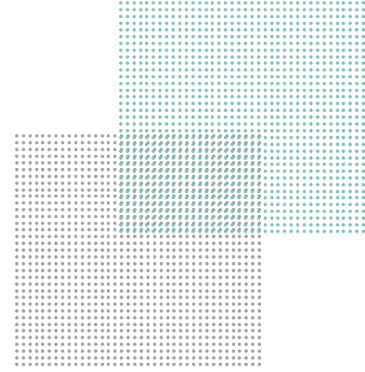
www.ducker.com

IPAF MEMBER - FREE COPY





RESEARCH & CONSULTING



June 2022

IPAF Powered Access Rental Market Report 2022

COUNTRY REPORT – ITALY

www.ipaf.org/reports



**THE EUROPEAN
ASSOCIATION
AWARDS 2019**

FINALIST
Best Provision of Industry
Information and Intelligence



**THE EUROPEAN
ASSOCIATION
AWARDS 2018**

BRONZE
Best Provision of Industry
Information and Intelligence

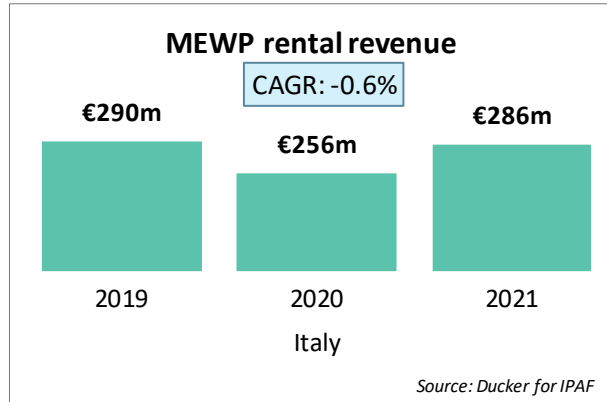
IPAF MEMBER - FREE COPY

IPAF has been working with Ducker to create these exclusive industry reports since 2009

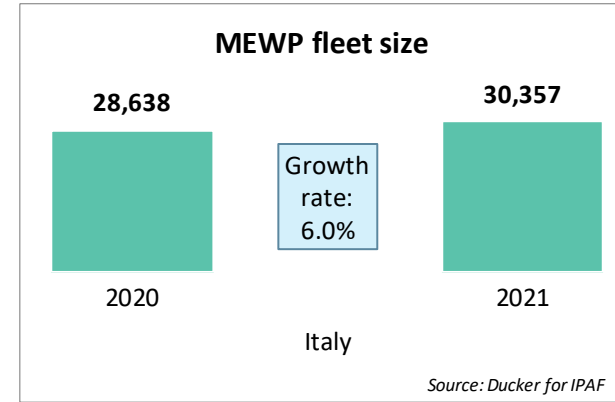
Italy – key findings



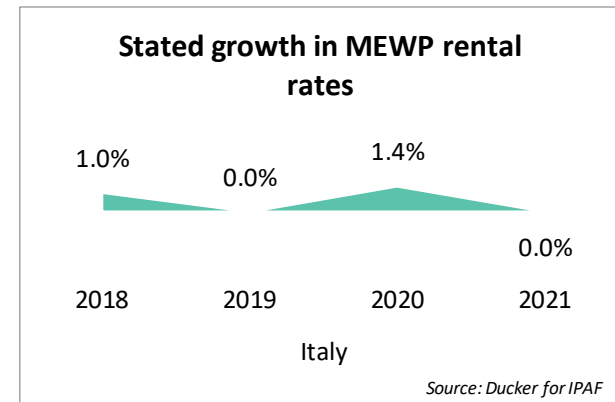
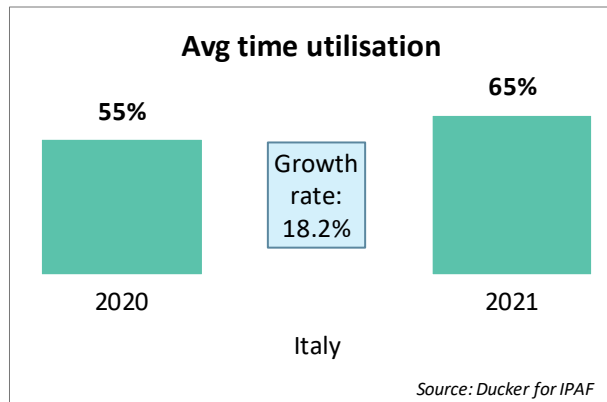
The Italian MEWP rental market performed well in 2021 and was able to recover most of its pandemic losses. The growth was driven by recovery of utilisation to 2019 levels and 6% growth in fleet size.



CAGR: Compound annual growth rate



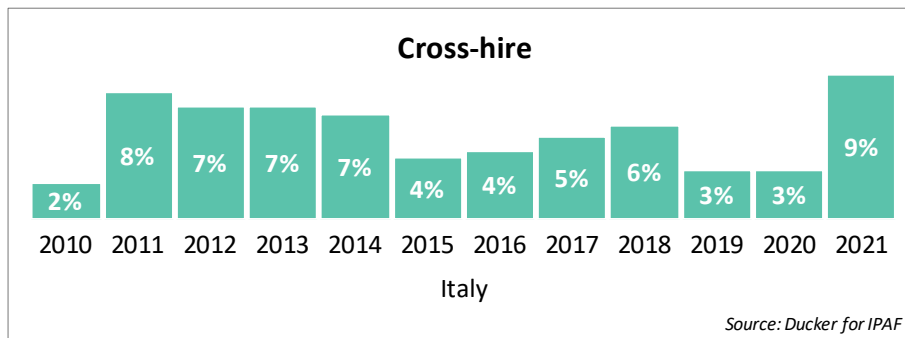
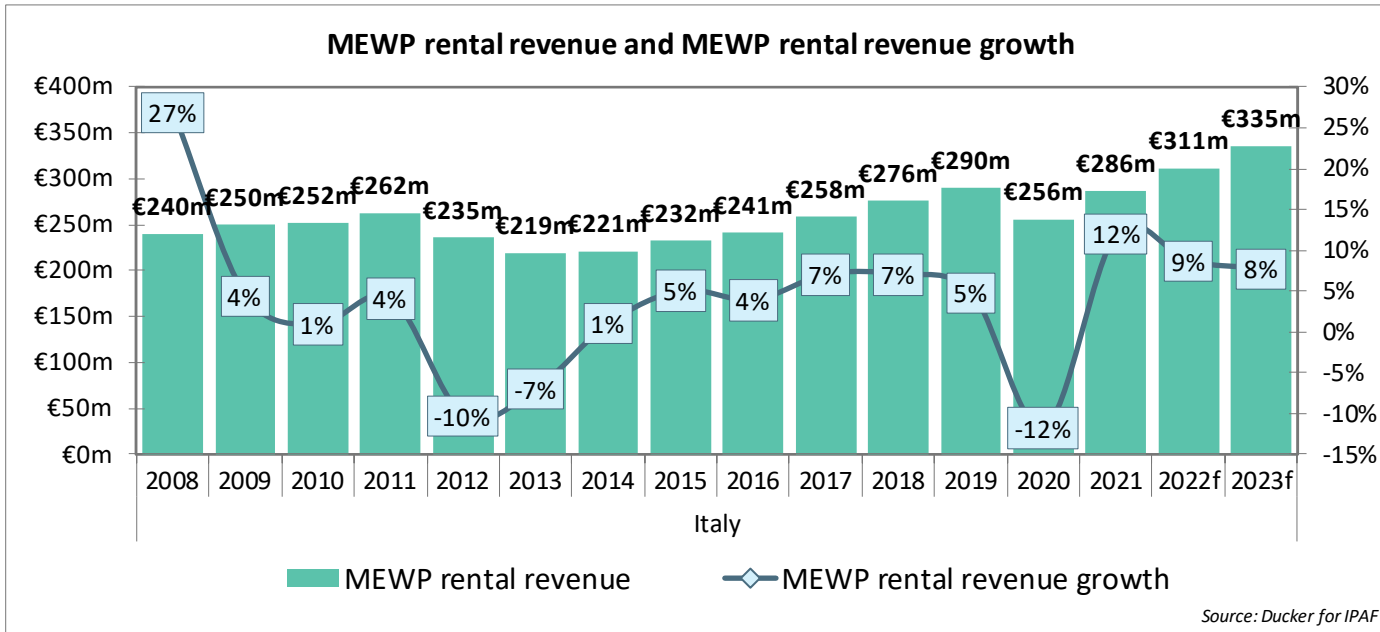
- revenue increased by 12% in 2021, boosted by government infrastructure investments, “110% Superbonus” construction renovation programme and resumption of commercial activities.
- Fleet size grew 6% year on year, supported by a state funded “4.0 Industria” technology investment programme.



Italy – rental market value and growth



Rental market value grew 12% year on year and is expected to maintain high growth over the next two years, supported by public spending on construction and industrial innovation programmes.



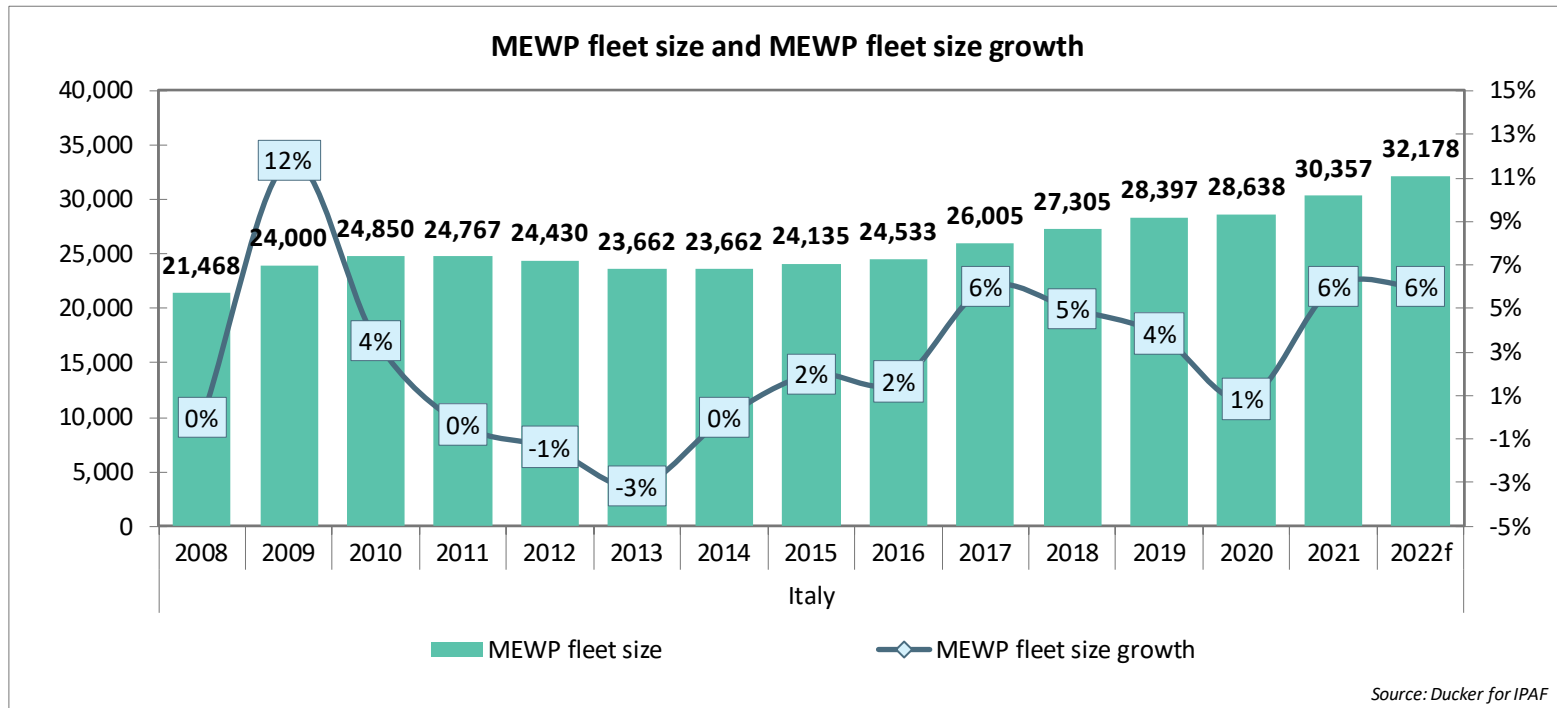
- Across 2021, the market recovered to almost 2019 levels, with strong demand for rental equipment in both residential and civil construction, and the return of commercial activity.
- Cross-hire rate increased significantly, reflecting growth in demand that companies could not always satisfy with their existing fleets.

Italy – market size in units



The country's MEWP rental fleet grew by 6% in 2021, and this fleet expansion is expected to continue in 2022, partly driven by the growing market presence of Chinese equipment manufacturers.

- Supported by the state “4.0 Industria” technology investment program, rental companies realised major investment in 2021, adding more than 1,700 units to the country's total MEWP fleet. The fleet is expected to keep increasing in 2022 at the same rate.
- In the light of ongoing global supply-chain disruption, strong growth of the Italian fleet was made possible by increased reliance on Chinese MEWP manufacturers.



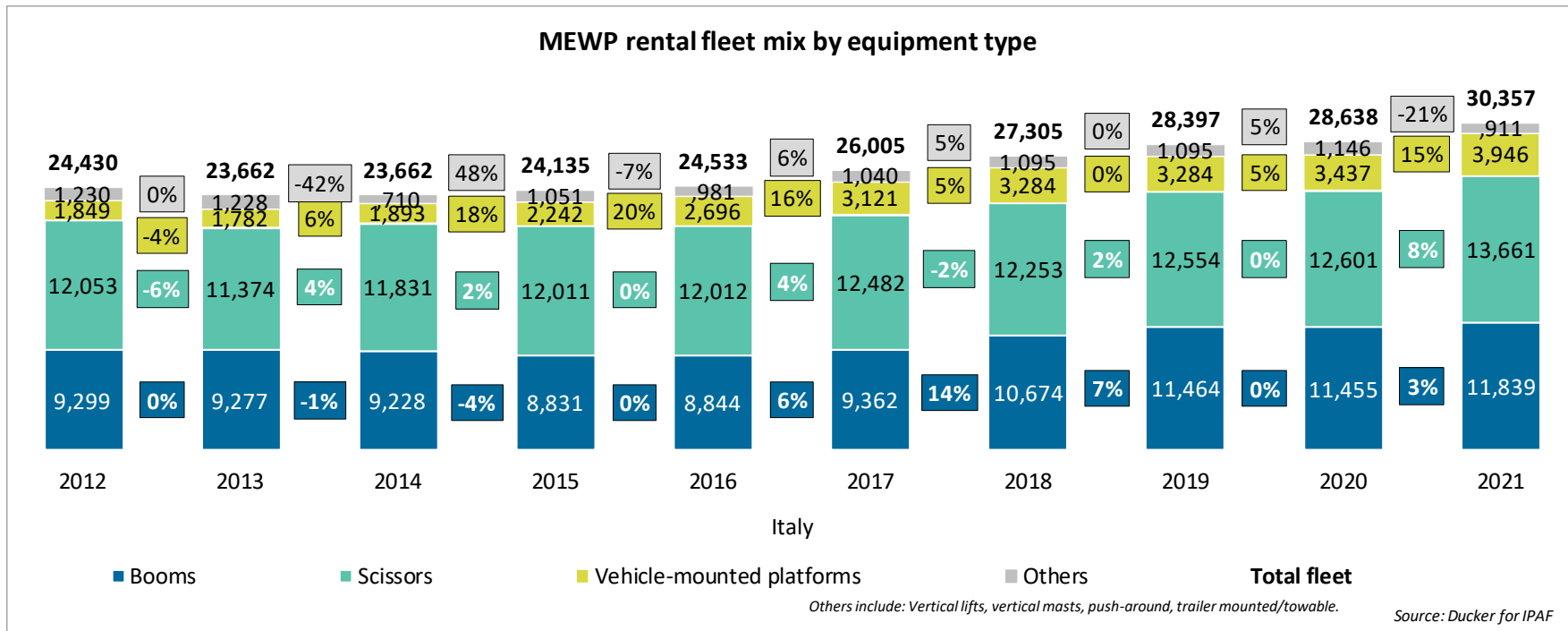
*Included are powered access lifts: All booms, scissor lifts and vertical masts
Excluded: Low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, and MCWPs.*

Italy – market size in units



The Italian market has seen growth across all main MEWP categories, with vehicle-mounted platforms showing the highest relative growth by gaining around 500 units year on year.

- In 2021, scissors accounted for 45% of the total fleet, while booms made up 27% and truck mounts 13% of the fleet, both increasing by a single percentage point compared to the previous year's fleet mix.
- Fleet size growth demonstrates a trend towards scissors (+8%, circa 1,000 units) and vehicle-mounted-platforms (+15%, circa 500 units), which are particularly sought-after owing to their versatility.



*Included are powered access lifts: All booms, scissor lifts and vertical masts
Excluded: Low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, and MCWPs.*

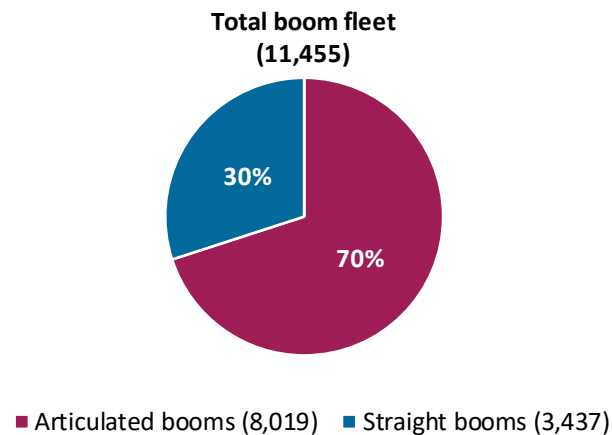
+X% % unit growth, eg both scissors and booms fleet increased by 0% from 2019 to 2020.

Italy – market size in units

Articulated booms are in high demand and are still the predominant type of boom in the Italian market, though their total number or relative share of the total fleet did not change significantly in 2021.

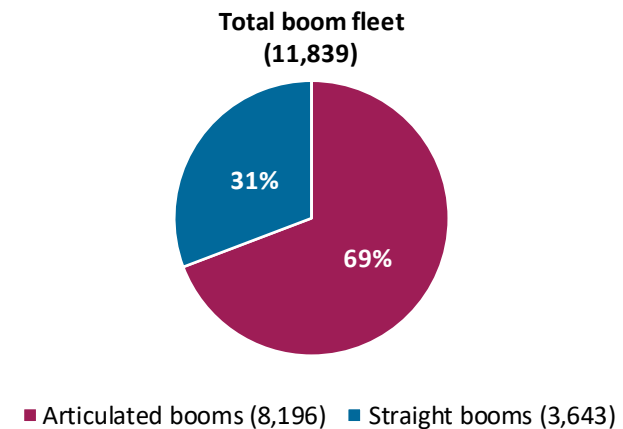
- In 2021, the Italian boom fleet grew by 3%, or around 400 units, with straight booms recovering to 31% of the overall boom fleet after several years of slow decline in share.

MEWP Boom Fleet Mix by Type – Italy – 2020



Source: Ducker for IPAF

MEWP Boom Fleet Mix by Type – Italy – 2021

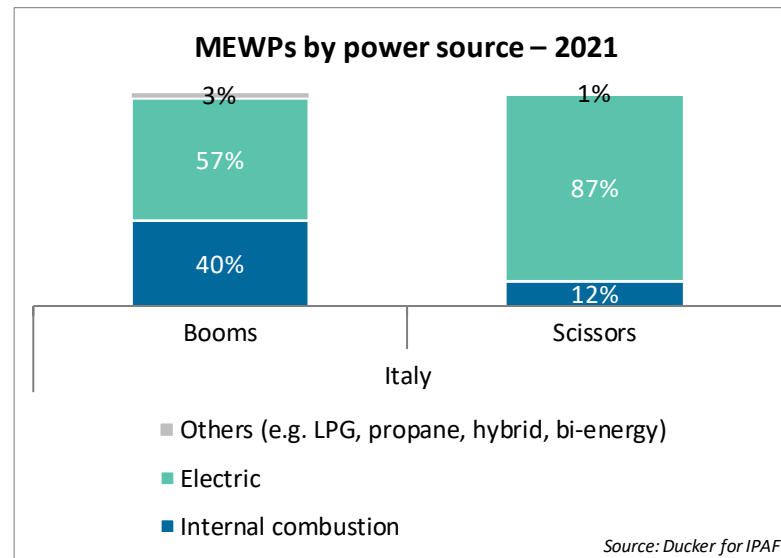


Source: Ducker for IPAF

Italy – power sources

The electrification “gap” between scissors and booms is still quite wide, but regulatory developments and governmental subsidies in Italy are successfully promoting alternative power sources across all types of machine.

- The mix of power sources in the MEWP fleet continues to shift in favour of electric power sources.
- The “4.0 Industria” subsidy programme has incentivised the switch to electric MEWPs (especially booms, as penetration of electric power source in scissors category is already high), making them an attractive investment for rental companies. The share of electric booms grew from 52% to 57%; the share of hybrid booms increased from 1% to 3%. The share of electric scissors grew from 75% to 87%; the share of hybrid scissors increased from 12% to 13%.



“

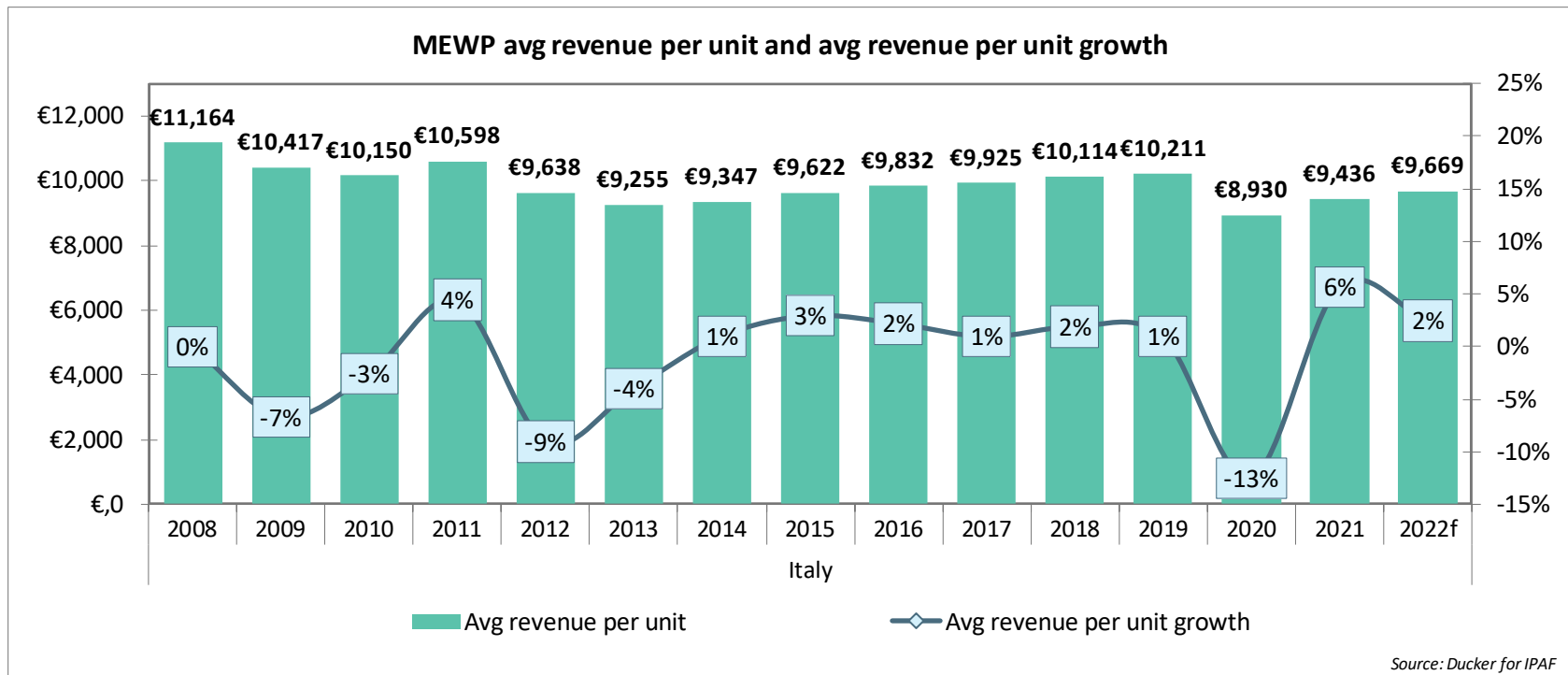
“There has been growth in the market for hybrid vehicles with low environmental impact” – MEWP rental company fleet manager

Italy – revenue per unit



Average MEWP rental revenue per unit partially recovered after the pandemic to reach €9,436 in 2021. However, it is expected to grow only by 2% in 2022, still below 2019 levels.

- Average revenue per unit grew by 6% in 2021, driven by a robust increase in utilisation rate.
- Utilisation is forecast to remain high in 2022, but average revenue per unit is not expected to return to pre-pandemic levels, owing to fleet size growth in the country.

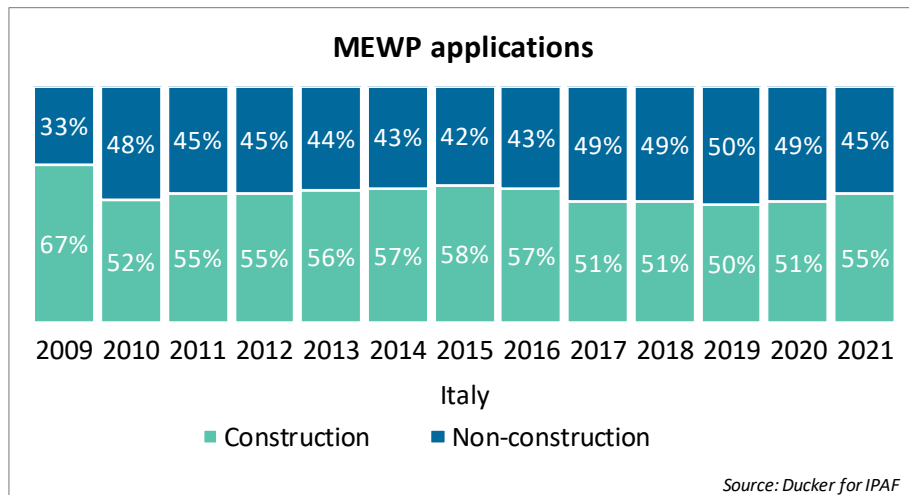


*Included are powered access lifts: all booms, scissor lifts and vertical masts
 Excluded: low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes and MCWPs.*

Italy – applications

Construction was one of the main drivers of Italian economic recovery in 2021, and the industry ultimately accounted for 55% of total revenue in the MEWP rental market.

- Italy’s “110% Superbonus” construction renovation programme and ongoing road infrastructure renovation boosted the Italian construction industry in 2021.
- Also, Italy’s National Recovery and Resilience Plan (PNRR) is largely aimed at construction, guaranteeing further stable cash flow from the industry until at least 2026.

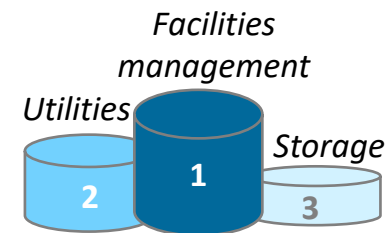


Share of rental revenue:

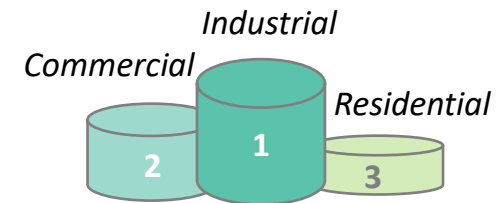
Non-construction includes industry, maintenance, cleaning, utilities, events.
Construction includes new-build and renovation; including residential, commercial, retail and industrial.



Main non-construction sub-sectors



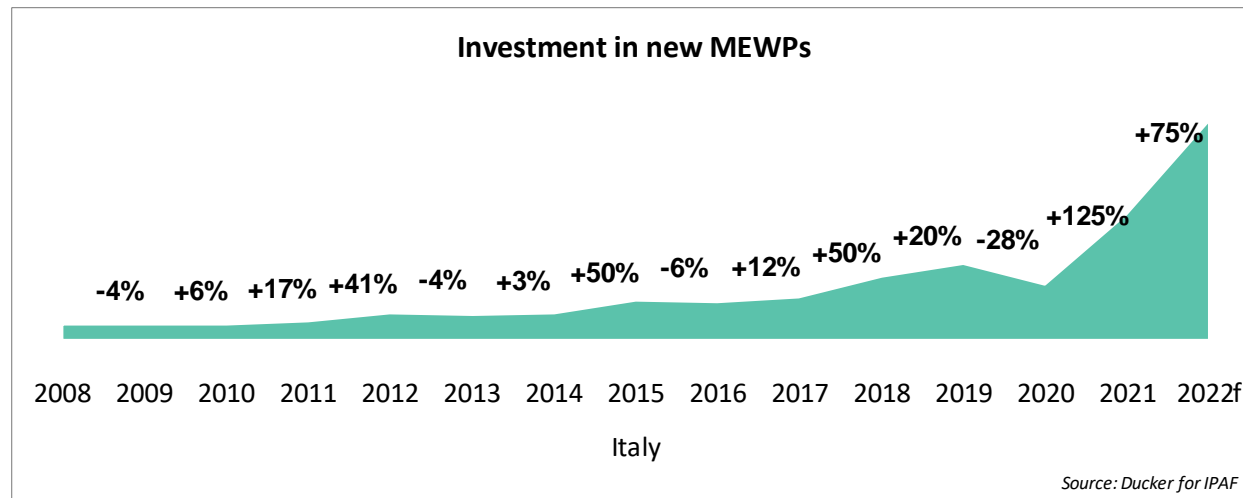
Main construction sub-sectors



Italy – investment

Rental companies increased their investment by an average of 125% in 2021 compared to 2020. Most companies surveyed expected to continue investing in 2022, as far as global supply-chain disruptions will allow.

- The continuous investment growth of the five years prior to 2020 resumed in 2021, with a 125% increase in investment into fleet renewal and expansion, that saw the country's fleet grow by 6% across the year.
- Investment is expected to grow further in 2022, with new machine sales hitting an all-time high, despite ongoing MEWP supply-chain issues and increased lead times on new machines.

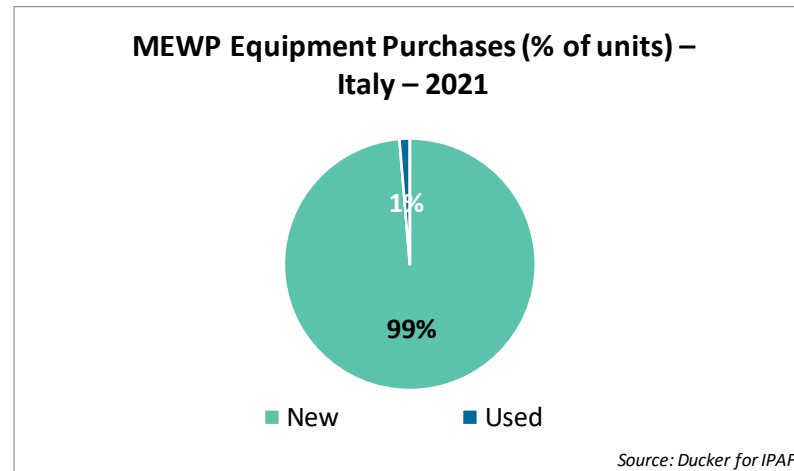


“In 2021 we were not able to buy as much as we would like due to supply issues – overall, the market has largely been impacted positively by 4.0 Industria subsidies.” – MEWP rental company purchasing manager

Italy – equipment purchases

99% of the investment made by Italian rental companies in 2021 was in new machines. Global supply shortages and longer lead times did not change rental companies' preference for purchasing new machines.

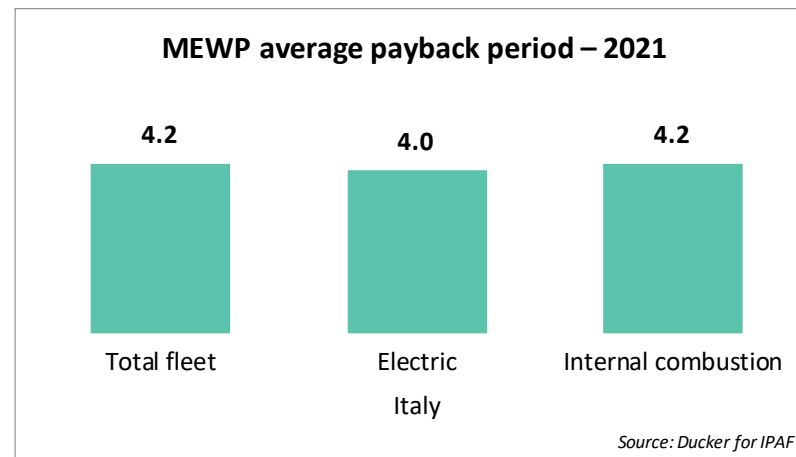
- With increasing safety and environmental regulations, Italian rental companies continue to prefer investing in new machines rather than purchasing used equipment.
- The “4.0 Industria” programme, compensating rental companies with 50% of the equipment purchase price via tax reductions, has supported the procurement of new machines in 2021 despite longer lead times, limited availability and increasing MEWP prices.



Italy – typical payback period

The average payback period in 2021 remained pretty much the same as in the previous year. In 2022, an increase in machine prices will be partially offset by fleet utilisation growth and an increase in rental rates.

- The average payback period in 2021 was 4 years and 2 months, a small increase by comparison to 2020 (4.1).
- The market is expecting an overall increase in machine procurement costs, driven by inflation, growth in material prices and supply-chain disruption. This is likely to lead to payback period increasing in future years.
- The payback period for electric MEWPs remains shorter than for diesel-powered machines, but this gap is slowly diminishing as a result of the growing share of electric equipment in the fleets, increased comparative affordability of new machines and increased demand for electric machines from end users.

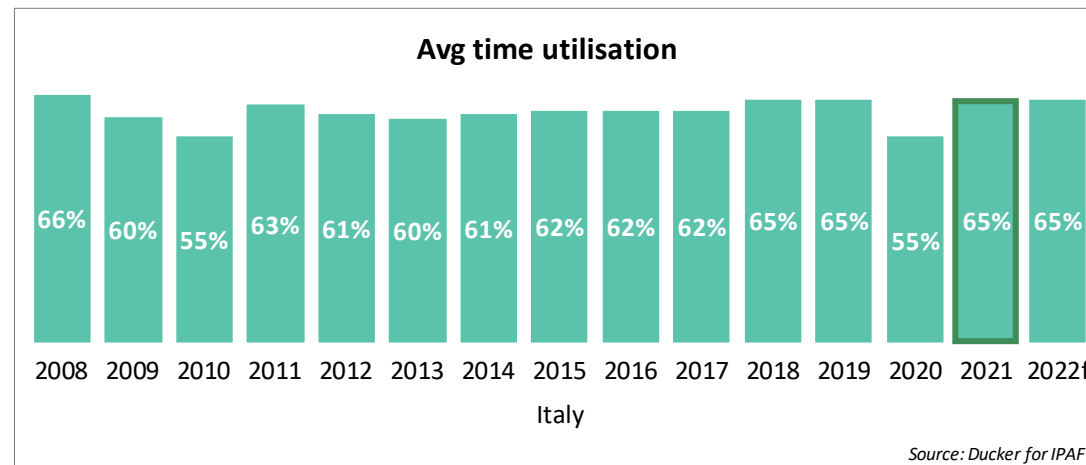


5.10 = 5 years and 10 months

Italy – utilisation rate

Utilisation rate rose by 10% in 2021, with the Italian economy rapidly recovering to pre-pandemic levels of commercial activity and continuing investment in the construction industry.

- Across 2021, most of the pandemic-related restrictions in the country were gradually eased or lifted, allowing businesses to resume close-to-normal activity, bringing the average utilisation rate back to its usual level of 65%.
- Average utilisation rate is expected to stay at 65% in 2022, with high demand in the construction sector countering the effects of strong fleet size growth.



Scissors: 66%

Booms: 63%

Definition: Physical number of machines out on hire as % of total number in fleet at any given time.

“

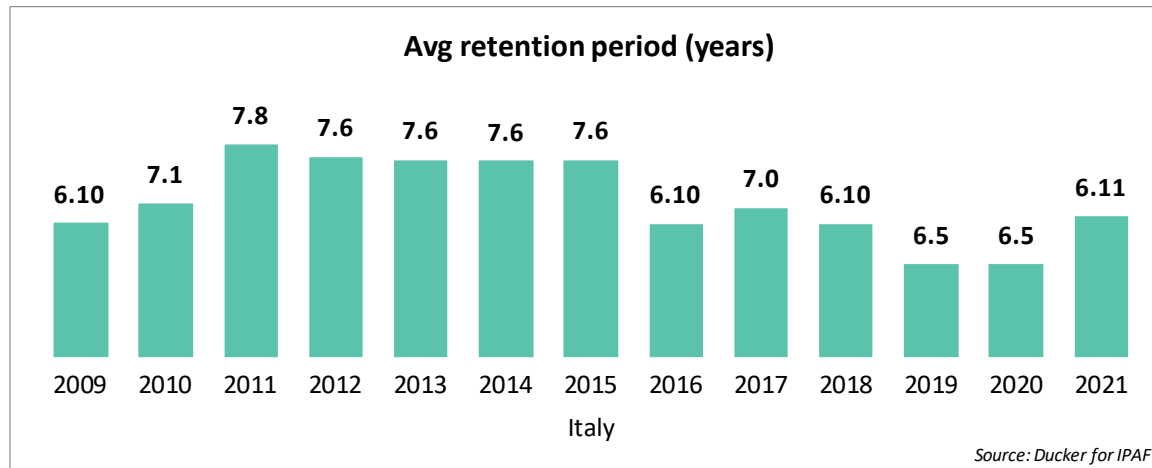
“There was around a 10% decrease in utilisation rate in 2020 owing to COVID. In 2021, we got back to somewhere approaching 2019 levels of utilisation.” – MEWP rental company hire manager

Italy – retention period



Average retention period grew by six months in 2021, reaching almost seven years per MEWP. This trend continues in 2022 as a result of longer lead times on new machines and strong demand from construction.

- The average retention period has increased in 2021, reflecting the market’s awareness of machine procurement difficulties that are likely to persist in the next few years.
- The majority of companies chose not to shrink their fleet in 2020, a decision which paid off in 2021, allowing rental companies to meet demand for MEWP equipment that recovered quickly once pandemic-related restrictions were eased.



6.11 = 6 years and 11 months

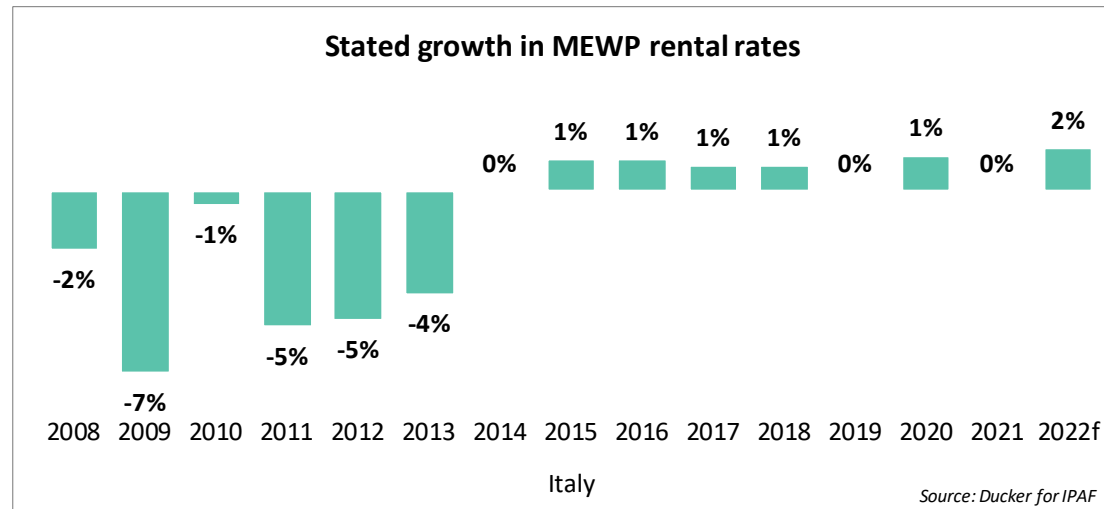
Definition: Period of time that a machine is kept in fleet = selling age if acquired new

Italy – rental rates



Despite growing procurement and fleet maintenance costs, Italian rental companies did not increase average rental rates in 2021. However, rental rates are expected to increase slightly in 2022 and beyond.

- Strong competition between rental companies and long-term rental agreements made it hard for rental companies to increase rental rates significantly, so the average rate did not change in 2021.
- The industry is expecting a correction in 2022, with rental rates forecast to rise by 2% to at least partially compensate for rising costs of machine procurement, maintenance and transportation.



“Unfortunately, we were not able to increase our rental rates. This is due to the number of competitors, which results in fierce competition in the market and does not let us set higher prices.” – Rental company manager



A PERSPECTIVE FROM THE EDITOR OF
ACCESS INTERNATIONAL MAGAZINE
IPAF Powered Access Rental Market
Report 2022 – *ITALY*

- GDP in the 10 European countries under study increased by 12% in 2021, following an overall fall of 4% in 2020. In comparison, Italy's GDP grew by 10% in 2021 over 2020, demonstrating the country's recovery after being one of the worst affected countries in Europe during the pandemic in 2020.
- The European Rental Association (ERA) also confirms the difficulties of 2020, with markets including France, Italy, Spain and the UK all falling "considerably", while others such as Switzerland, Sweden and Germany "also lost ground but fared better overall".
- According to the construction equipment association of Italy Unacea, sales of construction equipment in the country were up 29% by the end of 2021, compared to the previous year. This was partly thanks to the country's Industria 4.0 National Plan incentives scheme and investment in infrastructure. In 2022, the association believes sales volumes will rise a further 10%.
- The Committee for European Construction Equipment (CECE) says levels of investment in construction in the third quarter of 2021 demonstrated a positive outlook, at 8.9% above the same period in 2020. This dynamic should continue, thanks to the significant measures put in place by the Italian government, such as the opportunities offered by its Recovery Plan.
- With Italy being one of the major global producers of access equipment, the country's overall ability to meet demand will be critical. In an example of how access manufacturers are addressing supply chain and transport issues across Europe, Genie announced last year it was bringing six rough-terrain scissor models closer to market by producing them at its plant in Umbertide, Italy. They were previously only produced at Genie's headquarters in Redmond, US.
- In a sign of growing market strength, Italy-based low-level access manufacturer Bravi increased its sales by more than 70% in 2021. In January this year, Bravi reported that the value of its order book was already up 250% for 2022, versus the beginning of 2021. Regarding turnover, Bravi forecasts 2022 to be up 50% on 2021.

- Italy is also home to the GIS cranes and access exhibition. The first edition of the show since the beginning of the pandemic took place in October 2021. The industry came out in force to support it and demonstrated a willingness to return to live events. Organiser Fabio Potestà of MediaPoint said the success of the show reflected the strong recovery from the pandemic in Italy. “Even during the lockdown period, this sector worked at full strength – the reconstruction of the San Giorgio Bridge in Genoa clearly demonstrates this.”
- Potestà’s comments echoed those from around the showground, with exhibitors reflecting on a return to growth in Italy through the second half of 2020, and a recovery that was surpassing many European countries to the north of the continent in the latter half of 2021.
- As mentioned, Italy is a major global manufacturer of MEWPs, particularly spider lift and truck mounts, and some manufacturers in the country are leading the way in terms of meeting the demands of global rental companies. For example, CTE recently launched its sustainability project Green Innovation, focusing on low environmental impact and full-electric equipment. The company announced a partnership with Green-G – Electric Vehicles to develop an electric truck-mounted platform as part of a new equipment range.
- Italian rental companies have also demonstrated market recovery within the country. For example, Mollo Noleggio reported revenues of €45.5 million last year, compared to a forecast of €56.1 million this year. In February, the company announced two acquisitions in northern Italy: Monia Noleggi, headquartered in Forlì, Emilia Romagna; and Parmiani Noleggi in Valtellina, Lombardy.
- One clear opportunity adopted by rental companies is digitalisation to enhance efficiencies and costs. Mollo Noleggio has embraced this trend with the development of a web portal, sharing real-time information through a satellite system for the location of fleet, the detection of information on machine operation, and enhanced maintenance planning.



APPENDIX
IPAF Powered Access Rental Market
Report 2022 – *ITALY*

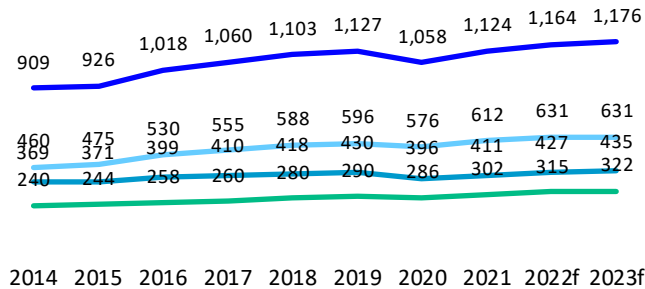
Italy – construction statistics



The Italian economy recovered most of its pandemic-related losses in 2021. The short-term outlook is positive, despite supply-chain disruptions and fuel cost increases impacting the construction sector.

Europe (10 countries) – Construction data

CAGR 21 - 23 = 2.30%



Source: Ducker for IPAF

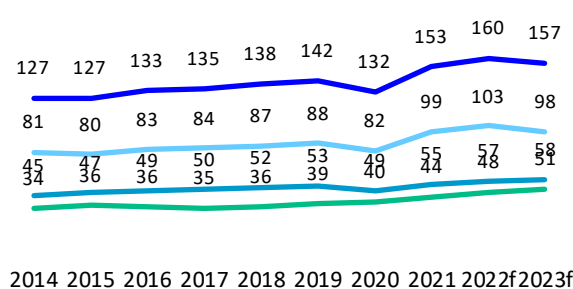
Includes Germany, France, UK, Italy, Spain, The Netherlands and the Nordics

- Residential construction
- Non-residential construction
- Total construction
- Civil engineering / Major infrastructure

CAGR: Compound annual growth rate

Italy

CAGR 21 - 23 = 1.07%

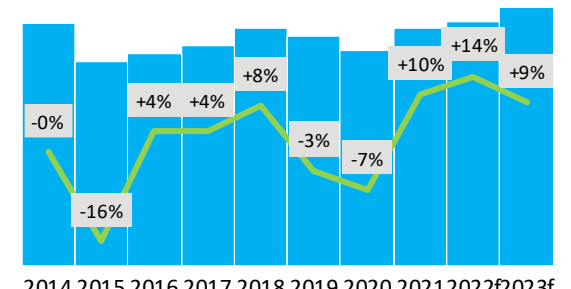


Source: Ducker for IPAF

Construction pipeline (billions euros) based on Euroconstruct 2021 figures.

Italy

CAGR 21 - 23 = 4.33%



Source: Ducker for IPAF

Italy GDP per Capita YoY % evolution
Source: FrontierView – March 2022.



The International Powered Access Federation (IPAF) promotes the safe and effective use of powered access equipment worldwide in the widest sense – through providing technical advice and information; through influencing and interpreting legislation and standards; and through safety initiatives and training programmes.

IPAF is a not-for-profit organisation owned by its members, which include manufacturers, rental companies, distributors, contractors and users. IPAF members operate a majority of the MEWP rental fleet worldwide and manufacture about 90% of platforms on the market.

Visit www.ipaf.org/contact to find details of your nearest office or representative.



RESEARCH & CONSULTING

BANGALORE | BERLIN | DETROIT | LONDON | NEW YORK | PARIS | SHANGHAI

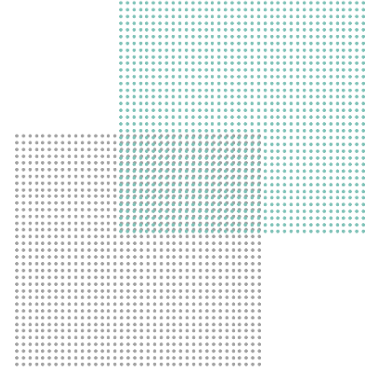
www.ducker.com

IPAF MEMBER - FREE COPY





RESEARCH & CONSULTING



June 2022

IPAF Powered Access Rental Market Report 2022

COUNTRY REPORT – Middle East
(UAE, Saudi Arabia, Qatar)

www.ipaf.org/reports



**THE EUROPEAN
ASSOCIATION
AWARDS 2019**

FINALIST
Best Provision of Industry
Information and Intelligence



**THE EUROPEAN
ASSOCIATION
AWARDS 2018**

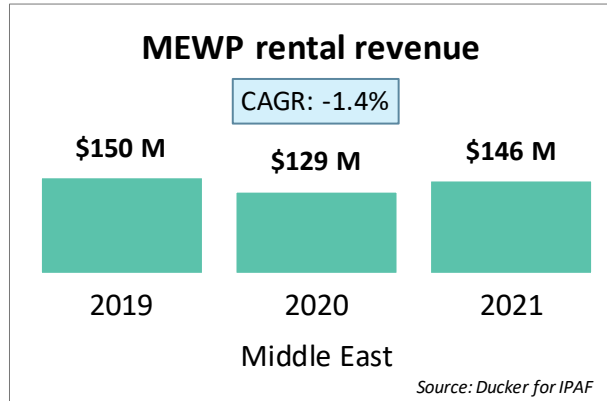
BRONZE
Best Provision of Industry
Information and Intelligence

IPAF MEMBER - FREE COPY IPAF has been working with Ducker to create these exclusive industry reports since 2009

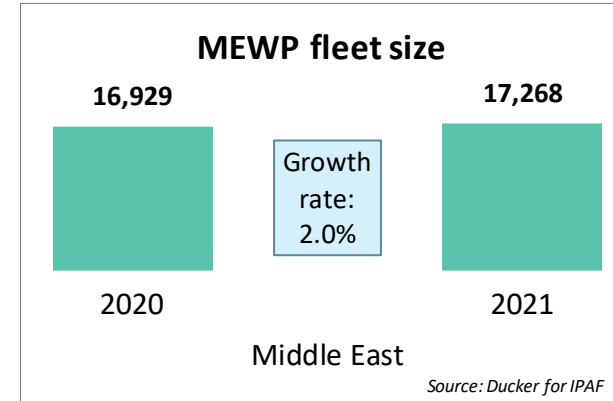
Middle East – key findings



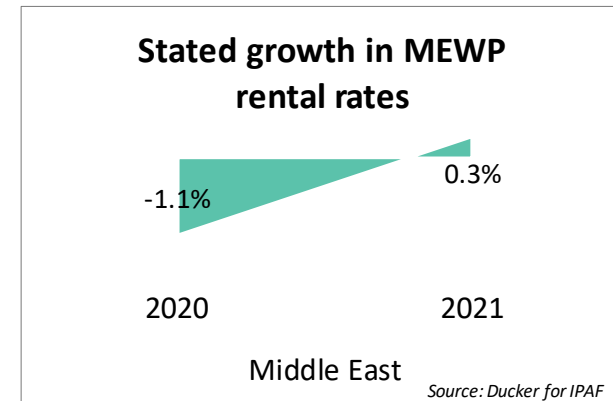
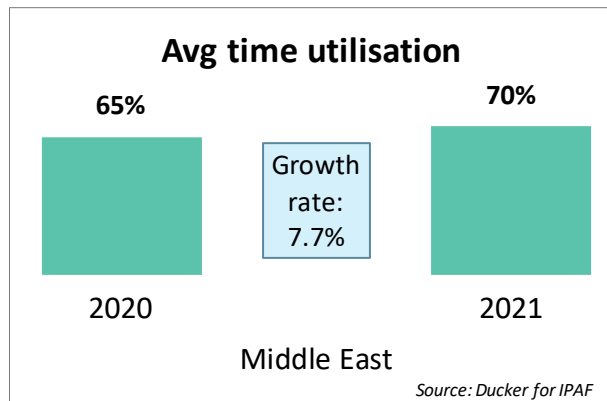
Rental companies in the Middle East were able to return to almost pre-pandemic levels of activity in the second half of 2021, which saw cumulative revenue in UAE, KSA, Qatar recover to \$146 million.



CAGR: Compound annual growth rate



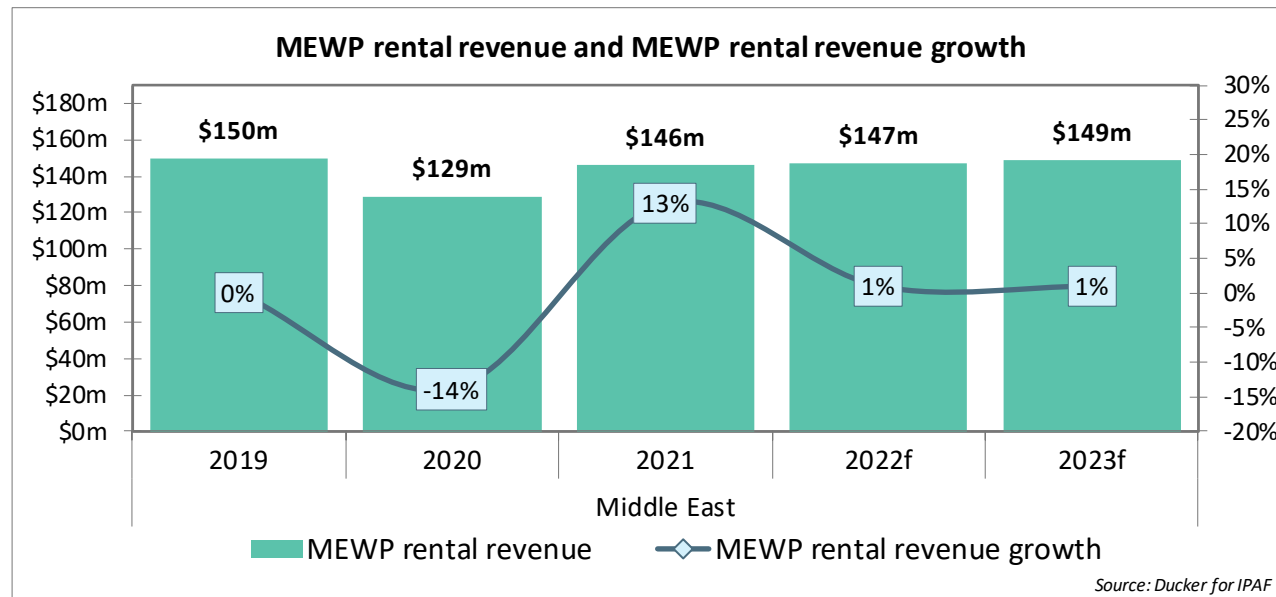
- In all three countries under study, MEWP rental revenue grew by 13% on average in 2021, which saw it returning close to 2019 levels.
- This recovery came as a result of improved average utilisation and rental rates, driven by the resumption of paused construction projects and new sources of revenue in facilities management.



Middle East – rental market value and growth

In 2021, overall revenue in the Middle East increased by 13% and returned to stand at just below pre-pandemic levels owing mainly to the resumption of economic activity in the second half of the year.

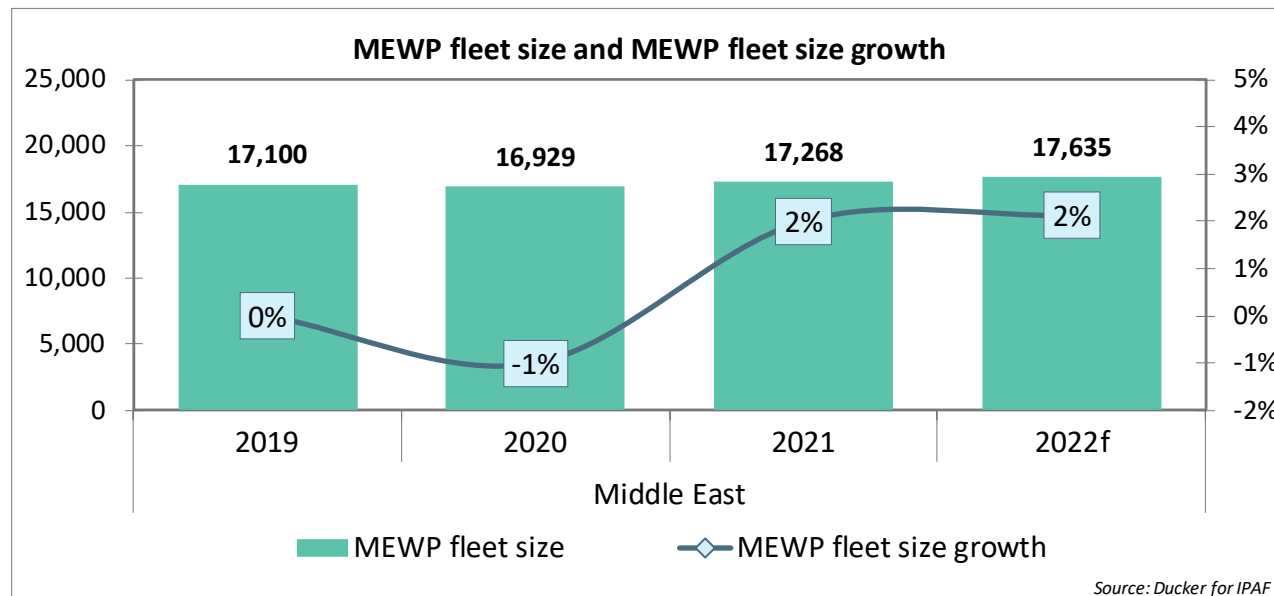
- MEWP rental revenue recovered from the pandemic in all three countries under study, with annual revenue reaching \$146 million, driven by ongoing infrastructure investment in the region and business generated by the Dubai Expo trade fair in the fourth quarter of the year.
- In 2022, revenue is expected to grow at varying speeds depending on the country: Qatar is experiencing rapid growth as the market expands; compared to less dynamic growth in more mature markets in Saudi Arabia and UAE.



Middle East – market size in units

Overall MEWP fleet size surpassed pre-pandemic levels, following increased demand and growing utilisation rates. Respondents reported a growing share of MEWPs from Chinese OEMs in Middle Eastern fleets.

- In 2021, the total fleet size in the three countries under study grew by around 2%, owing to rental companies increasing their fleets to pre-pandemic levels to keep pace with the recovering demand.
- For 2022, respondents expect to continue buying machines, increasingly turning to Chinese MEWP manufacturers who, in the current climate of supply-chain disruption, are more able to guarantee shipments than western OEMs.



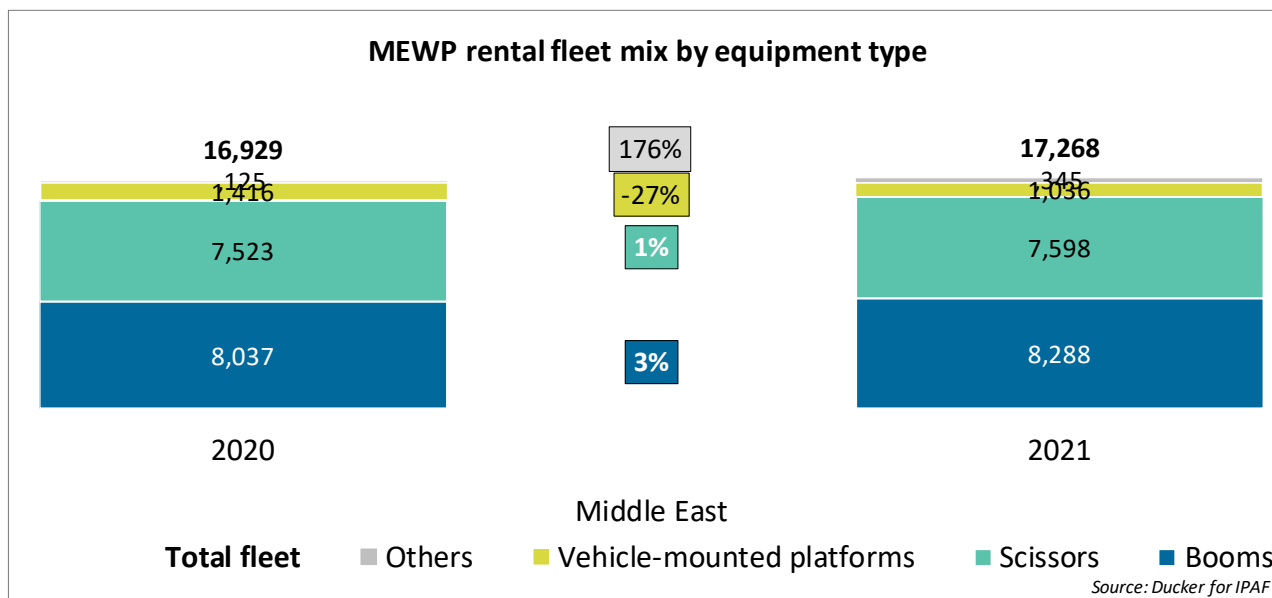
*Included are powered access lifts: All booms, scissor lifts and vertical masts
Excluded: Low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, and MCWPs.*

Middle East – market size in units



By the end of 2021, the total MEWP rental fleet across the three Middle Eastern countries under study consisted of more than 17,000 machines, the majority of which are boom-type machines.

- In 2021, the region’s fleet mix remained roughly the same as in previous years, with no major shift in category shares.
- However, those companies interviewed reported a growing number of vertical masts and spider-lifts (all under “Others” category).



*Included are powered access lifts: All booms, scissor lifts and vertical masts
Excluded: Low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, and MCWPs.*

Others include: Vertical lifts, vertical masts, push-around, trailer mounted/towable.

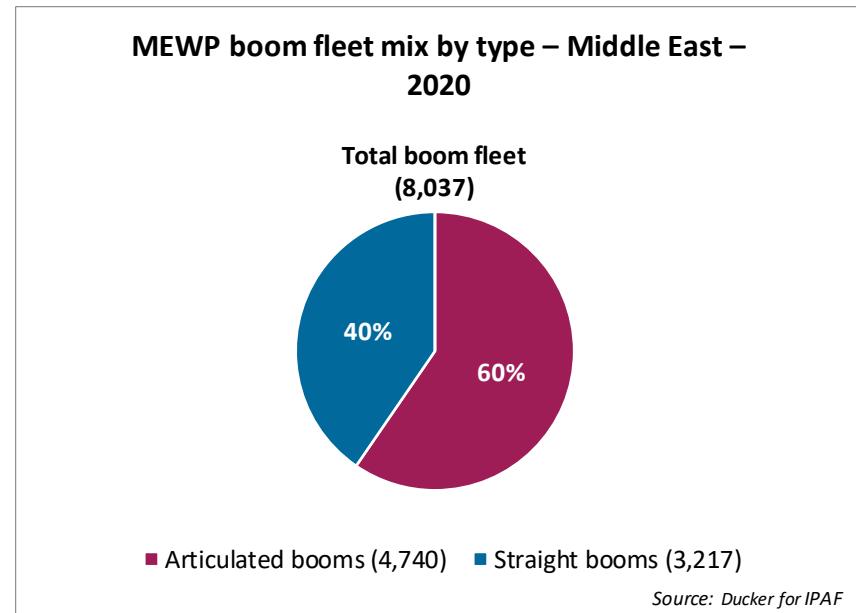
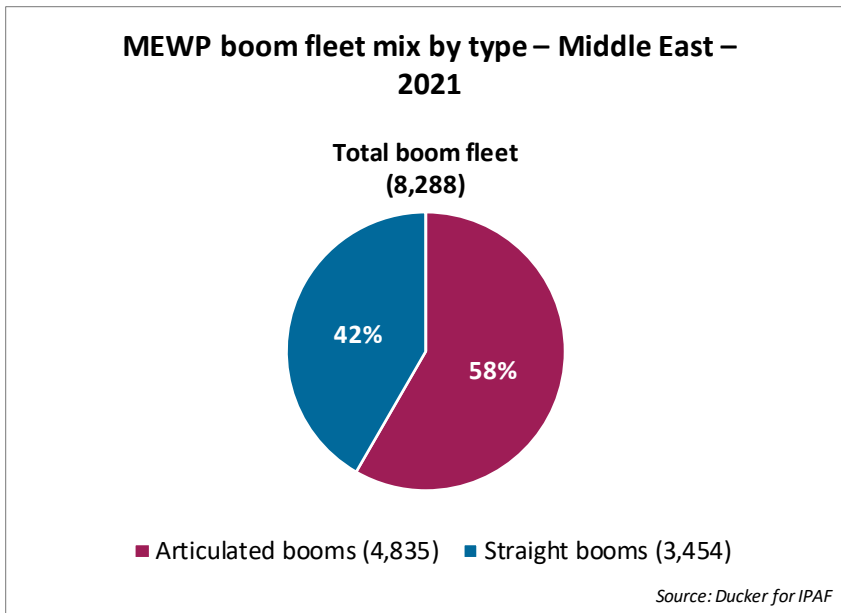
+X% % unit growth, booms fleet increased by 3% from 2020 to 2021.

Middle East – market size in units



According to rental companies' feedback, articulated booms are predominant in the market and their share in the boom fleet increased further by around two per cent across 2021.

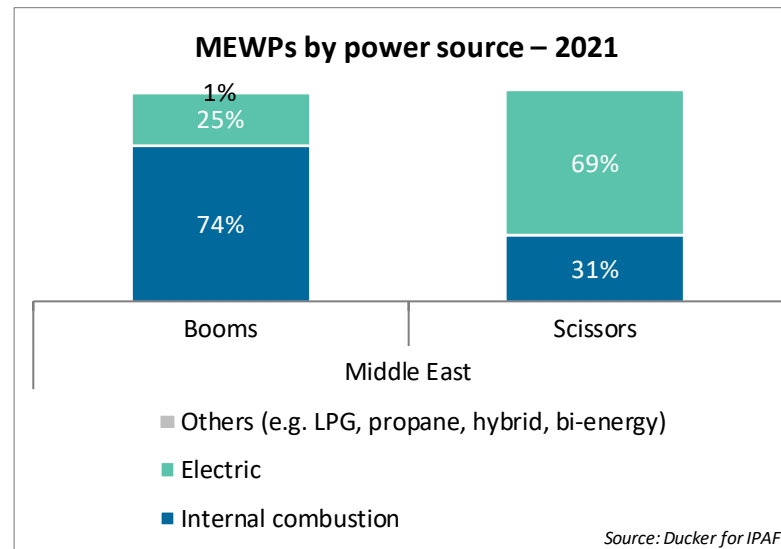
- Articulated booms are preferred over straight booms for steelwork construction, which requires access at an angle and additional lateral reach.
- Straight booms are popular with end users in construction and maintenance of tall buildings, which is one of the key end-user applications across the region.



Middle East – power sources

In the three countries under study, diesel-powered equipment represented 74% of booms and 31% of scissors in 2021.

- Diesel-powered booms still represent the bulk of the MEWP fleet in all three countries under study, as rental companies are subject to less strict environmental protection regulations than their European counterparts.
- However, electric-powered equipment is expected to grow (especially in UAE, less so in Saudi Arabia), as end-use pivots towards more facilities management projects. Another factor is an increased focus on workplace safety, which is seeing scaffolding phased out in favour of electric scissors.



“

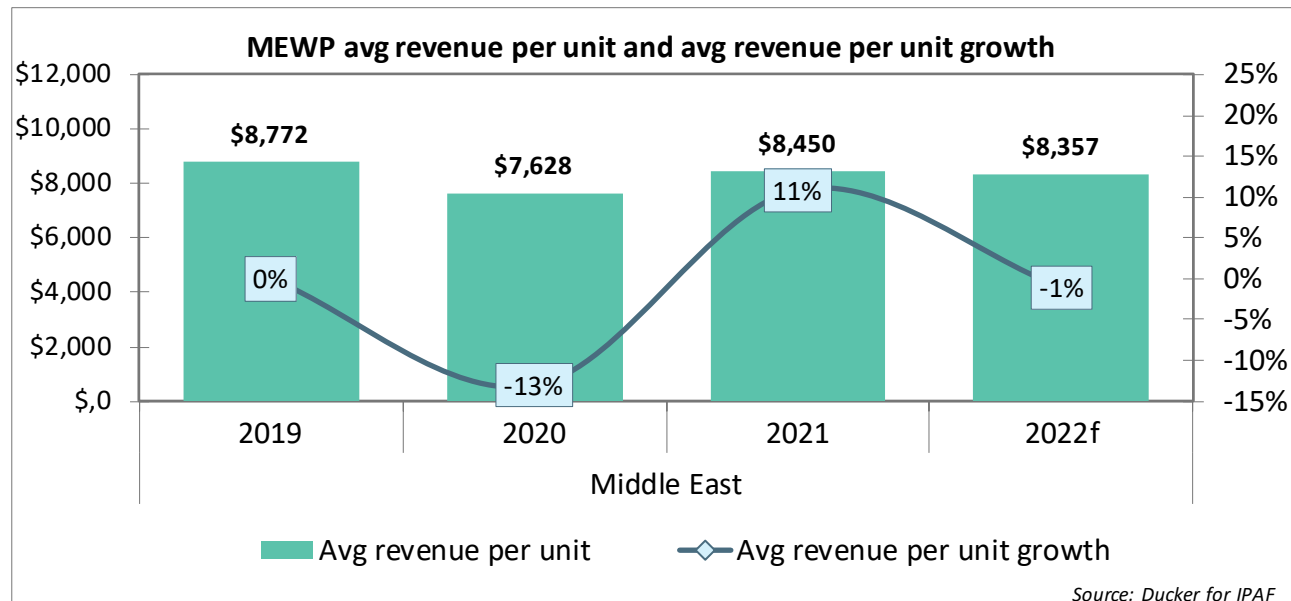
“We have a large majority of diesel-powered equipment in our fleet. It’s neither especially attractive nor profitable for clients to go for electric, except for interior work.” – MEWP rental company fleet manager

Middle East – revenue per unit



Average revenue per MEWP unit in the Middle East countries under study rose to \$8,450 per year, a rise of around 11 per cent year-on-year, owing mainly to the strength of the region’s post-pandemic recovery.

- As utilisation rates went up in 2021, the average revenue per MEWP unit rose to \$8,450 per year.
- Average revenue is expected to stagnate in 2022, owing to increasing fleet size in the region.

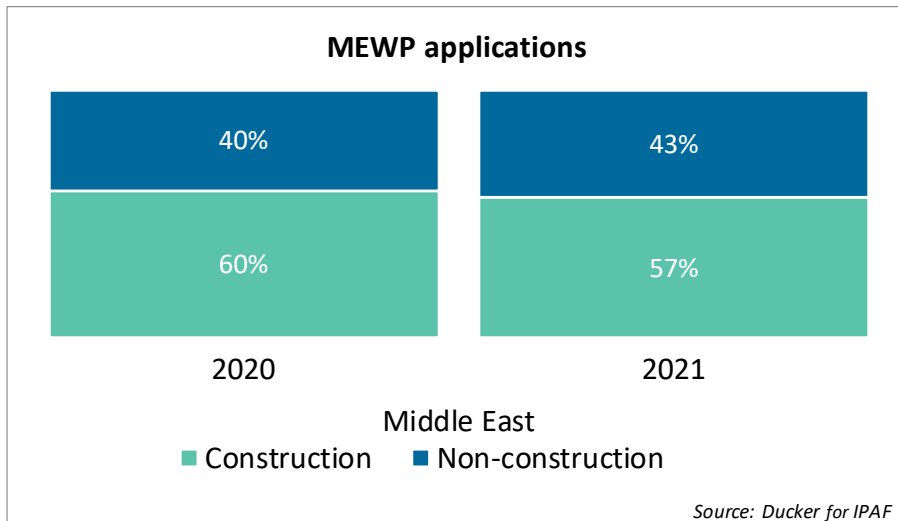


*Included are powered access lifts: all booms, scissor lifts and vertical masts
Excluded: low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes and MCWPs.*

Middle East – applications

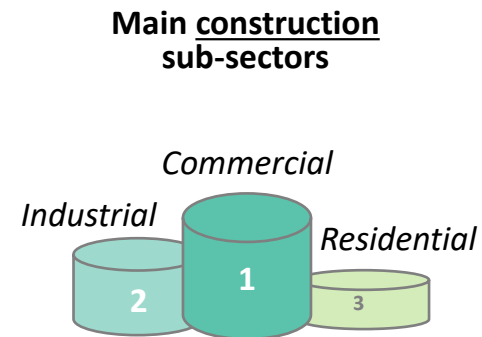
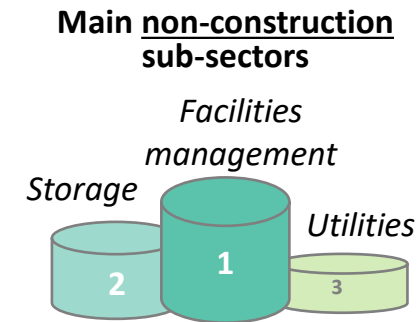
Construction represents 57% of total MEWP rental end-applications in the three countries under study. The Expo 2020 project in Dubai and public spending on infrastructure have driven demand in the region during 2021.

- Construction remains the main application for MEWPs in the region, accounting for 57% of revenue generated in 2021. Rental companies observe that non-construction work such as facilities management is on the rise, offering new sources of revenue besides highly price-competitive construction applications.
- Commercial building is the main construction sub-sector, before residential and industrial building. Respondents expect oil & gas construction to pick up in 2022, following the increase of the wholesale prices in the global market.



Share of rental revenue:

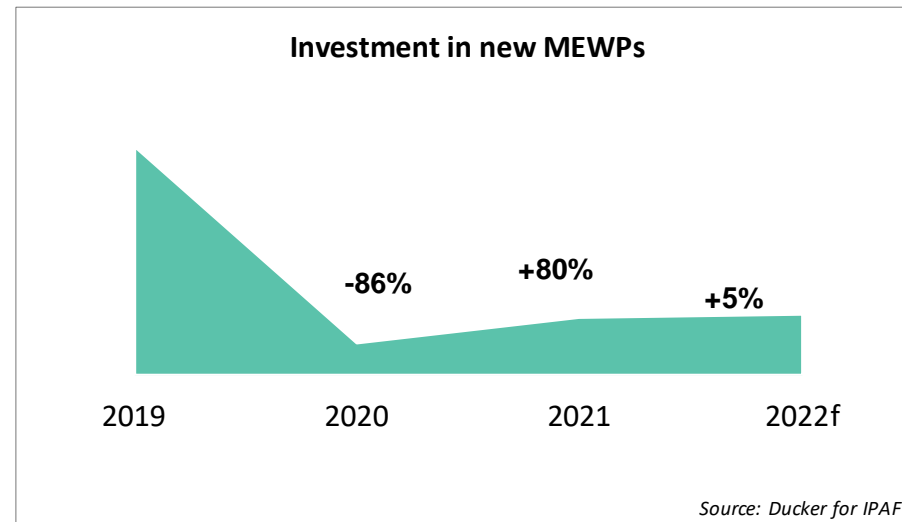
Non-construction includes industry, maintenance, cleaning, utilities, events.
Construction includes new-build and renovation; including residential, commercial, retail and industrial.



Middle East – investment

Equipment purchases increased to return to pre-pandemic levels in 2021, as most rental companies had to expand the fleets to keep up with growing demand and rising utilisation rates.

- After fleet optimisation in 2020, which saw procurement halted and limited de-fleeting, in 2021 rental companies resumed investment in new machines to renew their fleet and manage growing utilisation rates.
- Investment growth in 2022 is forecast to increase slightly, owing to cost optimisation and the practice of quickly shifting machines between countries to follow changing demand.

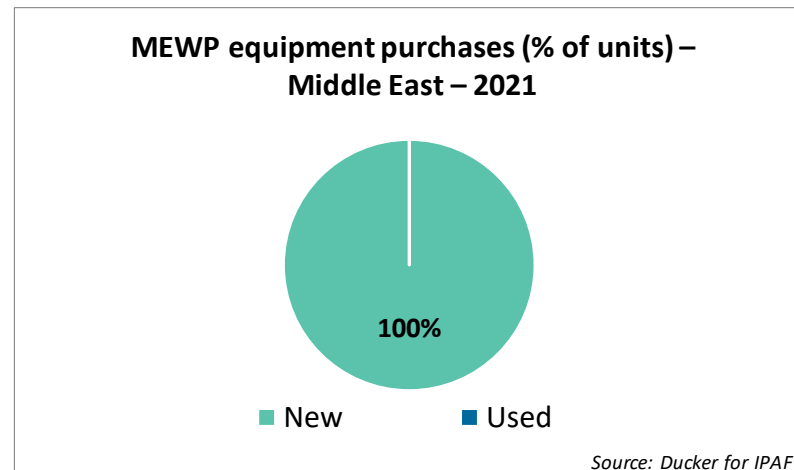


“In 2021, we were still receiving delayed machines from orders placed in 2020. We will reduce pace in 2022 in order to reach a better equilibrium between utilisation rate and demand.” – MEWP rental company manager

Middle East – equipment purchases

In 2021, companies were focused mainly on procuring new machines for their fleet. The purchase of second-hand equipment is virtually non-existent in the three Middle Eastern countries under study.

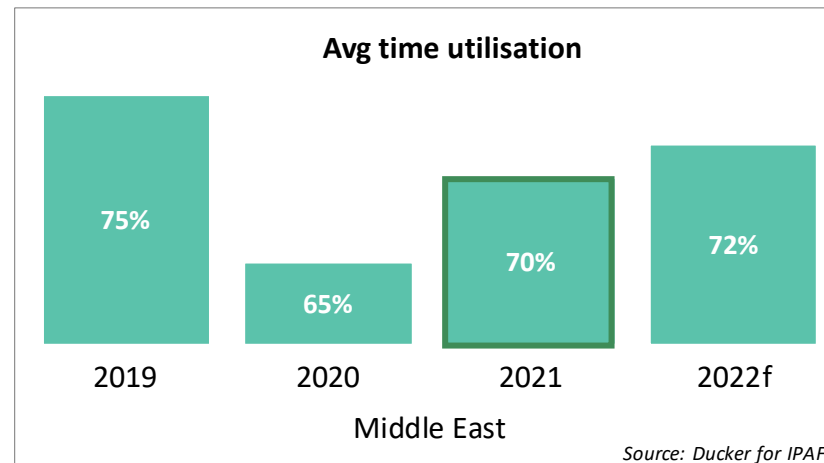
- 100% of purchases reported by respondents consisted of new equipment, same level as last year.
- There are frequent mentions of MEWP machines being resold from Western European markets to the countries of Middle East, but these are typically purchased for direct ownership, not rental activities.



Middle East – utilisation rates

Following the economic recovery, average utilisation rate increased to stand at around 70%. This is higher than many European countries but still a little below the pre-pandemic utilisation rate of around 75%.

- Average utilisation rate grew by five percentage points, owing to improving construction output and increased commercial activity. This rate is higher than in most European countries, and utilisation is not expected to return to pre-pandemic rates before the end 2022.



Definition: Physical number of machines out on hire as % of total number in fleet at any given time.

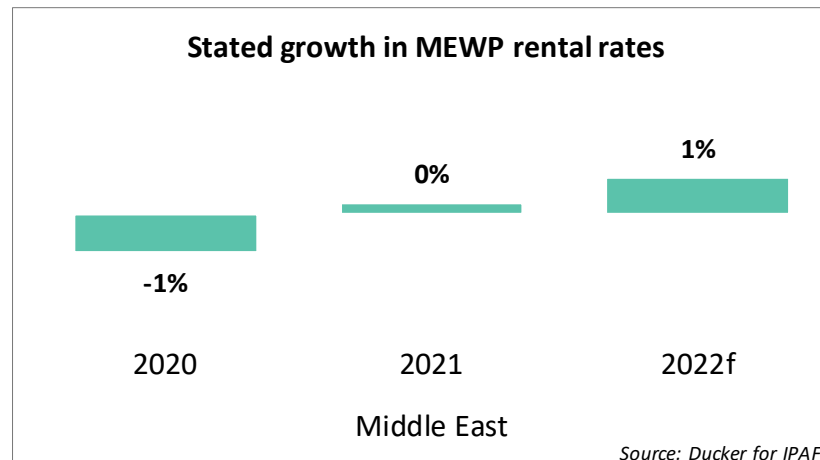
“

“Activity flowed in Qatar but returned more slowly in UAE and Saudi Arabia.” – MEWP hire company manager

Middle East – rental rates

In 2021, rental rates remained broadly stable, owing mainly to growing utilisation rates.

- The Middle East market is highly price competitive, leaving rental companies little chance to increase their rental rates if they wish to maintain market share. Rates are expected to increase by a margin of around one per cent across the region in 2022, owing mainly to growth in services.



“We want to increase prices to pre-pandemic levels but competition is too strong to be able to push prices up. If we want to keep activity going, we need to keep it relatively stable” – MEWP rental company manager, UAE



A PERSPECTIVE FROM THE EDITOR OF
ACCESS INTERNATIONAL MAGAZINE
IPAF Powered Access Rental Market
Report 2022 – *Middle East*

- The Middle East is experiencing something of a property boom and is diverging into new areas of technology in a bid to overcome the natural challenges of its environment. All of this will provide fuel to the MEWP rental sector in the region.
- An increasing number of urbanisation projects will continue to drive growth in the construction sector in the Middle East, according to information released by GlobalData.
- While the pandemic undoubtedly slowed down project spending in the region, the ongoing modernisation of populous regional centres such as Dubai and Riyadh since the oil price crash of 2014-15 will continue to drive construction demand.
- Additionally, Riyadh is expected to finalise a contractor for the Royal Art Complex at King Salman Park this year, for an estimated SR7.5 billion (US\$ 1.9 billion) package that emerged at the end of 2021.
- Neha Bhatia, construction and infrastructure editor at GlobalData's MEED, said: "Residential projects are driving post-pandemic real estate activity in Dubai. Select Group has awarded China State Construction Engineering Corporation Middle East an AED629m (US\$171.2m) contract for its Peninsula One tower. Nakheel also recently selected local contractor ASGC to deliver its 418-unit Murooj al-Furjan project. Additionally, Saudi Arabian developer Roshn has received bids to deliver the first phase of the huge Al-Arous housing project in Jeddah, part of the Kingdom's programme of Vision 2030 megaprojects."
- Natural gas news from the Middle East over the past year has been dominated by developments in Qatar. The country is already one of the world's leading LNG exporters, though it has recently been edged out by Australia and also stands to be overtaken by the US as more liquefaction capacity comes online there in 2022. However, Qatar is taking steps to regain and extend its LNG dominance as it expands production from its North Field, its portion of the world's largest non-associated natural gas field, which it shares with Iran.

- FBR Australia, a construction robotic technology company, has announced that it has signed a Memorandum of Understanding (MoU) with the UAE's Ministry of Energy and Infrastructure.
- The MoU will see FBR and the UAE's ministry identifying opportunities for the introduction and adoption of FBR's robotic construction technology, and further solutions and services to serve the construction sector in the UAE.
- For much of the world, access to food is seldom an issue. In some regions, food security is a significant problem. A good example is the United Arab Emirates. With almost no rainfall and temperatures frequently exceeding 40°C (105°F) in the summer months, the climate in the UAE is distinctly unfavourable for growing crops outdoors. Thus, approximately 80% of the Emirates' food is imported.
- Seven years ago, agricultural supplier Themar Al Emarat began planning for a hydroponic farm that would provide locally grown, pesticide-free vegetables and produce for hotels, restaurants, wholesalers, retailers and supermarkets across the region. In 2019, Al-Bahar, which supplies Caterpillar power systems, engines and equipment, was selected to design, install and commission a comprehensive hybrid microgrid solution for the site. Now the company has ultimately developed what is considered to be the largest single-site microgrid in the UAE.



The International Powered Access Federation (IPAF) promotes the safe and effective use of powered access equipment worldwide in the widest sense – through providing technical advice and information; through influencing and interpreting legislation and standards; and through safety initiatives and training programmes.

IPAF is a not-for-profit organisation owned by its members, which include manufacturers, rental companies, distributors, contractors and users. IPAF members operate a majority of the MEWP rental fleet worldwide and manufacture about 90% of platforms on the market.

Visit www.ipaf.org/contact to find details of your nearest office or representative.



RESEARCH & CONSULTING

BANGALORE | BERLIN | DETROIT | LONDON | NEW YORK | PARIS | SHANGHAI

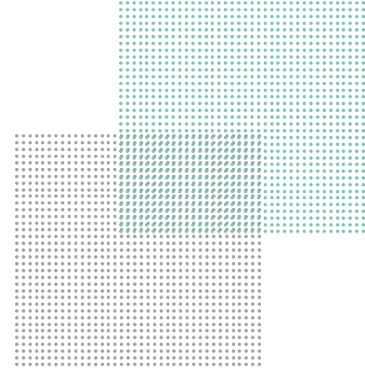
www.ducker.com

IPAF MEMBER - FREE COPY





RESEARCH & CONSULTING



June 2022

IPAF Powered Access Rental Market Report 2022

COUNTRY REPORT –
THE NETHERLANDS

www.ipaf.org/reports



**THE EUROPEAN
ASSOCIATION
AWARDS 2019**

FINALIST
Best Provision of Industry
Information and Intelligence



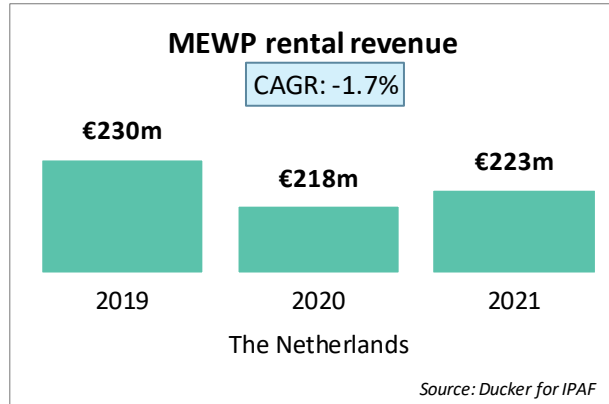
**THE EUROPEAN
ASSOCIATION
AWARDS 2018**

BRONZE
Best Provision of Industry
Information and Intelligence

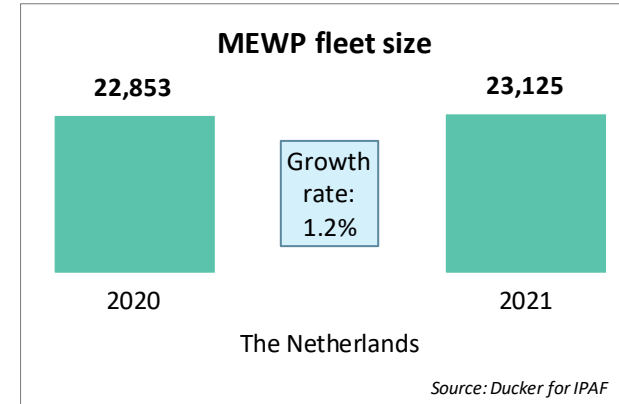
IPAF MEMBER - FREE COPY IPAF has been working with Ducker to create these exclusive industry reports since 2009

The Netherlands – key findings

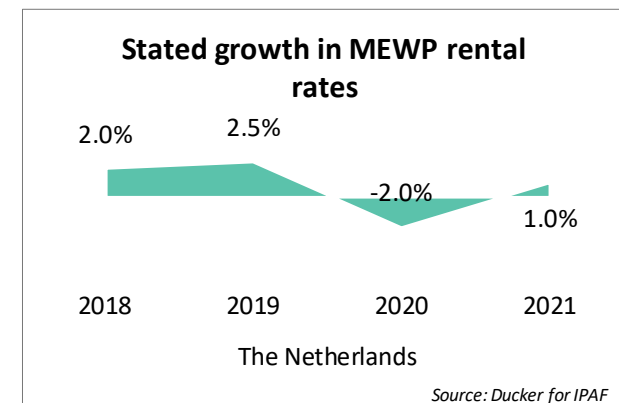
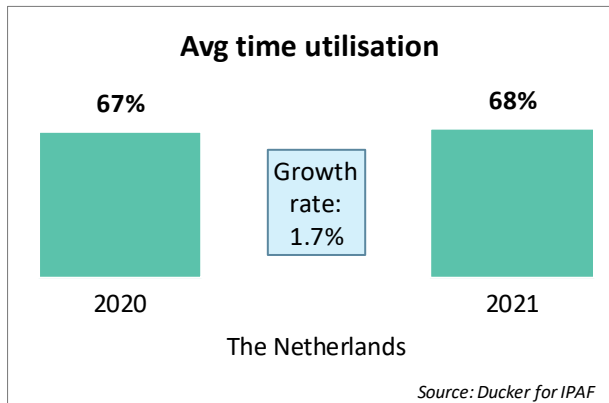
The MEWP rental market in the Netherlands in 2021 experienced some lingering impacts from the Covid-19 pandemic, but overall saw a healthy level of activity throughout the year despite these.



CAGR: Compound annual growth rate



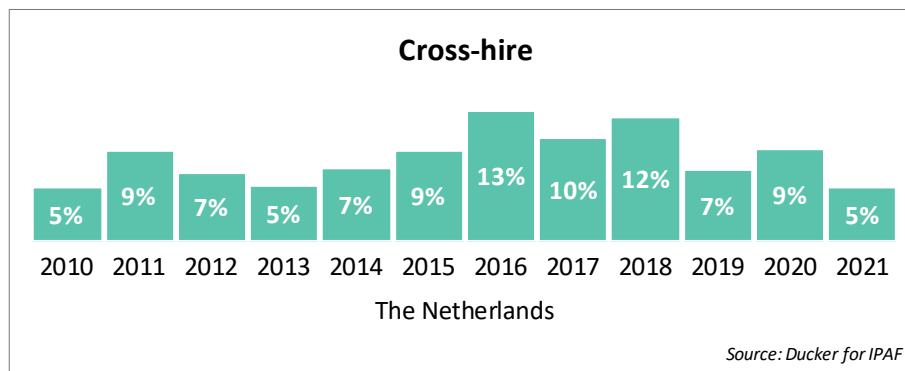
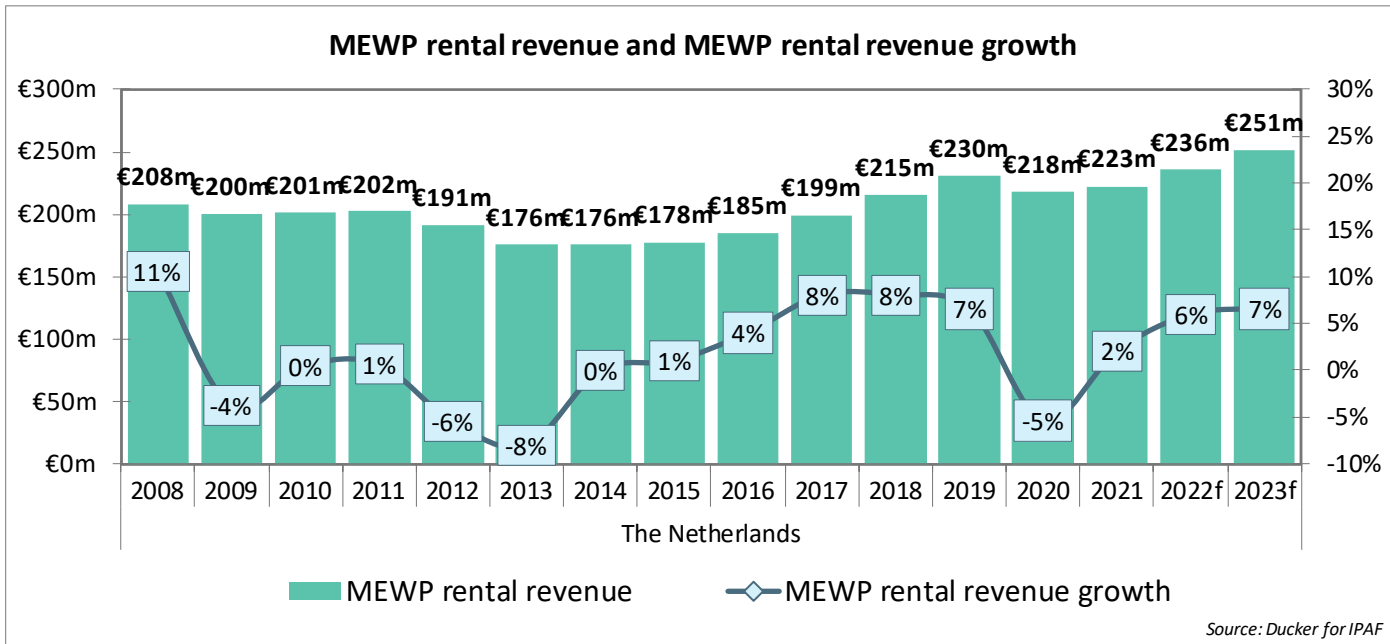
- All indicators increased in 2021, revenue growth being driven by expansion of fleet size, along with increases in both utilisation rate and rental rate.
- It is expected that all indicators will reach and surpass pre-pandemic levels in 2022.



The Netherlands – rental market value and growth



Average MEWP rental revenue in the Netherlands rose by two per cent in 2021 and is expected to continue to recover strongly through the second half of 2022 and 2023, returning to pre-pandemic growth levels.

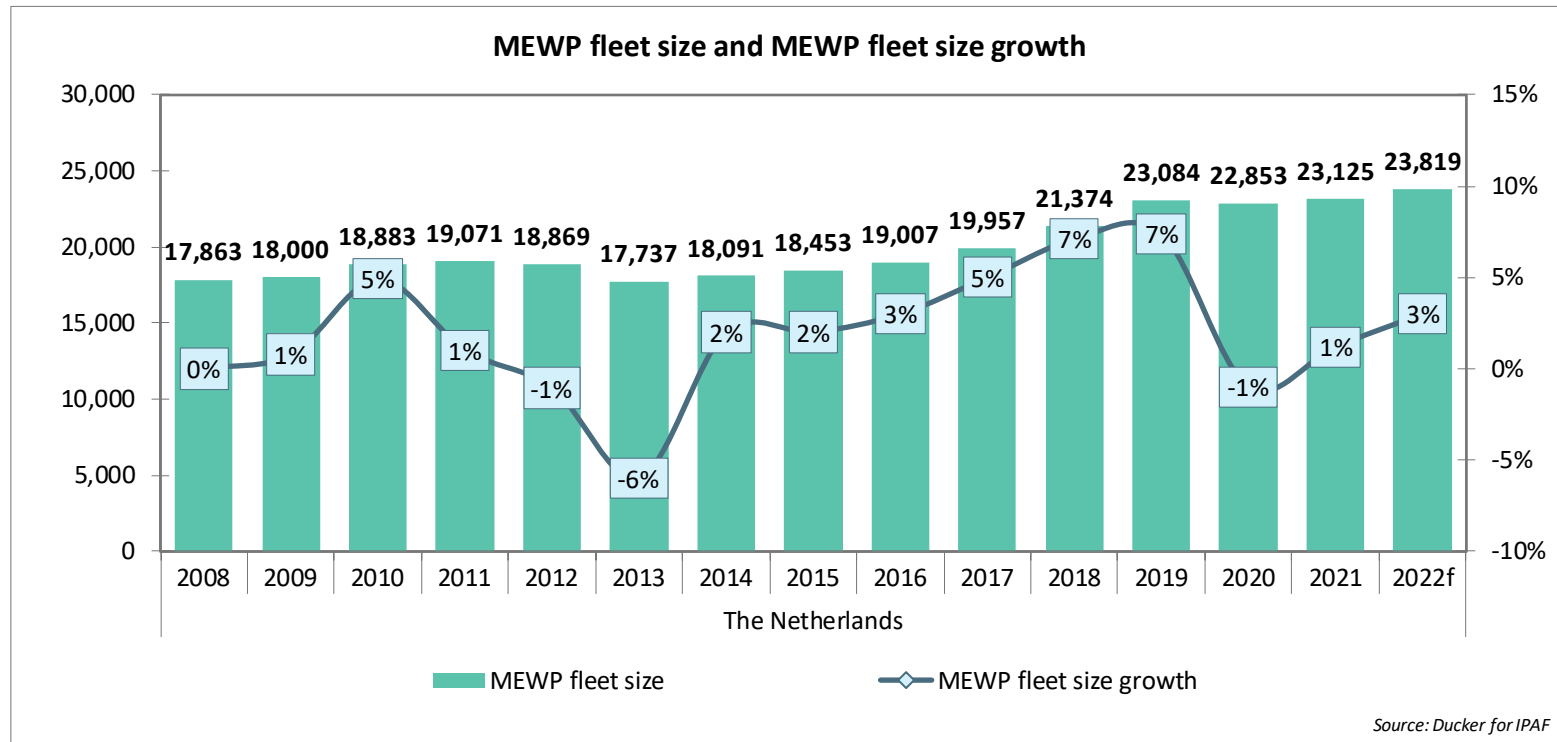


- MEWP rental market in the Netherlands was impacted by Covid in 2020 and 2021, with many companies reducing activity and halting fleet expansion.
- Continuing effects of the pandemic suppressed growth, which is nevertheless expected to reach pre-pandemic levels in 2023.
- Cross-hire decreased in 2021, owing to increased average fleet size.

The Netherlands – market size in units

The overall fleet size increased by around one per cent in 2021. It is expected to grow further, but is threatened by the lack of available equipment and longer than usual manufacturer lead times.

- After defleeting older machines and less-well-utilised MEWPs in 2020, rental companies report an increase to the national fleet size by around one per cent in 2021. Looking ahead, companies said they intended to invest in fleet expansion, but these plans were being dampened by extended lead times on new equipment.
- Growth is expected in 2022, but will remain below pre-pandemic levels until these supply-chain issues are resolved.



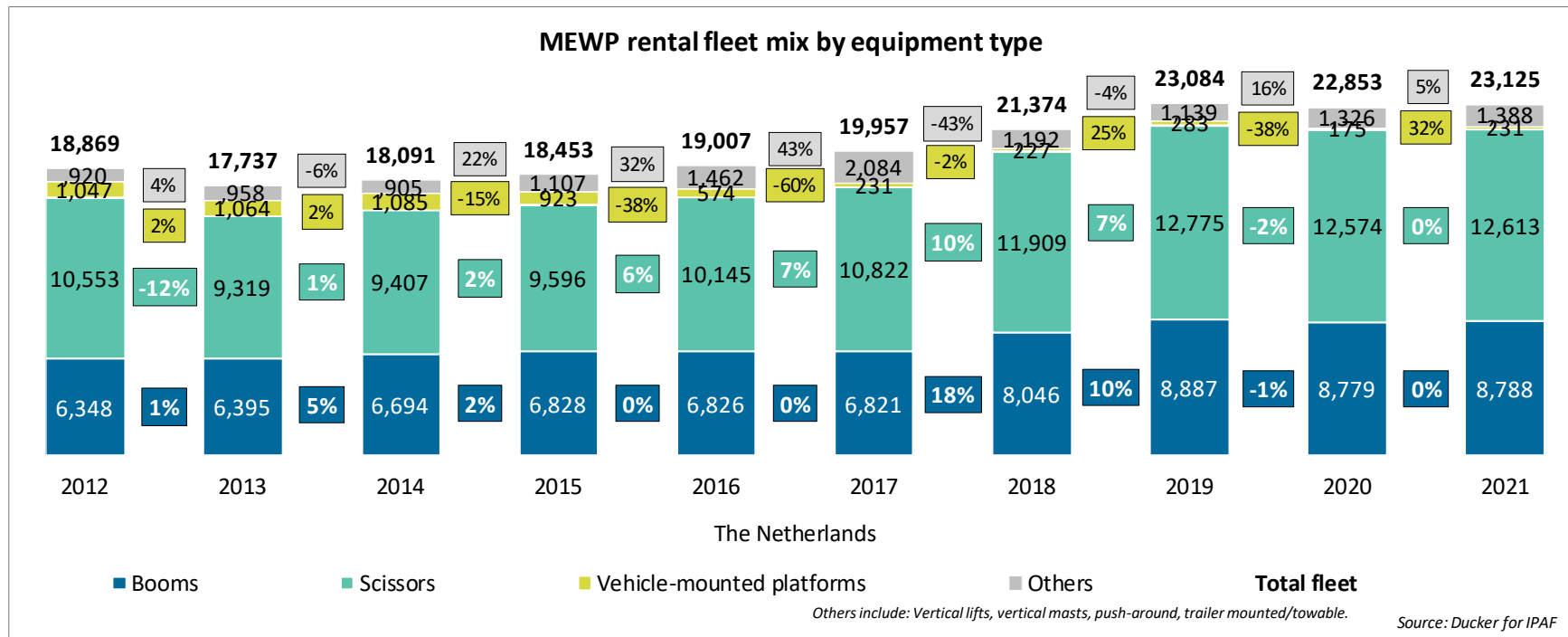
*Included are powered access lifts: All booms, scissor lifts and vertical masts
Excluded: Low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, and MCWPs.*

The Netherlands – market size in units



While the total Netherlands fleet size grew slightly, owing to increased demand in 2021, overall fleet mix remained broadly the same as in previous years.

- Boom and scissor utilisation remained at broadly similar levels as 2019 and 2020, owing to strong baseline demand from essential construction projects, maintenance of key installations and emergency repair and maintenance.
- Vehicle-mounted platforms used in specialist applications, such as high-level window cleaning, saw a slight increase in demand during 2021, leading to a 32% increase of such machines in the fleet, following a 38% decrease in 2020.



Included are powered access lifts: All booms, scissor lifts and vertical masts
 Excluded: Low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, and MCWPs.

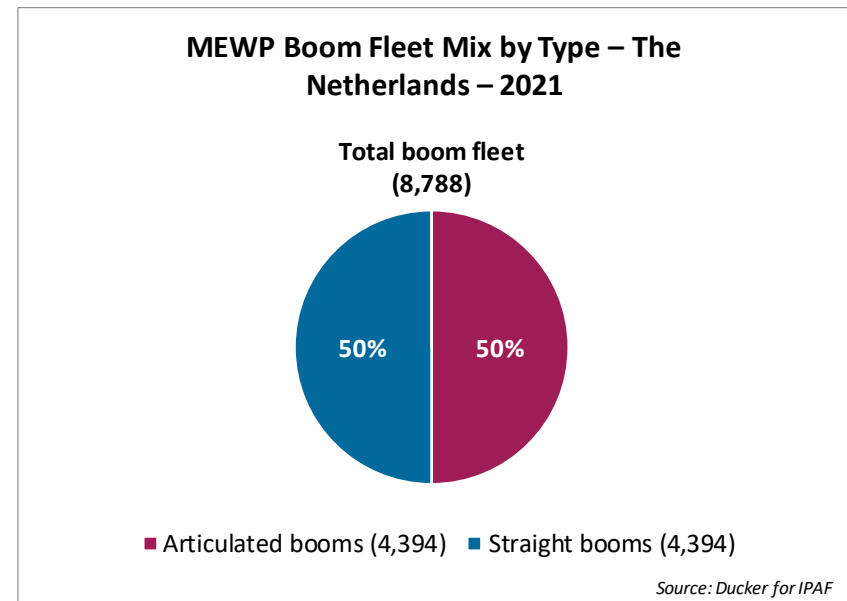
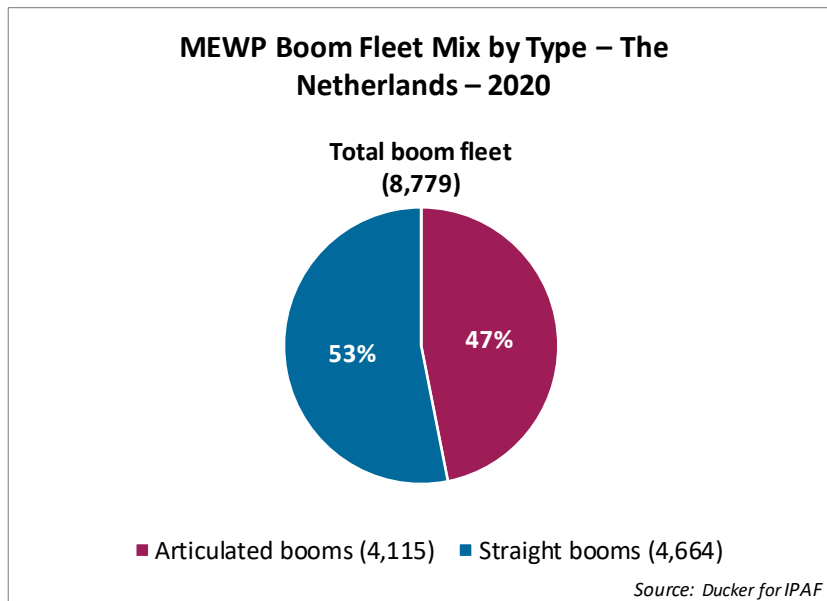
+X%

% unit growth, eg scissors fleet increased by 0% from 2020 to 2021.

The Netherlands – market size in units

The shares of articulated and straight booms evolved towards an equal split at the end of 2021. Demand for articulated booms in the Netherlands is expected to grow at the expense of straight booms.

- The Netherlands boom fleet mix saw an equalisation between the number of articulated and straight booms.
- Owing to the versatile nature of articulated booms, Netherlands MEWP rental companies anticipate a further increase in demand. Straight boom usage is expected to become more specialised to higher height machines.

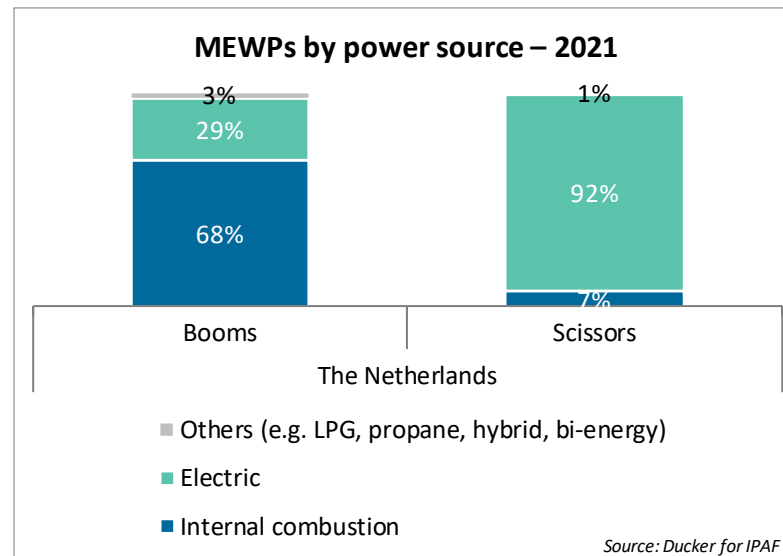


“We see a growing demand for straight booms over 28 metres, as well as articulated booms of 16-18 metres. This is a shift I expect to continue towards more versatile MEWPs.” – MEWP rental company fleet manager

The Netherlands – power sources

The share of electric-powered equipment grew slightly in 2021 across the board. The Netherlands is one of the countries at the forefront of the European rental market's shift towards electric-powered MEWPs.

- There is a clear trend towards electrification in the Netherlands, which was slowed to some extent by the pandemic and the associated pause in both fleet renewal and expansion.
- Hybrid machines are not in particularly high demand from end users, even though this type of machine is favoured by some rental companies for their versatility. Concerns around maintenance and utilisation dampened demand.
- Despite the ongoing trend towards electrification, rental companies had difficulty sourcing electric booms to replace internal combustion ones owing to performance issues, especially for larger machines with a higher reach.

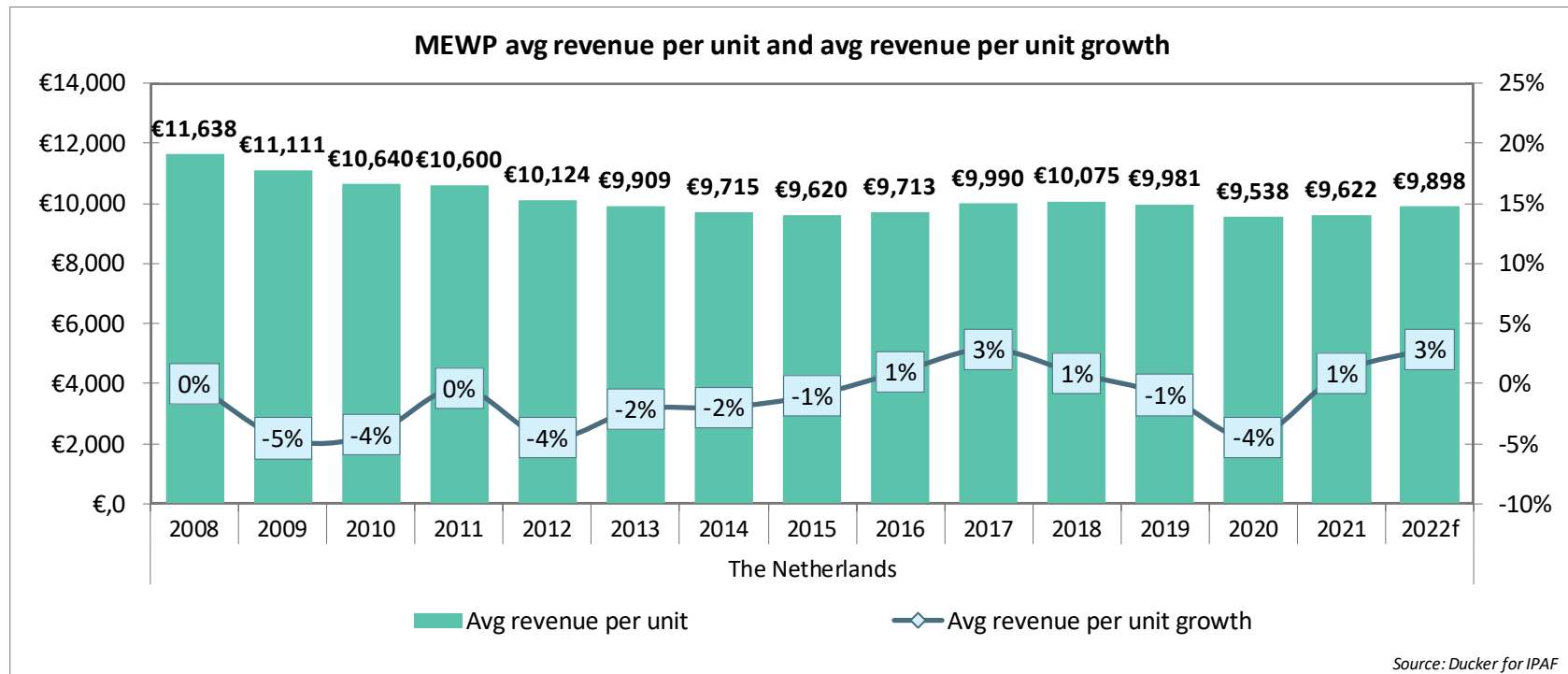


The Netherlands – revenue per unit



Average revenue per unit increased by around one per cent in 2021 in the Netherlands, owing mostly to limited investment in fleet expansion, particularly during the previous year and at the height of the pandemic.

- Owing to increased utilisation and rental rates, average revenue per unit in the Netherlands in 2021 saw only a minimal increase.
- Investment remained frozen and major fleet renewals were pushed back. Netherlands rental companies were able to prevent revenue per unit from falling any further and are expecting a stronger growth from 2022 onwards.

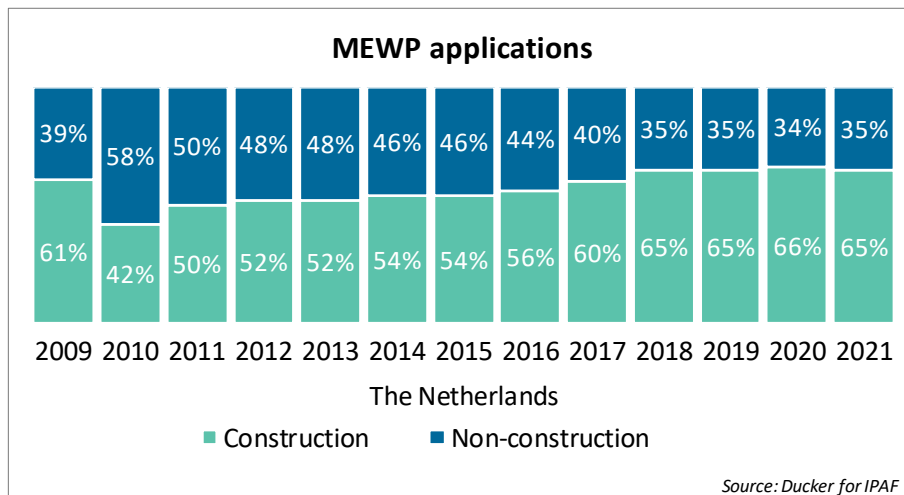


Included are powered access lifts: all booms, scissor lifts and vertical masts
Excluded: low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes and MCWPs.

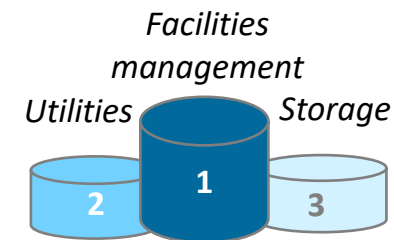
The Netherlands – applications

The split between end applications has gone back to as it was pre-pandemic. Non-construction end uses recovered after restrictions in certain areas of the facilities management sector were eased.

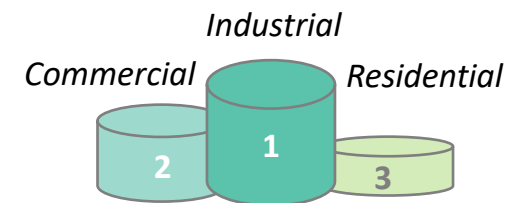
- Non-construction increased its share by one per cent, owing to sub-sectors such as facility management partly resuming their activity in 2021.
- Emergency and essential construction projects kept going, but much non-essential construction including building of new data centres was hampered in 2021, owing to the multinational nature of these projects and the workforce.



Main non-construction sub-sectors



Main construction sub-sectors



Share of rental revenue:

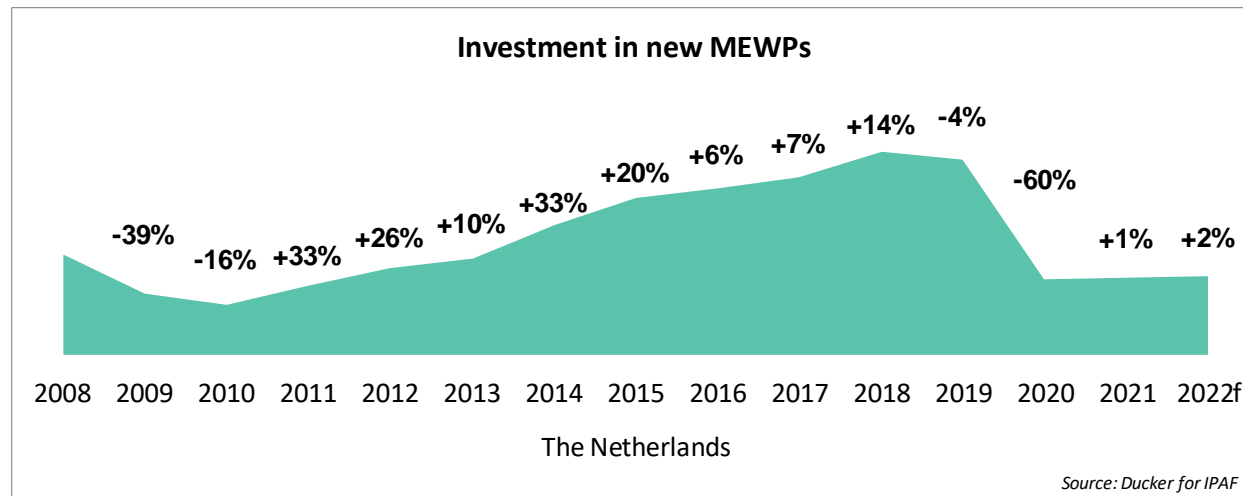
Non-construction includes industry, maintenance, cleaning, utilities, events.

Construction includes new-build and renovation; including residential, commercial, retail and industrial.

The Netherlands – investment

Investment in new MEWPs increased by around one per cent in 2021, with rental companies eager to invest in fleet expansion but being limited by a lack of available new machines and longer lead times on OEM orders.

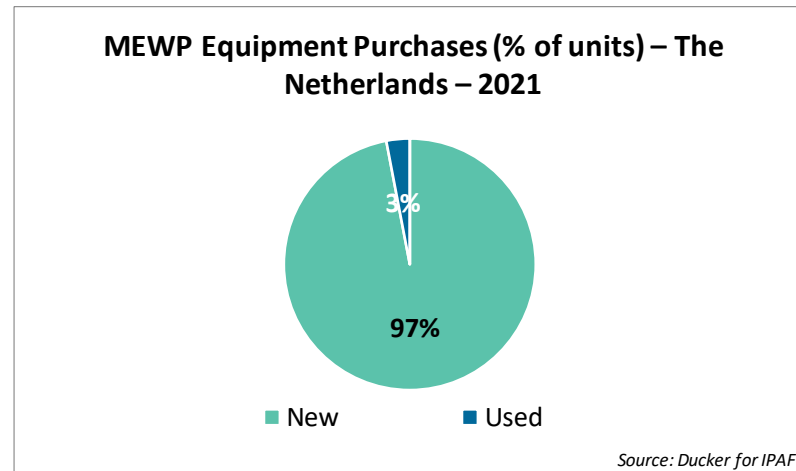
- In 2021 investment showed modest growth but was focused mainly on fleet renewal.
- Fleet renewal and expansion was complicated by longer-than-usual lead times and pandemic-related supply-chain issues, so fleet investment is expected to remain minimal well into 2022.
- Rental companies expressed a desire to get back to pre-pandemic fleet growth rates, but plan to refrain from major investment in 2022 until current issues around supply of new machines and rising global prices stabilise.



The Netherlands – equipment purchases

In 2021, used equipment purchases declined by seven per cent. New MEWP equipment is still the more attractive for resale, making the purchase of used equipment less profitable in comparison.

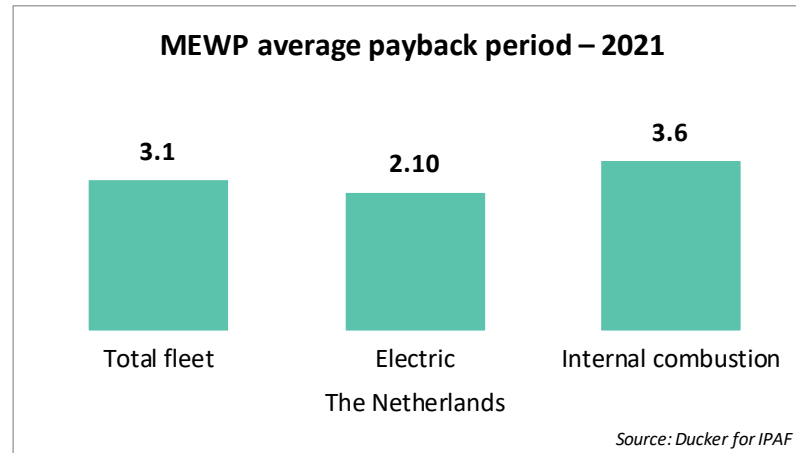
- In 2021, the share of used MEWP purchases returned to pre-pandemic levels as rental companies in the Netherlands prioritised buying new machines.
- Supply-chain delays and increased manufacturer lead times impact the availability of new equipment in 2022, resulting in potential increase in used MEWP purchases in the next year.



The Netherlands – typical payback period

Electric MEWPs on average offer a shorter payback period, owing to better average rental and utilisation rates as well as increasing end-user demand.

- The average MEWP payback period for total fleet as well as each power source individually remained stable across 2021 when compared to previous years.

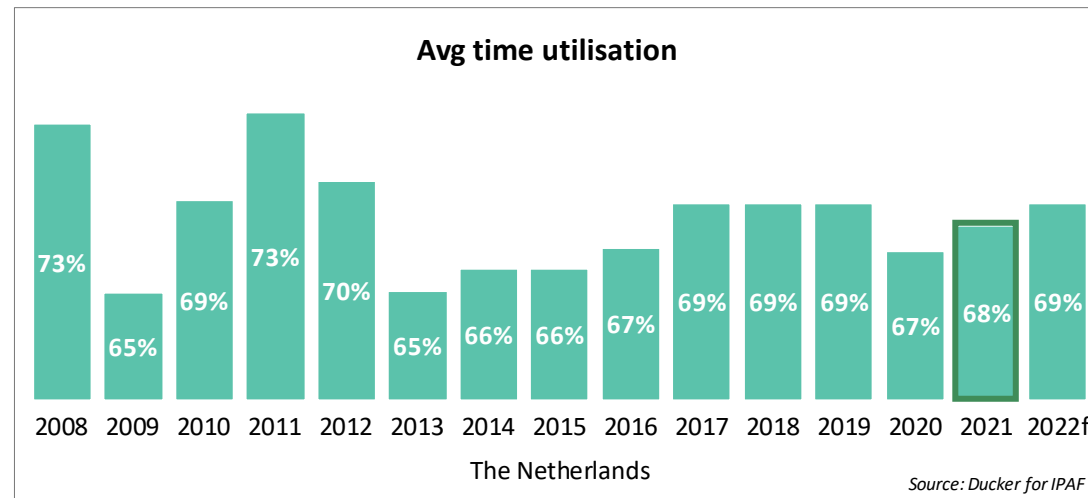


3.1 = 3 years and 1 month

The Netherlands – utilisation rates

In 2021, utilisation rates increased by one per cent on average, owing to healthy levels of activity in essential construction, maintenance and utilities.

- Compared to other countries, rental companies in the Netherlands maintained high utilisation rates, which rose slightly in 2021.
- In 2022, companies expect to reach pre-pandemic utilisation levels owing to new construction projects, as well as the resumption of projects that were suspended during the peak of infections.



Scissors: 68%

Booms: 66%

Definition: Physical number of machines out on hire as % of total number in fleet at any given time.

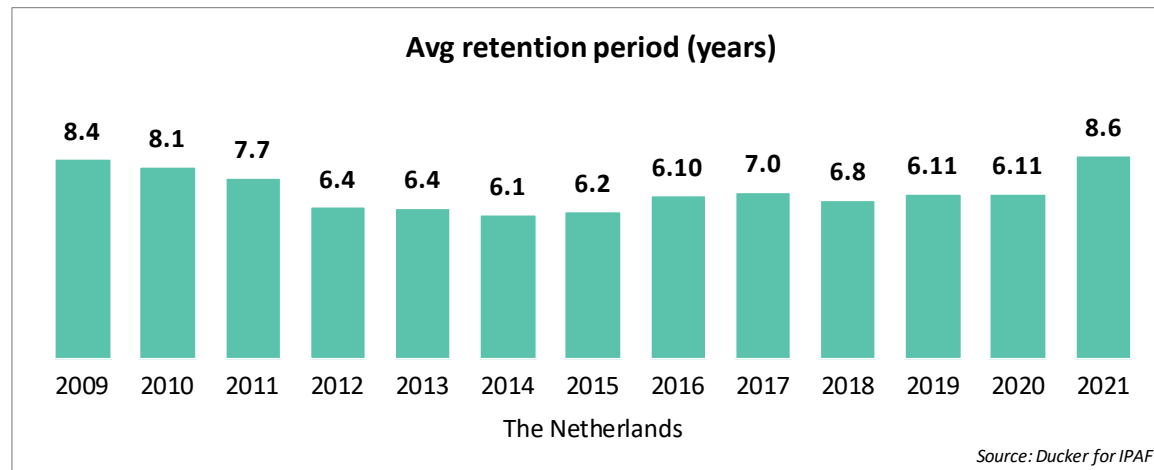


“Utilisation is back to pre-pandemic levels. While replacing older models with alternative energy powered, we are also planning on purchasing more articulated booms, which will allow our boom fleet to be utilised more.”
– MEWP rental company hire manager

The Netherlands – retention period

Average retention period increased by one year and seven months in 2021, which means that MEWPs spend on average eight years and six months in Netherlands rental fleets before being resold.

- In 2021, the average retention period increased significantly to eight years and six months compared to six years and 11 months in 2020.
- Supply-chain delays, increased manufacturer lead times and lower machine utilisation during 2020 all combined to cause rental companies to hold on to equipment for longer than usual.
- Retention period is expected to continue growing over 2022, until new MEWPs become more readily available.



8.6 = 8 years and 6 months

Definition: Period of time that a machine is kept in fleet = selling age if acquired new

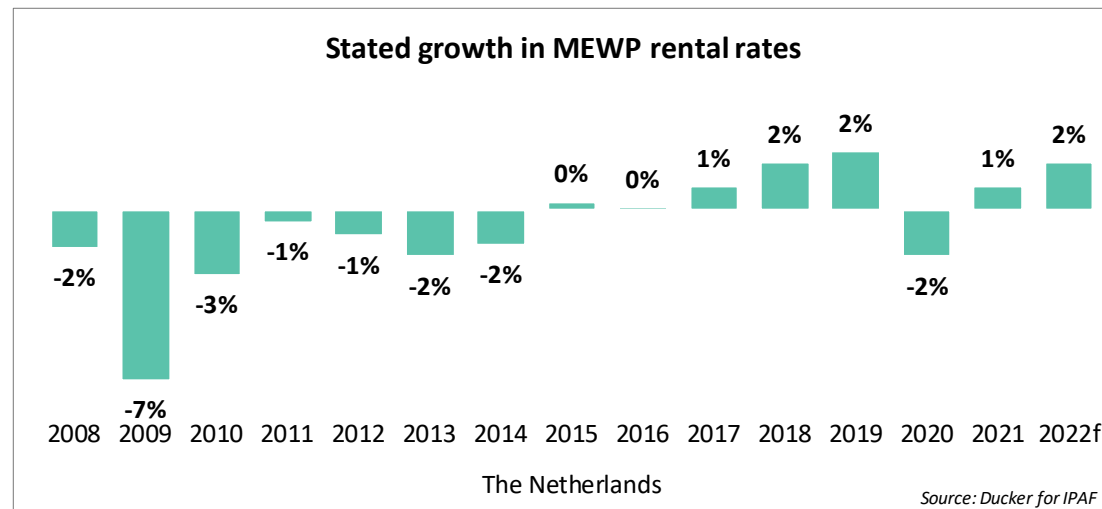


“Retention period will have to be longer than usual because manufacturers are so behind on orders, so we cannot replace old equipment at the rate we normally plan to.” – MEWP rental company fleet manager

The Netherlands – rental rates

Rental rates rose by around one per cent in 2021, owing to the sustained economic recovery and increased confidence in the market’s positive future, with sustained growth forecast for 2022 and beyond.

- In 2021, market has returned to a modest rental rate increase, owing to increased customer demand combined with limited fleet availability.
- Rental rate growth is expected to reach pre-pandemic levels in 2022 with continued growth expected over the next year.



“Rates have risen, but not exceptionally. I think we all had to reduce them before, considering the decline in the amount of work, but at the same time it is natural for prices to increase over time, especially with the move towards electric MEWPs and overall upward price pressures.” – MEWP rental company manager

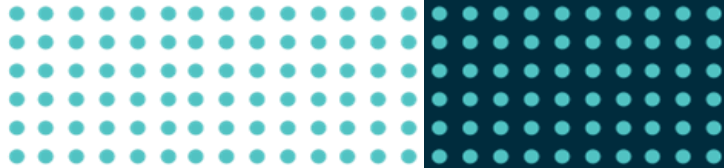


A PERSPECTIVE FROM THE EDITOR OF
ACCESS INTERNATIONAL MAGAZINE
IPAF Powered Access Rental Market
Report 2022 – *THE NETHERLANDS*

- The Netherlands lends itself well to being a hub for the access industry thanks to its extensive sea, air and road links. As such it has become a chosen location for newer manufacturers in the access sector, such as LGMG and Sinoboom, which have their main production facilities in China, while also being home to the European headquarters of established operators including JLG and rental company Riwal.
- According to the Netherlands construction association FMIB, total construction market demand in the country is forecasted to grow in 2022 by a further 10%, but machine supply to the plant hire industry will still be constrained by component availability. Production costs, driven by steel and energy prices, will also continue to increase during 2022, but the FMIB expects a levelling off of both towards the end of this year.
- To put this into further context, the Netherlands has been through its share of pandemic-related lockdowns and restrictions, which means output was down significantly in 2020. However, according to the Committee for European Construction Equipment (CECE), by the end of 2021 construction equipment output had risen by 2%, as opposed to a 1.1% drop in 2020. As a comparison, Germany's construction equipment output rose by 2.8% in 2020, demonstrating how its market was relatively unaffected during the critical Covid months in 2020. However, in the Netherlands construction equipment output is forecast to rise by 3% and 2.5% in 2022 and 2023 respectively, outpacing Germany with its forecasted 2% and 1.55% growth in those two years.
- Due to its position as a leading European rental company and distributor for JLG products, experts at Netherlands-based Riwal can attest to how supply-chain issues have affected the access sector. In February, Wesley Moeliker, Riwal's procurement manager, reported that from 161 spare part items on back-order, 100 of them had unknown lead times, meaning the supplier could not say when those parts would be delivered. For some parts that do have a delivery schedule, they are not expected to arrive until October or November this year. The result of which, is that machines are standing still while awaiting maintenance or repair instead of being out on hire.

These challenges, among others, have changed the rental landscape. Philippe Witte, Riwal's group fleet and technical manager, added that the level of investment in equipment the company sought to make had not changed, but that the process of investment has. It is a seller's market, he said, with the supplier holding most of the cards: "Suppliers understand that it's difficult to negotiate – they can say that if you don't take the products at their price, then your neighbour will."

- Chinese manufacturer Sinoboom's European subsidiary Sinoboom BV is also reflective of the modern access industry. Following a greater adoption of electric equipment, Sinoboom has taken the step in Europe of skipping diesel boom lifts to just offer electric-powered booms, particularly in the short term. The units will be supplied from the manufacturer's Rotterdam location.
- LGMG Europe, which was set up in 2017, is also bringing an ever-expanding product line of MEWPs to the European market through its Netherlands-based division.



APPENDIX
IPAF Powered Access Rental Market
Report 2022 – *THE NETHERLANDS*

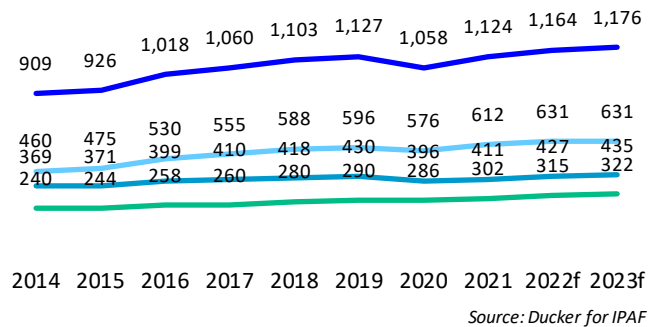
The Netherlands – construction statistics



Total construction output in the Netherlands increased slightly across 2021, owing to the reduction of pandemic-related public health restrictions and pipeline catch-up. GDP per capita saw a strong recovery with an 11% increase.

Europe (10 countries) – Construction data

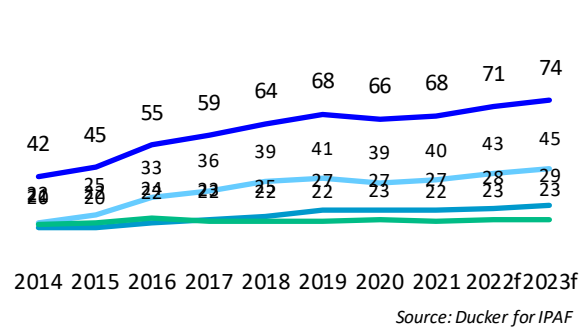
CAGR 21 - 23 = 2.30%



Includes Germany, France, UK, Italy, Spain, The Netherlands and the Nordics

The Netherlands

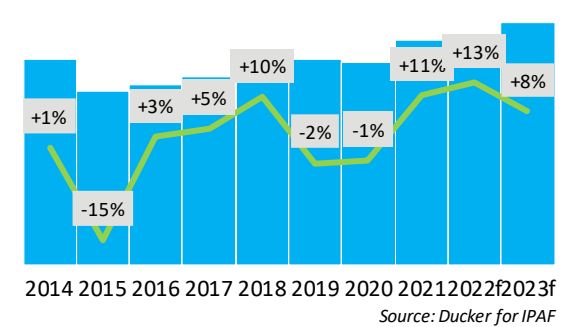
CAGR 21 - 23 = 4.81%



Construction pipeline (billions euros) based on Euroconstruct 2021 figures.

The Netherlands

CAGR 21 - 23 = 3.82%



The Netherlands GDP per Capita YoY % evolution
Source: FrontierView – March 2022.

- Residential construction
- Non-residential construction
- Total construction
- Civil engineering / Major infrastructure

CAGR: Compound annual growth rate



The International Powered Access Federation (IPAF) promotes the safe and effective use of powered access equipment worldwide in the widest sense – through providing technical advice and information; through influencing and interpreting legislation and standards; and through safety initiatives and training programmes.

IPAF is a not-for-profit organisation owned by its members, which include manufacturers, rental companies, distributors, contractors and users. IPAF members operate a majority of the MEWP rental fleet worldwide and manufacture about 90% of platforms on the market.

Visit www.ipaf.org/contact to find details of your nearest office or representative.



RESEARCH & CONSULTING

BANGALORE | BERLIN | DETROIT | LONDON | NEW YORK | PARIS | SHANGHAI

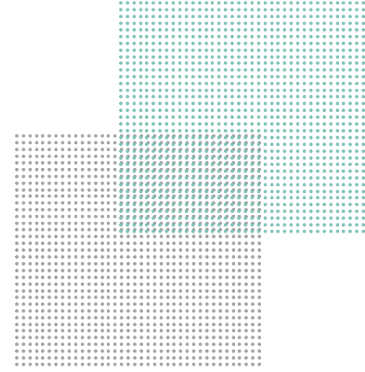
www.ducker.com

IPAF MEMBER - FREE COPY





RESEARCH & CONSULTING



June 2022

IPAF Powered Access Rental Market Report 2022

REGION REPORT – Nordic region

www.ipaf.org/reports



**THE EUROPEAN
ASSOCIATION
AWARDS 2019**

FINALIST
Best Provision of Industry
Information and Intelligence



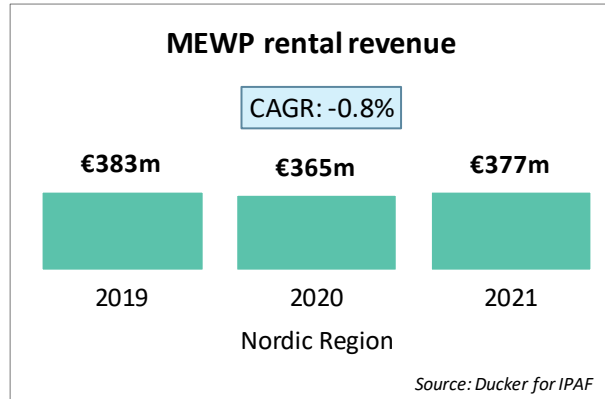
**THE EUROPEAN
ASSOCIATION
AWARDS 2018**

BRONZE
Best Provision of Industry
Information and Intelligence

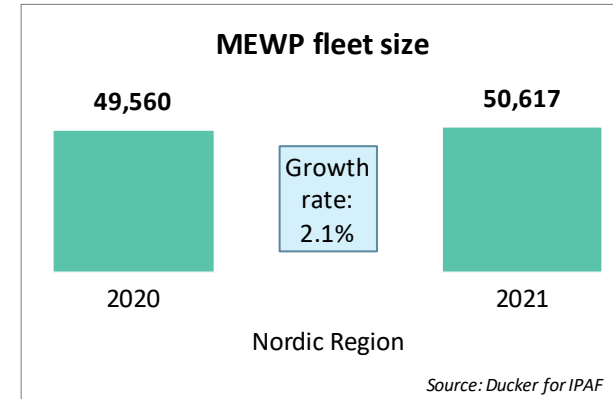
IPAF MEMBER - FREE COPY IPAF has been working with Ducker to create these exclusive industry reports since 2009

Nordic region – key findings

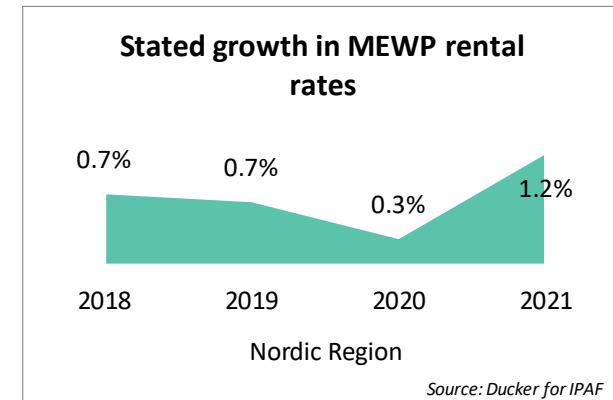
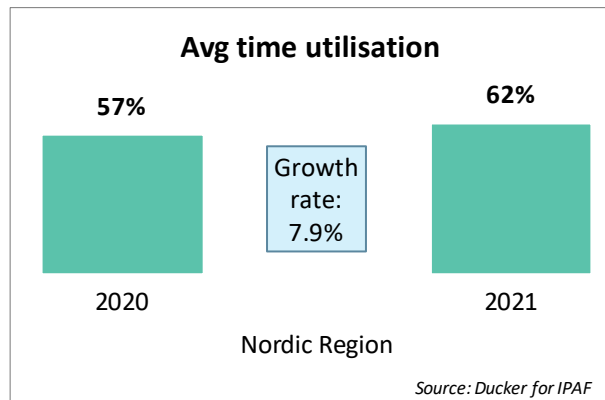
The Nordic MEWP rental market largely recovered from the pandemic across 2021, owing mainly to positive rental rates growth and a five per cent increase in utilisation rate.



CAGR: Compound annual growth rate



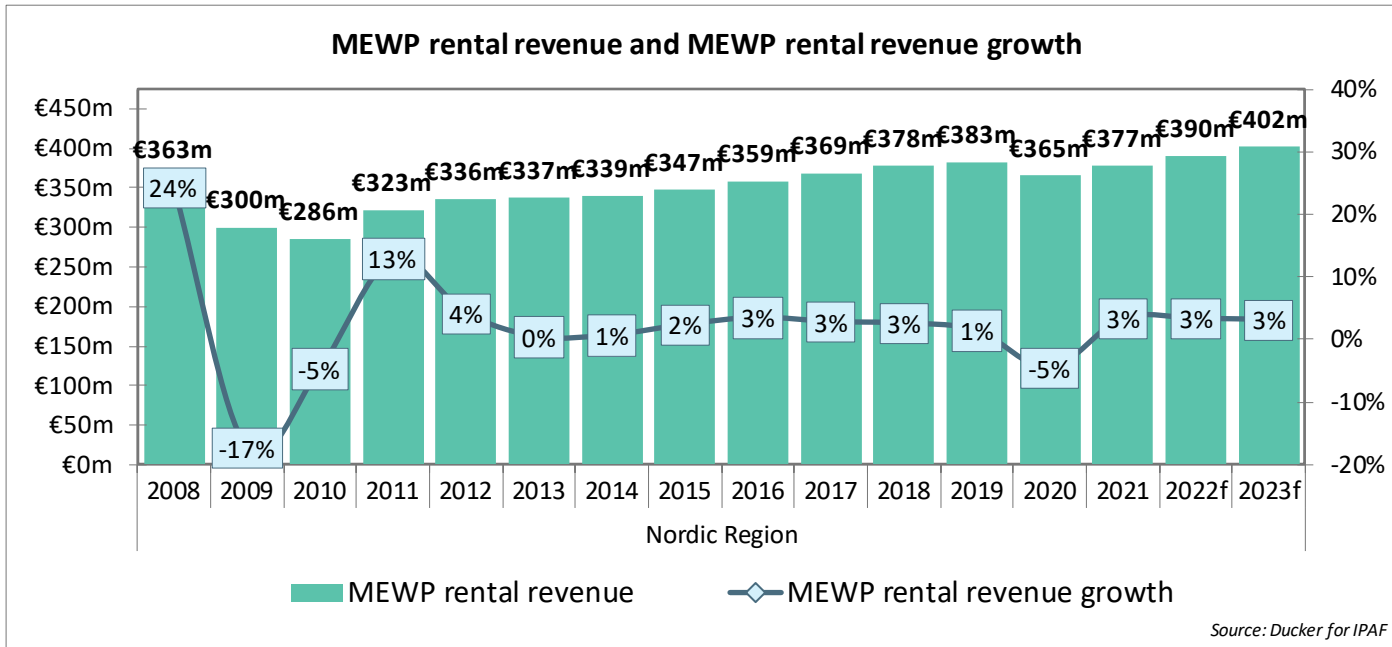
- In 2021, MEWP rental revenue recovered quickly as economic activity in most end-user applications resumed in the second quarter of the year.
- Increased utilisation supported growth in rental rates despite the fact there was two per cent total fleet growth.



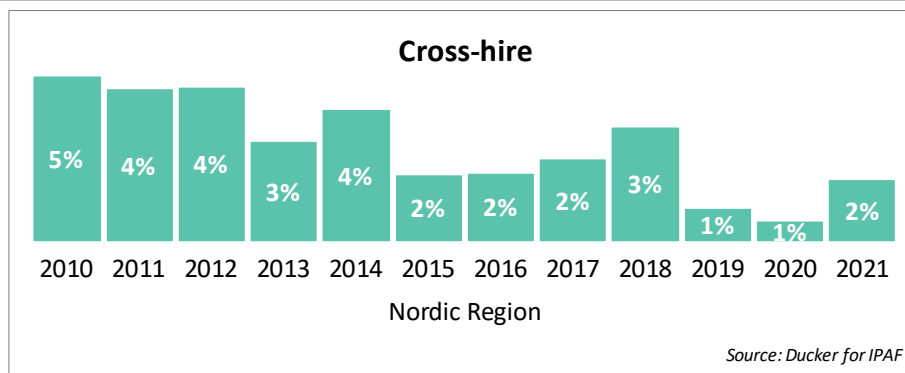
Nordic Region – rental market value and growth



Overall revenue across the region rose by three per cent in 2021, and the market is expected to surpass pre-pandemic levels by the end of 2022 if the recovery is not impacted by rising global economic uncertainty.



- In 2021, the Norwegian and Swedish MEWP rental markets recovered quickly to grow at four and five per cent respectively.
- However, businesses in Finland and Denmark were still under the impact of some pandemic restrictions and grew by two and one per cent.
- The level of cross-hire increased, owing to high demand and longer manufacturer lead times.

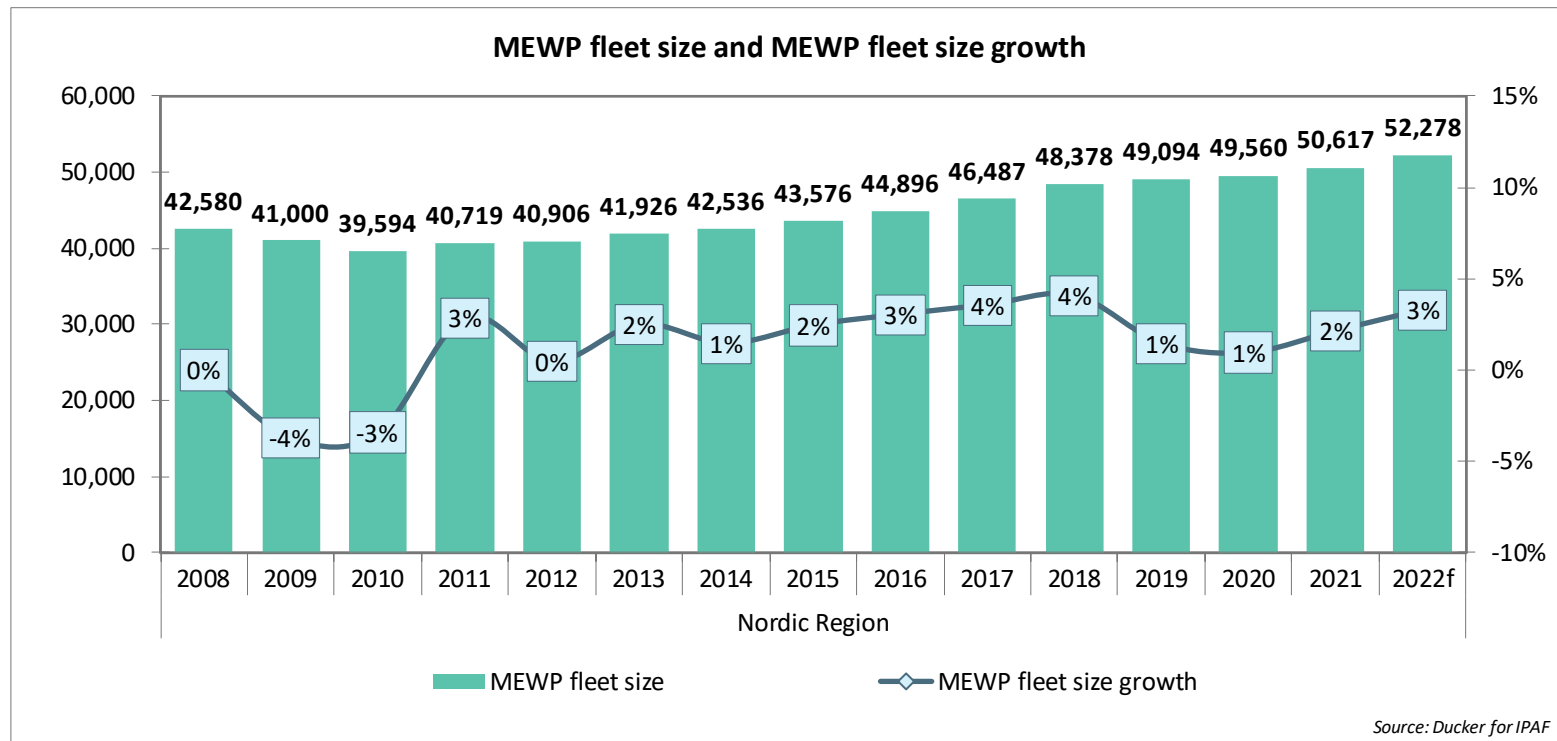


Nordic Region – market size in units



The total size of the Nordic MEWP fleet increased by two per cent in 2021 – or more than a thousand units – as many companies resumed pre-pandemic investment plans when business activity picked up from the spring of 2021.

- After two years of limited growth, total fleet size in the region is increasing on a faster rate again: After cautious investment in 2019 and 2020, companies again began procuring new machines to satisfy rising demand. This indicator is forecast to increase further in 2022, if it is not hampered by ongoing supply-chain problems.



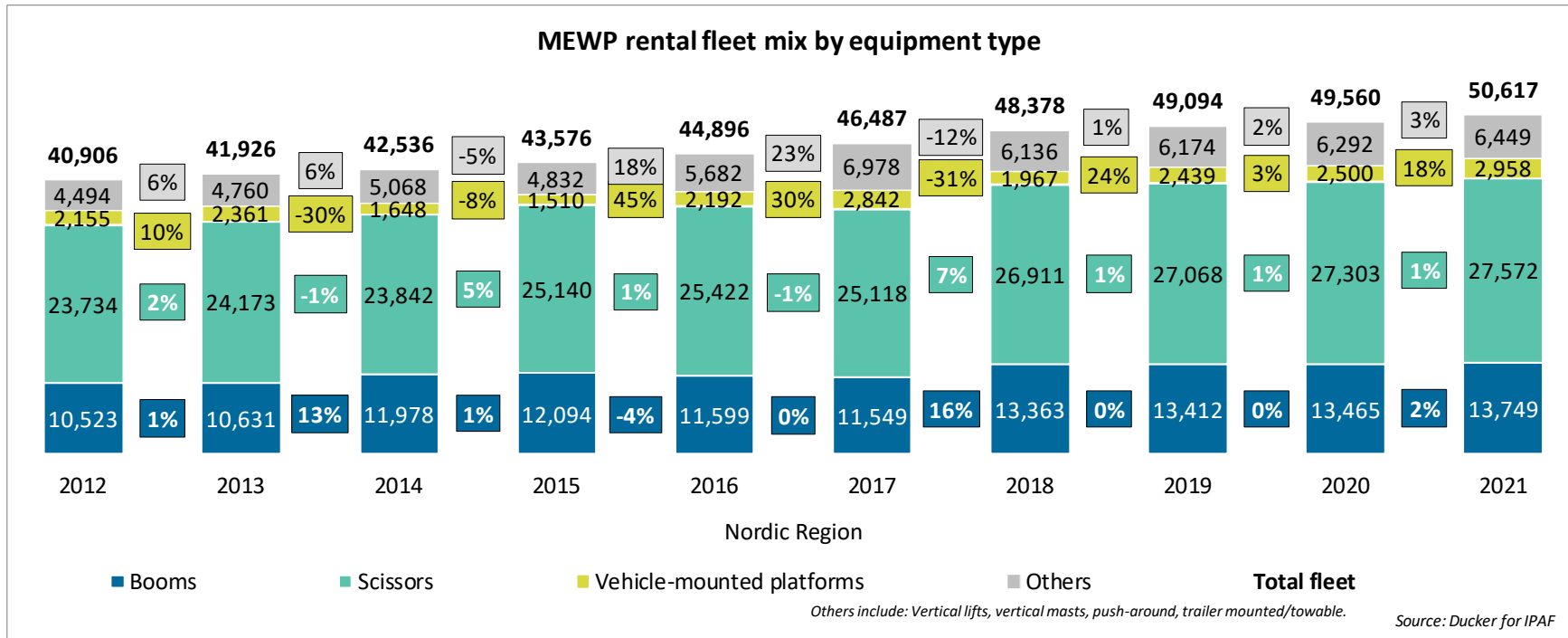
Included are powered access lifts: All booms, scissor lifts and vertical masts
Excluded: Low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, and MCWPs.

Nordic Region – market size in units



The Nordic market remains dominated by scissor-type MEWPs. However, double-digit growth of vehicle-mounted platforms resumed in 2021, reflecting end users’ demand for this particular MEWP type across the region.

- At the end of 2021, scissors account for 54% of the Nordic rental fleet, though the boom fleet grew at a faster rate.
- The share of vehicle-mounted platforms within fleet mix increased from four and five per cent over the year: This category of machine is perceived as both versatile and easy to transport by end users.



Included are powered access lifts: All booms, scissor lifts and vertical masts
Excluded: Low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, and MCWPs.

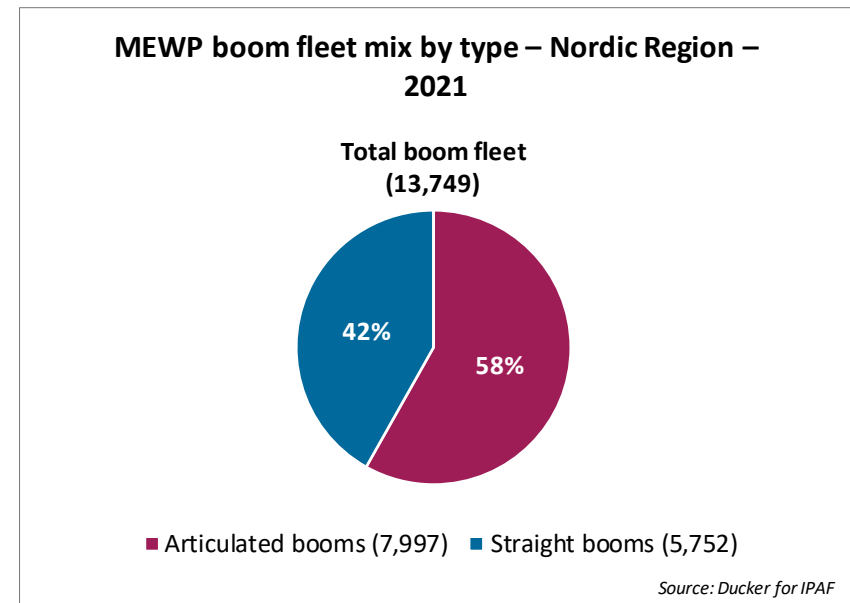
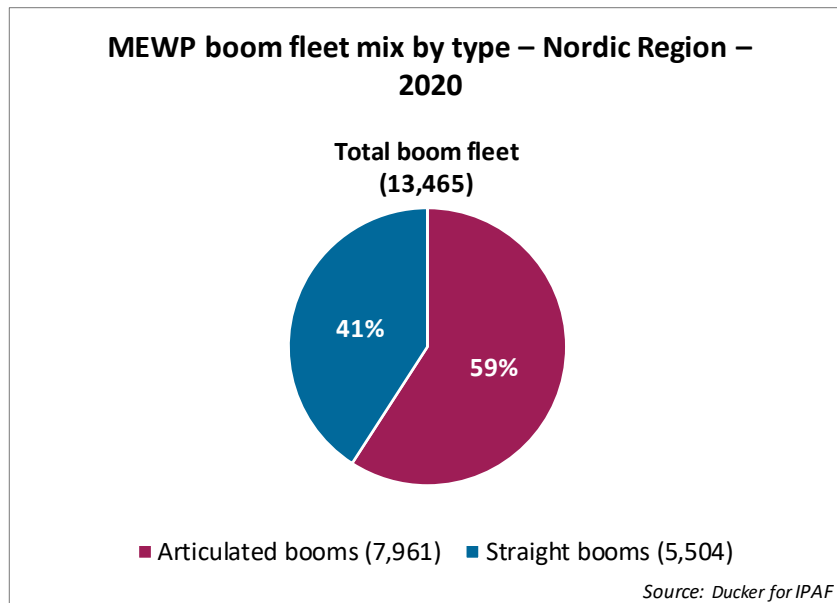
+X% % unit growth, eg both scissors and booms fleet increased by 7% from 2017 to 2018.

“Vehicle-mounted platforms and trailer-mounted lifts are now commonly requested for more easy and flexible transportation.” – MEWP rental company manager

Nordic Region – market size in units

In the past year, the total number of booms in the Nordic region changed by fewer than three hundred units, with articulated booms accounting for 58% of the total boom fleet, down slightly on 2020 (59%).

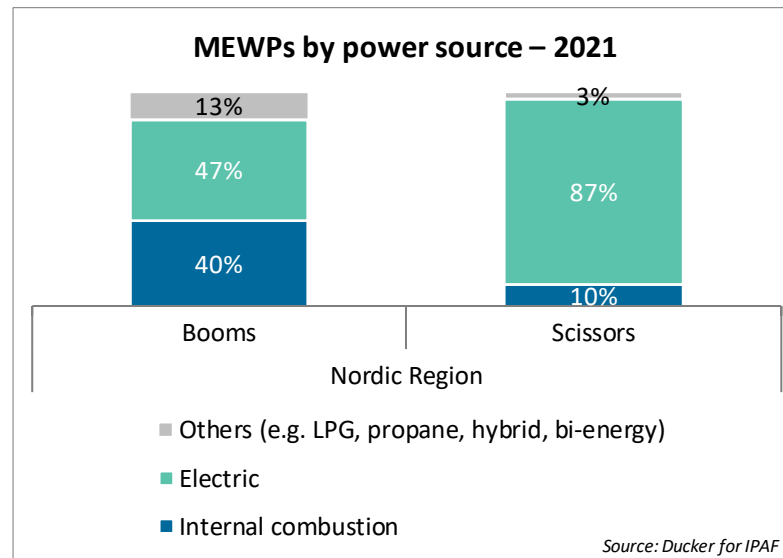
- By the end of 2021, the total boom fleet size in the Nordic region stood at around 13,749 units, with articulated booms being favoured over straight booms, accounting for an approximate 60:40 ratio in the total boom fleet.



Nordic Region – power sources

The Nordic countries have traditionally been early adopters of green technologies, and national restrictions on internal-combustion-powered equipment tend to be tighter than in the rest of Europe.

- The penetration of alternative energy sources as a share of the total fleet in Nordic countries is by far the highest in Europe, and indeed the world.
- The share of electric booms in total boom fleet grew by ten percentage points to just under half (47%) by the end of 2021, and the share of hybrid-powered MEWPs more than doubled, reaching 13%.



“

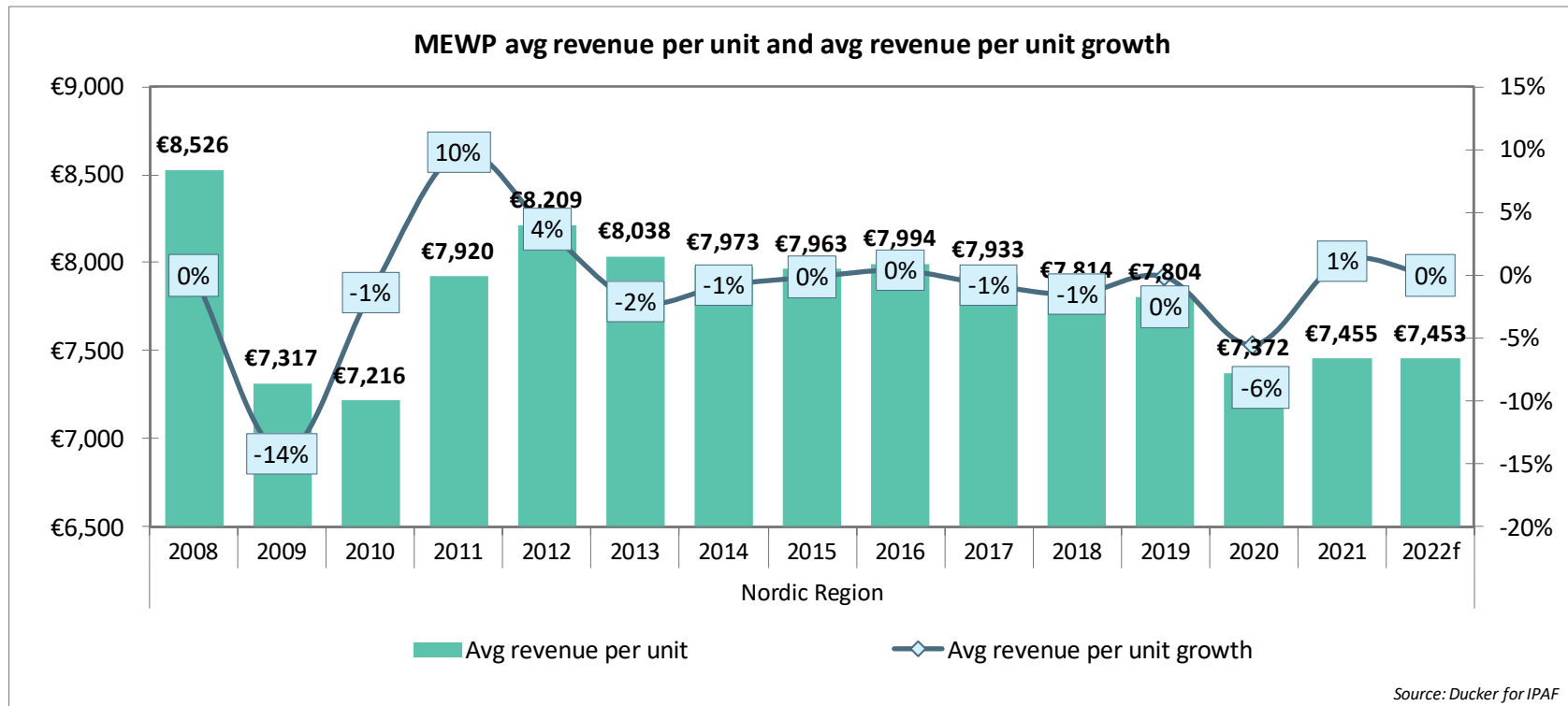
“There is a clear trend towards electric-powered equipment, but hybrid models are in demand, too. We keep diesel-driven machines for projects in remote areas where charging electric machines is more challenging.” – MEWP rental company fleet manager

Nordic Region – revenue per unit



Average revenue per MEWP unit in the Nordic region in 2021 stood at €7,455 per year, representing a one per cent increase on 2019's figure, owing to post-pandemic recovery.

- As utilisation rates went up in 2021, average revenue per MEWP unit increased by around one per cent year-on-year.
- Average revenue is expected to stagnate in 2022, owing to increasing fleet size in the region.



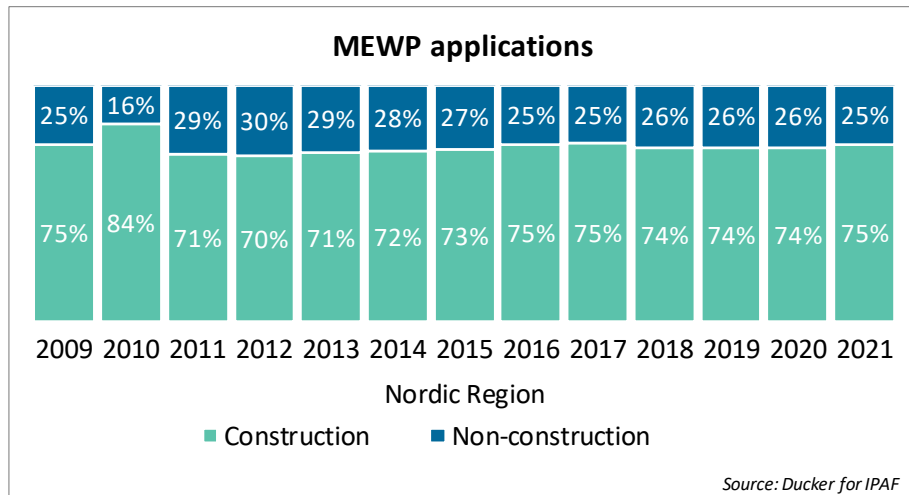
Included are powered access lifts: all booms, scissor lifts and vertical masts
Excluded: low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes and MCWPs.

Nordic Region – applications

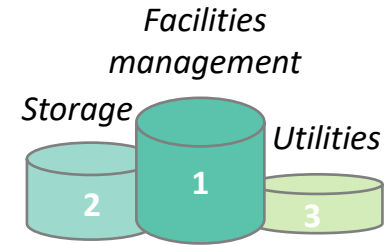


Construction applications are the prevalent end-use across the region, accounting for 75% of total MEWP rental revenue. This has changed little across the past five years.

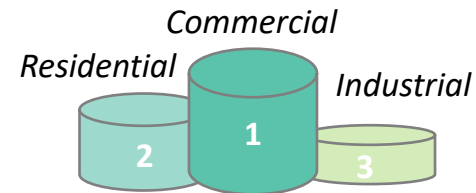
- Surveyed companies reported an increase in residential construction activity, owing to energy-saving renovation projects (eg replacement of glazing and insulation). Construction of data centres is noted as an emerging and ongoing revenue stream within wider construction.
- In terms of non-construction applications, facilities management remains the primary source of revenue.



Main non-construction sub-sectors



Main construction sub-sectors



Share of rental revenue:

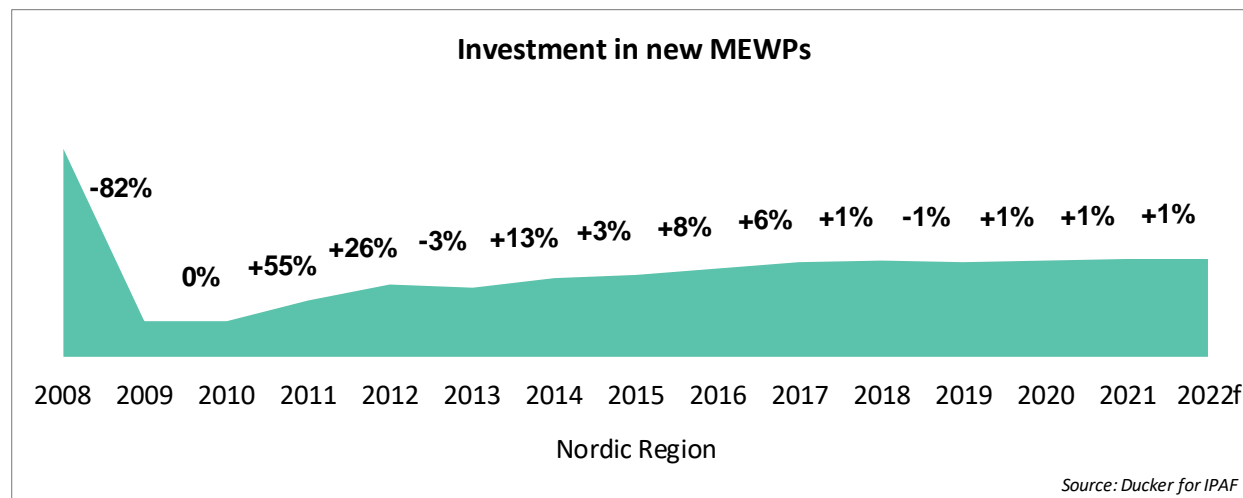
Non-construction includes industry, maintenance, cleaning, utilities, events.
Construction includes new-build and renovation; including residential, commercial, retail and industrial.

Nordic Region – investment



Levels of investment in the region remain robust. However, many respondents reported concern about whether manufacturers will be able to deliver the ordered quantity of MEWP equipment in 2022, owing to supply chain issues.

- Investment continued growing at around one per cent across 2021, and has remained stable since 2019.
- Taking into account global supply-chain disruptions, rental companies have been placing procurement orders for the year 2022 well in advance in order to secure equipment delivery. It remains to be seen if, in the face of growing financial uncertainty and the war in Ukraine, equipment manufacturers will be able to catch up on orders.

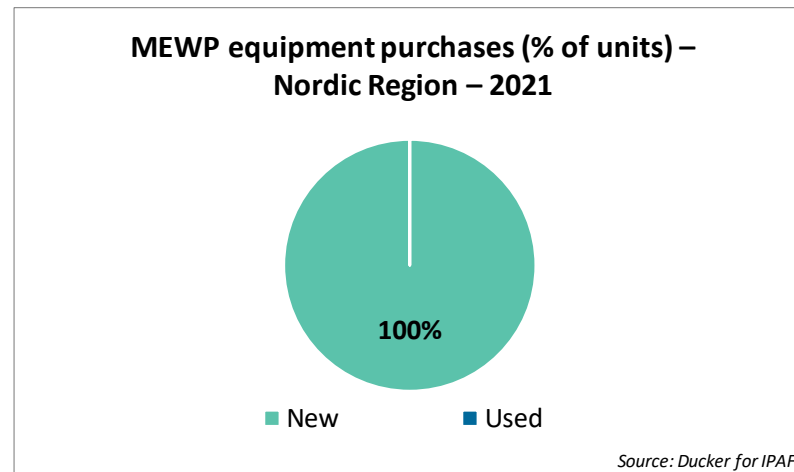


“Even if this would be likely to drive utilisation rates down, everyone wanted to increase fleet size in the face of longer lead times on ordering new machines from manufacturers.” – MEWP rental company fleet manager

Nordic Region – equipment purchases

Rental companies in the Nordic region tend to focus on purchasing new equipment only, as it meets customer demand, complies with environmental protection regulations and is expected to have a higher resale value in future.

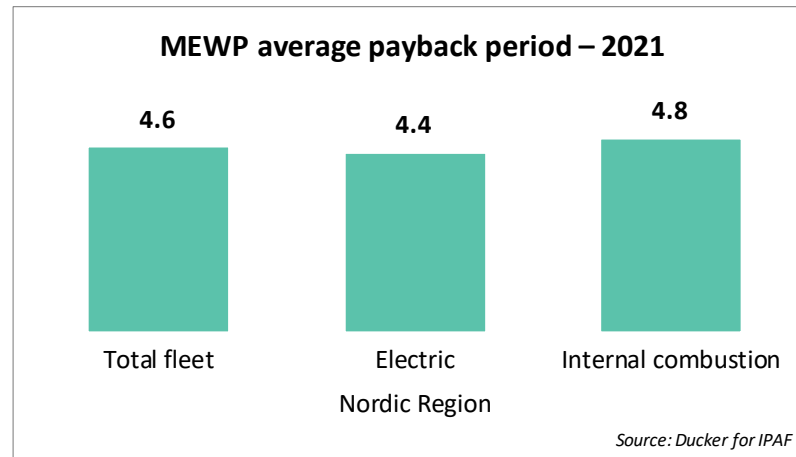
- Nordic rental companies typically only buy new equipment, as it offers the most advanced clean power sources and is therefore more environmentally friendly to operate, in line with customer demand in the region.
- Considering the CO₂ emissions regulations, older MEWPs are becoming less attractive because they are not in such high demand, are less versatile and less profitable when it comes to resale.



Nordic Region – typical payback period

As part of the ongoing post-pandemic economic recovery, typical payback period returned to the 2019 average of around four and a half years.

- Owing to the recovery of economic activity across the region, average return on investment period was reduced by 11 months from the average figure in 2020, returning to 2019 levels.
- Electric-powered machines are becoming more readily available, but are still rented out at a price premium, making them more profitable than internal-combustion powered units despite their higher initial procurement cost.

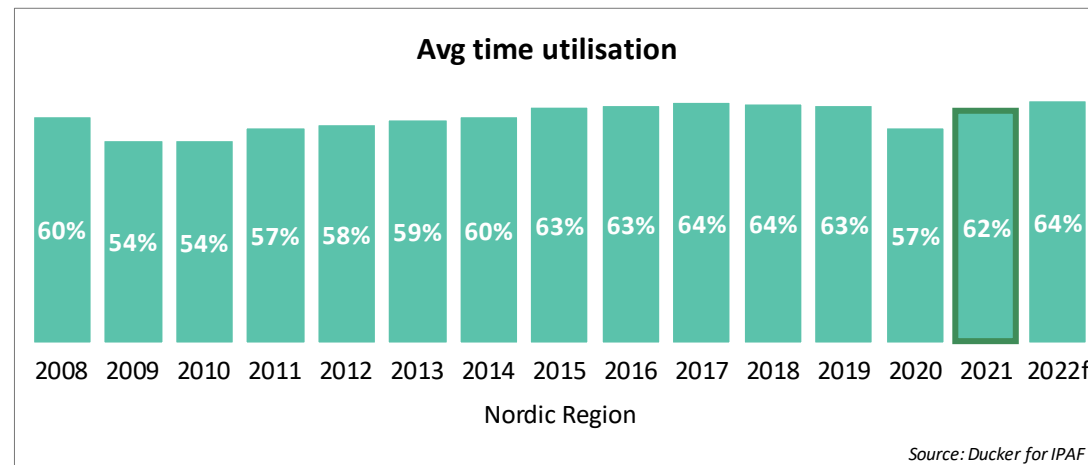


4.6 = 4 years and 6 months

Nordic Region – utilisation rates

Average utilisation rates across the region grew by five per cent in 2021. The impact of fleet growth was effectively nullified by increased demand from the construction industry, driven by overall economy recovery.

- Rental companies experienced strong growth in utilisation rates in 2021, as public health restrictions were loosened progressively during the year and commercial and events activities picked up again.
- Of the countries under study, Danish companies said they were experiencing a comparatively slow increase in utilisation rate, as stricter limitations to public and commercial activities were still in force during the year.



Scissors: 62%

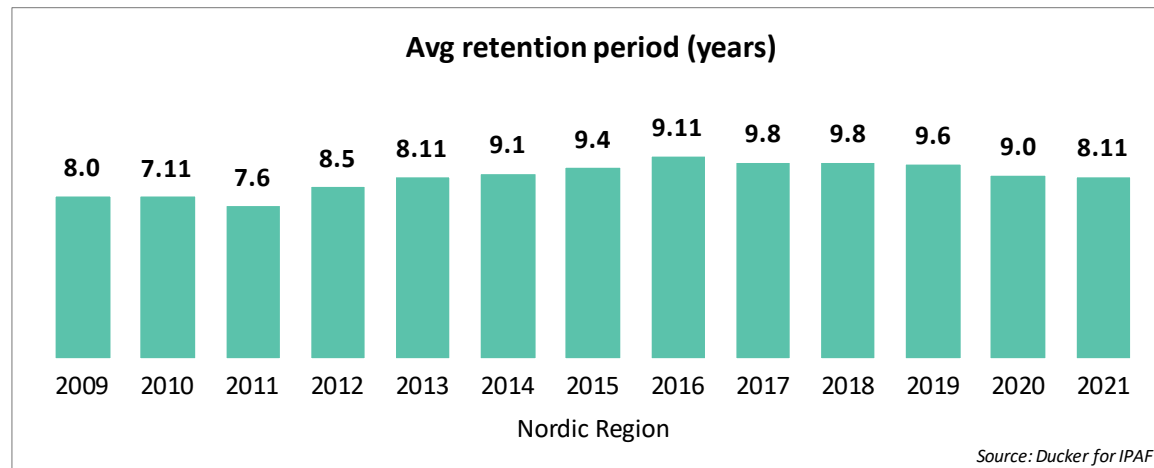
Booms: 61%

Definition: Physical number of machines out on hire as % of total number in fleet at any given time.

Nordic Region – retention period

The average retention period across the Nordic region has been declining for several years in a row, driven by progressive fleet electrification, which in turn has seen companies trying to divest themselves of older MEWPs.

- Average retention period fell below nine years in 2021.
- Companies in the region are focused on reducing fleet age for the sake of lower environmental impacts through transition to alternative energy sources. MEWPs with internal-combustion engines are being replaced ahead of schedule and steadily phased out of most fleets.
- Pandemic-related difficulties in procuring new machines had no noticeable impact in the Nordic countries.



8.11 = 8 years and 11 months

Definition: Period of time that a machine is kept in fleet = selling age if acquired new

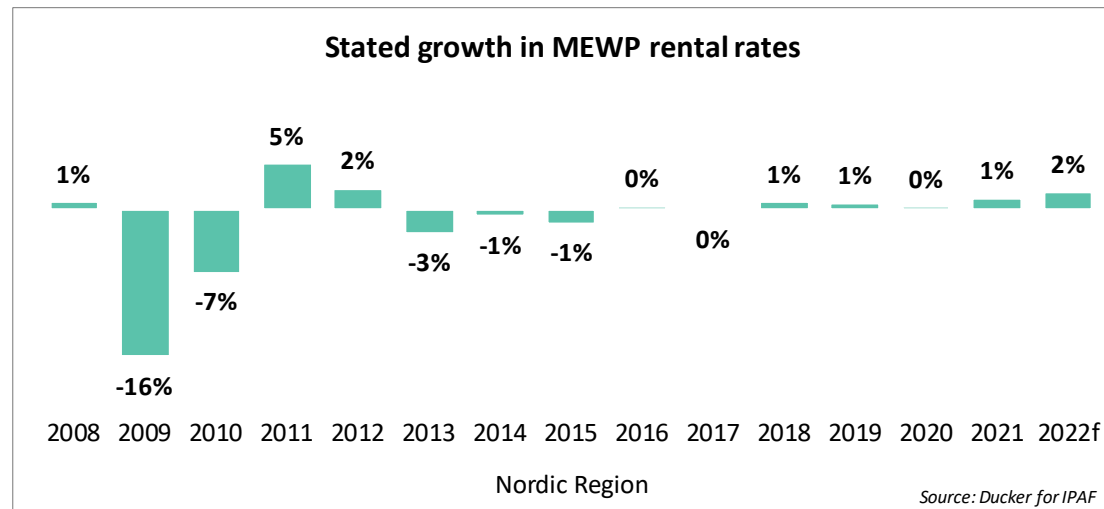


“We used to keep them longer [up to 120 months] but we usually turn them in or resell earlier than that now.”
– MEWP rental company manager

Nordic Region – rental rates

After a decade of minimal fluctuation, rental rates are expected to grow by around two per cent in 2022, driven primarily by global inflation and fuel price increases.

- Historically, the annual adjustment in rental rates remained fairly minimal, but the rate of increase is expected to speed up and possibly exceed two per cent in 2022, depending on the effects of inflation and economic uncertainty.
- Rental rates are influenced by two opposing trends: Price pressure in the market, created by rental company consolidation, and relatively slow fleet growth, which tends to drive up rental companies' bargaining power.



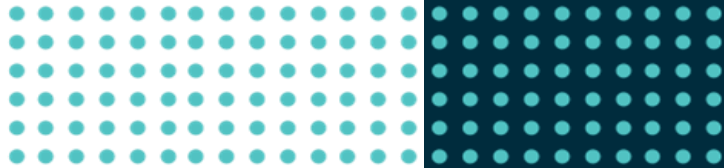


A PERSPECTIVE FROM THE EDITOR OF
ACCESS INTERNATIONAL MAGAZINE
IPAF Powered Access Rental Market
Report 2022 – *Nordic Region*

IPAF MEMBER - FREE COPY

- The International Monetary Fund (IMF) said in recent weeks that beyond the suffering and humanitarian crisis from the war in Ukraine, the entire global economy will feel the effects of slower growth and faster inflation, adding that: “Neighbouring economies in particular will grapple with disrupted trade, supply chains, and remittances as well as an historic surge in refugee flows.” It is difficult to assess how significantly the war will affect the aerial platform rental sector long-term, however the ramifications of the conflict are bound to inflict a significant toll in both a business and social context.
- One example of many companies across Europe halting business activities in Russia and Belarus following the onset of the war is Finland-based Dinolift. The company’s managing director, Karin Nars, who also became IPAF President in March 2022, shared her strong personal views on the subject, and added that the company expected costs of components and lead times to rise as a result: “Supply-chain logistics will be even more difficult than they already were. It is hard to know the long-term consequences right now of this war, but as we know uncertainty is never good for business.”
- Looking at the broader picture, confidence in the rental sector has been relatively high. The Rental Tracker, organised by the European Rental Association (ERA) and International Rental News (IRN), found that Nordic countries in the first quarter of 2022 are more confident than their counterparts in southern Europe. “In every measure, their confidence levels have improved since Q2 2021,” it said. This is most notable in their investment intentions, with 76% expecting to spend more this year than last.
- In recent months, business activity has been bustling across the region. In March, French rental major Kiloutou made its first entry into Denmark and its largest acquisition to date with the buyout of the country’s biggest rental company GSV from private equity firm Catacap, including its 22,000-strong fleet.

- That deal followed the announcement in February that Finnish rental company Ramirent, part of the Loxam group, had expanded its business with events rental supplier Festivaalisähkö Oy. In addition, Cramo agreed to buy Norwegian rental companies Lambertsson and Kranpunkten (the Swedish Lambertsson and Kranpunkten businesses were not included in the deal).
- Manufacturers are also seeing the advantages of investing in the Nordic countries. In the first half of 2022, Manitou Group acquired a majority shareholding in its Finnish dealer Lifttek, based near Helsinki as part of a long-term strategy to strengthen its foothold in the region. In addition, JLG appointed rental group Riwal as its distributor for Norway. Pedro Torres, CEO of Riwal, said: “Our highly motivated teams in the Nordic region will be able to extensively develop the local access equipment business, which has great potential as new equipment purchases are increasingly prevalent alongside traditional used equipment procurement.”
- The Nordic countries have long been leaders in the adoption of green technology, with the rental industry being no exception. As an example, and following Oslo’s edict that the building and construction industry must be emissions-free by 2025, Ramirent has established its first ‘green shift’ customer centre in the Norwegian city by transforming its Alnabru branch. It will be staffed by employees clad in green uniforms and will stock Ramirent’s entire portfolio of low-carbon machinery and biofuel services. Ramirent is also collaborating with BKK/Eviny to provide electrical charging capabilities: “We know the largest CO₂ emissions occur through transport at certain times of the day.”
- Complementing their environmental push, Nordic countries are also commonly pushing the boundaries of technology. The organisers of Bauma Munich say the development of autonomous and semi-autonomous construction machines is likely to be one of the major talking points at the event. In this context, Norwegian Robotics specialist nLink has launched a robotic aerial lift that is combined with artificial intelligence to initially be used for high-pressure washing applications. It is based on a Genie S-80 J boom lift provided by local MEWP distributor Hybeko and demonstrates the next step in MEWP development.



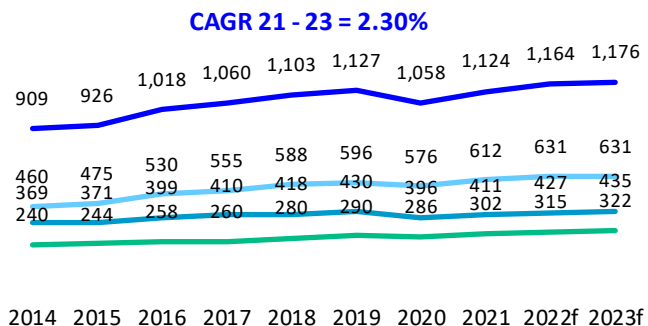
APPENDIX
IPAF Powered Access Rental Market
Report 2022 – *Nordic Region*

Norway – construction statistics



Norway's construction industry output surpassed pre-pandemic levels. Growth in the industry was mainly driven by the easing of public health restrictions and increases in residential construction during the first half of 2021.

Europe (10 countries) – Construction data



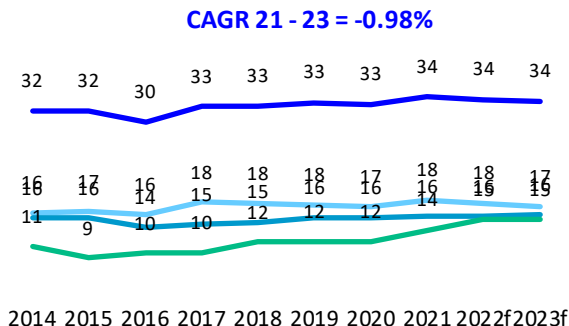
Source: Ducker for IPAF

Includes Germany, France, UK, Italy, Spain, The Netherlands and the Nordics

- Residential construction
- Non-residential construction
- Total construction
- Civil engineering / Major infrastructure

CAGR: Compound annual growth rate

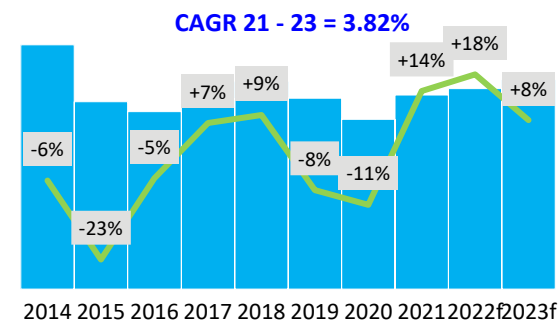
Norway



Source: Ducker for IPAF

Construction pipeline (billions euros) based on Euroconstruct 2021 figures.

Norway



Source: Ducker for IPAF

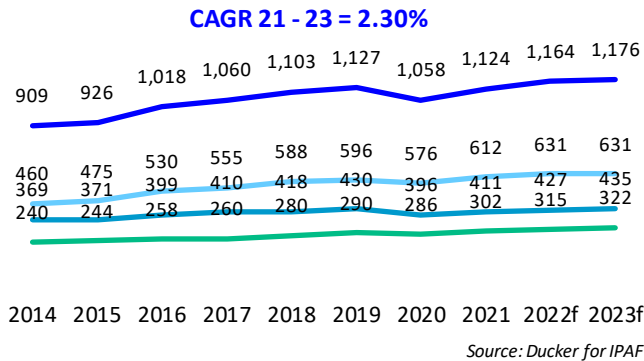
Norway GDP per Capita YoY % evolution
Source: FrontierView – Sept 2021.

Finland – construction statistics



In 2021, construction growth in Finland was driven mainly by the easing of pandemic-related constraints on activity, as well as government investment in improving national transport and energy infrastructure.

Europe (10 countries) – Construction data

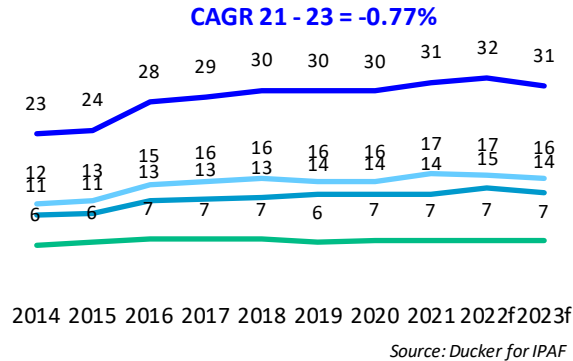


Includes Germany, France, UK, Italy, Spain, The Netherlands and the Nordics

- Residential construction
- Non-residential construction
- Total construction
- Civil engineering / Major infrastructure

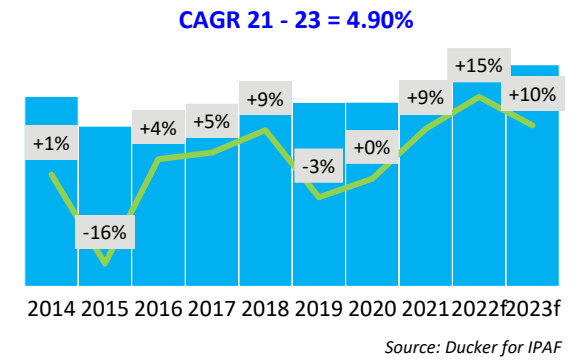
CAGR: Compound annual growth rate

Finland



Construction pipeline (billions euros) based on Euroconstruct 2021 figures.

Finland



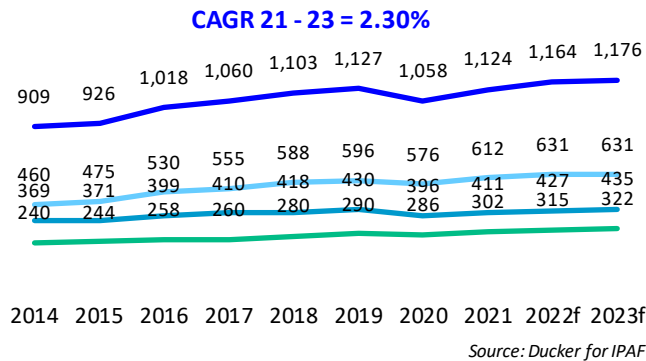
Finland GDP per Capita YoY % evolution
Source: FrontierView – Sept 2021.

Sweden – construction statistics



The Swedish construction industry sustained activity through the pandemic better than most. Construction output wasn't severely disrupted, owing to relatively moderate restrictions in 2020, and resumed rapid growth in 2021.

Europe (10 countries) – Construction data

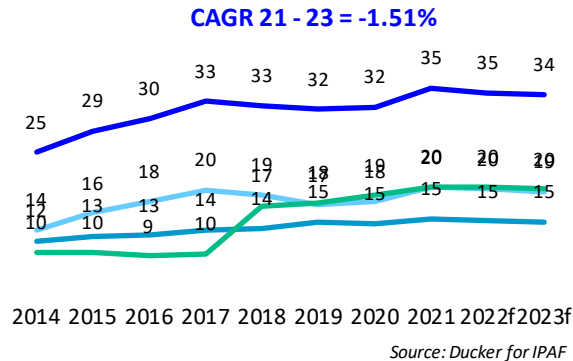


Includes Germany, France, UK, Italy, Spain, The Netherlands and the Nordics

- Residential construction
- Non-residential construction
- Total construction
- Civil engineering / Major infrastructure

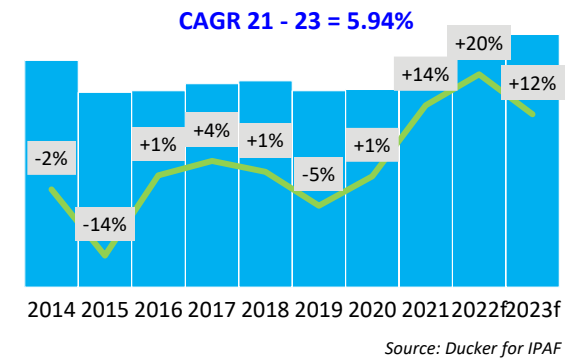
CAGR: Compound annual growth rate

Sweden



Construction pipeline (billions euros) based on Euroconstruct 2021 figures.

Sweden



Sweden GDP per Capita YoY % evolution
Source: FrontierView – Sept 2021.

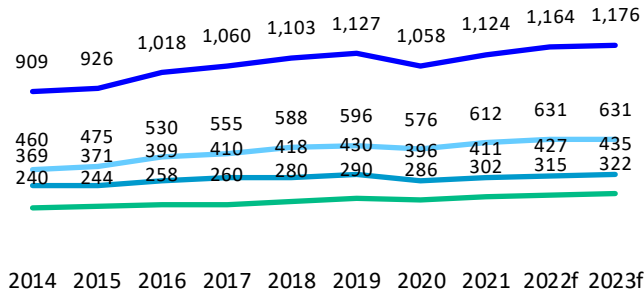
Denmark – construction statistics



The construction industry in Denmark continued to thrive in 2021, driven by very high demand for new housing in metropolitan areas. The year 2022 is forecast to be notable for increased amounts of renovation activity.

Europe (10 countries) – Construction data

CAGR 21 - 23 = 2.30%



Source: Ducker for IPAF

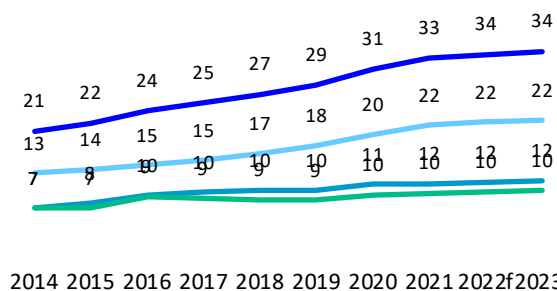
Includes Germany, France, UK, Italy, Spain, The Netherlands and the Nordics

- Residential construction
- Non-residential construction
- Total construction
- Civil engineering / Major infrastructure

CAGR: Compound annual growth rate

Denmark

CAGR 21 - 23 = 1.86%

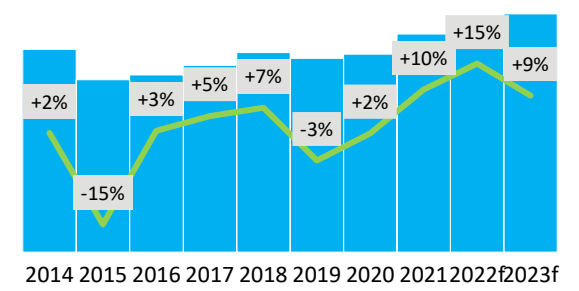


Source: Ducker for IPAF

Construction pipeline (billions euros) based on Euroconstruct 2021 figures.

Denmark

CAGR 21 - 23 = 4.50%



Source: Ducker for IPAF

Denmark GDP per Capita YoY % evolution
Source: FrontierView – Sept 2021.



The International Powered Access Federation (IPAF) promotes the safe and effective use of powered access equipment worldwide in the widest sense – through providing technical advice and information; through influencing and interpreting legislation and standards; and through safety initiatives and training programmes.

IPAF is a not-for-profit organisation owned by its members, which include manufacturers, rental companies, distributors, contractors and users. IPAF members operate a majority of the MEWP rental fleet worldwide and manufacture about 90% of platforms on the market.

Visit www.ipaf.org/contact to find details of your nearest office or representative.



RESEARCH & CONSULTING

BANGALORE | BERLIN | DETROIT | LONDON | NEW YORK | PARIS | SHANGHAI

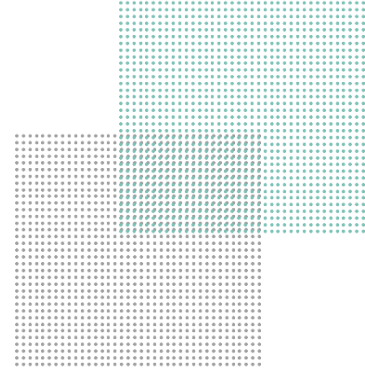
www.ducker.com

IPAF MEMBER - FREE COPY





RESEARCH & CONSULTING



June 2022

IPAF Powered Access Rental Market Report 2022

COUNTRY REPORT – SPAIN

www.ipaf.org/reports



**THE EUROPEAN
ASSOCIATION
AWARDS 2019**

FINALIST
Best Provision of Industry
Information and Intelligence



**THE EUROPEAN
ASSOCIATION
AWARDS 2018**

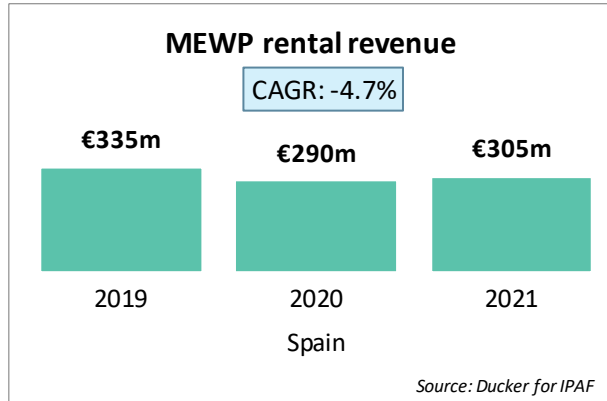
BRONZE
Best Provision of Industry
Information and Intelligence

IPAF MEMBER - FREE COPY IPAF has been working with Ducker to create these exclusive industry reports since 2009

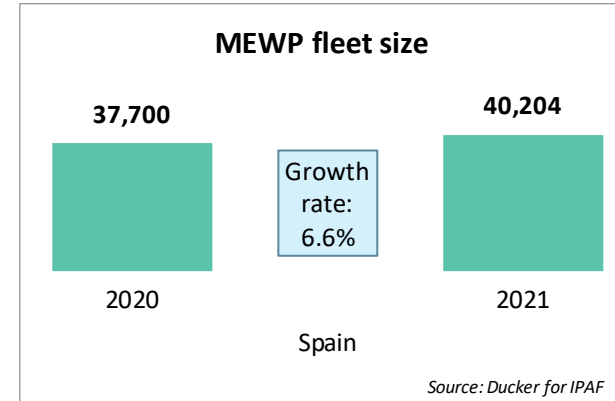
Spain – key findings



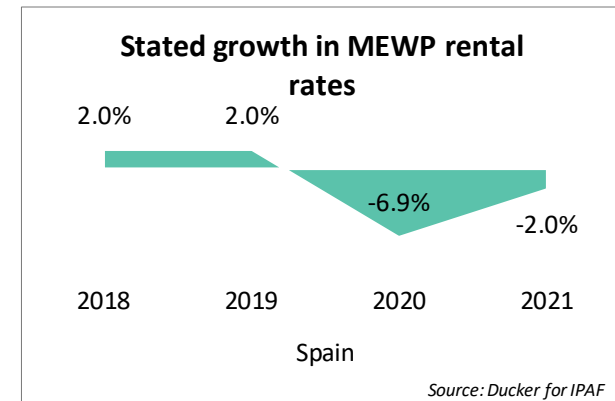
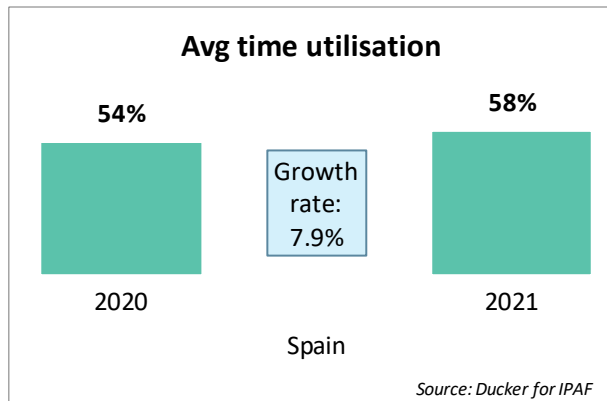
Spanish MEWP rental revenue partially recovered in 2021, driven by improved utilisation rates and moderate fleet expansion. Early developments in 2022 indicate that this will be an even stronger year of recovery.



CAGR: Compound annual growth rate



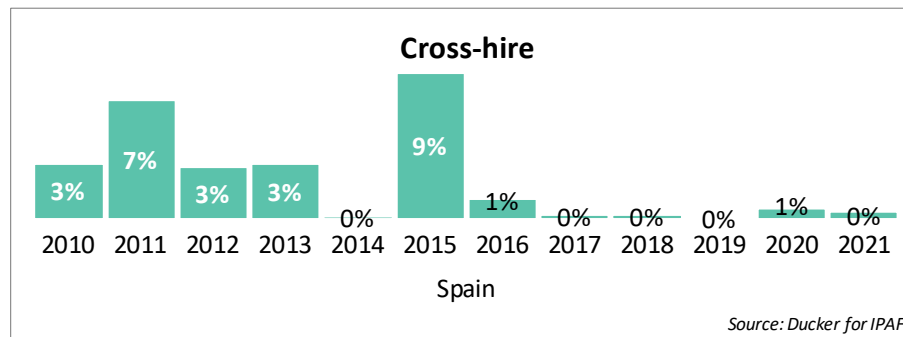
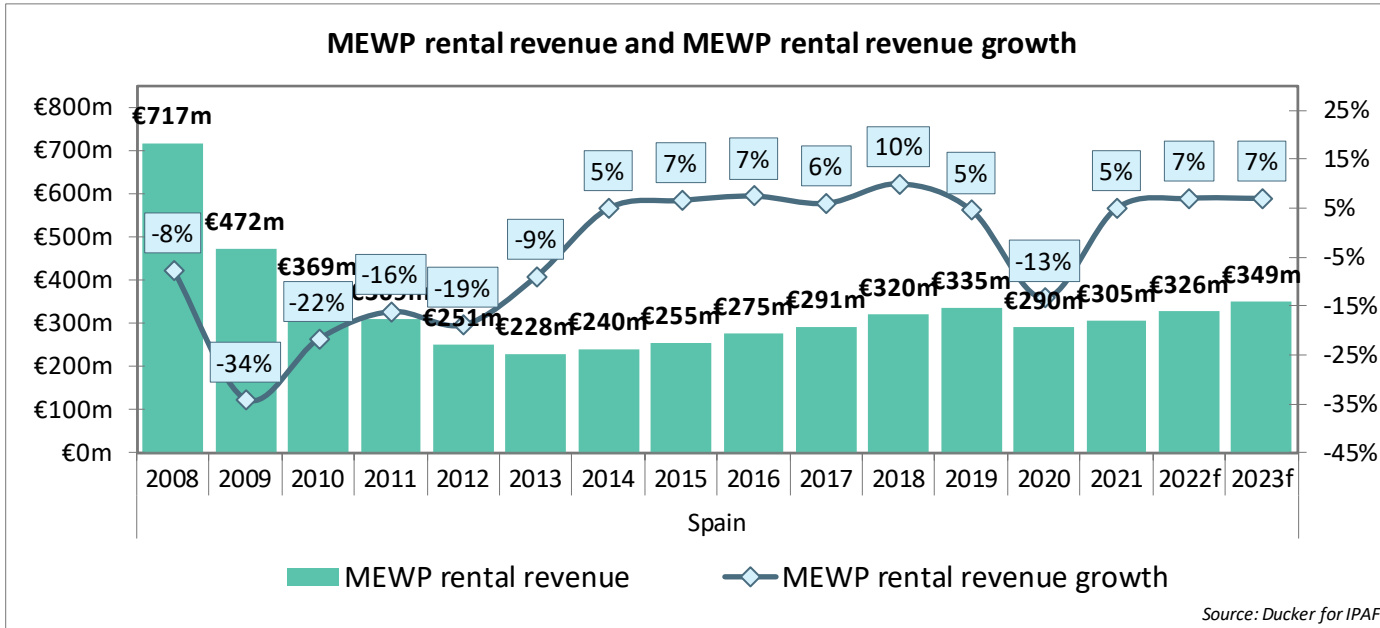
- MEWP rental revenue increased by around five per cent between 2020 and 2021, reflecting the uptick in market activity that happened in the second half of last year.
- Fleet size grew throughout 2021, as rental companies kept expanding their fleets. This growth is expected to continue because companies expressed an intent to maintain investment in 2022.



Spain – rental market value and growth



The MEWP rental market in Spain grew by around five per cent overall in 2021 and continues to grow in 2022, with a return to pre-pandemic levels expected at some point in 2023.



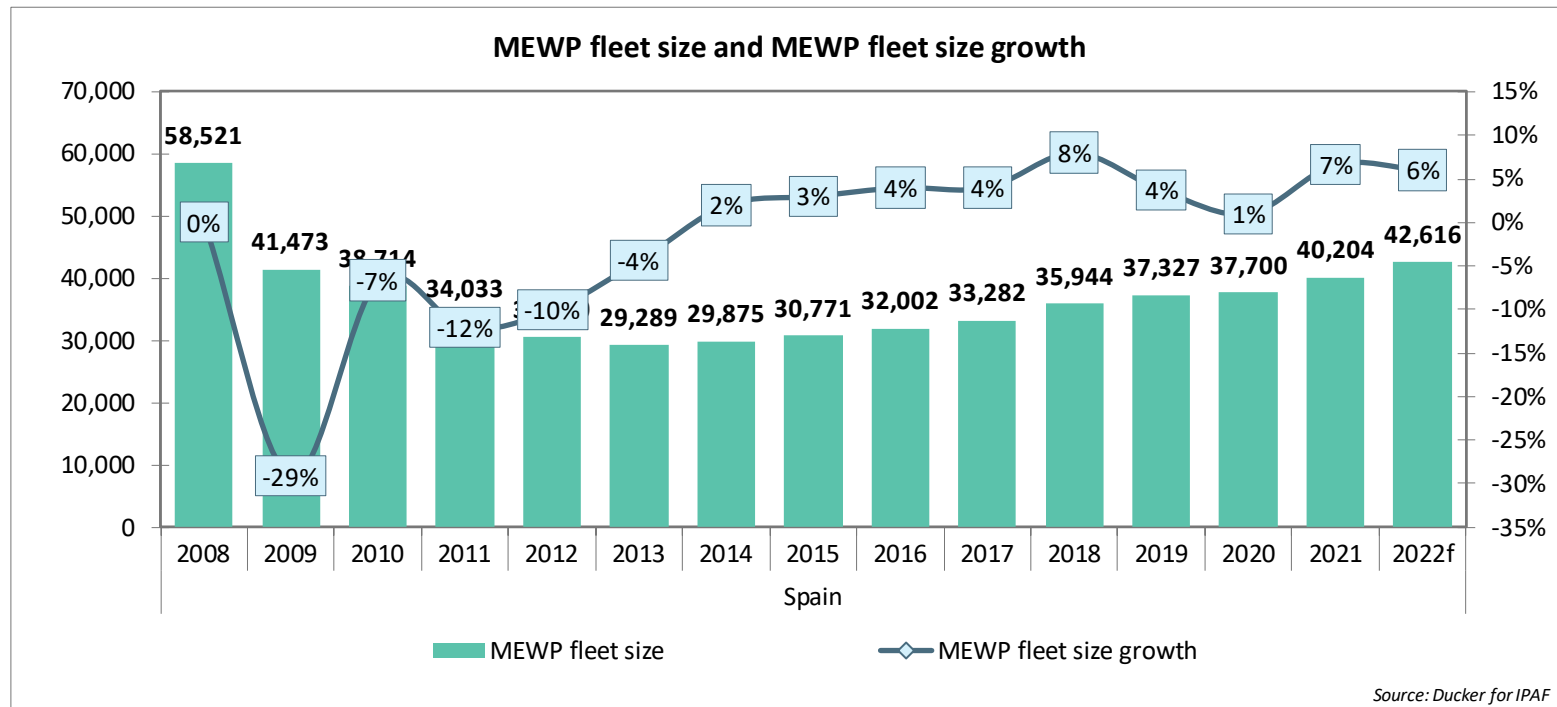
- In 2021, revenue recovered to €305 million, driven mainly by a resumption of business activity in the second half of the year.
- Looking at 2022, rental companies were even more optimistic in their expectations, but revenue was not forecast to exceed pre-pandemic levels before 2023.
- Cross-hire remains almost non-existent in Spain.

Spain – market size in units



Spanish rental companies increased their MEWP fleets by an average of around seven per cent in 2021 and are planning further fleet growth to benefit from the country’s economic recovery over the next few years.

- 2021 was a year of a strong investment in fleet size expansion: MEWP rental fleet in Spain grew by seven per cent to over 40,000 units.
- The country’s fleet is forecast to continue growing in 2022, as rental companies plan to expand their fleets for a total increase of six per cent by the end of the year.



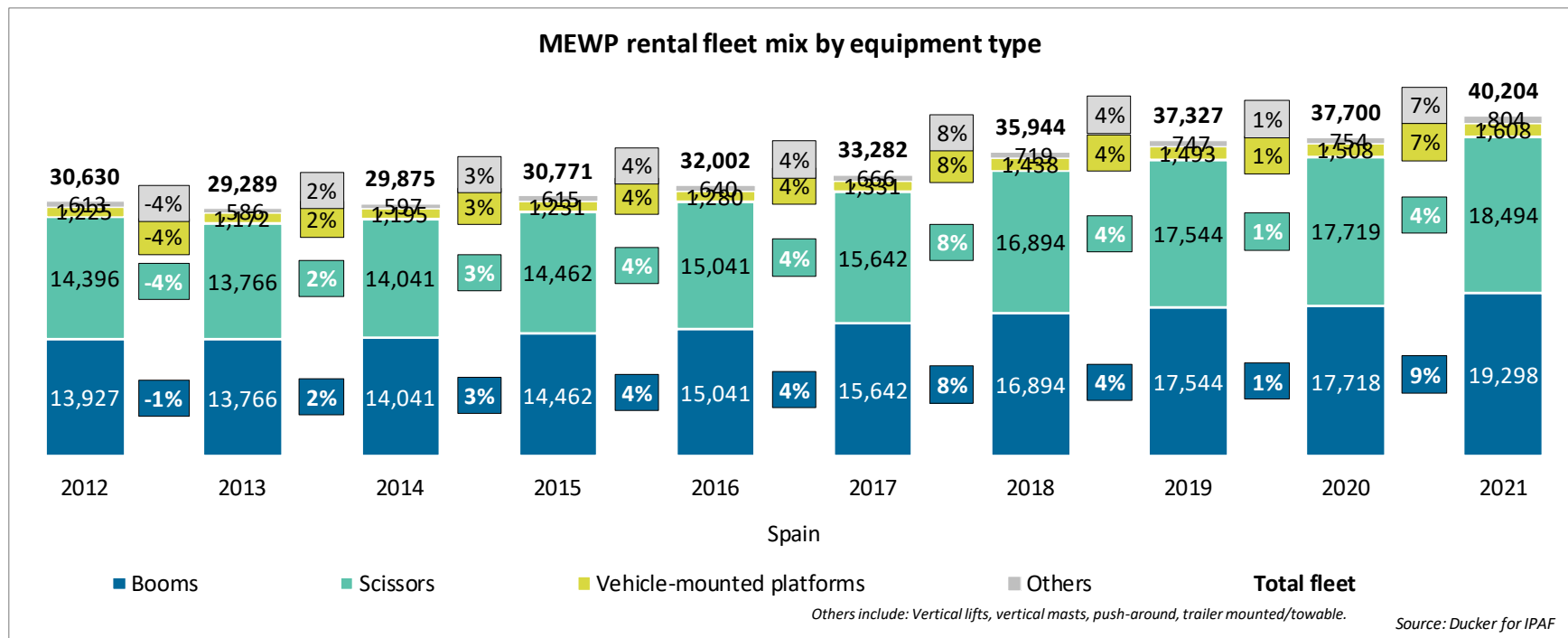
Included are powered access lifts: All booms, scissor lifts and vertical masts
Excluded: Low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, and MCWPs.

Spain – market size in units



The fleet mix of Spanish rental companies shifted slightly in favour of booms, but scissors and vertical masts also showed strong growth owing to their versatility and compliance with environmental protection policies.

- After years of parity between the two largest categories, the 2021 equipment mix has changed in favour of booms, that now represent 48% of the country’s fleet. Scissors grew by a slower rate of four per cent in 2021.
- The surveyed companies reported increasing interest in electric-powered vertical masts, which were largely responsible for the growth of around seven per cent in the “others” category.



Included are powered access lifts: All booms, scissor lifts and vertical masts
 Excluded: Low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, and MCWPs.

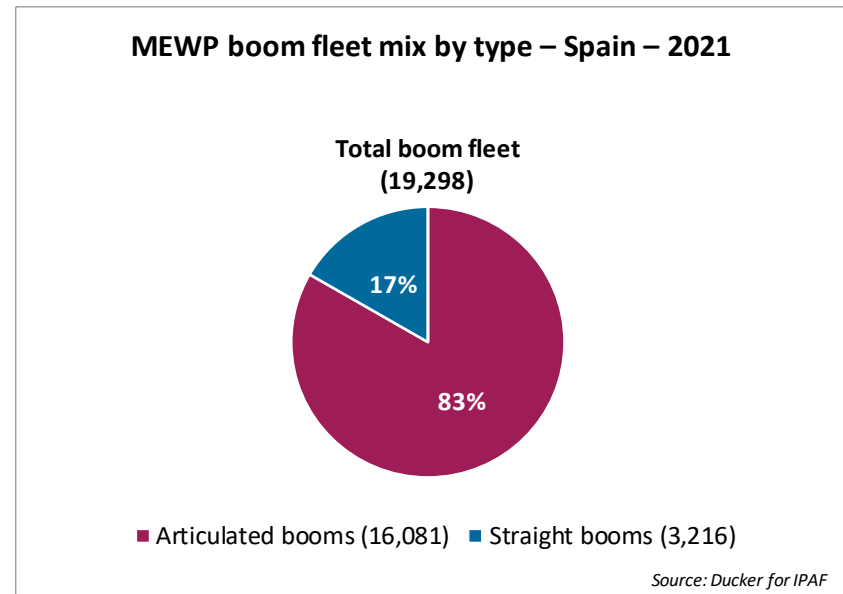
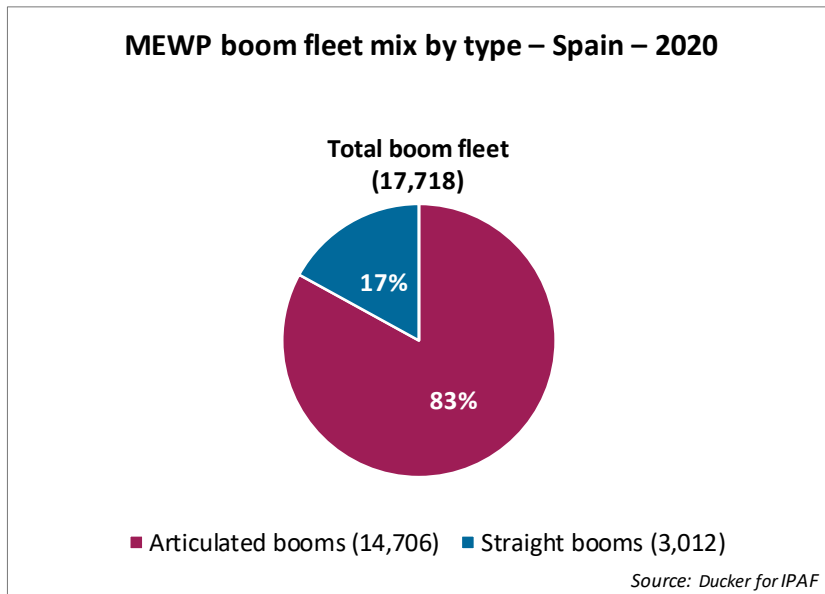
+X% % unit growth, eg both scissors and booms fleet increased by 1% from 2019 to 2020.

Spain – market size in units



The Spanish MEWP rental market tends to favour articulated booms over straight and this mix remained fairly stable during 2021, with no change anticipated over the next few years.

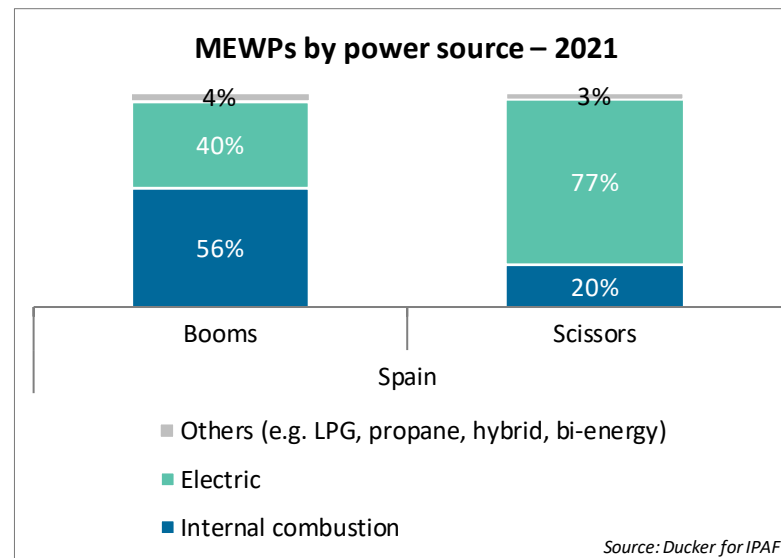
- In 2021, as in 2020, articulated booms represented around 83% of the overall boom fleet, amounting to 16,081 machines.
- In 2022 distribution is likely to remain the same, as rental companies tend to rely more on articulated booms, favoured by clients for their greater versatility and wider range of uses in infrastructure, construction and facilities management applications.



Spain – power sources

Like most other European countries under study, Spanish rental fleets are being transitioned to electric power sources. Rental companies remain committed to switching to greener technologies over the next few years.

- In 2021, electric-powered MEWPs represented 40% of booms and 77% of scissors in the Spanish rental fleet. The electrification trend applies especially for equipment up to around 20 metres in height.
- Some of Spain's largest rental companies have committed to making the green transition, which will likely lead to an increase in the pace at which alternative power sources are adopted throughout 2022 and beyond.
- The share of hybrid engines in the country's fleets has increased from zero to around four per cent for booms and three per cent for scissors.



“

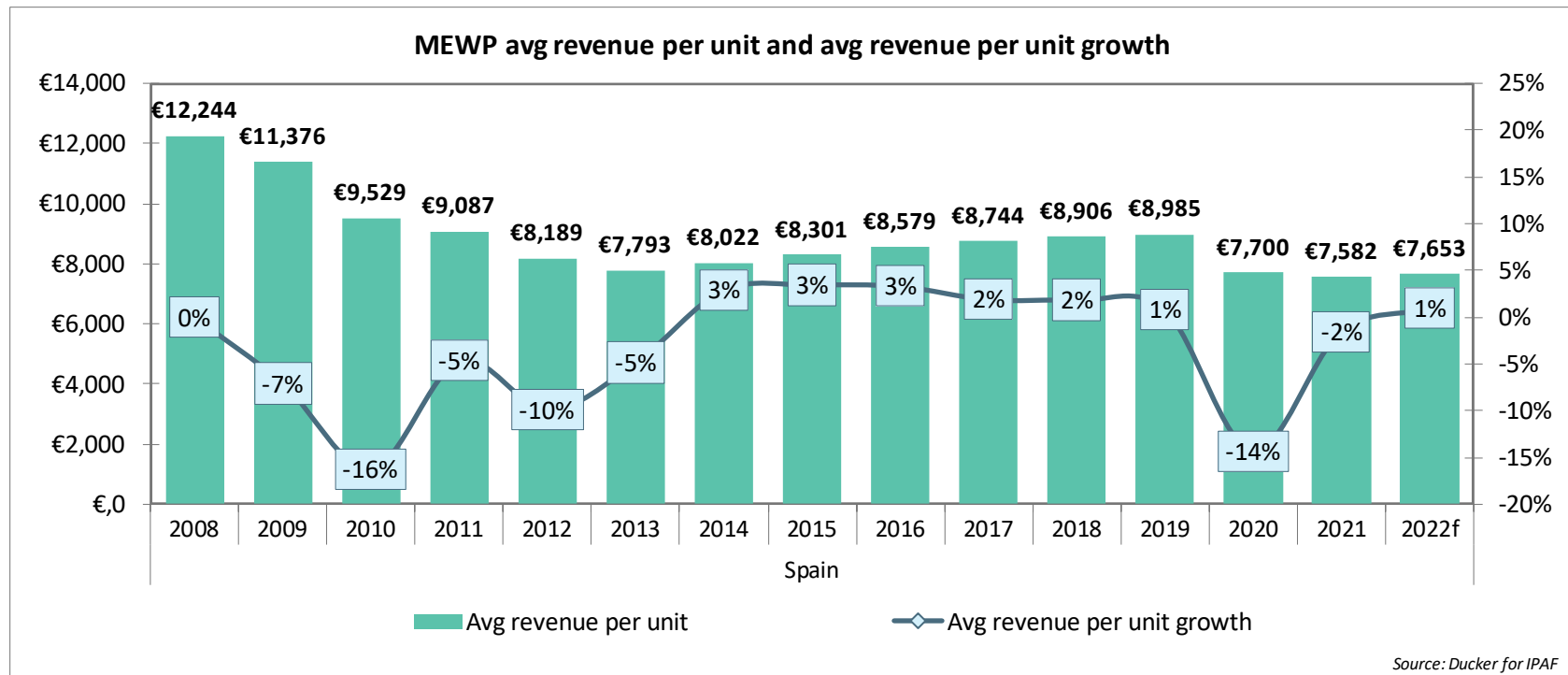
“We have managed to reduce the carbon impact with hybrids, an alternative in the transition to full-electric, which allowed us to increase the sustainability of the business.” – MEWP rental company commercial director

Spain – revenue per unit



Average revenue per unit continued to fall in 2021 and is not expected to recover to pre-pandemic levels in 2022, owing to the country's growing fleet and falling rental rates.

- Average revenue per unit fell further (-2%) in 2021 to stand at €7,582 per unit at year-end.
- In 2022, average revenue is expected to increase only marginally, but continued fleet expansion and stagnating rental rates make it highly unlikely to see average revenue per unit return to pre-pandemic levels this year.

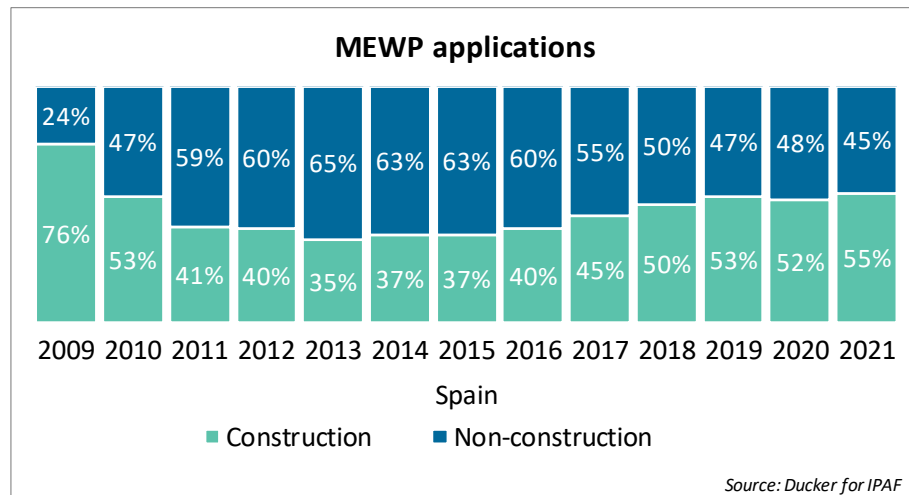


*Included are powered access lifts: all booms, scissor lifts and vertical masts
Excluded: low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes and MCWPs.*

Spain – applications

The split between construction and non-construction applications has shifted a little towards construction, but rental companies are exploring new sources of revenue in non-construction sectors.

- Construction activities in Spain resumed in 2021, especially in the industrial and commercial sectors, increasing the sector’s contribution to Spanish MEWP rental revenue to around 55%.
- However, rental companies are exploring opportunities in logistics and warehousing applications to win new business, increase utilisation and negotiate better rental rates over the next few years.

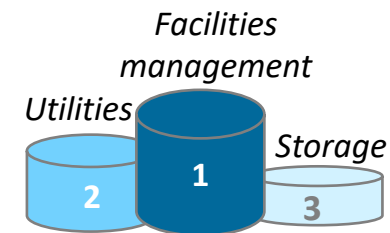


Share of rental revenue:

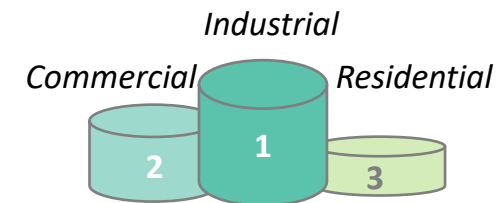
Non-construction includes industry, maintenance, cleaning, utilities, events.
Construction includes new-build and renovation; including residential, commercial, retail and industrial.



Main non-construction sub-sectors



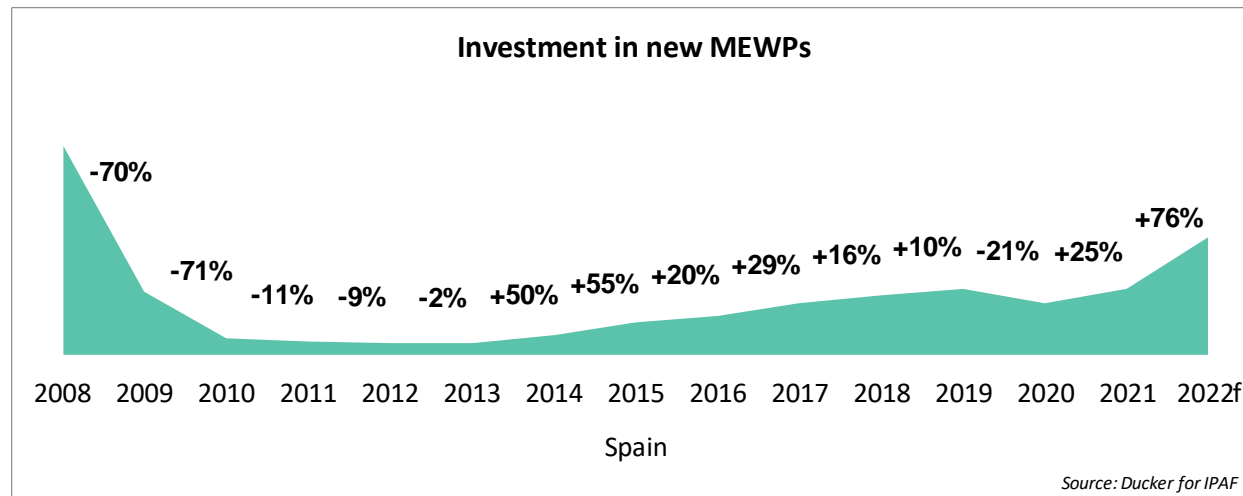
Main construction sub-sectors



Spain – investment

Investment rose by 25% in 2021, owing mostly to the post-pandemic recovery and companies resuming their investment strategies after having largely paused investment in 2020, while betting on a rapid recovery.

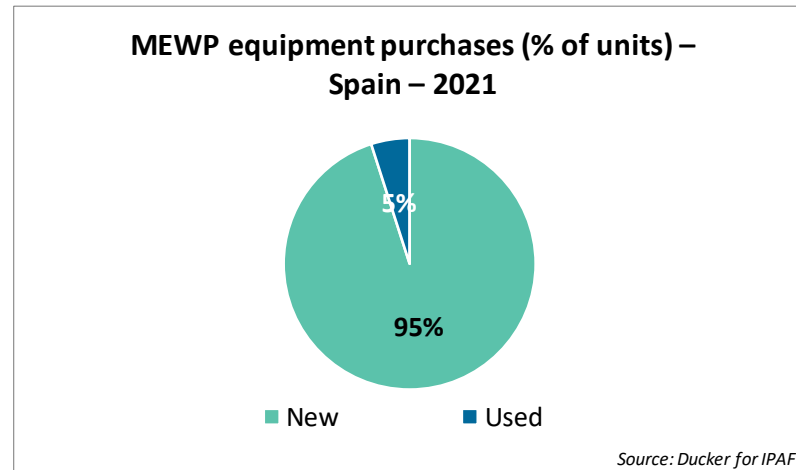
- In 2021, fleet investment returned to levels seen before the pandemic, though some planned capital expenditure was deferred owing to the limited availability and increased lead times on new MEWPs in the market.
- Investment volume is expected to grow further in 2022, as rental companies continue their ongoing transition towards cleaner energy sources.



Spain – equipment purchases

The proportion of used equipment purchases in Spain decreased to five per cent in 2021, edging closer to the average European ratio.

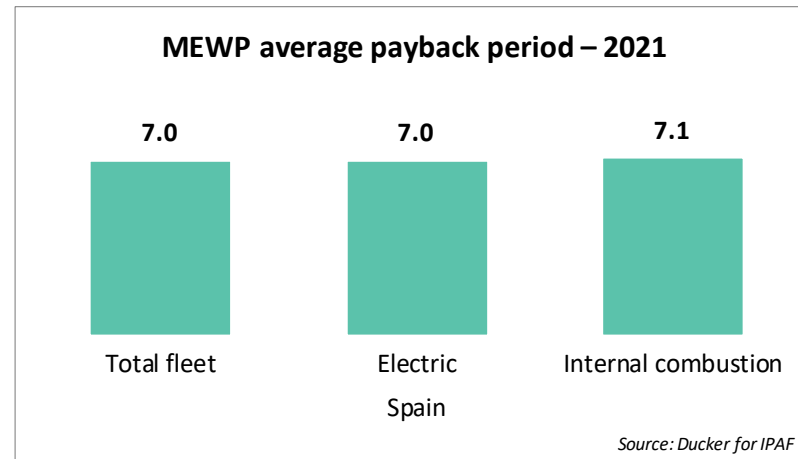
- In 2021, the share of new machines purchased by Spanish rental companies increased from 70% to 95%.
- This change came as a result of two factors:
 - Procurement policies that focused on increasing the share of electric MEWPs in fleets.
 - Lower supply of used machines in the market, as many rental companies held on to their older MEWPs owing to supply disruptions restricting availability of new machines.



Spain – typical payback period

The average payback period in Spain 2021 stood at seven years. This length of ROI period is slightly above the European average, owing largely to comparatively lower rental and utilisation rates in Spain.

- In 2021, the average payback period returned to the pre-pandemic level of seven years, owing mainly to a recovery in utilisation rates.
- The return period on electric equipment remains shorter than for MEWPs with internal combustion engines. However, the difference is becoming smaller, as the gap in rental rates is diminishing thanks to the increasing number of electric units in the country's fleet.



7.1 = 7 years and 1 month

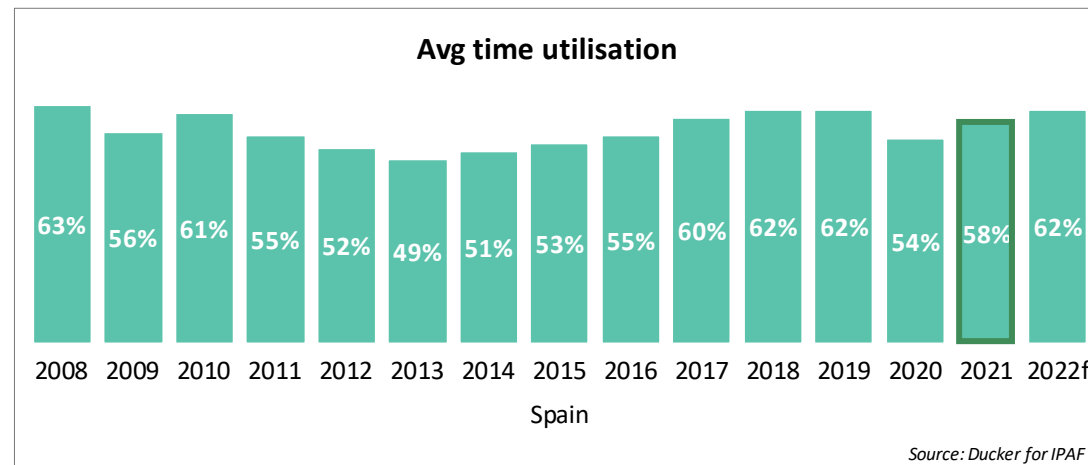
“

“I estimate a shorter payback time for electrics, probably decreasing more during this and next year, due to increased activity, which will also impact the investments we make.” – MEWP rental company fleet manager

Spain – utilisation rates

Utilisation rate grew to an average of 58% during 2021, with rental activity seeing a strong recovery during the second half of the year. The industry is expecting to recover to a utilisation rate of 62% in 2022.

- Overall utilisation rate in Spain partially recovered in 2021. Activity rebounded in the second half of the year, allowing rental companies to operate at closer to the normal preferred utilisation rate of around 60-63%.
- In 2022, utilisation rate is expected to return to pre-pandemic levels of around 62%.



Scissors: 57%

Booms: 58%

Definition: Physical number of machines out on hire as % of total number in fleet at any given time.

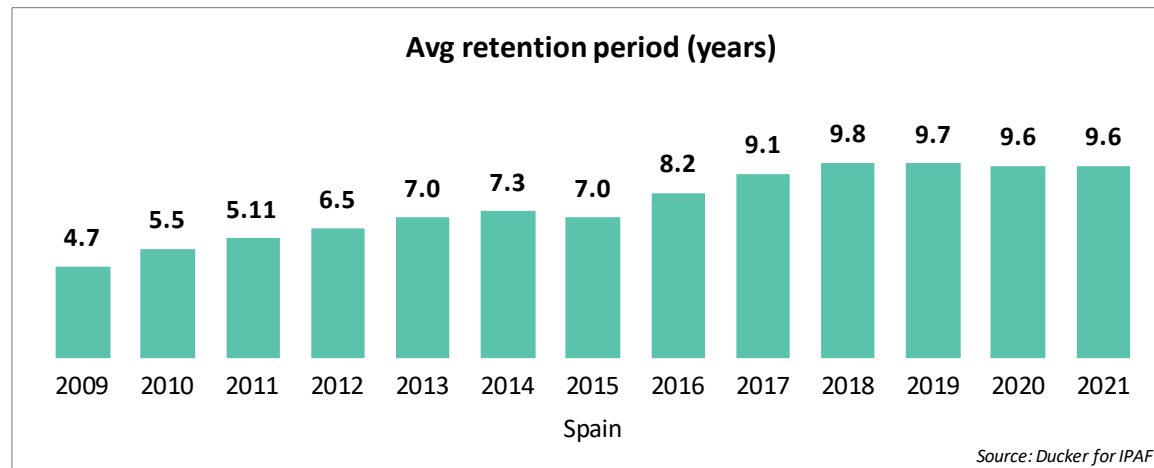
“

“The second half of 2021 saw a significant increase in utilisation rates, which could be a problem for companies that had foregone investment during the market contraction and then had the fleet at its maximum limit to respond to growing demand.” – MEWP rental company fleet manager

Spain – retention period

The average retention period of MEWP units in the Spanish rental fleet remained the same as in 2020. The equipment is typically replaced after around nine and a half years.

- As companies were growing their fleets in a post-pandemic, low-revenue-margin market, payback periods have been increasing, and older machines are not leaving the fleet as quickly as they were. In 2021, average retention period remained at nine years and six months. It is expected that this will not change much over the next few years.



9.6 = 9 years and 6 months

Definition: Period of time that a machine is kept in fleet = selling age if acquired new

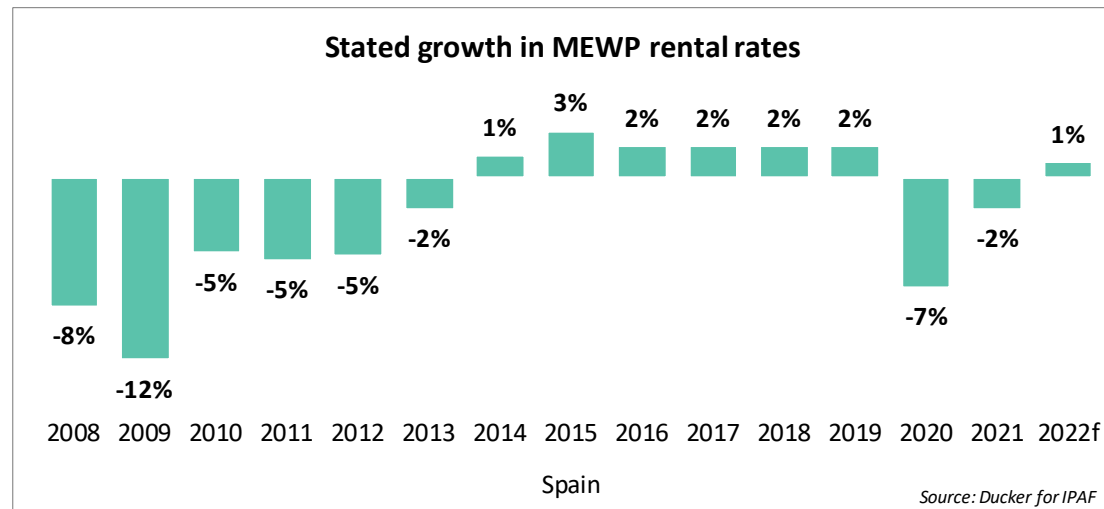
“

“We try to get rid of the equipment when it has spent five years in the fleet [...] but we were not able to do this in the past few years because revenues were down, so now our average retention period is longer than what we had initially planned.” – MEWP rental company fleet manager

Spain – rental rates

Rental rates continued to decline in 2021, albeit at a slower pace than they did in 2020, as most companies continued trying to protect their market share and keep utilisation rates up above 50-55%.

- In 2021, rental rates were further down by two per cent, as Spanish companies tried to remain as competitive as possible and to increase their fleet utilisation levels.
- Rates are forecast to go up slightly in 2022, but many rental companies are wary of increasing their rates significantly in case they risk losing market share in such a hyper-competitive environment.



“

“There was a big drop in rental rates in the past three years because many end-user applications for MEWP were in crisis and pre-pandemic rates were not possible to support in the face of such significantly reduced demand.” – MEWP rental company manager



A PERSPECTIVE FROM THE EDITOR OF
ACCESS INTERNATIONAL MAGAZINE
IPAF Powered Access Rental Market
Report 2022 – *Spain*

- In 2022 Spanish GDP saw a 13% increase over 2021. Higher than in neighbouring France or Italy, it represented the strongest growth in 21 years and a significant rebound from the Q2 2020 crash during the peak of the pandemic.
- Spanish construction manufacturer association ANMOPY forecasts that the country's construction output will grow strongly by around 13% in 2022. However, it says there is still uncertainty in the market, owing mainly to the high price of energy and raw materials that affect production costs.

Therefore, growth is not expected to be uniform across the construction industry. While residential building will recover to pre-pandemic levels this year (+7.5%), non-residential construction is not expected to recover fully until at least 2023, with 5% growth expected in 2022.

However, according to the Committee for European Construction Equipment (CECE), Spanish construction industry output is expected to show only marginal growth in 2022 of 0.8%, as a result of supply-chain constraints and materials availability, after seeing a sharp decline of 11.3% in 2020.

- Withstanding global storms such as the supply-chain crisis, Spanish rental has also been in recovery. LoxamHune, the Spain and Portugal-based subsidiary of European rental company Loxam, achieved a turnover of €110 million in 2021, almost equal to pre-pandemic levels of €111 million in 2019. Profits from its equipment rental operations also bolstered its plans for a greener fleet and digital transformation.

Commenting on LoxamHune's results during its annual convention, CEO Luis Ángel Salas said the company expects to achieve 11% growth in sales in 2022 to reach €122 million. Plans include more than €50 million investment in new machines, with 40% of its fleet composed of low-emission equipment by the end of this year, he added.

- Spanish multinational rental company GAM said it experienced strong growth, but that is being countered by high inflation, adding to ongoing supply-chain issues. Nevertheless, the company grew by 26% in 2021, doubling its profits. In the second half of 2021, volumes surpassed those of the first half with sales reaching €90.9 million, “far exceeding the figures for the same period of 2019, before the pandemic”.

That continued in the first quarter of 2022, with sales up 37% to €49.9 million. The company is also increasing the electrification of its fleet, with 75% of its equipment on rent now electric.

- Apart from GAM’s acquisition this year in Spain of industrial forklift company Intercarretillas and sister company JLG service company Interplataformas, both part of Grupo ITC, the country has also become the focus of companies based outside the country.
- In March 2021, van and truck-mount manufacturer France Elévateur acquired Movex, based near Barcelona, and in February this year French rental company Accès Industrie returned to Spain with the acquisition of rental company Uping Acces, based in Barcelona. An Accès Industrie spokesperson said: “This acquisition marks a return to Spain and will rely on Uping for its development [there].”
- Spain is also a target for new energy generation. Nortegas, the Spanish natural gas distributor’s H2SAREA project, will see it blend green hydrogen in increasing amounts into its residential and industrial network. While waste recycling company Raven SR plans to build a waste-to-hydrogen production facility in Aragón to produce 1,600 metric tons per year of renewable hydrogen.

And a group including car manufacturers Volkswagen and Seat is investing €10 billion to build a huge gigafactory in Valencia to produce batteries for electric vehicles, representing the single largest industrial investment in Spain’s history.



APPENDIX
IPAF Powered Access Rental Market
Report 2022 – *Spain*

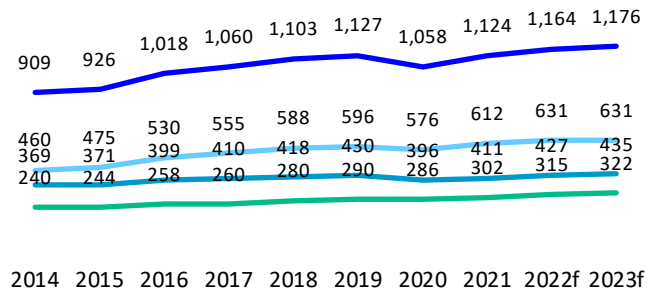
Spain – construction statistics



The Spanish construction sector and wider GDP partially recovered during 2021, and continued strong growth is projected across 2022 as a whole.

Europe (10 countries) – Construction data

CAGR 21 - 23 = 2.30%



Source: Ducker for IPAF

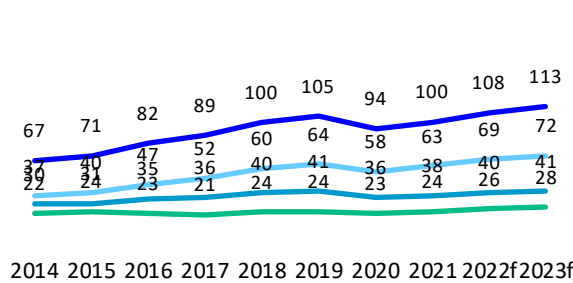
Includes Germany, France, UK, Italy, Spain, The Netherlands and the Nordics

- Residential construction
- Non-residential construction
- Total construction
- Civil engineering / Major infrastructure

CAGR: Compound annual growth rate

Spain

CAGR 21 - 23 = 6.01%

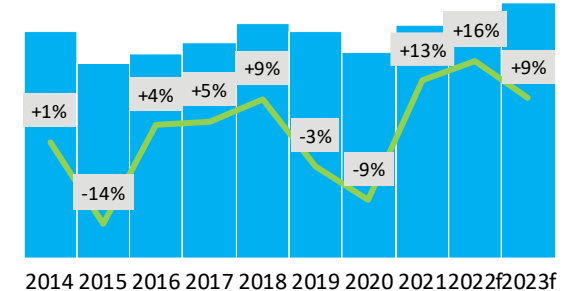


Source: Ducker for IPAF

Construction pipeline (billions euros) based on Euroconstruct 2021 figures.

Spain

CAGR 21 - 23 = 4.63%



Source: Ducker for IPAF

Spain GDP per Capita YoY % evolution
Source: FrontierView – March 2022.



The International Powered Access Federation (IPAF) promotes the safe and effective use of powered access equipment worldwide in the widest sense – through providing technical advice and information; through influencing and interpreting legislation and standards; and through safety initiatives and training programmes.

IPAF is a not-for-profit organisation owned by its members, which include manufacturers, rental companies, distributors, contractors and users. IPAF members operate a majority of the MEWP rental fleet worldwide and manufacture about 90% of platforms on the market.

Visit www.ipaf.org/contact to find details of your nearest office or representative.



RESEARCH & CONSULTING

BANGALORE | BERLIN | DETROIT | LONDON | NEW YORK | PARIS | SHANGHAI

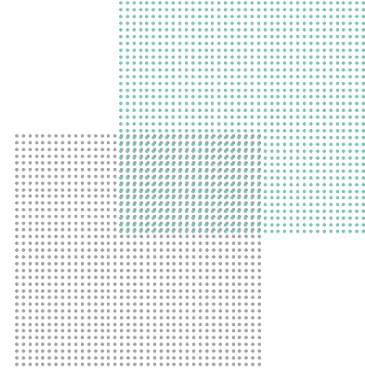
www.ducker.com

IPAF MEMBER - FREE COPY





RESEARCH & CONSULTING



June 2022

IPAF Powered Access Rental Market Report 2022

COUNTRY REPORT – UK

www.ipaf.org/reports



**THE EUROPEAN
ASSOCIATION
AWARDS 2019**

FINALIST
Best Provision of Industry
Information and Intelligence



**THE EUROPEAN
ASSOCIATION
AWARDS 2018**

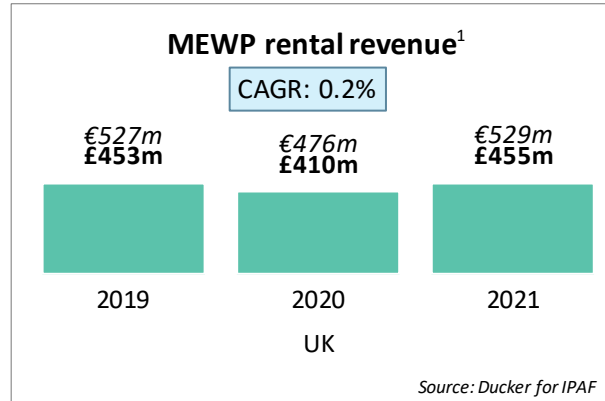
BRONZE
Best Provision of Industry
Information and Intelligence

IPAF MEMBER - FREE COPY IPAF has been working with Ducker to create these exclusive industry reports since 2009

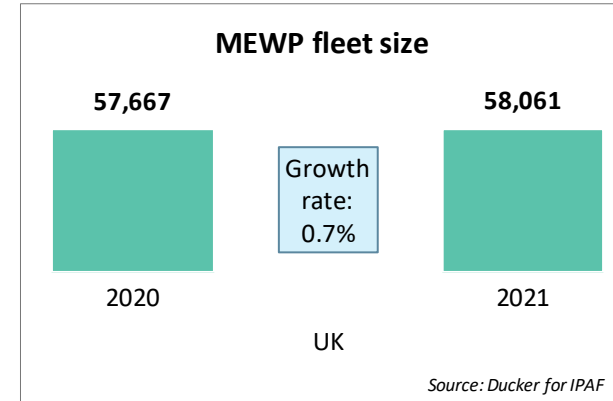
United Kingdom – key findings



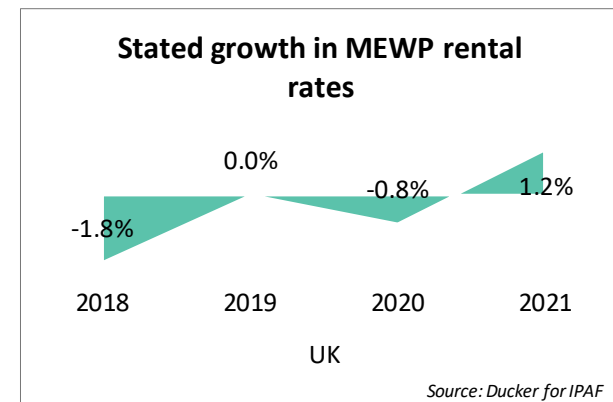
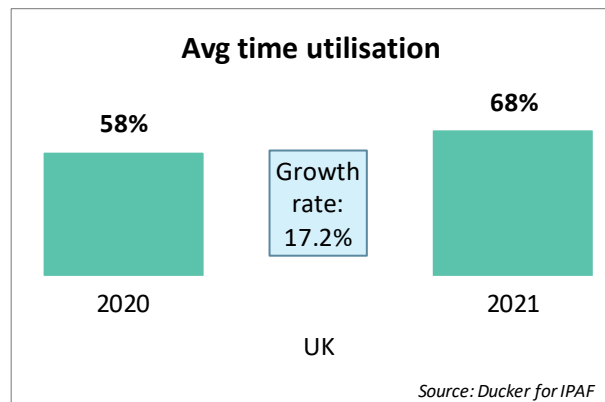
Utilisation rates rose to 68% during 2021, owing to a rapid post-pandemic recovery. This caused overall rental revenue to rise by 11% and the MEWP fleet size to increase by one per cent over the year.



CAGR: Compound annual growth rate



- All UK market indicators improved in 2021, owing mainly to recovery in economic activity as pandemic-related restrictions were lifted during the year.
- Utilisation returned to usual levels, and though the third national lockdown in the UK had a negative impact on activity, average utilisation was high because of MEWP supply chain issues.

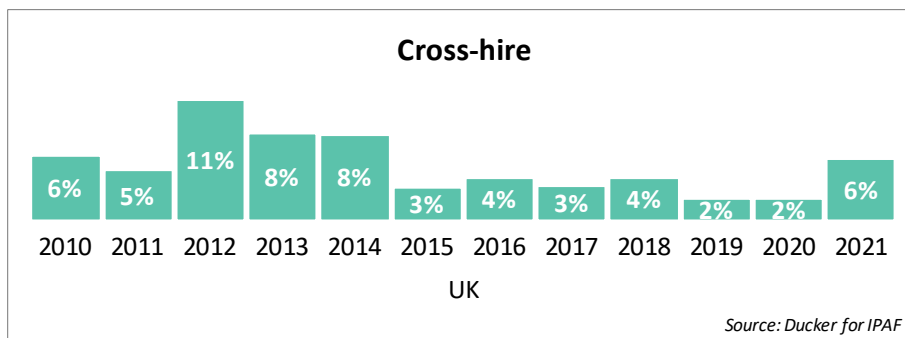
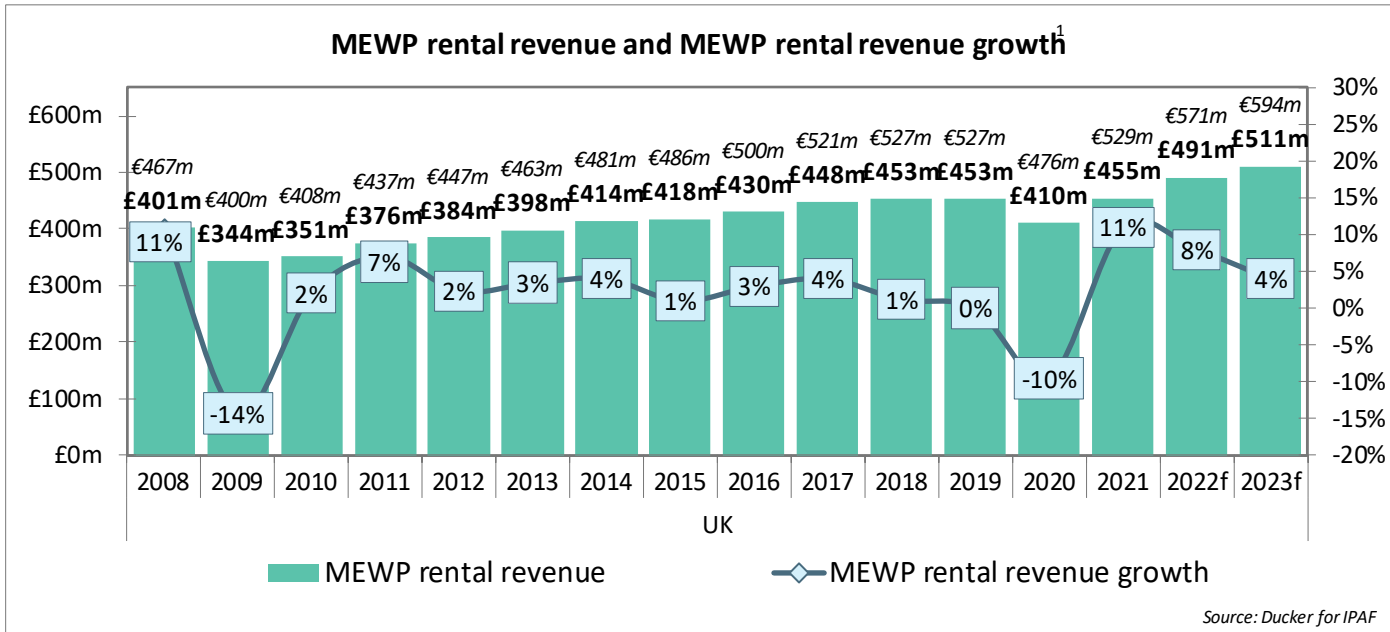


1: Financial data is based on values in EUR, converted to GBP using annual average exchange rate: £1 = €1.16

United Kingdom – rental market value and growth



The UK market bounced back from the pandemic to exhibit a full recovery across most market indicators by the end of 2021. The outlook for the next two years is positive, with eight per cent revenue growth forecast.



- Activity in the MEWP rental industry exceeded past years' expectations. Revenues rose by 11%, driven mainly by demand from the construction sector, and also retail industry investment in warehousing and logistics hubs.
- Cross-hire rate went up to six per cent in 2021, as some companies compensated for the absence of certain machine types in their fleet.

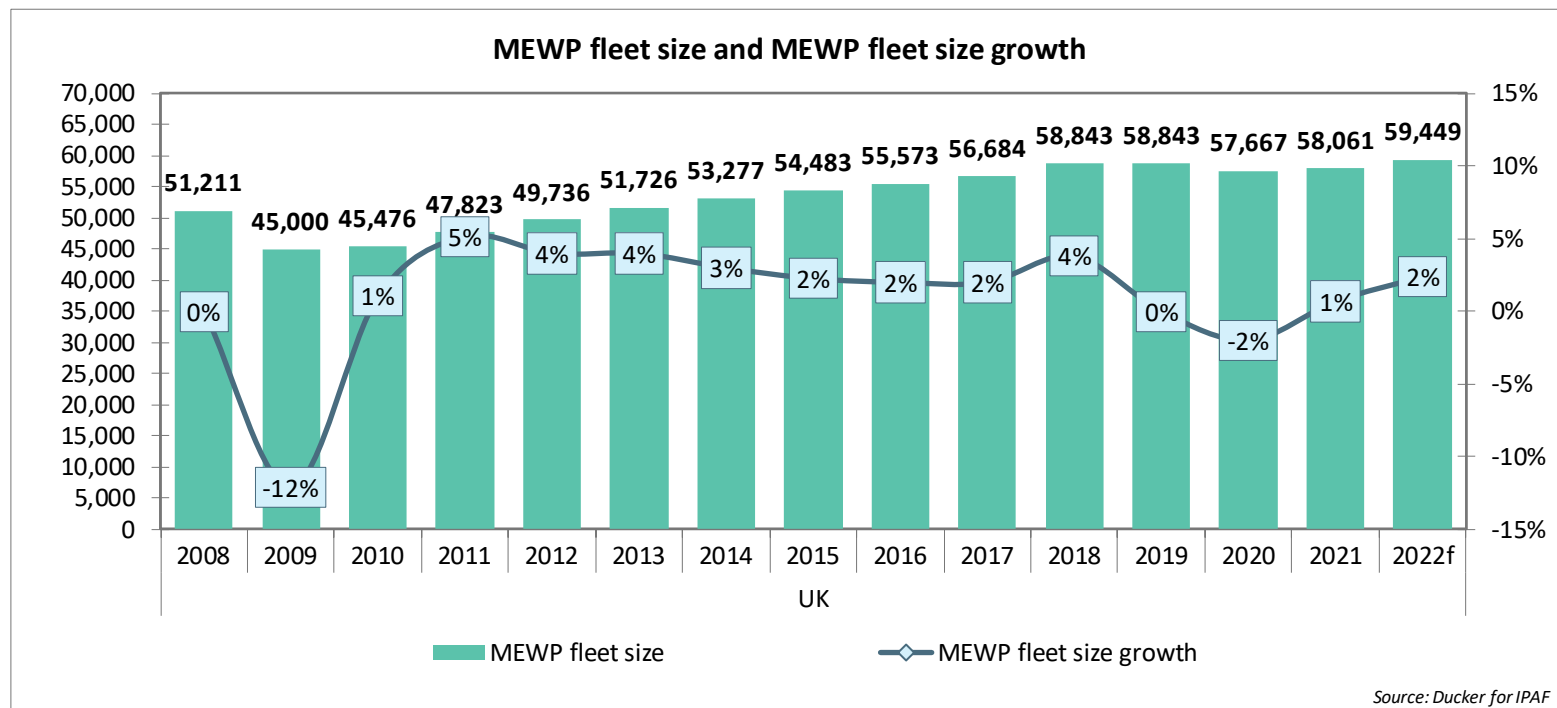
1: Financial data is based on values in EUR, converted to GBP using annual average exchange rate: £1 = €1.16

United Kingdom – market size in units



Total fleet size increased by around one per cent, owing to the limited availability of new machines caused by global supply-chain issues. The total UK fleet size is unlikely to increase significantly over the next two years.

- The market size in units grew by one per cent in 2021, reaching a total number of 58,061 MEWP units by the end of the year, as many rental companies were not able to procure new MEWPs according to their investment plans. Combined with the effect of moderate defleeting that happened in 2020, this created increased pressure on fleets.
- In 2022, the fleet is forecast to increase by around two per cent, but this might also be hampered by manufacturers' inability to deliver the ordered quantity of machines and/or increased lead times to supply new MEWPs.



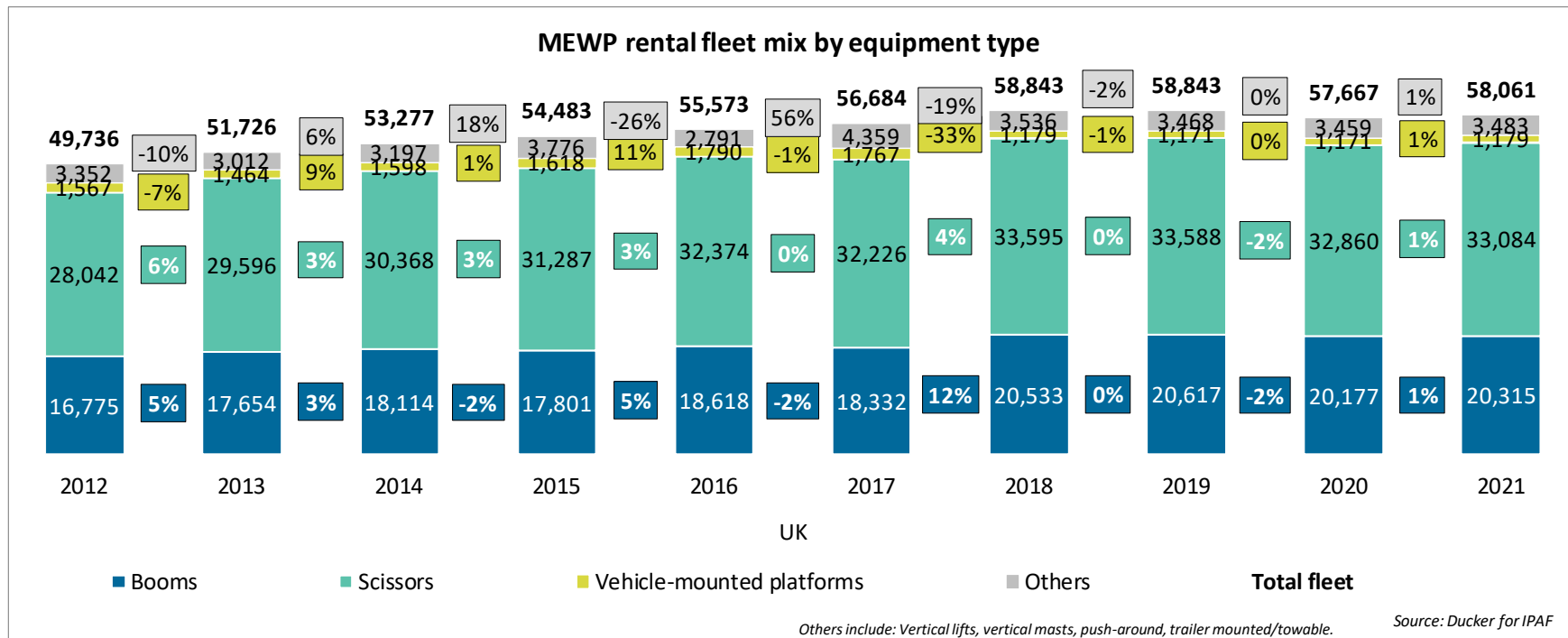
Included are powered access lifts: All booms, scissor lifts and vertical masts
Excluded: Low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, and MCWPs.

United Kingdom – market size in units



In 2021, the number of booms and scissors both increased by around one per cent, leaving the overall mix of machine types in the UK fleet pretty much unchanged from previous year.

- In 2021, fleet mix remained similar to 2020, with booms and scissors respectively accounting for 35% and 57% of the fleet.
- All equipment categories grew by one per cent, adding in total fewer than 400 units to the UK's total fleet.



Included are powered access lifts: All booms, scissor lifts and vertical masts
 Excluded: Low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes, and MCWPs.

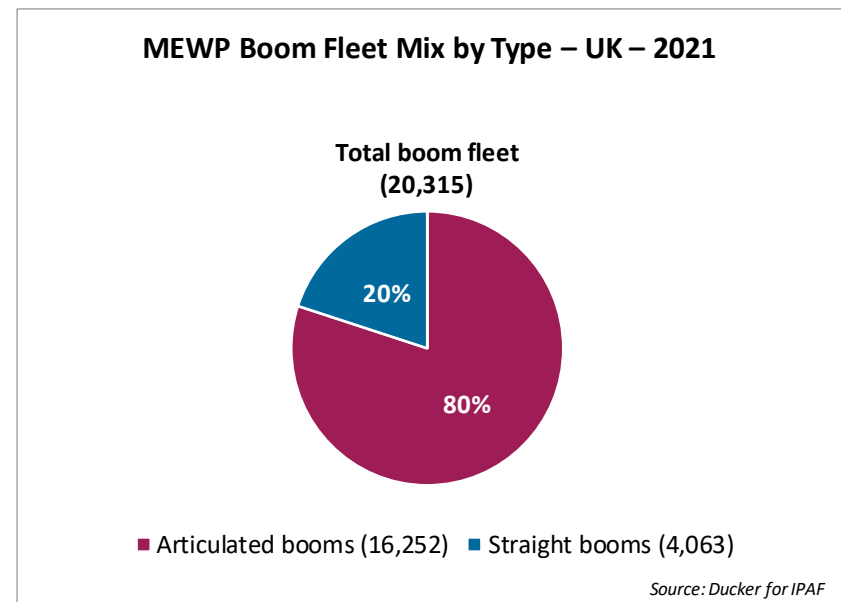
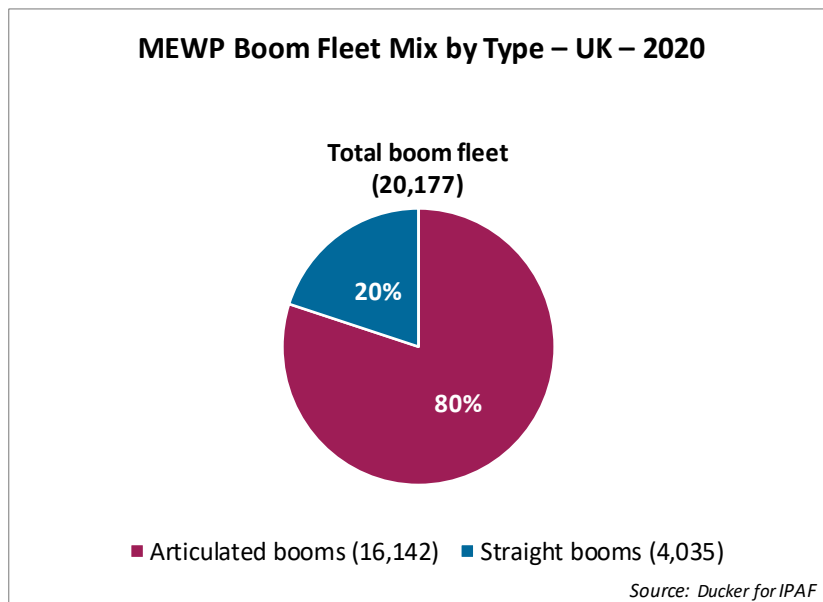
+X%

% unit growth, eg scissors fleet increased by 1% from 2020 to 2021.

United Kingdom – market size in units

Articulated booms remained the predominant type of boom in the UK market, making up around 80% of the total boom fleet.

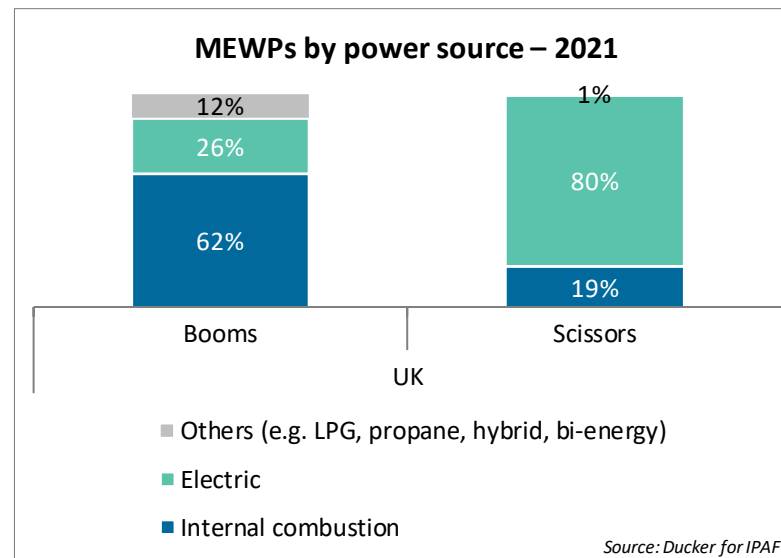
- In 2021, the overall UK boom fleet consisted of 20,315 units.
- The split between the two types of booms remained unchanged, with 80% of units in the articulated category.



United Kingdom – power sources

Despite limited fleet size growth, the trend towards MEWP electrification advanced further in 2021, with 26% of booms and 80% of scissors in the total UK fleet being electric powered by end of the year.

- Even though most rental companies did not expand their fleet significantly during 2021, the share of electric powered MEWPs in the UK fleet increased, as companies pursued green energy source transition policies when replacing existing machines.
- The share of internal combustion driven scissors reduced from 23% to 19% over the year.
- Penetration of electric booms went up from 24% to 26%, partially owing to increasing diesel prices and the impending deadline of tax-rebated red diesel in the UK, which made electric booms more attractive to end users.



“

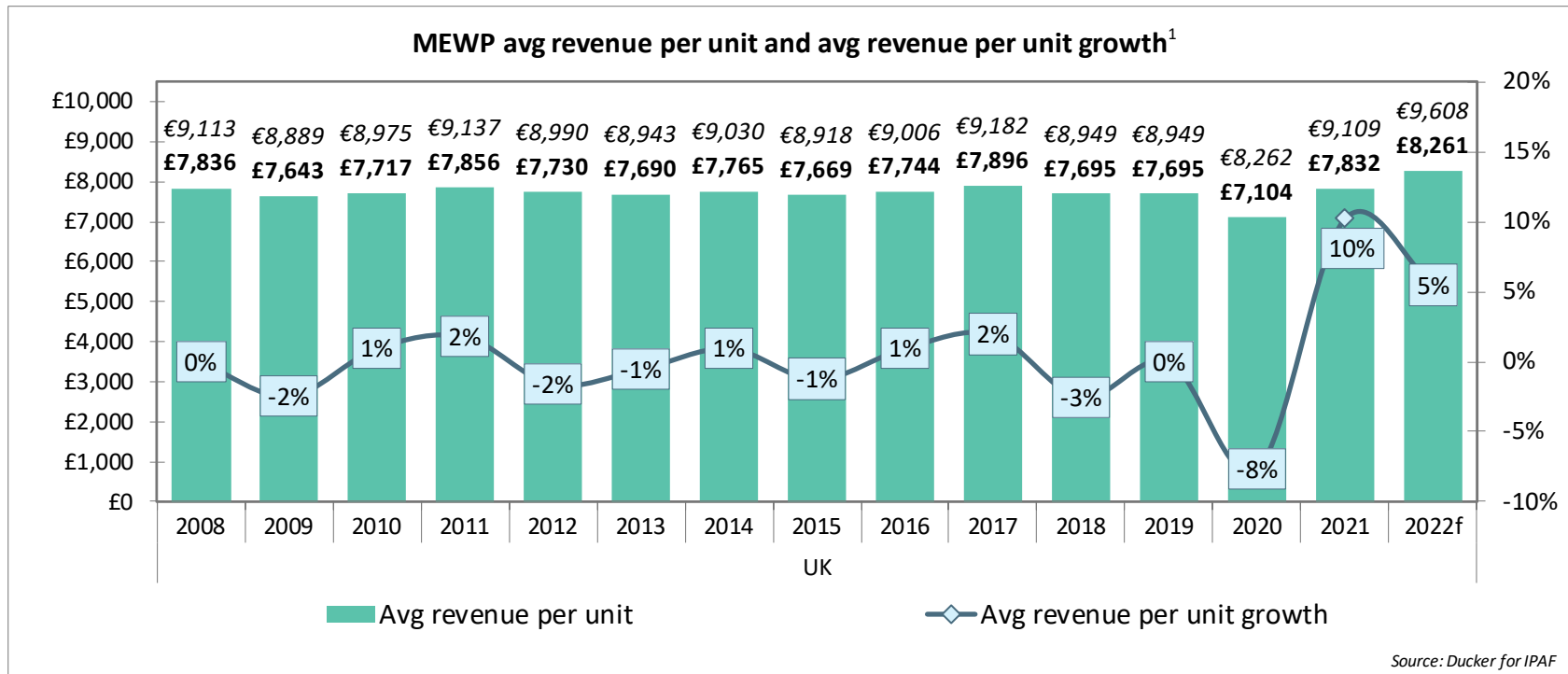
“The proportion of electric MEWPs will gradually increase over time as they become due for replacement, depending on options for electric machine capabilities.” – MEWP rental company manager

United Kingdom – revenue per unit



Average MEWP rental revenue per unit in the UK was £7,832 in 2021, up significantly from 2020, when it stood at just above £7,100 per unit. Average revenue is expected to continue growing by around five per cent in 2022.

- Average revenue per unit rose by 10% in 2021 to £ 7,832, driven by an increase in utilisation rates.
- Increased turnover allowed average revenue per unit to surpass pre-pandemic levels already in 2021, despite the marginal increase in rental rates.



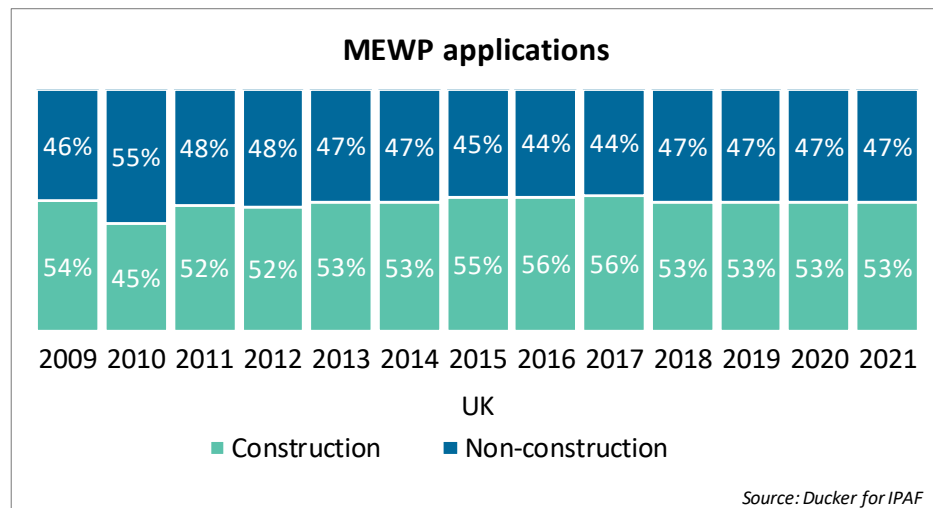
*Included are powered access lifts: all booms, scissor lifts and vertical masts
Excluded: low-level access equipment (<3m high), telescopic material handlers, forklifts, cranes and MCWPs.*

1: Financial data is based on values in EUR, converted to GBP using annual average exchange rate: £1 = €1.16

United Kingdom – applications

The split of end-use applications remained broadly the same as in the previous few years, with around 53% of UK revenue generated in the construction sector, as the industry sustained a good level of activity during the pandemic.

- The split between construction and non-construction applications stayed the same, leaning more towards construction, the same as in previous years.
- In 2021, the UK construction industry was driven primarily by demand for new warehouses and data centres across the country as well as safety-related building renovations, prompted by the Grenfell Tower fire in 2017.
- In the non-construction sector, facilities management remained a key activity.

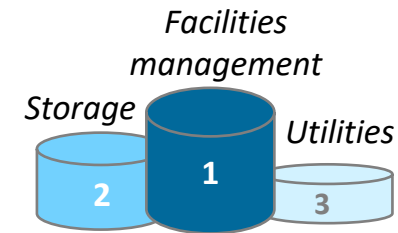


Share of rental revenue:

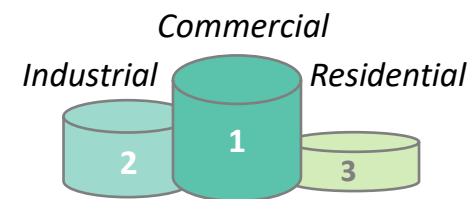
Non-construction includes industry, maintenance, cleaning, utilities, events.
Construction includes new-build and renovation; including residential, commercial, retail and industrial.



Main non-construction sub-sectors



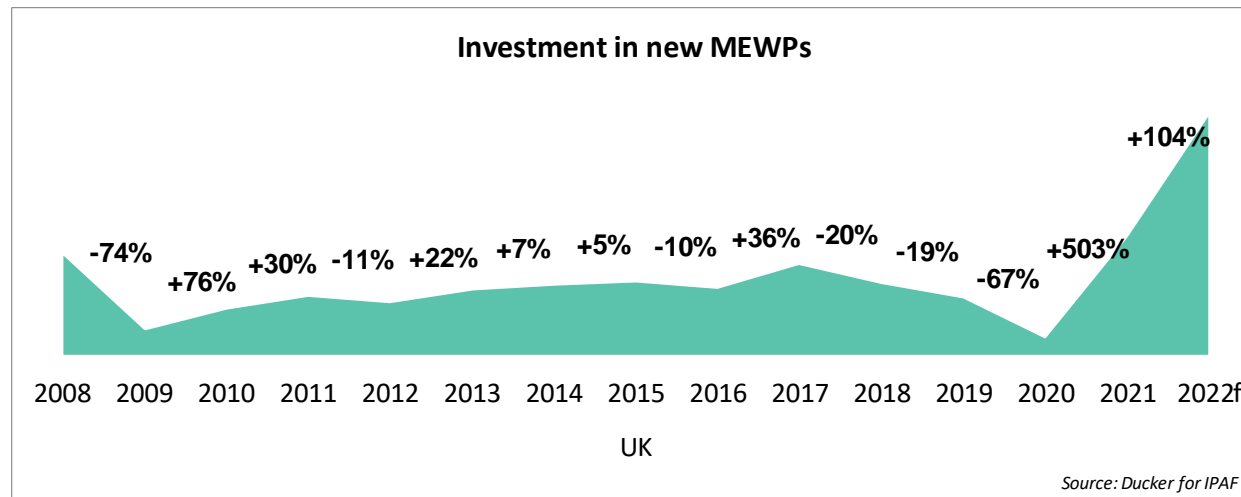
Main construction sub-sectors



United Kingdom – investment

The fairly robust and rapid post-pandemic recovery in the UK caused a pronounced spike in investment, which is expected to continue in 2022 if rental companies can secure enough new MEWPs.

- Investment grew fivefold in 2021, as rental companies followed more aggressive policies, catching up on missed or deferred equipment renewal and expansion of fleets that did not happen in 2020 because of economic uncertainty.
- Owing to global supply chain difficulties and limited availability of equipment from some equipment manufacturers, caused in the main by components shortages and delivery delays, MEWP rental companies increasingly turn to new suppliers, including Chinese MEWP manufacturers.

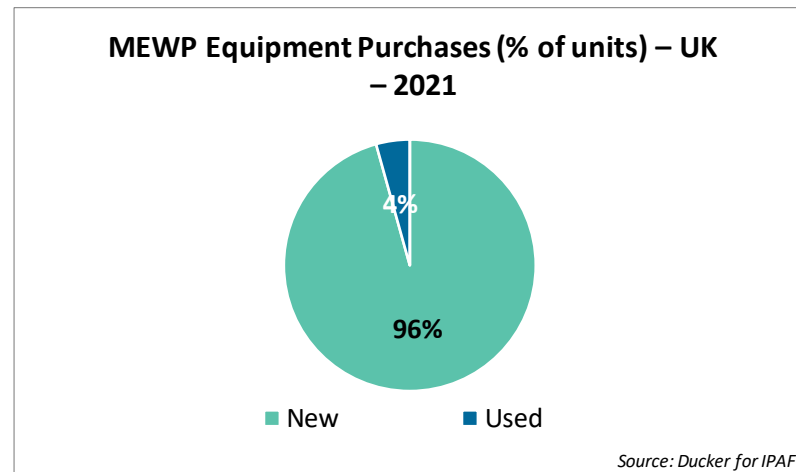


“2020 was a year of careful investment and defleeting diesel machines, we weren’t buying during the pandemic. In 2021, we would have bought more if new machines were readily available.” – UK MEWP rental company purchasing manager

United Kingdom – equipment purchases

The majority of MEWPs purchased by rental companies in 2021 were new machines, mostly owing to the fact that second-hand machines do not comply with sustainability policies and fleet maintenance KPIs.

- Around 96% of MEWP purchases in the UK in 2021 were new machines direct from the manufacturer.
- Just 4% of MEWP purchases in the UK in 2021 were used machines, which represents a nine-point decline compared to 2020.

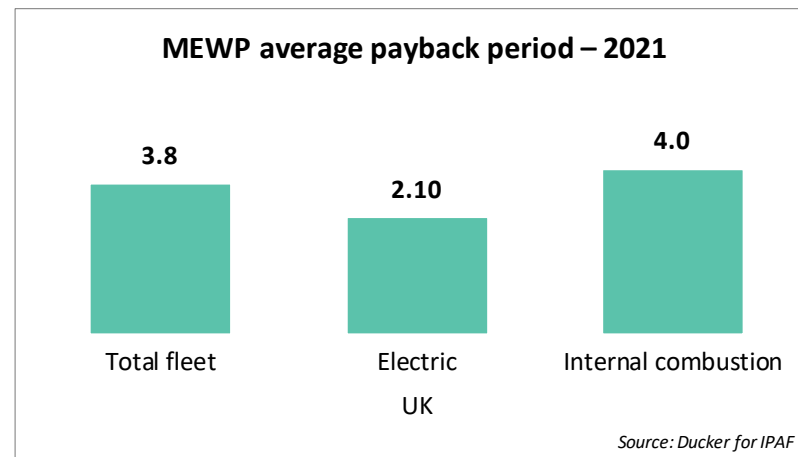


“Our policy is to procure only new machines; used equipment is only bought indirectly, when acquiring another company which has an existing fleet.” – MEWP rental company director

United Kingdom – typical payback period

The difference between the average payback period for electric and internal combustion equipment in the UK is significantly higher than in other European countries, owing mostly to higher average rental rates.

- During 2021, the typical payback period for electric MEWPs was down three months, to two years and 10 months.
- Payback for internal combustion-engine MEWPs remained longer than for electric, but it also went down by two months to four years on average.
- The main reasons for faster payback of the electric machines are the increased rental rates for this type of MEWP, and a slightly higher average utilisation rate owing to increased versatility.



3.8 = 3 years and 8 months

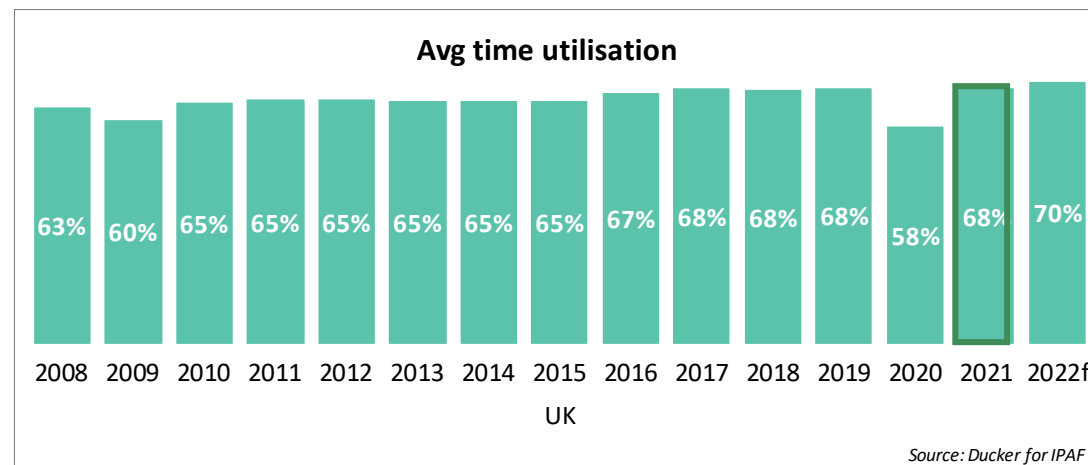


“The key to keeping ROI on this level is stable prices for the machines and the ability to get the utilisation rates back to what they were pre-pandemic.” – MEWP rental company manager

United Kingdom – utilisation rates

The overall utilisation rate bounced back to 68% during 2021. Given the ongoing new MEWP equipment shortage in the market and limited fleet growth possibilities, utilisation is expected to reach 70% in 2022.

- The UK’s relatively rapid post-pandemic recovery helped restore the utilisation rates back to 2019 levels.
- The UK’s third national lockdown in early 2021 had an initial negative impact on utilisation, but demand during the rest of year was strong owing mainly to rebounding activity in the construction sector.
- A utilisation rate above the average pre-pandemic level is forecast in 2022, as fleet size is expected to remain relatively stable, while demand is forecast to increase further.



Scissors: 68%

Booms: 66%

Definition: Physical number of machines out on hire as % of total number in fleet at any given time.



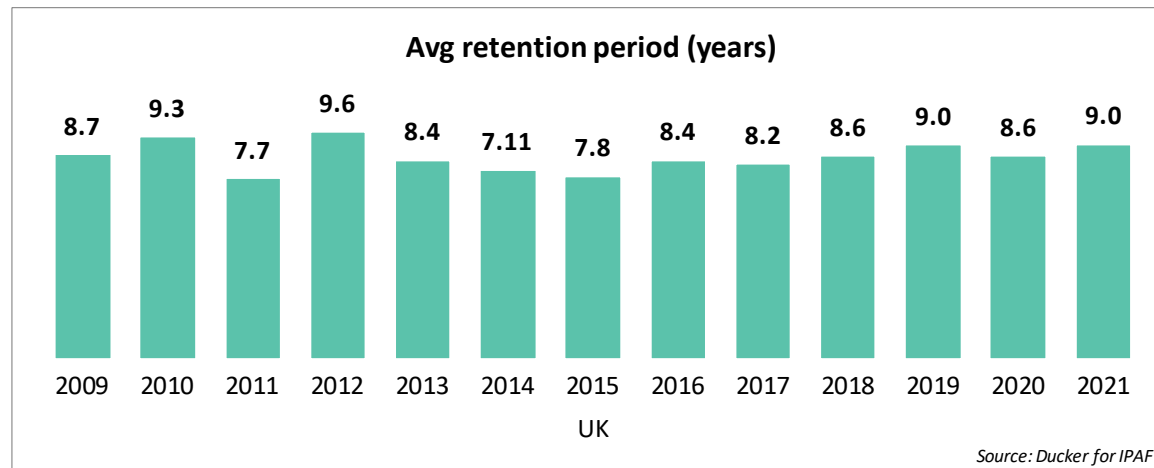
“[The currently high] utilisation rate is linked to the difficulty of supply. We’d rather have a few more machines and a more stable utilisation rate around 65% to 67%.” – MEWP rental company hire manager

United Kingdom – retention period



The average retention period of MEWPs in UK fleets went up by six months in 2021, because rental companies were forced to keep equipment longer owing to extended lead times and limited OEM production capacity.

- Retention period in the UK market increased slightly during 2021 to return to pre-pandemic levels of around nine years on average.



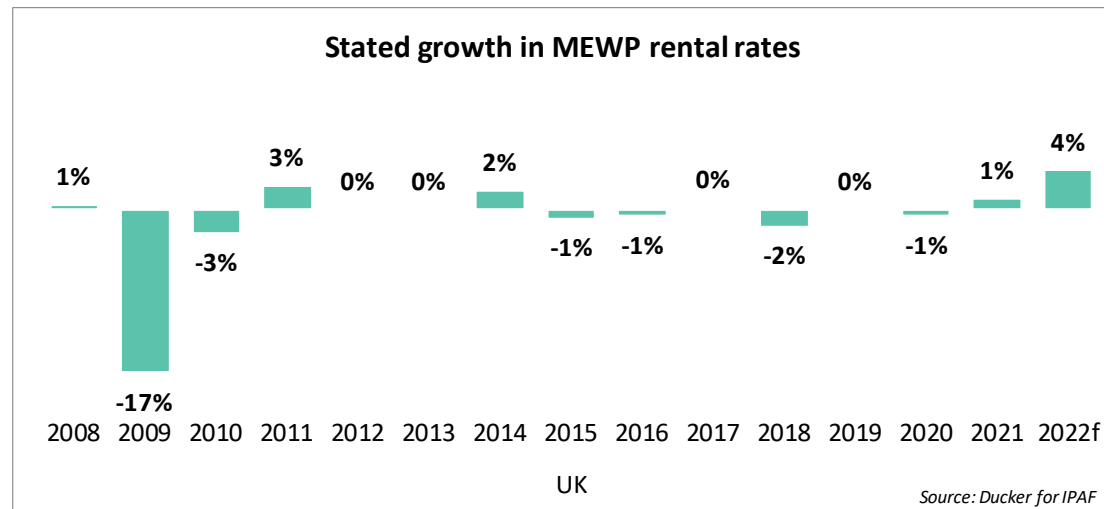
8.6 = 8 years and 6 months

Definition: Period of time that a machine is kept in fleet = selling age if acquired new

United Kingdom – rental rates

Rental rates grew by one per cent in 2021. Further rate increases can be expected in 2022 to compensate for the rising cost of fuel, economic inflation and increasing MEWP purchase prices.

- Downward price pressure in the market ceased in 2021, but rental rates remained relatively stable because of strong price competition in the market.
- It became necessary for companies to increase rental rates in 2022 to protect their margins from swiftly rising operating and procurement expenses.



“We have dropped the rates in 2020-21 to compete in a crisis situation, and so we must now raise them again to catch up with the 15% rise in procurement prices; we plan for further increases.” – Rental company manager



A PERSPECTIVE FROM THE EDITOR OF
ACCESS INTERNATIONAL MAGAZINE
IPAF Powered Access Rental Market
Report 2022 – *United Kingdom*

- The UK's powered access rental industry is booming, however it is beset with a range of challenges, including the effects of Brexit, the Ukraine conflict, global inflation and supply-chain constraints.
- According to the Committee for European Construction Equipment (CECE), construction experts in the UK are forecasting a positive picture for the industry over the next year with strong levels of activity expected, despite ongoing concerns regarding sourcing of materials and labour.
- Annual construction output increased by a record 12.7% in 2021, compared with 2020. However, this was comparing activity with a weak 2020 owing to the coronavirus pandemic, which resulted in a record decline in annual output of 14.9%.
- Now, the UK's Construction Equipment Association (CEA) is forecasting steady growth of 4% in 2022, with infrastructure and housing remaining the main drivers. Sales of construction and earthmoving equipment are expected to show similar modest growth of around 5%.
- The European Rental Association (ERA) believes the UK's exit from the EU will deepen existing global challenges. "With Brexit having now taken effect, the UK finds itself in a difficult position as the sourcing of materials now incurs increased costs, and the labour shortage, present across Europe, is further exacerbated."
- Overall, the UK rental sector is in good shape. As Speedy's chief executive Russell Down explains: "Overall, we're operating in a strong market at the moment, with a significant number of infrastructure projects such as HS2 and Thames Tideway."
- While the UK rental market is undeniably buoyant at present, there are concerns that equipment bought with low-interest finance in recent years will mean the rental sector comes under strain as a result of higher repayment rates associated with inflation, and other market conditions.
- The focus on the environment has taken a real turn in the UK with the elimination of the lower excise duty on red diesel in April 2022 and the inevitable shift to a much higher duty and subsequently more expensive fuel in white diesel, adding to wider inflationary issues.

- In response, some companies have been shifting to hydrotreated vegetable oil (HVO), as replacement to red diesel. One of those is rental company Speedy. “We’ve switched from pre-fuelling red diesel to low-emission biofuel across our powered access division and a section of our commercial fleet, which has already helped us to save a significant amount of CO₂,” said Down in March.
- In a sign that the UK access market remains one of the most diverse and mature in the world, JLG chose the UK as the location for its first major New Perspective initiative, under which it is replacing its presence at Bauma and other exhibitions with its own in-house events.
- The two-week event in May coincided with the UK’s annual Vertikal Days equipment exhibition, however visitors came from across Europe, the Middle East and Latin America, which shows the manufacturer’s confidence in staging an event at its new UK location in Leicester.
- Vertikal Days was also well attended, with a large number of manufacturers headquartered in Europe, North America and China. The large presence of Chinese manufacturers served to provide even greater depth to the diverse UK access market, which is also a centre of low-level access platform sales, thanks to its Working at Height Regulations (2005), and one the world’s largest markets for spider lifts and utility-application-related vehicle-mount markets.
- The UK’s focus on safety and the environment is also clear through a range of domestic initiatives. Speedy has opened a new low-carbon hire centre in Milton Keynes to showcase its cutting-edge sustainable tools and equipment that will act as a blueprint for future depot openings, following its switch to low-emission HVO fuel as standard in August 2021.
- UK rental companies are also making strides in their digital developments. Nationwide Platforms has installed telematics across its entire fleet by retrofitting 12,000 machines. Paul Rankin, Nationwide’s managing director, said: “What we are now seeing is a huge move towards CSR (corporate social responsibility); and what companies are doing in relation to that as an organisation, around fleet, machinery and green development.”



APPENDIX
IPAF Powered Access Rental Market
Report 2022 – *United Kingdom*

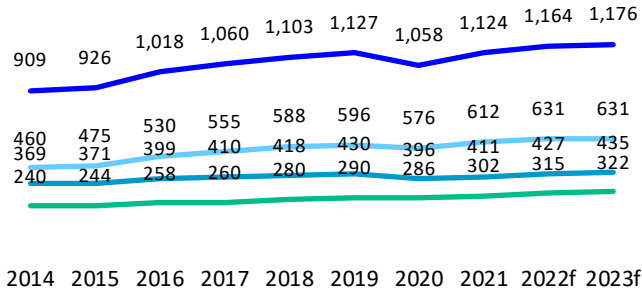
United Kingdom – construction statistics



The UK construction industry and wider economy experienced sustained recovery in 2021. Economic activity is forecast to accelerate across 2022 and value of construction is expected to exceed pre-pandemic levels.

Europe (10 countries) – Construction data

CAGR 21 - 23 = 2.30%

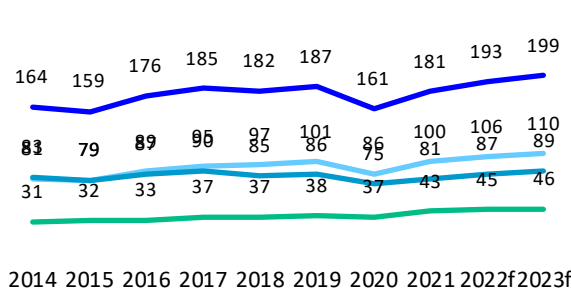


Source: Ducker for IPAF

Includes Germany, France, UK, Italy, Spain, The Netherlands and the Nordics

UK

CAGR 21 - 23 = 4.94%

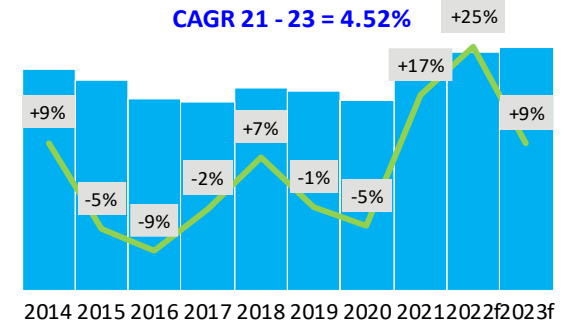


Source: Ducker for IPAF

Construction pipeline (billions euros) based on Euroconstruct 2021 figures.

UK

CAGR 21 - 23 = 4.52%



Source: Ducker for IPAF

United Kingdom GDP per Capita YoY % evolution
Source: FrontierView – March 2022.

- Residential construction
- Non-residential construction
- Total construction
- Civil engineering / Major infrastructure

CAGR: Compound annual growth rate



The International Powered Access Federation (IPAF) promotes the safe and effective use of powered access equipment worldwide in the widest sense – through providing technical advice and information; through influencing and interpreting legislation and standards; and through safety initiatives and training programmes.

IPAF is a not-for-profit organisation owned by its members, which include manufacturers, rental companies, distributors, contractors and users. IPAF members operate a majority of the MEWP rental fleet worldwide and manufacture about 90% of platforms on the market.

Visit www.ipaf.org/contact to find details of your nearest office or representative.



RESEARCH & CONSULTING

BANGALORE | BERLIN | DETROIT | LONDON | NEW YORK | PARIS | SHANGHAI

www.ducker.com

IPAF MEMBER - FREE COPY

